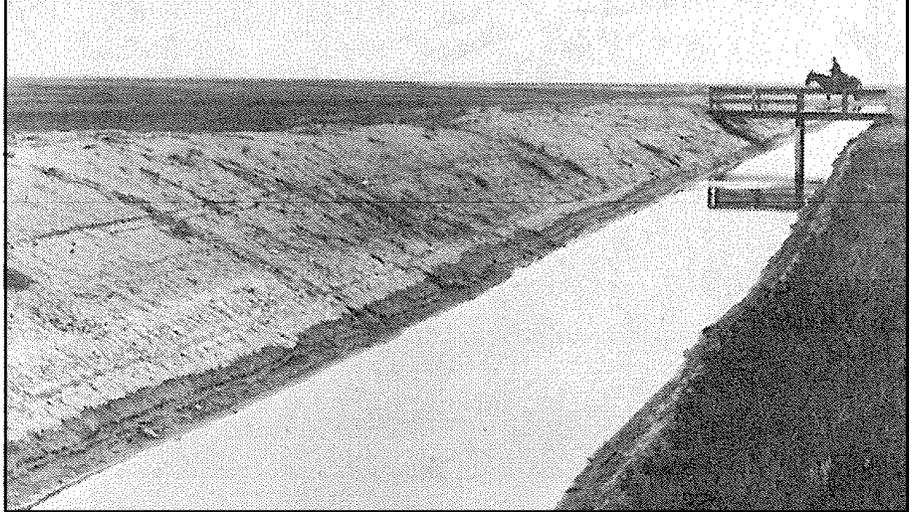
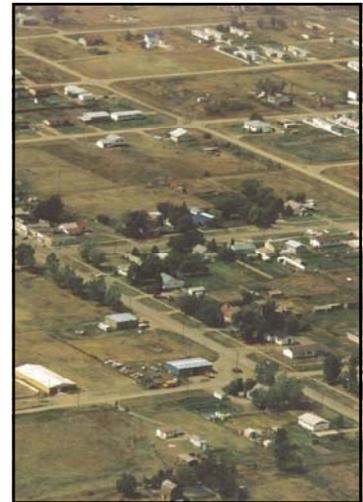


Village of Stirling



Municipal Development Plan

Bylaw No. 416-08



April 2008

Prepared by



OLDMAN RIVER REGIONAL SERVICES COMMISSION

**VILLAGE OF STIRLING
IN THE PROVINCE OF ALBERTA**

BYLAW NO. 416-08

BEING A BYLAW OF THE VILLAGE OF STIRLING, IN THE PROVINCE OF ALBERTA, TO ADOPT A MUNICIPAL DEVELOPMENT PLAN FOR THE MUNICIPALITY.

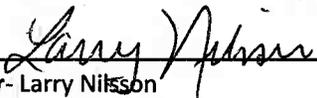
AND WHEREAS, the Municipal Government Act provides for municipalities in the province with a population of less than 3500 the opportunity to adopt a municipal development plan by bylaw;

AND WHEREAS, the Council of the Village of Stirling wishes to provide a comprehensive, long-range land use plan to guide and direct future development within the municipality pursuant to the provisions of the Municipal Government Act, Revised Statutes of Alberta 2000, Chapter M-26, as amended; and

NOW THEREFORE, under the authority and subject to the provisions of the Municipal Government Act, Revised Statutes of Alberta 2000, Chapter M-26, as amended, the Council duly assembled does hereby enact the following:

1. Bylaw No. 416-08 being the Municipal Development Plan is hereby adopted.
2. This Bylaw comes into effect upon the third and final reading.

READ a first time this 5th of March, 2008

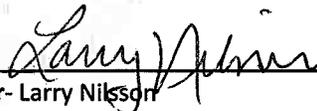


Mayor- Larry Nilsson



Chief Administrative Officer- J. Scott Barton

READ a second time this 2ND day of April, 2008

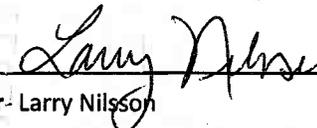


Mayor- Larry Nilsson



Chief Administrative Officer- J. Scott Barton

READ a third time this 2nd day of April, 2008



Mayor- Larry Nilsson



Chief Administrative Officer- J. Scott Barton

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INTRODUCTION

The Village of Stirling is one of the last surviving examples of the distinctive settlement patterns associated with Mormon communities in southern Alberta. Stirling's physical and cultural landscapes – typified by 10-acre blocks, large lots, wide streets, and ample open space and gathering places – are indicative of its unique history and small town ambiance residents have come to enjoy. In 1989, this unique landscape was formally recognized when the Historic Sites and Monuments Board of Canada (HSMBC) deemed the Village a National Historic Site.

The first settlers arrived in 1899, sent by the leaders of the Church of Jesus Christ of Latter Day Saints (LDS) to build an irrigation system to aid in the establishment of successful agricultural pursuits. At that time the Village of Stirling was a mere railway stop surrounded by an infinite sea of prairie grass. Due to these settlers' perseverance, Stirling became a thriving agricultural community on the shore of the Canadian frontier.

Today the primary objective of the residents of this Village is to maintain a small town atmosphere, while continuing to provide its citizens and visitors with a broad range of services that support a comfortable community lifestyle. It is their goal to foster a safe, family-oriented community that is committed to well-organized and proficient growth. The community recognizes the links with its past as they are represented by the physical and cultural landscape that surrounds them, and that these characteristics are essential ingredients in maintaining the quality of community life people in Stirling wish to protect.

The people of Stirling appreciate the inevitability of change and growth that must occur. However, they view it as an opportunity to preserve and protect the unique and distinct elements that contribute to the Village's way of life.

This Municipal Development Plan looks back to identify the historical aspects of the community that made it such a unique and distinctive place and looks ahead to provide decision-makers, municipal staff, and the public, with guidance policies that recognize the importance of the historical development pattern and the desire for efficient development and growth.

Key Goals

The policies in this plan are intended to foster the following community goals:

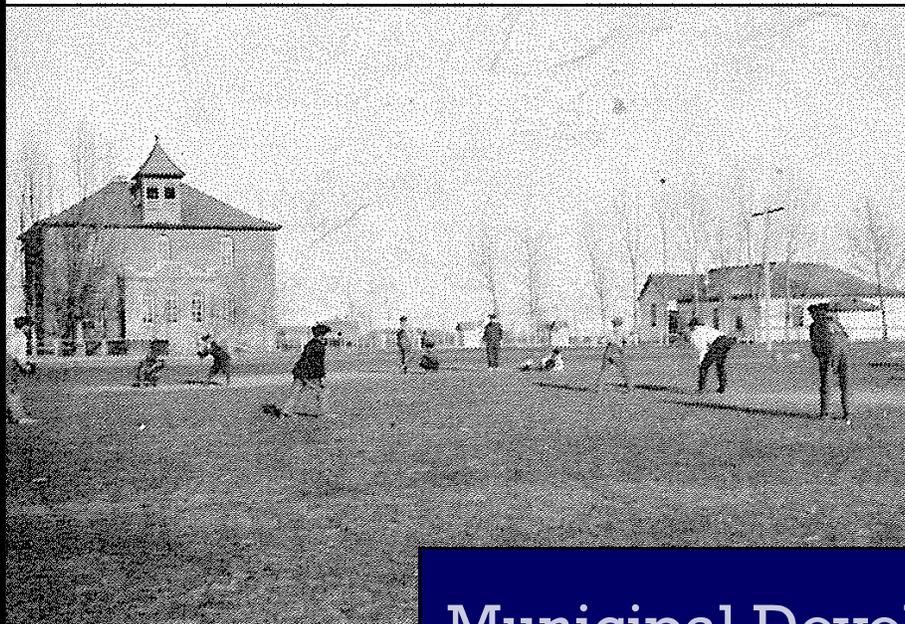
- maintain the Village's small town atmosphere;
- preserve the integrity of the 10-acre block;
- foster a safe, family-oriented community;
- provide for an efficient, well-organized development pattern;
- promote efficient use of land and existing infrastructure;
- provide for a mix of housing types;

- minimize impacts of potential seasonal flooding on the built environment;
- promote a balance of commercial, industrial and residential development;
- encourage a basic level of services for residents;
- maintain vistas and transition areas between the built-up area of the Village core and the areas west and south of Kipp Coulee; and
- continue intermunicipal cooperation with the County of Warner.

Village of Stirling



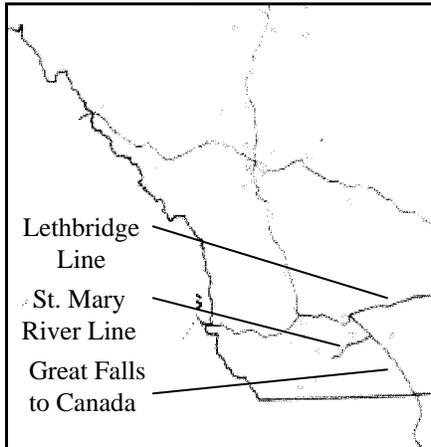
Part 1: Settlement to 1950



Municipal Development Plan

1. Location and Transportation

Figure 1
Southern Alberta's Population
 (each dot represents 1000 persons)
 and Rail Lines in 1901

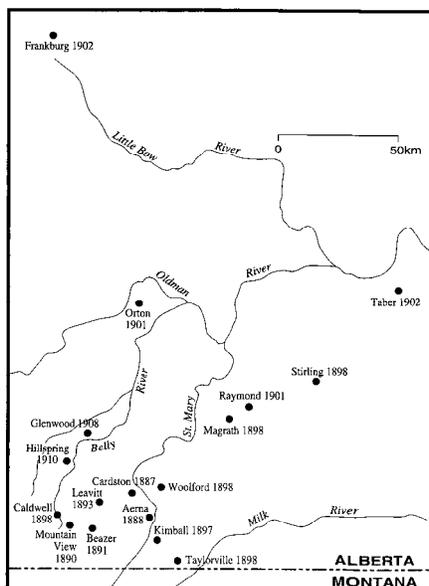


Source: <http://railways-atlas.tapor.ualberta.ca/cocoon/atlas/Maps-2-3-1/>

In the early 1880s the Alberta Railway and Coal Company constructed a railway in order to ship coal mined from the Lethbridge coal banks to Eastern Canada. To gain access to additional markets in Montana, the Alberta Railway and Coal Company constructed the Great Falls to Canada Railway, under the direction of Alexander T. Galt and his partner, C. A. Magrath, in 1893 (Figure 1). In return for the construction of these railways, the Alberta Railway and Irrigation Company (successor to the Alberta Railway and Coal Company) received 6400 acres of land for every mile of railway track.

During the same time period, population growth and increasing land prices in the State of Utah discouraged further land acquisition. Land in Southern Alberta was abundant and relatively inexpensive; as a result, 17 farming villages were established by American settlers belonging to the Church of Jesus Christ of Latter-Day Saints (LDS) between 1887 and 1910 (Figure 2). Early settlers and traders travelled to Canada on the Whoop-up Trail, but the majority of the American settlers arrived via rail. The Village of Stirling was founded in 1899 – settlers arrived the following year – and was created through a partnership between the Alberta Railway and Irrigation Company and the LDS Church. Stirling was named after J. A. Stirling, the managing director of a British Trusts Corporation, which owned shares in the Alberta Railway and Irrigation Company.

Figure 2
LDS Settlements in Southern Alberta



Source: Parks Canada, *Stirling Agricultural Village National Historic Site Conservation and Presentation Report*, 1997.

In 1903 the Great Falls to Canada Railway was taken over by the Canadian Pacific Railway (CPR) Company. In 1900, the CPR built the St. Mary River Railway line, which ran from east to west and connected Cardston, Magrath, Raymond, and Stirling. The junction between the Great Falls to Canada and the St. Mary River Railway lines was to be just east of the Village of Stirling. However, the lands allocated for the junction were low-lying and prone to flooding. Thus, the CPR moved the junction one mile to the north. In 1912, the Village of May Butt grew and prospered at the railway junction. However, as a result of the need for fewer railway stops in the 1920s, May Butt's population gradually declined while Stirling's increased.

At the turn of the century, a mixed passenger and freight train serviced Stirling and Lethbridge. In 1912, a daily passenger train ran from Lethbridge through Stirling to Coutts and back. This passenger service continued until 1951, when the service was eliminated due to lack of patronage.

Prior to 1916, the main road into Stirling was a dirt road from Lethbridge that went past Wilson Siding, followed the railroad line to May Butt and turned south into Stirling. The road was improved by the addition of gravel in 1916. In 1935, the road from Stirling to Raymond was repaired. The Alberta Government began to grade the road from Stirling to Coutts – at the United States border – in 1944. This road, then called Sunshine Trail, was paved in 1947.

2. Physical Features

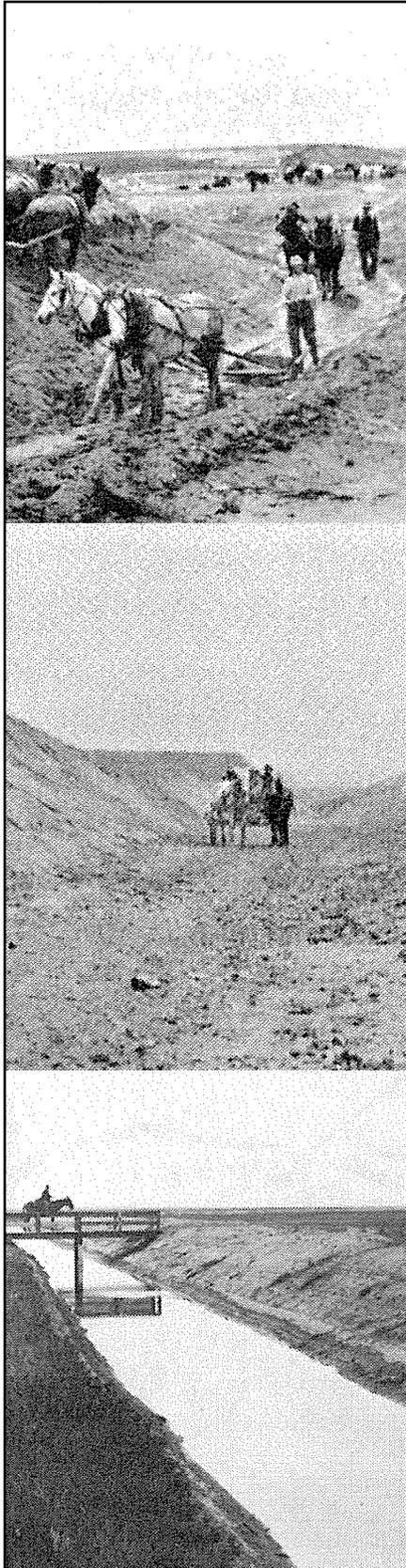
Figure 3
Location of Palliser’s Triangle and
Soil Types Within the Area



Source: http://en.wikipedia.org/wiki/Image:Palliser%27s_Triangle_map.png

In 1857, Captain John Palliser lead a survey expedition to Canada’s West. Large portions of the Prairie Provinces were deemed to be unsuitable for agriculture and Palliser indicated that these lands could only be used for ranching because of extremely dry conditions. Although these dry grass prairie lands, known as Palliser’s Triangle, had rich soil, the soil was only suitable for agricultural production when irrigated (Figure 3). The land grants received by the Alberta Railway and Irrigation Company were within Palliser’s Triangle and it was difficult to sell the land to settlers without an irrigation system in place.

Members of the LDS community had built extensive irrigation systems in Utah in order to create fertile farming land. In 1887, Charles O. Card had brought the first group of LDS settlers to southern Alberta and established the Town of Cardston. The settlers created a number of small irrigation ditches in Cardston in order to farm the area. At the turn of the century, Card and the LDS church received a proposal from C. A. Magrath of the Alberta Railway and Irrigation Company. LDS settlers would build an irrigation canal that would divert water from the St. Mary River to the prospective Town of Magrath and terminate at the prospective Town of Stirling. In return, the settlers would be compensated for their labour, half in cash and half in



Source: Stirling Sunset Society, *Stirling: Its Story and People*, 1981

land-scrip. The LDS Church and Alberta Railway and Irrigation Company entered into a cooperative agreement and work on the canal started in September of 1898 and was scheduled to be completed by December 1899.

The irrigation canal, named the Galt Canal, was more than 60 miles (97 km) long. The settlers took advantage of existing coulees and waterways and excavated 35 miles (56 km) of the canal in total. Near the Village of Stirling, the settlers took advantage of Kipp Coulee, and the main portion of the canal was completed in 1900. The lateral canals carrying water to Stirling and Magrath had to be constructed and were completed in 1901.

The portion of the canal that runs through the Village of Stirling is known as Kipp Coulee. Kipp Coulee is a natural formation and meanders through the western and southern parts of the Village. The topography in Stirling and surrounding area is generally flat with some gentle variations in slope. The northeast corner of the Village has a slight downward slope and poor drainage; hence, the northeast corner was never used as a town centre as planned.

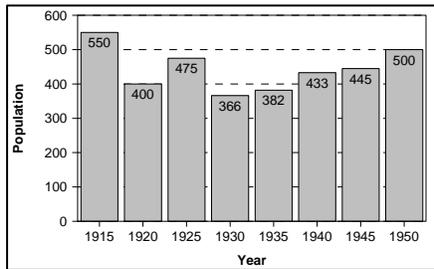
True to Palliser's prediction, climate in the early years was general dry, and drought in the 1920s and 30s made farming more difficult. The prevailing southwest winds often stripped topsoil, resulting in many of Stirling's residents planting shelterbelts to prevent erosion.

3. Population and Demographics

According to the agreement between the LDS Church and the Alberta Railway and Irrigation Company, the prospective Towns of Magrath and Stirling were to be populated with 250 settlers each. Only 54 families had settled in Stirling by the fall of 1899 so the Church called members from Utah on missions to Alberta to help colonize the new towns and finish the irrigation canal. By 1911, Stirling's population had grown to over 500 people.

From 1911 to 1921, the Village of Stirling's population declined by approximately 5.5% yearly, resulting in a loss of 220 residents over the 10-year period. This population

Figure 4
Population of Stirling
from 1915 to 1950



Source: Alberta Municipal Affairs

decline was the result of migration to new homesteading areas and to May Butt. Fewer railway stops were needed as technology advanced and during the 1920s May Butt's population declined and Stirling grew as a result (Figure 4). During the 1930s and 40s, population growth in Stirling was approximately 1.5% annually. After World War II, Stirling regained its pre-1911 population of approximately 500 persons.

4. Local Economy

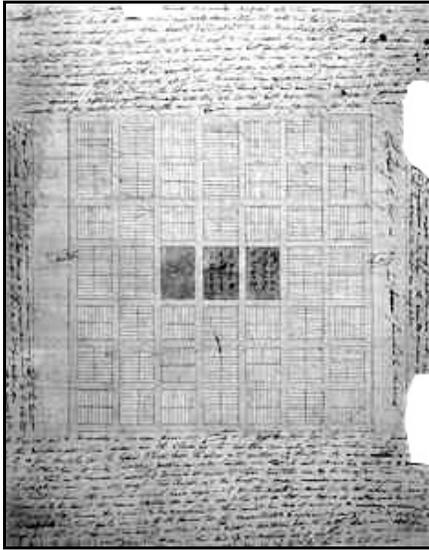
Stirling was established during Canada's "Wheat Boom Era", which ran from 1897 to 1914. During this period, many people settled in the Prairie Provinces and a rapidly growing economy based upon the export of wheat emerged. In 1912, over 48,000 acres of land in Stirling and the surrounding area were being cultivated and 40,000 acres of the cultivated land were used for wheat production. Stirling and area also produced large quantities of alfalfa and sugar beets. All types of livestock were raised in the Village and adjacent countryside.

In Stirling's early years the residents had access to a number of commercial outlets. In the first five years after settlement, a post office, general store, two lumberyards, and a hotel were established in the Village. Additional general stores as well as a bank, café, confectionary, butcher, blacksmith, harness shop, shoemaker, barber, drug store, and a doctor's office soon followed. Industries such as machine companies, garages and a knitting factory also operated in Stirling.

The Village had electric power in the late 1920s and most of the farmers had tractors and drove cars. However, during the Great Depression, power and telephones were taken out of homes and cars were put up on blocks because the residents could not generate enough income to pay for these services and operation of the machinery. Most lived on what they produced and traded surplus items with other members of the community. When the situation started to improve, the Second World War began. During this period, the agricultural economy suffered because food, gas and other supplies were rationed and many of the farmers could not purchase new machinery.

5. Street Pattern and Lot Layout

Figure 5
Joseph Smith's Original "Plat of Zion" Plan for Independence, Missouri



Source: <http://en.wikipedia.org/wiki/Image:Zionplat2.jpg>

The original plan for the Village of Stirling, and many of the other LDS settlements in Southern Alberta, was loosely based on the "Plat of Zion" plan that was devised in 1833. Joseph Smith, founding father of the LDS Church, created the original plan for Independence, Missouri (Figure 5). The plan was used for over 500 towns and villages in North America. The "Plat of Zion" plan is based upon a biblical reference to a "Four Square" city with each of the sides oriented to compass points. According to the plan, towns and villages were to be one-mile square, or 640 acres, and be divided into 10-acre blocks by a grid of 100-foot wide streets. Each of these blocks was to be further subdivided into eight lots of 1.25 acres each.

In the Village of Stirling, 40 acres in the far northeast corner were further subdivided into 328 small lots (Map 1). This area was to be used as the town centre. In the western and southern parts of the Village, many of the 10-acre lots were not subdivided because Kipp Coulee Creek meanders through that sector of the Village. Another unique feature in the Village of Stirling plan is the back lanes, which were unusual in "Plat of Zion" plans.

6. Municipal Services

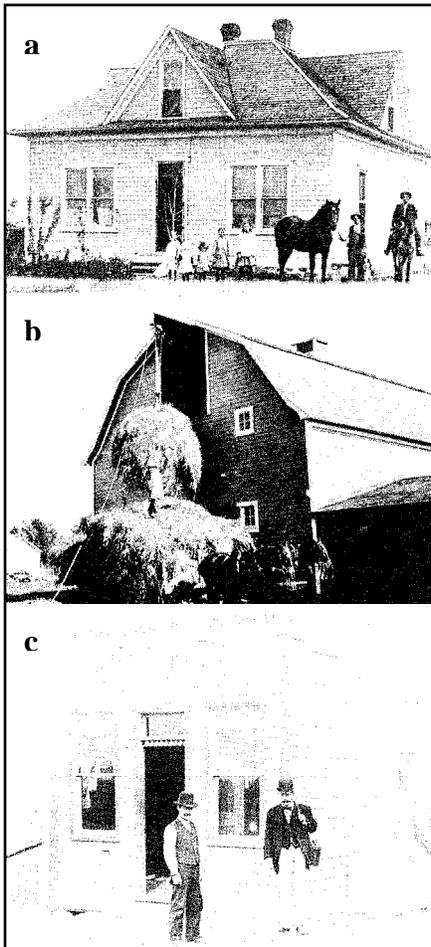
During the settlement of Stirling, water was brought to the Village on a train from Lethbridge. Shortly thereafter, wells were dug within the Village. Water from these wells was hauled to the homes and was used as a source of drinking water. Eventually, water from wells or cisterns was piped directly into homes and septic systems were installed. Prior to 1965, no municipal water and sewer system was in place.

In 1901, a lateral canal was built that diverted water from the Kipp Coulee to the Village of Stirling for irrigation purposes. Ancillary channels ran along the edge of the Village and delivered water to Stirling. The settlers built a series of irrigation ditches, culverts, levees, and cisterns throughout Stirling that provided the farmsteads with a source of water. A community reservoir was also present in the early years.

Not all of the roads were constructed according to the original plan. The roads in the northeast and southwest corners were never built, but the road allowances for these roads remain. Some road improvements were made in 1934. Community members worked in teams to extract gravel from a local pit in order to gravel most of the main roads.

7. Community Character

Figure 6
Early Architecture in Stirling:
Theodore Brandley home with square
hipped roof construction (a), gambrel-
roofed Michelsen barn (b), one-storey
wood frame post office (c).



Source: Stirling Sunset Society, *Stirling: Its Story and People*, 1981

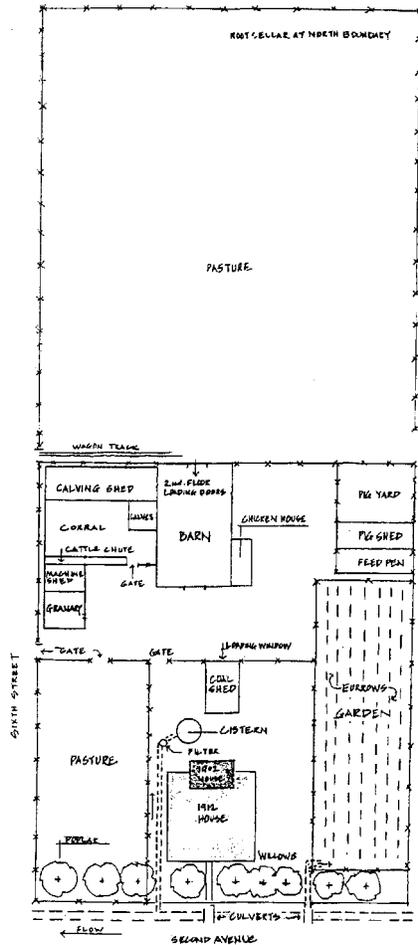
Pre-1950 the community character was defined by a number of elements: the Village plan, the relationship between Stirling and its setting, relationships between buildings and open spaces within the Village, the irrigation canals, and the role of Stirling as an agricultural production centre. There was a distinct contrast between the built-up area in the Village and the openness of the adjacent countryside, as farmers would commute from their farmsteads in the Village of Stirling to work their land in the surrounding fields.

The Village of Stirling had a spacious, agricultural character defined by large lots and wide streets. The 100-foot wide streets allowed for the movement of agricultural equipment within the Village. Farmsteads were organized in a grid of large, equal-sized lots along these streets. On each farmstead, houses were set back 25 feet from the street with room for outbuildings, gardens and small pastures behind the house.

Architectural style was typical of prairie architecture at the turn of the century (Figure 6). Rectangular houses with straight gable roofs and square homes with hipped roofs or pyramidal roofs were common. Houses were typically built from wood with clapboard siding. Additions of porches or verandas were made in later years. Outbuildings were unpainted and were often gable-roofed granaries or gambrel-roofed “Wisconsin” dairy barns. Commercial buildings were typically one-storey wood frame buildings. Fencing dated back to settlement and several different types of fencing was used. Fencing around houses had a more finished appearance while fencing used for livestock was simple and made of a variety of materials.

Irrigation infrastructure was a dominant feature in the landscape within Stirling. Vegetation was abundant within the Village boundaries because the settlers planted shelterbelts near irrigation ditches on the perimeter of their properties. These shelterbelts acted as windbreaks to protect buildings from wind and fields from erosion and were often composed of vegetation such as poplar and cottonwood trees and carrigana hedges. Apple, pear and plum trees were planted in orchards. The lush vegetation in the irrigated Village contrasted sharply with the sparse vegetation in the surrounding arid countryside.

Figure 7
The Michelsen Farmstead,
an Example of a Typical Residential
Land Use in the Village of Stirling



Source: Parks Canada, *Stirling Agricultural Village National Historic Site Conservation and Presentation Report*, 1997.

8. Land Use

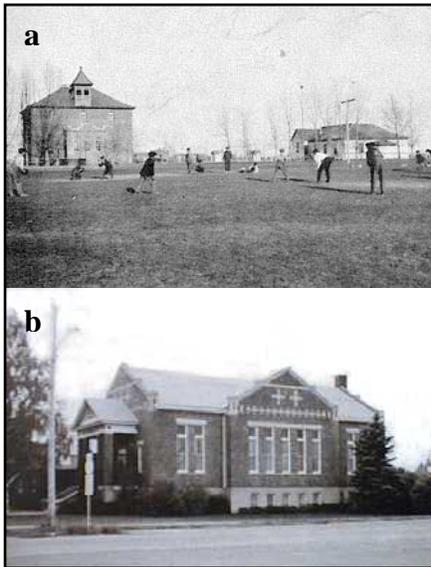
In Stirling’s early years land use was influenced by Joseph Smith’s “Plat of Zion” plan. According to the plan, all lots within the Village were farmstead lots where no more than one house was to be built. All houses were to be set back 25 feet from the street.

Although the 10-acre blocks within the Village were surveyed into 1.25-acre lots, most farmsteads were 2.5 acres, with sizes ranging from 1.25 to 10 acres. In addition, some of the roads were not constructed as planned. The individual farmsteads were arranged according to Joseph Smith’s “Plat of Zion” plan and modified according to the preferences of the family. The large lot sizes allowed for a wide range of uses, and farmsteads typically included a house, barns, granaries, a garden, corrals, and some land for pasture (Figure 7).

Undeveloped parts of the Village, such as the lands adjacent to Kipp Coulee, were used for pasture and some agricultural production. Cash crops were typically grown on lands south and west of the Coulee and outside of the Village. Historically, dwellings were not located on these agricultural lands. Thus, farmers lived on farmsteads within the Village and commuted out to their fields during the growing season. This allowed residents to be engaged in agricultural production while affording all the amenities of living in a small community.

Due to poor drainage, the northeast corner of the Village never developed into a town centre as planned. Like most of the land in Stirling, the northeast corner was used for farmsteads. Institutional buildings and several small wood-frame commercial buildings were located on what is known today as 3rd Street.

Figure 8
Early Community Facilities in Stirling: Stirling's brick school, built in 1904, and wooden church, built in 1899 (a), Stirling's second church, built in 1930 (b).



Source: Stirling Sunset Society, *Stirling: Its Story and People*, 1981

9. Community Assets

In 1899, a white wooden building with one room was built on the site where the LDS Church stands at present (Figure 8). This building served as a church, school, dance hall, and theatre in Stirling's early years.

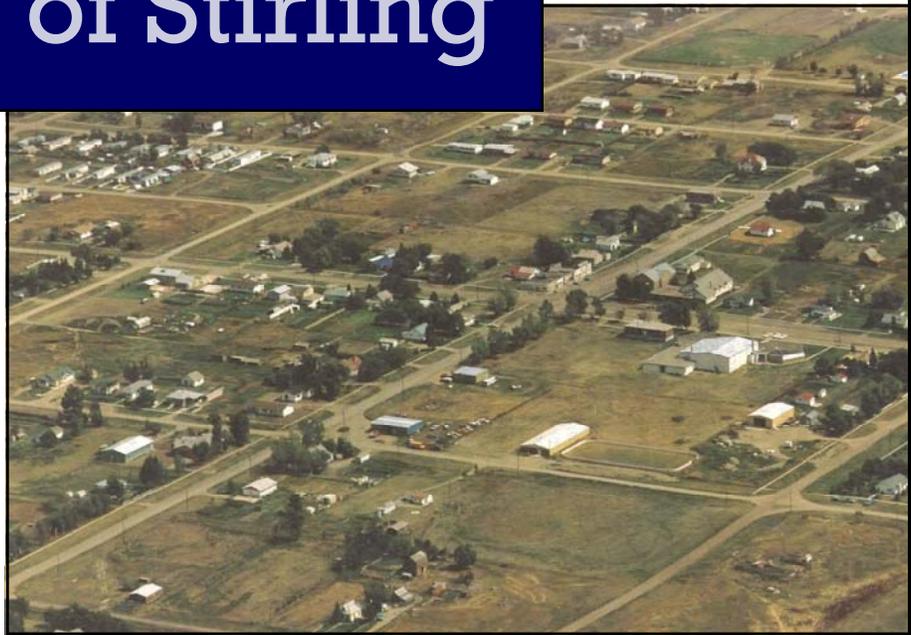
A brick schoolhouse was built in 1904 at a cost of over \$10,000 and had five teachers on staff. A fire destroyed the school 30 years later, in the spring of 1934; it was rebuilt and reopened that fall. To add additional space, a two-room school with a full basement was built next to the old school in 1949.

In the late 1920s the first white wooden church was sold to the school. A new church was built in 1930 and was made of brick. Like the old church, it was often used for a variety of community functions.

10. Intermunicipal Issues

A grid of 100-foot wide streets also subdivided land in the County of Warner surrounding the Village of Stirling. Each parcel of land was 10 acres and was used for agricultural purposes (Map 2). Farmers typically commuted to the surrounding countryside from their farmsteads in the Village. Hence, few buildings were located in the area surrounding Stirling, giving a sharp contrast between the Village and County lands.

Village of Stirling



Part 2: 1950 to 2006



Municipal Development Plan



1. Location and Transportation

Passenger use of the railway declined with the paving of the Sunshine Trail from Lethbridge past Stirling and on to Coutts at the U.S. border in the 1940s, as well as the improvements made to the road from Raymond to Stirling. In 1951, the daily passenger service from Lethbridge to Coutts was eliminated due to lack of patronage. Mixed freight and passenger service continued until 1955. Today the St. Mary River Railway is no longer in use and the Great Falls to Canada Line is only used to ship freight.

Since the construction of the Sunshine Trail in the late 1940s, Stirling has become an increasingly highway-based community. The Sunshine Trail was replaced by Highway 4, which runs just to the east of the Village and serves as the major link to Lethbridge and the U.S. border (Map 3). The road between Raymond and Stirling is now known as Highway 52.

Stirling is located within the immediate trade area of Lethbridge. Stirling is a minor service centre and many of its residents travel to Lethbridge on Highway 4 for employment and to purchase goods and services.

2. Physical Features

In the 1960s a water and sewer system was constructed in the Village. Therefore, the irrigation ditches that ran from Kipp Coulee to many of the lots in Stirling were no longer needed. However, the remnants of these ditches still run throughout the Village.

The northwest corner of Stirling and lots along the western and southern edges of the Village do not receive municipal water and sewage services because of servicing difficulties. These areas have lower topography than the central part of the Village. In large storm events, flooding occurs on some of these lands.

In recent years some of the roads in the Village of Stirling have been paved. In terms of hydrology, pavement can be a concern because more runoff is generated during storm

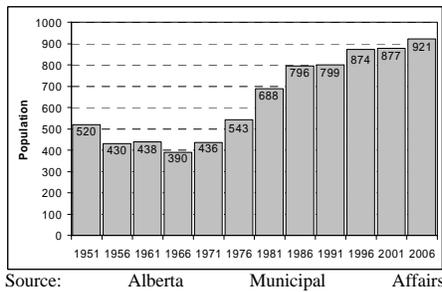
events on paved surfaces as stormwater cannot infiltrate into the ground. The banks of Kipp Coulee have been eroded as the result of recent storm events.

3. Population and Demographics

During the 1950s and 1960s the population of Stirling declined by approximately 2% yearly to a low of 390 residents in 1966 (Table 1). The major factor accounting for this population decline was the migration of rural residents to urban centres. The main impetus for this migration was the search for better employment and educational opportunities, a wider range of goods and services available to urban dwellers and the consolidation of small farms into larger units.

During the 20-year period from 1966 to 1986 a number of families moved back into Stirling and the population grew rapidly, more than doubling over the 20-year period (Figure 9). The average annual rate of population change from 1966 to 1986 was 3.6%. From 1986 to 2001 the population grew at a slower pace, increasing by 81 residents over the 15-year period, or by an average annual rate of 0.6%. From 2001 to 2006, population increased by 44 people resulting in an annual average increase of 1%.

**Figure 9
Population of Stirling
from 1951 to 2006**

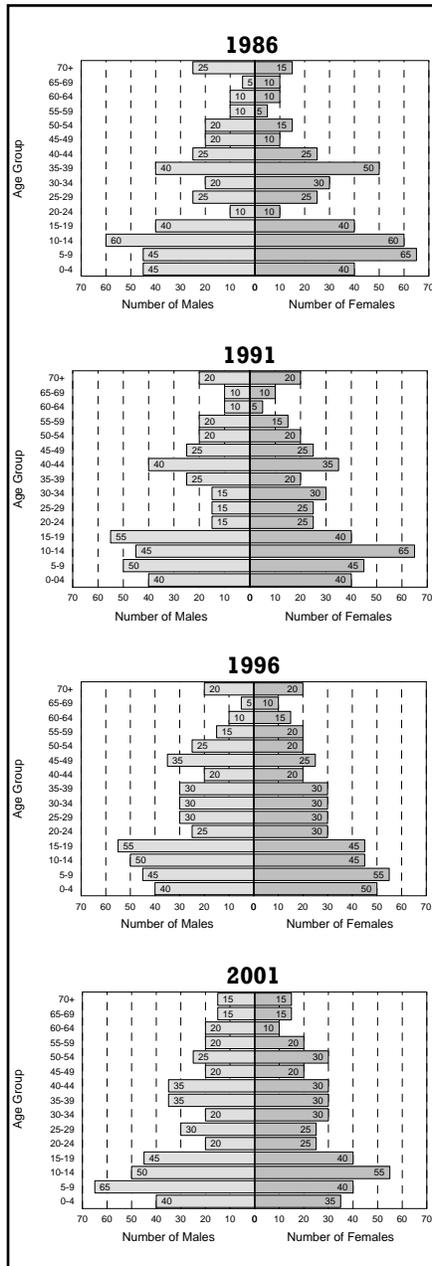


**Table 1
Population Change in Stirling from 1951-2001**

Year	Population	Five-Year Rate of Change	Average Annual Change
1951	520	—	—
1956	430	-17.3%	-3.7%
1961	438	1.9%	0.4%
1966	390	-11.0%	-2.3%
1971	436	11.8%	2.3%
1976	543	24.5%	4.5%
1981	688	26.7%	4.8%
1986	796	15.7%	3.0%
1991	799	0.4%	0.1%
1996	874	9.4%	1.8%
2001	877	0.3%	0.1%
2006	921	5.0%	1.0%

Source: Statistics Canada

**Figure 10
Population Structure in Stirling
from 1986 to 2001**



Source: Statistics Canada

Census information from Stirling for the 15-year period between 1986 and 2001 reveals a fairly consistent pattern (Figure 10). Although the proportion of the population under 19 has fallen slightly in recent years, the proportion of young people in Stirling is high, over 43% of the population. This statistic suggests that a large number of families with children have decided to move into, or remain, in the Village.

Over the 15-year period from 1986 to 2001 the proportion of adults between the ages of 20 and 55 has been approximately 40% of Stirling’s population. The proportion of adults in this category has increased slightly each census period. In comparison to the number of children, there are fewer young adults in Stirling than would be expected. It is likely that this trend is due to the migration of young adults pursuing post-secondary education and employment opportunities in other locations.

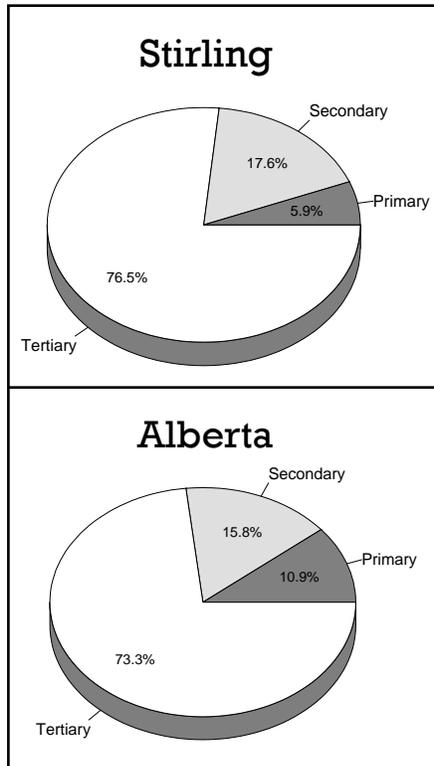
Historically, the proportion of Stirling’s residents in the 55 and over category has been low, between 10 and 15%. This could be due to the lack of senior citizen housing in the Village. Over the 15-year census period, the proportion of people over 55 in Stirling has increased slightly.

4. Local Economy

Compared with other small centres in the region, Stirling achieved significant population growth over the past 50 years, almost doubling in size since 1956. While some towns and villages have grown because of local employment opportunities, the impetus for Stirling’s population growth was its relatively short commute to Lethbridge and economic attractiveness for residential development.

While Stirling’s population has grown in recent years, the commercial activity has been substantially reduced since 1950. Stirling is in the immediate trade area of Lethbridge and the reduction in commercial activity may be attributed to the difficulties faced by smaller communities when competing with larger urban areas. Stirling is a minor service centre and most of the residents now commute to larger service centres such as Lethbridge for employment and to purchase goods and services.

Figure 11
Comparison of Industry
Characteristics of the Total Labour
Force in Stirling and Alberta in 2001
(20% Sample)



Source: Statistics Canada 2001 Census

Stirling’s economy has also changed significantly since the early years. The Village no longer has an agriculture-based economy. At present, tertiary industries – those related to providing services – employ a majority of the local population. Over 76% of Stirling’s residents are employed in the service sector, in comparison to 73% in all of Alberta (Figure 11). Approximately 18% of the local labour force is employed in secondary industries such as manufacturing and construction, slightly higher than the provincial average. Only 5% of Stirling’s working population is involved in agricultural and other primary industries, about half of the Alberta average.

According to the 2001 Statistics Canada Census, Stirling had a labour force participation rate of 62.3%, with 350 of Stirling’s residents 15 years of age or over participating in the labour force. In the same time period Alberta’s average labour force participation rate was 73.1% and the unemployment rate was 5.2%. There was no unemployment in Stirling at the time of the census.

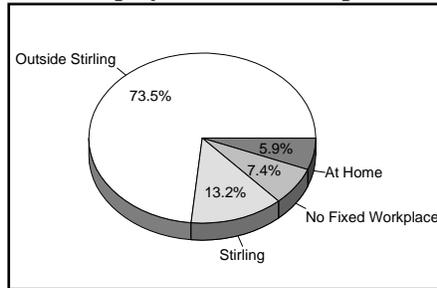
Stirling’s labour force is broken down by industrial division in Table 2. The Health Care and Social Assistance industry employs the largest percentage of the labour force at 24.3%. The second largest industries are the Manufacturing industry at 11.4% and the Transportation and Warehousing industry at 11.4%. Approximately 10.0% of the labour force is employed in the Retail Trade and 10.0% is employed in Educational Services.

Table 2
Total Labour Force in Stirling Age 15 and Over by Industry
(20% sample)

Industry Divisions	350	%
Agriculture, forestry, fishing and hunting	10	2.9
Utilities	10	2.9
Construction	20	5.7
Manufacturing	40	11.4
Wholesale trade	10	2.9
Retail trade	35	10.0
Transportation and warehousing	40	11.4
Finance and insurance	10	2.9
Professional, scientific and technical services	20	5.7
Educational services	35	10.0
Health care and social assistance	85	24.3
Other services (except public administration)	25	7.1
Public administration	10	2.9

Source: Statistics Canada 2001 Census

**Figure 12
Labour Force by Place of
Employment (20% sample)**



Source: Statistics Canada 2001 Census

Figure 12 illustrates that the bulk of the local labour force is employed outside of the Village of Stirling. Only 13.2% of the labour force is employed within the Village, while 73.5% commute for employment purposes. Approximately 5.9% of Stirling's residents work from home and 7.5% have no fixed workplace address.

According to the 2001 census information, average earnings of all persons involved in the labour force in Stirling are \$24,020. This is far below the Alberta average of \$32,603. The census also indicates that 70% of Stirling's residents have completed high school (Table 3). Approximately 52% of the residents have attended post-secondary institutions, and 37% of this group possess a certificate, degree or diploma. The educational statistics in Stirling are equal to the Alberta averages where 70% of Alberta's residents possess a high school diploma and 37% have earned a certificate, degree or diploma at a post-secondary institution.

**Table 3
Total Population Age 20 and Over by Highest Level of Education
(20% Sample)**

Level of Schooling	495	%
High School	195	39.4
• Less than grade 9	20	4.0
• Without high school graduation certificate	130	26.3
• With high school graduation certificate	45	9.1
Trades certificate or diploma	45	9.1
College	155	31.3
• Without certificate or diploma	40	8.1
• With certificate or diploma	115	23.2
University	100	20.2
• Without certificate or diploma	30	6.1
• With certificate or diploma	15	3.0
• With bachelor's degree or higher	55	11.1

Source: Statistics Canada 2001 Census

5. Street Pattern and Lot Layout

Figure 13
Number of Lots Created in Stirling
from 1960 to 2005

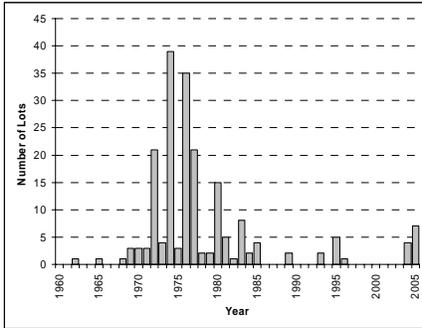
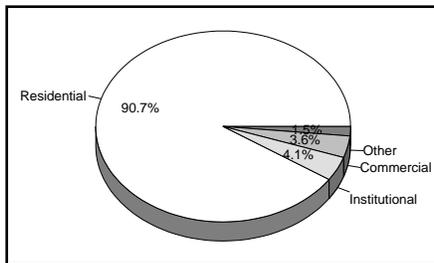


Figure 14
Proposed Use of Lots Created
from 1960 to 2005



Since 1950, a considerable number of the original large lots, particularly those in the northern part of the Village, have been resubdivided to create residential parcels (Map 4). The construction of a new water and sewage system with increased capacity encouraged residential growth in the Village of Stirling. Since 1962, over 195 lots have been created through subdivision in the Village. Over 60% of these lots were subdivided during the six-year period from 1972 to 1977 (Figure 13). The proposed use of 89.7% of the lots created since 1962 has been residential, with institutional and commercial accounting for the majority of the remaining 10.3% (Figure 14).

Many large lots in the western and southern parts of the Village have not been subdivided. The original grid of 100-foot wide streets remains intact, but several roads have been built in the northern part of the Village to provide access to the interior of the subdivided blocks. Some of the roads, especially in the southwestern corner of the Village, were never constructed as planned (Map 4). However, the road right-of-ways are still in place.

6. Municipal Services

Irrigation ditches supplied water to Stirling's residents until a water and sewage system was installed in 1965. The Village allotted \$191,000 for the construction of an underground water and sewage treatment system. When the new system was installed many of the old irrigation ditches were filled with dirt. Initially, a reservoir in Block 28 was used to supply water for the new underground system. With the need for more capacity, a new reservoir was built on Block 26. However, with increased growth and subdivision activity in the Village, the reservoir did not have enough capacity for the expanding water system and Ridge Reservoir was constructed south of the Village. Block 28 was drained and is now used as a park and the Lions Club stocked the reservoir in Block 26 with fish. The fishpond is still in use today. Map 5 shows the extent of the municipal water and sewage system in 1989.

Prior to the construction of the Village water and sewage system in 1965, septic tanks were used for sewage disposal. Initially, sewage was piped to a sewage lagoon located on a parcel of land north of the Village boundary. However, due to the need for increased capacity a new sewage lagoon located approximately two kilometres northwest of Stirling was constructed in 1989 (Map 6).

In 1953, approximately 10 kilometres of roads within the Village were gravelled and by the mid-1960s 15 kilometres of municipal roads were covered with gravel. Construction of cement sidewalks began to take place in the 1950s but there were no paved roads in Stirling until 1990, when 4th Avenue was paved.

Stirling's Fire Department is located within the Village on the northeast corner of Block 31. An ambulance is also housed at this location and the nearest hospital is Raymond General Hospital. Protective services are provided by the Royal Canadian Mounted Police, also based in the Town of Raymond.

7. Community Character

Figure 15
A historic house on Lot 13 circa 1910(a), and 80 years later in 1993, the porch and some vegetation have been removed and the façade has been altered (b)



Source: Elsie Corbet, Parks Canada, *A Cultural Landscape History of Stirling, Alberta*, 1993.

The resubdivision of several blocks in the north part of Stirling has altered the spacious, rural feel of the Village, but the agricultural character is still prevalent. Lot sizes are relatively large in comparison with other small communities in Southern Alberta and many residents continue to keep livestock on residential parcels within the Village.

A number of new homes and mobile homes have been built in the Village and several agricultural buildings have been demolished or left to decay. However, many houses built by the first settlers have been preserved. Several homeowners have built additions to provide more space, porches have been removed or added and facades have been altered over the years (Figure 15). Despite the modifications, these houses are still distinctly representative of turn of the century prairie architecture. In 1989, the Historic Sites and Monuments Board of Canada (HSMBC) designated Stirling as a National Historic Site to commemorate and preserve the settlement patterns of the Mormon agricultural village. Plaques with historical

information have been placed in front of several historic homes in the Village.

Figure 16
Remnants of an Irrigation Ditch and Culvert in the Village



Source: Elsie Corbet, Parks Canada, *A Cultural Landscape History of Stirling, Alberta*, 1993.

When the new water and sewage system was installed in 1965, the irrigation system constructed by the original settlers was no longer needed and many irrigation ditches were filled up with dirt. However, there are still several cisterns, levees and remnant ditches distributed throughout the Village (Figure 16). In addition, the removal of the irrigation system resulted in the loss of vegetation. Before the municipal water and sewage system was installed, Stirling was an area with lush vegetation on the treeless prairie. When the irrigation system dried up, the water table lowered over time and trees with shallow roots died and were removed.

8. Land Use

Development of different land uses within the Village of Stirling has been influenced by the location of Kipp Coulee and the physical constraints to providing municipal services across it. Consequently, much of the agricultural land in the Village is to the south and west of the Coulee, with residential, commercial, industrial, public, and recreational uses located to the north and east.

The existing residential area changed somewhat in the 1970s as subdivision activity created smaller blocks and lots. An area for manufactured housing was also created and concentrated within Blocks 13 and 14. Commercial, Public and Recreation uses have continued in the central core of the Village along 4th Avenue. Their location does encourage pedestrian access, especially by children, and reinforces the “small town feeling” residents wish to preserve. Currently there is limited industrial use within the Town. Provision for industrial locations may need to be considered.

An exiting land use inventory conducted in November of 2005 indicates that the majority of the developable land in the Village of Stirling is used for residential purposes (Table 4 and Map 7). Agricultural or urban reserve land accounts for 22.4% of the existing land use. Public institutional and recreational uses occupy 6.6% of the land

in the Village, while less than 0.4% is used for commercial and industrial purposes. Approximately 3.5% of the land in the Village of Stirling is currently vacant.

Table 4
Existing Land Use Inventory as of November 2005

Land Use	Stirling
Residential	67.1
Commercial and Industrial	0.4
Public and Recreational	6.6
Agricultural/Urban Reserve	22.4
Vacant	3.5

A comparison with similar-sized municipalities indicates Stirling has less commercial and industrial development on average. This is important for several reasons. Firstly, a municipality taxes commercial and industrial uses at a higher rate than residential uses. Secondly, commercial and industrial uses don't require the provision of recreation or community services that the municipality must provide for residential uses. Therefore, a municipality benefits financially when a balance of commercial, industrial and residential development is achieved. In addition, being able to provide opportunities for employment and the purchase of basic household needs also enriches the community and provides a nucleus that can be expanded as growth occurs.

9. Community Assets

In 1954, the Lions Club completed the construction of a swimming pool located in Block 23. During Canada's Centennial year in 1967, Stirling's Community Centennial Park was officially opened in Block 23. The pool, a playground, ball diamonds, and picnic facilities are located in the park today.

A number of community services are located along the eastern half of 4th Avenue. In 1957, a modern eight-room school with a large auditorium was built on Block 31 at a cost of \$200,000. The original school and old chapel were demolished to accommodate the new building. A Post Office is located just north of the school in the same block.

Figure 17
Village of Stirling Information Kiosk



The Town Hall and Theodore Brandley Public Library buildings are located on Block 20.

In 1989, the Village of Stirling was designated as a National Historic Site. The Historic Sites and Monuments Board of Canada (HSMBC) recognized the village as a well-preserved example of a Mormon agricultural village. As part of this designation, an information kiosk has been built in the northeast corner of Block 32 (Figure 17). The Village of Stirling also purchased the Michelsen Farmstead located in Block 7 in 1995. Since then, the home and the outbuildings have been restored. In addition, a number of plaques have been erected to commemorate and identify historic homes throughout the Village. The Stirling Historical Society has been closely involved with these projects since 1989.



10. Intermunicipal Issues

The past 50 years have seen an increase and minor concentration of uses within a one-mile fringe area surrounding the Village of Stirling on lands under the planning jurisdiction of the County of Warner (Map 8). Country residential uses have located along Highway 846 to the south of the Village; along the east extension of 4th Avenue to Highway 4 and north of 1st Avenue. With the construction of the Agricore grain elevator, the emergence of an industrial node centered on Highways 4 and 61 and the Canadian Pacific Railway's mainline may occur to the north of the Village in the future. To the northwest, a solid waste transfer station and a cemetery are constraints to growth in that area.

There is also a cattle operation to the west of the Village and a poultry operation to the east. Neither operation has been a source of conflict in the past. Manure management and any expansions are regulated by the Natural Resources Conservation Board, which would take the proximity of the Village into account when granting any approvals.

The fringe area of an urban municipality in Alberta is often home to oil and natural gas development. Currently there are no sour gas wells or facilities within the Village of Stirling's fringe area. This becomes important because Section 632 (3)(d) of the *Municipal Government Act*

requires a municipal development plan to contain policies that are compatible with the Subdivision and Development Regulations to provide guidance on the type and location of land uses adjacent to sour gas facilities.

In December of 2004 the County of Warner and Village of Stirling adopted an Intermunicipal Development Plan (IDP) in accordance with Section 631 of the Municipal Government Act. The plan examined land uses in the fringe, agricultural production, transportation corridors, and other areas of mutual interest. Policies were established to deal with referral of new development and subdivision in the fringe, location of landowners in the fringe, support of agricultural operations, future expansion of the Village of Stirling, and a method of resolving disputes or conflicts to ensure the productive working relationship between the two municipalities is maintained. Shortly thereafter, in 2005, the Village of Stirling annexed three parcels of land within the County and north of 1st Avenue for future residential expansion (Map 7).

Village of Stirling

Part 3: From 2007 Onward

Municipal Development Plan

1. Location and Transportation

The trend towards the road-based transportation of goods and people will only increase in the future. The Village of Stirling stands to benefit as its location near the confluence of several transportation routes can only be seen as an opportunity-in-waiting.

With Highway 4 designated as part of the north-south trade corridor between Canada, the United States and Mexico, an increasing number of vehicles will be passing by Stirling every day. In addition to Highway 4, Highway 846, which connects to Highway 52 and the larger service center of the Town of Raymond, also provides an important link.

Tourists, commuters and those employed in the transportation industry all require services and amenities provided in an efficient and convenient manner. As well, the identification of a potential industrial node to the north of the Village along existing rail lines and Highway 4 and isolated commercial use along Highway 846 to the south within the County of Warner also present opportunities and potential secondary benefits to the Village in terms of employment and services for residents.

While the Village can benefit from the presence of transportation corridors, care must be taken to ensure local decisions on land use matters are evaluated in terms of the impact to the established transportation routes and both existing and potential future traffic patterns. Toward that end, access management strategies will be necessary for subdivisions proposing direct access to Highway 846. Redevelopment potential of properties adjacent to the Highway may be limited given the need to maintain the integrity of the Highway and the Village's desire to maintain the grid pattern and avoid the use of cul-de-sacs.

2. Physical Features

The farmland vistas to the west, Kipp Coulee meandering through the Village and the many open, green spaces mixed with gardens and remnant orchards; these physical features unique to Stirling present both advantages and challenges for future growth and development.

Areas currently unserviceable for development due to the northerly drop in elevation and potential seasonal flooding from Kipp Coulee form an important transition area between the larger farms within the County of Warner and the built-up area of the Village core east of Kipp Coulee.

These transitional areas contribute to the historical agricultural character of Stirling as well as add valuable open space. Baseline information provided by the Village's soon to be completed Infrastructure Master Plan as well as ongoing engineering advances may allow these areas to develop more densely in the future. Ensuring a balance between development and retaining open space will be necessary if the uniqueness of the agricultural village concept is to be preserved.

While Kipp Coulee provides both aesthetic and practical benefits to the Village residents in terms of the historic conveyance of water for irrigation and future recreation potential, it can also on occasion subject adjacent properties to seasonal flooding. The management of these extreme seasonal events as well as stormwater drainage in general has been traditionally handled through the use of overland ditches and swales. As density increases with growth and less land is available for stormwater absorption, affected areas of the Village may need more engineered approaches. The recreational potential of Kipp Coulee should not be lost, however, as it provides a linkage with both the open, western vistas and an important historic feature of the Village. The cooperation of the Village, Raymond Irrigation District and potentially the County of Warner may be necessary to maximize the potential of this corridor.

Finally, the retention of the remaining historic orchards and gardens may also move to the forefront as development intensifies with growth. Several different approaches could be investigated such as educational literature on the preservation of existing landscaping and the use of traditional tree and shrub varieties for new developments when approved by the Village. In this manner the preservation of a unique physical feature could be continued on a smaller scale while still providing a connection with the past.

3. Population and Demographics

Population projections are based on the extrapolation of past trends combined with birth, death and migration rates that yield various scenarios for the future. Municipalities utilize projections to establish budgeting priorities in terms of future growth needs. Adequacy of land base, maintenance and expansion of municipal water, wastewater and stormwater collection and treatment facilities, roadways, recreation facilities, public buildings such as libraries and community halls, and emergency services, as well as setting aside land for school expansion and even seniors accommodation are all evaluated against potential future demand. As population projections are based on past trends, unanticipated events such as a severe downturn in the economy or a large employer establishing nearby could alter the projected growth rates.

As shown in Chart 1 on the following page, all but one projection indicate gradual and steady growth over a 25-year period. Total population values for 2026 range from a low of 771 persons to a high of 1205. This is an increase from the 2001 population of 328 persons or 150 households using a household size of 2.2 persons. Given the relatively large lot sizes within the Village, an increase in density through infill development should accommodate the projected growth within the current Village boundaries. As the results of the 2006 Canada Census will soon be available, a comparison of the 2006 population figure with that estimated by each projection will give a good indication of which projection most likely depicts the demographics within Stirling.

Charts 2, 3 and 4 utilize 5-, 10- and 20-year migration rates for the cohort survival method of population projection to illustrate the potential age and sex breakdown of future residents. Several consistent themes emerge such as the large proportion of children and youth through to 2026 with a smaller number of young adults. Stirling is seen as appealing to young families and continued emphasis on recreation opportunities, residential development for families and community involvement will bode well for the Village. The senior population is projected to grow gradually, eventually doubling and tripling by 2026. As Stirling does not have any senior residential accommo-

dition other than individual dwellings, this trend may be important to monitor over the next 15 years.

4. Local Economy

Stirling residents will most likely continue to commute for employment opportunities in the future due to excellent transportation linkages and distances to larger service centers. In addition, the overall ageing of the working populace as well as the robust Alberta economy will lessen the pool of available workers making it more difficult for smaller communities to attract businesses and employees.

The Village, however, does need to improve the imbalance in its assessment base with more commercial/industrial development and encourage a basic level of services for its residents. Stirling has assets that can be utilized in this regard such as the opportunities for tourism and home-based businesses providing services and cottage industries based on agricultural and horticultural enterprises.

The enhancement of the interpretive walking trail to complement the Village's existing historic resources such as the Michelson Farmstead – designated as a Provincial Historic Resource in 2001 – combined with increased promotion of other points of interest within the County of Warner will increase visitors to Stirling. Services that tourists require such as food, fuel and sundries will also benefit residents.

Encouraging home-based businesses within the Village will offer an opportunity for services currently lacking to be provided. Many small businesses start as home-based enterprises where an idea, service or product can be fine-tuned while a market is researched and cultivated. The availability of the Internet also allows a broader customer base than in years past. In addition, women initiate many home-based businesses, as Stirling has a good proportion of young families, this may work well in the community.

Taking the home-based business one step further, a cottage industry is production-based, often with employees from outside the family. Stirling's heritage as an agricultural village could be carried on with cottage industries in both the agricultural, horticultural or related areas. The

inclusion of these enterprises into a mainly residential area requires limitations on noise, odours, dust, and outside storage to ensure negative impacts are minimized.

5. Street Pattern and Lot Layout

Even though Stirling's grid street pattern was developed a hundred years ago, it continues to be extremely efficient in terms of municipal servicing and traffic flow as well as being pedestrian friendly. The large blocks, however, encourage a low density of development that is difficult to preserve today given the increasing cost of maintaining infrastructure and extending services to accommodate new development. The subdivision of the large blocks within the area east of Kipp Coulee can be expected to continue in the future as growth is directed to areas within Stirling that are already serviced with roads, treated water and wastewater treatment facilities.

To some extent the original large block layout will be modified in the Village core but areas having development constraints near Kipp Coulee and to the west and south will retain the historic pattern. The ability to balance economic and efficient growth while preserving the elements and character that make a community unique requires compromise as well as innovative approaches and commitment.

6. Municipal Services

The Village continues to realize efficiencies in the way it provides services to its residents, as the proposed upgrade to its treated water system is a treatment plant in Cross Coulee Reservoir, which is shared with the Town of Raymond. This regional facility would allow the Village to realize budget savings in terms of capital construction and maintenance costs as well as staffing. The treatment plant was built with future growth to a population of 1,082 persons (approximately in 2024) in mind. The plant is also designed to treat enough water to exceed the maximum daily demand for a population of 1,082 persons. Stirling's current system falls short of the maximum daily demand with water shortages becoming an issue in the summer months. The proposed treatment plant will also alleviate

concerns regarding adequate fire flows within the Village should an emergency situation occur. Stirling residents are currently charged a monthly flat fee for their water use, leading to relatively high levels of consumption on a per capita basis. This may become significant as the availability of water throughout Southern Alberta and in the Milk River watershed may become more scarce in the future due to climate changes and the receding of glaciers in the mountains.

Further action has been taken by the Village to address future infrastructure needs by commissioning an Infrastructure Master Plan (IMP) to assist with determining priorities and establishing design standards. The IMP will propose a schedule of upgrades for the sewage treatment plant as growth tests its capacity as well as recommendations on the linked aspects of road construction and stormwater management. The IMP is an important tool for managing land use and growth pressures. The design standards contained within it are also useful for private developers who will be responsible for infrastructure to service new subdivision and developments. The IMP will need to be monitored and re-evaluated as growth occurs within the Village. The provision of emergency services is also affected by growth both in terms of additional calls for assistance and access to new developments. The regional and often volunteer nature of the response is working well today. This approach may face challenges in the future and continued regional cooperation will assure all feasible alternatives are considered.

7. Community Character

As the Village increases the density of residential development east of Kipp Coulee and the original block pattern is modified, the remaining historical elements such as the existing architecture, lack of sidewalks and boulevards, agricultural outbuildings and fencing, traditional orchards and gardens, the open spaces and the rural feeling of the community should be continued on through development standards in the land use bylaw, architectural controls and restrictive covenants used by private developers and educational literature provided to residents.

The historic 25-foot setback for residences from the front street is a development standard that has carried over into the current land use bylaw and does provide for continuity of the streetscape for the future. Allowing for agricultural outbuildings, the keeping of animals and the use of pole and rail or barbed wire fencing will also enable the rural feeling currently evident in Stirling to continue and provide ongoing linkages with the larger farms within the County of Warner.

8. Land Use

Future growth within Stirling will continue to occur within the established patterns of land use. Kipp Coulee will continue to act as a physical separation between larger agricultural parcels to the west and more densely developed residential lands to the east. Residential growth as projected for the next 20 years will be able to be accommodated within the current boundaries of the Village. Smaller lot sizes of 60 feet (18.3 metres) wide are envisioned by Council. As Stirling's demographics continue to show a large proportion of children and youth, family-style residential development is favoured. Recognizing that today's families are not uniformly composed, duplex or semi-detached residences are encouraged to locate on corner lots where additional street frontage allows for more parking and unique facade design and entrance placement can result in a better integration with existing and future single-family dwellings.

Accommodation for seniors in the future may also need to be considered in the 15-20 year horizon as the population ages. Apartment-style or assisted living developments usually work best when they are centrally located near existing public, recreation and commercial uses. Allowing for home occupations within the residential district will allow for an expansion of services available for residents as long as development standards are in place to ensure the residential nature of the area is not negatively impacted and the enjoyment and value of adjacent properties is not compromised. As home occupations are often conducted within accessory buildings on the property, size limitations and facade specifications may be considered in order to ensure the scale of the structure complements the dwelling and any adjacent development.

The keeping of animals within the residential district has also been allowed and may be continued providing that manure management is done according to provincial standards and the animals do not become a nuisance or a danger to adjacent properties and the public in general.

The small percentage of commercial and industrial uses within the Village is a challenge. The assessment base, available employment opportunities and community sustainability are all impacted. Ensuring that currently commercially designated properties along 4th Avenue do not revert to other uses is the first course of action. Future commercial uses should be encouraged to locate on 4th Avenue as the new tourism information center at the corner of 4th Avenue and 1st Street and the isolated commercial uses envisioned for 1st Street within the County of Warner will create a corridor of services that are pedestrian friendly and central to the Village. As there are not currently any vacant commercial properties on 4th Avenue, a land use bylaw amendment to change the zoning at the time of development will be necessary. In terms of industrial development, the Village favours enterprises other than cottage industries to be located at the industrial node north of Stirling within the County of Warner. This will allow for larger lot sizes typically required by industries while being close to the Village to provide employment opportunities.

In a recent survey, residents expressed satisfaction with many of the public and recreation facilities offered by the Village. All are centrally located providing easy access to children and families. Being able to walk to these facilities contributes to the “small town feeling” that is valued in Stirling. The maintenance of existing facilities should be a priority for the future as well as the investigation of an ice rink and the establishment of a walking trail along Kipp Coulee that would link historic sites and provide an additional recreation opportunity for the Village. Facilities that aren’t currently experiencing high usage should be monitored to determine if they would be better utilized in another manner.

Growth within a community, especially one with a large population under 18 years of age, affects not only recreation facilities but school enrollments as well. As

population increases in the future, the Village should work closely with the Westwind School Division to ensure the needs of the school are considered when decisions on subdivisions where municipal and school reserves are owing pursuant to the Municipal Government Act 2000 are rendered.

Finally, agricultural uses to the south and west of Kipp Coulee provide the best connection with the historic nature of Stirling's past. Subdivision of these parcels should not be encouraged as they suffer from municipal servicing constraints and may be located in areas of potential seasonal flooding. The establishment of cottage industries with an agricultural or horticultural focus in this area may be feasible provided lands are suitable for the intended purpose. The keeping of animals in this area should also be allowed provided that manure management is according to provincial regulations and any negative impacts to Kipp Coulee can be minimized.

9. Community Assets

What will continue in the future to make the Village of Stirling a safe and friendly community with a “small town feeling” will be built upon the assets of yesterday and today. Those assets take the form of structures and spaces that can be seen and experienced as well as values and emotions evoked by residents and visitors to the Village. Many of the physical structures and spaces were constructed and are maintained by volunteers for the enjoyment of residents and visitors alike. They are gathering places where residents can participate in community life and reaffirm the intangible values that many hold dear. If the physical structures and spaces are the building blocks of the Village, the residents themselves and their shared values and commitment to Stirling act as the glue that holds the community together. The combination of the two components can create a unique sense of place.

Residents must feel that they are able to participate in the community and that their contributions are valued. Opportunities for inclusion can be both formal and informal

and should be tailored to meet Stirling's needs. Participation need not be limited to only adults, young people have energy and opinions to add as they themselves may become future homeowners and business operators. As well, the comments and knowledge of tourists and visitors is also invaluable to the creation of a memorable, historic experience and lasting impression of Stirling.

10. Intermunicipal Issues

With its recent annexation of land to the north of 1st Avenue, the Village of Stirling should have an adequate land base capable of accommodating the projected population values for 2026. If growth begins to significantly outpace those values, a re-evaluation of available land base and preparation of an "Urbanization Plan" may be required. Such an evaluation would investigate potential areas of expansion outside the current Village boundary based on the ease of municipal servicing, compatibility with existing land uses, topographic constraints, traffic patterns, environmental concerns, and the impact to adjacent agricultural operations. As the Village of Stirling and the County of Warner have an Intermunicipal Development Plan (IMDP) in place, any discussions regarding expansion of the Village's boundaries or annexation should be structured in a manner that can be integrated into the plan. This would give long-term direction to both municipalities as well as affected landowners, potential developers and adjacent uses as to what is anticipated for the future.

In the shorter term, the Village should continue to work with the County of Warner on regional initiatives and be receptive to opportunities to share the cost of service provision with the County and area urban municipalities. The Village should also continue to support and abide by the policies of the Intermunicipal Development Plan as they address the Village's needs and are working well.

Comments should be sent to the County of Warner on development permits, subdivision applications and land use redesignations when requested keeping in mind the compatibility of adjacent uses within the Village.

Village of Stirling

Policies

Municipal Development Plan

1. Location and Transportation

- 1.1 To ensure the Village of Stirling continues to benefit from the safe and efficient use of provincial highways: development permits, subdivision applications and land use redesignations on lands adjacent to Highway 846 should be circulated to Alberta Infrastructure and Transportation for comment.
- 1.2 The importance of the provincial roadway system should be taken into account and any comments received from Alberta Infrastructure and Transportation should be considered when the Village of Stirling approving authorities render decisions on development permits, subdivision applications and land use redesignations.
- 1.3 The Village of Stirling will benefit in the future from its location adjacent to established transportation corridors and should investigate participating in any initiatives involving the County of Warner and the Province to enhance the existing road network.
- 1.4 Subdivision of property adjacent to Highway 846 should not negatively impact the function and capacity of the Highway. An access management plan, deemed suitable by Alberta Infrastructure and Transportation, will need to accompany subdivision applications proposing direct access to the Highway.
- 1.5 Maintaining the Village's north-south, east-west grid pattern is an important element serving to preserve the cultural history of the Village. The use of cul-de-sacs in developments should be avoided if possible.

2. Physical Features

- 2.1 The future servicing of currently unserviceable areas should be evaluated in terms of potential density and the impact to the transition area between the County of Warner and the Village core east of Kipp Coulee.
- 2.2 New developments should be sited with respect to the existing elevation contours and topography recognizing that any recommendations in the Infrastructure Master Plan should be followed in order to limit damage and potential liability.
- 2.3 The recreational potential of Kipp Coulee as a linkage and corridor should be investigated by the Village of Stirling, Raymond Irrigation District and the County of Warner.
- 2.4 The Village should compile a listing of historic trees, shrubs and plants to educate and encourage residents to retain and enhance the existing vegetation within Stirling.

3. Population and Demographics

- 3.1 Census Canada data and population projections should be monitored to ensure long-range budgeting decisions are responsive to growth pressures.
- 3.2 As a changing population structure requires different amenities and services, periodic review of the community through Census Canada data or a municipal census should be done to ensure the Village continues to meet the needs of its residents.

4. Local Economy

- 4.1 The Village should enhance the interpretive walking trail with markers or signage.
- 4.2 The Village should continue to work with the County of Warner and other towns within the County on tourism promotion.

- 4.3 The land use bylaw should be monitored to ensure it is flexible to accommodate home-based businesses while ensuring non-residential uses do not negatively impact adjacent properties.
- 4.4 The emerging industrial node located north of the Village along the rail lines and Highway 4 should be promoted given the potential secondary benefits to the Village in terms of employment and services for residents.
- 4.5 Industrial zoned land within the Village should be considered in areas with adequate services and limited environmental constraints.

5. Street Pattern and Lot Layout

- 5.1 Areas near Kipp Coulee and to the south and west with development constraints should retain the original large block pattern in an effort to balance accommodation of growth and preservation of a key historic element of the community.
- 5.2 Growth should be directed east of Kipp Coulee to areas with existing municipal services in order to increase density and make economic and efficient use of infrastructure.

6. Municipal Services

- 6.1 The Village should continue to investigate regional and shared approaches to provide services to its residents.
- 6.2 If the available water supply becomes an issue in the future, water conservation initiatives such as xeriscaping with drought resistant vegetation that is native to the Prairies and consistent with historic examples in Stirling, as well as methods for capturing water, should be pursued.
- 6.3 The Infrastructure Master Plan should be used as an essential tool during the Village's yearly priority setting and budget allocation.

- 6.4 The Infrastructure Master Plan should be reviewed regularly as per the engineer's recommendations and especially if growth pressures exceed projections.
- 6.5 New developments and subdivisions should be encouraged in areas recommended by the Infrastructure Master Plan as suitable and that are located on non-hazard lands.
- 6.6 The Village should ensure that private developers comply with the design standards within the Infrastructure Master Plan.
- 6.7 An investigation into the feasibility of establishing an ice rink and walking trail system should be undertaken by the Village.

7. Community Character

- 7.1 The Village should ensure that wherever practical the land use bylaw provide for development and design standards that allow for the historic elements of the community to be retained.
- 7.2 Private developers should be encouraged to adopt architectural controls and restrictive covenants that promote historic building materials and styles, as well as landscaping choices that feature trees, shrubs and plants that are historic to the Village.
- 7.3 Retention of historic orchards and gardens should be promoted through educational literature on the preservation of existing landscape and the use of traditional tree and shrub varieties for new developments.

8. Land Use

- 8.1 Residential growth should be directed east of Kipp Coulee on lands designated for such within the parameters of the standards of the land use bylaw.

- 8.2 Growth should be focused in areas with available infrastructure before unserviced areas are further subdivided.
- 8.3 The future subdivision of agricultural parcels south and west of Kipp Coulee should be discouraged due to servicing constraints, flooding potential and linkages with the historic nature of the Village.
- 8.4 To promote efficient use of land and infrastructure and a pedestrian oriented community, the Village should consider including a small lot residential district in the land use bylaw.
- 8.5 The land use bylaw should continue to allow a variety of housing types in residential districts as well as opportunities for residential accommodation in conjunction with commercial uses in the commercial district.
- 8.6 Duplex or semi-detached dwellings should be located on corner lots with unit entrances facing each street frontage.
- 8.7 Future residential accommodation for seniors should be centrally located to existing public, recreation and commercial uses.
- 8.8 The approval of any home occupations should comply with the development standards of the land use bylaw in order to minimize negative impacts to adjacent properties.
- 8.9 Commercial uses should be encouraged to locate on 4th Avenue.
- 8.10 Any existing commercially designated lands should not be allowed to revert to a different land use.
- 8.11 The maintenance of existing public and recreation facilities that are used by Stirling residents should be a priority when allocating budget funding.

- 8.12 As growth occurs, the Westwind School Division should be periodically consulted to ensure its needs are being met pursuant to the requirements of the Municipal Government Act, 2000.

9. Community Assets

- 9.1 Council should continue to provide opportunities for residents to participate in Village affairs through formal avenues such as public hearings and meetings, as well as informally through comments solicited on the Village website or at the Village office.
- 9.2 Council should continue to communicate its priorities to community groups to ensure available resources are coordinated to attain maximum benefits.
- 9.3 Information should flow from community groups to Council as well so that grassroots initiatives can be supported if feasible.
- 9.4 Opportunities for input by visitors should be provided at the Tourist Information Center to ensure their experience and enjoyment of the historic resources are positive.

10. Intermunicipal Issues

- 10.1 The Intermunicipal Development Plan should be periodically reviewed to ensure its policies are continuing to meet the Village of Stirling's needs in terms of compatibility of uses and accommodating growth.
- 10.2 Any development permit, subdivision application or land use redesignation in the proximity of any sour gas facilities must be evaluated and be compatible with the standards of the provincial Subdivision and Development Regulation.

- 10.3 Any agricultural operations as defined in the Agricultural Operations Act and Regulations may continue to exist and operate as long as the practices are allowed within the Act and Regulations.
- 10.4 The Village should prepare an Urbanization Plan that evaluates potential expansion areas outside of the Village boundaries based on potential for municipal servicing, land use compatibility, environmental constraints, etc., before annexation of any additional property is initiated.
- 10.5 The Village should continue to work with the County of Warner on regional initiatives including opportunities for regional cost sharing for provision of services
- 10.6 The Village should encourage the County of Warner to formally establish an industrial district in the emerging industrial node located north of the Village.

11. Municipal, School and Environmental Reserves

- 11.1 Municipal, school, and environmental reserves will be provided for in accordance with the Municipal Government Act.
- 11.2 At the time of subdivision, the municipal reserve requirement will be satisfied as cash in lieu of land dedication at the rate of 10% unless the Village determines a need for land dedication.
- 11.3 Where the Village is of the opinion that lands are likely to be resubdivided in the future, the Municipal Planning Commission may require that municipal or school reserves be deferred by caveat.
- 11.4 The Municipal Planning Commission may require that land adjacent to Kipp Coulee be designated as environmental reserve at the time of subdivision or that an environmental reserve easement be registered, in accordance with Section 664 of the Municipal Government Act.

Village of Stirling

Appendix A
Legislative Requirements

Municipal Development Plan

APPENDIX A

Legislative Requirements

The last General Municipal Plan for the Village of Stirling was adopted in 1989. Since that time the federal government has recognized Stirling as a national historic site because it is the best surviving example of a Mormon agricultural settlement from the Great Wheat Boom era of 1890 to 1914. As a result of these changes and the amount of time that has elapsed since the preparation of the last General Municipal Plan, it is timely to prepare a new Municipal Development Plan in order to allow for future growth in Stirling while maintaining the existing historic character of the Village.

The Municipal Development Plan (MDP) provides general direction for future development and land use within a municipality. MDPs are long-range plans that typically incorporate policies concerning land use, infrastructure, economic development, social objectives, environmental matters and financial analysis into a comprehensive document that acts as a framework for sound decision-making. The MDP defines the community's goals and objectives and outlines the policies and actions that will be used by elected officials, administration, taxpayers and developers to achieve these goals.

This plan has been prepared in accordance with and under the authority prescribed within the Municipal Government Act, Chapter M-26, 2000, as amended. All municipalities in the Province of Alberta with a population of less than 3500 may, by bylaw, adopt a Municipal Development Plan. The adoption of a statutory plan does not require the municipality to undertake any of the projects referred to in it. All statutory plans adopted by a municipality must be consistent with each other.

Section 632 of the Municipal Government Act stipulates the following for a Municipal Development Plan:

“(1) A council of a municipality with a population of 3500 or more must by bylaw adopt a municipal development plan.

(2) A council of a municipality with a population of less than 3500 may adopt a municipal development plan.

(3) A municipal development plan

(a) must address

(i) the future land use within the municipality,

(ii) the manner of and the proposals for future development in the municipality,

- (iii) *the co-ordination of land use, future growth patterns and other infrastructure with adjacent municipalities if there is no intermunicipal development plan with respect to those matters in those municipalities,*
 - (iv) *the provision of the required transportation systems either generally or specifically within the municipality and in relation to adjacent municipalities, and*
 - (v) *the provision of municipal services and facilities either generally or specifically,*
 - (b) *may address*
 - (i) *proposals for the financing and programming of municipal infrastructure,*
 - (ii) *the co-ordination of municipal programs relating to the physical, social and economic development of the municipality,*
 - (iii) *environmental matters within the municipality,*
 - (iv) *the financial resources of the municipality,*
 - (v) *the economic development of the municipality, and*
 - (vi) *any other matter relating to the physical, social or economic development of the municipality,*
 - (c) *may contain statements regarding the municipality's development constraints, including the results of any development studies and impact analysis, and goals, objectives, targets, planning policies and corporate strategies,*
 - (d) *must contain policies compatible with the subdivision and development regulations to provide guidance on the type and location of land uses adjacent to sour gas facilities,*
 - (e) *must contain policies respecting the provision of municipal, school or municipal and school reserves, including but not limited to the need for, amount of and allocation of those reserves and the identification of school requirements in consultation with affected school authorities, and*
 - (f) *must contain policies respecting the protection of agricultural operations.”*

Village of Stirling

Appendix B
Population Projections

Municipal Development Plan

Chart 1

STIRLING

Year	Census Pop.	Arithmetic	Logarithmic	Share of Region	Cohort (last 5 yr)	Cohort (last 10 yr)	Cohort (last 20 yr)
1981	688						
1986	796						
1991	799						
1996	874						
2001	877	877	877	877	877	877	877
2006		944	956	906	866	904	919
2011		989	1013	944	842	923	959
2016		1035	1074	983	814	942	1000
2021		1080	1138	1025	792	968	1049
2026		1126	1205	1066	771	997	1104

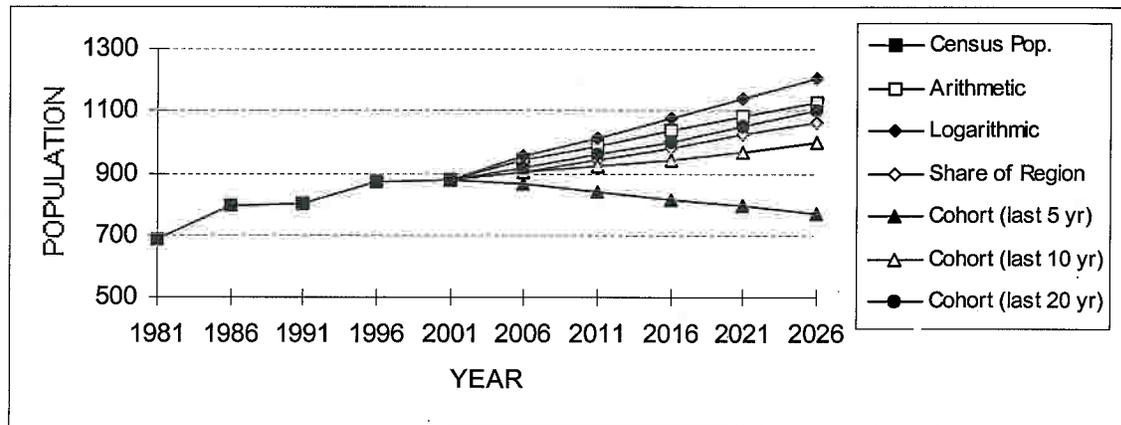


Chart 2

POPULATION PROJECTION: COHORT SURVIVAL
Compiled June 29, 1998

Municipality: STIRLING

AGE GROUP (cohort)	2001 BASE POPULATION		2006 PROJECTION		2011 PROJECTION		2016 PROJECTION		2021 PROJECTION		2026 PROJECTION	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
0-4	40	35	24	23	17	17	15	15	18	18	20	19
5-9	65	40	53	44	38	33	31	26	29	24	32	27
10-14	50	55	60	40	68	44	53	33	46	26	44	24
15-19	45	40	45	65	75	50	63	54	48	43	41	36
20-24	20	25	45	30	45	55	75	40	63	44	48	33
25-29	30	25	-5	-5	20	0	20	25	50	10	38	14
30-34	20	30	30	25	-5	-5	20	0	20	25	50	10
35-39	35	30	10	30	20	25	-15	-5	10	0	10	25
40-44	35	30	40	30	15	30	25	25	-10	-5	15	0
45-49	20	20	40	30	45	30	20	30	30	25	-5	-5
50-54	25	30	20	20	40	30	45	30	20	30	30	25
55-59	20	20	25	25	20	15	40	25	45	25	20	25
60-64	20	10	20	15	25	20	20	10	40	20	44	20
65-69	15	15	20	5	20	10	25	15	20	5	39	15
70+	15	15	15	25	21	25	25	30	35	39	38	39
TOTAL	450	430	463	403	463	379	462	353	463	329	465	307
TOTAL	877		866		842		814		792		771	

AGE GROUP (cohort)	SURVIVAL RATIO		FERTILITY RATE	*MIGRATION RATE		2006 BABIES M & F	2011 BABIES M & F	2016 BABIES M & F	2021 BABIES M & F	2026 BABIES M & F
	Male	Female		Male	Female					
0-4	0.998384	0.998704		13	9					
5-9	0.998854	0.998894		15	0					
10-14	0.999734	0.999983		-5	10					
15-19	0.999016	0.999556	0.1259	0	-10	5	8	6	7	5
20-24	0.99892	0.999628	0.3860	-25	-30	10	12	21	15	17
25-29	0.998936	0.999608	0.5612	0	0	14	-3	0	14	6
30-34	0.998662	0.999438	0.4456	-10	0	13	11	-2	0	11
35-39	0.998452	0.999114	0.1857	5	0	5	5	4	-1	0
40-44	0.997926	0.998714	0.0274	5	0	1	1	1	1	0
45-49	0.997148	0.998005	0.0070	0	0	0	0	0	0	0
50-54	0.995468	0.996892		0	-5					
55-59	0.99218	0.994836		0	-5					
60-64	0.987586	0.992622		0	-5					
65-69	0.979506	0.987698		0	5					
70+	0.9375356	0.961398		-14	-9					
TOTAL				-14	-39	48	34	30	36	38
TOTAL				-54						

* Migration Period: 5 year average 1996-2001

Chart 3

POPULATION PROJECTION: COHORT SURVIVAL
Compiled August 11, 2003

Municipality: **STIRLING**

AGE GROUP (cohort)	2001 BASE POPULATION		2006 PROJECTION		2011 PROJECTION		2016 PROJECTION		2021 PROJECTION		2026 PROJECTION	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
0-4	40	35	24	23	20	19	20	19	24	23	26	25
5-9	65	40	60	48	44	37	40	33	40	32	43	36
10-14	50	55	80	43	75	51	59	39	55	35	55	35
15-19	45	40	45	62	75	50	70	58	54	47	50	43
20-24	20	25	45	30	45	52	75	40	70	48	54	37
25-29	30	25	-5	3	20	8	20	30	50	18	45	26
30-34	20	30	37	27	3	5	27	10	27	32	57	20
35-39	35	30	22	32	40	30	5	8	30	13	30	35
40-44	35	30	45	30	32	32	50	30	15	8	40	13
45-49	20	20	35	30	45	30	32	32	50	30	15	8
50-54	25	30	13	20	27	30	37	30	25	32	42	30
55-59	20	20	22	27	10	17	25	27	35	27	22	30
60-64	20	10	20	20	22	27	10	17	25	27	35	27
65-69	15	15	17	5	17	15	20	22	8	12	22	22
70+	15	15	18	23	23	20	28	27	34	42	29	46
TOTAL	450	430	479	424	499	424	518	424	541	427	586	431
TOTAL	877		904		923		942		988		997	

AGE GROUP (cohort)	SURVIVAL RATIO		FERTILITY RATE	*MIGRATION RATE		2006 BABIES M & F	2011 BABIES M & F	2016 BABIES M & F	2021 BABIES M & F	2026 BABIES M & F
	Male	Female		Male	Female					
0-4	0.998592	0.998704		20	13					
5-9	0.999854	0.999894		15	3					
10-14	0.999734	0.99983		-5	8					
15-19	0.999016	0.99956	0.1259	0	-10	5	8	6	7	6
20-24	0.99892	0.99828	0.3860	-25	-22	10	12	20	15	19
25-29	0.998936	0.99908	0.5612	8	3	14	1	4	17	10
30-34	0.998662	0.999438	0.4456	3	3	13	12	2	4	14
35-39	0.998452	0.99914	0.1667	10	0	5	5	5	1	2
40-44	0.997926	0.998714	0.0274	0	0	1	1	1	1	0
45-49	0.997148	0.99805	0.0009	-7	0	0	0	0	0	0
50-54	0.995468	0.996892		-2	-2					
55-59	0.99218	0.994836		0	0					
60-64	0.987586	0.992622		-2	-5					
65-69	0.979506	0.987698		0	3					
70+	0.93753563	0.961398125		-11	-9					
TOTAL				2	-18	48	39	39	46	51
TOTAL				-16						

* Migration Period: 10 year average 1991-2001

Chart 4

POPULATION PROJECTION: COHORT SURVIVAL
Compiled September 2, 2003

Municipality: **STIRLING**

AGE GROUP (cohort)	2001 BASE POPULATION		2006 PROJECTION		2011 PROJECTION		2016 PROJECTION		2021 PROJECTION		2026 PROJECTION	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
0-4	40	35	24	23	22	21	24	23	28	27	32	30
5-9	65	40	59	50	43	38	41	36	43	38	47	42
10-14	50	55	75	44	69	54	53	42	51	40	53	41
15-19	45	40	50	62	75	51	69	61	53	50	51	48
20-24	20	25	44	31	49	54	74	43	68	52	52	41
25-29	30	25	-4	6	20	12	25	35	50	24	44	34
30-34	20	30	37	31	4	13	27	19	32	41	57	30
35-39	35	30	17	32	35	34	1	15	25	21	30	44
40-44	35	30	44	30	26	32	44	34	10	15	34	21
45-49	20	20	32	26	41	26	24	29	41	30	8	11
50-54	25	30	17	19	30	25	39	25	21	27	39	29
55-59	20	20	25	30	17	19	30	25	39	25	21	27
60-64	20	10	22	20	27	30	20	19	32	25	41	25
65-69	15	15	19	9	21	19	26	28	19	17	31	23
70+	15	15	19	23	27	24	36	34	49	55	55	63
TOTAL	450	430	482	437	507	462	532	468	562	487	594	510
TOTAL	877		919		959		1000		1049		1104	

AGE GROUP (cohort)	SURVIVAL RATIO		FERTILITY RATE	20 YR AVG (1981-2001) MIGRATION RATE		2006 BABIES M & F	2011 BABIES M & F	2016 BABIES M & F	2021 BABIES M & F	2026 BABIES M & F
	Male	Female		Male	Female					
0-4	0.998384	0.998704		19	15					
5-9	0.999854	0.999894		10	4					
10-14	0.999734	0.99983		0	8					
15-19	0.999016	0.99956	0.1259	-1	-9	5	8	8	8	8
20-24	0.99892	0.99828	0.3860	-24	-19	10	12	21	16	20
25-29	0.998936	0.99908	0.5612	8	6	14	4	7	20	13
30-34	0.998662	0.999438	0.4456	-2	3	13	14	6	8	18
35-39	0.998452	0.99914	0.1667	9	0	5	5	6	3	4
40-44	0.997926	0.998714	0.0274	-2	-4	1	1	1	1	0
45-49	0.997148	0.99805	0.0010	-2	-1	0	0	0	0	0
50-54	0.995468	0.996892		0	0					
55-59	0.99218	0.994836		3	0					
60-64	0.987586	0.992622		-1	-1					
65-69	0.979506	0.987698		0	1					
70+	0.93753563	0.96139813		-10	-8					
TOTAL				5	-5	48	44	48	56	62
TOTAL				0						

* Migration Period: 20 year average 1981-2001