

PLANNING THE EXURBS

by

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K.S.

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ABSTRACT

The purpose of this thesis is to address the issue of exurban growth in land use and development. It focuses on exurban towns and attempts to explain how such communities can effectively manage growth without neglecting its amenities and surrounding environment. This study is separated into three sections that are discussed, 1) background information, 2) appropriate planning concepts and effective tools and techniques and 3) empirical evidence through a case study to show how an appropriate planning concept can work effectively.

Background information includes a description of what and where the exurbs are, and why they are subjected to growth pressure. It also includes a definition of what qualifies effective exurban town planning.

The usage of an appropriate planning concept is key in this thesis because it proves to be the difference between effective and ineffective planning. Through applying the concept of flip-side conventional planning, the Town of Herndon, Virginia serves as empirical evidence as to how an exurban town can recover from earlier planning mistakes and manage to control growth while retaining identity. The focus of this experience splits into two time periods, 1970-1980 when unintended growth and town identity was neglected versus 1980-1990 when growth in land use and development was controlled and town identity was enhanced.

The success of the 1980-1990 period is made possible by virtue of the planning structure utilizing tools and techniques that worked within the context of flip-side conventional planning, i.e. focusing on land use and development that favored town preservation over growth in commercial and industrial activity.

This thesis concluded that the concept of flip-side conventional planning was effective for the specific case study of Herndon and can be applied to similar exurban settings.

Thesis Supervisor: Langley Keyes
Title: Professor

TABLE OF CONTENTS

	PAGE
ACKNOWLEDGEMENTS.....	1
ABSTRACT.....	2
LIST OF ILLUSTRATIONS.....	5
INTRODUCTION.....	6
CHAPTER ONE	
THE EXURBS	
What and Where are the Exurbs.....	9
The Difference Between the Suburbs and Exurbs.....	10
Effective Planning: The Concept of Flip-Side Conventional Planning.....	16
CHAPTER TWO	
THE RESPONSE OF PLANNING TO THE PROBLEMS OF EXURBIA	
Exurban Town Planning.....	22
Growth Control Plan.....	24
Comprehensive Plan.....	25
Tools and Techniques:	
Zoning.....	26
Zoning Innovations.....	28
Subdivision Ordinance.....	30
The Official Map, Capital Improvements Program and the Building Code.....	31
Special Protective Districts.....	32
Land Acquisition.....	33
CHAPTER THREE	
PLANNING IN HERNDON	
Herndon.....	37
Structure of Planning.....	42
Community Participation.....	46
Planning Strategy of 1970-1980.....	48
Tools and Techniques:	
Zoning.....	50
Zoning Innovations.....	53
The Official Map.....	55
Analysis of Misguidance and Mistakes.....	59
Planning Strategy of 1980-1990.....	62
Comprehensive Plan/Official Map.....	70
Tools and Techniques:	
Land Acquisition.....	73
Easements.....	75

TABLE OF CONTENTS (Cont')

Special Protection Districts..... 80
Analysis of Accomplishments..... 81
CHAPTER FOUR
SUMMARY AND IMPLICATIONS
 Summary..... 84
 Implications..... 92

BIBLIOGRAPHY..... 96
APPENDIX 1..... 99

LIST OF ILLUSTRATIONS

	PAGE
IDEALIZED LOCATIONAL MODEL OF EXURBS.....	11
PLANNING TYPE IN RELATION TO SIZE.....	14
GEOGRAPHIC LOCATION OF HERNDON.....	38
BELTWAY 495 AND ROUTE 66.....	40
PLANNING STRUCTURE IN HERNDON.....	42
TOWN OF HERNDON, INDUSTRIAL AREAS.....	51
TOWN OF HERNDON, MAJOR TRAFFIC FLOWS.....	56
LAND USE, 1970 AND 1980.....	59
PLANNING GOALS.....	64
PROPOSED LAND USE, 1985.....	71
VALUE OF REAL ESTATE, 1980-1990.....	74
TOWN-OWNED BUILDINGS.....	76
LOCATION OF PUBLIC FACILITES.....	77
TOWN-OWNED PARKS.....	78
LOCATION OF PARK SITES.....	79
LAND USE, 1980 AND 1990.....	82
STRATEGY COMPARISONS.....	90

INTRODUCTION

In the past 20-30 years constant pressure to develop exurban land has forced planning structures in exurban towns to come up with strategies that can effectively manage growth without neglecting town identity.

Planning agencies within these communities as late as 1970, have responded to this situation by applying conventional planning tactics which focus on land use and development in growth first, and the environment last. The end result of such a strategy accommodates growth and the development of shopping centers, hotels, highways, industrial parks, office complexes, etc., bringing the city closer to the countryside.

However, this thesis proposes that the appropriate strategy for exurban communities in this situation must entail principles that are more focused on the environment rather than growth. The exurbs are semi-rural environments located just outside of the suburbs, but before the countryside. They are bounded by beautiful natural landscape that is distinctly different from urban or suburban landscape.

To protect exurban landscapes and identities, local planning structure must use principles (tools and techniques) that focus primarily on land use and development that is suitable and compatible to the environment. The concept of flip-side conventional planning has such an emphasis; it focuses on

preserving land use and development for natural and man-made amenities rather than on commercial or industrial amenities.

The case study area, Herndon, Virginia, serves as empirical evidence as to the effectiveness of flip-side planning. The town effectively managed growth pressure by using tools and techniques (i.e., zoning, PUD's, an official map, land acquisitions, easements and special protection districts) that not only controlled growth but preserved the town's character and amenities as well. Questions regarding how, who and what was done in Herndon will be addressed throughout the remainder of this thesis.

The objectives of this thesis are to 1) present the issue of urban sprawl as it affects exurban town's land use and development, 2) introduce the concept of flip-side conventional planning as an appropriate strategy to effectively manage growth and 3) use Herndon, VA as an example to demonstrate how the concept of flip-side conventional planning has worked in practice.

Chapter One identifies where the exurbs are located and how they differ from the suburbs. It also introduces the concept of flip-side conventional planning and defines what is effective exurban planning.

Chapter Two discusses the response of planners to the issue of exurban growth. It lists tools and techniques that are particularly effective in exurban communities.

In Chapter Three a case study of Herndon, Virginia, gives a concrete example of an exurban town that has effectively managed growth by using the concept of flip-side conventional planning. It

analyzes the two time periods in which Herndon experienced its most dramatic changes in growth, 1970-1980 and 1980-1990.

The former time period illustrates that when flip-side conventional planning was not practiced, the town experienced unintended growth and misguided land use that neglected the town's identity. The latter time period illustrates that when the concept was used, growth was better managed and town identity was preserved because land use and development tactics focused on enhancing the town's character and amenities.

And finally, Chapter Four summarizes and compares the effect of planning in the two time periods. Closing remarks will discuss the implications of applying the concept of flip-side planning for future references.

CHAPTER ONE: The Exurbs

Chapter One will provide an overview in that it will identify what are the exurbs, where they are located and how they differ from the suburbs. The concept of the flip-side conventional planning is also introduced as the appropriate planning concept for exurban environments. And finally, a layout of the planning process, a documented example and definition of what determines effective planning will be discussed as well.

What and Where are The Exurbs

Just beyond the suburbs along the periphery of metropolitan limits, lies many township and county municipalities throughout the U.S. that are under their own jurisdiction--separate from urban governing guidance. Such localities have long been called the exurbs.¹

As defined by August C. Sectorsky, an author and editor, whose publication, *The Exurbanites*, was among the first extensive studies on the subject, the exurbs begin only after the suburbs

¹Dinker I. Patel, Exurbs: Urban Residential Developments in the Countryside, Washington, D.C., University Press of America, Inc., 1980 p.xi

peter out. Spreading outward from the city, roughly the first twenty-five miles, comes the exurbs and then there's the countryside.² (see Figure 1)

Connected by extensive freeways, various commercial, industrial and other compatible developments, the exurbs offer proximity and convenience to urban amenities. They are usually incorporated as jurisdictions, township, county or otherwise, and tend to be described in today's terms as semi-rural environments with small size populations around 10,000 to 20,000.³

Although urban municipalities have a great deal of influence on the economic, social and political activities of exurban localities, they are not responsible as government institutions for the welfare of exurban communities. Exurban communities are separate entities and each has its own planning commission that is individually responsible for addressing issues regarding growth development and land use in its own community.

The Difference between the suburbs and exurbs

Both the suburbs and the exurbs are faced with pressure

²Auguste C. Spector, The Exurbanites, New York, J.B. Lippincott Company, Inc., 1965 p.14

³For a discussion of rural and urban environment planning based on population sizes see: Rural Environment Planning, by Frederick O. Sargent, chapter one, 1976 pp. 9-10.

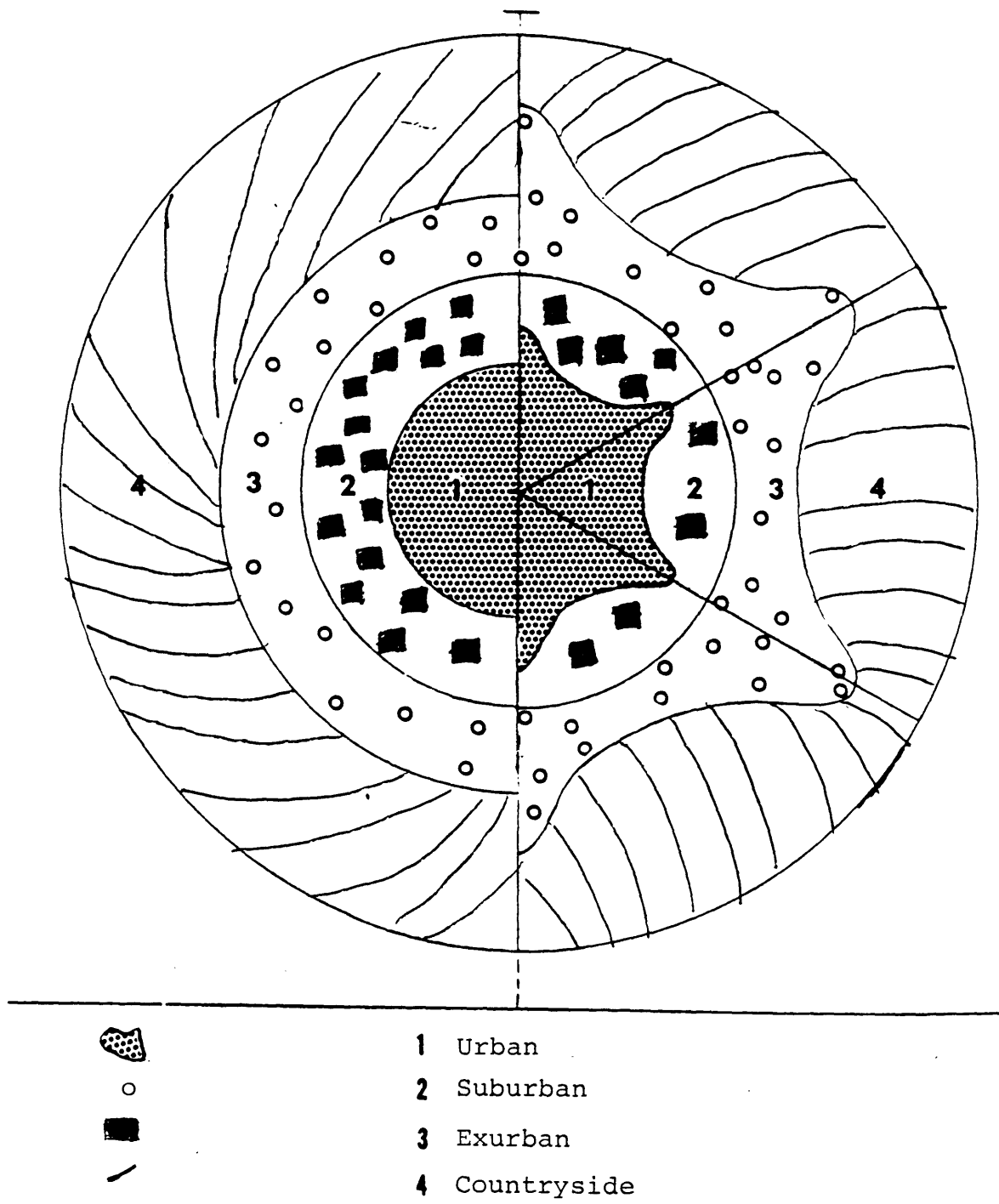


Fig. 1 Idealized locational model of exurbs.

regarding urban sprawl and development because they offer proximity and convenience to the urban core. However, this does not mean that the two kinds of communities are faced with pressure because their character or environmental surroundings are similar. The two have several things about their character and environmental surroundings that distinguishes them from one another. In comparing the two, one can note that the exurbs have character traits more aligned with those of a rural environment, while the suburbs have traits that are more aligned with those of an urban environment. Evidence of this comparison is based on the fact that suburban environments are more urban because they 1) are physically an extension of the city, 2) have populations that are greater than 20,000 but less than 50,000 and 3) have land use and development patterns that are more committed to having commercial and industrial activity rather than open space, parks, recreational activity. Whereas, exurban environments are more rural because they are 1) physically bounded by countryside landscape and other natural resources, 2) have populations that are between 10,000 to 20,000 and 3) committed to allocating land use and development for the protection of the environment first rather than last. Furthermore, the offerings of environmental and natural amenities such as hike bike trails, lakes and ponds, forestry, etc. are more plentiful and accessible in exurban areas than they are in suburban areas.⁴

⁴For a discussion of environmental amenities see: The Exurbanites, by Auguste C. Sectorsky pp. 14-25.

Planning theory also suggests that there is a difference in the suburbs and exurbs--the two require separate and distinctive planning tactics because of their character traits (i.e. the suburbs using urban tactics and the exurbs using rural tactics). For instance, based on population, some theorist argue that the lower the population, the less relevant urban planning principles are for a community and vice-versa as shown in Figure 2 below. These differences, as seen in textbooks and discussed in the following paragraph, are also apparent in current planning principles and methodologies as well; eventhough earlier planning tactics showed otherwise.

In the past (particularly in the mid-60's) several sources in the literature made the assumption that urban and exurban communities were synonymous in terms of planning concepts.⁵ However, contemporary studies, such as that of Frederick Sargent, show the opposite. He suggests that urban and exurban environments have different objectives, needs and concerns. His research indicate that exurban environments tend to function under planning principles that set a higher priority on the environment (i.e. historic preservation, culture, recreation and parks, etc.) rather than on commercial and industrial growth, which essentially are the planning principles used in urban environments. In fact, the conceptual framework of planning principles and their priorities in rural areas are actually in reverse of those in urban environments.

⁵Frederick O. Sargent, Rural Environment Planning, University of Vermont, 1976 p. 2

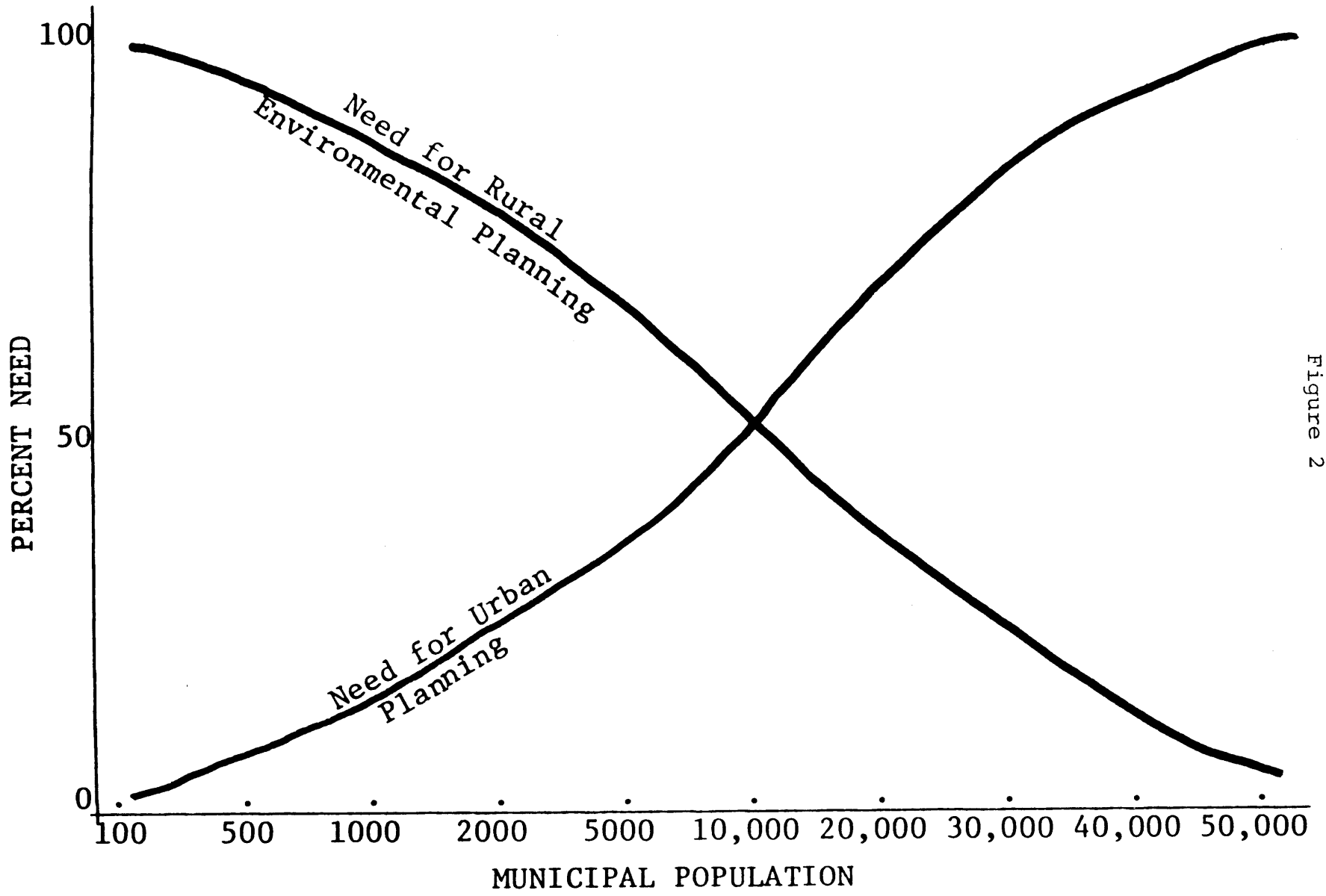


Figure 2

Figure 2 . Role of rural and urban planning in relation to size of municipality.

Thus, in speaking of the correlation between exurban and rural environment planning Sargent argues that.....

".....it stands conventional urban planning on its head, reversing procedures and emphases. In urban planning, the first step is a projection of population growth, jobs needed and proposed industrial and commercial growth. Land use is then planned to satisfy those projected needs. Any land left over is colored green and labeled open space."⁶

However, in rural environmental planning there is an emphasis on protecting the environment; and although it is not against growth, its is for controlled growth. It seeks to permit and promote growth on the basis of land suitability and capacity, with restrictions to protect natural cycles and plans to provide compatible public access.⁷

The image of standing conventional planning on its head is the basis and hypothesis for this thesis, and is referred to throughout the remainder of this paper as "flip-side conventional planning." Through the application of flip-side conventional planning this thesis will argue that small exurban towns subjected by growth pressure can be effectively managed if flip-side principles are practiced, i.e. devoting land use and development for the protection of the environment first rather than last.

⁶Ibid., p. 5

⁷Ibid., p. 6

Effective Planning: The Concept of Flip-Side Conventional Conventional Planning

Planning in the exurbs cannot be the mere transplantment of conventional planning principles and practices. An exurban planning structure must realize and operate under the assumption that the exurbs are more rural than urban and that the protection of the environment is the first priority for land use, while land use which contribute to growth is secondary. Therefore, a rural environment plan is more suitable for planning growth effectively in exurban environments because the focus of land use and development is primarily on the protection of the environment.

"A rural environmental plan (REP) is a comprehensive plan for a rural town or municipality based on environmental planning concepts and focuses on protection of the natural environment, providing access to the natural environment and providing whatever additional facilities and controls the community wants."⁸

Thus, to plan effectively in exurban areas means that a planning structure must 1) identify community-specific objectives and goals, 2) pursue those objectives and goals through the usage of tools and techniques and 3) manage growth while avoiding debilitating measures such as the over or under-development of residential, commercial or industrial sites.

⁸ Ibid., p. 3

The key to this approach begins with the ability of a municipal planning structure to identify community-specific objectives and goals so long as they are sensitive to the environment and compatible to what exists. Depending on the location, community objectives and goals may include protecting fish and game habitat, increasing public facilities, enhancing landscape, preserving heritage and culture, etc.

Once objectives and goals are established, there should be a commitment to not only follow through but to enforce them through the usage of tools and techniques. Tools and techniques such as zoning, clustering, easements, special districts, etc. are all devices that are particularly effective because they allow a planning structure to segment and protect land for adequate supplies of residential, commercial, industrial or public land use.

The next step suggests that planners use tools and techniques in a way that is effective, but is avoidable of debilitating measures that may adversely effect the environment, i.e., over-development in commercial-industrial land use, under-development of quality housing or public facilities, etc..

However, although there is a difference in emphasis between urban and rural planning, the procedures and usage of tools and techniques are much the same for both environments. This is particularly identifiable when one isolates and examines the process of what defines effective planning on a case by case basis for local planning structures--the steps are identical to those mentioned above.

Planning literature, such as that of Leslie King and Glenn Harris supports this notion and suggest that misguided development and inefficient uses of land could be avoided if growth planning successes as a whole were more carefully examined on an individual basis and used as a model for future reference.⁹

Such an example of effective planning is found in Bridgewater, New Jersey. The town's planning structure used an open space technique (The Washington Valley Open Space Plan) to build a park and protect land from from being developed for commercial or industrial use in the Washington Valley area.

"The Washington Valley Open Space Plan successfully used a development boom as an opportunity for open space preservation. By giving developers specific guidelines, Bridgewater Township created a 1,146-acre linear park....."¹⁰

The process that lead to the particular accomplishment above is no different than procedures mentioned earlier. The local planning structure 1) identified the need to preserve land for open space amenities, 2) used an effective technique (The Washington Valley Open Space Plan) and 3) enhancing the environment instead of debilitating it.

The Washington Valley area existed in a commercial development

⁹Leslie King and Glenn Harris, "Local Responses to Rapid Rural Growth", Journal of the APA, Spring 1989 pp. 50-53.

¹⁰Samuel M. Hamill, Jr. and John C. Keene, "The Washington Valley Open Space Plan", The Growth Management Handbook, Princeton, pp. 1989 90-91.

boom that was pervasive throughout the central New Jersey region. For fear of being overwhelmed by development sprawl, the Town of Bridgewater which is apart of Somerset County, was anxious to preserve as many of the land tracts in the area as possible for the interest of creating more open space and avoiding unnecessary sprawl. Thus, plans for acquiring the land and constructing a 7.8 square-mile space park were developed and utilized as a threat towards developers who planned otherwise. However, by leaving open the possibility that residential development could be approved on the publicly owned parcels, if and only if, planning standards were met, the Township was able to use this technique and create a fairly big open space park (1,146 acres). Stipulations included a clustered housing format that would designate atleast 40% of each developed property towards open space; agreeing to abide by conservation easements that would protect environmentally sensitive areas; contributing to minor road work that would minimize local traffic; avoiding new stream crossings; and setting aside enough space for a storm water management system.

Similar to the example above, the case study of Herndon, Virginia reflects the same kind of process in that its planning structure is attempting to meet community-specific objectives and goals through the application of effective planning tactics. The example above established objectives and goals that resolved an area of concern, and thus, protected and enhanced environment surroundings through the usage of planning tools and techniques (i.e. open space conservation plan) that preserved open space in

the midst of growth pressure.

The case study of Herndon is used to illustrate that exurban towns in particular, can attain the same type of results as Bridgeport, NJ if procedures and usage of tools and techniques are duplicated for all land use and development decisions.

The objective for Herndon would be to preserve town identity through the usage of certain tools and techniques (i.e. zoning, planned unit developments, official maps, special protection districts, land acquisitions, etc.) in the midst of growth pressure. However, the definition of town identity would include the following descriptions of character and amenities:

Town character

- o semi-rural landscape;
- o small-town imagery; and
- o buildings and landmarks that represent the heritage and culture of the town's railroad history which dates back to Colonial times.

Town amenities

- o ample open space and access to parks and recreation, scenic routes, hike bike trails, ponds, lake, etc.;
- o close involvement in town-community decisions;
- o easy access and short commute to and from D.C. and the Dulles International Airport area;
- o spacious housing; and
- o low traffic congestion.

However, given the objectives, and the desire of planning structures to protect the identity of exurban towns, as explained in the case of Herndon, the issue concerning effective planning now focuses on the response of planners, their functions and the devices specifically used to manage growth in land use and development.

CHAPTER TWO: The Response of Planning to the Problems of Exurbia

Chapter Two discusses planning responses to the issue of exurban growth development and land use. It describes various planning tools and techniques used to guide development and land use and to meet the goals of effective exurban planning.

Exurban Town Planning

Given the problems of development in exurban localities, what can town planners do to correct the misuse of land while improving the quality of these unique environments? Although growth is inevitable and necessary, planning adjustment through the functions of a planning structure can be made to accommodate such change so as to insure the protection of natural and environmental amenities. The following discusses the function of planning municipalities as it relates to exurban communities.

The municipal planning commission's major function is the preparation and implementation of a comprehensive plan via the needs and concerns of the community. Through such a plan, combined with the usage of tools and techniques, the future development of a locality can be realized.

The types of specific development matters requiring action can be grouped into two categories: 1) those measures which are specifically designed to implement the comprehensive plan, and 2) other matters which routinely require legislative approval and are viewed in light of the comprehensive plan.¹¹

The first category includes things such as zoning ordinances, subdivision regulations, capital improvement programs, and official maps. These documents are prepared by the planning staff, approved by the planning commission and forwarded to the appropriate legislative bodies for further action.

In the second category are items which constitute the routine legislative process of exurban planning: re-zoning cases, use permit and variance applications, subdivision plats, public works projects, etc..

Given that the two categories above are closely intertwined, the following will not attempt to explain the logistics of all that is in both categories. Instead, it will focus on what is most effective in controlling growth in exurban communities. The summation of a growth control plan includes the usage of a comprehensive plan, tools, techniques, etc.

¹¹Alan Black, Principles and Practices of Planning, Washington, D.C., International City Managers' Association, 1968, p. 361

Growth Control Plan

In the undeveloped areas of exurban communities there are many places which are not zoned to regulate future large scale development. Such areas are frequently in towns and communities which have the greatest pressure for urban development sprawl. Without having established long range plans and land use controls, such areas can find themselves faced with the prospect of development which will rapidly transform their community and its environment into something other than what might be desired, i.e., suburban communities.

The issue of growth control has been debated from Ramapo, New York to Petaluma, California. The lessons learned from Ramapo suggest that there are a series of prerequisites to developing an acceptable growth control plan: (1) formal adoption of a master plan, (2) adoption of a zoning ordinance to implement the plan, (3) fidelity to the master plan and zoning ordinance through the avoidance of spot zoning and issuance of variances, (4) adoption of an official map, (5) adoption of subdivision regulations, (6) adoption of successive 6-year capital improvement programs, and (7) the provision of low-cost housing to provide evidence that plan is not exclusionary.¹²

¹²Frederick O. Sargent, Rural Environment Planning, University of Vermont, 1976 p.131

Comprehensive Plan

The comprehensive plan is a long range agenda for future growth, which is based on the needs and goals of a particular community. Admittedly, such a plan is not very detailed, in that it does not layout the specifics of development occurrences. Instead, it serves as a general guide for development, and is referred to as the master plan for local land use control.

The comprehensive plan can guide both public and private development into a pattern of compatible land uses; transportation routes that perform effectively, adequate public facilities, necessary water and sewage treatment, etc. When development challenges the established program and pattern, the legislative, administrative and technical planning bodies are responsible for reviewing the proposals of any such development that cuts across the planning grain.

The above discussion pre-supposes that: 1) a comprehensive plan will be undertaken in the first place, 2) such a plan will be effective, in that it will meet the needs of local concerns and 3) such a plan will be enforced consistently. Whereas most cities and close-in suburbs meet all three conditions, such is not often the case in undeveloped or exurban areas.¹³ The problem may lie in the lack of funds, personnel or expertise to establish an effective

¹³Alan Black, "The Comprehensive Plan", Principles and Practices of Planning, Ed. by William Goodman, Washington, D.C., International City Managers' Association, 1968 p. 363

long range plan.

Tools and Techniques

Zoning

In most of the older areas across the country, zoning predates comprehensive planning. The basic structure imposed by zoning is the division of the municipality into districts within which particular regulations are applied. These regulations are applied uniformly within the district and concern the following:

- o height and bulk of buildings and structures;
- o lot occupancy and the required size of open spaces;
- o density of population; and
- o use of building and land.¹⁴

Zoning ordinances must be made in accordance with a comprehensive plan, though a zoning ordinance can be adopted without the existence of such a plan. Zoning and subdivision regulations (the division of larger parcels of land into smaller ones) have been the chief implementation tools for comprehensive plans. Since World War II, these controls have been reasonably successful, to the extent that new development consisted of lot-by-lot development by

¹⁴Robert M. Leary, "Zoning", in Principles and Practice of Planning, Ed. by William Goodman, Washinton, D.C., Government Printing Office, 1968 p. 403

individual builders.¹⁵ They have prevented indiscriminate mixtures of land uses, and have preserved adequate street widths and alignments, uniform lot sizes and building restrictions; they have generally avoided the most undesirable effects that might have resulted from the complete absence of controls.¹⁶

However, at the same time zoning has also produced vast areas of undifferentiated low density sprawl, consisting primarily of uniform detached houses on uniform lots; and yet they do not always succeed in preventing the creeping commercial strips and incompatible mixed-uses they are supposed to stop. In earlier years, zoning and subdivision regulations had been called on to preserve the status quo, but they could not lead and control new development, nor could they keep up with the pace of massive residential development. More recently (in the last 20 years), when zoning has been called upon to preserve open space and limit the number of people requiring public facilities and services, the result is typically large lot zoning requiring development of minimum acreage. Large lot zoning does not protect land from being developed, and though it may keep population down, it often causes greater sprawl and further extension of public services.¹⁷

¹⁵Advisory Commission on Intergovernmental Relations, *Urban and Rural America: Policies for Future Growth*, Washington, D.C., Government Printing Office, 1968 pg. 122.

¹⁶Ibid., p. 124

¹⁷Elaine Moss, Land Use Controls in the United States, New York, Dial Press, 1977 p. 97

Zoning Innovations

In recent years innovations in zoning aimed at giving increased design flexibility to the developer and creating more efficient development projects. Chief among them, is average density zoning or cluster zoning. Clustering basically entails the relaxation of zoning regulations on lot sizes, setbacks, frontage and other such restrictions in a development in which the total population will be no greater than it would have been had it been developed on a lot-by-lot (standard) basis. This type of development permits the clustering of dwelling units on a smaller percentage of the property and the preservation of large areas of open space for use by those living in the dwelling units. And consequently, as a result of having more space, facilities and services for this kind of development can be provided much more efficiently and economically because site selection does not require additional time or cost.

Cluster development usually requires the approval of planning boards and legislative councils. Important factors in the review are the suitability of the land in question, the need for open space in the area, and the way in which the plan relates to the rest of the community.

Planned Unit Development (PUD) is a variation of cluster development. A PUD district is usually a "floating zone" contained within the zoning ordinance; that is, a district with specified

purposes established by the legislative body without being delineated on the zoning map. To develop property under such a circumstance, a developer must apply for the floating zone. PUDs will not only mix different residential uses, but may include commercial and industrial uses, often in clustered patterns of location. PUDs are commonly planned only for large tracts which might exist only in the urban fringe and beyond.

Objection is often raised to the principle of clustering, in that it is equivalent to crowding homes on land; eventhough the total number of houses in the tract remains the same as under standard development, the individual homeowner finds himself with a smaller lot. Nevertheless, one of the justifications for clustering is that the market will respond to the demands of the purchaser.¹⁸ However, not all developers will use the principle, not all purchasers will prefer its conditions. Clustering is an alternative to the standard lot-by-lot development strategy in that it sets out to maximize land efficiency by permitting dwelling units to account for a smaller percentage of total land. A locality's zoning ordnance can include numerous provisions beyond its description of zoning districts and procedure. For instance, floodplain zoning can restrict or prohibit building development within the 100-year floodplains that exist in an area. This not only protects people from losses incurred by floods, but preserves waterways and stream valleys for public or semi-public use. Other special ordinances can be applied to more widely developed areas.

¹⁸Ibid., p. 106

These ordinances can be used to: place restrictions on the commercial development that flanks major roads; regulate signage on landscaping and reforestation; or require the uses or functions that pollute or cause other nuisances to meet minimum performance standards.

Subdivision Ordinance

In sum, zoning as initially created is not a suitable tool for controlling development in the urban fringe, but its amendment through innovation and popular acceptance of new ideas can lead to a more attractive and land-efficient environment.

Subdivision controls seek to assure that basic services are provided in development projects and that purchasers are protected against fly-by-night schemes and developers who fail to see their plans to conclusion. For instance, subdivision controls will assure a reasonable system of roads and connections to the road system beyond the parcel involved. They will insure that drainage and sewer facilities are provided. They may require the preservation of open space within the subdivision and will occasionally require dedication of land for schools and other public facilities.

These objectives are normally accomplished through plat approval procedures (legally recorded subdivisions), under which a

developer is not permitted to make improvements or to divide and sell his land until the planning commission has approved a plat of the proposed design of the subdivision. To the responsible developer, subdivision controls are protection against substandard competitors who might either undersell or diminish the value of a well-planned subdivision by putting up a shoddy project nearby. For the planner, these controls enable him to coordinate otherwise unrelated plans of a number of developers, and in the process assure that provision is made for major elements of the comprehensive plan. Subdivision controls will also enable the planner to control the internal design of each new subdivision so that its pattern of streets, lots and other facilities will be safe and adequate.

The Official Map, Capital Improvements Program and the Building Code

The official map, the capital improvements program and the building code are another set of tools that affect the future of development. The official map is a particular type of plan distinct from both the zoning map and the comprehensive plan. It sets out in explicit form on a map existing and future streets, sewer system and other basic necessities such as the routes of utility lines. The apparent intent is to provide a clear guide for

future rational development and to allow private landowners to plan their development within the context of an agreed upon grid of public services.

Many local governments plan and control the public aspects of their growth through capital improvement programs. These programs set out a plan of public projects to be undertaken over the next five years or so, along with estimated costs and methods of financing. A capital improvements program can be an excellent long-term means of implementing the comprehensive plan. Once such a program is established it becomes more likely that developers will have to consider the framework of local services existing and proposed, when they design and proposed projects.

Building codes typically establish the types of materials, wiring and plumbing which must be used in building construction. The code sets out specific standards of performance. In themselves, such codes do not contribute much to the control of land use but they frequently act as a basic mechanisms through which compliance with the zoning ordinance is insured. Usually a building permit will no be issued unless a project satisfies requirements of the zoning and building codes.

Special Protective Districts

There are also different kinds of special districts that can

be created by the legislative and local planning structure. For example, in more rural areas, an agricultural district can be created to protect farmland. Such districts often allocate a minimum acreage for development; 5 to 25 acres is not unusual. To help farmers stay in farming, district policies may include preferential tax assessment for active farms, making it easier for the farmer to stay in business.¹⁹

Other special districts such as historic or cultural districts can help small towns and older sections of larger towns to protect old buildings, and thereby retain part of the town's identity. For example, in towns both old and new, architectural control can be put into effect to require a certain standard. Usually this means that land along major roads or in central business districts will be developed only if proposals are subject to reviews that meet the standards that are normally considered within the district. Such a district can be used to preserve old buildings and insure that new architecture, signage and landscaping are compatible with the towns existing environment.

Land Acquisition

For preserving open space and natural features, the most

¹⁹Samuel N. Stokes, Saving America's Countryside: A Guide to Rural Conseration, Baltimore, John Hopkins University Press, 1989 pp. 166-171.

effective action that can be taken is outright acquisition by a municipality. Through ownership a municipality has the right to determine how and what is built; and therefore having the ability to designate open space and other natural amenities as needed. However, as this is not often financially feasible for prospective buyers, there are some viable options available, i.e. leasebacks, salebacks and easements.

Under leasing terms, a municipality not only has the privilege of selecting a tenant (lessee) on the basis of project suitability, it will also receive payments for rent and property taxes during the duration of the contractual agreement without losing ownership rights. This is particularly important because at any point during the leasing period should the lessee break the agreement and choose to build something that hinders open space or other natural amenities, the municipality, as legal owner, has the right to withdraw from the contract and select a new tenant without having to reimburse the previous tenant. In other words, the tenant never has full ownership, the municipality will always have sole control over what is developed on the land regardless of leasing terms.

Similarly, salebacks involve the same type of development control in the acquisition process. The primary difference between a leaseback and a saleback, is that when a municipality sales land it automatically loses control of land rights and the buyer becomes full owner in a saleback agreement. As opposed to a

leaseback when the buyers never owns the land outright. However, although it loses ownership, the municipality collects property taxes and retains the right to determine what is built on the land because it can select its buyer on the basis of project suitability and have it documented upon agreement of sale.

Easements represent another creative option for controlling development and land use. By definition, easements are certain acquired rights of public use on private property that can either be sold or donated. They may take the form of scenic landscape buffers along highways or riding trails that cross privately owned land. From the standpoint of private corporations, the value of an easement for tax purposes can result in tax deductibilities. As the buyer, a municipality can gain control of land use without bearing the stress of owning.

And finally, transferring development rights is also an alternative to owning outright. The transfer of development rights is a system whereby development is transferred from one area (the sending area) to another (the receiving area). It has been proposed as a method that keeps development out of virgin land, while putting it in areas that are already partially developed.

If used within the context of flip-side conventional planning, as explained in Chapter One, the tools and techniques listed above are designed to accommodate planner's efforts to deal with growth issues. However, given that the planning structures of exurban towns each have their own objectives, needs and concerns, the usage of tools and techniques should be employed accordingly.

CHAPTER THREE: Planning in Herndon

The objective of Chapter Three is to demonstrate how the planning structure of Herndon, Virginia responded and overcame earlier misguidance by applying the concept of flip-side conventional planning, as explained in Chapter One.

The first three sections of the chapter are a description of Herndon and why it is subjected to development sprawl, along with a discussion of who is involved in the planning process.

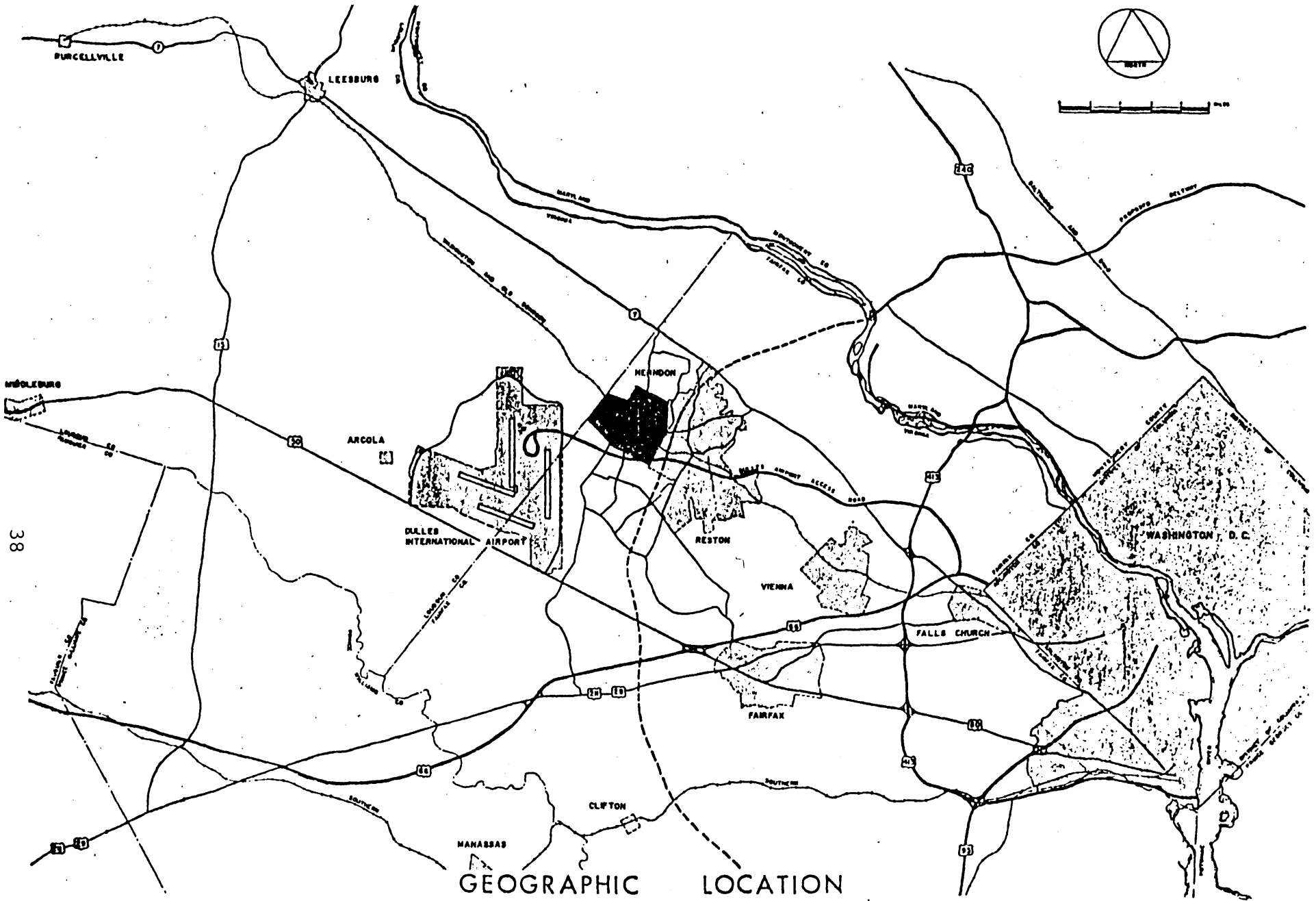
The remaining part of the chapter is a comparison of Herndon's growth in two time periods, 1970-1980 and 1980-1990. These periods are studied because they represent the points in which the most significant changes in Herndon's growth occurred. To explore flip-side conventional planning, the data from these time periods will be compared in terms of how effective/ ineffective planning tactics are towards meeting the goal of protecting town character through attaining a better balance in land use for natural, man-made and other town amenities.

Herndon

Named after a heroic U.S. Navymen, Commander Herndon, the case study area, Herndon, Virginia (incorporated as a town in 1879), is a small-town with a population of 15,030 as of 1990. It is located approximately 26 miles northwest of Washington, D.C. at the far edge of Fairfax County Virginia.

As explained in Chapter One, because of its character, Herndon is an exurban town and relates more to rural agendas in contrast to urban agendas. Its character is such that it 1) is physically bounded by countryside landscape and other natural resources such as fish and game habitat, 2) has a population that is between 10,000 and 20,000, 3) is committed to allocating land use and development for the protection of the environment first rather than last and 4) offers more space and accessibility to environmental and natural amenities such as hike bike trails, lakes and ponds, forestry, etc. than the city of Washington or its suburbs.

The town is about four square miles and fills the gap between Dulles International Airport and the neighboring town of Reston. Herndon connects to Washington, D.C. through Beltway 495 that runs off of Routes 7 and 267 which goes directly through the town of Herndon (see Figure 3). Located astride the Washington and Old Dominion Railroad, the town, up until the late 60's, was noted as a major supplier of farming necessities in a primarily agricultural community since the days before its incorporation. However, the



**GEOGRAPHIC LOCATION
TOWN OF HERNDON, VIRGINIA**

- LEGEND**
- PRINCIPAL CITIES & TOWNS
 - HERNDON, VIRGINIA
 - HIGHWAYS
 - RAILROADS
 - COUNTY LINES
 - STATE LINES

Figure 3

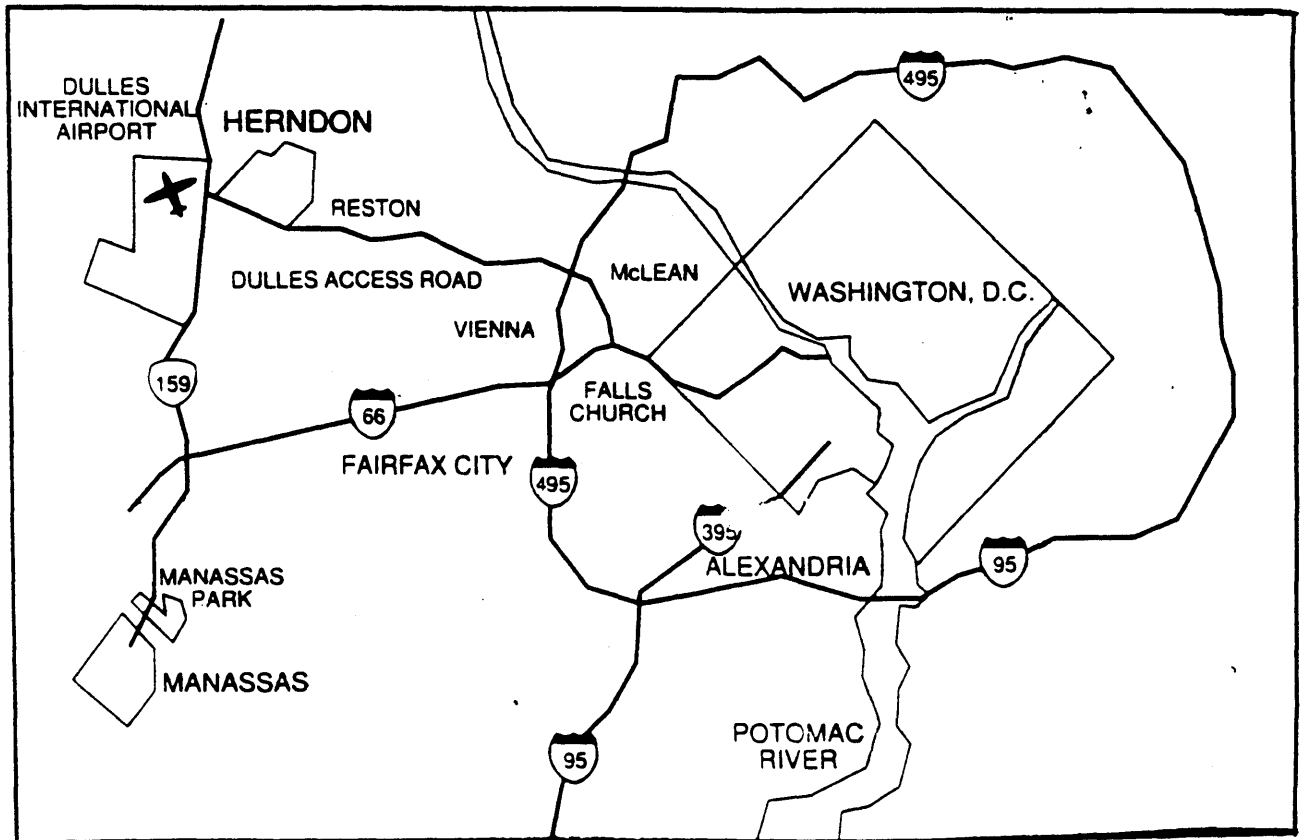
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rapid decrease in agricultural activity in the past 20-30 years, concurrent with the influx of workers commuting to the predominant employment center of Washington, D.C. marked a trend away from farming and other agricultural services. Instead, the town and other adjoining localities (Reston, Vienna, Fairfax City, Falls Church, etc.) within the greater Washington area have been noted since the 70's as a supplier of office, high-tech industrial services and products. Agricultural usage does not appear until one goes beyond Leesburg, Virginia in Loudoun County and further down Route 66, about 15 miles northwest of Herndon (see Figure 4).

The closing of the Washington and Old Dominion Railroad in the late 60's put an end to Herndon's existence as a major supply center for the agriculture industry in the greater Washington area. One of Herndon's main uses of the railroad has been to transport milk from its local dairy farms to areas throughout the Washington, D.C. region. However, as farming became a dying industry in the late 60's, many acres of land that were once used for farming and other agriculture services were left vacant and undeveloped by the early 70's. By this time developers began flock to Herndon to take advantage of the vacant and relatively inexpensive land for purposes of residential development.

Herndon is a part of a county (Fairfax County) that is one of the fastest growing regions in the Washington, D.C. metropolitan area. Statistics show that Fairfax County grew 31% between 1980 and 1988 compared to only 7% for all of the counties in the greater Washington, D.C. SMSA (Standard Metropolitan Statistical Area) as

Figure 4



a whole. More specifically, the fastest growing section of the county is in its far western edge which includes Herndon and Reston. This area as a whole has grown four times faster than the rest of the county; it contains over 20% of the people on 60% of the land.²⁰ Herndon increased from 4,301 to 11,449 between 1970 and 1980 and to 15,030 in 1990. Since the 70's Herndon has become a location that feeds the exurban oriented society in search of spacious residential land with attractive landscapes and amenities. Like other areas in the region, it has and continues to have, desirable attributes of convenience and proximity to the urban core of Washington, D.C.. Its low congestion, low density level and small-town setting has attracted those interested in working in the major employment areas of Washington and Dulles International Airport, but residing on the outskirts--thus establishing itself since the 70's as a bedroom community of Washington.²¹ Demographic statistics indicate that the community of Herndon is 78% White, 10% Black, 9% Asian and 3% other (which includes American Indians, Eskimos, etc.). The average family size is 2.6 and has an income that is just over \$55,000 as of 1990.

²⁰Fairfax County Planning Department, Comprehensive Plan for Fairfax County, Fairfax, VA 1979 p. 277

²¹Richard, Carol, Washington's Metropolitan Fringe, Washington, D.C.: Council of Governments, 1979, p.39

Structure of Planning in Herndon

The following will discuss the institution of planning in Herndon. It focuses on the comparison between the town's planning structure in the 70's and the 80's. This is done to identify who is involved in deciding the town's land use and development pattern.

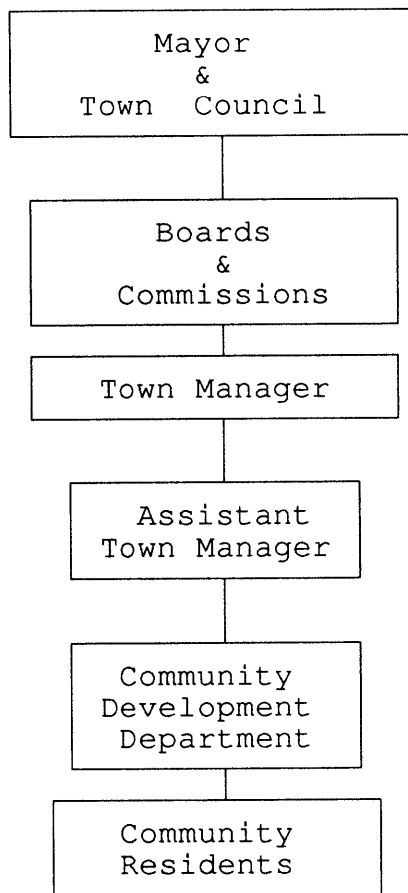


Figure 5

What's common in Herndon's planning structure in the 70's and 80's is that it's no different than today. The town operates under a Mayor-Council form of government. An elected Mayor who chairs the Town Council which is made up of six additional members. An appointed Town Manager performs the daily tasks required by the Town Council, and oversees the activities of all other Town departments and personnel. Several Boards and Commissions are involved in the Town's governing and planning process. The Planning Commission, Architectural Review Board, Heritage Preservation Review Board, and The Board of Zoning Appeals all have open and televised monthly meetings which allows the general public to be involved as well. The duties, along with what comprises the Boards and Commissions are as follows:

The Planning Commission consists of seven members appointed to four-year terms by the Town Council. The purpose of the Commission is to provide recommendations to the Town Council through public hearings on land use items such as subdivision plats, site plans and rezoning requests. The Commission, through the Comprehensive Plan, also advises the Town Council in identifying future recreational and public land use needs and establishing a Capital Improvement Program. The Planning Commission meets the first Monday of each month at 7:30 p.m. in the Hoover Building. The public is invited to attend.

The Architectural Review Board consists of five members appointed to terms not to exceed three years by the Town Council. The Board meets at 7:00 p.m. in the Hoover Building on the Monday following the first Town Council meeting. The purpose of the Board is to protect and promote the general welfare and appearance of proposed buildings and renovated structures, as well as landscaping plans in all zoning districts except single-family residential. The applications are processed through the Community Development Department.

The Heritage Preservation Review Board consist of the Architectural Review Board members, and two additional members appointed to three-year terms by the Town Council. The Board meets in the Hoover Building on the Monday following the first Town Council meeting. The purpose of the Board is to protect and promote the general welfare of the Heritage Preservation Districts, by administering certificates of appropriateness for all renovation, construction, and landscaping plans for single-family residences within the Heritage Preservation Districts. The applications are processed through the Community Development Department.

The Board of Zoning Appeals consists of five members appointed to five-year terms by the Town Council. The Board meets on the fourth Thursday of every month (provided that an application has been submitted for the meeting) at 8:30 p.m. in the Hoover Building and has the power and duty to hear and decide appeals from an order or decision made by an administrative officer in the enforcement of the Zoning Ordinance, and to authorize upon appeal such variances from the terms of the Ordinance which are not contrary to the public interest.

However, what is not the same in Herndon's planning structure between the 70's and 80's is 1) town leadership, 2) emphasis and attitude of community residents and 3) the ability of the planning

process to handle the technical aspect of land use and development.

The Mayoral leadership and emphasis of the 70's were geared towards promoting the town as a place of convenience and proximity to the urban core of Washington, D.C. The stage was set for such a direction because of Mayor elects such as Thomas D. Rust (1976-78 and 1978-80) who recognized that developers were particularly interested in Herndon. Herndon had very attractive development opportunities because of its vacant and relatively inexpensive land that was left as a result of the town's declined farming industry. Plus, residents were persuaded by town leadership and were willing to accept the push for growth to take advantage of the development opportunities. It was understood that efforts were made to capitalize on this opportunity so that the town could improve its economic vitality, i.e., allowing development of commercial and industrial land use to strengthen overall tax bases (i.e. money from income, sales and property taxes).

".....buildings were constantly going up and the town was slowly changing, but people didn't knock it because Mayor Rust kept talking about this new Herndon Community Center that was going to be completed by 1980 along with other things from the money that the town gained from taxes."²²

(David Craig)

The leadership and emphasis of the planning structure for the 80's was geared towards town preservation. The 1984, Mayor elect, Richard C. Thoesen, was voted in on a platform that stressed the

²²David Craig, Herndon Public Information

importance of maintaining Herndon's railroad and industrial history. His administration initiated a plan to encourage the town to protect its identity and adjust its technical and professional practices.

As a result, the Herndon Department of Community Development (DCD) was added into the town's planning structure in 1985. The DCD is now the unit which lends professional planning expertise and works in conjunction with the Town Boards and Commissions. The DCD is the part of the planning structure that handles the technical end of all land use planning and development within corporate limits. The department provides a complete program of municipal planning activities, including commercial and industrial site plan and residential subdivision review, as well as the processing of rezoning, variance and conditional use permit applications. In addition, the department provides all long-range comprehensive planning, is responsible for zoning enforcement and any other technical assistance to the Planning Commission that is required.

Community Participation

Community participation is a key element in the town's planning process; for it is one of the things that most attracts some folks to live in the small town setting of Herndon. Through public hearings and the neighborhood approval process, the

residents of Herndon are constantly aware and involved in planning topics and decisions.

" The people here like to feel involved...at the beginning of each meeting the floor is open, and people used that chance to speak on any subject that is not included in the agenda for that day."²³

(Mary Johnson)

Public hearings are held by the Town Council on all ordinance changes, changes in land use plans or zoning, the annual budget and tax levies, and other matters of importance. The Planning Commission, Architectural Review Board, Heritage Preservation Review Board, and Board of Zoning Appeals also conduct public hearings on matters under their purview. Notices of public hearings are advertised in the local newspaper as well as television.

The aspect of neighborhood approval is also representative of community participation; meaning that the process of getting a development project approved requires the expressed consent of adjoining neighbors. Consequently, if a project is not approved by atleast the majority of adjoining neighbors, then the project will not come to fruition.

Aside from public invitations for open meetings held by the

²³Mary Johnson, local resident.

Boards and Commissions, community interest in land use planning and development is further represented by the town's Department of Community Development (DCD). In which case, if community residents are concern about particular projects they always have the option of expressing it to the DCD.

And finally, community participation is also evidenced in the fact that all members of the Town Boards and Commissions are elected by local residents to serve terms from three to five years. Thus, if the interest of the community is not fairly represented, community participants have the option of voting-in new members whom they feel will best represent the interest of the community.

Planning Strategy of 1970-1980

On May 25, 1971, the DCD produced Herndon's first comprehensive plan. Although there had been one other previous plan in 1964 done by the Virginia State Planning Department for Herndon, this was the first to be done internally. For the first time in the town's history, the planning structure and land use decisions of Herndon were headed by local officials.

Based on recommendations and data from the Virginia State Planning Department, the planning unit used the 1971 comprehensive plan as a tool to put together a package which supposedly was...

"formulated to provide for the orderly and systematic development of the area; to foresee the use of then-vacant land...and to guide expansion so as to prevent the scatteration of urban development, premature subdivision and speculation which was not in the public interest."²⁴

However, as discussed below, the planning strategy revealed an imbalance in land use and development that is highlighted by vast unintended growth and poor management. Thus, it's noticeable that the strategy used was essentially counter-effective for Herndon because it was based on a concept that was more appropriate for urban environments than for exurban environments.

In sum, the planning strategy during this period was not flip-side conventional planning; and consequently it failed to support my hypothesis because it placed emphasis on growth first, rather than last.²⁵

Assuming that the degree of commitment towards preserving character and amenities is directly correlated to how much/less planners allow existing land uses to deviate away from what was proposed, one can see how Herndon had very little commitment towards town identity. For instance, during this time period its noticeable that the category with the biggest gap between existed and proposed land use, was found under the category of public and semi-public (which coincidentally are facilities and sites that

²⁴Virginia State Department of Planning, Comprehensive Plan for the Town of Herndon, Virginia, Fairfax, VA 1971 p. 1

²⁵Kay Robertson, Comprehensive Planner for the Town of Herndon, Department of Community Development.

accommodate town character and amenities).

The following section will: 1) show how Herndon's commitment to land use ranked growth first, and preservation of town character and amenities last, 2) discuss how the town's planning encouraged land use and development to surpass the proposed amounts commercially and residentially, while curtailing environmentally, 3) indicate how planning efforts accommodated growth in commercial activity and 4) discuss how the use of cluster zoning supported growth in residential land use and development.

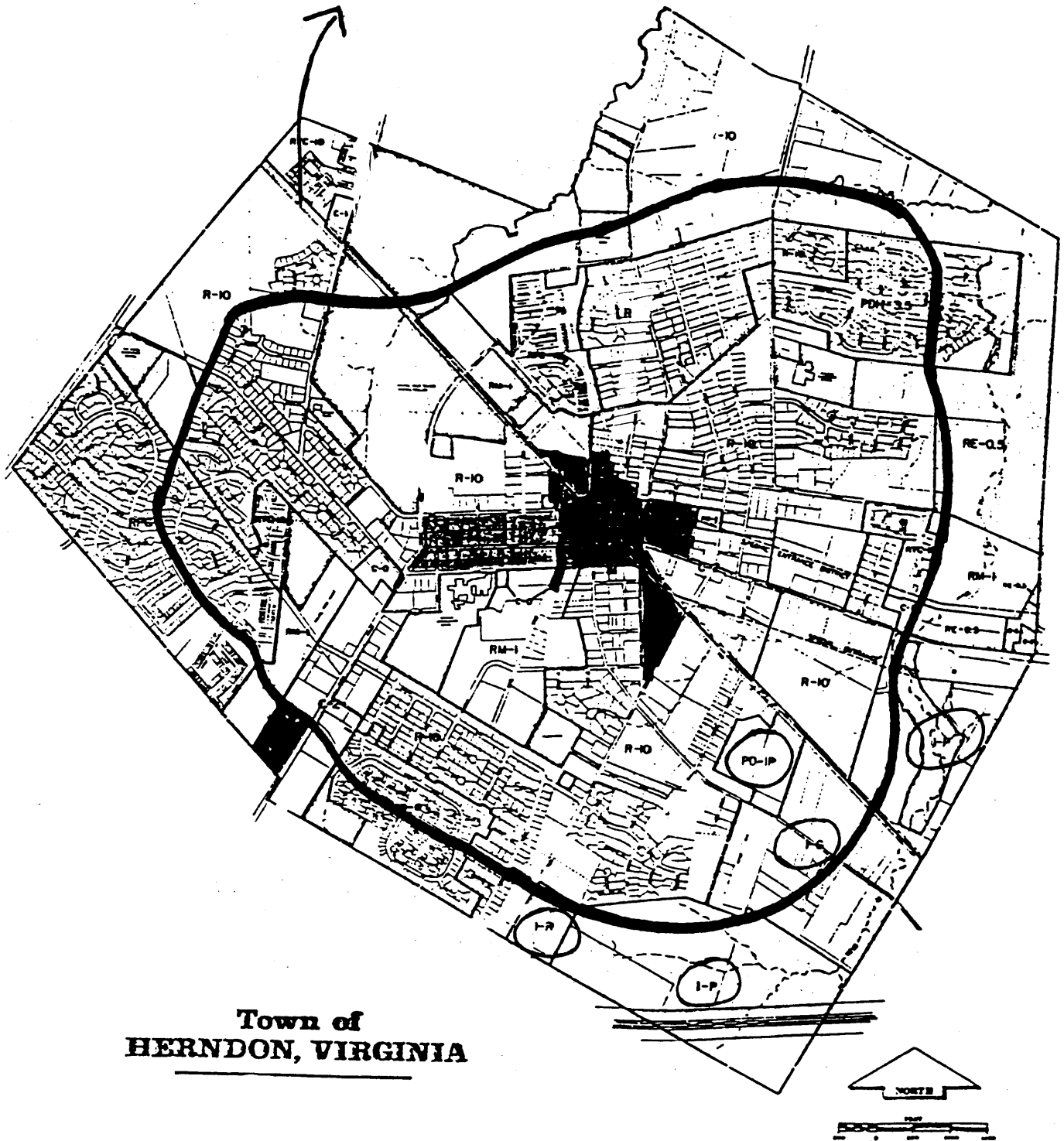
Tools and Techniques

Zoning

A key point in the 1971 plan was in its changing of industrial zoning only to the south of downtown (see Figure 6 on page 51) as opposed to the State Highway Department's plan which allowed it to the north and south of downtown. The change was made necessary due to the fact that by the late 60's the Washington and Old Dominion Railroad, as shown in the graph below, which was located north of downtown, was no longer in operation. Therefore, having industry only south of downtown would allocate a fair amount of land towards the limited industrial growth that was expected in the 70's, i.e., manufacturing, storage warehousing, etc. The zones, as shown in Figure 6, were in a section of town that was pre-industrial zoned

Figure 6

Washington
Old Dominion
Railroad



(primarily for farming compatible products and services) with less residential concentration near the Herndon Parkway and in route to Beltway 495. Thus, this type of location and convenient access provided the town of Herndon with the type of atmosphere that persuaded growth in industrial land use. This was very important in the 70's to Herndon's growth across industrial markets because it meant that development companies, warehouses, research plants etc. could locate on the outskirts of town and have easy access to and from the Herndon Parkway which connected to Beltway 495 in route back towards Washington, D.C. or forward to the Dulles Access Road in route to Dulles International Airport area. Consequently, many of the industrial zoned areas in Herndon turned out to be primary target that captured the new-wave of growth in high-tech firms by the early 80's.²⁶ Such new growth expanded the commercial-industrial market of Herndon and the demand for space through the surgence of high-tech computers, research plants, development corporations, etc. and made a home for firms such as the following:

- o SOFTWARE CENTER
464 Elden Street
Herndon, VA 22070
(1983)

- o NOVELL-NETWARE CENTER
555 Herndon Parkway
Herndon, VA 22070
(1985)

²⁶By 1986 Herndon had more than 2 million square feet of commercial office space, much of it designed specifically for high-tech users; according to the 1986 Town Annual Report.

- o GLEBE ELECTRONICS & APPLIANCES
1088 Elden Street
Herndon, VA 22070
(1981)

- o OPTICAL TECHNOLOGIES, INC.
360 Herndon Parkway, Suite 500
Herndon, VA 22070
(1982)

Zoning Innovations

In addition to the planning unit's usage of zoning for industrial expansion, zoning innovations were also geared to support commercial and residential growth in Herndon between 1970 and 1980. The planning unit saw the opportunity to take advantage of Herndon's location and vacant land with the intent of boosting the economy through the money that could be received by way of real estate taxes and commercial revenues. And therefore, in order to maximize the use of the land efficiently, zoning innovations were sought to stimulate such growth and opportunity. Consequently, the zoning ordinance was revised and amended in 1971 to introduce the concept of Planned Unit Development (PUD).

PUD zoning districts were one of the most powerfully and frequently used tools in Herndon during the 70's. PUDs floated over the entire town and were available to be applied for by a developer of residential, industrial or commercial projects.

Through this concept the town of Herndon not only benefited from the property taxes and commercial revenues that it brought about, but it also got developer to build multi-family and

affordable housing to accommodate growing housing needs, adequate public facilities and services. In fact, between 1970 and 1980 the town added 448 multi-family, affordable units to its housing stock. Such stock was privately owned, federally assisted apartment units that were under section D236 programs and was 10% the 4,390 total town dwellings.²⁷ The apartment complexes were as follows:

- o Chantilly Pines - 180 units
- o Elden Terrace - 184 units
- o Reflection Lake - 84 units.²⁸

Through the use of Planned Development Housing (PDH) zones the town allowed between 1.6 and 30 dwelling units per acre.²⁹ Many traditional zoning restraints were removed with this type of zoning, and clustering of units was encouraged as indicated in apartment complexes.

Typically project developers under PDH zoning or otherwise are subjected to site plan review by the appropriate planning bodies and are required to meet performance standards for screening vehicular and pedestrian movement, common open space, public facilities, and impact on surrounding areas. However, due to the effort to acquire tax and revenues bases and their growing potential, the process of getting projects approved was generally

²⁷Kay Robertson, Comprehensive Planner for the Town of Herndon

²⁸An additional 147 units were built in 1981 at the Lake View Apartment complex.

²⁹Town of Herndon, Zoning Ordinance, Herndon, VA, 1971 p. 102

loose and expedited in Herndon during this time period.³⁰

To accommodate this new commercial and residential growth, plans for traffic circulation were also put into action to prevent high levels of congestion. Subsequently, although the new official map (as discussed below) made the town more convenient and accessible for through-traffic, it also did more harm than good toward preserving town character and amenities.

The Official Map

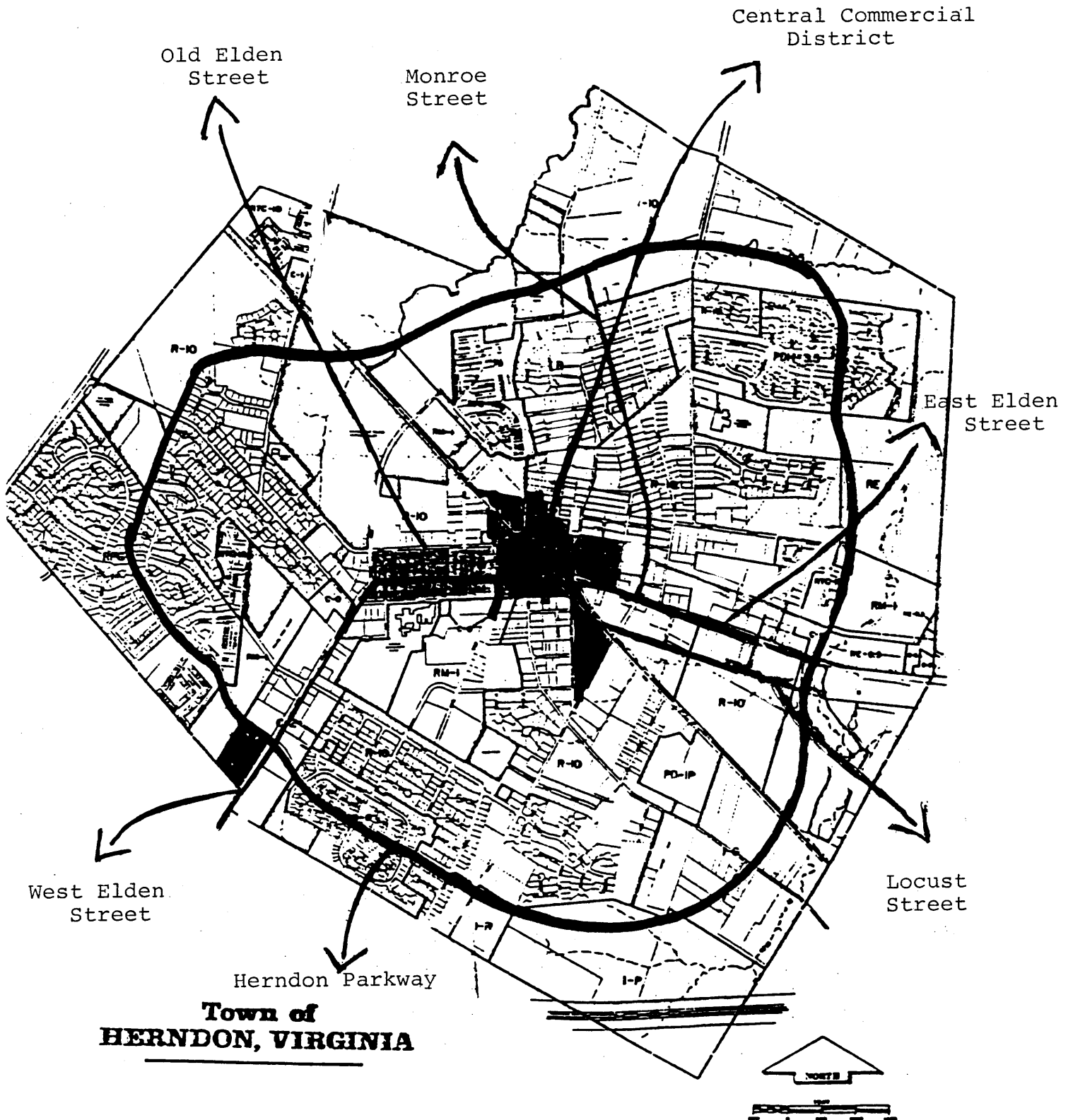
The treatment of traffic circulation around the Old Elden Street area was also very instrumental in Herndon's growth between 1970 and 1980; particularly in the development of commercial-office space.

Since 1964 the town's official map (see Figure 7, page 56) had the major flow of traffic going through two lanes on Elden Street. However, as proposed by the State Highway Department, this flow would be switched to Locust Street which runs south and parallel to Elden Street.

The change was felt needed to connect Locust Street with the eastern half of Elden Street which would create a "T" intersection for the major traffic flow. This would create a situation which seemed better oriented to north-south flow on Monroe Street than

³⁰Will Hagan, Fairfax County Planning Department.

Figure 7



the east-west flow of Elden Street. At the time, that did not seem so inappropriate, as Monroe Street was almost as heavily-trafficked as Elden Street; but by 1971, such was not the case, and it was obvious that the smoothest plan would be one that left Elden Street flowing uninterrupted by geometry or traffic controls.

Consequently, in 1971 the planning structure decided to make all of Elden Street four lanes wide, which appeared to be a viable solution to its traffic congestion. However, this did nothing to preserve the neighborhood around Old Elden Street. In fact, the 1971 plan offered a contradiction on the issue. It planned to have the neighborhood remain low density residential, yet it proposed to have a major four-lane road running right through its center and into the central commercial district.

The widening not only served to disrupt the neighborhood by making it easier for more traffic to pass through, but it acted as an incentive for commercial and office development. The four lane road extended across locations that were in very active area with development prospects, and had easy exit and entrance to Herndon Parkway--making it very convenient for commuters.

Consequently, by the mid-80's the growth of commercial, office and high-tech industrial establishments increased significantly. In fact, by 1980, commercial, industrial and office space in Herndon had nearly **tripled** since 1970; going from **857,559** square feet in 1970 to **2.2 million** square feet in 1980.³¹

³¹Statistics in Herndon's Public Information Brochure indicate on page 2 that the town as of 1990 has over 2.7 million square feet in commercial, industrial and office space.

Analysis of Misguidance and Mistakes

As a result of the planning strategy and the implementation of tools and techniques between 1970 and 1980, Herndon found itself in the midst of tremendous development pressure and unintended growth as population increased by 166% during those 10 years. The reason for such dramatic growth is because of the way the plan was executed. As discussed above, the implementation encouraged residential and commercial growth, while discouraging growth in the preservation of town character and amenities.

The statistics, as shown in Table 1 (see page 59), illustrate how uncommitted the town was towards preserving character and amenities by comparing what existed to what was proposed among land use types. For instance, in the 1970 plan it was proposed that in ten years 57% of the land would be occupied by residential land use, 19% commercial-industrial, and 24% for public and semi-public. However, because of the tools and techniques used (i.e. zoning, an official map, and PUD's) that encouraged growth residentially and commercially, the proposed percentages were noticeable different than what was existed in 1980. According to 1980 statistics, 74% of the land was occupied by residential land use, 12% commercial-industrial, and only 14% for public and semi-public.

A showing of only 14% in existing public and semi-public land use, relative to 74% residential indicated that Herndon was not only guilty of giving into growth pressure, but that it was

TABLE 1

TOWN OF HERNDON
 LAND USE
 (COMMITMENT)
 1970-1980

TYPE -----	PROPOSED LAND USE (1970) -----	EXISTED LAND USE (1980) -----	RATE OF CHANGE -----	RANK*
Residential	57%	74%	+17%	1
Commercial/ Industrial	19%	12%	-8%	2
Public/ Semi-Public	24%	14%	-10%	3

*Rank based on rate of change from high to low.

also willing to supply plenty of housing.

On the other hand, the discrepancies between what was proposed and what existed not only demonstrated how the planning unit's implementation of tools and techniques misguided growth, it also pointed to the lack of professional and technical skills as well.³² This was especially true for residential development as the housing stock in 1980 exceeded what was proposed by a margin of 17%, while land use for public and semi-public facilities which contributed to town character and amenities were under expectations by a margin of 10%.

The large percentage of residential land use was a significant indication of Herndon's ineffective planning. The 17% margin of error (the difference between the 74% proposed in 1970 and the 57% that existed in 1980) suggest that Herndon was willing to forgo other land uses such as parks, recreational sites and other amenities for the sake of exploiting its then attractive and relatively inexpensive land.

The major increase in housing stock conflicted with Herndon's small town image. Herndon became the site which allowed developers to supply and meet the demand of many exurban homeseekers. As homes were built, homeseekers came in droves. In fact, according the 1970 and 1980 census, the population of Herndon nearly tripled during this period; increasing from 4,301 in 1970 to 11,449 in 1980.

³²Kay Robertson, Comprehensive Planner for the Town of Herndon.

The 10% margin (the difference between the 24% proposed in 1970 and the 14% that existed in 1980) in public and semi-public land use was perhaps the biggest indication as to why the planning in Herndon was so ineffective. It showed that in terms of commitments, town character and amenities were ranked last. The town was not enhancing or contributing to one of its most valuable exurban assets--spacious land with ample natural, man-made and town amenities (i.e., lakes, ponds, parks, trails, etc.). Furthermore, such usage of land also suggests that Herndon's small town image was not only becoming a low priority, but was in danger of losing its identity as an semi-rural location.

Aside from its impact on residential growth and its lack of preservation for town character and amenities, the overall strategic plan made other mistakes as well. For instance, the plan was also noted for being essentially a minimal effort, in that it was nothing more than a circulation map with inaccurate and unattended land use emphasis.³³ In fact, according to the DCD, all that the plan did was simply re-propose many of the items contained in a 1964 proposal from the State Highway Department--continuing ring road development (Herndon Parkway), density gradation outward from Elden Street and a large industrial area to the north and south of downtown. From this stand point, the plan is also seen as counter-effective because it used conventional planning tactics that were prescribed by the state of Virginia, instead of using plans that specifically addressed Herndon and its character. It

³³Wil Hagan, Fairfax County Planning Department.

also utilized tools and techniques that ignited industrial and commercial-office growth and activity beyond expectations. And as a result, as discussed in the sections above, there was no emphasis on preserving town character and amenities.

Planning Strategy of 1980-1990

By the 80's, the planners realized that although the town had grown significantly in the past 10-15 years, the pressure of growth development was still very much alive. The inability to guide future development as planned had to be met with better technical and professional skills. However, the planning structure also realized that amid growth pressure was the possibility that the amenities and overall town character would continue to be neglected as they were between the 70's and early 80's unless something was done.

"...people felt like the town's historical character was in jeopardy; especially with all the traffic downtown becoming so close to the Depot area--that place means everything to Herndon."³⁴

(David Craig)

³⁴David Craig, Herndon Public Information.

Consequently something was done and in 1984, Richard C. Thoesen was elected Town Mayor on a platform that focused on the issue of controlled growth and town preservation. Upon taking office, he addressed the need for better technical and professional skills by hiring the town's first comprehensive planner in 1985 and organizing the Department of Community Development (DCD).

Under the guidance of the DCD in conjunction with the Town Boards and Commissions, Herndon supported the Mayor's plan for controlled growth and town preservation, and in return, the people of Herndon supported Mayor by electing him to office to serve 3 consecutive terms (1984-1986, 1986-1988 and 1988-1990).

"I think its fair to say that the people of this town has supported Mayor Thoesen since his arrival in the mid-80's. If they didn't, it would definitely be known. Local groups and organizations like the Rotary Club, American Legion and the Lion's Club do not have a problem with making their feelings known."³⁵

(Mary Johnson)

Since 1985 Herndon has put together a plan which intends to maintain a balance in land use suitable to the exurban, small-town image of Herndon (see goals on pages 64-67). The overall plan consists of short and long term goals.

The shorter-term goals lay the ground work for the long range

³⁵Mary Johnson, local resident.

GOALS FOR PARKS AND RECREATION

- To provide diverse and balance recreational facilities, helping to make Herndon a community of high quality services and outstanding amenities.
- To provide superior recreational opportunities supplementing those administered by Fairfax County, the Fairfax County Park Authority, and the Northern Virginia Regional Park Authority.
- To provide active and passive recreational amenities for people of all ages.
- To provide ample open space and access to natural areas.
- To establish a pleasing environment to distinguish the Town from its surroundings.
- To provide opportunities to make advantage of a variety of leisure time activities, including a library, an arts center, concerts and festivals. (Cross reference goals for Public Facilities).

GOALS FOR HERITAGE PRESERVATION

- To enhance the unique characteristics inherited from the past.
- To ensure a built environment which will be a worthy heritage for generations to come.
- To preserve the historical, cultural and architectural heritage of the Town by protecting the hisoric resources of the Town for future generations.
- To encourage public education in heritage preservation.
- To incorporate heritage preservation objectives into public improvements projects.

GOALS FOR PUBLIC FACILITIES

- To provide public facilities and services as needed to met the growing needs of the Town.
- To ensure the efficiency of government operations.
- To expand, diversify, and provide a balance of leisure and cultural activities.

GOALS FOR LAND USE

- To ensure an appropriate balance between residential and non-residential land uses.
- To protect the small-town atmosphere in Herndon.
- To manage the effects of development so as to protect and enhance the Town's quality of life.
- To enhance the unique identity which sets the Town apart from its suburban surroundings.
- To maintain orderly development and compatible land uses along the Town's boundary.
- To promote harmonious design.
- To work toward a balance between the natural and built environments.
- To seek conservation and reclamation of natural resources within the Town.
- To provide a physical environment that clearly distinguishes the Town from surrounding urban growth.
- To facilitate the safety and quality of life of neighborhoods (in terms of pedestrian access, vehicle access, personal security and environmental quality) through consideration of the design and compatibility of adjoining uses.
- To enable affordable housing options for a diverse labor force and for special populations such as the elderly.

GOALS FOR TRANSPORTATION

- To provide a transportation system that safely accommodates local traffic.
- To encourage use of major regional roads and highways outside of the Town for regional traffic.
- To design needed transportation system improvements consistent with the Town's small size and character.
- To use the transportation system to help guide growth and development within the Town.
- To divert through-traffic away from local streets and from the downtown.
- To facilitate alternative modes of transportation within the Town.

plan and focused on things that could more immediately enhance and preserve the Town's identity and amenities.

The identity of Herndon is represented by the historic buildings and landmarks that dates back to Colonial times when the town was known for its railroad and industrial presence.

The amenities include convenience and proximity to downtown Washington and Dulles International Airport, close involvement in town-community planning decisions, plenty of parks and recreation, and other open space facilities and sites, spacious housing and low traffic congestion.

Meanwhile, the longer-term goals would entail a comprehensive plan due to be released in late 1991; included in the plan will be a list of objectives and solutions for guidance 20 years down the road.

Contrast to the strategy of 1970-1980 that superimposed conventional planning and failed to meet Herndon's goal of preserving character and amenities, the strategy since the 80's is determined to be successful by using a more practical and technical approach--flip-side conventional planning. The flip-side conventional planning concept is appropriate for the Town of Herndon because the emphasis on land use and development in this concept is committed to preserving the town's identity by preserving land for the usage of public and semi-public facilities and sites.

The emphasis of Herndon's new land use plan can in deed, be summed up as Town preservation. Town preservation entails the

protection or enhancement of buildings and landmarks of historic significance and open space amenities mentioned above. Such an emphasis was in response to the lack of preservation and extended exploitation of the land during the 70's and early 80's.

Every aspect of the plan, as discussed in the following section, "Comprehensive Plan/Official Map", is intended to help strengthen the Town's character and viability in the face of creeping commercial strip development, suburban office parks, and residential subdivisions. The Town has strived to learn from the mistakes during the 70's by not focusing on the negatives, i.e. lack of amenity preservation, unintended growth, etc.. Instead the town has sought to focus on the positive, i.e. strong tax and revenue bases, more focused planning, etc., and have put forth efforts to balance the economic benefits of growth with the civic, cultural, social and physical attributes cherished in a small-town setting.

The overall plan is intended to offer guidance for future land use decisions as Herndon faces changing conditions related to development surrounding the town. By addressing such issues, Herndon has employed a comprehensive plan that uses tools and techniques that includes an official map, land acquisition, easements and special protection districts to guide growth in development, and to preserve land use for town amenities and character.

Comprehensive Plan/Official Map

The new strategy, was created in 1985 and was put into action by the Department of Community Development as a tool that would begin to organize land use and eventually be carried over into the 1991 Comprehensive Plan for purposes of controlling growth and protecting town identity. It divides land use plans into three components. The first is the map which designates all property in the Town according to one of four land use plan categories (see Figure 8 on page 71). The second component is an elaboration of the four categories with descriptions of objectives and appropriate activities within each category.

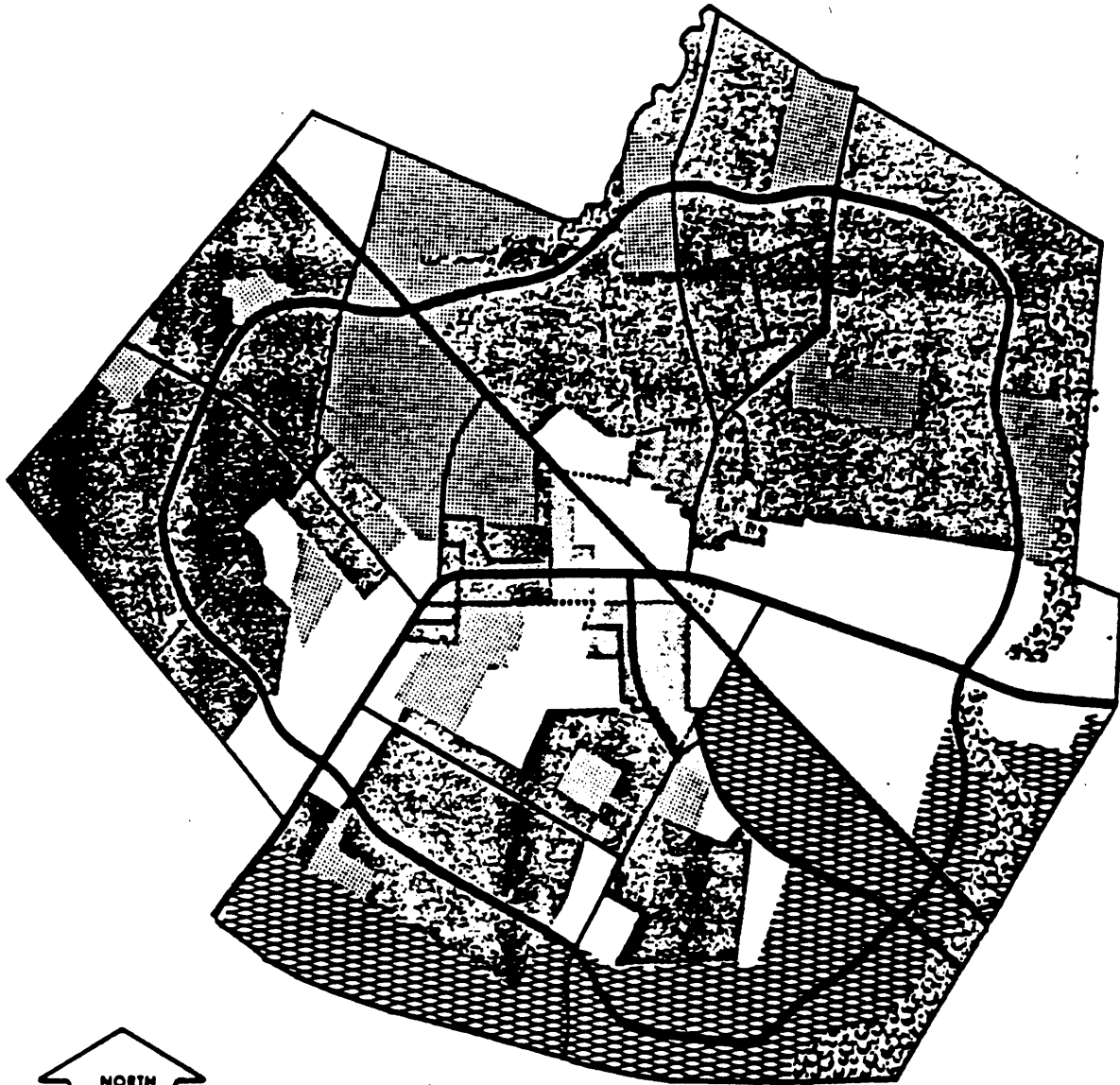
The four land use designations are categorized as 1) Neighborhood Conservation, 2) Community Facilities, 3) Services and Industrial and 4) Adaptive Area. The objectives, applications and uses as described by The Land Use Designation Plan, as shown in Appendix 1, illustrates how Herndon's plan focuses on town preservation and is appropriate for the concept of flip-side conventional planning because of its environmental sensitivity.

The designation of Neighborhood Conservation applies to established residential neighborhoods and dictates when they should be essentially maintained in the same or similar character as presently exists. These areas may consist of a collection of

Figure 8




PROPOSED LAND USE

TOWN OF HERNDON







LEGEND:

Overlay Districts:

-  Heritage Preservation
-  Green Streets
-  Clean Streams

Land use Designations:

-  Neighborhood Conservation
-  Community Facilities
-  Services and Industrial
-  Adaptive Areas

single-family, townhouse or multi-family structures, affordable or otherwise. Within these conservation areas, the consolidation of parcels and redevelopment is not acceptable.

Secondly, the plan for Community Facilities applies to all public services that are a part of Herndon's needs and everyday functions. The intent is to ensure proper care, location and access of both new and old common facilities of development projects.

The designation of Services and Industrial areas are to guide and protect the quality of commercial development. The plan specifies design guidelines for development of services and redevelopment; provides assistance in trying to minimize conflicts between uses; and recommends any appropriate zoning changes.

And finally, by virtue of establishing the "Adaptive Area" designation, the Land Use Designation Plan acknowledges the need for flexibility in land use and development. Thus, of all land use designations on the Land Use Designation Plan Map, Adaptive Areas are the most flexible. Existing land uses are not anticipated to change much, however, when new development applications are made, they should be considered in the context of the overlying land use designations. Changes in uses may be appropriate under certain circumstances and when certain conditions are met, i.e., design features, sensitivity to surroundings, proximity to public services, traffic effects and town benefits.

Tools and Techniques

Land Acquisition

One of the ways that the Herndon has managed to protect the town's character is through its ability to acquire land out-right. In which case, Herndon has taken advantage of the increased tax base acquired since the 70's and used it as a resource to produce a better balance of amenities and character. As resources, the town receives money from taxes in sales, property and income. For example, the town receives annual real estate taxes from commercial, industrial and residential land use. A certain percentage of those taxes gets placed in a the town's Capital Improvement budget under the authority of The Planning Commission to be used for public purposes, i.e., acquiring land for the enhancement of town character and identity. In fact, between 1980 and 1990 the town received over \$3.6 million in real estate taxes (see Table 2 below on page 74).

Through the approval of The Planning Commission, the 3.6 million gained from real estate taxes, supplemented with money from other taxable sources such as sales and income, the Town of Herndon has used its Capital Improvement budget to purchase land and property for purposes of acquiring public parks, recreation centers and other municipal facilities. A total of 552 acres is what the town currently owns in buildings and land; all of which that has

TABLE 2
REAL ESTATE VALUES, 1980-1990

YEAR ---	ASSESSED VALUATION -----
1981	248,754,235
1982	287,480,025
1983	325,640,654
1984	351,059,412
1985	395,779,616
1986	441,208,117
1987	562,162,603
1988	742,466,327
1989	1,000,068,902
1990	1,290,354,563

Sources: Town of Herndon Departments of Finance and Planning

not only protected land from being used or developed otherwise, but has provided more space for natural, man-made and other town amenities as well. Tables 3 and 4 (see pages 76-79) display an inventory of town-owned land and buildings which are used for parks, recreation and public facilities.

Easements (Right-of-Ways)

As of 1990, 331 acres of Herndon's total land is categorized under right-of-way. Although there is not available data in 1980 to show how much/less such land use has changed in the last 10 years, the fact is, that easements are in place currently and have contributed to amenity preservation. They have generally been used in Herndon to protect a wide range of buildings and land, i.e., scenic resources, historic properties, fish and game habitats, public recreation access and opportunities, and scenic resources and the like.

...many of the owners of the buildings and land in our four historic districts use preservation easements because they ensure the protection of the area's scenic culture and heritage. The same is true for areas near the hike and bike trails and the view along Horsepen Run where the Town of Herndon uses conservation easements to protect the area from development.³⁶

(Kay Robertson)

³⁶Kay Robertson, Comprehensive Planner for the Town of Herndon.

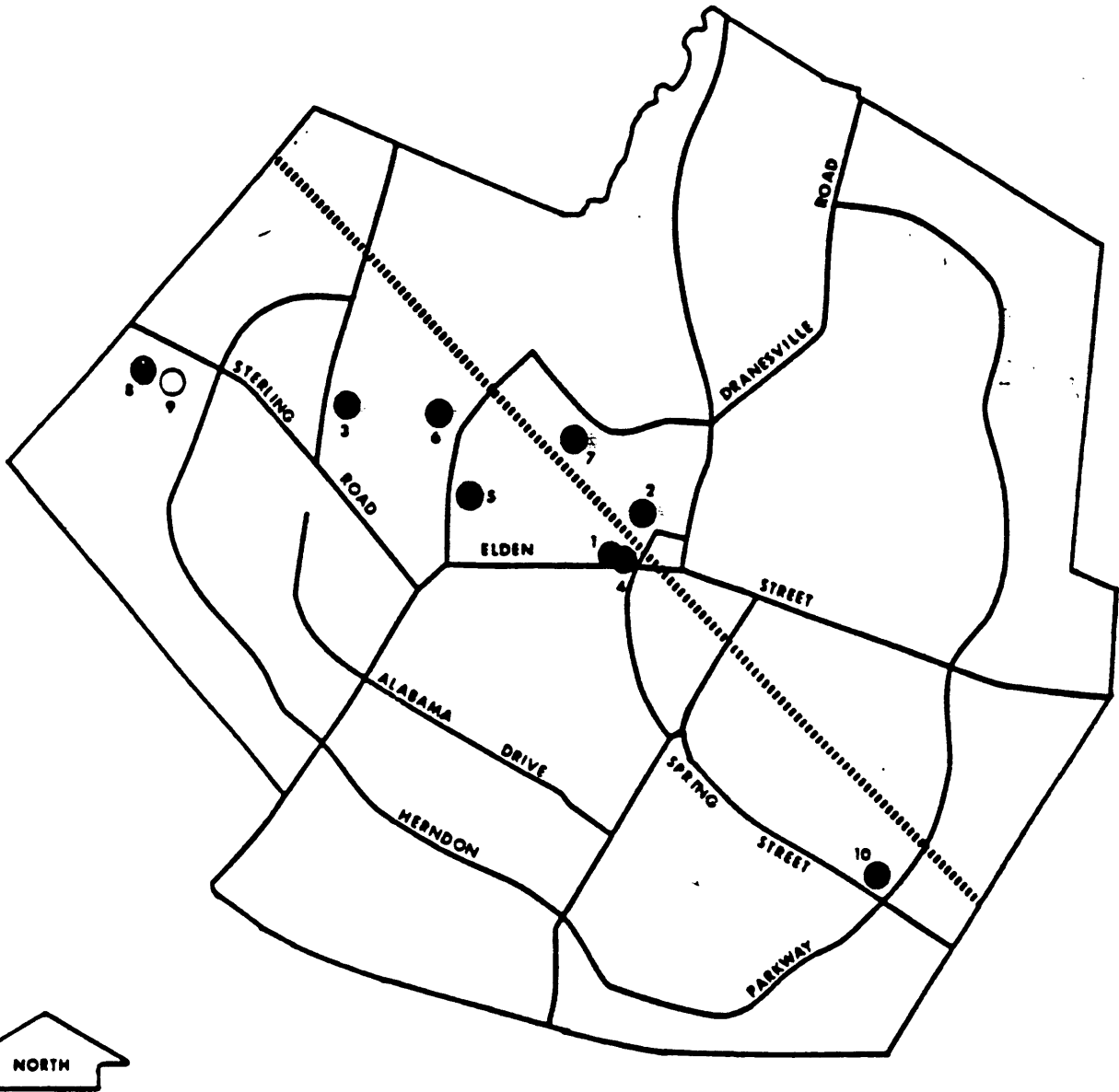
TABLE 3

TOWN OF HERNDON
 INVENTORY OF TOWN-OWNED BUILDINGS
 JUNE 1989

Building -----	Floor Area (Square Feet) -----	Lot Size -----
Town Hall	3,361	.5 acres
James Building - 1st Floor	4,350	.5 acres
James Building - 2nd Floor	1,060	
Hoover Building - 1st Floor	1,500	4.4 acres
Hoover Building - 2nd Floor	1,750	
Depot	1,098	
Community Center (including Aquatic Facility)	45,569	2.3 acres
Golf Course - Clubhouse	4,050	137.0 acres
Golf Course - Maintenance	1,760	5.0 acres
Old Town Shop - Jorss Place	5,200	2.7 acres
New Town Shop - Sterling Road	19,560	14.0 acres
Police Station	9,000	2.6 acres

Figure 9

HERNDON PUBLIC FACILITIES



LEGEND:

- | | |
|---------------------|--------------------------------------------|
| 1. Town Hall | 6. Golf Course/Club House Maintenance Shop |
| 2. James Building | 7. Old Town Shop Site |
| 3. Hoover Building | 8. Police Station |
| 4. Depot | 9. New Town Shop Site |
| 5. Community Center | 10. Town-Leased Offices |

TABLE 4

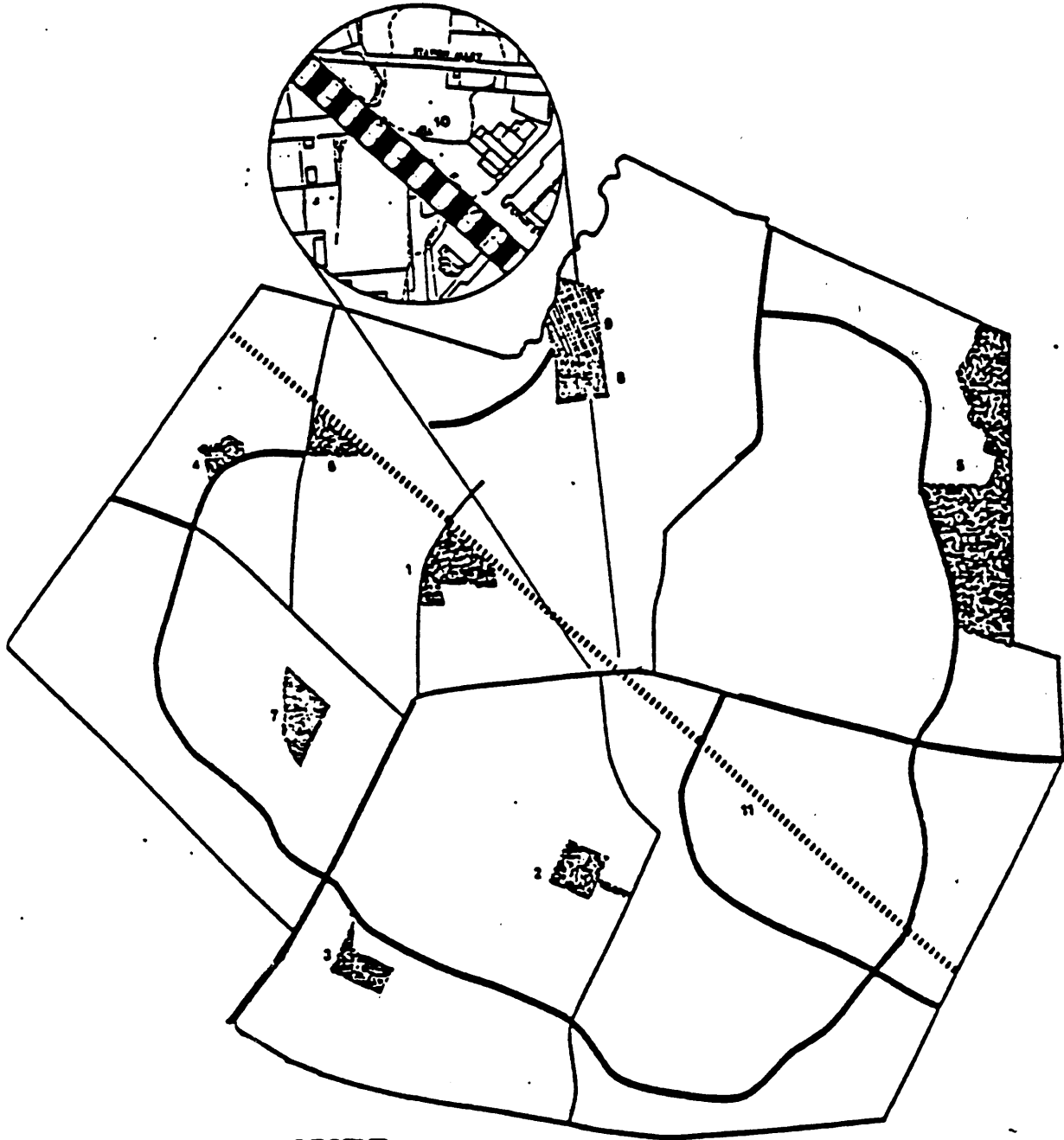
TOWN OF HERNDON
 INVENTORY OF TOWN-OWNED PARKS
 JUNE 1989

NEIGHBORHOOD PARKS -----	ACRES -----	STREAM VALLEYS PARKS -----	ACRES -----
Bready	10.0	Sugarland Run	48.0
Bruin	8.0	Frying Pan Creek	39.0
Chandon	8.0	Horsepen Run	68.0
Cuttermill	6.0	Folly Lick Branch	30.0
Runnymede	48.0	Little Difficult Run Branch	21.0
Trailside	6.0		

TOTAL	86.0		206.0

Figure 10

HERNDON PARKS



LEGEND:



Town Parks:

- 1. Bready
- 2. Bruin
- 3. Chandon
- 4. Cuttermill
- 5. Runnymede
- 6. Trailside



Proposed Parks:

- 9. Monroe Street Property
- 10. Municipal Area



Regional Parks:

- 11. Washington and Old Dominion Trail



Fairfax County Parks:

- 7. Alabama
- 8. Stanton



Special Protection Districts

Through the issuance of special protection districts the Town of Herndon has protected land from development pressure by enforcing policies that restrict land usage irrespective of zoning by-laws. For example, The Heritage Preservation Districts, approved by The Heritage Preservation Review Board (HPRB) as part of the Zoning Ordinance, is used to promote the history of Herndon by identifying landmarks and neighborhoods of significance.

Buildings in these districts are certified by the HPRB and issued a special plaque that informs the public of their architectural or historic uniqueness. The special plaques also prohibits such places from being renovated, landscaped or otherwise without the consent of HPRB.

In residential areas, where buildings are not only apart of the town's heritage and culture, but part of the family's as well, there is more of a personal incentive to physically maintain and rehabilitate landmarks and neighborhoods.

"...the landmarks and neighborhoods are generally sources of great pride on the part of owners in Herndon, and are fashionable maintained...."³⁷

(Kathy Garvey)

However, in the Central Commercial District, where owners are

³⁷Kathy Garvey, Herndon Department of Community Development

more transient, frequently non-natives, and are not as attached to the historic culture and heritage of Herndon, there may be less of an incentive to physically maintain or rehabilitate. In which case, part of the Heritage Preservation policy includes the town's approval of lower property tax rates for indicated land marks and districts. Planning in Herndon justifies this treatment by pointing to the benefits derived by the public and its ability to protect such land from commercial, office or other land uses.

Analysis of Accomplishments

Herndon as of 1990 is 90% developed; 49% is in residential land use, 16% is in commercial-industrial land use, while 23% is in public and semi-public land use. The statistics as shown in Table 5 (see page 82), also illustrate that a much more significant emphasis is placed on town character and amenities during the 80's, than in the 70's. Primarily because land use for public and semi-public sites and facilities are not only obtained as proposed, but in some instances they are surpassed. For instance, in 1980 existing land use for parks, recreation and other open space amenities was only 7.7 acres or 1% of all land use; compared to 1990 when 391 acres or 14.1% of the Town's total land was used for such purposes.

In addition, the strategy of the 80's also show that commitment towards growth had become less, particularly since 1985.

TABLE 5

TOWN OF HERNDON
 LAND USE
 (COMMITMENT)
 1980-1990

TYPE -----	PROPOSED LAND USE (1980) -----	EXISTED LAND USE (1990) -----	RATE OF CHANGE -----	RANK*
Public/ Semi-Public	21%	23%	+2%	1
Commercial/ Industrial	15%	16%	+1%	2
Residential	56%	49%	-7%	3

*Rank based on rate of change from high to low.

This is indicated in the disparity between the amount of land proposed and used for both residential and commercial-industrial building types. For example, as of 1990 the commitment to growth in residential land use appeared to be pretty stable since 1980; 56% of all land usage in Herndon was proposed for residential use in 1980, and by 1990 the total of all residential land use was 49% (see Table 5 above). Whereas, during the 70's the commitment to housing growth was unstable and well over expectations, i.e. 57% proposed in 1970 compared to the 74% that existed in 1980.

Growth in commercial-industrial land use has also received less commitment in the 1980's. Eventhough the early to mid-80's experienced particular growth in commercial-industrial land use, the commitment for such purposes is lower than that of the 70's. For instance, as shown in Table 5, in 1970, 19% of the land was proposed for commercial-industrial land use, and eventhough only 12% actually existed by 1980 the fact still remains that planning strategies were originally committed to designating as much as 19% of the town's total land use for such purposes. Compared to 80's when the planning unit was committed to preserving only 15% for commercial-industrial land use in 1980, only to misjudge by 1% and allow 16% to exist by 1990.

CHAPTER FOUR: Summary and Implications

Chapter Four summarizes the effects of planning in the Town of Herndon and discusses the implications of the concept of flip-side conventional planning in exurban areas.

The first section of this chapter summarizes the comparison between the planning strategy of the 70's and the 80's. The results of the comparison demonstrate how the town used certain tools and techniques to recover from early misguidance and managed to handle growth without neglecting its identity (i.e., its character and amenities).

The second section lays out the implications of planning in Herndon with reference to the lessons learned from using appropriate planning tactics.

Summary

Exurban planning addresses the issues of growth in land use and development beyond the suburbs but before the countryside in areas that are semi-rural and have plenty of accessible parks, stream valleys, scenic routes, hike and bike trails, etc. How can exurban towns effectively manage growth by means of land use and development, while preserving town identity?

Effective planning in the exurbs is based on a town's ability to 1) establish community-specific goals and objectives, 2) enforce them through the use of tools and techniques, and 3) manage growth while avoiding debilitating effects like unemployment or housing shortages.

Using Herndon, Virginia as a case study, this thesis has maintained that flip-side conventional planning makes the difference between effective and ineffective planning in the exurbs.

In urban areas, effective conventional planning focuses on land use and development for growth. The concept of flip-side conventional planning, as explained in Chapter One, is appropriate for areas with rural characteristics, areas where the primary focus of land use and development is on the environment rather than growth. Exurban towns have characteristics that are more rural than urban (i.e, countryside landscape, populations that are small relative to cities, commitment to protecting the environment first rather than last, etc.) and should therefore utilize the principles of flip-side conventional planning.

The character of Herndon, Virginia, is exurban. This thesis has shown, as discussed below, that growth in land use and development for this small-town was effectively managed when the concept of flip-side conventional planning was utilized, and ineffective when not utilized.

Faced with the pressures of growth that extends from Washington, D.C., Herndon has been struggling since the 70's to manage its growth and identity simultaneously. It was not until

the 80's when the planning structure applied the concept of flip-side conventional planning that the town got this struggle under control. As shown in the mistakes of the 70's and the accomplishments of the 80's, this community reformed its planning style to effectively meet objectives.

In the 70's, after farming died out and the Washington and Old Dominion Railroad was no longer in the business of transporting dairy products, Herndon found itself with an abundance of vacant and inexpensive farm land that was less than 30% developed. This key scenario was not only the beginning of major growth in Herndon, but also the first sign as to how the town inappropriately adopted the principles of conventional (urban) planning.

The attitude of the planning structure and the town as a whole, behind such leadership as Mayor Thomas D. Rust, pointed towards growth. Residents and developers took advantage of the undeveloped land and promoted the Town of Herndon as the perfect bedroom community of Washington, D.C.

The tools and techniques used i.e., loose zoning, zoning innovations, an official map, combined with the lack of professional planning knowledge encouraged growth in nearly every type of land use except public/semi-public. For instance, when the town introduced the concept of PUD's in 1971, growth was encouraged in residential, commercial and industrial land use. The statistics in Chapter Three show that in the 1970-1980 period the largest commitment of land use and development were in the areas of residential and commercial-industrial use.

Developers flocked to Herndon to take advantage of this

opportunity, land was attractive because of its proximity and convenience to Washington, D.C. and was relatively inexpensive.

Population nearly tripled within 10 years, reaching a total of 11,449 by 1980. By the early 1980's, Herndon became one of the most sought after bedroom communities in the greater Washington area. Meanwhile, the town had become less concerned with preserving character and amenities. In fact, by 1980 only 14% of the town's total land occupied public and semi-public facilities and sites, compared to the 24% that was originally proposed in 1970.

By the early 80's, Herndon continued to neglect land use and development of public and semi-public facilities. The town continued to grow and became a primary target for firms entering the Washington, D.C. area market for high-tech industry (i.e., computer firms, research plants, manufacturing and development corporations, etc.). Herndon was an ideal location for market growth because of it was very accessible to freeways and roads to Dulles International Airport and downtown Washington; plus, the town had plenty of areas that were already zoned for commercial-industrial land use from the days when the railroad was functioning.

By the mid-80's, the planning structure finally realized that its image as a small-town was becoming more and more jeopardized. The town had increased in population by a full 166% between 1970 and 1980, and was in the midst of not only more population growth, but development growth pressure as well--further threatening the town's identity.

However, in 1984 newly elected Mayor, Richard C. Thoesen, was voted in by the people of Herndon because his platform emphasized town preservation. The timing for this new emphasis was crucial because at this point growth pressure was very much alive and Herndon had to make a choice. The choices were 1) to encourage growth and become more suburban-like or 2) encourage town preservation to protect the rich culture and identity of the town, while monitoring growth meticulously.

In electing Mayor Thoesen, the town as a whole chose to preserve identity through effective planning. To plan effectively in Herndon meant that growth had to be better monitored than in the 70's. It also meant sensitivity to surrounding environments and encouraging the preservation of town character and amenities. In other words, effective planning meant that the conventional planning tactics which allowed the town to focus on growth first and town identity last during the 70's could no longer be apart of the strategy. Instead, flip-side conventional planning tactic had to be assumed in order to place emphasis on protecting town identity first and growth last. Through a technically sound comprehensive plan, an official Map, zoning, land acquisitions, easements and special protection districts the town of Herndon managed to improve its commitment to land use and development for public and semi-public facilities. By 1990, 22% of the land had been used for such purposes, an 8% increase from 1980.

The facilities on the public and semi-public land sites includes parks, recreations, a golf course, etc., while buildings and landmarks that contributed to the town's identity were

protected or acquired through zoning, capital improvement funds, easements and special districts.

Meanwhile, growth in Herndon slowed as population only increased by 31% between 1980 and 1990 compared to 161% between 1970 and 1980. The cut in population growth reflected how the town was transforming; the preference for preserving identity was primary over growth. The town increased land use and development of parks by 13.1% between 1980 and 1990, while cutting its growth in residential and commercial land use by 25% and 4% respectively.

The emphasis on promoting the town as 1) a location with commercial capacity and 2) a place of convenience and proximity to Washington, D.C. caused Herndon to experience growth counter to public/semi-public land use. However, emphasis on town preservation, combined with improvements of professional and technical skills turned things around. More specifically, the use of certain tools and techniques produced the ineffectiveness of the 70's and the effectiveness of the 80's. The list in Table 6 (see pages 88-89) lays out frequent tools used, and their effects, for both time periods as alluded to above.

The difference in the results of the tools used in the 70's and 80's demonstrate the effectiveness of the two planning strategies. The strategy of the 70's was ineffective because it stimulated growth and gave little attention to the town's unique surrounding and environment. Contrast to the 80's when tools

TABLE 6
STRATEGY COMPARISON

Conventional Strategy	Flip-Side Conventional Strategy
1970-1980 (Commercial Activity Focus)	1980-1990 (Town Preservation Focus)

Purpose: To designate area activity by streets and neighborhoods.	
Tool: Official Map	Tool: Comprehensive Plan/ Official Map
Result: Encouraged commercial development via expanding Central Commercial District's major road from two to four lanes.	Result: Restricted commercial development via dividing land use into four designated areas subjected to quality criterion.

Purpose: To divide the town into districts with land use restrictions.	
Tool: Zoning	Tool: Special Protection Districts
Result: Emphasis on commercial-area designation via zoning areas close to Beltway for easy access to and from D.C. and airport.	Result: Restricted land use of historic landmarks and neighborhoods irrespective of zoning by-laws.
Tool: Zoning Innovations (PUD's)	Tool: Zoning Innovations (PUD's)
Result: Increased multi-family housing in conjunction with commercial and industrial sites (mixed-use development).	Result: Increased multi-housing not in conjunction with mixed-use development.

TABLE 6 (Cont')
STRATEGY COMPARISON

Purpose: To use town-owned for public and semi-public use.

Tool: Land Acquisition

Result: 7.7 acres used for public and semi-public use, i.e., public parks, rec-centers, etc.

Tool: Easements
(Right-of-Ways)

Result: Not used.

Tool: Land Acquisition

Result: 552 acres in land and buildings for public and semi-public use, i.e., public parks, rec-centers, etc.

Tool: Easements
(Right-of-Ways)

Result: 331 acres used for public and semi-public accessibility and enhancement of fish and game habitat, scenic routes, etc.

were used to devise land use and development to be sensitivity and much more attentive to the town's surrounding and environment.

The Herndon transformation demonstrates that planning in the exurbs cannot be the mere transplant of conventional urban planning principles and practices. This is particularly true for small towns that are more interested in providing amenities and protecting identity than in growing. Planners must realize that these places are more rural than urban and are often dependent on responsiveness to unique locational needs. Thus, a concept like that of flip-side conventional planning is appropriate for such areas because it places emphasis on the environment and its particular needs rather than on growth.

Implications

The experience of Herndon teaches that the resolution of managing growth through planning involves much more than the implementation of conventional strategies. What is required is 1) the perception of goals, 2) an understanding of a location's prevailing character, 3) a strategic master plan with pertinent tools and techniques and 4) strong leadership and personnel to implement the plan. For an exurban locality with the capacity to accommodate the above, its description has to be comparable to that of Herndon in order for this lesson to have any relevance. Thus, this study is for communities that possess attributes and qualities

which entail the following package:

GOALS:

The goals should be designed to accomplish effective growth management in accordance to a particular objective, i.e., isolated growth, restricted growth, expanded growth, no growth, etc. The goal should also be a community goal in that it represents what residents and members of the planning agencies all agree upon.

CHARACTER:

The character must be exurban, which means that the location is 1) a semi-rural environment bounded by countryside landscape and other natural resources, 2) populated with 10,000 to 20,000 people, 3) committed to allocating land use and development for the protection of the environment and 4) capable of offering plentiful and accessible amenities such as hike-bike trails, lakes, parks etc.

IMPLEMENTATION:

The implementation of pertinent tools and techniques is what determine whether or not the planning strategy is effective or ineffective. Therefore, since the character of locations using this package focuses on protecting the environment, I recommend that usage of tools and techniques such as the following be

required:

- o zoning;
- o zoning innovations such as clustering;
- o land acquisition;
- o easements;
- o community review process;
- o special protection districts; and
- o an official map.

Note: See Chapter Two for greater detail.

INITIATIVE:

Initiative on the part of leadership, community support, interagency-cooperation, and staff must be present to implement the above listings. Leadership from the top, i.e., the Mayor, must first of all be supported by the community. Secondly, it must be aggressive and instrumental in implementing efforts to accommodate effective growth management as defined by the community as a whole. Underneath the Mayor should be an interagency-cooperative effort from all components within the planning decision-making process i.e., boards, commissions, professional and technical staffing units.

The package above is appropriate for towns such as Herndon

because its planning strategy which focuses on town preservation is specifically adjusted for exurban environments. The Herndon experience suggest that exurban towns should bend strategies by allowing growth that is carefully managed and suitable to the environment, without breaking under pressure (i.e., allowing unintended growth that causes deterioration of identity through the lack of character and amenity preservation).

Based upon the unintended growth in land use and development that once occurred in places such as Herndon, it seems justifiable to some, to assume a hardline stance against growth if one is in favor of protecting the countryside landscape and amenities.

However, this is unrealistic as growth is inevitable and necessary. Thus, through utilizing the package above, the underlining message rendered from this study imply that growth can occur and be effectively managed so long as there are adequate land use regulations that protects the environment in the process.

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APPENDIX 1

NEIGHBORHOOD CONSERVATION

Strategic objectives:

- o To conserve and enhance the built, cultural and natural environments of existing neighborhoods.
- o To protect neighborhoods from inappropriate redevelopment.
- o To protect the stock of affordable housing.
- o To provide public improvements to enhance neighborhood stability.
- o To ensure future Town actions are consistent with the above objectives.

Land Use Applications:

- o Residential neighborhoods which demonstrate conservation through intervention, a willingness to maintain neighborhood integrity, and a desire to protect the existing character of the neighborhood; and neighborhoods which demonstrate self-improvement through organization, unity and a willingness for public improvements.

Land Uses:

- o Residential structures of a predominant housing within a specific neighborhood; major and minor home occupation activities which are incidental and secondary to the use of the dwelling, as described in the Zoning ordinance.

APPENDIX 1 (Cont')

COMMUNITY FACILITIES

Strategic Objective:

- o To designate locations for present and future public service facilities.

Land Use Application:

- o All existing public service facilities. Future facilities should be sited with consideration for traffic access, compatibility of surrounding uses, levels of noise and activity.

Land Uses:

- o All public service uses such as municipal facilities, schools, houses of worship, parks, publicly held land and open space.

APPENDIX 1 (Cont')

SERVICES AND INDUSTRY

Strategic Objective:

- o To protect the existing revenue base with the Town.
- o To define criteria for commercial development.

Land Use Applications:

- o The corridor of office and industrial uses along the Herndon Parkway between Elden Street on the eas side of Town and Van Buren Street, and along the north side of Spring Street from Van Buren Street to the eastern boundary of the Town.

Land Uses:

- o Manufacturing, industrial parks, warehousing, wholesale establishments, hotels/motels, retail convenience, personal services, officees, public uses, commercial services such as auto repair, auto sales, tire sales upholestery shops.

APPENDIX 1 (Cont')

ADAPTIVE AREAS

Strategic Objectives:

- o To provide a description of appropriate land uses with high quality design to be achieved in response to development potential.
- o To specify the desirable land use qualities to consider for development proposals.

Land Use Applications:

- o All land not otherwise designated as Neighborhood Conservation, Services and Industry, or Community Facilities on the Comprehensive Plan Map.
- o These areas include areas which may be now or in the future subject to a state of flux but which should settle into a development pattern comfortable with other plan designations.

Land Uses:

- o Uses permitted within zoning districts deemed appropriate according to the Compatibility Guide for Adaptive Areas.