A COMPREHENSIVE PLAN FOR LINCOLN COUNTY, KANSAS September, 1989

Prepared by the Lincoln County Planning Commission

Approved by the Board of Lincoln County Commissioners

Financed in part by the Kansas State Department of Commerce

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ACKNOWLEDGMENTS

This document is a product of the people of Lincoln County, Kansas.

The 1989 comprehensive plan was not prepared by a professional firm of engineers and planners, although that option was considered. After public advertisement and negotiations with one such firm, Lincoln County decided to do it itself.

The Board of County Commissioners sponsored this activity. It applied for the necessary grants, appointed a Planning Commission to oversee the work, endorsed the strategy of making this a grass roots effort, exerted leadership, carried out the project tasks related to actual county governance, participated in most of the meetings, and approved the expenditures for individual tasks. Members included:

Raymond Shaffstall, Chairman Howard (Dutch) Block (to January, 1989) Cyrus (Cy) McBride (to January, 1989) Charlene Jones (from January, 1989) Wayne Wallace (from January, 1989)

The Board applied for and received Kansas Department of Commerce Grant No. 88-PL-205 in the fall of 1988. City councils in Lincoln and Sylvan Grove endorsed the effort, as did the board of Unified School District 298.

Private citizens were enlisted to survey the entire county to determine its eligibility for receiving a Community Development Block Grant; volunteer leaders included Arnold Good, with the Barnard State Bank; Doris Hillmer and K. C. Jackson with the city of Sylvan Grove; Milton Krainbill, county agricultural extension agent; and Carol Modrow, with the Farm Bureau.

The Planning Commission directed the overall project. Lincoln County Planning Commission members, their primary employer or occupation, and postal residence included:

Glenn Stegman, Saline Valley Bank, Lincoln, (Chair)
Victor (Vic) Suelter, County Clerk, Lincoln, (Exec Sec)
David Abell, Quartzite Stone Company, Lincoln
Milton Krainbill, County Ag Extension Agent, Lincoln
Seth Myers, farmer, Barnard
Shelly Thaemert, Citizens State Bank, Sylvan Grove
Leo Duane Vonada, Vonada Stone Quarries, Sylvan Grove

To provide a central point for coordination and focus, the Planning Commission and the Board of County Commissioners publically advertised for project management services. They

eventually contracted with a local Lincoln County management consulting firm, Rose & Crangle, Ltd. Robert D. (Bob) Crangle, the president of Rose & Crangle, became this report's primary author as well as project manager.

The Board of County Commissioners spent considerable time as part of the project establishing specific plans and objectives for the County Health Department and the County Highway Department, including listening to experts and making site visits out of the county. They similarly attacked the long-range issues of solid waste disposal.

These efforts were carried out in many hours of meetings by the Board of County Commissioners to establish a planning baseline for governance policy and practices into the 21st century.

From the inception, as outlined in the proposal, the county was fortified by the professional staff of the North Central Regional Planning Commission; Lincoln County supports the NCRPC financially. Also as shown in the proposal, two separate teams of students and faculty from Kansas State University were used for their fresh approach and enthusiasm as well as to carry out specific project tasks.

Apart from the work done by the Board of County Commissioners and Planning Commission, major tasks during the year were accomplished by the following organizations and individuals:

Kansas State University (Architecture Department)

Professors Lew Seibold and Michael McNamara and their two fourth-year design classes in the fall semester, 1988

Kansas State University (Community Services Program)

Professor M. Duane Nellis, project overseer

Student team members (who lived with local citizens for the summer of 1989):

Craig Ackermann
Dawn Kaufman
Tibisay (Tibi) Marin
Corina R. Sanders
Elizabeth (Meg) Sellers

Landmark Enterprises, Sylvan Grove

Marge Lawson

Lincoln Area Chamber of Commerce

Dr. William L. (Willy) Knapp, President
Denzel Ferguson, Executive Director
Steve McReynolds, Farmers National Bank, Lincoln
(Survey Tabulation)

Madden Technical Services, Sylvan Grove

James B. (Jim) Madden (late in the project Mr. Madden also was appointed County Surveyor and road supervisor)

North Central Regional Planning Commission

John Cyr, Chairman Doug McKinney, Economic Development

Rose & Crangle, Ltd., Lincoln

Robert D. (Bob) Crangle

Individual contributions were made by many Lincoln County residents. Citizens from Barnard, Beverly, Denmark, Lincoln, Sylvan Grove and Westfall came out for local long-range planning meetings. The focus of these gatherings was to establish a county-wide "wish list" of goals and objectives, fueled with ideas from earlier meetings of the Planning Commission and the Board of County Commissioners. Results from these long-range planning discussions were then fed back into the project team.

Lincoln County residents turned out in impressive numbers in conjunction with the KSU-conducted task on the community center. They came early to give suggestions and later to consider the final recommendations for convention, conference, meeting, recreation and entertainment facilities.

The Post Rock Opportunities Foundation (PROF), a non-profit membership corporation, was organized during the study period by the Reverend Tom Henstock of the Sylvan Grove and Vesper Presbyterian churches. PROF was co-chaired by Marilyn Helmer (Village Lines, Lincoln) and Marge Lawson, and developed the concept of a retail outlet for the arts, crafts, and other products of north central Kansans.

PROF was partially an extension of the experience gained by a group called Prairie Treasures, a trunk show for crafts coorganized by Kathryn Lupfer-Nielsen, the Lincoln County Extension Home Economist.

PROF directors regularly reported their independent findings and activities to the Lincoln County planning group. During the last half of the grant performance period, PROF filed its own proposals for support for the retail outlet as well as to generate Lincoln County and Post Rock Country brochures.

The board, administration and faculty of USD 298 independently raised the issue of the adequacy of the school system's facilities and the quality of life for young families residing in the eastern two-thirds of the county for years to come. The dialog created thereby also fueled the planning process. Hundreds of citizens contributed to this project in public meetings, and once more the results were used by the Planning Commissioners in putting the plan together.

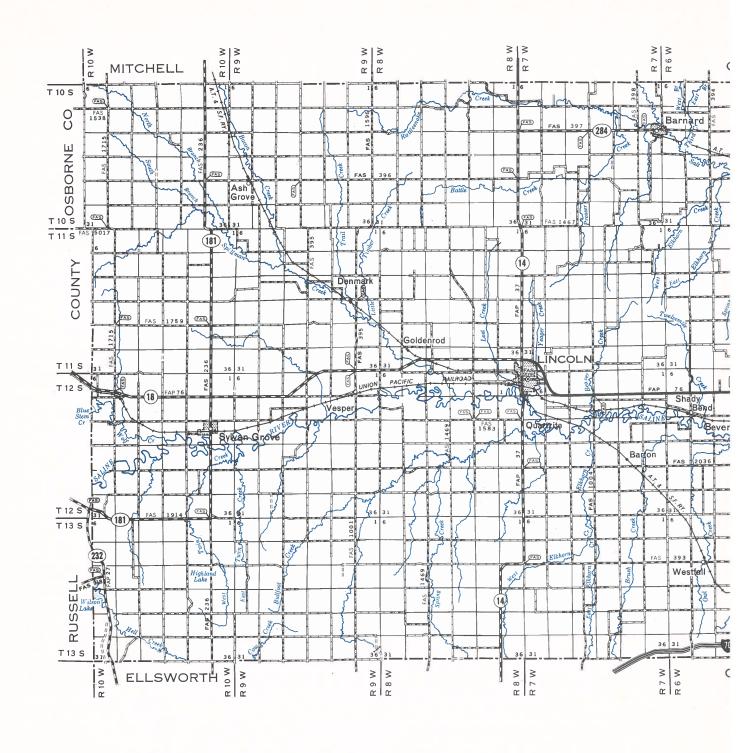
As the pivotal role of an improved airport to assist local economic development became apparent, many segments of the community became involved: the Lincoln Port Authority, the Mayor and Council of the city of Lincoln, the Lincoln Area Chamber of Commerce, Century Manufacturing, Inc., Quartzite Stone Company, Post Rock Country Tours, and others from agribusiness and tourism businesses.

During this project's period of performance citizens from the Denmark neighborhood were considering the future of its historic church and settlement. Merrill and Kathy Nielsen, farmers and proprietors of the Spillman Creek Lodge, created a video tape to stir awareness among both the citizens of Denmark (Europe) and the scattered descendants of the Denmark (Kansas) founders. They also enlisted help from a KSU program to help clear out debris from the abandoned stone storefronts.

Some of the names otherwise listed above were also active in planning for a new tourism group to promote the Smoky Hills and Post Rock Country, under the broader charter of the Northeast Kansas tourism commission.

The above activities represent only a partial list of citizeninitiated and conducted labor that fed this report. Those who
thought through new businesses and expanded existing ones,
restored post rock buildings, succeeded in having Lincoln
County designated "Post Rock Capital" by Kansas legislative
resolutions, obtained funds to upgrade emergency services and
build an elevator in the hospital, and many more activities
also deserve recognition.

Together the people of Lincoln County are weaving a tapestry for their future out of the resources of the present and the heritage of the past. This is more than a comprehensive plan, although it is certainly that. It is a report of their efforts, their beliefs, and their hopes.



ROADS AND ROADWAY FEATURES PRIMITIVE ROAD UNIMPROVED ROAD GRADED AND DRAINED ROAD SOIL SURFACED ROAD NOT GRADED OR DRAINED GRAVEL OR STONE ROAD HISTORICED SURFACE BITUININOUS ROAD—LOW TYPE AVED ROAD DIVIDED HIGHWAY HIGHWAY WITH FULL CONTROL OF ACCESS AND INTERCHANGE

LEGEND

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PERSPECTIVES

Lincoln County is located in the Smoky Hills of north central Kansas, not far from the exact center of the contiguous 48 states. Kansas City is 200 miles east, Wichita 130 miles mostly south, Denver 380 miles west, and Nebraska about 80 miles north. The most recent county map precedes this section.

The average daily minimum winter temperature is approximately 20 degrees (F); the average daily summer high is over 92 degrees. Three-quarters of the average annual precipitation of 26.75 inches falls from April through September. Average figures mask the extremes that occur for short -- and sometimes extended -- periods of time.

Sea level elevations run from approximately 1280 feet in the northeastern part to 1800 feet in the south. All but the southeast corner is part of Post Rock Country, signified by long rows of buff limestone fenceposts, each with a vertical rust-colored streak through its middle.

The county drains into the Saline River or its tributaries, of which the principal is the Solomon/Smoky Hill river system. Except for some salt pans, the bottom lands make good fields for crops. The upland hills, with sea level elevations of up to 1800 feet (500 feet above the county's lowest bottom lands) tend to be cattle pastures.

There are 3,600 people today, down from a World War I high of near 13,000 and the fewest since about 1875. The county was organized in 1870. From 1870 to 1880 thousands of families came to Lincoln County, some from "back east" and many from Denmark, Germany, Scotland, Ireland and other nations.

During the enthusiastic rush of land grant settlement it was predicted that the county would become home to over 20,000 citizens. This projection ran aground on the windy, often harsh climate and remote dirt roads of the land.

Early immigrants came knowing how to clear trees, producing small fields as well as log cabins and clapboard houses and rail livestock fences. They had grown up using buckets and jugs to haul water from streams and shallow dug wells. In Lincoln County a combination of low annual rainfall and prairie fires prevented tree growth, and water was often hard to find. The absence of wood and scarcity of water required changes in housing, fencing, farming, living and thinking.

They had no water heaters, insulation, propane tanks, public water systems, electrification, all-weather roads, motorized farm equipment, x-ray units, television, business and CB radio communications, four-wheel-drive vehicles, computers, phones, refrigerators, freezers, the FDIC, antibiotics, microwave ovens, or other 1990 necessities.

In Lincoln County, as elsewhere, they learned to build and live in dugouts and sod houses, not much different in concept from the Pawnee lodges that had disappeared such a short time earlier. They used barbed wire instead of rails, slabs of limestone instead of fenceposts and logs, and drilled wells with windmills instead of old oaken buckets. The free land and the chance to build a free life was worth sacrifice and effort to the homesteaders. Many of their children and most of their grandchildren elected a less rugged existence.

Rural people left first. The pattern for elderly farmers was to move to town and sell or rent their land. Their homestead was rented sporadically and then abandoned. The last (1973) county comprehensive plan, written by a firm of professional planners, essentially wrote off the countryside for residential purposes. Only recently is there evidence that rural resettlement is economically feasible as well as attractive from a life style perspective.

It is important to talk about the emotional tug of the place. Visitors as well as residents want to live in Lincoln County. It is beautiful: the sky, the land, and the small vistas.

The sky never rests. On a cloudy day you stand at the bottom of an ocean, looking up to a surface supporting great floating puffs, with schools of birds soaring past. Between clouds a deep blue trails off to white haze at the horizon. Sunsets inspire awe, and are rendered even more brilliant in summer when the western forests burn. The clear night sky is luminous with stars and sometimes the moon. The thunderous night sky terrifies small children with standing bolts and horizontal streaks and off-stage floodlights of lightning.

The land exhibits a patient power. It has been tamed now for twelve decades, squared off by roads and divided into places for animals and crops, but keeping it that way takes constant maintenance. Breakers of rolling hills are etched with ravines and creeks that empty into the flat river bottoms. Hillside pastures change color with the rainfall, while the fields vary with the crops and the seasons. Wildlife is everywhere. The absence of people accentuates the serenity.

Small things catch the eye. Flowers of every color pop up in pastures, often from otherwise unremarkable plants. Limestone sea shells and shark teeth testify to a time when one really

would have been looking up to an ocean's surface. Snowdrifts are sculpted by the wind into standing waves, waiting for a surfer. A grasshopper leaps into a gossamer web and in seconds is bound and gagged. A road's mud surface dries too fast and fractures into a million cracks. A windmill turns in the fog; cattle dot a distant hill; a hawk sits on a post.

Since civilization struck in the 1870's, the county's economy has been based on the livestock in the hills and crops on the river bottoms and flat upland plateaus, and on the payrolls of the government and industry. Early governmental units surveyed, built roads, and transferred land to and among settlers. Early industry served local needs by making shoes, importing dry goods, banking savings, blacksmithing, and so forth.

Today's government economy pays for employees of the county and four cities, the District Court, two school districts (and small parts of others), and representatives of such state agencies as Parks and Wildlife, the Social and Rehabilitation Services, and the Highway Patrol; and federal agencies such as the Corps of Engineers and Agriculture (USDA). It also administers transfer payments from the Social Security Administration, the Veterans Administration, USDA, and other agencies. The county depends on a net inflow of taxpayer dollars.

Industry today is export-oriented. Century Manufacturing, new to the county in 1988 through the efforts of a Lincoln Center industrial revenue bond and owned by a Wichita individual, makes plastic mementos and paperweights for a global market. Quartzite Stone Company and its predecessor have provided mining jobs since 1921. It sells construction aggregate to Kansas and neighboring states for their highways and concrete projects. Once local, it now reports through a Hutchinson company to a corporate parent in Denmark (Europe).

Agriculture today is roughly evenly divided between crops (wheat, alfalfa and milo) and livestock (usually cattle). Scatterings of oats, soybeans and other crops, as well as sheep, poultry and hogs can be found. There are several small feed lots, a large livestock auction operation, some private grain elevators, and a grain cooperative with four elevator locations in the county and others to the north.

Full-time farmers are becoming fewer. "Sundowners" work full jobs off the farm, then go home to work their cattle or crops or fences from late afternoon to dark. With normal weather it takes close to two full sections of Lincoln County land to support a farm family without some kind of outside employment.

The relative remoteness of the county, its aging people and its far-flung school systems, the difficulties faced for most of the 1980's (as in many earlier decades) by farmers or ranchers or both, and the steadily declining population have left an economy where existing housing and commercial space is far cheaper than new, where labor costs are low and transportation costs high.

This county's economic profile is uncharacteristic and even counterintuitive to most people, who live in cities or towns or regions which have been and continue to experience the pressures of long-term population growth. This was part of the basis for the Commissioners to decide that the comprehensive plan should become an indigenous product of the people of Lincoln County.

THE 1988-1989 PLANNING PROCESS

A. The Background

The possibility of seeking a Community Development Block Grant was brought to the attention of Lincoln County in the early summer of 1988 by the North Central Regional Planning Commission. The Board of County Commissioners, in its regular meeting of September 6, 1988, voted to seek a grant to bring up to date its comprehensive plan. A plan was last created in 1973 under a contract with a firm of consulting engineers and planners from Salina, Kansas.

The County's leadership in this effort was backed by formal resolutions of the city councils of Lincoln and of Sylvan Grove, and by the USD 298 School Board. Informal support came from members of other governmental bodies in the County. Individual citizens also encouraged the effort.

A county-wide survey was done by teams of volunteers to identify population characteristics of county residents, as required by the U.S. Department of Housing and Urban Development (the source of the grant funds). Results of the survey showed that 26.2% of Lincoln County residents were over age 65 and that 5.7% were handicapped. Most of the families in the county were relatively small; 73% of the family units (as defined strictly but somewhat artificially by HUD) had only one or two people.

The percentage over age 65 was very high. That, when considered with low per capita income, a declining job base, very low average wages per job, and a declining property tax valuation added up to a county in economic stress. Lincoln County was continuing to lose population, a trend of very long standing:

Long-Term Lincoln Country Population Trend

Year:	1940	1950	1960	1970	1980	1988	1989
Population:	8338	6643	5556	4582	4145	3702	3616
Data: U. S.	Census,	except	for 198	38/1989	from	Kansas	census.

The grant application was prepared by a team from the North Central Regional Planning Commission and from Lincoln County. Notification of grant award was received on October 3, 1988.

B. Organization of the Study

The Board of County Commissioners completed arrangements with Kansas State University to help with the assessment of the county's infrastructure, provide conceptual assistance in tourism planning, and suggest ways to accommodate the county's need for community meeting and recreational facilities. This had been proposed in the grant application itself.

Second, the Commissioners advertised for bids from contractors interested in assisting in plan preparation. No bids were received, and the Commissioners entered into negotiations with a well-regarded Salina firm. They also began to consider the pros and cons of making the plan a largely internal effort of the citizens of Lincoln County.

Third, they appointed a Lincoln County Planning Commission to be the responsible body both for development of the plan and for providing consultation on the priorities and future needs of the County after the plan was completed. Two members of the Commission had served in similar roles for the county in the early 1970's, and they reinforced the opinions of others that, if possible, the county should "do the work" instead of "contract to get it done" if adequate local resources could be found.

C. The Start of the Dialog

In a joint meeting of the County Commissioners and Planning Commissioners on December 13, 1988, the county's positive and negative features were identified as the first step of substantive planning. It was decided that these rough ideas would be taken to six community meetings designed to learn what citizens hoped to see or do in the next few years. The concepts were boiled down to the following:

Attractive Aspects of Lincoln County

1. An enjoyable life style: clean, safe, rural, with easy access to outdoor recreation and entertainment and a notraffic drive to larger cities. Year-round there is abundant fishing and hunting, and the opportunity for birdwatching, photography, hiking and biking. Summer brings organized baseball and softball on lighted fields. Water recreation is offered at the Lincoln Center swimming pool and Lake Wilson. There are well-maintained parks, horse shows, county and community fairs and festivals, a golf course, and so forth. There are museums and libraries, several buildings on the National Registry of Historic Landmarks, and the never-ending fascination of the post rock country.

- 2. Medical services: with a good hospital and a modern clinic, two young physicians, two dentists, a chiropractor, an optometrist and associated medical services, including a team of Emergency Medical Technicians and ambulance drivers. A major regional medical center is located 50 minutes away. (One identified weak link in the health area was the county health department. However, during the course of this project the Board of County Commissioners planned for changes in the department and employed a new county health nurse to run it.)
- 3. "Post Rock": where pioneers, farmers, merchants, church leaders and government workers split and worked the characteristic rock the way others used lumber. Lincoln County has been designated as the Capital of "Post Rock Country". Post Rock fenceposts, buildings and bridges together constitute a totally unique cultural and historical region. Known technically as Fencepost Limestone, post rock is the top layer of the Greenhorn Limestone formation.
- 4. Good highway transportation: for farm-to-market economic purposes, for personal travel, and for shipment of goods to and from the county. Access to cities, airports, and colleges is straightforward when required.
- 5. Good utilities: no significant new taxes or bonds are anticipated for basic utilities. Beverly and Lincoln have upgraded their water/sewer systems, and three rural water districts now serve Barnard and much of the county with ample supplies of safe water. Two separate but interconnected electrical systems bring power into the county, and the largest city has finished a new interconnection to western hydropower sources, retaining its own generation facility for peak needs and emergencies. Both natural gas and propane are in common use.

Negative Aspects of Lincoln County

- 1. Jobs and people to fill them: there is an inadequate pool of skilled labor to attract major new companies. The lack of well-paid full-time jobs, on the other hand, deters growth in the primary working-age population. There are not enough jobs for either the elderly or teenagers. There are no designated industrial parks, complete with services, and very few unoccupied but suitable buildings of any size for companies seeking inexpensive expansion.
- 2. Continuing education: only a limited number of live college courses are easily available to county residents. Major universities are currently located 90 to 120 miles away, and community colleges are not much closer, although technical and trade schools are closer.

- 3. Locally available agricultural services: they are inadequate for many county farmers, especially in terms of market opportunities (except for "unprocessed" outputs of live cattle and harvested wheat), but also for some farm inputs.
- 4. Indoor recreation and entertainment: the drive to nearby cities is not difficult, but it is inconvenient. Only one national eating establishment has an outlet in the county, the only movie theater is in bad shape, there is no bowling alley or similar indoor recreational facility, and the bars and cafes are more utilitarian than entertaining.
- 5. Air service: the grass-strip city runways at the Lincoln airport are inadequate to serve the needs of the two existing large private employers, and increasingly inadequate to serve the needs of medical professionals, small business owners and managers, attorneys, and farmers who have surprisingly frequent business or professional reasons to attend meetings or conferences over 100 miles away. Some of the hunters and tourists who now come to the county have indicated that they would come more often if an adequate airport existed.
- 6. Public transportation: although more than one-third of the population is over age 60, with a substantial number of families below the established low/middle income guidelines, there is no public transportation to or from medical, shopping, church, school, social or other centers. This is particularly burdensome for the elderly and handicapped. Out of 105 counties in Kansas, only Lincoln County offers no bus service to the elderly and handicapped.

Other Factors

- 1. Housing: the well-maintained existing housing stock is fairly well filled up. There is good public housing available for low-income families, and there are good facilities for the elderly or those in need of continuous care. However, there are too few "empty nest" units for those who seek them. If such were available they would free up very desirable family housing for younger families who cannot afford to build new homes.
- 2. Public education: the county has a small population, but two major school districts. The consequence is a high cost of educational overhead: property, plant, equipment, and administration. This creates a relatively high tax burden for county residents; on the other hand, the large physical size of the county already makes some children ride for excessive lengths of time on a bus, and the "neighborhood school" concept has emotional and political validity in a rural environment.

D. Community Meetings and Public Input

The Board of County Commissioners and the Planning Commission decided to conduct the community meetings, rather that to put that task under a contract. Public input from the county's 3616 people was gained most effectively through personal conversations subsequent to the meetings themselves.

Six advertised meetings were held throughout the county, each in an identifiable community (Barnard, Beverly, Denmark, Lincoln, Sylvan Grove, and Westfall). With several different individuals chairing the sessions, a leader's guide was prepared that discussed timing, room arrangement, the process to be used to elicit comments and then capture them on paper, and the follow-up for each meeting's suggestions and opinions. The guide was accompanied by a brief "background and purpose" paper.

On August 31, 1989, a final county-wide meeting (advertised for three weeks in the paper) was held at the Farm Bureau hall. Attendees received draft copies of the plan and had the opportunity to raise questions that night, as well as to offer final points of guidance to team members during the project wrap-up in September.

E. County Policies

The Lincoln Sentinel-Republican of April 27, 1989, reported a long list of ideas that emerged from the town meetings. They dealt with the need for community centers, housing, access to public buildings by the elderly and handicapped, emergency services, recreation, county administration, economic development, and so forth.

The Planning Commission reviewed these in preparation for the county-wide meeting held at the end of all of the neighborhood gatherings. It drafted a number of proposed county policies in key areas.

Policies were adopted by the Planning Commissioners and the Board of County Commissioners for each major area identified in the public meetings. To add clarity, a set of possible projects was conceptualized to illustrate each policy. As the grant work continued into the summer of 1989 the policies and programs eventually evolved into the following:

1. Education

The Lincoln County Educational Policy is that there be educational and vocational opportunities of high quality available for all citizens of all ages.

Potential projects might include job training apprenticeships; support for local school districts in their efforts to upgrade the quality of K-12 education; satellite TV education; coordination among the county and the two principal school districts on issues that affect educational or vocational programs for citizens; a role for a county administrator (should one be appointed) to work with the school districts, Extension, and the universities; active encouragement of individual citizens to attend short seminars and workshops that focus on rural community development and culture; and active support of the expansion of Kansas State University to Salina.

2. Housing

The Lincoln County Housing Policy is that there be adequate housing for all at an affordable price; and that structures that cannot be rehabilitated be torn down.

Potential projects might include adoption of a fair housing policy; a building inspector; a revolving loan fund for rehabilitation; an effort to interest developers in building retirement-oriented housing; a coordinating role for a county administrator; and publicizing and encouraging the point of view that repair of deteriorating stone houses and renovation of empty stone buildings into housing units would attract people to live in Post Rock Country.

3. Jobs and Economic Development

The Lincoln County Economic Development Policy is to support existing enterprises, encourage new small manufacturers and service companies, maintain an environment attractive to independent professionals, take advantage of the industrial and economic support programs of the Kansas Department of Commerce, and be receptive to unexpected opportunities for bringing large employers into the county.

Potential projects might include developing existing home-based craft and part-time businesses; attracting the county's alums who now own their own companies; establishing a Development Corporation (Sylvan Grove has one at the present time which could be expanded or could serve as a model); giving support to PROF as it seeks to build an I-70 outlet for products of area residents; working with Lincoln Center to build an airport runway adequate for business aircraft, including small jets; developing a Post Rock Country tourism industry; supporting a Smoky Hills Tourism Council within the Northeast Kansas Tourism Commission; expanding the county's museums; preparing promotional literature and video tapes; putting together policies for tax abatement or Industrial

Revenue Bonds; and having job listings for the elderly and the youth.

4. Medical Care

The Lincoln County Medical Care Policy is to provide adequate medical care for all county residents.

Potential projects included retention of current medical professionals by supporting projects or programs important to them; implementing successfully the reorganization of the county health department; putting an elevator into the hospital; supporting the development of the airport to provide more rapid access in times of need; training more Emergency Medical Technicians; providing a network of psychological, safety, wellness, housing, and other services for the elderly; providing for a convalescent center for post-hospital recovery; and regularly reviewing equipment needs of the clinic, hospital, and ambulances to ensure their adequacy as technology changes.

5. Recreation

The Lincoln County Recreational Policy is to give all residents and visitors opportunities for both entertainment and recreation.

Potential projects included following through suggestions made by the KSU architectural students for recreation facilities; developing the recreation facilities of the southwestern part of the county (from Lake Wilson to Sylvan Grove); encouraging private citizens in organizing such businesses as restaurants, bowling alleys, supper clubs, community theaters, and SO forth; having administrator develop a common-sense recreation entertainment long-range plan oriented to both residents and tourists; working with Lincoln Center to enclose the swimming pool; and encouraging the renovation of the theater in Lincoln Center.

6. Utilities

The Lincoln County Utilities Policy is to ensure the existence of effective, efficient, and adequate utilities to support future development as well as present needs.

Potential projects included having a county-wide energy conservation plan; developing an action program to bring business-class telephone service to all parts of the county; developing a long-term, safe and adequate solid waste disposal program; identification of areas or specific sites, with existing utility corridors, which could be developed

commercially; and an activist role for a county administrator who can seek grant funds and other assistance to benefit both public bodies and private companies that deliver utility services to the county.

F. Priorities from Public Meetings

The above policies were taken in the spring of 1989 to a county-wide meeting of citizens. The room was wallpapered with summarized results of the six earlier sessions. The policies made sense to people, and new project examples were suggested.

Participants voted for the top tasks for the county to undertake. Shortly thereafter, the planning commission sponsored a booth at the Lincoln County Health Fair to get more citizen "votes" on the same topics.

At this stage of the process, the most popular tasks proposed for the county were concentrated in the areas of economic development and support for the elderly, with utilities development running a close third. The twenty highest-ranking priorities, in order of votes cast by individual citizens, were to:

- 1. Maintain, support and enhance the county's superb medical professionals, facilities and care.
- 2. Concentrate on tourism, including the restoration of old stone and rock buildings and fences, and improvement of parks, hunt clubs, watershed dams, and so forth.
 - 3. Hire a Lincoln County Administrator.
 - 4. Ensure part-time and summer jobs for young people.
 - 5. Establish a Lincoln County bowling alley.
- 6. Establish and maintain a clearinghouse of part-time and full-time job openings for the youth and elderly.
 - 7. Establish a second major county grocery store.
 - Develop an improved airport.
 - 9. Develop new housing.
- 10. Develop home-based businesses and attract new companies to the county.
- 11. Build a new high/junior high school for the eastern half of the county.

- 12. Sponsor higher-level educational classes and job training programs.
 - 13. Clean up and fix up the present movie theater.
 - 14. Fix up the county fairgrounds.
- 15. Enclose the present Lincoln Center swimming pool for year-round county resident use.
- 16. Create a county-wide community building with good facilities for meetings and major activities.
- 17. Establish a retail outlet store for local crafts and industry.
 - 18. Provide bus transportation for the elderly.
- 19. Create a "Lincoln County Calling Zone" that interconnects the separate telephone companies and exchanges to create a single local call countywide service area.
- 20. Establish an effective alcohol-diversion program for young people, including jobs and improved recreational and entertainment facilities.

Many other tasks or ideas were mentioned in the process, although less often than the above. However, all ideas from the public meetings and opinion-seeking have been considered by the Planning Commission. Many below the "top twenty" had an impact on the thinking reflected in this plan.

G. Other Study Tasks

The "community goals and objectives" task was carried out entirely by the Commissioners. There were other specific tasks that needed to be done, for which bids were invited from contractors by the Planning Commission in two local newspapers (the Sentinel-Republican and the Lucas-Sylvan News). The formal Request for Proposals sought assistance to accomplish:

- 1. An inventory of substandard housing;
- Economic research and planning;
- 3. County road traffic evaluation;
- A review of consumer buying patterns and opinions;
- 5. Evaluation of possible tourism opportunities;

- 6. Preparation of report display boards on which to capture key findings of the planning project for use both to inform county residents of the new plan and to continue the process of soliciting community input and suggestions as the county moves into the 1990's;
- 7. Establishing rough cost estimates for identified high-priority capital improvement projects;
 - Final report writing;
 - 9. Designing the cover for the final report;
 - 10. Production of 50 copies of the final report; and
 - 11. Overall project management.

The advertised Request for Proposals also stated that the Board of Commissioners of Lincoln County reserved the right to enter into negotiations with individuals or groups it believed able to do a task if no satisfactory proposal was received.

As a result of formal proposals, informal inquiries, and negotiations, the tasks were eventually assigned to the Kansas State University Community Services Program team and Landmark Enterprises (issues involving tourism), Landmark Enterprises (report cover and report display boards), the Lincoln Area Chamber of Commerce (consumer buying patterns and opinions), Madden Technical Services (housing inventory and cost estimates for capital improvement projects), Lincoln County itself (report reproduction and binding), and Rose & Crangle, Ltd. (economic research, report writing, and project management).

The Board of County Commissioners, the County Highway Department, and the Planning Commissioners contributed to the cost estimates for the capital improvement list, and also decided that the County Highway Department was best able to evaluate county road traffic needs. The county also was responsible for analysis and planning for the health and highway departments and for the landfill.

Kansas State University students in two architectural design classes were assigned a semester-long class project to evaluate needs and suggest possible county options for a community center to provide recreation, entertainment, and meeting facilities. They were instructed to focus, for planning purposes, on a field between Century Manufacturing and the athletic facilities of USD #298. This land was owned by the city of Lincoln Center, but was part of the Century

site through the Industrial Revenue Bond issue in 1988 that supported bringing Century to Lincoln.

At the end of the project 24 designs were submitted with rough estimates of construction costs (1989 dollars). Because of suggestions heard by the students during the project, several of these designs placed center facilities in empty or underutilized buildings in downtown Lincoln and Sylvan Grove. Cost estimates ranged from a few hundred thousand dollars to several million.

The community meetings that reviewed the student reports were well attended, and the plans for use of existing structures were especially well received. The primary impact of the architecture students' work was to focus attention on the potential ways to improve the quality of life in Lincoln County. This made possible realistic consideration of the infrastructure improvements and costs of those improvements toward the end of the grant period.

Although too bulky to reproduce in its entirety within this document, both the final community center feasibility study report and a set of slides of the three-dimensional and scale models developed by the students are hereby incorporated by reference into and made a part of this planning document. The report and the accompanying slides can be examined in the office of the Clerk of Lincoln County.

The Community Services Program at Kansas State University, as proposed in the grant application, was the contractor for a comprehensive evaluation of all county culverts and short (under 20') bridges. The major (over-20-foot) bridges are assessed every two years by the county, but the shorter spans had not been systematically reviewed for many years.

At the conclusion of this task by the KSU team, it was noted that the team found many previously unknown culverts -- and could not find others where they were supposed to be located. Their reports, computer-generated maps, and associated suggestions for tourism development are also incorporated by reference into and made a part of this planning document.

The Soil Conservation Service of the U.S. Department of Agriculture, in cooperation with the Kansas Agricultural Experiment Station, compiled a soil survey for Lincoln County in 1983; this was made available to the grant project team as a primary resource for the Land Use section of this report. The aerial photographs that are bound into the Soil Survey show in great detail the physiographic features of the county as of 1983.

It was recognized that changes have occurred in response to the Conservation Reserve Program administered by the USDA to reduce erosion, since many converting hilly cropland to pastures. Nevertheless, these maps are essentially current with regard to the use of land for agricultural, water conservation, recreational, residential, commercial and industrial or mineral extraction use. They also show that, with the exception of stream beds, Lincoln County has no forested terrain.

The Lincoln County ASCS office provided current information to the team concerning current numbers of farms, farm operators, USDA payments of various sorts, and so forth.

The Planning Commission, usually in conjunction with the Board of County Commissioners and with interested citizens and task leaders or workers present, met frequently during the summer. These meetings served as focus groups, to examine in detail issues raised in the project. In addition, they became contact meetings to exchange information about what other organizations (such as the Post Rock Opportunities Foundation, or individual companies, or groups such as the newly-formed North Central Kansas Tourism Commission) were doing.

In July and August, 1989 the report in three separate draft stages was reviewed by the Commissioners and other interested citizens. Revisions and additions were made each time. A review draft was prepared for a county-wide meeting held on August 31, and the final report was physically produced in September by county employees.

Each Commissioner and task leader received a copy. Copies were placed on file in the office of the County Clerk, the libraries, city halls, the school districts, the KSU Community Services Program, the North Central Regional Planning Commission, and the Kansas Department of Commerce. Circulating copies made the rounds of civic clubs, church groups, interested businesses and individuals.

LAND USE

A. Agricultural Land

According to the Lincoln County Soil Survey, over 60% of the soils in the county are suited to cultivated crops. There is no significant irrigation. In the 1980's the dominant crop was hard red winter wheat, followed by grain sorghum and alfalfa. The steeper slopes and upland hills carry a good mix of grasses and are used primarily for cattle pasture.

The use of the land for agricultural purposes dwarfs all other; if farm-to-market roads, farm ponds, stream beds, farmstead improvements and the like are included, over 98% of the land use is agricultural. Historically, over 55% was cropland and under 45% rangeland.

This crop/animal use pattern has changed in recent years because of pressures placed on crop farmers to conserve their topsoil from wind and water erosion. This is a statewide concern; the USDA Soil Conservation Service (SCS) reports that Kansas has over 13 million acres of highly erodible cropland. Only Montana has more. Lincoln County, a hilly area with many acres plowed in its first fifty years that never should have been, exhibits this problem.

As of the time of this report, close to 30,000 acres of the county's 235,000 acres designated as cropland had been planted to grass. When those are added to the 197,000 acres designated as pasture, the result is an appearance of more 53% pasture and 47% cropland.

The SCS defines the land which is highly erodible. To continue to receive federal tax subsidies the producers must return this land to grasses or have terraces and grassy waterways constructed on them. Farmers who build terraces in order to continue to plant crops are required to cultivate the land "with the terraces" rather than "over the terraces". This imposes approximately a 25% penalty (depending, of course, on the overall layout of the field) in terms of how long it takes to work the ground.

Farmers are not generally sensitive to keeping track of their personal time as a cost of doing business, but they do see this penalty in fuel charges, machine hours, and longer hours put in to "beat the weather". As a result, an economist could predict widespread farming "over the terraces" with occasional off-season rework to repair the damage, or a slow migration from crop to pasture usage where terraces exist.

A "typical" county farm family in 1990 needs to operate about two square miles -- well over a thousand acres -- to generate

enough income from wheat to support it in a solid middle-class fashion without benefit of external employment. This is a far cry from the free-standing 160-acre land-grant farm that characterized the county in 1890 and which still can be found in isolated instances.

As farm operations are consolidated into fewer and fewer hands, occupied rural houses disappear. The county abandons some miles of its road system, and former rights-of-way move back into production. So do old farmsteads, as outbuildings and eventually the houses collapse and are removed.

The fundamental economics are the same for cattle ranching as for wheat, with only the numbers and the physical processing and distribution changing. It appears that a 300-head cow herd can support a family, depending on the interest payments and so forth, in Lincoln County. That requires from four to five sections of land -- somewhere around 3000 acres.

A mixed wheat/cattle operation levels out the risks and the rewards, since to some extent the rancher benefits from low crop prices and is hurt by high crop prices; 2000 acres would support a family from a typical mix of wheat and cattle.

There are about 800 operators in the county working 1200 separate farms totalling 432,000 acres. If 2000 acres per average wheat/cattle farm are needed to reasonably support a family, only 200 to 250 operators should be working the county.

These are harsh numbers. They suggest there are three to four times more operators than current costs and prices can justify, even without anticipating future cutbacks of USDA transfer payments in response to federal budget pressures.

The county's farmers have not adopted higher-value crops or animals which can be profitably produced on their smaller acreage. They like wheat, cattle, and closely related activities; some say that no other life really compares, even if it takes some second jobs to make ends meet.

Tradition and operator preferences suggest continued increases in farm size, fewer farms and operators, fewer miles of roads, and fewer farmer-occupied rural houses. This report assumes that use patterns will not change for the current generation of operators now in their 40's or older (a very high percent of the total), regardless of economic realities.

It is likely that significant agricultural land use changes in the next twenty years will only occur in two ways. One would be if new producers (including absentee landowners who hire local operators) enter the picture with radical, or at least different, farming ideas. This is possible; few areas in the world --much less the United States -- have such cheap agricultural land. Someday, urban speculators or investors from this nation or others may become major county landowners.

The other path to change would be in response to climate change. If "global warming" developed rapidly enough that annual precipitation drops by ten percent or so and the average annual temperatures rise by two to four degrees (F), crops which are more tolerant of such a climate, such as amaranth, would represent a reasonable migration for a crop farmer with a major equipment inventory.

The climate is suited to growing some unconventional (for Lincoln County) crops such as catfish or vegetables. These require significantly more labor per acre than wheat or cattle, but return significantly greater net income. The limiting factor is the knowledge of a producer who must discover markets (ranging from weekend farmers' markets in large cities to independent food distributors to factories to supermarket chains). Some of these operations, once started, could affect land use patterns in a measurable way.

Kansas State University is presently establishing a "value added" center. Communications with Dr. Richard Hahn, who is organizing that center, have encouraged the project team and the Commissioners to believe that some benefits to Lincoln County may eventually emerge. If this comes to pass, some new farm-based activities may impact land use.

Facilities which add value to locally produced commodities, such as flour mills, animal or bird feed plants, bakeries, bread mix or noodle or crouton factories, feed lots, breeding facilities or packing plants, could be located in the county by individuals with adequate capital, entrepreneurial drive, and management skill. So also could some operations which process farm products for non-food usage.

B. Minerals

Beyond agriculture, there is potential for extracting mineral resources. The Kansas State Geological Survey has reported that there are large reserves of clay, limestone, sandstone, shale, and volcanic ash. The "quartzite" variety of sandstone has been mined in the center of the county commercially for decades. Other sandstone formations have been used for building purposes, as have several of the limestone layers.

The famous "fencepost limestone" formation, known as "post rock" or "post rock limestone" or simply as "stone", has been used for a century. Such activity has usually been on a small scale for building bridges, homes, churches, public buildings,

fences, signs and yard decorations. Rock posts have been shipped throughout the world as yard art. Local artisans have made miniatures for sale, and both artists and photographers have been captivated by post rock.

Volcanic ash was mined in Lincoln County to provide an asphalt mix additive when Interstate 70 was built along its southern border. Local deposits have not been worked commercially since, although one extraction and production facility has been in occasional operation in Jewell County, 60 miles due north, for many years. An equivalent distance to the south finds a packaged kitty litter producer, using dried clays similar to some of the Lincoln County clay deposits.

There are a number of surface-mined gravel pits active in the county, and scars of old ones can easily be seen. Since most of the county road system is gravel, these pits will continue to be mined for the foreseeable future.

There is a minor natural gas field in the southwestern corner of the county. Although there is evidence that formations conducive to trapping oil and gas underlie the entire county, they seem devoid of oil and, except in the southwest, gas. There may also be uranium resources several hundred feet below the surface throughout the county.

None of these resources are now commercially valuable reserves except for gravel, quartzite and post rock. Quartzite mining has been viable as long as the demand for good highway-building or other heavy-duty concrete aggregate within several hundred miles of Lincoln remains robust. As the decades have passed, the mining operation has required heavier and more costly equipment to extract the increasingly deeper quartzite boulders from their beds in sand grizzly and rock formations. Estimates are that at least 30 more years of reserves exist.

The importance of post rock appears to be less in its commercial use as an extractable resource than as an offshoot of a potentially major tourism attraction. Not since the depression-era Works Progress Administration have large numbers of structures been built with post rock.

Oddly enough, the overall economic development program for Lincoln County prepared in 1976 by the North Central Regional Planning Commission suggested that post rock extraction could result in improved pastures; taking out the limestone stratas could foster improved grass rootage and, where desired, leave cavities behind to make new farm ponds.

Mining, of course, represents the depletion of a non-renewable resource. Once minerals are gone, they are gone for good.

C. Other Possibilities

Lincoln County has twenty townships, or approximately 720 square miles. It is rural; only 3616 residents were counted in mid-1989, giving it a population density of five people per square mile. Since the four cities have about 2400 people, the countryside population density is less than two people per square mile. Less than two percent of the land is consumed by towns, industrial and commercial buildings, major highways and so forth. As the towns shrink in size, and the smallest disappear, the trend has been for non-agricultural land use to shrink.

However, it is possible that Lincoln County could enter a rural resettlement period in the next 20 years. Some individuals have "portable" occupations, such as artisans or consultants. Others can commute to their jobs from the country, such as employees of airlines or of large companies in Salina or elsewhere. These non-farm workers may be interested in building houses on plots of five to fifty acres, and in the aggregate this could move several thousand acres from agricultural to residential use.

This is not an idle thought. Every city in the United States is ringed by what animal feed dealers refer to as "horse county": small non-farms with pastures and gardens. These are almost always occupied by people who decided in mid-career to reside in the country away from neighbors and curbs and traffic lights and neon. Such individuals often commute a half-hour each way each day to work; in our biggest cities, "horse country" living can mean a commute of one to two hours.

It is possible that a corporation would seek to enter Lincoln County to establish a major processing or manufacturing center with significant local land use impact.

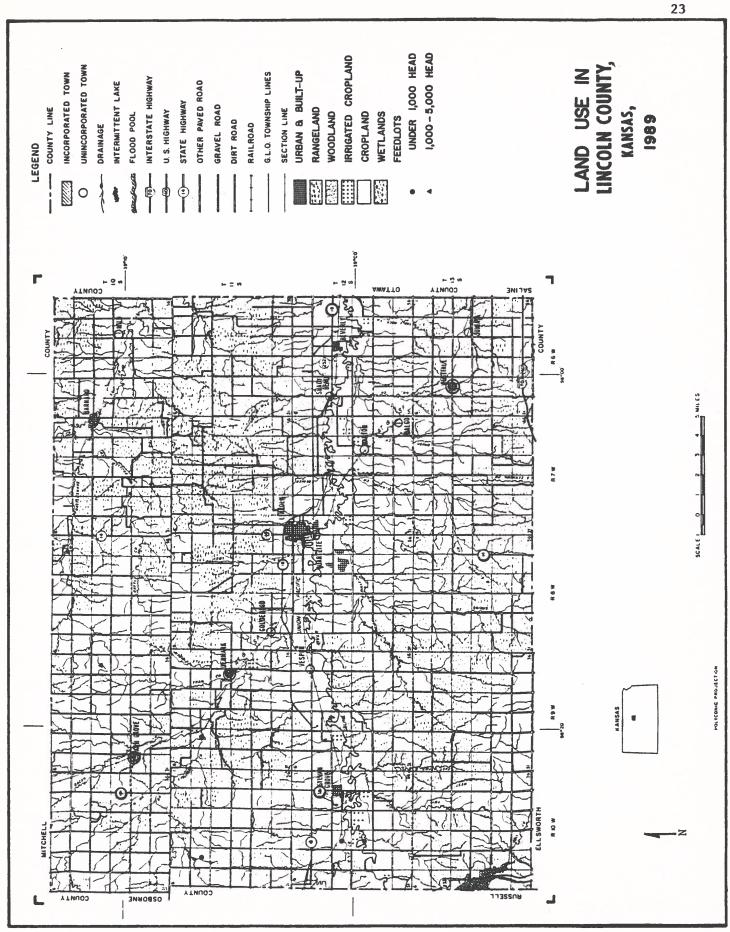
Other land use is speculative. The county has generally clear skies (about three-quarters of the time in the summer, about two-thirds in the winter) and excellent visibility, ideal for flying conditions, and Lincoln County is centrally located in the United States for any air service. However, the local airport is totally inadequate and the infrastructure cost to support an aviation business would be substantial.

There is abundant sun and wind. With a reduction in the capital costs of generating energy from renewable sources, the next major increase in the cost of fossil fuels could prompt an entrepreneur with imagination, or more likely a clear-thinking utility with capital, to develop the wind or sun farms so much discussed in the 1970's.

Interstate 70 (from Utah through Denver, Kansas City, St. Louis, Indianapolis, Columbus, Pittsburg, Washington and Baltimore) generally parallels the county's southern border and is within Lincoln County for several miles. I-35 goes south from Salina to the Mexico border. A value-added agribusiness concern, manufacturer, warehousing or trucking operation with the right distribution pattern could find it attractive to locate in the county on or near one of the I-70 exits.

During this project period there was significant political momentum developing to make highway U.S. 81 from Salina north to Nebraska into a four-lane road. If such were to occur, and if it was further developed in Nebraska to I-80, this would provide more incentive for a distribution firm and might also lead to more intensive development of county hunting, fishing, and camping grounds (Lincoln County is in the middle of three large lakes). Such construction could also consume a significant amount of Quartzite aggregate from county mines.

A land use map is included on the following page.



POPULATION CHARACTERISTICS

A. Historical Trends

In 1870 the first federal census of Lincoln County showed 516 residents. This was shortly after some long-remembered killings of European settlers by Indians. The county was just getting itself organized (complete with a classic, but short, battle over the name and location of the county seat; the losing community of Abram is only marked today by a monument in a pasture a few miles east/southeast of Lincoln Center).

In the next few years waves of immigrants moved in from a dozen other states and as many countries. There was a great deal of land speculation as the pressures of increasing population drove real estate prices up all over the county. Laborers worked on hundreds of new buildings, roads, and bridges. Miles of stone fenceposts appeared, and raw prairie was put to the plow. Not even bad weather kept the people away or the speculation down. By 1880 the federal census showed 8,582 residents in the new cities and throughout the rural areas.

This was the county's last boom. A prolonged period of stability set in. It seemed like progress, since so many new people were always moving in; but about as many moved out, and the net result was sluggish growth. State and local census counts usually gave the county more people than did the federal; the salaries of some county officials depended upon the population. Eventually came the start of a net decline that shows signs of lasting for a full one hundred years. The federal surveys show both the period of net stability and the subsequent long population drop:

Population of Lincoln County, Kansas

1890	1900	1910	1920	1930	1940	1950	1960	1970	1980
9709	9886	10142	9894	9707	8338	6643	5556	4582	4145
			(U.	s.	Census	dat	a)		

There is no reason to expect the trend to reverse soon. The Kansas census counted 3702 in 1988 and 3616 in 1989. The U.S. Census Bureau estimates that the county lost 100 households between 1980 and 1985, a 7.5% decline.

In 1987, the last year for which complete statistics were found, there were 58 deaths and 36 births in Lincoln County. Only five counties in Kansas out of 105 had a lower birth rate; and only five counties had a higher death rate. The average age at death was 82, higher than any other county in 1987. No one knows how many are buried in the county's cemeteries, but clearly that number exceeds the living.

The 1980 census showed the median Lincoln County female to be almost 48 years old and the median male almost 40. Statewide, the median age for females was between 36 and 37, and for males about 32.

A fascinating aspect of a small body politic is government. For one thing, the division of labor that seems to divide the public sector from the private in large cities or at the level of the federal or state governments becomes blurred. A successful county with few people honors titles, but does not always respect them if they get in the way of getting work done.

There is a real sense of civic obligation: someone does have to do it. When people "take turns" holding a leadership job, the public office holder is more accountable than in larger communities. Those with no official position at all are brought into the decision-making process, since small numbers make every citizen's opinion important. Everyone knows everyone else's strengths -- and weaknesses. All of this reduces pretense, or at least converts it into a form of popular entertainment.

B. Projections

With a small, long-lived, elderly population and a low birth rate, Lincoln County's future population can be reasonably well estimated. The inevitable continuation of demographic trends already established (the population over age 65, the work force and the available jobs, the number of women in prime childbearing years) suggest that there will be more and more acres per person for the next 20 years.

The North Central Regional Planning Commission projects the 1990 county population to be 3481. Longer range, the Institute for Public Policy and Business Research at the University of Kansas has forecast a total of 2856 by 2020; neither of the age cohort projections used by these organizations assumes any new baby boom or major immigration.

A "business as usual" scenario will empty the county of all but a few hundred successful farmers and ranchers, government workers, and other business and professional people within several decades, plus of course their families and a large group of retired people.

For planning purposes the county should already be considered essentially depopulated. Planning will be both informed and enriched if the county rejects the traditional view that "things have been going downhill but something can be done about it; and someday we will once again have lots of busy retail shops on main street and lots of kids in the schools and plenty of members in all our civic clubs". No evidence supports this hope. Development and implementation of plans become simpler if they need not be conformed to myths.

C. Education and Occupations

The population decline seems to have been accompanied by a proportionate (and perhaps greater than proportionate when compared to that of the country at large or Kansas overall) reduction in educational accomplishments and aspirations. The pre-industrial early days of growth were times of agricultural expansion, and the county's population was as educated as any.

The 1920's post-war industrial age attracted few talented graduates from great universities to Lincoln County. The 1970's post-industrial economy, characterized by service sector jobs (instead of manufacturing) and by knowledge jobs (instead of doing something physical), had no discernable impact. This county -- as have so many others in north central Kansas -- has become a forgotten area.

There were 9,000 to 6,000 residents between World War I and the Korean War. Many of them grew up, went to college, found urban jobs as professionals and managers, and homes in urban or suburban or small-city places. Few of their careers led to Lincoln County; when they visited they found aging parents, closed businesses, and nothing much for them to do even if they wanted to move home. In a phrase, "you can't go home again" -- for economic reasons more than any other.

Long departed graduates returned for vacations and funerals, and seemed to be prospering in their jobs elsewhere ... even if elsewhere was as close as Salina or Hays. Lincoln County held out very few prospects for employment. What are the available county jobs in 1990?

There is hourly employment at a local factory or mine or in a retail store or on the farm. There are a very few farm or professional or business careers ready to be handed down from an ancestor. A large percentage of high school graduates, year after year, leave and build lives elsewhere. As much as any other factor, this saps a community, ages it, and deprives it of hope.

Generations of children grew up in Lincoln County with expatriates as their role models. Those who went before them, went. High school graduation has been a bittersweet ceremony of departure.

The two large high schools know this. Class and schoolwide reunions emphasize how many more people used to live in the area. The schools have their own special problems of running busses over hundreds of square miles to pick up a few scores of children, attracting first-rate teachers, and providing educational diversity and quality with small enrollments. They wonder (or worry) about consolidation to get their numbers up. Then there is the difficult equation of how raw numbers of children translate into school tax revenues.

During this grant project period, Kansas State University's Division of Continuing Education brought a live 3-credit course to Lincoln County at the request of county school personnel. In conjunction with this, KSU for the first time made tuition awards available for county students who could demonstrate financial need or who were enrolled in a graduate degree program.

Recent announcements by KSU that they plan to open a Salina campus have met with considerable local enthusiasm. KSU is popular in Lincoln County, and Salina is already the regional shopping center. The hope is that a wider variety of course offerings and lectures than before will be available to the residents of the county, even though in-county offerings may not change. However, more in-county classes could be offered if the teaching faculty had a 45 minute drive from Salina rather than more than twice that from Manhattan.

It is possible that a major and long-lasting event will reverse the population trend. However, neither wars nor depressions have done it in the past; nor good times or bad in the farm economy; nor the opening or closing of industrial employers in the county. The population is going down. It has been for generations.

The county and its leaders need now to concentrate on what can be done from today's base to improve the quality of life for all its people.

Elsewhere in this report are discussed issues of land use, economy, housing, and infrastructure, all of which are vital for improving the quality of life. However, there remains an emotional question in the minds of many county residents. It goes beyond logical analysis. Why don't more people come live in the county? Why don't more children stay? How do we compete for new residents?

There is an emotional response, and it is valid. Some very unattractive parts of the world use good housing, a roaring economy and excellent infrastructure to attract workers and residents. Lincoln County offers something else.

The county's greatest attractions are the quiet beauty, the apparent remoteness, the powerful sense of hills and sky, and the absence of people. Not since the explosive early days of the 1870's have there been so few transients, so few residents, and so many deer, jackrabbits, coyotes, turkeys and other wildlife. Not many places on earth offer this combination, much less still be part of the United States of America.

A sizable number of urban and suburban dwellers would find the above paragraph to be a description of heaven. From among that group, which ones have jobs that would let them move to the county? From among that group, which ones have the risk-taking propensity to actually do it? And, how can a few of those who could, and might risk it, learn about it?

In a nutshell, this is the county's challenge. Solve that, and the rest falls into place.

HOUSING

A. The 1989 Comprehensive Survey

A comprehensive housing survey was accomplished for the project. A rating scale was developed that met the needs of the local planning commission, and every house in the county was visually inspected and evaluated using these local rating criteria. Where necessary, reference was made to the data base established in 1987-88 by the county property reappraisal effort mandated by state law; that data base is maintained in the office of the County Appraiser.

The rating criteria were as follows:

- 1. <u>Fair</u>. Any dwelling showing visible but minor needs for repair or maintenance. The unit itself is structurally sound but apparently neglected. This rating corresponds to the living units referred to as "standard" by the Community Development Block Grant program sponsored by the Kansas Department of Commerce, but which are only marginally able to make that category.
- 2. Poor/Deteriorating. Worse than "fair", but with the basic housing unit still structurally sound. Major parts of the housing "skin" such as windows, siding, or roof appear to be in need of partial replacement or major repairs. Unenclosed porches may appear unsound. Chimneys or steps may appear in need of replacement or major repairs. This rating corresponds to the "substandard" category commonly used in the Community Development Block Grant program sponsored by the Kansas Department of Commerce.
- 3. <u>Substandard/Unsound</u>. Major parts of the housing "skin" are beyond repair and the unit appears to be partially open to wind, rain, snow, animals, or vandals. The foundation structure may be severely damaged. Absent a major restoration, the unit is unfit for habitation and may need to be razed for reasons of public health and safety. This rating corresponds to the "dilapidated condition" category used by the CDBG/KDOC program.
 - 4. Mobile Homes/Trailers. These units were identified in each town as distinct housing units. Other manufactured housing, including "double-wide" trailers, were not included in this category.
 - 5. All Other. Units not counted in one of the other categories are considered fully acceptable housing from a structural perspective. These units would all be categorized as in "standard condition" by the CDBG/KDOC.

Results of the survey show 1783 housing units in the county. Reappraisal data indicate that only 158 (9%) are less than a quarter-century old, while 170 (9.5%) are over 100 years old. Rental units total 272, while 205 units were unoccupied.

Of the total housing units, 910 were considered fully acceptable (51%); 456 (26%) were fair; 240 (13%) were poor; and 177 (10%) were unsound. Housing outside of city limits was in generally poorer condition than inside the towns; only 43% of the houses were rural, but 67% of the "unsound" and 52% of the "poor" housing units were located outside city limits.

Within the four cities, conditions varied considerably between Lincoln Center (62% of its 661 housing units were fully acceptable, and only 2% were unsound) and Beverly (33% of its 84 units were fully acceptable, and 18% were unsound), with Barnard and Sylvan Grove in intermediate positions.

In general, the Planning Commission found very few houses, regardless of condition, too small for the family living in them. The average family size is small enough, and the available housing diverse enough, that families and houses are well matched in size.

Many homes in Lincoln County, in the cities as well as in rural areas, have wood-burners as auxiliary heating units. A significant number of them have external fireboxes, but many are simply fireplaces and cast iron stoves, both old-fashioned and of the modern (since 1970) designs.

The housing stock is not apt to transform itself in the next quarter century. It will remain generally stable, with the housing units in the worst condition gradually removed and those in good condition maintained indefinitely. Some new construction will occur, particularly if the plans expressed elsewhere in this document are carried out.

If the county is successful in attracting retired individuals as permanent residents, there will be a need for as many as ten new, low-maintenance housing units each year. These would be conventional housing, rather than a retirement apartment complex (such as the three-story building with elevator that exists today a block away from the heart of downtown Lincoln Center). They would probably be single-story, two-bedroom units with a "hobby room" and attached garages.

Such new units would be scattered throughout the county, although most may be put up in or near Lincoln Center because of its medical facilities as well as because it is the largest community. A condominium complex is not out of the question. The Lake Wilson area will become developed in the next decade or so as a free-standing residential area, with both year-

round and vacation homes on large lots. Both knowledge workers and retirees will be attracted to this neighborhood.

Rural farms with stone structures in any shape, or frame houses in decent shape, have an apparently unrecognized potential market value. Such structures can be split off and sold, separately from the farm's fields and pastures, to non-farmers.

This is totally at variance with conventional local thinking about rural real estate; but for over a decade there has been one "exception" after another of these sales. It is time for owners of vacant rural structures to manage them as valuable resources in and of themselves, rather than just as nuisances to cows and plows.

Scattered new and renovated homes can now be found in the country on tracts of from one to fifty acres (see also the Land Use section of this report). Their occupants work within the county, or commute to such places as Salina, or are retired.

While this pattern may expand throughout the county, it seems especially probable near Lincoln Center (the largest town), near interchanges on Interstate 70 in the Westfall area (an easy commute to Lincoln Center, Salina or Ellsworth), near Denmark (a picturesque hamlet anchored by a strong cultural heritage) and the southwest (near the major recreation area of Wilson Lake).

In addition, if the county is successful in attracting knowledge workers, upper-middle-income commuter professionals and location-independent entrepreneurs, another six to ten new units could be built, generally four bedroom structures with family rooms and full basements. Many of these could wind up being placed in the country on ten or twenty acre sites with attractive views.

Nevertheless, the statistical profile of the age of the housing stock for the next two decades is not expected to change significantly, even if the county's plans for economic and population development are realized.

B. The Fair Housing Policy

Lincoln County has not previously adopted a fair housing code. Although based upon available housing and legal statistics such a code is not a pressing need, it may be best to put a code together now rather than wait for some future crisis. As part of this grant project, a code was drafted.

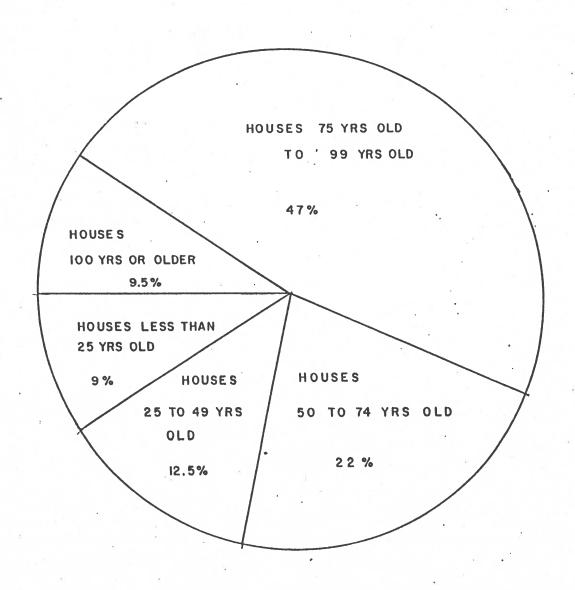
Lincoln County is opposed to any discriminatory practices involving age, religion, color, sex, physical handicap, national origin, race, ancestry or age in areas of housing as well as employment and public accommodation. The following housing code fairly represents the feelings of the Planning Commission:

LINCOLN COUNTY FAIR HOUSING POLICY

- (1) The policy of Lincoln County is that all rental housing units should meet basic standards for safety and sanitation.
- (2) The Board of County Commissioners will from time to time or upon request meet with housing authorities and other units of government to review housing needs and consider how county action could assist in satisfying these needs.
- (3) The county encourages local realtors and banks to formulate housing opportunity options for the elderly, minorities, households headed by women and low income persons.
- (4) The county will assist persons experiencing unfair treatment in housing matters by providing contact points with the Kansas Commission on Civil Rights.

On the next few pages are several graphs illustrating the details of the housing survey discussed at the start of this section. For the individual cities, each house is specifically located on a map with its condition identified as best as could be evaluated from a curbside inspection.

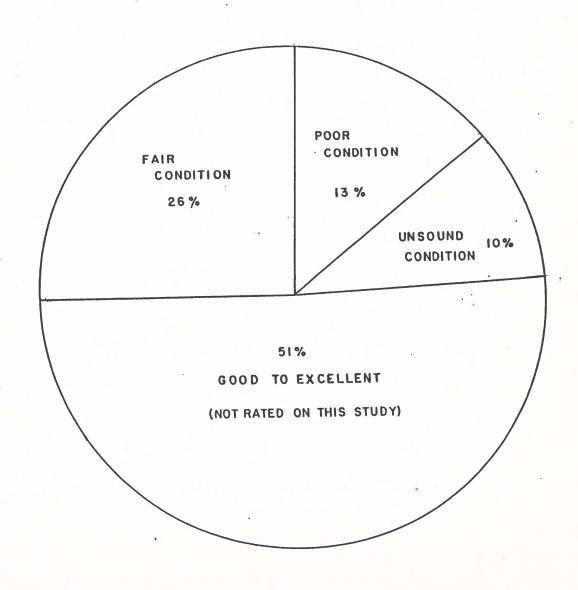
Total Housing units	in county	1783	
louses built before	1890 (100 years or older)		9 1 %
nouses built before	1915 (75 years or older)		47%
louses built before	1940 (50 years or older)	400	22%
nouses built before	1975 (25 years or older)	223	12 ½ %
Houses less than 25	years old	158	9%



Total Houses Occupied = 1511
Total Houses unoccupied = 272
Total Houses rented = 205

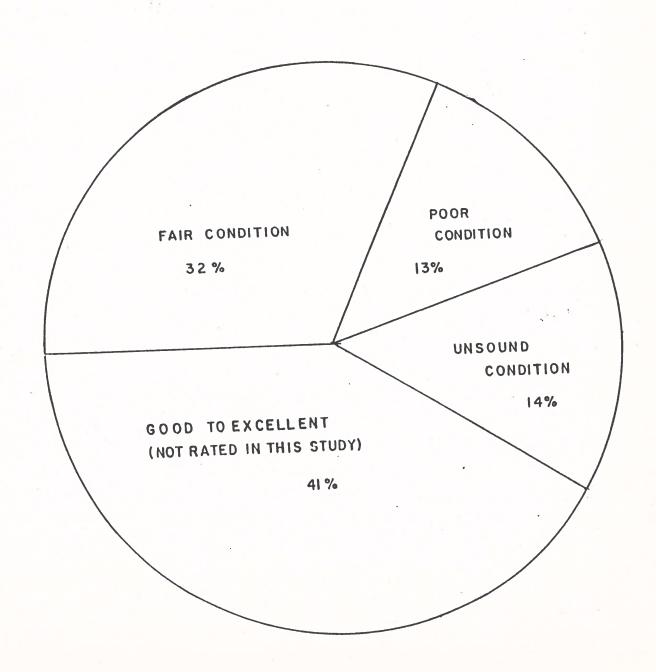
CONDITION OF HOUSING IN COUNTY & CITIES COMBINED

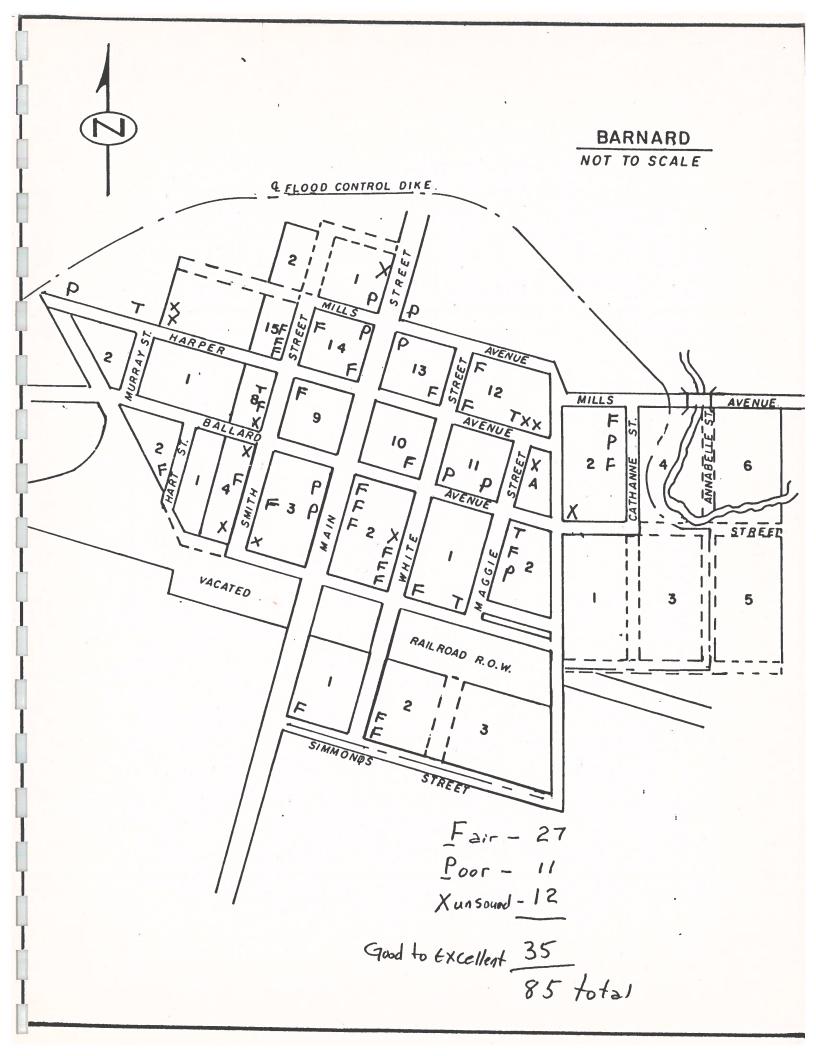
Total Housing Units	1783	
Units in FAIR Condition	456	26%
Units in POOR/DETERIORATING Condition	240	13%
Units in SUBSTANDARD/UNSOUND Condition	on 177	10%
Units not rated but in Good to Excell	lent Condition 910	51%



Total housing units in the city	85.	
Total Units in FAIR condition	27	32%
Total Units in POOR/DETERIORATING condition	11	13%
Total Units in SUBSTANDARD/UNSOUND condition	12	147

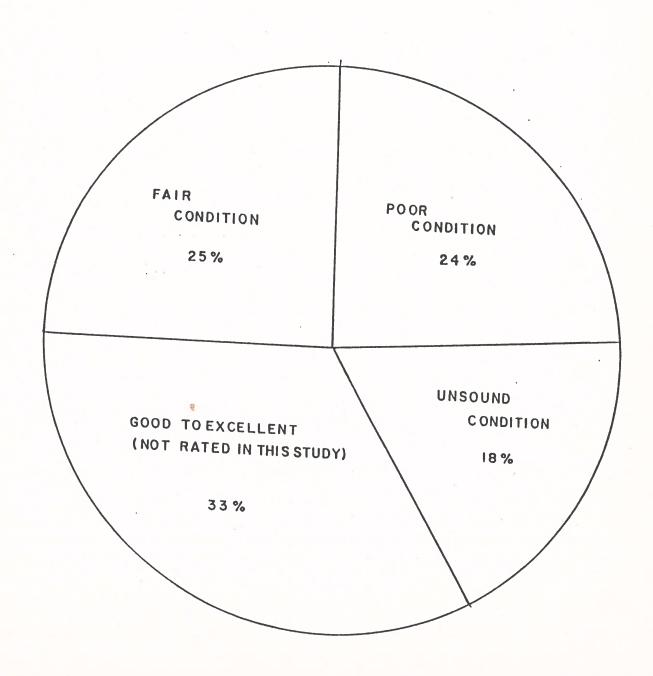
These figures indicate that 59% of the Housing Units in the City are in need of either some type of repair or razing.

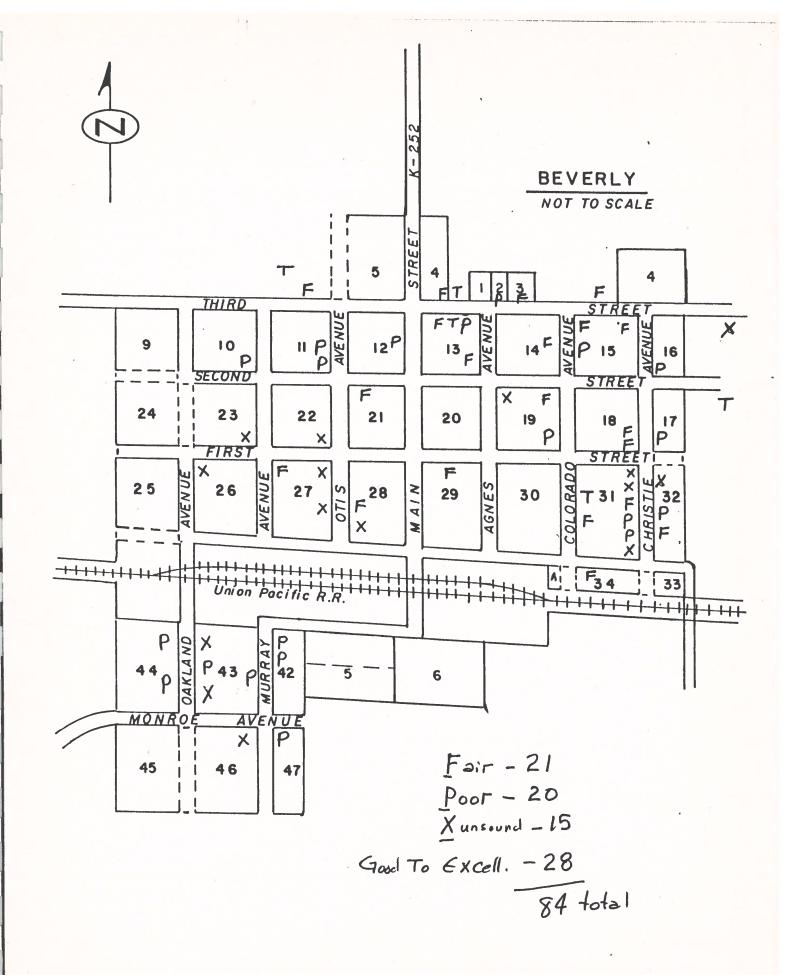




Total	Housing	Units in the City	84	
Tota1	Units in	FAIR condition	21	25%
Total	Units in	POOR/DETERIOATING condition	20	24%
Total	Units in	SUBSTANDARD/UNSOUND condition	15	18%

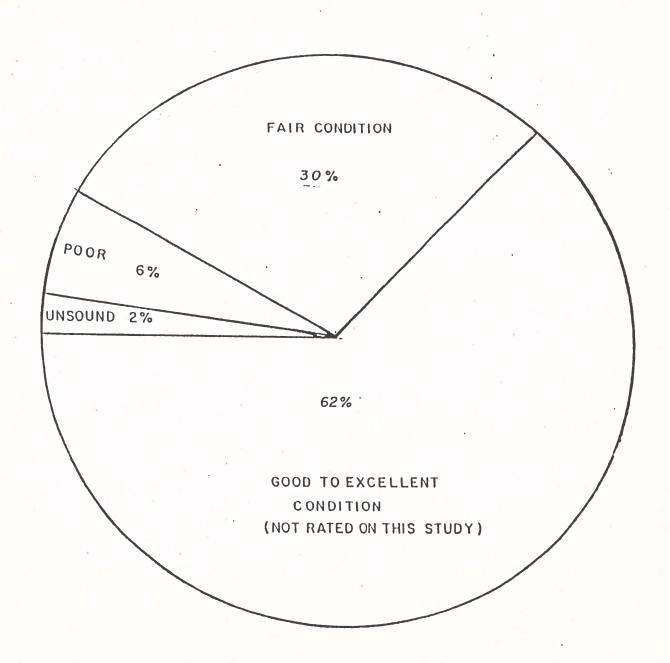
These figures indicate that 67% of the Housing Units in the City are in need of either some type of repair or razing.

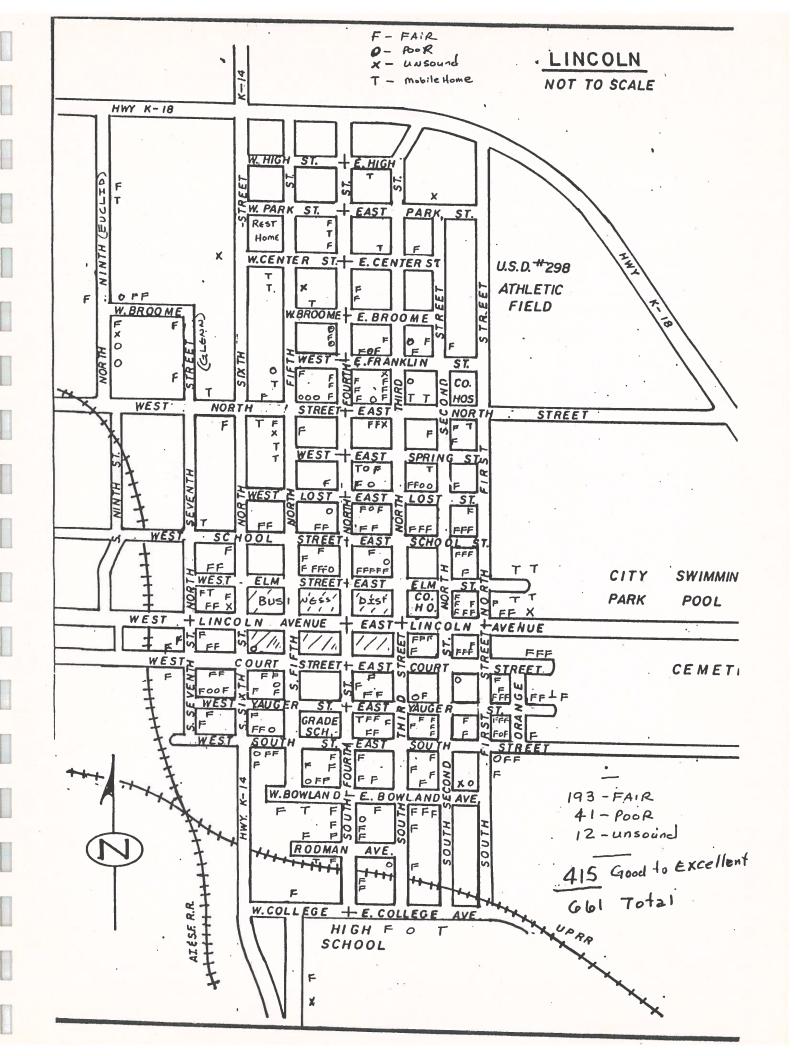




Total Housing Units in the city	
Units in FAIR condition	661
	191 29%
Units in POOR/DETERIORATING condition	41 6%
Units in SUBSTANDARD/UNSOUND condition	12 27

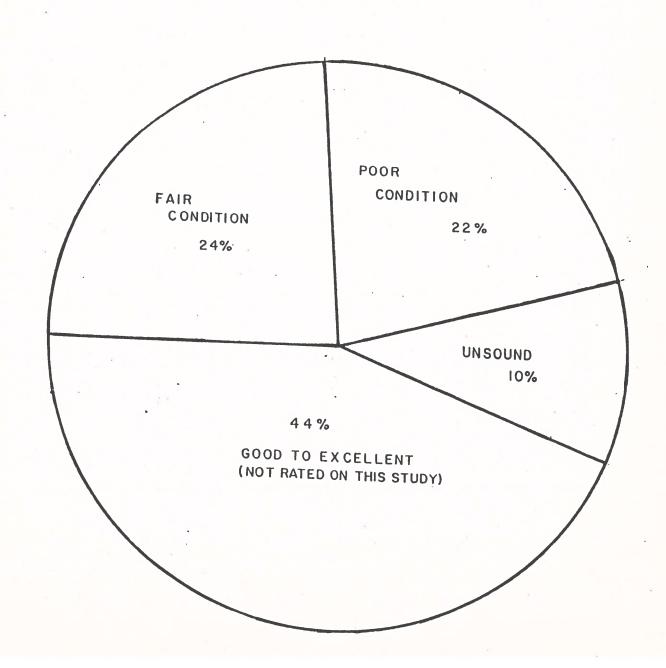
These figures indicate that 37% of the Housing Units in the City are in need of either some type of repair or razing.

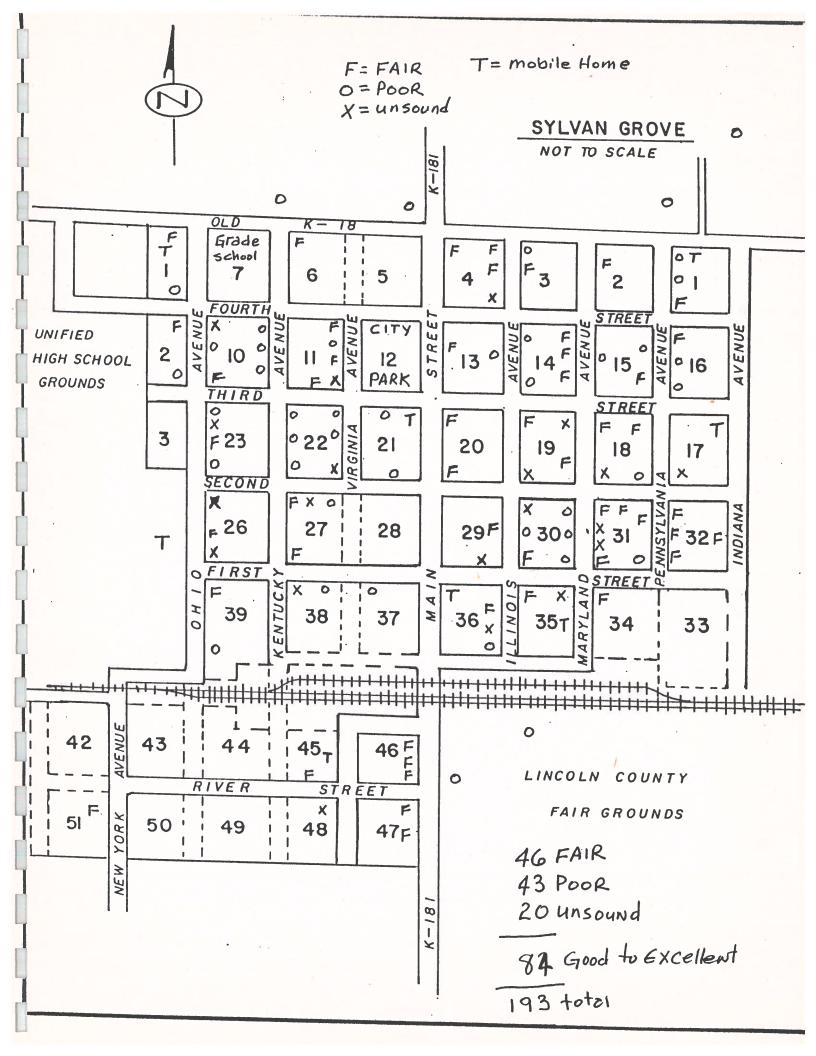




	Total	housis	I	Initshinathe City			
				-		193	
- 93	Total	Units	in	FAIR condition		46	24%
	Total	Units	in	POOR/DETERIORATING condition		43	229
						43	22/0
		UNILS	T 11	SUBSTANDARD/UNSOUND condition	1	20	10%
	m.						

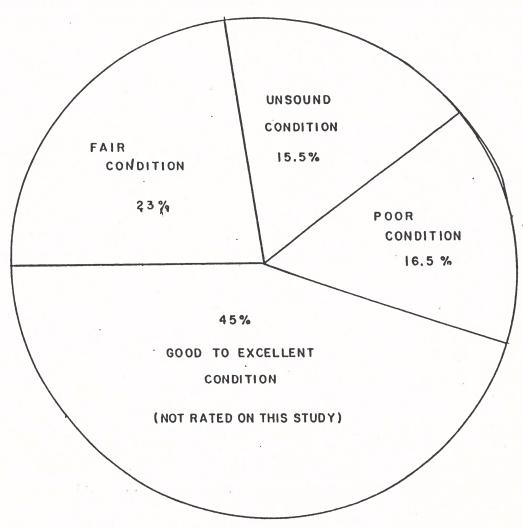
These figure indicates that 56% of the Housing Units in the City are in need of either some type of repair or razing.





Total	Но	ousing Units	760	
Units	in	FAIR Condition	171	22.5%
Units	in	POOR/DETERIORATING Condition	125	16.5%
Units	in	SUBSTANDARD/UNSOUND Condition	118	16.0%

Thease figures indicate that 55% of the Housing Units lying outside the various Cities are in need of either some type of repair or razing.



THE ECONOMY

A. The Historical Framework

The county's basic economy has been supported for a century on three legs: agriculture, industry, and government. The retail goods and services sectors have always been dependent upon that basic triad.

B. Employment and Personal Income

Lincoln County is a low-wage area. According to the 1987-1988 Kansas Statistical Abstract (Lincoln County Profile), out of 105 counties Lincoln County fluttered between 90th and 101st between 1981 and 1986 in the average wage per job paid. Since available jobs are often inadequate to satisfy the economic needs of an individual family, most adults seem to hold more than one (although usually one dominates).

The same source reveals that there have been approximately 700 farm employees and 1325 non-farm employees in the county for most of the past decade. The civilian labor force has only been about 1700. Therefore even the official statistics reflect the prevalence of the individual worker holding down more than one job.

"Real" statistics would include unreported cash wages, seasonal jobs, and bartered labor. They would also account for net labor exports to larger cities such as Salina, Beloit, Hays, Minneapolis, and Ellsworth, as well as to smaller communities outside Lincoln County. For planning purposes, there are two points. First, many county residents work several part time jobs to earn enough income to finance their family needs. Second, the county can "underbid" other areas for new employers.

It is common for individuals to be employed in two of the county's three basic sectors (such as government by day and farming by night), or in one of the basic sectors and one of the derivative (services or retail) sectors. It is not uncommon to find a person in three areas (such as government, farming, and retail or services).

The inability of most farms to provide a free-standing middle class living puts one or more members of most farm families into the non-farm labor market, often with full time as well as part time employment. On the other hand, the seasonally heavy demands of ranching and farming even uneconomic acreage prevent many farmers (even if they wanted to) from seeking careers (jobs plus advancement) as employees. It also keeps their sideline self-employment from expanding into established businesses that could employ others.

USDA agricultural payments to Lincoln County producers are approximately \$1,100,000 annually for the Conservation Reserve Program and other conservation assistance, \$3,000,000 to \$4,000,000 in crop deficiency payments, and disaster payments that were \$1,250,000 in 1988. There are 1200 farms and 800 operators in the county; as a first approximation, government transfer payments averaged in the neighborhood of \$5000 per farm or (assuming a 2/3 operator's share) per operator.

Lincoln County residents also receive substantial government transfer payments from Social Security, military retirement, food stamps, Medicare/Medicaid, cash general assistance, retirement plans, and unemployment payments. The county is relatively higher in this category, compared to all other Kansas counties, than in wage and salary income, non-farm proprietary income, or income from other labor. This reflects the high percentage of older people in the county (there are also two commodity distribution centers operated by non-profit groups in the county for low income residents, of whom many are elderly).

The county does much better in per capita personal income (income from all sources). Between 1979 and 1986 the county's rank among 105 counties ranged from a high of 34th to a low of 60th. Projection of past trends suggests that per capita income may approach \$17,000 in 1989. The apparent paradox of a county with very low wages but average per capita net income reflects how many residents hold more jobs per person than is standard for the rest of Kansas.

The other side of this coin is that the county should be naturally attractive to employers who produce goods or services with a high degree of labor content. When such companies need to expand or relocate, they take prevailing wage rates into account. Their operations are more competitive if performed away from a high cost-of-labor region; to some of these businesses the difference is their survival.

C. The Retail Economy

The emergence of a regional shopping complex in Salina to the east, and another in Hays to the west, has accompanied the steady population slide. Residents go to one of these two cities to buy items unavailable in the county, or available less expensively. Smaller retail centers in Minneapolis, Concordia, Beloit, Ellsworth, and Russell do not appear to have gained significant loyalty from Lincoln Countians.

Fewer people and better highways have cost local retail stores their customer base. There are fewer and weaker retail

businesses each year. Local merchants find it easy to offer less merchandise at higher prices to fewer customers with less service; but then when people shop in Salina for things unavailable locally, they stop at other stores and buy goods and services sold in Lincoln or Sylvan Grove. The cycle feeds on itself.

The Lincoln Area Chamber of Commerce conducted a multipage survey of consumer buying patterns and opinions, and consolidated its findings for this report. In a nutshell, they confirm the above pattern and confirm also the published research of Professor David Darling and others at Kansas State University.

The survey was distributed widely by Chamber members through their places of business. Special efforts were made to get some responses from throughout the county, although 79% of the final total came from people who identified the city of Lincoln as their home address. While not scientifically conducted, the excellent agreement of its results with published statistics and research reports done elsewhere (both for Lincoln County and generally for rural areas) suggests that the results have high reliability.

Some of the more interesting aspects of the survey related to who answered it. Of the 186 respondents, 61% were female. Except for 8 high school students, no one below the age of 24 filled out the survey. The average respondent was about 47 years old. The most common educational background was as a high school graduate (44%), with 48% having at least some college or other post-secondary schooling; 32% reported completion of college and fewer than 4% had graduate degrees. Most respondents reported that they lived in a household with one or two other people.

In the body of the survey, respondents were asked for their opinion about their satisfaction with the available goods and services in the county; they were separately asked where they shopped for these same things. The greatest satisfaction with availability of goods came with flowers and pharmaceuticals, followed closely overall by groceries, hardware, variety items, lumber and automobiles. The highest ranking services on the satisfaction index were for medical, dental and hospital services (the highest group by far) followed by filling station, insurance, banking, electrical, plumbing, legal, automotive repair, veterinary, sale barn, beautician and barber shop services.

On the other hand, residents expressed substantial product dissatisfaction with shoes, clothing, fabric, books, sports equipment, appliances, and furniture. Service dissatisfaction

was visible with appliance service, dry cleaning, photography, restaurants, and movies.

To identify the most critical areas of need, each completed form was then subjected to a dual test of expressed dissatisfaction and travel to another city to "usually buy" the item or service. The product areas where the most individual respondents expressed both negative opinions and also "voted with their dollars" by buying outside the county were men's clothing, women's clothing, shoes, sports equipment, and books. Also mentioned were children's clothing, appliances, and fabric.

Services most often mentioned as being inadequate, combined with respondents buying them out-of-county, were dry cleaning, restaurants, and movies. It should be noted that many individual comments were received about "movies" with the consensus being that the movies themselves were fine but the facilities were a mess - dirty, noisy, unpleasant, and awful.

One of the results of a small pre-test done of the survey was to insert the alternative of "mail order" in the questions concerning where people shopped for things. In the final survey, mail order was frequently listed as the source of choice for clothing (especially women's clothing) and shoes. To a less-mentioned extent, mail order also was used to buy books, sports equipment, and arts/crafts supplies, and pharmaceuticals.

Lincoln County farm equipment suppliers apparently are the first choice of only 40% of the respondents who farm. The remaining business is spread widely among surrounding counties (although Russell and Osborne Counties were not favored), with Saline County only accounting for about 20% of the Lincoln County farm implement business.

For most county residents, Salina is listed as the regional shopping center of choice. Most buy their clothing, shoes, books, fabric, and sports equipment there. Over a third of the respondents regularly bought groceries, variety items, arts/crafts supplies, jewelry, and appliances there; it is also where people go to the movies, have dry cleaning done, get the news, and eat out.

Contrary to some pre-survey opinions, no other neighboring city showed up often as a preferred place to shop, although some traffic goes to Beloit (automobiles and auto repair; farm equipment and farm equipment repair; dry cleaning; and restaurants), Ellsworth (groceries, variety items, farm equipment, and restaurants), Russell County (restaurants), Minneapolis (farm equipment and, to a lesser extent, hospital and dental services) and Tescott (banking).

With regard to financial institutions, the county ranks fairly high for banks per capita compared with other Kansas counties. It is currently served by a credit union (operated by Farmway Co-op, Inc.), one national bank (Farmers National Bank, Lincoln) and three state banks (the Beverly State Bank, Beverly; the Saline Valley Bank, Lincoln; and the Sylvan State Bank, Sylvan Grove). During the study project the Barnard State Bank became insolvent and was taken over by the state banking department. It reopened as a branch of the Saline Valley Bank. In addition the towns of Tescott, Hunter and Lucas (all just over a county line from Lincoln) each have banks.

It was interesting to note that only 16% of respondents listed Salina hospitals, even though most medical cases that are transferred from the Lincoln County Hospital do go there. Also, during the course of the survey the furniture store in Lincoln closed; a new survey would probably show a shift from Lincoln to Salina in furniture.

Interviews and discussions with individuals and small groups suggest that when people make a trip to Salina to buy something, they commonly, during that same trip, also buy other goods or services that they would otherwise procure in the county.

A final section of the Lincoln Area Chamber of Commerce survey had to do with recreation and entertainment. The thrust of the questionnaire in these areas was simple: if Lincoln County had it, would you participate? League bowling, indoor swimming, and physical fitness workout facilities all were much desired.

There is no bowling alley in the county, although subsequent to the survey it was announced by one merchant that he intended to install one in the next year or so in a post rock building he owns. He also purchased an adjacent building to house a planned restaurant facility.

There is one indoor swimming pool in the county, a private facility which is used for swimming and exercise classes. The only public pool, owned and operated by the city of Lincoln Center although available without discrimination to all who come, is open only from Memorial Day to Labor Day.

The two high schools have limited physical fitness facilities available to residents on request in certain circumstances or on a publically announced basis. A "toning and tanning" business is open in Lincoln Center.

The survey also showed strong interest in rollerskating and concerts, and mild interest in racquetball and handball, improved tennis facilities, ice skating, more bingo, a lecture series as well as educational course offerings, and a nice restaurant.

There have been repeated calls for a good restaurant in Lincoln County. During the course of the project one supper club burned to the ground in Sylvan Grove, two cafes closed in Lincoln, and another Lincoln restaurant was put up for sale. Plans now exist for a new cafe/lounge to be built in association with a new bowling alley in Lincoln Center, and at the end of this project the burned-out Sylvan Grove club was being rebuilt with a larger building.

As of the fall of 1989, full menus were offered at one restaurant each in Barnard, Lincoln, Sylvan Grove and Westfall, with a sandwich shop and a Pizza Hut also open in Lincoln. Bars and convenience stores also serve a limited food menu. There are frequent pot-luck affairs, some catering businesses, and one supper club (the VFW hall). Lincoln County continues to be "dry" with regard to liquor by the drink in restaurants.

D. An Emerging Economic Growth Consensus

Good planners recognize how often unplanned events alter history. Within the past year Lincoln County became home to a plastics company with worldwide markets, saw its old-line rock mining firm sold to a European company, and underwent a period so dry that for a time people outnumbered cattle. None of these were anticipated in 1986.

In 1989 the county cannot know what surprises lie ahead, but it can be open to the pros and cons of every new opportunity. Meanwhile, it can think logically about new ways to attain prosperity. Planning has two major benefits. It stretches the mind and it prepares people to make better decisions -- even about unplanned events.

At first glance the best chances for county economic growth seem to be tourism, retirement, and "value-added" farm-based businesses. These themes emerged over and over again in the public meetings, in discussions of the Planning Commission, and in private conversations. These three are also much talked about statewide; they have risen to the level of conventional wisdom.

The county has targeted these three areas; without them, the future looks like business as usual that will gradually take the county's population under 2000, perhaps lower. However,

these new thrusts, difficult enough to attain, will not alone provide a secure future.

1. Tourism

Tourism has many attractive economic features. In simplest form, it gets people from other places to come to Lincoln County to look around, buy gas and food and curios and lodging and admission tickets, and leave.

Retail sales go up, tax revenues go up, but there is no pressure on the schools and only marginal pressure on the medical, highway, water, sewer, power, local industry, agricultural and public safety infrastructure. Most would call it a win-win situation. Gawkers come, spend, and go. You lose a little privacy but gain a little money.

Tourism generally depends upon transportation. The transportation system of choice for Kansas is highway; Kansas ranks together with Illinois and Minnesota in a cluster, each with about 132,000 miles of public road, right after number one ranked Texas and number two ranked California. It has well over 20,000,000,000 annual vehicle miles on its roads, and the total seems to increase about 3% a year. Many of these are tourism miles, many of them put on by people just driving through. Kansas wants to change that.

Tourism is now a statewide theme heavily supported by the Kansas Department of Commerce and by literally hundreds of other counties and communities. Lincoln County's tourism efforts will therefore be highly leveraged. Some percentage of the tourists attracted by the state will come to the county anyway; whatever is done to promote local tourism will only increase the number of visitors.

Currently, I-70 is very heavily traveled by tourists. It cuts through the southeast corner of Lincoln County, and several exits serve the county. Plans are much talked about to extend a four-lane highway north from I-35 in Salina to I-80 in Nebraska; this would make access to the area easier for seasonal hunters and fishers, as well as to tourists.

Lincoln County can therefore concentrate on two things: maps and "hooks". In general, hooks are printed in red on maps (or, of course, can be found printed in white letters on green or brown signs on interstate highways). A couple from New Jersey driving west along Interstate 70 needs to see some evidence of attractions, or hooks.

During the year in which this comprehensive planning effort has been underway, possible hooks have become quite clear. First, of course, is the 'Post Rock Country' theme. Lincoln County is in the heart of Post Rock Country, which stretches from Dodge City to the southwest all the way to the Nebraska line northeast of the county.

It is also the heart of a narrower area, that in which post rock has a characteristic reddish-brown rust streak just off center. This is a visually distinctive marking, left over from the ancient days. The inland sea was fed from the east with fresh water streams rich in iron; the iron eventually was locked into a stratified layer of the sediments as the limestone was formed.

In 1989 the Kansas House by resolution put Post Rock Country on the map and the Kansas Senate by resolution declared Lincoln County to be the Capitol of Post Rock Country. Large directional Post Rock Country signs are now being placed at three exits serving Lincoln County; the unique thing about them is that they are themselves made out of massive sections of post rock.

When strangers come to this area, they are eternally fascinated by the historical saga of pioneers using limestone rock in place of wood. They are much attracted in county fairs and at working quarries to see how stone posts are split out of the ground and dressed for their various purposes. Maps, brochures, and bus tours can all be planned to take advantage of this theme.

One part of the project of the KSU Community Services Project team in the summer of 1989 was to recommend to the county some possible self-drive or bicycle routes that could be promoted to tourists. A photographic inventory of post rock structures was keyed to the county's road system. As mentioned earlier, the KSU maps and reports are incorporated by reference into this planning document, and can be found at the county courthouse.

Some downtown Lincoln and Sylvan Grove merchants have become much more aware of the economic importance of their old stone buildings, and a few have been sandblasted and tuckpointed. However, others have been declared unserviceable. The laboriously finished stone stores in Vesper have vanished into burial pits. A remarkable stone pedestrian overpass from one building to another in Lincoln has been torn down.

Post rock structures represent little or nothing but relics from the past to many farmers and merchants. They cannot imagine how they can be realistically related to their own prosperity. It remains to be seen whether the still remaining buildings will be restored for their tourism and cultural value or whether they will continue to be painted, sided in aluminum, patched roughly with concrete, and torn down.

There is a similar but more exaggerated issue in the country. To farmers, miles of stone fenceposts get in the way of farm equipment. The individual farmer gets no benefit, and even suffers economic loss from putting in backbreaking labor and incurring out-of-pocket costs required to restore or build a post rock fenceline. However, such fencelines represent the essence of what would bring tourists off interstate highways to see what their maps label as "Post Rock Country". Neither private citizens nor the county government have come forward with a practical incentive to solve this issue.

A second major local tourism theme ties into post rock as well as the Danish settlement heritage of part of the county. Denmark, Kansas, is located in Lincoln County. It may be well on the way to ghost town status, but it is a community in which Danish immigrants found a hospitable valley for farming and a place to erect one of the nation's most striking and appealing stone churches for worship.

The church still stands. The post rock storefronts down the hill from the church are badly in need of renovation, and one native Dane is doing some of that. The old rock school is being redone as a private home. Other houses in the community are also being restored; one has become the Spillman Creek bed-and-breakfast hunting lodge. Farmway Co-op has an active grain elevator. Post Rock Country Tours makes Denmark a major stop on its bus tour.

The community has banded together to explore the possibilities of both preserving and advertising the Denmark heritage. Unexpectedly enough, ownership of the nearby Quartzite Stone Company was transferred to a Denmark (Europe) firm during the past year, Superfos Dammann-luxol A/S. That firm's cognizant Executive Vice President has expressed interest in working with the local citizens; a color video tape has been prepared for showing both in this country and in Denmark.

The Post Rock Opportunities Foundation has just been organized by county residents as a long-term vehicle for tourism-related economic development. It is struggling with its own goals and objectives. It applied early for grants to establish a retail outlet on Interstate 70 for the display and sale of home-based and small business crafts and art works from throughout the Smoky Hills. It is also working on updated brochures to feature the county and its attractions.

The long-established fall pheasant and deer hunting seasons and the year-round fishing, especially when viewed in the context of the many major lakes that surround the county, form an independent attraction. Outdoor-oriented families and individuals come from cities all over the country (many with

ties to residents or family members in the county). The three large lakes near Lincoln County have nearly 100,000 acres of accessible public hunting grounds, and the county is placed well for a family that wants to establish a base to visit these lakes and grounds.

Although unexploited in the past, the ancient worldwide sport of bird watching could be featured in the county, both because of the indigenous prairie birds and because major flyways pass overhead (Cheyenne Bottoms, one of the world's great migrating bird crossroads, is less than an hour's drive to the southwest).

Finally, local citizens have spearheaded the formation of a North Central Kansas Tourism Council. Although the Smoky Hills have little or nothing in common with Kansas City and much of eastern Kansas, they were defined into the Northeast Kansas Tourism Commission by the state. Without severing ties to the northeast, the new group is stressing its own unique attractions — the lakes, the geographic center of the 48 contiguous states, fishing and hunting, the Smoky Hills (it may rename itself the Smoky Hills Tourism Council), post rock, and a number of ethnic and pioneer traditions.

2. Retirement

The county is already home to many retired people. Over onequarter of the residents are over 65. Improvements in the past decade with respect to medical facilities and personnel have been doggedly sought and fiercely supported. Retirement housing is plentiful and attractive relative to many other places.

The county is, in a nutshell, a good place to retire. It is quiet, safe, possessed of clear skies and a moderate climate, and off the beaten track without being too far removed from the shopping, travel, and medical advantages of the larger cities. At the same time, it is not a retirement ghetto; two-thirds of the county's residents are in their first five decades, and many community events surround the activities of the youth through the schools and local league sports (such as volleyball, baseball, softball, and wrestling).

There is an active senior center in Lincoln Center, and the start of one in Sylvan Grove. The county is characterized by many extended families that provide support to their elder members. Retired people who want to volunteer their efforts in the museums, various clubs, churches and so forth have ample opportunity. In fact, the county has a larger number of organizations than the population count would predict; they are social testaments to the larger populations of yesteryear.

Lincoln County has long been the only county in north central Kansas without public transportation for seniors, but the Board of County Commissioners is actively looking into grant programs to obtain a bus. Recent and current efforts have been made to provide ramps and elevators in public buildings to facilitate access by the older citizens who have trouble with stairs. One of the design criteria used by the KSU students in their community center work was accessibility.

The county has a plentiful supply of low-cost homes, many of them well-maintained and within the reach of any retirement budget to purchase or rent. In addition, the county has a number of low-income scatter-site housing units, often occupied by the elderly, as well as a three-story (the "high rise") retirement apartment complex.

While there is a modern nursing home and a long-term-care section of the Lincoln County Hospital, the county no longer has a respite care facility. This is a need for many elderly who need convalescent care after surgery.

The Board of County Commissioners, as a part of this grant's planning effort, conducted two major studies of health issues affecting the elderly. One was of the management of the nursing home; the other was the operation of the county health department. As a result of these studies, the nursing home management contract was renewed, and a new health nurse was hired and some new health department operations initiated.

There is a need for moderate income and upper-middle income housing units which are low-maintenance, single-level, with garages. Condominiums would fit this requirement, and it is probable that one or more private developers should be interested in building to this need.

The traditional mode of retirement for a farm couple was to move to town. Years ago this was vital; farmsteads were on isolated dirt roads (impassable in wet weather), their telephones were local "farmer systems", and their electricity was at the mercy of the elements. Today rural homes are on all-weather roads for emergency help, have decent utilities and offer excellent living conditions. An increasing number of people may find the tranquility of the countryside to be more attractive than town.

The rolling hills and valleys of the county have attracted visitors and settlers for over a hundred years. The environment can bring more people in the future, and some non-natives have already retired to the area.

There are thousands of Lincoln County "graduates" now living throughout the United States who would retire to their old

stomping grounds if they could be convinced that they would be safe, that their retirement incomes would buy a good life, and that they would not be "stuck" if they needed or wanted to take trips "out". Their physical safety is assured; major crimes are virtually nonexistent.

As far as retirement income, many retirees have per capita income in excess of that of the average person in the county. Many of them have substantial savings and major idle equity in their urban or suburban homes which can be transferred in a tax-free exchange of residence. Many of them have finished educating their children. Most have medical insurance.

Even more important, they have a wealth of career experiences. They have been teachers, business managers, engineers, farmers, and community leaders. Their knowledge and skills transfer with them to their retirement homes and communities, and enrich those around them. And, once a few make that commitment others will follow. Lincoln County can and should influence a modest annual influx of retirees.

3. Value-Added Agribusiness

In recent decades Lincoln County crop farmers have been buffeted by entry into the world agricultural subsidy wars. The Lincoln County elevator price for wheat is linked tightly to worldwide supply and demand, as modified by the programs of various governments. Globally, there are several areas with high absolute demand for wheat: the United States, Europe, India, China, Indonesia and the Soviet Union. Several others produce far more than they consume: the United States, Argentina, Australia, and Canada.

There are other nations with substantial cereal grain deficits, such as Egypt, Korea, Pakistan or Japan. There is not a pure market for wheat, of course; individual nations tend to pay high subsidies to protect their own domestic food production capability, given the lessons of thousands of years that a nation that relies on others for its food is more vulnerable politically and militarily.

The consequence to Lincoln County is that the individual wheat farmer is the least powerful person in the entire wheat-based food chain. Global storage, milling, food production and food distribution systems all have their own costs of labor, property, plant, equipment, interest charges, and operating expenses.

Agribusiness firms take what they can at any price (usually from \$3.00 to \$5.00 per bushel) from the farmer and do what they must to bring the final products to the world's people. They pass on their added-up costs as they go. They have no

incentive to buy expensive wheat if cheap wheat is available with the same quality and characteristics; so every wheat farmer's fortunes rise and fall inversely with the fortunes of other wheat farmers as long as global production exceeds demand.

Wheat prices are fixed by a market ruled by the farm subsidy policies of all producing nations, including those of net importers. Only ruthless cost-cutting and improved efficiency of farm operations result in net income rewards relative to one's neighboring (be it in Lincoln County or in India) commodity wheat farmer. The consequence is pressure toward a lower standard of living and a need to continuously seek new efficiencies.

Most economies available to the family wheat farmer are economies of scale: use bigger, faster equipment in order to work a larger number of acres in the same time. Such equipment is more expensive, which means that it must be used on more acres to justify its cost. This leads to larger and larger farm operations.

As discussed in the Land Use section of this report, the climate is well-suited to growing some unconventional (for Lincoln County) but more valuable agricultural crops. Such crops could provide a family farming operation with more net income per acre. The limiting factor for a producer is knowledge of how to reach the markets (ranging from weekend farmers' markets in large cities to independent food distributors to factories to supermarket chains) for these crops.

Kansas State University is presently establishing a "value added" center. Communications with Dr. Richard Hahn, who is organizing that center, indicated that at this early date the center is concentrating on the kinds of higher-value agricultural products that make sense for Kansas. At the moment, there is no concentration on identification of markets for these value-added products. This is important; Lincoln County producers are more apt to experiment seriously with a concept if all they know about is the marketing channel than if all they know about is how to produce it.

Facilities which add value to locally produced commodities, such as flour mills, animal or bird feed plants, bakeries, bread mix or noodle or crouton factories, feed lots, or packing plants, could be located in the county by individuals with adequate capital, entrepreneurial drive, and management skill. So also could some facilities which process crops for non-food usage.

One common characteristic of value-added agribusinesses is that they compete in a price-sensitive market (just as the commodity wheat farmer does). Such companies try to reduce costs through automation, proximity to the marketplace, or by paying low wages. Lincoln County will generally have no particular advantage in the first category and be at a disadvantage in the second; but it has a comparative advantage over most farm belt areas because its average pay is so low.

In the summer of 1989, with passage of the Rural Partnerships Act, it appears that federal loans or loan guarantees may become available in the near future for new or expanding Lincoln County businesses. It requires state or local matching funds. Although not limited to agribusinesses, it could provide a real economic incentive for county farmers with good ideas. Some may take the plunge into the world of manufacturing or services.

E. More is Needed: Knowledge Workers

As indicated above, conventional wisdom calls for tourism, attracting the retirement income of solid citizens, and processing locally produced raw materials. However, during the study it became clear that these activities primarily address the limited and somewhat barren question "what's reasonable for us to do next?".

A more important question is "What should we do to give us a great future?" The two questions, and their answers, may be perfectly compatible (or not) but they are fundamentally different questions.

Clues to how to answer the second question are contained in certain persistent desires. One is that "jobs be found for our young people". Another is that professionals (doctors, certainly, but also dentists, accountants, artisans, veterinarians, lawyers, teachers, ministers, business executives, and so forth) be attracted to and retained by the community to serve the needs of the rest of the people. These two hopes are related.

Most Lincoln County parents hope their children will go on to college and a satisfying career that pays well. However, Lincoln County now keeps young people with limited educational attainments and career ambitions. Most entry-level jobs in the county only require normal success in high school (or even, perhaps, junior high): babysitting, cleaning, clerking, or jobs for secretaries, waitresses, farm laborers, manufacturing workers, apprentices, miners, and so forth. These jobs pay very little; Lincoln County ranks in the lowest 10% of Kansas counties even in the average wage per job.

Lincoln County is no place for a young educated person to find the American dream job. How can this be changed?

An associated problem is illustrated by the difficulty of attracting doctors to a rural area. Most trained, ambitious professionals look for a place they can earn a good living and live a nice life. They want a solid house, an occasional vacation, a few luxuries, some personal time off, an education for their own offspring, a comfortable retirement. They often want to live where other people of roughly similar background, education, life style or income live.

This is not news to sociologists or birdwatchers ("birds of a feather flock together"). It sometimes does come as a shock to the residents of a rural community. It is a massive challenge to a thinly populated county with limited economic opportunity, even when it offers the kind of rural life style many professionals have dreamed about.

Examination of these two recurring, urgent desires of many Lincoln County residents (jobs for children, professional services for themselves) suggests that the long-term economic solution may be very simply stated: create jobs for educated people. "Knowledge jobs" are a dime a dozen in metropolitan centers. Can they exist in Lincoln County?

First of all, the three identified "conventional wisdom" economic solutions identified earlier should be evaluated against this new criterion.

Tourism. Tourism jobs are mostly low-paid. People are needed to cook, serve meals, clean hotel rooms, pump gas, sell merchandise, drive, smile, give directions, and so forth. A small number of knowledge jobs and professional positions are needed to organize and manage the tourism enterprises themselves: the restaurants, shops, motels, and tour businesses.

Thoughtful consideration of the economy of either Lindsborg or Las Vegas will make this apparent. If these enterprise owners move into the county and bring their families, some new teaching jobs may also open up (20 new students in one grade will require a new teacher, although 20 new students scattered over K-12 may not; on the other hand, one or two students in the right class may also force hiring of a new teacher).

Retirement. Retirement-generated income is either saved or spent. If saved, it goes to stocks, bonds, certificates of deposit, and other financial instruments which do little for local "knowledge job" creation. If spent, it goes to the regional shopping centers, to mail order catalogs, to far-away children or charities, and locally mostly for food and

sundries, automotive-related products and services, and medical services.

Few, if any, will have young schoolchildren; so they will not create the need for new teachers. They could even vote against school bond issues needed to provide a quality educational experience for the children of the younger residents of the county. Apart from medical people, retirement-generated knowledge job creation is limited.

Value-added agribusiness. This term is nebulous enough to mean whatever its user means it to mean, but almost certainly it requires some form of capital investment in an enterprise that does not at the moment exist. Establishment of such an enterprise always requires people possessed of both vision and persistence, and usually takes some specialized knowledge.

Once established, the agri-enterprise itself will dictate the level of knowledge required by its employees. An agricultural research center may take biologists, chemists, and others possessing MS or PhD degrees; a kitty litter factory may have both minimum educational requirements and require low wages for almost all of its workers in order to stay competitive. If workers move into the county with families, new teaching jobs will open up.

Put another way, the areas targeted to provide economic stability to Lincoln County can be expected to have a minor positive impact on knowledge jobs, compared with those required today by the economic base of agriculture, government and industry. Depending upon largely unpredictable economic forces which may occur, such new areas of economic growth may simply (but still importantly) stabilize against further loss of knowledge jobholders now living in the county.

It seems likely, then, that the county should proceed to do two things: concentrate on tourism/retirement/agribusinesses as a sensible way to try to stabilize the county, but also to begin to target knowledge jobs as such to enter the county.

Targeting new jobs for educated people may be a lot different than targeting, for instance, tourism. Such jobs, and their occupants, will probably be imported to the county one at a time unless a company with such jobs can be created or relocated to Lincoln County in one fell swoop.

The current industrial and agricultural employers in the county sell their rock, cattle, yard art, plastic mementos, and wheat to customers or clients many miles away. The same pattern will be true for knowledge workers: investors, translators, writers, photographers, consultants, artists, accountants, inventors, psychologists, computer software

developers, and a virtually limitless number of other kinds of people. They could be professors or administrators at an expanded Kansas State University at Salina, or business leaders who commute to surrounding communities, or commercial pilots or other flight personnel based in Kansas City or farther away.

They will be people who want a rural life style and who can earn their living by commuting to work or by electronically communicating with their customers.

What are the implications? They are simple to state, but profoundly difficult to make happen.

The county must maintain the kind of clean, safe environment that knowledge workers to begin with. It needs a first-rate telephone system, an airport adequate to accept small business turboprops and jets, local leaders willing to assist these new immigrants and/or their family members to overcome some degree of culture shock, and a steady awareness of how important good schools and medical care are to these people.

A clean environment can be compatible with any new company that might choose to move into the county. The primary environmental challenge in attracting knowledge workers will be to enforce clean air, water and land laws that apply to industrial concerns. This is as much because of perception as reality.

As far as industrial pollution is concerned, much has been learned in the past generation about causes and effects, concerns and cures. Protective technologies exist, and the laws have been in effect since the 1960's and 1970's. Popular opinion has not left behind the beliefs of manufacturing executives. Federal and state agencies, such as the Kansas Department of Health and Environment, are on call to help Lincoln County in these areas, and in general the county does not have to choose between industrial jobs and a clean environment.

It comes as a surprise to some that agriculture has become the greatest sectoral source of contamination in the nation. The combination of fertilizers, pesticides, herbicides, run-off and other attributes associated with crops has been repeatedly identified with land and water pollution. Cattle are one of the identified sources of carbon dioxide that contribute to the "greenhouse effect" and global warming.

Nevertheless, virtually 100% of people raised in cities or their suburbs think of the country as pure and clean; they equate agricultural surroundings with a clean environment. People raised in the country generally agree, even though farmers themselves are the most aware of the hazards associated with unwise farm practices. Lincoln County has the image most urban and suburban people long for.

The telephone system is important to those who must earn their living electronically connected to offices around the world by their computer modems (electronic connectors between the telephone network and their computers that let people send and receive messages and entire files of work). They will need clear lines, services like voice mail and call forward, and in some cases lines that can handle high speed, high volume message traffic and pictures.

The airport is important for people who need to suddenly be elsewhere or to bring others to them, and there will be times that using the Salina airport for private planes will take too long because of the ground travel required. In addition, of course, such an airport will serve the existing needs of both Century and Quartzite, as well as hunters or vacationers with planes that require a longer paved runway. New companies and the tourism industry will be influenced in location decisions by the availability of a good airport.

Local leaders must be sensitive to the psychological and social needs of the newcomers. Their initial expectations and habits may be at odds with the realities of local life. A welcoming and assisting climate is important to fold them into the community's life with minimum stresses. Some may experience or perceive resentment or rejection. Those negative reactions, which are almost always both unexpected and sharply felt, should not be seen as the view of the majority. A "Welcome Wagon" type of mechanism should be created.

Finally, those knowledge workers accustomed to having hundreds of medical specialists and dozens of hospitals in their local telephone book will be very concerned about medical care access and quality; and people who have been able to shop around for a school system (and who may have themselves graduated from schools that their own parents shopped for) will demand, perhaps obnoxiously at times, that the system their children must attend is both understanding and challenging.

The county cannot expect to make job openings happen overnight for their college-educated children, nor to ever make a rural lifestyle appeal to some educated professionals and managers. However, knowledge jobs will be important to the success of Lincoln County. Success -- not just a hard, impoverished stability.

INFRASTRUCTURE

A. Roads and Bridges

The county's road system was essentially laid out (and much of the right of way scraped into place) in the late 1800's. For the past several decades the road system has been shrinking rather than growing. The map of the county following the Acknowledgements section of this report shows the roads in detail/

There are eight miles of Interstate 70 that nip the southeast corner of the county. No "U.S." designated highways are present, but 85 miles of Kansas routes are found. State routes 14 and 18 cross in Lincoln Center and divide the county into four quadrants. State route 181 runs north from Sylvan Grove into Mitchell County and south from Sylvan Grove three and one-half miles before turning west to Wilson Lake. Route 232 intersects with 181 at the Wilson Lake dam and goes south from there to Ellsworth County. Highway 284 connects Barnard with highway 14, and 252 connects Beverly with route 18.

The county has 1142 miles of maintained roadway, most of it classified by the state as E-2 gravel road. Out of 105 counties in the state, 40 have fewer miles of road than Lincoln County. However, only five counties have less traffic according to the Kansas Department of Transportation in their FY 1988 Distribution Factors for the Special City and County Highway Fund.

As the number of rural residents has declined in the past century, one side effect has been to reduce the miles of road maintained by the county, an important budget item. Whether such absolute budget reduction lowers per capita taxes depends on how rapidly the population itself declines and what happens to the assessed valuation.

The Board of County Commissioners made a decision late in this project's study period to hire a new road supervisor. That individual has stated a desire to make a comprehensive review of the remaining county arterial, collector and service roads.

A principal activity of this grant project was to accurately count and locate the short (under 20 feet) bridges and culverts on active county roads. The larger bridges are reviewed every two years, and the county road department and the Board of County Commissioners were well satisfied with their records and their priorities for action for these spans. However, the culverts and short bridges were essentially unmanaged until a farmer brought a problem culvert to the attention of the county.

The KSU team from the Community Services Program did this survey in the summer of 1989. The results were striking; county records had shown 737 short bridges and culverts, but the students counted and evaluated 1181 (some 60% more than were believed to exist). The situation was more extreme than these numbers alone suggest, since many culverts the county "knew" about could not be found at all where they appeared on county maps.

As a matter of interest, 170 of the culverts in Lincoln County are post rock arches. Many of them are photogenic; all of them are fascinating in their engineering details. A large number were built during the 1930's by the Works Progress Administration. Maintenance of these for tourism purposes is as much a task of the county as maintenance of a post rock fence line is for a farmer, and just as important to the long term economy.

Of the remainder, 431 are concrete boxes or related structures and 580 are pipes.

Computer-generated color maps locating these culverts in each of the twenty townships were created as a part of this grant project. To reproduce them in color, essential to their utility, turned out to be an unjustifiable expense for this final report. However, they are hereby made part of and are incorporated by reference into this section of the report. They can be found in the offices of the county's road supervisor. They gave the highway department and the Board of County Commissioners the data to establish priorities in the repair and replacement of county culverts.

It was also determined during the project period that the survey markers used to lay out rights of way and to determine precise land ownership boundaries are often unknown. Many of them were set in the 1800's and have been covered to a depth of one to three feet by dust, agricultural activities, and erosion.

The Board of County Commissioners has decided that location of survey markers is essential for future county development. A goal of the Board is to have a Geographic Information System (GIS) in place by the year 2000, and this system will depend as much on precise survey markets as a new house does on having a proper foundation.

During discussions with emergency personnel, it was determined that the county needs to mark at least its major county road intersections to assist medical, fire and sheriff office personnel find the right place quickly. It is unrealistic to expect everyone to know all 720 square miles like the back of their hand in all weather conditions.

As a result, a county map grid system was suggested. This will permit emergency dispatchers to supplement the statement "there is a fire a mile north of the Thompson farm north of town" with "at grid location 7-G". The draft grid map will be tested in use by fire, police, and medical personnel before final adoption.

B. Water

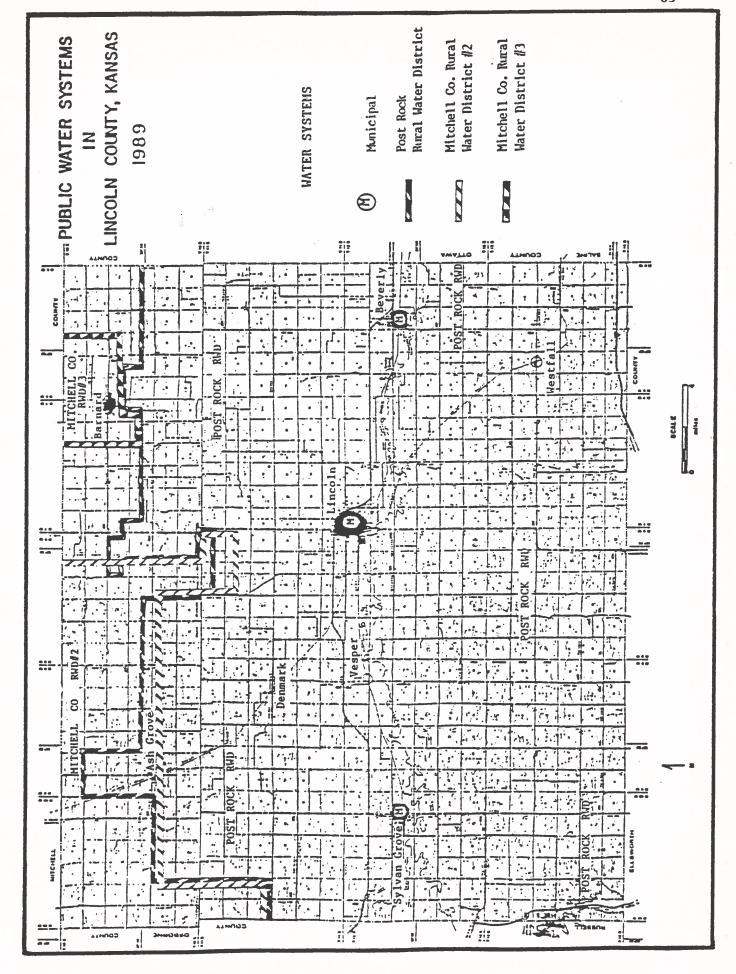
The county is served by two Mitchell County Rural Water Districts in the north and by the newer Post Rock Rural Water District throughout the rest of the area, as shown on the map on the next page. Water quality from these systems tends to be high, and quantity more than adequate for the foreseeable (straight-line projection) future. Even during the severe 1988-89 drought, water supplies were ample.

Cost is also high, however, forcing many people to make tradeoffs between cost and quality. As long as the populations are stable or declining, the water capacity of the towns should serve residential and commercial needs. New industrial demands, on the other hand, would strain municipal systems to their limits. North Central Regional Planning Commission staff expect a trend to develop where the rural and municipal systems begin to consolidate.

The individual towns are served by their own wells, as are most of the rural farmsteads. The towns are located near streams at the lower elevations in the county, and well water in adequate quantity has been easy to come by. The towns chlorinate their supplies. Most of the water is of poor quality, however, with substantial dissolved solids. Many citizens able to afford bottled water for consumption purposes use it rather than well water or city water.

Barnard has joined the Mitchell County Water District Number Three, and uses a 50,000 gallon standpipe for local storage. Sylvan Grove, which has the best well water from a chemical composition perspective, has generally kept its system in good repair over the years. Beverly extensively upgraded its system in 1982, and has a 70,000 gallon water tower. Lincoln has a new (1988) water tower with significantly enlarged storage capacity (250,000 gallons). It now is considering replacement of one water well and adding a new pumping and treatment facility.

The 1989 Rural Partnerships Act increases money available from the Farmers Home Administration for improving rural water systems in distressed rural counties (including Lincoln County) should further work be needed.



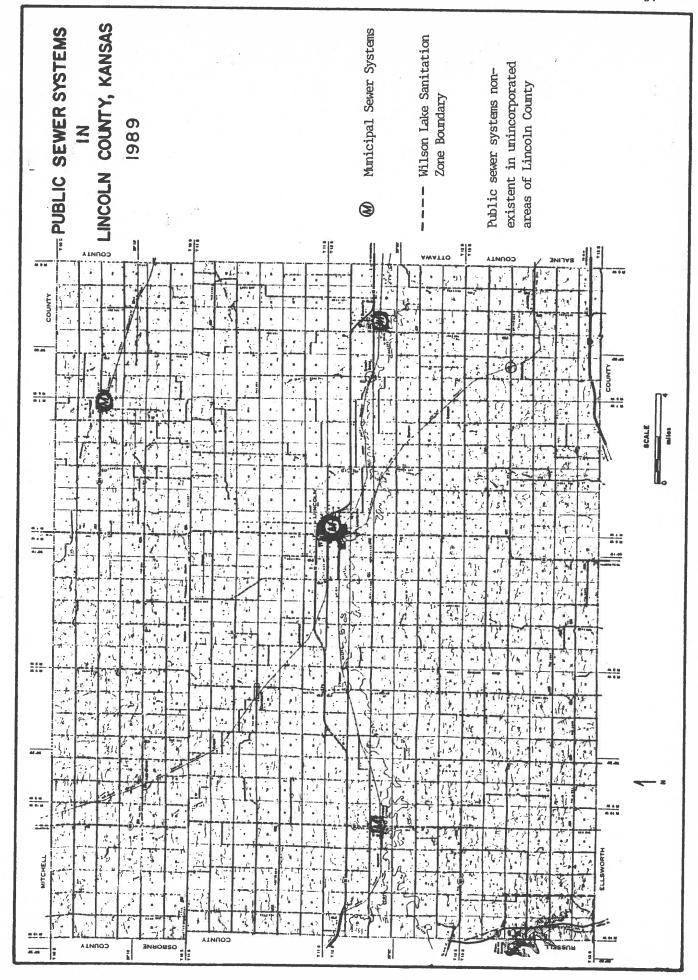
C. Sewer

About 60% of the population is served by central sewer collection systems of the incorporated cities (see the map at the end of this subsection). These systems are generally adequate for residential and commercial use for near-term needs, but new industrial demands could strain them severely. Rural residents, as well as many in or near the towns, use septic tanks and fields. Many of the tanks and fields in the older houses are in need of cleanout or replacement.

There are no widespread ground water contamination problems in the county from sewer systems or septic fields, although extremely localized concerns can be identified. A sanitation zone surrounds Wilson Lake; the lake nudges into the southwestern corner of the county and the zone encompasses a bit less than nine square miles. Within the zone there are strict regulations concerning sewage disposal. These regulations are on file at the county court house.

Beverly has the newest of the centralized town systems, with a two-cell lagoon and a lift station. The Barnard system is about 30 years old, also with a lagoon and lift station. Lincoln Center has two service regions ("east" and "west") dating back to the middle 1930's; it has one lift station, and has a treatment facility south of the city on the Saline River Valley flood plain. The system has been generally well maintained and updated as needed. The Sylvan Grove system was first established during the early 1930's and was extensively updated about 20 years ago.

The 1989 Rural Partnerships Act increases money available from the Farmers Home Administration for improving rural wastewater systems in distressed rural counties (including Lincoln County) should further work be needed.



D. Solid Waste

The county operates a centrally located landfill (the "dump") to the west of the airport. Both individuals and collectors use this facility. It has separate areas for burnables, metals, stone, and garbage.

The landfill currently accepts just about everything: dead household pets, rock, concrete, bagged thistles, metal, brush, household garbage, and industrial waste. It is quite easy for almost anyone to dump almost anything there at almost any time.

The facility is essentially full, and the Board of County Commissioners is searching for a solution to serve the county beginning in the next decade. Members have visited nearby communities during the course of this project to obtain ideas. An affordable plan has to be found. As a stopgap measure, the county is planning to use a class from the Beloit Vocational—Technical School to expand the landfill under the supervision of the County Land Surveyor.

Private "dumps" can still be identified on many farms. The county's law enforcement generally prevents illegal dumping in concentrated sites, although occasional problems along this line do emerge.

Essentially, the sparse population has prevented significant solid waste problems from occurring, notwithstanding the county's current search for a new landfill solution. If and as a new industrial concern moves into the county, solid waste disposal could become an issue that needs joint resolution by the company and the county.

E. Electric Power

Electric power is supplied by Smoky Hill Electric Cooperative Association, Inc. (offices in Ellsworth, Kansas), the Jewell-Mitchell Cooperative Electric Company, Inc. (offices in Mankato, Kansas), Kansas Power and Light Company (offices in Topeka), and Central Telephone and Utilities Corporation (offices in the Chicago area).

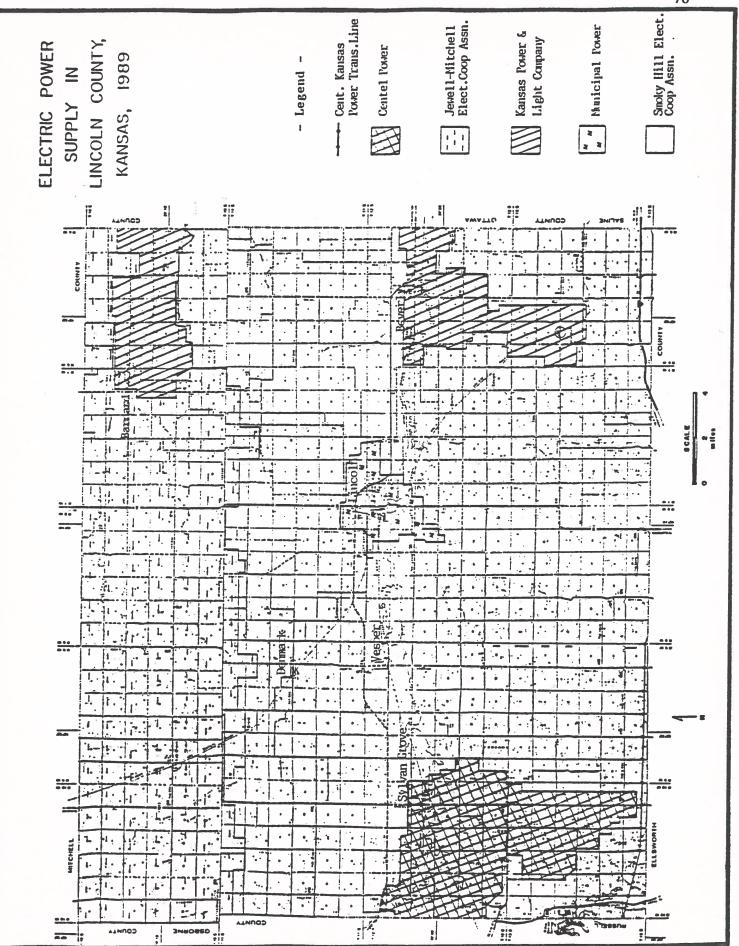
The city of Lincoln Center has maintained its own municipal power system for years, but has a purchase-of-power agreement in effect with Centel. It has now completed an interconnection with Smoky Hill to wheel in purchased hydroelectric power from the Western Area Power Administration in the Rocky Mountains. The municipal system will increasingly become a source of back-up and peak generation.

Most power lines are overhead, subject to wind and ice damage, and power outages are considered a part of life even though they are not especially frequent.

Some individuals have installed solar generators on their houses. The high percentage of sunshine, even during the winter, suggests that this will become more common when the price of fluid hydrocarbon fuel again rises significantly.

Wind power has been used for a century in the rural parts of the county to lift water. During an earlier era windmills were also used to charge storage batteries used for radios and early appliances. As with solar power, the potential for widespread individual use is substantial and simply waiting for oil and gas prices to climb again. Wind power can be produced most days in Lincoln County by the use of any of the efficient horizontal or vertical axis generator systems developed during and since the 1970's.

A map that illustrates the rough boundaries of the service areas in Lincoln County is included at the end of this subsection.



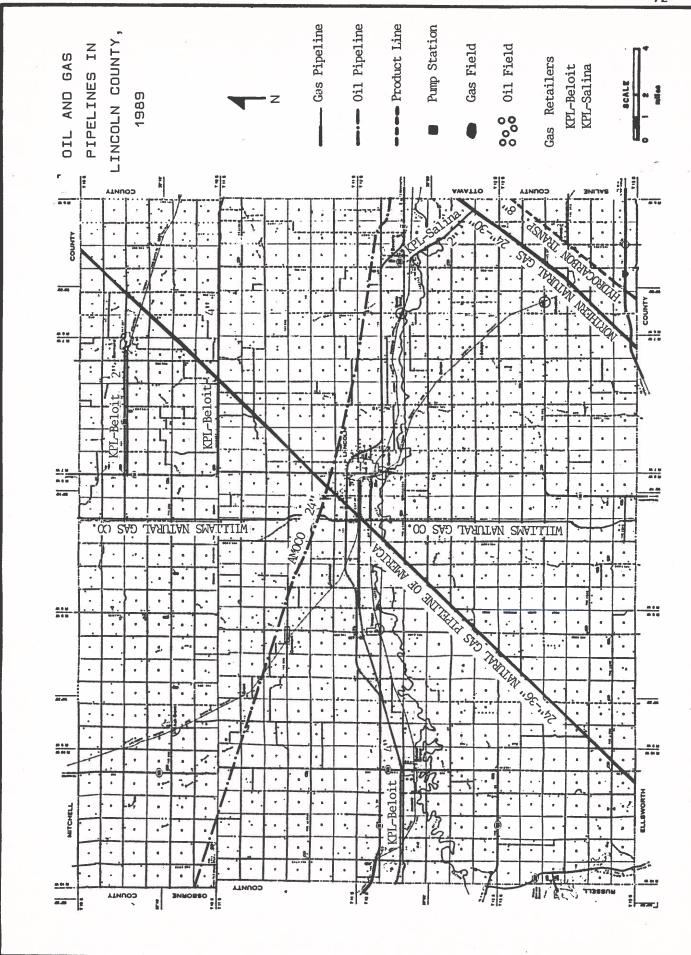
F. Propane and Natural Gas

Propane is used in most rural homes and many in the built-up areas. Propane is delivered by Farmway Cooperative Association, Inc. and by Diehl's Propane Service, both located within the county, and by other suppliers from outside the county. Propane is brought into the county in bulk by truck and stored immediately west of Lincoln on the Saline River Valley floodplain. Transport to retail customers is by truck. There is one propane pipeline that crosses the southeast corner of the county.

Natural gas service at the retail level is available from Kansas Power and Light in Barnard, Beverly, Lincoln Center, Sylvan Grove, and Vesper. Williams Natural Gas Company and the Northern Natural Gas Company have major pipelines crossing Lincoln County and provide the wholesale supply. Some rural users located adjacent to pipeline rights-of-way use natural gas. These pipelines represent a major latent attraction to Lincoln County for energy-intensive companies seeking new locations.

There are a few private gas wells on the extreme southwestern border, where there are some identified gas fields.

A map showing the natural gas distribution lines is included at the end of this subsection.



G. Electronic Communications

The role of communications in our national economy has been undergoing a significant shift. The twisted-pair telephone wires linking Lincoln County residents to telephones all over the world are also usable for electronic mail, facsimile (fax) document transmission, computer-to-computer linkages, and so forth. Fax machines are beginning to appear with their nearly instantaneous ability to send and receive messages. Electronic mail systems are also in use in the county, linking their users to far distant colleagues.

One of the keys to rural resettlement in Lincoln County could be the so-called "electronic cottage"; many professionals could choose to live in the country if they were adequately wired to their clients, colleagues, and suppliers. Communications is to Lincoln County in 1990 as surface transportation networks were to the county in 1890.

The county is poorly served with communications relative to the typical American city or large town. The county has only 3600 people, yet they are often able to talk to one another on the telephone only by making a long distance call. The four cities have four separate exchanges run by three different telephone companies. Other exchanges serve rural parts of the county.

Equipment is generally old, with little that can be described as state of the art. There is some doubt as to whether interactive computer communications can be safely done, and high-speed transmission of data and high resolution color pictures cannot be done. A telephone-intensive company (for instance, telephone-based sales or service functions) of any size could probably not function anywhere in the county without significant system improvements.

Telephone franchises for Lincoln County are held by Twin Valley Telephone, Inc. (for the eastern third of the land); by the Southwestern Bell Telephone Company (for the central area, including Lincoln, and a slice in the northeast), the Wilson Telephone Company (for the west end, including Sylvan Grove). Although citizens have grumbled for many years about the inconvenience and high cost of calls that cross the boundary lines, the problem remains. It is not a technical problem.

Out-of-county exchanges are from Wilson, Hunter, Lucas, and Brookville (Wilson Telephone Company), and from Ellsworth and Minneapolis (Southwestern Bell). Other exchanges are from Denmark and Sylvan Grove (Wilson Telephone Company), Lincoln (Southwestern Bell), Beverly (Twin Valley) and Barnard (Twin Valley).

In 1989 Southwestern Bell made a TeleKansas filing with the Kansas Corporation Commission in which it announced a five-year plan that might, among other things, replace Lincoln's electromechanical switch with a digital switch. If done, basic telephone services taken for granted in most urban areas will be extended to Lincoln Center and one-third of the county, removing one impediment to economic development.

The Twin Valley telephone company is to be commended for already committing itself to installation of fiber optic lines as well as digital switches, which will assist development of the eastern third of the county. Twin Valley had already begun construction by the summer of 1989.

In a telephone interview with a representative of the Kansas Corporation Commission, the question "Does the KCC have any written philosophy or policy concerning telephone service to rural areas?" was answered "No". Absent any central KCC philosophy or policy, service to Lincoln County cannot be expected to improve through governmental or regulatory pressures. Some Kansas Legislators have expressed disbelief and discontent that the KCC has no such policy.

The 1989 Rural Partnerships Act increases money available from the Rural Electrification Administration, the agency that lends money to rural telephone systems, apparently to help rural telephone coops. It is unclear whether this bill will be useful in Lincoln County.

Service areas for telephone users are shown on a map included at the end of this subsection.

Apart from telephone service, some townspeople are served by cable television systems. The option to purchase a satellite reception antenna (the "dish") is readily available at a price. USD 299 in the western part of the county has voted to acquire a dish for the school's educational programs.

Depending on both linear distance and their line-of-sight sea level elevation, householders without cable or a dish can easily receive the Public Broadcasting System signal from Russell County to the west, have good to poor reception of the network broadcasts from Wichita, Great Bend and southern Nebraska, and access to an independent station with a transmission tower near Salina.

There are no local radio stations, but the population is well served on both AM and FM bands from other locations. Shortwave reception is good, and there are several ham radio operators in the county.

A variety of local radio and CB systems serve public safety needs. Emergency messages are also broadcast on cable TV channels. Mobilization in times of fire, missing persons, or bad weather takes place rapidly with these links. The Weather Bureau weather radio service is popular in Lincoln County, and as a practical matter is supplemented by CB communications and by the relatively widespread use of assigned-frequency AM and FM broadcast frequencies by farmers and small businesses.

H. Other Communications

Overnight hard-copy communications and small package delivery systems serve the county, as they do the rest of the nation. There are post offices in each of the incorporated cities.

The Lincoln Sentinel-Republican is published each week with its focus on community news. The Lucas-Sylvan News, published in Lucas just west of the county line, and also a weekly, serves the local news needs of Sylvan Grove. Both papers provide information of interest county-wide. The Salina Journal is a widely read daily.

Informal oral communications, as anywhere in the world, are more often than not both generally correct and fairly fast, and "fill in the gaps" left by more established media.

I. Airport

Kansas has substantial general aviation employment and ownership, although commercial emplanement for the entire state is less than two-tenths of one percent of the total for the nation. The closest commercial airports to Lincoln County are a 45 minute to 90 minute drive away in Salina (4th busiest in Kansas), Great Bend (8th), and Hays (5th), all served by commuter service currently linked to Wichita or Kansas City, Missouri. Wichita is the only sizable commercial field in Kansas. The Kansas City field has become a hub for Braniff, offering good non-stop service to most of the country.

The Lincoln airport is a grass strip located immediately west of Lincoln Center. It is owned by the city and operated under the general oversight of the Lincoln Port Authority. It is one of 131 publically owned airports in state, and is generally considered inadequate for anything beyond single-engine propeller craft. The only current regular business use is by a crop-dusting service.

During the course of the project there were several meetings between members of the Planning Commission, the Board of County Commissioners, and the Lincoln Center Port Authority. Discussions were held on a preliminary basis with an Ellsworth County representative to think about a regional airport; however, it seemed likely that a regional airport would essentially be inconvenient for everyone's needs to about an equal extent.

Expansion of the current airport, if it could be done, would serve the county well. The two largest private employers (Quartzite and Century) would each like to be able to fly customers and corporate managers in and out of Lincoln, and would be willing to base their corporate aircraft at Lincoln,

if the air strip were lengthened and paved. As many as six business aircraft and six to eight private planes appear willing to base in Lincoln if the airport could be improved. Occasional inquiries by companies thinking of locating in the county often include questions about the airport.

A specific airport study was beyond the scope of this study, but a consensus seems to be emerging. If enough planes would base in Lincoln the county is willing to vacate or move an existing county road, and arrangements should be workable to have a gas pipeline facility moved out of the flight path. Federal airport grant funds are available if the business needs and the number of based planes are large enough.

A preliminary survey was done during and as part of this project period. It determined that a 4500 foot asphalt runway could be placed in a north-south orientation with relatively little grade change north from (and including all of the existing) airport site. It was believed at this writing that such a runway and associated lighting and site work could, including land acquisition, be accomplished for less than \$400,000.

J. A Geographic Information System

The Board of County Commissioners has been investigating the promise of having a geographic information system in place for the county. This GIS represents a marriage of computers and cartography, and would give the county "push of a button" visibility on all manner of land use, transportation, housing, and other concerns. The technology exists today, but the county will need perhaps a decade to get to the point that it is able to use the GIS for its own management and planning purposes.

Current needs are simply to continue to stay aware of the development of GIS technology, and to place on a higher priority the location of accurate survey monuments at township corners, centers, and quarter-corners.

SUMMARY OF PRIORITY CAPITAL IMPROVEMENTS

The report thus far makes it clear what the county itself (as opposed to the cities, industry, or individuals) must plan for with regard to capital improvements. There are nine primary items. Rough cost estimates (1989) and priorities are shown after each. The potential sources of funding are also briefly indicated, but the purpose of this plan is to lay out what is needed rather than to nail down funding; that must come at a later time, and that will be the time for Lincoln County to become specific with regard to funds and their sources.

1. An airport.

An improved (lengthened, paved, lighted) airport adequate not only for the needs of current major county employers and professionals, but also sufficient to attract new knowledge workers, employers, tourists and hunters, is badly needed.

It is estimated that such an airport will cost at least \$360,000 and may run much more. Such an expenditure cannot simply be budgeted; it requires the successful cooperation of the county and the city of Lincoln Center (the current airport owner) in seeking private or public grants and developing a realistic operations and maintenance budget within available tax constraints.

This may be the largest single project on the list. It is the county's highest capital improvement priority in the long term for economic development, but must be carefully planned for. Its realization cannot be at the cost of the other, less expensive improvements seen by the population at large as having more direct and immediate impact on their lives. Attainment of this item will require wise leadership, good planning -- and luck.

Most costs for an airport are apt to come from a trust fund administered by the Federal Aviation Administration for airport improvements. However, some strong views exist that the county should "go it alone" to avoid the federal controls that will come with FAA money.

2. Handicapped access to the courthouse.

The courthouse is the largest inaccessible county-controlled building. Its meeting room is in the basement, the district court is on the second floor, and no floor is at ground level. With a significant fraction of the county's residents over age 65, and with one of the thrusts of economic development being to attract more retirees, physical access to the offices of the county treasurer, court, extension offices, clerk and so forth is a fundamental need.

The architect employed by the Board of County Commissioners has estimated that an access plan of ramps and elevators will cost approximately \$100,000. This appears to be within the range of available grants; during the period of this report the county was successful in its application for a \$45,000 grant for an elevator in the county hospital.

This is a "catch-up" item to bring the county up to the standards of the rest of the nation with regard to treatment of the elderly and physically handicapped. It has a high priority, and should be attainable within two years.

State grants are available for this purpose.

3. A county-wide community center.

The existing public facilities for meetings, conventions, large social events (such as class reunions or weddings or annual dinner meetings of various organizations) are not designed for such purposes. The most modern meeting room is located on the second floor of the Lincoln city hall, and can only be reached by climbing a steep staircase.

Other facilities and meeting rooms are smaller, except for school gymnasiums or auditoriums which are often unavailable during the school year or which are poorly designed for many functions. The same can be said of private facilities such as the basements or meeting rooms of various churches, private clubs, or other organizations.

It is estimated that a community center designed to fit the greatest need at an acceptable price will range in cost from a minimum of \$100,000 to a maximum of \$500,000. The variation in cost is directly related to use differences.

This is an important priority for the quality of life in the county, and while it is ranked at the highest level by some residents is apt to be deferred for several years unless a grant source can be identified. The most likely funding source would be through the state Community Development Block Grant program.

4. Improvements at the county fairgrounds.

No consensus has been reached by the Planning Commission as to the exact nature and extent of improvements which should be undertaken at the fairgrounds. Part of the difficulty is ascertaining exactly who owns the fairgrounds; it was organized decades ago as a non-for-profit stockholding corporation and it would be a major legal research project to find out who owns a vote on the fairgrounds today. As a

practical matter, control is with a fairgrounds board that could almost certainly take dramatic action without fear of challenge.

Suggestions have been made that the community center could be built in conjunction with fairground improvements. Other people have noted that the location would be ideal (near three major lakes and in the heart of Post Rock Country) as a campsite for the recreation vehicles swarming through the nearby interstate highway system looking for scenic harbors. Private developers or campsite operators may be invited to validate this opinion.

The action plan for this improvement is to reach some community consensus among county residents. Pending this decision, fairgrounds improvement is listed as a significant but unpriced and unscheduled priority.

Funding could be from the state's Community Development Block Grant program or, perhaps, from private sources.

5. Roads.

Roads have been a significant concern in Lincoln County since the 1860's. The county has hired a new road supervisor and expects to spend over one-third of a million dollars annually for capital improvements to roadways.

This is a bread-and-butter priority for a county whose 3600 residents are spread over 720 square miles. It has and will continue to have a preeminent position in the county's budget. A county-wide grid location system will be put into place for use in rapid direction of emergency services in the country.

Road and bridge funding almost always comes from federal or state support, or from local taxes.

6. Bridges.

Bridges over 20 feet long are closely monitored by the county. Large numbers of them are in need of replacement. Some county bridges are posted for loads less than practical for harvest needs. The county has a prioritized list based on traffic, bridge condition, and safety issues; not all bridges cost the same and the annual budget ranges from \$50,000 to \$150,000 for this category.

However, the need is great. Ten bridges should be replaced now, but to do that would cost about \$1,250,000. Another 25 to 30 bridges currently need to be repaired, at a total cost of over \$500,000.

As with roads, this is a bread-and-butter priority. Road and bridge funding almost always comes from federal or state support, or from local taxes.

7. Culverts.

Bridges less than 20 feet long and culverts were inventoried during this study project. The county highway department sorted through the accumulated data to create an objective list of culvert priorities for consideration by the Board of County Commissioners.

The annual capital improvement portion of the budget for culverts and short bridges has been estimated at about \$50,000. Once more, the annual budget is only a fraction of the total need, now estimated to be just under \$400,000 for replacement and repair.

As with roads and bridges, this is a bread-and-butter priority. Road and bridge funding almost always comes from federal or state support, or from local taxes.

8. Adoption of a Geographic Information System.

Members of the Board of County Commissioners have been acquainting themselves with the GIS requirements, costs and benefits for the past two years. At this time, capital costs are unknown.

The absolute basis for successful implementation of a Lincoln County GIS is accurate placement of survey monuments and markers at township corners, quarter-corners, and centers. Without such markers such activities as road surveys and such important legal issues as the definition of rights of way and ownership boundaries may be inaccurate.

The original monuments in Lincoln County were placed by government surveyors over a century ago. Enforcement of state laws requiring maintenance, replacement, and recording of such markers seems to have relaxed increasingly over the decades, and the county's records are extremely poor.

The Board of County Commissioners has voted to pursue a KSU Community Services Program student team project for the summer of 1990 to test a procedure to locate the missing monuments, and expects such a project to provide adequate data to give a realistic capital improvement budget for this item. The highway department, as the current user of greatest need for accuracy in surveys, will be responsible for the project.

Subsequent funding is assumed to have to come from state or local sources.

9. Landfill.

The county has a difficult situation with the current landfill. The Board of County Commissioners is investigating alternative plans for future solid waste disposal. It appears that a new facility that meets the standards established by the Kansas Department of Health and Environment will cost in the neighborhood of \$100,000.

Meanwhile, any significant industrial development in the next 20 years, and probably for much longer, will require the new company's owners and the county (and an individual city, if the corporation is in or close to city limits) to agree together on exactly how industrial waste will be processed.

This is a matter of very high priority. Funding may come from federal sources, but otherwise from state or local budgets.

A SUMMARY OF GOALS AND OBJECTIVES

- A. Four Basic Goals
- 1. Pulling together.

The county and its communities, organizations and citizens must be constantly alert to new opportunities for improving the quality of life. No opportunity should be summarily dismissed; no idea rejected without thought and public discussion.

All who want to participate should be welcomed, and those in leadership positions should constantly seek to include new voices for the dialogue. Community service should be respected and encouraged, both through public office and volunteer efforts. Rivalry and parochialism in the areas considered in this plan should be subordinated to coordination and cooperation.

2. Maintaining the environment.

The physical and scenic environment of the county must be protected for those who live here. It can be promoted to newcomers and tourists.

The physical openness of the county makes it attractive for new businesses, knowledge workers, and retirees. Lincoln County businesses, farmers and government workers should lead the effort to accomplish this goal.

Growing the economy.

The continued drop in numbers of farmers should be factored into all planning decisions. An economic future based on the realistic view that the county is and will remain thinly populated needs to be carved out. Individual entrepreneurial efforts should be respected and encouraged. Post Rock Country tourism should be developed and the advantages of retiring in Lincoln County promoted.

To have a good business climate, inferior workmanship should be rejected and quality demanded in all occupations. A proud tradition of craftsmanship will become known to companies that consider moving into the county. Local governments should stress effective, efficient and high quality operations. Superb doctors, teachers, managers and other professionals should be attracted and retained; the citizens of the county deserve such services.

County merchants should earn the business of local residents, who in turn must recognize how important local retailers are to them. Exactly the same thing can be said about the schools.

4. Balancing the population.

Diversity in a population enriches everyone. To this end special efforts should be made in brochures, conversations, and development efforts to attract knowledge workers, small businesses, retirees, tourists, value-added agribusinesses and new or expanding businesses of all types.

A balanced mix of people and occupations will create an attractive, viable economy for all -- especially for graduates from county schools. Young residents should have a large number of career role models for living a full life in the country, regardless of whether they want to work with their hands or their heads.

B. Objectives

This plan has been developed with substantial debate and public input. Many explicit and implicit objectives are contained above. In the county's pluralistic society, citizens will differ in their views of what should be the ultimate selection of objectives.

Time can swiftly erode a specific list of objectives. Unexpected events can turn a specific plan into nonsense. However, a planning philosophy -- a mind set -- a way of thinking about the future -- can not only survive sudden change but welcome the new circumstances and use them to advance toward the identified goals.

For Lincoln County, a strategic planning philosophy emerged as a part of the project. This was the county's greatest benefit. It happened partly because this effort was performed locally, rather than by professional planners living in other places.

The county's strategic planning philosophy is simply stated. There are six steps:

- 1. Know where the county is, and be realistic about it. The county's position will change a little or a lot every day, so it must be reevaluated by the leaders more often than they might think is necessary.
- 2. Know how the county got to where it is, and why, and be realistic about that also.

- 3. Keep the county's strengths and weaknesses clearly in mind. They will change; do not assume otherwise.
- 4. Know where the county might try to go, and do not be so realistic about destinations that some dreams, hopes, and imagination are lost or laughed at or put down.
- 5. Make the process work for everyone. Bring as many people into the dialogue as possible. Listen. Encourage fresh thinking.
- 6. Keep trying. If the budget isn't big enough, find a grant. If plan "A" costs too much, try plan "B". If professionals cannot do it, use volunteers. If one person refuses, go to another. Keep trying.

The Planning Commission and Board of County Commissioners agree that the county has become and should remain open to opportunities for action as they arise. Strategic as well as tactical opportunity targets are detailed in the earlier pages of this document. Consensus has emerged on many points, and understanding on others. A coalition of informed and concerned citizens and leaders has come together.

The people of Lincoln County know fairly well where the county is, where it has been, and what their goals must be. This is about as good as it gets. They are ready to make good decisions for action, and to carry them out.

BOOKS

- Drabenstott, Mark and Gibson, Lynn, eds. <u>Rural America in Transition</u>. Kansas City: Federal Reserve Bank of Kansas City Research Division, 1988.
- Gilford, Dorothy, M., ed. The Aging Population in the Twenty
 First Century: Statistics for Health Policy.
 Washington, D.C.: National Academy Press, 1988.
- Ehrlich, Paul R. and Anne H. <u>Population, Resource, Environment: Issues in Human Ecology</u>. San Francisco: W.H. Freeman and Company, 1970.
- Homan, Dorothe Tarrence. <u>Lincoln--that County in Kansas</u>. Lindsborg, KS: Barbos' Printing, 1979.
- Muilenburg, Grace, and Swineford, Ada. <u>Land of the Post Rock:</u>
 <u>Its Origins, History, and People</u>. Lawrence, KS: The University Press of Kansas, 1975.
- National Research Council. <u>Amaranth: Modern Prospects for</u>
 <u>an Ancient Crop</u>. Washington, D.C.: National Academy
 Press, 1984.
- National Research Council. <u>Alternative Agriculture</u>. Washington, D.C.: National Academy Press, 1989.
- Roenigk, Adolph. <u>Pioneer History of Kansas</u>.... Lincoln, KS: The Lincoln County Historical Society, 1973.
- Wilford, John Noble. <u>The Mapmakers: The Story of the Great Pioneers in Cartography from Antiquity to the Space Age</u>. New York: Knopf, 1981.

MAGAZINES AND REPORTS

- Browne, Lynn. E. "Shifting Regional Fortunes: The Wheel Turns," New England Economic Review, May/June, 1989, pp. 27-40.
- Bucher & Willis. "Lincoln County Industrial Development Study: April, 1978." Salina, KS: By the author, 609 W. North, 1978.
- Carlino, Gerald A. "Working Paper No. 83-8: Declining City Productivity and the Growth of Rural Regions: A Test of Alternative Explanations." In Research and Working Papers. Edited by Judith Farnbach. Philadelphia Reserve Bank: Philadelphia, 1983.

- Carlino, Gerald A., and Mills, Edwin S. "Working Paper No. 85-3: The Determinants of County Growth." In Research and Working Papers. Edited by Judith Farnbach. Philadelphia Reserve Bank: Philadelphia, 1985.
- Dimmitt, Lawrence A. "Petition before the State Corporation Commission of the State of Kansas in the Matter of Southwestern Bell Telephone Company's Proposal for Network Modernization, Rate Stability and Pricing Regulation, a/k/a 'Telekansas'." Topeka, KS: By the author, 220 East Sixth, Room 5, June, 1989.
- Duncan, Marvin R. "U.S. Agriculture: Hard Realities and New Opportunities," <u>Economic Review</u>, February, 1989, pp. 3-43.
- Ellsworth Green & Assoc. "Economic and Industrial Survey of Lincoln, Kansas." Kansas City, 1971. (mimeographed)
- Elmer Fox, Westheimer & Co. "North Central, Kansas: Demographic and Housing Study, September 5, 1979.)
 Denver, 1979. (photocopied).
- Four Rivers Resource Conservation and Development Project Council. <u>Four Rivers RC&D Project Plan</u>. Minneapolis, KS: n.p., 1975.
- Glimpses from Resource-Full Kansas. Lawrence, KS: State Geological Survey, University of Kansas, 1949.
- Kansas Congress. House. <u>House Concurrent Resolution No. 5019</u>. Session of 1989. No. 3-14.
- Kansas Department of Commerce. <u>Program Manual: Kansas</u>
 <u>Partnership Fund</u>. 1989.
- Kansas Department of Commerce. Resource Directory for Economic Development. 1988.
- Kansas Department of Commerce. <u>Recommendations of the Governor's Task Force on the Future of Rural Communities</u>. 1988.
- Kansas Department of Health and Environment. <u>Annual Summary of Vital Statistics: 1987</u>. 1988.
- Kansas Department of Transportation. 1988 Selected Statistics. 1988.
- Kansas Department of Transportation. <u>Presentation to the 1988</u>
 <u>Special Committee on Transportation: Report on Highway Needs</u>. August 22, 1988.

- "Paying the Piper for Conservation." <u>Kansas Farmer</u>, 2 September 1989, p. 36.
- Quinn, James Brian. "Serving the Service Industry," <u>Issues</u> in Science and <u>Technology</u>, Summer 1989, pp. 74-81.
- <u>Salina Journal</u>. Frequently consulted.
- "Senate Approves Rural Development Measure," Kansas Country Living, September, 1989, pp. 4-5.
- Tannenwald, Robert. "The Changing Level and Mix of Federal Aid to State and Local Governments," New England Economic Review, May/June, 1989, pp. 41-55.
- "Third-World Tourism," The Economist, 11 March 1989, pp. 19-22.
- "Total Exports of U.S. Wheat," <u>Farmer Stockman of the Midwest</u>.
 31 July, 1989, p. 1.
- U.S. Department of Commerce. <u>A Rural Economic Development Source Book</u>. Washington, D.C.: Government Printing Office, 1986.
- U.S. Department of the Interior Water and Power Resources Service. <u>Kansas State Water Plan Studies: Long-Range</u> <u>Water Supply Problems, Phase II.</u> Washington, D.C.: Government Printing Office, 1979.
- University of Kansas Institute for Public Policy and Business Research. "1987-88 Kansas Statistical Abstract County Profiles: Lincoln County." (photocopied)
- Watson, Steve. "The Comprehensive Highway Program: New Hope for Rural Roads and Bridges," <u>Kansas Farmer</u>, 1 July 1989, pp. 18-21.
- White, Hamele & Hunsley. A Comprehensive Plan for Lincoln County, Kansas. Salina, KS: By the Author, 219 Arnold Avenue, 1973.