

BYLAW 49-87

A BYLAW OF THE COUNTY OF STRATHCONA NO. 20 IN THE PROVINCE OF ALBERTA, FOR THE PURPOSE OF ADOPTING THE ESTATES OF SHERWOOD PARK AREA STRUCTURE PLAN.

THE AREA WITHIN THE AREA STRUCTURE PLAN, COMPRISING OF APPROXIMATELY 149.6 ACRES (60.5 HECTARES) IS LOCATED WITHIN THE NW 23-52-23-W4.

NOW THEREFORE, the Council of the County of Strathcona No. 20, pursuant to the authority conferred upon it by The Planning Act, 1980, R.S.A., enacts as follows:

1. Bylaw 82-86, being the previously adopted Suburban Estate Lots Area Structure Plan, be repealed.
2. This Bylaw be cited as the "Estates of Sherwood Park Area Structure Plan".
3. Appendix "A" attached hereto and forming part of this Bylaw entitled 'Estates of Sherwood Park Area Structure Plan' is hereby adopted as the Estates of Sherwood Park Area Structure Plan.

Read a first time this 20<sup>th</sup> day of October, 1987.

Read a second time this 27<sup>th</sup> day of November, 1987.

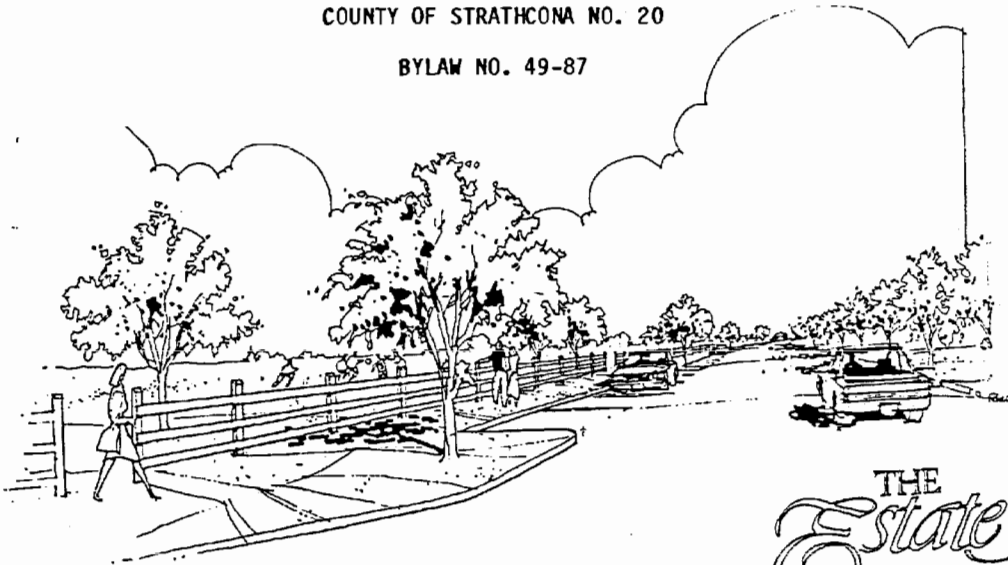
Read a third time and finally passed this 24<sup>th</sup> day of November, 1987.

  
Reeve

  
County Secretary

*This By-law was overlooked in the signing process until Sept. 14/90 hence the two current signatures*  
IRIS EVANS Reeve  
GORDON HARRIS  
CORPORATE SEC.

THE ESTATES OF SHERWOOD PARK  
AREA STRUCTURE PLAN  
COUNTY OF STRATHCONA NO. 20  
BYLAW NO. 49-87



THE  
*Estates*  
OF SHERWOOD  
PARK

BRADSON DEVELOPMENTS LTD.

IBI GROUP  
MAY, 1988

THE ESTATES OF SHERWOOD PARK  
AREA STRUCTURE PLAN  
COUNTY OF STRATHCONA NO. 20

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**THE ESTATES OF SHERWOOD PARK**  
**AREA STRUCTURE PLAN**  
**COUNTY OF STRATHCONA NO. 20**

**1.0 - INTRODUCTION**

**1.1 LOCATION AND EXISTING LAND USE**

The Estates of Sherwood Park is located in the Hamlet of Sherwood Park, lying south of the Wye Road and east of Range Road 232 (Brentwood Boulevard) as shown on Exhibit 1. The legal description of the property is NW 1/4 SEC 23-52-23-W4M. There is an existing country residential subdivision (East Whitecroft) and a nursery (Salisbury Greenhouse) to the south, and a number of small farm parcels to the east and west.

The land features gently rolling topography, partially covered with trees. A few low wet areas drain generally south to north through the centre of the property. The land is currently used for some marginal farming activities. The soil, according to the Canada Land Inventory is Class 4 which indicates severe limitations for agricultural use.

**1.2 DEVELOPMENT CONSTRAINTS**

There are only a few constraints which must be addressed in the proposed development. A poorly defined drainage course runs south to north through the middle portion of the quarter section. The drainage course provides drainage for the subject lands and some country residential development to the south. The drainage course will have to be improved and realigned in conjunction with proposed development, and a Public Utility Lot or easement will be created to contain the drainage course.

There are several natural gas pipelines located adjacent to the north and west sides of the quarter section. There are five high pressure lines in a 6.10m (20.0ft) wide utility right-of-way owned by Northwestern Utilities and a 9.14m (30.0ft) U.R.W., both south of Wye Road. Vehicular accesses to the property, both commercial and residential components, from Wye Road will require the approval of Northwestern Utilities in the form of Access Agreements. Two high pressure lines, of which only one is in use, are located to the east of Range Road 232 in a 6.10m (20.0ft) easement. The exact location and depth of these pipelines will be determined prior to utility installation and development.

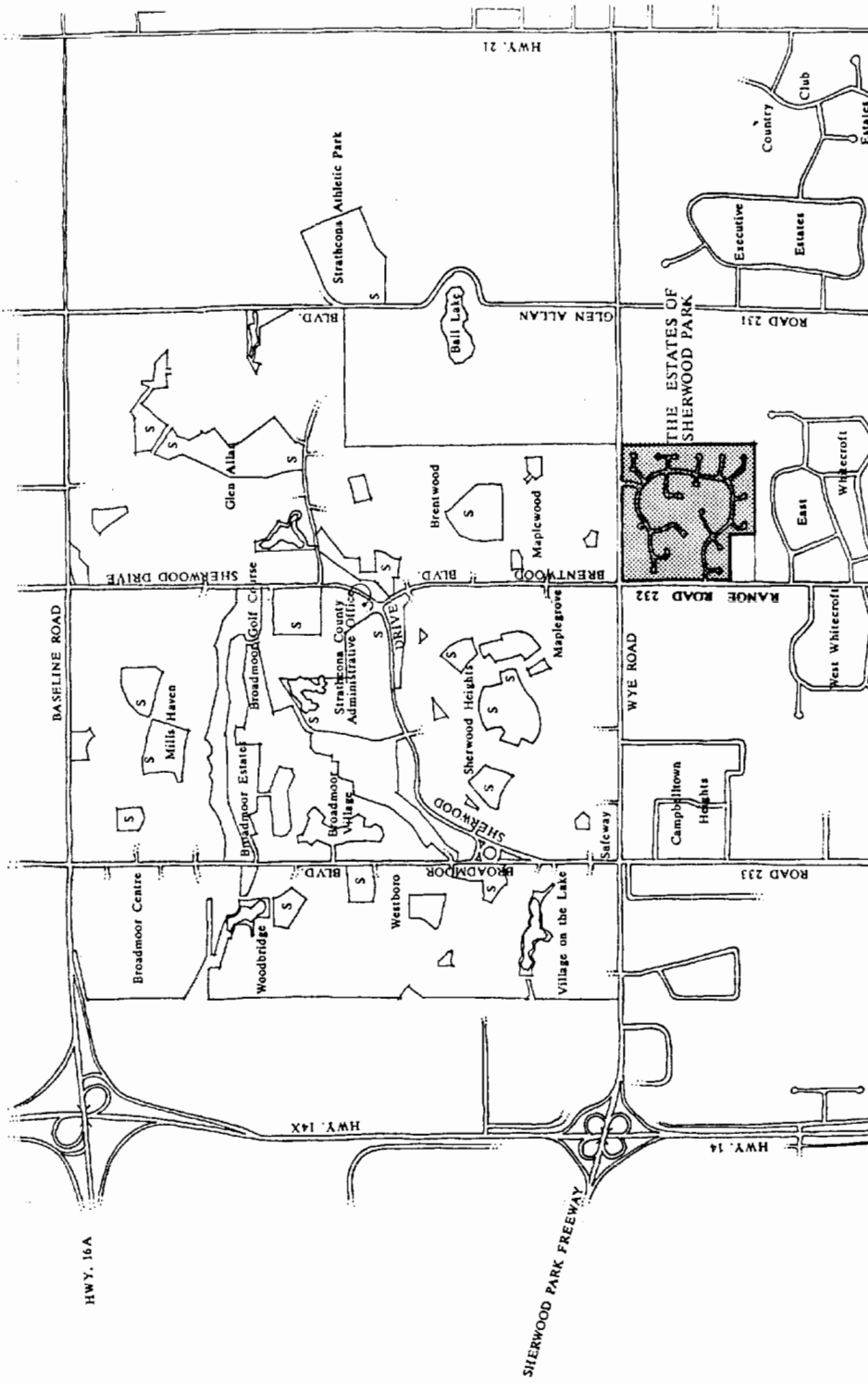


EXHIBIT 1: CONTEXT MAP

### **1.3 PRELIMINARY GEOTECHNICAL ASSESSMENT**

A preliminary geotechnical assessment of the site conditions was assembled on the basis of available published information, air photo interpretation and a general site reconnaissance. No field drilling was carried out for this study.

#### **1.3.1 Topography and Drainage**

The topography of the area is undulating to gently rolling, with elevations of about 737m (2,402ft) to 744m (2,440ft) above mean sea level. The undulating characteristic is more evident in the western half of the quarter section with local hills (knobs) and depressions (sloughs). The eastern half is more gently rolling. Surface drainage is mainly by small intermittent creeks joining and draining several of the depressions and flowing in a northerly direction.

Isolated bodies of surface water in the depressed (slough) areas were also observed in the western half of the quarter section.

#### **1.3.2 Bedrock Geology**

The near-surface bedrock deposit is the Edmonton Formation (Horseshoe Canyon Formation) of the Lake Cretaceous age. The bedrock deposit generally consists of fine-grained sandstone, bentonitic mudstone, shale, ironstone bed and coal. The bedrock surface is estimated to be about 15m and 18m below existing ground surface.

#### **1.3.3 Surficial Geology**

The study area is covered by till which is composed of mixed clay, silt and sand with pebbles and boulders and sand lenses. The till is relatively impervious and considered to be competent foundation stratum for normal residential dwellings.

Slough deposits consisting of silt, clay, organic muck and marl are to be expected in the depressed areas. Slough deposits are not acceptable foundation material and should be removed and/or replaced with competent fill.

#### **1.3.4 Hydrogeology**

The non-pumping groundwater level is estimated at about 25m below

ground surface. The study area is a groundwater zone with the groundwater flowing downward and northward. The yields of wells completed in the bedrock are estimated to be low at about 0.08 to 0.38 litres per second (1 to 5 imperial gallons per minute). Most of the groundwater would flow in the locally high permeability units such as sandstone, lenses, coal seams, etc.

Perched water tables may be encountered in the sand lenses in the till deposit. However, these lenses are not expected to be continuous to a large area extent and the quantity of perched water is expected to be small. A low infiltration rate is expected in the study area covered by till.

## 2.0 - PROPOSED DEVELOPMENT

### 2.1 DEVELOPMENT CONCEPT

The intent of the proposed development is to provide approximately 205 suburban estate lots in a community setting, comprising stately country style homes which take full advantage of the large lots. Lots will be a minimum size of 1,350 square metres. Most lots are situated on cul-de-sacs which will create a broad range of lot shapes and sizes and promote the development of a streetscape composed on diverse setbacks and home sitings.

The proposed concept is based on a collector-loop roadway system with full-intersections at Wye Road and Range Road 232. A series of cul-de-sacs providing local access to the individual residential lots branch out from the collector-loop. An interim access route to Range Road 232 from the first stage of residential development will be maintained until such time as the primary entrance from Wye Road has been constructed. Acoustic as well as visual screening from Wye Road will be achieved by the provision of a two-metre high solid (no gaps between vertical members) wood fence constructed on top of a one-metre berm. This fence will form the rear property limits of the residential lots backing onto Wye Road and as such the maintenance of the fence will be the responsibility of the individual lot owners. Both visual and acoustic screening for those properties backing onto Range Road 232 (including the park site) will be achieved by the continuation of the perimeter fence as described adjacent to Wye Road.

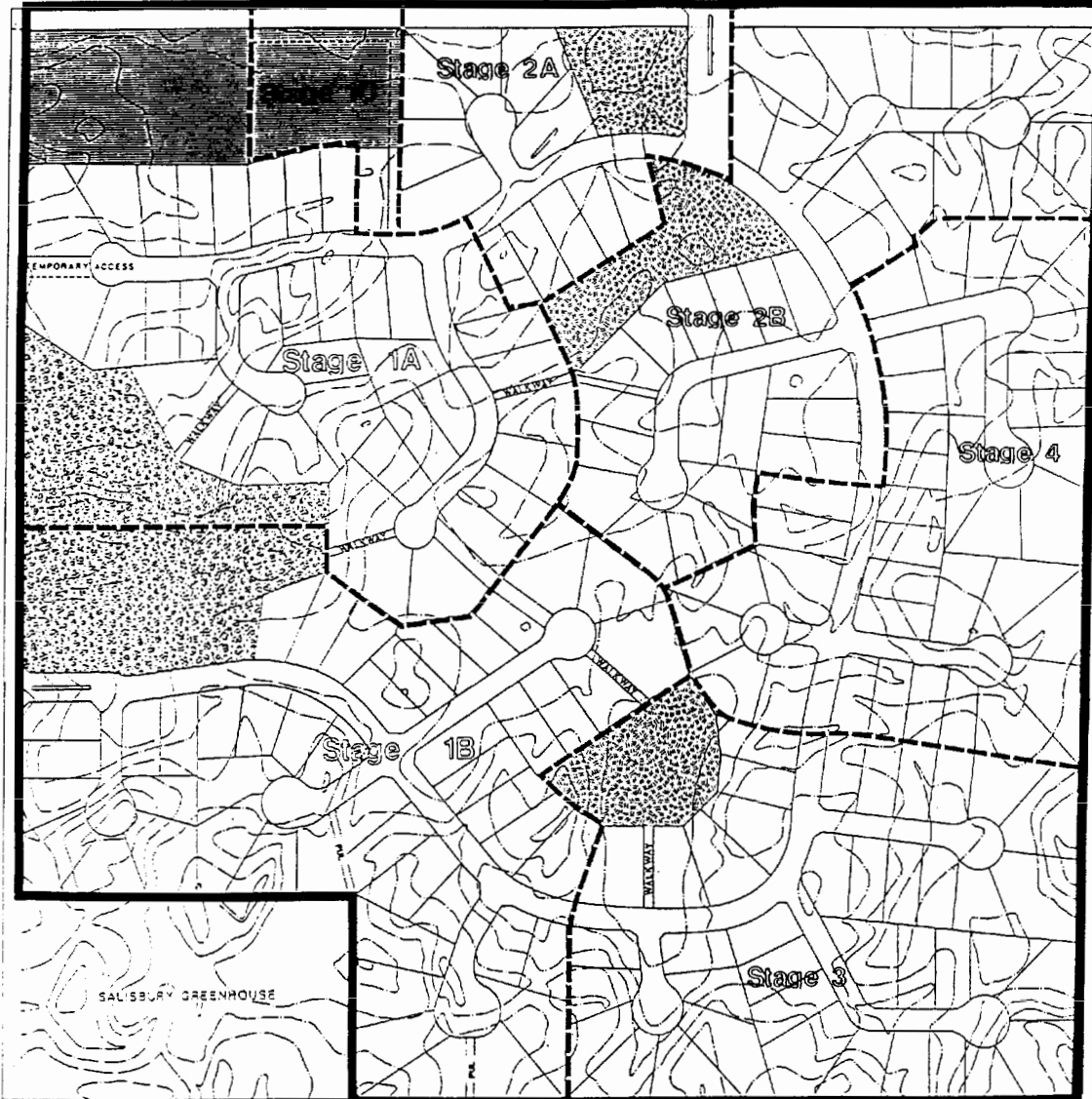
The main park site within the neighbourhood is located adjacent to Range Road 232 in the west-central portion of the quarter. Public access to the park is provided by frontage on the collector-loop as well as walkways from the cul-de-sacs backing onto the reserve lands. In addition, there are three "dry-pond" storm water management features located within the neighbourhood which are also intended to serve secondarily as passive recreation areas for local residents.

The planning concept also includes a commercial parcel of about 3 hectares (7.5 acres), located in the northwest corner of the quarter, at the intersection of Wye Road and Range Road 232. The business facilities located here are intended to serve the needs of the local residents as well as vehicular traffic travelling on the two arterial roadways adjacent to this development.



WYE ROAD

RANGE ROAD 232



LAND USES





-  Residential
-  Commercial
-  Municipal Reserve
-  P.U.L. (stormwater management)

EXHIBIT 2  
AREA STRUCTURE PLAN

THIS CONCEPT IS SUBJECT TO FINAL REVIEW AND APPROVAL BY THE COUNTY OF STERLINGHOMA



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The commercial parcel size proposed in this plan is based on current and anticipated market demand and the provision of two all-directional access points from Wye Road and Range Road 232 directly into the site.

The Area Structure Plan concept is illustrated in Exhibit 2 in reduced format and at a scale of 1:2000 in Appendix B.

A land use summary of the development is provided in Exhibit 3, as follows:

**EXHIBIT 3 - LAND USE SUMMARY**

LAND USE	HECTARES	(ACRES)	PERCENT OF TOTAL
Total Area of A.S.P.	61.422	(151.772)	
N.U.L. Rights-of-Way	1.220	(3.015)	
<b>Total G.D.A.</b>	<b>60.202</b>	<b>(148.757)</b>	100.0%
Residential	42.247	(104.391)	70.2%
Commercial	3.087	(7.628)	5.1%
- Collector 3.636 ha	8.381	(20.709)	13.9%
- Local 4.433 ha			
- Walkways 0.312 ha			
Municipal Reserve:			
- Lands in Quarter Section	4.094	(10.116)	6.8%
- Deferral of Genstar Lands north of Baseline Road	[1.926	(4.760)]	[3.2%]
Public Utility Lots (dry ponds and southern-most walkways)	2.393	(5.913)	4.0%

**2.2 DEVELOPMENT GUIDELINES**

Architectural controls and landscape guidelines may be prepared by the developer to direct home-buyers, designers and builders towards appropriate building forms and details. These guidelines address design and development issues including building setbacks and massing; lot grading, fencing and landscaping; building materials and exterior finishes; and other regulations such as those governing the storage of recreational vehicles, the placement and screening of satellite dishes and the appearance of the site during construction.

**2.3 FUTURE POPULATION**

The residential component of this development contains approximately 205

single-family lots, under the regulations of the Suburban Estate Residential (RS) District (By-law 83-86). The population and low density levels which may be achieved by the neighbourhood will be in the mid-range between typical figures for conventional single-family urban lots and country residential developments.

The following tables, Exhibits 4 and 5, present projections of resident population and student generations, respectively.

**EXHIBIT 4 - POPULATION PROJECTIONS**

	AREA	UNITS	DENSITY	PERSONS/UNIT	POPULATION
Hectares	42.427	205	4.85 units/ha	3.44	705
Acres	104.391	205	1.96 units/ha	3.44	705

**EXHIBIT 5 - STUDENT GENERATION PROJECTIONS**

FACILITY	RESIDENTIAL UNITS	STUDENTS/FAMILY	PUBLIC SYSTEM	SEPARATE SYSTEM	TOTAL STUDENTS
Elementary	205	0.43	66	22	88
Junior High	205	0.20	31	10	41
Senior High	205	0.16	25	8	33

Rates are based on Edmonton Public School Board Statistical Standards.

**2.4 MUNICIPAL RESERVE**

Municipal Reserve will be provided as an active and passive recreation area located west-centrally in the quarter-section, adjacent to Range Road 232. This park is approximately 4.1 hectares in size and constitutes slightly over 6.8 percent of the gross developable area of the property. The balance of the reserve dedication, some 1.9 hectares, will be deferred.

The park site will contain facilities for active recreational activities as well as passive recreation areas. A walkway system has been developed in the concept linking the park and storm-pond system to provide convenient access for the neighbourhood residents.

## **2.5 CONFORMANCE WITH THE GENERAL MUNICIPAL PLAN**

The Suburban Estate Concept provides a transitional land use between urban residential and country residential lots. The approved General Municipal Plan includes a land use designation to fit this transitional use within 1.6km (1.0 mile) of Sherwood Park. Regulations for this land use, Suburban Estate Residential District, are contained in the County's Land Use By-law (By-law 83-86).

The proposed development is also inside the Sherwood Park Urban Service Area. The County is currently considering major utilities south of Wye Road and has extended the urban service boundary to include the Estates of Sherwood Park.

### **3.0 - CIRCULATION AND UTILITIES**

#### **3.1 RESIDENTIAL ACCESS**

Access to the residential development will be achieved in the first order by a full-intersection of Wye Road, located slightly east of the centre of the quarter-section, and secondarily via a full-intersection on Range Road 232, immediately south of the park site. Interim vehicular access from Range Road 232 directly into the first stage of residential development will be maintained until the primary access route from Wye Road has been established.

Internally, the concept comprises a collector-loop roadway system which links the primary and secondary entries at Wye Road and Range Road 232. The majority of residential lots are located on cul-de-sacs which branch out from the collector-loop road. The collector roadway will be developed to a high quality paved cross-section fully cognizant of driveway access and landscaping parameters which have been adopted for this development. All road widths and internal road intersection spacings will conform with the County Public Works Department standards for suburban estate development.

#### **3.2 COMMERCIAL ACCESS**

The proposed commercial development at the corner of Wye Road and Range Road 232 is accessed by an all-directional intersection and a restricted intersection (right-in/right-out) on Wye Road and an additional full-intersection on Range Road 232.

#### **3.3 TRAFFIC IMPACT ASSESSMENT AND NOISE EVALUATION**

A traffic impact assessment and noise evaluation has been carried out for the commercial and residential components of this development. The traffic analysis was prepared in accordance with parameters as set out by the County Engineer.

##### **3.3.1 Residential Assessment**

The access from Wye Road to the residential development will be able to accommodate the peak hour traffic generated by the residential development of approximately 110 cars based on today's traffic level, as well as future traffic volumes (allowing for an average

65% increase in traffic), without requirement of traffic signals. However, in order to minimize conflict with Wye Road traffic, acceleration and deceleration lanes should be provided on the west-bound direction and a deceleration lane on the eastbound direction.

The location of the residential access on Range Road 232 is well removed from Wye Road and will not present any traffic problems with intersection manoeuvres on Wye Road. Depending on the function of Range Road 232 and future traffic levels, a left-turn bay may be considered for this intersection when the roadway is upgraded to urban standards.

### **3.3.2 Commercial Assessment**

A full intersection located 200 metres east of Range Road 232 and providing access to the commercial site will accommodate the traffic generated by the commercial site without requirement for traffic signals. The proposed spacing of 200 metres would provide appropriate timing and spacing of gaps in traffic to allow traffic to left-turn enter or left-turn leave the site, without requirement for traffic signals.

A restricted right-in/right-out access located 100 metres east of Range Road 232 would provide additional access to the commercial site, thus reducing traffic volumes at the other intersections. This location is considered an acceptable distance from Range Road 232, provided a deceleration lane is provided on Wye Road eastbound.

A full intersection to the commercial site from Range Road 232 located 100 metres south of Wye Road, will provide additional access to the site, thus reducing turns at the intersection of Wye Road and Range Road 232. The location of the intersection 100 metres south of Wye Road will provide sufficient length to accommodate left-turn bays entering the commercial site, as well as turning west onto Wye Road.

A capacity analysis of the existing intersection at Wye Road and Range Road 232 indicates that the traffic generated by the commercial and residential developments will be accommodated by the intersection, within acceptable levels of service.

In summary, the proposed residential and commercial developments will be appropriately served by the proposed accesses and these accesses will not negatively impact existing or future traffic on Wye Road and Range Road 232.

### **3.3.3 Noise Impact Assessment**

Noise levels in the residential development resulting from traffic on Wye Road, at both existing and future volumes, are estimated to be at acceptable levels and will not require further noise attenuation such as noise attenuation walls. This assumes that houses will be separated from the roadway by at least 25 metres of backyard to property line, a 15-metre utility lot between the private property line and the road right-of-way, and 4 metres of road right-of-way, as well as provision of a 1-metre berm. The developer will also construct a 2-metre wood fence on top of the berm, which is primarily to provide privacy, but as well will further mitigate noise penetration.

### **3.4 WATER DISTRIBUTION, SANITARY SEWAGE COLLECTION & STORM DRAINAGE**

A water distribution system sized to provide capacity for fire protection, and a sanitary sewage collection system will be installed throughout the development and connected to the water and sanitary sewer systems in Sherwood Park.

The County has recently undertaken remedial steps to relieve the threat of flooding in existing Sherwood Park. A by-law has been passed authorizing the implementation of the "Lot Grading Improvement Program". The County Public Works Department has confirmed that sanitary sewer connections from The Estates of Sherwood Park will be feasible upon the completion of the remedial work on a fixed number of units.

With the exception of a section of sewer main on Rosewood Drive between Applewood and Allder (manholes 2198 to 2200), peak flows from the entire development can be accommodated by the Maplewood sanitary sewers and associated relief sewers. This section may have to be upgraded at some time after full development of stages 1A and 1B. Flows up to "average daily" rates can be accommodated for development stages 1A and 1B at the present time, without upgrading, through a connection across Wye Road to Rosewood Drive. The need for upgrading in further development will be determined by a review of lot grading improvements and flow measurements from an ongoing monitoring program carried out by the County.

Watermains throughout the development will be sized to provide for fire protection and peak domestic flows. A 250mm connection will be provided at the east boundary to permit looping the 250mm main from the Maplewood subdivision to the proposed 500mm main crossing Wye Road at Range Road 231. In addition, two connection points will be provided permitting looping to possible future development to the west, across Range Road 232. A 250mm connection point in the commercial area adjacent to Wye Road will permit full exploitation of the 250mm main crossing Wye Road, and a 200mm connection point at the south entrance will permit full looping of the main feedermain in the development into future development areas west of Range Road 232.

The stormwater management scheme considers a total drainage basin of approximately 81.5 hectares composed of:

- The Estates of Sherwood Park	60.4 Ha
- Salisbury Greenhouse Expansion	2.7 Ha
- Whitecroft Acreage Development	10.5 Ha
- Part of N.E. Quarter of Section 23	4.6 Ha
- Part of N.E. Quarter of Section 22	<u>3.3 Ha</u>
TOTAL	81.5 Ha

Excluded from the above drainage basin is approximately 1.3 ha of the Salisbury Greenhouse Expansion and 0.3 ha of The Estates of Sherwood Park which drain westerly via Section 22. The basin drains generally to the north, crosses Wye Road and then ultimately discharges to Ball Lake.

The proposed storm drainage system would include a "minor" drainage system and a "major" drainage system:

1. The "minor" system would consist of a piped storm sewer system to carry minor flows to a series of "dry-pond" detention basins within the development.
2. A defined flow route along specially graded streets, walkways and utility lots would convey major storm flows to the detention basins to form the "major" system.

A recent study, approved by Alberta Environment, established predevelopment drainage yields from the basin, defined by a maximum outflow rate of  $0.3\text{m}^3/\text{second}$  in a 1:100 year storm. Accordingly, outflows from the stormwater management system would also be restricted to  $0.3\text{m}^2/\text{second}$  in a 1:100 year storm, in keeping with Alberta Environment policy.



The discharge from the system would be introduced into the County storm sewer system in a manhole on Wye Road, where predevelopment flows are currently discharged with the system from an existing culvert across Wye Road.

Calculations show that a total storage volume of 24,502.6m<sup>3</sup> will be required in the detention ponds to accommodate a 1:100 year storm and limit discharge to the rate above.

Appendix "A" illustrates the overall water, sanitary sewer and storm sewer facilities for the development.

### **3.5 OTHER UTILITIES**

Shallow utilities, including natural gas, power, telephone and cable TV, will be installed underground to typical urban standards. Street lights may be spaced somewhat further apart than typical urban streets or at intersections only, but will provide adequate lighting for the traffic and pedestrian safety.

### **3.6 LANDSCAPING PARAMETERS**

Landscaping standards have been developed to control the development of The Estates of Sherwood Park, in conjunction with the Recreation and Parks Guidelines. Boulevard tree planting will be a deciduous canopy tree with a minimum size of 2-1/2" caliper, spaced at approximately 10m (33ft.) on both sides of the collector-loop road.

Main and secondary entries to the development will be treated with deciduous trees accenting entry signs and low natural vegetation.

All street signage to incorporate a "Country flavour" and designed with "The Estates of Sherwood Park" design principle of natural materials.

Natural or native plant material will form the passive side of the Park. The remainder of the park includes a picnic area overlooking a "sliding hill" and an active area accommodating two sports fields (slo-pitch baseball diamond and soccer field).

Landscaping within the Park will be developed to help minimize maintenance requirements and will comprise small areas which will be enhanced for aesthetic purposes. Tree planting in the Park will generally consist of

hardy, low maintenance materials within the "Alberta Horticultural Guide". Existing tree coverage will be utilized as much as possible or transplanted from adjacent areas.

### **3.7 DEVELOPMENT STAGING**

The cul-de-sac format allows straight-forward and tidy staging options. The development is expected to commence in 1987 and be staged over approximately five years. The total development will include approximately 205 residential lots and a commercial site. Stage 1 will consist of the commercial site and 36 residential lots. Development will commence in the northwest portion of the quarter, extending to the south, including the municipal reserve (park) area.

These phases of development are shown in the Area Structure Plan concept.

Original Copy of Attached Map  
is Available for Viewing  
in the  
Corporate Secretary's Department

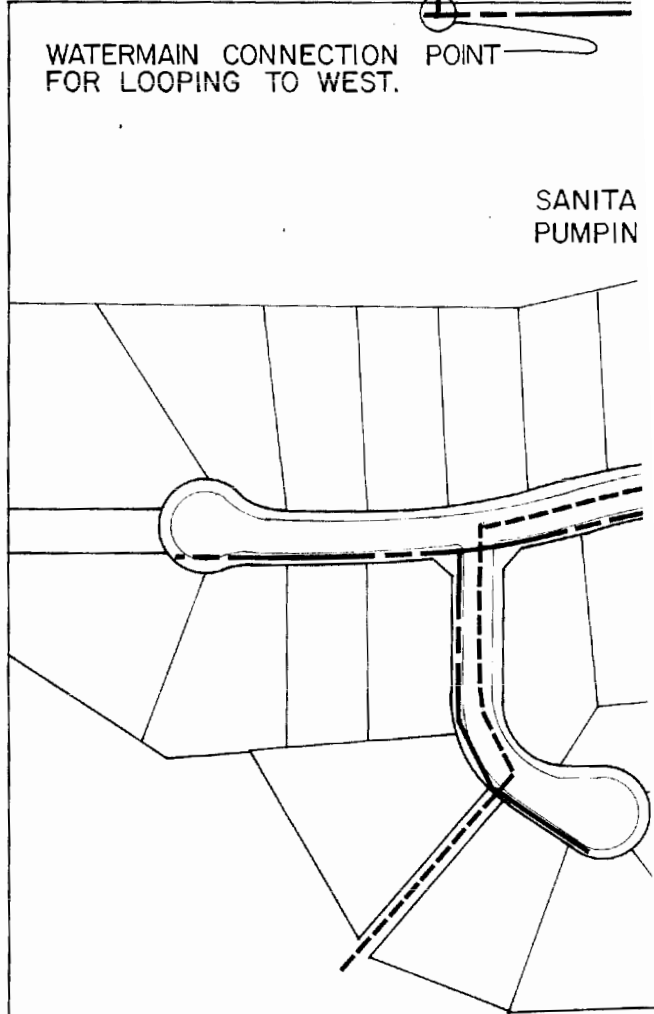
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WATERMAIN CONNECTION POINT FOR LOOPING TO WEST.

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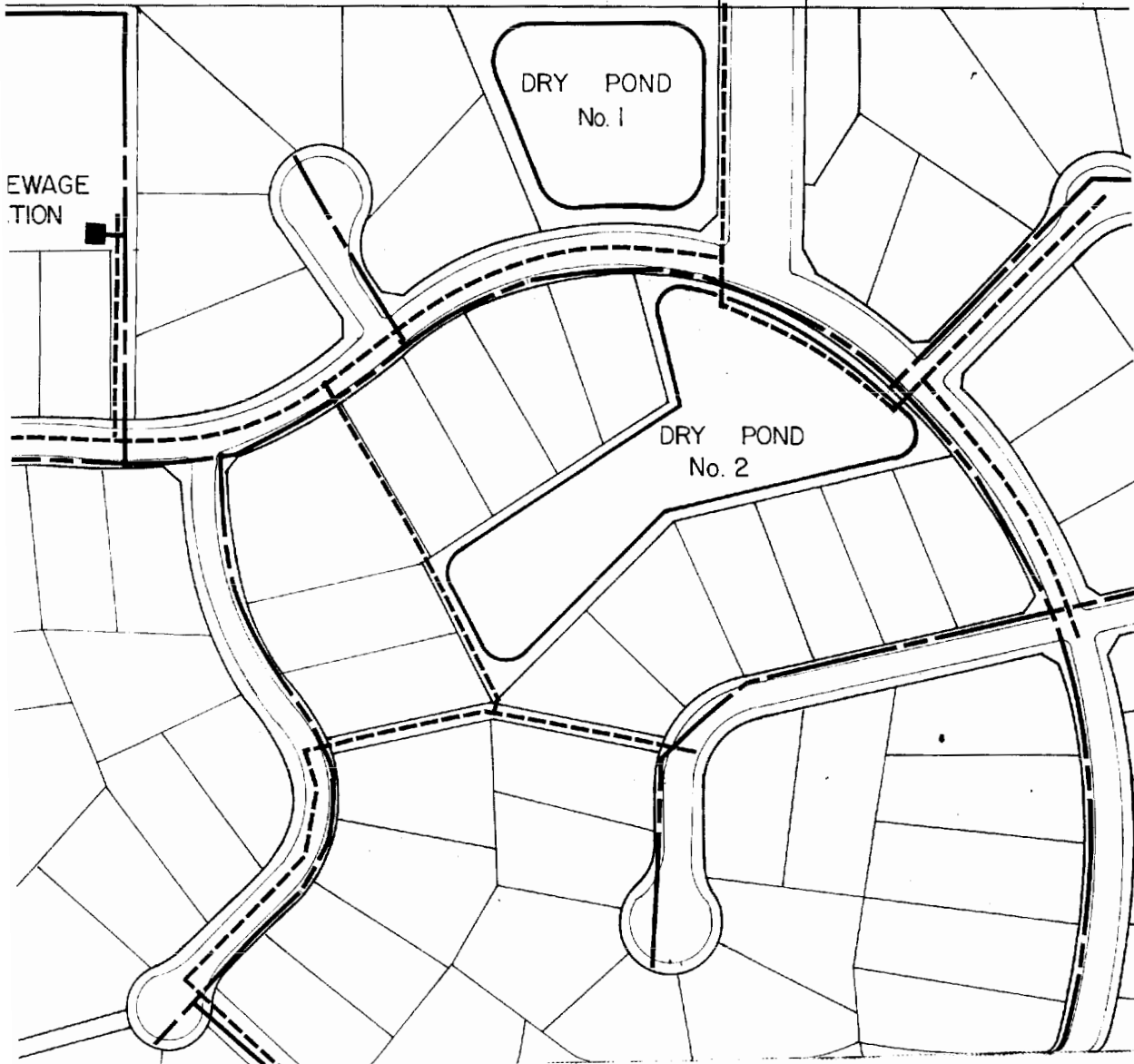
EXISTING COUNTY STORM SEWER

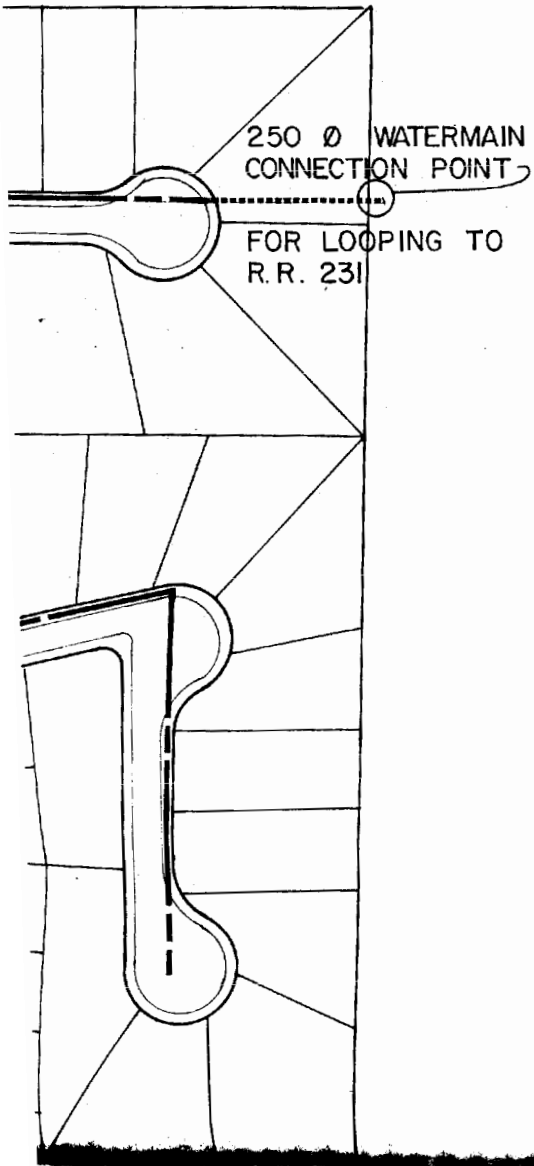
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No. 1

DRY POND  
No. 2

SEWAGE  
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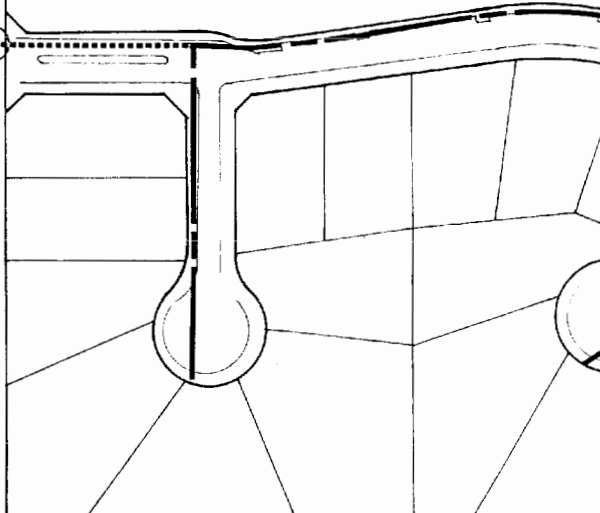




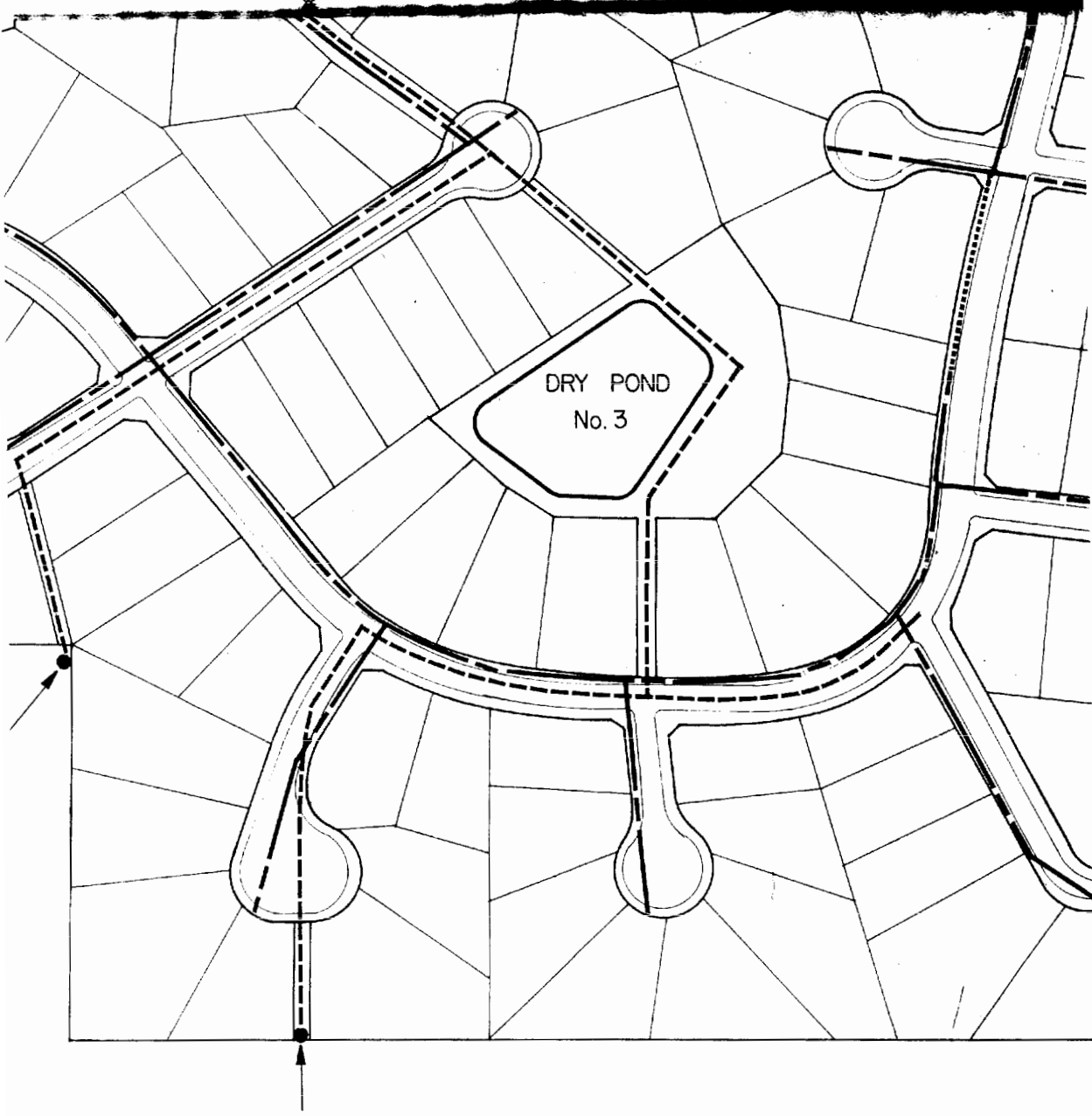
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200 Ø WATERMAIN CONNECTION  
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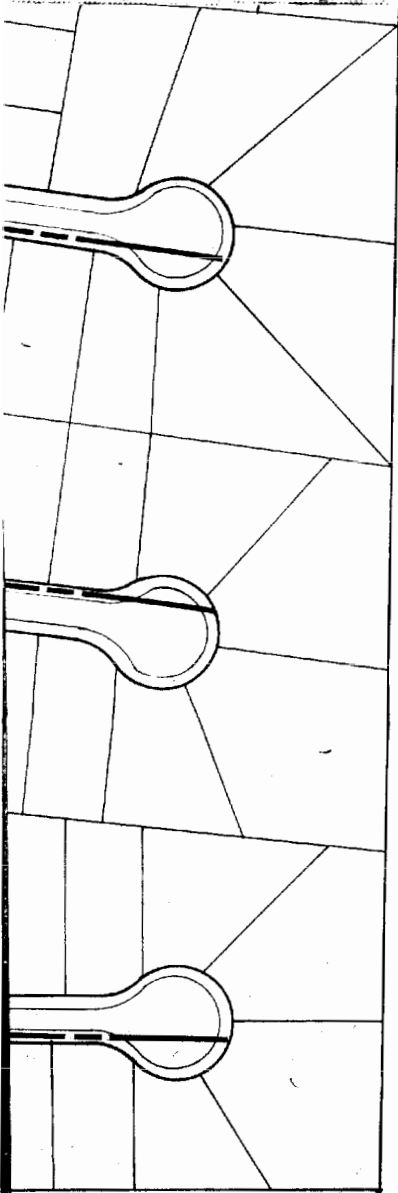
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3	TENDERED		
2	APPROVED		
1	PRELIMINARY		
	DESCRIPTION	DATE	APPROVED



NO	DATE		BY	APPROVED

REVISIONS





**LEGEND**

SANITARY SEWER & W

STORM SEWER

WATERMAIN



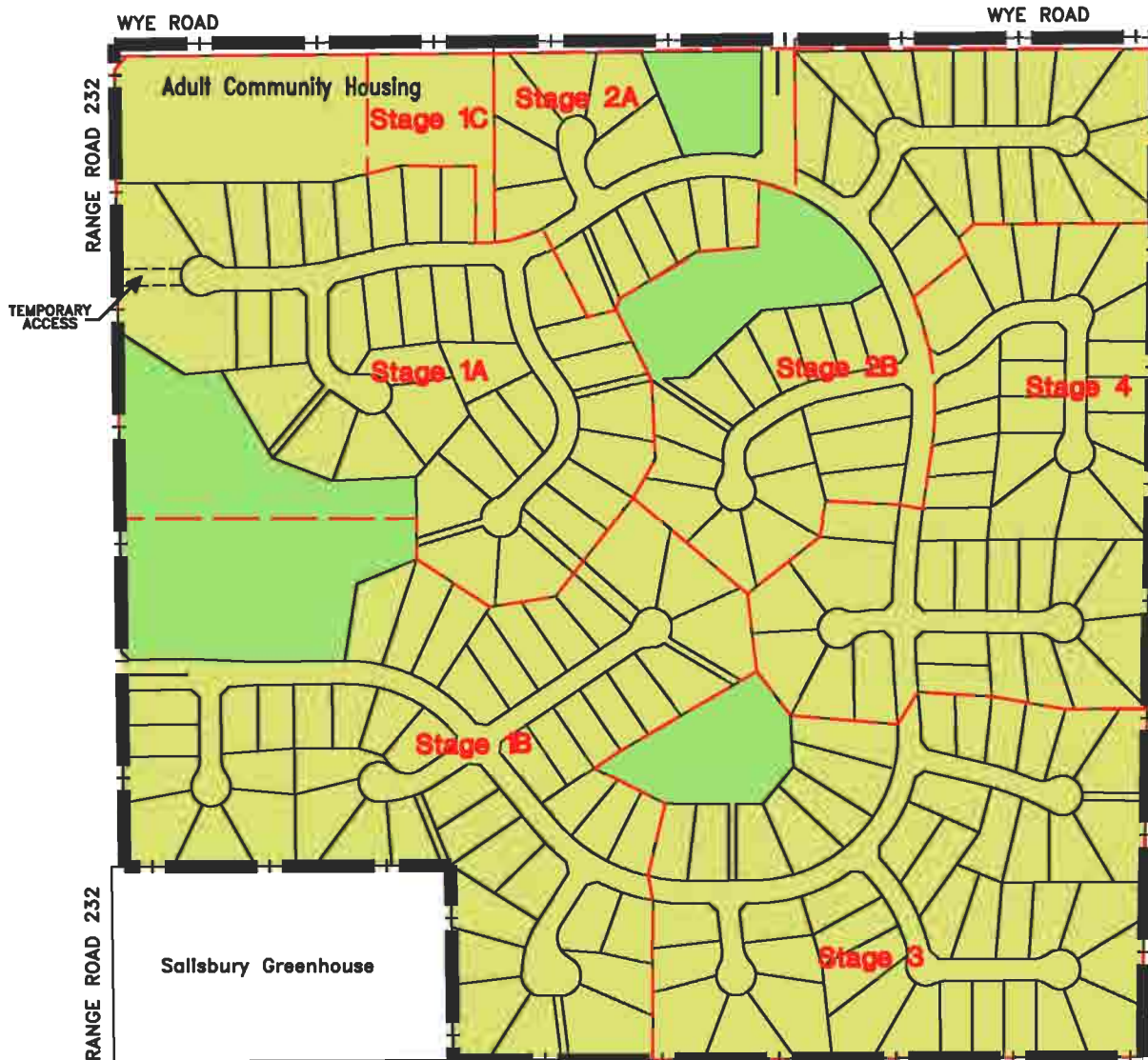
**I.D. ENGINEERING COMPANY LIMITED**  
Professional Engineers

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# Estates of Sherwood Park Area Structure Plan Bylaw 49-87 / (60-93 Amendment 1)

Residential	<input type="checkbox"/>	Road Plan	
Adult Community Housing Redesignated from Commercial to Residential (Adult Community Housing)	<input type="checkbox"/>	ASP Boundary	
Municipal Reserve	<input type="checkbox"/>	Staging Boundary	