

# NEIGHBOURHOOD AREA STRUCTURE PLAN

## ASPEN RIDGE (ANDERS SOUTHEAST)

NE 1/4 Section 3, Township 38  
Range 27, West of 4

Originally approved as an Outline Plan by City Council  
**July 27, 1998**

Converted to a Neighbourhood Area Structure Plan by City Council  
(Bylaw 3217/98)  
**December 7, 1998**

Neighbourhood Area Structure Plan amended by City Council  
(Bylaw 3217/A-99)  
**August 3, 1999**

Neighbourhood Area Structure Plan amended by City Council  
(Bylaw 3217/D-2000)  
**July 17, 2000**

Neighbourhood Area Structure Plan amended by City Council  
(Bylaw 3217/D-2003)  
**May 22, 2001**

Neighbourhood Area Structure Plan amended by City Council  
(Bylaw 3217/D-2003)  
**April 22, 2003**

Neighbourhood Area Structure Plan amended by City Council  
(Bylaw 3217/J-2003)  
**August 11, 2003**

Neighbourhood Area Structure Plan amended by City Council  
(Bylaw 3217/D-2016)  
**August 15, 2016**

Neighbourhood Area Structure Plan amended by City Council  
(Bylaw 3217/B-2021)  
**March 1, 2021**

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Prepared by:

Interplan Strategies Inc.

Al-Terra Engineering Ltd.

Revised August 17, 2016

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## APPENDICES

## 1.0 INTRODUCTION AND PURPOSE

The subject site, Aspen Ridge, is located in southeast quadrant of the City at the intersection of 30<sup>th</sup> Avenue and 22nd Street (See Figure 1). To the north is the Anders East Outline Plan Area which is presently under development. To the west is the proposed Anders on the Lake Outline Plan area. To the east is the future 30<sup>th</sup> Avenue arterial road right of way and to the south the future 22nd Street undivided arterial road right of way.

The site is situated within the East Hill Area Structure Plan adopted by Council on April 20, 1998. The site, containing 160 acres (64.9 ha) more or less, is legally described as the NE ¼ Section 3, Township 38, Range 27, West of the 4<sup>th</sup> Meridian.

Al-Terra Engineering is hereby submitting, on behalf of Melcor Developments Ltd., an application for Neighbourhood Area Structure Plan approval for primarily residential and associated land uses. The plan submitted acknowledges the known edge conditions on all four sides of the site.

The following sections of this report discuss policy framework, site characteristics, proposed land uses, development densities, municipal reserve, and open space requirements, transportation considerations, proposed site servicing and development phasing.

## 2.0 POLICY FRAMEWORK

On April 20, 1998 City of Red Deer Council adopted the revised East Hill Area Structure Plan (Bylaw 3207/98). The Area Structure Plan allows for the primary use of land for residential purposes.

Other land uses indicated in the Area Structure Plan include a public elementary/middle school site in conjunction with a neighbourhood centre, a commercial site, a seniors retirement lodge, and a fire hall site along 22nd Street. The road network shows both 30<sup>th</sup> Avenue on the east and 22nd Street on the south as arterial roads. The network also shows a collector street loop through the site connecting from Anders East on the north to the future Anders on the Lake to the west. Collector links to 30<sup>th</sup> Avenue and the future 22nd Street are also shown. The City of Red Deer has established the precise location for the intersection of the collector link with 30<sup>th</sup> Avenue.

**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)**

The East Hill Area Structure Plan is implemented by Outline Plans for each quarter section.

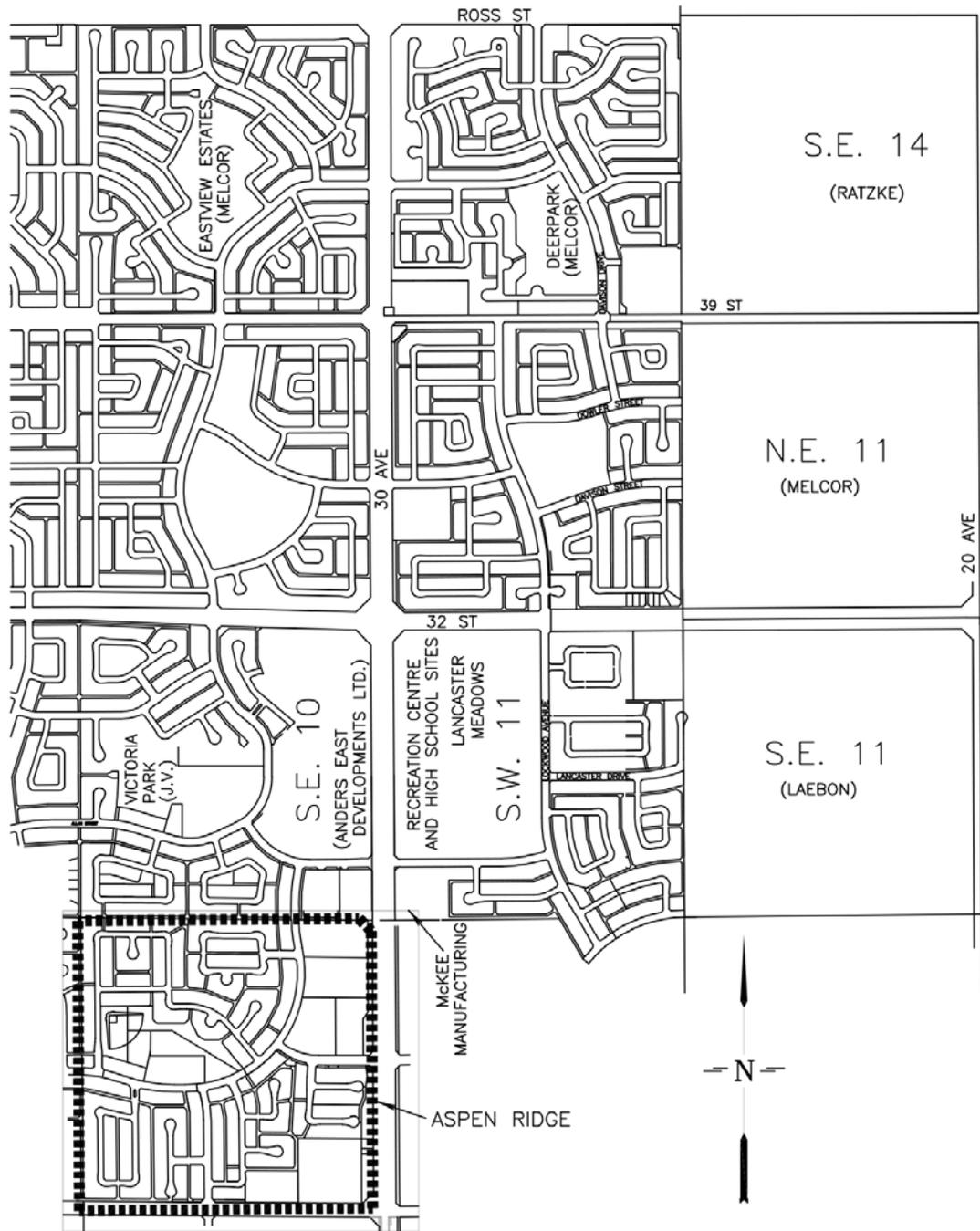
Other City documents such as the Planning and Subdivision Guidelines, the Community Services Master Plan, Ecological Profiles and the Land Use Bylaw govern the more detailed elements of the planning process.

## 3.0 SITE CHARACTERISTICS

### 3.1 Legal Description and Ownership

The subject site is legally described as the NE ¼ Section 3, Township 38, Range 27 West of the 4<sup>th</sup> Meridian. The quarter section is comprised of two titles:

# ASPEN RIDGE NEIGHBOURHOOD AREA STRUCTURE PLAN



**FIGURE 1**  
**LOCATION**

SCALE 1:15000  
REVISED: AUG 17/16

CONCEPT BY:  
INTERPLAN STRATEGIES INC.

PREPARED BY: **AL-TERRA**  
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- A twenty-one acre parcel in the northeast corner, which was previously owned by five individuals, each with an undivided 1/5 interest. Melcor Developments Ltd. purchased this land parcel.
- The balance of the quarter section is owned by Melcor Developments Ltd.

The appropriate titles are included in Appendix 1.

### 3.2 Site Area

The site area is as follows:

Total Site	160.31 Ac (64.88 Ha)
Less – Major Road Widening	<u>(11.43 Ac) (4.63 Ha)</u>
Developable Area	148.88 Ac (60.25 Ha)

### 3.3 Existing Land Use

The subject site is presently under cultivation. There are two existing residences on the site. One is on the 21-acre parcel in the north east corner, the other is located further to the south.

The entire quarter section is presently designated A-1 Future Urban Development District by The City of Red Deer Land Use Bylaw No. 3156/96. The general purpose of this District is

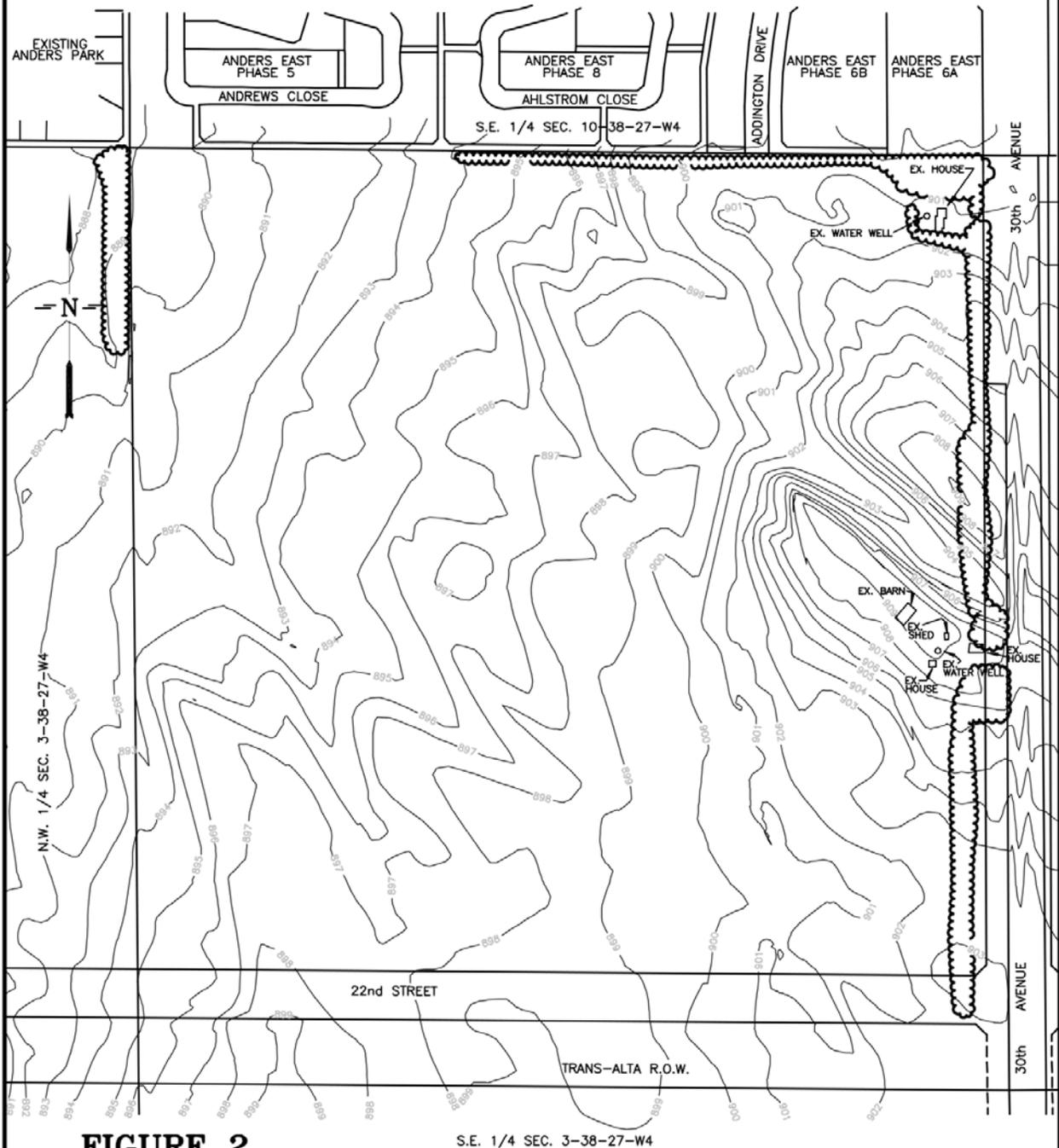
“to ensure that development on lands required for future urban development is restricted to ensure that future development may proceed in an orderly and well planned fashion, in keeping with the intent of the General Municipal Plan.”

A re-designation to appropriate urban land use districts is therefore required before any urban development can occur.

### 3.4 Land Form

The site generally slopes from east to northwest from an elevation of approximately 909.5m on the eastern edge to an elevation of 889.5m in the northwest corner (see Figure 2). A fairly prominent ridge is located in the east central portion of the site. There is also a significant row of trees along the eastern boundary of the site extending from section line at the north to the future 22nd Street right of way at the south. The recently completed Ecological Profile for the area identified the trees as a northwest poplar and caragana windbreak. Recommendation R5-a of the Profile states that all of the large poplar trees along the west side of 30<sup>th</sup> Avenue should be maintained.

# ASPEN RIDGE NEIGHBOURHOOD AREA STRUCTURE PLAN



**FIGURE 2  
SITE FEATURES**

S.E. 1/4 SEC. 3-38-27-W4

LEGEND:

-  ORIGINAL GROUND CONTOURS
-  ORIGINAL TREELINE

SCALE 1:5000

REVISED APR 10/01

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The Profile also identifies a natural poplar windbreak along the north and west boundaries of the site. While recommendation R6-b recommends that the present natural stand of trees in the northeast corner be preserved, recommendation R6-a acknowledges that preservation of the windbreak trees along the west and north boundary is not possible due to servicing and development requirements.

Recommendation R7 also suggests that an attempt should be made to incorporate the landscaping and present trees around the existing two residences in a comprehensive housing development.

### **3.5 Access**

Access to the site is presently available from 30<sup>th</sup> Avenue, and from the north/south collector stub from Avery Street. An ultimate access location to 30<sup>th</sup> Avenue has been established at approximately the midpoint along 30<sup>th</sup> Avenue.

### **3.6 Servicing**

The site can be full-serviced with sewer, water and storm water utilities (assuming storm water management techniques are implemented) and shallow utilities from existing utilities immediately adjacent.

### **3.7 Environmental Considerations**

A Phase 1 Environmental Site Assessment has been completed.

### **3.8 Existing Power Line**

There is an existing TransAlta overhead power line right of way situated immediately to the south of subject parcel. This power line will remain in its present location.

### **3.9 Road Widening**

A road widening of 20 metres is required along the eastern boundary of the subject site south of the 21-acre parcel (the 20m widening has already been provided adjacent the 21 acre parcel). This widening is required to provide the necessary right of way for the future arterial street.

A 37.5 metre right of way is required along the southern boundary of the site, adjacent to and north of the TransAlta right of way. The right of way is required for the future 22nd Street arterial. A reduction in right of way width from the typical 60 metres to 37.5 metres is possible because of the relationship to the power right of way, which can serve as the southerly buffer/berm.

## **4.0 DEVELOPMENT PROPOSAL**

Based on the developer's intent, City policies, and site characteristics, a Neighbourhood Area Structure Plan has been prepared for Aspen Ridge. The components of the Neighbourhood Area Structure Plan are development concept, density and population, open space, transportation, servicing and phasing.

### **4.1 Development Concept**

The intent of the design of overall Aspen Ridge area is to provide a comprehensively planned residential community with an emphasis on integrating land uses, preserving existing trees and at the same time capitalizing on the potential of a good transportation infrastructure.

The Aspen Ridge Neighbourhood Area Structure Plan incorporates the policies contained in the East Hill Area Structure Plan and other City of Red Deer guideline and policy documents. The Plan, based to a large extent on the client's concept, is intended to provide the opportunity for a variety of residential product types. This is an especially important factor when considering the dynamics of the present day market.

The proposed Neighbourhood Area Structure Plan is contained in Figure 3.

### **4.2 Neighbourhood Structure**

The plan places a possible emergency services/community facility and other public facilities such as the social care site near a future main entrance to the community. These neighbourhood amenities and the central neighbourhood park are intended to create the focus of the community and are therefore strategically located in terms of both vehicular and pedestrian networks.

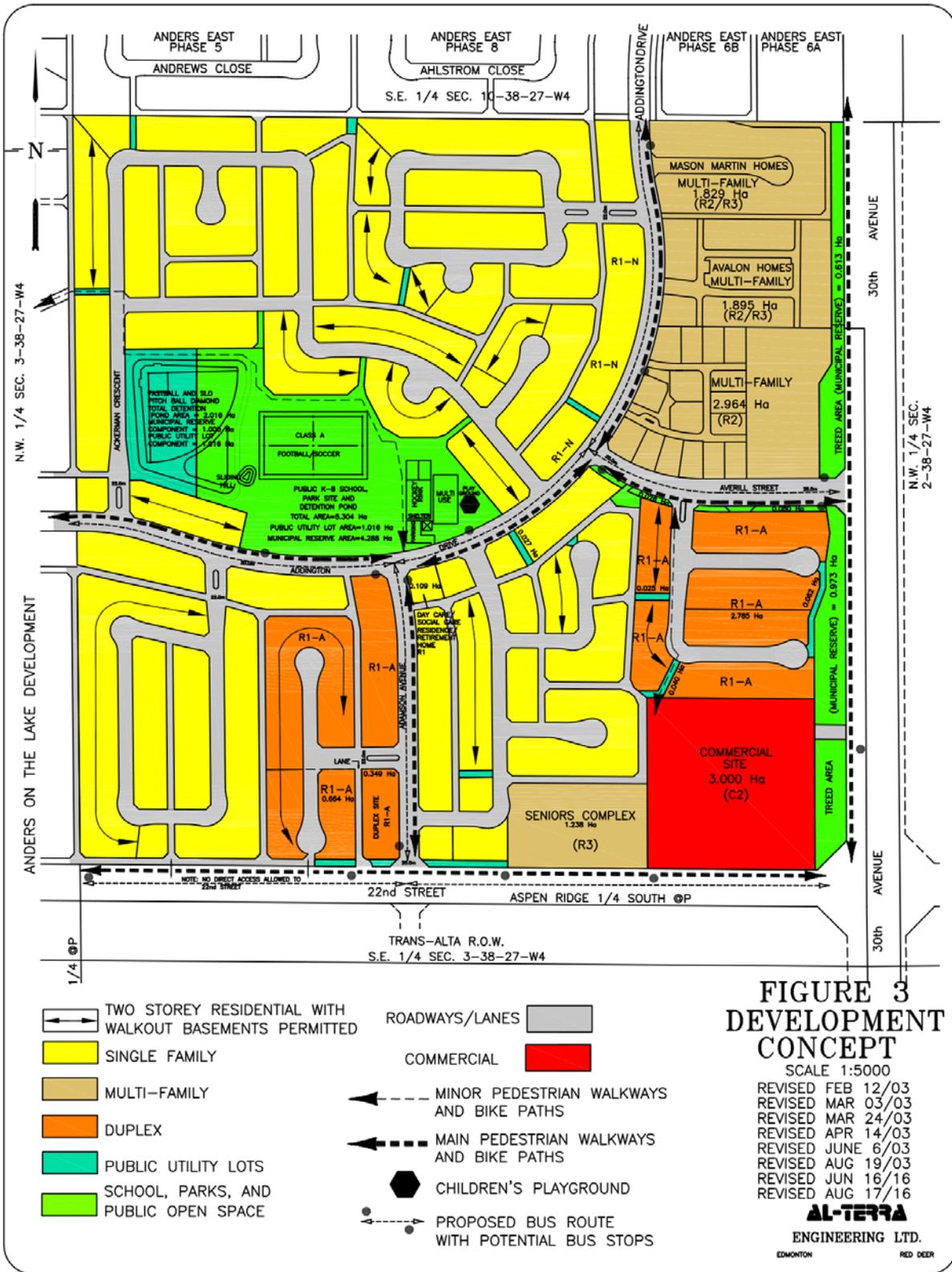
Allowance is made in the plan for higher density housing in the northeast portion of the plan area adjacent to the amenity provided by the tree stand that is incorporated into the plan. It is anticipated that this residential cluster will be targeted toward the mature adult segment of the market with the intent to preserve most of the significant trees in the housing development.

A portion of the south east corner of the plan is set aside for commercial development at the intersection of 30<sup>th</sup> Avenue and the future 22<sup>nd</sup> Street. To the west of this commercial site, a possible seniors' retirement lodge has been proposed.

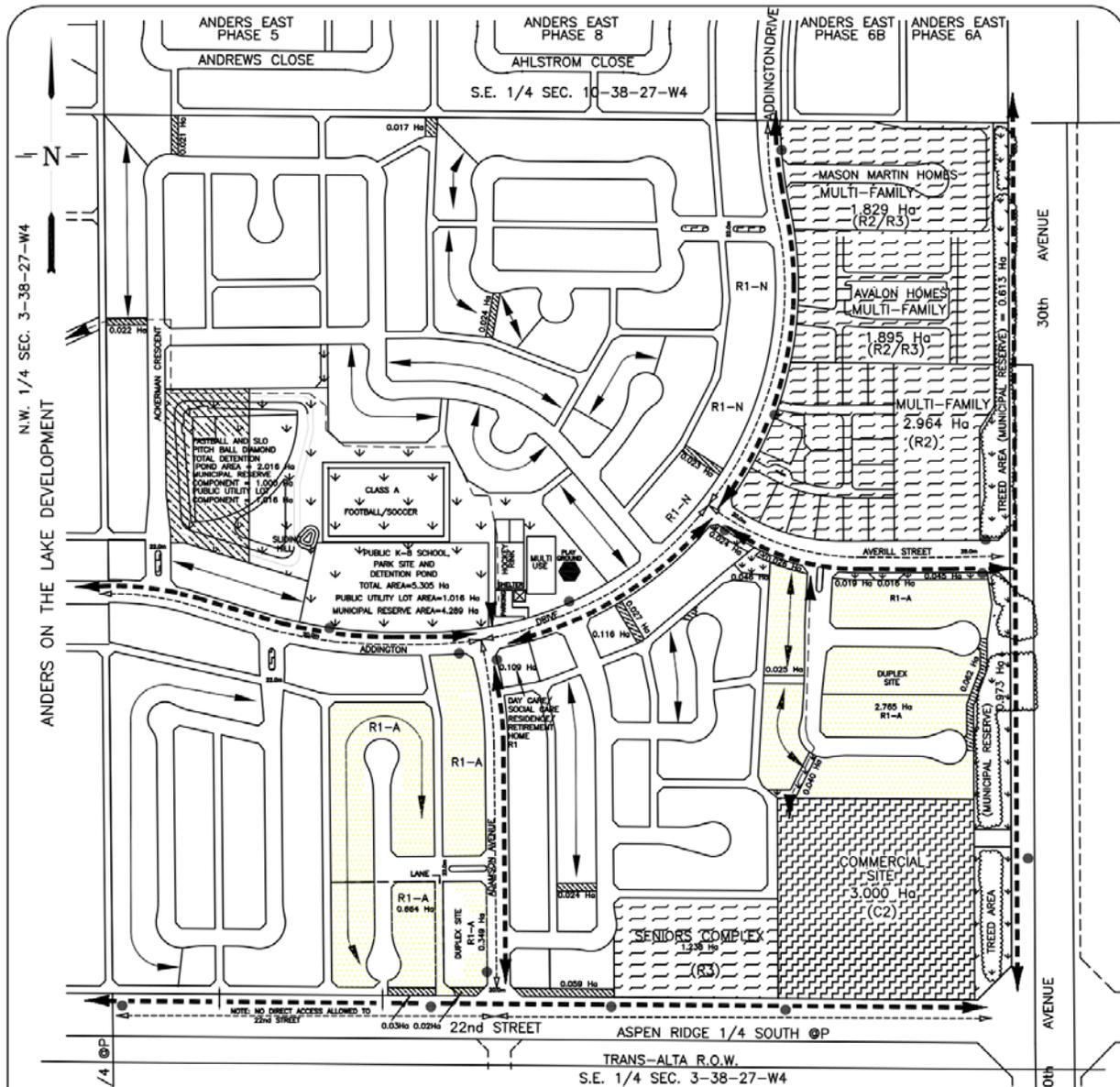
Single family detached houses and possibly some semi-detached housing will be distributed throughout the remainder of the community. Although the vast majority of these units will be provided with rear lanes, a small percentage that back onto open space such as parks, storm retention facilities and the treed area will be laneless. As indicated in Figure 3, a portion of the lots is intended to accommodate 2-storey residences with walkout basement.

The lot size, which will be determined at the subdivision stage, is intended to vary in width, thus encouraging a variety of residential building product.

In 2016, the developer determined that an emergency services/community facility was not warranted near the main entrance of the community. Therefore, the alternate zoning of R1A and the development of duplex housing will be pursued (Bylaw 3217/D-2016).



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)



- LEGEND:**
- TWO STOREY RESIDENTIAL WITH WALKOUT BASEMENTS PERMITTED
  - SINGLE FAMILY
  - MULTI-FAMILY
  - DUPLEX
  - COMMERCIAL
  - PUBLIC UTILITY LOTS
  - SCHOOL, PARKS, AND PUBLIC OPEN SPACE
  - MINOR PEDESTRIAN WALKWAYS AND BIKE PATHS
  - MAIN PEDESTRIAN WALKWAYS AND BIKE PATHS
  - CHILDREN'S PLAYGROUND
  - PROPOSED BUS ROUTE WITH POTENTIAL BUS STOPS

TOTAL AREA OF ORIGINAL 1/4 SECTION	64.876 Ha	160.31 Ac	
22nd STREET AND 30th AVENUE WIDENING	4.627 Ha	11.43 Ac	
COMMERCIAL (C2)	3.000 Ha	7.41 Ac	
REMAINING DEVELOPABLE AREA	57.249 Ha	141.47 Ac	100%
SINGLE FAMILY- DETACHED (R1)	22.334 Ha	55.19 Ac	39.0%
SINGLE FAMILY- NARROW (R1-N)	1.086 Ha	2.68 Ac	1.9%
DUPLEX LOTS (R1-A)	5.563 Ha	13.75 Ac	9.7%
MULTIPLE FAMILY (R2/R3)	3.724 Ha	9.20 Ac	6.5%
MULTIPLE FAMILY (R2)	2.964 Ha	7.32 Ac	5.2%
SENIORS COMPLEX (R3)	1.238 Ha	3.06 Ac	2.1%
DAY CARE/ SOCIAL CARE RESIDENCE/ RETIREMENT HOME (R1)	0.109 Ha	0.27 Ac	0.2%
PUBLIC K-8 SCHOOL, PARK AND WALKWAYS (PS)	4.505 Ha	11.13 Ac	7.8%
TREED AREA ALONG 30th AVENUE (P1)	1.586 Ha	3.92 Ac	2.8%
STORM DETENTION POND (PS)	1.016 Ha	2.51 Ac	1.8%
PUBLIC UTILITY LOTS (PS)	0.359 Ha	0.89 Ac	0.8%
ROADS	12.771 Ha	31.56 Ac	22.3%
COLLECTOR	3.211 Ha	7.94 Ac	
RESIDENTIAL	6.698 Ha	16.55 Ac	
LANES	2.862 Ha	7.07 Ac	

## FIGURE 3 DEVELOPMENT CONCEPT

SCALE 1:5000  
 REVISED: AUG 19/03  
 REVISED: APR 14/03  
 REVISED: JUN 6/03  
 REVISED: JUN 15/16  
 REVISED: AUG 17/16

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### 4.3 Land Use Distribution

Aspen Ridge is a comprehensively planned residential community consisting of residential and ancillary land uses. Table 1 below outlines the land use distribution.

**Table 1 - Neighbourhood Area Structure Plan Statistics**

Land Use	Acres	Hectares	Percentage
Single Family Detached (R1)	55.19	22.334	39.0%
Single Family Detached - Narrow (R1-N)	2.68	1.086	1.9%
Duplex Lots (R1-A)	12.88	5.211	9.1%
Residential – Multi-family (R2/R3)	9.20	3.724	6.5%
Residential – Multi-family (R2)	7.32	2.964	5.2%
Day Care/Social Care Residence/Retirement Home (R1)	0.27	0.109	0.2%
Seniors Retirement Lodge (R3)	3.06	1.238	2.1%
Emergency Services/ Community Facility/ Duplex Site (PS/R1-A)	1.10	0.444	0.8%
School Site, Park & Walkways (PS)	11.13	4.505	7.8%
Storm Detention Ponds (PS)	2.51	1.016	1.8%
Treed along 30th Avenue (P1)	3.92	1.586	2.8%
Public Utility Lots (PS)	0.85	0.343	0.6%
Streets and Lanes	31.36	12.689	22.2%
TOTAL DEVELOPABLE AREA	141.47	57.249	100.0%

Table 1 illustrates that 64.8 per cent of the Neighbourhood Area Structure Plan Area is for residential uses, 13.0 per cent for treed areas and open space including a storm detention pond, 22.2 per cent is dedicated for streets and lanes.

### 4.4 Residential

The low density residential areas are proposed for predominately R1 single detached dwellings, a portion R1-A which may accommodate semi detached dwellings as well as detached dwellings, and a small number of R1-N single detached dwellings.

The residential (R2 and R2/R3) medium density area in the northeast portion of the Neighbourhood Area Structure Plan is proposed for a mix of product type. The R2 dwellings consist of 99 units in an apartment style seniors community. The R2/R3 units consist of 64 fourplex units and 116 typical condominium units. The R3 seniors retirement lodge will consist of 155 units. See Section 4.9 for further details on the seniors retirement lodge.

The resulting estimated density calculation is summarized in Table 2 in terms of units per hectare, as follows:

**Table 2 - Estimated Density**

Land Use	Number of Dwelling Units	Hectares	Total Units/Hectare
Single Family - R1	362	22.443	16.13
Single Family - R1-N	25	1.086	23.02
Duplex - R1-A	156	5.211	29.94
Multi Family - R2/R3	180	3.724	48.34
Multi Family - R2	99	2.964	33.40
Multi Family - R3	155	1.238	125.20
Other Land Uses – Minus Commercial & Including Emergency Services Site**	-	20.583	-
Totals	977	57.249	17.07

\*\* The Emergency Services site has been redistricted for duplex housing (Bylaw 3217/D-2016 and Bylaw 3357/O-2016).

Density: 977 units ÷ 57.249Ha = 17.07 units per developable hectare

This density is within the allowable limit of 17.3 units per developable hectare.

As illustrated in Table 2, the Neighbourhood Area Structure Plan, depending upon the actual lot size and land use, is anticipated to accommodate approximately 977 dwelling units. Given this estimated unit count, the overall density for the Area Structure Plan Area is approximately 17.07 units per developable hectare or 6.91 units per gross acre, with the commercial site area removed from the gross areas.

#### 4.5 Open Space

The key components of the Open Space provisions in the Neighbourhood Area Structure Plan are discussed below, followed by a statement of municipal reserve calculations.

- Components

The components of the proposed Aspen Ridge open space, which are cited below, include a neighbourhood school and park centre, east side linear park, and a dry storm retention facility.

a) Neighbourhood School and Park Facility

A 10.6 acre (4.29 ha) central neighbourhood school and park site is provided in the location indicated in the East Hills Area Structure Plan.

b) Linear Park

A 3.92 acre (1.59 ha) north south linear park, ranging from 13 to 30 metres in width, is proposed along the eastern edge of the quarter. The primary purpose for this park is to retain the existing tree stand.

A small 20 foot (6m) wide municipal reserve strip connects to the major linear park. In addition to providing this connection, this strip will serve to separate the rear of the residential lots and the collector roadway.

c) Storm Detention Facility

A storm detention facility is proposed to be part of the overall central park site. The total detention pond area is 4.99 acres (2.02 Hectares) of which 2.47 acres (1 Hectare) is municipal reserve.

- Municipal Reserve

In order to realize the open space network illustrated in the Plan, there will be a municipal reserve dedication of 15.05 acres (6.09 ha) which is 10.11 per cent of the developable area. This dedicated municipal reserve is comprised of the following elements:

	Acres (+/-)	Ha (+/-)
• Neighbourhood school and park	10.60	4.29
• Local Parks	0.53	0.22
• Linear Park (treed area)	3.92	1.59

#### 4.6 Public Facilities

The Plan provides for a possible emergency services/community facility site and a social care site.

In 2016, the developer determined that an emergency services/community facility was not warranted. Therefore, the alternate zoning of R1A and the development of duplex housing will be pursued (Bylaw 3217/D-2016 and Bylaw 3357/O-2016).

#### 4.7 Environmental Considerations

As indicated in Section 3.4 of this report and illustrated in Figure 2, the Ecological Profile Report for southeast Red Deer identifies the larger poplar trees along 30<sup>th</sup> Avenue and in the northeast corner as a Priority “A” for preservation. Most of the trees are included in the proposed municipal reserve strip. The remainder, where possible, will be incorporated in the development of the site. In addition, Recommendation R5-b of the Ecological Profile indicates that a 2.5 metre walking/biking trail be established along the west side of 30<sup>th</sup> Avenue. The Plan endeavours to accommodate these recommendations.

#### 4.8 Commercial Site

The south east corner of the plan, as previously mentioned, shows a 7.41 acre (3.0 Ha) area set aside for commercial development (to be classified as C2). This area is a proposed location for a District Shopping Centre serving the surrounding community, and will be a major asset to the Aspen Ridge Plan. It will offer a close and convenient opportunity for residents in the area to do their grocery shopping. The proposed accesses for this development are full left-turn, right-turn from 22<sup>nd</sup> Street and a right-in, right-out entry from 30<sup>th</sup> Avenue (the City of Red Deer’s Recreation, Parks and Culture Department has approved minimal tree removal for this purpose, providing that they are onsite during any tree removal. Adjacent natural vegetation will be preserved. The vegetation that is removed will be compensated by additional landscaping within the Commercial Site). With these entry points from the arterial roads, the traffic generated by the commercial development will have a minimum

amount of impact on the residential areas. As well, the major walkway routes coupled with a short walk connection will allow pedestrian access to the shopping centre from within the neighbourhood.

#### **4.9 Seniors Retirement Lodge**

Located directly west of the commercial site is a proposed seniors retirement lodge. This 3.06 acre (1.24 Ha) parcel of land would accommodate a 155-unit complex designed for seniors averaging 83 years of age who enjoy a high level of independence, but who may also require a basic level of care. The site would feature amenities such as a beauty salon/barber shop, in-house pharmacy, banking services, and 24-hour security and emergency services. Although these facilities are restricted to resident use, other amenities such as common areas on each floor, a games room, private dining room and a private cocktail lounge are available for residents to entertain guests.

Water and sewage use from the retirement lodge is approximately 60% of apartment usage due to common meals and lower density per unit. Traffic generated from this site will also be less than that of a comparable apartment complex as it is anticipated that only 20% of people in this demographic will have a vehicle. Also, the Lodge would offer a free downtown shuttle bus and conveniently scheduled transportation service, reducing the number of trips generated per day.

### **5.0 TRANSPORTATION**

#### **5.1 Traffic Circulation Pattern**

The traffic circulation pattern proposed in the Neighbourhood Area Structure Plan conforms to the East Hill Area Structure Plan. There will be one arterial roadway and one major collector roadway adjacent to the quarter section:

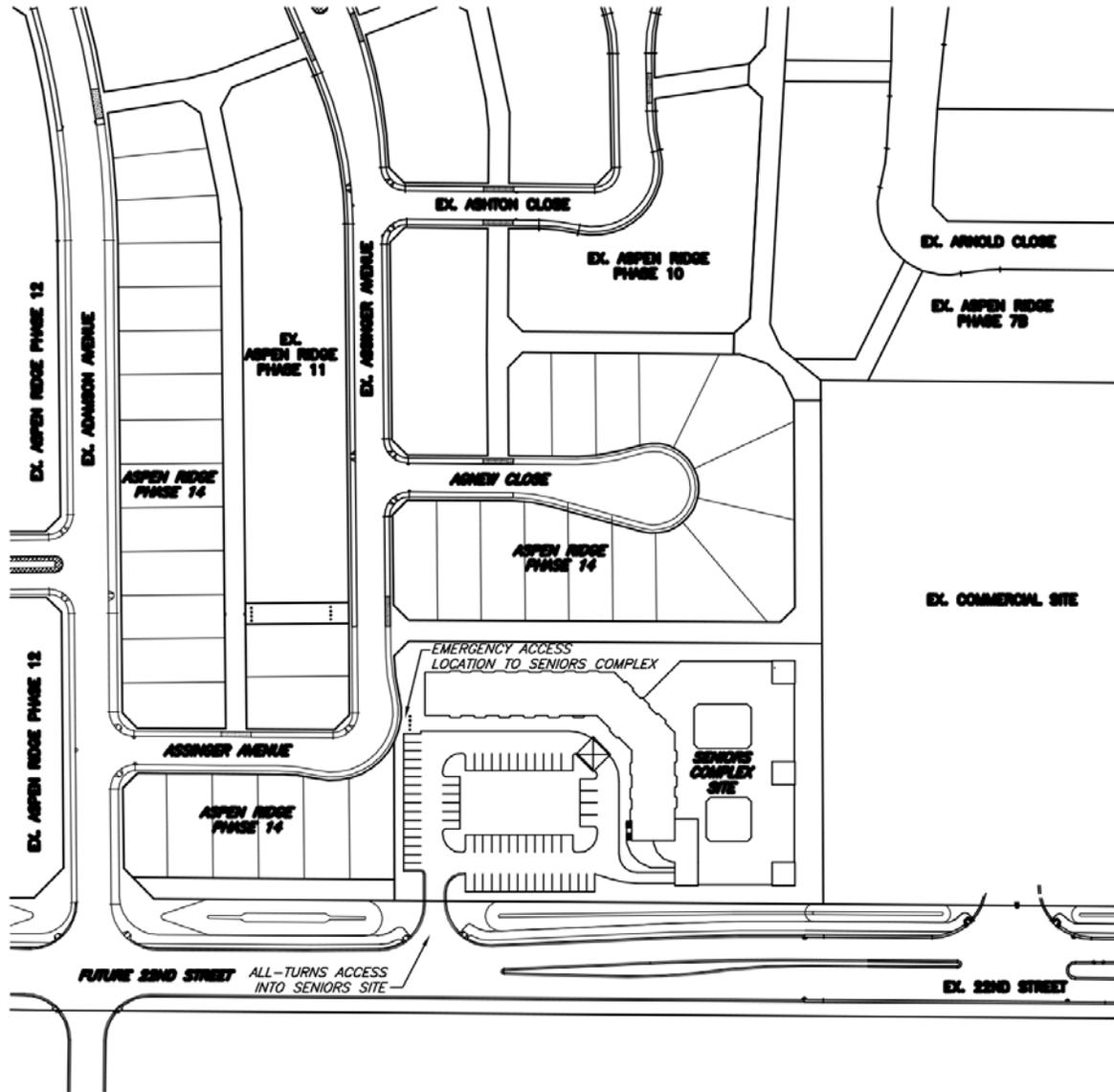
- 30<sup>th</sup> Avenue, along the east boundary of the quarter section will be an arterial roadway
- 22<sup>nd</sup> Street, along the south boundary of the quarter section will be a major collector roadway

Funds for construction of both roadways will come from the City of Red Deer off site levy fund.

Figure 3 illustrates the proposed roadway pattern for the subject quarter section. As illustrated, a looped collector road, Addington Drive, will extend from the Anders East quarter section, through the subject lands, and into the Anders on the Lake quarter section, which is located directly west of the subject quarter section. Collector roads will connect Addington Drive to 30<sup>th</sup> Avenue and Addington Drive to 22<sup>nd</sup> Street. Primary access to the seniors retirement lodge will be restricted to an all-turns access on 22<sup>nd</sup> Street. Emergency access to this site will be from the local road at the west boundary of this site. Figure 4 illustrates the proposed roadway pattern for this seniors parcel.

30<sup>th</sup> Avenue currently exists as a four lane divided arterial cross section, to just past the mid point of Aspen Ridge quarter section, at Averill Street, tapering to a paved two lane rural cross section at the future 22<sup>nd</sup> Street intersection. 22<sup>nd</sup> Street is currently just a cultivated area.

# ASPEN RIDGE NEIGHBOURHOOD AREA STRUCTURE PLAN



**FIGURE 4**  
**22ND STREET ACCESS DETAIL**

SCALE 1:2000

REVISED: JUNE 6, 2003

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Access to the subject lands for the first few phases of development will come from the Addington Drive collector road, located within Anders East, and from 30<sup>th</sup> Avenue. The primary access for the district shopping centre will come from 22<sup>nd</sup> Street.

For the P-loops, and long cul-de-sacs, accesses with medians are proposed to provide a divided access, in case of emergencies, where one side of the access is blocked by an obstruction.

## 5.2 Pedestrian Circulation Patterns

Figure 3 illustrates a continuous integrated pedestrian system throughout the quarter section, and along 30<sup>th</sup> Avenue and 22<sup>nd</sup> Street. Figure 5 illustrates the cross sectional details for the collector roadways. As illustrated on Figures 3 & 5:

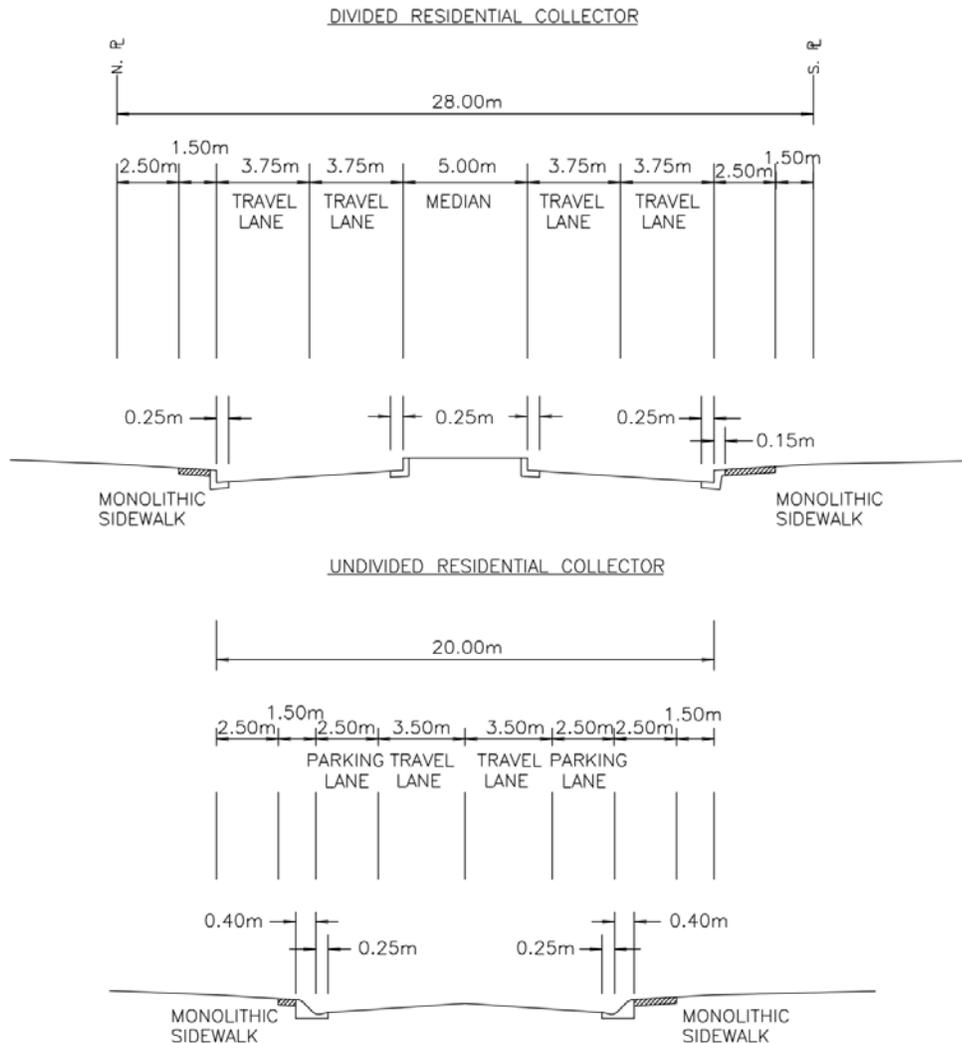
- A 2.5 metre wide monolithic sidewalk will be installed along the east and south side of Addington Drive to where Addington Drive intersects with Adamson Avenue, going south to 22<sup>nd</sup> Street. A 1.5 metre monolithic sidewalk will be installed along the west and north side of Addington Drive.
- A 2.5 metre wide monolithic sidewalk will be installed along the south side of Averill Street, extending from Addington Drive to 30<sup>th</sup> Avenue. A 1.5 metre monolithic sidewalk would be installed on the north side of this collector road.
- A 2.5 metre wide monolithic sidewalk will be installed along the east side of Adamson Avenue, extending from Addington Drive to 22<sup>nd</sup> Street.
- A 2.5 metre wide monolithic sidewalk will be installed along the north side of Addington Drive, from Adamson Avenue, to the west limit of the Aspen Ridge quarter section, to tie into the integrated pedestrian system for the Anders on the Lake quarter section.
- As part of the arterial road construction for 30<sup>th</sup> Avenue, the pedestrian linkage will be continued along the west side of 30<sup>th</sup> Avenue. As part of the major collector road construction for 22<sup>nd</sup> Street, a 2.5m wide asphalt or concrete pedestrian linkage will be installed along the north side of 22<sup>nd</sup> Street. The proposed locations are illustrated on Figure 3.

Two minor pedestrian linkages are illustrated on Figure 3. The first provides pedestrian linkage through the central park site, from Addington Drive to Ackerman Crescent. This pathway extends north along Ackerman Crescent to tie into the Anders on the Lake trail system. The second provides a connection from Averill Street to the commercial site.

The pedestrian linkage system illustrated on the Neighbourhood Area Structure Plan connects key neighbourhood elements and will enable residents to walk, run or ride bicycles through the community on a system of paths in open spaces or on sidewalks that are adjacent to roadways.

The pedestrian movement patterns are designed for both internal and external flows.

# ASPEN RIDGE OUTLINE PLAN



**NOTE:** THE 2.5m MONOLITHIC SIDEWALK WILL BE LOCATED ALONG THE EAST AND NORTH SIDES OF ADDINGTON DRIVE, ALONG THE SOUTH SIDE OF THE COLLECTOR ROAD TO 30th AVENUE, AND ALONG THE EAST SIDE OF THE COLLECTOR ROAD TO 22nd STREET.

**FIGURE 5  
DIVIDED AND UNDIVIDED RESIDENTIAL  
COLLECTOR ROADWAY DETAIL**

REVISED: JUNE 6/2003  
REVISED: SEPT 27/2002  
REVISED: MAR 13/2001

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## 6.0 MUNICIPAL SERVICING

Most of the municipal services required to service this quarter section are existing. The exception is the storm trunk system. The remaining services are a direct extension of services located along the north boundary of the quarter section.

### 6.1 Storm Sewer System

The existing storm trunk system, which is routed through the Anders East quarter section, has capacity for 17.0 hectares of the subject quarter section. The remaining storm drainage, from the remainder of the quarter section, and the adjacent arterial roadways, must be routed to the storm detention pond located north of Addington Drive, toward the west side of the quarter section. The storm detention pond is combined with the neighbourhood school and park. From this storm detention pond, the allowable discharge will be routed westward, through storm sewer mains, ultimately to Piper Creek. The allowable discharge is as follows:

- 0.0013 cu.m/sec/ha for the 1 in 5 year storm
- 0.0036 cu.m/sec/ha for the 1 in 100 year storm event.

Approximately 46 hectares of land will drain into this storm detention pond. The pond must be sized to accommodate the runoff from a one in 100 year storm. The storage volume required in the detention pond, to accommodate this runoff, is approximately 27,000 cubic metres.

#### 6.1.1 Minor Drainage System

Figure 6 illustrates the conceptual layout for the storm sewer system. Runoff for storms up to a one in five year event will be handled via a gravity, piped system. Even for the one in five year storm event, some storm water storage is required in the Anders East storm detention pond, or in the detention pond located within the Aspen Ridge quarter section.

Consideration will be given to providing a weeping tile drainage system for all lots. The storm system design will be completed in accordance with the City of Red Deer Design Guidelines.

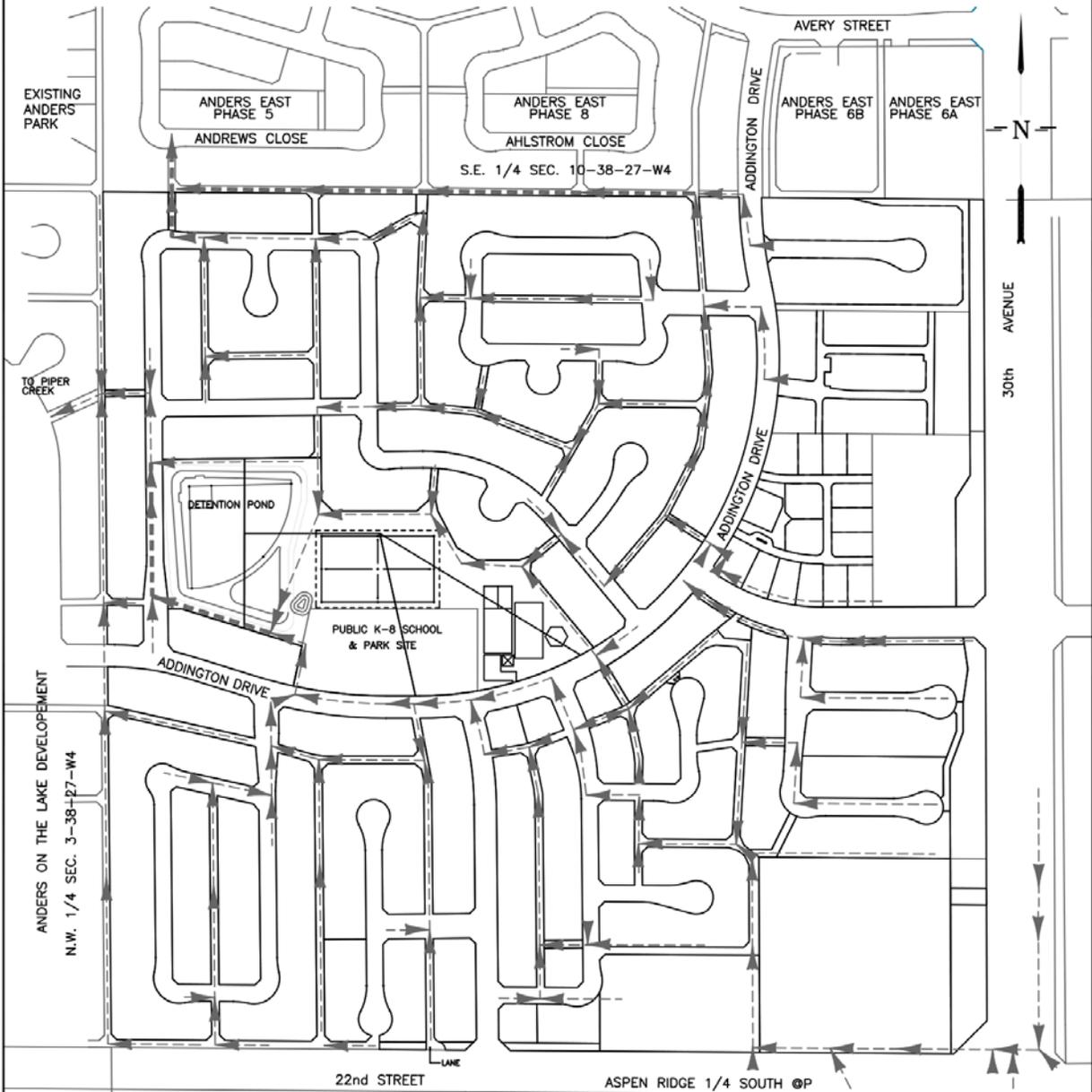
#### 6.1.2 Major Overland Drainage System

The major overland drainage will exist regardless of whether or not it is designed for. When there is too much storm runoff for the piped system to handle, the runoff will flow overland along the easiest path available. This will occur when the storm is greater than a one in five year event.

To accommodate this situation, roads and lanes will be designed to route the overland flow to either the storm detention in the Anders East quarter section, or to the proposed storm detention pond in the Aspen Ridge quarter section. Some ponding will also occur within the roads, lanes and municipal reserve lots. The detailed design process will ensure that the major overland drainage system is designed in accordance with the City of Red Deer Design Guidelines.

The major overland drainage system is illustrated on Figure 7.

# ASPEN RIDGE NEIGHBOURHOOD AREA STRUCTURE PLAN



**FIGURE 6  
STORM SEWERS**

SCALE 1:5000

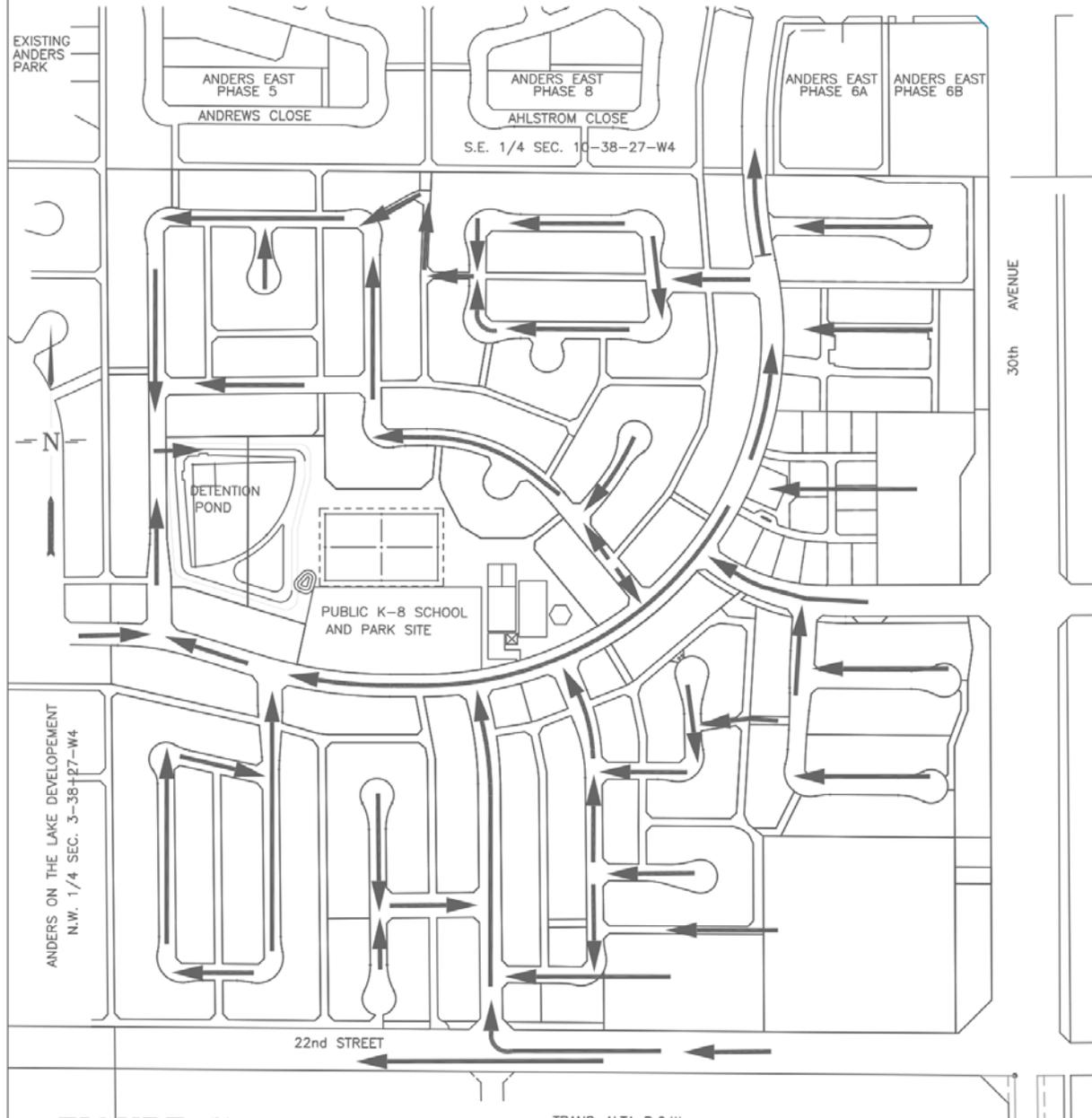
- REVISED: SEPT 13, 2002
- REVISED: FEB 12, 2003
- REVISED: MAR 03, 2003
- REVISED: APR 14, 2003
- REVISED: JUNE 6, 2003
- REVISED: AUG 19, 2003
- REVISED: JUN 16, 2016
- REVISED: AUG 17, 2016

S.E. 1/4 SEC. 3-38-27-W4

- LEGEND:
- STORM TRUNK      ----->>>
  - STORM SEWER      - - - - ->>>

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# ASPEN RIDGE NEIGHBOURHOOD AREA STRUCTURE PLAN



**FIGURE 7**  
**OVERLAND DRAINAGE** S.E. 1/4 SEC. 3-38-27-W4

**GREATER THAN 1:5  
 YEAR STORM EVENT**

- REVISED: SEPT 13, 2002
- REVISED: FEB 12, 2003
- REVISED: MAR 03, 2003
- REVISED: APR 14, 2003
- REVISED: JUNE 6, 2003
- REVISED: AUG 19, 2003
- REVISED: JUN 16, 2016
- REVISED: AUG 17, 2016

LEGEND:  
 DIRECTION OF FLOW

SCALE 1:5000

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### 6.1.3 Storm Detention Pond Cross Section

The City of Red Deer Recreation Parks and Culture Department requested that a cross section be provided to illustrate how the storm detention pond grades tie into the central park grades. Figure 7a illustrates this cross section and the location it is based on.

## 6.2 Sanitary Sewer System

The sanitary sewer system required to service the subject quarter section is a direct extension of the sanitary sewer system located within the Anders East quarter section, which is located directly to the north of the Aspen Ridge quarter section.

A 525 millimetre diameter sanitary sewer is stubbed into the northwest corner of the Aspen Ridge quarter section. The sanitary trunk system will be extended partially through the Aspen Ridge quarter section, and then will be routed westward, into the lane which abuts the west boundary of the Aspen Ridge quarter section. The sanitary sewer trunk will service this quarter section, and six additional quarter sections, located to the south, east and west of the Aspen Ridge quarter section. Figure 8 schematically illustrates the proposed layout for the sanitary sewer system. This drawing illustrates the proposed routing for the extension of the sanitary trunk system through the Aspen Ridge quarter section. It also illustrates the proposed location where the sanitary sewer force main will tie into the sanitary sewer trunk system. The sanitary sewer force main will extend from a sanitary lift station located on the NW ¼ Sec. 3-38-27-W4. This sanitary lift station will service four quarter sections of land located to the west and south of the Aspen Ridge quarter section.

All facilities required for the sanitary sewer system will be designed in accordance with City of Red Deer Design Guidelines.

## 6.3 Water Distribution System

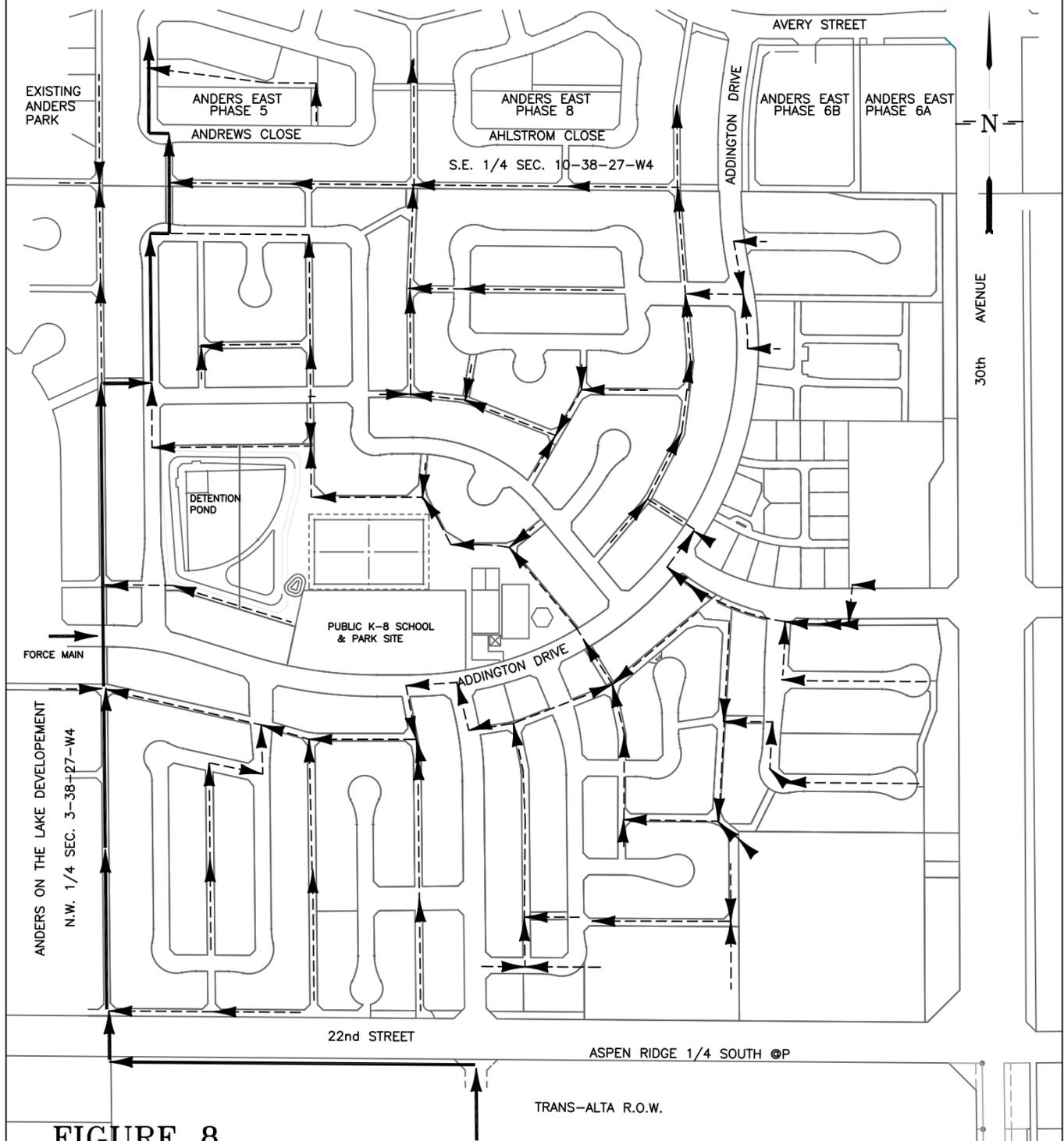
The water distribution system required to service the Aspen Ridge quarter section is a direct extension of the water distribution system for the Anders East quarter section, located directly to the north. The largest water supply mains include:

- A 400 millimetre diameter water main stubbed off at the northwest corner of the quarter section. This water main will be extended along the west side of 30<sup>th</sup> Avenue.
- A 250 millimetre diameter water main which is existing or will be extended along the south property line of the Anders East quarter section.
- Water feeder mains will also be located along the north side of 22<sup>nd</sup> Street, and in the lane located adjacent to the west boundary of the Aspen Ridge quarter section.

Figure 9 conceptually illustrates the water feeder main routing, and the water distribution system for the quarter section. Computer modeling will be utilized to evaluate actual water main sizes within the quarter section.



# ASPEN RIDGE NEIGHBOURHOOD AREA STRUCTURE PLAN



## FIGURE 8 SANITARY SEWERS

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 REVISED: FEB 12, 2003  
 REVISED: MAR 03, 2003  
 REVISED: APR 14, 2003  
 REVISED: JUNE 6, 2003  
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 REVISED: JUN 16, 2016  
 REVISED: AUG 17, 2016

S.E. 1/4 SEC. 3-38-27-W4

LEGEND:  
 SANITARY TRUNK —————→  
 200mm SANITARY - - - - -→

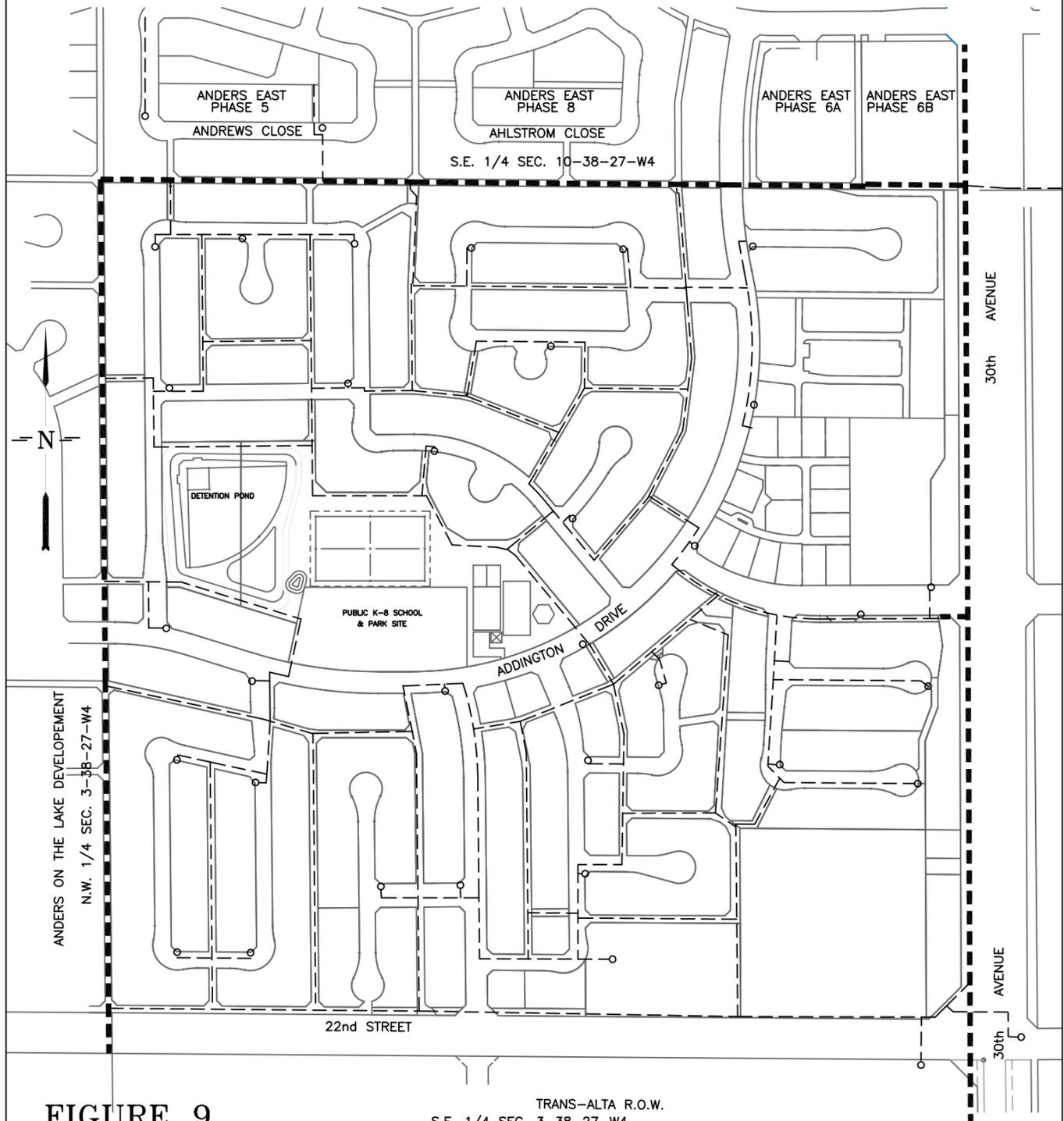
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# ASPEN RIDGE NEIGHBOURHOOD AREA STRUCTURE PLAN



## FIGURE 9 WATER DISTRIBUTION

- REVISED APR 10, 2001
- REVISED FEB 12, 2003
- REVISED MAR 03, 2003
- REVISED APR 14, 2003
- REVISED JUNE 6, 2003
- REVISED AUG 19, 2003
- REVISED JUN 16, 2016
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### LEGEND

- FEEDER WATER MAIN
- WATER MAIN
- HYDRANT

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All facilities for the water distribution system will be designed in accordance with City of Red Deer Design Guidelines.

#### **6.4 Shallow Utilities**

The City of Red Deer Electric Light and Power Department, Telus Corporation, Shaw Cable and ATCO have been contacted regarding the subject quarter section. All of the franchise utilities have advised that there is adequate capacity to provide servicing in the general area. The utility companies will review and address the servicing alternatives in more detail during the circulation and review of the Neighbourhood Area Structure Plan.

### **7.0 REPORTS FROM SPECIALIZED CONSULTANTS**

#### **7.1 Geotechnical Report**

The geotechnical report, prepared by Agra Earth & Environmental Ltd, was submitted to the City of Red Deer Engineering Department on April 03, 1998.

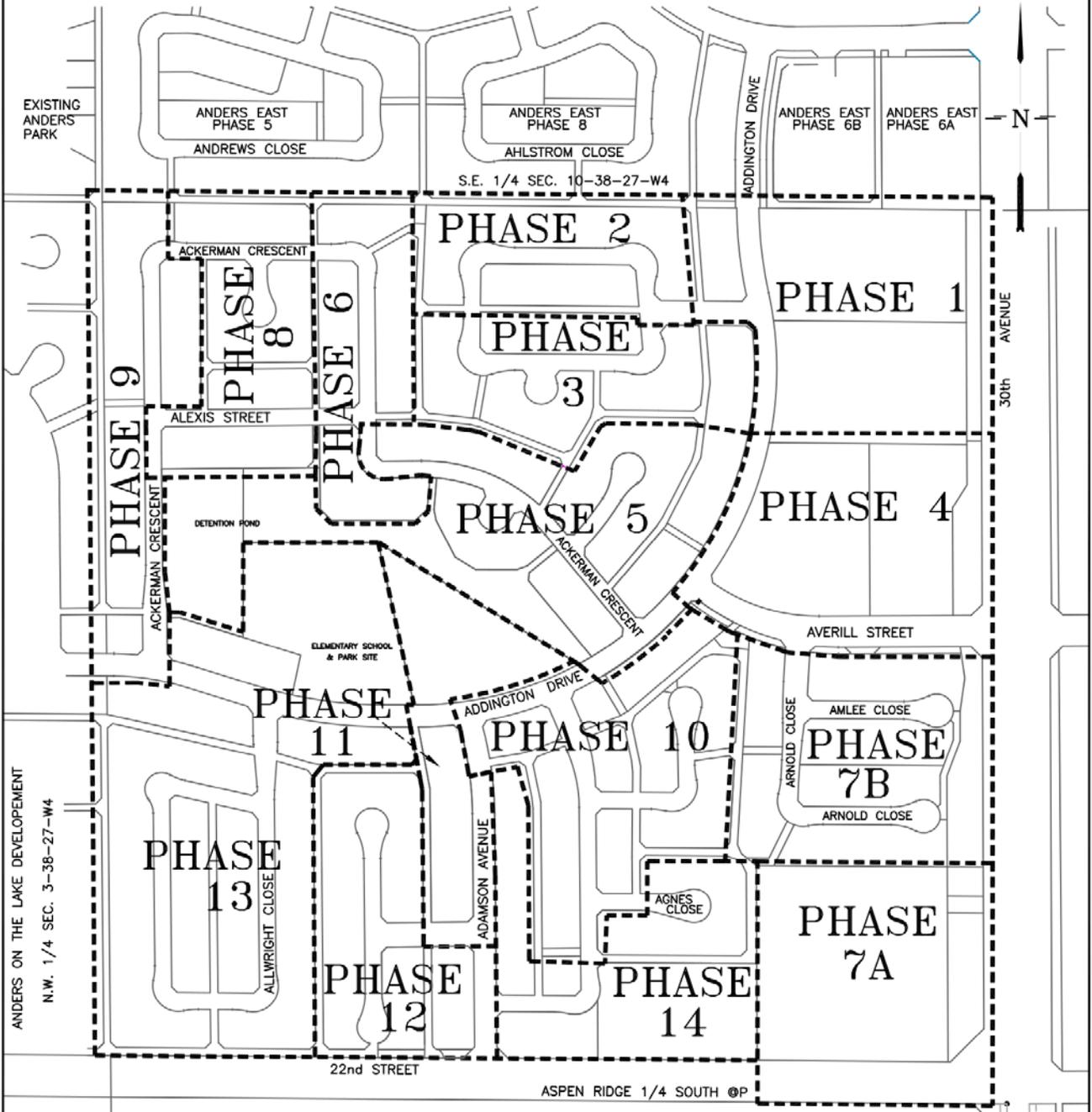
#### **7.2 Phase 1 Environmental Site Assessment**

The Phase 1 Environmental Assessment, prepared by Agra Earth & Environmental Ltd., was submitted to the City of Red Deer Engineering Department and Community Planning Services on April 07, 1998.

### **8.0 PHASING OF DEVELOPMENT**

Figure 10 illustrates the proposed phasing for development. The present location of utilities dictates the first few phases of development. Market conditions will influence the actual phasing of later development.

# ASPEN RIDGE NEIGHBOURHOOD AREA STRUCTURE PLAN



**FIGURE 10  
PHASING CONCEPT**

- SCALE 1:5000  
 REVISED: APRIL 2, 2007  
 REVISED: JUNE 6, 2003  
 REVISED: APR 14, 2003  
 REVISED: MAR 03, 2003  
 REVISED: FEB 12, 2003  
 REVISED: JAN 13, 2003  
 REVISED: NOV 14, 2002  
 REVISED: JUN 16, 2016  
 REVISED: AUG 17, 2016

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LEGEND:  
 PHASE BOUNDARY - - - - -

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