City Council

ROLLA

Comprehensive Planning Program

FEBRUARY

1981

1980 ROLLA COMPREHENSIVE PLAN

Prepared by the Rolla Planning Commission with the assistance of the North Central Planning Council, Devils Lake, North Dakota

Comprehensive Plan (PP 1-66) adopted by the Planning Commission of the City of Rolla on September 30, 1980.

Caroline Dimmering Secretary

Notice of plan

NOTICE OF PROPOSED MASTER PLAN NOTICE IS HEREBY GIVEN that the Planning Commission of the City of Rolla, North Dakota, will hold a public hearing on a proposed Master Plan for the entire City of Rolla, which Master Plan may affect all of the unincorporated territory located within one-half mile of its City limits in any direction, such hearing to be held at the City Hall in said City on September 30th, 1980, at 7:00 P.M.

A copy of the proposed plan is on deposit in the public library of Rolla where it is available for review.

Dated: Sept. 12, 1980.

Henry James President, Planning Commission (Sept. 18 and 25)

24

Turtle Mountain Star Rolla, North Dakota September 18, 1980 Turtle Mountain Star Rolla, North Dakota September 25, 1980

25

7:00 P.M., September 30, 1980, the Rolla Planning Commission Public Hearing on the proposed Master Plan for the City of Rolla was called to order by President Henry James.

Present: President Henry James, Mayor Donald Engbrecht, Attorney J. Howard Stormon, James Bucher, Owen Olson, Merrill Krueger, Les Stuber, Ron Hasen, Tom Munro and Tim Shirk from North Central Planning.

Absent: Curt Bonn, City Engineer Ron Disrud, Richard Simmering and Robert Neameyer.

Alderman Ralph Lawson, Alderman Dennis Neameyer and Virgil Moberg from the Turtle Mountain Star were also present.

The minutes of the June 4th, 1980 were read and approved.

President James and Commission reviewed and approved the correction of certain typographical errors of the Plan as retyped by North Central Planning in accordance with the Planning Commission decisions at its June 4th meeting.

After due consideration by the Planning Commission of the 1980 Rolla Comprehensive Plan and of the Public comments thereon, Planning Commission Member Merrill Krueger introduced the following resolution and moved its adoption:

RESOLUTION

Be it resolved by the Planning Commission of the City of Rolla, North Dakota, that the Master Plan presented at this meeting of September 30, 1980, after the holding of public hearings thereon, of which notice was duly published, be and the same hereby is adopted by the Planning Commission, said Master Plan being comprised of the following items:

- 1. The text of the plan itself (pp 1-66), Appendix A (pp 67-74), Appendeix B (pp 75-78), Appendix C (pp 79-83), and Appendix D (p 84), and following pages 1-42 thereto, the said Appendices being respectively: A. Maps; B. Tables; C. Methods of Financial Capital Improvements; and D. Zoning and Subdivision Ordinance for the City of Rolla.
- 2. Original of Rolla Existing Land Uses map (ref.: Map 6, Appendix A.)
- Original of the Zoning Map of The City of Rolla (ref.: Map 7, Appendix A.)

Be it further resolved that each of the foregoing documents comprising the Master Plan shall be authenticated by the Secretary of the Commission, and that an attested copy of each of said documents be promptly certified to the City Council of the City of Rolla, North Dakota.

The motion for the adoption of the foregoing resolution was duly seconded by Planning Commission Member Ronald Hasen, and on roll call the following members voted "Yes": James Bucher, Owen Olson, Ronald Hasen, Merrill Krueger and Les Stuber, Mayor Donald Engbrecht and Attorney J. Howard Stormon.

None voted "No", and the President of the Planning Commission declared the Master Plan adopted by more than a two-thirds vote.

 $8\!:\!45$ P.M., the Rolla Planning Commission Public Hearing meeting adjourned.

Secretary

.

Plan typographical-error corrections

- 1. in plan "Table of Contents" page; after "garbage Collection _____ 21" (under IV. Municipal Services " insert "Water and Sewer ____ 22".
- 2. in line 24 on page 43; for 9", read "7".
- 3. in line 14 on page 44: for "9", read "7".
- 4. in line! on page 45: for "9", read"?".
- S. in line 29 on page 58: for "the following map, Figure 12", read "Map 6. (Appendix A.)
- 6. in line 32 on page 64: for \$"6", read "7"
- 7. in line 15 on page 14 of Appendix D: after " City auditor", wisert " (Map 7, Appendix A.)."
- 8. in line 7 on page 18 of Appendix D: delete all; replace with "stated in Paragraph I. (Special Regulations of this Section."
- 9. in line 10 on page 25 of Appendix D: for an industrial", read "a commercial".

10. in line 11 on page 27 of Armendix D: for "section", read "granagraph".

- TABLE OF CONTENTS -

I.	INTRODUCTION]
II.	COMMUNITY AND HISTORICAL SETTING Location	9
*	Location Geology Soils Mineral Deposits Climates Historical Setting	3 5 6 7
III.	ECONOMY	
	Overview Employment by Economic Sector Labor Force Income Summary Goals, Objectives, Action Recommendations	12 14 15
IV.	MUNICIPAL SERVICES	
	Police Services Rolla City and Rural Fire Department City Library Garbage Collection A) Water Mains and Sewer Pipes B) Water Quality C) Water Quantity D) Municipal Water Treatment Options	20 21 21 22 23 24
V.	MUNICIPAL FINANCING	
VI.	HUMAN SERVICES	
	Health Care Objectives and Action Recommendations Day Care Services Goals and Objectives Senior Citizens Services Objectives and Action Recommendations	33 34 35 37
II.	RECREATION	>20
	Introduction	39

	Present Facilities	39 40
/III.	POPULATION	
	Introduction County Trends City Trends Social Structure Population Projections A) General Assumptions B) Methods	41 42 45 46 47 47
IX.	HOUSING Introduction	49 49 49 50 52 54
X.	Introduction Current Land Use Residential Mobile Home Commercial Industrial Public/Semi - Public Transportation Land Use General Land Use Patterns Major Problems Land Use Principals and Objectives	57 58 59 60 61 61 62 62 63
XI.	A. Maps	67 68 69 70 71 72 73 74

В.,	Tables	75 76 77 78
С.	Methods of Financial Capital Improvements	80
D.	Zoning and Subdivision Ordinance for the city of Rolla	84

LIST OF FIGURES

FIGURE 1 - Location Map of Rolla

FIGURE 2 - Description of Soils in the Rolla Area

FIGURE 3 - Community Employment Survey, Rolla, North Dakota 1974-1976

FIGURE 4 - Labor Analysis Rolette County, 1977, 1978, 1979

FIGURE 5 - Labor Statistics Rolette County, 1979

FIGURE 6 - Population and Percentage of Change, Rolla, 1930-1970

FIGURE 7 - Population by Age 1970-1979

FIGURE 8 - Population Projections for Rolla

FIGURE 9 - Household Units by Type of Construction and Unit

I. INTRODUCTION

In 1978, the city of Rolla authorized the North Central Planning
Council to request funds from the Farmers Home Administration Area Development Assistance Planning Program. These funds were combined with city
revenues to support the development of the Rolla Community Plan.

The Rolla Planning Commission has played a crucial role in community plan development through the identification of major community problems, the establishments of overall goals and objectives designed to ameliorate the problems, and the review and comment offered on the strategy designed to implement the community goals and objectives.

Technical assistance in the researching, the writing, and in establishing a plan implementation strategy was provided by the staff of the North Central Planning Council of Devils Lake, North Dakota.

The Rolla Community Plan became the official guide for community development after several public meetings regarding the plan, a public hearing held on , 1980 and adoption by the Rolla City Council on , 1980. The plan may be used in several ways: as a basis for utilizing available state and federal aid programs in the most appropriate way, to provide a description of the community to those interested in business or industrial development, and to provide the basis for community development activities that may be undertaken on the intitative of local government and civic organizations.

It addresses areas of government that are under the jurisdiction or influence of the City Council. There is no discussion of the school district since it s boundaries exceed the city's planning jurisdiction. A map of the

school district has been included in the appendix, however, for future planning purposes (Map 1, appendix A).

This plan is designed to be changed. The Zoning Ordinance will occasionally need modification as well as the goals and priorities in other sections of the plan. The Planning Commission will, therefore, continue to be an important group in the implementation and management of this Comprehensive Plan.

1980 PLANNING COMMISSION MEMBERS AND ADVISORS

Henry James, President Curtis Bonn James Bucher Ron Hansen Robert Neameyer Les Struber Merril Kreuger Owen Olson Richard Simmering Tom Munro Don Engbrecht, ex officio Ron Disrud, ex officio Howard Stormon, ex officio

North Central Planning Council staff involved in the writing, editing, research, and typing of the Plan included:

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II. COMMUNITY AND HISTORICAL SETTING

LOCATION

Rolla is located in Rolette County, North Dakota, at the junction.

Highways ND 30, US 281 and ND 5. Neighboring communities are Dunseith, 20 miles to the west; Rolette, 21 miles to the southwest; Belcourt, 6 miles to the west; and St. John, 8 miles to the northwest (See Figure 1).

GEOLOGY

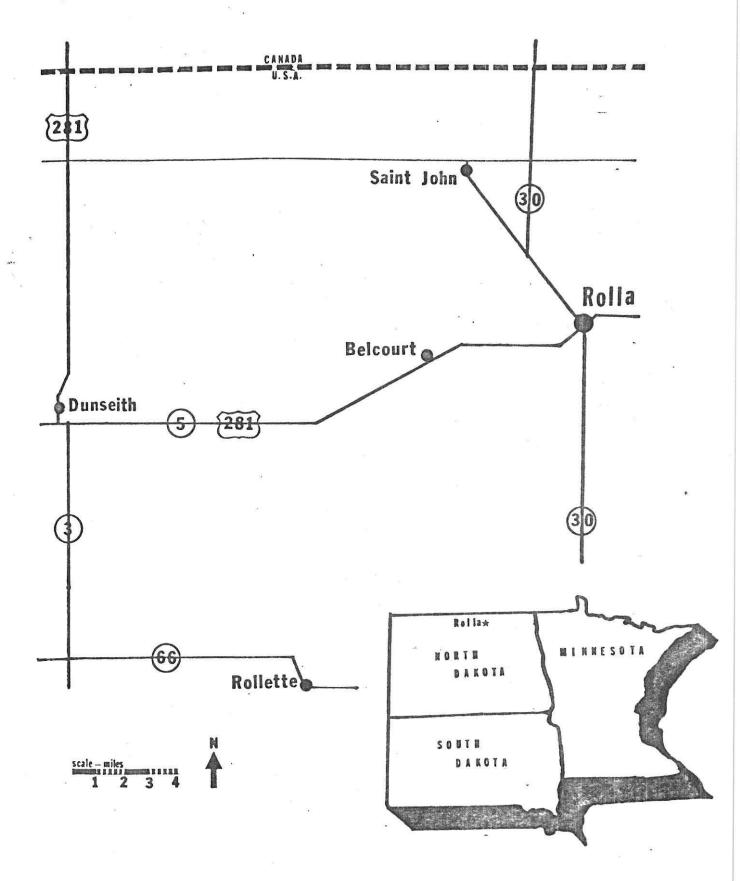
Rolla is built upon a glacial moraine. The glacial till is composed of equal parts of sand, silt, and clay; it is covered with a dark brown to black soil of good agricultural quality. A bedrock of Pierre shale lies approximately 300 feet under the till.

Surface topography around Rolla is drift prairie. This is an area characterized by rolling plains, broken by low hills and shallow coulees. Surface water is distributed among shallow pothole lakes, a few meandering streams, man-made impoundments, and small marshes. The principle vegetation consists of prairie grassland. There is some forestation in larger valleys and hill areas such as the Turtle Mountains, and scattered clumps of trees are found along the smaller streams and in planted shelterbelts.

SOILS

Common soils in and around Rolla are Barnes and Svea; to a lesser extent, Hamerly soils and soils with a sand gravel base are also found. A brief description of these soils follows (Figure 2):

Figure 1: Location Map of Rolla



- 1 -

FIGURE 2

DESCRIPTION OF SOILS

IN THE ROLLA AREA

Barnes: deep, nearly level, gently sloping, loam-textured soil, well-drained. Available water capacity: high. Permeability: moderate through subsoil, moderately slow below.

Svea: similar to Barnes, except moderately well-drained.

Hamerly: deep, nearly level, loam-textured soil. Somewhat poorly or moderately well-drained. Available water capacity: high. Permeability: moderate to moderately slow.

Soils with Sand/Gravel Base: shallow to moderately deep,
sandy loam and loam-textured soils. Excessively to
poorly drained. Permeability: rapid to moderate.
Note: individual soil types in this catagory are
not extensive, but together these soils are significant in number.

Map 2 in Appendix A shows the location of various soil types in the Rolla area and the limitations each has. If a soil has slight limitations, it usually can be used without any problems developing. However, a soil with severe limitations is the opposite; problems will occur if the soil is used for specific purposes and precautionary measures are not taken by the developer. This does not preclude usage and development on these soils, but awareness of the possibilities for future problems could be a factor in deciding development trends.

MINERAL DEPOSITS

Mineral deposits in Rolette County include sand, gravel, peat and manganese. Of these, sand and gravel are the only ones currently developed in Rolette County.

Rolla sits on top of a sand and gravel deposit, composed of commercial quantities of medium to low quality gravel with lesser amounts of sand intermixed. It may contain as much as 30% shale pebbles. This gravel deposit is part of the aquifer that Rolla uses to obtain its domestic water supply from, and is not being used commercially at this time. Of some concern to communities like Rolla which were developed on sand and gravel deposits is the high probability of ground water pollution due to high near-surface permeability of sewer sediment. As mentioned before, however, this does not automatically preclude development on these deposits; with proper precautionary measures, few problems should be detrimental to development.

Peat can be found in the Turtle Mountains in Rolette and Bottineau Counties and has some potential for future development, but would be of little commercial value to Rolla at this time. There are three deposits of manganese in Rolette County, but of such a quality that commercial extraction is not feasible at this time.

CLIMATE

North Dakota's climate is subhumid continental with cold winters and warm to hot summers. Rolla's mean temperature is 4°F in January and 68°F in July. Normal precipitation averages 16 inches, with 75% falling between April and September. Average number of freeze free days is approximately 110.

¹ Geology of Rolette County, North Dakota; Deal, Dwight E., Bulletin 58, North Dakota Geological Survey, Grand Forks, North Dakota, 1971

HISTORICAL SETTING

The first settlers in the Rolla area were the Chippewa Indians, who lived in and around the Turtle Mountains. With the introduction of Europeans into the area, two distinct eras began for the Region. The first was exploration of the area, with the development of the fur trade routes originating from Canada and the second was homesteading by immigrants when the railroads opened the territory. As the railroads expanded into land not settled before the 1820's, the fur trading industry declined with the increased number of settlers and agriculture became the primary concern.

As early as 1870, settlers had been homesteading land around St. John and Dunseith. Early settlement of the territory, however, tended to follow the railroad; and with the advancement of the railroad in 1888, Rolla became the third largest city in the county. In that same year, it became the County Seat of Rolette County and remains the County Seat today.

The young town's industry was primarily centered on supplying the needs of an agricultural community. Agriculture is still the primary industry in the region.

North Dakota was truly a land of opportunity in the days of the homesteaders; but theirs was not an easy life. Indian wars, blizzards, droughts, and grasshoppers were but a few of the hardships that drove people away. Only the hardy remained, and this is a heritage Rolla can be proud of.

III. ECONOMY

OVERVIEW

The economy of Rolla is based primarily on its role as the major provider of goods and services to residents of the Rolette County area. In addition, the community possesses a manufacturing sector which serves as significant source of employment opportunity.

EMPLOYMENT BY ECONOMIC SECTOR

Community employment surveys (Figure 3) were conducted within the city of Rolla in 1974 and 1976 by the North Dakota Employment Security Bureau. Based on the results of these surveys, it was concluded that the employment level within each economic sector was relatively stable; and that further surveying was unwarranted until such time as a significant change was noted in the Rolla economy. Therefore, given that no additional updates to the 1976 Rolla Employment Survey has been undertaken by the North Dakota Employment Security Bureau, the assumption must be made that the last survey completed (1976) still adequately characterizes employment by economic sector as it presently exists within Rolla.

The service sector of the Rolla economy is shown in Figure 3 to be the largest employer (233 persons) within the community. Professional services presently available within Rolla include:

EDUCATION	FINANCE	HEALTH CARE	PERSONAL
Elementary Secondary	Banking Savings & Loan Insurance Accounting	Primary Hosp. Physician Dental Optometry Home Health Pharmacy Skilled & Intermediate Nursing Home	Beautician Barber Funeral Dry Cleaning Legal

FIGURE 3

COMMUNITY EMPLOYMENT SURVEY

ROLLA, NORTH DAKOTA

1974, 1976

		JULY	JULY 1, 1974			JULY	JULY 1, 1976	
ECONOMIC SECTOR	Wage & Salar Employment Total Femal	& Salary oyment Female	Self Employed Persons	Unpaid Family Workers	Wage & Salary Employment Total Female	Salary ment Female	Self Employed Persons	Unpaid Family Workers
TOTAL	845	495	72	20	890	9/4	87	21
Construction	32	4	9	н	20	5	7	2
Manufacturing	156	107	0	0	155	108	0	0
Transportation, Communication, & Public	20	0	2	2	17	0	ന	0
Wholesale & Retail Trade	282	85	38	13	256	86	53	15
Wholesale	06	80	7	0	85	6	7	П
Retail	192	77	7	13	171	11	95	14
Finance, Insurance & Real Estate	23	77	ന	0	27	16	7	4
Services	192	156	23	7	233	191	23	0
Government	140	59	0 -	0	152	70	0	0

SOURCE: North Dakota Employment Security Bureau

In a study conducted in 1974, 1 it was found that the main trade area of Rolla contained approximately 7,500 persons; and that the greater Rolla trade area (area in which some residents purchased over 50% of their services in Rolla) had a population of about 17,000 persons. The survey went on to relate that over 65% of the farm patronage received by Rolla came from a distance of over 20 miles, and that 83% of the non-farm patronage originated within a 20 mile radius of Rolla. The availability of medical, optical, dental and pharmaceutical services and facilities was listed within the survey as the services which attracted the greatest number of consumers to the community.

The number of persons employed in the service sector of the Rolla economy increased by a figure of 41 (21.4%) during the period 1974-1976. Although the actual gain was slight, the increase in employment does tend to indicate a strengthening in Rolla's position as a major provider of services.

Retail trade was the second largest employing sector in the Rolla economy in 1976. Although employment in retail trade declined somewhat between 1974 and 1976, it is not believed that the trend has carried to 1980. The city presently has 60 retail establishments, 2 and has managed to increase its total sales to \$35,962,525.3

¹ Retail Trade and Service Area Survey and Report, Rolla North Dakota, Elmer C. Vangsness, North Dakota State University, Fargo, ND, April, 1974.

Retail Trade Survey - Rolla, North Dakota, North Central Planning Council, Devils Lake, ND, 1979.

North Dakota Sales and Tax Statistical Report, Annual, 1979; North Dakota Tax Department, Bismarck, ND.

The retail trade area presented for Rolla in the 1974 study mentioned earlier, corresponds with the service area described earlier. Retail items which served to attract the largest number of purchasers to Rolla included: food, hardware, building supplies, auto repair, and farm machinery and repair. It is doubtful that any significant alteration in the purchasing pattern for these goods has occurred in the recent past, or that Rolla has substantially weakened its position as the retail trade center of the area.

The third largest employing sector of the Rolla economy in 1976 was manufacturing. As illustrated in Figure 3, employment in the manufacturing sector remains virtually unchanged in the two years for which data is presented. This pattern has carried through to present times primarily because of efforts put forth by a major manufacturing firm to maintain a constant level of employment. Due to this firm's persistence, it is doubtful that any significant change has occurred in the past six years in the number of persons employed in manufacturing in the city of Rolla. In addition to this one major firm, Rolla also has six minor manufacturing firms operating within its boundaries. 1

Government, the fourth largest employer within Rolla in 1976, has remained a significant employment contribution in the existing economy. As public expenditures are increased, so is the number of government employees. Presently, all of the city and Rolette County offices are located within Rolla, as well as offices of Job Service North Dakota, North Dakota Highway Patrol, U.S. Agricultural Stabilization and Conservation

¹¹⁹⁸⁰⁻¹⁹⁸¹ North Dakota Manufacturers Directory, North Dakota Business and Industrial Development Department, Bismarck, ND, January, 1980.

Service, Farmers Home Administration, and the U.S. Post Office. In addition to creating employment opportunity, these offices combine to provide needed services to residents of the entire Rolla area. The government sector will continue to gain in importance in the Rolla economy as time progresses.

The remaining economic sectors presented in Figure 3 contribute to the overall economy of Rolla approximately to the same degree today as they did in 1976. Although appearing to have a minimal impact, these sectors round out the services provided by the community and allow for some diversification to exist in employment opportunities.

LABOR FORCE

Each month, Job Service North Dakota calculates the labor force, number employed and unemployed, and the unemployment rate for each county of North Dakota. Unfortunately, this analysis is not available for any community except for the 12 largest of the state. Therefore, Rolette County statistics must be utilized when attempting to present labor patterns for the city of Rolla. It should be noted when reviewing figure 4, however, that the data includes those residents of the Turtle Mountain Indian Reservation, and that unemployment among Native Americans will be somewhat higher than that for the remainder of the population.

FIGURE 4

LABOR ANALYSIS - ROLETTE COUNTY

1977, 1978, 1979

			UNEMPLOYED	
YEAR	LABOR FORCE	EMPLOYED	NUMBER	RATE
1977	4,319	3,881	438	10.1
1978	4,490	4,076	415	9.2
1979	4,836	4,349	487	10.1

SOURCE: Job Service North Dakota

As can be seen in the preceding table, the labor force of Rolette County has continued to rise in each of the last three years; while the unemployment rate, which although extremely high, has remained relatively constant. Although the percent increase in new jobs is matching the percentage increase of the labor force, the number of unemployed has also shown an increase from 1977 to 1979. This indicates that the county as a whole is falling behind in its responsibility to provide its residents with employment opportunities. The net result to be expected if this trend should continue is an increase in the out-migration rate from the county, and perhaps even a reduction in Rolla's population.

Figure 5 presents a labor force analysis of Rolette County for the year 1979. As is common to most North Dakota counties, the labor force and unemployment rate fluctuates greatly throughout the year. These seasonal variations correspond roughly to the agricultural and construction prime periods, and in a North Dakota county, are expected.

FIGURE 5

ROLETTE COUNTY - 1979

			UNEMPLO	YMENT
MONTH	LABOR FORCE	EMPLOYMENT	NUMBER	RATE
				500000000000000000000000000000000000000
January	4,583	3,998	585	12.8
February	4,624	3,990	634	13.7
March	4,734	4,164	570	12.0
April	4,924	4,374	550	11.2
May	5,213	4,675	538	10.3
June	5,269	4,677	592	11.2
July	5,221	4,730	491	9.4
August	5,123	4,697	426	8.3
September	4,949	4,602	347	7.0
October	4,580	4,245	335	7.3
November	4,429	4,048	381	8.6
December	4,383	3,984	399	9.1
Annual Average	4,836	4,349	487	10.1

SOURCE: North Dakota Employment Security Bureau

INCOME

Income data for the city of Rolla is available from the U.S. Census
Bureau for years corresponding to those for which the official U.S. Census
is conducted. Unfortunately, a fee is involved; and the information must
be requested. Therefore, the community is forced to rely on income
data generated through unofficial surveys. Two such unofficial surveys
have been completed for the city of Rolla within the past four years.

The first survey was conducted in 1976 by the state of North Dakota. It was estimated that 89% of all Rolla families responded 45% reported that they had incomes below \$10,000 per year, while 11.6% had annual incomes in excess of \$25,000. The median income of those families responding to the survey was \$13,410.

The latest income survey to be conducted in Rolla was undertaken by the North Central Planning Council in 1979. Response to the income question on this survey approximated 66%. Of those families responding to the income question, 34.4% reported annual incomes below \$10,000 and 21.47% had incomes above \$25,000 per year. The median income of the responding families was determined to be \$13,256.

SUMMARY

Rolla as it exists today is a major provider of goods and services to residents of the Rolette County area. This position, however, is precarious in that the community has achieved the maximum penetration of its existing trade area. Other major trade centers found within the same general geographic area (Bottineau, Rolette, Rugby, Cando) are tending to restrict further trade area expansion, and secondary trade centers and hamlets are capable of supplying needed convenience items. Any increase in retail business or service trade will depend on several factors: (1) A decrease in economic activity in other centers within the greater Rolla trade area may result in a transfer of business to Rolla. However, if other communities in the area decline in economic activity, they will probably suffer a loss of population and Rolla will lose trade from non-farm customers. This loss in non-farm trade may offset any gain in business realized from farmers who now trade at the other centers. (2) Economic or social developments which occur within Rolla or its greater trade area and which provide more jobs and attract more people to the area will create an additional demand for goods and services provided in Rolla. (3) An increase in the per capita income in the Rolla area will create additional demand especially in the major trade centers. (4) Upgrading and expanding goods and services available within Rolla may lead to a capturing of trade now leaving the Rolla greater trade area.

In reviewing the points outlined above, it is apparent that number one is not occurring. Belcourt has recently expanded the goods and

Retail Trade and Service Area Survey and Report, Rolla, North Dakota, Elmer C. Vangsness, North Dakota State University, Fargo, ND, April, 1974.

services which it provides, and none of the surrounding communities appear to be experiencing economic decline. Points number two and three can be assessed together. Economic expansion and the resultant increases in per capita income are occurring within the Rolla greater trade area. Unfortunately, none of this activity is taking place within Rolla itself. It will take an enormous effort on the part of Rolla to turn this situation around. First, the commitment must be present and Rolla must want to expand and diversify its existing economy. The community enjoys a good geographic location in relation to an available labor force, has numerous state and federal development tools and incentives available to it, and possesses a suitable aesthetic quality. Constraints to further economic development within Rolla are its distance from major markets and lack of a well developed transportation network. Finally, the community must continually strive to attract residents through the improvement of its economic climate (education, health care, recreation, housing stock, transportation, and aesthetics), and financial management capability. In addition, and addressing point number four, the community must continue to offer the widest range of goods and services possible in an effort to retain the trade area which it serves.

GOALS, OBJECTIVES, ACTION RECOMMENDATIONS

Primary to the planning function is the establishment of goals by a community and the implementation of a strategy aimed at the achievement of the desired goals. Rolla at the present time has one major eocnomic goal with that being the retainment of its economic viability. In an attempt to meet this goal, the city of Rolla has formulated the following objectives and action recommendations:

OBJECTIVE 1: To strengthen the existing economic base of Rolla

ACTION RECOMMENDATION:

- An assessment should be made of the economic strengths, weaknesses, and potentials of the community, and the weaknesses should be improved upon.
- 2. An economic development program which has the full support of the Rolla City Council should be developed with input coming from the entire community.
- 3. Commercial and/or light industrial development should be encouraged.
- 4. Business and industry wishing to expand or locate within Rolla should be given full encouragement and assistance by the city of Rolla in cooperation with the Rolla business and financial community.
- An attempt should be made to encourage local investment programs.
- The tourist potential of the Rolla area should be explored, developed and promoted.
- OBJECTIVE 2: To increase the visibility of the Rolla Community Action Recommendations.

ACTION RECOMMENDATIONS:

- 1. Promotional materials extolling all of Rolla's atributes should be prepared for distribution.
- An aggressive campaign should be mounted to "sell" Rolla to business and industry wishing to expand or relocate.
- The value of the local labor market should be promoted, and its use encouraged.
- 4. A committee should be set up which would represent Rolla and protect its interests in all dealings with potential new business and industry.
- 5. A part-time or limited term full-time recruitment specialist should be retained by the city if the community feels that this would be in its best interest.
- 6. An attempt should be made to coordinate Rolla's recruitment efforts with existing state efforts to attract new business and industry into North Dakota.

OBJECTIVE 3: To improve the public services and facilities available to Rolla residents.

ACTION RECOMMENDATIONS:

- 1. A local budgeting awareness should be developed.
- 2. Efficiency of the budgeting procedure currently employed by the city of Rolla should be increased.
- 3. An attempt should be made to assess and fully understand the financial capabilities and limitations of the city of Rolla.

OBJECTIVE 4: To continue to have Rolla provide the widest range of retail establishments and professional services possible.

ACTION RECOMMENDITIONS:

1. A periodic inventory should be taken of goods and services of which the community feels a deficiency, and an aggressive attempt should be undertaken to insure the availability of these identified goods and services when feasible. The 1979 Housing Survey indicated a need for the additional following businesses or services:

ADDITIONAL BUSINESSES ROLLA RESIDENTS WOULD LIKE:

- 1. Drugstore
- 2. Discount Store
- 3. Cafe (Open Sundays)
- 4. Clothing Store
- 5. Grocery Store
- 6. Shoe Store
- 7. Catalog Store
- 8. Shopping Mall
- 9. Bakery
- 10. Bookstore

Source: 1979 Housing Survey

TV. MUNICIPAL SERVICES

POLICE SERVICES

The service and the staff of the police department in Rolla are comparable to most cities of this size in North Dakota.

The police department is comprised of three full-time sworn officers, one of whom is Chief of Police. They operate out of a small office located in City Hall, which is adequate for the department's needs. All three officers are sworn deputies of the Rolette County Sheriff's Office, which gives them the power of law enforcement and arrest throughout the entire county. Without this deputization, they would be limited by North Dakota Century Code to enforce the laws only within the city's limits and a one and a half mile radius around the city.

Since Rolla is the county seat, Rolette County's Sheriff Office is also located in the city. The Rolette County Sheriff's office provides a 24-hour dispatching and answering service for the city police department for a set fee. If needed, additional law enforcement personnel are available from the resident North Dakota State Highway Patrol office. This gives Rolla additional manpower in police emergencies at no cost to the city.

The city uses the Rolette County jail if a person must be held for any reason. Approximately ten to fifteen people are booked into the jail each month, with the majority of the offenders being held for minor offenses relating to alcohol abuse and detoxification.

The police department has one patrol vehicle for its use, with the city paying a flat fee of \$110 a month to the Chief of Police for the use of his personal vehicle if and when the need rises. Both vehicles are equipped with

standard emergency equipment, as well as state radio. The department also has a portable state radio unit, as well as a MPH K-55 portable radio unit for traffic control.

As is the situation in most small, rural cities in North Dakota, the reported crime rate is relatively low. On the average, the department handles less than ten incidents a year in the Part I category of criminal offenses, most of which are minor burglaries. Part II crimes, which are less serious and consist of vandalism, minor thefts, DWI, etc., make up most of the reported crimes within the city, and average approximately fifteen per month, or less.

The police department operates on a budget of approximately \$50,000 a year, most of which pays the salaries of the employees, and for use of the county's dispatching service. Unless a major influx of people move into Rolla, its police department has and will be able to provide an adequate degree of service to the community at its present operating level.

ROLLA CITY AND RURAL FIRE DEPARTMENT

Both the rural and city fire departments are located in Rolla's City
Hall, a three year old facility (1976) with 5,000 square feet of floor space
dedicated to the departments. Equipment includes a 1974 two-ton truck for
use as the city pumper with a carrying capacity of 500 gallons and ability
to pump 750 gallons a minute, and a 1958 rural pumper with a carrying capacity
of 1,000 gallons and able to pump 400 gallons per minute. A 1976 pickup with
a high pressure pump and carrying capacity of 300 gallons is used to extinguish small fires. A volunteer roster of 40 firemen serves Rolla with 15
to 20 volunteers available on any particular day. Rolla's fire department
has a fire rating of 7, which is above average.

Currently Rolla's fire equipment is in good condition. A small amount of city expansion should not create stress on the fire protection system since the rural and city equipment may be used interchangeably, and the neighboring communities will cooperate in meeting a fire emergency unable to be controlled by a fire fighting department.

CITY LIBRARY

The Rolla City Library contains approximately 10,000 books divided evenly between adult's and children's books. The library occupies about 1,000 square feet in the new City Hall. The library's funding is through a four mill levy.

Since this is a relatively new location for the library, there is no problem now with space. Rolla's library would have to grow considerably before it would need any more space to function properly.

GARBAGE COLLECTION

Rolla has a city contract with the Murphy Collection Company based in Rolla for its garbage collection needs.

The city refuse is collected once weekly, with curb service for the residents and larger dumpsters for commercial establishments.

The critical factors in successful refuse disposal are a closed-in, state approved land fill site and a well-managed, profitable collection business.

Murphy has several sites located around Rolla and is attempting to expand his business by providing services to other communities in the area. As long as these factors continue, Rolla will have refuse collection provided for the city. If not, Rolla may have to look to other companies to pick up the city's refuse.

WATER AND SEWER

WATER MAINS AND SEWER PIPES

Currently the water pressure in Rolla is a consistant 52 pounds per square inch. There should be no problem in maintaining this pressure because of the new (1979) 300,000 gallon overhead storage tower.

Water lines in Rolla range in size from four to ten inches. The sewer lines range in size from eight to ten inches and are tied into four different lift stations strategically placed throughout the city and feeding into one master lift station which discharges to the city's lagoon. 2

The lagoon has three cells and is approximately a mile south of town.

This lagoon will have to be expanded within the next few years. At this time,

Rolla's City Council is in the process of working out the necessary details.

75% of Rolla has overland storm water drainage and 25% is through underground drainage. The underground drainage is in the downtown area.

As of 1979, approximately 24% of Rolla's sewer and water lines were installed before 1940. All of the older lines are located in the downtown district. Since soil conditions around the pipe and not years of usage determine the deterioration of pipelines, there is no mathematical standard to determine replacement rates for these lines. However, it can be assumed that due to the advanced age of the pipes, there will be more broken lines within the downtown area than in the rest of the city.

¹Map #3, Appendix A: Rolla Water Lines

²Map #4, Appendix A: Rolla Sewer Lines

³Table 2, Appendix B: Linear Footage and Installation of Pipelines

WATER QUALITY

Currently six hard water wells provide water to Rolla residents and businesses. These wells provide a diverse quality of water, but overall, the potable water supply in Rolla is acceptable for domestic consumption. In August of 1979, over 50% of the households in Rolla felt they had good quality water, 40% said they had fair water, and 10% said poor. This indicates that the majority of people surveyed are satisfied with the general quality of their water.

It must be noted, however, that Rolla's water quality is generally hard because of the high quantity of iron, manganese, calcium and magnesium in the water. Home water softeners do give the consumer a degree of control on this. It is estimated that 80% of the homes in Rolla use water softeners, and it is expected they will stay as popular and become more popular as time goes on. The sodium exchange system used in most water softeners usually doubles the salt content of untreated water as it is processed, but this should not be a problem because the general sodium content of Rolla's untreated water is fairly low.

Rolla may want to install a water treatment plant to work in conjunction with home water softeners or may want to have total water treatment on a municipal level. Several possible methods should be looked into before final decisions are made, but the purpose of this document, only two of the most popular types of municipal water treatment will be looked at. Some of the preliminary planning for a water treatment plant has been done, with a potential site already selected in Rolla's industrial park. Wells number 3, 4, 5 and 6 are piped under this site to facilitate the systems expansion to meet future water needs.

- 23 -

North Dakota Health Department Statistics

North Central Planning Council 1979 Housing Demand Survey

Ralph Lawson, Rolla City Council

WATER QUANTITY

There are various sources of water from aquifers in the immediate Rolla area. The city has six wells which provide from 20 to a potential 300 gallons per minute. Wells 1, 3, 4, and 5 are relatively shallow, with good pumping durations. Wells 2 and 6 are deeper wells, with good pumping durations but with quantities of water that are not as good as the other wells. A detailed description of each of Rolla's wells is shown in Table 3 in Appendix B; Rolla's Potable Water

Based on the ground water resource map in Appendix A, (Map 5, Rolette County Ground Water Resources, it would appear that Rolla is pumping out of every potential aquifer available except the Dakota Aquifer. The Dakota Aquifer is extensive and holds much promise for large quantities of water, but the sodium and magnesium content of this water makes it unfit for domestic consumption.

At this time, Rolla's wells have a combined pumping capacity of 425,880 gallons per day. The city's overhead storage tanks holds 300,000 gallons, with daily usage of 150,000 gallons. Rolla's water consumption is about half their storage tanks holding capacity. Their pumping capacity is about one and a half times more than their holding capacity and about three times more than their average daily consumption.

If the city of Rolla continues to need more water in the future and if the present water surplus is to be maintained, Well 6 can be used to make up the difference. If this well's pumping capacity was increased to 200 g.p.m., it would expand Rolla's daily water supply by 144,000 gallons a day. If expanded to 300 g.p.m., this would add 288,000 gallons of water a day to present supplies.

Because Rolla has the potential to expand their water supply by twice its daily consumption if Well 6 is used to its maximum potential, the assumption can be made that Rolla has no water quantity problems. If the existing wells are maintained properly, they will give the city all the water it needs for the next seven to ten years. If there is a future need for larger quantities of water, Well 6 can be expanded to 300 g.p.m. and the city may then have to start looking for another well site to maintain their water surplus.

MUNICIPAL WATER TREATMENT OPTION

1. Iron and Manganese Removal Plant

This is not a complete water treatment process, making it relatively easy to maintain and requires less than three hours a day attention.

As its name suggests, this plant removes iron and manganese from untreated water. This improves the water's quality but does not soften it.

Rolla's water has a calcium and magnesium — based hardness factor, so this plant would have to be used in conjunction with a softening system such as home water softeners if soft water is desired by the consumer. This means that the total cost of water treatment to the consumer would be a combination of the iron and manganese removal cost and the cost of a home softening system, which has been listed in Table 1 in Appendix B.

The analysis of a home softening system's cost does not take into account potential inflation rates. If national inflation continues at its present rate, the cost of operation (including labor, the softening unit itself, the salt used for sodium exchange, and electricity) will all increase, which means total cost of home water softening treatment will accelerate. The balance of \$3,960,000 per forty year period given in Table 1 in Appendix B could conceivably be closer to \$6,000,000.

This factor can be balanced out by another potential benefit. The life expectancy of current home water softeners is approximately seven to ten years. If used in conjunction with an iron and manganese removal plant, that life expectancy duration can be expanded by 50%. In effect, this would bring the overall cost of the unit down since replacement cost of the unit could be delayed. If a combination of home water softening systems and an iron and manganese pre-treatment plant is used, the total cost of \$3,960,000 per forty year period would be reasonable. The initial cost of the plant itself can be expended within a short period of time, and with a forty year life expectancy, the plant would not be influenced much by inflation rates.

2. Lime/Soda Water Softening Plant

This plant is a total treatment facility which has gained popularity in North Dakota during the past several years. Cities which have installed or in the process of installing lime soda water softening plants are Maddock, Carrington, Lisbon, Crosby, Valley City, Jamestown and Washburn.

The plant process elminates the need for other water treatment systems. It is somewhat chemical, energy, and labor intensive, so inflation will affect its yearly operational costs. The maintenance of this process is somewhat complex, and requires a qualified operator working full time. Like the iron and manganese removal pre-treatment plant, the projected life span of this type of plant is forty years. The projected total cost of \$6,500,000 is correct for 1980, but will change in the future, with initial costs of plant construction, equipment, and financing charges locked in at certain prices.

¹Table 1, Appendix B Water Treatment Cost to Consumers

This system would give the consumers a ready supply of high quality soft water, eliminating the need for home water softeners, and will make obsolete the continual use of current home water softeners. The short coming of this system may be that the treated water, which is relatively expensive, will be used for watering lawns, fire fighting, other uses where untreated, hard water will do just as well and be much less expensive.

If there is a decision made to proceed with a municipal water treatment plant, indepth consultation with State Health Department and Consulting Engineers should be done.

OBJECTIVES AND ACTION RECOMMENDATIONS

The overall goal for Rolla's municipal service is the maintenance of the quality of their current service and improvement of their services when needed.

OBJECTIVE 1: Examine the possibility of consolidation of city and rural fire districts to facilitate management and budgeting processes and to deter any potential conflict that may arise between the two departments. This potential conflict would only be a liability to Rolla.

ACTION RECOMMENDATIONS:

- The Planning Commission or City Council could form a committee of interested persons to look into this, perhaps having a member of such a committee sit on the fire district's board.
- 2. Encourage public participation at any meeting of fire district personnel, for public awareness of the financing and budgeting involved in maintaining the present quality of service.
- 3. Encourage joint meetings of rural and city fire department personnel.

- OBJECTIVE 2: Examine the alternatives so Rolla's water quality may be improved.
- OBJECTIVE 3: The city should consider the need for replacement and expansion of the water and sewer systems. It is important that sources of funds and budgeting these improvements be decided upon.

ACTION RECOMMENDATION:

1. As with all municipal services, it may be said that an ounce of prevention is worth a pound of cure. The City Council or any committee they may appoint should continue monitoring all municipal services, in particular the water and sewer services, to make sure they are aware of the current condition of their services, so that they may set aside any necessary funds required to change the quality of their services if needed in the future. A section on municipal financing follows these action recommendations, with information in Appendix C to facilitate this process.

V. MUNICIPAL FINANCING

SUMMARY

Municipal government is mandated to provide the highest possible level of service to all residents of a defined geographic area. Financial constraints dictate the level of service which can be attained, and demand that the government allocate available resources in the most efficient manner possible. In order to totally fulfill its fiscal responsibility, it is imperative that the city of Rolla initiate some type of comprehensive financial management policy.

The most simple expression of financial management policy available to Rolla is that of budgeting. A budget assists the city in that it indicates the sources of all revenue, specifies the amount of money to be expended and establishes priorities for the various expenditures. Since there is seldom enough money to do everything at once, it is necessary to budget or set up a timetable for spending the money a municipality has or will have at its disposal. The ideal budget to achieve a balance between expenditure and revenue without imposing too heavy a burden on the local taxpayer.

All expenditures made by the Rolla city government can be classified as either operating costs or capital costs. Items such as salaries for city employees, insurance premiums, electricity, fuel bills, maintenance costs, consumable supplies, and debt service costs make up the operating expenditures of Rolla. Operating costs are usually budgeted for an annual basis and are usually financed with revenue generated through property taxes. Occasionally the city may run short of operating funds towards the end of its fiscal year. In such cases, Rolla has at its disposal short-term tax anticipation notes

which can be borrowed against expected tax revenues and repaid when the tax money becomes available. Licenses, permits, fines and fees are also available to assist the community in meeting its operating expenses. These sources of revenue, however, should not be considered money makers, but rather should generate only an amount of money sufficient to meet the cost of providing the service for which they are rendered.

Capital expenses are very large, non-recurring investments of social capital for public purposes which are usually financed through long-term bond issues (Appendix C). Example of capital items include new streets, public utilities, parks, airports, public buildings and equipment, and various other projects which are necessary and beneficial to the health, safety, and well-being of the entire community. In certain situations, state and/or federal funds may be used by Rolla to pay for needed capital improvements. These latter sources, however, should be used only when all other financing resources have been exhausted.

As was the case with operating expenditures, budgeting for capital improvements is a very helpful tool when attempting to guarantee the wisest allocation of a limited amount of funds. In essence, a capital improvement budget is a schedule of public and physical improvements to be undertaken within Rolla over a certain period of time, with due consideration being given to priorities and financial capabilities of the community. The capital improvement budget generally covers a twenty-year period, divided into a rather detailed year-by-year program for the first five years, a less detailed program for the second five-year period, and a very sketchy outline for the last ten years. The capital improvement budget only covers the financial requirements (approximate figures suffice) of the first five years of the capital improvement program, synchronizing the expenditures with the

funds that will be available. At the end of each year, the capital budget is advanced one year so that it is always five years ahead. In order to do capital budgeting, it is necessary to structure the method of financial reporting so that capital expenditures are listed separately from operating costs.

Additional information on budgeting for capital improvements may be obtained from either of the following publications:

Developing Local Financial Management Capability, Lewis Lubka, North Dakota State University, Fargo, ND, December 7, 1979

Economic Development Financing, Souris Basin Planning Council, Minot, ND, March, 1980

VI. HUMAN SERVICES

HEALTH CARE

The Rolla Community Hospital is a 55 bed, primary care facility offering medical, pediatrics, maternity, and intensive care services. The facility, operated by the Sisters of Mary of the Presentation, is accredited by the Joint Commission on Accreditation of Hospitals, and is a Medicare-participating hospital and a contract agency of the U.S. Public Health/Indian Health Services.

A long term care nursing home attached to the hospital provides intermediate and skilled nursing care for the elderly. Home-based health care includes professional nursing services, dietary counseling, physical therapy, and speech therapy by the Rolla Community Hospital Home Health Care Program. These two facilities and one program currently employ 174 people, making health care one of the city's largest single employment forces.

Health care services include those of three physicians, one dentist, one optometrist and several pharmacists.

Emergency medical services are provided to Rolla residents by a volunteer staff of ten people with emergency medical technicans training (EMT) and cardio-pulmonary resusitation training (CPR). As of 1979, twenty people were enrolled in an EMT course, with four or five additional drivers expected to volunteer upon completion of the course. Two vehicles, a large van and a smaller hearse used as a back-up unit, are used to provide most of the emergency medical care. Rolla's fire department owns a 1964 Ford station wagon that is also used as a background medical service vehicle. Emergency medical services are funded by county revenues and a \$35.00 fee with \$1.45 mileage charged to the recipient.

As noted earlier, the Rolla hospital is a major employer in the city, and it has aggressively pursued innovative programs that not only provide quality health care, but also provide increased employment opportunities for Rolla. The hospital currently has a shortage of nurses and is attempting to meet that need by cooperating with Rolette's hospital in providing a licensed practical nurse's training program in Rolla. This program may lessen this chronic problem.

A potentially more serious problem is the declining occupancy rate of the hospital. This is primarily due to area residents seeking specialized medical care from Fargo and Grand Forks hospitals. The hospital has pursued methods of acquiring a surgeon who could serve area hospitals, increasing total patient occupancy of the hospital; however, the hospital administrators feel that there will continue to be a low occupancy rate for acute care beds. The hospital is therefore, looking at converting some acure care beds to long term care use.

If these changes do occur, Rolla will need to insure that the hospital will have an adequate labor pool of trained nurses, and that any area planning for competing long term care facilities be discouraged.

OBJECTIVES AND ACTION RECOMMENDATIONS

OJBECTIVE 1: Ensure that planning for potentially competing medical facilities, especially long-term care, be discontinued and that an area wide cooperative planning effort for preserving and enhancing existing medical facilties be carried out.

ACTION RECOMMENDATIONS:

1. The mayor and city council should consider the appointment of a committee to investigate ways of encouraging physicians and nurses to locate in Rolla, such as low interest financing of medical and nursing students with the condition that they serve several years in Rolla as part of their repayment package.

2. Through use of A-95 review authority and participation in the areawide Health System Agency, the city should work to discourage additional medical facilities in the service area of local hospitals and nursing homes, and encourage joint planning for further extension of specialized services based out of the Rolla hospital.

DAY CARE SERVICES

Surveys and reviews conducted in conjunction with the comprehensive planning process revealed a significant need for day care services in Rolla.¹ Currently, organized child care centers do not exist in Rolette County, with the nearest operating facilities being located in Langdon and Devils Lake. A child care facility will open in Cando in the spring of 1980, but that is 42 miles away. The Rolette County Social Service Board has 30 licensed child care providers for the whole county. According to Social Service Board personnel, this number of licensed child care providers is extremely inadequate. Furthermore, this problem is compounded during the summer and harvest months when a number of these people become inactive while a greater number of children require care. The effects of this shortage have serious consequences for Rolla because of the family structure and number of employees in the community with a large number of female workers.

The 1979 housing survey mentioned above, revealed that 136 households in Rolla have female head of households as the sole breadwinners, with an additional 97 households having shared male and female breadwinning responsibility. Of these households, there are a total of 97 children under the age of 14 years. These children currently have the greatest potential need for day care services. Another need for day care also arises from the residents of neighboring communities and rural Rolette County who commute to Rolla

^{1&}lt;sub>1979</sub> Housing Demand Survey, North Central Planning Council

for employment. A third group of families need day care services on an occasional basis when the primary caregiver is ill or otherwise unable to care for the children.

The establishment of a day care facility will provide additional employment opportunities needed in the Rolla community and may increase the per capita income in the city. An attractive new building or renovated structure will be an asset to Rolla's physical infra-structure.

The physical structure of the day care center along with the program will be a key action to maintaining and improving the current excellent environment for raising children that exists in Rolla. Along with the benefits accruing to parents and children, these services and facility may be viewed as a valuable addition to the existing business and professional community. Organized child care facilities and programs also offer a reliable source of child care to working families, mitigating absenteeism due to unreliable child care, and may even encourage labor participation on the part of those previously unwilling or unable to work due to the absence of such services.

GOALS AND OBJECTIVES

OBJECTIVE 1: Establishment of a day care facility available for use by the Rolla Community.

Establishment and the operation of a day care is a business investment requiring an experienced developer and administrator. Development of a day care facility will require knowledge of the State of North Dakota regulations governing day care centers, an ability to estimate the costs involved in building a facility and acquiring appropriate equipment for start up of the facility, an ability to set up a cash flow system, estimating operational expenses versus incoming revenues, and the knowledge regarding federal and

state aid programs that may assist the establishment of the center. Administration of a day care center will require an individual able to establish operational policies and implement them for a bi-cultural child care program, to coordinate the child care program with other health and human service providers, and to manage the fiscal and personnel affairs of the center on a long term basis. Because of the difficulties involved in establishing child care facilities and because of the lack of such a facility is a mutual problem of Rolla and other Rolette County communities, the problem should be addressed on a county wide level.

ACTION RECOMMENDATIONS:

- An intercommunity day care committee with representatives from Rolla, St. John, Belcourt and rural Rolette County should be established.
- 2. This committee, along with any technical assistance from the Rolette County Social Service Board, should take an appropriate amount of time, such as a year, to address the following concerns:
 - a) The total need for day care by community.
 - b) The type and size of day care programs needed in each community.
 - c) Understanding the state regulations governing day care centers, to meet state requirements when setting up these centers.
 - d) The components needed and desired in a bi-cultural child care center.
 - e) Coordination of child care services and health and social services.
 - f) Child care center policy development
 - g) Financial and human resources necessary to establish and maintain child care facilities.
 - h) Setting up an administrative framework, always keeping in mind personnel, financial and program management.
 - Financial aid programs available to assist in the establishment and operation of child care centers.
 - j) Location of the first subsequent child care centers in Rolette County, with an implementation strategy.

SENIOR CITIZENS

Data from the 1979 survey reveals that the population of Rolla is beginning to reflect a larger portion of elderly people. In 1970, 38.3% of the total population was under 18 years of age. In 1979 that figure dropped to 32%. The percent over 65 changed from 13% in 1970 to 17% in 1979 (over 63 years).

With the aging of the population is developing a need to provide special facilities for this segment of the population. It appears at this point that a senior citizens center would be an asset to the physical structure of the Rolla Community and would create a focal point for health, recreational, social services activities available for the senior citizens in Rolla. The center would serve approximately 17% of the community who are non-institutionalized residents over the age of 62. Elderly residents of rural Rolette County and neighboring communities may also be interested in utilizing the facility when traveling to Rolla for shopping or medical care.

Ideally, the senior citizens center will be located in an exisiting building in or near the Rolla Central Business District. This location and occupancy of appropriate vacant property will prevent deterioration of the dwelling and will be conveniently located near the Rolla Trade Center.

OBJECTIVES AND ACTION RECOMMENDATIONS:

OBJECTIVE: Establishment of a senior citizens center in the Rolla Central Business District.

ACTION RECOMMENDATIONS:

- 1. The city council should appoint a committee of residents interested in planning for the senior citizens center in Rolla.
- 2. The Rolla Senior Citizens Center Planning Committee should contact the Region III Aging Services Coordinator at the Lake Region

Human Services Center in Devils Lake to request technical assistance for the establishment of a senior citizens center.

VII. RECREATION

INTRODUCTION

Public parks and recreational facilities are an important feature of a community's environment, adding to the atmosphere and general attractiveness of the community. Today, with increasing emphasis on physical fitness and wholesome family activities, there is increased demand for recreational opportunities in small rural communities as well as in larger cities.

PRESENT FACILITIES

Rolla has developed a variety of facilities that includes: an outdoor swimming pool, a softball complex, lighted baseball field, tennis courts, a city park complex complete with playground equipment, picnic and camping facilities, and a 9-hole golf course with grass greens, indoor winter ice skating rink and pistol range.

Other recreational facilities, although not owned by the city, but still important to the total recreational picture are a bowling alley, movie theatre, trap shoot range, picnicing and primitive camping area and indoor curling rink.

The city owns two major parks. The swimming pool is located on one at the south end of "Bulova Addition". Immediately adjoining to the pool but on the south side of 5th Avenue N.E. is the high school's athletic field.

The pool was built in 1967 and is in relatively good condition. However, the climate limits the use of it to about 60-80 days each year. Outdoor swimming pools in North Dakota are seldom profitable ventures, requiring on the average of \$8,000 to \$10,000 to operate annually. Operating costs for 1979 were \$12,283.

The second major park is located on the southeast end of town. It is also the site of the county fair, the indoor skating rink, ball diamonds and football field..

Rolla is situated on the edge of the Turtle Mountains, which is considerered a sportsmen's paradise for hunting, fishing and skiing. These regional recreational attractions include the International Peace Garden downhill and cross-country ski areas, fishing throughout the national lakes in the Turtle Mountain area and Armourdale Dam and Adams Lake, and snowmobile trails.

The park board has plans to rebuild the existing softball diamonds and make substantial improvements. Other projects are to provide overnight camping facilities with electrical, water and sewer hookups; retrofitting the pool for solar heating, and enclosing it; and provide an adequate indoor ice arena for public use. The first project is being pursued by matching federal dollars on a 50/50 basis.

GOALS, OBJECTIVES AND ACTION RECOMMENDATIONS

The overall goal is the development and maintenance of appropriate community recreational facilities.

- OBJECTIVE NUMBER 1: Decide upon the type of recreational opportunities to be provided by the city park board.
- OBJECTIVE NUMBER 2: Establish a priority system for renewing or adding new facilities.
- OBJECTIVE NUMBER 3: Institute a system for programming expenditures on facilities and operational maintenance.
- OBJECTIVE NUMBER 4: Establish a means to coordinate and integrate both public and private recreational opportunities.
- OBJECTIVE NUMBER 5: Determine what resources are available within the community to implement recreation plans and integrate these with Federal and State programming.

VIII. POPULATION

INTRODUCTION

Characteristics of a community's population are the vital signs of that community. They indicate what kind of future a locality can look forward to by showing comparative information of its residents. Such information is important in planning public facilities and understanding income and labor potentials. Characteristics would also include all hard data and statistics needed to make any projections for population changes in a given area. Combining all available characteristics clarifys whatever trends are present in a community, and a combined analysis of characteristics and trends is needed before future population projections can be established.

COUNTY TRENDS

Trends of population are one of the most important tools for planning and it is helpful to look outside an immediate locality to see what is happening in neighboring areas for a total picture of such trends. Sometimes effects such as growth from industry or changes in land use in a county can be an important factor in a city's population.

A decreasing rural population and low population density are indicators of Rolette County's involvement in agriculture and agricultural trends.

These show a decreasing farm population across the state that is either leaving the state or migrating to the larger urban areas, particularly Minot, Bismarck, Fargo and Grand Forks. Since agriculture is one of the biggest industries in Rolette County, this will affect all population projections.

A different situation exists on the Turtle Mountain Indian Reservation, which is showing population growth. This can be explained in part by a

significant decrease in the last few years of out-migration of Native Americans from the county. 50% of Rolette County's population was classified as non-white in 1970, and this trend has continued.

This is a significant factor for Rolette County. Whereas, there has been a drop in the rural population, this factor has been off-set by population growth on the reservation. Rolette County is estimated to have increased 12.2% from 1970 to 1977, and is the sixth largest county in the state in regard to population. As a whole, however, all small communities in the county, with the exception of Belcourt on the Turtle Mountain Indian Reservation, are either stabilizing or declining in population. As indicated on Figure 8, the County's population has shown erratic growth patterns through the interaction of these factors.

CITY TRENDS

Historically, Rolla has been the population center of Rolette County. Since 1930, the city has experienced a steady increase in population, as can be seen in Figure 8.

FIGURE 6

POPULATION AND PERCENTAGE OF

CHANGE, ROLLA - 1930-1970

z_{-}^{i}	1930	1940	1950	1960	1970
Rolla	852	1,008 +18%	1,176 +17%	1,398 +19%	1,458 +4%
Rolette County	10,760	12,583 + 17%	11,102 -12%	10,641 - 4%	11,549 + 9%
North Dakota	681,000	642,000 - 6%	620,000 - 3%	632,000 + 2%	618,000 - 2%

¹Statistical Abstract of North Dakota 1979, Bureau of Business and Economic Research, University of North Dakota Press 1979

^{2&}lt;sub>Ibid</sub>

The increase in Rolla's population for the first three decades indicates employment opportunities become available in the city which complemented the changes in farm technology. Many of the people who were previously employed in agriculture did not find it necessary to migrate out of the county to find jobs.

Indications have been that Rolla's economic base is fairly stable and has been good potential for stimulating future population growth. However, out-migration has occurred traditionally throughout North Dakota and has persisted for all age groups, but is most closely associated with the younger mobile population. Persons in the age group of 19 to 35 years generally select their place of residence in terms of employment opportunities, schooling, housing, recreation, safety, and the general living environment.

Nationally as well as in Rolla, fertility levels increased until they reached a peak in the late 1950's, where it leveled off and has since declined. This decline in the number of children born affected the community's population and age structures dramatically during the late 1960's and early 1970's. Today's fertility levels have approached replacement level rates at about 2.1 children per family. Since about 1975, the fertility rate has shown a small increase above this level, too.

ROLLA'S POPULATION DISTRIBUTION BY AGE

Keeping the two factors of fertility rates and out-migration in mind, a look at Rolla's population shows some interesting trends. The age composition of Rolla's population is shown together with that of North Dakota in Figure 3.

FIGURE 7

POPULATION BY AGE - 1970 and 1979

	197	0	19	70	1979	
Age	N.D.	%	ROLLA	%	ROLLA	%
0-6	75,511	12%	211	15%	161	12%
7-14	110.377	18%	255	17%	148	11%
15-18	53,287	9%	115	8%	125	9%
19-35	132,040	21%	274	19%	307	23%
36-62	169,985	28%	380	26%	316	24%
Over 62 years	32,033	12%	223	15%	273	21%
TOTAL	617,716	100%	1,458		1,330	

SOURCE: U.S. Census, 1979 Housing Survey, North Central Planning Council

By itself, the information presented in Figure 2 is interesting, but in need of some interpretation. One means available is to determine youth dependancy and age dependancy ratio.

A youth dependancy ratio is the number of people under 18 years of age divided by the number of people in the productive age groups of 19 to 62 years. A relatively high youth dependancy ratio may indicate that the community has been able to retain a large proportion of its young adults, most of whom are now married and are raising families; a relatively low youth dependancy ratio might reflect a substantial out-migration of young adults over a long period of time.

An aged dependancy ratio is the number of people 63 years and older divided by the number of people 19 to 62 years of age. A relatively high aged dependancy ratio might indicate that a substantial out-migration of young and middle aged adults has occurred over a period of two or three decades leaving the residual population with a high proportion of elderly. A high aged dependancy ratio relates negatively to community viability.

Using Figure % data as a basis for analysis, the youth dependancy ratio in Rolla has declined from .9:1 in 1970 to .7:1 in 1979. At the same time, the aged dependancy ratio has increased from .3:1 in 1970 to .4:1 in 1979.

Both Rolla and the State show relatively similar percentages by age group breakdown in 1970. It is the difference between Rolla's population breakdown in nine years that is significant. The youth dependancy ratio shows a .2% decrease in population under 18 years of age, which is to be expected with a 6% decrease in the 7 to 14 year age bracket. The age dependency ratio has shown a .1% increase. The greatest percentage of increase in the population has occurred in the over 62 year age bracket, which is somewhat common when there is a loss of youth in a community and an increase in the elderly. The second greatest change occurred in the 19-35 year age bracket, the traditionally mobile segment of the population which most commonly will out-migrate. This increased 4% in nine years.

Rolla seems to be in a stabilization phase in regard to its population. 60% of its population is adult (over 18 years of age), with a tendancy not to out-migrate and not to have large families. This can be partially attributed to the trend for a decrease in fertility ratios. The older population is showing an increase as well as the 19-35 year age group, which may give Rolla a very strong economic base for some time to come. However, this population trend may indicate a need for emphasizing services for the elderly and has serious implications for a decreased demand upon youth oriented services and facilities in the future.

SOCIAL STRUCTURE

According to data obtained from the housing survey given in 1979, 31% of the households in Rolla were headed by female head of households as the

sole breadwinner. 22% had shared male-female head of households, with the rest (47%) having sole male head of households as the major wage earner.

Native Americans constitute the largest racial minority in Rolla. Approximately 10.5% of the community's population is of Indian descent. It can be expected that since Rolla is located next to the Turtle Mountain Indian Reservation, this percentage will rise, reflecting the large percentage of minorities in Rolette County.

Rolla is easily the large community in Rolette County and is sufficiently remote from the major urbanized areas to supply the city with: 1) a large rural trade area devoid of significant competition and capable of expansion as other smaller communities in the area lose their trade and service attractions in the years ahead, 2) a reasonably steady increase in population as described previously, 3) a good pattern of transportation access from all directions, both long distance and local traffic, 4) a sufficiently developed commercial district, wide spectrum of community facilities, and residential capacity to remain a stable economic force for many decades into the future.

POPULATION PROJECTIONS

As mentioned previously, population, employment and economic activity are closely interrelated; the most significant indicator of population size or growth is employment which in turn is a reflection of economic strength.

Although many have predicted the continuous decline of the small towns in the Great Plains, many success stories can be cited to the contrary. It is essential that a community provide the proper atmosphere for economic development of its own making. This is no small task. It demands effective, imaginative effort on the part of the community directed toward development of homegrown industries. Not every small town can look to the prospect of a

transplant industry. Rolla has a good growth potential, but it will be necessary for its citizens to develop their local advantages through the fullest use of their own talents and resources.

GENERAL ASSUMPTIONS

In order to make projections of population levels at points in the future, certain conditions are assumed to remain unchanged. Because of its relatively small population and wide variability of other trends, it is difficult to know what assumptions may hold true for Rolla. Specific assumptions are listed for the projection method discussed in the following section.

METHOD

Because the U.S. Bureau of the Census does not make available as complete data for rural communities as it does for counties, it was not possible to project the populations of rural communities using the normally accepted methods. Selection of an alternative projection methodology for incorporated communities, therefore, became necessary. The methodology chosen rests upon the assumption that within a specified area, future population growth (or decline) will occur at the same rate as has past population growth (or decline). Projections for future periods were made through the use of the following equation:

$$P_2 = P_1 (1 + C)^N$$

where: P_2 = population at a given future time

 P_1 = population at a given base period

C = rate of population change

N = number of projection periods

For purposes of this report, the base period used was 1970. The rate of population change, C, is given by the total percentage population change which occurred within an area between 1960 and 1970. The number of projection

periods, N, in this report is defined in ten-year increments such that in computing the projection of 1980, N = 1; for 1990, N = 2, etc.

FIGURE 8

POPULATION PROJECTIONS

FOR ROLLA

	POPULATION
1970	1,458
1980	1,521
1990	1,586
2,000	1,654

SOURCE: North Central Planning Council Special Report #2

It is important to recognize that the population projections presented in this section have been developed through mathematical extrapolation of recent trends and do not take into consideration the extremely variables of community spirit, political considerations, changes in national trends, energy requirements, the fact that the agricultural sector may well have reached its limit for substituting equipment for manpower, the success ratio of housing rehabilitation and economic development programs given in this plan, and any number of other variables. If implemented, any one of the action recommendations in this plan could significantly change these population projections. If anything, this analysis is a snapshot only of what is currently happening in regards to the population of Rolla. It is not a set rule on as to what will happen in the future and should not be taken as such.

IX. HOUSING

INTRODUCTION

The purpose of this study is to analyze the quality and character of housing in Rolla. Included are determinations of general conditions and characteristics of housing and identification of blighted and problem areas.

THE SURVEY

A detailed survey of the conditions and quality of residential structures in Rolla was carried out by the North Central Planning Council in August,

1979. The following summarize the results of that survey.

GENERAL HOUSING CHARACTERISTICS

The 1979 survey indicated there were 581 dwelling units within the city of Rolla. The 1970 official U.S. Census indicated there were 492 units.

This represents an increase of 18 percent in total number of units. Other characteristics determined from the 1979 survey show the following:

- 1) There are 2.4 persons occupied housing unit, as compared to the 1970 figure of 3.1 persons per unit.
- 2) Occupied rental units accounted for 28.6% of occupied housing units while the in-state 31.6% are rental units, indicating a slightly above average in percentage of home ownership.

The table below summarizes the results of the survey:

FIGURE 9

HOUSEHOLD UNITS BY TYPE OF CONSTRUCTION AND UNIT

TYPE OF CONSTRUCTION

546 wood frame units

26 mobile home units

7 brick or block units

2 unknown

TYPE OF DWELLINGS

399 single family units

148 apartment units

6 duplex

^{*1979} Housing Survey, North Central Planning Council

The approximate age of Rolla's housing units is known for 64% of the stock. 26% of these units were built before 1940.

CONDITION

In general, the dwelling units in Rolla are of normal construction and in good repair. There are 12 units using private wells as a water source and 98 units having private sewage disposal systems. There are 32 dwelling units which were judged as substandard, having deteriorate beyond the point of repair. Ten of these units were vacant, while the remaining 21 units are occupied by 37 persons. An additional 45 housing units are in need of substantial repairs but are clearly worth saving. Five of these deteriorating units in need of substantial repairs are vacant while the remaining 37 units are occupied by a total of 102 persons.

The housing survey revealed that despite the rising costs of energy and the sometimes severe weather experienced in Rolla, only 22% of the residents able to knowledgeably answer questions concerning energy conservation measures, responded they were inadequate or nonexistant for their homes.

Most causes of blight have interrelated physical and social aspects.

Thus, while the physical evidence of blight may be apparent in only a portion of a town, the impact of adverse effects is felt throughout the community.

By definition, blight is the condition in which physical, social and economic factors, singly or in combination, produce an environment within a given portion of a community which is deleterious to the health, welfare, or physical well-being of individuals living, working or otherwise having contact with the affected area. Blighted areas require a greater amount of public services, such as fire and police protection; they do not return an equitable portion of tax revenue for services required; and, they are not as apt to attract new population growth.

Rehabilitation or redevelopment of these areas will require not only the removal of the obvious physical results of blight, but an understanding and elimination of its causes as well. Rarely will any single factor be the sole cause of blight, but rather several factors will combine to create the undesirable conditions.

Overcrowding by converting single-family dwelling units to multi-family units or boarding homes creates many overload problems. Not only do such conversions place additional strains upon community facilities, but also upon plumbing, electrical, and heating services for individual buildings.

Mixed and incompatible land uses range from scattered commercial or industrial uses within a residential neighborhood to scattered residential uses within a commercial or industrial area. Incompatible land uses have a more pronounced effect upon an area in that they downgrade both types of land use in terms of appearance, function and value.

A lack of good municipal and community services are also characteristic of a substandard neighborhood. Inadequate housing for the elderly and low income families, inadequate open space for recreation, poor maintenance of streets, inadequate control of traffic volumes, and the lack of water or storm sewer drainage all contribute to substandardness of a neighborhood, lower property values, and result in deterioration and neglect.

Although some housing development and rehabilitation has taken place within Rolla it has not been as vigorous as might be desired. Providing the additional housing required for the existing population present opportunities to solve housing shortages and other substandard housing problems.

With a County-wide, citizen supported housing program many of the housing problems can be recognized and dealt with under the direction of the Rolette County Housing Authority.

The house by house field survey in August of 1979 indicated areas that need monitoring for blighted conditions are in general, south of Highway 281 between the sand and gravel plant and the railroad tracks; and from the school west to 1st Street N.E. and including both sides of Fifth Avenue N.E.

Deteriorating housing conditions can indicate other problems that occupants may be experiencing; and a public agency may be the only means of creating a supply of housing in amounts sufficient to house these families in decent, safe; and sanitary quarters.

At the present time there are 31 housing units for the low-income elderly and 24 units for low-income families within Rolla.

SUMMARY

The population projections formulated here are the basis for the housing needs projected. The loss of population over the past decade indicates that vigorous leadership and a realistic development program are necessary to reverse the situation.

As indicated from the Housing Survey, the largest percentage of respondant felt that there was not an available supply of standard housing units to rent or buy. Private enterprise has traditionally supplied the demand for market housing and should continue to do so. However, the below market housing is the difficult part to supply. Low income housing may be defined as housing for families unable to afford to pay for standard housing as a result of their low income.

In short, a housing program designed for Rolla is needed to rehabilitate substandard dwellings, remove dwelling units which are beyond repair, improve energy efficiency of the housing stock, expand housing opportunities for low to moderate income families and to encourage maintenance of the listing standard housing stock.

Removal of non-rehabible units and the rehabilitation of others will improve the physical infrastructure of the Rolla Community, elminate potential fire and safety hazards and improve the community housing stock. Moreover, the rehabilitation of household units will prevent deterioration of household units into a dilapidated condition.

Expansion of housing for the low and moderate income residents in Rolla is an important aspect of community housing needs. The need for additional housing opportunities for low and moderate income households is supported by community opinions, measurable demand for existing low income units, and projected need for replacement units if the non-rehabible uints in Rolla are removed.

The community's perception of the need for expansion of low to moderate cost housing opportunities is supported by a list of approximately 50 persons desiring to occupy the low and moderate income household units found in Rolla. Additional demand for low and/or moderate cost household units may arise from the need for replacement units for the 37 persons displaced by the removal of the 21 occupied, non-rehabible units.

Preservation of the housing stock currently in standard condition and the housing stock that will be rehabilitated may require the adoption and enforcement of the Uniform Housing Code and the establishment of a chore service for those unable to perform routine household maintenance chores. The Uniform Housing Code specifies acceptable standards for the community's housing stock. Adoption and fair enforcement of the code is a mechanism designed to conserve public and private financial resources by discouraging the deterioration of housing before it becomes a wide spread community problem. A second aspect of the program needed to discourage deterioration of the Rolla housing stock is the establishment of chore services. The chore services based in part on the ability to pay would be designed to assist the non-institutionalized elderly and the physically disabled residents of the Rolla Community. The chore performed may include but would not be limited to simple household repairs (unclogging a drain, or tacking a loose stair), lawn maintenance, and snow removal. In addition to performing repairs before serious structural damage is done to the household unit, chore services would encourage independant living for the elderly, saving the elderly and the tax payer from the high cost of entering a nursing home.

GOALS, OBJECTIVES AND ACTION RECOMMENDATIONS

The goal of the 1980 Rolla Community Plan is the improvement of overall community housing conditions.

OBJECTIVE NUMBER 1: Removal of substandard units beyond repair.

ACTION RECOMMENDATIONS:

- 1. The city of Rolla should condemn vacant units beyond repair, ordering owners to demolish the structures. If owners fail to remove the structures, the city of Rolla should have them removed, assessing costs against the property owner's taxes.
- 2. Ten replacement units should be developed for current residents of substandard household uints beyond repair, after relocation of the residents, the city should condemn the structures and order their demolition.
- OBJECTIVE NUMBER 2: Expansion of the rental housing opportunities for low and moderate income residents of Rolla. A minimum of 30 additional housing units for low and moderate income households should be built in the Rolla Community. This minimal number of household

units will provide shelter for the 37 residents of Rolla occupying the 21 substandard and non-rehabible household units, along with the 50 individuals expressing an interest to occupy available low cost housing.

ACTION RECOMMENDATIONS:

1. City of Rolla should facilitate the appropriate application(s) for financial assistance supporting the development of additional low cost rental units in the Rolla Community. Technical assistance in the preparation of applications for financial assistance and deciding upon the most appropriate source of funding is available from the Rolette County Housing Authority.

OBJECTIVE NUMBER 3: Expansion of the possibility for moderate income residents to purchase homes. High mortgage notes and a tight supply of mortgage money is one national obstacle to the dream of home ownership. This situation is no less of a problem in Rolla. 51 households responded on the Housing Survey financing was an obstacle to securing adequate housing.

ACTION RECOMMENDATIONS:

 The city of Rolla should encourage participation in low cost home ownership programs including the FmHA Self-Help Housing Program and the HUD 235 Housing Program.

OBJECTIVE NUMBER 4: Rehabilitation of substandard but rehabible housing units in the Rolla Community. There are a total of 45 substandard but rehabible units in Rolla. Approximately 5 of these units are vacant, 6 of the units are occupied by families with incomes of \$5,000 and under and 11 of the units are occupied by families with incomes of \$10,000 and under. The remaining substandard household units (23) are occupied by households with incomes of \$10,000 and over. A housing rehabilitation program will prevent the deterioration of the household units into a condition where they are nonrehabible and/or uninhabitable.

ACTION RECOMMENDATIONS:

1. The city of Rolla does not have adequate local financial resources to support a community housing rehabilitation program. Therefore, the city should seek technical assistance in the development and financing of a community housing rehabilitation program.

2. The city of Rolla should examine the possibility of obtaining financial and technical assistance necessary to sponsor a low interest loan program.

OBJECTIVE NUMBER 5: Improve the energy efficiency of the community housing.

ACTION RECOMMENDATIONS:

- 1. The city of Rolla should contact the officials administering the energy conservation program on the Turtle Mountain Indian reservation requesting assistance for households in Rolla, eligible under their programs.
- 2. The city of Rolla should examine the possibility of adopting energy conservation standards within the context of City Ordinances.
- 3. The city of Rolla should consider co-sponsoring a two day workshop on energy affairs for regional residents. Co-sponsors of this event may be the North Central Planning Council. The Area Low Income Council and the Rolette County Farmers Home Administration Office. This workshop may contain presentations and/or exhibits on available energy conservation, energy tax break, energy conservation and assistance programs, energy conservation and farming, alternative energy systems applicable to North Dakota, and instructions on application of weatherization materials to residences and small commercial structures.

OBJECTIVE NUMBER 6: Encourage the upkeep of the Rolla housing stock.

ACTION RECOMMENDATIONS:

- 1. Establish a chore service to assist elderly and/or handicapped persons with routine household maintenance chores. A chore service program will stem deterioration of housing units because of lack of physical ability to effect minor repairs, before they become serious structural defects in the unit. Moreover, the availability of chore services will encourage independant living for the elderly, at a less expensive and more acceptable alternative to institutionalization. The Area Low Income Council of Devils Lake could be contacted regarding the establishment of a chore service program.
- 2. The Rolla City Council should adopt and enforce the Uniform Housing Code, or a similar minimum standard code.

X. LAND USE

LAND USE PLANNING

Since the justification for public planning rests on an assumption of public responsibility for the protection and promotion of health, safety, morals, and the welfare of the community, the planning process should benefit private citizens by making public information available to assist individuals in making their private plans.

This, as well as other parts of the plan is not a static instrument, it should be flexible enough to adopt to ever changing situations.

The success of the entire planning process depends on the quality of the political, administrative, and technical leadership charged with working out the plan. The ultimate test of this process will be its effect on providing a healthful, convenient, and attractive environment in which people may live.

This portion of the Rolla Plan, Land Use, will be the basis for the design of Rolla's immediate and long-range future development of land. It defines areas for commercial, industrial, residential, and community uses within Rolla. Land use planning, if followed, will serve as a basis for specific plans of action, such as comprehensive zoning controls to accommodate goals set forth in this plan.

While the nature of this plan does allow for needed flexibility and interpretation of various developments under a wide variety of conditions, this plan must be followed in all future land development proposals to be effective. It is imperative that the plan be reviewed routinely in the next five years in order to determine that the various recommendations are

serving as basic criteria in formulating decisions and in accomplishing the goals of the city. Only in this manner does land use planning best aid development, insure optimum growth, establish the best possible arrangements for the use of land within the context of our democratic free enterprise system of government, provide its citizenry the best possible physical and environmental amendities and optimize economic and physical values.

CURRENT LAND USE

The city of Rolla and its planning area comprise some 5.6 square miles.

Of this, only 502 acres or 14% is developed. The remainder is devoted almost exclusively to agriculture.

Figure 10

ROLLA EXISTING LAND USE 1979

	Acres	Percent
Residential		
Single Family	93	20
Multifamily	5	1 2
Mobile Homes	12	2
Commercial	46	10
Industrial	24	5
Institutional	5	1
Public/semi Public	58	12
Transportation	148	30
Vacant	115	23
Total Rolla	502	100
Total Planning Area	3584	

*SOURCE: 1979 Housing Survey, North Central Planning Council

A field survey was conducted in the fall of 1979 whereby all land within the planning area was categorized into one of seven groups. This data has been delineated on the following map, Figure 12: Existing Land Use.

RESIDENTIAL

Residential land use includes all areas of living, single family residential dwellings, multiple family residential dwellings and mobile home dwellings. Residential land uses comprise 23% of all developed land within Rolla. Single family residences occupy 93 acres. Multifamily dwellings occupy 5 acres and mobile homes occupy 12 acres. Multifamily dwellings are interspersed throughout the city and do not break the continuity of the overall pattern of residential development.

The field survey revealed that conversions to multifamily dwellings is occurring in McIntyre First, Hendersons, City's First, Comstock's Second, Comstock's Third, and White's Third Addition.

There are two areas composed entirely of multifamily residential dwellings as a result of new construction projects.

The conversion of a single family neighborhood to a multifamily one is neither good or bad. It may have a harmful effect if overcrowding conditions occur, the landlord is lax in his maintenance, or other factors placing additional burdens on existing landowners.

MOBILE HOMES

There is one mobile home park in the city and one mobile home subdivision. The mobile home subdivision has a full complement of utilities and other improvements. At this time, the success of the subdivision is very questionable. There is a third mobile home park located south of the city, while providing a choice in location is limited in amenities and aesthetic qualities.

COMMERCIAL

Commercial uses include retail sales and services as well as personal and professional services. The central business area has remained along Highway 5 between the Burlington Northern Railway Tracks and Third Street. There are several vacant lots interspersed amongst these commercial establishments.

Commercial activities outside the central business area offer a different commercial service than those of the downtown area and require greater amounts of land for functioning in their most efficient manner. Whereas the function of the downtown is to provide service and retail facilities of a non-auto oriented nature, the highway service commercial is oriented to the automobile. Subsequently, facilities located in these areas of use should be limited to include service stations, drive-ins, garages, implement dealers, restaurants, and other uses of a similar nature. The two areas which developed are in a strip, alongside of Highway 5 as one leaves the city. The total amount of commercial uses is 10% of the city's developed acreage.

INDUSTRIAL

Industrial uses include such businesses as manufacturing, bulk or open storage, transportation terminals, and wholesaling. In terms of total area, industrial uses consume a very small proportion of the land, only 5% of the developed land within the city. These uses have for the most part located near the railroad tracks. The largest industry in Rolla is located on a site in the northwest corner of the city, with space available for expansion. The Highway Department has a parcel of land for storage of its materials and equipment. On the south side of Highway 5 is an auto sal-