

LANCASTER SOUTH

Neighbourhood Area Structure Plan

CITY OF RED DEER



Prepared by
Parkland Community Planning Services
and
City of Red Deer Engineering Services

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July 27, 1998 – Bylaw 3217/98

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LANCASTER SOUTH NEIGHBOURHOOD AREA STRUCTURE PLAN

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1.0 INTRODUCTION

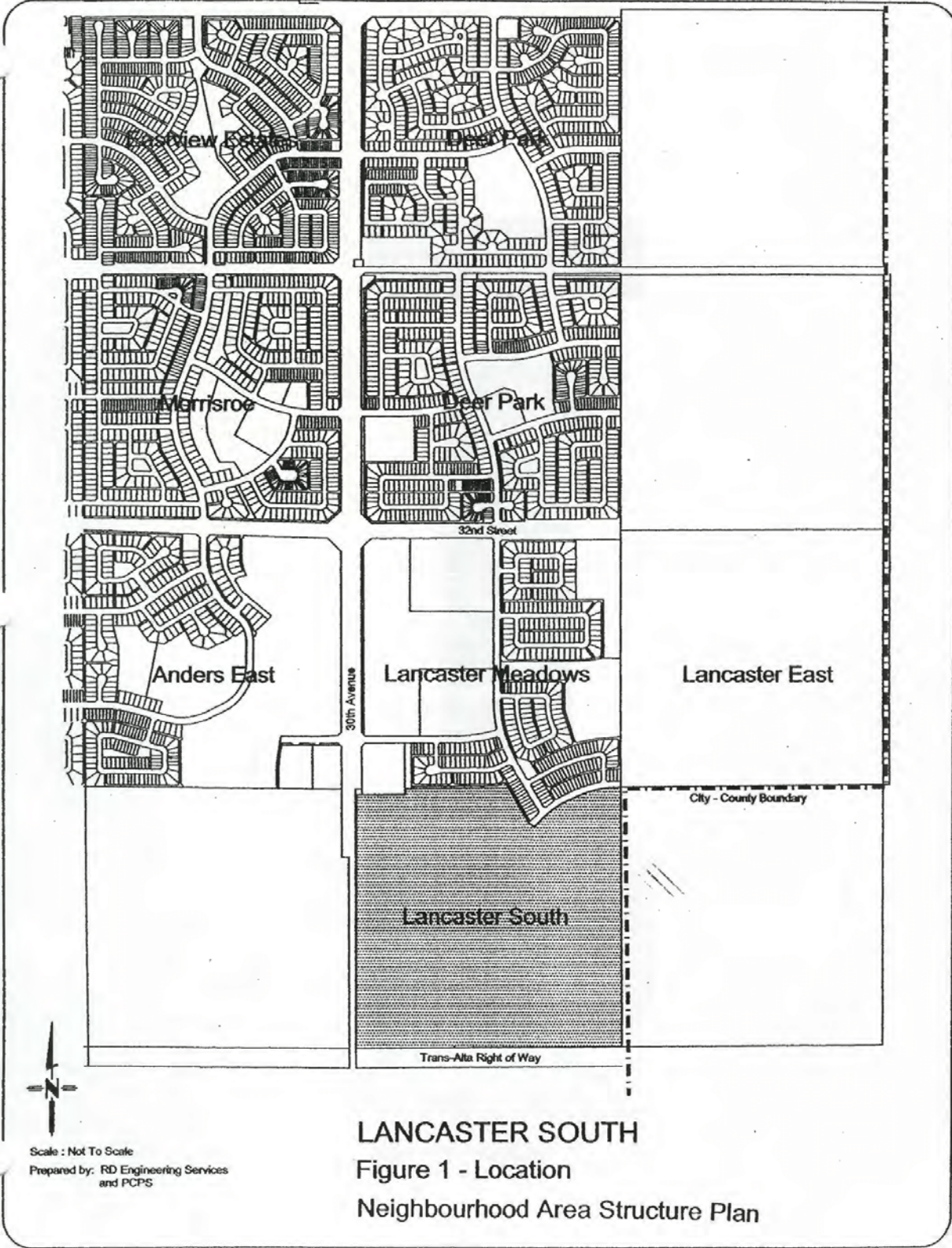
1.1 Purpose

The aim of this Neighbourhood Area Structure Plan is to specify the land use development objectives for the Lancaster South neighbourhood in the City of Red Deer. This development consists of a 61.5 hectare (152 acre) parcel located in the Southeast quadrant of the City on 30th Avenue. The subject property is situated one quarter section south of 32nd Street and one quarter section north of Delburne Road, as illustrated in Figure 1. The property is surrounded primarily by unoccupied agricultural land to the west, east, and south. Also situated to the south is the City of Red Deer Piper Creek Electrical Substation #17. To the north of the property is the existing Lancaster Meadows development, together with Hunting Hills High School and Notre Dame High School.

The site falls within and is subject to the East Hill Major Area Structure Plan (ASP). The Neighbourhood Area Structure Plan presented here is intended to augment the East Hill Major ASP by identifying the size, location, and type of land uses found in the Lancaster South area as well as the density of these uses. Moreover, the Neighbourhood Area Structure Plan discusses the natural and cultural features of the site, possible environmental hazards and provides an integrated transportation design and development of public and social facilities. The Plan also notes the proposed staging of development and specifies servicing for the area.

1.2 Background

The City's East Hill Major Area Structure Plan provides development guidelines for ±30 quarter sections, an area of approximately 1,942 hectares (4,800 acres). This Plan lays out the basic



LANCASTER SOUTH
Figure 1 - Location
Neighbourhood Area Structure Plan

framework for land uses including major parks, open space and school locations, a transportation network that includes major pedestrian pathways, and locations for commercial centres. The East Hill Major Area Structure Plan is implemented by way of individual Neighbourhood Area Structure Plans for specific neighbourhoods including, this, the Lancaster South Neighbourhood Area Structure Plan.

1.3 Definition of Plan Area

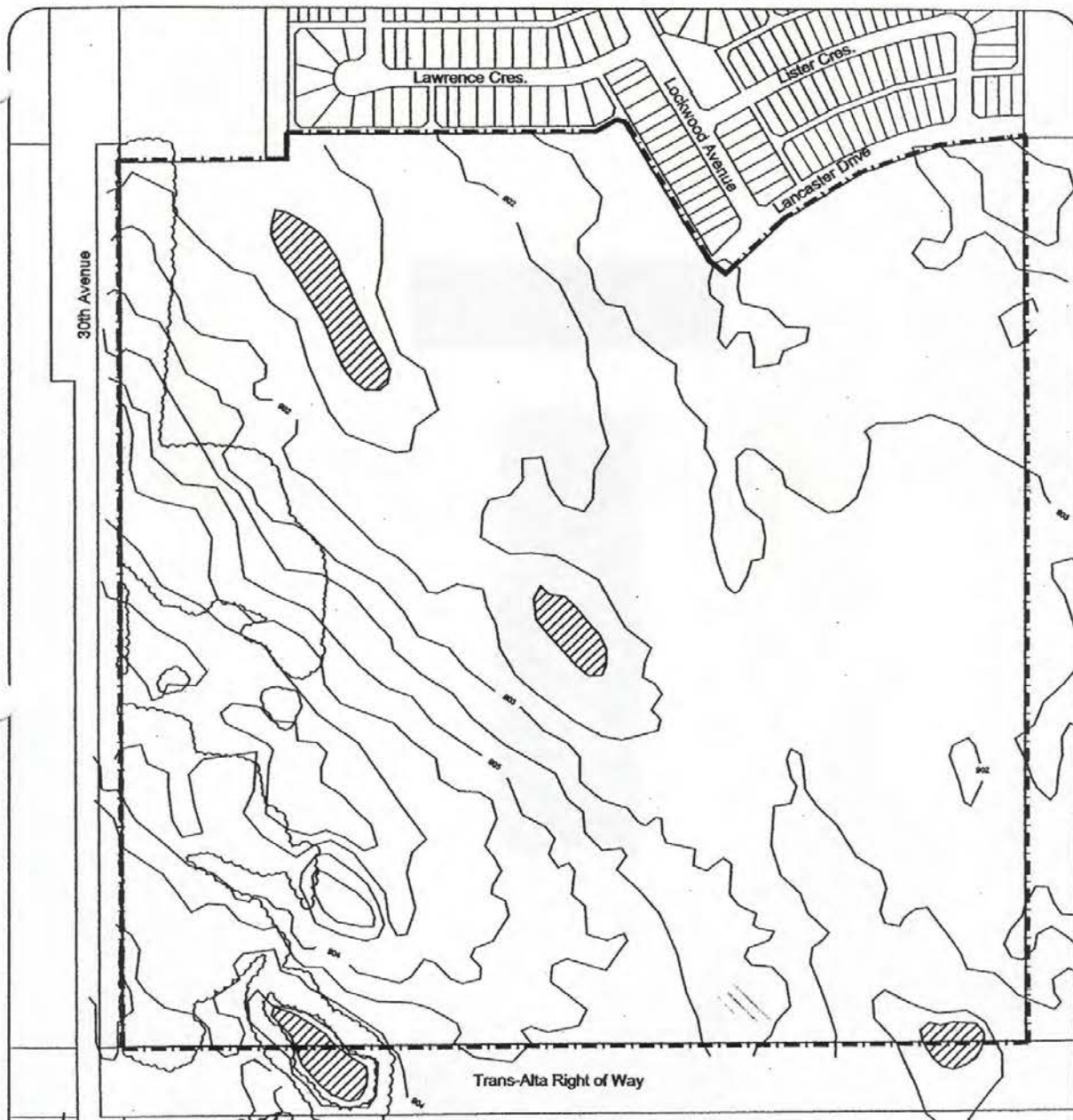
The Lancaster South Neighbourhood Area Structure Plan area is situated in the southeast section of Red Deer. It refers to the northwestern quarter of Section 2, Township 38, Range 27, west of the 4th Meridian. The area covered by this plan is approximately 61.5 hectares (152 acres). It is bound to the north by the existing Lancaster Meadows development, to the east by agricultural land, to the south by the Piper Creek Electrical Substation #17 and agricultural land, and to the west by 30th Avenue.

The Neighbourhood Area Structure Plan presented here is consistent with the goals and guidelines of the East Hill Major Area Structure Plan. Its overall objective is to provide a framework and series of guidelines for neighbourhood land use planning leading to well organized and sustainable subdivision and land use development.

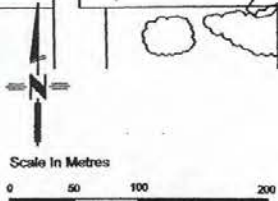
2.0 SITE CONTEXT and DEVELOPMENT CONSIDERATIONS

2.1 Natural Features





The lands within the proposed Neighbourhood Area Structure Plan are bestowed with a blend of topographic features. Although total site elevation rises only from 900 metres to 906.5 metres, as shown in Figure 2, the site does encompass a series of natural wetland and treed areas.



LANCASTER SOUTH
Figure 2 - Existing Features



Prepared by: RD Engineering Services
 and PCPS

-  Study Boundary
-  Existing Treeline
-  Existing Contours
-  Seasonal Wetland

Neighbourhood Area Structure Plan

The subject site, also referred to as the Lancaster Meadows Natural Area, is recognized by the City of Red Deer's *Ecological Profile of the Lancaster Meadows Natural Area* as having eight notable environmental zones, shown in Appendix A. The eight zones include: semi-permanent and permanent wetlands, crop land, mixed treed areas, and meadow. The ecological profile strongly recommends that 4 of the zones (zones 4, 5, 7 and 8, as described below) be preserved due to their unique attributes. The specific zones are:

I. Semi-Permanent Wetland

The semi-permanent wetland sits in the southeastern portion of the natural area. Positioned on the boundary shared with the adjacent quarter to the south, the wetland contains cattail and sedge, as well as numerous willow shoots.

II. Crop Land

The majority of the subject site is cropland. Seasonal crops assist in stabilizing the surface runoff and drainage on the site. Cropland also provides a host environment for insect and insect predator communities.

III. Permanent Wetland

This wetland zone, positioned in the core of the Lancaster South site, drains into the site's more northerly wetland (zone 4) through a narrow drainage channel. Plant and animal life present within this zone include cattail, sedge, insects, tadpoles, waterfowl, bird species, and deer. A portion of the zone has been used as a snow dump by the City and as a result is experiencing related negative impacts including litter, salt content, and oil residue originating from the snow heap. These impacts specifically affect the northwest portion of the zone, which the ecological profile estimates to be 10% of the wetland area.

IV. Permanent Wetland (PRESERVE)

This wetland located in the southwest corner of the subject site. It is perceived as being a key force in filtering out pollutants in the site's runoff. It is classified by the ecological profile as prime wetland with a mix of numerous aquatic and terrestrial insects, black terns, other bird species, frogs, and a blend of vegetation such as cattails, grasses, and sedges. Both this wetland and that of zone 3 are home to Canada Geese.

V. Mixed Poplars and Underbrush (PRESERVE)

This zone is located in the northwest corner of the subject site. It is made up predominately of aspen poplars with some mountain ashes, wild grasses, and legumes. Underbrush in this area includes wild rose, willow trees, dogwoods, and saskatoon berries. Portions of this zone have been previously cleared to accommodate power lines. The cleared portion contains columbine, pale coral root orchid, and Canada anemone as well as grasses. The ecological profile suggests some evidence that deer, porcupine, and red-tailed hawks inhabit this zone.

VI. Open Grass Meadow

Situated in the centre-west area of the site, this zone is a wild grass meadow with a variety of ground cover plants, and a few dispersed trees (e.g. Manitoba Maple, aspens). Several songbirds as well as deer graze/feed within this portion of the subject site.

VII. Semi-Permanent Wetland (PRESERVE)

This wetland zone, positioned below overhead power lines, is shared with the adjacent quarter to the south. Owls, mule deer, insect species, and songbirds have been observed in this part of the natural area. Vegetation in this zone is similar to that of the site's other wetlands and includes sedge grasses and willows.

VIII. Aspen Poplars (PRESERVE)

The aspen poplar zone is considered a transition between the natural area's wetlands and the forest/grassland. In addition to the grove of aspen poplars which dominate this zone, mixed underbrush, a white pine spruce, mountain ash, and honeysuckle can be found. This zone was most likely a previous homestead site. Mule deer, mouse, songbird, dragonfly, and hornet populations are present.

2.2 Existing Land Uses

All of the subject lands were and/or are currently designated as *A1 Future Urban Development District*. Portions of the property have been farmed for many years and includes several areas containing mature forest segments and wetlands.

2.3 Existing Transportation Network and Access

Existing access to the site is provided by 30th Avenue, an arterial road adjacent to the west boundary of this Area Structure Plan. Access will also be provided from the north through road extensions from the existing Lancaster Meadows neighbourhood.

2.4 Environmental Considerations

A Phase 1 Environmental Site Assessment (ESA) was conducted by *AGRA Earth & Environmental* between January 28 and February 27, 1998. This assessment, commissioned by the City of Red Deer, was undertaken to identify environmental concerns relating to the Lancaster South property and to ascertain if more in depth evaluation or actions were required.

The final ESA report was based on a historical review of the site and adjacent properties, discussion with relevant agencies regarding the site, and a thorough site inspection. The report concluded that there were no environmental issues associated with the Neighbourhood Area Structure Plan area. The land has been farmed since prior to 1950 and therefore Lancaster South is free of historically hazardous or noxious contaminants and clear of typical building related environmental effects such as lead, mercury, or asbestos. Neighbouring lands do house two crude oil well leases, however based on northerly groundwater flow and the distance of these wells from the Lancaster South boundaries, there is a negligible possibility of damage to the subject site. The subject site is deemed low in terms of environmental risk and further inquiry or action was not recommended.

2.5 Servicing

The site can be fully serviced with water, sewer, and storm water utilities, as well as shallow services (e.g. television cable, telephone, gas).

3.0 DEVELOPMENT OBJECTIVES

In keeping with City policies, this Neighbourhood Area Structure Plan has been prepared for the Lancaster South property. The Area Structure Plan encompasses information pertaining to: development objectives, proposed land use, density, open space, transportation, servicing and development staging.

3.1 Development Objectives

The central objectives of this Neighbourhood Area Structure Plan are:

- i) to develop a plan consistent with the general goals and intent of the East Hill Major Area Structure Plan and the City's *"Transitional" Neighbourhood Planning and Design Guidelines & Standards*,
- ii) to provide a framework for the delivery of an outstanding quality and comprehensively planned residential neighbourhood; a neighbourhood which integrates built land uses such as housing and school development with parks and open space, community and social facilities, and collector and local roadways,
- iii) to protect and synthesize the notable natural features of the site, namely the areas of aspen poplar forest and the larger wetlands, in a manner which is both environmentally sustainable and developmentally feasible,
- iv) to arrange for Plan implementation in an adept, efficient, and well-staged manner and to initiate a plan with the adaptability to react to changes in marketplace conditions.
- v) To apply design features that incorporate, where applicable, Crime Prevention Through Environment Design (CPTED) guidelines.

The Neighbourhood Area Structure Plan is based fundamentally on the cluster archetype, meaning the proposed concept assembles bands of housing development through the use of a curvilinear roadway pattern.

3.2 Development Principles

Building upon the Neighbourhood Area Structure Plan's central objectives as stated above, several development principles guide the designation of the various land uses proposed within the Lancaster South area:

Residential

- i) Facilitate a diversity of housing types including low density and multiple family developments to meet the needs and preferences of the community including affordable housing.
- ii) Integrate a blend of housing types throughout the neighbourhood in a concise, controlled, aesthetically pleasing, well designed and functioning manner.
- iii) Identify proposed residential zoning in a manner that provides compatibility of lot sizes and housing forms within the Area Structure Plan and with regard to the existing residential development north of the subject site.
- iv) Establish densities compatible with effective provision of social, educational, recreational, and municipal service facilities including public transit.
- v) Encourage development that makes the best use of natural and cultural features in the area including, but not limited to park space, forested natural spaces, the school site, and recreational trails/pathways.

Commercial

- i) Fulfill local convenience shopping and service needs through the provision of a neighbourhood C3 Commercial District site, while allowing major shopping and service demands to continue to be met by the City's downtown commercial core, regional and district shopping centres, and major arterial commercial districts found in other parts of the City.

Transportation

- i) Address transportation needs of residents traveling to, from, and within the Neighbourhood Area Structure Plan area in a safe, logical, and efficient manner. Provide a coordinated transportation system within this, and to adjoining neighbourhoods in a manner that utilizes various transportation modes such as pedestrian, bicycle, public transit buses, and private vehicles. Transit route and bus stop locations will be identified.

Parks and Open Space

- i) Preserve the Lancaster South natural forest/wetland areas and synthesize the development of the neighbourhood's park-open space system with these environmental features in a manner which meets the demands of both ecological sustainability and resident recreational use.
- ii) Incorporate neighbourhood parks within the Lancaster South Neighbourhood Area Structure Plan as well as open space linkages to meet the recreational and leisure demands of area residents. These parks may include playing fields, lit trails, hard surface play areas, children's playgrounds, and community shelters.
- iii) Designate trail systems through the neighbourhood school and park sites and utility easements for use by pedestrians and cyclists. These trails are to meet criteria for safety and ease of movement by all users.

Social Facilities

- i) One site for a day care facility, social care facility or a retirement home has been allocated within the Neighbourhood Area Structure Plan area. This site is a requirement of the City's *Neighbourhood Planning and*

Design Guidelines & Standards. If the site is not to be used for this purpose, it must be advertized prior to being developed for the alternative R1 residential land use.

- ii) A place of worship site was designated in the original 1998 Lancaster South Neighbourhood Area Structure Plan but has since been developed with its alternative R1 residential land use following appropriate advertising of the site.

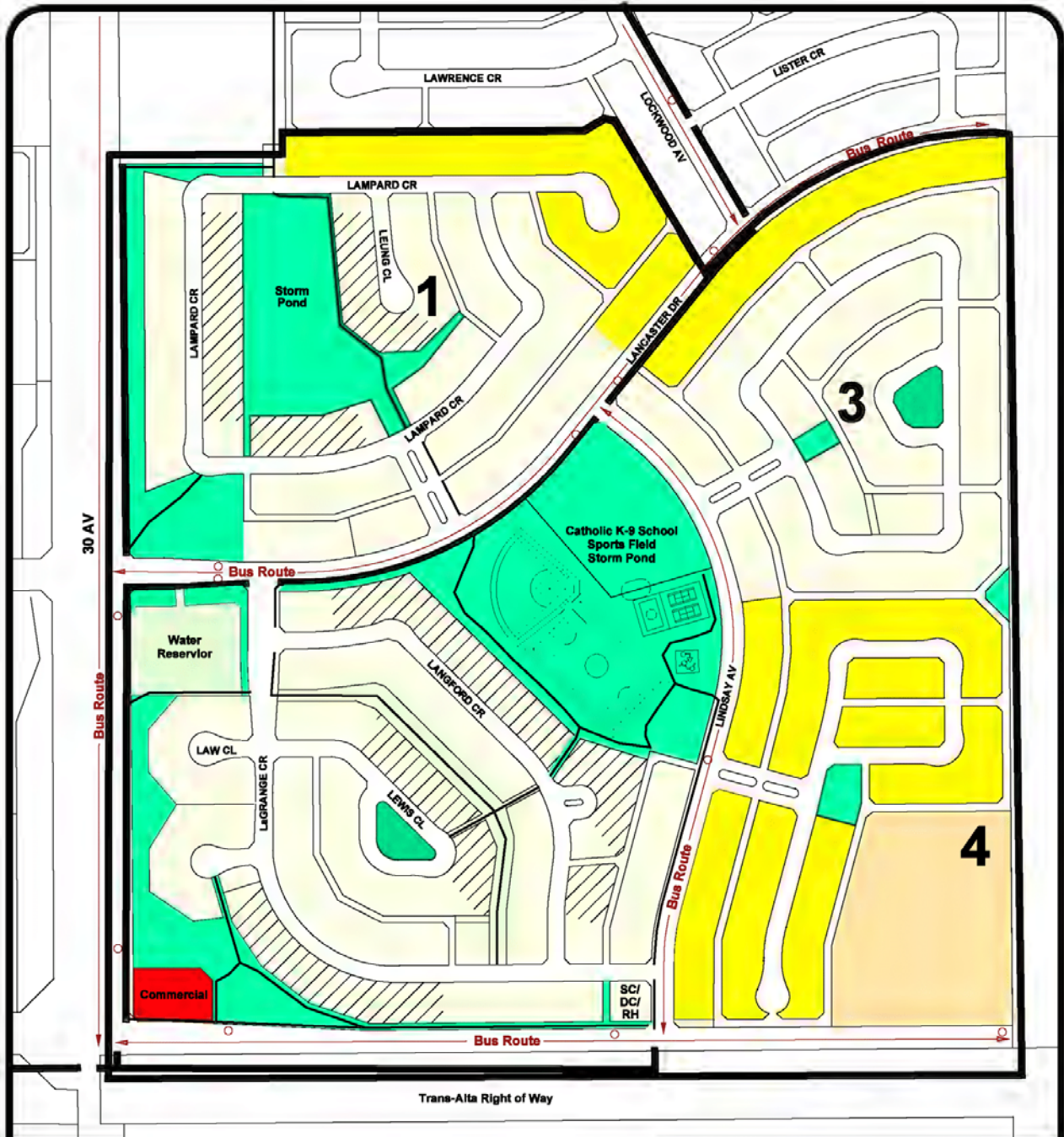
3.3 Development Concept

The development concept for this plan has been prepared to respond to current residential land requirements within the City of Red Deer and at the same time to acknowledge anticipated market trends. The development concept and staging of development are illustrated in Figure 3. This plan strives to guide development in such a manner that it enhances the natural features of the site and provides an innovative and integrated community design. The Plan has been developed in conformity with the goals and objectives described in the East Hill Major Area Structure Plan.

3.3.1 Residential

The Lancaster South Neighbourhood Area Structure Plan presents a strategically designed residential neighbourhood that promotes a mix of housing options and opportunities. The majority of land within the Area Structure Plan area is designated for residential development. The intent of this development is to provide a blend of low density residential dwelling units including single family and semi-detached homes throughout the development as well as to accommodate multiple family developments within the neighbourhood.

Note: Any reference to a specific school authority in this plan is only an indication of a school authority's site preference. The allocation of identified school sites will be determined by the Joint Use Committee. (Bylaw 3217/B-2021)



Lancaster South Neighbourhood Area Structure Plan

Figure 3 - Development Concept & Staging












NORTH
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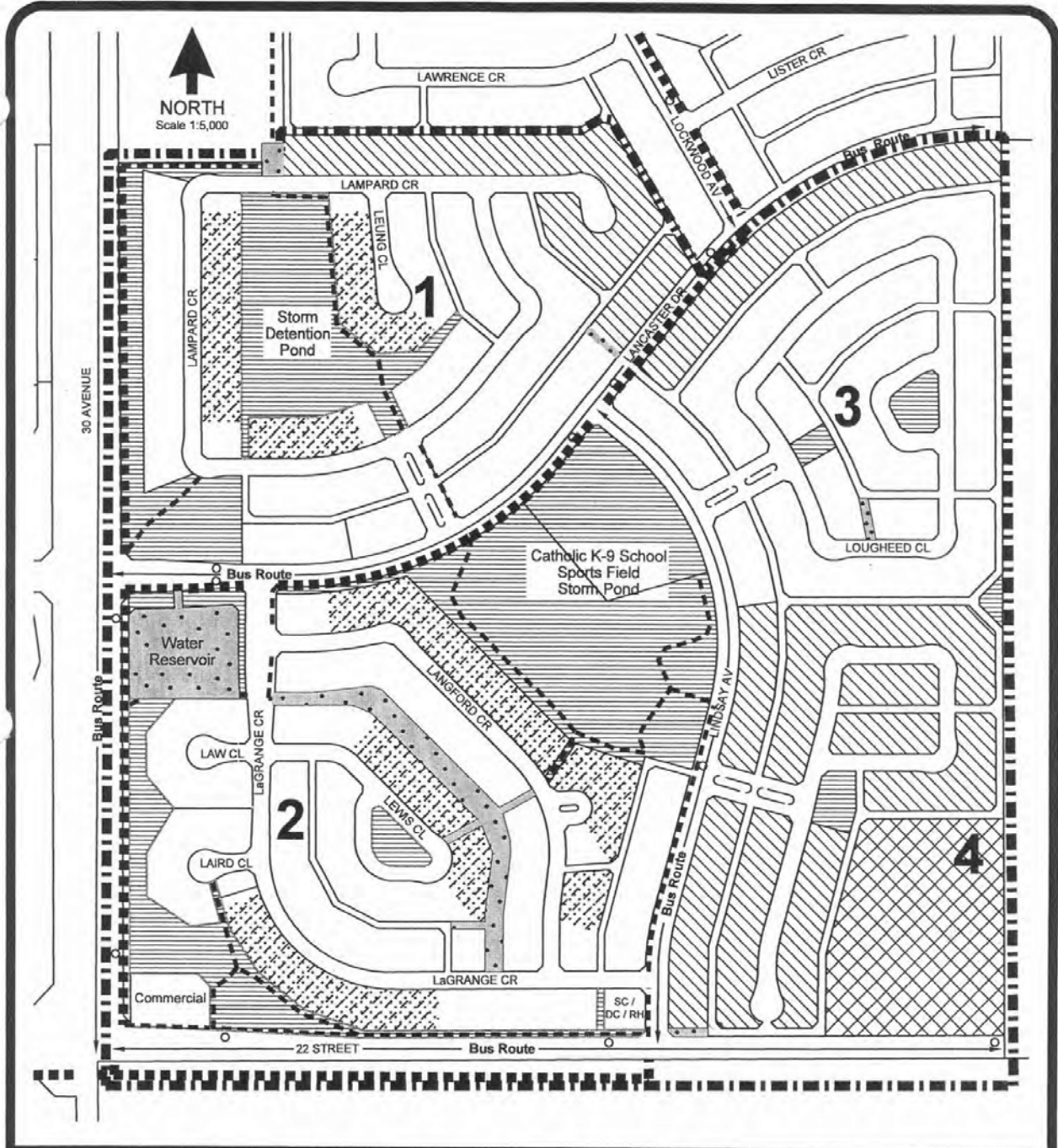
Scale in Metres

0 50 100 200m

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The City of Red Deer Engineering Department
and Parkland Community Planning Services

	R1 Residential		Commercial		2.5m Pedestrian / Bike Path
	R1 - R1A Residential		Parks and Recreation		1.5m Pedestrian / Bike Path
	R2 Medium Density Residential		Public Utility Lot		Study Boundary
	2 Storey Residences With Walkout Basements Permitted		Social Care / Day Care / Retirement Home		Staging Sequence
	Bus Route		Bus Stop		

Note: Any reference to a specific school authority in this plan is only an indication of a school authority's site preference. The allocation of identified school sites will be determined by the Joint Use Committee. (Bylaw 3217/B-2021)



Lancaster South Neighbourhood Area Structure Plan

Figure 3 - Development Concept & Staging

- | | | |
|---|--|-----------------------------|
| R1 Residential | Commercial | 2.5m Pedestrian / Bike Path |
| R1 - R1A Residential | Parks and Recreation | 1.5m Pedestrian / Bike Path |
| R2 Medium Density Residential (min. 175 dwelling units) | Public Utility Lot | Study Boundary |
| 2 Storey Residences with Walkout Basements Permitted | Social Care / Day Care / Retirement Home | 4 Staging Sequence |
| | | Bus Stop |

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 Prepared by: The City of Red Deer Engineering Department and Parkland Community Planning Services

i) Residential Low Density District (R1)

Low density single detached housing, under the R1 designation has been generally located through out the neighbourhood in an effort to allow for full access to neighbourhood parks, open space, recreational trails, recreational pathways, commercial development, the school site, and the variety of other amenities found in the neighbourhood.

ii) Two Storey Residences with Walkout Basements

Guided by the site's natural topography, some portions of the R1 area have been proposed to allow two storey residences with walkout basements to back onto treed, open space, or park areas, or public utility lots.

iii) Residential R1A (Semi-Detached Dwelling)

As presented in Figure 3, within some portions of the neighbourhood there is the intention of interspersing a limited number of semi-detached homes among single family dwellings at a level not to exceed 50% semi-detached in these sectors and with a minimum mix of at least 30% semi-detached in Stage 4. The proposed semi-detached units are to be of a high quality and must meet architectural standards governing size and elevations. The portions of the neighbourhood targeted to allow the mix of semi-detached and single family homes include the northern most areas adjacent to the existing Lancaster Meadows development and the southeast section of the Plan. The semi-detached homes are to be placed at a maximum of two semi-detached lots (4 units) next to one another in order to achieve the objective of blending the R1A and R1 units.

iv) Residential R2 (Medium Density/multiple family) District

In the Neighbourhood Area Structure Plan, a ±2.84 ha block of land for medium density multiple family residential is shown in the southeast corner of the neighbourhood. This site, to contain a minimum of 175 dwelling units, will have access only onto 22 Street whereby all related traffic will be directed to the outside perimeter collector roadway. Furthermore, short-cutting from this site to the rest of the neighbourhood through the lane system will not be permitted. This R2 site, through a connecting municipal reserve parcel for pedestrians, is closely linked to the school, central park, recreation and open space areas including the neighbourhood's trail system.

3.3.2 Land Use Statistics and Density

At full build out of this neighbourhood, the total number of housing units is expected to be ± 730 units with a population of approximately 2400 persons (based on 3.4 persons per R1 unit, 3.3 persons per R1A unit and 3.0 persons per R2 unit). The final number depends on the possible conversion of the day care/social care facility/retirement home site; a minimum 30% R1A semi-detached housing in Stage 4 for those areas designated for a mixture of R1/R1A housing; and the R2 multiple family site yielding a minimum of 175 dwelling units. Neighbourhood density is estimated to be 40.8 persons per hectare (12.4 units per hectare). Detailed density calculations and land use allocations are shown in Tables 1 & 2.

Table 1: Density and Housing Mix

Density (units/ha)	With developed social care/day care/retirement home site	12.36 units/ha*
	With social care/day care/retirement home site developed for residential	12.40 units/ha*
Housing Mix	Low density dwelling units (R1/R1A) as a % of the total housing stock	76%
	Multi-family dwelling units as % of the total housing stock	24%

* Based on a net developable area of 59.09 ha (see Table 2 for calculation)

The City's "Transitional" Neighbourhood Planning and Design Guidelines & Standards requires that neighbourhood density must be within the range of 12.35 to 17.30 dwelling

units per hectare of gross developable area if appropriate servicing capacities exist. Furthermore, a minimum of 10% municipal reserve land must be dedicated.

Table 2: Land Use Allocation

LAND USE CATEGORY/COMPONENT	AREA (ha)	% OF PLAN AREA	NUMBER OF DWELLING UNITS
Gross Plan Area	61.5 ha	100.00 %	-
Water Reservoir site	0.79 ha	1.28 %	
30 th Avenue Arterial Road Widening	1.62 ha	-	-
Net Developable Area (Only for use in Table 1 for density calculation)	59.09 ha	-	-
Total Dwelling Units - with developed day care, social care, retirement home site	-	-	728
Total Dwelling Units - with day care, social care, retirement home site developed for residential use	-	-	730
Conventional Detached R1 Dwelling Units	28.82 ha	45.90 %	495
Semi-detached Dwelling Units (stage 4 includes 30% R1A areas)	2.01 ha	3.27 %	60
Multiple Family Dwelling units	2.83 ha	4.60 %	175
Commercial C3 Site (Neighbourhood/District)	0.32 ha	0.52 %	-
Day Care / Social Care / Retirement Home Site	0.13 ha	0.21 %	2
Total Community Open Space	11.87 ha	19.25 %	-
Municipal Reserve (includes treed areas, school and recreation fields & 2 storm detention ponds)	11.10 ha	18.00 %	-
Public Utility Lots	0.77 ha	1.25 %	-
Transportation	14.73 ha	23.95 %	-
Collector roadway	4.61 ha	7.5 %	-
Local Roadways	7.21 ha	11.72 %	-
Lanes	2.91 ha	4.73 %	-
Pathways (length)	4,503 m	n/a	-

Notes

- 1) The numbers are approximate, rounded off and subject to more detailed calculations at the time of subdivision.
- 2) The Net Developable Area for density calculation equals the gross Plan area minus Environmental Reserve and any City-wide land uses, such as in this case the arterial road (30th Ave) widening and the water reservoir site.

3.3.3 Commercial C3 (Neighbourhood Convenience) District

A maximum 0.324 hectare (0.8 acre) neighbourhood C3 commercial site is proposed for the southwest corner of the Neighbourhood Area Structure Plan area. This site is principally expected to cater to local residents of Lancaster South and is designated as a neighbourhood convenience commercial centre. A small walkway has been incorporated into the design to provide an internal pedestrian/bicycle link for residents of the Lancaster South neighbourhood. Uses permitted on the site are restricted those uses permitted under the C3 Commercial zoning which are intended to provide local convenience commercial services that serve only the adjacent neighbourhoods.

3.3.4 Open Space and Parks

The proposed park and open space system includes a neighbourhood park/school site, a series of linear park/pathways, several smaller parkettes, and a span of treed/natural open space areas. A detailed neighbourhood school and park plan showing school location, sports fields and other recreational facilities and amenities are shown on Appendix B.

i. Neighbourhood Park/School Site

A substantial sized neighbourhood park to be combined with the area's school site is proposed in the center of the Lancaster South neighbourhood. The site, which includes a detention pond and major recreation facilities, is 4.91 hectare (12.14 acres) in size. The school site is designated for a Catholic K-9 school building. The K-9 school designation means a school that could contain kindergarten (K) through grade 9, grades K-5 (elementary school) or grades 6-9 (middle school).

Note: Any reference to a specific school authority in this plan is only an indication of a school authority's site preference. The allocation of identified school sites will be determined by the Joint Use Committee. (Bylaw 3217/B-2021)

ii. *Linear Pathways*

A series of linear pathways and trails are proposed to run through the neighbourhood, linking to the school site, commercial site, and parkettes in the Plan area.

iii. *Parkettes*

Several parkettes are proposed in locations throughout the community in order to allow broad community access to open space areas. The parkettes and neighbourhood trail system are depicted in Figure 3.

iv. *Treed Open Space*

A series of natural treed open spaces are to be preserved within the Lancaster South area. These stretches of trees will provide wildlife and aesthetic benefits to the neighbourhood as well as provide a buffer between the neighbourhood and proposed arterial roads bordering the community. The open space treed areas primarily run along the western and southern linear boundaries of the development and will be available for passive recreation use to residents. The area encompassed is approximately 2.69 hectares (6.6 acres).

3.3.5 *Social Care Facility*

A ±0.13 ha (0.32 acre) site for the possible development of a social care residence, a day care facility or a retirement home has been allocated along the south boundary of the neighbourhood at the corner where the neighbourhood's internal collector road intersects with 22nd Street. The alternative land use for this site is R1 residential.

3.3.6 *Transportation*

A hierarchical system of roads is proposed for the Lancaster South Neighbourhood Area Structure Plan area to provide safe, appropriate, and efficient access for residents as well as others traveling throughout the neighbourhood.

i) *Arterial Roadways*

The Lancaster South area has one arterial road, 30th Avenue, which forms the west boundary of the neighbourhood. It serves as the key access point into the neighbourhood via Lancaster Drive. This central entrance/exit point onto 30th Avenue will be enhanced by retaining the surrounding tree stand and incorporation of augmented entrance features to enhance the character of the community.

ii) *Collector Roadways*

The Neighbourhood Area Structure Plan proposes 4 collector roads. The first is the southward extension of Lockwood Avenue from the existing Lancaster Meadows neighbourhood to the north. The other collectors are Lancaster Drive, connecting to 30th Avenue midway along the neighbourhood's west boundary, running in a northeast direction through to the east boundary of the neighbourhood, 22nd Street which runs along the entire south boundary of the neighbourhood and, Lindsay Avenue running between Lancaster Drive and 22nd Street in a north/south direction along the school/park site.

iii) *Local Roadways*

Local roadways running throughout the Lancaster South neighbourhood will provide access to individual lots and properties. Local roads have been designed with 15 m right-of-ways.

iv) *Laneways*

The Lancaster South neighbourhood has been designed with most of the lots backing onto a lane however, some lots with rear yards adjoining park areas, open space areas, treed areas or public utility lots will not have a lane.

v) *Bicycle and Pedestrian Paths*

Several bicycle and pedestrian paths have been identified within the Plan. These paths are illustrated in Figure 3. Particularly attractive aspects of these pathways include linkage with the

local school/park site, the commercial site, and preserved treed areas. Some trails will encompass mandatory chain link fencing as well as lighting intended to address security and public safety concerns. Lighting and chain link fencing will allow for increased visibility and illumination for evening and day use. Additional planning and implementation of these pathways is expected to take shape based on the input and opinions of future neighbourhood residents.

3.3.7 *Municipal Reserves*

The municipal reserve dedication for this Neighbourhood Area Structure Plan includes the two storm water detention ponds:

Natural treed areas	2.69	ha
School, sport fields, playgrounds & 2 detention ponds	7.81	ha
Local parkettes	<u>0.60</u>	<u>ha</u>
Total	11.10	ha (18.0%)

3.3.8 *Neighbourhood Parks and Open Space Areas*

The neighbourhood parks are expected to provide many amenities to area residents, such as various types of sport play fields, playgrounds, a multi-use pad, a hockey rink and sliding hills. Some of the recreation amenities will be located within recessed storm detention (dry) ponds.

The remainder of the neighbourhood’s open space areas comprises of the school site and preservation of large portions of the natural treed areas along the east side of 30th Avenue. Also, various public utility lots including the water reservoir site and the utility corridor between Lewis Close and Langford Crescent will be developed for community use and/or become public open space areas.

4.0 MUNICIPAL SERVICING

The proposed municipal servicing design for the Lancaster South community reflects the site's natural features and responds to the need for efficient service delivery.

4.1 Storm Sewer System

One large storm water detention pond is required to service the neighbourhood. This pond will be located in the northwest portion of the Neighbourhood Area Structure Plan area. The exact volume of the storm water detention pond will be determined during actual construction phases. As a dry detention pond it will incorporate a baseball diamond in its bottom portion. Three other smaller ponds, one on the central school and park site, and two others in the TransAlta right-of-way will serve the area. The ponds in the right-of-way will take advantage of the existing natural wetlands and preserve them in part, as is possible. Major drainage is shown on Figure 4 and overall storm servicing is shown on Figure 5.

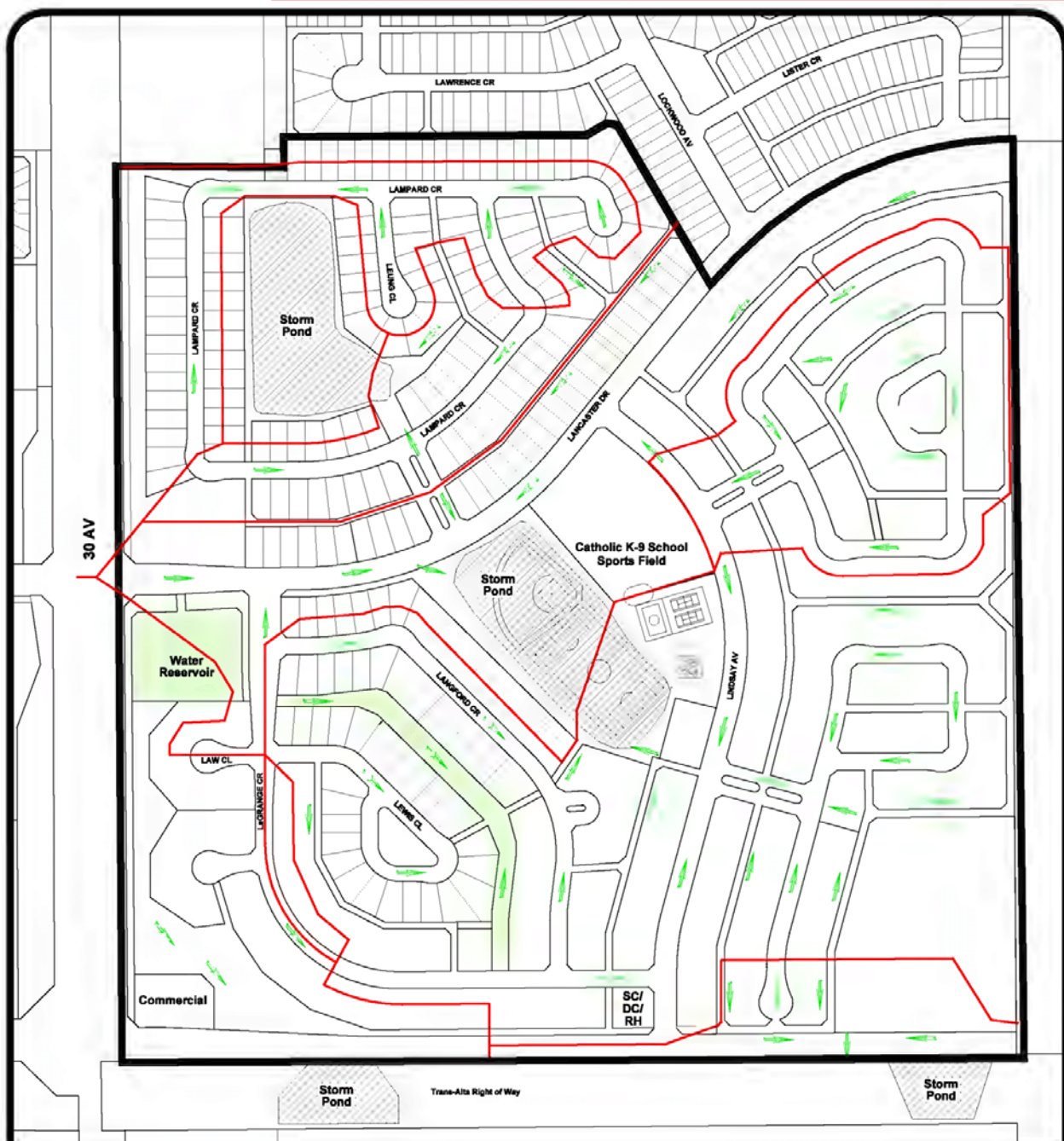
4.2 Sanitary Sewer System

The sanitary sewer system required to service this neighbourhood is shown on Figure 6.

4.3 Water Distribution System

The overall water distribution system that is required to service this neighbourhood is illustrated on Figure 7. As also shown on Figure 7, a water reservoir site is to be located in the west central area of the plan, at the intersection of 30th Avenue and Lancaster Drive. As much of the natural treed area as possible will be retained around the perimeter of the water reservoir site. The site will be appropriately landscaped to serve as a neighbourhood enhancement and entrance feature.

Note: Any reference to a specific school authority in this plan is only an indication of a school authority's site preference. The allocation of identified school sites will be determined by the Joint Use Committee. (Bylaw 3217/B-2021)



Lancaster South Neighbourhood Area Structure Plan

Figure 4 - Major Storm Drainage

MAY 2003

Scale In Metres

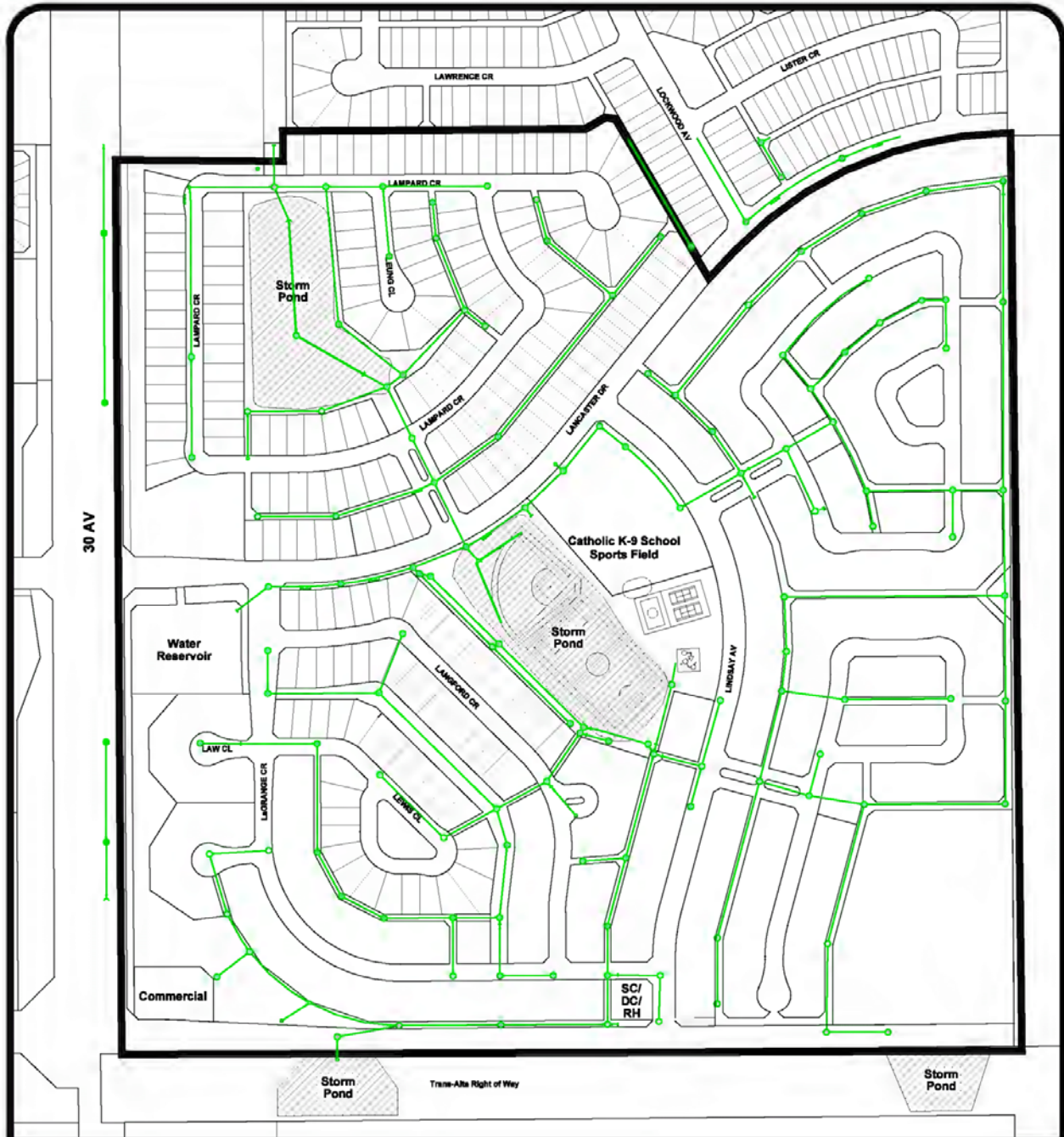
0 50 100 200m

Prepared by:
The City of Red Deer Engineering Department
and Parkland Community Planning Services

- | | | | |
|---|--------------------|---|----------------------|
|  | Study Boundary |  | Storm Detention Pond |
|  | Drainage Direction |  | Public Utility Lot |
|  | Drainage Boundary | | |







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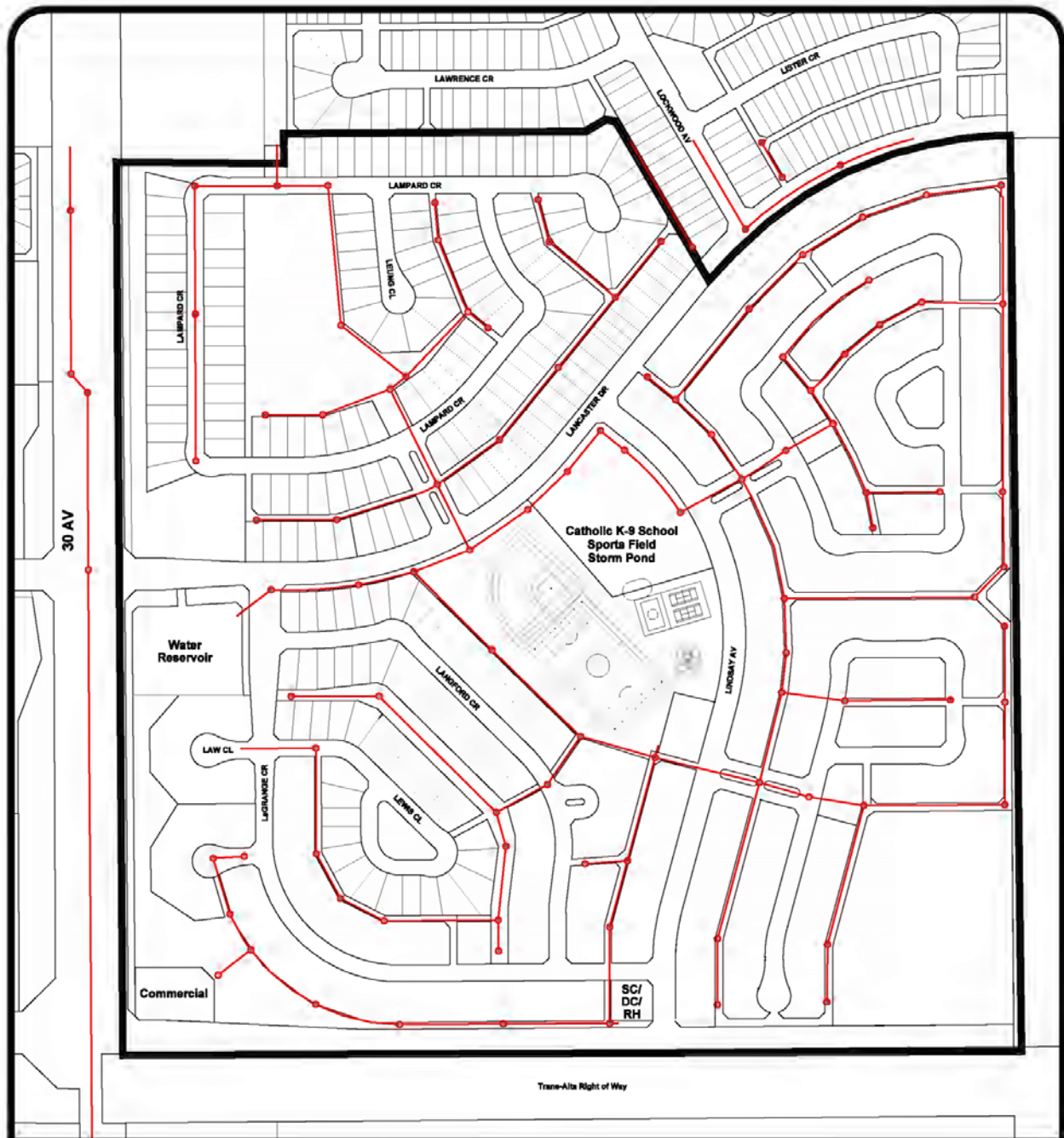
Lancaster South Neighbourhood Area Structure Plan
 Figure 5 - Overall Storm Servicing

MAY 2003
 Scale In Metres
 0 50 100 200m
 Prepared by:
 The City of Red Deer Engineering Department
 and Parkland Community Planning Services

-  Study Boundary
-  Storm Utility
-  Detention Pond
-  Public Utility Lot



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Lancaster South Neighbourhood Area Structure Plan




Figure 6 - Overall Sanitary Servicing

MAY 2003

Scale In Metres

0 50 100 200m

Prepared by:
The City of Red Deer Engineering Department
and Parkland Community Planning Services

-  Study Boundary
-  Sanitary Utility
-  Public Utility Lot



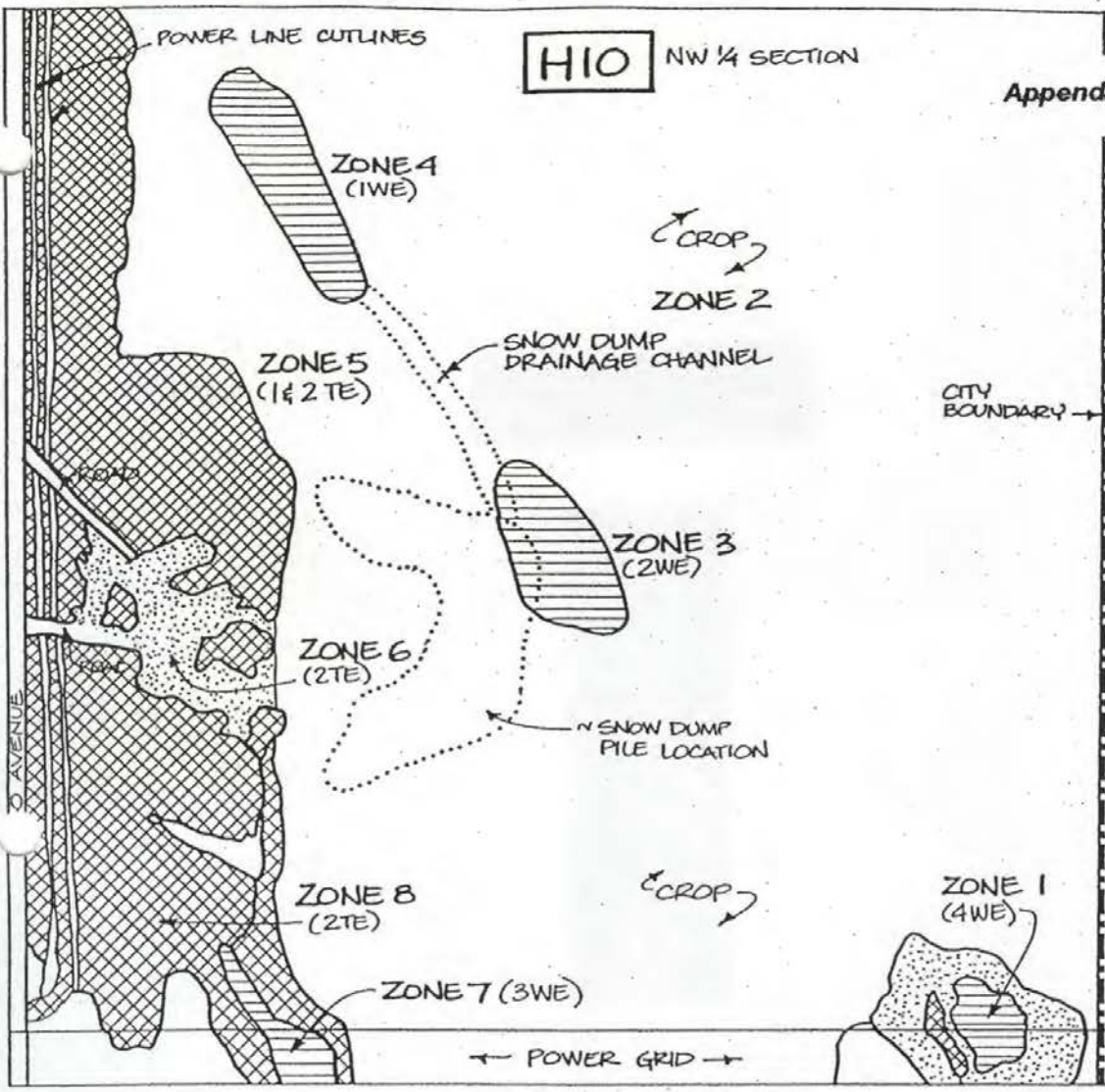
4.4 Shallow Utilities

Shallow utility providers, namely the City's Electric Light and Power Department, the telephone, cable, and natural gas companies, have been contacted regarding servicing to the Lancaster South area. There is adequate capacity to provide these services.

5.0 STAGING OF DEVELOPMENT


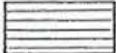

5.1 Staging

As stated previously, Figure 3 delineates the anticipated development staging for the Lancaster South area. The location of utilities dictated the order and location of each stage. Likewise, market conditions may be expected to influence the actual staging of subsequent development and, within each stage, there may be several sub-phases.



Appendix A

LEGEND

-  TREES
-  WETLAND
-  GRASS

----- CITY BOUNDARY

ZONES & HABITAT SITE NUMBER

- ZONE 1 (4WE)
- ZONE 2 (CROP)
- ZONE 3 (2WE)
- ZONE 4 (1WE)
- ZONE 5 (1&2TE)
- ZONE 6 (2TE)
- ZONE 7 (3WE)
- ZONE 8 (2TE)

ex) H10 - 2WE

GRID MAP SECTION OF LAND HABITAT SITE NUMBER MAPPING CODE
 W = WETLAND
 T = TREE
 E = ECOSPACE



LANCASTER MEADOWS
NATURAL (ECOSPACE) AREA

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