



Development Services Department

Hardieville/Legacy Ridge/Uplands

Area Structure Plan

Prepared for:

City of Lethbridge

Prepared by:

UMA Engineering Ltd. Community Infrastructure 514 Stafford Drive N. Lethbridge Alberta T1J 3Z4

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1.0 INTRODUCTION

1.1 Purpose

As directed by a resolution of City Council (June 28, 1999), the purpose of the Hardieville/Legacy Ridge/Uplands Area Structure Plan (ASP) is to provide land use opportunities that would accelerate urban development in the Hardieville/Legacy Ridge/Uplands area.

This ASP provides a policy framework to support the existing development in Hardieville and Uplands and will ensure the orderly development of those portions of the ASP area which are undeveloped.

This ASP outlines, in general terms, the future pattern of subdivision by defining:

- land use by type, size and location,
- the transportation network,
- the scheduling of services,
- the general location of community facilities and amenities,
- the sequence of development, and
- other development issues specific to the Hardieville/Legacy Ridge/Uplands area.

This ASP establishes the planning context for future development applications that will define the specifics of development on individual land parcels in the ASP area. This ASP has been prepared in conformity with Section 633 of the *Municipal Government Act*.

1.2 Location and Area

The lands subject to this ASP are situated in North Lethbridge. The ASP area is bound to the south by 26 Avenue N. and North Scenic Drive, to the east by 28 Street N., to the north by 44 Avenue N.,

including the existing residences on the north side of 44 Avenue N., and to the west by the top-ofbank development setback line (Figure 1). The lands within the ASP boundary which lie to the east of the future North Scenic Drive are referred to as Uplands Village and the lands which lie to the west, including Hardieville, are referred to as Legacy Ridge.

Land use to the north and east of the ASP area is predominantly agricultural. Alexander Wilderness Park and the Oldman River Valley and its tributary coulees lie immediately to the west. The Lethbridge Fish and Game target range is located in the Oldman River Valley to the southwest. The Industrial Park lies to the southeast. Finally, residential development, namely the neighbourhoods of Staffordville, St. James Terrace, St. Edwards, Winston Churchhill and Park Meadows lie to the south of the ASP area.

The ASP area comprises approximately 453 hectares (1119 acres) of land. About 375 hectares (928 acres) of land remains undeveloped.

1.3 Land Ownership

Current land ownership for the undeveloped lands within the ASP area is summarized in figure and tabular format in Appendix I. The City of Lethbridge owns approximately 48 percent of the undeveloped area. Melcor Developments Ltd. owns about 20 percent of the undeveloped area. First National Properties Ltd. owns approximately 19 percent of the undeveloped area. The remaining 13 percent of the undeveloped area is under the ownership of a few individuals.

1.4 Background

The Hardieville/Legacy Ridge/Uplands area was annexed to the City of Lethbridge on December 1st, 1978. The annexation was intended to accommodate future urban growth. In order to ensure the orderly development of about 1214 hectares (3000 acres) of land north of 26th Avenue N., in February 1980, the *North Lethbridge Urbanization Report* was prepared. The urbanization report

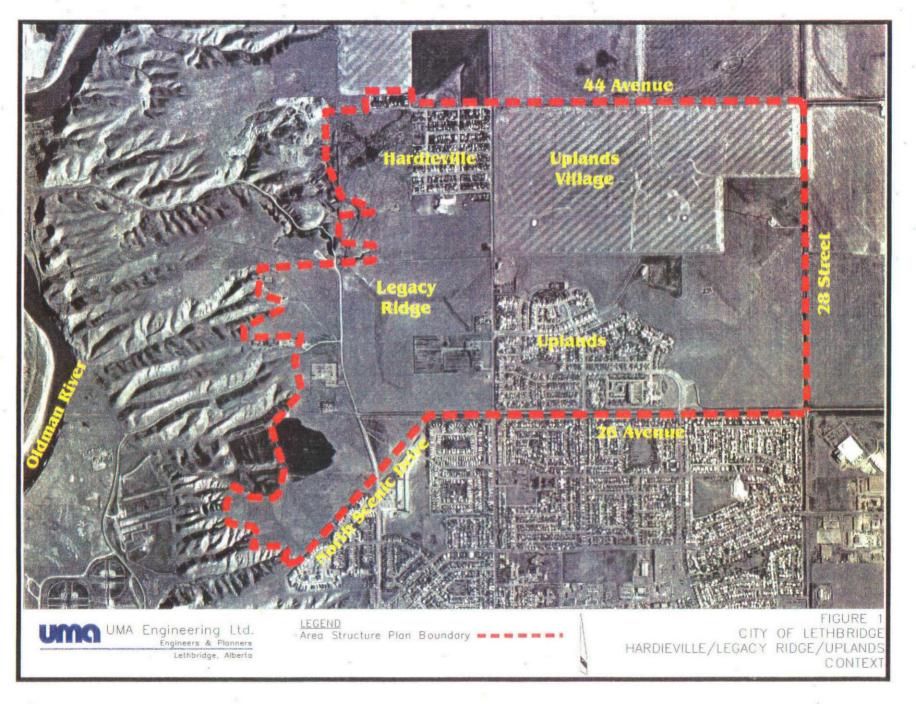
established a conceptual development scheme for the undeveloped lands (Sections 17, 18, 20 and portions of Section 16, 19 and 21) north of 26 Avenue N. by establishing the general location of residential, commercial and institutional land uses, and community park. The report also addressed municipal servicing requirements.

The Valleyview/Uplands Area Structure Plan was adopted by Bylaw No. 3636 on October 14, 1980. The plan contained provisions for two villages (Valleyview and Uplands), a commercial center, a Public middle school, a Public senior high school, Separate and Public elementary schools, a range of housing forms and densities, and a 16 hectare (40 acre) community park.

The Hardieville/Legacy Ridge/Uplands Area Structure Plan will replace the Valleyview/Uplands Area Structure Plan. Factors influencing the creation of an updated ASP include:

- the original ASP is based upon 20 year old assumptions and forecasts,
- the city has experienced population growth and demographic changes,
- the community's housing preferences and needs have changed, and
- there is a need to address land use designations in the 1980 ASP that impede urban development.

This updated ASP is intended to address current and future community needs and preferences and to ensure a continuous supply of land for urban development.



2.0 SITUATION ANALYSIS

2.1 Site Considerations

A number of natural and developed features offer opportunities and pose constraints to development within the ASP area. Key site considerations in the ASP area include:

- former sanitary landfill and development setback line,
- electrical substations and accompanying transmission towers and lines,
- existing land uses,
- physical environment and coal mines,
- historical resources,
- CBC tower site, and
- top-of-bank development setback line.

Site considerations are shown on Figure 2 and elaborated on in the following sections.

2.2 Physical Environment

The ASP area is well suited for urban development in terms of geology, soils, slopes and overall drainage conditions. The bedrock underlying the ASP area is part of the Belly River formation and is between 100 meters and 120 meters thick, and consists mainly of deposits of light coloured shales and sandstones. No outcropping of bedrock occurs in the ASP area accept where the Oldman River Valley has deeply incised the coulees along the western boundary.

In the Belly River formation there are numerous coal seams, most of which are about 1.2 meters thick. These coal seams range in depth from 100 meters to 140 meters below the surface. Large numbers of these seams were mined during the early part of the 20th Century. Consequently, much of the tableland portion of Section 18 is above mined out coal seams. As a result, prior to

proceeding with urban development, a detailed geotechnical risk assessment should be undertaken for all of Section 18 and in the westernmost 670 meters of Section 17, and should be filed as part of the outline plan submission.

The majority of the soils throughout the ASP area consist of till deposits overlain by localized lacustrine deposits. Generally, these soils vary in texture, permeability and structure, due to the actions of chemical and physical weathering, vegetation and micro-organisms.

Topographically, the ASP area is typical of Lethbridge, with the majority of the area being a level plain. Surface elevations along the plateau generally range from a high of 916 meters to a low of 900 meters. The elevation of the surface of the Oldman River adjacent to this point is about 807 meters. The slopes along the plateau range from 0-5 percent. These slopes are suitable for urban development. The slopes along the valley however can range from 15-22 percent.

Several locations along the valley and coulee walls, adjacent to Legacy Ridge Village, exhibit slope instability and although not within the ASP boundary, influence the proximity of urban development to the top-of-bank of the river valley. Within the ASP area, all sites adjacent to the top-of-bank will therefore require a site-specific geotechnical evaluation to determine the appropriate level of use and development setback from the established top-of-bank.

A minor east/west drainage divide occurs in the eastern portion of Section 17. Except for the small portion of Section 17, which drains to the east, the area drains naturally towards the west and southwest. The nearest surface water is the Oldman River to the west, and an irrigation canal to the east.

2.3 Land Use

Developed Features within the ASP area include the following:

- 1. a 198 m high FM/TV antenna operated by the Canadian Broadcasting Corporation Ltd. on about a 16 hectare (40acre) parcel of land in the eastern portion of the ASP area,
- two electrical substations situated in the southwestern portion of the ASP area, and overhead electrical transmission towers and lines bisecting Section 18 from north to south and running parallel to 26th Avenue N. from west to east,
- 3. a former sanitary landfill site situated in the southwest portion of the ASP area,
- 4. an underground reservoir located northeast of the existing Uplands Village,
- 5. a storage facility situated adjacent to the top of the river valley,
- 6. a discontinuous strip of development along 13th Street N. consisting of an animal shelter, a tree nursery, a residence, a non-operational motor cycle shop and the old Hardieville School.

The balance of the ASP area has a rural character, comprising primarily agricultural holdings. These lands are zoned as "Urban Reserve" in the *City of Lethbridge Land Use Byl*aw and designated for "Future Residential Development" in the City's MDP.

2.4 Historical Resources

A Historical Resource Inventory of North Lethbridge recorded 16 historic sites. Two of the historic sites consist of the remains of the surface workings of Galt Mine No. 6, which operated from 1895 until 1935, and a row of house foundations/depressions adjacent to Hardieville.

Isolated scatters of fire-cracked rock characterize six of the historic sites situated in Section 17. Representing small isolated camps, their archaeological value has been destroyed by agricultural activities. Eight historic sites consisting of seven buried tipi ring sites and one surface campsite are situated in Section 18 along the Oldman Valley rim and coulee system. Wind-deposited cliff topsoils are quite thick in some areas, obscuring these features which represent historic encampments of varying size and value.

In order to realistically determine the historical importance of the sites as well as the historical importance of the old coalmine site, at the outline plan stage selective site assessments should be conducted. Depending upon the findings of the assessments, specific sites may be preserved, or alternatively, developed for urban uses following the extraction of any items of historical significance.

2.5 Northside Landfill

The Northside Landfill site is situated in the SW ¼ of Section 18-Twp9-R21-W4M and the NW¼ of Section 7-Twp9-R21W4M, west of Stafford Avenue between Stafford Road and 26th Avenue N. The landfill was in operation from about 1970 until around the mid-1980s.

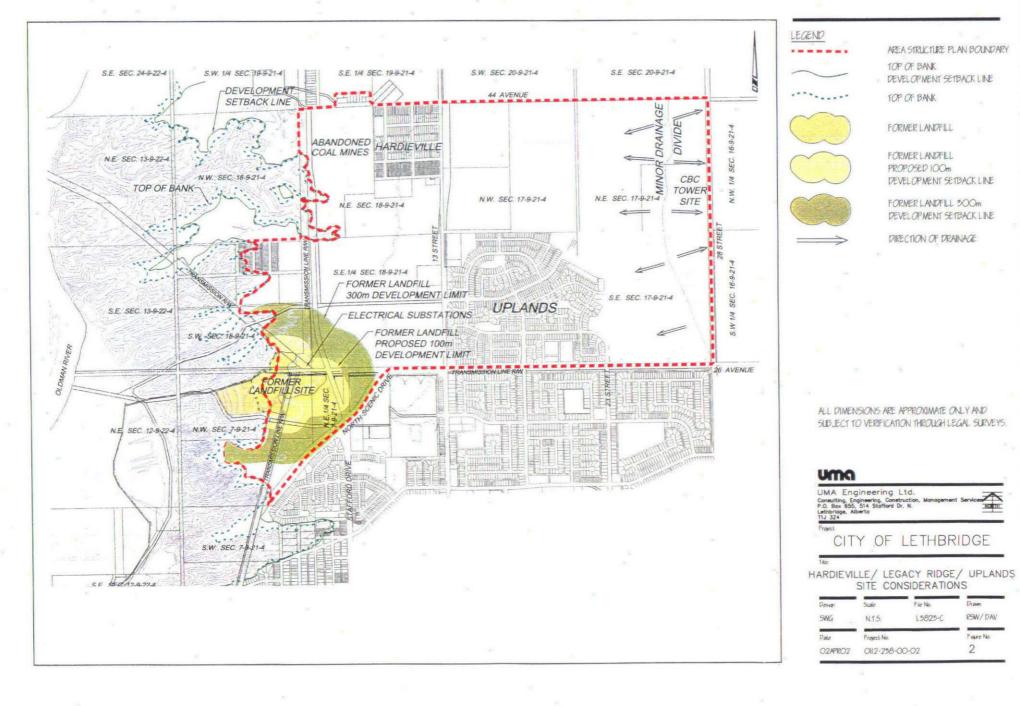
A study entitled Landfill Characterization Study – North Lethbridge Landfill Site (October 2000) was prepared by EBA Engineering Consultants Ltd. to determine the development potential of the lands directly above and adjacent to the former landfill site. The study determined that (1) there is a low risk of methane gas migrating from the former landfill site; and (2) there is no evidence of leachate seeping from the former landfill. As a course of due diligence, the City of Lethbridge has undertaken a long-term monitoring program.

The study identifies three potential zones of development. Recommended development guidelines for each zone are summarized below:

- 1. development above the former landfill site:
 - enclosed structures are prohibited within this zone,
 - development of water features are prohibited, and
 - outdoor sport fields would be given consideration if irrigation practices were strictly monitored.
- 2. development within the 100 meter setback zone:
 - enclosed structures are prohibited within this zone,
 - development of water features are prohibited, and
 - outdoor sport fields would be given consideration if irrigation practices were strictly monitored.
- 3. development between the 100 meter to 300 meter setback zone:
 - unrestricted development is permitted, and
 - water features are permitted.

Existing Provincial legislation requires subdivision authorities not to approve applications for subdivision or development permits that would result in schools, hospitals, food establishments or residences being erected within 300 metres of a non-operating landfill. In light of the recommendations noted above, the City of Lethbridge has applied for a waiver to this Provincial regulation. The waiver would reduce the landfill development setback line from 300 meters to 100 meters.

It is assumed that at some time in the future, the landfill will stop producing methane gas and it will be safe to allow unrestricted development within the surrounding setback area Therefore, the Concept Plan in Figure 3 contains an outline of the proposed future use of the lands surrounding the landfill. However, actual development of land for school, hospital, food establishments or



residence purposes within 300 meters of the landfill, will be delayed until appropriate monitoring and study results in Provincial approval for waiver of the development setback restrictions.

2.6 Municipal Objectives and Policies

The following is a brief overview of the key objectives and polices which apply to the Hardieville/Legacy Ridge/Uplands ASP area.

2.6.1 Municipal Development Plan (1998)

A Municipal Development Plan (MDP) is a general statement of a municipality's broad objectives respecting the form and character of existing and proposed land use and servicing requirements. The City of Lethbridge's MDP, Bylaw No. 4902, was adopted in July 1998.

Map 2 of the MDP designates Valleyview/Uplands¹ as a "Future Residential Growth Area." Several MDP planning objectives and polices are particularly significant to the Hardieville/Legacy Ridge/Uplands Area Structure Plan:

Future Growth	<i>Direct future residential development to the Valleyview/Uplands area.</i>
Housing	Ensure that the community's wide range of housing needs are met.
	Ensure "balanced" neighbourhoods with a mix of housing types and densities.

¹ Prior to approval of the Hardieville/Legacy Ridge/Uplands Area Structure Plan, the Legacy Ridge area was known as Valleyview.

Environment	Adhere to the top-of-bank development setback line policies outlined in the River Valley Area Redevelopment Plan.
River Valley Trail System	Continuous trails along the top of the river valley should be a major feature of new residential developments overlooking the valley.
Parks and Open Space	Locate parks and open spaces in new residential areas to maximize use, accessibility and aesthetic appeal while reducing overall land requirements.
Transit	Area Structure Plans should outline transit routes that will facilitate provision of accessible and convenient public transit.

2.6.2 North Lethbridge Urbanization Report (1980)

An urbanization plan is a comprehensive community plan that addresses urban growth and the delivery of municipal services. The plan establishes a long-term vision for the future development of an undeveloped area. The document links the broad policies of the MDP with the site-specific land use polices contained in individual Area Structure Plans. The planning objectives outlined in the *North Lethbridge Urbanization Report* of particular relevance to the conceptual development of the Hardieville/Legacy Ridge/Uplands area include:

Open Space and ParksEstablish a major park in North Lethbridge that would
be available to all residents of the city.

Land Use	Ensure that development plans have a distribution of
	multiple and single-family housing, and follow "village
	concept" principles.
Transportation	Organize roadway patterns in order to reduce and
	minimize traffic impact on new and existing residential
	neighbourhoods.

2.6.3 Land Use Bylaw (1994)

According to the *City of Lethbridge Land Use Bylam*, the majority of undeveloped lands that fall within the ASP area are currently designated "Urban Reserve" (UR). Subject land parcels will have to be redesignated to the appropriate land use districts when developers submit actual plans of subdivision.

3.0 PLANNING PROCESS AND COMMUNITY INVOLVEMENT

The process of conceptually planning for the Hardieville/Legacy Ridge/Uplands area involved considerable dialogue and collaboration with a number of stakeholder groups. Local residents as well as the community at large were actively involved in the planning process.

The establishment of a citizen-based steering committee was approved by Council to update the Hardieville/Legacy Ridge/Uplands Area Structure Plan. The planning process was initiated through a community meeting, held in November 1999, at the Kergan Centre. The meeting was attended by area residents. Information presented included the existing area structure plan, the rationale for updating the plan along with development objectives.

From this initial public meeting, a steering committee of about fourteen members was assembled with both private (citizens and property owners) and public representation. The steering committee included representatives from the Hardieville and Uplands Neighbourhood Associations, the major landowners/developers, Hardieville and Uplands residents, a homebuilder, as well as resource staff from the City of Lethbridge. This group actively participated in the hands-on process of developing a conceptual land use plan for the ASP area.

The mandate of the steering committee was to prepare recommendations for consideration by Council for a Hardieville/Legacy Ridge/Uplands Area Structure Plan that establishes a long-term vision for the development of the Legacy Ridge and Uplands Villages, while addressing the needs of current and future residents.

A series of workshops or "brainstorming" sessions were conducted from December 1999 to May 2001. The objective of these sessions was to provide the steering committee with all of the relevant background information, key analytical findings and the necessary tools to rationally develop a viable solution to the complex planning challenges imposed by the area. Detailed base plans of the area

were available at each meeting, site constraints and opportunities were inventoried, a site visit or "walkabout" was conducted, and the results of the northside landfill characterization study were presented. Discussions were conducted to explore the implication of a variety of proposed alternatives.

As the steering committee process evolved, a number of land use options for the area were created. These options along with development objectives and the landfill characterization study were presented to the general public at a series of public open houses, held March 20, 21 and 22, 2001, at the Lethbridge Christian School and City Hall. In order to obtain public opinion and input on future development in the Hardieville/Legacy Ridge/Uplands area a questionnaire was made available to all interested parties that attended the open houses. At the end of the public open house sessions, questionnaire results were inventoried and presented to the steering committee.

Through analysis and refinement, the steering committee created one comprehensive land use concept. Following this, draft documentation and report figures for the ASP report were prepared and reviewed by the steering committee. The ASP report was then finalized and circulated to appropriate agencies for review and comment. Necessary revisions were completed prior to Council consideration.

4.0 LAND USE CONCEPT

4.1 Development Objectives

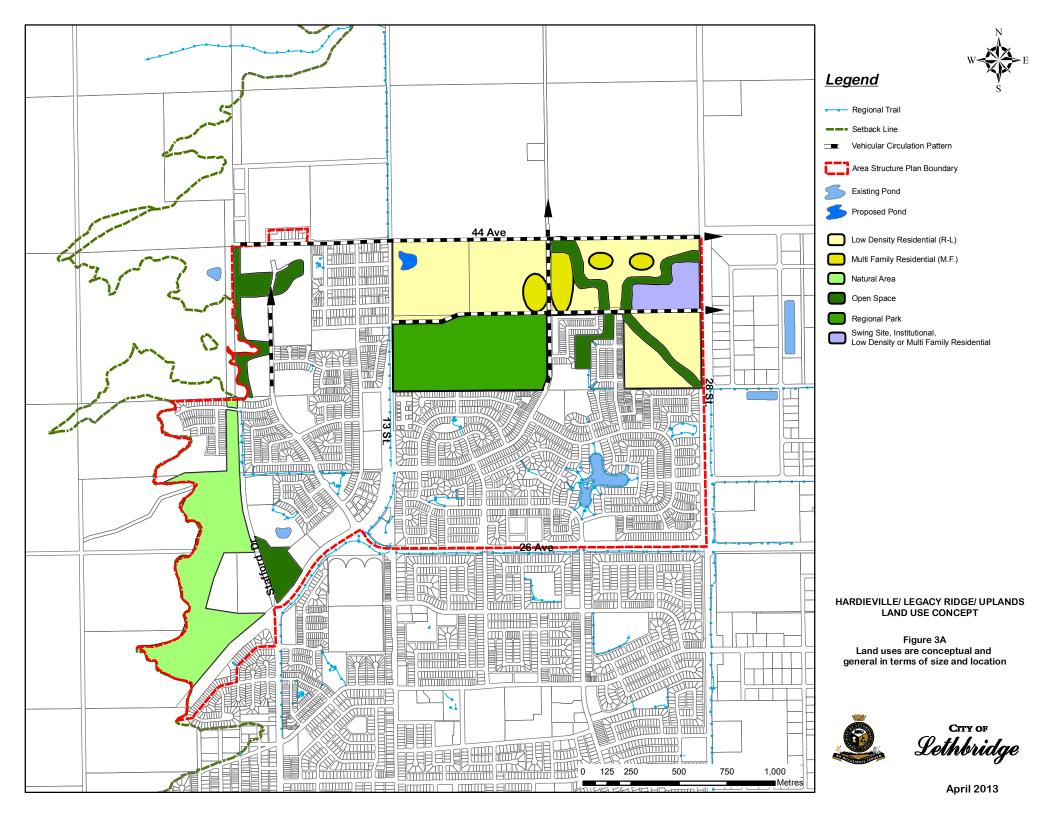
The overall goal of the *Hardieville/Legacy* Ridge/Uplands Area Structure Plan is to establish a framework for attractive and livable villages that complement and enhance existing neighbourhoods.

Key objectives of this ASP are:

- to accelerate urban development in North Lethbridge,
- to ensure complete neighbourhoods that are compatible with existing neighbourhood development,
- to provide a range and variety of housing opportunities to meet current and future market conditions,
- to ensure that school site requirements are met,
- to encourage ancillary uses,
- to provide a site for a regional park, and
- to recognize that natural areas help create a unique sense of place.

4.2 Land Use Concept

The general land use concept is depicted on Figure 3. The purpose of the land use concept is to show the relationships between land uses. It is intended to guide future growth and development within the boundaries of the ASP area. Therefore, the location and size of the land uses shown on Figure 3 are conceptual and general. The exact size and location of a particular land use will be defined at the outline plan stage of planning and development.



The Hardieville/Legacy Ridge/Uplands area will comprise two villages (Legacy Ridge and Uplands). Uplands Village lies to the east of 13 Street N., and Legacy Ridge Village, which includes Hardieville, lies to the west of 13 Street N. Both villages will primarily contain low density residential development interspersed with strategically placed multi-family residential development (Figure 3). Local commercial development will be concentrated along arterial roadways. The land use concept also makes provisions for community facilities, such as a fire station site.

A parks and recreational network will feature a pathway system that links neighbourhood parks and regional parks to the Oldman River Valley. The regional parks will provide recreational amenity for residents of the entire city. Four school sites will serve the villages and Hardieville.

Vehicular circulation will be achieved through a hierarchy of roads. Four arterial roadways will provide primary routes into the ASP area. Collector and local roadways will provide connections to the surrounding neighbourhoods. Convenient access and egress to the school sites, commercial centers, regional parks and multi-family developments will be achieved by situating these land uses along arterial and collector roadways.

A statistical summary of housing and population projections for developed and planned villages is provided in Appendix III. The Legacy Ridge Village will be predominantly low density residential, interspersed with multi-family sites. The average overall density for the Legacy Ridge Village is projected to be 10.5 dwelling units per gross developable hectare (4.24 dwelling unites per gross developable acre). It is anticipated that when fully developed, Legacy Ridge will contain some 1650 housing units and about 4550 people.

The Uplands Village will be primarily low density residential, with multi-family sites situated along collector and arterial roadways. It is projected that densities for Uplands will be the same as Legacy Ridge at 10.5 housing units per gross developable hectare (4.24 dwelling unites per gross developable acre). This would give Uplands some 2500 housing units and 7000 people.

The ASP area, when completely developed, could contain a population of some 11,600 people on about 393 gross developable hectares (971 gross developable acres). However, this area and estimated population potential may be affected by modifications to developable land areas resulting from soil stability or serviceability studies, as well as by changing demographic trends, family and household structures, and housing markets. Consequently, these figures represent anticipated populations and may be adjusted depending on the results of the detailed engineering studies done at the outline plan stage, as well as by future urban development trends.

The densities referred to in this section may have been revised at the outline plan stage. Please refer to the following outline plans for detailed and accurate densities

- Legacy Ridge Phase I
- Legacy Ridge Phase II
 Legacy Ridge III

• Uplands

Blackwolf

4.3 Residential Land Use

Within each village, the land use concept shows a series of identifiable residential modules defined by the vehicular circulation network. The modular format will facilitate a logical staging sequence and will provide opportunities for a range of housing forms. A variety of housing options offers choice of type, tenure, size and cost so that a diverse range of residents can reside in the ASP area.

Particular attention should be paid to developing a compatible transition at the residential interface between the existing residential developments of Hardieville and Uplands and new residential development areas.

There are several areas of tableland between the coulee draws and along the coulee edges that are designated for residential development. Soil stability and municipal servicing feasibility studies will be required to determine if the lands are physically developable and economically viable for development. In addition, several areas to the north and south of the former landfill site have been designated for low density residential uses. The development of these areas is subject to a waiver which would reduce the landfill development setback line from 300 meters to 100 meters.

The land use concept designates 2 categories of residential land use:

- low density residential, and
- multi-family residential.

Low density residential use is defined as single detached and semi-detached housing forms. Changing buyer profiles and consumer demographics will require the market to supply housing forms that are both affordable and innovative.

Multi-family residential development may comprise a mix of medium and high density forms, which may take the form of row or apartment-style housing. The particular multi-family housing form for a given site will be determined at the subdivision stage of planning and development. Appropriate densities may vary between 20 and 75 units per net hectare (8.1 and 30.4 units per net acre).

The number, location, form and size of the multi-family residential uses are conceptual and will be confirmed at the outline plan stage.

Locational factors in the siting of all multi-family residential sites should include: proximity to amenity areas and access to collector and arterial roadways. Consideration should be given to situating compatible multi-family residential developments at locations adjacent to the coulees in order to provide a variety of housing options with panoramic views.

Multi-family residential sites may accommodate a variety of market segments including singles, families or adults, and may be a mix of rented and owned units.

4.4 Parks and Recreational Network

An extensive parks and recreational network will be provided in the ASP area. This network will support a variety of recreational activities and facilitate recreational circulation within the villages.

The parks and recreational network will include 4 elements:

- regional parks,
- neighbourhood parks,
- open space, and
- primary and secondary pathways.

Individually, the components of the recreational network will provide local recreational amenity for individual residential modules. Collectively, the components will form a comprehensive park and open space system with linkages to the Oldman River Valley (Figure 4).

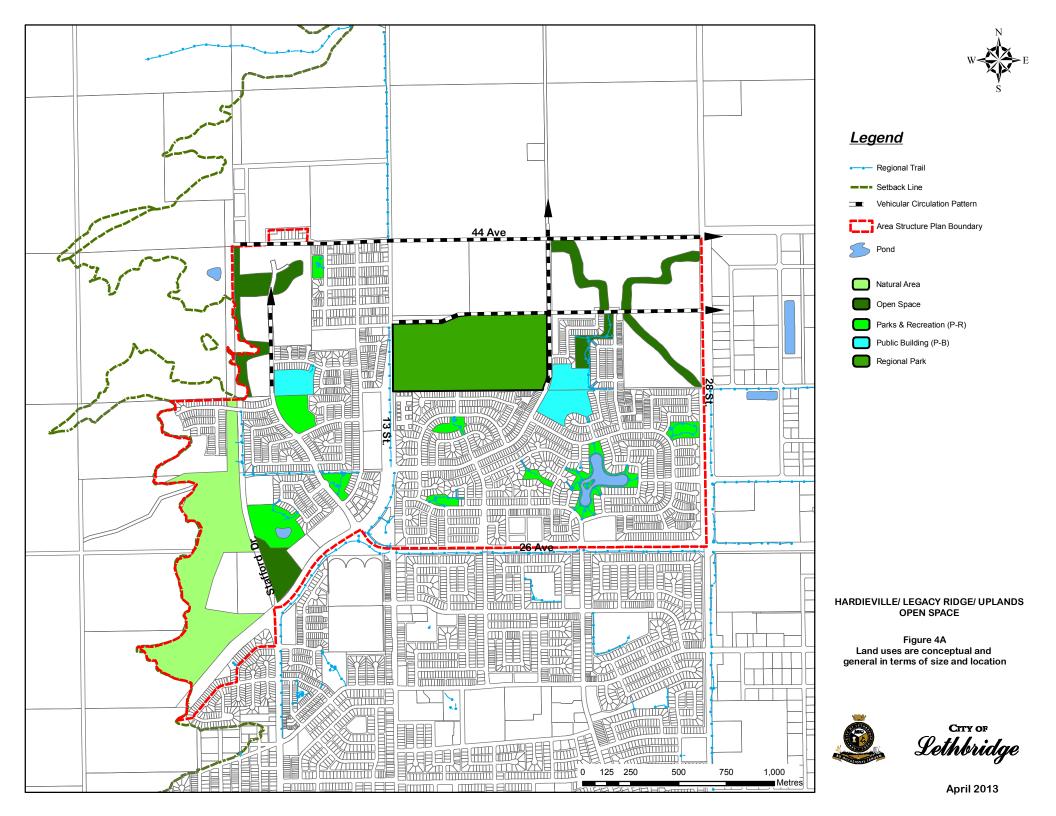
4.4.1 Regional Parks

Two regional parks will be provided in the ASP area. These parks will provide recreational amenity for residents of the ASP area as well as for the broader population of the city.

One regional park will be about 22 hectares (54 acres) in size. Located in the north central area, this regional park will be the focal point of an open space system that links into Alexander Wilderness Park, and the Oldman River Valley and its tributary coulees. It is anticipated that the regional park will be developed to provide recreational amenities of a uniqueness comparable to Nicholas Sheran and Henderson Lake parks.

The key locational factor in siting this regional park is accesses to collector and arterial roadways, ensuring easy access for residents of Hardieville, Legacy Ridge and Uplands, as well as for residents of the entire city.

The former landfill site will be part of the open space system by being incorporated into a regional size park, comprising about 27 hectares (67 acres). This area provides a unique opportunity to



accommodate the recreational needs of the community and provide for the maintenance of natural areas. The park will establish the southwestern terminus of an open space network through the ASP area that links into the Old Man River Valley.

As noted in Section 2.5, about 21 hectares (52 acres) of the former landfill site has long term development and land use restrictions imposed upon the area. The restricted area comprises the actual landfill plus a surrounding 100 meter development setback zone. This area may provide a large area of natural open space suitable for hiking and nature walks. The area will also provide physical and visual amenity as well as a venue to preserve and protect natural areas. In addition, about 6 hectares (15 acres), adjacent to North Scenic Drive has been identified for more intensive recreational use. This land is located within the 100 to 300 meter development setback zone, which is expected to be waived in the short term.

4.4.2 Neighbourhood Parks

A number of neighbourhood parks will be incorporated into the ASP area. Neighbourhood parks can range in size from 0.6 to 2.8 hectares (1.5 to 7 acres). Neighbourhood parks will provide amenity value for residential nodes by providing a combination of playground opportunities, informal play areas as well as passive and sitting areas. These parks will serve an average population of about 1500. The exact size of the parks and their location will be determined at the outline plan stage.

4.4.3 Pathway Network

A primary and secondary pathway network will provide connections between neighbourhoods and link residents to natural and community features. This pathway network will consist of regional trails and pedestrian linkages. The pathway network is shown, conceptually, on Figure 4.

Proposed regional pathway routes will link into the existing regional trails, which runs along the future North Scenic Drive and 26 Avenue N. Regional pathways may also be situated adjacent to 44 Avenue N. and 28 Street N.

Secondary pathways will tie into the regional pathway network and will provide pedestrian connector routes between neighbourhoods, neighbourhood parks, regional parks, Alexander Wilderness Park and the Oldman River Valley. In order to create opportunities for residents to enjoy the open space and views along the top of the river valley, pathways may be developed adjacent to the river valley. The 46 meter wide electrical transmission right-of-way corridor which bisects Section 18 from north to south may also be incorporated into the pathway network.

Overall, the pathway network should link neighbourhoods to community amenities. Individual neighbourhood linkages will be addressed at the detailed planning stage to ensure integrated pathways and a variety of user experiences.

4.5 Community Facilities and Services

4.5.1 School Sites

Community facilities such as schools are important civic amenities that help to structure and shape the public realm. Schools are important because they are focal points for social activity, and when combined with parks, they have a physical importance in that their siting and design create prominent community features. The "joint use" agreement between the Public and Holy Spirit school divisions and the City of Lethbridge ensures that school sites are an integral part of the City's recreation infrastructure.

Two school sites are proposed for the ASP area. Both schools will be integrated into the ASP area by being given prominent locations that are easily accessible for pedestrians and automobiles. The "joint use" agreement between the Public and Holy Spirit school divisions and the City of Lethbridge ensures that school sites are an integral part of the City's recreation infrastructure.

One Public Elementary School site will be centrally located in Uplands on the east side of Uplands Boulevard. This site will be approximately 4 hectares (10 acres) in size.

One Holy Spirit School Site containing approximately 4 hectares (10 acres) is centrally located in Legacy Ridge and will accommodate a K-6 school.

For both school sites, slight modifications may be made at the detailed design stage. Careful site planning will be required to avoid pedestrian/vehicle conflicts, especially at pick-up and drop-off areas and to ensure the safety of students walking to and from the schools, especially for students crossing major streets.

School sites are provided in accordance with expected population density levels, current student generation ratios as related to the anticipated housing mix, and projected future occupancy of existing schools in established neighbourhoods to the south. Projected school enrolments are given by school type as shown in Appendix IV.

The expected enrollments for Public and Holy Spirit schools do not justify provision of sites for these schools within the ASP area. These students will be accommodated south of the ASP area in existing built up urban areas, or eventually incorporated into future facilities in the urbanization area north of 44 Avenue N, should development occur there in the eventual future.

4.5.2 Institutional Land Use

Three institutional sites will be situated in the ASP area. Uses that may be accommodated by these sites include a place of worship, community center, day care center, fire station, recreational center, or a public service institution. The exact use, size and location of these sites will be determined at the outline plan stage.

Figure 3 identifies one site situated on the west side of the future North Scenic Drive, adjacent to 26 Avenue N., as a "swing" site. Depending on market conditions, all or part of this area may either be developed for institutional uses, or, alternatively, as low density or medium density residential development.

4.5.3 Emergency Services

In order to ensure that the City of Lethbridge's fire and emergency response times are met, a fire station will eventually be required in the ASP area. The proposed institutional sites provide possible locations for the fire station.

4.6 Commercial Land Use

Two commercial sites will be situated in the ASP area. To ensure that the commercial sites are easily accessible, the sites will be situated along arterial roadways.

A 2 hectare site (5 acre) situated in the Uplands Village at the intersection of 23 street N. and 26 Avenue N. is currently designated a "Neighbourhood Commercial District." A second commercial site will be situated in the Legacy Ridge Village, at the intersection of 26 Avenue N. and the future North Scenic Drive. This site will be between 2 and 5 hectares (5 and 12 acres) in size. Commercial uses will be oriented towards providing convenience and personal services to area residents. It is not anticipated that a "regional" scale shopping facility will be supportable north of 26 Avenue N. to service the needs of residents of the ASP area.

Compatibility of commercial development with the residential uses should be assured through adequate buffering and landscaping of the perimeter of the site. The pathway network should link the commercial areas to residential areas and the open space system.

4.7 Vehicular Circulation Network

The Hardieville/Legacy Ridge/Uplands ASP area will have a vehicular circulation network comprising a hierarchy of roads consisting of arterial roadways, internal collector roadways and local roadways (Figure 3). Transportation objectives include the following:

- facilitate efficient internal traffic movements, and
- provide for convenient transit routing.

23

The major arterial roadways that will service the villages are the future North Scenic Drive which bisects the ASP area and follows 13 Street N, and the peripheral future arterial roadways, namely 26 Avenue N., 44 Avenue N., and 28 Street N., which will provide primary routes into the ASP area.

One result of the restricted access provision along North Scenic Drive is the elimination of the intersections of 41, 42 and 43 Avenues N. with 13 Street N. These avenues are to terminate in a frontage road that will parallel the new North Scenic Drive extension. Only 40 and 44 Avenues N. will continue to intersect the North Scenic Drive extension.

Internal collectors will provide links to and from adjacent neighbourhoods. To facilitate east-west travel, at several points along North Scenic Drive, the collector system will be continuous. Local roads will provide access into individual residential pockets. Actual alignment and configuration of local roadways will be determined at the outline plan stages of development.

Although not indicated on Figure 3, local perimeter roads may be provided at key points in the vicinity of the coulees. Pedestrian linkages may be incorporated adjacent to these roadways.

Since the "edge" of the coulees does not form an even boundary through the ASP area, it is not feasible to construct a continuous roadway. It is considered more advantageous to have roads such as minor collectors and local roads abutting the coulees. These roads are designed to move less traffic and would therefore provide a quieter environment for those using the Oldman River Valley as well as residents living adjacent to the roadways.

In order to ensure pedestrian safety and convenience, attention should be given to providing safe pedestrian crossings, particularly near schools, park facilities and where the pathway network intersects roadways. Noise attenuation will be reviewed along North Scenic Drive, 26 Avenue N., 28 Street N., and 44 Avenue N. at the outline plan stage of development, and in accordance with City of Lethbridge standards.

4.8 Public Transit

The City of Lethbridge uses a public transit-servicing standard that provides public transit access within 400 meters of at least 95 percent of all residences, commercial services and public service facilities. In accordance with the City's subdivision standards, public transit routes will be designed to follow collector roadways.

Figure 3 identifies one possible location for a transit terminal. If required, the exact site and location of the transit terminal will be determined in consultation with L.A. Transit and at the detailed stages of planning and development.

5.0 MUNICIPAL SERVICING

5.1 Utility Services

The existing sanitary trunk sewers, storm drainage trunks, water supply main and the Uplands water storage reservoir were installed in the early 1980s to facilitate growth in North Lethbridge. The installed major underground servicing infrastructure was designed to provide servicing capacity to the ASP area, plus certain lands beyond. The extent of the servicing beyond the ASP boundary is identified in the Stanley Associates Engineering Ltd. letter report, and accompanying drawings dated October 14, 1981.

In 2000 the City completed the Underground Infrastructure Master Plan (UIMP). The UIMP reviewed the servicing of North Lethbridge and found sufficient capacities exist to service the lands contained within the ASP area. A descriptive amount of detail relating to each of the servicing systems is summarized in the following sections.

5.2 Sanitary Sewer Collection System

The sanitary sewerage generated from the ASP area is conveyed to the City of Lethbridge Waste Water Treatment Plant. The Plant is located, in the River Valley, north of the Highway No. 3 River Crossing.

An existing sanitary sewer siphon originates at the Waste Water Treatment Plant and continues northerly in the river valley to the Gun Club Coulee road. The siphon then heads easterly, towards the developable lands along the east edge of the Oldman River Valley. Upon reaching the plateau, the sanitary sewer main functions as a conventional gravity sanitary trunk sewer. The sanitary sewer trunk continues easterly across the SE ¹/₄ of Section 18, towards Uplands Boulevard. At this point the sanitary trunk sewer enters the existing development in Uplands.

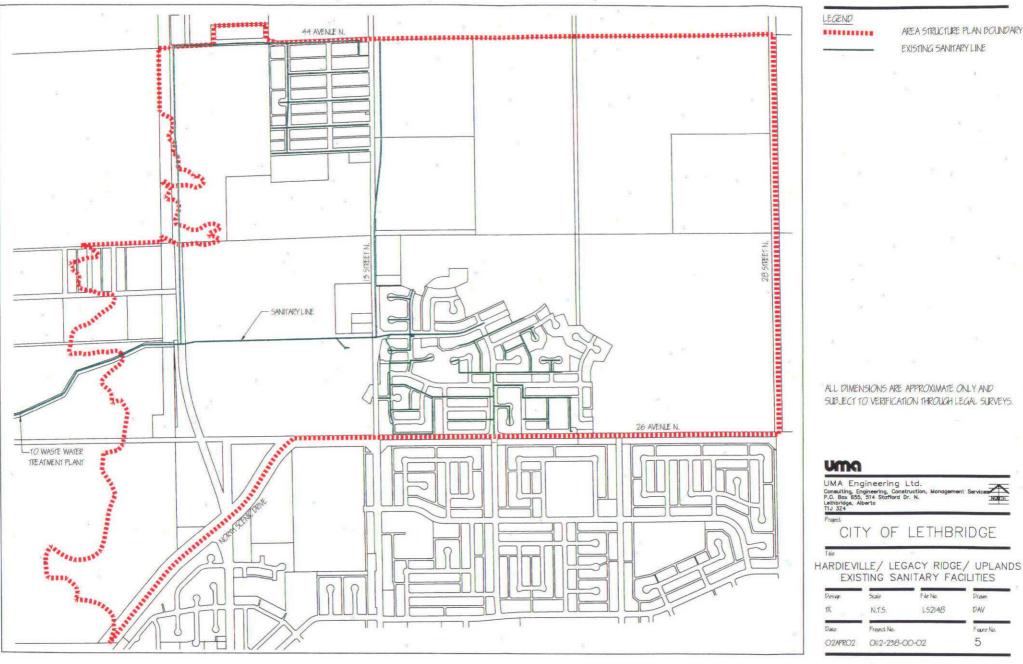
Two connections from the sanitary trunk sewer exist. One located at Stafford Drive N., north of 26 Avenue N. At this location, the trunk extends northerly and provides sanitary sewage to Hardieville. The second connection is located at the intersection of Uplands Boulevard and 13 Street N. This connection continues north along 13 Street N., in the future 13 Street N. right-of-way. The locations of the existing sanitary sewers located are shown on Figure 5.

5.3 Water Supply and Distribution System

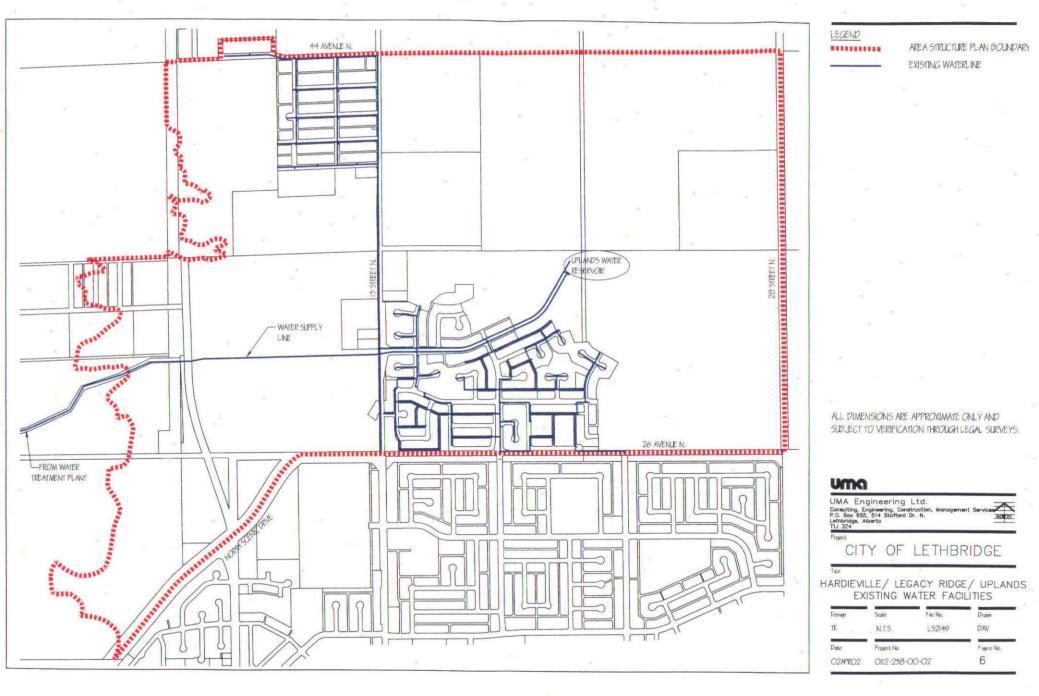
The water supply to the ASP area is obtained from the City of Lethbridge Water Treatment Plant. The Water Treatment Plant is located in the Oldman River Valley, south of the Whoop Up Drive River Crossing.

A dedicated water supply line originates at the Water Treatment Plant and continues northerly through Indian Battle Park towards the Gun Club Coulee road. The water main then parallels the sanitary sewer siphon towards the plateau. The dedicated water supply main then continues easterly across the SE ¹/₄ of Section 18 towards Uplands Boulevard. In Uplands Boulevard the supply main continues north and easterly to the existing Uplands water storage reservoir.

From the Uplands reservoir the water is then pumped into the water distribution piping system servicing both the developed areas of Uplands and Hardieville. Figure 6 depicts the locations of the existing water supply and distribution system located within the ASP area.



AREA STRUCTURE PLAN BOUNDARY



5.4 Storm Drainage System

5.4.1 Minor Storm Drainage System

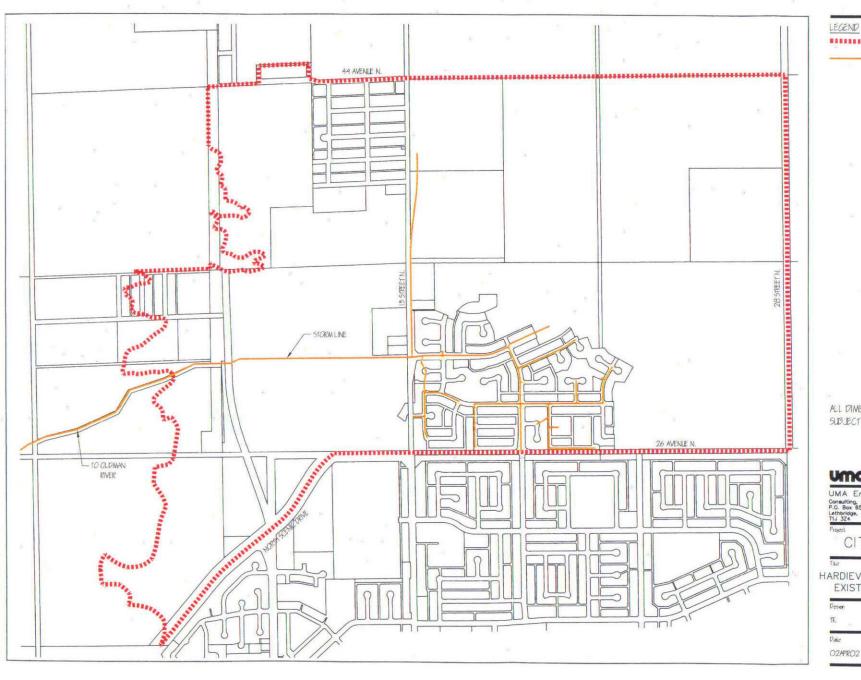
The minor storm drainage system consists of the piped network elements of the storm drainage system, providing for the safe collection and disposal of minor storm events, which is the 1 in 5 year design storm.

The existing minor storm system drains a portion of the ASP area westerly to the Oldman River. The Uplands storm trunk sewer originates at the Oldman River and continues easterly along the Gun Club road towards the plateau. The storm trunk sewer continues easterly across the SE ¼ of Section 18, paralleling both the Water Supply Main and the Sanitary Trunk Sewer towards Uplands Boulevard. The existing storm sewer infrastructure servicing the area structure plan is shown on Figure 7.

5.4.2 Major Storm Drainage System

The function of the major storm drainage system is to collect, store and safely convey storm drainage that exceeds the capacity of the minor storm drainage system. The major storm drainage system functions by default once the capacity of the minor storm drainage system is exceeded. To reduce flood damage, present City of Lethbridge standards and Alberta Environmental Protection standards and guidelines require storm drainage systems to safely accommodate the 1 in 100 year design storm.

Figure 8 approximately shows the total stormwater requirements. Included as part of Figure 8 are the 1981 drainage basin area boundaries used to design the existing Uplands Storm Trunk Sewer. The areas outside the drainage basin area boundaries will require the construction of another storm

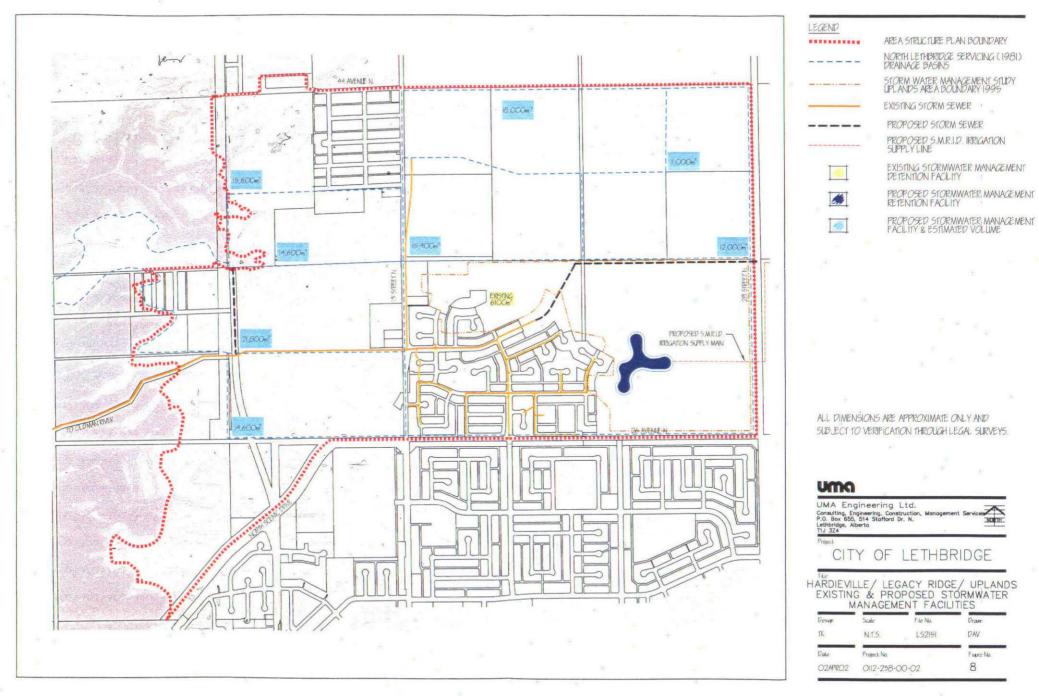


LEGENID AREA STRUCT EXISTING STO

AREA STRUCTURE PLAN BOUNDARY EXISTING STORM LINE

ALL DIMENSIONS ARE APPROXIMATE ONLY AND SUBJECT TO VERIFICATION THROUGH LEGAL SURVEYS.

Consulting, Er	, 514 Stafford	struction, Manageme	nt Services
Project	Y OF	LETHB	
The			TUOL
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EXISTI	NG MINO	R STORM F	ACILITIES
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trunk sewer, or additional storm water management facilities, since the existing storm drainage system has no capacity to accommodate these areas, at this time.

5.4.3 Existing Uplands Subdivision and Outline Plan

In August 1995, a stormwater management plan was prepared for the development of the balance of the Uplands subdivision. The area studied by the stormwater management plan is shown on Figure 8. The report recommended the construction of three storm water management facilities one of which was constructed in the park located adjacent to Cougar Road North. In March of 2001, the 1995 Storm Water Management report was updated to support a revision to the Outline Plan. The March/2001 storm water management report combined the two remaining proposed storm water management facilities, from the 1995 report into one storm water management facility, which would be constructed as a wet pond. The location of the wet pond is depicted on Figure 8.

The stormwater storage volumes identified on Figure 8 are cursory estimates for the purposes of the ASP only. When outline plans are prepared for the areas serviced by the Uplands storm trunk, additional detailed stormwater management design will be necessary to more accurately determine the required storage volumes.

5.4.4 Drainage Areas

Results from the UIMP, describing the storm drainage capacity of the Uplands Trunk were obtained. The drainage areas of the Uplands Trunk were used to prorate the residual storm trunk capacities, on an area basis to determine an allowable storm drainage release rate for the areas to the west and north of the existing Uplands subdivision. With the fore mentioned information and the existing contour data, approximate storm water storage volumes required for each of the drainage areas were estimated.

The volumes were estimated using the SWMHYMO stormwater management model. The model inputs included the UIMP 1 in 100 year, 24 hour duration design storm, existing surface topography and grades, the Uplands Trunk Drainage Basins, plus the anticipated imperviousness of the drainage areas were estimated at 50 percent, of which 26 percent was directly connected to the minor storm drainage system.

The drainage basin for the future trunk sewer will require definition of the hydraulic capacity to be determined. Until this information is available, sizing of future storm detention ponds cannot be completed. However, based on the values used in sizing the storm water storage facilities serviced by the Uplands Storm Trunk, the storage volume for the external area were estimated and the results included on Figure 8.

5.4.5 Stormwater Management Retention Facilities

Detailed stormwater management plans will be prepared as individual developments are proposed. Following current urban development trends in the City, it is anticipated that stormwater retention ponds will be part of the overall stormwater management strategy. These stormwater management facilities and associated lands will complement the overall open space system.

For instance, Figure 8 identifies one stormwater retention management facility. The facility, including accompanying open space, is about 5.5 hectares (13.5 acres) in size and will be situated in the southeast portion of the Uplands Village. The facility will operate as a stormwater management retention pond, will be landscaped and will have associated open space. Therefore, the stormwater management facility will provide visual amenity, passive recreational opportunities and functional open space to the ASP area. As noted above, at the more detailed stages of planning similar stormwater management facilities may be designated in the ASP area.

5.5 Irrigation Supply Main

An Irrigation supply main is proposed as a back up source of water supply to the stormwater management facility situated in Uplands and future parks adjacent to Uplands. The irrigation supply main presents an opportunity to irrigate turf areas with irrigation water as opposed to potable water.

The approximate routing for the irrigation supply main is shown on Figure 8.

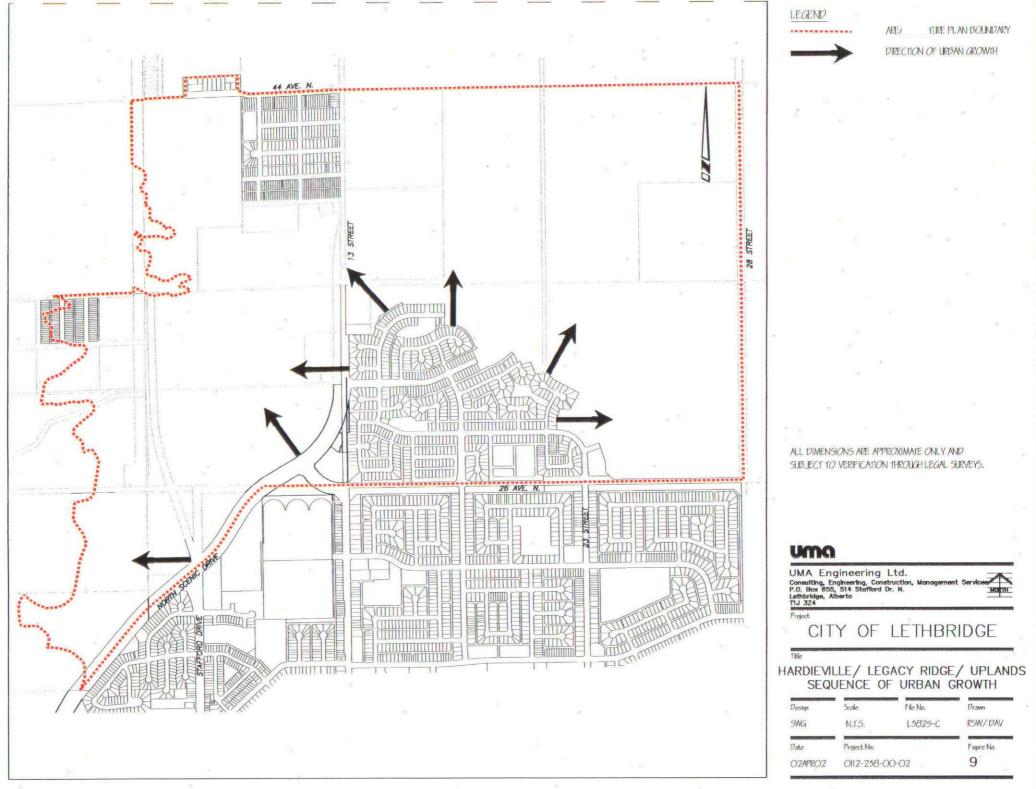
5.6 Shallow Utilities

Shallow Utilities, including electrical services, telephone and cable television required to service the ASP area can be achieved by extensions to the existing Infrastructure.

6.0 SEQUENCE OF URBAN GROWTH

The development process for the ASP area should proceed in an orderly pattern based upon servicing availability. The general direction of development is shown on Figure 9. The direction of urban growth reflects the ongoing development of the Uplands Village. By staging development in this manner, multiple developers will be able to simultaneously proceed with urban development.

The sequence of urban growth is only a guideline. It may be modified over time to reflect market conditions, rather than adhered to rigidly. As a result, simultaneous development of different areas can be expected to occur.



7.0 SUMMARY

This Area Structure Plan defines the major land use, transportation and servicing systems as well as the sequence of development for the Hardieville/Legacy Ridge/Uplands area.

The ASP is a response to changing trends, market conditions, community needs and preferences. The ASP area will be developed to provide a variety of residential uses and densities that are required to meet the current and future housing needs of the City of Lethbridge.

Commercial development will be concentrated along 26 Avenue N., guaranteeing that retail and service amenities are conveniently located and easily accessible. In addition, the ASP area will contain institutional and school sites.

The parks and recreational network will include regional parks, neighbourhood parks, open space and a pathway network. Including the two school sites the overall open space system will give the ASP area a spacious character.

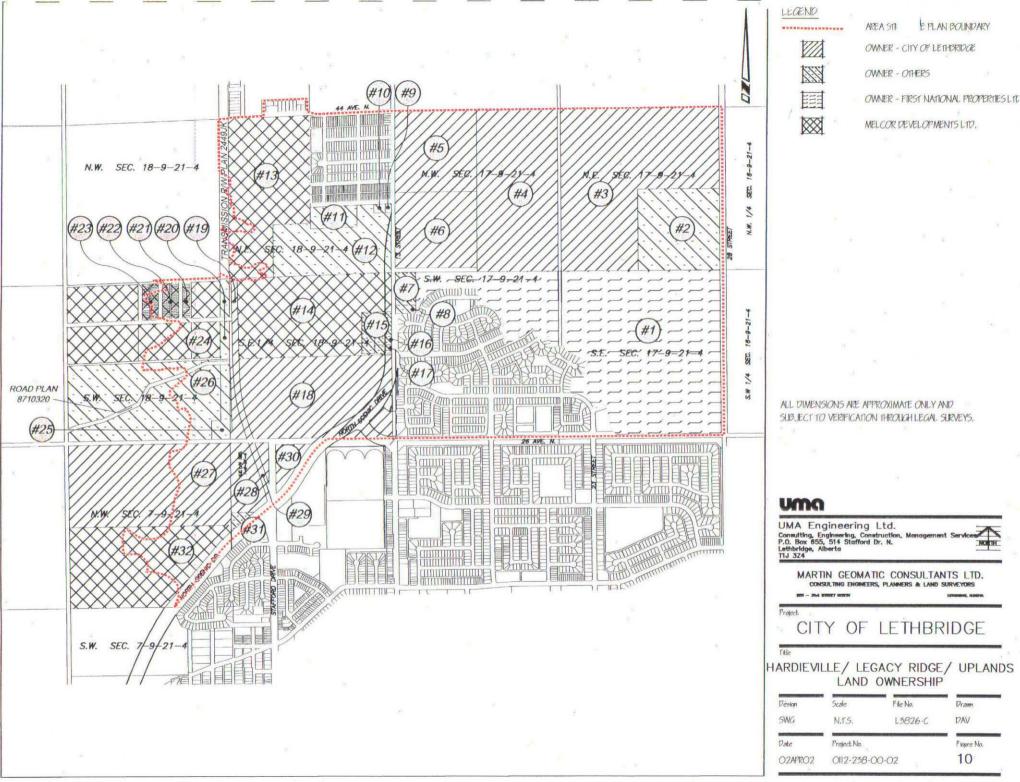
The future North Scenic Drive will include a major arterial roadway through the ASP area. The vehicular circulation network will consist of three peripheral arterial roadways connecting to a series of internal major and minor collectors. This design will enable traffic flow and ensure pedestrian safety.

The planning process included a comprehensive community consultation program that involved the collaborative efforts of a citizen-based steering committee. In addition, the planning process included a community meeting and three open houses. The community meeting was held before any plans had been prepared, and the open houses ensured that community input could be incorporated into the final plan. The notions explored through the steering committee process have formed the foundation for the Hardieville/Legacy Ridge/Uplands ASP.

This ASP complies with the polices of the City of Lethbridge's development guidelines and planning documents.

APPENDIX I

Land Ownership



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	Land Ownership By Title ²				
	Legal Description	Certificate of	Hectares	Owner	
		Title	(Approx)		
#1	Remainder of SE 1/4 17-9-21-4	991 180 755 +21	129.4	First National Properties Ltd.	
#2	Plan 761 0117	761 048 399	16.18	Canadian Broadcast Corporation	
#3	Portion of NE1/4 17-9-21-4	821 153 047 C	64.7	City of Lethbridge	
#4	Portion of NW 17-9-21-4, LSD 11 and 14	821 153 047	32.8	City of Lethbridge	
#5	Portion of NW 1/4 17-9-21-4, LSD 13	821 153 047 A	16.2	City of Lethbridge	
#6	Portion of NW1/4 17-9-21-4, LSD 12	821 153 047 B	16.2	City of Lethbridge	
#7	Portion of NW 1/4 17-9-21-4, LSD 5	931 164 970	2.02	Susan Kohut and Robert J. Blair	
#8	Portion of NW 1/4 19-9-21-4, LSD 5	991 197 151	0.405	Greg Holomay	
#9	Plan 921 2212, Block 10, Lot 1	921 278 575	0.130	Franklin S. Peta and Eileen Marie	
				Peta	
#10	Plan 921 2212, Block 10, Lot 2	921 278 575 +1	0.243	Anne Peta	
#11	Plan 2181 JK, Block A	951 074 997	2.45	Trinity Reformed Church of	
				Lethbridge	
#12	Portion of NE1/4 18-9-21-4, LSD 9	921 278 705	13.88	Steve Peta	
#13	Portion of NE1/4 18-9-21-4	911 007 987	32.4	Melcor Developments Ltd.	
#14	Portion of SE1/14 18-9-21-4	911 007 987 +1	30.667	Melcor Developments Ltd.	
#15	Portion of SE1/4 18-9-21-4	751 144 149	2.036	Elim Society	
#16	Portion of SE1/4 18-9-21-4	141 E 133	0.133	Arthur S. Pierson and Beth Mary	
				Pierson	
#17	Portion of SE 1/4 18-9-21-4, LSD 8	921 083 923	0.334	Gary Tajiri Produce Ltd.	
#18	Portion of SE1/4 18-9-21-4, LSD 1 and 2	821 153 047 B	32.4	City of Lethbridge	
#19	Plan RY 116	821 076 570	2.47	City of Lethbridge	
#20	Plan 2449 JK	133 Z 155	2.21	Calgary Power Ltd.	

² Information derived from Land Title searches in January 2000 (subject to change).

#21	Plan 6439 AA, Block 22, Lots 24-46	901 085 725 +1	0.645	Melcor Developments Ltd.
#22	Plan 6439 AA, Block 23, Lots 1-46	901 085 725 +2	*1.411	Melcor Developments Ltd.
#23	Plan 6439 AA, Block 26, Lots 1-46	901 085 725	*1.399	Melcor Developments Ltd.
#24	Plan 6439 AA, Blocks A, B, C, D, E	901 085 725 +3	*27.02	Melcor Developments Ltd.
#25	Plan 244JK	134 D 200	0.084	Calgary Power Ltd.
#26	Portion of SW1/4 18-9-21-4	781 115 105	*32.4	Calgary Power Ltd.
#27	Portion of NW1/4 7-9-21-4	74 S 232	*32.3	City of Lethbridge
#28	Portion of NE 1/4 7-9-21-4	931 277 918 +4	4.52	City of Lethbridge
#29	Plan RY 136	931 277 918 +5	0.084	City of Lethbridge
#30	Portion of NE 1/4 7-9-21-4	971 220 171 +19	2.206	City of Lethbridge
#31	Plan 881 1179, Block 7	881 167 918 AF	0.525	Bel-Aire Land Development Ltd.
#32	Portion of NW 1/2 7-9-21-4	971 317 730 +45	*32.4	Melcor Developments Ltd.

* Portions of these areas are located outside the Area Structure Plan boundary.

APPENDIX II

Steering Committee Members

Hardieville/Legacy Ridge/Uplands Area Structure Plan Steering Committee Members

Chairman

Ald. Joe Mauro

Homebuilder

Dave Scherloski

Land Developers

Felix Michna – City of Lethbridge Tosh Kanashiro & Neil Johnson – Melcor Developments Ltd. Cliff Kelsey – First National Properties Ltd.

Neighbourhood Associations

Fran Kelly – Hardieville Richard Reron – Uplands

Hardieville Residents

Glen Fengstad Donna Kobylansky Ed Weistra

Uplands Residents

John Claassen Don Wickens Trevor Kesler

APPENDIX III

Land Use Statistics

Hardiev Estimated Gross De						ed and
	Legacy	/ Ridge	Upla	ands	Total AS	SP Area
	hectare	acre	hectare	acre	hectare	acre
Gross Area	191	472	262	647	453	1119
Transmission R/Ws	9	22				
Valleyview Regional Park (former landfill and adjacent lands)	27	67				
Uplands Regional Park			22	54		
Stormwater Management Facility (area of pond)			2	5		
Gross Developable Area	155	383	238	588	393	971
Units	16	50	25	00	41	50
Population	45	50	70	00	11,5	550
Average Persons Per Gross Developable Hectare/Acre	29.4	11.9	29.4	11.9	29.4	11.9

Note: Calculated using City of Lethbridge population factors of 2.8 persons per unit and 10.5 units per gross developable hectare (4.24 units per gross developable acre).

The densities referred to in this section may have been revised at the outline plan stage. Please refer to the following outlined plans for detailed and accurate densities:

Legacy Ridge Phase I

• Legacy Ridge III

Legacy Ridge Phase IIUplands

Municipal Reserve Dedication For Parks and Schools				
Land Use	Hectare	Acre	Percentage of Gross Developable Area (393 ha/971 ac)	
Neighbourhood Parks	15.5	38	4%	
Public Elementary Schools	8	20	2%	
Public Middle School	7.5	18.5	2%	
Holy Spirit K-9 School	8	20	2%	
Total Area	39	96.5	10%	

Municipal Reserve Dedication for Parks and Schools, the Municipal Reserve dedications and/or percentages of gross developable areas may have been revised at the outline plan stage. Please refer to the following outlined plans for detailed and accurate dedications:

- Legacy Ridge Phase I
- Legacy Ridge Phase IIBlackwolf
- Legacy Ridge III

• Uplands

APPENDIX IV

School Enrolment Projections

	Neighbourhood	Hardieville / Legacy Ridge	North Uplands	Blackwolf	Uplands	Total
2011						
	Public Elem (K - 5)	85	0	0	241	
	Public Middle (6-8)	42	0	0	121	
	Public Senior (9-12)	50	0	0	188	
	Separate Elem (K - 9)	61	0	0	180	
	Separate Senior (10-12)	17	0	0	62	
	Other	13	0	0	42	
2020						
	Public Elem (K - 5)	191	22	77	214	
	Public Middle (6-8)	96	11	39	107	
	Public Senior (9-12)	116	16	55	164	
	Separate Elem (K - 9)	139	16	57	159	
	Separate Senior (10-12)	38	5	18	54	
	Other	31	4	13	37	
2040						
	Public Elem (K - 5)	180	33	171	208	
	Public Middle (6-8)	90	17	86	104	
	Public Senior (9-12)	110	23	121	160	
	Separate Elem (K - 9)	131	24	126	155	
	Separate Senior (10-12)	36	8	40	53	
	Other	29	6	29	36	
	vas assumed that 66% of scl	-				
	in public school, 29% in sep hooled, provate school etc.	arate school and 5% in Other				