

Future Land Use Plan

for

Stephenson County, Illinois



July 12, 2000

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Acknowledgments:

A project of this magnitude could not be realized without the support, commitment and continued involvement of the entire greater Freeport and Stephenson County community. Hundreds of individuals contributed their ideas, input and suggestions during the entire four year process, which began in the fall of 1995. Yet, this report should only be view as one more mile stone in the continuing planning process. From the beginning of my involvement, I have observed that both the City of Freeport and the Stephenson County Board are keenly aware of the value of community planning as part of the local governmental decision making process.

To begin with, I would like to acknowledge my colleagues at the Freeport Area Economic Development Foundation for the whole-hearted support. Jim Bruehler, the Executive Director of the foundation must be recognized as the driving force for the initiating and overseeing every aspect of this effort. In his words, "If planning is to have lasting value it must be a continual process." He never hesitated to repeat this point, which was the result of a lifetime involvement in community planning.

Getting started would not have been as easy if it were not for the guidance and encouragement provided be the Foundation's Planning Advisory Committee. Pat Leitzen-Fye, who chaired this group, clearly articulated what the aspirations of the community were. Working with her were Dale Hibst, the Director of Real Estate and Property Management for Newell Co., Boyd Boyer, who was then Chairman of the Stephenson County Board Planning and Development Committee, and a consultant, Michael King, AICP who was the Director of Community Development for the City of Janesville, WI.

The original Executive Committee of the Partners in Planning Board needs recognition for building a sound footing for the continuing activities and involvement of all the various City,

County, and Foundation representatives that have served on the Board. This original Executive Committee include former Freeport Mayor Richard Weis, Forest Dean Danner, Administrator for the Freeport Health Network, and Bruce Helm, President, Civil Contracting.

Special recognition must also be given to Steven Nailor from ComEd, who served as chairman of the Partners in Planning Board between 1997 and the spring of 2000. He guided the Board through the difficult details of ensuring continuing financial support for the partnership. Steve, who was also a member of the Foundation Board, was always able to convinced both the City Council and the County Board of the merits of Partners in Planning.

As a practicing planner, I was very aware of the need for independent and objective peer review of the planning work being done in the name of Partners in Planning. All those listed as members as members of the Partners in Planning Technical Advisory Committee served in this peer review capacity. I owe them a personal debt of gratitude. They were always candid and constructive when I called upon them. Even when dealing with new or novel ideas, there was a high degree of mutual trust and confidence. This is a pattern that I am sure will continue into the future.

Many new avenues of opportunities for planning in the community have opened up since this modest start five years ago. For example there is the Jane Addams Trail and the IDNR Greenways & Trails Plan as well as the evolving Freeport Central Business District plan and the new interest in the redevelopment of the W.T. Rawleigh property. These are all evidence of Jim Bruehler's and the Foundation's original vision for Partners in Planning.

Gerald A. Estes, AIA, Architect Director of Planning Partners in Planning Division Freeport Area Economic Development Foundation

Chapter 1: Introduction

Why make a plan for the future land use of our community? Can't we just let things happen like it appears they have in the past? We could, but then the consequences would most likely not be agreeable with our imagination and current vision of the future. We are where we are today because of an evolving process of decision making about the use of our land resources. This process has been taking place for over 150 years in our community. We also like most of what we have as a result. It is the lesson of history that we must continue the process. To not consider the needs of future generations will only lead to a gradual and inevitable decline in the quality of life for all.

The land we live on demands our utmost understanding of the meaning of stewardship. We trust our instincts, but we are at a point in time when we must consider broader consequences. We know that certain aspects of world population growth will approach certain sustainable limits in the next century. We already feel these pressures and they test the limits of our inventiveness and understanding. For sure, there won't be any new land to move to, which was always the solution in the past. But, we can make better use of what we have within our borders.

During the past quarter century other factors have likewise irrevocably changed our lives. We have all experienced the shift in thinking toward viewing our land, its use, and our place on it as an ecological system. Prior to the 1970's, ecology was an obscure branch of science. It dealt with the interrelationship of organisms and their environment. Today, the impact of land use planning policies on the natural environment represents a major factor guiding public decision making. Ecological concepts such as "sustainability" and "smart growth", coupled with a strong environmental ethic, are now recognized as an opportunity for restructuring out built environment. These ideas are woven throughout our educational system and general public conscientiousness.

"In communities across the nation, there is growing concern that 20th century patterns of land development - often called "sprawl" - are no longer in the long-term interest of the nation's cities, existing suburbs, small towns, rural communities, or wilderness areas. Although they support growth, communities are questioning the economic cost of abandoning infrastructure in the city only to rebuild it further out. They are questioning the social cost of the mismatch between new employment locations in suburbs and the available workforce in the city. They are questioning the wisdom of abandoning brownfields in older communities, eating up open space and prime agricultural lands at the suburban fringe, and polluting the air of an entire region through ever-increasing automobile travel." (p.7, Smart Growth, Urban Land Institute, Washington, DC, 1998)

Therefore, the purpose of this report is to address the public decision issues and policies that guide the future land use planning for the greater Stephenson County community. The recommendations contained herein have resulted from the work undertaken by the Partners in Planning Division of the Freeport Area Economic Development Foundation. They were offered for public review and in-put through public hearings and debate.

The initial hearings were held by Stephenson County, and conducted by the Stephenson County Zoning Board of Appeals. These hearings were on June 23, 1999, Sept. 9, 1999, Dec. 7, 1999 and Jan. 27, 2000. On April 5, 2000 the Stephenson County Zoning Board of Appeals submitted its final report and recommendations on the Plan to the Stephenson County Planning and Development Committee of the County Board. Thereafter on June 14, 2000 the Planning and Development Committee unanimously approved the ZBA recommendation and forwarded the Plan to the County Board for approval.

On July 12, 2000 the County Board approval the Plan and also directed that comprehensive amendments to the Stephenson County Zoning Ordinance, Zoning Map, and Subdivision Ordinance be prepared to reflect the policies and recommendations set forth in the Plan. Future public hearing were also authorized on these ordinance amendments as required by State law.

Additional hearings will be held on the Plan by the City of Freeport when the Freeport Central Business District plan is completed.

Chapter 2: Planning History

The following is an outline summary of the history of land use planning in the City of Freeport and Stephenson County:

1840 to 1950. Between 1840 and 1900 the basic pattern of settlement in Stephenson County was well established. The roadway system, a network of railroads, the City of Freeport and numerous rural villages were all functioning and growing. A strong agricultural and industrial economy was in place, much as it is today. During the first half of this century, the community continued to grow at a moderate pace consistent with the history of rural Illinois.

	able 1: Historica	·	Year
	City of	Stephenso	
	Freeport	County	
1870	7,889	30,608	
1880	8,516	31,963	
1890	10,189	31,338	
1900	13,258	34,933	
1910	17,567	36,821	
1920	19,669	37,743	
1930	22,045	40,064	
1940	22,366	40,646	
1950	22,467	41,595	
1960	26,628	46,207	
1970	27,736	48,816	
1980	26,406	49,536	
1990	25,840	48,052	
2000	28,000	53,000	(1)
2000		49,282	(2)
2010		50,102	(2)
2020			(2)

Source: U.S. Census unless footnoted.

1950's. The first land use and zoning plan was begun in the early 1950's, and was a joint project prepared for both the City of Freeport and Stephenson County. The final report on Land Use and Zoning was published in 1953, and was prepared by Harland Bartholomew and Associates, City Planners, St. Louis, MO.

1960's & 1970's. An updated detailed plan for the City of Freeport was completed in 1966. It was prepared by Wm. S. Lawrence & Associates, Inc., Planning Consultants, Chicago, IL. In the early 1970's, Wm. S. Lawrence & Associates also prepared a zoning code for Stephenson County. All of these planning studies responded to the population growth and industrialization trends in the community, which resulted from World War II. The work by Wm. S. Lawrence & Associates was funded through a Federal Grant from HUD under the 701 Urban Planning Assistance Program of 1954.

1980's & 1990's. An updated plan for Freeport was prepared in the early 1980's by Associated Planners, Northbrook, IL., and was adopted by the city in 1982. This plan built on the earlier planning studies undertaken in the 1950's and 1960's. But, the 1982 plan expanded on the role and restraints of the natural environment as it effects future land use decisions and development activities. The natural systems addressed in the 1980 plan included drainage and flooding, topography, soils characteristics and the geological features of the city's environment. The zoning and development standards of the community were updated at the same time.

These early plans focused on the need to accommodate projections for substantial population growth. This growth was in turn based on continuing trends and projections for heavy industrial and business expansion. At the time it seemed to be an acceptable premise for future land use planning. It was supported by the readily available State and Federal funds for investment in highways and other community infrastructure improvements.

In retrospect, the 1970 County Plan and the 1980 Freeport Plan were a gratifying exercise. Most people felt good about the promise and prosperity implied by these plans. It was time for government to rebuild the community and the

⁽¹⁾ Partners in Planning Estimate. Based on 10 year average of new dwelling unit (DU) building permits issued during 9 years between 1990 to 1998. City of Freeport, 1990 to 1998 = 781 DU; Unincorporated Stephenson County, 1990 to 1998 = 599 DU; Rural Villages, 1990 to 1998 = 200 DU.

⁽²⁾ State of Illinois, Bureau of the Budget Projections, Sept. 5, 1997.

countryside - the first chance since the depression, the war, and post-war recovery years. It was our hope at the end of the tunnel of recent history.

But, for some, the 1980's and early 1990's were somewhat of a let-down. Population increased only slightly. Housing demand held steady due to smaller household sizes of a maturing population. The City of Freeport and our rural villages continued to age. The agricultural community remained healthy as the economic foundation of the region. But, neither urban or rural sectors of the county seemed to benefit greatly from the economic growth, which was concentrated in the major metropolitan areas in the Mid-West. We didn't lose ground, but we didn't move forward with our shared expectations.

1995. Thus, in 1995, the task of updating the future land use plan for Stephenson County and the City of Freeport was identified as a community effort whose time had arrived. In the past, the planning for the community was consigned to out-of-town consultants. This time the County, the City and the Freeport Area Economic Development Foundation joined together to make future land use planning a continuing process for the community. Yes, there would be milestones and specific plan documents to be completed. But the emphasis would be on a home-based process. This new City, County, and Foundation effort would be known as the Partners in Planning Division of the Freeport Area Economic Development Foundation. The services of a professional planner were secured, and the process was put in motion in the fall of 1996. After testing this arrangement for over a year, a formal partnership agreement between the City of Freeport, Stephenson County and the Freeport Economic Development Foundation was signed in January, 1998.

Also in August, 1995 the final report of the U.S. Army Corps of Engineers (USACE) on flooding on the Pecatonica River in the vicinity of Freeport was completed. The USACE updated the flooding data originally published by the Federal Emergency Management Agency (FEMA) in the 1976 Freeport and the 1982 Stephenson County flood insurance studies and maps.

Chapter 3: Primary Future Land Use Plan Goals

Broad goals were established to guide the work at the beginning of the Partners in Planning effort to update the Future Land Use Plan for the City of Freeport and Stephenson County. We asked the question, "Why are we preparing a plan, and what are the primary purposes for adopting such a plan?" These questions were explored during various workshops and by questionnaires. Three primary goals emerged for the plan document itself. The goals reflected the history of the community and the most important future planning issues of the day, which may be summarized as follows:

- 3.1. Investment. To provide a framework for private investment and development:
- 3.2. Infrastructure. To promote efficient and cost effective public infrastructure systems, like streets, sewers, water mains, etc., which are required to service future private investment in land use development; and
- 3.3. Environment. To insure that future private development and public infrastructure projects are in harmony with the natural environment, especially flooding and the preservation of prime agricultural soils.

What do these goals tell us about ourselves and the community? The answers are in the data and information collected during the 1996-1997 goal formulation period. First, we observed that the community strongly felt it was still in the development or building phase. Next, it was revealed that we increasingly rely on the private sector of the economy to drive the development process. But, we look to the public sector and local government to provide leadership, support and collaboration, and to protect the common welfare.

Finally, there was also a healthy appreciation for many community assets already in place, and that the best should be preserved. But, we were surprised by the openness towards new ideas to do better as we move into the next century. Three examples stand out.

Example 1. Our rural agricultural community in Stephenson County is aggressively addressing all aspects of long term sustainability of their operations and way of life. This effort includes a strong commitment to conservation and land resource management practices. With regard to the land use planning process, the agricultural community is focused on the predictability and policies for ensuring a reasonable balance between agricultural and urban land use needs. They understand the need for the carefully planned growth of our cities and villages. But, they do not want to see unnecessary encroachment into the rural area. The agricultural community supports public policies that promote compact urban development and minimize uncontrolled sprawl.

Example 2. The greater City of Freeport community has initiated a massive effort to revitalize and redevelop its central business district. It is their intent to bring new meaning to the idea of a central place for the whole of the Stephenson County community and the region. All of the primary land use goals mentioned above will be tested to their limit. New and creative approaches to planning and development will, by necessity, have to be tried.

Example 3. The real estate development and building sector of the community is taking a new look at every aspect of their industry. Their market for new housing, business, commercial and industrial space is limited and very competitive. They need to make their product attractive and inviting, and expressive of the "quality of life" factors demanded today. Over the past twenty or so years, better and new development practices have been tried and successfully tested elsewhere. Our local experience is limited in this regard. But, the builders and developers trust that we can learn from the experience of others where these designs prevail. This sector challenges us to make public policy recommendations, which accommodate and encourage these new practices.

Chapter 4: Primary Planning Process Goals

The Primary Land Use Plan Goals (Chapter 3, above) address the content of the plan itself. In addition, a number of other goals were initially spelled out to guide the planning process, and these may be summarized as follows:

- 4.1. Seamless Plan. The Future Land Use Plan and policy recommendations prepared by Partners in Planning should be seamless across the City of Freeport municipal boundary and unincorporated Stephenson County;
- 4.2. Public Planning Consultation. Partners in Planning should provide ongoing continuing professional planning consultation to both the City and the County with regard to formulating, reviewing, adopting and implementing the Future Land Use Plan. The same continuing consultation effort should expand to include all the other local village municipal jurisdictions in the county;
- 4.3. Private Planning Consultation. Partners in Planning should offer planning and development assistance and consultation services for private interest in the community; and
- 4.4. GIS Feasibility. To determine the feasibility of a computer based "Geographic Information System" (GIS) for the Stephenson County area. Thereafter, and based on both local public user and private development needs, establish a continuing program for the financing, staffing, management and operation of this system.

Chapter 5: Planning Background Research Studies:

Beginning in 1996, we collected and reviewed all available planning background data about the community. This review enabled us to construct a factual background for the recommendations contained in this document. The research work can be classified into 5 broad areas, which are described below. Most of the research studies and report are on file at the Partners in Planning office. The remainder, mostly original historical documents and reports, are in the History Room collection at the Freeport Library. The last research item (5.6) described below relates to the GIS feasibility study.

- 5.1. Statistical Research Studies. First, we reviewed and cataloged all the formal planning research studies previously undertaken. A massive amount of data was discovered. New research studies were only necessary in a few areas. Specifically, population demographics, housing construction statistics, and economic indicators were brought up to date. Sources for keeping this information current were identified.
- Geographical Information Research Studies. Copies of all current geographic based land use and environmental studies and reports were collected and added to our background documents files. These were all reviewed, and gaps in information were identified. For example, only limited information on the surface and bedrock geology of the county was found. A new detailed research study of the geology of Stephenson County was scheduled to be undertaken by the Illinois State Geological Survey beginning in 1999. The new Illinois State Geological Survey study was designed to address issues related to subsurface ground water movement and pollution hazards resulting from land use and development activities. This study will take several years to complete. It has not been started due to a cut in funding at the State level.

We looked at all available data on flooding, and local land use planning policies for flood plain development. This was prompted by the record setting 1993 flooding of the upper Mississippi River watershed. All of Stephenson County is within that watershed, and the

Pecatonica River is the major tributary. The pattern of local watershed flooding represents one of the principal environmental factors underlying the basic structure of land use in Stephenson County and the greater Freeport area. Copies of all available topographic and flood plain maps were added to our reference files.

At the direction of the Partners in Planning Board, a detailed review of flooding on the Pecatonica River in the vicinity of downtown Freeport was prepared in February, 1999. The area studied was defined by the new detailed topographic mapping prepared by the U.S. Army Corp of Engineers in 1992. A copy of full report, Pecatonica River Flood Plain & Floodway Study, is included in the appendix.

5.3. Existing Zoning Research Studies. When available, we obtained current official published copies of the existing zoning ordinances and zoning maps from every zoning jurisdiction in the county. This information is constantly being revised and amended, and the sources for those changes were identified. In the City of Freeport a draft of an updated zoning map was prepared in conjunction with the preparation of a new computer generated base map. This unofficial draft updated zoning map was released in the summer of 1998.

For Stephenson County there is no published zoning map. Rather a record of the existing zoning districts boundaries is sketched on composite aerial photo tax plat maps. This record is updated when map amendments are adopted by the County Board. A duplicate record copy of the County zoning maps was made in 1997 and updated again in the summer of 1998. Beginning in the summer of 1998, copies of all County zoning change actions are sent directly to Partners in Planning on a monthly basis. This information is then noted on our copy of the county zoning maps.

Creating and maintaining a record of all existing zoning districts represents one of the major continuing research efforts undertaken by Partners in Planning.

5.4. Existing Land Use Research Studies. The planning studies conducted in the 1950's, '60's and '70's created an excellent record of the existing land use history of the county. The classifi-

cation of the use of every parcel of land within the county is constantly updated by several public agencies.

Altogether there are over 25,000 separate lots or parcels of land in the county. This effort is greatly aided by the use of aerial photography maps. These aerial photos, which are expensive, are regularly flown on a 5 to 10 year cycle by both the U.S. Dept. of Agriculture and the Stephenson County Assessor's Office. The use of these aerial photos, in conjunction with the individual parcel land use classification record, precludes the need to prepare a separate existing land use map atlas.

However, there are occasions when an existing land use map may be required. Early in 1998 the Illinois Department of Transportation (IDOT) needed one. It was for the 2 mile wide corridor of the proposed U.S. Route 20 Freeway extension west of Freeport. The IDOT consultants created the existing land use map utilizing our research data, Only a few institutional use parcels had to be field checked. In this example, Partners in Planning was able to complete this continuing consultation task in less than a week.

5.5. Base Mapping Research Studies. Preparing updated base maps for all 20 survey township in the County represents the second major new research effort undertaken. A survey township is usually an area of 6 miles by 6 miles. There are 12 full survey township and 8 partial ones in Stephenson County. The partial survey townships occur along the Illinois-Wisconsin state line and the Stephenson-Jo Daviess county line. Sometimes, but not usually, the political township boundary lines correspond with the survey township lines.

It took nearly one year to assemble the base map information. The tax plat map (cadastral map) records of the County Assessor's office were used as a starting point. These were electronically scanned and spliced together to create a street and property line map for each of the 20 survey townships. At the same time, the City of Freeport engineering staff and their consultants prepared an updated computer generated mapping file of the same information for all properties within the City of Freeport proper. The City lies at a point in the center of an 4 adjoining survey townships.

These maps, know as "cadastral base maps" were again scanned and spliced together to create a series of 6 sub-regional base maps. For example, the sub-regional base map for the greater Freeport area includes 4 survey township base maps with the new City of Freeport map spliced into the center.

5.6. Geographic Information System (GIS) Research. The other major research study undertaken by Partners in Planning was a determination of the feasibility of starting a computer bases "Geographic Information System" (GIS) for the Stephenson County area. This project was started in the fall of 1996 and pursued through the Spring of 1997. This research was given early priority attention. It held the promise of being a state-of-the art tool for organizing and managing all the planning activities envisioned over the next three years and beyond. In the end, the high cost and 5 year start-up time required precluded any further consideration for implementing a GIS system at this time. (Note: additional information on this research effort is summarized in the Appendix A.)

Chapter 6: Future Land Use Plan Policies

Introduction: What are future land use policies? Future land use policies are defined as a prudent and specific course of action for future governmental regulation of land use. The purpose of these policies is to achieve the "Primary Future Land Use Plan Goals" set forth in Chapter 3. This report represents Partners in Planning's recommendations for public policies for adoption by the City of Freeport and Stephenson County. We believe the recommendations are a sound framework for future revisions of the zoning, subdivision and other related development regulations.

The Future Land Use Plan Policies contained in this report are presented in two parts. The first are the various map exhibits illustrating the physical location and extent of the proposed land uses. Each general land use classification is depicted on the maps at the same level of detail as if delineated on a zoning map. In addition, the boundaries of the special planning areas are also illustrated on the maps.

With this report are two large size folded maps, which are in the pocket on the back cover of the report. One side illustrates the Future Land Use Plan for the whole of Stephenson County. The other side is an enlargement of the greater area around the City of Freeport (areas 13,14,18 & 19)

The second part of the presentation on the Future Land Use Plan Policies is contained in the following series of policy statements. Like the mapped information mentioned above, these statements represent the recommendations of Partners in Planning. The rational behind each policy recommendation is included in the discussion of each item. The order of the items discussed below follows the same legend outline appearing on the map exhibits.

6.1. Agricultural Land Use Policies. To the greatest extent possible, the "prime farmland" and "additional farmland of statewide importance" shall be designated for agricultural purposes only. These two classes of farmland shall be in accord with the May, 1979 soil mapping interpretations prepared by the U.S. Department of Agriculture, Soil Conservation Service of Stephenson County, Illinois.

Presently, 68% of Stephenson County is classified as "prime" and 23% is classified "additional farmland of statewide importance", which is a total of 91% of the county. The majority of all flood plain land in Stephenson County is included in these two farmland classifications. The balance of the land in Stephenson County is defined as "other land" (1%), "water areas" (0.01%), and land within the "approximate limits of urban growth" (8%), which is a total of about 9% of the county.

The Future Land Use Plan map for Stephenson recommends that the area of land within the "future urban growth boundaries" not exceed 9% of the county over the next 20 years. The 1% change represents about 3,600 acres of land, which would accommodate all foreseeable future urban land use changes. These foreseeable changes include: 1) the construction of the U.S. Route 20 Freeway west of Freeport; 2) all future urban use and park land development around the City of Freeport; 3) all new development around the rural villages in the County; 4) the expansion of Albertus Airport; and 5) the full development of the Springfield Rd/U.S. Route 20 industrial area.

In addition to the general policy of limiting the total amount of land for future non-agricultural use, others agricultural area policies are needed. Their purpose is to reinforce the County's policy of conserving the agricultural base of the county. There will continue to be a need to accommodate a wide range of isolated and specific non-agricultural uses in the area mapped for agricultural use. In this regard, the current County policy of utilizing "special use permit" zoning, rather than "spot rezoning", should be maintained. However, specific standards for each and every permitted special use should be incorporated into the Stephenson County Zoning Ordinance for consistency of application. Also, the County's current adopted policy of utilizing the "Land Evaluation Site Assessment" (LESA) should continue to be utilized as a basis for measuring the impact of each proposed change to non-agricultural use.

6.2. Estate Residential Land Use Policies. This land use classification refers to new detached single family residential subdivision developments of two or more homes on large lots. The homes in such subdivisions are usual-

ly served by individual well and septic systems, and the minimum lot size is 2 acres. Developments of two or more homes on lots of one acre or larger, which are served by sanitary sewer, are also classified as estate residential. The estate residential represents the lowest density of residential development included in the plan.

In general, estate residential housing has a higher value because of the larger lot sizes. Within the greater Freeport area, estate residential development has traditionally served as a transitional land use between built-up urban community and the rural countryside. The Future Land Use Plan maintains this general policy subject to the other policy recommendations listed below.

The Future Land Use Plan recommends a policy that all new estate residential development lie within an area that will ultimately be served by public sanitary sewer services. Septic systems may only be used on a short term interim basis if guarantees are provided for ultimate connection to a sewer system. Furthermore, all final plats of subdivision for new estate residential developments with lots served by septic systems shall have an easement area on each lot reserved solely for the septic field and expansion area. The location and size of the easement area shall be approved by the Stephenson County Health Department.

In addition, this plan recommends a policy that all new subdivision plans provide pedestrian walkways or trails that interconnect with adjoining residential developments and recreational facilities. When sanitary sewer service is initially installed, lot sizes, but not the overall project density, should be reduced to provide a minimum of 30% to 40% of common open space within the development. This is a planning technique commonly referred to as clustering. The common open space should be contiguous to all homes in the project, and used for: 1) active and passive recreational purposes; 2) trails and pedestrian circulation; 3) stormwater management purposes including natural drainageways, detention and preservation of flood plains; and 4) protection of other unique natural features like forest groves or wetlands.

In existing unincorporated Stephenson County, the Future Land Use Plan map for

greater Freeport (Areas 13, 14, 18 & 19) limits future expansion for estate residential use to the sanitary sewer watershed areas that are: 1) west of Freeport; 2) north of Freeport along Ill. Rte. 26 corridor; and 3) northeast of Freeport along the Ill. Rte. 75 corridor. Numerous existing large lot developments are included within these same 3 areas and represent about half of all the land designated for this estate residential use. In addition, and within incorporated Freeport, several limited areas of either existing or future estate residential use are mapped. These areas are generally in the vicinity of Krape Park.

In the remainder of Stephenson County, outside of the greater Freeport area, only existing developed or zoned land is mapped for estate residential use. However, this use may be appropriate for selected areas adjoining the rural villages of the county provided it meets the same basic policy standards described above for the greater Freeport area.

6.3. Residential Land Use Policies. This land use classification, residential, refers to all urban residential uses other than estate residential and rural farm residences. The residential classification includes a wide range of housing types such as single family detached units, duplexes, townhouses or rowhouses, multi-family, and group housing buildings, which may be either owner or renter occupied, and which are served by public water and sanitary sewer services. The overall average density of this land use is in the range of 3.5 dwelling units or 10 people per gross acre of development.

It is the policy recommendation of the Future Land Use Plan that the residential classification be the dominant new housing development pattern. In addition, the following list of policies should apply. For all new developments larger than 3 acres or about one block in size, there should be a planned mix of housing types with a maximum of 50% of the units being single family detached housing units. This is commonly referred to as the "planned unit development" or PUD approach. Also, every new development should provide the same minimum of 30% to 40% of the project area in common open space through clustering, as described above under the estate residential policies. Again, all new developments should meet the same pedestrian circulation standards spelled out for the estate residential classification.

Included in the residential use classification is the land required for other neighborhood activities directly associated with housing. These related uses include churches, schools and like institutional activities. Also, scattered neighborhood business and service uses are included if designed to serve the walk-in trade of the surrounding area. Altogether, the blend of mixed uses envisioned in the new residential areas should create a more traditional and heterogeneous setting. The uniform suburban development pattern introduced in the 1950's should be avoided.

The above policies require a more flexible design and planning approach to new residential development than inherent in most of the community's existing zoning and subdivision regulations. These regulations should be updated or expanded to permit and encourage the policies contained herein. The private development sector should fully participate in that process.

The areas mapped for future residential land use development in unincorporated Stephenson County are predominantly adjoining Freeport. They are limited to a narrow compact band around the west/southwest and north/northeast sides of Freeport, and totals about 1,500 acres. This same general pattern is evident in the 1970 Stephenson County and the 1980 City of Freeport land use plans. It should be noted that the total amount of land shown for future residential use exceeds the projected need based on current population growth trends. But, the area designated represents where sewer and water utility extensions can most easily and efficiently be extended.

Some other limited areas for residential use are appropriate where they adjoin the rural villages in the county. But they need to meet the same basic policy standards described above, and should comply with the policy recommendations for Village Planning Areas discussed below.

6.4. Business Land Use Policies. The business land use classification is used in the Plan to describe those areas where a broad range of retail and service businesses are concentrated. The purpose of the business land use classification is to serve the greater community and the region. The business land use classification may include neighborhood level business uses described in the residential land use policies section above.

The Plan recommends that any new business land use areas be located in a few compact areas near major highway intersections. In the past, the plans for new business use were spread out and extended along the highway frontage, a practice known as the "strip commercial" approach. The numerous disadvantages of strip commercial planning and development are well documented.

The emergence of shopping centers or malls in the 1950's and 1960's was a planning and development technique use to make shopping a more customer friendly experience. But, these new shopping centers required a large population base and good highway accessibility to be successful. Smaller communities, like Freeport and Stephenson County, do not have that required population base. As a result, and in communities like ours, the so called "strip malls" began to replace the traditional strips of individual business structure along major roads. Beginning in the 1980's, "big box" national chain stores began to successfully compete against both traditional "strip commercial" and "strip mall" developments. The "big box" developments located at the fringe of communities were also a major factor that led to the decline of the central business areas in small towns across the nation. All of these historical factors have been taken into account in considering the business land use policies contained in the Plan.

It is the policy of the Plan to concentrate new business land uses to: 1) maximize the cumulative attraction of a mix of different businesses; 2) simplify traffic control; and 3) minimize the negative impact on adjoining land uses. The locations for concentrating large new Business uses are near the interchanges of the U.S. 20 Bypass and Illinois Routes 75 and 26, and at the future Bolton Rd. interchange area west of Freeport.

Several smaller areas are also mapped for business land use, and some of these represent opportunities to expand existing business use concentrations. The others would serve future community level business needs in the new outlying residential area west of Freeport. All these smaller areas adjoin major roads.

The redevelopment planning for the City of Freeport Central Business District (CBD) is one of Special Planning Areas included in the Plan. The beginning phase of the work on this project have just begun. Identifying appropriate new

business uses for the CBD is one task being pursued. For example, some of the potential new CBD uses may well fall into the broad category of businesses that typically gravitate to outlying business locations. Therefore, during the interim while the CBD plan is being prepared, it is our recommended policy that all new business development proposals be evaluated for their possible location in the Freeport CBD. This policy recognizes the evolving process taking place. Only thereafter should the required zoning or development permits be issued. The intent of this policy is to steer new business development where it will best serve the community as a whole.

6.5. Manufacturing Land Use Policies. This land use classification includes the whole spectrum of industrial, heavy commercial, warehousing, and distribution facilities associated with the manufacturing economy of the community. By necessity, these facilities need to be located in close proximity to the transportation network, both rail and highway. Earlier in this century, most of these activities were located in compact multi-story buildings in and around the central area of Freeport. To retain this economic base today; manufacturing facilities require large sites, which offer maximum flexibility to accommodate their needs. This new pattern of land development for manufacturing land uses is well established in the outskirts of the greater Freeport area.

It is the policy of this Plan to reserve additional land for the expansion of manufacturing land uses. The areas designated on the Plan are near the existing outlying concentrations. The necessary public services and utilities can be readily extended. The location of the four major areas for this expansion include: 1) Lamm Rd./III. Rte. 26 area on the south side of Freeport; 2) the far east side of Freeport just west of Yellow Creek; 3) the far northeast side of Freeport along III. Rte. 75; and 4) east U.S. 20 business route corridor between Yellow Creek and the Springfield Rd. manufacturing area. Altogether about 500 acres of undeveloped land is designated for future manufacturing land use. The undeveloped land designated for new manufacturing land use represents the second largest area, after residential, within the future urban growth area around Freeport.

Chapter 7: Economic Development Districts

Chapter 6 of the Plan summarized the recommended policies for business and manufacturing land use. The purpose of this chapter is to describing various Economic Development Districts in the greater Freeport Area (Areas 13, 14, 18 & 19). These are the areas where the majority of the business and manufacturing land uses are concentrated.

The Economic Development Districts include a mix of both existing developed and vacant land, and various mixes of business and industrial land use. The purpose of this description is to highlight those areas within the community where related public and private economic development and redevelopment efforts should be focused.

The extent of these Economic Development Districts are illustrated on the supplemental map provided for that purpose. These districts, selected characteristics, and some of the future development planning issues for each are described below.

- 7.1. Freeport Central Business District. The Freeport central business district includes a broad mix of business, some manufacturing uses, and other regional service and governmental activities. This area, the historical center of the County, is considered the primary area for redevelopment within the community. Specific planning policies for the Freeport central business district are discussed in detail under the Special Planning Areas Policies section of the report. That part of the central business district lying east of Galena Ave. is also located in the Freeport/Stephenson County Enterprise Zone.
- 7.2. South St./West Ave. Shopping Area. This area contains the major concentration of retail businesses and services in the region. The district's location around the intersection of two State highway routes is its primary asset. Some of the land within this district is also classified for manufacturing and related uses There is still some undeveloped land, which is located in the Freeport-Stephenson County Enterprise Zone. A more user friendly system of pedestrian and vehicular circulation between adjoining land uses represents the major challenge for sustaining the future attraction of this district.

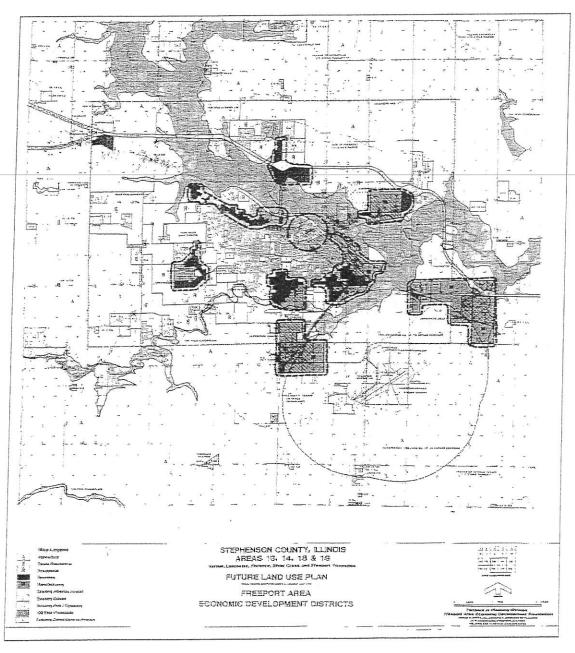
- 7.3. W. Galena Ave./U.S. 20 Shopping Area. This "strip commercial" area extends for two miles along the frontage of Business U.S. 20. It begins at Illinois Route 26 (West Ave.) on the east and ends at the west boundary of Freeport near Lily Creek Rd. and the Preston Creek bottoms flood plain area. The abandoned rail yard industrial area at the northeast corner of this district is included. The eastern terminus of the area at Illinois Route 26 is considered a gateway to Freeport. The whole area represents the second largest concentration of retail business activities in the region. Upgrading the appearance, and creating nodes of compatible business activities represent the two highest redevelopment priorities for the area.
- 7.4. U.S. 20/South St./Adams Ave. Manufacturing and Business Area. This area is the second largest of the economic development districts described. The area anchors the east side of Freeport west of the Yellow Creek flood plain area. The manufacturing activity in the area was originally served by three railroads. Two of the railroads are now abandoned, and the only active railroad skirts the north boundary of the district. Retail and service business are concentrated on the frontage along the U.S. 20 and West Ave. Small and large parcels of vacant land suitable for new manufacturing and business development are scattered throughout the district. The area is considered the eastern gateway to Freeport. Most of the land in this district is located in the Freeport/Stephenson County Enterprise Zone. Both the continued development and redevelopment of the area are dependent on creating a coherent identity and upgrading the internal street systems.
- 7.5. Ill. Rte. 26/Lamm Rd. Manufacturing Area. This roughly one square mile area is located east of III. Rte. 26 at the south edge of Freeport. Open farmland surrounds the district on the west, south and east. It is the third largest of the districts described herein. More than half of the land is vacant. Modern manufacturing facilities that require large box buildings on large site are located in this district. This area has been the location of most new industrial facilities established in the community within the past two decades. Additional highway access to the east of the district would be desirable and is discussed in detail under the III. Rte. 26 Bypass Policies section of the report. Most of the land district is located in this

- Freeport/Stephenson County Enterprise Zone. An amendment to the Freeport Facilities Planning Area (FPA) map to include all of this district was approved by the Illinois EPA in April, 1999. The Illinois EPA administers the FPA program for the purpose of overseeing the planning and development of municipal sanitary sewer facilities.
- 7.6 Highland Community College/Professional Office Area. This area includes both the Highland Community College campus and the surrounding professional office uses. Two main streets serve the area, which are Kiwanis Dr. (north-south) and Pearl City Rd. (east-west). Both large vacant parcels and some subdivided lots are still available for future development. The area may be described as a low density suburban setting. Pedestrian circulation both within the district and connecting to adjoining residential areas needs to be addressed. Likewise, major street intersections will need upgrading as traffic increases over time.
- 7.7. U.S.20 Bypass/III. Rte. 26 Business Area. The full four-way interchange at this location provides very high accessibility for the land fronting on III. Rte. 26. Currently, public water and sewer utilities are being extended to the area. The largest vacant parcels in the district are located to the southeast of the interchange. The development of a new internal roadway network to serve the area is the primary site development issue be addressed. The proposed Jane Addams Trail passes along the south edge of the district. The trail offers a unique opportunity for establishing tourist oriented business development.
- 7.8. U.S. 20 Bypass/Ill. Rte. 75 Manufacturing Area. Located at the far northeast side of Freeport, this area is primarily vacant at the present time. Currently, the only local street access is from III. Rte. 75, and additional internal roads will be required. This district is the most appropriate location in northeast Freeport for future non-residential use, and some of the land is designated for business use as well as for manufacturing use. All the land in this area is within the Freeport/Stephenson County Enterprise Zone. Creating a uniform identity along III. Rte. 75 represents an opportunity for increasing the appeal of the district for new economic development activity. To that end, a recent "way-finding" State grant application has been made.

7.9. East U.S.20 Manufacturing/Industrial Area. This area is the largest of the Economic Development Districts. It extends from the Yellow Creek two miles east to Silver Creek, and is centered along Business U.S. 20. The area is also served by the only active railroad in the county. The Kelly-Springfield plant is located at the east end of this district. Most of the land is currently zoned for manufacturing purposes.

Figure 1: Freeport Area Economic Development Districts

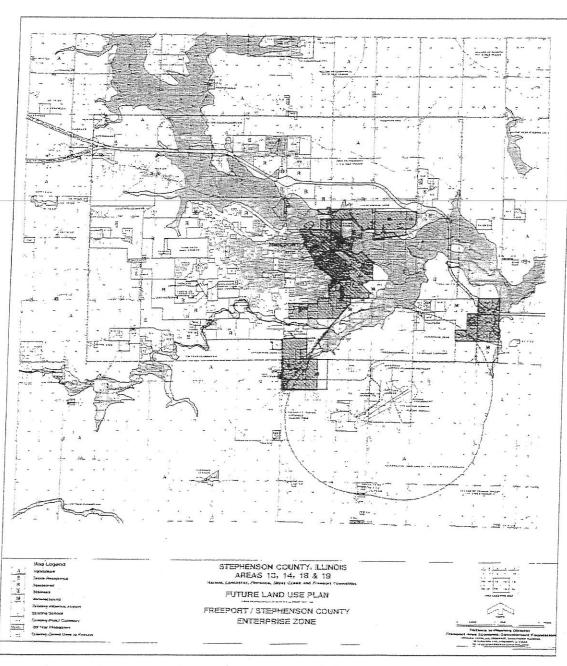
About one third of the area is within the Freeport/Stephenson Zone. Likewise, a large portion of this district is undeveloped. The land all around this district is predominantly open farm land in Silver Creek Township. The extension of municipal sewer and water utilities will stimulate the future development of this district. The recent amendment to the Freeport Facilities Planning Area (FPA) map also included all of this district.



7.10. Henderson Rd. Industrial Area. This district is the oldest of the areas described in this chapter. It is the historic location of industrial development on the banks of the Pecatonica River just east of the Central Business Area. Except for a small area near Henderson Rd. and Lancaster Rd., all of this district lies within the 100 year flood plain of the Pecatonica River.

Some land_within this district is also located in the Freeport Enterprise Zone. The Plan recommends that future economic development activities in this area focus on commercial recreational uses, or public uses compatible with the environmental constraints associated with flooding. This item is also discussed in the Regional Recreation & Open Space Plan Policies chapter.

Figure 2: Freeport/Stephenson County Enterprise Zone



Chapter 8: Special Planning Areas Policies.

Partners in Planning has identified several Special Planning Areas as places requiring special policies regarding future land use considerations. At this time, the map exhibits do not contain a detailed delineation for future land use in territory defined for each of these Special Planning Areas. However, the policy recommendations set forth below are intended to guide the process for future amendments to the plan maps. The decision to approach these Special Planning Areas in this manner was arrived at after considering all the special issues and concurrent planning activities associated with each one. Furthermore, we find that this course of action is consistent with the Chapter 3, Primary Future Land Use Plan Goals and the Chapter 4, Primary Planning Process Goals.

8.1. Albertus Airport Planning Policies. Albertus Airport is the property of the City of Freeport, which is responsible for its operation. The airport property itself lies near the center of Silver Creek Township in unincorporated Stephenson County. Also, the property is located more than 1-1/2 miles from the nearest boundary of the City of Freeport. The April, 1999 amendment to the Freeport FPA map includes the airport. It is the recommended policy of the Plan to extend the City of Freeport sewer and water utility systems to serve Albertus Airport.

A long range development plan for the airport has been prepared by the City of Freeport. That plan meets the safety requirements and operational guidelines of the Federal Aviation Administration (FAA). The safety requirements include the air space for several miles around the airport. These air space safety requirements are regulated by ordinances of both the City of Freeport and Stephenson County. In addition, the Stephenson County zoning regulations also strictly limit building height of land use activities on the ground immediately surrounding the airport. The plan recommends that all these airport safety zoning standards for the area surrounding the airport be maintained.

The airport development plan also provides the framework for transforming the property into a major community transportation facility supporting other economic development activities of the region. It is the policy of the Future Land Use Plan to support the expansion and further development of the airport. By State Statute, and except for zoning, all other building and development code requirements on the airport property are under the jurisdiction of the City of Freeport. Currently the property is only zoned A-1 Agricultural in Stephenson County. The County zoning does allow airports as a special use in the A-1 zone. But, to date no special use permit has been granted for the Albertus Airport property.

Therefore, it is recommended that the airport property be rezoned to a Stephenson County A-1 Airport Special Use zoning classification. Furthermore, it is recommended that the petition for rezoning be initiated jointly by both the City of Freeport and Stephenson County. We believe that a grant of special use in accordance with the airport development plan will aid in stimulating the economic development activities envisioned for the airport property.

Freeport Central Business District Planning Policies. Planning for the revitalization of the Freeport central business district is a work in progress, and is being sponsored by the Freeport Downtown Development Foundation (FDDF). Most planning policy matters for the central area will evolve and be detailed as part of that on-going effort. Except for the interim policies recommended in the Business Land Use section, Partners in Planning recommends that consideration of specific future land use policies for the Freeport central business district area be deferred until the first phase of the FDDF effort is concluded. When the planning policies have been formulated, the Future Land Use Plan should be amended to include them.

The recommended physical limits for the area covered under this section of the report are delineated on the detailed Central Business District map prepared by Partners in Planning. The area is also outlined on the Future Land Use Plan map for the greater Freeport (Areas 13, 14, 18 & 19). This area is extends from West Ave., Ill. Rte. 26, on the west to Float Ave./Henderson Ave. on the east, and from Pleasant St. on the south to the north side of the Pecatonica River. Within the area, the consultants for FDDF are further delineating a primary core area and a surrounding contextual area of influence.

8.3. Village Planning Area Policies. There are 10 incorporated rural villages in Stephenson County. The preparation of a Future Land Use Plan for each village was anticipated when the Partners in Planning program was started in 1996. But, to date, none have joined Partners in Planning. However, their existing land use policies have been taken into account in the preparation of the Plan. Their jurisdictional boundaries, 1-1/2 mile radius extraterritorial limits, and their State of Illinois FPA boundaries are all depicted on the Future Land Use map. The FPA boundary for the Village of Lena is based on pending plans for extending village utilities and pending FPA boundary amendment petition to the State.

It is the policy of this Plan that each of these rural villages be actively solicited for participation in the continuing planning process established for Partners in Planning. The goal for this action is to again generate a seamless Future Land Plan for each village and the county.

We further recommend the policy that future land use changes in the unincorporated area within the respective village FPA boundaries be consistent with all the applicable policy standards contained in Chapter 6, Future Land Use Policies. This is especially important when such changes involve the potential extension of public services and utilities. Intergovernmental agreements for joint County/Village planning, zoning and development review may be required and should be pursued if necessary. For the present time, the Future Land Use Map maintains the present pattern of County zoned land use within the 1-1/2mile spheres of influence of all the rural villages.

Chapter 9: Regional Recreation & Open Space Plan Policies

This section of the Plan has been prepared as a supplemental document to the Future Land Use Plan. The area mapped to illustrate these policies only covers greater Freeport section of the county (Areas 13, 14, 18 & 19). Many of the recreation and open space uses discussed may require public land acquisition and development. Therefore, the delineation of the location of specific recreation and open space uses on the map is less exact than for the other land use classification covered in Chapter 6. The types of land uses set forth in Chapter 6 can be zoned. The recreation and open space uses cannot. But, the lack of exactness provides flexibility if sites have to be purchased by the public.

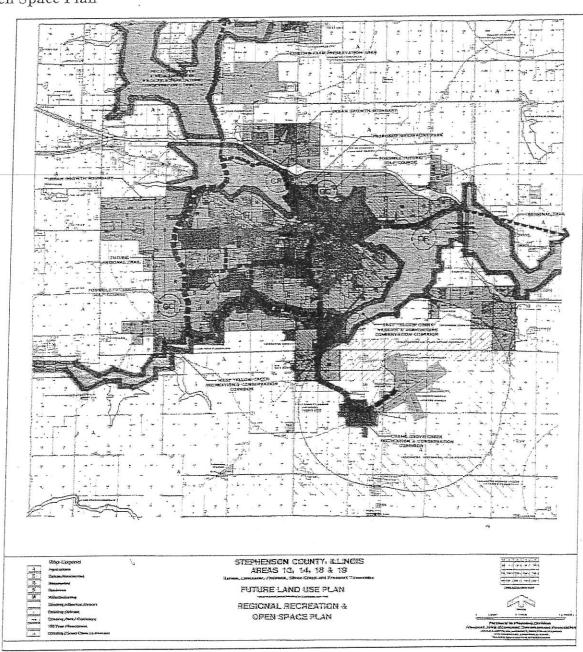
- 9.1. Flood Plain Land Policies. One of the major geographic features in the county is the 100 year regulatory flood plains along the major river systems. The rivers and their flood plains form natural environmental corridors that define the landscape. No new urban land uses are proposed in these flood plains. Instead, the policy of the plan is to designate these areas as wildlife, agriculture and conservation corridors. The narrow corridors along both Crane Grove Creek, and that part of Yellow Creek west of Ill. Rte. 26 are also designated for recreational use. These two narrow corridors are ideally suited for greenway trail type use and to link existing park properties.
- 9.2. Riverfront Park Policies. Land within the Pecatonica River flood plain is recommended for a future public park and recreational area adjoining the Freeport central business area. The area recommended for consideration begins at the new public wetland preserve park on the west side of III. Rte. 26 and extends east to Taylor Park. Several hundred acres of undeveloped flood plain land are located here. Also, numerous small developed parcels and lots in Freeport's east side are in the vicinity. Many of these developed properties regularly experience the hazards associated with being in a flood prone area. Eventually these properties will need to be retired from their existing urban use. It is the policy recommendation of this plan that a program of voluntary public purchase of these properties be initiated, and that the properties be added to the proposed riverfront park holdings. Due consideration must also be given to the

social issues inherent when such a change takes place.

9.3. Recreational Trail Policies. The plan recommends that a regional trail system be developed in Stephenson County. This policy is already well established and supported by the local community as well at the State of Illinois. Many of the organizational, planning and engineering activities have begun for the

Stephenson County Jane Addams Trail and the Pecatonica Prairie Path portions of the Grand Illinois Trail system. The Plan also recommends that the trail system pass through the Freeport central area, and that the land in this location be improved as a major trail head facility. Also, it is recommended that planning for the future

Figure 3: Regional Recreation & Open Space Plan



expansion of the trail network throughout the community be a component of the continuing planning process established by the plan.

9.4. Golf Course Policies. The game of golf is growing. The sport is enjoying unprecedented popularity, and demand is beginning to exceed supply. The golfing industry projects that two additional new golf courses may be feasible for the greater Freeport area in the near future. Therefore, the Plan recommends that the general location for them be included. Furthermore, it is the policy position of the Plan that new golf courses only be located within the urban growth boundaries established in the Plan. They should not be located in the agricultural area surrounding the city. Two specific general locations are suggested. One is within the residential use area north of downtown Freeport. Perhaps it could be a part of the riverfront park complex. The other golf course is shown in the estate residential/residential area west and southwest of the city.

9.5. Commercial Recreation Policies. Most common commercial recreation uses, like campgrounds and sporting clubs, are seasonal and tourist oriented. It is the policy of the Plan to only consider proposals for such uses on a case by case basis. There are numerous variables involved which may adversely impact neighboring uses or the general pattern of land use. These uses can be found in both rural agricultural areas as well as in, or next to, urban area. Neither location should be precluded. The approximate location of two recently approved projects are illustrated on the Regional Recreation & Open Space Plan map.

Chapter 10: Future Regional Highway Policies

The modern highway system in Stephenson County provides the structural framework for the future land use pattern and development of the region. These roads are especially critical for maintaining and improving our economic status. The planning, development and financing of new highways requires a very long-term public commitment and effort. Therefore, this document will only focus on two such projects that will directly impact the future land use plan for the relatively short period of the next 20 years or so.

10.1. U.S. Rte. 20 Freeway Policies. The completion of the planning process and the construction of a new four lane divided U.S. Rte. 20 Freeway west of Freeport represents the highest priority transportation planning item for the region. The Future Land Use Plan illustrates the alternative corridors now being studied by the Illinois Department of Transportation (IDOT). The detailed preliminary alternative plans were unveiled by IDOT in February, 1999. One alternative corridor has been established to accommodate an expressway design, and generally follows existing U.S. 20. The other corridor is located about one half mile north of U.S. 20, and would be the location for a new limited access freeway. The Plan has been designed to work with either. But, we prefer the freeway design. We have been convinced by the planning and engineering work done by IDOT that this choice makes the most sense. The Freeway alternative reinforces the Primary Future Land Use Plan Goals listed in Chapter 3.

10.2. Ill. Rte. 26 Bypass Policies. Consideration has also been given to the need for other highway links serving greater Freeport. The focus of our study has been to look at an III. Rte. 26 bypass highway that interconnects the major land uses in the southeast quadrant of the Freeport area. The geographic area includes two major manufacturing concentrations and Albertus Airport. The remainder of the quadrant southeast of Yellow Creek is predominantly agricultural. Alternative alignments were investigated, and possible extensions to the southwest of Freeport were studied. These concept were submitted to IDOT for evaluation and comment. The February, 1999 III. Rte. 26 Bypass Study is in Appendix C.

Based on this work, a general highway alignment within a wide corridor is included on the Future Land Use Plan Map. This is our preferred location for a bypass. Also, an alternative outlying rural bypass highway planning corridor, but no highway alignment, is shown on the map. The outlying rural highway corridor was suggested by IDOT. It is the recommendation of the Plan that the study of a bypass highway should be continued under the direction and leadership of IDOT. Further, it is the policy recommendation of the Plan that the bypass should connect to the primary roads, which provide access to the two manufacturing concentrations as well as the airport. The bypass should terminate at the interchange located on U.S. 20 at or near Springfield

Appendix A: Notes on Geographic Information System (GIS) Research.

The other major research study undertaken by Partners in Planning was a determination of the feasibility of starting a computer based "Geographic Information System" (GIS) for the Stephenson County area. This project was started in the Fall of 1996 and pursued through the Spring of 1997. This research was given early priority attention. It held the promise of being a state-of-the art tool for organizing and managing all the planning activities envisioned over the next three years and beyond.

The research effort looked at both local public and private user needs. The system would be owned and sponsored by Partners in Planning. Other potential system users were interviewed. The local government public agencies contacted were the City of Freeport Community Development and Public Works departments, the Freeport Township Assessor, the Stephenson County Zoning Administration and Engineering departments, and the Stephenson County Assessor. Additional input was obtained from the Stephenson County Soil and Water Conservation District and Highland Community College.

Various hardware, software, and network designs were considered, and a number of GIS products on the market were tested. The scope and quality of the data base information in the system evolved as the controlling variable, especially the base mapping system used. Further advice was solicited from several experts in the field of electronic base mapping for GIS applications. These included the two major GIS software providers, the City of Freeport engineering staff and their consultants, and Northern Illinois University. Several trial applications were demonstrated.

Thereafter, the time and cost for creating the data base and electronic base mapping for Stephenson County was calculated. We were shocked at the results. It was estimated that it would cost a minimum of \$500,000 and take about 5 years time just to create the base map files for the system. The annual cost for updating and maintaining these files was in the neighborhood of \$50,000 a year.

In addition, there was the initial cost for computer equipment, software and system training in the range of \$100,000. On top of that was the cost for ongoing system management and operating expenses estimated at about \$50,000 per year. Taken altogether, it was clear that the original expectation for a computer based GIS program was not feasible at the present time due to the costs involved. In the end, the high cost and 5 year start-up time required precluded any further consideration for going in this direction.

Appendix B: Pecatonica River Flood Plain & Floodway Study

Introduction. This study has been prepared at the direction of the Partners in Planning Board as requested at the Dec. 1, 1998 Board meeting. Flooding along the Pecatonica River in the vicinity of downtown Freeport greatly affects the Future Land Use Plan, as well as Freeport's East Side and current Central Area planning activities. All available reports, regulations and mapping for the study area were collected and reviewed. These materials include the following:

A. City of Freeport

A.1. 1976 Freeport FEMA Flood Insurance Study.

A.2. 1977 Freeport Flood Boundary & Floodway Map 01F.

A.3. 1977 Freeport Flood Hazard Boundary Map H-01.

A.4. 1977 Freeport Flood Insurance Rate Map I-01.

A.5. 1994 Freeport Code, Chapter 1460, Flood Management Areas.

B. Stephenson County

B.1. 1977 Stephenson County FEMA Flood Insurance Study.

B.2. 1982 (Revised) Stephenson County FEMA Flood Insurance Study.

B.3. 1982 Stephenson County Flood Insurance Rate Map Panel 125.

B.4. 1982 Stephenson County Flood Boundary & Floodway Map Panel 125.

B.5. 1996 Stephenson County Code, Section 17, Development in Flood Hazard Areas.

C. U.S. Army Corp of Engineers (USACE)

C.1. 1992 Topographic Maps (7 sheets).

C.2. 1995 Reconnaissance Report for General Investigation Study, Freeport on Pecatonica River, Illinois, Flood Control Project, Water Resources Development Act of 1990.

D. IDOT Division of Water Resources (IDOT/DWR)

D.1. 1996 Local Floodplain Administrator's Manual

In addition, telephone interviews were conducted with officials of both FEMA, IDOT/DWR, and the USACE. A study area topographic base map was constructed from the 1992 USACE topographic maps. The flood ele-

vations, section identification lines, and flood plain and floodway data from all sources were added to the base map. For comparison purposes, five colored exhibits were prepare to illustrate the flood plain and the floodway data collected. Partners in Planning's observation with regard to the exhibits and other data collected is presented in outline form below. We hope that this information and analysis will assist the Board in considering our Future Land Use Plan policy recommendations.

Observations: 100 year flood plain boundary (Based 2/2/1992 topographic mapping)

A. Freeport 100 year flood plain boundary. The extent or width of the outer flood plain boundary from the 1976/77 Freeport FEMA Study and the 1992/95 USACE Study are almost identical. The differences in elevation all occur against steep embankments. The one foot maximum difference in elevation only affects Ill. Rte. 26. The Freeport elevation of 768 puts some of Ill. Rte. 26 in the flood plain. The USACE elevation of 767 removes the road from the flood plain. The Freeport FEMA study flood plain surface profile was generated by utilizing the USACE HEC-2 computer program.

The 1976/77 Freeport FEMA Study maps showed a number of "islands" of high land within the flood plain. These are located along E. Stephenson St., Adelbert Ave., and Henderson Rd. Based on the 1992/95 USACE topo map, the ground level at these "island" locations is about two to three feet below the 100 year flood elevation.

- B. Stephenson County 100 year flood plain boundary. Based on the new USACE mapping, the north flood plain boundary line of the 1982 Stephenson County FEMA study is extending outward. The area of greatest change is generally north of Taylor Park. West of Henderson Rd. there is very little difference between the two studies. The flood plain profile was generated by utilizing the 1971 Soil Conservation Service WSP-II computer program.
- C. <u>USACE 100 year flood plain boundary</u>. The 1992/95 USACE detailed topographic mapping shows the greatest extent of flooding in the study area. According to this study there are no so called "islands" free of flooding. The water surface profiles depicted were generated by utilizing an "updated" HEC-2 computer program.

D. IDOT/DWR flood plain boundary. Based on several interviews with the IDOT/DWR staff, this agency utilizes the detailed definition of the 100 year flood plain as depicted on the USACE maps. As noted in the USACE report, it was determined that III. Rte. 26 was not in the 100 year flood plain, and this determination was made in consultation with IDOT.

Observation: 100 year floodway boundary

- A. Freeport floodway. The 1976/77 Freeport study maps the floodway in a relatively narrow corridor along the river. In the vicinity of the new 1992/95 USACE mapping area this corridor ranges in width from 240' to 550'. The width of the floodway in the 1976/77 study is about 1/10 as wide as depicted in the 1982 Stephenson County study (see below). In the 1976/77 Freeport study, the floodway at location "T" is 330' wide, has a cross section area of 3,700 sq.ft., and a mean velocity is 8.1 feet per second (3,700 x 8.1 = 30,000 cfs). If property is annexed to Freeport, then the Stephenson County floodway map applies.
- B. Stephenson County floodway. The 1982 Stephenson County study maps the floodway in a relatively wide corridor along the river. In the vicinity of the new 1992/95 USACE mapping area this corridor ranges in width from 3,484' to 4,268'. The width of the 1982 Stephenson County floodway is about 10 times wider than mapped in the 1976/77 Freeport study. In the 1982 Stephenson County study, the floodway at Van Buren St. near location "I" is about 3,663' wide, has a cross section area of 19,998 sq.ft., and a mean velocity of 1.21 feet per second (19,998 x 1.21 = 24,200 cfs).
- C. <u>USACE floodway</u>. The 1992/95 USACE study does not define a floodway. The USACE study only references the two floodway studies for Freeport and Stephenson County, which are described above. The USACE study does describe the 100 year flood peak discharge of water near location "T" as 21,900 cfs, but does not describe the mean velocity.
- D. <u>IDOT/DWR floodway policies</u>. Any development within an area defined as a floodway on either the Freeport or Stephenson County FEMA Floodway map requires a permit from IDOT/DWR. This requirement is set forth in Sec. 17.6.a.(I) of the Stephenson County Code, and in Sec. 1460.05(d) of the City of Freeport

Code. When IDOT/DWR reviews an application for a development permit, they only consider the floodway as depicted on the floodway map where the development is located.

When there is a difference in floodway mapping between adjoining jurisdiction, IDOT/DWR recommends that the local jurisdictions use a floodway that includes all flood plain areas between the outer limits of the respective floodway maps. This is a common problem throughout the State. New flood plain/floodway maps to correct this inconsistency are under study between FEMA and IDOT/DWR. But, no schedule for completing this work has been set because of a lack of funding.

Partners in Planning prepared a map, D - IDOT Division of Water Resources, to illustrate how IDOT/DWR's recommendation applies to the study area.

Figure 5: 1982 Stephenson County Flood Plain & Floodway

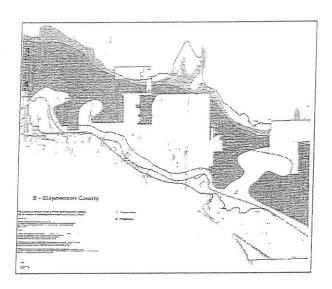


Figure 4: 1977 City of Freeport Flood Plain & Floodway

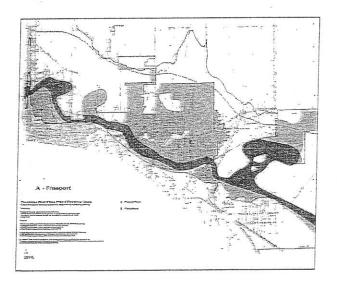


Figure 6: 1977 Freeport + 1982 Stephenson County Flood Plain & Floodway

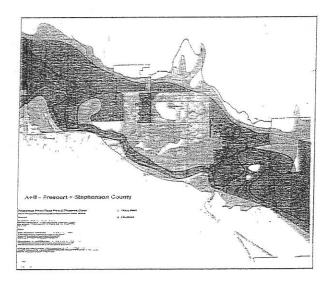


Figure 7: 1995 U.S. Army Corps of Engineers Flood Plain

C -U.S. Army Corps of Engineers

Figure 8: 1998 IDOT/IDNR Flood Plain & Floodway

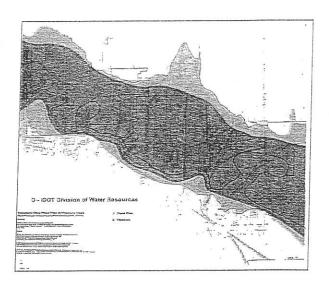


Table 2: Observations: 100 year flood plain elevation (based on all 3 study sources)

Location E. to W. (Freeport Map Code)	1. Freeport (bold number	2. S. County rs = highest elevat	3. USACE on)	
С	760	759.5	760	
E	761	760	761	
F (Hancock)	762	761	762	
G (Adelbert)	763	762	762.5	
H (Stephenson/Hancock)	764	763	763	
I (Burgess)	765	764	764	
J	766	764.3	765	
K (Van Buren)	767	764.5	766	
M (III. Rte. 26)	768	763	767	

Appendix C: Ill. Rte. 26 Bypass Study

Introduction. This study has been prepared at the direction of the Partners in Planning Board as requested at the Dec. 1, 1998 Board meeting. The specific charge is to recommend two III. Rte. 26 Bypass "corridor" alternatives for inclusion in the Future Land Use Plan for Freeport and Stephenson County.

5/1997 III. Rte. 26 Bypass Plan. The first alternative is based on the concept plan previously prepared and dated 5/1997. A copy of the two maps illustrating the plan are attached. This alternative was submitted to William D. Ost, District Engineer, IDOT, District 2 for his review and comment. The plan was discussed with Mr. Ost in July, 1998. The purpose and description of the 5/1997 bypass plan is described in the following summary, which was provided to Mr. Ost

"Currently, the Albertus Airport Commission is also formulating a long range plan update for the greater area around their facilities. Again, we are participating in that program. The airport represents the major public facility in the southwest quadrant of the greater Freeport planning area. Out of these initial discussions has emerged the concept of a new highway and development corridor linking the airport with both the US 20 Freeway east of Freeport and Illinois Route 26. This concept is illustrated on the enclosed maps titled "Ill. Rte. 26 East Bypass Study - 5/1997."

The proposed "Ill. Rte. 26 East Bypass Corridor" is also envisioned as the most appropriate area in the region for expanding industrial and commercial land development. The planned expansion of the airport itself is a natural part of that future land use pattern. The bypass corridor also lies along the most feasible route for extending and looping water and sewer services for new development. Both the eastern and western ends of the bypass corridor are partially development and are presently within the Freeport/Stephenson County Enterprise Zone.

The proposed bypass corridor also lies outside of any major flood plain or environmental corridors. The environmental features of the area strictly limited future development activities to the north and southwest of Freeport. The recog-

nition of these natural limitations also adds validity to the proposed east bypass. For our area, the relatively flat topographic of the east bypass corridor again reinforces the concept.

In summary, the proposed bypass corridor adds about two square miles of prime development area to the region. This is over and above the two square miles of existing zoned industrial land in the corridor. The bypass generally follows the established secondary rural highway pattern, and provides a direct link to the airport. The proposed Airport Rd. is already an adopted element in the long range plan for the airport.

Earlier regional planning for the area has always assumed that a westerly bypass around Freeport should be considered. However, as the Future Land Use plan indicates, future land use to the west is limited to low density residential uses. This future residential pattern is better served with a system of internal local collector streets, which are established at the time development takes place.

2/1999 update of the 5/1997 III. Rte. 26 Bypass Plan. The original bypass concept does not include a western extension of the bypass. This western extension is commonly call the Bolton Rd. connection, and is discussed in the last paragraph above. The 2/1999 update of the 5/1997 plan shows the general corridor alignment of the Bolton Rd. connection.

What is the purpose of this new connection? There are several answers, which relate to the general purpose of highway bypasses. There are also historic land use change consequences associated with bypasses. Both of these factors may be summarized below, and neither tends to strongly support a western bypass:

1. Traffic: The most common purpose for a bypass is to divert regional traffic away from congested urban areas, which can not accommodate additional traffic. In this case, both the existing and projected volumes of non-local north-south traffic on III. Rte. 26 are very low. Only a fraction of the traffic from the south is heading west towards Galena. The vast majority of north-south traffic on III. Rte. 26 may be described as local internal traffic.

2. Land Use. Another purpose for a bypass is to promote a change in land use, especially in the vicinity of interchanges or major intersections. For example, a western bypass route would add importance to the intersection area near Bolton and Pearl City Rd. That location might become a convenient place for new commercial activities that require high accessibility. Like all such outlying commercial concentration, it would decrease the importance of land use activities centrally located within the community.

2/1999 Outlying Ill. Rte. 26 Bypass Plan: When the bypass concept was reviewed in July, 1998, the suggestion was made that a remote outlying route be considered. The purpose of this bypass route would be solely for the purpose of diverting regional traffic, which is not destined for Freeport. From a highway planning perspective, this concept would have a minimal impact on future land use development within the greater Freeport urban area. As such, this route would function like so many other rural highways. But, the eastern and western connections to the U.S. Rte. 20 Bypass could be the same as for the 5/1997 and 2/1999 update of the 5/1997 alternatives. This second alternative is also illustrated on the attached map.

Summary and Recommendation. The 5/1997 bypass study was intended to support the long range land use and economic development goals set forth in the Future Land Use Plan under consideration. The original recommended bypass corridor accomplishes that purpose.

The western bypass extension of the original 5/1997 concept and 2/1999 outlying concept do not support those same goals. On the contrary, they weaken the effort to make Freeport a center for regional activities. The new bypass concepts can be viewed as beneficial to both the Rockford and Galena areas as regional destinations. Therefore it is not recommended that either be included in the Future Land Use Plan.

But, the question of upgrading and improving existing III. Rte. 26 within the central area of Freeport still needs to be addressed. It is recommended that this issue be explored within the

context of the ongoing Freeport central area redevelopment planning effort. It should be the purpose of that study to explore ways to both improve traffic safety and capacity, as well as improving the image, appearance, and experience of travel on Ill. Rte. 26 through the Freeport central area. This short stretch of highway will evolve and change anyway. The resources needed to respond to that change should be directed toward a design that upgrades the existing route, rather than to create an elaborate and expensive bypass solutions.

Proposed Revision to the 10/15/98 Future Land Use Plan Report:

Ill. Rte. 26 Bypass Policies. During the plan formulation period, consideration was given to need for additional highway links serving greater Freeport. One that interconnected the major land uses in the southeast quadrant of the area dominated our study of the question. The area includes two major manufacturing concentrations and Albertus Airport. The remainder of the quadrant southeast of Yellow Creek is predominantly agricultural. Alternative alignments were investigated to test the hypothesis. The studies described the highway as the Ill. Rte. 26 East Bypass. The concept was also submitted to IDOT for evaluation and comment.

Based on this work, the "Ill. Rte. 26 East Bypass Study - 5/1997" was deemed appropriate for inclusion on the Future Land Use Plan Map. Also, this document recommends several general policy positions. First, that the study of a bypass highway should be continued, and preferably under the direction and leadership of IDOT. Next, that any new bypass should wherever possible minimize disruption of agricultural activities. Also, the bypass should connect to the primary roads, which provide access to the two manufacturing concentrations as well as the airport. The bypass should terminate at interchange located on U.S. 20 at or near Springfield Rd.

Figure 9: 1997 III. Rte. 26 East Bypass Study

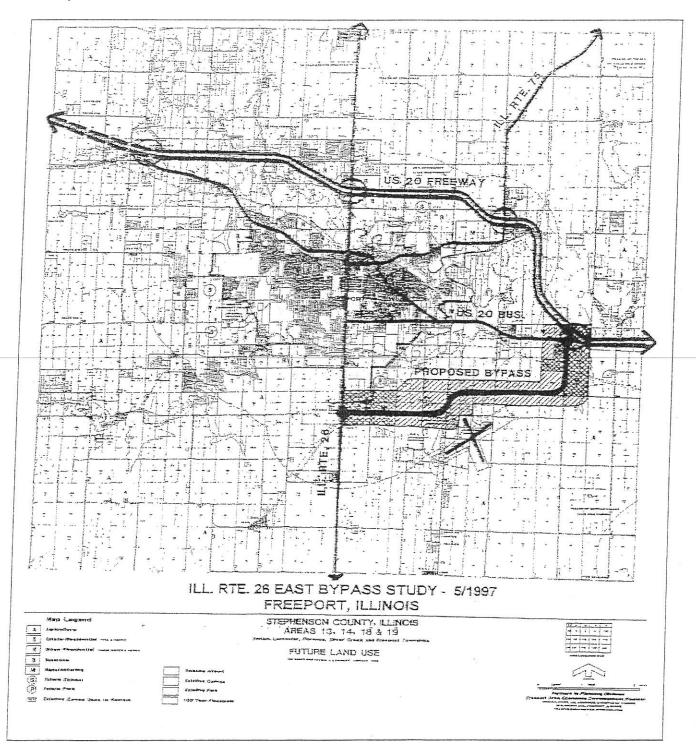


Figure 10: 1999 III. Rte. 26 East Bypass Study

