ALLSTON LANDING:
A DEVELOPMENT STRATEGY AND FEASIBILITY ANALYSIS

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Submitted to the Department of Urban Studies and Planning
in partial fulfillment of the requirements of the degree
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ABSTRACT

This thesis contains a conceptual plan, feasibility analysis and development strategy for Allston Landing. The site of approximately 40 acres at the Allston-Brighton exit to the Massachusetts Turnpike is owned by the Massachusetts Turnpike Authority (MTA). The MTA is expected to issue an RFP for development proposals for the site during the coming year.

The thesis contains an analysis of conditions which will affect the site's development potential and discusses in detail the critical issues which must be resolved for development to proceed. A preliminary market analysis provides insights into market opportunities and current economic pro forma assumptions. The information contained in the analysis was obtained from interviews with community leaders, city and state officials, private consultants, adjacent landowners and personal research. This analysis creates the basis for the proposed development program and plan for the site. An economic analysis is conducted to demonstrate the program's feasibility and sensitivity to critical pro forma assumptions, such as land cost and market rent. The thesis concludes with a development strategy to implement the proposed plan.

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INTRODUCTION

In 1962 the Massachusetts Turnpike Authority (MTA) assembled the right-of-way for the Boston Extension of the Massachusetts Turnpike. A particular parcel was taken via the Authority's power of eminent domain in the vicinity of a proposed toll plaza and the Allston-Brighton exit. In excess of 40 acres of land (referred to as Allston Landing) was acquired from private landowners in the northwest quadrant of the Cambridge Street and Storrow Drive intersection, to accommodate three essential transportation related functions: 1) the access and egress ramps at the Allston-Brighton exit, 2) the partial relocation of the Penn Central Railroad's (ConRail) freight warehousing operation from the site of the Prudential Center and 3) the trailer transfer function required by the trucking companies traveling the turnpike.

Since the construction of the turnpike, ConRail and the MTA have continued to maintain 20 years of active use of the site as a service hub for freight transport in the Boston Metropolitan area. The most significant changes to the site during the interim have not been modifications on site, but rather exogenous shifts in the locational attributes and real estate value of the property. Formerly considered to be a remote location ideally situated for such a transport service function, the site is now considered by many to be one of the most desirable and under-utilized sites in or around Boston.

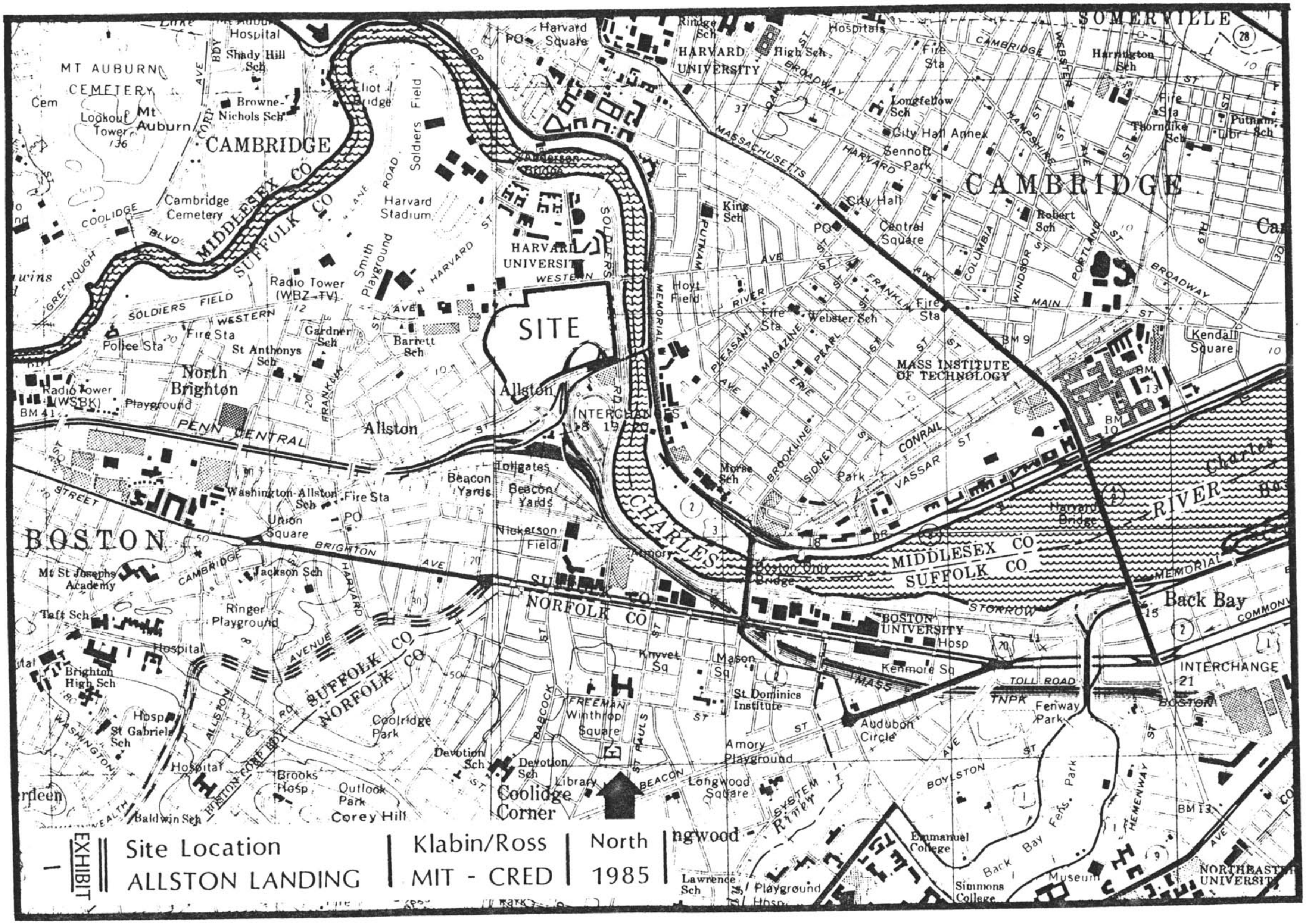


EXHIBIT 1 | Site Location ALLSTON LANDING | Klabin/Ross MIT - CRED | North 1985

The site has several distinguishing characteristics which support this claim. The same transportation network that provides an efficient support for freight transport is now perceived by many as an asset which deserves far greater recognition through more intense development. Most other sites with comparable accessibility have long since been developed. Traffic congestion and scarcity of available parking at downtown locations have placed increasingly higher economic premiums on properties which can mitigate these issues and still maintain an identity with the Boston-Cambridge marketplace. The property's proximity to the Charles River, its adjacency to the Harvard Business School and the mere size of 40 plus acres further contribute to the property's unique development opportunities and enhance its value.

The MTA is fully aware that the property has enormous development potential and has expressed interest in pursuing development options. The Real Estate Division of the MTA is in the initial stages of conducting its own assessment of development potential, formulating a credible developer designation and review process, and structuring an RFP. These tasks must resolve several major issues in the process. The first hurdle is a determination by the MTA Board, and agreement by the MTA's chief engineer, that this property is no longer needed and serves no useful purpose in connection

with the maintenance and operation of the Boston Extension of the turnpike.

The schedule for the issuance of the RFP has not yet been determined and will depend largely upon the MTA's ability to orchestrate input and establish a review process acceptable to all concerned parties. Any development solution for the site, either through a land lease or sale by the MTA, promises to become both highly competitive and controversial within the development and political communities, respectively.

Based upon the analysis and understanding of the property, development issues, and planning and market opportunities, this thesis attempts to formulate a conceptual development plan, evaluate its economic feasibility and recommend a development strategy for Allston Landing.

Chapter One provides an analytic overview of the site, development context and the development rights under existing zoning. The legislation which governs the MTA's development authority is also summarized. Chapter Two out-lines the essential issues that must be resolved in order to proceed with development of Allston Landing and presents a range of options and strategies to address each issue. Chapter Three identifies planning and market opportunities for the site. These have evolved from discussions with the community

leaders, city planning officials and state agencies, and a preliminary market analysis.

Chapter Four outlines options for development of Allston Landing. A preferred development program is presented as a response to the issues and opportunities discussed in prior chapters. Chapter Four further describes a conceptual development plan which attempts to address the main planning issues and organize the program on site. The Phase I program is used in the feasibility analysis in Chapter Five which evaluates a base case and the sensitivity of key variables, including land cost, to a developer's return on equity. Chapter Six concludes with a summary of recommended components in a development strategy for Allston Landing.

The reader must recognize that this effort attempts to define a preferred development program, conceptual plan and strategy which is several years in advance of any on-site activity. The political and economic climates may change dramatically in the next few years and the development issues will become more clearly defined. The major decisions made during the course of this effort are based upon the current understanding of issues and opportunities and, in some instances, reflect the authors' rational expectations about future conditions.

Much of the information contained in the analysis section was obtained through interviews with abutting property owners,

community leaders, public officials, tenants and professional consultants. Approximately 60 such interviews were conducted during the preparation of this paper, and every attempt was made to contact the key players. A complete listing of persons contacted, along with their relative affiliation is contained in Appendix A. Given the practical limits of time and availability, it was necessary in certain cases to seek representative views from selected persons. For this reason, the authors do not contend the analysis to be exhaustive.

We wish to extend our most sincere gratitude to all those who gave of their time and energy in assisting in this effort.

CHAPTER ONE

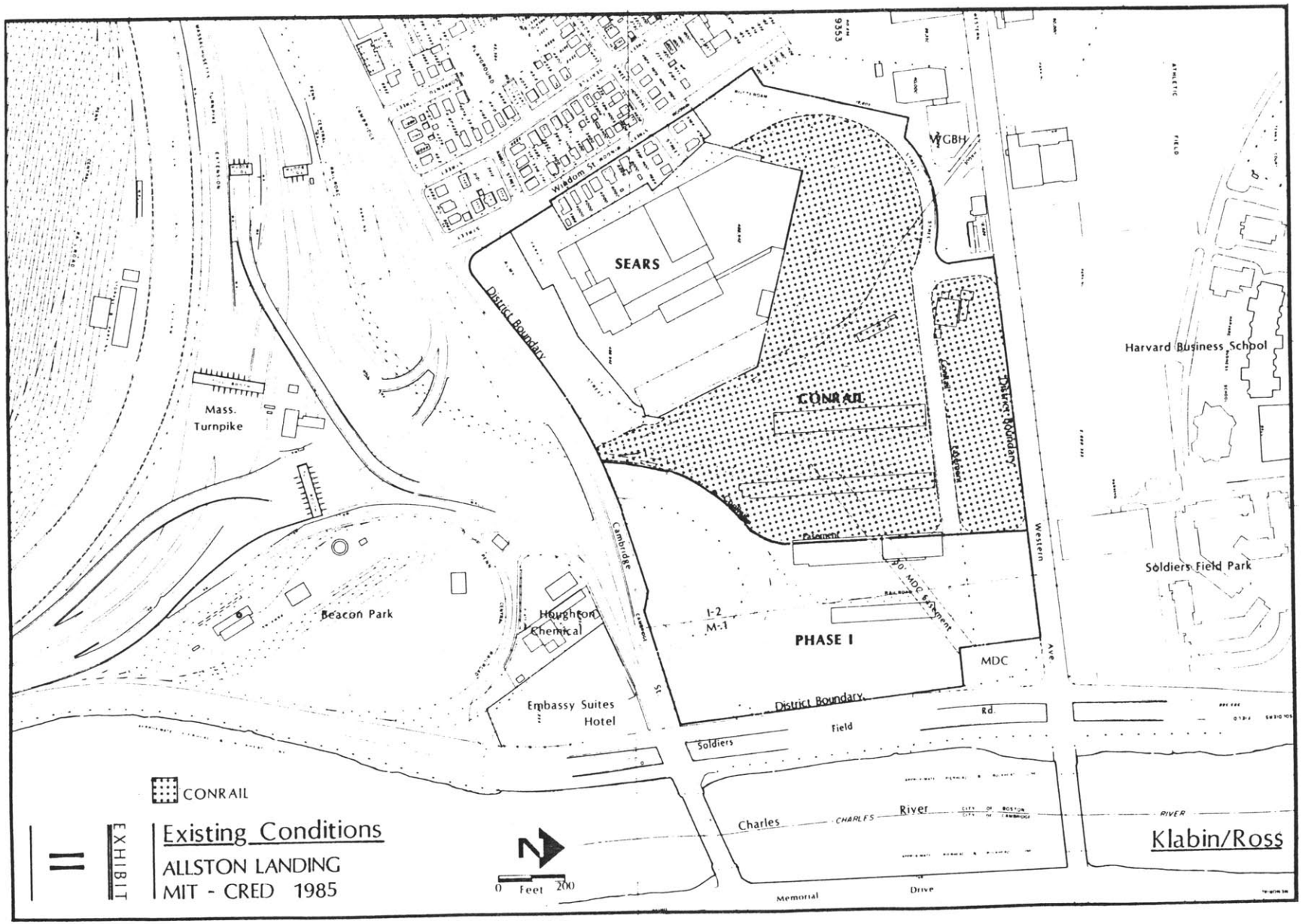
DEVELOPMENT FRAMEWORK

This chapter is intended to provide an analytic overview of existing development parameters for Allston Landing. Physical property characteristics which may influence the site's development potential are summarized. The site's context is described by recent activity in the area and an overview of concerns and interests of the abutters. The development authority and legislative procedures of the MTA with respect to development of surplus property and air rights is discussed. This chapter concludes by summarizing the as-of-right development potential under existing zoning.

Property Characteristics

Site Definition:

Allston Landing is an approximate 40 acre parcel that has been owned by the Massachusetts Turnpike Authority since 1962 (refer to exhibit II). The Allston Landing assemblage included over 20 separate parcels via the eminent domain powers of the MTA and represents only a fragment of the total land assembled to accommodate the relocation of Penn Central (ConRail) rail yards from the site of the Prudential Center. The site is located within the city limits of Boston in the community of Allston.


SEARS
CONRAIL
WGBH
Wisdom St.
District Boundary
Mass. Turnpike
Beacon Park
Houghton Chemical
Embassy Suites Hotel
Cambridge St.
I-2
M-1
PHASE I
MDC
District Boundary
Soldiers Field Rd.
Western Ave.
Harvard Business School
Soldiers Field Park
Charles River
Memorial Drive
CONRAIL
EXHIBIT
Existing Conditions
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This paper will refer to three separate areas relative to planning for the MTA property which are outlined in exhibit II and defined as follows:

Planning District: This includes approximately 49 acres of land inclusive of the MTA and Sears parcels. The district is defined by public rights of way and a distinct neighborhood boundary.

Allston Landing: This is the entire land area owned by the MTA on the northwest corner of the Cambridge Street/Soldier's Field Road intersection. The property measures approximately 39 acres and includes approximately 5 acres of ramp right of way and 19 acres of ConRail permanent easement.

Phase I: The Phase I parcel is defined as the land area owned by the MTA which is presently unencumbered by outside property interests which would prohibit immediate development. This constitutes the Soldier's Field Road frontage and turnpike ramp right of way totaling approximately 14 acres.

Boundaries:

The edges to the property are clearly defined on three sides by major public thoroughfares. The northern border is cre-

ated by Western Avenue, directly across from the Harvard Business School. Fronting uses include a surface parking lot and 5 level parking garage which services Soldiers Field Park, a 475 unit, market rate, married student housing project for Harvard University.

Soldiers Field Road, a four-lane limited access thoroughfare owned and maintained by the Metropolitan District Commission (MDC), establishes the eastern boundary. Two at-grade service lanes on either side of the through lanes combine to create a formidable pedestrian barrier of 8 traffic lanes within a 150 foot right of way between Allston Landing and the Charles River. The MDC owns an approximate 0.5 acre parcel at the Western Avenue/Soldier's Field Road inter-section.

The southern boundary is defined by Cambridge Street between Soldiers Field Road and Windom Street. A major segment of this section of roadway is elevated to allow an 18-foot clearance for the Turnpike ramps and ConRail tracks which are located within the 40 acre parcel. Neighboring to the south is the newly constructed 310 room Embassy Suite Hotel by The Beacon Companies, Houghton Chemical Co. plant and additional ramps servicing the Turnpike.

The western edge to the property is quite irregular by comparison, both in terms of its physical boundary and neighboring uses. Portions of Allston Landing extend to

Windom Street, a public right of way which generally defines the eastern limit of a well defined and stable single family neighborhood in North Allston. Housing in this neighborhood is developed at approximately 10 units per acre. Sears Roebuck and Company owns and operates a regional warehouse and repair facility on 10 acres which borders the MTA property on three sides and single family residences along Windom Street. Facilities for radio and television station WGBH are located along Western Avenue, immediately west of the site.

Access:

Access to the turnpike links the site directly into the major highway network which services the Boston Metropolitan area. Depending upon traffic conditions, an approximate ten minute trip via the Turnpike and I-93 connects the core of Boston's Financial District to Allston Landing. Headed west, it is only a 10 minute trip to Route 128, 25 minutes to interchange with I-495 and approximately 15 minutes to the Framingham and Natick communities to the west. Soldiers Field Road and Storrow Drive provide direct and efficient access to the more local destinations in Boston, Cambridge and Newton. These timely and efficient connections to existing major residential, commercial and retail markets afford unparalleled opportunities with other available development sites.

Zoning:

Allston Landing is currently zoned within two separate industrial zoning classifications; M-1, Restricted Manufacturing at an allowable FAR of 1.0 and I-2, General Industrial at an allowable FAR of 2.0. These zoning districts were in existence when the MTA acquired the property. The first 300 feet (approximate) of frontage along Soldiers Field Road is zoned M-1 with the balance of the property and the adjoining Sears tract zoned I-2. Allowable and conditional uses as defined by the Boston Zoning Code are listed in Appendix B.

Existing Uses/Easements:

As mentioned earlier, Allston Landing is presently used by the MTA and ConRail for the transport and warehousing of freight by the truck and rail industries. Both operations are vital to the efficient servicing of the Metropolitan Boston area and collectively utilize the full extent of their available land area.

The MTA makes use of the area within the ramps as a break-up area for tandem trailers using the Allston/Brighton exit of the turnpike. The make-up for the cabs and stored trailers occurs in the paved area which abuts Soldier's Field Road. The terminal at this location is operated by a tenant at will.

The lease contains a 30-60 day termination grace period and does not create a problem with reuse of the site. However, prior to any development which may occur in this Phase I area, the MTA must find an alternate site for relocation of this activity. Relocation costs, over and above land value, are expected to be minimal. All on site service drives and rights of way are owned by the MTA.

ConRail has a perpetual easement interest in approximately 19 acres of Allston Landing (refer to exhibit II). Referred to as Allston Yard, this area is used in the transfer and warehousing of rail freight. Upon abandonment of this use, the easement is dissolved and the property reverts to the MTA. A rail line extends beneath the Cambridge Street overpass to connect Allston Yard with the unloading and switching of trailer vans at Beacon Park. The function of Allston Yard is critical to rail service in the Boston area and must maintain some proximity and relation to the Beacon Park operations.

Aside from the ConRail easement, there are other public utility easements which encumber the development of Allston Landing. The MDC South Charles relief sewer traverses the western end of the property in a north-south direction at approximately 15 feet below grade. This can be paved over at grade but cannot be covered with a building.

The MDC also holds a 50 foot wide subsurface easement for its 350 foot deep water supply. This traverses the site in a northeasterly direction and does not create any significant constraint on development. The MDC would be concerned if there were to be extensive blasting or pile driving in the immediate vicinity of the easement.

The southeastern corner of the site contains the turnpike ramps. The inclusion of this area within Phase I permits either the creative use of air rights above the ramps or their relocation for a more efficient ramping system. The MTA has indicated an interest in improving this alignment and the congested traffic conditions at the Cambridge Street/Soldiers Field Road intersection.

Environmental Issues:

Traffic: The immediate roadway system surrounding the site is presently inadequate to accommodate significant amounts of additional traffic destined for Allston Landing. Traffic must funnel through the Cambridge Street/Soldiers Field Road intersection, weave two lanes to the left within a distance of only 100 feet to make a left hand turn, and proceed to Western Avenue to enter the site. The congestion at the Cambridge Street intersection presently measures a Level of Service D. This access problem, along with the fact that the existing system of local streets is approaching capacity at critical

stations, will require significant alterations to the overall traffic network. Any significant program proposed for the site must include improved turnpike ramp access.

A related environmental traffic concern is the amount of truck traffic which services the MTA, ConRail and Sears operations. Trucks which may service these or other industrial uses in the immediate area must be reconfigured to prohibit routing through neighboring residential streets.

Utilities: Numerous utilities border the site: domestic water, natural gas, sewer/storm, electrical and telephone lines. The only utilities crossing the site are a 4" gas line traveling east-west along the right of way extending from Rotterdam Street and the utility easements mentioned above.

Based upon a brief review of the Embassy Suites Hotel construction documents and the project correspondence with the various utility companies and review authorities, it appears that there are no significant utility constraints on future development at the Allston Landing site. The only possible exception is the need for further improvements to the existing combined sewer/storm system in the vicinity of the site and the resolution of an outfall location for the future on-site piping.

Subsurface Conditions: In the fall of 1983 Haley & Aldrich, Inc. (H & A) performed extensive subsurface investigations and geotechnical studies at the site of the new Embassy Suites Hotel. The most significant conclusions of these reports relevant to the Allston Landing site are the following:

(1) Groundwater - Based upon a three month survey of eight observation wells, the stabilized groundwater table appears to be within the range of Elevation 6.9'-10.9' BCB, which is from 0.9' below to 4.3' above the relatively constant level of Charles River at Elevation 7.6' BCB. A maximum groundwater level at Elev. 11.5' was recommended by H & A for design purposes at the hotel site. This is approximately six feet below the majority of existing grades at the Allston Landing site. Thus, dewatering and waterproofing will be required for the structured parking, elevator pits, gas and oil separating tank and other below-grade construction. This does not impose a significant cost premium on the project.

(2) Soils and Foundation - A brief review of the MTA Engineering Department records revealed that no borings have been taken within the boundary of the Allston Landing site. The H & A reports indicated that existing miscellaneous fill and organic deposits in the uppermost strata are inadequate for the use of shallow footings to support medium-rise buildings. Piles must be driven driven down to the level of the underlying outwash sand

deposits which overlay the bedrock. Temporary surcharging of the existing fill will be necessary.

In conclusion, these findings indicate that the existing subsurface conditions do not impose any special risks or excessive construction premiums for new development.

Topographic: There is no topographic relief to the entire planning district. Based upon the vertical datum of the Boston City Base, the property averages an elevation of 17 feet.

Views: The views, both to and from Allston Landing, comprise one of the site's most valuable assets. Development of any scale will have immediate recognition upon exiting the turnpike and along the main arterials of Soldiers Field Road and Memorial Drive. This view presently consists of warehouses and parked trailers, yet there is an opportunity for a strong address and creation of a much needed high quality development identity for Allston. The views from the site above the second floor capture vistas of the Charles River, the Harvard Business School campus and Harvard Square to the north, and the Back Bay and Boston Skyline to the south. More immediate views of the Charles River, Esplanade and Cambridge lie to the east.

Noise: The heavy traffic volumes and pace of traffic flow along Soldiers Field Road create undesirable noise levels while standing at grade. Even greater noise levels are generated by traffic on the turnpike ramps as traffic is accelerating on the access ramp.

Development Context

Recent Developments:

The Embassy Suites Hotel, a 310 suite hotel on the southwest corner of Cambridge Street and Soldiers Field Road, is owned by The Beacon Companies and is scheduled to open this fall. This recent development activity has stirred concern in the Allston community that development of Allston Landing is imminent.

The stoutly proportioned building contains 160,000 gross square feet reaching to a maximum height of 180 feet. The design and material selection for the hotel has been controversial. Design criticisms include the hotel's poor overall proportions, monotonous facade treatment of bland masonry and boxy fenestrations, randomly aligned pitched roofs and its "shoe-horned" site accommodation.

The Allston community appears to be mostly concerned about the "cold shoulder" that the tower turns toward the community and

the increased traffic congestion. The building attempts to maximize views of the Charles River, Cambridge and downtown Boston and screen the Houghton Chemical Co., the hotel's immediate neighbor to the west. As a result, the western building facade is particularly unattractive and suggests a disassociation with the Allston community. This controversial design, has heightened community emotions and sensitivities toward any new development at Allston Landing.

Although the development of the hotel did not require a rezoning, several variances were sought by Beacon and granted by the BRA. These variances, such as building height and setbacks, were not major issues of contention in the process. The focus of nearly everyone's attention was on the transportation issue which took in excess of one year to resolve.

The other major community fear relative to the hotel development will not be confirmed until the hotel is in full operation later this year. The increased traffic volumes attempting to negotiate the Cambridge Street/Soldiers Field road intersection may exacerbate the intersection's existing congestion.

In 1984, the MTA and Con Rail carried out a land swap which amounted to a reconfiguration of the ConRail easement boundary to that illustrated in exhibit II. The swap, instigated

by the MTA, exchanged approximately three acres of prior ConRail easement within the current Phase I boundary, with an approximately equivalent land area along Western Avenue. This was instituted to create a contiguous land area of reasonable proportion to accommodate an initial phase of development.

The MTA made public its intention to investigate the potential development of this site and initiated the pre-RFP process in the fall of 1984. In December of that year, Chairman Driscoll, at the request of the community, called a meeting to outline the preliminary thoughts of the MTA and dispel rumors of a "wired" developer designation process. Driscoll assured the community that there would be extensive community participation via a task force including community representatives in both the formulation of an RFP and design review if it proceeded. No task force has been formed to date, although Chairman Driscoll has announced that another informational meeting will be held in September.

Abutters:

The following discussion provides a summary of the concerns expressed by the abutters to Allston Landing regarding future development of the site.

Harvard Business School: The Harvard Business School (HBS) has presently engaged Moshe Safdie & Associates, Inc. to

assist in the re-examination and master planning of the Harvard Business School's campus and real estate. The Western Avenue frontage, which is presently used as a surface parking lot, is considered the most likely area for institutional expansion. The HBS has considered basically two options regarding expansion toward Western Avenue: (1) continue to treat this frontage as a "back door" with parking and service functions, or (2) organize expansion around a major new entrance to the HBS campus from Western Avenue. The second option is preferred by the HBS planners but is highly contingent upon a major image upgrade of Western Avenue, including generous landscaping and compatible development at Allston Landing. Western Avenue is regarded as an important boundary to the HBS campus and there is no desire to expand beyond this edge.

The main concerns of the HBS regarding development at Allston Landing include the following:

1) The Western Avenue image should be visually and environmentally compatible with the long range HBS plans to possibly create a new heavily landscaped entrance off of Western Avenue.

2) Traffic conditions at the perimeter of the HBS should not be significantly worsened with new development.

3) The HBS must maintain and preserve the desirable autonomy of the existing campus environment.

4) The northern edge of Allston Landing should be complementary in scale and use with the HBS campus.

Harvard Real Estate: The Harvard Real Estate (HRE) is the fee owner of Soldiers Field Park housing and garage at the corner of Western Avenue and Soldiers Field Road. HRE has no current interest in expanding the housing or garage facilities and shares the concerns of the HBS outlined above.

Metropolitan District Commission (MDC): The MDC owns the land between Allston Landing and the Charles River, including the approximate 0.5 acre parcel southwest of the Western Avenue/Soldiers Field Road intersection. The MDC's primary concerns regarding development of Allston Landing relate to setbacks and building massing along Soldiers Field Road and the Charles River. The MDC's planning department has expressed the need for an improved open space connection between Cambridge and Western Avenue. This could be accomplished by a waterside boardwalk or public open space frontage across the Allston Landing site. The MDC would like to see a 100 foot building setback from Soldiers Field Road and a building form which steps in height away from the water.

The Beacon Companies: Beacon is the developer and owner of the Embassy Suites Hotel which is scheduled to open this fall. Beacon is not only interested in the development of Allston Landing as an abutter, but has internally considered pursuing

the role of developer for the site. Any quality development which is complementary to the hotel would be encouraged as enhance-ment to the hotel's location.

Beacon's primary concern is traffic engineering and management of the existing roadway network which services the hotel. Given the existing traffic congestion which exists at critical pressure points, Beacon would have difficulty supporting any development at Allston Landing which would generate a significant level of traffic without a substantial improvement to the traffic circulation system. This most likely would include turnpike ramp relocation and upgrading of the Western Avenue and Cambridge Street intersections with Soldiers Field Road. Beacon is widening a triangular shaped portion of Cambridge Street between the merging turnpike exit ramps and Soldiers Field Road. This is to mitigate the current crowding of three traffic lanes into a two and one-half lane width roadway. A secondary interest is improved pedestrian access to the hotel from Allston Landing and Cambridge.

Houghton Chemical Corporation (HCC): The Houghton Chemical Corp. is a family-owned and managed chemical distribution business located immediately west of the Embassy Suites Hotel. No manufacturing occurs on-site since the primary function of the business is distribution of organic solvents for the northeast U.S. markets. The business has been in operation since the early 60's and no relocation is planned or

desirable. Beacon was unsuccessful in negotiating HCC's relocation for additional surface parking for the hotel.

HCC's main off-site concern is traffic related. The existing traffic congestion complicates access to the site for both trucks and automobiles. The company participated with Beacon in the widening of the turnpike off-ramp to improve access to Soldiers Field Road and would likely oppose any development at Allston Landing which did not successfully resolve traffic impacts.

Sears Roebuck and Co.: The Sears warehouse and repair facility west of Allston Landing pre-dates the construction of the Massachusetts turnpike in Allston. Sited on approximately 10 acres of land, the current facility of 280,000 gsf is not capable of expansion. With increased volumes and demand for space, Sears has been forced to rent an additional 80,000 gsf at a nearby location. This facility is vital to their New England operations and benefits greatly from its direct access into the interstate highway network.

Sears Roebuck and Company is currently evaluating its national distribution network. The most efficient system for future distribution may require numerous strategically placed, high frequency, mini-warehouses in contrast to the high volume, large inventory warehouses such as the Allston facility. Pending a restructuring of the distribution network, the Sears

warehouse in Allston may become obsolete. At present however, Sears operates the facility at capacity and is unaware of any alternate sites which would be more ideally located for their needs.

Due to the high volumes of trucking activity involved in their operations, Sears' primary concern is maintaining efficient access to their warehouse. In order to bypass congestion on the main arteries, some truck traffic is presently enticed to seek a path of lesser resistance through the adjoining neighborhood streets.

The Massachusetts Turnpike Authority - Powers & Procedures

In order to fully understand the as-of-right development potential for Allston Landing, it is necessary to evaluate the development powers and land use control procedures of the MTA. The MTA was created by the Legislature of the Commonwealth of Massachusetts via Chapter 354 of the Acts of 1952. This enabling legislation, as amended, along with the 1962 Supplemental Trust Agreement govern the MTA's rights regarding use of the Allston Landing site. Relevant excerpts from these documents are discussed below.

Enabling Legislation:

The enabling act created the MTA as an independent "public instrumentality" and "not subject to the supervision and regulation of the department of public works or any other department, commission, board bureau or agency ...". The Authority consists of three members appointed by the governor with advice from and consent of the council. Each member is appointed for an 8 year term and one is designated Chairman.

Section 5 of the enabling act grants the general powers of the MTA. It authorizes the MTA "to acquire, hold and dispose of real and personal property in the exercise of its powers." The initial requirement in the disposition process is a determination by a majority vote of the Board that the real property "is not needed and serves no useful purpose in connection with the maintenance and operation of the Boston Extension." The MTA may grant easements or concessions for the use of surplus land or grant air rights subject to the condition that the lease or grant will not prejudice the efficient operation of the turnpike. The consulting engineers for the MTA, Howard Needles Tammen & Bergendoff, must approve of the determination by the Board prior to formal declaration of surplus.

Once real property is declared surplus, Chapter 81 Appendix, subsection 1-5 (q) stipulates the procedure for disposition. If the property is not being sold to the commonwealth, city, town, or other public instrumentality, or has a fair market

value in excess of $5,000, then a public bid process is required. Pursuant to the advertisement procedures outlined in the act, the award of real property interest is granted to the "highest responsible bidder". In the decision of Village on the Hill, Inc. v. Massachusetts Turnpike Authority (1964), the court decided that although the MTA is exempt from local zoning provisions, this does not exempt a current owner from local zoning provisions on land once owned by the MTA that was declared excess and transferred by the MTA.

Section 7 enumerates the "Incidental Powers" of the MTA which grants that:

> "the Authority may sell the buildings or other structure upon any lands taken by it, or may remove the same, and shall sell, if a sale is practicable, any lands or rights or interest in lands on other property taken or purchased for the purposes of this act, whenever the same shall, in the opinion of the Authority, cease to be needed for such purpose."
>
> and,
>
> "contract with any person, partnership, association, or corporation desiring the use of any part thereof, including the right of way adjoining the paved portion, for placing thereon telephone, telegraph, electric light or power lines, gas stations, garages and restaurants, or for any other purpose, and to fix the terms, conditions, rents and rates of charges for such use;".

Chapter 81, Appendix subsection 1-7 clarifies the MTA's eminent domain powers in any reconstruction or additions to the turnpike relative to public utilities. It grants the power to take via eminent domain

> "such land abutting the turnpike as it may deem necessary or desirable for the purposes of removing or relocating all or any part of the facilities of any public utility, including rail lines, and may thereafter lease the same or convey an easement or any other interest therein to such utility company upon such terms as it, in its sole discretion may determine."

This power has particular relevance to the ConRail activity at Allston Landing. The MTA has the authority to take via eminent domain property abutting its right of way for the relocation of this activity. It is conceivable that such a taking may be exercised in any realignment or reconstruction of the existing ramps at Allston/Brighton.

Chapter 81, Appendix subsection 1-15A of the MGL governs the MTA's "Utilization of Air Rights." The MTA is authorized to make leases not to exceed 99 years for air rights over land owned or held by the MTA. There are no restrictions on the use of such air rights except the conditions that it, in the opinion of the MTA, "will not impair the construction, full use, safety, maintenance, repair, operation or revenues of the Massachusetts Turnpike," and that any lease in excess of 40 years is subject to approval by the governor.

This act also confers that air rights leased within the territorial limits of the City of Boston is subject to the provisions of the State building code, "but shall not be subject to any building, fire, garage, health or zoning ordinance, rule or regulation applicable in the city of

Boston." The act further states that the MTA shall not lease in the city of Boston, unless the MTA, "after consultation with the mayor", finds that the new development "will preserve and increase the amenities of the community." Developments constructed on leased air rights are taxed to the lessee as if the lessee owned the land in fee with no part of the value of the land included in the tax assessment.

Chapter 81, Appendix subsection 1-15B of the MGL governs the "Utilization of Excess Land." This authorizes the MTA to grant land leases with similar parameters as outlined for utilization of air rights. The single major difference is that under such a land lease, any development shall be subject to "building, fire, and zoning laws, ordinances or by-laws applicable in the city or town where such building or other thing is located." At Allston Landing, via a sale or ground lease, this would require compliance with the Boston Zoning Code as administered by the BRA. Developments on land leases are taxed to the lessee as if the lessee owned the land in fee, with no part of the value of the land included in the tax assessment.

Trust Agreement:

A Supplemental Trust Agreement was executed in January of 1962 (1962 Agreement) between the MTA and it's Trustee, the First National Bank of Boston, for the construction of the "Boston

Extension". This provided for the extension of the turnpike from Route 128 into downtown Boston.

Article 4, Section 404 of the 1962 Trust Agreement identifies the creation of an "Improvement Account" and payment procedures for improvements deemed appropriate as necessary by the MTA. The 1962 Agreement further defines "improvements" to

> "...embrace and shall be limited to any additional traffic lanes, truck and bus terminals, gasoline, service and repair stations, restaurants, parking facilities, additional interchanges or ramps to facilitate the flow of traffic and enlargements thereof, including in each case entrances, exits, acceleration and deceleration lanes and extensions thereof, and toll collection facilities."

These improvements can be made by the MTA upon determination of need by the MTA Board. If any modification or expansion of the ramps at Allston/Brighton would facilitate the traffic flow to and from the turnpike, the MTA could undertake this improvement within its legislative powers.

Disposition Terms:

In addition to the legislation, several of the recent agreements between the MTA and private developers were reviewed to determine a likely sale or lease structure for Allston Landing. The MTA clearly prefers to execute long term leases on the property. The term of recent comparable leases, ground or air, have been 99 years. The annual lease payment

is not variable with the project's cash flow, but is typically generated by the interest on a long-term government security (treasury bond) held in escrow by the MTA escrow agent. This form of payment offers the least risk exposure to the MTA. The developer however is required to purchase a treasury bond at the outset of the project which provides an annual yield equivalent to the market ground rent negotiated with the MTA.

It appears most likely that the MTA will seek to arrange a lease agreement in the form mentioned above. Given the scale of Allston Landing and the potential long term build -out, it also seems reasonable that the MTA would permit the developer to take down the property on a pre-negotiated schedule, contingent upon the MTA's ability to deliver the land and the developer's phasing projections.

Summary:

The liberal wording of the enabling act creates no legislative limit to the eventual use of property owned by the MTA when contracting with an outside developer or agency. The political limitations of reasonable and practical exercise of these powers appear to be the primary restraint on the development powers of the MTA.

The MTA has two paramount objectives when reviewing the reuse or alteration to any of its holdings. Any improvements or new

developments must: (1) enhance, if possible, but in no measure diminish the safe and efficient operation of the Massachusetts Turnpike and (2) facilitate, and in no measure jeopardize, the repayment of bonds issued by the MTA to its shareholders.

Mention should be made of the perception of the MTA as a landowner of significant proportions in Allston. The acquisition of the right of way for the Boston Extension in the early sixties through the Allston community was a bitter battle waged between local community interests and an all too powerful creature of the Commonwealth. The Turnpike alignment through Allston bisected North Allston from the greater Allston/Brighton community. This severance by the turnpike remains in the minds of many long established Allston residents as an open wound in their neighborhood fabric. The recognition of this continuing adversative relationship between the MTA and Allston community is fundamental in establishing a politically plausible development strategy for Allston Landing.

Development Potential As-of-Right

The as-of-right development for Allston Landing is governed by the MTA's enabling legislation, in the case of improvements by the MTA. In the event that the land is declared surplus and

developed by an outside party, the Boston Zoning Code governs the development as administered by the BRA.

A literal interpretation of the existing industrial zoning classification generates in excess of 4 million gross square feet for the Allston Landing planning district. This equates to an overall 1.9 FAR. The breakdown of maximum allowable density by area within the planning district is defined in Table I below. Permitted uses with the respective zoning classifications are identified in Appendix B. The maximum allowable "as-of-right" figures in Table I are theoretical computations based upon zoning allowance and do not reflect potential density restraints resulting from traffic conditions, open space and parking requirements.

TABLE I

Allowable Density via Existing Zoning

Owner	Land Area (acres)	Zoning	FAR	Allowable Sq. Feet
MTA				
ConRail	19.26	I	2	1,678,000
Phase I	6.75	I	2	588,000
	7.20	M	1	313,600
Other	5.64	I	2	491,400
Subtotal	38.85			3,071,000
Sears	9.75	I	2	849,500
Residential	1.40	I	2	122,000
Total	50.00			4,042,500
FAR	1.86			

The development of close to 4 million gross square feet within the planning district could obviously not be supported by the existing roadway system. Congestion would increase significantly if some of the existing industrial and warehouse uses are replaced by office use, which has close to three times the number of employees per square foot of space.

Development Schedule

There is no proposed schedule for development of Allston Landing by the MTA. The following list of events and approximate time frames attempts to forecast an approximate date for occupancy of the first building.

	Time (yrs.)
1. Prepare RFP with community and state input:	1.0-1.5
2. Proposal preparation by developers:	0.5
3. Proposal review and developer designation:	0.5-1.0
4. Public approvals and permits:	1.0-2.0+
5. Financing commitments:	0.5+
6. Phase I construction documents:	1.0
7. Site preparation (off site improvements):	0.0-1.0
8. Construction	1.5-2.0
	=======
Total:	6.0-9.5 yrs.

Adjusting for the fact that some of the events can occur simultaneously, it appears that the most optimistic scenario would project occupancy for phase I to occur in 5 years, or the year 1990.

Summary

The physical characteristics of the Allston Landing site create no significant constraints on its future development potential. The primary constraints on development are related to three basic issues.

1). The roadway network and traffic conditions must be significantly improved to provide safe and efficient access to Allston Landing, the turnpike, and surrounding community.

2). Any new development at Allston Landing must carefully address the physical and functional relationship to the Allston community. The development must respond to the urban design objectives and desired mix of uses in order to obtain political acceptance and approvals.

3). Site control of the Sears and ConRail parcels is critical for Allston Landing to achieve its highest development potential.

CHAPTER TWO

DEVELOPMENT ISSUES

Chapter Two discusses the three critical development issues as determined by the analysis in Chapter One. General recommendations are presented to resolve the traffic and community relations issues. Site control of the Sears and ConRail parcels is discussed along with available options and strategies.

Traffic

Allston Landing is effectively an island surrounded by heavily used traffic routes which operate at full capacity for both regional and local travel of trucks and autos. There is no immediate access to the site from the turnpike. In addition, the Cambridge Street/Soldiers Field Road intersection bears the dubious distinction of ranking among the top 10 worst intersections in the state, making it a priority for corrective action by the state administration. Any development proposal for the site must recognize and remedy these conditions.

Vanasse/Hangen Associates, traffic engineering consultants to The Beacon Companies for the Embassy Suites Hotel, recently prepared a memorandum on traffic conditions at the turnpike

off ramp. It cited the morning peak period as being so difficult that MDC police are required for manual control since it "...equates to a Level of Service C/D while the evening operates near Level of Service D." This ranks significantly below the original design level and is regarded as substandard.

The memorandum describes the most critical daily period after completion of the Embassy Suites Hotel to be the morning peak hour when a projected 94 additional right turns can be expected to occur from Cambridge Street onto Soldiers Field Road. When added to existing right turn movements, this would create a Level of Service D.

The evening peak hour is projected as an "almost inconsequential change" over existing conditions approaching Level of Service D. Proposed improvements to the existing network related to the hotel development consists of widening of the exit ramp area by approximately ten feet at the westerly property limit. This improvement should relieve some existing congestion and provide improved access to the site. There will be access only via Soldiers Field Road and exit only onto Cambridge Street in order to avoid increased congestion.

The extensive perimeter of the site and the magnitude of its future development creates an opportunity to reconstruct the

roadway network, to improve existing traffic conditions and support the incremental traffic generated by the new development. This will depend in part upon the availability of highway/infrastructure funding.

Options:

The following alternative strategies could be employed in dealing with the existing traffic:

1) Leave all ramps and intersections as is and 'downzone' the site accordingly;

2) Provide minor improvements to the stressed network (e.g. additional turning lanes, modify signalization, etc.) in an effort to mitigate incremental increases in traffic; or

3) Provide major changes to the network which include relocated ramps, widened roadways and improved intersections on both sides of the river.

The existing network is already over capacity during peak periods which would constrain new development. Incremental improvements have been constructed over time to increase the capacity of the streets. These improvements serve as band aids to stop the bleeding, but do not remedy the long term

problem. Option 3 appears to be the only alternative which can assure the highest and best use of the Allston Landing site and protect the long-term interests of the community. The costs associated with option 3 would be extensive. In order to protect the developer's economic feasibility of the project, a cost sharing formula between the developer, City, State and MTA should be considered. It is important to note that the MTA has not participated in cost sharing for infrastructure improvements in any of its recent dispositions of ground or air rights (Copley Place, Wang Labs, Westfield Office Park). However, given the regional importance and severity of this situation, it may be possible to have the MTA participate in cost sharing with subsequent compensation by the developer through a supplement to the ground lease.

Community Interests

As stated by various residents, neighborhood leaders and community development staff during recent community meetings, it is imperative that community participation be a vital, ongoing component of the development process for the Allston Landing site. The wound created by the schism of the Allston-Brighton neighborhood by the land taking for the Boston Extension of the turnpike has not been forgotten over the past 23 years. This imminent site development process offers the challenging potential of rallying and re-unifying many of the

various splinter groups behind a well thought out program of community amenities to be included in the new development.

Interests:

In 1975 the debate over the location of Kennedy Library in the vicinity of Harvard Square stirred sufficient interest among the North Allston community and Harvard University to jointly undertake a land use planning process for Allston Landing. The purpose of the process was to identify future development prospects for the site which were consistent with both market opportunities and abutters' concerns. The product from this effort was published by the North Allston/Harvard Land Use Task Force in a report entitled Allston Landing.

Although the report is somewhat dated now and the representatives on the Task Force may not be of identical persuasion as the current community leaders, the community goals and preferred program alternatives provide a useful insight into the probable interests and positions that will surface as development of this site becomes more imminent. Six community goals for future development were enumerated in the report which can be summarized as follows:

1) New development should complement the existing neighbors and enhance the character of the existing neighborhood;

2) New development should alleviate truck traffic from neighborhood streets and access directly from the turnpike if possible;

3) A complete mix of housing types should be provided within economic constraints (the Allston Civic Association desired elderly housing);

5) Public open space should take advantage of river frontage and provide recreational areas for new and old communities;

6) Any plan must be capable of implementation predominantly by the private sector.

The report further identified market opportunities for office, residential and retail sectors through market research provided by Gladstone Associates. Given that the market today is dramatically different from its condition in 1975 and forecasts and projections were extended only to 1985, the market data is no longer appropriate. What is still of valuable insight, however, is the preferred program of uses by the Allston Civic Association (ACA) and Harvard University.

The Task Force rejected both a regional shopping center and industrial expansion on the basis of adverse traffic impacts and undesirable perpetuation of incompatible uses, respectively. Acceptable uses included a mix of residential units ranging from elderly and low-moderate income apartments to luxury condominiums, a mix of regional and local professional

office space, a small local shopping center and both recreational and riverfront open space.

The North Allston/Harvard Task Force advanced these development goals and acceptable market opportunities into a preferred program and conceptual land use plan for Allston Landing. The Sears facility was not considered as integral to any new development, and the ConRail easement and operation was not recognized as a development constraint. The conceptual plan contains significant strategic omissions by not addressing the phasing or integration of these existing uses and, from our viewpoint is neither practical nor viable.

The attempt in 1975 to translate prescribed goals and program into a conceptual plan gave birth to some general planning and design criteria which illustrated an acceptable development solution to the Task Force. These criteria included:

1) Reducing truck traffic through community and arresting the sprawl of light industry;

2) Establishing a new residential image for the area;

3) Transforming Western Avenue from its currently industrial image into a community street with housing, shops and offices on the south side complementing academic development on the north side;

4) Providing a range of housing opportunities;

5) Connecting the existing Allston community to the Charles River via public open space;

6) Creating a riverfront park along Soldiers Field Road

7) Maintaining a low-medium building scale along the river, representative of the Soldiers Field Park housing complex;

8) Positioning taller structures at appropriate setbacks from the river.

Although the Allston Landing report was prepared ten years ago within a fundamentally different set of political, economic and market conditions, it remains the most comprehensive articulation of community interests to date, and the goals, market preferences and criteria summarized above must be factored into any development proposal.

Community Participation:

In the last fifteen years community participation in Boston has undergone a dramatic shift from a confrontational, anti-development stance, to a more cooperative, product oriented one. This did not occur by chance or without difficulty. From the resistance to the Park Plaza proposal of 1971, which resulted in 100% successful obstruction, to the successful product oriented Citizens Review Committee (CRC) providing written development guidelines to the Copley Place project during 1977-80, to the recent BRA sponsored Citizens Advisory Committees, there has been a healthy transition from a win-lose style of negotiation to a win-win style.

Some of the same major public sector players who were active in the Copley Place project are still influential today: John Driscoll, the MTA chairman; Governor Dukakis; Frank Keefe, Office of State Planning; Fred Salvucci, Secretary of Transportation. The new Mayor and BRA Director create a favorable climate today for real estate development in the city, especially for larger scale projects which inherently can compensate for those things which Proposition 2 1/2 inhibits the city budget from providing.

Within Allston there is currently no apparent umbrella organization or elected representative which has taken a leadership role with respect to Allston Landing. There is an ill-defined organizational structure to the many civic organizations and associations (Community Development Corporation - CDC, Allston Civic Association - ACA, South Allston Neighborhood Association - SANA, etc.). The Allston-Brighton CDC has provided professional planning skills to assist in the implementation of community objectives, such as commercial revitalization and community housing, but it is not a strong political force. The ACA has historically been effective in leading major issues but has yet to put Allston Landing at the top of their agenda. In addition, the mayor, BRA director, and city councillors representing Allston have refrained from taking a position towards the development of this site. This leader-

ship vacuum will be filled by the group or representative who manages to most forcefully express the major issues.

Presently there is no firm consensus to what the critical issues should be at Allston Landing. Aside from the discussion in the Allston Landing report, four generic issues have emerged from recent community discussions. These include; traffic (local and highway), public open space, density (bulk, and height), mixed use and housing. The mission of the community participation process will be to expand and articulate the issues to the lead agency.

Interest in the future of Allston Landing has been stimulated by the recent actions of the MTA. The local cable television station conducted a panel discussion on the subject in June which was attended by several community leaders and representatives. The CDC recently hired Stockard & Engler Inc., community planners, to assist in some preliminary planning strategies for the community. A meeting set for September by the MTA Chairman is likely to intensify community interest.

The Copley Place model is an appropriate paradigm because of its modus operandi. It began with a totally open invitation to all concerned parties, whether designated leaders or concerned individuals. It proceeded to concentrate the participants' attention on the definition of issues, not approval/

disapproval of specific design features. This process produced a set of general development guidelines which were submitted to the MTA and developer for comment and subsequent inclusion in their lease agreement. This established credibility for the community concerns since they were then vested with both legitimate political and legal power.

On December 22, 1978 in the waning moments of his first term, Governor Dukakis proclaimed the Copley Place lease agreement between the MTA and the private developer, UIDC, "a national model for successful citizen participation in the planning and design of large scale urban projects ... (It) should prove beyond any doubt that economic growth on a grand scale can occur in a way that satisfies the needs not only of the developer and the city, but of its neighbors as well." With Massachusetts enjoying nationally prominent economic success (the lowest unemployment rate among the top 10 industrialized states and a sustained high growth rate) there is sufficient reason to expect a continuation of effective community participation for Allston Landing. The availability of neighborhood media (cable TV and newspapers) should be effectively used to insure its success locally.

Site Control

There are several active uses currently within the Allston Landing planning district: 1) Trucking operators, tenants at will on MTA fee owned land; 2) ConRail, grantee of an easement from MTA; 3) Sears Roebuck and Co., fee owner. For each of these users this site is an economically viable location and on-site expansion is desired. As discussed earlier, the relocation of the tenants at will in Phase I does not present a constraint on development. However, site control of the ConRail and Sears parcels constitute major issues in future development of Phase II.

Sears:

The current location of the Sears facility is vital to its New England operations as the regional distribution center for Eastern Massachusetts and Rhode Island. The site affords direct access to the region's interstate highway network. The current facility (280,000 sf) is intensively used at full capacity and Sears has recently been forced to rent additional space (70,000 sf) off-site to satisfy their needs.

Involved in a dynamic, competitive, price-sensitive industry, Sears faces the possibility of an evolution away from high volume, large inventory stores, served by large inventory warehouses, toward a high frequency mini-warehouse distri-

bution network. This will affect long range demand for the Allston facility.

In summary, the relocation of Sears may happen as a normal evolution of its industry, or the relocation may have to be forced by an economic incentive. In the latter case there is the risk of a delay in previously planned new development until an acceptable alternate location can be found.

To gain control of the Sears property will require aggressive negotiation from the developer. The city could rezone the parcel, thereby rendering it a non-conforming use, which may expedite the process. It is unlikely that the city would attempt to exercise its eminent domain powers unless the Sears parcel is contained within an urban renewal area for the entire district.

ConRail:

ConRail has expressed a firm commitment to remain at Allston Landing and is not interested in discussing the possibilities of relocation. Major expenses have been expended recently to upgrade rail service between New York City and the Beacon Park Yards. The only condition under which ConRail is willing to discuss any easement buy-out or relocation is complete reimbursement of all relocation costs. Given the capital-

intensive investment in rail lines required to relocate, this option may be economically prohibitive.

Rail freight is a dynamic service industry which is extremely sensitive to its clients with bulk transport needs and the shifting traffic patterns between industries. The unpredictable nature of these needs and shifts makes it difficult to forecast long range needs for ConRail. The director of ConRail's real estate for the northeastern U.S. indicated that a significant slowing in the Boston economy, or major exogenous shifts such as General Motors pulling out of Framingham or United Parcel Service pulling out of Worcester, would each have major impacts on their rail freight service. Any of these occurrences would greatly diminish, if not eliminate, ConRail's need for space at Allston Landing.

If ConRail maintains its easement interest through continued activity and is not otherwise relocated, there are major planning and architectural constraints created by having to develop new uses on a platform built in the air space above the easement. There is no potential economic benefit to be gained by the developer from leasing the air rights instead of the ground rights. This is because valuation practice to date has calculated the value of air rights by determining first the gross appraised value of the ground rights and then discounting for the extra construction costs and risks incurred by an elevated structure. Historically, air rights

development costs in leased space have been similar to land rights development costs on fee-owned land, and thus there is no anticipated savings, as stated in the National Cooperative Highway Research Program Report 142 entitled "Valuation of Air Space."

The deed of "perpetual easement" granted in 1962 limits the easement to 29'-6" above Boston City Base which is higher than the clearance under the Cambridge Street overpass. If air rights development were pursued, this height requirement may be able to be negotiated downward. The terms of the easement treat abandonment of rail-related use as absolute and final, in which case the land would revert to MTA control.

In summary, there are only three viable scenarios by which the ConRail property may be controlled by a private developer.

1) Abandonment by ConRail, triggering reversion to MTA and allowing a lease to a new ground tenant;

2) Lease of air rights from MTA, above ongoing ConRail easement; or

3) Relocation of ConRail, termination of their easement and issuance of new ground lease to a new tenant.

At present, it is impossible to predict the probability of any of these scenarios. In the event that ConRail does not abandon their easement, there are essentially three strategies which could be employed to gain site control.

1) A private developer could negotiate directly as a traditional land assemblage;

2) The City could exercise its existing regulations, such as the Boston Zoning Code's "Urban Renewal Area" (URA) Special Purpose Overlay District, so as to trigger the state's eminent domain power and special use and dimensional controls of the BRA; or

3) The MTA could use its eminent domain powers as per the 1954 enabling legislation to take the ConRail property for improved turnpike access (ramp relocation) and site assemblage.

It is highly unlikely that any private developer would accept the risks of time and cost in negotiating a land assemblage directly with ConRail. In addition, few, if any, private developers possess the necessary clout or political leverage required to successfully execute this negotiation.

The political and economic feasibility of a taking via eminent domain by the City or MTA is uncertain. Although both

agencies clearly have the authority, it is not clear that either agency would wish to accept this burdensome, and often publicly unfavorable, assignment. A feasibility study must be undertaken initially to determine the practicality and economic feasibility of a taking. Only then can a decision be made on a course of action.

CHAPTER THREE

PLANNING/MARKET OPPORTUNITIES

Chapter Three provides an overview of the unique planning and market opportunities for Allston Landing. The planning opportunities have emerged from discussions with community leaders and city planning staff. A preliminary market analysis was conducted to assist in the programming and feasibility analysis in subsequent chapters. The chapter concludes with an overview of unique market opportunities for Allston Landing.

Planning Opportunities

Many of the site's attributes have been discussed in earlier sections of this paper. Development of Allston Landing also provides some major planning opportunities for the Allston and Harvard communities which should be incorporated into development proposals.

Planned Development Area:

The property's size, definitive boundaries, complex issues and the likelihood of a mixed use, multi-phased development, strongly suggest development as a "Planned Development Area" (PDA) under the Boston zoning code. This zoning classification affords more flexibility to the developer in creating an

innovative design solution which can be modified through negotiations with the BRA to respond to changing conditions in future phases. Furthermore, it allows for the physical integration of several uses within a development area. The PDA designation requires an approved conceptual plan for future phases which get resolved into specific development plans as phases are built out. This gives the BRA and community the ability to negotiate for an optimal solution to any one phase within the broader context of a conceptual development plan for the entire planning district.

Improved Access/Egress to Turnpike:

As has been previously identified, the traffic conditions at the Allston/Brighton exit operate at less than a desirable level of service during peak hours. Development proposals must respond to this condition by improving access and egress to the turnpike and mitigate the stressed conditions on Cambridge Street and its intersection with Soldiers Field Road. In addition, truck traffic which will continue to service industrial uses along Western Avenue, must be directed away from residential streets.

Improved Waterfront Access / Open Space:

The North Allston community is separated from the Charles River waterfront by industrial, warehouse and railroad uses.

There is a definite need for an open space pedestrian system which links the waterfront to the neighborhoods through the Allston Landing planning district. Both the community and planning office of the Metropolitan District Commission have also identified the need for additional public open space along Soldiers Field Road and the river.

Public waterfront access could be improved by a community boathouse or public landing for active docking of boats on the Charles. This could be linked directly into the site's open space system via a pedestrian bridge over Soldiers Field Road. River cruises and water taxis could provide both pleasure boating and efficient transport to other riverfront locations.

Creation of Community Center:

Allston presently lacks an identifiable "community center" where a public space is supported by a variety of civic, retail, and recreational functions. There exists the opportunity in the development of Allston Landing to incorporate such uses as a branch library, center for continuing education, offices for civic associations, local professional offices and community based retail uses which relate to a central public open space (common, square, public garden, amphitheater, etc.).

Enhanced Community Image / Identity:

The current use of the site for transportation, warehousing and industrial purposes creates an unattractive community image when approaching Allston from the turnpike or Cambridge. The redevelopment of this district creates a major opportunity to enhance the community's physical image upon arrival and establish a landmark development for Allston.

Market Analysis

Given that the earliest occupancy date projected for Phase I is the year 1990, it is neither reasonable nor appropriate to attempt to program the site based upon forecasts constructed from 1985 market conditions. This section on market analysis summarizes the current market conditions for the Metropolitan Boston area and documents the key market variables used in the feasibility analysis.

The following market conditions relate to the Allston Landing site and support a future demand for mixed uses there:

1) The Allston-Brighton neighborhood has had a long history of stable home ownership, the most stable in the city according to a BRA official;

2) The increasing migration of ethnic groups into the area is elevating rents and changing the neighborhood profile;

3) The proximity of the site to so many desirable and well established residential locations -- there are more than 1,000,000 people within a 12-minute travel time of the site;

4) Extensive on site infrastructure and amenities;

5) A large and multi skilled work force;

6) The site is in the path of extensive tourist travel (approximately 10 million people visit the Greater Boston area annually, and Back Bay and Harvard Square which surround the site are major tourist destinations within the metropolitan area;

7) The high level of household income within the primary trade area (average family income = $37,000+).

Based upon recent lengthy rent up periods for new developments in East Cambridge and along Route 495, it is realistic to expect that the MTA site will be occupied by those seeking its inherent amenities and not by those who, for whatever reason, cannot strike an acceptable deal at their optimum location elsewhere. Thus, users attracted to a prestige riverfront location offering immediate turnpike access and proximity to Harvard Square and Back Bay will seek out this site. Possible bulk users are insurance companies, bank computer operations and corporate headquarters. Possible smaller users include both mature businesses, emerging growth companies and start ups. For the purposes of carrying out a feasibility analysis for this site we compiled current market rent, vacancy,

parking, operating expense, real estate tax, mortgage rate and land value data relevant to the anticipated development program.

Market Rent:

As shown in Table II, a listing of recent (April 1985) office rents were compiled at properties which, in one or more ways, are comparable to the MTA site. The survey indicates that the Cambridge market has not yet broken the golden barrier of barrier of $30/sf, although the newly opened Charles Square office building is very close to that level due to the amenities of Harvard Square nearby and the availability of concierge service at the adjacent hotel. In addition, the survey indicates that the scale of rents is highest in Downtown Boston, followed by Back Bay, Harvard Square/Mass. Ave., Kendall Square/MIT (East Cambridge), Alewife/Route 2 (West Cambridge), Newton Corner and Mass. Pike West. Because the $30/sf rent level has not yet been attained in Cambridge, although it is expected shortly, $29.00/sf was used in the base analysis.

TABLE II

COMPARABLE MARKET DATA

Market	Building	Date Complete	# of Floors	Total Rentable	S.F. Available	% Vacant	$Rent/ S.F. (4/1985)
Back Bay							
	399 Boylston	1984	13	221,000	36,000	16%	$31.00 - $33.00
	535 Boylston	1965	13	90,000	2,700	3%	$29.00
	545 Boylston	1973	13	85,000	22,500	26%	$23.00 - $26.50
	575 Boylston	1982	8	32,000	0	0%	$25.00
	Copley Place	1984	7	845,000	200,000	24%	$32.00
	1 Exeter Plaza	1984	14	211,000	200,000	95%	$27.00 - $37.00
Cambridge							
a) Alewife/Rte.2	125 Cambridge Park Drive	1984	6	185,000	105,000	57%	$24.00
b) Harvard Sq./ Mass. Ave	Charles Sq.	1985	7	115,000	19,000	16%	$26.00 - $30.00
	840 Memorial Dr.	1980	5	135,000	19,000	14%	$18.00 - $19.75
	University Pl.	1984	6	200,000	20,000	10%	$26.00
c) Kendall Sq./ MIT	1 Broadway	1970	16	220,000	0	0%	$19.00
	4 Cambridge Ctr.	1983	12	225,000	38,000	17%	$24.00
	5 Cambridge Ctr.	1981	13	250,000	0	0%	$24.00
	1 Canal Off.Park	1986	4	100,000	0	0%	$25.00 - $28.00
	1 Riverside Pl.	1985	9	273,000	92,000	34%	$26.00 - $28.00
Suburban							
a) Route 3	600 Unicorn Park Drive, Woburn	1984	4	132,000	132,000	100%	$23.00
b) Route 128	20 Burlington Mall Road	1984	4	100,000	9,000	90%	$24.00
	1 Bay Colony Corp.Ctr.Waltham	1985	6	271,000	271,000	100%	$25.00 - $26.00
	80 William St. Wellesley	1985	3	71,000	500	1%	$31.00
c) Allston	230 Western Ave.	1985	5	50,000	50,000	100%	$21.00 - $23.00
d) Newton	1 Gateway Ctr.	1970	9	180,000	3,700	2%	$22.50
	1 Newton Place	1985	4	150,000	0	0%	$24.50
e) Framingham	Centros House	1984	6	150,000	0	0	$20.00

Source: Spaulding & Slye, The Boston Area Report, April 1985 (Second Quarter)

Vacancy:

The 10% value used in the feasibility analysis approximates the weighted average of the January 1985 vacancy rates for office space in Cambridge (8%) and Downtown/Back Bay (11%). The Greater Boston first class office market as a whole, including the CBD, had 12% vacancy as of January 1985 due to 15% vacancy in the suburban segment of the market, which is currently overbuilt due to the slowdown in growth of high-tech employment. Our 10% vacancy value for the stabilized year is significantly more conservative than the conven-tional 5% vacancy allowance.

Parking:

Rent revenue for the structured parking has been included in the $29.00/sf base rent for office space.

Operating Expenses:

Base + $3.00/rsf (Sources: Leggat McCall & Werner, real estate brokers; Hines Industrial)

Real Estate Taxes:

Base + $2.50/rsf (Source: Similar to above)

Mortgage Rate:

The 12.50% rate used in the feasibility analysis is the composite of a 10.50% prime rate, the highest offered by a major bank during the period of this study, and a 2% premium to cover the scope of anticipated development risks: extensive, multi-stage public approvals, phasing, etc. The nominal 2% risk premium is conservative since the bank's actual cost of funds is likely to be 0.5-1.0% below the prime rate.

Land Valuation:

In order to determine the annual ground rent payment to the MTA, it is necessary to establish first the value of the undeveloped land. Because of the specialized existing uses on-site, a professional real estate appraiser with R.M. Bradley & Co. Inc. was consulted. With experience in appraising properties with similar uses, commercial properties and turnpike related properties, the appraiser concluded that the current fair market value for the Allston Landing site is comparable to a prime suburban office site of $20.00/FAR sf. This figure is used as the basis in the feasibility analysis.

Marketing Opportunities

This section provides some specific comments about the generic housing, retail and office demands mentioned in the previous market analysis discussion. In preparing this section of the report, it was necessary to do some brain-storming as well as make some critical judgments about the suitability of the site for specific known users. The large site area affords sufficient space and opportunity to create both a prestigious business environment/address as well as provide a community focus with open space, housing and local retail and professional services.

The following discussion of major uses is not intended to be exhaustive but rather a cursory listing of viable uses. Those uses considered most appropriate for Allston Landing have been included in the proposed development program. Explanations are provided for those uses which are not recommended.

Transportation-related Uses:

Planners at Massport and the Mass. Convention Center Authority view this as a viable site for their large-scale satellite parking requirements and truck marshaling for the new Hynes Convention Center. The MTA Chairman has publicly stated that any use of the site for parking is a secondary priority for the MTA and would be merely an accessory to the future highest

and best use. Because of the MTA's disin-terest and the inevitable community opposition due to further exacerbation of the traffic problems, we do not recommend the development of the site as a satellite parking facility for major off-site uses.

Higher Education Facilities:

Several neighboring universities have expressed the need for institutional expansion. The Allston community has publicly opposed further expansion of this use in Allston. Furthermore, the development of this site under a tax exempt status would not provide the city with tax revenues from this prime riverfront/turnpike address. For these reasons this opportunity was eliminated from further consideration.

Industrial:

The proximity to residential areas argues against heavy industry or "dirty" industry. The successful critical mass of "clean" industry in existing developed areas nearby, such as Kendall Square and West Cambridge, competes strongly against developing speculative buildings for industrial uses at this site. Furthermore, Allston and Harvard have expressed the desire to arrest the spread of industrial uses which feed along Western Avenue. To increase neighborhood revitalization, it would be appropriate to consider the inclusion of an

Allston Job Training Center for job creation and continuing education/training.

Executive Meeting and Exposition Center:

The adjacency to the HBS Executive Education programs and the new hotel, together with rapid access to Harvard, MIT, BU, high-tech manufacturers and the Boston CBD, creates an opportunity for a centralized, high quality meeting room and exposition facility with extensive communications capabilities (teleconferencing, etc.). This facility is not intended to compete with Boscom, Bayside Expo or the new Hynes, but rather to cater to select small groups and to complement existing uses. No dormitory demand is apparent given the HBS and hotel facilities nearby.

Office:

The short travel time to suburban "bedroom" communities in the Metropolitan Boston area as well as to business and research centers, airports (international and regional) and other major activity nodes creates a special opportunity for office development at this site. The site can accommodate a range of office uses from "front office" functions requiring a small floor plate to "back-of-house" operations requiring a large floor plate. In addition, the visibility of the site is sufficient to attract a major corporation seeking a presti-

gious "signature" building location. The uniqueness of the site also lends itself to consideration visionary concepts such as an "office of the future" technopolis, offering the most advanced computer, word processing and communications facilities within the New England region.

Executive Fitness:

An executive fitness center which supplements and strengthens the office and meeting facilities as well as serves HBS executives, hotel guests and local employees is desirable. A private club may also be considered.

Open Space:

In response to the desires expressed by the community and the proximity to the river and the MDC greenbelt, it is essential for any new development to incorporate a generous public open space system. This should include passive landscape, formalized hard and soft landscape treatment and direct access to the river's edge.

Retail:

In light of community opposition and the proximity to Arsenal Mall, Harvard Square, Central Square and Back Bay, the development of a regional mall at this site is not

recommended. Local and neighborhood retail is appropriate to service existing residents, and new office and resi-dential tenants. This is also essential to provide variety and interest to the daytime population. In addition, office employees, hotel guests, nearby residents and the Harvard community create a significant population to support a variety of restaurant types.

Housing:

The riverfront address creates an opportunity for luxury housing comparable to the recently opened Charles Square. The adjacency of the western portion of the site to an existing well-established residential neighborhood creates an obvious need for a transition of residential and community uses into Allston Landing. The type and mix of housing will be determined by market economics and availability of public housing subsidies.

In addition to the uses described above, the site should be programmed for a variety of amenities and activities. This should include areas for display of local arts and cultural lore and small performance areas for musicians and street theater. The open space should be effectively designed for active use and accommodate uses such as the Allston-Brighton Farmer's Market. A new bus facility should be considered.

Summary:

The planning and marketing opportunities presented in this chapter provide the foundation for planning and programming Allston Landing. The program and plan described in Chapter Four is derived from these concepts. The market analysis provides the necessary market data to conduct the feasibility analysis in Chapter Five.

CHAPTER FOUR

DEVELOPMENT PLAN

Four fundamentally distinct options for developing Allston Landing are described below. Each of these options were considered along with their implicit response to the development issues and market opportunities identified in previous chapters. This chapter describes each option, selects a preferred approach, recommends a preferred program and describes a development concept.

Options

The four development options include:

1) The continued development of the Allston Landing under its present industrial zoning classification with allowable office and industrial uses consistent with the development pattern westward along Western Avenue.

2) A single purpose use with functional requirements for a tight integration on a large site. This would include alternatives ranging from a regional sports arena, a regional satellite parking facility to an "office of the future" technopolis.

3) A subdivision of Allston Landing into individual development parcels.

4) A master planned, mixed-use development by a designated developer or development team. As under a PDA designation by the BRA, any initial development phase must be framed within an approved long range conceptual plan.

Option 1 is inconsistent with the community goals outlined for Allston Landing in Chapter Two and does not accomplish the community's desire to transform the existing industrial image of Western Avenue. This option is not likely to succeed without support from the community and Harvard University. The use of the site for industrial uses will not generate maximum land value which is not desirable to the MTA.

Community support and acceptance for Option 2 is also unlikely. Surges of excessive traffic volumes for large single purpose uses would create acute community traffic impacts. Additionally, it would not incorporate the diversity of program which the community would like to see occur on the site. The development under option 2 would also be heavily dependent upon the timing of market need and total site availability and less conducive to incremental phasing.

Option 3 is a standard subdivision approach where separate developers would take down a particular parcel and develop it

independently of other sites. This option forecloses on several planning opportunities and community goals relating to the integration of uses. Each development is negotiated on its own merits, and there is less opportunity for concessions and trade-offs which produce mutual gain. Furthermore, this approach would position the MTA as a land developer which is not a business it wishes to pursue.

Option 4 is the development approach we would recommend for Allston Landing. This option is the best approach to achieve the community's goal of a "new community of mixed uses in a high quality urban setting." From the perspective of the city and community, a single development entity would facilitate communication and control of the development process. The flexibility creates a forum of negotiation for mutual gain. Although the developer must commit to an overall conceptual plan for future phases, there is sufficient flexibility for adjustments in market conditions, phasing and infrastructure improvements. This becomes a crucial advantage given the indeterminate availability of the Phase II site.

Preferred Program

A preliminary development program for the Allston Landing planning district is presented in Table III. This program responds both to the community concerns and market conditions discussed in prior chapters.

Table III

Allston Landing Development Program

PROGRAM	LAND AREA (ac) Gross	Net	BUILDING Sq Ft	FAR Gross	Net
PHASE I	13.30				
Stages 1 & 2		4.00			3.8
Office			550,000		
Residential			100,000		
Retail			30,000		
Stages 3 & 4		6.00			3.2
Office			670,000		
Health Club			70,000		
Conference Center			50,000		
Retail			30,000		
Subtotal	13.30	10.00	1,500,000	2.6	3.4
PHASE II	34.40				
Office/Retail		7.00	640,000		2.1
Residential-60/ac 480 units		8.00	860,000		2.5
Residential-20/ac 80 units		4.25	300,000		1.6
Off.Condo/Ind/Ret		6.75	700,000		2.4
Subtotal	34.40	26.00	2,500,000	1.7	2.2
Turnpike Ramp R.O.W.	2.30				
TOTAL	50.00	36.00	4,000,000	1.8	2.6

The program mix contains 50% office, 25% residential, and 25% miscellaneous uses including: local retail, professional office, health club, conference center, office condominiums and light industrial. These uses are similar to the mixed use program derived in the 1975 Allston Landing report.

The program must also respond to market conditions, land value and economic feasibility. Since office use can support the highest land values, it was considered important to hold the office component at 50% of the total program. The 25% of the program for residential use is intended to include a mix of housing types within economic constraints. Phase I housing, for example, will need to be high-priced in order to support the land values for waterfront property.

The program totals 4 million gross square feet of space in the 50 acre district, which yields an overall 1.8 gross FAR. This 4 million gsf figure was deliberately established for two strategic reasons. First, the program does not propose a higher density than is permitted under existing zoning. This argument has a strong equitable appeal and would likely assist in the persuasion of project opponents.

Secondly, it was considered prudent to restrict the program build-out within an 8-10 year development schedule. This was based upon an average annual absorption rate of 200-250,000 gross square feet of office space, or approximately 10% of the total annual non-downtown absorption in the Metropolitan Boston area. Since office space is the primary single use proposed for Allston Landing at approximately 2,000,000 gross square feet, this projected absorption rate yields an 8-10 year build-out. This location and office component are

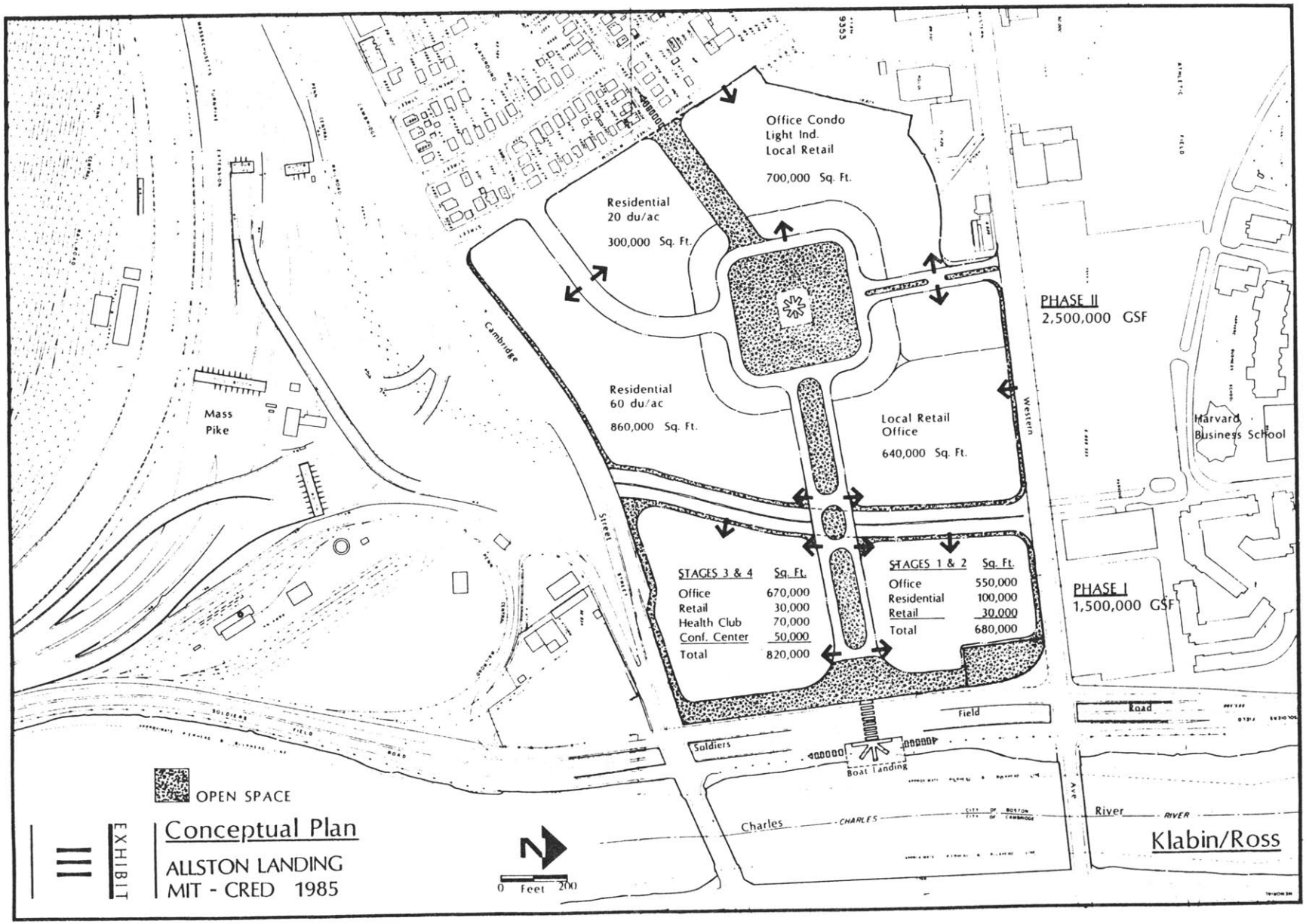
consistent with the city's objective to spread downtown office development pressures into other locations.

The program is divided into two overall phases of development. Phase I is programmed for the unencumbered portion of the MTA site. Programs for property with prime river views and direct access from the turnpike must contain uses which can support high land values. For this reason, Phase I contains primarily commercial use and luxury condominiums at a density higher than existing zoning. Phase I is conceived as being developed in 4 stages. Each stage would average 300,000 gsf of office space and include the sequential build-out of the luxury riverview condominiums, support retail, conference center and health club components.

Phase II is programmed with a community orientation, including 540 residential units, at a density lower than existing zoning (FAR 1.7). A community center comprised of public open space, convenience retail, supermarket, branch library, post office and offices for various community organizations is envisioned as the focus for Phase II development.

Conceptual Plan

A conceptual development plan is proposed for the entire planning district in Exhibit III. The plan is organized to


Office Condo
Light Ind.
Local Retail
700,000 Sq. Ft.
Residential
20 du/ac
300,000 Sq. Ft.
Residential
60 du/ac
860,000 Sq. Ft.
Local Retail
Office
640,000 Sq. Ft.
PHASE II
2,500,000 GSF
PHASE I
1,500,000 GSF
Mass
Pike
Cambridge
Street
Western
Harvard
Business School
Soldiers
Field
Road
Boat Landing
Charles
River
STAGES 3 & 4 Sq. Ft.
Office 670,000
Retail 30,000
Health Club 70,000
Conf. Center 50,000
Total 820,000
STAGES 1 & 2 Sq. Ft.
Office 550,000
Residential 100,000
Retail 30,000
Total 680,000
OPEN SPACE
EXHIBIT
Conceptual Plan
ALLSTON LANDING
MIT - CRED 1985
0 Feet 200
Klabin/Ross

respond to the community concerns, development issues and planning opportunities for Allston Landing.

The access and egress ramps to the turnpike have been realigned to intersect with Western Avenue. This accomplishes several important circulation objectives for both on and off site traffic. The congestion at the Cambridge Street/Soldiers Field Road intersection has been greatly reduced by routing all turnpike-bound traffic to enter off of Western Avenue. The Cambridge Street intersection handles only traffic exiting the turnpike for Cambridge Street or southbound on Soldiers Field Road. Allston-bound traffic exiting the turnpike will be distributed west on Western Avenue or routed back onto Cambridge Street via the existing Soldiers Field Road frontage lanes. Roadway and signalization improvements will likely be required at both Soldiers Field Road intersections. A developer's allowance for premium, off-site infrastructure requirements has been factored into the feasibility analysis to assist in the funding for these improvements.

Commercial traffic entering and leaving Allston Landing will be directed along ramp frontage lanes. These lanes will provide below grade access into parking structures for the Phase I development and all grade access to the central boulevard. The plan further allows for these improvements and

Phase I to be developed without the relocation of ConRail or Sears.

The public open space and circulation systems provide the organizing elements of the plan. The public open space system is comprised of three basic elements; the "Esplanade" frontage of Soldiers Field Road and the Charles River, a 3-acre community "Square", and a linear open space corridor which links the North Allston neighborhood to the river. This public open space system occupies over 15% of the total site area, not including generous setbacks along the major roadways and the internal landscaping within development parcels. In addition to organizational significance, these systems also create development parcels of practical size and proportion for systematic phasing.

The centrally located Square contains both hard and soft landscape treatments to accommodate a variety of outdoor activities, bordered by a 2 lane, one way street. Uses fronting the street include convenience retail, professional offices, branch library and post office, community offices and upper level condominiums with a village center character. The Hopedale Street axis is extended as an open space connection between the existing neighborhood and the Square. The Square and Esplanade spaces are linked via a "Commonwealth Avenue" expression which bridges over the turnpike ramps providing uninterrupted pedestrian flow. A pedestrian bridge above

Soldiers Field Road could be used to extend this open space axis directly to the water's edge and terminating with a public landing or boathouse.

The program has been distributed to create a transition in density and use from the North Allston neighborhood toward the new turnpike ramps. Phase I, the property farthest from the existing neighborhood, has an FAR of 2.6. The Phase II program which fronts Windom Street to the west is programmed at an FAR of 1.7, or 15% below the existing allowable density of 2.0. Residential and community related uses provide a compatible land use transition between existing housing and commercial development. Heavily landscaped setbacks along Western Avenue and Cambridge Street create a unified border treatment to the development and upgrade the street image. Light industrial and office condominium uses are programmed to abut the existing industrial uses bordering the northwest boundary.

Phase I

Table III contains the development program for Phase I. Over 80% of the program is comprised of a combination of speculative and corporate office use. The balance of the program consists of: 80 luxury condominiums; 60,000 gsf of lobby level support retail and professional office space; a 70,000 square foot fitness center and health club; and a 50,000 square foot conference center. The 1,220,000 square feet of office space

has been distributed within 4 stages of development ranging from 250-360,000 square feet per stage. The office buildings would range between 20-25,000 gross square feet per floor and step in height from 6 floors along Soldiers Field Road to 16 floors toward the center of the site. The tallest building, at 16 floors, would reach a maximum height of 195 feet above grade which is compatible with the Embassy Suites Hotel. The taller structures would have an east-west orientation, perpendicular to the water, to allow views of the river from the interior of the site.

The 75 luxury condominiums are envisioned as a physically segregated use, yet the building form would be integrated with other development components. The units would be marketed with a river view and security controlled structured parking directly beneath the units. The housing would step from 6-10 floors in height.

All 60,000 square feet of retail use including restaurants, business services and professional office use would be contained within the main structures. These "retail" uses are primarily programmed to support the on-site employees, visitors and guests at the conference center. Patronage from the surrounding community would be encouraged.

The fitness center/health club would have memberships for on-site employees, guests at the Embassy Suites Hotel and HBS

Executive Seminars, the Harvard community and the general public. The facility is sized to contain a swimming pool, gymnasium, squash and tennis courts, exercise rooms and all required support space. The club would require a footprint of approximately 50,000 square feet and be located on top of a parking structure.

Upon completion of Phase I, parking for all uses will be contained within parking structures. The juxtaposition of spaces for uses with offset peak requirements will be encouraged to capitalize upon shared parking arrangements. The initial stages of development will contain interim surface parking on future building sites. These spaces will be relocated into structures prior to initiation of construction.

The landscaping of the Esplanade within Phase I will be coordinated with future construction requirements and implemented during the initial stage of development. This will ensure consistent maturation of landscape material and early enhancement of the project site.

Summary

The development program and conceptual plan respond to the development issues, planning opportunities and market conditions discussed in previous chapters. The plan resolves the traffic issue by creating a new turnpike alignment and

improving the surrounding roadway network. The plan is phased in recognition of the site control issue vis-a-vis the ConRail and Sears parcels.

The program and plan address the primary concerns and objectives of the community. There is a program mix of diverse uses which creates an urban quality environment of employment, housing, shopping, recreation and leisure. The program maintains the existing allowable density for the site. A major public open space system comprising over 15% of the total site area is specifically designed to meet the open space requests of the community. Twenty-five percent of the total program is devoted to diversified residential uses. In addition, the planning opportunities outlined in Chapter Three have all been incorporated into the concept.

Having developed a program and plan which seeks to address the community acceptance issue, the program must also be economically feasible in the marketplace. This analysis is conducted for Phase I in Chapter Five.

CHAPTER FIVE

FEASIBILITY ANALYSIS

An economic analysis was conducted on the Phase I program to determine project feasibility and sensitivity of key assumptions. This chapter explains the feasibility model and summarizes the results.

Economic Feasibility Model

The feasibility model was constructed to determine a developer's before tax return on equity (cash on cash) based upon 1985 market conditions and development costs. The model was intended to address the basic issues affecting feasibility ("go" or "no go"). For simplicity, the model does not factor in various escalation rates in cost and revenue figures.

The twelve variables listed in Exhibit IV were considered to be the essential requirements to determine project feasibility. The figures represented in the base case for each of these variables were derived from 1985 development costs and the market analysis discussion in Chapter Three. The notes at the bottom of Exhibit IV record the basic assumptions and derivation of development premiums, including the phasing of structured parking and development impact ("linkage") payments to the City of Boston. The analysis tests the feasibility for

the office component which accounts for over 80% of the total Phase I program. Other uses together with their associated land and parking requirements have been factored out of the analysis.

The development costs and cash flow figures are calculated on a per square foot basis. Premium development costs and developer allowances for off site roadway, infrastructure and landscaping improvements are estimated at $3 million and included in stages 1 and 3. Given the nature of the project and associated development risks, a cash on cash return of 20% was considered an appro-priate hurdle rate for a prospective developer. A series of sensitivity tests were run on certain key variables to determine those assumptions which have the greatest effect on the cash on cash return (refer to Tables IV and V). Analyses were performed with two dependent variables to test the relationship of (1) buildable office space and land value, (2) buildable office space and market rents, and (3) land value and market rents.

Results

The feasibility model demonstrates that the development of 1,220,000 square feet of office space in the Phase I area is an economically viable real estate deal under the base case assumptions. A 20.5% return on equity (ROE) is generated by the development based upon an equivalent land cost of $20 per

square foot of building area. This achieves the 20% hurdle rate desired by the developer and supports a market rate land value for the MTA.

An analysis was conducted to demonstrate the sensitivity of six variables on the developer's cash on cash return. Variables analyzed for sensitivity included the monthly mortgage rate for debt financing, land cost per square foot of building ($/FAR-sf), amount of buildable office space, percent of equity required, market rent, and building cost. The base assumptions for each of these variables were adjusted in value by 5% increments, both positive and negative, up to a 25% deviation. The model input these adjusted variable values and recalculated the return.

Table V displays the new ROE values. These are graphed in Exhibit V where the slope of each line represents the rate of increase or decrease in ROE relative to percent changes in the base assumption. The analysis clearly demonstrates that the $29.00 assumption of market rents is the most critical assumption in the feasibility analysis. For example, a mere 5 percent decrease in market rents (from $29.00 to $27.80/sf) decreases the ROE from 20 percent to just 13 percent.

The second and third most sensitive assumptions are the mortgage rate available for debt financing and building costs, respectively. If the mortgage rate increased from 12.25 to 15

percent, the ROE drops from 20 percent to break even. If the building costs increase from $50 to $55 per square foot, the ROE is decreased to approximately 14 percent. Another interesting observation illustrated in Table V is the effect on ROE of reducing the amount of allowable office space. If, for example, the developer was locked in on a $20/FAR-sf land cost or lease equivalent and the developer's office program is reduced by 20 percent via community demands, the ROE is reduced to only 12.5 percent.

Sensitivity analyses were also run on ROE to test the combined effect of simultaneously adjusting two dependent variables, all others held at the base case. Table IV-A calculates, given various amounts of allowable office space, the land cost which can be justified in order to meet or exceed the developer's hurdle rate of 20 percent. If, for example, Phase I was restricted to 1 million square feet of office space, the developer could only justify a $10/FAR-sf for land cost or lease payment equivalent.

Table IV-B calculates, given various amounts of allowable office space, the market rents which must be achieved to meet or exceed the hurdle rate. As an example, if the developer were permitted to build 1.5 million square feet of office space, rents could drop $1/square foot and still achieve a 20 percent ROE.

ALLSTON LANDING - PHASE I
Feasibility Analysis
(all costs in 1985 dollars)

EXHIBIT IV

VARIABLES

Site Finish Cost	=	$8.00 /sq.ft.
Building Cost	=	$50.00 /sq.ft.
Tenant Finish	=	$15.00 /sq.ft.
Indirect Cost	=	30% of hard cost
Mortgage Term	=	20 years
Mortgage Rate	=	12.50% annual
Op.Exp./Taxes	=	$5.50 /sq.ft.
Market Rent	=	$29.00 /sq.ft.(incl.pkg.)
Stab.Yr.Vacancy	=	10%
Percent Equity	=	10%
Land Value	=	$20.00 /FAR ft
Tot.Office Space	=	1,220 (000's) gsf

PROGRAM (000's) GSF

Use	STAGE 1	2	3	4	Total
Office	250	300	310	360	1220
Residential		100			100
Retail		30		30	60
Health Club			70		70
Conf.Center				50	50
Total	250	430	380	440	1500

Office Land Area	=	530,000	sq.ft.
Other Land Area	=	50,000	sq.ft.
Total Land Area	=	580,000	sq.ft.
Phase I FAR	=	2.6	
Land Cost	=	$6,853	(000's/stage)

OFFICE COSTS

STAGE	KGSF stage	KGSF cumulative	HARD COSTS -- $(000) Off Site Premium	Parking Premium	Site Finish	Bldg. Cost	Tenant Finish	Total	Cumulative	CUMULATIVE COSTS ($/SF @ 100% financed) Prem. Cost	Total Hard Cost	Indir. Cost	Land Cost	Total Proj.	Yr.Debt Service
1	250	250	2,426	2,356	2,001	12,505	3,752	23,040	23,040	19.12	92.12	27.64	27.40	147.16	20.06
2	300	550	569	10,694	2,401	15,006	4,502	33,171	56,211	29.16	102.16	30.65	12.46	145.27	19.81
3	310	860	1,597	8,519	2,480	15,500	4,650	32,746	88,957	30.41	103.41	31.02	7.97	142.40	19.41
4	360	1,220	738	11,056	2,879	17,995	5,399	38,067	127,024	31.11	104.11	31.23	5.62	140.96	19.22

OFFICE FEASIBILITY ALL FIGURES IN $/SF

STAGE	KGSF stage	KGSF cumulative	Gross Revenue	less Op. Exp.	less Vacancy	NOI	Debt Service	Cash Flow Before Tax	RETURN % of total cost	% of equity
1	250	250	29.00	5.50	2.90	20.60	18.06	2.54	1.73%	17.28%
2	300	550	29.00	5.50	2.90	20.60	17.82	2.78	1.91%	19.11%
3	310	860	29.00	5.50	2.90	20.60	17.47	3.13	2.20%	21.96%
4	360	1,220	29.00	5.50	2.90	20.60	17.30	3.30	2.34%	23.44%
									avg. 2.04%	20.45%

NOTES:
1. Building cost represents warm shell and basic finish.
2. Tenant finish represents minimum builder's standard.
3. Indirect (soft) cost represents interim costs for insurance, financing, legal & brokerage fees, rent-up deficit etc.
4. Debt service calculation assumes monthly mortgage payments.
5. Parking premiums: assume overall parking ratio /1000 gsf: 3.0

Stage	Tot. Reqd.	Structured/Stage	Cost/Sp	Premium Cost (000's)
I	750	325	$7,250	$2,356
II	1290	1475	$7,250	$10,694
III	1140	1175	$7,250	$8,519
IV	1320	1525	$7,250	$11,056
Total	4500	4500		$32,625

6. Off Site Premiums

Stage	Linkage Payments (all in 000's)		>100kgsf		annual pmt.	present value @10% , 12 yrs.	Roadway/Infrastucture allowance	Total
I	$0.417	X	150	=	63	426	2,000	$2,426
II	$0.417	X	200	=	83	569	0	$569
III	$0.417	X	210	=	88	597	1,000	$1,597
IV	$0.417	X	260	=	108	738	0	$738

7. Office Land Value: assumes takedown in 4 equal stages
132,500 sq. ft. X 2.58620 X $20.00 /FAR ft = $6,853 (000's) land value/stage
land area FAR $27,414 (000's) land value - Phase I

Average Return on Equity

IV-A

TABLE IV

Amount of Office Space

0.204455	800	900	1,000	1,100	1,200	1,300	1,400	1,500	1,600	1,700	1,800
$10.00	10.59%	15.58%	19.86%	23.57%	26.81%	29.67%	32.21%	34.49%	36.54%	38.39%	40.08%
$12.00	9.29%	14.23%	18.47%	22.14%	25.35%	28.18%	30.70%	32.95%	34.98%	36.81%	38.48%
$14.00	8.03%	12.92%	17.11%	20.74%	23.92%	26.73%	29.22%	31.45%	33.46%	35.27%	36.92%
$/FAR ft $16.00	6.79%	11.64%	15.79%	19.39%	22.54%	25.31%	27.78%	29.99%	31.98%	33.78%	35.41%
$18.00	5.59%	10.40%	14.51%	18.07%	21.19%	23.94%	26.38%	28.57%	30.54%	32.32%	33.94%
$20.00	4.43%	9.18%	13.26%	16.79%	19.87%	22.60%	25.02%	27.18%	29.13%	30.90%	32.50%
$22.00	3.29%	8.00%	12.04%	15.53%	18.59%	21.29%	23.69%	25.83%	27.76%	29.51%	31.10%
$24.00	2.18%	6.85%	10.85%	14.31%	17.34%	20.01%	22.39%	24.52%	26.43%	28.16%	29.73%

Average Return on Equity

IV-B

Amount of Office Space

0.204455	800	900	1,000	1,100	1,200	1,300	1,400	1,500	1,600	1,700	1,800
$26.00	-12.24%	-8.10%	-4.56%	-1.50%	1.19%	3.55%	5.66%	7.54%	9.23%	10.77%	12.16%
$26.50	-9.46%	-5.22%	-1.59%	1.55%	4.30%	6.73%	8.88%	10.81%	12.55%	14.12%	15.55%
$27.00	-6.68%	-2.34%	1.38%	4.60%	7.42%	9.90%	12.11%	14.09%	15.87%	17.48%	18.94%
Market $27.50	-3.90%	0.54%	4.35%	7.64%	10.53%	13.08%	15.34%	17.36%	19.18%	20.83%	22.33%
Rent $28.00	-1.13%	3.42%	7.32%	10.69%	13.64%	16.25%	18.56%	20.64%	22.50%	24.19%	25.72%
$28.50	1.65%	6.30%	10.29%	13.74%	16.76%	19.42%	21.79%	23.91%	25.82%	27.54%	29.11%
$29.00	4.43%	9.18%	13.26%	16.79%	19.87%	22.60%	25.02%	27.18%	29.13%	30.90%	32.50%
$29.50	7.20%	12.06%	16.23%	19.83%	22.99%	25.77%	28.25%	30.46%	32.45%	34.25%	35.89%
$30.00	9.98%	14.94%	19.20%	22.88%	26.10%	28.95%	31.47%	33.73%	35.77%	37.61%	39.28%
$30.50	12.76%	17.83%	22.17%	25.93%	29.22%	32.12%	34.70%	37.01%	39.08%	40.96%	42.67%
$31.00	15.53%	20.71%	25.14%	28.97%	32.33%	35.29%	37.93%	40.28%	42.40%	44.32%	46.06%
$31.50	18.31%	23.59%	28.11%	32.02%	35.45%	38.47%	41.15%	43.56%	45.72%	47.67%	49.45%

Average Return on Equity

IV-C

$/FAR ft

0.204455	$10.00	$12.00	$14.00	$16.00	$18.00	$20.00	$22.00	$24.00
$26.00	7.73%	6.46%	5.22%	4.01%	2.83%	1.68%	0.56%	-0.53%
$26.50	11.01%	9.71%	8.43%	7.19%	5.99%	4.81%	3.66%	2.54%
$27.00	14.29%	12.95%	11.65%	10.38%	9.14%	7.94%	6.76%	5.62%
Market $27.50	17.57%	16.20%	14.86%	13.56%	12.30%	11.06%	9.86%	8.69%
Rent $28.00	20.85%	19.45%	18.08%	16.75%	15.45%	14.19%	12.96%	11.76%
$28.50	24.13%	22.69%	21.30%	19.94%	18.61%	17.32%	16.06%	14.83%
$29.00	27.41%	25.94%	24.51%	23.12%	21.77%	20.45%	19.16%	17.90%
$29.50	30.69%	29.19%	27.73%	26.31%	24.92%	23.57%	22.26%	20.97%
$30.00	33.97%	32.43%	30.94%	29.49%	28.08%	26.70%	25.36%	24.05%
$30.50	37.25%	35.68%	34.16%	32.68%	31.23%	29.83%	28.45%	27.12%
$31.00	40.53%	38.93%	37.38%	35.86%	34.39%	32.95%	31.55%	30.19%
$31.50	43.81%	42.18%	40.59%	39.05%	37.55%	36.08%	34.65%	33.26%

RETURN ON EQUITY

TABLE V

	MTG RATE	ROE	$/FAR ft	ROE	OFF SQ FT	ROE	% EQUITY	ROE	MKT RENT	ROE	BLDG COST	ROE
% Change	-25.00%	9.38%	43.36%	$15.00	23.81%	920	10.05%	6.25%	24.53%	$22.00	-23.33%	$37.50	38.67%
(-)	-20.00%	10.00%	38.93%	$16.00	23.12%	980	12.49%	7.00%	23.36%	$23.45	-14.26%	$40.00	34.67%
	-15.00%	10.63%	34.42%	$17.00	22.44%	1,040	14.73%	7.75%	22.42%	$24.90	-5.20%	$42.50	30.85%
	-10.00%	11.25%	29.83%	$18.00	21.77%	1,100	16.79%	8.50%	21.65%	$26.35	3.87%	$45.00	27.22%
Base	-5.00%	11.88%	25.17%	$19.00	21.10%	1,160	18.69%	9.25%	21.00%	$27.80	12.94%	$47.50	23.75%
========	.00%	12.50%	20.45%	$20.00	20.45%	1,220	20.45%	10.00%	20.45%	$29.00	20.45%	$50.00	20.45%
Case	5.00%	13.13%	15.66%	$21.00	19.80%	1,280	22.08%	10.75%	19.97%	$30.70	31.08%	$52.50	17.28%
	10.00%	13.75%	10.80%	$22.00	19.16%	1,340	23.60%	11.50%	19.56%	$32.15	40.15%	$55.00	14.26%
	15.00%	14.38%	5.90%	$23.00	18.53%	1,400	25.02%	12.25%	19.19%	$33.60	49.21%	$57.50	11.36%
% Change	20.00%	15.00%	0.94%	$24.00	17.90%	1,460	26.35%	13.00%	18.87%	$35.05	58.28%	$60.00	8.58%
(+)	25.00%	15.63%	-4.08%	$25.00	17.29%	1,520	27.59%	13.75%	18.59%	$36.50	67.35%	$62.50	5.92%

EXHIBIT V

RETURN ON EQUITY - SENSITIVITY

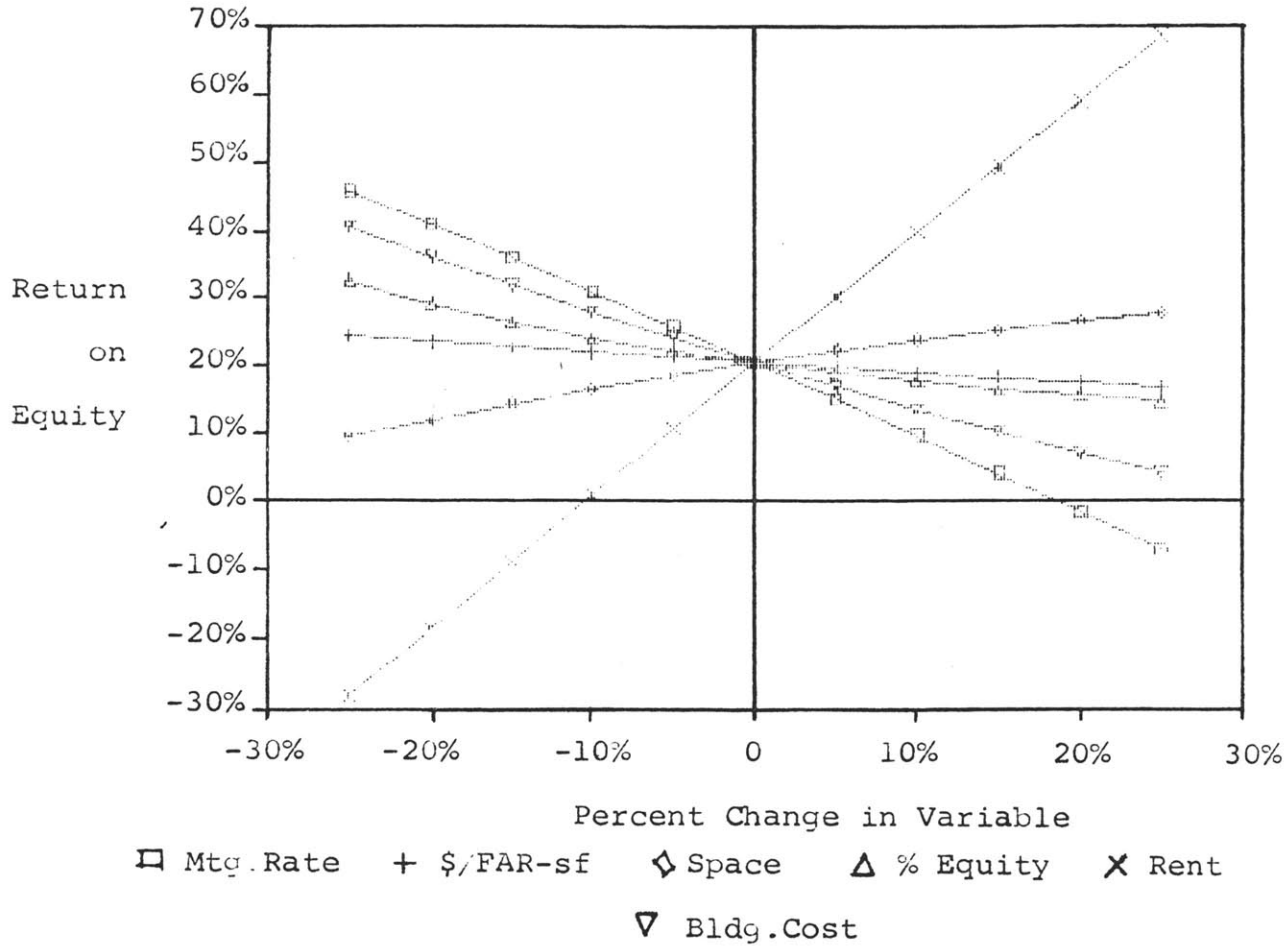


Table IV-C calculates, given various land costs, the market rents required to meet or exceed the hurdle rate. It is noteworthy that, with land costs fluctuating from $10 to $24/FAR-sf, market rents must remain between $28.00 and $29.50 per square foot.

Summary

The 1,220,000 square foot office program for Phase I is economically viable and supports current market land values. The assumption on market rent for the office space is the most critical variable in the feasibility analysis and , therefore must be projected with extreme accuracy. An understanding of the relationships between certain key variables as illustrated above is important to both a prospective developer and the MTA in the land valuation and negotiation process.

In summarizing the feasibility of Allston Landing, it would be remiss to focus entirely upon the economics. There are development risks associated with this project which must also be factored into the feasibility equation.

Any proposal for Allston Landing must be able to weather the storm of approvals, permitting and community opposition. With the City, State and MTA supporting redevelopment of Allston

Landing, there is a high probability that it will occur. The uncertainty is when. Although the MTA controls the site for Phase I, the process can still be held up by community or special interest groups attempting to prolong the process and jeopardize the project's feasibility. The developer must be ever cognizant of these "stray bullets" and take every precaution not to over-commit and bear full exposure for these risks. The MTA must also be aware of these risks and not force unreasonable terms for the take down of the property.

As discussed earlier, site control for the ConRail and Sears parcels is presently indeterminate. Consequently, each phase must be economically feasible and contain components which incrementally satisfy the interests of various parties. Aside from economic justification, Phase I provides the community a solution to the existing traffic congestion, creates a public open space along the waterfront and could possibly include a pedestrian overpass to a public boathouse or landing on the Charles River.

The lengthy and unpredictable nature of the approvals process and indeterminate schedule for Phase II site control are the primary risks affecting the build-out feasibility of Allston Landing.

CHAPTER SIX

DEVELOPMENT STRATEGY

Introduction

During the past 25 years the Allston Landing site has changed from a block of small scale private uses to large scale transportation uses via a taking by a quasi-public authority. In the interim, Metropolitan Boston has undergone periods of recession and inflation. Most recently, an extended boom has sharply affected property values in both the suburban and downtown markets. Exogenous shifts in locational attributes and real estate values have escalated the value of the Allston Landing site to a point where it is now prime for redevelopment. The MTA has recognized this development opportunity and has begun preliminary reconnaissance for an RFP.

This paper has documented a politicly responsive and economically feasible plan for Allston Landing. Chapter One provided an overview of the significant site conditions, constraints, and development issues for the site. This discussion included physical characteristics, abutter's interests, the MTA's development authority, existing development potential and a likely schedule for development.

Chapter Two discussed in detail traffic, community interests and site control which were determined to be the paramount issues confronting development of the site. A major improvement to the existing roadway network, including the relocation of the turnpike ramp, was recommended as the preferred solution to existing and future traffic needs. In order to determine a framework for community acceptance, specific community interests were identified and a community participation process was outlined. Available options and alternate strategies for site control of the ConRail and Sears parcels were discussed.

Chapter Three identified five major planning opportunities for Allston Landing and recommended certain market opportunities which should be considered. A preliminary market analysis of the Metropolitan Boston office market provided useful market data for programming and evaluating economic feasibility.

Chapter Four proposed a program and concept plan which responded to the development issues and planning/market opportunities outlined in Chapters Two and Three, respectively. It was argued that a master planned, mixed-use development by a designated developer was the preferred approach for development. The proposed program maintained the existing density for the area at 4 million gross square feet. Fifty percent of this space was for office use, 25 percent for residential and the remaining 25 percent for a mix of uses.

The planning opportunities and community interests were factored into the conceptual plan to ensure community acceptance. The plan is organized around a public open space system which provides river access. The distribution of uses and density on the site respect the abutter's concerns. Low density, community-oriented uses are proposed to adjoin the residential neighborhood to the west. The site is developed in two major phases which is primarily a function of land availability. The Phase I area is the most distant from existing residential and is programmed at 80 percent office use. A staging plan and definitive building program is presented for Phase I.

Chapter Five described a feasibility model which was constructed to test the economic viability of the office program proposed in Phase I. Under the base case assumptions which included a market rate land value of $20/FAR sf, the program was determined to be a feasible development. The developer achieved a cash on cash return of 20 percent which was considered an acceptable hurdle rate given the project's associated risks.

Chapter Six outlines a development strategy to implement the plan. The issues to be resolved during a pre-RFP site preparation stage are outlined and responsibility is assigned for each. Special mention is made of provisions which should

be included in the Allston Landing RFP and immediate actions are recommended for the pre-RFP process. The chapter concludes with a summary of management issues in the development process.

Site Preparation

Significant off-site improvements are required to implement any plan which seeks to develop the property at its highest and best use. Prior to development of Phase I, the entire roadway network surrounding the site must be improved and artfully reconfigured to mitigate the existing substandard traffic flow and provide future efficient access and egress to Allston Landing. The magnitude of these network improvements involve alterations to turnpike ramps and adjacent major arterials and intersections with significant community wide impacts.

Given the public safety and welfare issues involved, the need for a solution which reconciles a myriad of competing interests and the magnitude of costs, it appears inappropriate for a private development entity to be entrusted with the responsibility to optimally resolve the issue. All the community wide transportation issues related to a first phase of development at Allston Landing should be resolved during a pre-RFP planning exercise by the MTA in conjunction with other

city and state officials and transportation consultants. The optimum resolution may require additional land swaps with ConRail which could only be accomplished via the clout of the MTA and other state agency support.

The preferred transportation scheme resolved during this site preparation exercise should be presented as part of the development framework in the RFP. This would insure both the community and the developers responding to the RFP that the proposals incorporate a practical and satisfactory solution to this paramount issue.

Creative solutions to assist in the funding of these improvements must be explored. Historically, it has been the policy of the MTA to deliver land in raw form and not fund improvements which would enhance the development potential of a particular parcel. This was most recently the case with the turnpike ramp relocations which provide access to Copley Place. To insure the project's economic viability, the developer, UIDC in this instance, was forced to seek below-market financing from federal UDAG funds given to the city. However, since the ramp "improvements" in the Allston Landing development will serve to mitigate the existing substandard traffic conditions at the Allston/Brighton exit, it is conceivable that the MTA could justify some participation. The MTA's position on this issue should be clearly stated in the

RFP to assist the developer in constructing a funding strategy.

The development of Phase II presents an altogether different site preparation issue. Conrail must be relocated or the air rights above the easement must be leased. This responsibility clearly rests with the MTA. It must be recognized that this "land assemblage" issue will take extensive evaluation and negotiation. It is most probable that there will be no resolution to this issue prior to Phase I development.

The other major site preparation issue in Phase II relates to the buy out or relocation of Sears. This strategic parcel is required to provide a compatible transition from the community into Allston Landing and to meet the community's objective of a safe and attractive open space system through Allston Landing to the river. The designated developer and city must take the responsibility for resolving this issue.

Structure of the Request for Proposal (RFP)

Aside from the traditional boiler plate for publicly issued RFP's, there are specific elements that should be included to improve the Allston Landing RFP.

Development Framework:

As discussed earlier in this chapter, the MTA must bring some clarity to the issues of community wide impacts and present either a preferred solution or range of acceptable options. This is certainly the case with regard to the transportation issues. It is important to insure viable and publicly acceptable solutions as well as clarify any cost sharing formulas by the MTA. Through collaboration with local community groups, abutters and city officials, there should be a clear articulation of public development objectives which provide direction to the proposals.

Two-tier Development Proposal:

The RFP should request that the entire Allston Landing planning district be programmed and planned at a conceptual level. This is critical to provide context for the Phase I proposal. The general concept intent must be flexible and capable of withstanding development pressures which may fluctuate during the build-out period. The concept plan should include specific design and development criteria.

The proposal for Phase I should support the conceptual plan and have advanced the program, site and architectural plans through schematics.

Development Schedule:

Given the magnitude of the site and potential program, the build-out of Allston Landing is clearly long term. The developer should propose a development schedule along with a phasing rationale. Recognizing that Phase II development is contingent upon major relocation issues by others, the developer should propose a scheduling strategy which accounts for the uncertain timing of land availability.

Economic Feasibility:

In the pro forma calculations and documentation of project feasibility, the proposals should specifically address a viable funding strategy and cost sharing formula for all required off site improvements.

Development Teams:

The diverse nature of mixed-use development requires experience and expertise with numerous product lines. Development teams comprised of two or more development firms should be encouraged to insure the ability to execute a high quality mixed- use development.

Recommended Actions

In order to achieve the highest and best use at the Allston Landing site, generate acceptable land value to the MTA and satisfy the community interests, the following actions are recommended for immediate action.

1) A comprehensive traffic study which addresses the regional transportation network surrounding the site should be undertaken. The study should seek to define an optimal and practical solution to the traffic network. This would insure adequate capacity and efficiency at all levels of the network and provide the transportation component of the development framework in the RFP. This could be undertaken as a joint effort between the MTA and the BRA transportation department.

2) A comprehensive planning study for the North Allston community should be undertaken early in the pre-RFP process. This should formulate specific community objectives relative to development at Allston Landing. The City could use the newly created "Interim Planning Overlay District" (IPOD) to establish the appropriate climate for a pre-development study. The IPOD does not require the consent of the community prior to implementation and should be on an accelerated schedule. A one year time limit is recommended which is considerably shorter than the two year maximum stipulated in the zoning

amendment. The results of the study should be used to establish development guidelines.

3) A Citizens Review Committee (CRC) with its associated advisory and review powers should be created to participate in the development process. The CRC should take the lead in representing the community goals in the planning study described above.

4) A cost sharing formula should be structured to account for the funding of necessary roadway improvements to achieve the preferred solution, including an expected share to be provided by the private sector.

5) The MTA should keep ConRail informed of its intentions to develop Phase I of Allston Landing and the need to plan for the eventual use of the ConRail easement. In addition, the MTA should initiate a relocation feasibility study which explores alternate sites, strategies for relocation, relocation costs and alternate uses for air rights development.

Management Options

There are three fundamental management issues which need to be addressed. These are: 1) What is the appropriate developer designation process; 2) How should the public sector team be

organized to represent and protect all concerned parties; and 3) Which agency should take the lead role in the development process.

Developer Designation:

The selection of a developer for Allston Landing could take the form of a sole-source designation, as was used for the development of air rights at Copley Place, or an open invitation, competitive bid RFP. The sole-source approach is usually reserved for situations where there is an overwhelming clear choice of a single capable developer with sufficient interest and resources to take on the task. Such is not the case with Allston Landing. In addition, the public/private development process has matured in recent years to a level of sophistication which makes the open invitation, competitive bid process more effective from the public's perspective.

All indications are that an open invitation RFP process will be used to solicit proposals. This process allows greater input, via representation on a developer designation committee, from a broader base of concerned parties and public agencies.

Public Sector Team:

The complex and controversial nature of such a large scale development by a public or quasi-public agency clearly exceeds the in-house expertise of the MTA. Just as the MTA acknowledges the need for a multi-disciplinary effort in preparing the RFP, there must also be a structured multi-disciplinary team to manage the process from site preparation and preliminary planning through design review, approvals and contruction.

A carefully orchestrated team approach must be implemented which draws upon the unique talents of various public agencies. The BRA's expertise in planning, market research and funding strategies must be solicited. The elected city officials which are tuned in to their local constituents should lead the community participation and public relations campaign. The MTA must be able to protect its interests as property owner and contribute its specialized development leverage and technical expertise to the team. The state is necessary to insure general economic development policies, obtain alternate sources of funding if necessary and exercise its dominant political clout to guarantee effective teamwork and timely delivery of the public sector's commitments.

Lead Agency:

In order for a team of public officials and agencies to be managed effectively and remain responsive to the schedule of a designated developer, the team must have a strong captain which can be held responsible for the process and has the authority to execute decisions.

The State appears to be the most likely candidate for directing the public sector development team. The State's successful management of the citizen participation process for the Copley Place project is excellent testimony of its expertise in the arena of public/private negotiation. The State would be most effective in expediting the process while insuring proper attention to the developer selection, design review, approvals and public participation.

APPENDIX A: CONTACTS/DIRECTORY

Owner:	MASSACHUSETTS TURNPIKE AUTHORITY (MTA) David Nagle - Director of Real Estate Joseph D. Feaster, Jr. - Asst. Director Virginia Tsao - Jr. Civil Engineer
Tenant:	CONRAIL Robert Soltis - Manager, Real Estate
Abutters:	METROPOLITAN DISTRICT COMMISSION (MDC) Julia O'Brien - Director of Planning
	HARVARD REAL ESTATE Rob Silverman - Vice President
	HARVARD UNIVERSITY PLANNING GROUP Paul Donham, Jr. - Planning Officer Robert Drake - Librarian Mary Ann Jarvis - Government and Community Affairs
	HARVARD GRADUATE SCHOOL OF BUSINESS ADMINISTRATION Paul H. LaPointe - Asst. Dean, Director of Administrative Operations
	WGBH TV - Channels 2 and 44 / WGBH FM 89.7 David Norton - Director of Physical Plant
	THE BEACON COMPANIES David Lash - Project Manager
	SEARS ROEBUCK AND COMPANY Jerry Barnett - Director of Real Estate, Mid-Atlantic and New England Regions
	HOUGHTON CHEMICAL CORP. Bruce Houghton - Vice President
State Government:	GOVERNOR'S OFFICE OF ECONOMIC DEVELOPMENT Alden S. Raines - Director
	MASSACHUSETTS CONVENTION CENTER AUTHORITY Francis X. Joyce - Executive Director Robert Sheehan - Deputy Director Kenneth Leach - Consultant/Director of Project Engineering

DIVISION OF CAPITAL PLANNING & OPERATIONS
Tunney Lee - Director

State Government: (continued)

EXECUTIVE OFFICE OF TRANSPORTATION AND CONSTRUCTION
Juan Evereteze - Assistant Secretary, Land Development

Community Interests: CORP.

ALLSTON-BRIGHTON COMMUNITY DEVELOPMENT

Rebecca Black - Executive Director
Charles Doyle - Board Member

NEIGHBORHOOD DEVELOPMENT AND EMPLOYMENT AGENCY (NDEA)
Greg Polk - Executive Director

CITY COUNCILLORS - CITY OF BOSTON
Brian J. McLaughlin - Allston/Brighton
Michael McCormick - At Large

BOSTON REDEVELOPMENT AUTHORITY (BRA)
Stephen Coyle - Director
Richard Garver - Asst. Director
Susan Allen - Asst. Director
David Trietsch - Planner
Sandra Swaile - Planner

INSTITUTE FOR STUDY OF POLITICAL COMMUNICATION
Kevin White - Chairman; Former Mayor, City of Boston

ALLSTON CIVIC ASSOCIATION (ACA)
Veronica B. Smith - Representative
Ray Malone - Representative
Paul Golden - Representative

SOUTH ALLSTON NEIGHBORHOOD ASSOCIATION
Jim Hynes - Representative
Helene Solomon - Representative

BRIGHTON-ALLSTON IMPROVEMENT ASSOCIATION
Mary Talty - Representative

COMMUNITY BEAUTIFICATION COUNCIL
Brian Gibbons - Representative

ALLSTON BRIGHTON CABLE ACCESS COUNCIL
Helene Solomon

RKG ASSOCIATES, INC.
Richard K. Gsottschneider - President

STOCKARD & ENGLER INC.
Robert Engler - Principal

Market Analysis:

BOSTON REDEVELOPMENT AUTHORITY
Greg Perkins - Research Dept.

LEGGAT McCALL & WERNER INC.
Sargent Goodchild - Vice President

SPAULDING & SLYE
Henry Brauer - Broker

CARPENTER & CO.
Carmine Cerone - Vice President

ECONOMIC DEVELOPMENT AND INDUSTRIAL CORP.
Paul Yelder - Project Manager

THE ABBEY GROUP
Robert Epstein - President

Appraisal:

MINOT DE BLOIS & MADDISON INC.
Edward Wadsworth - Vice President

R. M. BRADLEY & CO. INC.
Murray Reagan - Vice President

Engineering:

R. G. VANDERWEIL ENGINEERS, INC.
Edward Quinlan - Project Manager

KEYES ASSOCIATES
Ernest E. Kirwan - Partner
Paul Finger - Landscape Architect

MASSACHUSETTS PORT AUTHORITY (MASSPORT)
Leonard J. Barbieri - Project Manager

HOWARD NEEDLES TAMMEN & BERGENDOFF (HNTB)
Carl Anderson - Project Manager

VANASSE-HANGEN ASSOCIATES
John J. Kennedy - Principal

Law:

HALE & DORR
Howard Hessness - Partner

MASSACHUSETTS TURNPIKE AUTHORITY
Edward F. Saunders - Counsel
Raymond J. Fontana - Counsel

DIVISION OF CAPITAL PLANNING & OPERATIONS
Ruth Pavin - Counsel

APPENDIX B: PERMITTED ZONING USES

Legend: Use Status A = Allowed
" " C = Conditional
" " F = Forbidden

USE	M (Restricted Industrial)	I (General Industrial)
Residential:		
Multi-Family (3+ dwelling units)	C	F
Group Care Residence - General	C	F
Group Care Residence - Limited	C	C
Temporary Dwelling	C	C
Institutional:		
Elementary or Secondary School	C	F
College or University	C	C
Day Care/Nursery School/ Kindergarten	A	A
Library or Museum (Non-profit)	A	A
Place of Worship	A	A
Scientific Research and Teaching Lab	C	C
Penal or Correctional Institution	C	C
New Cemetery	C	C
Columbarium in a Cemetery	A	A
Recreational:		
Public Park/Playground/Rec. Bldg.	C	C
Priv. Grounds for Games/Sports (Non-prof.)	C	C
Adult Education/Community Center	C	C
Private Club	C	C
Public Services:		
Public Service Pumping Stn., Sub-stn.	A	A
Telephone Exchange	A	A
Fire/Police Station	A	A
Retail:		
Local Retail Service	A	A
Dept./Furnit./Gen. Merchandise Store	A	A
Automotive and Truck Sale within Bldg.	A	A
Over the Counter Food and Drink	A	A
Lunch Room/Restaurant/Cafeteria	A	A
Amusement Game Machines in Priv. Qtrs.	A	A
Office:		
Professional Office (not accessory)	A	A
Clinic (not accessory)	A	A
Office Building/Post Office/Bank	A	A

Office/Sales/Display Space, Distr'g. Hse.	A	A

USE	M (Restricted Industrial)	I (General Industrial)
Service Establishments:		
Barber Shop, Laundry, etc.	A	A
Tailor/Dry-Cleaning Shop	A	A
Laundry Plant	A	A
General Service and Repair	A	A
Funeral Home	A	A
Research Lab/Radio and TV Studio	A	A
Animal Hospital/Clinic	A	A
Open Air:		
Open Air and Drive-In Uses	A	A
New or Used Motor Vehicles for Sale	A	A
Stadium or Other Outdoor Assembly	A	A
Mobile Home Park	A	A
Wholesale Business (including accessory storage)	A	A
Outd'r Stor. of Damaged/Disabled Motor Vehicles	C	A
Vehicular Stor. & Service, Transport'n.:		
Parking Lot	A	A
Parking Garage	A	A
Repair Garage/Service Station	A	A
Automotive Parts & Accessories - Sales	A	A
Automotive Rental Agency	C	A
Bus Terminal	A	A
Railroad Passenger Station	A	A
Motor Freight Terminal	C	A
Heliport	C	C
Industrial:		
Industrial Uses - General	A	A
Accessory Uses:		
Garage/Parking Space	A	A
Swimming Pool/Tennis Court	A	A
Keeping of Animals (pigs excluded)	C	C