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A CASE STUDY OF THE TENNESSEE TECHNOLOGY CORRIDOR HIGH TECHNOLOGY OVERLAY ZONE: 1981 - 1989

A Thesis

Presented for the Master of Science in Planning

Degree

The University of Tennessee, Knoxville

Kristin A. Reese

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DEDICATION

This thesis is dedicated to

Dave Patterson

A man I could have not faced

had I never finished this thing.

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ABSTRACT

This research presents an overview of the Tennessee Technology Corridor High-Technology Overlay Zone from its creation in 1981 until 1989. The case study method was used to research this topic relying upon interviews, newspaper articles, internal working documents of the Tennessee Technology Foundation, and official public records.

A detailed evaluation of the various land control devices examined in developing the Overlay Zone, the political, financial, and administrative ramifications for the device created, and the final product is detailed in this research. The implementation of the Overlay Zone is discussed at length.

The developments that occurred between 1981 - 1989 and the results of the Tennessee Technology Corridor Development Authority's actions are detailed. Finally, an overview of community perceptions of the Overlay Zone, past and present, is included.

The research found that it hard to measure the "success" of the corridor. The Overlay Zone has served its purpose, but supporting elements needed to effect economic development in this region have not been supplied. The conclusion reached is that a creative use of the Development Authority's powers, a well-funded national marketing effort, and infrastructure improvements need to be provided in this area in order to facilitate the growth desired. Zoning, in and of itself, can help to maintain a positive atmosphere but cannot be expected to facilitate development without other factors present.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

Statement of Purpose, Methodology and Definitions

Introduction

The Tennessee Technology Corridor High-Technology Overlay Zone, hereafter referred to as the Overlay Zone, was established by the Knox County Commission in the Spring of 1983 after passage of a State legislative private act creating the Tennessee Technology Corridor High-Technology Development Authority (TTCDA). This device was created to further the goals of the Tennessee Technology Foundation of attracting and locating high-technology and technology-based business and industry to the Knoxville/Oak Ridge area. This land control device and review board was established to assure the high amenity setting and development standards commonly required to site technology-based business and industry.

The Overlay Zone legislation was created by drawing from various aspects of Tennessee's State enabling legislation after extensive study was conducted to determine what kind of land control/management device would best suit the Technology Foundation's needs and limitations. Many different parts of existing Tennessee legislation and land control devices used in other areas were combined to create an effective device for the Tennessee Technology Foundation to use for economic development purposes.

To date, no formal study has been conducted on the Overlay Zone. A study of the Overlay Zone should be useful and of interest to policy makers because of its uniqueness, the way the concept was formulated, promoted, and adopted, and because it resulted in the largest single rezoning ever accomplished in the State of Tennessee.

Because of its impact on landowners and economic development in the community, internal and external political pressures are mounting. The Development Authority had been in operation for over six years in 1989, and the community and the Technology Foundation, among others, were beginning to re-examine the land control entity and what they had accomplished with it.

A formal study of the Overlay Zone and Development Authority should furnish information to other communities desiring to replicate the model to encourage high-technology development in their areas. A comprehensive examination of the steps taken to implement and run this approach would highlight the strengths and weaknesses of this land control device.

For these reasons, a case study outlining the history of the Overlay Zone and its apparent impact since its inception is in order.

Primary Research Questions

1. What is the Overlay Zone and what led to its formation?
2. What happened between the development of the concept through 1989 within the Overlay Zone?

Secondary Questions

1. What was the sequence of major events in the creation and implementation of the Overlay Zone?

2. Who were the major actors in the creation and implementation of the Overlay zone and what did they do?

3. What was the original rationale of the Tennessee Technology Foundation to opt for this land control device as opposed to other methods, and what were the alternatives?

4. What were the original predictions, purposes, and goals of the Foundation and Development Authority for the Overlay Zone?

5. What were the original fears of those connected with the Overlay Zone--landowners, developers, proponents, political figures etc.--concerning its effects?

6. What is the enabling legislation which created the Overlay Zone and what were the components taken from other legislation?

7. What are the boundaries of the Overlay Zone and what land uses and infrastructure exist within it?

8. What is the function of the Development Authority?

9. What is the record of the Development Authority's actions?

10. What has happened regarding zoning, rezoning, and the comprehensive plan?

11. What were the original perceptions of the impact of the Overlay Zone concerning land development and what are the current perceptions of its impact?

Statement of Methodology

The case study method appears to be the best way to approach this topic. The typical sources of information used in carrying-out case studies include: direct observation; interviews and questionnaires; logs, diaries, and correspondence; official records; and expert opinions (Castetter and Heisler, 1984, p.18).

Definitions of key terms and concepts also need to be made clear, as well as an examination of the nature of high-tech economic development. The rationale for why this specific area in East Tennessee was even considered for such attention to recruit high-tech development will be outlined. The vast majority of information needed for this thesis was derived from public records, internal working documents of the Tennessee Technology Foundation, and interviews with key people associated with the creation of the Overlay Zone, the operations of the Development Authority, and economic development professionals.

High-Technology Economic Development

It is necessary for this document to make clear some issues regarding the implementation of the Overlay Zone: one, to explain why high-technology development was a desirable occurrence, so much so as to create an organization and zoning entity to encourage it; two, describe what elements need to be in place and what other methods have been used to attract high-tech development; and three, examine what the Knoxville/Oak Ridge corridor's strengths and weaknesses are in regard to encouraging high-tech development.

First, a definition of high-technology is needed. Generally, one can identify a company as high-tech if a high percentage of research and development funds are invested and an above average number of scientists, engineers, professionals, and technical personnel are employed (Schmandt & Wilson, 1987; Lampe, 1988). This definition is the most widely accepted, albeit nebulous. Other aspects of a firm need to be taken into account, as well, to determine if it is high-tech.

According to a 1982 joint committee report of congress concerning high-tech industry, the following Standard Classification codes identify the industries that could be considered high-tech: "chemicals and allied products (SIC 28); machinery, except electrical (SIC 35); electrical and electronic machinery, equipment and supplies (SIC 36); transportation equipment (SIC 37); and measuring, analyzing, and controlling instruments, photographic, medical and optical good, watches and clocks (SIC 38)" (Jepsen, et.al.,1982 p.4). This categorization is also not very accurate in that the SIC codes have been greatly expanded since the definition was developed and the range of new technology being developed is not adequately covered by these broad categories.

One might also consider the process rather than the product. For example, a rather ordinary product could be produced by the most cutting-edge and sophisticated equipment created. Here one would have scientists and engineers contributing to part of the high-tech process rather than in the development of a high-tech item. The skills would still be an integral part of the product.

Thus, it seems reasonable to say that the defining a company as high-tech might best be done on a case-by-case basis taking into account its work force, product, process, and attention to research and development.

The reasons for attracting high-tech industry to an area are numerous. Usually high-tech industries are considered clean industries--ones that do not normally billow out noxious elements into the environment or create nuisances with their processes. The high-tech industries generally require a higher than standard labor force, in terms of education level and ability to be trained, and have been proven to pay higher wages for it. In a round about way, high-tech industry increases the level of education in an area.

Many states have launched high-technology initiatives because it promises:

* New jobs and rapid growth, accounting for 75% of the new increase in U.S. manufacturing jobs from 1955 to 1979. Most of the jobs are created through a `multiplier effect' that begins in the area's high-technology specialty and spreads to service and support businesses and then to other industries The application of new products and processes usually has larger economic and employment impacts than their development.

* Revival for distressed regions. Although Industrial America is faced with a massive dislocation of its labor force by industrial innovations, the net impact of new technologies is to create jobs, not destroy them.

* Clean industry. With the application of high-technology industry, economic development is achieved in a clean, non-polluting manner with no resulting environmental damage. The influx of well-paid, highly educated professionals also gives the community an infusion of high personal incomes, active support in schools and participation in cultural activities.

(Study for the State of Tennessee Economic Development Commission, 1985)

> "One of the chief reasons for the political glamour of high-tech is that it is hiring; its workforce is expanding. Computing, communications, and related industries have created over a million jobs over the past decade and perhaps many more, depending on how you count the 40 percent growth of employment in the financial industry" (David, 1983, p.65).

In order to be competitive these days, one has to be aware of the advantages of high-technology development. Creating better processes and better and more sophisticated products is a fact of life now in the global marketplace.

> "Technology can sit in the South, unused like the zig-zag sewing machine grandma was afraid to try. If our policies and programs only build a technology without innovative southern leaders who will use it, we will own splendid but dusty machinery which can barely help us compete, not flourish: survive not thrive . . . Will we react to the technology others bring to our region? Or can we generate it, use it well, and benefit from it on a global scale?" (Rosenfield, 1987, p.49).

What then, makes an area attractive to these attractive industries? In a study conducted by Cosmos Corporation for the U.S. Department of Commerce, Economic Development Administration, Research and Evaluation Division, nine high-technology and industrial parks were evaluated to determine what made them attractive to high-technology companies. The study did not take into account general conditions related to industrial parks as a whole such as economic conditions, locations, or marketing efforts, but rather focused upon the high-tech companies that were residents of the parks to determine the differences in these parks and traditional ones. (Yin, et al., 1985, p.79)

> "The first and most important initiative had to do with the physical features of the park. Among the nine parks studied, the high-technology parks all had restrictive zoning or covenants that led to such features as: the uniformity, attractiveness, or quality of

> buildings and landscaping; the amount of open space; and the minimization of obtrusive docks, loading zones, trucks, and other industrial traffic in the park" (Yin, et al., 1985, p. 79).

This confirms the need for a high-amenity setting as a requirement for attracting high-technology users.

The second identifying factor was the involvement or proximity of a university.

> "The rationale for the relationship is that universities will benefit because graduates can find employment within the same locale--reducing the `braindrain' from the locale or even the state. At the same time, firms in the park can benefit because of the available labor pool, making recruitment in high-technology specialties easier" (Yin, et al., 1985, p.80).

Another attraction between high-technology users and universities is it makes it easier to transfer technology. Ideas generated in a university, or national laboratory as in the case in Knoxville, can be more easily commercialized if the creator and developer can work together.

The third criteria identified was the need for special utilities such as reinforced power lines, special linkages for telecommunications, and expanded capacity of these services (Yin et al., 1985, p.82).

The final criteria identified after reflecting upon the tangible results of the study was the need for collaboration by the different organizations involved, ie: the local government to insure attractive development through zoning; the university and State officials who guide its actions; and the local utility and telephone companies that service the site (Yin, et al., 1985, p. 82).

Why the Pellissippi Parkway in Knoxville, Tennessee?

In Knoxville, Tennessee in 1981, a desire was born to garner some sort of mechanism to encourage high-technology development. It was recognized that the resources at the Oak Ridge National Laboratory, the Tennessee Valley Authority, and the University of Tennessee, Knoxville could be used as economic development tools to cultivate and attract these types of companies.

When the planning and development of a mechanism for encouraging high-technology development began, many factors were already in place on the Pellissippi Parkway which made it a desirable site. The employment levels in Oak Ridge and Knoxville were significant with 30,000 employees in high-technology firms. (Dickerson, 1983, p.15). The University and National Laboratory were spawning grounds for high-technology development with the scientists and engineers to facilitate commercialization.

The land area was an attractive, natural setting as desired by high-technology users, had good transportation access, and good access to the technology centers. The area along the Pellissippi Parkway was also relatively undeveloped.

However, there were drawbacks such as the variety of landowners, the lack of utilities, and the access to the airport. These were not seen as insurmountable, however, and the corridor concept began to be developed taking into account all of the strengths and weaknesses of the area.

What this thesis will examine are the elements that went into the corridor concept and the way in which it was created and implemented. It will also address what has happened since its inception regarding high-technology development and the mechanisms for facilitating it.

CHAPTER II

Development of the Concept of the Overlay Zone

Introduction

Many events occurred, reams of documents were evaluated, and a multitude of discussions were held before the final product of the Overlay Zone was developed and implemented. This chapter will examine those events, documents, and the outcome of those discussions in order to understand why this method of land management was chosen.

Sequence of Major Events

The following is a record of the events that took place and led to the establishment of the Technology Corridor's general rezoning and implementation of the High Technology Overlay Zone. These include actions taken by State and local officials, as well as private citizens.

September 1981: An informal meeting of local education officials and people connected with high technology development took place at Jim Haslam's house in Knoxville. It was called so that they could discuss with Governor Lamar Alexander the concept of combining Roane State Community College (RSCC) and State Technical Institute at Knoxville (STIK) in one facility on the Pellissippi

Parkway. The combined institution would be considered a "$20 million educational research center" that would be the anchor used to establish a research park between Oak Ridge and Knoxville (The Knoxville News-Sentinel, 10/4/81).

September 25, 1981: Governor Lamar Alexander sent a letter to Representative Randy McNally outlining three current unrelated events that combined to form the original impetus to develop East Tennessee into a high-tech research and development area. They were:

1. The General Assembly's $250,000 appropriation for the development of new ideas and inventions;
2. The $12.5 million request from the State Board for Vocational Education for a new campus for STIK; and
3. The $4.15 million request from the State Board of Regents for an Oak Ridge facility for RSCC (The Oak Ridger, 9/29/81).

September 29, 1981: Governor Alexander spoke to the South Knoxville Rotary Club and proposed the idea of combining the institutions [RSCC and STIK] thus creating a State Technical Training Center (The Oak Ridger, 9/29/81; The Knoxville Journal, 9/29/81).

November 5, 1981: The Tennessee Higher Education Commission (THEC) staff endorsed the governor's plan and recommended the creation of a study group to develop the concept (The Oak Ridger, 11/5/81).

November 9, 1981: The THEC endorsed the governor's concept and asked that the area designated be called the "Technology Corridor," that the study work be completed in time for the 1982-83 fiscal year appropriations, and that construction on the facility begin in the 1983-84 fiscal year (The Knoxville Journal, 11/10/81). According to Tennessee Technology Foundation staff members David Patterson and Jeff Deardorff, this may have been the first time the name "Technology Corridor" was made public. However, they seemed to remember that this catch-phrase was fairly standard from the initial meetings (Personal interviews).

November 11, 1981: The Governor's Technology Corridor Task Force was named and divided into study committees. They were:

Chairman: Jim Haslam, president of Pilot Oil;

Co-Chair: Tom Yount, senior vice president for EG&G-ORTEC;

David White, vice-chairman of the State Board of Regents;

Norbert Ackermann, president of Technology for Energy Corporation;

Dick Grant, president and executive director of Boeing Engineering in Oak Ridge;

Herman Postma, president of Oak Ridge National Laboratory;

Jan Buxton, member, the State Board of Education;

Eugene Joyce, Oak Ridge attorney;

Dick Van Sickle, president of Rohm and Haas Tennessee, Inc.;

Jack Reese, chancellor of the University of Tennessee, Knoxville;

Charles Dean, chairman of the Tennessee Valley Authority; and,

George Sullivan, executive vice president for corporate development for Northern Telecom Inc. in Nashville (The Knoxville News-Sentinel, 11/10/81).

The study committees were comprised of the following:

Competition: Herman Postma (leader), Dick Grant, and David White;

Higher Education: Jack Reese (leader), Charles Dean, and George Sullivan;

Existing Industry: Norbert Ackermann (leader), Charles Dean, and Dick Grant;

STIK: Dick Van Sickle (leader), Jan Buxton, and George Sullivan;

RSCC: Eugene Joyce (leader), Jan Buxton, and David White.

Also, staff from the State's Department of Economic and Community Development (ECD) and from the Tennessee Valley Authority (TVA) were assigned as staff for the task force. They were: Lamont Carter, ECD; John Crothers, ECD; David Patterson, TVA; and, Jeff Deardorff, TVA (Governor's Task Force Report, June 1982).

March 8, 1982: Governor's Task Force made a planning tour of Silicon Valley.

March 1982: "Developing the Technology Corridor" was completed by the Winter 1982 Graduate School of Planning Synthesis class at the University of Tennessee, Knoxville.

June 1982: Volumes I and II of "Technology Corridor Governor's Task Force Report" were completed.

July 29, 1982: The Appalachian Regional Commission (ARC) approved a $1.2 million grant to be used to develop the proposal to create a non-profit foundation that would develop the Technology Corridor (The Knoxville Journal, 7/29/82).

August 19, 1982: Governor Alexander created a non-profit foundation [the Tennessee Technology Foundation], with a bi-partisan, 34-member board, charged with the task of developing the Technology Corridor (Nashville Banner, 8/19/82).

August 24, 1982: The State Department of Transportation (DOT) began a study to determine the best route for the Pellissippi Parkway extension (The Knoxville Journal, 8/24/82).

August 27, 1982: The Metropolitan Planning Commission (MPC) staff endorsed the Technology Corridor Concept (The Knoxville Journal, 8/27/82).

September 1982: The Tennessee Technology Foundation was staffed by permanent on loan employees of TVA, ECD, and the University of Tennessee. David Patterson and Jeff Deardorff from TVA's office of planning and budget, John Crothers, director of high-technology projects with the State's ECD, and Pat Postma of UT's Center for Business and Economic Research comprised the staff (The Knoxville News-Sentinel, 12/5/82).

September 13, 1982: The MPC unanimously endorsed the Technology Corridor concept (The Knoxville News-Sentinel, 9/13/82).

October 28, 1982: Speaker of the House Ned Ray McWherter endorsed the Technology Corridor (The Knoxville Journal, 10/27/82; The Knoxville News-Sentinel, 10/28/82).

February 1983: The first bill requesting State funding for the Technology Corridor was introduced into the legislature. It was co-sponsored by State Senator Buzz Elkins, State Senator Carl Koella, and State Representative Buddy Scruggs. The bill requested a $25 million bond issue to be used to purchase land (for the Technology Corridor development and the Pellissippi Parkway extension)

and to provide for bridge construction across Fort Loudon Lake. The bill also proposed the establishment of a Technology Corridor Development Authority which would have the powers to condemn land and issue securities (The Knoxville News-Sentinel, 2/18/81).

March 1983: Governor Alexander proposed $2.5 million in the budget for the Technology Corridor to be spent over the next four years (The Oak Ridger, 2/28/83)

April 21, 1983: The Knox County Commission voted unanimously to approve the re-worked resolution supporting the private act which created the Tennessee Technology Corridor Development Authority (Records of the Board of Knox County Commissioners, 4/21/83).

May 4, 1983: House democrats reacted very strongly against the proposed $25 million bond issue for the Technology Corridor and Pellissippi Parkway extension. The House voted to postpone action on the bill until 1984 (The Knoxville Journal, 5/4/83).

May 12, 1983: The private act creating the Knox County Tennessee Technology Corridor Development Authority (TTCDA) was approved by the General Assembly (The Knoxville News-Sentinel, 5/13/83).

May 27, 1893: MPC completed a final study of the Technology Corridor which recommended improvements to the area and suggested land uses (The Knoxville Journal, 5/27/83).

June 20, 1983: The Knox County Commission approved a resolution which ratified the private act that created the TTCDA and named members to the development authority (Records of the Board of Knox County Commissioners, 6/20/83).

July 1, 1983: $100,000 was made available by Governor Alexander to the Tennessee Technology Foundation to be used to set up a permanent office (The Knoxville Journal, 6/22/83).

August 10, 1983: A design team was created to develop a plan for the Technology Corridor. The engineering, architectural and planning firms of McCarty Bullock Holsaple, Barge Waggoner Sumner & Cannon, and Gresham, Smith & Partners were chosen to work with the Technology Foundation, the TTCDA, and the Knoxville/Knox County MPC (Knoxville Business, vol. 5, no. 8; Tennessean, 8/10/83).

September 11, 1983: The existing Hardin Valley Road site for the STIK campus was optioned by the State (The Knoxville News-Sentinel, 9/11/83).

September 20, 1983: Plans were announced that a special zoning district, designed for the encouragement of high-tech development, was proposed for the Pellissippi Parkway. Charles Smith, project coordinator and vice president of McCarty Bullock Holsaple Inc., also announced design guidelines and suggested infrastructure improvements for the Technology Corridor (The Knoxville News-Sentinel, 9/20/83).

October 13, 1983: MPC postponed action on the Technology Overlay Zone until November 1983 when other components of the plan would be presented. Included to be reviewed at that time were: design guidelines, comprehensive plan, and amendments to the scientific production zone, as well as the Overlay Zone (The Knoxville News-Sentinel, 10/14/83).

November 1983: Auzville Jackson was hired as president of the Tennessee Technology Foundation (The Knoxville News-Sentinel, 11/25/83).

November 28, 1983: The Comprehensive Development Plan for the Technology Corridor was adopted by the TTCDA.

December 2, 1983: County Commissioners, members of TTCDA, the president of the West Knoxville Homeowners Association, and members of the press were taken on a trip to visit the Research Triangle Park.

December 8, 1983: MPC postponed a decision on the general rezoning for the land designated on and around the Pellissippi Parkway, but approved the development plan and design guidelines (The Knoxville Journal, 12/9/83).

December 13, 1983: The State's Industrial and Agricultural Development Commission approved a $2 million endowment for the Tennessee Technology Foundation (The Knoxville Journal, 12/14/83).

January 5, 1984: The Knox County Commission toured the Pellissppi Parkway (Volunteer, 1/4/84).

January 10, 1984: The Knox County Commission approved the Technology Corridor development plan and design guidelines (The West Side Story, 1/11/84). They approved "all concepts of the corridor except detailed zoning" (The Knoxville News-Sentinel, 1/11/84).

January 12, 1984: MPC postponed a decision on the Technology Corridor general rezoning until January 26, 1984 (The Oak Ridger, 1/13/84).

January 26, 1984: MPC approved the general rezoning for the corridor of more than 3,800 acres. The actions taken at the meeting included the rezonings as well as the adoption of the Overlay Zone (The Oak Ridger, 1/27/84).

March 17, 1984: A revised plan proposed for the Technology Corridor cut the land designated for scientific production (SP). At that time the amount of land zoned SP was 2,200 acres. The revised plan cut that in half and reserved all land zoned commercial as commercial. The commercial property was mostly around the interchanges (The Knoxville News-Sentinel, 3/17/84). This was a reduction of about 1,300 acres from the 3,500 originally recommended by the Foundation and approved by the TTCDA.

March 19, 1984: The general rezoning was adopted on a parcel by parcel basis and the Overlay Zone was approved by the Knox County Commission (Records of the Board of Knox County Commissioners, 3/19/84).

April 16, 1984: The Knox County Commission reduced the Technology Overlay Zone from 14,000 acres to 7,000 acres, eliminating the area south of the interstate. This reduction was approved by the TTCDA (Records of the Board of Knox County Commissioners, 4/16/84).

The Development of a Land Management Plan

Original Conceptual Proposal for Land Management

After the formation of the Governor's Technology Corridor Task Force in November of 1981, strategies for the development of the Technology Corridor were being considered almost immediately. Those attempting to develop the corridor concept realized that purchasing the entire area and managing the land base by fee simple land ownership would not be an option, at least not at the start (Personal interviews: S. Adams, J. Deardorff, D. Parnell, D. Patterson, and D. White). At the January 15, 1982 meeting of the Governor's task force, Commissioner Cotham requested that the staff prepare a conceptual proposal for land management for the Technology Corridor, and perhaps shape that into a model which could be used in other parts of the state. The Task Force had also requested that the University's Graduate School of Planning conduct a land use study of the area so that a more tailored plan could be created.

Jeff Deardorff and David Patterson, then on-loan staff from TVA and now vice president and president of the Tennessee Technology Foundation, drafted "A Conceptual Proposal for Land Management" for the task force. This was the first working document that identified the components needed for a land management system for the Technology Corridor.

The basic premise of the document was that "an independent entity having the flexibility to exercise a wide range of land management tools" was needed to

manage the development on the Technology Corridor (Deardorff and Patterson, 1982, p.1). This entity was also to address the type of development desired for the corridor. Deardorff and Patterson proposed that the land management system would have to be able to:

> "Assure that the lands suitable for high-technology research, commerce, and industry are available and unencumbered in an amount substantial enough to justify a significant marketing effort [recognizing that] the land must somehow be available without a significant outlay of State funds; Have the ability to maintain the long-term quality of the land base in order to ensure its attractiveness for high-technology enterprises and restrict or prohibit uses that impair or reduce the potential for quality economic growth; and, Recognize the fact that development of this sort may take ten or more years to begin to look successful" (Deardorff and Patterson, 1982, p.1).

The proposed entity for achieving these and other goals for land management was a high-technology development district authorized by State enabling legislation. It was the intent that the legislation could be used initially in the corridor area identified by the State, but later used in other parts of Tennessee to encourage similar types of development. It was suggested in this first draft that the enabling statute have the ability to empower the development authority to:

* Adopt a development plan and policy for the district;
* Acquire and manage key lands within the district;
* Enter into contracts with land owners to ensure land availability;
* Establish and enforce site design and land use standards for key lands;
* Ensure all development in the district is consistent with adopted plan and policy;

* Promote development by assisting in industrial targeting and recruitment;
* Propose and promote tax policies favorable to high-tech industry;
* Employ financial techniques to raise capital for corridor development; and,
* Employ professional staff as necessary and appropriate (Deardorff and Patterson, 1982, p.2).

The study also concluded that the system would not be successful unless it had cooperation on many levels. The State and local governments, along with the individual landowners, would have to conceptually understand and support the system and plan.

Another purpose of this document was to alert those considering some type of land management system, as opposed to the option of total land ownership, to the difficulty in retaining a large enough portion of land for the time it would take the desired type of development to occur. Studies showed that development in the corridor could take as long as 15 to 20 years, as experienced in other parts of the country. The study anticipated the public pressures that could mount in order to retain large developable tracts of land that were privately held. It was projected that the improvements to the corridor in the upcoming years would add to the pressure to develop the area in a non-compatible fashion.

Development in a non-compatible fashion would strongly deter the location of the types of industries desired. "Indiscriminate siting and expansion of unsightly, noxious or otherwise non-compatible development will, over time, encroach upon and erode the very scenic, environmental, and `qualityof life' amenities that would attract high-technology industry to the corridor" predicted

Patterson and Deardorff (1982, p.3). "Perhaps the biggest and most costly error would be to settle for something less than what is ultimately desired or possible simply for the sake of short-term economic expediency" (Deardorff and Patterson, 1982, p.4).

Land ownership was part of the long range plan for land management in this document. It was recognized that a large initial outlay of State funds was not an option. However, it was proposed that key lands be acquired immediately such as peripheral lands to the new STIK campus. Then, gradual acquisition by the development authority was suggested in the form of "high-tech nodes" (Deardorff and Patterson, 1982, p.6). Essentially, it was proposed that key lands be held in private ownership until acquired and developed by the land management organization for resale purposes.

The initial corridor area included land in Anderson, Blount, and Knox Counties. The study examined the zoning ordinances in Anderson and Knox Counties (Blount County then and in 1989 did not have a zoning ordinance) and found that neither ordinance could be implemented to serve, effectively, the entire three county area. Zoning administration was considered to be very difficult for the entire entity.

The proposed approach for the Technology Corridor was to draft State enabling legislation that would allow the individual units of government to create "independent, not-for-profit corporations charged with the acquisition and long-term management of lands within the boundaries of specially designated high-

technology development districts" (Deardorff and Patterson, 1982, p. 8). The district boundaries would have the cooperative blessing of the units of government involved as well as the local business community. "Once established, the authority would be funded by the proceeds of its land management practices in conjunction with a specified percentage of taxes paid by high-technology firms sited in the district" (Deardorff and Patterson, 1982, p.9). Another funding source suggested by Deardorff and Patterson was to apportion to the development authority a part of the sales from products created in the Technology Corridor from businesses that received assistance from the Tennessee Technology Business Center (TTBC). The TTBC was part of the plan proposed by Governor Lamar Alexander to aid high-tech development in the area. It was to be housed in the new STIK campus.

Although it was desired that the authority be separate from any government entity, it was also desired that the authority work closely with the State and local governments, especially in regard to promoting tax incentives for high-tech development.

The summary of the advantages and disadvantages for this method of land management for the Technology Corridor were:

Advantages

* Permits immediate acquisition of key property without substantial financial outlay for real estate;

* Allows for subsequent acquisition and some control of all lands within the corridor as more resources become available or as opportunities arise;

* Provides for independent local control and accountability for success or failure;

* Allows local governments, property owners, and the local business community to participate in the planning process;

* Provides for minimal negative impact on the State budget;

* Provides for equitable distribution of potential economic development benefits among all participating units of local government;

* Enables pursuit of high-technology economic development at appropriate locations throughout the State; and,

* Permits optimum flexibility in the acquisition of land and management of growth within the corridor.

Disadvantages

* Requires enactment of State legislation and approval of local units of government;

* Potential to create short-term revenue lag for local governments due to preferential tax policies; and,

* Allows for innovative but potentially controversial land management techniques. (Deardorff and Patterson, 1982, p.13).

It is very interesting to examine this initial proposal in light of what is in place now. In the history of the Development Authority there has never been an attempt or the resources available for land ownership for this public entity, yet it was a key concept of this original proposal.

Formal Study Group Reports

Graduate School of Planning's report to the Governor's Task Force

The University of Tennessee's Graduate School of Planning Winter 1982 Synthesis Class prepared a report to the Governor's Task Force entitled "Developing the Technology Corridor." The report focused on "land use and

other physical development aspects" of development on the Technology Corridor. (Allen et al., 1982, p.iv).

The students undertook an analysis of the nature of high-tech industrial development and concluded that "recent experience with high technology research parks demonstrate that careful site selection and wise land use management have much to do with their ultimate success" (Allen et al., 1982, p. 4). They also determined that the "single most important factor that State and local governments can have in recruiting high technology industry is cooperation. The most successful local government programs for attracting high technology firms are those which add certainty and speed to a company's move" (Allen et al., 1982, pp.10-11).

Because of this requirement, the study group cautioned that the local and state governments and the residents, developers, and land-owners in the corridor area would have to have coordination as a top priority.

The study reaffirmed the physical location of the Technology Corridor siting as the optimum location for high-technology development. The proximity between the University of Tennessee and the Oak Ridge National Laboratory was determined to be a tremendous asset. The availability of vacant land in an aesthetically pleasing setting was also a very strong incentive for locating high-tech industry. The drawbacks for the area were identified as "the current lack of easy access to McGhee Tyson Airport, environmental limits in some locations, the presence of scattered residential development, and the lack of a full range of

public services" (Allen et al., 1982, p. iv). They also suggested locating the new STIK campus between I-40 and Kingston Pike on Cedar Bluff Road (Allen et al., 1982, p. v).

Several recommendations for the corridor area were cited as essential to the development of it. They included:

* Recognition of the many interest groups connected with the corridor;
* Improved fire protection;
* Extension of public utilities, especially sewers; and,
* The adoption of a development plan (Allen et al., 1982, p.iv).

Regarding a land management system, it was concluded that development needed to occur in a "series of small technology parks at strategic locations along the Pellissippi Parkway" (Allen et al., 1982, p. v). The creation of a State development authority charged with the land management of the area and with providing assistance to the entrepreneurs for the creation of spin-off industries was suggested. It was recommended that no more than twenty-five percent of the corridor be used for purposes other than high-tech development (Allen et al., 1982, p.81).

The recommendations for the regional development authority were modeled on the best aspects of the existing Melton Hill Regional Industrial Development Authority and the Tellico Regional Development Authority. The proposed Pellissippi Technology Development Authority (PTDA) would have the power to:

* Act as an assembler and marketer of land for technological purposes;

* Promote the area as a technology center, providing creative financing packages for prospects and assist in the coordination of land and bond arrangements between developers and lending institutions;

* Undertake thorough financial capability analyses of prospects;

* Issue industrial revenue bonds, in cooperation with the region's industrial development boards. As prescribed by the General Assembly, PTDA may have a state line of credit for this purpose;

* Provide design review and site planning assistance to incoming high-technology businesses. In doing so, PTDA would act, with staff assistance from the county planning commissions, as a site review team; and,

* Develop a staged land use and management plan for technology development within the region. (Allen et al., 1982, pp. 93-94).

Design specifications were also proposed. It was suggested that companies desiring to locate on the corridor submit plans and information to the development authority including:

* Preliminary architectural plans for the proposed building or building;

* A site plan for traffic engineering analysis;

* A grading and planting plan;

* A site plan showing utilities and utility easements, including any waste disposal fields;

* An estimate of the maximum number of employees and the timing of shifts during which they would work;

* Plans for all signs to be erected , including details of sign location, design, color, and lighting;

* A description of the proposed operations;

* Engineering and architectural plans for resolving problems in the operation; and,

* Any supplemental information (Allen et al., 1982, pp. 97-98).

These suggestions for design standards now comprise the major part of the Design Guidelines adopted by the TTCDA that are in use today.

The range of powers suggested by the study group for the PTDA also included condemnation of land. Land acquisition for the development authority was also a part of the overall plan. The proposal was in line with the original concept of Deardorff and Patterson's to acquire land as funds were available and develop the corridor in a series of high-tech nodes. The development authority would be the entity charged with selling improved land, complete with roads and utilities, to the high-tech industries.

Governor's Technology Task Force Findings

The reports from the Governor's Technology Corridor Task Force were released in June of 1982. They included the findings of the committees that examined the competition with other existing high-tech initiatives, the likelihood of the corridor's success, and the reports from the study committees for higher education, existing industry, State Technical Institute at Knoxville, and Roane State at Oak Ridge. The reports also recommended implementation plans for a combined STIK and RSCC campus on the Pellissippi Parkway, a development authority, corridor land management, and marketing and targeting of high-technology industry.

This report outlined the many benefits Tennessee might gain through the recruitment of high-tech industry. Better paying jobs was cited as the number one priority. Research showed that, "for one very highly trained person, there are six to seven jobs developed for graduates of high schools, community colleges, and technical schools" (Task Force, 1982, p. iv). Thus, recruitment would lead to a higher standard of living for the area by adding higher caliber, cleaner industry to the local economy.

The Task Force assessed the strengths, attributes, and weaknesses of the corridor concept and concluded that "the ultimate success of any effort will be a product of a region's ability to develop and package its particular attributes in a way that captures a larger share of the high-technology growth market" (Task Force, 1982, p.12).

The common elements found in successful high-tech parks were:

* Proximity to academic complexes with strong graduate research programs;
* Strong post-secondary and technical training capability that ensures an extensive regional labor pool having relevant technical expertise;
* Substantial land base either previously held by a university or acquired as a geographic focal point from which private sector development evolved;
* Region's renown for `qualityof life' amenities;
* One or more persistent advocates with good relationships with industry leaders and the academic community;
* Ripe technological markets with commercialization efforts usually focused on single or complementary product lines;
* Presence of a formally chartered research institute;

* Easy access to interstate and national commercial air transportation systems; and,

* Considerable length of time (up to 15 - 20 years) between inception and general recognition of success on a regional level (Task Force, 1982, pp. 11-12).

The East Tennessee Technology Corridor area defined at this time was determined to have many of the attributes common to successful high-tech parks. The Task Force decided that the strengths of the corridor were enough to promote and develop it.

Improvement areas were also identified. It was recognized that a higher skilled labor pool would be required, better access to air service was needed, stronger support of all the governmental and private sector entities involved was a necessity, and a large land base to market was essential.

The concept for the Tennessee Technology Foundation was set forth in this report. The task force recommended that a "nonprofit, private corporation should be chartered to capitalize on the area's technical strengths and other resources" (Task Force, 1982, p. vi). The responsibilities of the organization would include:

* Market the region's resources on an international and national basis;

* Encourage and support the development of `home-grown' high-technology businesses;

* Pull together an attractive package of industrial sites sufficient to attract the attention of a full range of high technology firms that might be sold on coming to Tennessee;

* Develop and pursue private and public source of funds that go beyond funding available from the State; and,

* Develop a high-technology marketing theme (Task Force, 1982, p. vi).

The method of land management was not determined in this document. The study group recognized the need for it, but was a bit ambiguous about the administration and implementation of a land management system. The one aspect that they were definite about was the fact that a long-range plan was needed, soon. It was unknown how much power could be garnered from the State for the development authority. How much support and cooperation could be expected from the local government entities, planning commissions, utility boards, highway departments, and private property owners was also a matter of speculation (Task Force, 1982, p.20).

The study group surmised that:

> With this support and cooperation, the range of options other than condemnation or zoning might include: Limited access for parkway extension; Revolving fund--land banking; Utility extension control; Life estate donation; Creation of a foundation; State inheritance tax incentives; Prepurchase agreements and contracts; Assignment of privately held lands; Planning and design of corridor; Reservation and/or commitment of public lands; and, Real estate investment trusts (Task Force, 1982, p.21).

This was the first study group that was cautious about the limit of powers it could garner for the development authority and recognized the need to examine less controversial and innovative alternatives for land management, albeit less effective.

It was also the strongest statement for recognizing the fact that marketing was an essential element in the development of the corridor. Developing a marketing plan was proposed for implementation concurrent with developing a land-use plan (Task Force, 1982, p.23).

Alternative Strategies

In August of 1982 the Tennessee Technology Foundation was created, and by September of that year it was staffed with on-loan personnel from TVA, UT, and the State Department of Economic and Community Development. The main staff members, Jeff Deardorff and David Patterson, had also served as staff to the Governor's Task Force and thus were very knowledgeable about the events that occurred prior to the establishment of the Foundation.

Deardorff, a planner with TVA, was charged with developing a land management system for the corridor. He and David White, a member of the original task force and then a member of the Foundation's Board, worked throughout Fall 1982 and Winter 1983 to develop an appropriate, effective land management system.

A working document prepared by Deardorff in September of 1982 outlined many different strategies for land management.

1. The Reedy Creek Model: This was the model used for the development of Disney World in Orlando, Florida. Created in 1967, it had jurisdiction within two counties, and acted as an improvement district to encourage appropriate tourism growth as an economic development strategy. The Reedy Creek Model was an attractive model for the Technology Corridor because of all the powers it had. They included:

> Ownership and disposition of property; Lease of facilities; Eminent Domain; Acquisition, construction, and operation of public utilities and facilities (including roads); Issue bonds for financing district improvements; Perform research and development activities; Fix fees, tolls, fares, and

other charges for the use of district facilities; Development, adoption, and enforcement of building codes, subdivision regulations, and zoning ordinances; and, Assess and levy taxes" (Deardorff, 1982, p.3).

The Reedy Creek Model was not attractive in that it was unlikely that the local units of government would be comfortable with an independent entity that had the range of powers of that model. It was also very unlikely that the Foundation could acquire the amount of land needed to make the model workable (Deardorff, 1982, p.3).

2. The Tellico Model: The Tellico Reservoir Development Authority (TRDA) was created in 1982 and charged with returning land not used by TVA in the Tellico Dam project to the tax rolls in Blount, Loudon, and Monroe Counties. TRDA works as an economic development authority and encourages appropriate sales and uses of land under the guidance of the administrators in the three-county district (Deardorff, 1982, p.4).

The appeal of this model was the fact that three counties were working together for a common purpose. Again, the drawback was that the land in the corridor was not held in fee simple ownership as was the TVA land. Because of this, the Technology Corridor Development Authority would have to rely on the existing systems for the development of the land.

3. Unified Development Standards: This strategy proposed that all of the units of government involved adopt unified development standards, defined as "high-quality development standards for the area defined as the Technology Corridor" (Deardorff, 1982, p.5). A `TechnologyCorridor Planning Board' with

representatives from each of the counties affected would oversee the planning matters such as variances, design guidelines, etc. It was in this strategy that the concept of an `OverlayZone' for high-tech development was first suggested.

The plus for this strategy was the low cost of implementation; however the risk of erosion of the concept was predicted to be high due to development pressures and coordination of three units of government. The role of the Foundation in this strategy was to act as an overseer to the concept and acquire, develop, sell, and market lands in the Technology Corridor (Deardorff, 1982, p.5).

4. The Public, Not-for-Profit Development Corporation: This strategy proposed a "government-funded development corporation to assist and effect the type of development desired for the corridor" (Deardorff, 1982, p.6). The corporation would purchase, develop, sell, and manage suitable nodes for high-tech development in the corridor. It was also suggested in this strategy that the corporation have the power to issue bonds and have eminent domain (Deardorff, 1982, p.6). This corporation would act much like those created for urban redevelopment.

With this strategy, the Foundation would not be responsible for acquiring and developing lands in the Technology Corridor, but charged with the marketing of such lands. The disadvantage of this proposal was the expectation that the local governments would not have the funds to acquire and develop the lands needed.

5. The Private, For-Profit Development Corporation: This strategy would have the same framework as the not-for-profit strategy, only the funding would come from private investors rather than government sources. This strategy was attractive in that it was the first one that was fairly well away from depending upon government entities for its success. However, this strategy did not provide control for all of the land in the Technology Corridor and was more susceptible to development pressures than the others. The role of the Foundation in this strategy was marketing and promotion (Deardorff, 1982, pp. 6-7).

6. Tandem Development Corporations: This strategy proposed creating both the for-profit and not-for-profit development corporations and letting them work together to develop the corridor. This was attractive in that it could cover a great deal of the land in the corridor and offered the best of both private enterprise and the governmental controls. However, it was also a very convoluted strategy which left quite a bit of room for conflict of interest, and left some gaps through which some land could fall which was neither owned by the private or public sector (Deardorff, 1982, p. 10).

7. Informal Landowner Network: This placed the reliance on the landowners in the corridor for the proper development of the corridor. "The role of the Foundation in this strategy would be to serve as an advocate of the corridor concept without direct involvement in the land management matters" (Deardorff, 1982, p.8). The advantages for this strategy were the low cost of administration to the State and local governments; the disadvantages were quite apparent in that

there was very little, if any, power to bring about the effective implementation of the corridor concept.

8. Maintain Status Quo: This strategy proposed reliance on existing market forces to effect development of the corridor and to try to encourage desired development with land use controls.

The staff recommendation was to create an approach incorporating elements from the Unified Development Strategy, the Public, Not-for-Profit Development Corporation, and the Informal Landowner Network.

This draft was presented to Executive Committee of the Foundation and was discussed with the staff in the Fall of 1982. By December of 1982, the staff had been charged with developing a strategy that incorporated elements from the Reedy Creek Model, the Public, Not-for-Profit Development Corporation and the Private, For-Profit Development Corporation. What was finally accepted was a plan which incorporated the staff's and executive committee's suggestions.

Final Product

What eventually satisfied most of the criteria was an incorporation of many of the concepts evaluated. Also it was discovered that parts of existing Tennessee legislation for Port Authorities and Historic Zoning Commissions were available to borrow concepts from which were sound foundations on which to build the Overlay Zone. With these entities present, it was easier to sell the concept

because this type of regulation was already in place and understood by the legislature.

Land management of the area could be accomplished through the framework already existing for Historic Zoning Commissions. The controls needed, and brought to light through the evaluations of different models, to effect proper development could be found in the legislation for multi-county port authorities. It was discovered by the staff that:

> The mission of a port authority is identical to the mission of a `high technology development authority'--to harness and more effectively utilize the natural and manmade resources of a defined geographical area for economic development. (Deardorff, 12/13/82, p. 2).

Zoning at this time was discovered to be an very important aspect of the development framework since it became more and more apparent that land ownership was a facet in development that could not be relied upon. With the elements present in Historic Zoning District legislation, development in the Technology Corridor could fall under the purview of a special development review board, thus securing the quality desired for the area.

It was suggested that the initial delineation of the Technology Corridor begin with Knox County, but to encourage Blount and Anderson Counties to adopt the legislation as well. This way, the original concept of a regional high-tech corridor would be adopted.

This "refined strategy for corridor land management" (Deardorff, 12/13/82, p.5) recommended that the Foundation pursue State enabling legislation that would authorize the creation of:

A High Technology Development Authority having the jurisdiction solely within a High Technology Development District (and coterminous zone) delineated by local governments and planning bodies in cooperation with the Foundation.

This authority would have the power to:

* Develop, adopt, amend, and administer a comprehensive development plan for the entire zone in cooperation with planning bodies.

* Establish and enforce site design and land use standards within the zone.

* Review and approve/disapprove applications for `certificates of appropriateness' for the construction of new buildings or other facilities within the zone. (No building permits could be issued within the zone without a `certificate of appropriateness.')

* Issue bonds for financing improvements within the district.

* Fix fees, tolls, fares, and other charges for use of facilities within the district.

* Own, lease, and otherwise manage property.

* Enter into contracts which support the development of high technology industry within the district.

* Condemn property for public improvements within the zone (Deardorff, 12/13/82, p.5).

This was intentially a far-reaching plan. Interviews with Deardorff and David White revealed that this was part of the negotiation strategy to get the legislation adopted. The strategy was to aim very high and be satisfied with receiving about half of what they were proposing (Personal interviews, J.Deardorff and D. White). However, this strategy worked very much to the Foundation's advantage in that once it passed through the system, local and State official were so relieved to see the powers to condemn land and issue bonds erased from the

draft, that they overlooked many of the other powers they passed (Personal interviews, J. Deardorff and D. White).

CHAPTER III

The Tennessee Technology Corridor Development Authority

Introduction

In May of 1983, the Tennessee General Assembly passed the private act enabling the creation of the Tennessee Technology Corridor High Technology Development Authority (TTCDA) and the Tennessee Technology Foundation. The Knox County Commission later passed the legislation which created the Knox County TTCDA.

The unanimously adopted act stated that;

> It is declared that a clear need exists in a specific area of Knox County, Tennessee for improved management of the natural and manmade resources required for the attraction, expansion and continued support and nurture of high technology-based economic development and the subsequent creation and expansion of employment promotion of high technology business development. To this end, it shall be the purpose of this act to place physical development review responsibilities and other powers to more effectively manage the natural and manmade resources to effect the location, expansion, and support of high technology business development within the specific geographic area designated by this act.

The legislation also declared that the TTCDA body would be an instrumentality of the State of Tennessee, therefore the "property and revenues of the authority or any interest therein shall be exempt from all state, county and municipal taxation." It also stated "that the responsibilities, management

authority, and other powers designated herein are declared to be for public and governmental purpose and a matter of public necessity."

The purposes of the TTCDA are:

* To develop, with the local planning commission, a comprehensive development plan;

* To develop, adopt and administer site design and development standards;

* To effect sound development through the financing, construction, renovation or modification of public service facilities in cooperation with the municipalities and utility districts as deemed necessary and appropriate for the location, siting maintenance, and support of high technology business development; and

* To acquire, hold, improve, manage, and dispose of lands within the corridor for the purpose of high tech development.

The Authority shall have all powers necessary to accomplish the purpose of this chapter (excluding the power to levy and collect taxes and special assessments) including, but not limited to, the following:

* To have perpetual succession, to sue and be sued, and to adopt a corporate seal;

* To acquire, construct, purchase, operate, maintain, replace, repair, rebuild, extend, and improve, within the boundaries of the Tennessee Technology Corridor delineated, all facilities, equipment, and appurtenances necessary or convenient to the promotion, expansion, retention, nurture, and support of high technology-oriented economic development, and to charge for their use and for any and all services performed by the Authority, provided however, that the Authority shall have no power or control over land or facilities under control of any public utility created by general or specific acts;

* To accept donations to the authority of cash, lands, or other property to be used in the furtherance of the purposes of this act, and to accept grants, loans, or other financial assistance from any federal, state, or local governmental or other sources, or in aid of the acquisition or improvement of any of the facilities described herein provided, however, that the

acceptance of Federal or State assistance does not pre-empt grant monies otherwise available to Knox County;

* To purchase, rent, lease, or otherwise acquire and to sell, transfer, manage or otherwise dispose of any and all kinds of property, real, personal or mixed, tangible or intangible, and whether or not subject to mortgages, liens, charges, or other encumbrances which, in the judgement of the Authority's Commissioners, is necessary or convenient to carry out the powers herein granted. The authority herein to acquire property shall include, the acquisition of lands within the Technology Corridor which are suitable for or deemed necessary by the Authority pursuant to its purposes for use by or support of high technology businesses and industries provided, however, said acquisition by purchase shall be made upon approval of the governing body;

* To make contracts and execute instruments containing such covenants, terms, and conditions as in the judgement of the Board of Commissioner may be necessary, proper, or advisable for the purpose of carrying out its function including, but not limited to, agreements for obtaining grants, loans or other financial assistance from federal, state, or local governments or agencies thereof or other sources for the accomplishments of the purposes of this act and the acquisition or improvements of facilities as herein provided; and to make contracts and execute such instruments including, without limitation, licenses, long or short term lease, mortgages, and Deeds of Trust, and other agreements relating to property and facilities under its jurisdiction, and the construction, operation, maintenance, repair, and improvement thereof, as in the judgement of the Board of Commissioners may be necessary, proper or advisable for the furtherance of the purposes of this Act;

* To establish schedules of fees, rates, charges, and rentals for the use of the facilities under its jurisdiction, and for services which it may render;

* To enter upon any lands, waters, and premises for the purpose of making survey, inspections, and evaluations in connection with the acquisition, improvement, operation, or maintenance of any of the facilities herein provided, or for the effective performance of its duties performed in accordance with paragraph (j) of this part;

* To promulgate and enforce such rules and regulations of the Board of Commissioners as they may deem proper for the orderly administration of the Authority and the efficient operation of its facilities;

* To adopt and oversee implementation of a comprehensive development plan comprised of land use, public facilities, and capital improvement plans for the entire high technology overlay zone in cooperation with local planning bodies for the purpose of developing a systematic land management policy and guidance for any person in the development process;

* To serve as a review board for the purpose of accepting, considering, approving, or denying applications for certificates of appropriateness as defined herein, prior to action on requests for rezoning or variance from the provisions of the zoning regulations in effect within the high technology overlay zone, and prior to action on applications for building or grading permits within the high technology overlay zone by any person authorized to issue such permits for the County of Knox or any municipality in order to insure that development within the zone is consistent with the policies and plans of the Authority; and to administer and enforce such developmental standards, regulations and related rules and procedures as the Board of Commissioners may adopt from time to time for the review and consideration of applications for such certificates, provided, however, that such standards, regulations and rules and procedures are first approved by the governing body for Knox County.

* To employ and fix the compensation of an Executive Director and such staff as the Board of Commissioners deems necessary, who shall serve in the employment of the Authority at the will and pleasure of the Board of Commissioners; and to employ, contract with and fix compensation for such architects, attorneys, accountants, planners, engineers, consultants, and other professionals as may be necessary for the efficient operation of the Authority, and the operation of facilities under its control.

* To do all acts and things necessary, or deemed necessary or convenient to carry out the powers expressly given in this Act.

The Board of Commissioners of the TTCDA is composed of seven members. Five members are nominated by the Governor of Tennessee, upon recommendation by the Tennessee Technology Foundation, and approved by a majority vote of the Knox County Commission. At one time there was some confusion of the part of the Knox County Commission as they tried to appoint a commissioner without the governor's recommendation.

The remaining two members of the seven person Board are appointed directly. One member is a member of the Knox County Commission, appointed by the Knox County Commission, and one member is appointed by the Governor of Tennessee. The criteria for membership on the Board is that no member can have any development interest in the corridor.

All commissioners must be residents of the State of Tennessee, and all commissioners, except for the one appointed by the Governor, must be residents of Knox County. The first terms of office were staggered for one to five years and thereafter the commissioners serve a term of five years. The terms of office for the commissioners appointed by the governor and the Knox County Commission coincide with the respective terms of office.

The original commissioners were: "A.L. (Pete) Lotts, member of Knox County School Board to a two-year term; Terry Douglass, an employee of Ortec in Oak Ridge to a three-year term; James Spencer, head of the UT Graduate School of Planning and member of the Metropolitan Planning Commission, to a 4-year term; Wayne Heatherly, administrator of Park West Hospital, to a 5-year term; and Steve Maynard, president of Southern Burglar Alarm Co., to a one year term" (The Knoxville News-Sentinel, 6/20/83). Rex Norman was the commissioner appointed by Knox County Commission and Williams Arant was the commissioner appointed by Governor Lamar Alexander.

Very soon after the board was named, Terry Douglass determined that he had a financial interest in corridor property and resigned from membership on the

Board. He was replaced by Jim Townes, then president of the Knoxville Urban League.

Jim Carroll, Knox County Commissioner had since replaced Rex Norman, Andrew Jackson has replaced Jim Townes, and Ginny Morrow has replaced Steve Maynard. The other Commissioners were reappointed for five year terms when their initial terms expired.

In 1990, Bee DeSelm replaced Jim Carroll, Jr. as the County Commissioner represented. Also, for the January 1992 Board, Don Mirts was recommended to replace Wayne Heatherly due to his relocation and resignation. Andrew Jackson was recommended to be kept on the Board to replace Pete Lotts. Jackson's term was to expire in June 1991.

The Commissioners as of January 1992 and their terms of office are as follows:

Chairman: Mr. Williams	Term coincides with the term of Governor McWherter.
(Bill) Arant, Jr.	
Ms. Bee DeSelm	Term coincides with the term of office on Knox County Commission.
Mr. James Spencer	June 1992
Mr. John Stewart	June 1993
Ms. Virginia Morrow	June 1994
Mr. Don Mirts	June 1995
Mr. Andrew Jackson	June 1996

The Board has been meeting on a monthly basis, or as needed to review applications, since its inception. Staff to the Board has been supplied by the Tennessee Technology Foundation. Jeff Deardorff was the original Executive Director for the TTCDA. Doug Berry replaced Deardorff in 1987 and remained

in that position for almost two years until he left for another position. At that time, Deardorff took over the helm again.

The main purpose of the TTCDA has been to issue "Certificates of Appropriateness" for rezonings and construction in the Overlay Zone.

> All applications for rezoning or variances from the provisions of adopted zoning ordinances, or for permits for construction, alteration, repair, rehabilitation, or relocation of a building, structure, or other improvements to real estate situated within the High Technology Overlay Zone, shall be reviewed by the Board of Commissioners, which shall have broad powers to request detailed plans and related data pertinent to thorough review of the proposal.

The legislation states very strongly that no rezoning, variance or building permit can be granted for property in the Overlay Zone without the permission of the TTCDA through a certificate of appropriateness. However, the certificate can also be issued from the local governing body on appeal.

The legislation also required that an Overlay Zone be established for the corridor area to delineate the geographic region in which the TTCDA could exercise its powers. The powers of the TTCDA are to be used in concert with the existing governmental regulations of the area. The overlay zone essentially allows an extra layer of protection and review by a body whose overriding concern is to effect quality high tech development in the designated area.

TTCDA is charged with reviewing plans for all rezonings and new construction and expansion in the Overlay zone except for residential and agricultural uses.

The tools used by the TTCDA to determine the issuance of Certificates are the *Comprehensive Development Plan* and Map, the zoning ordinance, the *Design Guidelines*, and the *Development Review Procedures*.

The Comprehensive Development Plan

The first *Comprehensive Development Plan* was approved by the Knox County Commission on January 10, 1984. The *Comprehensive Development Plan* is part of the Knoxville-Knox County Metropolitan Planning Commission's General Plan 2000. Since that time there has been one update which was adopted by County Commission on February 17, 1986. The reason for the update was mainly to deal with the downscaling of the size of the Overlay Zone. The plans give an overview of the conditions in the Overlay Zone such as land use patterns, transportation, community facilities, and services.

> The plan is a guide for the review of development proposals and is the basis for long-term land management within the corridor. With the Technology Overlay Zone and Scientific Production Zone regulating the location and development of technology uses in the corridor, and design guidelines identifying site development standards, a complete planning and regulatory package will exist for the corridor. The Technology Overlay Zone creates a development review process for all development within the corridor, except residential and agricultural uses. The Scientific Production Zone regulates use and development of property zoned Scientific Production. Design guidelines set forth criteria for the development of technology, industrial and commercial uses. (*Comprehensive Development Plan*, p.1)

From the inception of the Technology Corridor, a wide variety of land uses inhabited the designated area. Residential land uses were scattered throughout

the corridor, mainly in subdivisions or on large rural lots primarily as single family detached dwellings. Some multi-family dwellings existed, present at the intersections of I-40/75, at Lovell Road, Mabry Hood Road, and Cedar Bluff Road. Commercial development was also present, mainly on the south end of the corridor along Kingston Pike. (The first Overlay Zone extended this far south.)

The corridor was described as possessing a "spacious rural character" and was "characterized by alternating ridges and valleys, running in a southeasterly-northeasterly direction" (*Comprehensive Development Plan*, p.3).

> The primary land use development objective for the Technology Corridor is accommodating technology and related land uses, while preserving and enhancing the corridor's unique natural features. The area's natural features, consisting of heavily forested ridges, rolling hills and broad valleys, are its most valuable assets. This sets Tennessee's Technology Corridor apart from other technology parks located throughout the nation. (*Comprehensive Development Plan*, p.5).

The *Comprehensive Development Plan* addressed the issues of land use, community facilities and services, transportation systems, and program improvements and scheduling. Because of the many different entities involved inside the Technology Corridor, it was stated that to encourage appropriate development, coordination would have to occur. Reinforced, yet not spoken, in this statement is the initial drawback of the zoning concept in that the TTF did not have the fiscal power to insure adequate facilities and services to facilitate growth in the corridor, but that the major players would have to rely upon their powers of persuasiveness and coordination with the separate entities.

In evaluating existing conditions, it was very apparent from the beginning that utility extensions and improvements would need to be implemented for development to occur. An outline of sewer, water, natural gas, and power services to various parts of the corridor was described in the Comprehensive Plan.

In the *Comprehensive Development Plan Update*, adopted by the MPC November 14, 1985, by the TTCDA January 17, 1986, and by the Knox County Commission February 17, 1986, a very detailed outline of utility, transportation, and community services improvements was described by timeframe, funding sources, and costs. The funding suggestions for all improvements outlined were from State, federal, or local municipalities, or the utility districts. The descriptions of the various zones and measures to protect their integrity were also included in the Update. The primary land use objective of the corridor which was "accommodating technology and related land uses while preserving and enhancing the corridor's unique natural features" (*Comprehensive Development Plan Update*, p. 11). The key zone to accomplish the goal was identified as the Scientific Production Zone. "The rate at which scientific production uses will expand through the Technology Corridor cannot be foreseen and will depend to a large degree on the state of the economy, degree of local support and the success of the marketing efforts" (*Comprehensive Development Plan Update*, p.14). To encourage the unpredictable growth of technology development, the following recommendations were suggested by the update regarding the Scientific Production zone:

1. Expand TCDA's scope of responsibility in order to promote and better support technology development in SP zones.

2. Develop potential site plans and perspective renderings of identified Scientific Production areas given the requirements set forth in the Technology Corridor *Design Guidelines*.

3. Evaluate development scale when locating Scientific Production uses. Encourage large scale developments to concentrate in the two major Scientific Production centers at Dutchtown Drive and Hardin Valley Dive and close to the Parkway. Encourage smaller scale uses to locate on the extremities of Scientific Production areas away from the Parkway.

4. Permit additions to Scientific Production areas when property is adjacent to existing Scientific Production areas, similarly situated can [sic] be incorporated into the park-like character of the existing Scientific Production area [sic].

5. Require a 20 acre minimum parcel size for proposed Scientific Production areas not contiguous to existing Scientific Production areas.

6. Reserve Scientific Production areas only for technology and technology-related uses.

7. Continuously re-evaluate Scientific Production areas for feasibility of use against changing circumstances. (Update pp 14-15)

Development Review Procedures

The *Development Review Procedures* for the TTCDA Board were adopted by the TTCDA on April 9, 1984. The purpose of the procedures is as follows:

> *Development Review Procedures* have been prepared pursuant to Chapter 148 of the Private Acts of the State of Tennessee, 1983, for the purpose of clearly identifying and explaining the procedures whereby the Tennessee Technology Corridor Development Authority accepts, reviews, and acts on requests for Certificates of Appropriateness for rezoning and development proposals within the

> Tennessee Technology Corridor. The requirements, procedures and related policies described herein are intended to supplement those already in effect and utilized by other boards and agencies involved in the development review process. The Authority's issuance of a Certificate of Appropriateness does not exempt the application from the review or approval of other local, state or federal agencies in the development process. (*Development Review Procedures* p.1).

The *Development Review Procedures* is the companion document to the *Comprehensive Development Plan* and it outlines the legal procedures for controlling development in the Technology Corridor through the issuance of Certificates of Appropriateness. "In accordance with the State law, there are three actions relating to construction or development within the corridor that require an application for and issuance of a Certificate of Appropriateness:

> 1. Issuance of a building permit for new structures, improvement, renovation or expansion of existing structures, or other improvements to real property such as the installation of signs.
>
> 2. Rezoning of any property within the Technology Overlay Zone.
>
> 3. The granting of variances from certain provisions of the Knox County Zoning Resolution (*Development Reveiw Procedures*, p.3).

The TTCDA Board meets monthly on the Monday prior to the MPC meeting. The TTCDA has sixty days to decide upon applications for Certificates of Appropriateness. The Board can: "grant a Certificate of Appropriateness with or without attached conditions, or deny the Certificate, and will state in writing its reason for approval or denial" (*Development Reveiw Procedures*, p.2). If the Board does not act within sixty days, without a request for extension from the applicant, the "failure to act constitutes an approval" (*Development Reveiw Procedures*, p.2).

Anyone aggrieved by any action of the TTCDA may file an appeal with the Knox County Commission. The Knox County Commission does have the authority to overrule an action of the TTCDA that is appealed. If one were to appeal the action of the Knox County Commission one could do so within thirty days of the action as provided in the general law by Writ of Certiorari (*Development Reveiw Procedures*, pp. 2-3).

The review processes for Applications for Certificates of Appropriateness for building permits, rezonings, and variances within the Technology Corridor Overlay Zone is outlined in Figures 1, 2, and 3.

Along with Applications for Certificates of Appropriateness, other documents describing the project may also be required for review by the TTCDA. In the case of building permits, for those properties not in an SP Zone or not within 1000 feet of the Pellissippi Parkway a development plan is required. It must indicate:

* Location of existing and proposed buildings, signs, and service facilities.
* Driveways, parking lots, and service areas.
* Existing trees and other natural vegetation to be preserved in addition to proposed landscaping improvements.
* Topography when slope or other site characteristics reflect that improvements would substantially alter natural drainage or otherwise impact surrounding property. In cases where drainage problems are identified, a drainage plan is required which indicates water courses, retention/detention measures, and other improvements designed to effectively mitigate drainage problems.

TECHNOLOGY CORRIDOR DEVELOPMENT REVIEW PROCESS
BUILDING PERMITS FOR COMMERCIAL OR INDUSTRIAL PROPERTY

1. BEGIN PROCESS - request could enter at the Department of County Code Administration and Inspections, at MPC, or at the TTCDA Staff.

2. PRESUBMISSION CONFERENCE WITH THE TTCDA STAFF

3. SUBMIT APPLICATION FOR CERTIFICATE OF APPROPRIATENESS TO STAFF FOR REVIEW

4. AUTHORITY BOARD ACTION

5. APPEALED

9. APPROVED WITH NO APPEAL

6. COUNTY COMMISSION ACTION

7. CERTIFICATE DENIED

8. CERTIFICATE ISSUED

10. ACTION BY DEPT. OF CODE ADMINISTRATION AND INSPECTION

11. BUILDING PERMIT ISSUED

12. BUILDING PERMIT DENIED

13. APPEAL TO BOARD OF ADJUSTMENTS

15. ACTION OVERRULED

14. ACTION UPHELD

16. MAKE SITE IMPROVEMENTS

17. INSPECTION

Figure 1.
Source: TTCDA *Development Review Procedures*, p.4

TECHNOLOGY CORRIDOR REZONING REVIEW PROCESS

1. FILE PETITION

2. POST SIGNS

3. PRE-SUBMISSION CONFERENCE

4. SUBMIT PLANS FOR TTCDA STAFF REVIEW

5. SUBMIT PLANS FOR MPC STAFF REVIEW

6. INTERAGENCY COMMENTS

7. TTCDA ACTION

8. CERTIFICATE DENIED

10. CERTIFICATE ISSUED

9. APPEAL TTCDA ACTION

11. MPC ACTION

12. RECOMMEND APPROVAL

13. RECOMMEND DENIAL

15. LEGISLATIVE ACTION BY KNOX COUNTY COMMISSION

Figure 2.
Source: TTCDA *Development Review Procedures* p.7

TECHNOLOGY CORRIDOR
VARIANCE REVIEW PROCESS

1. FILE PETITION

2. POST SIGNS

3. SUBMIT APPLICATION FOR CERTIFICATE OF APPROPRIATENESS TO AUTHORITY STAFF FOR REVIEW

4. TTCDA BOARD ACTION

5. APPEALED

6. COUNTY COMMISSION ACTION

7. CERTIFICATE DENIED

8. CERTIFICATE ISSUED

9. APPROVED WITH NO APPEAL

10. ACTION BY THE BOARD OF ADJUSTMENTS

11. VARIANCE GRANTED

12. VARIANCE DENIED

13. APPEAL TO COURTS

15. ACTION OVERRULED

14. ACTION UPHELD

16. BUILDING PERMIT ISSUED

17. INSPECTION

Figure 3.

Source: TTCDA *Development Review Procedures* p.9

* The projected schedule for any development phasing.

* The development plan must be accompanied by preliminary architectural plans showing elevations, area, height, materials, and any other relevant information necessary to evaluate proposed building and signs (*Development Reveiw Procedures*, p.10).

For those projects within an SP zone or within 1000 feet of the Pellissippi Parkway, a much more detailed development plan is required to be submitted with the Application for a Certificate of Appropriateness. These plans must be prepared and certified by a registered engineer or architect. The basic information is still required but greatly expanded upon, such as:

* An inset showing the general location of the proposed development in relation to the surrounding area;

* Preliminary architectural plans and renderings showing elevations, areas, height, materials, and other information necessary to evaluate proposed building(s) and all signs;

* An estimate of the maximum number of employees contemplated for the proposed development and the number of employees per shift;

* A description of all operations proposed in sufficient detail to indicate the effects of those operations in production of excessive auto and traffic congestion or problems of noise, glare, odor, sewage, smoke, air pollution, water pollution, fire or safety hazards, or other factors detrimental to the health, safety, and welfare to the area;

* A storm drainage plan which includes accurate existing and proposed water courses; the system of open channels, pipes, culverts, drains, inlets, catchbasins, and similar facilities designed to handle storm water;

* A landscaping plan showing details of proposed trees and plantings as well as maximum retention and preservation of the natural environment in

context of other site design considerations. This must comply with the intent of the adopted *Design Guidelines* and address plant materials, a site grading plan, and proposed manmade landscaping improvements; and

* A building floor plan (*Development Reveiw Procedures*, pp. 12-13).

The only information needed for a rezoning is the completed Application for a Certificate of Appropriateness and a copy MPC's application. For a variance, the information TTCDA requires for consideration is a site plan and a written statement defining the need for the action. The variance request is supposed to be the minimum change needed to accommodate the land owner. It is requested by the TTCDA that the relief be as close to the original intent as possible.

Design Guidelines

The third tool of the TTCDA in evaluating development in the Technology Corridor is the *Design Guidelines*. They were adopted by the TTCDA on November 28, 1983, by the MPC on December 8, 1983, and by the Knox County Commission on January 10, 1984. The *Design Guidelines* were developed by a "joint venture design team consisting of the firms of: McCarty, Bullock, & Hosaple, Knoxville, Tennessee; Barge, Waggoner, Sumner, and Cannon, Inc., Knoxville, Tennessee; and, Gresham, Smith, and Partners, Nashville, Tennessee. Special consultants to the project were: Johnson, Johnson and Roy, Inc., Ann Arbor, Michigan; Cushman and Wakefield, New York, New York; and, City Planning and Architectural Associates, Chapel Hill, North Carolina. Further

technical assistance was provided by the staffs of MPC and TTCDA. (*Design Guidelines*, p.1).

The purpose of the *Design Guidelines* is to assure that the type of atmosphere attractive to technology development remains throughout the course of developing the corridor.

> As a guide for shaping future development of the corridor, a series of design guidelines have been prepared which incorporate flexibility, ensure quality, and build on existing assets. Through these guidelines, functional, aesthetic, and visual unity is achieved, while individual user expression is maintained. A balanced approach which achieves both unity and flexibility in the design/development process is a key element of these design guidelines (*Design Guidelines*, p.1).

The Guidelines were created to be applied to all new developments in the corridor, whether "mandatory or as recommendations" (*Design Guidelines*, p.1) except for residential and agricultural uses. The TTCDA has the authority to grant waivers from the Guidelines "when in its opinion, strict application would be infeasible and that the objectives of the Authority and the general public health, safety, and welfare would not be adversely affected" (*Design Guidelines*, p.1). Financial hardships, alone, are not to be considerations of waivers, but rather sites, building or parcel configurations, or other like factors should be primarily considered.

The *Design Guidelines* follow the Concept Plan created for the corridor which takes into account the following:

* Responding to and utilizing the natural systems in evidence in the corridor.

* Building on the existing circulation system to develop a comprehensive network capable of serving the high technology user.

* Complimenting and improving on the infrastructure available within the corridor.

* Maintaining a high-quality natural environment.

* Providing sites consistent with the needs of the technology user.

* Creating a sense of place and identity as a Technology Corridor (*Design Guidelines*, p.2).

The way the Guidelines achieved this goal was through the regulation of virtually all aspects of development. The first layer of control is achieved through the "corridor Design Guidelines" which apply to any kind of development other than residential or agricultural in the Overlay Zone. These "common design elements serve to create a cohesive physical setting" (*Design Guidelines*, P.1). The uniform standard throughout the corridor relate to: entrances; parkway setbacks; open space systems; water management; circulation; signage; and lighting.

The "Technology Design Guidelines" set the criteria for individual site development for high-technology users. These would be the uses in the SP Zones. The items addressed are development policies, development density, architecture/energy conservation, landscaping, parcelization, parking/storage, wooded site development, hillside site development, parkway character, and, underground utilities.

The "Commercial, Office, and Industrial Design Guidelines" were developed "as a means of ensuring a common design attitude and aesthetics throughout the Technology Corridor" (*Design Guidelines*, p. 30). These were

created for those uses not in SP Zones, but within 1000 feet of the Pellissippi Parkway. These criteria address: parcel size; yards; access controls; parking; signage; architecture; landscaping; and lighting.

Throughout the *Design Guidelines* much attention is focused on landscaping, buffering/screening non-aesthetically pleasing attributes of development such as HVAC units or dumpsters, and setbacks from parcel boundaries. When an application for Certificate of Appropriateness for a Building Permit is received, TTCDA staff makes careful evaluation of the project in light of these Guidelines.

The reason the criteria in the *Design Guidelines* was not incorporated into the zoning ordinance item by item was to grant the TTCDA flexibility in overseeing developments in the corridor. This is also the reason they were titled "Guidelines" rather than "Regulations" (J. Deardorff, D. Patterson, personal interviews).

Overview

With the aid of the TTCDA Board, the *Comprehensive Development Plans*, the *Development Review Procedures*, the *Design Guidelines*, the inter-agency coordination, and the method of appeal through the Knox County Commission, a fair and well-defined system for development has been laid out for the Technology Corridor. The reliance upon integrating the concepts in these documents and the actions of the TTCDA Board is a crucial part of this process.

Also important is the transmittal of this information to the petitioner or developer at the earliest time possible. Communication with TTCDA staff is very important and can save a petitioner time and money in the long run. The staff makes sure that the developer has all the materials he or she needs such as the *Comprehensive Development Plan* and *Design Guidelines*.

Generally, staff will have met with the petitioner at least one time prior to the TTCDA Board meeting, and will at that time make recommendations regarding the aproval of the request.

CHAPTER IV

The Implementation

Introduction

This chapter will examine the political process that essentially "sold" the community on the concept of the Overlay Zone. This will begin with the earliest events which created the concept of a high-Technology Corridor and end with the actions of the Knox County Commission to rezone the property.

The Corridor Concept and Early Endorsements

The original concept for the Technology Corridor was formulated by Eugene Joyce, an Oak Ridge attorney, in 1966. His enthusiasm prompted him to speak to civic clubs and others about his idea to try to garner support (The Oak Ridger, 11/6/81). He was ahead of his time. Apparently the circumstances were not right for the concept to take root in East Tennessee as it did in North Carolina somewhat earlier.

In September 1981, fifteen years later, the governor of Tennessee, Lamar Alexander, proposed a three-part plan to encourage high-technology development in the Oak Ridge/Knoxville area. The synthesis of the extension of the Pellissippi Parkway, the creation of a joint technical institute created by combining the facilities of Roane State Community College and the State Technical Institute of

Knoxville, and the creation of the Tennessee Technological Business Center (now Tennessee Center for Research and Development) gave the community leaders a starting place to devise a plan to create an atmosphere to attract and nurture technological business and industry.

Many Oak Ridge and Knoxville business, research, and education leaders were quick to support the Technology Corridor idea and provide input as to how to make it work. Thomas L. Yount, senior vice-president of EG&G said he was "a strong proponent of the governor's proposal" (The Oak Ridger, 10/19/81). "The governor's concept for the Pellissippi Parkway as a research corridor linking Oak Ridge and its laboratory and technology industry with Knoxville and the University of Tennessee means that geographic lines will have to be erased" (The Oak Ridger, 10/19/81).

Herman Postma, director of the Oak Ridge National Laboratory, said that "Gov. Lamar Alexander's offer of funds that would lead to a research park concept in the Oak Ridge-Pellissippi Parkway-Knoxville area is a golden opportunity that shouldn't be passed up" (The Oak Ridger, 10/20/81). "The governor has thrown down a challenge to all of us: 'You guys get your act together and I'll get the education act together and the funding act together, and together we'll build something that will give us a key to start attracting new industry" (The Oak Ridger, 10/20/81).

Dr. Jack Reese, chancellor of the University of Tennessee at Knoxville, was quoted as saying he "agrees with Herman Postma that four requirements must be

met to assure its success: A financial commitment up front from the State; highly qualified technical and professional people; sufficient land; and, a large-scale research effort" (The Oak Ridger, 10/28/81).

The Governor planted the concept for the Technology Corridor. It took quite a bit of planning, education, salesmanship, and hard work on the local level to turn this concept into reality.

Very soon after the Governor proposed the Technology Corridor concept, he created a blue ribbon task force to study its feasibility. (See p.14 for listing of task force members and their roles.) "He charged the task force to consider how best to develop the corridor and whether `thelocation of the new Parkway and expanded technical institute site along the corridor would both help develop the corridor itself while adequately serving the students in the 16-county region in the Knoxville area'" (The Oak Ridger, 11/10/81).

The selection of the task force members was an important step in the development of the Overlay Zone as some of the most respected business and education leaders were taking up the Governor's charge and lending it their support. This was the basis for the `salesjob' for the Technology Corridor concept. This, of course, eventually paved the way for the Overlay Zone to be created.

From the start, the Technology Corridor was compared to, most notably, the Research Triangle Park in North Carolina, Route 128 in Massachusetts, and Silicon Valley in California. In the newspaper articles and interviews published

after Governor Alexander first announced the concept, rarely were the analogies not mentioned.

Patience was also mentioned time and again. Regardless of the method of development--it was going to take time. Many spoke of the corridor at the 1983 WATTec Energy Conference at the Hyatt Regency in Knoxville. Jim Haslam said "the idea of the Technology Corridor is `along range plan--there'll be no miracles overnight'" (The Oak Ridger, 2/28/83).

"Richard L. Grant, president of Boeing Engineering and Construction Southeast told the group, `IfI have one message today about the corridor, it's: Don't get impatient'" (The Oak Ridger, 2/28/83).

The task force went on to endorse all of the governor's proposals. About a year after the original proposal, many other local, State, and even Federal groups and agencies gave the concept their blessings.

In the Fall of 1982, the Metropolitan Planning Commission unanimously endorsed the concept. "According to the MPC report, the Technology Corridor--a clustering of high-technology industries that normally produce settings resembling public parks--would provide higher incomes and job opportunities for the local labor force, improve the tax base and strengthen the economic base. There would also be expanding business as spinoff development in the region and improvements in public facilities such as utilities and transportation" (The Knoxville News-Sentinel, 9/13/82). There was no opposition from the audience at the meeting when the MPC approved the concept (The Knoxville

News-Sentinel, September 13, 1982). Don Caldwell representing the West Knoxville Homeowners reported that the group was optimistic and supportive from the very beginning (Personal interview, 11/9/88). "The West Knoxville Homeowners were a big proponent. They pretty much were an opponent to anything MPC had tried to do prior to the corridor. They saw it as a great opportunity to protect their interests" said Russ Newman, a planner at MPC at the time the Overlay Zone was implemented (Personal interview, 11/14/88).

Support was also given on the federal level. An official from the Appalachian Regional Commission (ARC) said "a proposed Technology Corridor along the Pellissippi Parkway has `allthe earmarks of success'" (The Knoxville News-Sentinel, 10/28/82). Winifred A. Prizzano, ARC federal co-chairman appointed by President Reagan, visited the area to award a $1.2 million grant for industrial development in the corridor (The Knoxville News-Sentinel, 10/28/82).

Also at this time State House Speaker Ned Ray McWherter toured the corridor, gave his support for it, and said the legislature should support it, too. "`Itmakes sense for West Tennessee to support a high-Technology Corridor of energy-related industries near Knoxville' close to UT and the Oak Ridge National Laboratory, McWherter said `althoughKnoxville is the 66th largest metropolitan area in the U.S., it ranks 11th per capita in PhDs'" (The Knoxville News-Sentinel, 10/28/82).

Development and Acceptability of the Overlay Zone

By the end of 1982, four staff people on loan from TVA, UT, and the State were working to market the area and devise a plan to make the land along the Pellissippi Parkway into a high-technology corridor. The seed funding for the foundation came from the ARC $1.2 million grant. It was expected that the State would appropriate $2 million and another $2 million would be raised locally and/or from private industry (The Knoxville News-Sentinel, 12/5/82 & personal interview with David Patterson, 11/4/88.)

The overwhelming support for the concept began waning when it came time to devise a way to control the land along the Parkway. The overall concept of a Technology Corridor spanning from Maryville to Oak Ridge was easy enough to endorse until it came down to the specifics of how exactly to do it.

"The idea of ownership was dismissed almost immediately" said David Patterson, Technology Foundation president (Personal interview, 11/4/88). Patterson was the person who broadened the scope of the Technology Corridor concept rather than just developing 200 - 300 acres of land. Don Parnell, MPC executive director at the time, recalled that there may have been some discussions about ownership, but that it was just not possible (Personal interview, 11/11/88). David White, task force member, said "there was never any possibility of ownership" (Personal interview, 11/17/88).

The money from whatever sources--city, county, State, or federal--simply was not offered nor identified as a means for large scale land purchase for the

development of the Technology Corridor. Because of this, any method of development would obviously affect many different landowners rather than one public landowner.

During this time, Jeff Deardorff of the Foundation, David White, staff from MPC and members of the task force were devising a way to control the land so to retain it for high technology development.

"Flexibility was very important. If the Guidelines had been written as a part of the Zoning Ordinance, only physical site problems could have been grounds for a waiver. It was important not to have to go through a regular standard variance and to create less formal procedures and processes for folks who know the intent and are committed to the concept" (Sue Adams, personal interview, 11/17/88). Patterson, Deardorff, Parnell, Newman, Spencer, all agreed that in order for the Overlay Zone to work, flexibility had to be an integral component of the process.

James Spencer reported that flexibility was important on two levels. The TTCDA needed to accommodate the developers by calling meetings, allowing people to come back in a week or so if a Certificate was denied because of the materials presented. They wanted to "send signals that they were not standing in the way" of appropriate development in the corridor (Personal interview, 11/7/88). The Authority also accepted less than sophisticated applications--the quality of the drawings, etc.

David White recalled that the MPC was being overruled almost every time it went to the County Commission on an issue. He sensed that the MPC had the same perspective as what the task force was trying to develop, and the same goals, but did not have the clout to make it a reality (Personal interview, 11/17/88). Many discussions were held about the appropriate method of review for development in the area. Essentially, a "mini planning commission" (Sue Adams, personal interview, 11/17/88) was formed that worked parallel to MPC. It was decided that this extra layer of protection was needed for political reasons as well as to maintain the standards and flexibility to facilitate the desired development.

The Sales Effort

Once the concept was devised, the sales job began. A Speakers Bureau was formed to get the message out on a very personal basis. Available speakers were taken from Knox, Anderson, Blount, Roane, Monroe, and Loudon Counties and included such individuals as Jim George of Westinghouse, Lamont Carter of Boeing, Bill Willis with TVA, Bruce McCarty with McCarty, Bullock & Holsaple, Bill Arant as chairman of the Development Authority, and Wayne Adams with St. Mary's Hospital (The Oak Ridger, 10/17/83). The points stressed at those meetings were as follows:

1. The Technology Overlay (TO) Zone is required by State legislation which created the corridor.

2. The area covered by TO zoning is set forth in that legislation.

3. No additional requirements are imposed on residential and agricultural properties or property in Knoxville or Farragut.

4. For non-residential, non-agricultural properties development plans are required.

5. For non-residential, non-agricultural properties the Tech Corridor Authority must review and approve:
* all building permit applications
* all rezoning applications
* all variance applications

6. Tech Corridor Authority approval is in addition to, not instead of, the normal building permit, rezoning and variance approval processes.

7. Tech Corridor Authority review and approval is for the purpose of applying stricter standards.

8. Some stricter standards in the TO Zone:
* 150 foot setback from Pellissippi Parkway except in Solway
* 100 foot side and rear yard adjacent to residences
* 5 acre minimum parcel size
* sign standards similar to the City of Knoxville zoning ordinance

9. Guidelines describing other criteria must be adopted by the Knox County Commission.

10. The "Certificate of Appropriateness" is documentation of the Authority review and approval process.

11. Tech Corridor Authority action on a "Certificate of Appropriateness" may be appealed to the Knox County Commission.

(Internal working document, Tennessee Technology Foundation, 11/21/83)

In the three months before the MPC meeting on the rezoning, 40-50 town meetings were held, any contact to the planning commission about the rezoning was addressed, a full-page newspaper advertisement was taken out by MPC, and 150 signs were posted in the area to alert the residents to the proposal (The Knoxville News-Sentinel, 12/9/83; Personal interview with Don Parnell, 11/9/88).

Another important part of the sales effort was a trip to the Research Triangle Park in North Carolina. The TTCDA invited members of the Knox County Commission and press to tour the Research Triangle area. Those who attended the trip were: County Commissioners Rex Norman, James R. Carroll, Jr., Bee DeSelm, Frank Leuthold, Jim Harbin, Mary Lou Horner, Fred Flenniken; West Knoxville Homeowners Association President Don Caldwell; Members of the Development Authority Jim Townes, Wayne Heatherly, Jeff Deardorff; and, Members of the press Jane Dubose and Tom Lee.

This was done to show the commissioners what could be accomplished. Don Caldwell recalled the discussion with Ned Huffman, Executive Vice President of the Research Triangle Foundation. He said, "he almost laughed in our faces and said we couldn't be successful without government ownership" (Personal interview 11/9/88). Mr. Huff questioned the commitment of a government entity to hold out for at least five to ten years which was his prediction for how much time the corridor needed, just to get off the ground. Mr. Caldwell recalled that the County Commissioners took a defensive attitude to Mr. Huffman's statements and on the way back "decided to show this guy up" (Personal interview 11/9/88).

It took a lot more than a trip to Research Triangle Park to convince the Knox County Commission to approve the rezoning for the Overlay Zone.

Richard Cate, at that time the governmental affairs liaison for the Greater Knoxville Chamber of Commerce, recalled that the rezoning was the first time in Tennessee that that amount of property had been "force zoned" [meaning the first

time this amount of land had been rezoned without the direct initiative of the property owners] (Personal interview, 11/16/88).

"The biggest question was whether or not Knox County was taking folks personal property, and if it would drive their property values up or down" said John Mills, Chairman of the Commission at the time of the rezoning (Personal interview, 11/10/88).

"We could have done a better P.R. (public relations) job, but there was no money for it. There was good support from the media" said Richard Cate (Personal interview, 11/16/88).

Primarily, those opposed to the rezonings were some, not all, developers and "family land farmers" (Sue Adams, personal interview, 11/17/88). "John Mathis, who has a farm in the area, told the commissioners, `Please represent us. You're causing chaos to hundreds and hundreds of families in West Knox County. If this is going to benefit the State, why not let the taxpayers in the State pay for it'" (The Oak Ridger, 1/27/84).

"`We're not against the corridor, but we're against the way the ordinances are written,' said Harold Beal, who said he represented some of the largest property owners along the Pellissippi Parkway. `The property owners are funding the zone (the corridor)--no money is being put up by the State. We don't want a legal freezing of our property,' he said" (The Knoxville News-Sentinel, 12/9/83).

Several people viewed the rezoning as "condemnation of their land without compensation" (The Knoxville News-Sentinel, 12/9/83). "About 75 percent of the

landowners are old people who have kept their property as some security,' said Evelyn Brown, who owns property in the area to be rezoned. `Idon't think I can wait five or ten years to see if this thing works'" (The Oak Ridger, 1/27/84).

The Metropolitan Planning Commission voted to rezone more than 3,800 acres of land and approved the Technology Overlay Zone over 13,000 acres at the January 1984 meeting. Four out of the thirteen members present voted against the rezoning.

A series of meetings were held with individual members of the Knox County Commission and some combination of Jim Haslam, Richard Cate and John Mills. "We tried about four times putting it before Commission to see if it would pass. We needed ten votes to pass it and kept postponing the vote to get over the objections," said Mills (Personal interview, 11/10/88). "We met once a week to discuss strategy. Out of 19 Commissioners, there were 8-10 who were violently opposed to it (the rezoning)," recalled Cate (Personal interview, 11/16/88).

Apparently the day the rezoning came to a vote was a nightmare. Dale Workman, county attorney, insisted that the rezoning occur on a parcel by parcel basis rather than one general rezoning. "Workman X'd the parcels off with a red pencil--it was totally arbitrary. Sometimes the wrong number was called out. It was a madhouse that day. The atmosphere and attitude did not allow for staff input" said Sue Adams (Personal interview, 11/17/88).

"We had 11 votes per parcel and not the same Commissioners voted the same each time" said Cate (Personal interview, 11/16/88). They found out later that, indeed, the entire Overlay Zone could have been rezoned in one motion.

One important statement was made that day, despite all the early admonitions to be patient and predictions of how much time the corridor would take to develop, that stuck in the heads of the county commissioners. Jim Haslam, chairman of the Technology Foundation Board, offered the County Commission the chance to review the Overlay Zone in five years and that it would cost the County Commission nothing. The Technology Foundation would shoulder all of the costs involved with its operations. (David Patterson, personal interview, 11/4/88).

"In five years, if the commission thought nothing had been accomplished, they could abolish it," said Mills (Personal interview, 11/10/88). This was offered to appease the commissioners who might still have had reservations about the rezoning.

This statement also relieved the County Commission of any participation in development in the corridor such as improvements other than those planned for normal expected growth--ie: utility extensions.

CHAPTER V

A Review of the TTCDA's Actions and Activity in Overlay Zone 1983 - 1989

Introduction

In assessing the activity within the Technology Corridor from 1983 through 1989, one must examine a variety of decisions. Actions regarding the approval and denial of Certificates of Appropriateness will be outlined in this chapter. The TTCDA's general attitude towards approving or denying Certificates will also be evaluated.

Zoning and rezoning in the Overlay Zone is an issue that has received a great deal of attention in recent years. An overview of this activity will be recounted.

The type and location of construction in the Overlay Zone will be outlined, as well. Along with this, the type and number of employees and kinds of firms that have been attracted to the Overlay Zone is important.

In evaluating this data, only those employment figures and employers located within the specific zoning region will be examined. It will be important to remember that although the Tennessee Technology Foundation staff works to promote high-technology development in the Overlay Zone, it also encourages

growth in the three-county Technology Corridor area and even on a Statewide level. The Overlay Zone is a tool in this region to assist the Technology Foundation's goals along the Pellissippi Parkway.

Much data is present for the entire three county Corridor area, but for assessment purposes, only those decisions and the results of those decisions made by the Tennessee Technology Corridor Development Authority concerning variances, building permits and rezonings on or for the land in the Overlay Zone, specifically, will be examined.

Actions of the TTCDA

When the TTCDA evaluates an application for a Certificate of Appropriateness, one of many actions can be taken. The TTCDA can approve the application, approve it contingent upon some condition such as "staff review of lighting plan," or approve the application with a waiver to some portion of the Design Guidelines or Development Review Procedures. The TTCDA may also deny the application and the petitioner may appeal the decision to the Knox County Commission. If an application is made, the TTCDA must take action on the request. The petitioner has the right to withdraw or defer his/her request. The data on Tables 1, 2, and 3 outlines the actions of the TTCDA from 1983 to 1989 regarding certificates issued, denied and appealed.

There were 128 applications made for Certificates of Appropriateness from 1983 through 1989. Nine applications or 7% were withdrawn or deferred by the

TTCDA SUMMARY OF ACTIONS
1983 - 1989

Table 1: Certificates of Appropriateness Issued

Purpose	1983	1984	1985	1986	1987	1988	1989	Total
Building Permit	1	13	7*	13	13*	11	9#	67
Rezoning	4	7	3	*	5*	6	1	26
Variance	1	0	9	3	0	1	0	14
Total	6	20	19	16	18	18	10	107

* One building permit pending in 1985 and 1987. One rezoning permit pending in 1986 and 1987 (not included in totals). # One building permit approved conditionally in 1989 (included in totals).

Table 2: Certificates of Appropriateness Denied

Purpose	1983	1984	1985	1986	1987	1988	1989	Total
Building Permit	1	4	0	0	0	0	0	5
Rezoning	1	2	0	1	1	0	2	7
Variance	0	0	0	0	0	0	0	0
Total	2	6	0	1	1	0	2	12

Source: Tennessee Technology Foundation Report 1989.

Table 3: TTCDA Actions Appealed to the Knox County Commission

Action	1983	1984	1985	1986	1987	1988	1989	Total
Denied	2	6	0	1	1	0	2	12
Appealed	1	4	0	0	0	0	1	6
Overruled	1	3	0	0	0	0	0	4
Upheld	0	1	0	0	0	0	0	1

Source: Tennessee Technology Foundation Report 1989.

petitioners. Some 107 or 84% of the requests were approved by the TTCDA and twelve or 9% were denied. Of those 12 denied, six were appealed to the Knox County Commission and of those six appealed four of the decisions by the TTCDA were overruled and two were upheld.

With three of the decisions that were overruled by the Knox County Commission, the "blessing" of the TTCDA came with them. In all three decisions the TTCDA was sympathetic to the petitioner, but did not have the power to grant the request or did not want to set an unhealthy precedent by approving an unusual case.

The TTCDA has also displayed a great deal of flexibility regarding the *Design Guidelines* and *Development Review Procedures*. Only three applications were denied based on non-compliance with procedures outlined in the *Development Review Procedures*. Park West Church of God (84004.0) applied for a certificate for a building permit and was denied because the did not submit a

site plan, the use was inconsistent with the *Comprehensive Plan*, and they failed to meet submission requirements. Aaron Land Development (83006.0) was denied a certificate for a building permit because of insufficient plans and information. The Floor Covering Outlet (84016.0) was denied a certificate for a building permit for a sign because they did not meet the height, setback, intent of the *Design Guidelines* and were not in compliance because they erected the sign without a certificate.

Conversely, 54 waivers or variances to the *Design Guidelines* or *Development Review Procedures* were granted by the TTCDA in order to issue Certificates of Appropriateness to petitioners. Twenty-four waivers to setback provisions were granted on either front, side, or back setbacks. Ten waivers for signage varying from height, allowing more than one sign, allowing more than three colors, or allowing a larger area than requested were granted. One temporary structure was allowed as a residence in a SP zone and this culminated in a variance to the SP regulations. Three variances for parking requirements were approved and two for the Ground Area Coverage were allowed.

In order to expedite the process, staff was directed to review portions of plans--either site, landscaping, hydrology, lighting or signage--fourteen times. This was done so that the petitioner did not have to wait to come back before the TTCDA to be granted approval on the entire project. Development plans were approved contingent upon approval of portions of these plans by the TTCDA staff.

Zoning in the Overlay Zone

> Of the 7,000 acres that are within the Overlay Zone, only 2,200 were originally zoned SP. Of these, only 916 acres are now available to effectively market to technology-based companies. About half are not available because the owner does not wish to sell. About 200 acres were rezoned from SP to commercial in accordance with revisions to the Corridor's Comprehensive Plan. And about 200 acres zoned SP have been developed thus far. One or two large sitings could consume as much as several hundred acres. Hence, over the long term, there really is not an over abundance of SP zoned land.

This excerpt is from Jeff Deardorff's "White Paper response" to Sue Adams on October 17, 1989. Of the 7,000 acres in the Overlay Zone, almost 3,000 have a Commercial, Office, Industrial, or Scientific Production (SP) base zoning. The remainder of the 4,000 parcels are Agricultural, Residential, or Open Space. The data presented on Table 4 shows the amount of land in the different zoning classifications in the Overlay Zone in 1989.

Table 4: Acreage and Parcels for Commercial, Office, Industrial and Scientific Production Zones, 1989

Zone	Acreage	Parcels
CA (Commercial A)	112	84
CB (Commercial B)	342	77
PC (Planned Commercial)	366	29
OB (Office)	37	3
I (Industrial)	179	14
SP (Scientific Production)	1,935	165
Totals	2,971	372

MPC Technology Corridor Zoning Assessment, 1989

By the end of 1989, 33 applications for Certificates of Appropriateness for rezoning had been processed by the TTCDA. Twenty-six rezonings were approved by the TTCDA, and seven were denied.

> During the period 1983-88, applications differed somewhat with regard to zoning changes requested. In 1983 there were numerous requests for changes from Agricultural and various residential districts to the Scientific Production district. Other common requests during that year were changes from Agricultural or Industrial district to a residential and commercial designation. In 1984 two rezoning applications requested changes from SP to commercial zones. During 1986, 1987, and 1988 a number of rezonings were requested for changes from SP to commercial districts. In only a couple of cases were changes requested from SP to districts such as Agricultural or Low Density Residential. For the most part during 1984 - 88, non-SP rezoning requests involved changes from a less intense zoning category to a more intense one. Thus, some applications requested changes from Agricultural to a type of residential or commercial district. Other applications requested changes from residential types of districts to commercial districts. (MPC Technology Corridor Zoning Assessment 1989, p. 12)

In 1989, four requests for rezonings were submitted to the TTCDA for review. Of these, two were approved, CB to PC and no zone to SP and Technology Overlay (annexation), and two were denied, SP to PC and SP to R.

Construction in the Overlay Zone

From 1983 through 1989, 190 parcels have provided sites for development. A total of 257 buildings were constructed, mostly in areas zoned agricultural or residential. Twenty-six were not residential (MPC, 1989).

> Currently, a total of 99 businesses and institutions are located within the Technology Overlay Zone. During the last five years about 70 acres of land has been developed for business and institutional sites, excluding Pellissippi State. In the same period about 40 acres of SP land has been

> developed for such purposes. If Pellissippi State is included then SP acreage development increases to about 170. (MPC, 1989, pp. 9-10)

Most of the technology-based development has occurred south of Lovell Road and near Hardin Valley Drive (Computer Technology & Imaging, Tennessee Center for Research and Development, are located south of Lovell, EC Corporation and Pellissippi State are located on Hardin Valley). "New non-technology based development has occurred primarily south of Dutchtown Road" (MPC, 1989, p.10). Table 5 shows the new technology-related construction by year in the Overlay Zone.

> . . . With over 200,000 square feet of new office, laboratory, and production space built and occupied in 1988. 45,000 square feet of this total were built in the Overlay Zone. Since 1983, there have been over 250,000 square feet of technology oriented space built in the Overlay Zone. This does not include 250,000 square feet of space at Pellissippi State Technical Community College, nor does it include several hundred thousand square feet of space leased up by technology-based firms in buildings existing prior to 1983. (Deardorff, White Paper Report, 1989).

Most of the construction along the Pellissippi Parkway for technology-based uses has been tilt-up concrete with some contrasting color band on the building. Metal buildings are not allowed in SP zones or within 1000 feet of the Pellissippi Parkway. Some companies have incorporated masonry construction into the design of the facility. Block glass has also been utilized.

In general, the intent of the Design Guidelines has been met in ensure attractive, campus-like nodes of development. The best examples of this are the EC Corporation development off of Hardin Valley Drive and the CTI and Pellissippi Research facility on Innovation Drive.

Table 5: New Technology Related Construction in the Overlay Zone 1983 - 1989

Year	Development & Address	Size in Square Feet
1983	Automated Control Technologies 10202 Technology Drive	10,000
1984	Bagwell Communications 9701 Madison Avenue	32,000
1985	Computer Technology & Imaging 810 Innovation Drive	25,000
	Fairview Technology Center Schoolhouse Road	17,000
1986	Blaine-Hayes Building Dutchtown Road	20,000
	Pellissippi Research Facility 10500 Innovation Drive	38,000
1987	Computer Technology & Imaging (Exp.) 810 Innovation Drive	45,000
	The EC Corporation 10511 Hardin Valley Road	20,000
1988	Computational Systems, Inc. 835 Innovation Drive	20,000
	Tec-Con 838 Innovation Drive	5,000
	Qual-Pro Pellissippi Parkway	20,000
1989	Computational Systems, Inc. (Exp.) 835 Innovation Drive	10,000
Total		262,000

Source: Tennessee Technology Foundation

The numbers for employment in the Overlay Zone are based on same methods developed by the Research Triangle Park. If the company is considered technology-based, then all employees are counted regardless of the job description (Knoxville News-Sentinel 1/5/84).

Companies in the Overlay Zone

As predicted and advocated early on, smaller, "homegrown" spinoff companies from technology created at the University of Tennessee or the Oak Ridge National Laboratory have accounted for the majority of the high-tech firms in the Overlay Zone. Auzville Jackson, the TTF president at the time of its inception, said "the odds are 20-1 against luring a Fortune 500 company to locate in the Tennessee Technology Corridor" (The Knoxville Journal, 1/19/84). "The major importance of the Fortune 500 companies is the visibility and credibility of the area" (The Knoxville Journal, 1/19/84).

As shown by Table 6, significant employment levels were present in 1989 in the Overlay Zone. At that time, 24 technology-based companies were employing 803 people.

At the time Jackson indicated that the smaller firms would be the more desirable because there was less competition for them and a greater chance of job creation and growth. These prophecies have been proven in the time period spanning 1983 - 1989.

Table 6: Technology-Based Companies Located in the Technology Overlay Zone as of December 1989

Company	Employees	Year of Charter
Advanced Waste Management Systems	15	1985
American Welding Institute	10	1983
Automated Control Technology	10	1983
Bagwell Communications, Inc.	32	1974
Computational Systems, Inc.	65	1984
Computer Technology and Imaging, Inc.	130	1983
CONSULTEC, Inc.	3	1988
The EC Corporation	50	1979
The Edge Group	90	1978
Electrotek Concepts, Inc.	15	1984
Hewlett Packard Company	31	1979
JBF Associates	35	1978
Laser Technology Center	3	1988
LipoGen, Inc.	30	1985
Machine Kinetics Corporation	20	1985
Pellissippi International	2	1987
Perceptics Corporation	75	1980
Prime Technologies, Inc.	22	1985
Southern Testing Services	4	1981
Tech-Con, Inc.	20	1979
Technology for Energy Corp.	65	1975
Telephone and Data Systems, Inc.	31	1980
Tennessee Center for Research and Development	20	1985
Valley Industries	25	1973
Total	803	

Source: Tennessee Technology Foundation High-Tech List 12/89.

An exact determination of the number of jobs created in the Overlay Zone since its implementation has been difficult to determine. "Since the inception of the Tennessee Technology Corridor Development Authority employment in technology-based firms has increased by 336 (TTCDA, 7/88). This figure includes employment in both new businesses and the addition of employees to existing businesses" (MPC, 1989). This is from the MPC Zoning Assessment study completed in mid-1989.

According to an article in the Knoxville Business Review which reported an interview with Jeff Deardorff, 466 new jobs have been created in eleven new technology-based companies in the Knox County portion of the Technology Corridor accounting for 252,000 square feet (Knoxville Business Review, 11/13/89).

Again, the confusion arising from the difference between the Overlay Zone and Technology Corridor may account for the varying numbers. Table 6 outlines all the technology-based firms in the Overlay Zone as of December 1989 shows all employment figures--both newly created and existing before 1983. One should keep in mind the importance of the retention of existing technology-based firms and the role the Overlay Zone may have had in offering the high-amenity atmosphere in Knox County that the companies were seeking.

The Overlay Zone has many success stories, but a couple of firms, in particular, showcase the potential nature of "homegrown" firms located in this type of development.

Perceptics

Ralph Gonzalez started Perceptics, a company that develops and manufactures high-tech imaging equipment, in 1980 with four employees. Gonzalez was an IBM professor of electrical engineering and computer science at the University of Tennessee, Knoxville (Knoxville News-Sentinel, 1/25/85). In 1985, Westinghouse joint ventured with Perceptics by purchasing a 38% interest in the company for a "multi-million dollar" investment (Knoxville News-Sentinel, 1/25/85).

In 1984 Perceptics had $5 million in sales, and it employed twenty people in 1985. By 1989, 75 were employed, and the company had moved from its Winston Road location to a site on the Pellissippi Parkway in the Overlay Zone.

Computer Technology and Imaging, Inc. (CTI)

Terry Douglass was president of the prestigious EG&G ORTEC in Oak Ridge Tennessee. A cutting edge piece of medical equipment was developed by Douglass while he was there. He had a vision to produce this equipment, and a vision as to where he wanted to produce it.

On August 24, 1983 the West Side Volunteer reported:

> Terry Douglass, who has resigned as president of EG&G ORTEC, Inc., is so convinced of the success of the Technology Corridor on Pellissippi Parkway, he is forming a new company to develop new corridor-business development . . .One aspect of EG&G ORTEC production is a piece of medical equipment that Douglass was instrumental in developing the Emission Computerized Axial Tomography Scanner.

By March 1984, Computer Technology and Imaging, Inc. had twenty-five employees in its facility in the Overlay Zone. This company was "the nation's sole manufacturer of a machine that could provide medical breakthroughs in the fields of cancer, brain disease, and nerve disorders" (Knoxville News-Sentinel, 3/23/84). CTI was, and still is, manufacturing the PET (Positron Emission Tomography) Scanner which costs between $1 million and $1.5 million.

By 1989, CTI had expanded two times and employed 130. It is still the international source for PET Scanners and continues to grow and prosper.

CHAPTER VI

Conclusion

Throughout the course of researching this topic, the question "Has the Overlay Zone been successful?" recurred. On one level, this is a difficult question to answer because there is no reasonable method of comparison to other Overlay Zones. The high-tech centers in the United States are too varied to be compared. The basis for comparisons to measure the successes or failures of these centers is also far too subjective to be useful. Additionally, the Overlay Zone appears to be an unique entity regarding the use of zoning for the facilitation of high-technology development.

Therefore, an indication of its success could be the fact that it and the Development Authority have existed, at all. The fact that they were put in place was a success, in and of, itself due to the conservative nature of the community regarding zoning and regulation. Throughout the years, some have questioned particular tracts in the Overlay Zone, the concept and Development Authority have remained intact and been questioned only by a very few.

Another measure of success could be the community's commitment to the concept. Many individuals in some way related with or knowledgeable about the corridor and/or economic development were interviewed to research this topic. With the exception of one person, out of 18, all of those interviewed were

supporters of the Overlay Zone and technology corridor concept, to varying degrees (A synopsis of those interviewed can be found in Appendix B.)

Development has occurred in the Overlay Zone. More than 800 high-tech jobs were present in 1989, just six years after the implementation of the concept. Leading edge technology and products are being created and manufactured on the Pellissippi Parkway.

Although not an overwhelming endorsement, it is fair to say that the Overlay Zone has clearly been better than nothing. Many of the powers of the Development Authority have not been used, a well-funded marketing effort has not been initiated, and funding for infrastructure improvements has not occurred. The prime land for high-technology development has been reserved, but it is still waiting to become more marketable.

Don Parnell, who was executive director of the MPC at the time of the rezoning, commented that "in some ways we have a Cadillac symbol on a VW" (personal interview, 11/9/88). The Development Authority has a broad range of powers which were thoughtfully developed and negotiated at the onset. It can regulate and reveiw developments in the Overlay Zone, own property, develop facilities, raise capital for projects, apply for grants or loans, and employ personnel. To date, only the regulatory and review powers have been exercised by this body.

As for the marketing of the corridor, the staff responsible for that has been the Tennessee Technology Foundation (TTF). Jack Reese, chairman of the TTF

Board, commented that the long-range health of the corridor depends heavily upon the long-range health of the Foundation. There is no continued funding for the TTF. The organization has been surviving off of their original $2 million endowment from the State, but the matching local funds were never raised. Bill Arant, chairman of the Development Authority, echoed Reese's sentiment.

Kemp Fain, a developer of land in the corridor, made a useful suggestion for marketing the land. He said that some group needs to take the initiative to develop some good topography maps and invest in some core drillings for the available property on the corridor (Personal interview, 11/22/88). Any steps one can take to save an prospective industry time and money will pay off in recruitment efforts.

The TTF, throughout its history, has had a difficult time defining its role in relation to the rest of the State. East Tennessee is logically the high-technology center for the State of Tennessee, but Nashville seems to have a difficult time allowing the TTF to be the State agency for high-technology development. State funding has been sought by the agency for some time, and some years there is a positive response, some years not so positive.

It is interesting to note that the early predictions were that mostly "homegrown" and "spinoff" companies would be attracted to the corridor. To date, no "outside" company has located in the Overlay Zone; all the locations have been either existing industry expansions or relocations, spinoffs, or startups. Throughout the interviews, Patterson, White, Deardorff, and others said,

essentially, one big location from an outside company would be the impetus for a lot of activity in the corridor. If this perception is true, then some serious national marketing needs to occur which relates directly to the technology corridor.

It was hoped that the regional marketing campaign, Tennessee's Resource Valley implemented in 1988, would be useful in the marketing efforts of the corridor (White, D., personal interview, 11/17/88). This has been useful in that national marketing has been achieved by this regional group, but this still has not been focused primarily on the corridor.

The success of the Overlay Zone has been haunted by certain promised made to the Knox County Commission. The Commissioners were assured that once they agreed to implement the Overlay Zone and Development Authority, their responsibility towards the development of this area ended--both politically and fiscally. They were told they had the power to dissolve the Overlay Zone and Development Authority if they felt it was ineffective. (Leuthold, F., Parnell, D., Patterson, D. & Deardorff, J., personal interviews).

Where there has been adequate infrastructure in the Overlay Zone--water, sewer, electricity, roads, etc.--high-technology development has occurred. David Patterson, president of the TTF, commented in his interview that he was disappointed in prospects not having his vision of the undeveloped land. "In other developed high-tech areas, the land was a lot rougher than in the Overlay Zone"

he said (personal interview, 11/4/88). These other areas, however, were developed before the "high-tech bandwagon" came racing across the country.

Competition for these businesses is a lot tougher these days and developed sites with amenities comparable to what the Knoxville/Oak Ridge area has to offer are widely available. Mike Magill, senior vice president for economic development for the Greater Knoxville Chamber of Commerce, commented on the difficulty of marketing the undeveloped land in the corridor. "It's difficult to sell a concept [to an out-of-town prospect]. They want a tangible piece of real estate. Prospects usually have deadlines, etc. They do not have the time to partner with a community to facilitate the development of an area." (Personal interview, 6/7/92).

The mysterious voice from the 1989 movie *Field of Dreams* keeps saying "if you build it, they will come." Zoning, in and of itself, cannot be expected to facilitate development. There are some concrete, basic, primary elements that need to be in place to make the Overlay Zone land more attractive and saleable. Those are utilities, roads, decent topography, and reasonable sales prices, or at the very least, some kind of commitment to provide them.

Despite all of the added attractions this area has for high-technology development--UT, ORNL, TVA, Pellissippi State Technical Community College, an attractive setting, good transportation routes, good communications, etc.--the basics to economic development cannot be expected to be overlooked by someone evaluating the area for a new location or expansion.

Many fingers have been pointed throughout the research of this thesis as to whom should provide these much needed infrastructure improvements. It is unfortunate that the Knox County Commission was more or less relieved of liability from the outset. This body is a logical choice to be interested in enhancing development in this area. Other projects of this scale, such as the Forks of the River Industrial Park, have been very successful.

Granted, the County has since created a small technology park in the Overlay Zone and Westbridge Business Park just outside of it, but this has not lessened the overriding need for infrastructure improvements throughout the Overlay Zone.

The State has a few mechanisms in place for assisting communities with infrastructure improvements. These are all tied into "bird-in-hand" projects, however, and would not be applicable to the Overlay Zone land, itself.

It is time for something innovative and foresightful to be created to assist with this area. It is not far-fetched to look at this area as one would a Smyrna or Spring Hill. A lot of State assistance was provided for those massive projects.

The Overlay Zone area, however, could be viewed as the same caliber of project. The number of jobs one can expect to be created is significant. Granted, the development will entail a more companies than a single automobile manufacturer, but the end effect will be the same and probably more stable.

Now is the time for some serious lobbying for these improvements in order for the corridor to reach its full potential. It is unreasonable to expect outside

companies to assume these costs. It is also reasonable to believe that pressure from the landowners will result in yet another downscaling sometime in the future unless the area is made more marketable.

Exploration of State, local, and private assistance needs to be done immediately. Joint ventures, public-private partnerships, and direct assistance from the State and County are all valid options to be investigated.

The piecemeal type of development has gone on too long and has left too many people unsatisfied to continue. The Overlay Zone area is also too good a product to waste. There is no doubt that infrastructure improvements will greatly enhance the development of this area, and it is time for some entity or entities to be proactive and take responsibility for those developments.

As of the writing of this thesis, the Overlay Zone was once again being scaled-downscaled to alleviate landowner's complaints. Other types of development may now occur, but those, too, need the infrastructure. The remaining SP zoned land still needs the infrastructure to make it marketable. Commercial growth will not facilitate high-technology growth unless it brings with it road, sewers, etc.

With creative use of the Development Authority's powers, a strong national marketing campaign, and investment in the Overlay Zone in the way of infrastructure improvements and better information about the land being marketed, the "success" of the technology corridor should be greatly enhanced.

Without it, there is not as much of a commitment to economic development as there is a commitment to the regulation of a land area.

Without these elements in place, development will continue to occur in the Overlay Zone as it has in the past. The true potential of the area, however, will never be obtained.

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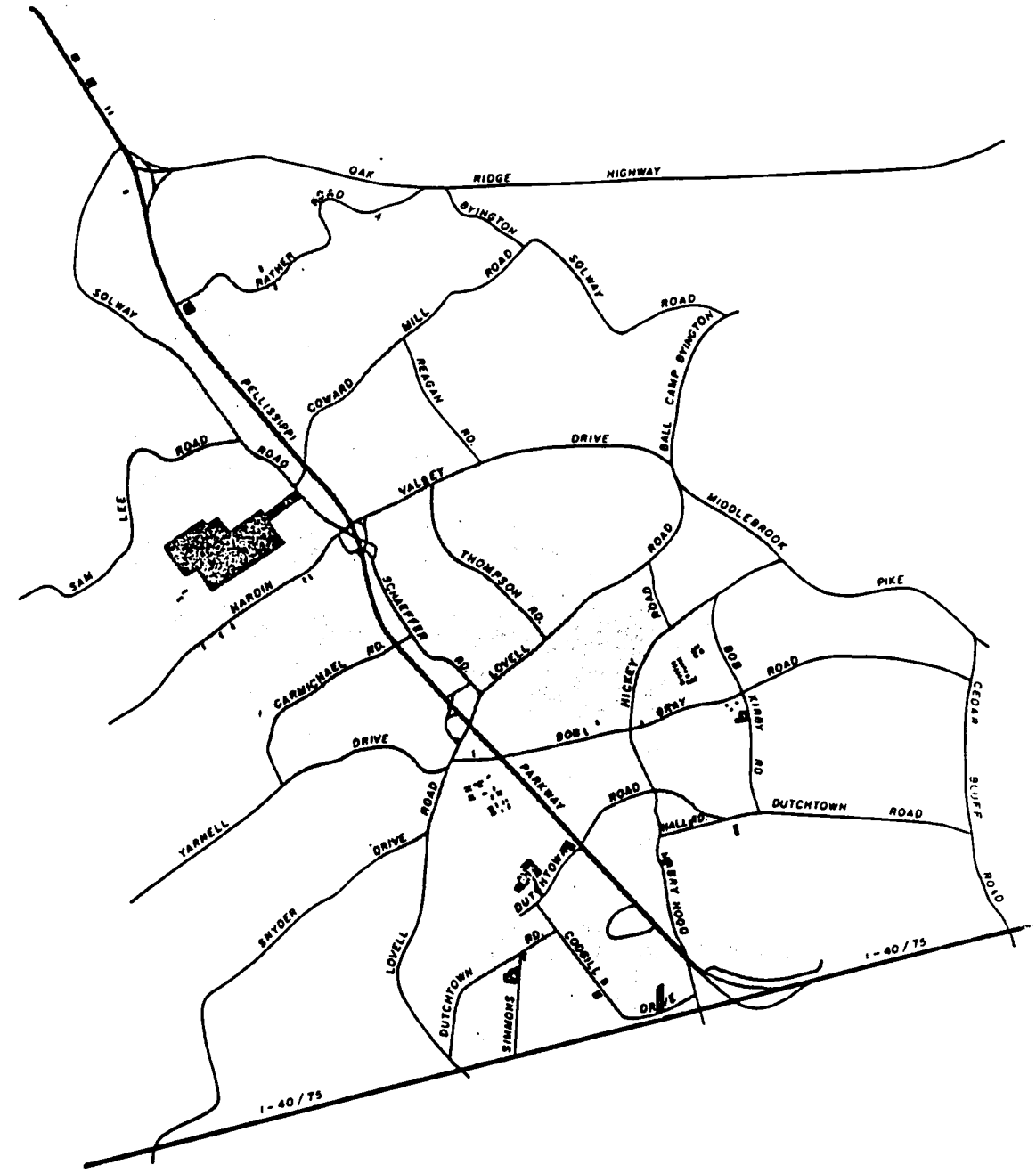
APPENDICES

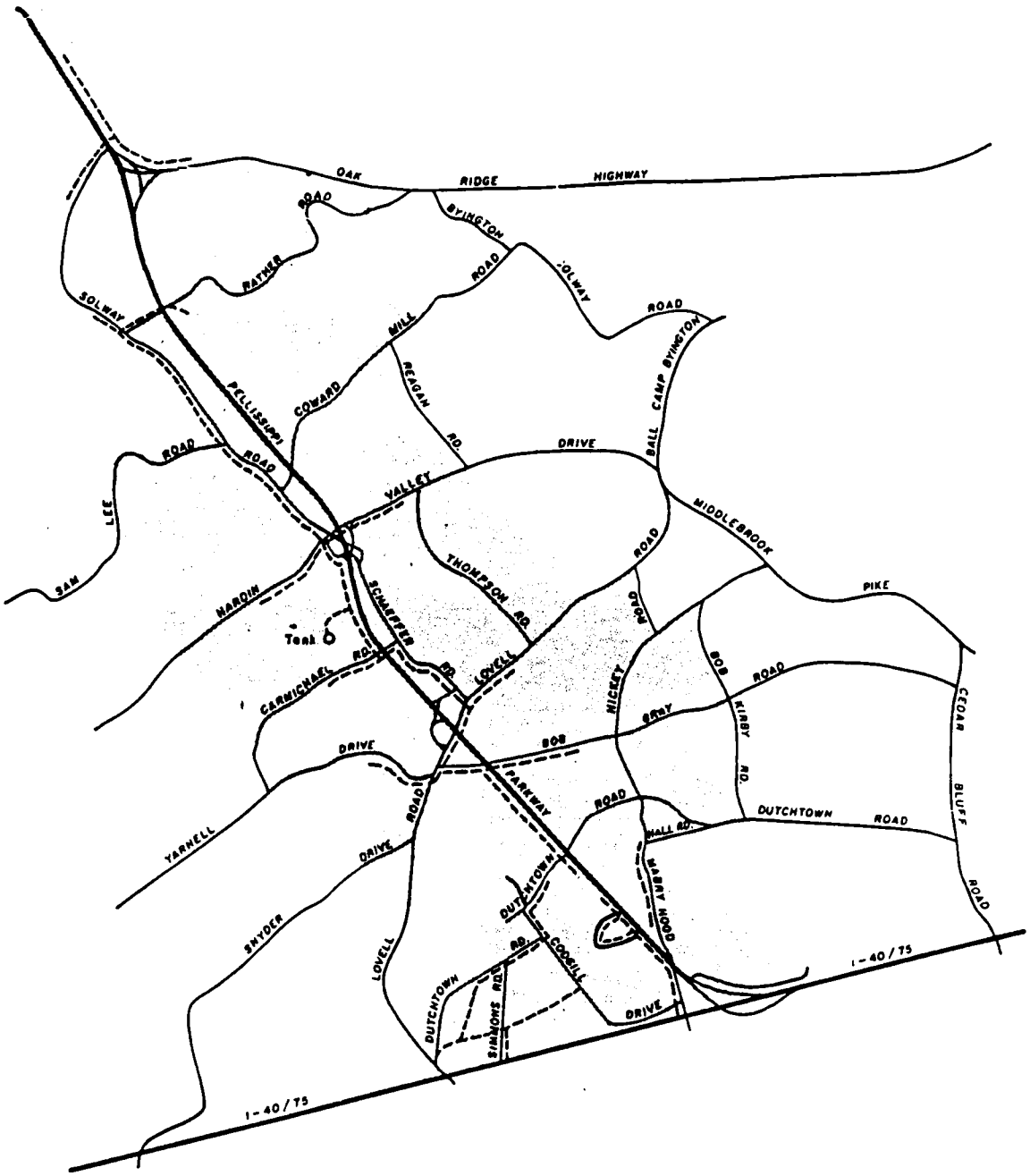
APPENDIX A



TENNESSEE TECHNOLOGY CORRIDOR
KNOX COUNTY PHASE

Non-Agricultural Development in the Technology Overlay Zone Since 1983

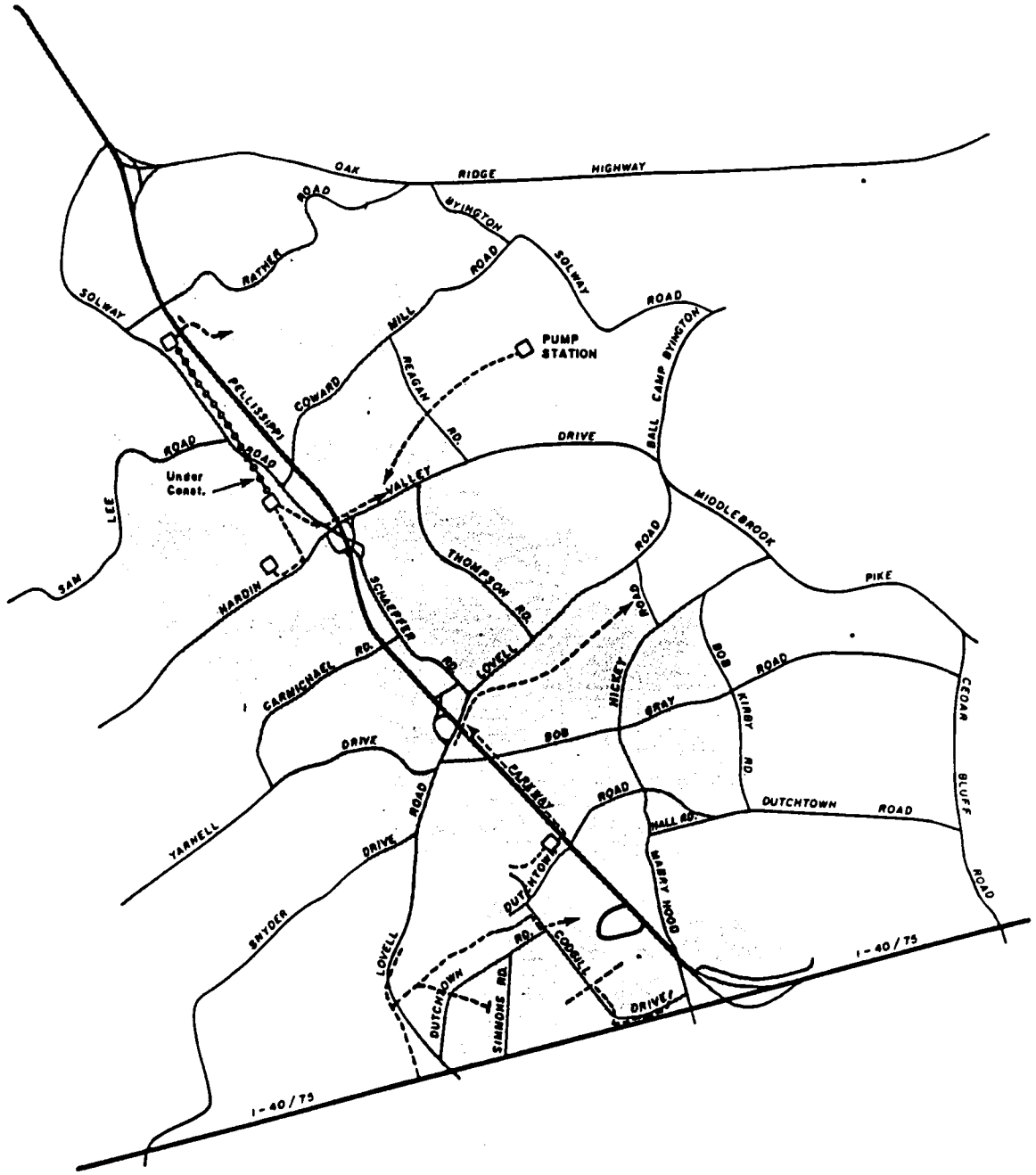
Source: 1989 MPC Zoning Assessment



TENNESSEE TECHNOLOGY CORRIDOR
KNOX COUNTY PHASE
CURRENT WATER SYSTEM
(Major Lines Only)

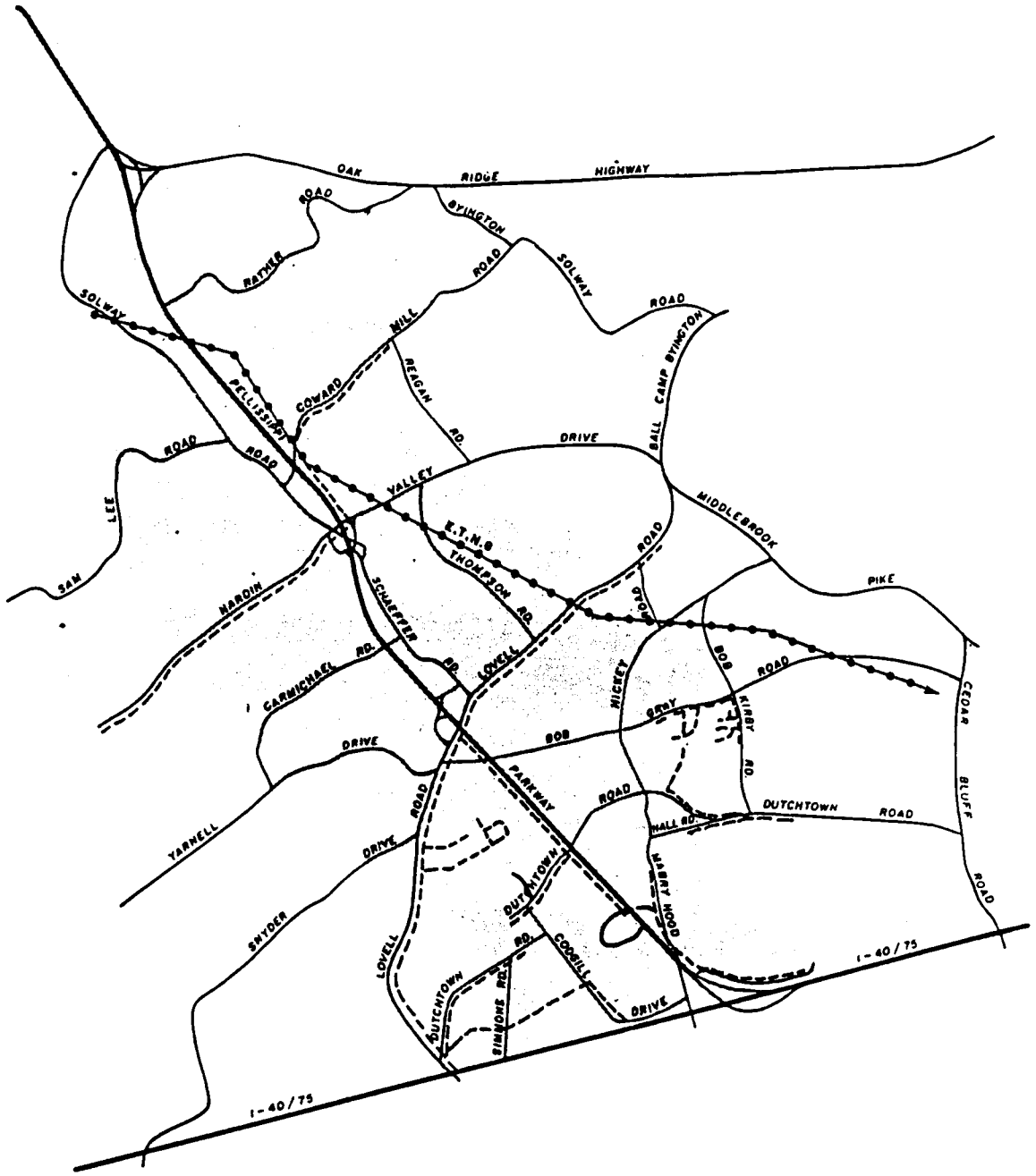
N
0 4000
FEET

Source: 1989 MPC Zoning Assessment



TENNESSEE TECHNOLOGY CORRIDOR
KNOX COUNTY PHASE
CURRENT SEWER SYSTEM
(Major Lines Only)

Source: 1989 MPC Zoning Assessment



TENNESSEE TECHNOLOGY CORRIDOR

KNOX COUNTY PHASE

------ NATURAL GAS LINES

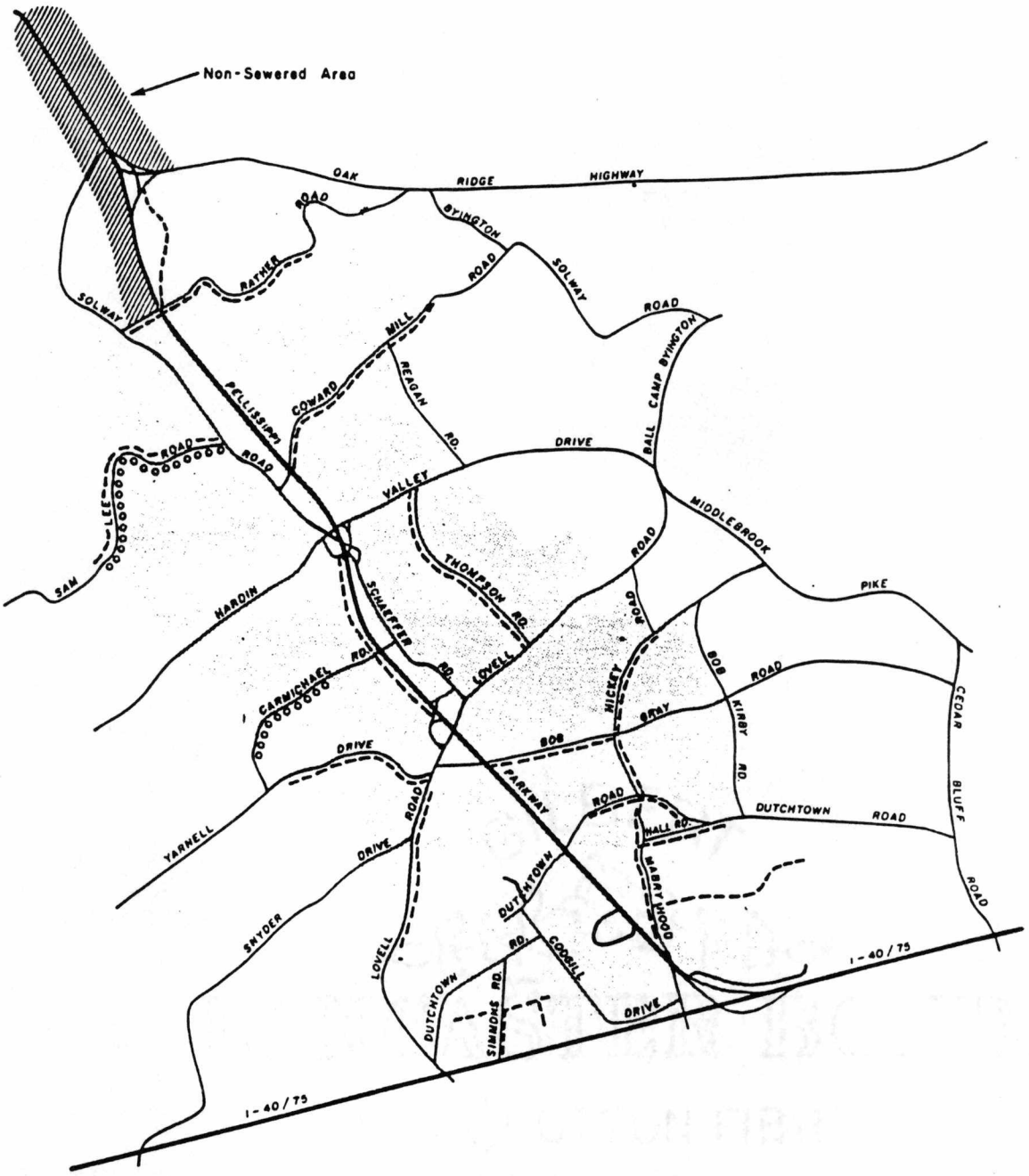
East Tennessee Natural Gas

N

0 4000

FEET

Source: 1989 MPC Zoning Assessment



Source: 1989 MPC Zoning Assessment

APPENDIX B

Interviews

Throughout the course of researching this topic, many people either instrumental in the development of the Overlay Zone, promoting economic development in Knoxville/Knox County, or in some way related to high-technology economic development in the area were interviewed. All of those interviewed were asked the same series of questions regarding their early perceptions of the Overlay Zone, and their predictions, fears, hopes, etc. as to what it might accomplish. Also their current perception of the Overlay Zone was gleaned. The following is an account of those interviews.

David Patterson, president, Tennessee Technology Foundation

When asked if he was satisfied with the Overlay Zone, Patterson replied that Research Triangle Park was on the verge of bankruptcy three times and was not really "successful" until 1980. That was more than twelve years after it was created. "Satisfied to date, yes," he said. "The reasons being the resistance to the encroachment and the quality of the developments were better than if there were no standards.

"There's a reasonable chance that the next generation will even look better. Appeal to their pride, show something as no one will want to do less. We've set a minimum standard that hopefully folks will want to improve upon," said Patterson. "Marketing is a critical part of the agreement. We're hoping that by bringing the high-tech firms together in the area, technological growth will feed upon itself.

Over the long term it will. Having something going already here is the best marketing tool we have".

"If we got two more developments started along the Parkway, we should stimulate a lot more development. This is the main way to get things done. It will be awhile until somebody comes in and takes a big block of acreage. As more development occurs, the pace quickens and the price goes up. We need patience."

Patterson has been unimpressed by the lack of imagination prospects have had when evaluating the raw land for development purposes. He has been disappointed that they do not have his vision. "In other developed high-tech areas, the land was a lot rougher than in the Overlay Zone," he said.

"The problem with the land is the asking price is too high. Prices should be based on the market rather than on the return to the investors--nothing sells that way. It makes it difficult to market the land," Patterson explained. The competition for raw land in the Overlay Zone is the developed, less expensive land in Oak Ridge and Blount County (Personal interview, 11/4/88).

Jeff Deardorff, past executive director of the TTCDA and vice president of the Tennessee Technology Foundation

Deardorff's earliest perceptions of the Overlay Zone, were not very optimistic. "I did not think the Overlay Zone had a chance to be sold politically.

I underestimated the power structure behind it--Haslam, Ackermann, Reese, White, Van Sickle, and the rest of the Task Force," said Deardorff.

"The reason the Overlay Zone was chosen was because it was the cheapest way to go. Haslam told County Commission that the TTF would cover all expenses of it," he said.

"Absolutely!" Deardorff responded when asked if he thought the Overlay Zone would effect the development wanted. "I was working with Don Parnell, the various consultants, etc., and it was pretty much envisioned that without the creation of the Overlay Zone, it wasn't going to work. MPC to date had not been very effective in holding policy--reserving land. They were much less politically strong than they are now."

Deardorff had no predictions for the Overlay Zone. "There never were any goals set back in 1982, expectations, but no goals."

"As far as a long-term strategy, you can't really measure the success of the Overlay Zone in terms of goals. The classic example is the Research Triangle Park before anything happened there. It wasn't until somebody got behind it and made it successful that it was successful. The corridor still has that potential if we had someone in at the State pushing for it," he said (Personal interview, 6/11/92).

Jack Reese, chairman of the Tennessee Technology Foundation and original Task Force member

When asked about his original perceptions of the Overlay Zone Reese replied, "It was too ambitious in the beginning. Now it's being scaled back and that's the sensible thing to do. It's time to focus on about 1,000 really significant acres to develop."

So far Reese has been pleased with the development in the Overlay Zone. One has to look at it on a long-term, area basis he advised. "When you look at the entire corridor area, the corridor concept and the number of jobs and amount of investment, you have to be pleased. It all amounts to something like a Saturn or Nissan instead it has happened over time, it's more stable and diverse."

Reese also stated that the long-range health of the Overlay Zone relies heavily on the long-range health of the Technology Foundation. "TTF will spend out its endowment unless additional State support is garnered. There is no other means of support for the Foundation" he said (Personal interview, 6/10/92).

David White, original Task Force member who assisted in developing Overlay Zone concept

"At the time [of the Overlay Zone's implementation] I felt like if we could just get five years, if things could develop enough, if progress was so dramatic that there could be no question, we'd be okay" predicted White.

The largest admonitions White had regarding the Overlay Zone was the ability to recruit an "outside" company. "The Overlay Zone may be unsuccessful

partly because you don't recruit a large company by chance. The Foundation's short of money so it's been hit or miss. We usually find out too late in the process. We need one big hit," White said. (Personal interview, 11/17/88).

Bill Arant, chairman of the TTCDA and early task force member

Arant's predictions and hopes for the first five years of development were not fulfilled. He said, "I expected a faster level of development. I didn't fully know how much competition there was on either end of the corridor [Blount County and Oak Ridge]. Their land prices are much more attractive. The existence of the Overlay Zone has helped spurred development on so it has served its role in a sense," he said.

The biggest fears Arant had for the Overlay Zone were concerns that the politicians could overwhelm the situation. "TTCDA has the power to own land, but there are too many parcels and players. It is difficult to generate the resources to buy the land. The State [of North Carolina] helped Research Triangle Park. The one real danger that directly impacts the Overlay Zone is each year dealing with the State for funding for the Technology Foundation. The tendency of politicians is to spread it around. The only chance for development is for TTF to be the focal point [for high-technology economic development in the State]. We need to resolve TTF's role." (Personal interview, 6/20/89).

Don Parnell, executive director of MPC at the time the Overlay Zone was established

Parnell recalled one of the biggest flaws with the implementation of the Corridor was the understanding the Knox County Commission has had about their role in the development of the area. In order to "sell" the idea to the Commission, those involved in the implementation of the corridor allowed the commissioners to believe that Knox County would have no fiscal responsibility for the development of the area.

"The County made no commitment of resources at all. This was a grave mistake. They thought they had done all they needed to by giving it their blessing" said Parnell (Personal interview, 11/9/88).

Parnell also recalled that although there were compromises on both sides, the Knox County Commission was fully aware of the powers they were bestowing the TTCDA. He said he "still would have shot higher" than what was agreed upon.

"In some ways we have a Cadillac symbols on a VW," he said. "The vision that this could be our version of a high-tech area as successful as Research Triangle Park is not totally tempered by reality--this is not land ownership but a modest attempt at regulation. However, if we hadn't of done this when we jumped on it, we could have missed out entirely," Parnell reflected (Personal interview, 11/9/88).

Sue Adams, deputy director of MPC at the time the Overlay Zone was established and later the executive director

"Not owning the property put them at a huge marketing disadvantage. The only alternative was better than nothing. Basically we needed the Overlay Zone to address a way to control the land at a different standard than elsewhere in Knox County. It would not have been controlled by the process in place," Adams recalled.

As far as the expectations of the Overlay Zone, Adams said they were not "over-promised." "You hear what you want to believe, anyway. If you had knowledge of the rate of development in general, you knew that development wouldn't be driven by the availability of land. What stands out the most is that nothing will happen unless utility extensions and local road improvements occur. Zoning is only a protection."

If there was any misleading of County Commissioners to accept the idea, Adams said it may have occurred by some "over-zealous politicos trying to sell the idea." She was very doubtful that they had an accurate perception of the Overlay Zone and what kind of effect it could have on economic development in Knox County.

When asked if she was pleased with the Overlay Zone, Adams replied, "so far, it's doing as well as can be expected" (Personal interview, 11/17/88).

Frank Leuthold, Knox County Commissioner

Leuthold was the most negative person interviewed regarding the Technology Corridor. His first reaction to the idea was "one of amazement."

"The original plan was about four times too large and entirely too restrictive," he said.

"They were talking about Research Triangle Park, but the approach was different. I thought and still think--wishful thinking. To help get it [the legislation] through they took the Commissioners to Research Triangle Park. Some folks there gave the notion that it was over-rated. They, too, thought--wishful thinking," he said.

Leuthold recalled that there was a lot of political pressure to "give it a try." "The Commission accepted it, but it is not all it's cracked up to be and most, in my opinion, believe that."

Leuthold had also not been satisfied with the TTCDA regarding the appointment of Board members. "The County Commission wants the right to name the members because, ultimately, it is in their jurisdiction and control. The County Commissioners are the ones who have to answer to folks for the TTCDA decisions," he lamented.

He recalled that there were comments to the effect of "give it a try, and if it doesn't work, abolish it." Leuthold felt that all things should begin on a trial basis.

When asked what his projections were for the Corridor Leuthold replied that he had both a pessimistic and an optimistic view. "The pessimistic view is that it will continue and have a lingering death. The optimistic is that they will gradually find a few businesses, improve the utilities, and it might work if enough

folks came into it. The worst case scenario is that County Commission will get hacked off enough to abolish it--it hasn't done anything yet, hasn't shown the Commission anything," he said (Personal interview, 11/11/88).

Orlino Baldonado, president of EC Corporation, a tenant in the Overlay Zone

Orlino Baldonado moved his company into the Overlay Zone in December 1987. The main reason he stated for doing this was the price of the land. "I needed more room to expand and the property was cheap. I got 40 acres at a low price," he said.

Interestingly, he did not consider the Oak Ridge National Laboratory or the University of Tennessee as major factors in his decision to locate on the Corridor. "Everybody assumes that is a criteria for us, but it's not so. Take CTI, for example. Once they decided to go on their own, they divorced from UT and ORNL. They do not have an ongoing relationship--maybe a little consulting, but nothing major," he said.

When asked about the Design Guidelines and if they were a hindrance to development, Baldonado replied "We exceeded them. They were not a deterrent. The Corridor could do better by requiring underground utilities and telephone lines."

Baldonado's fears for the Corridor rest in the fact that it needs better roads and utilities, and there is no commitment for those improvements. "We

need visible movement for businesses to spring forth," he said. "The County Commission should condemn and buy properties [to develop]," he said.

One other suggestion for the Corridor would be more flexibility in development. According to Baldonado, the architectural integrity is important, but flexibility in allowing other uses in certain zones would be helpful.

When asked if he was pleased with his decision to locate on the Corridor, Baldonado replied "Oh yes!" (Personal interview, 2/26/90)

P. Kemp Fain Jr., Asset Planning Corporation, general/managing partner for a number of partnerships that own property in the Corridor as investment vehicles.

When asked what his expectations were of the Corridor, Fain replied, "originally, I thought that the State and local governments would provide infrastructure and considerable marketing for the area. I expected it to develop, but had no real time frame. The first five years were slow, but Research Triangle Park took 10 - 20 years to take off. I was hopeful that this would take off sooner than 10 - 20 years, but that was my own thinking. I was not mislead."

Fain described himself as a very strong proponent of the Corridor early on, and today. His original fears for the Corridor had not diminished with time. "My fears were the same I have now. Somewhat conscriptive zoning means that our land is confiscated for this effort without total grass roots support. There is not the total support of the landowners and politicians," he said. "I fear that it will be tied up for a long time and not realize its investment potential," Fain predicted.

"As far as the marketing, I have been pleased with Dave and Jeff [Technology Foundation staff], but not pleased with the State and local. All the agencies are jealous of each other and working at cross purposes. There are too many organizations, and the effort has not been coordinated. Everybody wants credit, but the issue is to get it done," he said.

Fain's predictions were that the Corridor will "get a couple of major hits and successes will fall into place." As far as recommendations for improvement, he suggested that "somebody spend the money for some good topography maps and core drillings up front for the major sites. Go ahead and do some pre-engineering to enhance the development of the land" (Personal interview, 11/22/89).

Dr. Tom Collins, Vice Provost for Research at the University of Tennessee, Knoxville

Dr. Collins was interviewed because of the University's involvement in the Corridor through the leasing of research space on the Pellissippi Parkway. "UT is good at research, but we needed a piece out there that interacts with industry. We needed the entire spectrum. We wanted to put something out there that with its research and development, would act like a magnet to draw in small companies," said Collins.

Collins recalled that "the Power Electronic Application Center (PEAC) was the first big step." The three main themes for UT's development in research facilities are biotechnology, power applications, and information technology and

all three applications are located on the Corridor and "clearly have a good growth pattern," he said.

According to Dr. Collins, the resources such as the technical installations, the workforce from Pellissippi State, the access to markets, and the availability of lease space drove UT's decision to have satellite operations on the Corridor.

"If the Corridor fails, or turns out not to be as strong as it should, it will be because we stumbled over our own feet. We have to have the infrastructure in place. We shouldn't have so many hoops [in the way of its success]," predicted Collins (Personal interview, 2/16/90).

Mike Magill, Senior Vice President for Economic Development, the Greater Knoxville Chamber of Commerce

Magill's first impression was "it was an excellent concept, good idea, but it lacked the funding commitment for the Master Plan to be realized. Today, because of that lack of funding commitment, the Corridor is being changed to meet the community's short-term demands."

When asked what he would like to see happen to improve the Corridor, Magill replied that he would like to see a financial commitment from the State. "I would like to see the State fund the necessary improvements, not local. There would be too much political control over what occurs if it is done locally," he said. He predicted that the necessary land purchases and improvements would cost around $50 million.

The hardest thing about marketing the Corridor, Magill said, was that "it's difficult to sell a concept [to an out-of-town prospect]. They want a tangible piece of real estate. Prospects usually have deadlines, etc. They don't have time to partner with a community to facilitate the development of an area." (Personal interview, 6/7/92).

VITA

Kristin Alyce Reese was born in Knoxville, Tennessee on June 27, 1962. She attended Bearden Elementary School and graduated from The Webb School of Knoxville in June, 1980. She enrolled in the University of Tennessee, Knoxville and from there received a Bachelor of Arts degree in Psychology in June, 1984.

After receiving her undergraduate degree, Reese was employed by the UT Federal Credit Union for two years. She then reentered the University of Tennessee, Knoxville, and received her Master of Science in Planning degree in December, 1992.

Reese was employed as a marketing consultant to the Tennessee Technology Foundation in 1988, as Director of Community Marketing for the Greater Knoxville Chamber of Commerce from 1989 to 1981 and is currently Vice President for Economic Development for the Cleveland/Bradley Chamber of Commerce. She has held this position since February, 1991.