The Prospects for Implementing the Urban Ring

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ABSTRACT

The Urban Ring is a circumferential transportation project proposed for the inner core of the Boston region. The proposal not only envisions transportation benefits, but also promises significant potential for improving the regional economy and hence improving the overall quality of life and the desirability of the city. The path of the Urban Ring would provide direct links to jobs, cultural institutions, the waterfront and the airport for six metropolitan cities, and an alternative to driving for suburban dwellers. Multijurisdictional, with benefits that exceed its immediate boundaries, the Urban Ring is also a regional project. The type of planning required to implement regional projects has never been carried out in Boston; transportation plans are developed independent from other plans, and regional land use plans are nonexistent. The regional planning agency calls for a more comprehensive approach in its regional plan, but the agency has no political power or authority by which it can enforce policy changes. For the Urban Ring to fulfill its potential, a careful strategy must be planned to successfully accomplish the integration of land use and transportation planning with economic development.

By analyzing the proposed Urban Ring, this thesis addresses the challenges and benefits of regional planning. A major restructuring of governance to accomplish regional planning would be the ideal proposal, but that is not likely to occur in the foreseeable future. Instead the thesis proposes a strategy to take the project from vision to reality within the existing institutional framework. The recommendations are based on a review of the political challenges, lessons from the growth management planning process, two mass transit projects, the present institutional and legislative statutes, and the restructuring that is taking place in leading world cities to better deal with the issues of the twenty-first century.

The research shows that successful implementation of regional projects requires a committed and visionary leadership with significant political influence; a collaborative enterprise with a broad constituency and members respected for their roles and expertise; a successful partnership between the lead government agencies and the leadership that draws on the strengths of the individual partners; and a deeply rooted consensus within the leadership structure as well as the community. If the Urban Ring is carried out in a coordinated and collaborative manner, the project can demonstrate the broader benefits of regionalism and help move Boston gracefully into the next century.

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Title: Professor, Urban Design
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Just as this thesis promotes a new organizational structure facilitated by a collaborative process, it also stands as an example of the very type of collaborative effort necessary for such a plan to work.

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CONTENTS

Abstract ii
Acknowledgments iii

CHAPTER ONE: OVERVIEW

The Need for a New Direction 1
The Benefits and Challenges of Regionalism 8
Breaking Down the Misconceptions of the Urban Ring 19

CHAPTER TWO: THE URBAN RING

The New Urban Ring 26
Transportation Benefits 34
Economic Development Potential 36
The Project Challenges 38

CHAPTER THREE: TWO MASS Transit ProFILES

The Westside Line 41
Portland, Oregon

The Griffin Line 59
Hartford, Connecticut

CHAPTER FOUR: A COMPREHENSIVE STRATEGY PLAN

The Boston Region Tomorrow 72
The Need for a New Organization 74
The Principles of a New Organization 74
A Strategic Plan 76
Part One: Forming a Task Force 77
Part Two: A New Organization 86
The Organizational Structure 89
Closing Remarks 98

CHAPTER FIVE: THE PROSPECTS

The Prospects for Implementation 103
The Implications 105

Appendices 108
Sources of Illustrations 109
Bibliography 110
CHAPTER ONE
OVERVIEW

The Need for a New Direction

This thesis focuses on the Urban Ring, a circumferential transportation project proposed for the inner core of the Boston region. The proposal envisions not only a transportation project that would improve the efficiency of transportation, but also promises significant potential for improving the regional economy, and hence improving the overall quality of life and the desirability of the city. The path of the Urban Ring would provide direct links to jobs, cultural institutions, the waterfront and the airport for six metropolitan cities, and an alternate route to driving for suburban dwellers. Multijurisdictional, with benefits that exceed its immediate boundaries, the Urban Ring is also a
regional project. For it to fulfill its potential, a careful strategy must be planned for the integration of land use, transportation planning, and economic development. This type of comprehensive planning has never been carried out in Boston; transportation plans are developed independent from other plans, and regional land use plans are nonexistent. The regional planning agency calls for a more comprehensive approach in its regional plan, MetroPlan 2000, but the agency has no political power or authority by which it can enforce policy changes. This thesis explores the implications of a regional project in a political setting that is not set up to handle projects that are regional in scale. Taking into account the existing institutional framework of single-purpose agencies and the political tradition of local home rule, it recommends a new organizational structure to accomplish the goals of the Urban Ring.

There is a growing realization among leading world cities that conventional styles of governance are no longer adequate for maintaining an internationally competitive economy, an emerging issue in today's global marketplace. In response, an organizational restructuring is occurring to transform the government of a by-gone era to better deal with the issues of the twenty-first century. International trade and the economy are the key issues that are driving the local planning and decision-making in transportation, land use and other critical areas. The realization, of course, is that jobs and economic growth are directly related to infrastructure—especially transportation and communications. "Given limited public dollars and a paucity of political support... public investments must be made strategically within the context of a broader regional vision." This was one of the many messages heard in Boston at a three-day, public event to debate its economic future.

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The event, *The Boston Conference: Shaping the Accessible Region*, brought together a distinguished panel of experts from the fields of economics, transportation, the environment, urban design, and governance to participate in a series of panel discussions and make final recommendations to shape the directions of the regions' economic future. Consistent with what is happening around the world, the panelists' recommendations emphasized the need to improve the region's transportation infrastructure in a way that would stimulate and direct future growth as well as link people to job opportunities.

Specifically, the panelists' assignment was to identify priorities for the metropolitan area in the first decades of the twenty-first century, relying on the testimony of twenty-five local and national experts and on five background papers that were contributed by faculty from MIT and Harvard University. The panelists' recommendations, if implemented, would create policies that would leverage gains from the region's large transportation projects to help stimulate new economic growth and improve the region's quality of life. "Build the Urban Ring" a transit route, "arcing from Logan Airport in the north through the Longwood Medical Area in the west to Columbia Point in the south" was second among the Jury's nine priorities. The Urban Ring, studied as a circumferential transit alternative to the Inner Belt highway in the 1970s, is approximately a 14-mile circumferential line [that] would tie together some 600 miles of MBTA regional commuter rail lines. "As the panel described its advantages: "Located at the edge of Boston's downtown core, the Ring would open up a massive new development corridor on adjacent underutilized land stretching from Dorchester in the south through Roxbury, Cambridge and Somerville, to Chelsea to the north. This would provide sites for expansion of the region's educational, medical and research complexes, among other investment opportunities. With its connections to the commuter trains, the Urban Ring would also increase access
to the many new job sites in the development corridor for suburbanites and Boston's inner-city residents alike.2

The second recommendation, "Create an overarching land use and economic development framework to guide future transportation investments," resonates with the growing recognition for the need to coordinate land use and transportation planning to achieve an efficient economy. To revise the long-term transportation plan suggests a framework for a larger regional vision that would tie directly into a comprehensive plan for future growth and development. The underlying message calls for a new direction in governance that embraces many of the key elements for a successful regional planning process. They include: the need for coordination and cooperation, effective leadership and public participation, and creative financing.

The Need for Coordination and Cooperation

- Promote an Intermodal System by improving the interconnecting links between transportation modes (highways, commuter rail, transit, the airport and Boston's Harbor) to create seamless commercial and commuter transport within and among the region's suburban and urban economic activity centers. "The Jury believes this is one of the most efficient ways to increase mobility, stimulate growth, and maximize overall system performance, maintaining Boston as the economic center of New England."3

- Create an overarching land use and economic development framework to guide future transportation investments. "The Jury believes that the Commonwealth should undertake transportation investments within a framework of coordinated economic development and land use planning. By endorsing the work of the Metropolitan Area

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3 Ibid.
Planning Council (MAPC), MoveMass 2000, 1000 Friends of Massachusetts and sponsors of the 'Growing Smart' legislation, the Jury supports the importance of an overall vision for shaping the region's infrastructure and development. The Jury further recommends that a new transportation plan be written to include land use and transportation investments over the next 25 years.\(^4\)

- **Use the Clean Air Act mandate as an opportunity to rally public support for shaping the "Accessible Region."** This is an opportunity for the Commonwealth's Secretary of Environmental Affairs and the Secretary of Transportation to work with the US EPA's regional administrator in creative collaboration.\(^5\)

*Effective Leadership and Public Participation*

- **Convene a new citizen participation process aimed at building public consensus for greater Boston's transportation and development options during the first decades of the twenty-first century.** "The Jury's recommendation is that the Governor, in collaboration with civic, business, professional and political leaders, convene a major participatory process to take the critical issues raised by The Boston Conference to the next stage of inquiry and public understanding. Only the Governor, ultimately, can give impetus, authority and direction to such an effort, leveraging Massachusetts' transportation, environmental, and economic competitive advantage to favorably position the metropolitan area for the next round of Federal funding."\(^6\)

*Creative Financing*

- **Create a new mechanism for prioritizing and financing regional transit and highway investments.** "The Jury agrees with former Transportation Secretary Richard Taylor, who

\(^4\) Ibid., p. 6.
\(^5\) Ibid.
\(^6\) Ibid., p. 5.
called for a new state mechanism to prioritize and finance regional infrastructure investments. This should include a method for identifying the true costs of both automobile and transit use (including subsidies and social costs.) Many observers felt this would make it easier to fund transit from gas taxes, access to credit markets, congestion pricing and other sources."7

Those who participated in the conference walked away either optimistic, in opposition, or frustrated by the political barriers that would stand in the way of achieving any of the recommendations that had been debated over the three days. The optimistic include a group of professionals who lead four committees to promote the project and to rally political support. The Boston Society of Architects runs the Infrastructure Forum; the Greater Boston Chamber of Commerce runs the Implementation Committee; business leaders in the Longwood Medical Area are organized as the Circumferential Transit Employers Coalition (CTEC); and the Metropolitan Area Planning Council (MAPC) has an Inner Core Committee.

The Challenges of the Project

The primary challenge facing the Urban Ring, which is described more fully in Chapter Two, is that it is a regional project which requires collaboration and coordination, in a metropolitan area that has not embraced the concept of regionalism. Without a precedent for thinking or planning on a regional level, or coordinating local plans, municipalities will continue to remain fragmented by the territorial nature created by the suburban/urban schism. Until the benefits of regionalism are recognized by the local administration, the Urban Ring will continue to be viewed as "just another Boston project." With the electoral balance in the suburbs, and the notion of regionalism a topic of debate, the benefits of the project need to be articulated more clearly to this constituency.

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7 Ibid.
As both highway congestion and the time spent in rush-hour traffic increase, alternate modes of travel will become more and more desirable for suburban commuters. Circumferential transit, providing cross-town mobility, offers an alternative that the present radial system does not. The potential time saved in commuting means that suburban dwellers can live closer to their jobs, without moving closer in.

The promotion of growth in the corridor to strengthen the central city will, in the long-term, create more development opportunities for the suburbs as industries grow and need more space. In the short-term, however, the corridor is the place to encourage the incubation of new industries, which will in turn create more employment opportunities. Providing better access to these jobs for suburban residents is a short-term benefit for suburban residents. Acceptance of this may require a long-term vision, or just an understanding of the importance of symbiotic relationships that are necessary for a strong regional economy.8

A final challenge to the project is the time and financial commitment required for a project of this size. The implementation of the Urban Ring could easily span two decades. Politicians predictably look to re-election in a few years, not for votes a decade or two away. So the problem now is not just local self-interest, but also individual self-interest as well. The solution is the need for a long-term vision endorsed by a strong leader at the state-level.

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8 Conversation with Karl Seidman, May, 2, 1995.
The Benefits and Challenges of Regionalism

A metropolitan region is broadly defined by a central city and its surrounding towns, which either promote themselves as an entity and coordinate economic development under a comprehensive plan, or promote themselves as individual jurisdictions positioned to compete against one another within that geographic region. Constant competition within can negate the region's positive attributes, making it more difficult to attract industry and growth. What is needed is a way in which those living within a particular subgroup of the region can feel a part of the greater region and thus become committed to its welfare as a whole.
This requisite is harder for areas not unified by a commonly held vision or plan. One of the largest problems that prevents such a vision is the schism between a central city and its suburbs, marked by the contrast in poverty, crime, and school systems. As the central cities have lost population, their political power in state legislatures and Congress has deteriorated, while that of the suburbs has grown. What the schism of city and suburbs creates but ignores is the fact that the economic welfare of American households is heavily influenced by general economic conditions and that regional economic prospects are interlocked. That there are advantages in functioning as a unified region is becoming more and more evident, as testified by the number of metropolitan cities and states that are adopting comprehensive plans. This regional concept implies coordination and collaboration among multiple agencies, cities, and towns and requires investment in a common vision for the region.

In Canada's case the federal government and the provinces have not always operated in a consistent and coordinated manner vis-a-vis urban policy. The reorganization of local government and the provinces has often been a compromise between amalgamation and voluntary interlocal cooperation. However, though not as forceful as in European cities, the provinces have demonstrated an important consistency in specific areas of urban and land use policies, such as an active participation in core development and a commitment to public transportation. The provinces have also "prodded" cities into accepting metropolitan governance, so that a pattern of interlocal cooperation has survived even though political changes at the provincial level have occasionally resulted in a weakening of regional agency authority. In the cities of Vancouver and Toronto, central city-suburb conflicts have greatly diminished due to the realization that regional well-being is beneficial to all municipalities. This realization was long in developing but it has reinforced metropolitan
regionalism and established it as an important component of Canadian urban planning practice.\textsuperscript{9}

In most great American cities, states have rarely assumed an important policy role with regard to their major urban areas. "Lack of funds, fear of tampering with local autonomy, and an ideological dislike of interference in municipal affairs have been among the primary reasons. At the metropolitan level, central cities and suburbs have found themselves using 19th century political mechanisms to deal with 20th century problems. Municipal sovereignty, an absence of revenue distribution and a lack of regional controls on zoning have intensified competition among metropolitan communities."\textsuperscript{10}

In a review of metropolitan economies in the US, the Advisory Commission on Intergovernmental Relations, establishes the need for a more coordinated and collaborative system.

In a physical sense, vast metropolitan economies have emerged in recent years, but most of these are not metropolitan polities in the sense of communities with common social and economic institutions, a common governmental system, a citizenry having a sense of community that embraces the area as a whole; instead these metropolitan entities are fragmented jurisdictionally, fiscally, socially, and economically, and most of their citizens are moving at a very slow pace toward recognizing the problems and opportunities they share with fellow citizens in the area.\textsuperscript{11}

The commission depicts the challenges raised by this system as having such magnitude that not one of the traditional levels of government has the expertise, the time, the

\textsuperscript{9} James W. Scott, The Challenge of the Regional City, Political Traditions, the Planning Process, and their Roles in Metropolitan Growth Management, (Berlin: Dietrich Reimer Verlag, 1992), p. xvi.

\textsuperscript{10} Ibid.

funds, or the power to cope efficiently or successfully with all of them. Nothing less than the coordinated efforts of all levels of public authority, the active involvement of citizens groups, and the participation of the private sector will be sufficient. 12

The growth management plans and comprehensive planning that have evolved over the past two decades are possible solutions to the growing problems of the region and the fragmented cities and towns that comprise it. Increasing demands and ineffectual organizational structures have stimulated many cities and states to confront these problems on a coordinated level. The Bay Area Council's 1988 report, Making Sense of the Region's Growth, calls for bringing local governments together on the subregional level as "the most workable next step" toward better decision-making for the region. The need for a more coordinated approach is being recognized in a number of newly formed nonconventional governance structures, ranging from "functionally specialized regional agencies" to "voluntary cooperation among local governments." 13

The need for coordination is clearly defined by John DeGrove, a national authority in growth management who was instrumental in the conception and passage of Florida's 1985 Growth Management Act, and Patricia Metzger, a research associate whose work includes local and regional governance and intergovernmental systems.

Growth management focuses on the need to plan rationally to accommodate the impacts of growth. It assumes that, even if a single jurisdiction succeeds in managing its growth in a responsible fashion, it may well experience the negative

12 Ibid.
impacts of unmanaged growth by neighboring jurisdictions. Properly defined and understood, growth management is a comprehensive concept, concerned not only with the physical impacts of growth but with the economic and social impacts as well.14

Thus state, regional, and local governments are adopting growth management systems to manage growth better, whether their areas are experiencing strong population and economic growth pressures or are experiencing unwanted decline and need a growth strategy to revive a weak economy.

Growth management plans were born in the 1970s out of public concern for the environment and conservation of our natural resources. The 1980s plans evolved to take on issues of transportation and land use, while broadening the environmental agenda. As additional concerns were incorporated into the plans, growth strategies different from those of the 1970s emerged. These additional concerns included provision of affordable housing, and economic policies that direct growth instead of managing it. By the 1990s, the challenge has become seeking the balance between equally legitimate needs of economic development policies and job creation with the need to protect our natural systems.15

Review of the literature and interviews with people involved in multijurisdictional efforts reveal two elements that strongly influence the success of the process: leadership and public participation. Committed, determined leadership from those holding public office is an important requisite for the successful implementation of a collaborative planning process, especially as this becomes more and more complex. "An indifferent mayor or city council can easily turn planning to the

15 Ibid.
passive regulation of private development in the style of the 50s." 16 The future seems to be promising for those cities whose leaders can bring together the citizenry and members of the public sector in new coalitions for the improvement of the economy, the environment, and the lives of their citizens. The ability of political leaders, leaders in public agencies, and leaders in the community to direct growth toward the goal of a more satisfying and thriving metropolis depends on the types of alliances they can form to accomplish their goals.

It is notable that leading cities around the world, including Kyoto, Osaka, Stuttgart and Rotterdam, have recognized the need for comprehensive planning and have begun the process of reorganizing to take on challenges of the next century. In the United States, however, state and local governments have been reluctant to embrace the concept of regionalism. Over the last two decades only eleven American states have adopted a form of growth management legislation. 17 Among the many reasons, two in particular apply to Massachusetts: individual self-interests and a fear shared by municipalities of having to relinquish power.

One factor that prevents more states from developing growth management policies is the reluctance to make the shift from "personal wealth and independence" to thinking about the needs of the "whole metropolis." In New Visions for Metropolitan America, Anthony Downs, director of Brookings, evaluates metropolitan government in the US: "Fewer than a dozen of the more than 330 US metropolitan areas have regional governance. Nevertheless, this is the most complete response to the regional nature of contemporary problems. But in most areas, there is little political support for true

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metropolitan government because it runs contrary to the perceived self-interest of most citizens." 18

A second factor that has prevented the acceptance of growth management planning is the lack of coordination, and fear of losing power in all levels of government. Herbert Smith has captured this common attitude in his book, Planning America’s Communities: "In our society there seems to be an ingrained fear that coordinated means big brother-type government and unreasonable superimposed control rather than cooperation between people in a truly democratic way."

A major challenge for the Urban Ring will be to identify a way to collaborate and to coordinate expertise between public agencies and municipalities without taking away local power. The ability to demonstrate the effectiveness of such a model could be the necessary action for thinking more regionally.

The suburban/urban schism is one of the major challenges facing the central city today. Its impact on the economy lessens the desirability of the city as a place to live. Anthony Downs traces the pitted relationship and the powerful forces that have been weakening the "perceived ties between the central cities and their surrounding suburbs." 20

A general misconception is the fear that more and more money is necessary to improve urban conditions. According to Downs, fundamental reforms of many aspects of city life, from school systems to law enforcement to family structures to city bureaucracies, are more important than additional funds. "Without such reforms, money [alone] will not be very

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20 Anthony Downs, ibid.
effective." 21 Until this misconception is understood the schism will continue to weaken our metropolitan cities.

Downs has identified a number of forces that persuade many suburbanites and others to withhold the economic and other supports that cities need to perform their basic social functions. The first force that begins to explain the weakening links is the very evolution of large and growing metropolitan areas. When US metropolitan areas grow larger, they evolve from a center focus toward a low-density focus. Suburbs become more urban, assume more of the functions and services that were once only performed in the city, and the result has been fewer suburban residents interacting even indirectly with the city. 22

Many central cities have also been losing population, particularly in the Northeast and Midwest. Among the 44 metropolitan areas in 1990 with more than 1 million residents, the suburbs of 42 gained population from 1980 to 1990 and the central cities of 18 lost population. As a result, the political power of cities in state legislation and Congress has deteriorated and that of the suburbs has strengthened. This has weakened the ability of cities to influence the share of government spending allocated to them and their residents. 23

Other forces that Downs describes are (1) changes in communications and transportation; (2) job losses in cities; (3) geographic separation of income groups; and (4) increasing ethnic and cultural diversity. As a result of all of these forces, many residents, especially those in higher-income and new-growth suburbs, believe their own welfare is less and less connected to the welfare of city residents and the fiscal condition of city governments. Moreover, suburban residents

21 Anthony Downs, ibid.
22 Anthony Downs, ibid.
23 Anthony Downs, ibid.
are gaining more political power in both state legislatures and Congress as their share of the nation's population increases. Thus their ability to ignore or disregard the problems of central cities is not only psychological and social but increasingly extends to the allocation of federal resources.

Despite the forces that continue to divide city and suburb, Downs explains how the long-run welfare of suburban residents is still closely linked to how well central cities and their residents perform significant social and economic functions in each metropolitan area.

**Social and Economic Functions**

- Some social and economic functions crucial to the prosperity of every metropolitan area as a whole can be performed only within its central city, at least given the present structure of American metropolitan areas. These are described as contacts among top leaders; specialized activities and facilities; hubs for area networks; housing for low-wage workers; social and economic mobility for immigrants; and other city functions such as universities, medical centers, state legislatures, state agency offices, federal government offices, courthouses, and jails. These facilities are used extensively by people from suburbs and small towns. Important to the success of these facilities is a whole range of service industries that support these institutions and support thousands of local residents.

The Boston metropolitan city is a prime example of this level of activity; a few current examples are the construction of a new federal courthouse, a Mega-Plex Sports/Exhibition complex being debated for a city location, and growth occurring in four major cluster-type industries that happen to dominate the Urban Ring corridor. Encouraging the incubation of these industries in the city will be essential for strengthening the city, with resultant effects on the overall quality of life.
A research article by Alex Schwartz for the Journal of the American Planning Association, examined to what extent suburban companies rely on suburban and central city-based firms for financial and professional services. The research shows that suburban companies seldom employ suburban service providers. Suburban companies rely mostly on service firms located either in their own central city or another metropolitan region.24

- Businesses in cities also employ suburban residents. In 1990, cities contained 78 million residents and their suburbs 115 million. Cities thus contained 40% of all metropolitan

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24 Alex Schwartz, "Subservient Suburbia: The Reliance of Large Suburban Companies on Central City Firms for Financial and Professional Services" (Chicago, IL: Journal of the American Planning Association, Vol. 59, No. 3, Summer 1993.)
area residents, but they are the location of close to 50% of all metropolitan area jobs. 25 This means that one out of four employed persons who lived in suburbs still worked in central cities. In theory, most city jobs could be moved to the suburbs, and many cities have been losing jobs to the suburbs for a long time. In fact, most new jobs are being created in the suburbs. Still, it would be costly to move all remaining jobs to the suburbs. So the prosperity of America's suburb's will still depend heavily on employment located in central cities. 26

City Health, Suburban Wealth
Cities provide social and economic functions of great value to suburbs, but the welfare of suburbs also depends on the general health of central cities. Following are a few of the explanations that Anthony Downs describes in New Visions:

• Federal and State Government Transfers to Cities
Suburban residents who earn higher incomes than city residents also pay higher federal income taxes. If cities are plagued by serious problems that require financial assistance beyond their own means, they have to seek assistance from the federal government or their state governments. Even though the cities' political strength has been eroded, when problems become bad enough, the governments will be compelled to aid them. The worse the problems become, the more assistance will be needed, which translates into greater federal and state tax burdens on suburban residents. 27

• The Prosperity of the Nation's Economy
The economic welfare of American households is heavily influenced by general economic conditions. This includes the prosperity of the 78 million people living in central cities, almost one-third of the nation's population. If any large share

25 Anthony Downs, ibid, p. 20.
26 Ibid.
27 Ibid.
of them experiences economic adversity, that will cause a recession. During the regional recessions of 1985-89 and 1990-91, major layoffs by large American corporations affected thousands of suburban-dwelling, white-collar and executive workers in the Southwest, New England, and California. The economic welfare of the 46% of the nation's population living in suburbs in 1990 will continue to be greatly affected by what happens to the 31% living in central cities.28

For all of these reasons--social and economic functions, cities as major employers, higher tax burdens for suburban residents as cities further deteriorate, and the country's reliance on overall general economic conditions—it is important to promote a strong central city and begin to break down the schism between the city and the suburb. Particularly in the case of metropolitan Boston, a city that generates roughly one third of the state's economy, it is especially important to promote a thriving central city, in order to maintain a competitive position in the world market.

**Breaking Down the Misconceptions of The Urban Ring**

The metropolitan Boston region is comprised of 101 cities and towns, each governed by local political authority. The fragmented nature of these jurisdictions, as one pits itself against the other for jobs, taxes, and visibility--particularly in a weakened economy--diminishes the possibilities of competing in the global market economy. Existing Massachusetts legislation restricts the local economy by only allowing a municipality to increase its revenues through additional development. This further exacerbates the problem. The challenge for the Boston metropolitan region becomes one of redefining the region so that (1) its local governments see the region as as one economic unit, where the actions of the individual municipalities contribute to and

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benefit from the whole, and (2) residents become committed to the public image of the region in a way that instills civic pride.

A major misconception of the Urban Ring is the fear that promoting development in the city would take opportunities away from the suburbs. Within the Urban Ring corridor, there is a concentration of industry clusters that are key to both present and future growth of the state's economy. Clusters, as defined by Harvard Business School Professor Michael Porter, are "geographic groupings of companies and institutions in related business sectors which compete with each other (including drawing their employees from the same labor pool), provide a market for specialized suppliers of materials and services, and produce a matrix of interrelationships which facilitate the rapid exchange and development of ideas." 29 A new objective for Massachusetts state government, recently reported in a statewide strategy for job creation and regional economic growth is to build on and reinforce the established and emerging industry concentrations, "Government efforts to promote new industries should build on existing and nascent clusters, not try to create new industries from scratch which are disconnected from other areas of local strength." 30

Four major clusters within the Massachusetts economy—knowledge creation, health care, information technology, and financial services—accounted for approximately one-third of the total private sector employment in 1991. Representatives from these four clusters are dominant in the proposed transit corridor. 31 Porter explains clusters in a report for the

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31 TAMS Consultants, Inc., ibid.

20
Commonwealth as a basis for discussion on economic development in the region:

Once a cluster forms, the industries which comprise it become mutually reinforcing. Aggressive rivalry in one industry spreads to other industries in the cluster through spin-offs or related diversification. Information flows freely, and innovation spreads rapidly through the relationships among customers and suppliers. Institutions such as colleges, universities, and public infrastructure adapt to cluster needs.

Clusters widen as new industries develop upstream, downstream, or in related fields. In Massachusetts, for example, the biotechnology industry has grown out of strong positions in educational services and medical research. Less productive and innovative industries in the cluster, conversely, can shrink and decline. Through a cumulative process that often occurs over several decades, the state or nation becomes a unique repository of specialized expertise, technology, and institutions for competing in a given field. Massachusetts is a striking example of the presence of concentrated clusters.32

The competitive advantage which accrues to a business or institution which is part of such a cluster is important because of the increased competition Massachusetts businesses face in the new global economy and also because Massachusetts businesses must be able to offset inherent locational handicaps such as the state's high cost of living. 33 For a more detailed analysis of the cluster industries in the corridor, see Appendix A.

The promotion of development opportunities in the Urban Ring corridor needs be recognized as a strategy to encourage incubation of these cluster industries. Where there may be some lost development opportunities to the Urban Ring in the short-term, the longer-term benefits to the economy outweighs


33 TAMS Consultants, Inc., ibid.
Fig. 1.4  Major Employment and Activity Centers
Source: MBTA
any immediate impacts to the suburbs. As these incubator industries become large enough, they will likely look to the suburbs to expand. This, in fact has been proven with the software industry and the defense-related industries. Both began as incubators in close physical proximity to the major research institutions, and both have gradually located to the suburbs. Another example is the biotech industry which in its start-up phase needs proximity to the hospitals and labs. Some have grown within the Urban Ring core and some have moved out. As this expansion continues, increased transit linkages will facilitate growth by providing a more efficient transportation network, reducing congestion, and improving the mobility for businesses that rely on face-to-face contact as a way of doing business as well as those that rely on physical proximity to research facilities.34

The next challenge is to increase the potential for expansion in the corridor by improving the physical environment surrounding the vacant parcels. Most of the available sites are in undesirable locations and inaccessible. Revitalization of these areas is necessary to accommodate and encourage new incubation start-ups. Quality of life factors carry a major weight for new firms and industries that face location decisions. The Boston region is rich with assets that can be enhanced; it is a compact, beautiful city with the types of cultural, historical, and geographic amenities that attract travelers from all over the world.

It is also endowed with many of the world's leading research and medical institutions that have stimulated a thriving biotechnology industry. As a result, it also has a highly skilled labor force. Building on the city's natural amenities should be recognized as an important strategy to build the state's economy. If the quality of life continues to deteriorate in the city, and industry continues to move out, the

34 Conversation with Karl Seidman, May, 2, 1995.
future of the economy will be weakened to a point where Boston will no longer be able to accommodate the incubation of those very industries that are the backbone of the Massachusetts economy.
One Possible Route for the New Urban Ring

- Connects existing centers of employment
- Connects underdeveloped sites with growth potential
- Connects radial transportation lines, centers and future centers, while adding many more transfer points to the network to facilitate mode changes

Fig. 2.1 Source: Greater Boston Chamber of Commerce
The Urban Ring is a circumferential transit project with the potential of economic development opportunities resulting in a stronger economy for the Commonwealth, improved accessibility for suburban as well as urban commuters, congestion relief on the roadways and the subway infrastructure, and an improved quality of life and image for the city of Boston. To achieve its potential, a fundamental requirement will be the integration of land use planning and economic development strategies with transit planning.

The New Urban Ring has been described as a proposal for neighborhood economic revitalization that would be achieved through the transportation improvements. Still in the proposal stage, the corridor will remain a conceptual plan until the alignment and technology can be determined. Presently it is envisioned by many as an arc that extends from neighborhoods in South Boston and Columbia Point, through the South End and Roxbury, into the Fenway and Brookline, over the Charles River through Cambridge, Somerville, Charlestown, up to Everett, over to Chelsea, with its final destination at Logan International Airport.

The economic benefits of this circumferential corridor are defined more by the potential business investment, job creation, increased property values, and convenience in travel time than by the farebox. Throughout the corridor there are opportunities to link cluster economies such as biotechnology and medical research; develop underutilized parcels of land; coordinate residential, commercial, and industrial development; create new transportation hubs by connecting the radial transit system and tying into commuter rail lines; and provide access to neighborhoods, academic and cultural
institutions, medical facilities, and places of employment. The benefits that are generated from a project regional in scale are extended from institutions to neighborhoods, business and community leaders to government officials. If carried out strategically, the Urban Ring is a project that could benefit not only the local communities but the state and region as well.

**Historical Context and Previous Studies**

In most metropolitan areas, the need for circumferential capacity in most radial transportation systems has been met by building circumferential highways. This connection of the "spokes" of the radial system served to enhance not only the accessibility of the region but the economic value of adjacent properties as well. In the 1970s, during the time when many of these beltways were under construction, Boston made the decision in a twenty-year transportation plan to halt major highway construction, spurred by public opposition to the Inner Belt which was under construction, and invest instead in transit.

The need for a circumferential transit corridor to link the existing radial system was first acknowledged in 1923 and has been reiterated a number of times. Feasibility studies were first conducted under the direction of the Boston Transportation Planning Review (BTPR), a newly formed entity under Governor Sargent's administration. The purpose of the BTPR was to "solve the principal project-corridor issues,"35 spurred by the anti-highway protest of the Inner Belt highway. The outcome included a declared moratorium on highway building and a major change in transportation policy that shifted the spending of highway investment to transit investment. When projects were being evaluated, it became clear that the cost to implement circumferential transit service would have prohibited all other projects that were under consideration. The final decision included revitalization and

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expansion of the hub-focused radial pattern of the MBTA system and the depression of the elevated Central Artery. Although circumferential transit was not selected as a project, the feasibility study recognized the economic potential as a benefit that would result from improved access to the institutional concentrations in the circumferential area.  

In 1976, the Program for Mass Transit (PMT) again identified the former Inner Belt corridor as a preferred location for the development of circumferential transit service, a reiteration of the BTPR study. Both the 1977 and 1978 updates of the PMT continued recommendations of transit system development in the Inner Belt corridor. These studies were the basis for a number of actions that have taken place over the years to preserve right-of-way within the primary study area. In 1989, a follow-up to these studies, the Draft Circumferential Transit Feasibility Study, was undertaken by the MBTA to examine short and long-term transportation access improvements for destinations outside the regional core and to relieve congestion in downtown Boston on the rapid transit system. The primary objectives of the study included:

1) Improved access to and between major activity centers located on the fringes of downtown Boston and in the ten surrounding cities and towns located approximately five miles from the Central Business District.

2) Improved access to intercity and regional services such as Northeast Corridor rail, commuter rail, and air transportation.

3) Relief of crowding in the central segments of the Green Line and the radial transit lines such as the Red and Orange Lines.

4) Increased overall ridership on the MBTA system.

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Fig. 2.2 Source: MBTA
While earlier studies identified the desirability of circumferential transit services, this effort made the first attempt to provide in depth-information on the costs and benefits of alternative corridor improvements. In addition, it took a comprehensive look at the entire MBTA transit system in the year 2010. Thus, the Circumferential Transit Feasibility Study required close coordination with the many other transportation and land use planning activities that were under way in the area. The results of the evaluation of the long-range alternatives indicates a number of options that appeared to be highly cost-effective solutions to meet corridor travel needs. In general, it was clear that without a major investment in the corridor, traffic conditions and transit operations would deteriorate significantly by the year 2010. "Growth in emerging activity centers in both Boston and Cambridge will be restrained without a major investment in the corridor. In addition, if the Circumferential Line is not built by the year 2010, costly improvements may be necessary to deal with capacity problems on key links of both the Red and Green Lines."\(^{37}\)

In the following years, the political administration changed, the Central Artery Project (the last of the BTPR projects) began receiving negative press due to the escalating cost and extended completion schedule, and the electoral balance shifted to the suburbs. The Draft Feasibility Report was shelved at the MBTA, and was joined by a later, 1994 revision, Appendix A, Circumferential Transit and Regional Development\(^{38}\) which included an important regional economic analysis. The Appendix drew on two important works to examine the economic benefits of circumferential transit to the Boston region. One was Professor Michael Porter's work on cluster economies from the Harvard Business

\(^{37}\)Ibid.

\(^{38}\)Ibid.
School\textsuperscript{39} and the second was the state's economic strategy plan, *Choosing to Compete - A Statewide Strategy for Job Creation and Economic Growth*,\textsuperscript{40} which also drew on Porter's research. As the proposal for circumferential transit has managed to move forward, the credit goes not to strong governmental leadership, but to its strong advocate constituency which has grown consistently over the past two and a half years.

In 1992, the Infrastructure Forum, (spearheaded by M. David Lee, FAIA, then President of the Boston Society of Architects) brought together leading city and state figures to discuss the role of infrastructure investments in shaping the region's economic future. As the last of the BTPR projects neared completion, Forum members recognized the need to define a new direction for transportation policy in the next twenty years. An evaluation of the region's economic future as it relates to the transportation plan culminated in *The Boston Conference*.

When the Forum was first organized, several charrettes were planned to explore the possibilities of a circumferential transportation project. The theme that emerged was, "improved circumferential connections would significantly alter transportation patterns, improve employment opportunities, and increase the development potential of numerous vacant and underutilized parcels, and buildings in a ring of cities and towns..."\textsuperscript{41} The definition of the Urban Ring changed to "the next major infrastructure project with the potential for economic development and land use planning in

\textsuperscript{39} TAMS Consultants, Inc., "Appendix A: Circumferential Transit and Regional Development, MBTA Circumferential Transit Mid-Term Improvement Study", Revised 1994. Prepared for the MBTA.

\textsuperscript{40} Office of the Governor, Massachusetts Executive Office of Economic Affairs, and the President's Office of the University of Massachusetts, *Choosing to Compete - A Statewide Strategy for Job Creation and Economic Growth*, 1993.

a way that can re-establish social equity within the region.\textsuperscript{42} A problem inherent to most central cities is the widening of the social and economic chasm due to the dispersion of development into the suburbs.\textsuperscript{43} The opportunity to lessen this gap was another benefit that became more apparent after the series of charrettes. The resultant press from the charrettes introduced the potential to integrate land use with transit planning, a new dimension to the previously defined MBTA project.

The success of the Infrastructure Forum resulted in the organization of several subcommittees which included the Implementation Committee of the Greater Boston Chamber of Commerce, and an advocacy that grew to include a group of the employers in the Longwood Medical Area, formally organized as CTEC,\textsuperscript{44} neighborhood organizations, hospitals, universities, and transportation and urban design professionals.

The combined accomplishments of the advocacy groups to date include: ongoing consensus building to promote the vision and economic potential; securing $1.1 million from the FTA for a Major Investment Study (MIS) and; successful lobbying for an additional $4 million for a feasibility analysis and environmental review in the February 1995 Transportation Bond Bill. These are all important and timely contributions. The MIS, a preliminary environmental study required by the federal Urban Mass Transit Administration before federal commitments are made for major capital investments. The recently adopted Transportation Plan for the Boston Region and the Program for Mass Transportation now call for follow-up studies to the preliminary analysis as a result of continued

\textsuperscript{42} Conversation with Antonio DiMambro, AIA, and Infrastructure Forum charter member.

\textsuperscript{43} Regional Plan Association, \textit{The Region Tomorrow}, April 1991.

\textsuperscript{44} Circumferential Transit Employers Coalition.
Commuter Rail and Transit Line Connections

- Provide better access from suburban locations to current and future employment centers
- Relieve congestion and downtown transfer stations
- Open future downtown core expansion possibilities

Fig. 2.3  Source: Greater Boston Chamber of Commerce
contact between the advocates and the key agencies and elected officials.

**Transportation Benefits**

*Significant New Transportation Hubs*

As a transportation project, the Urban Ring is a proposal for a circumferential transit line in the inner core of the Boston metropolitan region which will not only connect the cities of Chelsea, Everett, Somerville, Cambridge, Brookline, and Boston but will provide the missing link in the radial MBTA rail system that would also connect suburban communities to central urban areas. The existing radial system simply does not provide adequate distribution throughout the metropolitan area. The circumferential system crosses commuter lines and radial lines at different points, with the potential of creating significant new transportation hubs. The advantage to all travelers is that it saves time by eliminating the need to travel into the downtown Park Street station to reach a crosstown destination and also provides an alternative to commuting in rush hour traffic.

**Retaining Businesses and Attracting New Jobs**

Improvements to the existing transportation infrastructure are recognized as an important public action necessary to retain businesses and to attract new jobs within the industry clusters in the corridor which are important to the regional economy. "An improved transportation system for existing businesses and institutions will be important to retain employees, improve street congestion, and can be crucial for the interaction between and among existing and new businesses within each of the industry clusters."45

A press release written for the Infrastructure Forum noted: "Private institutions are presently running hundreds of daily

trips in small sections of the ring as each institution tries to fill a portion of the total transportation need. The services are not coordinated into a system, nor are they legally available to the general public, since these rights are reserved for the MBTA." 46 A call was made for a serious planning effort to serve the existing transportation needs of the institutions in the corridor, to allow for economic development of "valuable but currently inaccessible land, to improve air quality, and to provide connections between under employed neighborhoods and the sources of local employment, education and health care."47

**Reduction in Congestion**

A key forecast in a recent MBTA study showed that circumferential transit would reduce congestion in the central subway system and mitigate future congestion impacts of the Central Artery Tunnel, by providing an improved transit system. Two points that were emphasized in the testimonials to the Joint Committee on Transportation are:

1. The Green Line is approaching capacity. Congestion on that line in the central subway could be alleviated by a circumferential line by diverting as many as 25,250 Green Line trips, with positive impacts on the Red, Blue and Orange Lines as well, ranging from 6,450 trips to 16,750 trips reduced from these lines. Reducing congestion on these lines helps the economy of the entire metropolitan region by making downtown businesses as well as "ring" businesses and institutions more easily accessible, benefiting suburban as well as urban populations trying to access employment centers.

2. The MBTA's Program for Mass Transit (PMT) evaluated two rail alternatives for inner circumferential transit. The analysis concluded that both alternatives would carry high ridership; 149,530 total trips on the full alignment and 86,700 on the core segment between Sullivan and Ruggles. The full alignment would attract 34,380 new

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47 Ibid.
transit trips, and the core segment would attract 18,200 new trips. These new trips are the first and third largest number of transit trips attracted by any project examined in the PMT. Circumferential transit supports two important objectives in the Commonwealth—economic development and clean air—by reducing traffic congestion related to the use of single passenger vehicles.

**Economic Development Potential**

The primary regional and local economic opportunities created by the presence of four major cluster economies were described in Chapter One. Without the major destinations points created by these institutions and industries, the feasibility of circumferential transit would be diminished.

*Enhancing the MAPC Core-Development Policy*

The potential for improving land use policies and creating economic development opportunities in the corridor is consistent with the MAPC's core-focused development policy, contained in the regional plan. This strategy aims to concentrate new development in areas that have the infrastructure necessary to support it. Not only do the core cities have the necessary infrastructure, but plans for concentrated development centers would be enhanced by the construction of a public transit system. The proposal for circumferential transit thus becomes an incentive to demonstrate the core-focused development policy.

Circumferential transit could facilitate the promotion of cluster development, creation of employment and housing opportunities, and improve the accessibility and connectivity between them. The regional benefits that accrue from promoting concentrated development, include: accommodating the growing elderly and immigrant population needs; promoting land use, transportation and economic development in ways that revitalize our concentrated centers while preserving our natural landscapes; and reducing congestion on our highways and improving air quality. However, the current level of transit service among
destinations in the proposed circumferential corridor is insufficient to support the MAPC's core-focused development strategy. Without significant improvements in service, the amount of new development that can occur in the communities and neighborhoods which surround downtown Boston will likely be limited in the future.

While the alignment and technology debate is ongoing and will not be finalized until the completion of the next major investment study, it is important that a commitment is made to one technology and not several, and that the route be a continuous line, even if it is built in increments. Without a commitment to a continuous line, the ridership will never fully develop and the development potential along the corridor will not be realized. To attract new growth in the corridor, there must be a commitment to the project, insuring developers and municipalities that an efficient transportation system will support new growth and facilitate access.

Availability of land is often an issue in urban settings; however, it is not an issue with the Urban Ring. There is a significant amount of underutilized land in the corridor that was once devoted to industrial and manufacturing uses. Economic growth patterns over the past two decades have been characterized by a migration of manufacturing from the core, leaving deteriorating parcels in need of revitalization. The problem then is not availability of land parcels, but that these parcels are primarily located in deteriorating neighborhoods that are in need of economic stimulation.

The Opportunity for a More Equitable Region

Meeting this challenge requires not only improving transit service to improve accessibility to the sites, but also requires a strategic, economic development program to allow the corridor to develop in a way that can attract new businesses, while integrating the surrounding communities. Targeted economic development in the corridor, along with improved mobility could also become the start of a more equitable region by
creating and providing better access to jobs, job-training programs, schools and universities, healthcare and recreation. Until one has lived in Chelsea, Somerville, or Roxbury and has been dependent on public transportation, it is hard to know how inconvenient, time-consuming, and burdensome simple daily routines can become. The travel time to commute in bus-reliant communities produces limitations that furthers social and racial polarization.

**The Project Challenges**

The Boston Redevelopment Authority, although not officially involved, has conducted studies and identified the constraints to the Urban Ring and a set of actions necessary to address them. Among the constraints are: Poor transportation access, unattractive and blighted areas, the lack of a clear identity as a growth area, and the absence of commitment from local and state governments to support growth in the corridor. A program to focus growth in the corridor would include the following list of unified actions:

- improved transit service in the corridor
- roadway and circulation improvements
- parkland and openspace investments
- district plans and revised zoning to support growth in the Ring
- financial support for private investment which implements area plans
- job training and employment initiatives which link area residents to economic opportunities
- coordination among municipalities to achieve these plans

**The Need For an Integrated Approach**

Studies have shown that circumferential transit could have important implications for economic development that could provide growth into the next century. Improving transportation access to existing employment centers is essential; however, careful land use planning along with transit planning is also essential in order for the corridor to transform
into the kind of place that is attractive to prospective employers. Transit-supportive development should be a requisite around key station areas, and concentrated development centers should be planned around station areas whenever possible. If carried out according to transit-supportive design criteria, the land use planning aspect can be a large determinant of ridership.

Revitalization of a corridor that traverses five cities in a major metropolitan area governed by local home rule has left all involved at a loss as to who takes the lead. The expertise and legal authority that will be needed far exceeds the capabilities or mission of any one agency. The construction of transit projects fall under the jurisdiction of the MBTA in the Boston metropolitan region yet history has shown that comprehensive land use planning and development are not initiatives undertaken by this agency. The multijurisdictional aspect of the Urban Ring adds another layer of complexity yet can also provide a "life" for the project that will be needed to carry it through changing administrations.48 Chapter Three profiles two similar projects, one in Portland, Oregon, which has a tradition of comprehensive planning and the other in a New England context, Hartford, Connecticut, which shares Boston’s history of local home rule as the alternative to regional planning.

48 A description used by Ken Kruckemeyer.
Summary of the Benefits and Key Challenges

Benefits

- Incentive for municipal collaboration and coordination of community and economic development, land use and transportation planning with a regional perspective
- Economic development opportunities with the potential to strengthen the metropolitan area and region through business investment, job creation, increased property values, and from the convenience and time savings.
  - Link biotechnology development and medical research
  - Build and utilize vacant real estate
  - Coordinate residential, commercial and residential development
  - Connect the radial transit system
  - Improved transportation system for the metropolitan region and better access for suburban commuters
  - Make a direct connection to the airport
  - Integrate seaport, air cargo and trucking
  - Restore waterfront areas
  - Provide better access to employment, neighborhoods, academic and cultural institutions, shopping centers, etc.
  - Reduced traffic congestion
  - The interchanges that link the various modes together offer an opportunity to expand civic space in the urban environment
  - Neighborhood revitalization
  - Encouraging increased transit use will mitigate impacts of the Central Artery/Tunnel Project and reduce private vehicle use, while improving air quality and reducing highway congestion and congestion in the central subway system.

Physical challenges

- Real estate in undesirable locations
- Scale of project - project cost
- Obtaining right-of-ways may be a problem
- Above ground (grade) vs. underground (grade separated) and all issues that are related: cost, ease of access, frequency will all be affected by this decision.
- Phasing of project - something that is put in place overnight will present a different set of issues than something that will take 30 years. (Pulling out a bus system to build a tunnel for rail further down the road will have impacts as well)
- Horizontal/lateral vs. vertical decisions - where it makes its connections will be affected by this decision

Political challenges

- Lack of regional planning modus operandi
- Multi-jurisdictional and 'local home rule'
- Opposition from the suburban community
- Lack of key political support from Weld or Menino — e.g. recently awarded transportation Bond Bill for feasibility study may not receive the deserved attention or recognition without this level of support
- The perceptions of existing public agencies
- The lack of power, ability and/or mission of any one particular agency to manage a project of this magnitude
- Competition for funding from the North-South Rail Link
- Lack of power of affected neighborhoods - (residents are under-represented however the major institutions have a lot of political power and may be able to offset the balance)
CHAPTER THREE
PROFILES

Fig. 3.1  The MAX in downtown Portland.

The Westside Line
Portland, Oregon

Rail projects in Portland, Oregon represent a major shift in the functional and philosophic role of transit planning in the US. The light rail and transit system are part of a conscious strategy of innovative policy to shape regional growth by coordinating transportation investments, with land use policies. The result; the system has been named, "the Best in North America."49

Fig. 3.2 Light Rail Corridors
Source: METRO
This conscious strategy is the product of a "long-term view" that has won the city national recognition for the improved quality of life in the city and in the region. By seeing transit as part of a comprehensive strategy to achieve growth, Portland has been able to revive its dying downtown without the negative impact of automobiles.

It is Portland's innovative policy that provides the framework to guide growth and protect the quality of life; it is a strong partnership between the regional transit authority, land use agency and local governments, that implements them. After 20 years of committed leadership, public support and diligence, land use and transit planning is no longer a planning theory, but a practical policy that is creating a livable city with a national reputation.

The Policies

Since 1973, when statewide planning requirements were adopted, state, regional, and local agencies have implemented a land use policy framework that emphasizes urban containment, limitation of sprawl, protection of rural resources lands from development, and increased densities. This emphasis is clearly evident in the statewide planning goals that are mandatory for state, regional, and local plans and therefore have the force of the law. The Urban Growth Boundary (UGB), the Metro Regional Transportation Plan, and local city and county comprehensive plans, support this emphasis and provide the planned land use framework for the rail projects' analysis and decision-making. Thus the goals of the current rail projects are consistent with major regional goals carried over from the first, eastside light rail corridor project, the Banfield Line: (1) improving the flow of goods and services and strengthening the local economy, (2) increasing the viability of the Portland central business district, and enhancing its role as a regional center, and (3) concentrating growth where it can be better served by all public services, including transit.
In addition, the Portland region is developing policies that emphasize increased development densities. The draft Regional Urban Growth Goals and Objectives (Metro, 1990) emphasize a land use concept moving toward high-density, mixed use economic activity centers at key locations that can effectively be served by transit, thereby reinforcing the intent of the UGB to limit urban expansion into rural lands. Because an expansion to the UGB must, by statute, be based on the demonstrated need for more urban land, the region's ability to increase densities on existing urban land will help limit future expansion of the boundary.

In April 1991, the Land Conservation and Development Commission (LCDC) adopted a new transportation planning rule that further ties transportation and land use planning
together. Specifically, the rule requires local governments to adopt land use and subdivision regulations that allow Transit-Oriented Developments (TODs) on land along transit routes. TODs are defined as a mix of residential, retail, and office uses, and a supporting network of roads and bicycle and pedestrian ways, focused on a major transit stop. Local jurisdictions have adopted transit overlay zones that generally provide for transit-supportive development in areas with good transit access. 50 The extent that land use policies have contributed to the success of the system is recognized by the transit authority. "The success of the Portland Transit Mall

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and MAX has been reinforced many times over by land use controls which have the effect of forcing riders onto our system. In some ways those regulations play a more important part in generating new riders than our service."

_The Partnerships_

The partnership plays on the strengths of the individual partners, leaving land use to local government and transit planning to the transit agency. Tri-Met, the Tri-County Metropolitan Transportation District of Oregon, serves as the lead agency for the transit aspect of the project, recognizing that land use planning does not fall under their jurisdiction. The director of Strategic and Long Range Planning for Tri-Met acknowledges this and explains, "We lack the political clout and the technical expertise. What transit can do is to use our role as an "insider" in government to influence zoning codes, regulations, and attitudes about what transit can realistically acquire. Pointing out the transportation implications of land use decisions, providing expertise and resources on how to achieve transit-friendly development are part of the transit operators role."

The success of this combination has shown that, "in the final analysis, local governments are the big winners from a successfully executed transit/land use strategy. Government is very good at putting together land use plans. Making them happen is something else all together. The senior partner is the private developer; they all make the individual investment decisions that make plans real or mere pipe dreams. Transportation investments are one of a small box of tools which government can use to directly influence and guide private investment." Consequently, the two together are powerful tools for guiding investment and shaping the

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52 Ibid.

53 Ibid.
physical space around transit stations. Recognizing that policies alone, can't create new development, they can however, encourage development and influence where it goes.

The Planning History

The Westside project is Portland's current light rail project and involves the participation of three regional agencies, two counties, and three municipalities. The complexities that can emerge with multijurisdictional projects can seem formidable. Fortunately, Portland recently completed its first project on the eastside which has provided valuable time-saving lessons in how to set up the organizational structure to accomplish both land use and transit planning.

Developing an organizational structure by which to accomplish this integration was a long process and evolved along with the project. Undertaking land use planning along with building a transit system, in a multijurisdictional setting, required a great deal of flexibility, and a willingness to persevere on the part of all participants. The sense of known rules and procedures was intermittent throughout the project. The decision-making structure, the participating organizations, as well as the rules, all underwent major changes as the organization was refined. The roles of given organizations also changed over time, reflecting internal organizational changes, adaptations and the shifting responsibilities assigned to or assumed by organizations. These organizational changes manifested significant impacts on the ensuing intergovernmental decision process. 54

In terms of leadership, key people were often catalysts in completing decision tasks or initiating major events. Yet there was no single individual who drove the process from start to finish. It is more accurate to say that the role of the key leader

was constant and individuals emerged to fill it, rather than a single individual filled the role throughout the entire process. Portland's experience lends valuable insights into setting up multijurisdictional processes to accomplish the integration of land use and transit planning. The elements that led to Portland's success involved innovative policies, and an organizational structure that allowed for flexibility, innovation, and change. A strong leadership was also important but was not held by any single person. The following section profiles the partnership which was established to accomplish land use planning around station areas using a current project, the Westside Light Rail Corridor as a model.

The Project

The Westside project is a high-capacity light-rail transit system, with an expanded feeder-bus network, that stretches 18 miles across two counties with a total of twenty transit stations. When completed the Westside Line will link two municipalities to downtown Portland and provide direct service between the westside and eastside of the metropolitan area.

The Westside Light Rail Corridor project has been designated a pilot project to emulate the goals of a fifty-year regional plan that is being written concurrent to the project planning. Land use plans and policies have been adopted by Washington County, Beaverton, and the City of Portland to encourage the concentration of future corridor development in station areas. Planning, development and constituency building to achieve these goals are programs set up through intergovernmental agreements. The light rail construction is run exclusively by Tri-Met.

Station Area Planning

Portland has found that "a successful land use and transit strategy requires a working partnership between local governments and the transit district. Like any partnership,
each side has expectations of the other. Tri-Met is asking local
governments to make development physically more dependent
upon transit by limiting parking, constraining automobile
access, widening sidewalks, improving pedestrian access,
allowing a mix of uses, and a higher density of development.
In exchange, they expect Tri-Met to provide the necessary
service to accommodate growth." Land use and transit in
combination with each other make local governments and the
transit district both winners. The key is to get the local
governments to take the lead. Without them, you cannot
succeed. 55

During the Environmental Impact Study, an
Intergovernmental Agreement between the Oregon Department
of Transportation (ODOT), Metro, Tri-Met, the cities of
Portland, Beaverton, and Hillsboro, and Washington County,
was set up to conduct a planning process concurrent with the
final design of the selected alternative. This process became
the Station Area Planning Program, whose purpose was to
adopt and implement land use strategies and zoning
ordinances that specifically support the preferred light rail
alignment. To enable the process, the city of Portland
adopted a Light Rail Transit Station overlay zone (LRT zone)
that could be applied to areas near transit stations if the city
elects to do so. The LRT zone sets forth development
standards that encourage pedestrian-oriented design that is
compatible with promoting the use of transit facilities. The
importance of coordinating land use planning and
development early on allows benefits that cannot be retrieved
if the planning comes after the traditional transit-system
planning process.

The primary goal of the Station Area Planning Program is
to promote transit supportive development in the vicinity of
rail transit stations. "Transit supportive" is generally defined

55 G.B. Arrington, Jr., Portland's Light Rail: A Shared Vision For
as higher density, pedestrian-friendly development that encourages use of transit as an alternative to the automobile. The town of Hillsboro defined the chief characteristics of land uses in and near station areas as: (1) Balanced—with an emphasis on a walkable environment; (2) A mixture of land uses—housing, retail, and jobs; (3) Enhanced by public amenities such as parks and plazas and recreation areas and; (4) Supportive of different forms of transportation.56

The program's purpose is to provide assistance to each of the participants so they can review and amend as necessary their comprehensive plans, development regulations, capital improvement programs, and other plans to enhance transit-oriented development in the Westside corridor area. The achievement of transit-supportive development involves both short and long term activities to be carried out by local jurisdictions, Tri-Met, Metro, and various other public and private parties. Some of this work relates specifically to the design and construction of the rail project, and other elements fall within the existing land use planning purview of local jurisdictions. There are also elements which span both of these areas, and require efforts beyond the immediate station facilities, and a more specific focus than is generally found in comprehensive or community plans.

The focus of the program includes analysis of the potential impacts on light rail ridership of alternative land use patterns, station area traffic circulation and transit service, transit-oriented development, public investments necessary to support transit-oriented development to increase transit ridership, and explore ways to decrease reliance on single occupancy vehicles and otherwise manage traffic demand.

The program is administered by Metro, who receives funds from ODOT and Tri-Met to combine with regional funds and

56 Choices For the Future, Station Community Planning for Downtown Hillsboro Station Area. Public information material from Hillsboro, Oregon.
contract with Portland, Beaverton, Hillsboro and Washington County. A Management Committee which includes one representative each from ODOT, Tri-Met, Metro, the three municipalities and Washington County oversees and coordinates station area planning. This group develops the Detailed Plan that is the official work plan for the municipalities, and oversees the progress on individual plans. The goals and objectives for Station Area Planning are as follows:

**Goal of Station Area Planning:**
Maximize community development, transportation mode choice and air quality improvement opportunities resulting from the Westside LRT system, while contributing to its effective operation.

**Objectives:**
- Consider neighborhood character and respect contributing development
- Adopt clear and objective standards for decision making
- Provide for expeditious approval of appropriate development
- Increase ridership
- Reduce auto use
- Improve air quality through decreased emissions from auto use
- Encourage early development in the station areas
- Achieve appropriate density in station areas
- Insure good design
- Achieve a diversity of uses and a mix of housing types
- Be compatible and integrated with other plans
- Be consistent with the adopted Regional Growth Concept
- Be consistent with state and regional plans and laws
- Implement the plans that are adopted
- Be responsive to market conditions
- Identify areas with redevelopment possibilities and aggressively promote redevelopment
- Identify and mitigate where possible adverse impacts
- Assure a safe and pleasant bike/pedestrian environment
- Consider each station's unique qualities in design and its role in the region.
Goals of the Station Area Planning Process:
Inform and integrate all community interests in the Westside LRT TSAP process.

- Employ a variety of outreach strategies
- Involve policymakers from the beginning
- Involve business and development interests from the beginning
- Establish a Policy Advisory Committee
- Coordinate with other planning efforts, and among jurisdictions
- Involve citizens in the process from the beginning.

The Importance of Public Involvement

How the goals of any project are achieved can be traced to a number of influential factors. Among those are: the project's leadership, its' organization, commitment from political constituents, support from business leaders and elected officials and the health of the economy. A major factor, and one that isn't always incorporated is the support generated from local citizens. Public involvement programs are as critical to a project's outcome as the land use planning and transit service itself; after all, the ridership will ultimately determine the project's success.

In Portland, active public involvement is considered critical to the success of any large transportation project that has a significant impact on the surrounding community. The first goal of the public involvement process for the Westside project has been the selection of a preferred alternative by a well-informed community and local government. This process has ensured that community concerns and technical issues were identified early on and addressed in the engineering, environmental, economic, and financial analyses.

The Westside Corridor Project's public involvement program began concurrently with the preliminary engineering process. The two primary focuses of the public involvement
program have been providing the public with information regarding the project, while keeping them informed of project progress and decisions. The program also provides the public with the opportunity to express their concerns regarding the project and any additional ideas they might have to improve the project or mitigate its impacts. To these ends, a diverse public involvement program was implemented as part of the Westside environmental study. The program consisted of several different elements including: Community Participation; Public Information Program; and a Public Involvement Program.

The Development Impacts

If transit projects are to be successful in reducing auto trips, it is essential that land use policies are changed to allow a mix of uses and higher densities that will stimulate increases in pedestrian activity around station areas. Such increases can lead to changes in land value, which will tend to support specific types of development that will in turn serve the transit-oriented population.

Development strategies should also be employed with consistency to take advantage of market opportunities whenever possible, particularly in urban areas where development opportunities are being lost to suburban communities. It is clear that transit alone does not create new markets for development, but in combination with innovative policies it can influence certain types of development around station areas. To understand the magnitude of new development anticipated in the eastside corridor, a private consultant was retained to compile a detailed market analysis for each of the 26 station areas. This determined the station locations with the highest development potential. 57

It was the desire to capture and optimize the development potential presented by transit that resulted in the $1.2 million planning program. The program laid the groundwork for development by determining market potentials, rezoning station areas, and planning for the needs of the community. Local governments participated because they saw the opportunities. Five years after the opening of the first eastside line, the results have been very promising. "Over $900 million worth of development totaling 7 million square feet is under construction or has been completed immediately adjacent to the MAX line since the decision to construct the project. Plans have been announced for another $440 million
worth of additional improvements. The impact of the line is being felt from end to end." 58

Portland's positive experiences with development show that light rail may have a greater development impact that the heavy rail systems in San Francisco, Atlanta, Miami, and Washington, DC. Reasons for this have been identified by Arrington. "Light rail operates at the surface and offers visibility. Store fronts become billboards for passengers. Light rail penetrates the community and is not separated from it like heavy rail, which is down in a hole or up in the air. Light rail is part of the urban experience... At Pioneer Place, you walk across the platform and into the front door. It's the most convenient way to arrive... At Portland's Saturday Market, a weekly streetfair attended by thousands, the festival literally surrounds the train; it's part of the experience; it's the way to get there. When light rail is part of the community, not separate from it, it can be directly integrated into development. That is something we have done successfully from one end of the line to the other."

Evaluation

Portland's success has largely been due to a cultural attitude and a natural propensity toward innovation. Whether or not this can be attributed to the pioneering spirit that settled the west is an interesting notion, nevertheless the ability to think creatively to solve problems has served Portland well. Portland's long-term view has produced a conscious-strategy that is shaping future growth through innovative policies, partnerships, and organizational strategies and has earned the city a national recognition for its regional comprehensive plan and mass transit projects. Without an innovative approach and an active public participation process, this level of success would not have been possible.

Conversations with Tri-Met staff reveal valuable lessons for transit-supportive development. Phil Whitmore works specifically on joint-transit development projects and continually seeks new ways to improve development standards and attain a high ridership. His current project is establishing a joint-transit development corporation that would provide local municipalities with financial assistance for site acquisition, and possibly minor site improvements. Whitmore's experience in dealing with local jurisdictions has shown that the membership of a regional interest group, e.g. 1000 Friends of Oregon, would facilitate transit-supportive development in ways that neither Metro nor Tri-Met could achieve. The reason? The 1000 Friends group is stronger than either agency in changing land use laws. Ten years of experience has proven that strict development standards result in new market shares in riders vs. redistribution of transit-dependent riders. For this reason alone, development guidelines should be enforced in each of the station areas. Whitmore has written a condition into the contract that will require a separate agreement for each key parcel acquired through the development corporation. This will prevent the local municipalities from falling below transit-supportive standards when developing key sites around station areas.59

Portland is about to begin the next regional transit project, characterized not only as multijurisdictional but bi-state as well. Planning this new project has created an opportunity to evaluate and improve the station area planning and development process. Coordination of station area planning with the environmental impact study and preliminary engineering is a newly stated objective.

This bold new plan proposes to coordinate the efforts of Metro, who will lead the Draft Environmental Impact Study (DEIS); Tri-Met, who will begin the preliminary engineering; local governments, and a Senior Station Area Planner, who

together will work with Metro on the DEIS and Tri-Met on station location, planning and development opportunities. Urban design firms will be hired to work with the engineers, the DEIS consultants and, the city planners to make sure that all of the issues are dealt with concurrently to prevent costly major flaws in the future and to ensure that the plans are viable in the market place. In addition, Tri-Met has proposed that a corridor-wide economic analysis be conducted to determine the best opportunity sites in the corridor. The objective is to develop a plan within 90 days from the beginning of the process to provide a common plan from which everyone works.\textsuperscript{60}

The extent to which supportive land use policies and an innovative approach have contributed to Portland's success, can not be overemphasized. That Boston does not have a regional plan, or a long-term view means that will an innovative solution will be required to accomplish the comprehensive set of goals that define the Urban Ring.

\textsuperscript{60} Telephone interview with Henry Markus, May, 1995.
Griffin Line Corridor
GREATER HARTFORD TRANSIT DISTRICT

FIGURE S.1-3
Griffin Line Corridor Including Study Area of Possible Expansions

Fig. 3.6 Source: GHTD
The Griffin Line
Hartford, Connecticut

Like the Urban Ring, the Griffin Line project in Hartford, Connecticut is being planned as a mass transit investment project extending from downtown Hartford to the Bradley International Airport, two of the major economic and transportation generators in the Capitol Region. The Griffin Line is considered a pilot project in the region, being the first to take on a comprehensive set of goals that would act as a catalyst for economic and community development, improve the regional air quality, and serve as a force to help retain and broaden the city's tax base. As a transit project, the benefits would accrue through improved mobility and access, directly serving five towns and six suburbs and providing links to major educational, cultural and institutional centers.

Driven by an innovative leadership with support from the local level, the Griffin Line has just completed the Major Investment Study: a federal requisite for all transportation projects to evaluate the alternatives to determine the alignment and technology, the impacts on mobility, economic and community development, as well as the environment. A multijurisdictional project, the Griffin Line is an exemplary case for the strides it has made despite a metropolitan government legislated by home rule.

The vision and leadership for this project has been created by a "political entrepreneur," a term used by Polsby to define the role of someone who doesn't have the mandated authority to change policy but possesses the vision, charisma, and the understanding of how the political web works in order to facilitate action toward a policy change. Recognizing an overall decline in air quality, social equity and the regional economy—the transit project was seen as part of a

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comprehensive strategy to achieve growth and improve the quality of life. The goals of the project were defined to: (1) improve overall mobility and access to jobs, (2) provide a focal and catalyst for economic and community development, and (3) support the long term attainment and maintenance of regional air quality standards and energy conservation.

Paul A. Ehrhardt, chairman for the Greater Hartford Transit District and previous Board member since 1981, is the "policy entrepreneur" of the project. Eighteen years of community service and leadership roles has positioned him politically as well as publicly to move the Griffin Line project forward. His professional involvement in the public sector includes serving as Chair and/or Board member for a number of organizations in an advisory role that ranged from transportation-related issues, downtown improvement programs to representing the Hartford business community. In the private sector, Ehrhardt is Chief Operating Officer for an investment adviser affiliate of Aetna Life and Casualty Company.

When Ehrhardt became Chairman of the Board in 1986 he began pursuing funding for the Griffin Line, and in 1988 funds were granted for a preliminary assessment of potential rail corridors in the region. The findings identified the Griffin Line as a need, and a formal recommendation was made to the Connecticut Statewide Transit System Plan: Investing in Public Transportation 1990-2010. The Connecticut Department of Transportation and the US Department of Transportation have continued to grant support for the Griffin Line project; in 1988-1993, for the Griffin Line Corridor Pilot Study, and in 1993-1995 for the Major Investment Study.

Ehrhardt's vision included two principals that shaped the direction of the project: (1) landuse strategies should enhance the use of transit and, (2) towns should participate in the planning process and make the decisions on land uses around their station areas. Due to what many see as his personal
style, Ehrhardt is known for his ability to bring groups from "We don't want to do this" to "We want to do this." 62

**Station Area Planning**

Station area planning in Hartford has been achieved through voluntary cooperation among local governments. To avert any problems on the local level, municipalities have been included to take on a participatory role in the preparation of plans. The landuse plan for the corridor has been discussed, debated and refined in each of the towns' Advisory Committees with an emphasis on transit-oriented-development, specific to each town's needs and goals. Station area planning was well underway before the grant was received for the MIS and was arranged by Ehrhardt who met with each of the Town Councils in the corridor to set up working committees. These committees, or Task Forces were comprised of representatives from the Town Planning and Zoning Commissions, Town Council, the business community, and town residents. The meetings were principally led by Ehrhardt and David Vozzolo, the Director of Planning for the Greater Hartford Transit District (GHTD). When the District and the Capitol Region Council of Governments (CRCOG) received authorization for the Corridor study in 1993, the GHTD became the lead agency charged with the coordination and oversight for: facilitating the Task Force meetings, receiving input from the community and business communities and, coordinating the technical committee's work. CRCOG joined with GHTD to conduct the studies and did so in such a way to accomplish land use planning and economic

62 Interview with Elizabeth Riklin, March 10, 1995.

63 CRCOG is the region's Metropolitan Planning Organization, whose Policy Board includes the chief elected officials of the 29 member towns. CRCOG is empowered by Federal law to conduct regional planning and to set funding priorities.

- CRCOG designated the Griffin Line as a mass transit investment corridor in the 1980 Long Range Transportation Plan, and has fromally re-endorsed this designation in each year since 1989.

- In 1993, the CRCOG Policy Board adopted a new comprehensive Long Range Tranpostation Plan through the year 2010 which again designated the Griffin Line as a mass transit investment.
development with transportation planning. Elizabeth Riklin, a transportation planner for CRCOG was assigned to the project to provide technical assistance and participated in the town planning meetings.

The Task Forces met regularly and became the forum for community participation and a place where transit oriented development, station area planning, land use changes and potential development sites were debated and approved for station area plans. All of this was coordinated with the technical work that was being carried out by the Project Planning Committee. In a study focused on ridership, economic development, and crime, the final report noted: several elements identified as critical for economic success in Portland were also included in the station area plans. They included zoning changes that would allow concentrated development, landuse controls that focus new development around station stops, and plans that call for a mix of dense residential, commercial and retail development. The Transit District is now in the process of working with the city of Hartford and neighborhood residents to plan for development possibilities around Hartford's three station stops.

In addition, major Hartford employers have agreed to reverse their current parking policy if the Griffin line is built. Currently most of the major downtown employers offer parking allowances to their employers. A consortium of downtown employers (comprising 45% of the workforce surrounding downtown Hartford stations) has agreed to eliminate all parking subsidies for drive-alone employees, and provide a $60 per month mass transit subsidy, as a pre-tax fringe benefit. 64

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Economic and Community Development

When Ehrhardt envisioned economic development in the region, he saw a strengthened urban center, sane landuse patterns, better mobility for the poor, improved air quality—and an improved lifestyle for the region.65

As part of the Griffin Line project, an economic impact study concluded that the project would create: sustained employment during construction and well beyond the construction period; economic growth in the city and region, and; a positive economic return to the State. The project would also create 10,000, to 20,000 job years (75% after construction); the present value of the Gross Regional Product generated would range from $76-197 million, and; present value of real disposable income generated would range from $145-350 million dollars.66

The Griffin Line would also directly support new investment and community development projects within the corridor. The Transit District and CRCOG have been working closely with city staff, community and business leaders to coordinate activities at several major development sites in the corridor, including the Veeder Root Development Project. 67

The Veeder Root project is a prime example of the type of small-business participation necessary to fulfill employment opportunities in the lower-income communities. Encouragement of entrepreneurial start-ups will incorporate the surrounding neighborhoods as opposed to gentrification or neglect of these areas.

65 Interview with Elizabeth Riklin, March 10, 1995.
66 An Economic Summit For The City of Hartford. A Briefing paper.
67 An Economic Summit For The City of Hartford. A Briefing paper.
Fig. 3.7 Garden Street Pedestrian Corridor showing Veeder Root Development Project
Source: GHTD
Veeder-Root is a boarded-up factory complex located adjacent to the planned Garden Street station in a low income Hartford neighborhood. The neighborhood has declined from a "stable, ethnically mixed, middle-class neighborhood to a street with people struggling to survive." 68 The conceptual plan for the Veeder-Root development project is to provide the Hartford community with commercial and industrial space in an area now precluded from use due to crime and physical deterioration of the site and adjacent neighborhood. If developed as planned and particularly if the transit line is built, this project could serve as a potential catalyst for private and commercial rejuvenation of the surrounding area. A number of city-sponsored redevelopment projects in the neighborhood are already underway including the Urban Homesteading Program on Garden Street.

Economic and Community Benefits of the Veeder Root Project

• It is estimated that the project will create 245 full time jobs in light industrial, community support service and commercial operations. By rebuilding a run-down section of Hartford and creating new jobs, the Reverend Barry (non-profit developer) hopes to help the disadvantaged by making a contribution to the neighborhood. "...the great need is not to develop more poverty programs--but jobs, neighborhood stability, and hope for the future."

The creation of 245 jobs will reduce reliance on government public assistance programs, while at the same time create state income and sales tax revenues.

• Although owned by a nonprofit entity it is not the intent to take the property off of the city tax rolls. Annual property taxes of approximately $80,000 will be generated.

• Indirectly the project will create a stimulus for private development in the adjacent neighborhoods.

Veeder-Root stands as an example of: (1) successful reclamation of abandoned property in an economically depressed area of the city; (2) coordination with existing and planned development projects within the Griffin Line Corridor; and (3) the significance of small-business development projects vs. larger joint-development projects that require significant capital.

**Evidence of Community and Private Business Support for Veeder-Root**

- The City of Hartford Court of Common Council has passed a Resolution making the MJB Corporation the designated developer for the Veeder Root site after the awarding of a $3.5 million dollar grant funded through the Regional Development program of the Department of Economic Development.

- The Connecticut Capitol Region Growth Council has endorsed the Veeder Root project and actively supported the grant of $3.5 million dollars under the Regional Economic Development Program.

- St. Francis Hospital and Medical Center has committed to occupying space in the Veeder Root building for the development of medical and dental office space and ancillary services to assist in meeting the health care needs of area residents.

- Catholic Family Services is committed to renting space for office use and its service center. They have also indicated a willingness to open a Day Care Center, and to develop support programs for the workers employed on site.

- Several private concerns are negotiating with MJB for the rental of space for light industrial use including ones recommended by the City of Hartford for State Economic Development Grants.

- The High Noon Economic Development Committee in conjunction with the National Association of Minority Contractors (NAMC) and local area businesses are in the process of developing a business resource center in Hartford. They intend to locate the center at Veeder-Root. The Center will be a private sector initiative operated through a non-profit agency to coordinate community, government and private sector initiative operated through a non-profit agency to coordinate community, government and private sector resources to assist in the development and expansion of Hartford based small minority owned businesses.
• The University of Hartford has offered to assist in the development of programs to insure that the businesses which become tenants are successful by making available a team of technical resource professionals from various sectors of the University, including the Schools of Engineering, Business, Technology, and Research and Development.

• The Hartford Police Department has committed to opening a satellite office for its Community Service officer and other officers to the Asylum Hill neighborhood.

• MJB has established and continues to foster a working relationship with the community groups and residents of Asylum Hill and Upper Albany.

• Asylum Hill Congregational Church has had a series of discussions with MJB and has expressed a strong interest in sponsoring a new or emerging business, employing from the neighborhood, as part of the Veeder Root project.
Evaluation

The main lessons in the Hartford case lie in the examples set by the entrepreneurial leadership and the accomplishments that have been made despite the state's legislated home rule. The Griffin Line project also represents a successful effort to bring together local governments on the subregional level. The fact that station area planning was in place before the major investment study began speaks to the commitment of the leadership, and the ability to work collaboratively with the municipalities.

The partnerships that were cultivated between the agencies and local communities were accomplished through the ability to communicate the broader implications of the project. It is this broad constituency that has brought the project through five years of evaluation and the recent completion of the MIS.

Ehrhardt's vision to have an open process was born out of a belief in how things should be done, however, it also serves a pragmatic purpose. The time spent with the local elected officials and town staff created an important connection that enabled a coordinated process to occur between the GHTD, CRCOG, and the municipalities. These relationships have also generated support that the project will need during the funding decisions.69 Factors that have enhanced consensus building are a philosophy of inclusion and an aim to turn individual concerns into opportunities. A comment by Riklin, and also relevant to Boston, "in a state that is legislated by home rule, a multijurisdictional project with localized issues, would have never happened without extensive public involvement—even with the support of the CRCOG." 70

The enthusiasm and amount of effort that was generated for the project was largely due to the technology—the potential for light rail. "If it were just another roadway project, people

69 Interview with David Vozzolo, March 10, 1995.
70 Interview with Elizabeth Riklin, March 10, 1995.
would not have cared. The evidence lies in the tremendous amount of local support characterized by numerous bi-weekly meetings and the numbers of volunteers and staff it took to run them. Every town in the corridor participated in these meetings and gave a tremendous amount of support. Over the last two and a half years, the town of Bloomfield has held over 140 Task Force meetings.71

Finally, those that have been involved recognize the value in viewing the future in a regional context. The coordination among public agencies and the municipalities indicate that the participants believe the Griffin Line could benefit the entire region and improve the quality of life significantly. If the project is approved for funding, the existing organizational structure will be reconsidered to address economic development in the corridor and to continue long-term planning.

71 Ibid.
FORMAL ENDORSEMENTS FOR THE GRIFFIN LINE

Local Municipalities and Regional Authorities
• Hartford Griffin Line Corridor Advisory Committee
• Hartford City Council
• Bloomfield Line Task Force
• Bloomfield Planning and Zoning Commission
• Bloomfield Town Council
• Windsor Griffin Line Task Force
• Windsor Planning and Zoning Commission
• Windsor Town Council (As a result of a referendum in August 1992, the Town of Windsor has chosen not to participate in further study of the Griffin Line Project at this time.)
• Capitol Region Council of Governments Transportation Committee
• Capitol Region Council of Governments Policy Board (Chief Elected Officials of 29 member towns in the Capitol Region)

State Commissions and Policy Recommendations
• Connecticut Statewide Transit System Plan, CTDOT, 1991
• State Policies Plan for Conservation and Development
• Connecticut Public Transportation Commission
• Connecticut Council on Environmental Quality

Regional Public and Private Sector Organizations
• Connecticut Capitol Region Growth Council
• Greater Hartford Chamber of Commerce
• Hartford Downtown Council
• Business for Downtown Hartford
• Riverfront Recapture
• Bloomfield and Windsor Chambers of Commerce
• Windsor Employers Association
• High Noon: Minority Business Organization
• Knox Foundation
• University of Hartford
• University Park
• Upper Albany Neighborhood Collaborative
• Upper Albany Merchants Association
• Greater Hartford African American Alliance
• Westbrook Village Tenants Association
• Connecticut Fund for the Environment
• MJB Corporation - Veeder Root Development Project
The Boston Region Tomorrow

This thesis calls for a change in the way Boston thinks about, plans and implements its transit projects in the metropolitan area. The Urban Ring corridor is a 'regional' project in that its scope involves six municipalities and governmental issues on the state and local level. Defining the project on this scale provides an opportunity to view it not only as a transit project, but also as a project that has the potential to create major impacts on the region's economic, social and physical condition. The first challenge is to devise an organizational structure for planning and implementation. The Boston metropolitan area lacks a regional planning mandate, so there is no established framework which is setting the precedent to integrate land use planning and economic development with transportation planning. This is normally achieved through comprehensive plans that are required for long-term, regional plans. These types of plans are usually characterized by collaboration and coordination among public agencies.

The success or failure of the Urban Ring will depend on many factors, key among them is how well the project can be coordinated among a number of capable entities, and the level of private support that the project can build. In order to achieve the potential benefits of the corridor project, a certain set of actions will be crucial. Among those are:

- **Coordination and collaboration** among municipalities, government agencies, institutions and the private sector.

- **Broad public and political support** that begins early on and continues throughout the life of the project and beyond.
• **A corridor level economic analysis** that uses site-specific analysis to determine the best opportunity sites for station location.

• **Station area and development planning** at the municipal level, with guidance from a state or regional agency enforced by transit-supportive, land use policies, to support growth in the corridor.

• **Creative financing on the part of the private sector as well as the public sector** for all aspects of project implementation, (e.g. from joint development around station areas to land assembly to economic development opportunities) to include the use of ISTEA and Flexible Funds.

• **Improvement of adjacent neighborhoods** to create a more positive impression through design controls and land use patterns that enhance the Corridor and contribute to city-wide economic vitality.

• **Park land and open space investments** to create more livable spaces along the corridor. This will improve the desirability which is critical in many areas for attracting new development. Housing opportunities should be considered in addition to business and industrial opportunities--open space is an amenity that is essential for quality development.

• **Job training and employment initiatives** which link area residents to economic opportunities.

The comprehensive scope of work far exceeds the expertise of any single entity. The existing regulations, programs and powers of a single-purpose entity can not provide the legal means for coping with all of the components that are perceived to be important to the project.

The Urban Ring is now at a stage where the "next step" for moving the project forward needs to be identified. To achieve the potentials of the Urban Ring as a comprehensive project and not just a transit project, it is recommended that an organizational structure be created to allow for a coordinated and collaborative process among a broad range of expertise.
The Need for a New Organization

Viewing transportation planning comprehensively with land use planning and economic development is relatively new. The Boston Transportation Planning Review (BTPR) recognized the need back in the early 1970s, when they were convened to develop a 20-year, regional transportation plan, however the study was project-specific to the Southwest Corridor, Orange Line expansion (one of the transit projects that resulted from the BTPR). For a number of reasons the integration of land use and economic development never occurred. The Project Manager and others discussed the possibility of forming a new entity to integrate transit planning with development efforts, however the idea was decided against for various reasons. The general feeling was that individual agencies could handle the land use and development issues associated with the project, so the Metropolitan Boston Transit Authority (MBTA) remained the sole agency in charge of the project. Their primary responsibilities included engineering, design and construction. All development and neighborhood revitalization efforts were led by the Project Managers until other demands prevented them from continuing, at which time all efforts were de-emphasized. This isn't unusual for a transit agency yet it points to the problem that single-purpose agencies do not have the expertise to carry out projects with comprehensive needs.

The Principles of a New Organization

The scope of this project calls for a new organization that can accomplish a broad set of goals in a comprehensive manner. A review of the political and institutional reality in Boston should be carefully considered when structuring the new organization as well as the following principles:

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72 Interview with Tony Pangaro, former MBTA Project Manager for the Southwest Corridor Project.
1) The decision not to shift authority or staff among agencies.

This is a salient choice given the tradition of strong home rule, and local autonomy in the Boston region. This in itself poses a strong opposition to the design of a new organization, therefore the organization must empower municipalities rather than threaten their local authority and regulatory powers. Potential problems on the local level need to be averted and each municipality must have a participatory role in the preparation of plans rather than simply being subject to their implementation.

2) The importance of a strong leadership.

A project of this scale, needs a strong leadership that has the ability to pave the way as a new process is created.

3) Include the key stakeholders.

These are the municipalities, local civic and business leaders, property owners, elected officials, and citizens. A group of supportive stakeholders collectively have more interest in seeing that the project is carried out than public administrators, or even elected officials, alone. Including them in the process builds an important constituency for a project that will have a life of 20 years, minimum. Their support can serve as the glue that holds the project together over the changing administrations to come. Broadening the constituency will build a stronger process.

4) With a downturn in the economy, an emphasis needs to be placed on creative financing along with public and private contributions.

Including the Boston business leaders will be important in procuring the Governor's support. Their presence can also provide entrepreneurial expertise and increase the opportunities for partnerships given their standing in the community.
5) In addition to a slowed economy development strategies must be incentive-based or developers will not see the possibilities.

This is particularly true in areas that are presently undesirable and in need of serious neighborhood revitalization to turn development decisions.

6) Boston's future ability to compete in a growing world economy is a serious factor that needs to be understood by everyone in the Commonwealth.

This is an opportunity to create a major media campaign to break down the misunderstanding that the Urban Ring is "just another Boston project." The focus should be on the relationship of the Boston metropolitan area to the region. In terms of the size, fabric and scale, Boston has a very manageable urban core and is enhanced by the presence of major historical, cultural, medical and educational institutions. These are assets that make Boston a desirable location for doing business and should be promoted. With the depression of the Central Artery and the development of the Boston South Piers, attention will soon be focused along the waterfront for recreation as well as employment opportunities. Circumferential transit will enhance accessibility to this area and provide an alternate means of getting into the city as well as provide congestion relief on the roadways, as well as in the Central Artery tunnel.

A Strategic Plan

At this point it is essential that a strategic plan be developed. After two-and one-half years of voluntary, consensus-building, the project has progressed to the preliminary environmental impact study (MIS). With this study about to begin, the question of who implements the project, needs to be developed. Following is a brief
description of a two-part, strategic plan with a fuller description at the back of the chapter.

**Part One** is written for the immediate-term with the first recommendation being to formalize a political Task Force. The second emphasis is to become a part of the MIS process. In the immediate term, the Task Force can begin addressing the agenda items and move toward integrating with or influencing the MIS process. The long-term goal of the Task Force is to move toward an implementation strategy to accomplish land use planning and economic development with transit planning. An organizational structure is described in **Part Two**.

Forming a Task Force will:

1) create a recognizable entity by the political clout of the mayors, city managers, and elected officials, to represent the collective voice of the constituents so actions can be taken.

2) provide a forum with leadership where goals can be defined, planning strategies can be developed and policies can be reviewed for implementing the project in the best way possible.

3) provide a place where consensus building strategies and the public participation process can be planned on the municipal, corridor-wide, and regional levels.

4) provide an entity where the efforts of the BSA and the Boston Chamber of Commerce's professional committees can be built on rather than dispersed.

**Part One**

**Forming a Task Force**

There are a number of issues and tasks that need to begin in the immediate future. They range from strategic planning and political consensus-building, to starting the actual
preliminary work on the municipal level. Below is a recommendation for forming a Task Force, followed by an agenda of immediate needs.

It is recommended that the Task Force initiate support from the Mayor of Boston, Thomas Menino, to convene a series of meetings with the mayors of each of the Ring cities. Once a commitment to the project has been established, a forum can be created where:

- a unified vision can be articulated;
- the project needs and goals can be established, and;
- a strategy plan can be devised to implement the various aspects of the project inclusive of the collective input from all affected parties.

In an article on the value of coordination in developing growth management plans, Judith Innes writes,

While it remains to be seen which of the coordination techniques work best, evidence thus far is that face-to-face discussions, negotiations, and other group processes that bring the participants together to define and resolve issues are very effective. The coordination task in growth management requires mutual learning and adjustment among the participants. The complexity of the issues, problems, and interests and the variability among contexts within a state mean simple top-down rules will not work. Plans and regulations developed from the top down by experts often do not work in practice as predicted, even when there is a powerful central state agency control and the ability to force players to cooperate. Many sorts of knowledge are needed to design workable programs, including both specialized expertise and the everyday knowledge of those who operate in the world where decisions affecting growth are made.73

The First meeting

The purpose of the first meeting is to gain the collective support of all the mayors.74 The mayors of the Ring cities,


74 This was originally an Infrastructure Forum agenda item.
members of the BSA Infrastructure Forum, and the Chamber of Commerce Implementation Committee, as well as key representatives from the business communities, will meet to discuss the project and the need for a formalized Task Force. Under the auspices of House Bill 2220, *A Resolve Establishing A Commission to Investigate the Creation of a Boston Metropolitan Government*, a junket is proposed to cities such as Hartford, Connecticut and Portland, Oregon, to learn how similar projects have been planned and implemented. By getting out and talking with professionals who have taken on similar projects, junkets can provide opportunities to advance projects in ways that round table discussions cannot. Junkets provide an opportunity to answer troubling questions and allay fears, by providing a case that can be evaluated. In the process, the team's commitment is also reinforced.\(^75\)

*Sequential meetings*

After the mayors are on board, it will be important to bring in their land use and transportation planners, and community and economic development staff, to begin discussing a short-term and long-term plan with the ultimate goal of developing an organizational structure capable of implementing the project.

After the Task Force has been formed, representatives from key state and federal agencies should be included in the next round of meetings. To avoid alienating the key agencies, a meeting to include them should be arranged as soon as possible. As a land use, economic development and transportation project the planning phase will benefit by the collaboration and coordination among the key players in order to accomplish the goals which would not be feasible otherwise, due to the specific missions of each agency. Once support has been won for the project, and an organizational structure has been discussed, a meeting should be convened to win the Governor's support.

\(^75\) The junket was an idea developed in conversation with Gary Hack.
The Task Force Agenda

1. Seek support from the Weld Administration

After an organization and strategy plan has been discussed, it is recommended that the Task Force hold a series of meetings with the key legislators to win the support of the Governor. Those attending will include the directors and CEOs from the key agencies, mayors/city managers and elected officials, key staff from each of the cities in the corridor, and members from the key advocacy groups and business community.

2. Under the auspicious timing of the House Bill 2220, A Resolve Establishing A Commission to Investigate the Creation of a Boston Metropolitan Government, the Task Force should request, through the legislature, that the Urban Ring Corridor Project be established as a Pilot Project to demonstrate how, through intergovernmental coordination and cooperation, a major transit project can stimulate economic growth, achieve land use planning, and improve the region's quality of life.

On April 11, 1995, Governor Weld submitted testimony in favor of House Bill 2220. In short it is a bill to consider the possible effects of coordination and cooperation which may or may not lead to a regional metropolitan government.

In summary the commission will produce a final report which shall contain findings and recommendations regarding regionalism, joint and cooperative agreements and/or improved coordination. The report shall contain recommendations to promote and facilitate regional delivery or governmental services, to aid in collaborative efforts and to restructure government entities including: the performance of one or more functions on a joint, cooperative or contractual basis, the transfer of functions between or among governmental entities and intermunicipal cooperation in the delivery of services.

3. Stay apprised of the MBTA’s handling of the Major Investment Study (MIS). Recommend Option 2.
Assuming that the MIS is not underway, the first priority of the Task Force should be to influence the MBTA's decision to conduct the MIS through 'Option 2.' This option includes the Draft Environmental Impact Study (DEIS) which would take the project to the Final EIS stage. If the MBTA conducts the study through Option 1, a DEIS will have to be conducted following the MIS, adding at least, an additional two years to the preliminary study process. The Task Force should pursue this issue with the MBTA as soon as possible.

4. The FTA now encourages the establishment of an Advisory Board to oversee the MIS. It is recommended that the Task Force nominate the Advisory Board from its members and/or the business and civic communities.

Placing members of the Task Force on the Advisory Board ensures a careful oversight process, since these are people with an investment in seeing the project happen. Their presence on the Board will also help to pull the project together in a coordinated and collaborative manner.

5. The public participation component of the MIS process could also be handled by a modified Task Force. The Task Force will make recommendations to the MBTA, for a Citizens Advisory Committee (CAC).

The Task Force should be seen as the natural choice to design and oversee the public involvement process as well as the selection of an Advisory Committee. Both should be designed in a way that can continue into the implementation phase. The public participation process will feed into the station area planning process, described below.

As a contingency to direct involvement with the MIS, it is recommended that the Task Force continue to engage the community in a planning process to build community support and instill 'ownership' in the project. This will create the 'life'
of the project that will be necessary to carry it through changing political administrations.

In the best of all possible worlds, the Task Force will join with the MBTA to carry out the public involvement process, appoint or make recommendations for the Advisory Board and carry out station area planning, described below. As a contingency, it is recommended that the Task Force continue working on each of the agenda items toward a final goal of project implementation which will be described in Part Two.

6. Establish a plan to secure the alignment. Work with the MBTA to form a Station Area Planning and Development Committee (SAPD).

Completion of the Major Investment Study (MIS) is the federal requisite for determining the technology and alignment, both critical items for Task Force discussion. If these decisions are held up in lengthy environmental studies, it is possible that sections of the route could be permanently obstructed if, in the meantime, major development projects were built in the alignment. This concern is currently illustrated by the on-going debate around the Mega-Plex site. On the more positive side, the presence of a circumferential Task Force, aided by the support of the mayors, could influence future development decisions in ways that could bring additional support to the project.

The best way for the Task Force to secure an alignment is to work directly with the MBTA on the MIS and begin a station area planning process concurrent with citizen involvement, preliminary engineering and design. The mayors on the Task Force will appoint a planner from each of the municipalities that will liaison with their respective aficionados, (e.g. the mayor or city manager, urban designers, transportation and land use planners, community and economic development staff, etc.) to work with a modified Task Force team (which will include a representative from the professional, business and civic organizations) and the MBTA Project Manager, with
input from MIS consultants. Together, the local planners and the modified Task Force team will form the SAPD Committee. Working collaboratively with the MBTA will enable the municipalities to give input to the selection process, and begin securing the most likely alignment through policy initiatives.

7. Review current land use policies and make recommendations for pro-transit development around station areas. Begin research to learn from other cities that do station area planning.

The SAPD Committee will develop a Detailed Work Plan to assist the municipalities in developing individual plans and strategies for transit supportive development. As part of the Detailed Work Plan, the committee will define: innovative land use policies such as amendments for Transit Overlay Districts that will facilitate station area planning and transit-supportive development; the needs and goals for development opportunities, and; development incentives and supporting legislation to encourage corridor development. For example:

Oregon Governor Barbara Roberts signed an executive order that requires state agencies to give preference to downtown locations when buying, renting, or leasing office space. The policy is designed to encourage the use of alternate forms of transportation, and to revitalize downtown areas statewide, according to Roberts. Leading by example, the Oregon Department of Transportation was scheduled to move their regional office building to downtown Portland in early 1995.76

8. Begin initial urban design work and station area planning concurrent with the preliminary engineering during the MIS.

If the Task Force does not participate in the MIS, station area planning remains to be a high priority agenda item. The Task Force Team can either pursue station area planning as a Team objective or persuade the MBTA to contract with consultants to form a program. Although the MIS final report and funding

decision are necessary before major work can begin, it is recommended that preliminary work on the municipal level, begin concurrent to the MIS and efforts coordinated whenever possible, e.g. The Advisory Board could recommend that engineers receive input from municipalities on alignment decisions, rather than working independently.

A step that is now being applied in Portland - coordinating the urban design and planning with the preliminary engineering - has saved the project time and money and produced better results. Even though the preliminary engineering conducted during the MIS is roughly only 10%, by the time the final environmental impact study (FEIS) is started, and the remaining Preliminary Engineering (PE) gets underway, the collaborative process will already be in place. This step provides the engineers with the needs of the town which can influence their scope of work and vice versa, preventing costly changes at a later stage. It is also felt that a greater amount of work completed up front will expedite federal funding of the project.

Although station locations will not be known before the technology is determined, preliminary station area planning, can begin in the vicinity of the commuter rail connections, assuming that these will be the most strategic areas to develop.

9 Conduct a corridor-wide market analysis.

It is recommended that the SAPD Committee influence the MIS process to include a corridor-wide market analysis. A corridor-wide market analysis will be useful in identifying the needs of the growth economies and other potential business/industry opportunities, appropriate for the corridor. As shown in the following example, planning the appropriate development around station areas can enhance the project,

increase ridership, and if pursued with a private entity, can contribute revenues to the project.

The Santa Clara County Transit District established a Joint Development Program to identify and implement joint development opportunities at Transit District owned park-and-ride lots. The first step in implementing the program was to assess the benefits of and opportunities for joint development. Market studies ranked the Almaden light rail park-and-ride lot as the first most feasible location for a joint development project. Studies also found that the benefits of joint development (i.e. revenue production, increase in ridership and enhancements to the environment around the transit facility) would come from a high density residential development. The Transit District has long pursued strategies to increase ridership and seek out additional revenue sources. This particular project was the first of its type in the nation targeted to residents who are priced out of the housing market and/or those who choose the convenience and amenities of luxury apartment living with easy access to transit. 78

The SAPD Committee will also work directly with the MIS Consultant Team to provide and receive input on economic and community development plans. This process will ensure that land use, transportation and economic analyses are coordinated with the transportation plans.

10. It is recommended that the Task Force continue discussion of and refine an organizational structure (described in Part Two) to implement the project.

If the proposal for a new organization has the political support, the project will stand a better chance to receive federal funding. Pursuing the Urban Ring as a pilot project, either under the Bill 2220, described earlier, or as a pilot mass 78

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78 Santa Clara County Transportation Agency, Station Area/Land Use Program, Almaden Lake Village Joint Development Project, Santa Clara, California, August 1994.
transit and economic development corridor as Hartford did through the Connecticut legislature, will strengthen the proposal's comprehensive strategy.

**Part Two**

**A New Organization**

Lessons learned from developing growth management plans were of key importance in the development of the Urban Ring implementation plan. While the Urban Ring is not a growth management plan, it has the characteristics of one. It is a project that is regional in scale; it is multijurisdictional and it involves state and local-level issues. It requires the participation and coordination of several public agencies with formal links with other private and public organizations. It is comprehensive in the sense that it requires a combined expertise in land use planning and urban design, transportation planning, and community and economic development. It calls for concentrated development around station areas consistent with the regional plan, MetroPlan 2000. It requires a strong leadership that is innovative and can inspire the process; can adapt to change and reshape the plan as necessary; understands the collaborative and coordinated process; and can take on challenges that are inherent in any new political process.

Adopting state-level, growth management plans is a complex planning strategy that requires coordination and collaboration among state and local-level government agencies and often the private sector to accomplish a regional comprehensive plan for future growth. The lessons have carried a significant importance to the Boston case because of the challenges presented by its long history of tradition and home rule in a political climate that isn't conducive to change. If new programs are to succeed, they have to be expected to be evolutionary and flexible. "They cannot be expected to be designed at the outset. Policies and regulatory concepts will
have to be developed interactively. The reality is borne out in the experience of all the stages, which have modified their programs considerably since their original passage. Successful growth management is most likely if it provides ways for the participants to learn by doing and relies on this learning to build the implementation process." 79 What must be avoided is the fear that any new plan may be too complicated. This attitude will only prevent a new process from developing. Designing and carrying out a participatory process will, of course, be more involved than if handled by a single-purpose agency. The trade-off is the accomplishment of the project's goals vs. another MBTA project which may never exceed additional installation of a few cross-town bus routes.

The need for a new organization exists primarily for two reasons. One, single-purpose agencies, lack the combined expertise to plan projects comprehensively and two, Boston lacks a regional planning mandate, which sets a precedent for developing comprehensive plans and planning for future growth. To approach the problem using Portland's strategy, one would begin by asking, "How can we solve the problem?" rather than, "How do we govern the process?" 80 This way of thinking, enforced by the underlying philosophy of the regional planning concept, has had a major influence on the design of the following framework.

A new organization is not an attempt to create another layer of government, in fact the opposite holds true. The organization, designed for the implementation of the Urban Ring, provides for collective input and collaboration among a wide array of stakeholders, purposely to eliminate the ineffectual style of typical government bureaucracies. The decision to broaden the participation in the organization,


80 Interview with G.B. Arrington, Director of Strategic Planning for Tri-Met, Portland, Oregon, March 1995.
increases the chances for the project to reach its fullest potential, by avoiding a single-perspective. Supporting this philosophy, Judith Innes talks about the value of coordination and mutual learning, in the process of growth management planning. "Many sorts of knowledge are needed to design workable programs, including both specialized expertise and the everyday knowledge of those in the world where decisions affecting growth are made." 81

The process of integrating transit and land use planning with economic development should be innovative and draw on a range of expertise, from the most experienced to those that will be affected by the impacts on a daily basis. If carried out according to transit-supportive design criteria, the land use planning aspect can be a large determinant of ridership. Simply building a transportation project will not transform the corridor or necessarily influence development choices that will be made by growing industries. Convenient accessibility, pedestrian-friendly environments with compatible development, and amenities that enhance the quality of life—all contribute to the decision of a CEO who is faced with locating a new or growing industry.

The conditions surrounding much of the available real estate in the corridor is not highly desirable, in its present state. Economic development strategies must be developed alongside land use planning in order for neighborhood revitalization to occur. Small business start-ups, similar to the Veeder-Root project described in the Hartford profile, should not be overlooked. A study by the National Council for Urban Economic Development, examined regional approaches for economic development by communities nationwide and found that targeted collaboration ventures with other communities are a much more cost effective and efficient way of attaining and maintaining economic prosperity

and a viable quality of life. In many cases, joint efforts have acted as strategic planning exercises, exposing both inadequacies and unseen resources.

The Organizational Structure

Given the limited scope of single-purpose agencies, a new organization is recommended to meet the multi-disciplinary challenges of the project. Setting up a new authority to carry out the project would be a burdensome task, and one that is not likely to happen without a strong vote by the Governor. The new organization was designed to address the challenges within the given statutes and institutional structures. The decision not to shift staff or authority was intentional in order to propose a viable option that could be implemented with minimal effort and within a supportive environment. The structure provides agencies with the same structure and authority, allows municipalities to retain their local authority, and includes the major stakeholders in the decision-making process.

The key players and overall structure includes: a Host Agency who will administer the project; the six cities in the corridor, the modified Task Force, and representatives from the MAPC and MBTA who will make up the Management Committee; a Consultant Team who will provide the combined expertise and technical support and; members from the key agencies, civic and business communities who will provide advice to the Management Committee through two Advisory Boards. The organization will be set up under a legal agreement between the Host agency and the municipalities to achieve station area planning and economic development. Based on a series of interviews, the following framework has been designed to accomplish the goals of the project without losing the vision.
Urban Ring Organizational Chart

HOST AGENCY

INTERGOVERNMENTAL AGREEMENT

MUNICIPALITIES

- Chelsea
- Everett
- Somerville
- Cambridge
- Brookline
- Boston

STATION AREA PLANNING AND DEVELOPMENT MANAGEMENT COMMITTEE

- Municipalities
- Modified Task Force
- MBTA Representative
- MAPC Representative

INTERAGENCY ADVISORY COMMITTEE

- FTA
- EOTC
- MBTA
- EOE
- MassPort

CITIZENS ADVISORY COMMITTEE

PROJECT CONSULTANT TEAM
The Host Agency as Project Administrator

In acknowledgment of the fact that no single agency currently has the visionary leadership and combined expertise to administer and manage the project, the Host Agency's primary role will be to administer the project and provide the legal facility to contract with state, local and private entities. The Host Agency will appoint a Project Manager to be in charge of the daily operations in addition to a Project Representative to serve on the Management Committee and offer assistance with technical decisions. The two agencies that have been considered are the MAPC and the MBTA and will be reviewed following the outline of the framework.

The Project Management Committee

In order to design a workable program, a Management Committee will be formed and charged with the decision-making, coordinating and oversight of station area planning, and development. The Management Committee will serve as the focal point for political discussions as well as planning. In order to achieve a collaborative process and build on the expertise of the Task Force, the Committee shall include: one representative from each of the municipalities that will liaison with their respective aficionados, (e.g. the mayor or city manager, urban designers, transportation and land use planners, community and economic development staff, etc.); Project Representatives from the MAPC and MBTA, as well as members from the modified Task Force to include a representative from the professional, civic and business communities. Members shall serve at the pleasure of their respective organizations. The Management Committee shall be headed by a strong visionary and political leader--someone who has direct connection with the Governor, and who understands the project and sees it for its broader merits. The Committee shall adopt By-Laws to govern its operation.
The fundamental role of the Management Committee will be to oversee and continue the Station Area Planning and Development Program, that was set up for the MIS. The Committee will also serve as a forum to discuss and decide local political issues such as location of the major activity and institutional centers. Strategies to encourage development in all fairness to each of the cities will be examined, e.g. tax-sharing districts. A relationship with real estate developers will be pursued to inform and explain the opportunities for transit-supportive development. The Management Committee will ensure that land use, transportation and economic analyses are coordinated in order to assist the municipalities as they develop their respective plans and strategies for transit supportive development.

Specifically the Management Committee will decide the project's goals and objectives. A Detailed Work Plan will be written, with the aid of the Consultant Team to include requirements for land use plans, development plans, amendment codes, capital investment improvement plans—all within a time frame. See Appendix B for a version of Portland's Westside Detailed plan. The objectives of the project shall be written in such a way as to require that plans are implemented and not just adopted. For instance, "Within three years, from the beginning of the project, there should be three or more demonstration projects on the ground." This is the reason to include developers in the beginning of the process. Another important objective shall establish the desired buildout within a fixed time frame (e.g. Expected build-out/year should be 5% for a twenty year period.)

The Committee will also establish guidelines for station area plans and coordinate with the Citizens Advisory and InterAgency Advisory Committees for input and evaluation. The types of questions that will be discussed are: How big an area is a transit-oriented-development? What types of land uses are and are not acceptable? What uses should be
permitted, and what should be prohibited? What kinds of incentives will be used?

The Project Consultant Team

The Consultant team will be hired by the Host Agency to acquire the combined expertise in transit-supportive design and development, and economic development, however communication will be made directly to the Management Committee. The Management Committee will have the responsibility of reviewing applicants and making the final recommendations to the Host Agency for this position. The Consultant team will work with the Management Committee to define the scope of work and develop the Detailed Work Plan that municipalities will use to complete station area plans.

The Consultant team will also coordinate and execute the tasks necessary to direct economic development strategies for a revitalized corridor, using transit-supportive guidelines. The consultant team will conduct a corridor-wide market analysis, and develop an aggressive marketing campaign to locate businesses in the corridor. The role of the team will include the following tasks:

- Provide assistance in identifying projects, programs or other assistance that might accomplish redevelopment including, but not limited to: urban renewal financing, community development (HCD) financing, State revenue bonds, economic development funding, private financing, benefit assessment or local improvement district financing, etc.

- Identify specific regulatory or other relief that could facilitate development including zoning incentives, other code revisions, etc. This strategy would include:
  - Specific recommendations to be incorporated into the plan amendment
  - Implementation priorities
  - Development standards

A Citizens Advisory and an Interagency Advisory Committee

To achieve the broadest level of input, two Advisory Committees will give input to the Management Committee on a
regular basis: an Interagency Advisory Committee (IAC) and a Citizens Advisory Committee (CAC). The CAC will be organized or modified from the MIS process, under the auspices of the Management Committee. The Interagency Advisory Committee will be comprised of the key state agencies that have a stake in the project or could provide resources and technical support to the project. Members will include representatives from the FTA, EOTC, EOEA, MAPC, MBTA, and MassPort.

The Municipalities

Each municipality that desires to jointly accomplish planning and development in areas around transit stations will enter into an intergovernmental agreement with the host agency. A representative from each city will serve on the Management Committee, and work collaboratively with the other members to develop the Detailed Work Plan which will provide guidelines for all station area plans. Products of the plan may include: objectives, tasks, descriptions of necessary consulting services and budgets as well as schedules for adoption of station area plans and the necessary amendments to development regulations, and capital improvements for each jurisdiction. The designated 'station area planners' in each municipality shall work as a team, following the guidance of the Management Committee during the first phase of work to complete the Detailed Plan and assist with interim station area development regulations. The actual station area planning will be the responsibility of each municipality and will take place with the planning aficionados of each city. The final plans shall be reviewed by the Management Committee before going through the local approval process. If consensus is not achieved, a professional mediator will be brought in to assist the group in reaching an acceptable compromise.

The MAPC as Host Agency

The MAPC is the regional planning agency for the Boston metropolitan area and provides general land use, transportation, environmental, economic development and
housing technical services to the MPO agencies and member communities. MAPC is responsible for analyzing regional needs, coordinating initiatives, and functioning within its advisory capacity to help municipalities in the region. MAPC also works with other agencies to ensure compliance with federal, state, and regional goals and objectives. MAPC currently has the capabilities for data collection and analysis which will be valuable to the project. As an organization that is positioned to receive funding from the EOTC for project administration and to communicate with cities and towns on regional issues as well as the fact that they have an interest in the project, the MAPC is a likely agency to serve in this role.

Eight distinct sub regions within the MAPC area provide a local and regional perspective to land use issues. One of these sub regions, known as the Inner Core, meets monthly and is made up of the 23 cities and towns within Route 128. The "Inner Core" Committee was largely responsible for the inclusion of circumferential transit in the Program for Mass Transportation (PMT), the capital program for the MBTA, also described as the long-range plan for the construction, reconstruction or alteration of facilities for mass transportation.82

Representing 101 cities and towns places them in a strategic position to provide a forum for discussion of inter-municipal concerns. The MAPC's sub-regional approach allows local and regional issues to be fully discussed by representatives of affected cities and towns, providing the state with a local and regional perspective. Future plans of the MAPC include organizing town meetings to discuss the

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82 More specifically, it is "a long range plan for the construction, reconstruction or alteration of facilities for mass transportation within the area constituting the authority (MBTA) together with a schedule for the implementation of such plan and comprehensive financial estimates of costs and revenues." The objective of this PMT is to identify and recommend projects that will result in a cost-effective mass transit system that serves the greatest number of people in a way that respects the environment and enhances responsible economic development.
benefits of regionalism as a way to break down parochial philosophies and loyalties.\textsuperscript{83}

A secondary benefit is the presence of the Central Transportation Planning Staff (CTPS) on the MAPC payroll. CTPS is the transportation technical staff to the Boston Metropolitan Planning Organization and conducts all transportation studies for the MBTA. Although they function as an independent division, the staff is hired by the MAPC Executive Committee. Subsequently, CTPS will be conducting all future transportation related studies for circumferential transit, including the next round of studies for the MIS, and after that the EIS. This relationship could facilitate project coordination.

The Station Area Planning and Development Program ties directly into the MAPC's core-focused development policy, allowing the MAPC to achieve regional goals and enabling the circumferential cities to qualify for concentrated development center (CDC) status. Compact patterns of growth preserve open land, reduce the need for auto-use, facilitate transit, and have lower infrastructure costs. Circumferential transit will provide an incentive for development to occur in areas that already have the necessary infrastructure and invested capital.

In addition, the MAPC will soon be re-electing its Executive Board. There is reason to believe that this change in leadership, could bring new life into the organization. Conversations with William Constable, the next MAPC president, reveal the qualifications and innovation that would be absolutely essential for the MAPC to act as Host Agency and take the administrator's role, as well as hire an effective Project Manager and Project Representative to participate on the Management Committee. As the next president, Constable's professional background in development and law,

\textsuperscript{83} Interview with William Constable, VP, MAPC.
as well as his political connections and relationship to the Governor could serve the project well.

Reasons why the MAPC may not be a favorable choice

There are reasons why the MAPC may not be the most favorable choice for the project administrator, the main one is they don't have any "teeth" or "political currency." Ironically, founded as a land use agency, they were never granted the authority to make land use decisions or implement a regional plan. Consequently they have not been a very effective agency in land use planning. Over time, this has affected the way the agency is perceived and has resulted in an entity that suffers from a lack of political will.

On the other hand, the Management Committee is purposely charged with the responsibility of decision-making and planning for the very reason that there isn't an existing agency that possesses the combined expertise or reputation that is required to singly implement the project. So, while the MAPC would not be elected to solely manage the project, their shared vision, core-development policy, local and regional perspective places them in a favorable position to serve as the Host Agency.

The MBTA as Host Agency

As the region's transit authority and agency that will be charged with the construction of the project, the Metropolitan Boston Transit Authority (MBTA) is the agency that is automatically looked to as the lead agency. The MBTA operates the public transportation system within the greater Boston region. They are responsible for preparing the engineering and architectural designs for operating and constructing transit development projects within the area.

There are two main reasons why the MBTA is seen as the likely agency to administer the project. One, because the project has a costly transportation element, the transit authority is automatically seen as the logical home for the
project. The MBTA has already received funding from the FTA to conduct the MIS which further supports the argument for handing the lead to the MBTA. For the ease of implementation, it would be less complicated to administer the project through the MBTA than to create a new organization.

An ideal opportunity for the MBTA, and one which would demonstrate the benefits of the project to the suburban communities, would be to capitalize on the commuter rail station connections as a starting point to profile the project and launch station area planning and development efforts.

Reasons why the MBTA may not be a favorable choice

The MBTA does not have the expertise in land use or transit-supportive development. Beyond this, the MBTA doesn't have a professional interest in or the expertise to incorporate or coordinate the land use and development opportunities and in fact see them as ancillary to their purpose which is construction and operation of transit.

Currently they do not have a General Manager, and lack any kind of leadership. To compound the situation, they lack adequate funding to carry out their current projects—there is no reason why they would take on the additional challenge and expense to expand their existing divisions to accommodate a project that exceeds their general purpose.

Closing Remarks

It is not likely that the municipalities would buy into a project with the MBTA or the MAPC in charge of the entire project. The MBTA is basically seen as a vehicle of the Governor with no real independence and the MAPC is viewed as an agency that lacks "teeth" and the political will to strike out in new directions. Neither have an earned credibility with the municipalities.
The purpose of a new organization is to accomplish the project's goals given the limitations of the single-purpose agencies. Creating an organization that incorporates both the "specialized expertise and the everyday knowledge of those that operate in the world"\textsuperscript{84} establishes credibility while reducing the costs and challenge to any one agency. Among the critical principles and actions for project implementation that were discussed earlier in the chapter, the new organization accommodates the need for: coordination and collaboration among municipalities, government agencies, institutions and the private sector; broad public and political support; station area and development planning at the municipal level; a corridor level economic analysis and; improvement of adjacent neighborhoods.

The proposed organizational structure was designed to play on the strengths of the organized constituency rather than address the internal problems of existing agencies. Charging the Management Committee with the main role of decision-making accomplishes a strong leadership force by bringing together the members (ex-officio) of the visionary advocacy, the municipalities, as well as the key stakeholders. Collectively, the "life" within this committee will have the potential to fulfill the role that has historically been filled by a "political entrepreneur" or elected official. The advantage is that the "life" of the project will be extended for a longer period of time than if any one political leader was responsible. Where regional planning mandates set the precedent in most states that accomplish comprehensive planning, the Management Committee will set the mandate in Boston.

While the Management Committee will serve as the major leadership force, a single leader, and possibly a political entrepreneur will be necessary to keep the project on track. The qualifications for this position requires that the person

clearly understands the project for its comprehensive merits, possesses a commitment to the civic community, can act strategically, is innovative and a risk taker, and is well connected to the Governor, the business, professional, and civic communities.

Acknowledging the fact that implementing this organization will be charting new territory in Boston metropolitan governance, the new organization purposely does not require that authority or staff be shifted among agencies or that municipalities surrender any of their local authority. Instead, most of the change and coordination occurs within the Management Committee, which was designed to be more innovative and participatory.

Hiring a Consultant Team to coordinate economic development strategies and to provide assistance in identifying finance opportunities will address the challenges of Boston's present economy. Inclusion of the business leaders in the planning stages will introduce an entrepreneurial mindset to accomplish development and create possibilities for public and private partnerships.

Hiring a team with experience in station area planning and requiring station area plans from each of the municipalities, automatically places the project at an advantage. In an article written on the effectiveness of state-mandated planning, the authors asked "Do plans stimulate local implementation" They found that in fact, "local governments with plans employ significantly more implementation techniques than local governments without plans. In addition, local governments with plans use relatively more land-use controls and site-design requirements."\(^{85}\) The quality of design and development around the station areas, as well as how well the

plan integrates the surrounding neighborhood, will largely set the stage for development and revitalization in the area.

The addition of a Consultant team could provide communications assistance in setting up a major media campaign to promote the project. The benefits of this project are numerous, from regional economic benefits, to improving the quality of life for city residents as well as suburban dwellers. The potential for producing an effective media campaign are as vast as the project itself.

This type of organizational structure offers a win-win situation for all involved—from the citizens who will have a participatory role in their local station areas, as well as being a part of a larger vision, to the single-purpose agencies who prefer to keep it that way, to the elected official(s) that are able to maintain their local authority, yet be part of a politically visible, demonstration project, to the Governor who calls for its implementation and gains a long lasting recognition for possessing a forward-thinking, long vision.
The Prospects For Implementation

One of the principal objectives of this thesis is to argue that to implement a regional project requires a new leadership model. In a region that is steeped in tradition, both historical and political, persuading the opposition and meeting the many challenges facing an undertaking of this size will require an essential set of ingredients. "Will the current political administration be able to develop a long-view of the future in order to see the benefits?" and "Are the advocates up to it?" are the looming questions.

This new leadership model will undoubtedly be met with resistance, cynicism, or opposition. An initial response may be that the model is too complex or that the process will be too cumbersome. Implementing a new strategy for a large regional project (normally carried out under the framework of state-level mandates) is not going to be a simple process, especially when the supporting policies will be generated from the bottom-up. It will require a shift in thinking and a willingness to do things differently. This means being open to new possibilities, being flexible and, working collaboratively with an understanding that a collective effort is more likely to produce better results than if a single-purpose agency ran the project.

The hardest part will be accepting the fact that the process will not always be smooth, hence it will take a deep commitment to the ideals of the project in order for it to work. There also needs to be a recognition that any new plan must be flexible. New plans cannot be expected to be fully designed at the outset. The work involved in station area planning—e.g.
market analysis, engineering, design, land use policies and zoning amendments—will all have to develop interactively. Most of the successes seen in other parts of the country have a common set of values and an optimistic, but realistic attitude. Most also predicted that they were not adopting the easiest passage toward the city's future, and that there would be a number of difficult, and often expensive decisions, particularly in the short term. Henry Markus, Station Area Development Coordinator in Portland, Oregon, expresses a candid view about the typical process of decision-making by consensus: "Working with four different local governments, the state transportation agency, the regional planning agency and the regional transit agency has been horribly frustrating, slow, and taken much longer, and cost more money as a result. The fact that it's done at all is actually pretty amazing. But, it worked ten years ago, it's working now, and I guess the cost and the slow pace is the price of getting everybody to keep stepping along together, being comfortable that it's a group effort. It works and it's certainly better than it not working at all—and that's even more frustrating."86

Critical to the success of this model is the presence of a political champion or "political entrepreneur." This is not to contradict the new model or definition of leadership—one that is not vested in a single individual but in a team of several leaders respected for their roles and expertise. Rather, the new model is one where the visionary and decision-making leader does not have to be the Project Manager of the Host Agency. That a leadership figure is needed to make operational decisions and is accountable for the project is not to say that this person also has to shoulder the substance of the entire project. However, if there is no champion, there is no project.

Another key requirement for the model is that there be a broad constituency of support that will represent the political, business, developer, professional and civic communities to

86 Interview with Henry Markus, April, 1995.
give the project momentum. "The history of planning in Portland shows that successful planners are extricably involved in politics. Sound ideas and stirring plans are a necessary component, but they are not sufficient in themselves. Planners need active constituents among voters and property owners and strong leadership among politicians if they expect to put their ideas into action. They must work with individuals or groups that are recognized as legitimate participants in the public decision making process and that have significant political influence because of their numbers, their economic interest, or their positions within institutions."

87

The Implications

There are other factors, critical to the project's outcome that will require further study. First, the project should be strongly promoted for the direct economic returns that can be expected from the major capital investment, otherwise the project will be evaluated for its transportation benefits alone, and not for its broader merits. Without this, the chances for funding will be greatly diminished.

It is as important to devise an economic development strategy as it is to develop land use plans; one without the other will not work. Most important however, is the need to build relationships with developers and include them in the planning process from the beginning. Market analysis and economic strategies alone will not enable the new leadership to fulfill the projects' goals. A mark of success for the new leadership model will come when plans are implemented and station area plans are built. Demonstration models need to exist so they can be experienced and stimulate development interest. Also, with a downturn in the economy, an emphasis needs to be placed on creative financing, an ambitious

development program, as well as public and private contributions which may include privatization.

A Public Relations strategy to communicate the broader ideals and to break down the urban/suburban schism will also determine to what extent the project will succeed. Boston's future ability to compete in a growing world economy is a serious factor that needs to be understood by everyone in the Commonwealth. To break down the misunderstanding that the Urban Ring is "just another Boston project" and to stimulate development interest, a major media campaign should be examined. In terms of size, fabric and scale, Boston has a very manageable urban core and is enhanced by the presence of major historical, cultural, medical and educational institutions. These are assets that make Boston a desirable location for doing business. With the Central Artery coming down and future development expected on the Boston South Piers, the waterfront area will become a major draw for employment opportunities. Circumferential transit will enhance accessibility to these areas and will provide suburban commuters an auto-free travel alternative.

The Urban Ring strategy plan is not just a plan for a transit project; it is a plan to achieve a broader set of ideals that requires a strong commitment on the state and local levels. A new leadership model is an opportunity to demonstrate the key principles and successes of regional planning. This model offers an opportunity to chart a new direction in planning for the next twenty years, influence future growth, as well as the quality of life for future generations to come.
APPENDICES

A. GROWTH POTENTIALS OF THE ECONOMIC CLUSTERS

B. DETAILED WORK PLAN FOR WESTSIDE STATION AREA PLANNING
Appendix A

The Growth Potential of the "Economic Clusters" in the Corridor

The need for a circumferential transit corridor to link the existing radial system was first initiated in 1923 and has been reiterated a number of times, for a variety of reasons. Today is being studied once more and with an emphasis on strengthening the economy of the region. Through a 1989 draft report prepared by the MBTA, it has been made clear that four major benefits could accrue from construction of a circumferential transit system. They are:

1. Many of the sectors which are currently major employers within the Urban Core and Primary Impact area are those which have been identified as the future "economic engines" for the Commonwealth's economy. They are sectors which are forecast to have continued strong rates of growth within the economy, and sectors in which the Commonwealth has a strong competitive position. This position could be further enhanced by appropriate public actions such as improved transit service.

2. Substantially improved transit service would help strengthen the economies of the City of Boston and the other Primary Impact area communities by enabling them to accommodate new employment growth with less demand for new parking.

3. The proposed circumferential service would improve economic opportunities for presently disadvantaged populations by improving access to employment locations within the Core and the Primary Impact area communities.

4. Improved and expanded circumferential transit service would contribute to improved regional mobility and improved overall MBTA system efficiency.

These benefits were analyzed by Cambridge Systematics under contract to TAMS Consultants, Inc. in 1989 and revised in 1994. The results appear in Appendix A: Circumferential Transit and Regional Development, an MBTA Circumferential Transit Mid-Term Improvement Study. There were two major resources that were utilized for the analysis. The first, Choosing to

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1 The Urban Core is defined as the Boston peninsula within Massachusetts Avenue. The Primary Impact Area, includes the remainder of the City of Boston and the surrounding communities of Brookline, Cambridge, Chelsea, Everett and Somerville. The Secondary Impact Area, includes communities outside of the Primary Impact Area to Route 128, with the exception of those communities to the northeast of Lynn and Saugus. Those included are Arlington, Belmont, Braintree, Dedham, Lexington, Lynn, Malden, Medford, Melrose, Milton, Nahant, Newton, Quincy, Revere, Saugus, Stoneham, Wakefield, Waltham, Watertown, Winchester, Winthrop, and Woburn.
Compete - A Statewide Strategy for Job Creation and Economic Growth, is a comprehensive long-term economic development strategy for the Commonwealth of Massachusetts. It was published in 1993 by the Office of the Governor, the Executive Office of Economic Affairs and the President's Office of the University of Massachusetts.

This document was sought for its relevance of state policy, and study of the specific types of economic activities which are predominant within the corridor. It demonstrates conclusively that the economic success or failure of Boston and the entire Commonwealth will be largely determined by the success of these activities and industries.

The second resource used by Cambridge Systematics was the work on competitive strategy by Harvard Business School Professor, Michael Porter. The Competitive Advantage of Massachusetts is referenced for the discussion of industry "clusters" as part of the state strategy. Clusters are defined as "geographic groupings of companies and institutions in related business sectors which compete with each other (including drawing their employees from the same labor pool), provide a market for specialized suppliers of materials and services, and produce a matrix of interrelationships which facilitate the rapid exchange and development of ideas. The competitive advantage which accrues to a business or institution which is part of such a cluster is important because of the increased competition Massachusetts businesses face in the new global economy, and also because Massachusetts businesses must be able to offset inherent locational handicaps such as the state's high cost of living." A stated objective for Massachusetts state government is to Build on and reinforce the established and emerging industry concentrations....Government efforts to promote new industries should build on existing and nascent clusters, not try to create new industries from scratch which are disconnected from other areas of local strength.

Four major clusters within the Massachusetts economy - knowledge creation, health care, information technology, and financial services - accounted for approximately one-third of total private sector employment in 1991. These key industries dominate the proposed circumferential transit corridor. Briefly they can be identified as follows:

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2 Published in 1993 by the Office of the Governor, the Executive Office of Economic Affairs and the President's Office of the University of Massachusetts.

3 Appendix A Circumferential Transit and Regional Development. MBTA Circumferential Transit Mid-Term Improvement Study. Revised 1994.

Knowledge Creation Cluster

The knowledge creation cluster is described in the state strategy document as including higher education institutions, research and development facilities, and firms with practices in management, public relations, law, architecture and engineering. More than 80% of the state's employment in this cluster is concentrated in Boston and nearby communities, including 30% in Boston and 19% in Cambridge. The cluster provided 7.2% of the state's total employment in 1991, with higher education institutions accounting for nearly half of that total. Industry average wages were 39% higher than average for all industries in the state.5

Several of the 120 colleges and universities in Massachusetts are among the largest employers in the state. Independent research laboratories are also major employers, with Draper Labs, MITRE and Lincoln Laboratories providing approximately 10,000 jobs. Employment in such businesses is expected to grow by 38% between 1991 and 2005, while employment in legal services is forecast to grow by 48%, universities by 6%, and architectural/engineering services by 32%.6

Within the Greater Boston Region, employment in the knowledge creation cluster totaled 140,000 in 1991, which was 10% of total private employment in the region and roughly two-thirds of total state employment in the cluster.7 Approximately 13.7% of Boston's total private sector employment was in this cluster. According to the state strategy report, over 100 colleges and universities in the Greater Boston region employed 56,000 or 4.04% of total private employment.

Educational Institutions

Urban Core Area
There are several institutions located in the Urban Core area including Suffolk University, New England Law School, Berklee College of Music, UMass-Boston, and Tufts Medical School. At least one of these institutions has plans to expand during the next few years--Suffolk University received financing from the Massachusetts Health and Educational Facilities Authority to build a new law school on a site to be acquired. Berklee College of Music also received $13 million in financing from HEFA. Most of the growth however is expected to occur in the Primary Area during the next two decades.

Primary Impact Area
Many of the Commonwealth's top educational institutions are located in the Primary Impact Area, including the Massachusetts Institute of Technology, Harvard University, Harvard Medical School, Northeastern University, Boston University, and UMass-Boston. "In 1990 over 29,000 people were employed in education in the Primary area, and there are over 22.6 million square feet of space in educational facilities." Employment is expected to increase by over 5%, to almost 31,000 by 2010. Over 2 million square feet of space will be added to accommodate this growth. HEFA has recently approved bonds totaling over $293 million to finance expansions/renovations at M.I.T., Harvard, Boston University, and Northeastern.

Health Care Cluster

The health care cluster is the state's largest single industrial sector, employing over 300,000 people, or 12.8% of all state employment in 1991. It includes world-class hospitals, specialized clinics and research centers, medical instrument manufacturers, medical laboratories and biotechnology and pharmaceutical companies.

Within the health care cluster, statewide health services employment has grown by approximately 73,000 jobs, or 36%, between 1980 and 1991 to a total of 277,000 jobs. It is expected

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9 Appendix A Circumferential Transit and Regional Development. MBTA Circumferential Transit Mid-Term Improvement Study. Revised 1994.
to grow by 31% between 1991 and 2005. The Commonwealth's unrivaled health research industry attracted over $700 million in federal health research grants in FY '92. 11

The Greater Boston health care cluster employed 176,000 in 1991, over 58% of total state employment in this sector. An EDIC survey of Boston's medical institutions reportedly found that 43% of their employees were Boston residents.

The City of Boston is one of the top health care and medical research centers in the United States. There are 31 hospitals within the city concentrated in five areas: the Longwood Medical area, the West End/Charlestown area, the South Boston/South Bay area, Jamaica Plain, and Brighton. Several of Boston's hospital's are nationally renowned, attracting patients from throughout the country and the world. Over 50,000 patients were admitted to Boston hospitals from out-of-state in 1987. 12 Seventeen of the City's hospitals are research hospitals, and more than ten are teaching hospitals.

Major medical institutions located in the Core and Primary Impact area include:

<table>
<thead>
<tr>
<th>Urban Core</th>
<th>Primary Impact Area</th>
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<tbody>
<tr>
<td>• Massachusetts General Hospital</td>
<td>• Brigham and Women's Hospital</td>
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<tr>
<td>• Mass Eye &amp; Ear Infirmary</td>
<td>• Beth Israel Hospital</td>
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<tr>
<td>• Spaulding Rehabilitation Hospital</td>
<td>• Dana Farber Cancer Institute</td>
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<td>• New England Medical Center</td>
<td>• Deaconess Hospital</td>
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<td>• New England Baptist Hospital</td>
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<td>• Joslin Diabetes Center</td>
<td>• Mass Mental Health Hospital</td>
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<td>• Shriner's Hospital</td>
<td>• Veterans Administration Hospital</td>
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Health Care and Medical Research Data - Urban Core Area

Medical related land uses in the Urban Core accounted for 7.4% of Urban Core employment and 7.1% of the built space in the area in 1990. Urban Core area employment in medical related industries is expected to increase by 18.7% between 1990 and 2010, to nearly 30,000 jobs. The

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12 Boston Redevelopment Authority, Boston’s New Economy: Medical Services and Research, Biotechnology and Other Emerging Growth Industries, April 27, 1990.
amount of space dedicated to medical uses in the Urban Core will increase by 32.3% to 8,560,000 square feet by 2010. By 2010, jobs in the medical field will comprise 7.8% of the Urban Core employment opportunities, and will account for 7.7% of employment space in the Urban Core.13

Three of the top ten medical related construction projects in 1992 were located in the Urban Core area. New England Medical Center had plans to construct a new medical surgical facility at a cost of $135 million, and Mass General’s expansion plans included a new $100 million inpatient facility. The Shriner’s Burn Institute had plans to construct a $45 million replacement facility.14 Also in 1992, the Massachusetts Eye and Ear Infirmary was issued a HEFA bond for $51.2 million, and New England Medical Center Hospitals were issued a HEFA bond for $113.7 million for new construction/renovations programs.15

Health Care and Medical Research Data - Primary Area

The Primary area houses a large concentration of health and medical research institutions and businesses, including many of Boston’s premier hospitals and research facilities. The Longwood Medical and Academic Area (LMA) is a 175-acre community of health care and educational institutions located in the center of the Primary area and is comprised of fifteen member institutions. Nearly 50% of all medical research jobs located in Boston are found in the LMA and 60% of NIH grant moneys awarded to Boston institutions went to institutions in the LMA. In 1990, there were 1.3 million square feet of medical Research space in the LMA, with an estimated need to double that space in the near future.16

There are other locations within the Primary Area with large concentrations of health care and medical research facilities totalling 784,000 square feet in the West End/Charlestown area with an expectation to grow an additional 371,000 square feet to the area; 524,000 square feet in the South Station/New Market area with a plan that will more than double the square footage with an additional 861,000 square feet of space during the next five to ten years.17

Medical employment in the Primary area was over 21,000 jobs in 1990, and expected to increase by almost 11% by 2010. Medical space is projected to increase by 23.6% by 2010, from approximately 5.5 million square feet in 1990 to over 6.7 million square feet in 2010. 18

Because of the strength of the health care and medical research industry in Boston, the industry did not suffer employment loss or a halt in expansion during the recessionary period of 1988-1992. In fact, construction projects and planning for new development has continued. In April, 1992, there were over $600 million worth of future projects in the planning stage. 19

Despite the long-range importance of health care and medical research institutions to the Massachusetts economy, they are under intense short-range economic pressures. Costs for labor, materials, insurance, energy, transportation, land, construction, and public exactions have increased drastically. The public approvals process, including Determination of Need, environmental approvals, municipal development approvals, transportation impact reviews, air quality regulations, neighborhood and other advisory councils, housing linkage and job training linkage payments, payments-in-lieu of taxes, and required free health care for disadvantaged populations have all contributed to increased costs and increased time requirements for Boston area institutions.

At the same time, declining inpatient populations and revenues, due to third party payee regulations and an ongoing transition to ambulatory (vs. inpatient) care, have impacted revenues. Outpatient clinic visits increased 28% in Massachusetts between 1990 and 1992. Some industry professionals forecast that by end of this century 90-95% of all surgery will be performed on an outpatient basis. One important ramification of the shift to day-surgery and other outpatient services is an increasing demand for convenient short-term parking, located in close proximity to medial facilities, for use by outpatients and family members. The best way to accommodate this demand is not construction of additional parking, but rather the provision of improved transit for institution staff and employees, which can free up existing capacity for use by patients. These short-range economic pressures do not indicate a decline in Boston's health care industry but rather a need for flexibility and speed on the part of both the institutions and the public sector in accommodating a constantly changing health care market. 20

20 Appendix A Circumferential Transit and Regional Development. MBTA Circumferential Transit Mid-Term Improvement Study. Revised 1994.
Biotechnology

Massachusetts is the location of nearly 130 public and private biotechnology companies generating an estimated $1.7 billion annually in sales and accounting for 27% of the national total. Massachusetts has the third largest concentration in the world of bio-technology-related businesses. The predominant concentration of companies in Massachusetts is those specializing in medical research and pharmaceutical applications. Approximately 80 companies are located within Route 128 because they require proximity to institutions of higher learning, research centers and teaching hospitals.

The Massachusetts biotech industry currently employs over 150,000 people. By the year 2000 biotechnology industry employment in Massachusetts is expected to grow explosively to between 32,000 and 80,000 jobs. The multiplier effects of this growth are expected to result in an additional 24,000 to 40,000 jobs during the decade of the 1990s. Building space occupied by the biotechnology industry in 1992 is estimated at 6,900,000 square feet, with the year 2000 projections reaching from 15,000,000 to 29,400,000 square feet.

The Primary Impact Area is home to seven of the top ten biotechnology firms within Massachusetts. The location of these firms in this area is no accident. These firms rely heavily on resources and contacts at both the area's institutions of higher education and the numerous hospitals in the area. Continued interaction between these firms and institutions is critical to the continued health and growth of biotechnology in the Primary Area.

Information Technology Cluster

The Information Technology cluster includes computers, software, peripherals, professional services for information technology, information retrieval, telecommunications and hardware components. In 1991, approximately 7% of the state's total employment, or 173,000 people, were employed in this cluster. Approximately 65% of the state's employment in this cluster in 1991, an estimated 12,600 jobs, were located in the Greater Boston region.21

Within the cluster, the computer software industry employs approximately 33,500 in 1,200 companies which generate $2 billion in revenues. Two internationally known firms in the information technology cluster which have located their corporate headquarters within the

circumferential corridor are Lotus Development, a software producer, and Thinking Machines, a supercomputer producer. 22

Financial Services Cluster

The financial services cluster includes banks, credit and mortgage agencies, insurance carriers and brokers, real estate developers and managers. In 1991 approximately 6% of the state's private employment, or 144,000 jobs, were in this cluster. Nearly three fourths (72%) of this cluster's employment is located within the greater Boston region. Although employment with brokers and asset managers quadrupled between 1977 and 1990, and is forecast to grow by 30 to 0% between 1991 and 2005. 23

While the service economy has suffered a setback during the last four years, forecasters are generally optimistic that Boston will experience a resurgence in office employment during the next two decades. Within the Central Artery study area, there were about 340,800 office employs in 1990 (representing about 59% of the total work force) and this number is expected to increase to 373,100 in the year 2001 and to 433,400 in 2010. This represents a 27% increase in office employment over the 20 year period. A total increase of about 92,600 is forecast between 1990 and 2010, constituting 81% of all the projected employment growth within the Central Artery study area. 24

Office Employment - Urban Core Area

Office employment growth in the Urban Core is expected to increase by 14.6% between 1990 and 2010, while the amount of office space in the core is expected to increase by 28.9%. The difference in percentage change reflects assumptions including and improvement in general office working conditions, a trend toward more executive office space in the downtown, with more back space office functions moved to the suburbs, and an increasing need for space to accommodate computers and communications equipment. 25 In 1990, office space represented

22 Appendix A Circumferential Transit and Regional Development. MBTA Circumferential Transit Mid-Term Improvement Study. Revised 1994.
approximately 61% of the built space in the Urban Core. This is expected to increase to 64% by 2010. More than half of expected future growth is projected to occur after the year 2001. 26

Office Employment - Primary Impact Area

In 1990, over 51,500 persons worked in offices in the Primary Impact Area, accounting for over 35% of all employment in the area. The total square footage of office space equaled approximately 12,283,000, or nearly 18% of existing built employment space in the area. By 2010 a 60% increase in new office space will support a 45% increase in new office employment (totaling approximately 23,250 new jobs) in the Primary area. 27

While Cambridge is expected to continue to add to its office employment between 1990 and 2010, other parts of the Primary area (particularly in Boston and Brookline) are forecast to add office employment at a faster rate than Cambridge. Office development within the Boston portion of the Primary Impact Area is planned for the area around Ruggles Station, the area of City Hospital, and the Charlestown Navy Yard. By 2010, Cambridge’s share of the office market in the Primary area will have decreased to approximately 57%. 28

Transportation Implications

Improvements to the transportation infrastructure are an important public action which can be implemented both to retain existing businesses and to attract new jobs within the industry clusters which are most important to the Commonwealth’s future. An improved transportation system for existing institutions and businesses will be important to retain current employees, improve street congestion, and can be crucial for the interaction between among existing and new businesses within each industry cluster.

The state’s economic strategy document, "Choosing to Compete - A Statewide Strategy for Job Creation and Economic Growth," addresses the role of government and of infrastructure in facilitating economic growth as follows: "Building infrastructure for an efficient transportation system is a traditional role for government, although not all transportation infrastructure is publicly financed. State capital planners must seek to identify those infrastructure investments..."

26 Appendix A Circumferential Transit and Regional Development. MBTA Circumferential Transit Mid-Term Improvement Study. Revised 1994.
28 Appendix A Circumferential Transit and Regional Development. MBTA Circumferential Transit Mid-Term Improvement Study. Revised 1994.
with the greatest prospects for increasing permanent employment and improving competitiveness."

The theme of infrastructure development and its relationship to economic development in the Commonwealth runs throughout the report:

- "The two primary goals behind the state's urban strategy are to create jobs and businesses in the inner city and to revitalize the physical environment of urban neighborhoods."

- "Public investment in improved transit and roadway systems is an important component of urban strategy. This investment can improve access to jobs for local residents, and allow for economic growth in areas which are currently constrained by overburdened inner city road networks."

- "The state should guide development to appropriate locations where energy efficient and environmentally sound transit service will be available."

- The Commonwealth is currently involved in several major transportation projects which will greatly strengthen its existing transportation network and support long-term economic development."

- "Increasing the use of mass transit is an important goal for Massachusetts."

- "...increased capacity and use of the Greater Boston transit system is imperative to keep the economy flowing smoothly."

One of the most crucial of Professor Michael Porter's "Ten Challenges for Competitiveness" for Massachusetts is the creation of a high quality infrastructure of transportation and telecommunications appropriate for an economy which is based upon competitiveness and innovation.29

A specific city of Boston goal for accommodating such economic activity, as state in "Building the New Economy, Health Care Projects for Boston 1992, City of Boston‖ is Improvement of Boston's infrastructure, including a new Crosstown transit line to serve and connect growth

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telecommunications appropriate for an economy which is based upon competitiveness and innovation.29

A specific city of Boston goal for accommodating such economic activity, as stated in "Building the New Economy, Health Care Projects for Boston 1992, City of Boston" is Improvement of Boston's infrastructure, including a new Crosstown transit line to serve and connect growth centers." Describing the biotechnology industry in Massachusetts the report states "It is this concentration of private and non-profit research, of laboratories inventing products and clinical sites testing them, connected by public transit within the space of a few square miles, that gives Boston's biotech community its competitive advantage." 30

The report also states, "This next generation of economic development must be planned in concert with the transportation infrastructure that will support its growth." It is important to the long-term economic and environmental health of the region that the growth of the institutions and spin-off companies be accommodated in areas where adequate transportation access can be provided." "Crosstown...is home to most of the city's established basic research centers--the Longwood Medical area, BU Medical Center/Boston City Hospital, Tufts/NEMC, and MGH." "...the Longwood Medical area alone has reached a size and density large enough to justify a new rail system capturing a substantially larger proportion of commuters."

It is clear that maximizing the opportunity presented by the region's strong competitive position in key growth industries will depend in part upon the ability to facilitate intensive interaction of all kinds among these industries and institutions - including the ability for staff, researchers, faculty, students and others to travel quickly and comfortably among them. 31

31 Appendix A Circumferential Transit and Regional Development. MBTA Circumferential Transit Mid-Term Improvement Study. Revised 1994.
Appendix B

AS REVISED 11-18-93

DETAILED WORK PLAN

FOR WESTSIDE STATION AREA PLANNING

COMMON TASKS

The following tasks should be common to all local government work plans for Westside Station Area Planning.

1. Set goals and objectives

   Product: System-wide goals and objectives for station area planning
   Responsibility: Westside TSAP Management Committee
   Timeframe: Complete by September, 1993

2. Adopt interim development regulations

   Subtask: Analyze existing regulations

   Products: Interim development regulations
   Responsibility: Each local government
   Timeframe: As needed to complete task.

3. Organize project

   Subtasks: - Staff assignments
             - Establish communication procedures
             - Draft work plans and budgets
             - Review each jurisdiction's work plan and budget for consistency
             - Complete station area planning responsibility/coordination agreements, if needed.

   Products: Work plans and budgets
   Responsibility: Each involved jurisdiction
   Timeframe: By December, 1993

4. Review prior work

   Products: Metro report reviewing previous related work on Westside as well as plans/studies/reports from other metropolitan areas. Local government reports analyzing previous work related to station areas for which they are responsible.
   Responsibility: Metro and local governments.

5. Define plan/study area boundaries

Products: Maps defining plan/study areas for TSAP
Responsibility: Local governments
Timeframe: By December, 1993

6. Data collection and analysis

Subtasks: Inventory buildable/redevelopable land, present levels and capacities of public facilities and services (including transit), existing land uses, existing improvements (e.g., class, level of improvement and condition of local roads), natural and cultural resources, natural constraints, population/employment, property values, etc. in each planning area. Analyze data.

Products: (a) Methodology and initial prototype maps  
(b) Reports summarizing initial base data for station areas, including RUS/GIS maps.

Responsibility: Metro, Tri-Met and local governments

7. Public involvement and outreach

Subtasks: -Establish advisory committees  
-Inform affected property-owners and community interests  
-Organize a Westside Light Rail Summit  
-Organize transit supportive development seminar(s) for local developers

Products: -System-wide and local government outreach strategy plans  
-Outreach tools (brochure(s), video, slide show, etc.)

Responsibility: Metro, Tri-Met, local governments with possible consultant assistance

8. Economic analysis/projection (existing conditions and 2005)

Subtasks: -Scope project  
-Prepare RFP for consulting services  
-Contract with consultant(s)  
-Prepare analysis/projection for corridor area and corridor segments or individual station areas, as appropriate

Products: RFP, consultant study or studies.
Responsibility: Management Committee and Metro
9. Parking needs analysis for transit areas

Products: RFP, consultant study
Responsibility: Management Committee
Timeframes: RFP by December, 1993; analysis done by April, 1994

10. Growth projections/allocations (2015 and 2040 of population, employment and trips) to station areas

Product: Report
Responsibility: Metro with assistance of local governments
Timeframe: By May, 1994

11. Prepare and evaluate impacts of alternative development/design concepts

Subtasks: a. Preparation of alternative land use and transportation system plans
   b. Evaluation of alternative design prescriptions (e.g., building setbacks, FAR, landscaping, etc.)

Products: -Report describing and evaluating the impacts of alternative land use and transportation system concepts for each planning area
   -Report describing and evaluating alternative design prescriptions for each station area

Responsibility: Local governments possibly with Metro-managed consulting assistance for preparation and evaluation of alternative design prescriptions
          Complete subtask b. by September to December, 1994 depending on jurisdiction needs.

12. Draft local and regional station area plans and Implementation strategies

Products: Draft land use and transportation plans for each planning area with implementing regulations and design prescriptions, and implementation strategies. Draft Metro transit corridor plan in conjunction with the development of local plans.

Responsibility: Local governments, Metro and Tri-Met.
Timeframe: By January, 1995

13. Public meetings, hearings and adoption of plans, regulations and implementation strategies
LIST & SOURCE OF ILLUSTRATIONS

CHAPTER ONE

Fig. 1.1 The Boston Metropolitan Region
Source: Landslides: Courtesy: MIT Rotch Visual Collections
Fig. 1.2 Boston: The Central City and the surrounding cities and towns
Source: Landslides: Courtesy: MIT Rotch Visual Collections
Fig. 1.3 The Boston Metropolitan City
Source: Landslides: Courtesy: MIT Rotch Visual Collections
Fig. 1.4 Major Employment and Activity Centers
Courtesy: Metropolitan Boston Transit Authority (MBTA)
Fig. 1.5 Aerial view of the Region
Source: Landslides: Courtesy: MIT Rotch Visual Collections

CHAPTER TWO

Fig. 2.1 One Possible Route for the New Urban Ring
Courtesy: Greater Boston Chamber of Commerce
Fig. 2.2 Circumferential Corridor Land Use
Courtesy: MBTA
Fig. 2.3 Commuter Rail and Transit Line Connections
Courtesy: Greater Boston Chamber of Commerce

CHAPTER THREE

Fig. 3.1 The MAX in downtown Portland
Courtesy: The Tri-County Metropolitan Transportation District of Oregon (Tri-Met)
Fig. 3.2 Light Rail Corridors with Jurisdiction Boundaries
Courtesy: Tri-Met
Fig. 3.3 View of downtown Portland from the east side looking over the Willamette River
Courtesy: Tri-Met
Fig. 3.4 The Portland Transit Mall
Courtesy: Tri-Met
Fig. 3.5 Portland's Saturday Market
Courtesy: Tri-Met
Fig. 3.6 The Griffin Line Corridor
Courtesy: Greater Hartford Transit District
Fig. 3.7 Garden Street Pedestrian Corridor showing the Veeder-Root site
Courtesy: Greater Hartford Transit District
Fig. 3.8 Veeder-Root Redevelopment Site
Courtesy: Greater Hartford Transit District
Books and Periodicals


Metropolitan Area Planning Council. Regional Impacts of The Urban Ring and Inner - Circumferential Transit.


Tri-County Metropolitan Transportation District of Oregon. Intergovernmental Agreement Between Tri-County Metropolitan Service District and Metro for Westside Station Area Planning. Tri-Met Contract No. 93-04351 Modification No. 1.


