Ledge Site: Analyzing the Harvard-Mission Hill Controversy in Real Estate Development

by

Andrew A. Smith, Jr.

B.Arch., Howard University (1972)

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER IN CITY PLANNING at the MASSACHUSETTS INSTITUTE OF TECHNOLOGY May 1980

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Andrew A. Smith, Jr.

Submitted to the Department of Urban Studies And Planning in May 1980 as Partial Fulfillment of the Requirements for the Degree of Master in City Planning

ABSTRACT

In recapturing a historical scenario of controversy over potential developability, the institution and community imageries seem to be in disagreement over the Ledge Site. Political issues along with social and economic consequences motivate discontentment. As one of the many remaining undeveloped parcels in Mission Hill, factors of community acceptability, market potential, and hierarchical decision-making are generated to intensive reflection and discussion. These viewpoints are considered when comparing alternative future situations, and evaluating outcomes beneficial enough to warrant development pursuits.

Thesis Supervisor: Professor Tunney Lee
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<td>5.02</td>
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<td>102</td>
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<td>102</td>
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</tbody>
</table>
INTRODUCTION

The Ledge Site is the most prominent gateway to Mission Hill from Brigham Circle (Figure 0.01). The topographical imagery projects a residential character with incidental qualities as communality, remoteness and reconnaissance. It is this last element that has brought the Ledge Site into the forefront, second only to the power plant (MATEP), as a matter of controversy between Harvard University and Mission Hill.

Located southeast of the Harvard Medical School and within proximity of Huntington Avenue, in Boston, this four-parcel tract has had persistent problems on account of managerial and developmental issues. The commercial parcel was in arrears for $1745.98 between 1976 and 1977 on water and sewer surcharges. One of the stores on the site was the subject of health code violations when the leasee and owner of Giant Value failed to fully maintain the market. Since the terms of agreement between Harvard and the market had been in jeopardy, the ongoing rent delinquency and illegally sublet parking spaces allowed the initiation of procedures for either correction or eviction. The sectional, residential-vacant land, parcel was noted for occasional and unsurveillant dumping of masonry debris, and retrograde of the St. Alphonsus
BOSTON LOCATION OF MISSION HILL
Figure 0.01
Street townhouses. The vacant parcels are also generally the meadowland and valley of the ledge, an unusual urban wild unfortunately inhabited by rodents and trash.

Recently, Harvard has reconciled some of the managerial contentions. Now it is imperative that the unresolved development issues be analyzed as a premise for future negotiation. Local interest groups rejected an original proposal from Harvard and contemplated the need to revise the guidelines and specifications for utilization.

The report will be utilized by the Mission Hill Planning Commission in devising a plan satisfactory to all parties with a legitimate interest in the future development of the Ledge Site. The data collecting offers the opportunity to spread old and recent information and encouraging communication and interaction among interested individuals and groups. This resourceful handbook will provide valuable information about realistic development options that might accomplish Harvard-Mission Hill goals.

In attempting to explore the nature and history of controversy over the site, it should give the performance from the perspective of all interested parties - the institution, community, resident, city, and architect - from dissimilarity to conformity. It will also be considered in relation to the environmental context of the period. These are the crucial constraints and limitations over which neither a developer, Harvard University, nor the community has control, such as micro- and macro-economic, socio-economic, regulatory and spatial-geographic conditions with long-term implications.
By identifying community desirability, the report will pursue the feasible and highly beneficial factors favoring development at the site.
1 PARCEL SITE

The Ledge Site, commonly known as Quarry Site, is an urban, unsymmetrical tract of land within the Triangle Neighborhood. Situated at the crossroads of Brigham Circle in central Mission Hill, it is three miles southwest of downtown Boston and a half mile northeast of Brookline Village. The site is formed by a number of plateaus bounded by prominent rock ledges which clearly define its upper and lower regions. With the exception of an adjacent parcel at the corner of Tremont and Calumet Streets, the site would have a panoramic frontage on Brigham Circle. The parcel necessitates access to the lower region at a point approximately two hundred feet on either Tremont or Calumet Streets from Brigham Circle, and St. Alphonsus Street for the upper region. On the periphery of the site, there are predominantly triple deckers and scattered retail land uses (Figure 1.01).

The President and Fellows of Harvard College, a Massachusetts Corporation, is the owner in fee simple of the Ledge Site. This concept of ownership by a corporation has an absolute, good, marketable title; a corporation can sell realty or bequeath it to heirs. The title
was granted with quitclaim convents, theoretical unconditional but still subject to restrictions of building code and zoning ordinance.

The Ledge Site is generally bounded by St. Alphonsus Street on the southeast; lands of sundry adjoining owners and Alleghany Street on the southwest; Calumet Street on the northwest; lands of sundry adjoining owners and Tremont Street on the northeast. The land area encompasses 408,612 square feet or 9.38 acres (Figure 1.02), according to a confirmation surveyed by William S. Crocker Inc. The total tract contains four parcels with several unique land uses and conditions. It has predominantly vacant land with the remaining land uses allocated to six percent residential and twenty-four percent commercial.

Historical Background

Ledge Site, once part of the Coleman's Quarry, was known for pudding stone. As Roxbury's best natural resource, it was names for its resemblance to plum pudding and generally covered the land between Brigham Circle and the northwestern slope of Mission Hill. Colonists first discovered the plentiful conglomerate rock which is unique to the area in the 1630's, and named the settlement for the abundance of rock around them. The stone has been used in buildings all over Boston.

Before 1860, the site and surrounding farm estates determined the character of the area. These Yankee-owned estates, many of which remained in the hands of descendants of the original proprietors, covered the slope of Mission Hill giving it a rural flavor. The steepness of the hill grades had inhibited its development. Its moment of mass building awaited the results of the annexation of Roxbury to Boston in
1867, namely, complete town coverage by street, water and sewer services, without regard to the height or grade of any lot.  

From 1869 to 1899, the Ledge Site remained a quarry under the private ownership of the Dexter Family. In Franklin Dexter's possession and city authorization, the tract existed as two large parcels separated by Alleghany Street with the remaining six barren parcels aligning an already developed Tremont Street. When inheriting the realty, Gordon Dexter, further subdivided the upper tract along Calumet Street into twenty-seven individual parcels and among ten perspective buyers. The three small one-story wood frame structures superimposed and scattered within six parcels along Tremont Street were perhaps associated with either quarry machinery or equipment storage.

From 1900 to 1950, the predominantly larger portion of Ledge Site was dispensed to Lawrence Logan with the remaining two percent located in the southeast corner to James Doherty. The six parcels along Tremont Street were eliminated and the northwest parcel at Calumet and Tremont Streets established under the ownership of Jerome McNamara. With the alignment of St. Alphonsus Street through the site, it is probable that the land fill process took place about the 1900's which established the site as we know today. It appears that the one-story wood frame structures along Tremont Street had seen some demolition and replacement through the 1930's, which may be an indication that a part of the quarry was still in existence. The site continued to be in the Logan Family throughout the 1940's, having been inherited by Martha Logan.

Accordingly, the total site was sold by the Logan Estate to the prospective purchaser, Beaufort Realty, a subsidiary of Beaufort Motors
Company. With the building of the commercial structure on the lower region in 1953, the Ledge Site existed as four parcels still in the possession of Beaufort Realty Corporation. When Brigham Trust acquired the real estate in 1955, it leased the building to Elm Farm Food Company. Thereafter a tenant, partitioned portions of the space and subleased it to the First National Bank of Boston, and Shea Dry Cleaners, Inc.

The President and Fellows of Harvard College purchased the Ledge Site on a piecemeal basis from 1959 to 1968 (Figure 1.03). After the conveyance of the last parcel, the Corporation was subject to the same benefits of the subleases as the former owner. Outside many medical expansion proposals, in 1962 the President and Fellows of Harvard College sponsored the development of five row houses on the northeast corner of the site to appease community interest. It continued thereafter, despite community upheaval, to include the Ledge Site as an alternative location for several health affiliated buildings throughout that decade.

In March 1970, an organization called the Roxbury Tenants of Harvard, representing the neighborhood purchased by the Harvard University Medical School with the original intention of building a hospital in place of housing, sponsored a preliminary area wide plan. It demonstrated some methods by which the neighborhood could co-exist with the expanding hospital complex and some suggestions how Mission Hill might be salvaged. Even though this entailed a land area over 44 acres which included the affiliated hospitals, Convent Site and Ledge Site; it made clear that some coordinated effort between the Medical Center and the
Figure 1.03
Grantee: President and Fellows of Harvard College

<table>
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<th>PARCEL</th>
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<th>PARCEL</th>
<th>647</th>
<th>PARCEL</th>
<th>649</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRANTOR</td>
<td>Payson &amp; Jordon Trust</td>
<td>GRANTOR</td>
<td>Elm Farm Food Co.</td>
<td>GRANTOR</td>
<td>Brigham Trust</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
<td>14</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>AREA</td>
<td>5.91 acres</td>
<td>AREA</td>
<td>1.03 acres</td>
<td>AREA</td>
<td>2.21 acres</td>
</tr>
<tr>
<td>CLASS</td>
<td>R4</td>
<td>CLASS</td>
<td>L</td>
<td>CLASS</td>
<td>C3</td>
</tr>
<tr>
<td>VALUATION</td>
<td>$50,600*</td>
<td>VALUATION</td>
<td>$22,000*</td>
<td>VALUATION</td>
<td>$168,000*</td>
</tr>
<tr>
<td>TAXATION</td>
<td>$12,796.74*</td>
<td>TAXATION</td>
<td>$5,563.00*</td>
<td>TAXATION</td>
<td>$42,487.20*</td>
</tr>
</tbody>
</table>

Source: Boston Assessment Department, 12/79.
Mission Hill Community was necessary to deal with the deterioration. This plan also detailed the time horizon and phasing process based on the situation that existed at that period. It suggested that the Ledge Site was appropriate for joint retail, housing, school and recreation re-use with major pedestrian circulation along Tremont, Alleghany and Calumet Streets.

In August 1972, the Circle Federation and Mission Hill Housing and Land Use Committee delegated John Sharratt Associates to prepare an "Area Wide Plan". This comprehensive study repudiated the institutional sponsored "Interim Study Report", which was against the interest of the community. When I.M. Pei and Partners produced this master plan, the Medical Area Planning Commission didn't consult or gain the approval of the residential community. Furthermore, the recommendations neither included an adequate representation for the Mission Hill Community in the membership nor the general neighborhood area boundaries. Sharratt's Plan, with community sanction, had naturally divided the community into a low intensity and high intensity use sector based on different degrees of street service. Whereas the low intensity sector was an inaccessible residential area being defined by the hill, the high intensity sector was a primarily accessible institutional area being flat and plan for high activity and inter-communication served by those related persons. Along with general recommendations that would salvage the low-high intensity community, there was a land use proposal for the Ledge Site. It was suggested that the Ledge Site, a low intensity sub-area, was appropriate for mixed-use development, with an underpass at Brigham Circle to simplify and decongest the inter-
section. In addition to housing, it included a joint school and open
space use. The Ledge Site along with a portion of RTH and Triangle
Neighborhoods were planned to be developed as a facility center with
special provision for commercial shopping center, office building,
theatre, and community civic center. Tremont-Francis Streets, an in-
tensity separator, would be clarified as a secondary connector routes
with Fenwood-Calumet Streets developed as a major community pedestrian
promenade to the plaza and community center in Brigham Circle. The
unique collection of rock forms of the Ledge Site leads to an impressive
view of the area and offers an opportunity for some parkland considera-
tions.

In 1976, Representative Kevin W. Fitzgerald of Mission Hill was
approached by several of his constituency in an effort to persuade
Harvard to explore development potential for the Ledge Site. Having
 gained a commitment toward this proposal, the university agreed to under-
take this study while underwriting the costs of planning and consultant
fee. Harvard ultimately chose Benjamin Thompson & Associates of
Cambridge, previously involved with the concerns of the community in
work on the Total Energy Plant on Brookline Avenue, as consultant for
the study. Thompson subsequently pursued alternative uses for the lower
Tremont Street site with round-the-clock activity and surveillance as a
stimulant for the neighborhood and reserved the upper St. Alphonsus
Street site for potential open space with possible low-rise housing.
As a supportive mechanism for the sale of the development, he utilized
a parking garage to make the site more attractive to a potential devel-
oper. The initial investigation of the Ledge Site was based upon the
economic feasibility studies of other projects recently completed or currently underway including program considerations. The concept entailed housing and/or hotel along Alleghany Street, central parking with a three point access, and commercial frontage along Tremont Street. Thompson considered the interchangeable allotment of space for elderly housing, middle-income housing, and motor hotel with areas designated by parking and retail-office remaining stationary. He further explored the connotation of open space with respect to high density and low density areas. The elimination process of the five alternatives were to be analyzed and assessed according to community preferences and needs. After an optimistic beginning, Harvard eventually abandoned the hopes for development due to alienation it caused in the community. Harvard had continuously pursued proposals based only on a small faction, considered to be representative, that ultimately created havoc among the masses of the community.

Environmental Appraisal

The site's coordinates describe an amorphous fourteen-side puzzle in which some ingenuity is necessary to complete the remaining urban environment. It is circumscribed by several small privately owned parcels with perimeter access provided at three points along the major streets. A general field survey indicates that the site is proportional vacant land and row houses with the remainder leased bank, stores and parking lot constituting the whole. Located at the northeastern sector of the site, these row houses tend to be newer but sparsely populated
one and two-family wood frame and pitch roof structure with a 1.0 floor area ratio. In contrast, the opposite northwestern sector contain two-story brick and built up roof commercial structure that include the First National Bank Branch, Giant Value, Shea Dry Cleaners and Laundromat with over 17,000 gross leased area. The vacant land occupy portions of the northern and entire central and southern sections of the site. The terrain is located at two major elevations with its own unique features. The upper site is inclosed with a chain link fence whereas, the lower site is open with access from the adjacent parcel. While the lower site is bound on two sides by the rock ledge with restrictive views, the upper site is generally free and independent with panoramic views.

The site is limited to adjacent areas, beyond the asphalt parking lot, in the distribution of indigenous plants and shrubs. Likewise, this adjacent ground is confined sparsely and generally to small areas that surround the ledge, housing and parking lot. Coupled with poor ground maintenance and excessive outgrowth, the domination of ground covering by wasteland weeds and invasion species are commonly found on this undisturbed land. Because of this neglect, the undergrowth provide wildlife cover in the midst of the city which is otherwise covered by ornamental plantings. However, a few small shade trees have been introduced in front of the row houses for landscaping purposes. The site does also provide some resting and feeding for common urban birds and rodents. Some of the indigenous shrubs and herbaceous plants in the understory have forage value for wildlife, but because of the urban setting, few wild animals are present to
utilize this potential resource. At a quick overview of the site, one frequently sees debris of various kinds that generally add to the poor aesthetic quality of the lower site.

Because the site is located in an urbanized environment, there are many existing utilities on or near the area which could be utilized in any potential development. Adequate reserve capacity is available in these systems to serve the maximum level of development contemplated on this site (Figure 1.04). Pertinent data regarding each utility can be found in Table 1.01.A. These major lines do not present a constraint to future development on the site.

The site lies in a hillside basin, a structurally controlled depression, bounded by faults and intrusions. The Roxbury conglomerate, Pudding Stone, can be seen cropping out all over the site. The crystalline rock does much to sculpture the basin and was subsequently drowned with a non-homogeneous fill. This outlain fill has a very low strength that is well known for the resulting foundation problems. This soil will probably require foundations that penetrate to bedrock, and the removal of some unsuitable soil during the construction of buildings is a necessity. The existing ground elevation for the lower site is 43.0 feet with no official record for the upper site, but a calculated assumption of 107.0 feet above mean sea level.

The lower site underlying condition can be generalized from the surface downward as 0.0 to 1.0 feet of hard top and stones, 1.0 to 4.0 feet of non-homogeneous fill and 0.0 to 424.0 feet of conglomerate rock. Depth of bedrock is approximately 420 feet.20 In contrast, the presumptive underlying condition of the upper site can be general-
Table 1.01.A Utility Evaluation Summary

<table>
<thead>
<tr>
<th>Utility</th>
<th>Jurisdiction</th>
<th>Capacity</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric</td>
<td>Boston Edison Co.</td>
<td>400 megawatt, 13800 volts at present with substantial reserve capacity</td>
<td>Will supply on request necessary power for up to maximum development</td>
</tr>
<tr>
<td>Telephone</td>
<td>New England Telephone Co.</td>
<td>Available in area</td>
<td>Will supply service upon request</td>
</tr>
<tr>
<td>Water</td>
<td>City of Boston distribution system (supplied directly from MDC)</td>
<td>Existing 1-12&quot; line &amp; 1-8&quot; line, Available 1-48&quot; line, Capacity - 402 BGD</td>
<td>16&quot; line should be tapped directly to MDC 48&quot; line on Tremont Street. Water supply exceeds peak demand of maximum development</td>
</tr>
<tr>
<td>Gas</td>
<td>Boston Gas Co.</td>
<td>Lines available in the area</td>
<td>Due to present and projected shortages, this energy source not recommended for this development</td>
</tr>
<tr>
<td>Storm Drainage</td>
<td>City of Boston</td>
<td>Existing facilities drain - 12&quot; line</td>
<td>Area already consist of primarily impervious surfaces but runoffs can increase significantly</td>
</tr>
<tr>
<td>Sanitary</td>
<td>City of Boston (connected to MDC)</td>
<td>Existing 1-15&quot; line, Capacity - 343 MGD</td>
<td>Existing facilities have adequate capacity for any contemplated development</td>
</tr>
</tbody>
</table>
ized from the surface downward as 0.0 to 5.0 feet of non-homogeneous fill, and 0.5 to 488.0 feet of conglomerate rock with a depth of bedrock approximately 483 feet. Because the uncertain depth of ground water, one can assume it might vary from a mean low water datum of 3.0 feet for the Muddy River to -5.65 feet for the Boston City Base. The construction of buildings on the site will necessitate the elimination of a basement due to the impermeability in rock which could cause flooding or seepage through the peripheral foundation walls. It should be noted that the USGS places Boston in a zone of high seismic risk, but New England's seismic events has a fairly random spatial distribution. While some dynamiting shall be required to prepare the land for construction, depth of bedrock is an uncertainty since removal may result with the presence of boulders.

With the Ledge Site an essentially man-made environment nearly devoid of wildlife inhabitants and few natural vegetation, the ecosystem tend to be unstable and vulnerable. The intensely urbanized character of the site has resulted in water, noise and air pollution which has already compromised the quality of the life for persons living in the area. Table 1.02.B summarizes the results of this environmental evaluation. The only environmental parameter which might manifest a significant, measurable change as a result of addition-growth in the area would be air pollution levels. The issue of air pollution burdens in or near downtown Boston is a critical one because of Federal regulations requiring the attainment and maintenance of the National Ambient Air Quality Standard (NAAQS) by 1977. It has been suggested that all major development in the Boston Area be evaluated and rated
Table 1.02.B  Environmental Evaluation Summary

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate</td>
<td>Within humid climate zone, either cfb or dfb (after Koppen). No distinct dry season; mean annual precipitation - 43 in.</td>
</tr>
<tr>
<td></td>
<td>Predominant wind direction winter - NW; average speed - 13mph. Predominant wind direction summer - SW; average speed - 10 mph.</td>
</tr>
<tr>
<td></td>
<td>Predominant mean afternoon mixing lid altitude - 1100 meters.</td>
</tr>
<tr>
<td>Air Quality</td>
<td>CO concentration in low levels due to roadway; SO₂ concentration are low.</td>
</tr>
<tr>
<td>Topography</td>
<td>Maximum relief across site: vary from 60 to 70 ft.</td>
</tr>
<tr>
<td>Vegetation</td>
<td>No area of unique habitat value. No rare or endangered species on the site. Site is dominated by wasteland weeds and invasion species.</td>
</tr>
<tr>
<td>Soils</td>
<td>Generally permeable fill of varying types to depth of 4 ft. No aquifer recharge.</td>
</tr>
<tr>
<td>Water Quality</td>
<td>Site not subject to inundation from flood crests of nearby Muddy River. Muddy River classed as &quot;B&quot; water. Rainfall acidity characterized by 10 or more times higher than normal.</td>
</tr>
<tr>
<td>Runoff</td>
<td>Lack of infiltration for paved surface cause contaminants to drainage system. Occasional accumulation of rainwater due to clogged catchbasin.</td>
</tr>
<tr>
<td>Noise</td>
<td>Low average ambient level. Sensitive receptors near the site. Operating ambulance, motor vehicle and trolley are major noise contributors.</td>
</tr>
<tr>
<td>Existing Buildings</td>
<td>Small residential and retail-office commercial uses.</td>
</tr>
<tr>
<td></td>
<td>No historic buildings on the site.</td>
</tr>
</tbody>
</table>
on the basis of its projected effect of automobile emission to air pollution. Due to the current parking demand and traffic congestion in Brigham Circle, this rating procedure would apply particularly to the type of development that, although themselves don't account for significant air emissions, attract significant volumes of automobiles traffic. (Such sources have been dubbed secondary or indirect sources.) In addition, a possible development on the Ledge Site should offer a choice in pedestrian circulation and greater opportunity for socializing with one's neighbor. Mixed-use development would integrate urban functions affording additional economies in construction costs, municipal facilities and land consumption. It can be generally agreed that continued inner-city growth is vital to the preservation of our urban centers.

The visually significant factors related to the site varies greatly depending upon the location (Figure 1.05). The best views from the site are of two kinds - short-range at low levels, one and two stories; and long-range at high levels, three stories and above. The most dramatic vistas are the Boston skyline, either by daylight or night. This view, perhaps more than any single image symbolizes the opportunities of a new life style at the Ledge Site. You are close enough to have downtown Boston's activity and employment centers at your fingertips, yet remote enough to enjoy the neighboring community of Mission Hill. The short view in the opposite direction is predominant Colonial Revival triple-deckers on rolling hills, Mission Church steeple, and high-rise apartments which presents an attractive counterpoint. The short-range low view from Brigham Circle across the site
is the picturesque rolling hill and unique ledge formation. The worst visual blight comes from the primary site itself—predominantly paved in asphalt parking lots, there is little to excite or soothe the eye.

Block Area Correlation

The basic unit of measurement for the site in an urban environment is the block. The total block comprise a land area of 13.86 acres inclusive of the 9.38-acre site. It tends to be older and densely populated with predominantly three-story wood frame and few brick structures. All residential structures directly abut the site, conversely the sparely interspersed commercial uses along Tremont Street. This peripheral collection of abutters constitute a diminutive thirty-two percent to the omnipresent Ledge Site with sixty-eight percent land coverage.

The total block population in 1979 was 262 with proportionally more males than females and far more persons over 35 years of age than under (Table 1.03.C). The median age for the entire block population is 35 years. The median is created by a generally older population and a low eleven percent for the under 24 cohort. The high but proportional cohorts constitute 65 years and over with twenty-three percent, and 25 to 35 years with twenty-seven percent of the block's population. The population pyramid shows an almost equal relationship between males and females with the exception to the prominent males in the 25 to 34 years and the females in the 65 years and over cohorts (Figure 1.06). This accounts for the median age in males being 39 years to females at 48 years. This is truly an adult-oriented block.
### Table 1.03.C  Block Status by Age and Sex

<table>
<thead>
<tr>
<th>AGE</th>
<th>MALE</th>
<th>FEMALE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 24</td>
<td>17</td>
<td>12</td>
<td>29</td>
</tr>
<tr>
<td>25 - 34</td>
<td>42</td>
<td>28</td>
<td>70</td>
</tr>
<tr>
<td>35 - 44</td>
<td>22</td>
<td>18</td>
<td>40</td>
</tr>
<tr>
<td>45 - 54</td>
<td>17</td>
<td>14</td>
<td>31</td>
</tr>
<tr>
<td>55 - 64</td>
<td>15</td>
<td>16</td>
<td>31</td>
</tr>
<tr>
<td>65+</td>
<td>24</td>
<td>37</td>
<td>61</td>
</tr>
<tr>
<td>Total</td>
<td>137</td>
<td>125</td>
<td>262</td>
</tr>
</tbody>
</table>

### Table 1.04.D  Block Status by Occupation and Race

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Race</th>
<th>Non-white</th>
<th>White</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>White - Collar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional-Technical</td>
<td>4</td>
<td>29</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Managers</td>
<td>0</td>
<td>9</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Clerical</td>
<td>3</td>
<td>25</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td>Sales</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Blue - Collar</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Craftsmen</td>
<td>0</td>
<td>10</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Operatives</td>
<td>0</td>
<td>21</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td>6</td>
<td>20</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Laborers</td>
<td>0</td>
<td>20</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At Home</td>
<td>1</td>
<td>24</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Retired</td>
<td>0</td>
<td>14</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Student</td>
<td>4</td>
<td>35</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Housewife</td>
<td>2</td>
<td>37</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Disable</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>242</td>
<td>262</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 1.06** Percent of Sex in Age Group

- 65+  18%  30%
- 64-55 11% 13%
- 54-45 12% 11%
- 44-35 16% 14%
- 34-25 31% 22%
- 24- 12% 10%

**Figure 1.07** Percent of Race in Occupation Group

- White-collar 35%
- Blue-collar 30% non-white white 25% 29% 46%
- Other 35%
A moderate proportion of the block's labor force is in the blue collar (services, operatives and laborers) occupation. The blue collar is twenty-nine percent as oppose to twenty-six percent of the white collar jobs with the remaining forty-five percent constituting retirees and students (Table 1.04.D). The majority white population seems to almost repeat the block's average while the nonwhites is equally divided between the white collar and other (students and housewives) category with the remaining thirty percent blue collar labor classification (Figure 1.07).

The block area bounded by the site, specifically include Hillside, Pontiac, Wait and Tremont Streets, is predominantly residential (Figure 1.08). To the north and south of Tremont is predominantly residential with commercial, semi-public and public establishments clustered along this major thoroughfare. Some mixed residential-commercial uses are interspersed among the residential units. To the east and west of St. Alphonsus Street are proportionally residential and commercial uses with vacant lot concentrated along Pontiac Street. To the north and south of Calumet Street is residential with one or two mixed residential-commercial, vacant lot and commercial interspersed throughout the area. This portion of the hill is predominantly residential in character due to the topographic conditions and remains unimproved with no structures present on vacant land. To the east and west of Calumet Street is residential, commercial, and mixed residential-commercial uses. There are the greatest concentration of mixed residential-commercial interspersed along Huntington Avenue. Vacant lots are concentrated along Darling Street. The complete
Figure 1.09  Adjacent Area to Site
### Table 1.05.E

#### BLOCK REAL ESTATE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Parcel</th>
<th>Street No</th>
<th>Lot</th>
<th>Block</th>
<th>Area (sq ft)</th>
<th>Land Use</th>
<th>Valuation</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>611</td>
<td>122</td>
<td>1</td>
<td></td>
<td>2703</td>
<td>RC</td>
<td>5400</td>
<td>4000</td>
</tr>
<tr>
<td>614</td>
<td>133</td>
<td>133</td>
<td></td>
<td>6592</td>
<td>RA</td>
<td>6000</td>
<td>5300</td>
</tr>
<tr>
<td>615</td>
<td>137</td>
<td>137</td>
<td></td>
<td>6417</td>
<td>BA</td>
<td>6900</td>
<td>5100</td>
</tr>
<tr>
<td>616</td>
<td>153</td>
<td>153</td>
<td></td>
<td>25937</td>
<td>RA</td>
<td>26000</td>
<td>5600</td>
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<tr>
<td>617</td>
<td>133</td>
<td>133</td>
<td></td>
<td>13000</td>
<td>L</td>
<td>2000</td>
<td></td>
</tr>
</tbody>
</table>

### Additional Notes:
- **Status**:
  - OWNED-RENTED: Indicates the property is owned by the tenant.
  - RENTED-OWNED: Indicates the property is owned by the landlord.

### Sources:
- Boston Assessment Department 1977

---

**Additional Details**:
- **Lot Details**: Include parcel numbers, street numbers, and various property measurements.
- **Land Use**: Categories such as RC (residential), RA (retail), and others.
- **Valuation**: Monetary value of the property.

---

**Legend for Types**:
- **17/70**: Residential, 2 units (2 family)
- **17/60**: Residential, 3 units (3 family)
- **17/50**: Residential, 4 units or more
- **16/50**: Commercial, 2500 sq ft or more
- **16/40**: Commercial, 2100 sq ft or more
- **16/30**: Commercial, 1600 sq ft or more
- **16/20**: Commercial, 1100 sq ft or more
- **16/10**: Commercial, 1000 sq ft or more
- **16/00**: Commercial, 900 sq ft or more
- **15/10**: Commercial, 800 sq ft or more
- **15/00**: Commercial, 700 sq ft or more
- **14/10**: Commercial, 600 sq ft or more
- **14/00**: Commercial, 500 sq ft or more
- **13/10**: Commercial, 400 sq ft or more
- **13/00**: Commercial, 300 sq ft or more
- **12/10**: Commercial, 200 sq ft or more
- **12/00**: Commercial, 100 sq ft or more
- **11/00**: Commercial, 90 sq ft or more
- **10/00**: Commercial, 80 sq ft or more
- **09/00**: Commercial, 70 sq ft or more
- **08/00**: Commercial, 60 sq ft or more
- **07/00**: Commercial, 50 sq ft or more
- **06/00**: Commercial, 40 sq ft or more
- **05/00**: Commercial, 30 sq ft or more
- **04/00**: Commercial, 20 sq ft or more
- **03/00**: Commercial, 10 sq ft or more
- **02/00**: Commercial, 9 sq ft or more
- **01/00**: Commercial, 8 sq ft or more
- **00/00**: Commercial, 7 sq ft or more

---

**Columns**:
- **Parcel**: Unique identifier for each property.
- **Street No**: Street number for the property.
- **Lot**: Lot number within the street.
- **Block**: Block number within the street.
- **Area (sq ft)**: Total area of the property in square feet.
- **Land Use**: Type of land use (e.g., residential, commercial).
- **Valuation**: Monetary value of the property.
- **Status**: Ownership status (OWNED-RENTED or RENTED-OWNED).

---

**Additional Information**:
- **Sources**: Data provided by the Boston Assessment Department for the year 1977.
area is both wood frame and brick residential and commercial with Mission Church the only stone building. The appearance of the structures surrounding the site is best described by photography which presents a view of this location (Figure 1.09).

There are a total fifty-one year-round housing units in the block of the Ledge Site. It has one percent of Mission Hill's total housing stock with 5.1 persons in the average household. The block is predominately owner-occupied, with the remaining thirty-seven percent renter-occupied, with the remaining thirty-seven percent renter-occupied and six percent vacant housing structures. These twenty-nine owner occupancy are characterized by both an average valuation of $5475.86 and a six-room housing stock. In contrast, the nineteen renter occupancy are characterized by both an average contract rent of $205 and a five-room housing stock (Table 1.05.E).

The zoning districts for the site and immediate adjacent area are derived from the Boston Zoning Code and Enabling Act (Figure 1.10). The site lies both within a residential (H-1) and business (L-1) district. Under the H-1 designation there is a maximum allowable floor area of 1.0 and no building height restriction whereas, the L-1 maximum allowable floor area is 0.5 for any dwelling unit and 1.0 for other use with a three stories or thirty-five feet height limitation. The H-1 district minimum lot size for the one and two family row house is 2,000 square feet, and for any other dwelling unit or for other permitted use it is 5,000 square feet. Based upon the minimum lot sizes and floor area ration, the maximum number of dwelling units per net residential acre in the H-1 district is 24.9 for the one and
Source: Boston Redevelopment Authority
two family row house and 39.6 for other dwellings. The L-1 district, along the Tremont Street corridor, require that residential dwelling units within this business district must conform to the dimensions of the nearest adjacent residential district, according to Section 13-4 of the Boston Code; therefore, this will be similar to those found in the H-1 district. If L-1 district is to be considered for other use, there are restrictions on lot size and usable open space.

The existing vehicular traffic patterns are considered based on intersections surrounding the Ledge Site (Figure 1.11). The analysis of existing traffic volumes and operations of Brigham Circle intersection as the major impediment to the Ledge Site access. While the loading indicates that it is performing at or below level of service "C" during peak hours.* This growth creates operating conditions which are marginally acceptable in terms of traffic service and safety. During peak hours of demand, congestion and delay at the Circle through two signal cycles is common and this location has a high accident frequency rate. The capacity analysis indicates that under existing traffic volumes the intersection tends toward instability and is sensitive to volume increase. The existing traffic volumes for the site area were derived based on average peak hour estimates from the Massachusetts DPW for 1972. To the north and west of Calumet Street bordering the site was an approximately 300 vehicles; whereas to the south and east there was 514 vehicles accounting for a two-way street system. To the east bound side of Tremont Street bordering the site

* "C" denotes satisfactory speeds, reasonably stable flow, speeds and maneuverability restricted by other cars, occasional minor delays.
was approximately 3768 vehicles; whereas, to the west there was 3562 vehicles accounting for a two-way street system. To the north bound side of St. Alphonsus Street which is also a two-way street system there was 1753 as opposed to the 1878 vehicles of the south bound side. It is apparent that regardless of development, improvement will have to be undertaken at Brigham Circle to avoid significant deterioration in traffic within the planning period of 1980-2000. It is assumed that a modest volume increase on the intersection would not significantly affect the long-term need for increased capacity.
The Ledge Site is generally surrounded by the mature residential neighborhood of Mission Hill. Embedded in the heart of Mission Hill, the site is within a 0.6 mile radius of the entire neighborhood boundary (Figure 2.01). The outer limits of the neighborhood are flanked by areas significantly different from one another and Mission Hill. To the north, separated by Fenway and Ruggles Streets, is Fenway with Back Bay Fens Park and adjacent older multi-family areas. To the east, separated by Penn Central Railroad, is Roxbury with the present of divergence in housing and neighborhood conditions and vast amounts of vacant land being prepared for Southwest Corridor Development. To the south, separated by Heath Street, is Jamaica Plain with the Veteran Hospital, triple deckers and rapidly declining Bromley Heath. To the west, separated by Muddy River, is the suburb of Brookline with an older stable residential neighborhood. Mission Hill is a distinctive and heterogeneous neighborhood. It offers a full range of family situations, physical amenities, and housing choices which help promote the feeling of community. However, the development of the Ledge Site would have
certain social and economic implications on Mission Hill; thus, these prevailing conditions may have some effect on the development which can be politically allowed to take place. An examination of the population shall provide a basis for predicting the characteristics of any proposed development residents (e.g. mobility, family income, school-age children and etc.), and identity factors that are peculiar to the neighborhood (e.g. location, labor supply and etc.) which may influence future growth. To place these issues in perspective, a description of the socio-economic, land use, housing, and property tax characteristics of the neighborhood are appropriate and necessary.

Socio-Economic Character

Presenting an accurate and complete demographic analysis of Mission Hill is difficult due to the nature of the available data. The last U.S. Census, taken ten years ago, the tracts encompassing the Ledge Site are a microcosm of the City of Boston as a whole. There is some planning value to note that between 1960 and 1970, the Census reported a Mission Hill decline of twelve percent while during the same period Boston's total population declined by eight percent. At the neighborhood level, this is largely attributable to institutional expansion which inherently brought about housing conversion and demolition.

The total population in 1970 was 22,627 with proportionally more females and far more persons under 35 years of age than over (Figure 2.02). There are 1.4 females for every male in Mission Hill and almost 1.2 females for every male in the city of Boston. There is a surplus of females in each cohort over 21 years, but they are especial-
Figure 2.02  Sex and Age Structure

<table>
<thead>
<tr>
<th>Sex</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>41%</td>
<td>59%</td>
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</table>

<table>
<thead>
<tr>
<th>Age</th>
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<tbody>
<tr>
<td>Under 5</td>
<td>7%</td>
</tr>
<tr>
<td>6 -- 20</td>
<td>32%</td>
</tr>
<tr>
<td>21 -- 34</td>
<td>18%</td>
</tr>
<tr>
<td>35 -- 64</td>
<td>32%</td>
</tr>
<tr>
<td>65 and over</td>
<td>11%</td>
</tr>
</tbody>
</table>

Figure 2.03  Race, Education and Martial Status

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>White</th>
<th>Black</th>
<th>Hispanic</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>75%</td>
<td>17%</td>
<td>7%</td>
<td>1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education Highest Grade Completed</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 8</td>
<td>24%</td>
</tr>
<tr>
<td>9 - 12</td>
<td>48%</td>
</tr>
<tr>
<td>13 - 16</td>
<td>11%</td>
</tr>
<tr>
<td>17 or more</td>
<td>17%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Martial Status</th>
<th>Single</th>
<th>Married</th>
<th>Widowed/Divorced</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>58%</td>
<td>27%</td>
<td>15%</td>
</tr>
</tbody>
</table>
ly concentrated in the 21 to 34 year old group and in the older population. The surplus of older women is caused largely by the greater longevity of women at all ages past adolescence, although there is also most likely some carryover of the younger female surplus into older age cohorts. A twenty-two percent college student population with high rates of natural increase produced a central-city population that is younger than usual. The small, high median-age groups in Mission Hill are caused by institutionalized population. The elderly constitutes eleven percent of the neighborhood population and thirteen percent of the city's people. In few areas other than those containing institutions are more than twelve percent of the population in the over sixty-five category.

The demography of Mission Hill indicate that residents are largely single, mostly white, and usually high school graduates (Figure 2.03). A large proportion of the households have single adults while less than twenty-two percent are living with children or parents. The extended family constitute joint households which comprise elderly persons living with other family members or singles living together. This large percentage is an indication of a high mobile society and a good deal of incohesive family orientation. In contrast of family structure, the neighborhood is predominantly white persons of Irish descent while the remainder is a nonwhite population. The Mission Hill Public Housing Projects are believed to be a major contributor to the nonwhite population. Any decline in the white population is attributable to the typical middle income movement from urban to suburban living, with the neighborhood sustaining the loss. On the other hand, an in-
crease in the level of education is evident in the neighborhood, as well as in the city. While the neighborhood median level of education remains lower than that of the city, it has reduced this difference significantly since 1960 and retains a good educational posture.

The neighborhood is one of small households; only nineteen percent exceed three persons. In comparison, forty-two percent of all Boston households are three or more in size. Thirty-three percent of Mission Hill's population has lived at the same address for more than five years. The corresponding figure for Boston is fifty percent; Hyde Park has a sixty-five percent instance of residential stability (Figure 2.04). In the same perspective, a large proportion of the local employed population is in the neighborhood, confirming the belief that the employment centers gravitate toward a labor supply within the neighborhood.

Mission Hill is not a wealthy neighborhood. Although twenty-two percent of the population has annual incomes of $12,000 or more, there are sixteen percent receiving less than $3,000 (Figure 2.05). The neighborhood has a $7092 median income which is a little below the $9133 median income for Boston. Approximately the same proportion of the population earn between $3000 to $5999 and $6000 to $8999 incomes. Individuals below the poverty level in Mission Hill are much more likely to be elderly than those in the city as a whole, where only thirty-three percent of the individuals below the poverty level are over 65 years. Fewer families are below poverty level in Mission Hill than in the City of Boston. However, these figures are somewhat misleading. The presence in the residential population of so many students, transients, and single persons tends to deflake the higher
Figure 2.04  Household and Mobility

Household Size
1  38%  
2  29%  
3  14%  
4  8%  
More  11%  

Mobility
Period at Same Address
6 months - 2 years  44%  
3 years - 5 years  23%  
More than 5 years  33%  

Figure 2.05  Income and Occupation-Location

Family Income
Less than $2999  16%  
$3000 - $5999  25%  
$6000 - $8999  21%  
$9000 - $11,999  16%  
$12,000 - $14,999  11%  
$15,000 - $24,999  10%  
$25,000 or more  1%  

Occupation
White Collar  42%  
Blue Collar  36%  
Other  22%  

Location
Neighborhood  10%  
Elsewhere in Boston  64%  
Elsewhere in Massachusetts  26%
incomes of older full-time individuals and families with two wage earners. Most of the low-income areas are predominantly in public housing, but some are in adjacent areas.

In terms of occupation, the Mission Hill population is mostly white collar with office-clerical workers constituting the largest category. The blue collar occupations are predominantly service-laborers, and the remaining proportions are divided between craftsmen and operatives. The corresponding breakdown for Mission Hill comprise professional with twenty-one percent and student-retiree with twenty-three percent. Inspection of the figures suggest that the growing occupations are professional and technical, clerical and service workers with a decline in laborers, craftsmen and operative categories. The change in the occupational structure indicates that unemployment will be placed upon the neighborhood as a result of the shift in a service-oriented economy.

Land Use

Mission Hill has a land area of somewhat over thirty million square feet or about seven hundred and six acres. Streets, sidewalks and alleys make up nearly forty percent of this total. The remaining four hundred and twenty-two acres are a diverse blend of such urban ingredients, housing, parks, stores, and institutions. The latter element sets Mission Hill apart from the more typical Boston neighborhoods. A very substantial proportion of the land area is devoted to institutional activities (Figure 2.06). In fact, the amount of land owned by institutions is actually greater than the area under private owner-
Figure 2.06  Existing Land Uses

<table>
<thead>
<tr>
<th>Land Use by Lot Area</th>
<th>square feet</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>5,120,807</td>
<td>28%</td>
</tr>
<tr>
<td>Residential-Commercial</td>
<td>366,767</td>
<td>2%</td>
</tr>
<tr>
<td>Commercial</td>
<td>420,019</td>
<td>2%</td>
</tr>
<tr>
<td>Industrial</td>
<td>332,263</td>
<td>2%</td>
</tr>
<tr>
<td>Parking</td>
<td>437,360</td>
<td>2%</td>
</tr>
<tr>
<td>Institutional</td>
<td>7,310,149</td>
<td>40%</td>
</tr>
<tr>
<td>Vacant Lots</td>
<td>1,771,651</td>
<td>10%</td>
</tr>
<tr>
<td>Other</td>
<td>2,645,198</td>
<td>14%</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>18,404,214</td>
<td></td>
</tr>
<tr>
<td><strong>Street, Etc.</strong></td>
<td>12,350,000</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>30,789,214</td>
<td></td>
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</tbody>
</table>

Figure 2.07  Existing Land Ownership

<table>
<thead>
<tr>
<th>Land Ownership by Lot Area</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Privately Owned</td>
<td>5,705,306</td>
</tr>
<tr>
<td>Publicly Owned</td>
<td>2,980,476</td>
</tr>
<tr>
<td>Institutionally Owned</td>
<td>9,718,432</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>18,404,214</td>
</tr>
</tbody>
</table>

* Totalled from BRA's Open Space Management and Demolition Maps.
ship. This reality is reflected continually and at many levels in the physical and social microcosm of Mission Hill and the problems and issues of concern with its residents (Figure 2.07).

In contrast to Downtown Crossing and the regionally important speciality stores of Back Bay, the commercial life of Mission Hill is distinctly local in orientation. Concentrated mostly along Tremont Street, Huntington and Brookline Avenues, over one hundred and twenty stores and offices serve primarily residents and those affiliated with area institutions.

Off-street parking is a scarcity in comparison with other residential neighborhoods. Of the few spaces in lots and garages, an infinitesimal allotment is available to the public for commercial parking. The additional parking spaces are ancillary to apartment houses and restricted to tenant use. Most of the remaining capacity is owned and used by institutions. Legal on-street parking becomes difficult as residents compete with institutions for spaces and are subjected to discriminatory enforcement of existing parking regulations. Although Mission Hill is a rather mature neighborhood, many vacant lots suitable for land trust or building considerations exist due to demolition. With over three hundred and sixty vacant parcels ranging in size from 37 to 257,487 square feet, only a few are potentially feasible for new scaled-development.

Housing

Although representing only about three percent of the city-wide total, the housing stock of Mission Hill is surprisingly diverse in
size, type, age, condition and cost. Between 1960 and 1970, the Census reported Mission Hill with a moderate increase due to the rise in rental vacancies as the occupied units fell slightly during this period while the number of vacant units available for rent increased by six percent. In contrast, the comparable figures for Boston were six percent and nine-tenth percent. As a result, the rental vacancy rate stood at eight percent while the homeowner vacancy rate was a low six-tenth percent. Mission Hill constitutes a substantial number of vacant dwelling units due to deteriorating physical conditions; whereas, other areas of Mission Hill have experienced a low rental vacancy supply because the dwelling units are in sound condition. The range of housing stock vary from owner-occupied triple decker and row houses to large rental apartment buildings; single rooms to two- and three-bedroom units; older derelict buildings with unsure prospects to newly built or renovated structures; and low rents to high rents.

Of the 1,273 separate residential structures in Mission Hill, about thirty-three percent have four or fewer housing units. Many of the older homes are large and could be subject to conversion from one and two-family units to four or more units. The conversion of those units should be carefully regulated by a Housing Code to prevent overcrowding and misuse. The older housing, which pre-dates 1939, accounts for sixty-three percent of Mission Hill's stock. It must be kept in adequate repair and maintenance by community services as it is subject to most of the deterioration. However, the smaller buildings account for only eight percent of the total units while sixty-seven percent of all the units are in multi-family buildings. In contrast, the com-
parable citywide figures show fifteen percent in one to two-unit structures and thirty-nine percent in structures with five or more units. Those living in Mission Hill do so proportionally as tenants and owners (Figure 2.08). Leaving aside dormitories and abandoned buildings, nearly forty nine percent of the remaining 5983 units are rental. This is a marked contrast to most of Boston neighborhoods; whereas, the citywide owner-occupied housing units account for twenty-seven percent, Roslindale for eighty-eight percent, South End for eleven percent, and Beacon Hill-Back Bay for nine percent. During the 1960's, the low homeownership pattern in the neighborhood had been influenced by the lending institution practices of refusing the prospective owner while granting loans to absentee owners and speculators. Some positive steps by the Neighborhood Housing Services reversed this trend and improved the residential viability of the community. NHS has strengthened residential investment through the establishment of a revolving loan fund in cooperation with the local finance institutions.

A careful inspection and rating of the exterior condition of all Mission Hills' structures indicate that the sixty-nine percent are in good or excellent condition while the remainder were judged as fair or poor (Figure 2.09). Most of those classified as excellent are either freshly painted or have been recently rehabilitated. About thirty percent of those rated poor are boarded or empty and most of these are unhabitable as they now stand. Presently six percent of all the residential buildings in Mission Hill are idle and unproductive elements and therefore remain a very visible challenge to the community.
Figure 2.08  Housing Type and Occupancy

Housing Type
- 1 - 2 Units
- 3 - 4 Units
- 5 or more units

Housing Tenancy
- Owner-Occupied
- Renter-Occupied
- Boarded or Empty
- Dormitories

Figure 2.09  Housing Condition and Need

Housing Condition (Exterior Only)
- Good
- Fair
- Poor

69%  25%  6%
Property Tax

The assessed value of all property in Mission Hill is currently $117.2 million or about eight percent of the value of all property in Boston. Because of the abundance of public and institutional property, over sixty-five percent is either exempt or partially exempt from taxation. The assessed value for the non-tax exempt Ledge Site is $242.6 thousand or about two percent of the value of all property in Mission Hill.

The tax is especially hard on the community because property in Mission Hill is over assessed. Mission Hill is assessed at forty to forty-five percent, while the city averages including the commercial district is twenty-five percent. Not only do homeowners suffer from property tax, but tenants also through rent increases. The Mission Hill Community has been trying to get Harvard to pay a larger share on property tax for its medical buildings.

Tax abatements are not quite as common in Mission Hill as elsewhere in Boston. Of the low proportional non-exempt properties, less than ten percent received some level of abatement on the 1978 taxes.

Unpaid taxes are a problem in Mission Hill as they are elsewhere in Boston. The tax title proceedings for 1978 have begun on several properties, suggesting a widespread pattern of tax truancy that adversely affects the city and its residents. This is a good indicator that tax tends to be regressive on people within Mission Hill.
Territoriality is a way of defending the place or turf, and the removal of boundary marks accelerate basic behavioral responses that are unpredictable and virtually beyond our control. Traditionally, the Mission Hill institution-community relationship is a case-in-point which has many diffused political ramifications for the Ledge Site.

Having rejected the Urban Renewal Designation in 1965, the Mission Hill Community allowed itself to be excluded as a state and federal funded planning area based on prior experiences with the Whitney Street Development. The preliminary initiation by the BRA, Parker Hill-Fenway Urban Renewal Area R-48, namely considered demolition without replacement of housing and three schools due to the proposed realignment of Huntington Avenue south of Brigham Circle.\(^1\) Coincidentally with Harvard’s willingness to take over the Fenwood Road-Francis Street Area, the community reacted with a categorical and irrefutable protest which ultimately convinced city officials to abandon the suggested boundaries. Hypothetically, this eventuality would have destroyed the internal fabric of a complacent community with an eminent domain dis-
position and institutional encroachment. Without the aid of Urban Renewal, these parcels were left unprotected to speculation and land-grabbing. By 1969, Harvard had cleverly purchased both the Francis-Fenwood Area and the Ledge Site. The latter ulterior motive was perhaps to build the power plant or other hospital use. After that time, Harvard permitted the Francis-Fenwood Area to deteriorate and issued mass eviction notices to the tenants. Unfortunately the evictions coincided with the Harvard strike. Not only did Harvard confront a hostile community opposition, but their own students actively opposed the hospital expansion plans. The tenants formed a strong organization. They obtained many concessions from Harvard over the next few years. The evictions were stopped. Rents were frozen. Many of the houses originally marked for demolition received some rehabilitation, and Harvard agreed to develop other housing with Roxbury Tenants of Harvard that served as a replacement.2 (Today this is Mission Park.)

Over the next few years, the Affiliated Hospital Complex (AHC) was the focus of the struggle between Harvard and Mission Hill. Since the hospital neglected to have an Environmental Impact Statement for the hospital, a lawsuit by the Mission Hill Community was able to bring about some changes in its design and other concession from Harvard. Out of this struggle came funding for the Health Movement to open a community doctors' office and the Mission Hill Planning Commission, and a commitment not to expand across on Huntington Avenue, and to return to the community land they own there. This central issue is the key to the whole Ledge Site controversy and very important for developability consideration.
The Harvard Organization

The predominant university goal is the creation and dissemination of knowledge through the teaching and research function. It is an unique role in society as no other organizational unit has this specific goal and value. It is necessary for the dissemination of knowledge which does not have a popular consensus.

Yet, in addition, Harvard seems to have always been the center of controversy. Conflict often occurs between external environment over land acquisition and institutional expansion. In pursuing the basic goal of knowledge, conflict with established sociocultural norms and values of society are often inevitable.

The administrative organization that deals with the Ledge Site, the Harvard Real Estate Inc., is more or less bureaucratic in character. It is primary concern with the activities of accounting, auditing, reporting, and budgetary control; receipt and disbursement of monies; investment of funds; purchasing; management of auxiliary and service activities; and operation and maintenance of the institutional property.

The authority structure of Harvard University is not similar to that of the bureaucratic model. In the university there is a wide dispersal of power. There is no way of clearly defining the scale of authority from top to bottom of the hierarchy (Table 3.01.F). The president is like a collegial partner between himself and the corporation members. A major source of authority on matters of broader scope reside with the Board of Overseers. The power seems not to be delegated from the top down in the academic institution as it would result in a loosely defined authority structure. Only a few vice presidents,
Table 3.01.F

Harvard's Hierarchy for Real Estate Brokerage and Development *

Harvard Corporation (also known as "The President and Fellows")

Derek C. Bok, President
George Putman, Treasurer
Francis H. Burr
John M. Blum
Hugh Calkins, Chairman of Advisory Committee on Investment

Harvard Administration

Financial Vice President - Thomas O'Brien
Director of External Projects - L. Edward Lashman

Vice President for Government and Community Affairs - Robin Schmidt
Assistant Vice President for Community Affairs - Michael F. Brewer

Vice President for Administration - Joe B. Wyatt
Senior Advisor to the President - Hale Champion (formerly in charge of MASCO)

Allied Offices

Harvard Real Estate, Inc.
President - Sally Zechhauser
Vice President and Ledge Site Management - Rob Silverman
Broker and Consultant to the Corporation - Edward Strasser

Harvard Planning Office
Director - Harold L. Goyette

Allied Institutions (medical-educational expansion)

Harvard Medical School
Dean - Daniel C. Tosteson
Dean for Planning and Special Projects - Henry C. Meadow

School of Dental Medicine
Dean - Paul Goldhaber
Assistant Dean for Planning and Resources - Richard S. Carroll

Field Management for the Ledge Site - Cornu Corporation
Tom Cornu (man in the middle)

* Source: 1979-80 Harvard University Directory of Faculty, Professional and Administrative Staff, November 1, 1979.
deans, department heads or professors are able to exercise power by enlisting the support around them.

Despite the diffused nature of power, Harvard does have a formal structure. It starts with the Harvard Corporation - an external body at the top of the hierarchy which is a traditionally conservative governing board. The self-elected, self-perpetuating corporate directors have always been men with extensive ties to the upper levels of industry and finance. The corporation is also trustee of the investment portfolio.

The Corporation has final say on the university's policy and direction. It delegates authority to the vice presidents for the administration of the university. Actually, Harvard has a quaternary division. There are the Corporation, Board of Overseers, Administration and Faculty. The Corporation has reporting to it a board of overseers, an administrative staff consisting of a number of vice presidents, the deans of the various colleges or schools, and other allied personnel. The faculty and administration share with the Corporation the duties and responsibilities for the formulation of policies and rules for the government of the university. This pattern of shared authority which permeates Harvard is distinct from that existing in most other complex organizations. Instead of utilizing the principle of hierarchy, Harvard seems to be organized with a community of authority.

The Harvard Real Estate Inc. is another university-related structure. It is formally organized as an overall consultant, brokerage, development and property management corporation. It has a president and several vice presidents in charge of functional activities reporting
through the university vice president of administration to the Harvard Corporation. They function primarily in an advisory role to Harvard Corporation, and deal with university-wide functions such as space needs through land acquisition and allocation. The managerial system is based upon a distinct and unified scalar hierarchy. Much of the decision-making, particularly in regard to the Ledge Site, is in the hands of the individual broker, under the direction of the Harvard Corporation. The planning and control decision in real estate indicates that it is a managerial system similar to that found in bureaucratic organizations. The Ledge Site needs local decentralization due to conflicts between different community groups and Harvard over environmental upkeep and management. The Cornu Corporation, an outside property management firm hired by the Harvard Real Estate Inc., tries to address its middle management role by effectively neutralizing the community opposition. Actually, Cornu is a "flack catcher" whereby Harvard can point the blame in the event of poor realty management.

One should note that the university gets less than ten percent of its annual income from real estate rentals. When one includes the university's real estate holdings at book value (usually very low) and subtract obligations under secured lending agreements, Harvard's "General Investment Account" totaled $1.45 billion as of January 1980. Over sixty percent of this sum is invested in common stocks, convertible bonds and convertible preferred stock. The balance consists of cash deposits, other bonds, mortgages, loans and real estate. All these overall investments usually net Harvard a respectable return
of over eleven and eight tenths percent a year at a time when other investors have been biting the dust. 5

The Mission Hill Organization

The overall grass root, land use planning and community-participation based organization is the Mission Hill Planning Commission (MHPC). It is an eight district elected representative organization formed by community residents in April 1974 to respond to problems of urban decay in Mission Hill. The fifteen members, apportioned by population, make up a corporate board with elections held on a two year basis. MHPC serves as a community liaison between the religious, cultural, medical, governmental, and educational institutions. It plans and advocates to promote the development of Mission Hill as a residential community for all income levels, and to increase resident participation in determining the future of the community and securing needed services.

The commission is a community-serving organization, that is, a comprehensive planning unit, vested with a service function. Focusing on management and structure, the hierarchy and unity of command are designed around a community representative board (Table 3.02.G). The staff consists of a Coordinator, Housing and Services Facilitator in charge of functional activities reporting through the president and executive committee to the board. They are in charge of the day-to-day managerial responsibilities of the office and operate at the wishes of the President.

The officers of the board, who compose the executive committee, include the president, first vice president, second vice president,
Table 3.02.G

MHPC - ORGANIZATION CHART

Mission Hill District Electorate

Representative Board
- RTH (1)
- Triangle (1)
- Mission Extension (2)
- Mission Main (1)
- Colburn (1)
- Top of the Hill (6)
- Delle Ave. (2)
- Back of the Hill (1)

Executive Committee
- President
- Coordinator

Crime and Grime Wait-Stockwell-Mission N.A.

Housing and Services Facilitator

Election Committee
- Fair Committee
- Personnel Committee
- Construction Overview Committee

Cooperative Function

Administrative Function

Source: Mission Hill Planning Commission
secretary and treasurer. The president is the chief executive officer and is accordingly in charge of the coordinator and the executive board. The board appoints specific delegation of authority to committees. The Standing Committees are Crime and Grime, Election, Community Fair, Personnel and Construction Overview. The executive committee is responsible for soliciting, raising, and collecting funds to finance the operation of the commission; establishes agendas for the meetings; and prepares budgets for the operation of the commission.

The commission also employs full and part-time employees as are needed to carry out the programs of the commission, provided that there is an affirmative two-third vote of the board. The commission is also issues-oriented and concerned about public and private housing, the delivery of city services, institutional expansion, land use, traffic and transportation.

In the area of housing, the commission addresses three major problems which include the easing of the unjust burden of property taxes on poor and working class tenants and homeowners; supporting public housing tenants in their struggle for decent living conditions now and in the future; and attempting to save and restore neglected and abandonment housing throughout the community.

In the area of city services, the commission undertook several projects to turn situations around. Its successful "Adopt a Catch Basin Program" was important in combating the severe flooding in Brigham Circle. Tenants and homeowners got the city's Public Work Department to clean out the catch basin and restore the drainage system all over the community. The commission held meetings with
representatives all over Mission Hill to develop a community initiated plan for Community Development Block Grant allocation. The coalition supports request for funding of programs in public housing projects, Back of the Hill, Roxbury Tenants of Harvard, elderly resources and team police for the entire community.

In the area of transportation, the commission operates a Mission Link Bus that helps residents get around the community, overcoming the difficult topography of the hill. The commission has been reviewing inadequate state and city plans to reconstruct Huntington Avenue and the trolley platforms.

In the area of land use and institutional expansion, the commission accomplishment has been to safeguard the residential community by creating a boundary between the residential and institutional areas within Mission Hill. The Affiliated Hospital Center (AHC) signed a legal agreement with the Mission Hill Planning Commission and several other community groups to limit its future growth to a well defined area. It also was successful in organizing a campaign to prevent unnecessary construction of a new parking lot on the Parker Hill Meadow and to uphold the certificate of need law. The commission opposes the construction of the Medical Area Total Energy Plant, a project endangering the community's public health and that received a much undeserved 121A tax break from the city. It was instrumental in providing information to the community on the Southwest Corridor Project, and undertaking planning with funds received from the Urban Mass Transportation Administration (UMTA).
Debatable Prospectus

The chronology of the Ledge Site has been one of political conflict. This encounter between the medical component of Harvard and the residential community of Mission Hill was over control rights for land development. On Harvard's purchase of the site, a threat of institutional expansion in the residential community accelerated an already negative process. This significantly altered other investment in the neighborhood. Not knowing their future interest as the institution searched for more land, the homeowners lost confidence in the community and allowed deterioration to occur in the housing stock. Redlining was due in part by bank's refusal to grant homeowner mortgages in favor of the higher rates of return from speculators and institutions. As a source of community instability, Harvard initiated the mass exodus of a large number of families from the area through large-scale demolition which ultimately encouraged further residential deterioration. The presence of blighting influences such as housing abandonment, crime and social change, and transient population became rampant, and contributed to an already existing climate of fear and uncertainty.

Since purchasing the realty, Harvard has wanted to develop the Ledge Site in such a manner to serve the needs of institutional expansion. To this end, the unsuitability for large-scale development and community rejection has always blocked such a proposal. While Harvard owns the property outright, the abutters and areawide community considers the land their concern as a matter of right. They continue to assert that they will block development which is not in the interest of the residential community.
During 1974, the environment surrounding the Ledge Site had been involved in a protracted litigation over construction and operation of Harvard's Affiliated Hospital Center. This controversy culminated with the community believing that certain areas of their legal rights regarding the Environmental Protection Act and Determination of Need Law, among others, were violated. Under the auspices of the Massachusetts Department of Public Health, negotiations based on a Memorandum of Understanding between the Affiliated Hospital Center (AHC), Mission Hill Planning Commission, and others, was initiated through a series of mediatory sessions. An agreement was finally signed in April 1977. This step clearly defined the institutional-residential boundaries, by allowing the institutions to remain northwest of Huntington Avenue and northeast of Francis Street while the remaining portion is residential area. Some of the other provisions which came out of this agreement have noteworthy connotations and consequences for the Ledge Site. There would be no plans for construction within institutional area without notification of the community. If a need for future expansion, it would not be within the residential community. Properties which the Affiliated Hospital Center (AHC) or Real Estate Acquisition Trust now presently either leased or owned within the residential area shall not be converted into institutional uses. It also agreed that it would not either create or utilize a partnership, association, or other entity subject to its control to acquire, lease or use property in the residential area.

After the Ledge Site became a public issue in Mission Hill, Harvard had independently promised to work with the community in deciding a
manner to dispose of the property. Harvard obliged itself to explore
development potential with the abutters which ultimately led to re-
jection by a much larger and more representative community. This
process will be analyzed in order to determine the positions taken by
the institution and community.

In March 1976, Harvard initiated the first meeting which had followed
two or three smaller sessions with the abutters. It was attended by
Kevin Fitzgerald, State Representative for Ward 10; Don Moulton and
Barbara Powell, Harvard Community Affairs Office; Benjamin Thompson,
Bruno D'Agostino, Doug Okin and Cleve Harp, Benjamin Thompson and
Associates; and sixteen members of the Mission Hill Community.

Don Moulton stated that Harvard was committed to a policy of
"no expansion" south of Huntington Avenue. It had no interest in being
the long-term owner of the site, but only sought to develop the site
when the community reached a consensus. The ongoing cost of manage-
ment and revenue of investment clearly would not show a profit on the
property.

The designated team of architects from Ben Thompson and Associates
(BTA) introduced their concepts based on directives from the small
community group. The development of five alternatives were presented
to serve as a basis for community consideration and further study
(Table 3.03.H). Each study was based on a retail use at ground level
along Tremont and Calumet Streets; office use including restaurant and
cinema above the retail space; parking behind the retail and office
uses with entry off Tremont and exist onto Calumet Street; and either
housing or hotel located above the garage with efforts to maintain
### Table 3.03.H

**PROGRAM STATISTICS**

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<tr>
<th>Building Elements</th>
<th>Retail Commercial</th>
<th>Office Commercial</th>
<th>Elderly Housing</th>
<th>Standard Housing</th>
<th>Motor Hotel</th>
<th>Parking Spaces</th>
<th>Total Area (Excludes Garages)</th>
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</table>

*Note: SF = square feet and NO = dwelling unit.*

*Source: Ben Thompson, Development Alternatives, 3/11/76, Meeting Notes.*
view across the site from Calumet Street. The upper site would have either possibilities for either open space or low rise housing. The Tremont Street frontage would have six to seven floors to meet the existing grade of the upper site.

There were many issues to be resolved on the study schemes from the small community group. In the area of traffic and parking, efforts would have to be made to limit the impact of new traffic onto the intersection of Brigham Circle and Tremont-St. Alphonsus Streets. Because St. Alphonsus is narrow north of Tremont, thought would have to be given to minimizing traffic from the site to the street. In schemes showing the two garage entrance-exist, thought would have to be given to the compound traffic Brigham Circle. The location of the site on MBTA Green Line could be capitalized with less emphasis on vehicular garage. In the area of housing, the community desired to attract residents who are responsible for their homes and neighborhood. Indications were to exclude subsidy housing programs in favor of condominiums. It was believed that Mission Hill was oversubscribed to subsidy and several of which have been poorly managed. Condominiums, as opposed to rental housing, insure involvement as property owners with the future of the area. Elderly should be free to consider middle-income-housing units within the development. The community group felt that a hotel would generate a lot of traffic during the peak hours, and provide a lot of unnecessary nighttime activity. The group also felt that using Tremont Street would strengthen the retail identity of Brigham Circle, and a inward focused mall concept would not reinforce the street. The
land use development proposals took into account an interchangeable but mixed use structure (Figure 3.01). It would require a six month period of study and coordination before considering a potential developer.11

The second meeting in April 1976, BTA came back with five proposals which were modified through discussion. Kevin Fitzgerald wanted to keep the meeting at a task force size so that everyone could participate in both discussion and review of presentation materials.

When the words: 'small representation' spread throughout the areawide community, instead of a task force, about one hundred and fifty people came to the session to protect the interest of Mission Hill. The meeting was more a confrontation than a discussion for proposed development of the Ledge Site. The site became a secondary issue with the major focus on the prior roles and present actions of Harvard toward the Mission Hill Community. In Kevin Fitzgerald's effort to inform only abutters and property owners for consideration of the site proposals, he neglected to invite the Mission Hill Planning Commission and Neighborhood Housing Services, a mistake which became an issue, to represent the interest of the "hill" on development. A retaliative remark prompted an attendee to request Kevin Fitzgerald's involvement in the Ledge Site. Informing the audience that when Mission Park was in its impending stage, he had supported the Ledge Site as an alternative at the public meeting.

A participant inquired as to the selling price of the Ledge Site and the ownership role of Harvard. Don Moulton explained that once in the developing stage, it would be sold but Harvard would be involved in the pre-development stage until a package is coordinated and the
search for a developer has taken place. The selling price for the Ledge is $1.5 million with provisions for negotiation. He also informed the audience that putting a development package together in six months with zoning variances is the only means of veto power.\textsuperscript{12}

The community expressed concerns for the present conditions of the site and Harvard's long-term commitment. Other questions were on the derivation of various densities and building uses, and the possibility of open space or parks. Moulton stated that the university's commitment to Mission Hill is only educational use of the site. Past soil boring samples indicate that the land is good for building. He continued by telling the audience that the schemes were assured from other meetings with abutters. He also stated that a park or playground could not support land cost, but a possible school use with a playground in the future could be a means of control.\textsuperscript{13}

The meeting concluded with a climate of uncertainty and ambiguity on various development aspects of the Ledge Site. Fitzgerald indicated that any interested person should contact him before going to Ben Thompson's office for reviewal of drawings and models in progress.

Assessory with another meeting in May, the Neighborhood Housing Services invited Edward Lashman of Harvard External Projects Office to converse its plan for Ledge Site Development. The persons in attendance contend development issues, and reaffirm their desires that the Mission Hill Planning Commission represent the community on matters relating the future of the Ledge Site.

With Harvard's discontinued action on proposal for the Ledge Site, the community pursued other settings for development schemes. During
the fall semester of 1976, an architectural design studio at the Massachusetts Institute of Technology devised a class exercise on the site with Kyu Sung Woo as the Instructor. This third level studio explored spatial organization for a mixed-use facility with diverse values and users. The study began with a contextual analysis to determine attitudes toward the community and place. Following a program and design criteria, the remainder of the semester was devoted to schematic development. Twelve schemes were prepared to be a representative group of potential uses, combining a range of needed facilities in the community and varying degrees of site utilization or densities. These schemes were evaluated and rated by community members and institutional representatives, ranging on a scale from severely adverse to highly favorable. For the purpose of this study, I selected three preliminary schemes for diagrammatic and illustrative consideration which were reviewed for consistency with objectivity. One proposal shows low-rise housing on the third level with garage parking concealed behind the retail use and below the housing use. It provides a nice transition from the upper to the lower site through the use of outdoor seating perhaps associated with a restaurant. A pedestrian walkway around the periphery of the ledge provides an opportunity for lookout points upon reaching the upper site. It assumes limited retail shopping along the street level and variation in the residential use on the upper level (Figure 3.02). The second proposal assumes an urban setting affording the opportunity for office, residential, retail, and recreational activity within a walking environment (Figure 3.03). The third proposal creates a self sufficient open space within the complex.
Figure 3.02

Level Three
Housing

Level Two
Parking Garage
(not shown)

MIT ARCHITECTURAL DESIGN (III)
4.155

Housing-Day Care-Retail
Proposal

Level One
Retail

Student
Unknown
Figure 3.04

Level Three
Housing

Level One
Parking-Retail
(not shown)

Level Two
Retail-Office
Parking

MIT ARCHITECTURAL DESIGN (III)
4.155

Housing-Retail-office-Parking
Proposal

Student
Unknown
The scheme represents a massing of site accommodation with separation of the residential, retail and office uses in order to give the feeling of community (Figure 3.04). The upper site was considered potential open space with a possible alternative of low-rise housing.

After a period of indecision on a course of action for the site, Harvard indefinitely put aside the plan but continued to talk with Kevin Fitzgerald during the interim. This partial latency only prompted the Planning Commission to initiate a strategy for future developmental control of the Ledge Site. A five-member advisory subcommittee on Housing and Land Use recommended the formation of a Community Development Corporation. It allows a framework for discussion with the widest possible latitude and involvement of any community-oriented entity. Community input can range from a mere advisor to monitor relationship with the owner on the type of development for the site. In advancement of this recommendation, the Planning Commission should take an active role in implementing the community direction in the development process. This reconfirms the authorization as its members were democratically elected by the community, and a specific vote of the Neighborhood Housing Services in April 1976. In addition, the Planning Commission should adopt a control mechanism sufficiently to produce a comprehensive plan for participation. This overall strategy would allow a political position to be converted into an effective legal control of the site.14 John Sharratt, a committee member, suggested that a 'Land Control Strategy' be inclusive of the right or authorization to seek control; provide a public review; represent the interest of Mission Hill; feasible in terms of the interest of land owner; present a process for real
and open community information, planning and decision-making; recruit an able and experienced professional development team; suggest a financial plan encompassing a reasonable formula for payment to owner for land, and alternative for both construction and permanent financing; and a preliminary development schedule. He also suggested that the Community Resources Group were willing to help in preparation of this proposal. 15

In October 1977, Bruce Keary as lawyer and committee member requested the Community Resources Group (CRG) for a working proposal on a possible "Land Control Strategy" regarding the Ledge Site. This draft was to serve as a framework within an institutional decision-making process, so that a pragmatic but conclusive solution would be possible for gaining control of the site. Incipient to the participatory planning process, CRG perceived its role as a catalytic facilitator in confronting all the developmental issues. This would inevitably bring together input from diverse interest groups with conflicting goals and priorities for cooperative action, so that the development could become a reality. The consensus building would be structured but free flowing and definitely more time consuming than the traditional planning process. 16

In negotiating with Harvard, CRG proposed to recommend legal assistance and provide supporting technical information necessary to secure leverage for an option agreement. This strategy would commit Harvard to deal with the Planning Commission immediately with all intention or strength known for active involvement in the future of the site. If Harvard were to prove unwilling to deal with the
Planning Commission on the creation of a plan, public embarrassment should be brought to bear on any attempt to develop the site.  

CRG offered to assist in the formation of a Ledge Site Task Force, so that input into the planning and decision-making would be apparent throughout the process. The success of a task force would entail different groups and the merging of different perspectives and interests. The Planning Commission would play a pivotal role in representing both the constituent and client viewpoints. The work of the Task Force would be to seek a consensus development plan which would serve the majority interests and remain viable and feasible.

The MHPC never adopted the CRG Plan as the Board was not ready for such a large undertaking. The plan also had languished because the MHPC didn't feel it had enough of a track record with the community. With Harvard's continued postponement of development during 1978, the Planning Commission formed a Ledge Site Advisory Committee. This fifteen member committee acknowledged the importance of this site to the future vitality of the community. It resolved three cogitative points to include the unwillingness of Mission Hill to consider any more low cost or subsidized housing, development may be expensive due to hidden springs and deep rock, and to advise every abutter of meetings and decisions. It further committed the Planning Commission to working with abutters and all of Mission Hill residents in determining a desirable alternative for the site. During this period of time, the Planning Commission further explored various possibilities with the Boston Conservation Commission, Boston Community Development Corporation, and interested developers.
In the ever increasing commercialism of building, whether in the area of housing, office or retail investment, the relevant influences pertaining to real estate development dictate an understanding of the process. The real estate developer assumes the role of a risk-taker in the market, assembling land and capital based on forecasts of varying degrees of reliability. Both the investors and developers attempt to maximize the rate of return on real estate investment. Variables influencing the rate of return, such as rental revenues and operating expenses, financing, or net income, may differ with the economic climate of the locality and over time. Real estate as an investment competes against fixed-income investment and the vast array of securities from which different proportions of income and capital growth may be anticipated. It also competes against the speculative exploration ventures with high tax-shelter features and existing service or manufacturing businesses. The relative attractiveness of real estate tends to depend on international monetary conditions, the state of the economy, and real estate conditions.
In order for the realization of a Ledge Site Development, it would have to gain community acceptability and private/public market commitments. If there is a strong consensus in the community favoring development, the private/public investments can be accommodated at any one time. Since it takes only a relatively few individuals to stop development, almost total community support is needed to assure development. There has been no negative reaction by the abutters who view the development only as a threat to blocking their views. In looking at the Ledge Site as a potential mixed use development, the private/public sectors would consider the long-range demands and constraints. It is these criteria on which developers and investors will base investment decisions and formulate development goals.

Views and Concerns

In January 1980, a questionnaire was mailed to 500 households in the Mission Hill Community (Appendix A.01). Residents were asked for their preferences and comments in regard to the Ledge Site. Serving as a process for meaningful and justifiable input, this questionnaire would help derive a 'community position' for negotiating by the Planning Commission. The respondents were given a month in which to either mail or deliver their results to the MHPC office on Tremont Street. Given the general disadvantages of a mail-in questionnaire as opposed to the telephone interview, the replies were received with favorable acceptance. There was a twelve percent return. A majority of the respondents originated from the adjacent sub-neighborhoods bordering the site but within the Mission Hill Community. The re-
remaining questionnaires were from the legal abutters who are located on the periphery of the site and within the neighboring block.

The abutters of the Ledge Site, who believe their rights to development must be the most essential part, would like to be in the forefront on any decision-making process involving Harvard University. They also consider that any development on the Ledge Site could have either beneficial or adverse impacts for the entire neighboring block. With twelve abutters responding to the questionnaire, their composition included seventy-five percent homeowners and twenty-five percent renters. Their exploration of possible land use alternatives revealed many absolute and definite inclinations. Drawing twenty-one multiple responses, there thirty-three percent in favor of no-built option, fourteen percent for parkland, five percent for park with facilities, nine percent for commercial, nineteen percent for commercial replacement, nine percent for housing, and the remaining ten percent equally divided between parking and 'no answer'. A close observation suggests a desire for a good shopping center with stores reflecting needs of the neighborhood; mixed-use development with mixed-income housing, and office-retail facilities; and conservation of the rare "natural box canyon". On the other hand, other abutters were adamantly against more apartments and low-income housing. With regard to the eighteen multiple responses on density and open space, there were twenty-two percent with 'no response', thirty-four percent equally divided between low-rise buildings and low-density site, five percent for high-rise, twenty-eight percent for open space, and an eleven percent indifference to open space. The most popularly held concerns and
worries about development on the Ledge Site seem to be open to continuing discussion. These issues as expressed by the abutters include the following:

1. A limitation on low-rent apartments and the unintended consequence of permitting undesirables into the community.
2. The unwillingness to see the site turned into a factory without community input.
3. Losing the decision power to negotiate for the betterment of the area and people.
4. Allowing foolish construction on the ledge, blocking views, and lowering the quality of life even more.
5. Allowing consideration for a mini Charles River Park.
6. Allowing the awful hotel and parking garage to spoil the natural beauty of the site.
7. The nonsense of a lot of speculative high-rise hotels and the expansion of the convention center image of Boston.

In expressing their desires to be involved in the planning process and development of the Ledge Site, the abutters largely would like to receive notice of meetings, be kept informed of issues and decisions, and be polled for their opinions on major issues. With only twenty-four multiple responses, only eight percent were interested in being an active member of a working committee.

The surrounding sub-neighborhoods of the Ledge Site within the Mission Hill Community overwhelmingly believed that the community-at-large should decide what happens on the site. With one hundred and seven multiple responses to the questionnaire, the remaining choices
for who should be involved in the decision-making process were 8 percent for Harvard, fifteen percent for the abutters, nineteen percent for existing community organizations, fifteen percent for local business people, six percent for the City of Boston, and five percent divided between others and 'no response'. The Mission Hill Planning Commission was favored by the majority to decide what should happen to the site. With forty-eight area community residents responding to the questionnaire, their composition included forty-eight percent homeowners, forty percent renters, and twelve percent no response. In exploring the possible alternatives for development, some respondents did not distinguish between an upper and lower site designation. Drawing on one hundred and sixteen multiple responses, there were nine percent in favor of the no-built option, fourteen percent for parkland, fifteen percent for park with facilities, thirteen percent for commercial replacement, seventeen percent for commercial, eight percent for housing, four percent for community facilities, sixteen percent for parking, and four percent for either community gardens, youth center, boy/girl clubs and skating rink. More detailed responses spoke to the need for a supermarket, bakery, coffee shop, department store, family wear, family shoes, yard goods, hardware, drugs, book and stationery, community office, bank, cleaners and dryers, shoe repair, and coin laundries. With regard to the seventy-two multiple responses on density and open space, there were thirty-two percent in favor of open space and three percent were indifferent; one percent for high-rise, three percent mid-rise, and thirty-one percent for low-rise; three percent for medium density and fifteen percent for low density; and the remaining thirteen percent had no response.
The most popular held concerns and worries about development of the Ledge Site seem to be associated with the sub-neighborhoods includes the following:

1. Building could destroy the existing appearance of the land.
2. Who will be the ultimate developer/owner? Will the interest encourage or discourage the gentrification process? Will the interest coincide or conflict with the community?
3. "No development" equals the rat pit that exists.
5. Allowing the abutters to have a say.
7. Encroachment by money-making developers who care nothing about preserving the neighborhood.
8. Harvard, City of Boston and future developer insistence that development be financially feasible.
9. That development consider density without conferring with the neighborhood.
11. Gaining more subsidized housing associated with lower property values.
12. Protection of the stable community.
13. No more drinking establishments, liquor stores, motels and carry out food places.
14. Community may lose a natural open space and get little or negative benefits.
15. That there will continue to be junk within the store to rob the poor.

16. High-rise commercial development.

17. More rental housing encouraging transients.

18. Loss of open space and view for the creation of a Prudential Center with wind and concrete. The ledge provides a great opportunity for commercial revitalization of Brigham Circle.

19. That Bruce Keary get more involved with representing the interest of the Mission Hill Planning Commission. This should not be allowed to occur unless the interest of the abutters are the same as those of MHPC, which is unlikely in the initial stages of community input if it occur at all. A pro bono law firm is needed.

20. Losing the grass and birds to crowds of people. We need to work together for good neighborhoods. I like Mission Hill and want to stay here in the open space. It is very important to me.

21. The importance of coordinating the Ledge Site with the Southwest Corridor. Need an impact study before development.

22. It will become an upper class enclave.

23. Community will not be involved in the final development.

24. Low-income housing.

25. No more institution, overcrowding and blocking views.

26. More people and traffic congestion to build medical, commercial or educational buildings would totally neutralize the neighborhoods feeling that exist there. The problem
with housing is double-edged. Although there is always a need for decent housing - the density of new construction would probably add to congestion and little else.

27. The likelihood that extremist views from any direction will kill rational use. The need for a good population to serve as market for keeping the local business healthy. The possibility that large traffic flow will intrude on abutters. We do not need more bars, junk food joints or package stores.

28. Letting old houses make the neighborhoods look a shame.

Expressing what involvement they'd like in the planning process and development of the Ledge Site, the community said it would like to receive notice of meetings, be polled for opinion on major issues, and be kept informed of issues and decisions. With the eighty-seven multiple responses to the questionnaire, there were fifteen percent in favor of being an active member of a working committee.

It is assumed that the City of Boston would perceive the Ledge Site as another chance to build a financial bridge between downtown development and its neighborhoods. The Ledge Site would provide Boston with a chance to add to its tax base in a significant way. As Boston is almost totally dependent on property taxes for its fiscal well-being, site development would increase the revenues each year. It would provide additional income to the state in sales and income taxes. It would generate new construction jobs per year and create permanent jobs. The Ledge Site would eliminate a blighting influence that has pledged Brigham Circle.
Any proposed development on the Ledge Site should address the following planning and design issues of concern to the City:

1. Relationship of proposed development to Brigham Circle retail uses and to adjacent residential areas.
2. Best manner to preserve the natural features of the site.
3. Problem of access to the site for an intensively programmed use.
4. Possible premium foundation costs due to serious ledge problems.
5. Accommodating concerns of nearby residents and businessmen in any development process.

Harvard University has indicated a willingness to make the Ledge Site available for development oriented to community needs. In an interview on January 4, 1980 with the Vice President of Harvard Real Estate Inc., Rob Silverman reaffirmed the commitment to inform the community of any action relative to the Ledge Site Development. The major purpose of this session was to follow-up a letter sent to Edward Strasser on November 27, 1979 (Appendix A.02). To put to rest the rumors and stories concerning the Ledge Site, Harvard University said it still intended to sell the property to an interested developer. According to Rob Silverman, the university has been in touch with developers and expects to begin reviewing proposals within the next six months, and then enter into negotiation toward a sale. Silverman stated that Harvard will base its criteria on the price offers, the likelihood that the project will financially succeed, and the ability to get enough support from the community to enable zoning, tax, and
other approvals from the appropriate agencies. It is anticipated that any proposal for the Ledge Site will not meet all existing zoning requirements. Furthermore, it is also considering the possibility of submitting an application for a 121A limited partnership.

On inquiring as to the enormously high $1.5 million sale price which is about $37 per square foot, Silverman responded that the fiduciary responsibility of the university toward its prime real estate requires that the seller weigh the implications for development, possibilities of zoning fights, citizen pressure, environmental group action, changing money-market conditions, and other market vicissitudes. He also supported his claim that other speculators have paid over $40 per square foot for property in the area. The actual price can be negotiated depending on the proposals, but it is highly inconceivable that Harvard would accept less than $1.5 million.

On inquiring as to whether the property will be advertised on the open market, Silverman stated that several real estate brokers shall be contacted for handling the sale. The broker shall spread the word in order to produce a buyer. The broker will be entitled to a commission only at the precise point of negotiation between the buyer and Harvard. Currently, Harvard is not granting a long-term lease to the retail tenants as it desires the land unencumbered to make an easier sale. It is intensively studying the property for long-term action but limited to cleaning up, resurfacing the parking lot, and repairing the St. Alphonsus Street townhouses.

The greatest worries about the development on the Ledge Site expressed publicly by Harvard includes the following:
1. High land cost will require a high density development in order to make the plan financially feasible.

2. That the community will place so many restrictions on the developer as to make the property unsellable.

3. Possible premium cost associated with risk and uncertainties.

4. The inflexibility of interest rates in an unchanging market.

Harvard shall contact the community with news of any serious offers regarding development. In addition, Silverman stated that all community-oriented proposals would be considered on a competitive basis.

Economic Base Indicators

As background to condensed market analysis, past trends of demographic and economic indicators in the Ledge Site market area were examined in comparison with the City of Boston. This primary market area has been defined within a 0.6 mile radius of the site or the entire Mission Hill Community (Appendix A.03).

Employment growth in the City of Boston was five and seven tenths percents between 1960 and 1970. However, the primary market area as a whole had experienced a much lesser growth in the number of new jobs, gaining by only 0.9 percent during same period. This is an experience shared in common with many of the other neighborhoods in the city during this period. Yet, by capturing fully three percent of the employment growth in the primary market area from the City of Boston, this small achievement should be noteworthy in comparison to some of its
neighboring communities. While the primary market area has had a moderately low increase, there was significant loss of manufacturing jobs which continues to the present. Compared to jobs in the primary market area as a whole, it can be seen that employment in health services, educational services, and retail trade is much more concentrated than in manufacturing. The changes in category of employment sectors had either been minor (utilities, finance, insurance and real estate) or, in the case of manufacturing, actually negative. In the primary market area alone, there are over 2,400 jobs in health services and 1,400 jobs in educational services. Almost three percent of city's retail trade jobs are in the market area. The fourth most important source of employment is professional and related services with over 800 jobs. This trend toward a greater proportion of white-collar and service-oriented employment is expected to continue over the long-term future.

The shift in employment patterns has contributed to the changing occupational structure of the market area (Table 4.01.I). It indicates that change in the composition of industries and individual employment requirements are having an impact upon the occupational structure. The shift in occupation structure is exemplified by the increase in professional and technical sectors and the decrease in operatives. Inspection of the figures suggests that the growing occupations are professional and technical, clerical and service workers with an actual decline in the craftsmen and operative categories. This change will place new stresses on the market area as a result of the shift to a service-oriented economy.
<table>
<thead>
<tr>
<th>Occupations</th>
<th>Boston</th>
<th>Mission Hill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional, Technical, Manager, Etc.</td>
<td>59,929</td>
<td>+22</td>
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<tr>
<td>Craftsmen and Foremen</td>
<td>27,157</td>
<td>-16</td>
</tr>
<tr>
<td>Clerical and Sales</td>
<td>86,728</td>
<td>+12</td>
</tr>
<tr>
<td>Services, Household and Laborers</td>
<td>57,830</td>
<td>+13</td>
</tr>
<tr>
<td>Operative</td>
<td>36,695</td>
<td>-30</td>
</tr>
<tr>
<td>Total</td>
<td>266,505</td>
<td>-12</td>
</tr>
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</table>

Source: U.S. Census
The population levels of both the City of Boston and the primary market area showed an almost equal decline between 1960 and 1970, according to the U.S. Census. The Mission Hill area experienced a dramatic decline in population due to university expansion and major housing demolition. Net outmigration from the City of Boston over the last decade amounted to 101,900 persons. This figure documents the pattern of suburbanization that reflect the character of the city. It takes into account net natural increase (actual births, less deaths) of the 1960's. This is a further indication of incipient population decline in the market area. However, recent trends indicate 'closer-to-downtown' may experience renewed interest as residential locations in the future. The primary market area offers a development site which can benefit from this renewed stimulus to local economic development.

Past trends in the 232,413 housing units relative to persons per occupied unit indicate that the City of Boston declined by two and six tenths percent. Corresponding rates of change for the primary market area indicate a growth rate in the population per household by three and seven tenths percent. This primary market area trends reflect a doubling-up pattern which is probably the result of less frequent household formations due to smaller household sizes and children not leaving home at an earlier age. Such patterns are likely to continue in the future, although at lesser rates of change than in the recent past as increasing birth rates stabilize. While renter-occupied units accounted for eighty-one percent of the total units in 1970, the rate of increase in such units was significantly greater than that for single-family homes over the decade. The slight increase in population per unit can
be attributed to a tendency toward multi-family rental housing, resulting in fewer bedrooms per unit. With the primary market's share of household growth, there is a potential for attracting residential development to the neighborhood in the future than has occurred in the recent past.

The median family income growth in the City of Boston had paralleled that of the primary market area with moderate but high increases of sixty percent between 1960 and 1970. This represented a raise in the median income level to more than $9,100 for the City of Boston and $7,000 for the primary market area. The corresponding incomes show that the primary market area has one of the lowest incomes in absolute numbers than the City of Boston (Table 4.02.J). The primary market area contains far more lower income families and fewer middle and higher income families than the City of Boston. Individuals below the poverty level are much more likely to be minorities and elderly than those in the City. This is an indicator of economic decline in the primary market area, which positive steps such as joint development of the Ledge Site can help prevent. However, this indicator may highlight the transition stage that the primary market is experiencing. The possibility of attracting additional households to the location of the Ledge Site demonstrate the opportunity to revive the City's socio-economic environment.
### INCOME CHARACTERISTICS

<table>
<thead>
<tr>
<th>Status</th>
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<th>Mission Hill</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Below Poverty</td>
<td>33,720</td>
</tr>
<tr>
<td>Individuals</td>
<td>Total</td>
<td>109,811</td>
</tr>
<tr>
<td></td>
<td>Percentage</td>
<td>31</td>
</tr>
<tr>
<td>Families</td>
<td>Below Poverty</td>
<td>16,600</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>142,019</td>
</tr>
<tr>
<td></td>
<td>Percentage</td>
<td>12</td>
</tr>
</tbody>
</table>

Source: U.S. Census, 1970
Market Assumptions

The long-term, upper limit market supports for the Ledge Site identify a significant mixed-use, low density development, including a neighborhood center of 80,000 square feet or more, up to sixty dwelling units with the remainder parking and open space. This mixed use development program is considered a feasible upper limit from the market perspective and assumes a significant amount of roadway improvement for the 9.38-acre site. The development reflects a shift in scale and type to arrive at a program (Table 4.03.K)

The development of new retail facilities can be a local-serving convenience center. Analysis of the local shopping facilities observed that the primary market area is significantly lacking in major retail concentrations. Served principally by smaller and older stores predominantly along Huntington Avenue and Tremont Street, retail sales figures indicate that residents of the market area travel to retail locations outside the primary market area for much of their shopping. Many of these residents no doubt travel to Blairs, Stop and Shop, Star Market, Zayre's and Robell's Self Service Department Store. In addition, the residents are attracted to Chestnut Hill Mall and downtown Boston for purchasing many comparison goods and needs (e.g. general merchandise, apparel, and furniture). As a result, there is a significant amount of outflow of retail sales in 1979 of less than sixty percent of estimated expenditures by market area residents for comparison goods. Thus, there appears to be a retail void in the primary market area which can be filled in the future if the appropriate neighborhood
Ledge Site Total Square Feet Development Land Use

- Office (00000 SF)
  - 7000
  - 4000

- Housing (DU = 1000 SF)
  - 200
  - 60

- Retail (000000 SF)
  - 200,000
  - 80,000

Table 4.03.K

Market Potential for Mission Hill

Recommendation for the Ledge Site
center is developed. Over the long-term future, comparison goods by the primary market area residents are expected to significantly increase with income. Given the current lack of competitive neighborhood serving facilities in the primary market area and the growth in expected purchases for comparison goods by area residents, there appears to be a definite opportunity to develop a significant neighborhood shopping area at this centrally located site. Even assuming relatively modest capture rates of comparison goods expenditures by primary market area residents, market supports up to 200,000 square feet of space by the year 2000 with increases in population and income. With the Ledge Site having access and visibility from Brigham Circle and its existing trolley car service, it is well positioned to capture this market potential. However, given the physical and access constraints of the site and the anticipation of future competitive retail in the market area, a development program of more than one half the market potential, or 80,000 square feet, is conservatively projected. If it is not possible to establish a strong link with the community or if design conflicts will reduce the development scale, the site would support smaller, but still significant retail development.

Demand for new housing over the long-term will result from the expected expansion of the City of Boston economy and corresponding increases in population and household levels. Given these factors and allowing for replacement needs and vacancy adjustments, the aggregate housing demand in the City of Boston is expected to increase annually through the year 2000. The Ledge Site primary market area could capture an apportionment of this new construction commensurate with
the experience of the late 1960's and early 1970's. Assuming the Ledge Site could theoretically attract more than 200 dwelling units through the year 2000. However, the density implied by the high end of this range of development potential is unacceptable, particularly considering the commercial and recreational users who will also be present at the site. Thus, a more realistic upper limit of market potential of 60 units has been projected for development. It is expected that the majority of these units will be in low-density buildings and include a development with both rental and owner-occupied offerings. These forecasts take into account community acceptability in the market area. Also considered is the relative scarcity of similar small-scale residential development and the convenient proximity of the Ledge Site to both trolley cars and major arteries. The new housing would reinforce and extend the existing residential character of the adjoining sub-neighborhoods by strengthening edges. The site would also include such amenities as outcropped pudding stone and spectacular views of downtown Boston which will be available from two and three-story buildings.

With access to the entire Mission Hill Community within ten minutes from walking, as well as convenient access and strong visibility and image from Brigham Circle, the Ledge Site is well located for future local-serving office development. While a large amount of office space initially must be infeasible due to the availability of better sites for major office development, there is some potential for public use or neighborhood-oriented office space. This type of offices would provide necessary services to the surrounding neighborhood and re-
inforce the retail uses. The primary market area is expected to average approximately 7,000 square feet through the year 2000. It is estimated that the site can capture over 4,000 square feet of the office space as a conventional forecast. The implication is that opportunity at the Ledge Site should be planned and actively marketed to prospective tenants. It is possible to envision, though not predict, that the Ledge Site could attract one or two medium single-purpose office tenants and that the actual amount of office space drawn to the site might even exceed this forecast. By the same token, it is possible to fall short of this goal.
In considering the possibility of real estate development, one must consider the human activity or behavior to be accommodated in relation to the setting. It is not enough to say that the environment must accommodate a shopping center or housing. The focus must include an awareness of the behavior as well as the appropriate scale itself.

Four mixed use development alternatives were formulated for the Ledge Site to illustrate program land uses (Table 5.01.L). The alternatives were selected to be a representative group of potential mixed uses, combining a range of needed facilities in the community; a shared parking structure in the community; and varying degrees of site utilization or density. The alternatives neither illustrate all possible combination nor necessarily the most viable land use since market conditions could change to favor other programs. However, they represent a combination of either highly desirable or logical use for the Ledge Site. The generation of the four alternatives were derived primarily from market assumptions, inputs from the Ledge Site Questionnaire and the Harvard Real Estate Inc., for program elements.
Criteria for evaluation of the four alternatives were developed from the goals of Mission Hill and Harvard University. The community goals and objectives needed for participation in real estate development should have the following attributes:

1. Strengthen Local Economy and Tax Base - to pay a fair share of taxes; to maintain a high level of stable employment and to reduce unemployment and under-employment; and to provide jobs that pay a decent wage for people who live in the community.

2. Provide Needed Facilities - to provide a wide variety of possible choice to meet expectations of a diverse and homogeneous population; and to provide a sense of convenience in living style and availability of needed goods and services.

3. Enhance Urban Livability - to provide a lifestyle compatible with the existing residential area while providing the widest possibility of working, living and recreational activities with a high degree of mobility.

4. Minimize Neighborhood Impacts - to protect ecologically important features; preserve the natural environment; and conserve value of property.

5. Reduce Local Street Traffic - to provide access to an adequate choice of community services, facilities in a safe, quick, and convenient manner; and to move goods efficiently.

Harvard's goals and objectives needed for regulating real estate development should have the following attributes:

1. Maximize Return On Investment - to accommodate optimal growth opportunities and economic position; and to increase the residual supportable land value.

2. Minimize Adverse Environmental Impacts - to preserve the natural
3. Minimize Risk and Uncertainty - to maintain equity between quality, scope and cost for construction to sufficiently meet the established criteria.

The alternatives are evaluated and rated according to a simple scale, ranging from severely adverse to highly favorable. Because many of the criteria were not quantifiable or could not be evaluated only in relative terms with no absolute quantity for comparison, the rating system was necessarily based in many cases on reasoned judgement rather than analytically derived facts.

No formal attempt was made to establish priorities for the individual criterion. However, from the community's point of view, to strengthen local economy and to create jobs was the highest priority with enhancement of urban livability representing the second category. Harvard views maximum return on investment as perhaps the most important criterion.

Suitability of environment also includes analytical conclusions on the human activities to be accommodated. In such cases, one must make assumptions in order to determine the most critical developmental factors (Appendix A.04). Feasible alternative uses would be established with the most suitable uses which are most in accord with both the site and the neighboring community.

Alternative A, "no build", would provide a base from which other options could be compared in regard to land use, circulation, economics, and environmental conditions. Under the "no build" alternative, no additional traffic is projected from the Ledge Site. Future traffic generated by
normal growth in the primary area would be considered to provide the basis for analysis of the impact of the projected traffic generated by mixed use alternatives (Figure 5.01).

The "no build" alternative would be the only possible and conceivable solution for maximum open space considerations. It shows the relative minimum benefits and impacts development approach, and the least expensive method for further providing either community gardens, recreation or parkland accommodations. While "no build" can possibly occur if a comprehensive plan is not adopted, perhaps through negotiation with Harvard, some type of lease or trust could be established to enable community utilization of the upper site. The Boston Conservation Commission, non-committal at buying the parcel, would prefer to see the natural ledge upgraded and maintained.

This alternative could be accepted by the community provided that Harvard clean-up and fence-in the upper site, and provide improvements to the lower site. Replacement commercial would have to be relocated on another site as the result of normal growth within Mission Hill.

Assuming that the "no build" option came about either through choice or by necessity, the City of Boston would receive only limited benefits in terms of fiscal impact and jobs. Specifically, the City would continue to collect $614,500 annually in real estate taxes on property within the block of the Ledge Site with only limited prospects of higher revenues stemming from increasing land and building values, increased sales by local retailers, etc. Similarly, the number of jobs would be likely to remain stable over time with little possibility of additional employment arising from within the existing establishments or potential reuses.
For analytical purposes, the demand for retail-office is a derived demand. In other words, a neighborhood center will be based on consumer preferences (Appendix A.05). The stores selling convenience goods should be located close to where large numbers of people can congregate or pass. The availability of parking facilities and accessibility of auto traffic and public transportation are important for consideration of traffic flows. The office space is found on the second or third floor of a building combining retail and office spaces in one structure. On the other hand, residential densities should fill in around the commercial activities (Appendix A.06). Because of higher rents associated with the neighborhood center, condominiums or cooperatives should be considered. These forms of ownerships would support the high ceiling rate per acre for residential use.

Alternative B, housing/parking garage/retail/office, would provide a moderate level of development by utilizing approximately seventy-five percent of the potential land. The program accommodation would involve 60 dwelling units, 76,000 square feet of retail space and 4,000 square feet of office space with 3 parking spaces per 1000 square feet (Figure 5.02). The access improvement at Tremont and Calumet Streets will be required for this development.

The land use program for the residential has a single housing density of 13 units per acre. The low density represents an upper limit from a massing and site accommodation standpoint. The maximum building height is 2- and 3-story range. Given the composition of the residential area in the existing neighborhood, there should be no problems in compatibility.

Again assuming a 200-capacity parking garage, a supporting neighborhood-
LAND USE PLANS

Figure 5.01 No Build

Figure 5.02 Housing/Retail/Office/Parking
scale shopping center of 80,000 square feet including retail and office uses should be constructed on the lower site. This would require an investment on the order of $6.4 million. In this case, approximately 95 new permanent and 98 construction jobs would be created; and while there would be new school costs, the net revenues would exceed cost by $70,000 annually. Again, although fiscal impact is less favorable, the premium foundation or parking costs would be encountered. While the lesser scale of development would result in lower residual land value, the reduced risk and investment required may be attractive to the developer.

The traffic generated by the development would be approximately 2091 trips per average day. It is necessary to undertake roadway improvements to safely accommodate the traffic growth and requirements.

The community believes this alternative shows the maximum development with full utilization of the site and partial consideration for open space. The combination of mixed use development has increased adverse impacts due to increased peak consumption and traffic congestion.

Alternative C, housing/parking garage/retail, would provide a development utilizing sixty percent of the potential site. The program accommodation would involve 60 dwelling units, 50,000 square feet of retail with 135 parking spaces (Figure 5.03). The development would provide a combination of low- and mid-rise building with a central garage. As a housing site, it's topography provides a real amenity for the upper and lower site. This alternative allows for upper and lower drive-in sites for residences, and the construction of a single parking garage.

The land use program for residential, with three housing densities
considered, approximately 10, 20 and 30 units per acre. The highest density represents an upper limit from massing and site accommodation, with maximum building height from the lower site about seven stories. Given the separation of the site, the upper site would have both two-family housing and garden apartments. This massing and open space combination was selected because it embodies the design inherent in the site and mixed use concept.

The traffic generated by the development would be approximately 2071 trips per average day. It is necessary to undertake some roadway improvements to safely accommodate traffic growth and requirements.

The estimated investment would be approximately $5.1 million. In this case, approximately 52 new permanent and 54 construction jobs would be created; and property tax would be approximately $117.0 thousand.

The alternative C, shows the benefits and impacts of a moderate mixed use option with little required public sector improvement.

Alternative D, retail/parking garage/office, would be conditional to Harvard's selling the land as parcels. The program elements would be confined to the lower site with retail frontage at ground level along Tremnot and Calumet Streets. The development involves 93,000 square feet of retail and 7,000 square feet of office space with a 100-capacity parking garage (Figure 5.04). The maximum building height would be in the two- to three-story range. To initiate development, the estimated cost would be approximately $3.7 million.

This non-residential development would support approximately 120 new permanent and 123 construction jobs. In terms of fiscal impact, estimated revenues would be approximately $155.2 thousand annually. This alternative
does not generate new public school students or student-related cost.

Another advantage under this alternative is the lesser in premium foundation cost associated with the parking garage meeting the parking needs of the development.

The traffic generated by the development would be approximately 1929 trips per average day. It is necessary to undertake minor roadway improvements to accommodate traffic growth in the future.

Alternative D, shows the minimum benefits and impacts of a minimum mixed use development with the minimum required public sector improvements. It provides parking decks above grade but is the least expensive method for lower site utilization. Even though this alternative is the most desirable from the community, it could be conceivably be eliminated if Harvard neither sells the parcel individually nor decides to develop the lower site.
Table 5.01.L
EVALUATION OF DEVELOPMENTAL ALTERNATIVES

<table>
<thead>
<tr>
<th>Evaluation Symbols:</th>
<th>Program Elements</th>
<th>Mission Hill's Goals</th>
<th>Harvard's Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>'Highly Favorable'</td>
<td>+2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Favorable</td>
<td>+1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negligible</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Available</td>
<td>NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adverse</td>
<td>-1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Severely Adverse</td>
<td>-2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend:
Construction Cost: CC
Assessed Valuation: AV
Anticipated Employment: AE
Anticipated Traffic Volumes: ADT

<table>
<thead>
<tr>
<th>A No Build</th>
<th>NA</th>
<th>Housing</th>
<th>Retail</th>
<th>Office</th>
<th>Parking Garage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>NA</td>
<td>CC $6.4 mil.</td>
<td>$165/1000</td>
<td>AE 193</td>
<td>ADT 2091</td>
</tr>
<tr>
<td></td>
<td>277 17</td>
<td>50</td>
<td>-1</td>
<td>+1</td>
<td>-1</td>
</tr>
<tr>
<td></td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

| B          | 102 76 60 4 200 | +1 | +1 | +1 | +1 | -1 |
|            | $5.1 mil. | $117/1000 | AE 106 | ADT 2071 |
|            | +1 | +2 | +1 | +2 | +1 |
|            | +1 | +2 | +1 | +2 | +2 |

| C          | 163 50 60 135 | +1 | +1 | +1 | +2 | +1 |
|            | $3.7 mil. | $155/1000 | AE 243 | ADT 1929 |
|            | +2 | +2 | 0 | +2 | +1 |
|            | +2 | +2 | +2 | +2 | +2 |
CONCLUSION

The market conditions offer developmental opportunities for the future of the Ledge Site. Along with several alternatives, it is feasible to pursue a mixed use development combining housing, neighborhood shopping center, office space, and a parking garage. The advantages of such a program would provide the benefits of sharing parking facilities, reduced energy consumption, and the opportunity to work, play, and live within a neighborhood context.

In order to secure the benefits inherent with the Ledge Site, several initiating decisions and actions are necessary on behalf of the Mission Hill Planning Commission. If a mixed use program is to be pursued, one possible strategy might be to establish an early priority before Harvard proceeds with the planning. Develop guidelines which would include a full range of mixed use options. This would provide the long-term basis for step-by-step implementation of the various project elements.

In tune with the actions, Mission Hill Planning Commission should retain the services of a development financial/legal consultant to assist in securing of equitable agreement with the interested developer.
This agreement must assure the complete implementation of the desired development.

The three-way negotiation should be necessary to establish a cooperative agreement between the developer, Harvard University, and the Mission Hill Planning Commission to provide for the assurances and guarantees.
NOTES

1 PARCEL SITE

2. Ibid., p. 6.
4. Registry of Deeds, Suffolk County Court House, 5th Floor, Bromley Atlas (Roxbury 1889).
5. Ibid., Bromley Atlas (Roxbury 1895).


17. Ibid., p. 23.

18. Ibid., p. 28.


21. Ibid., p. 278.

2 NEIGHBORHOOD PROFILE


3 INSTITUTION AND COMMUNITY IMAGES


9. Ibid., p. 4.


13. Ibid., p. 5.


18. Ibid., p. 3.
4 DEVELOPMENT CONSIDERATION

APPENDIX
LEDGE SITE QUESTIONNAIRE

1. Below are listed some possible land uses for the ledige site. What would you like to see happen with the site? Check as many as interest you, and please indicate where you think each use would be best.

Possible Uses

a. Cleaned up, fenced, and left as is ( )

b. Parkland ( )
c. Park with facilities ( )
d. Small commercial (replacement) ( )
e. Commercial (If yes, what kinds of stores or offices? )

f. Housing (If yes, what kind of housing? )

g. Community facilities (schools, etc.) ( )
h. Parking ( )
i. Other (Please explain) ( )

2. Do you have any comments or preferences regarding the following?

a. Open space? ____________________________

b. High rise vs. low rise? ____________________________

c. Density? ____________________________

3. What, if anything, worries you about development of the ledge site?

______________________________________
4. Who should decide what happens on the site?
   (Please check as many as you like.)
   a. Harvard (present owner) ( )
   b. The abutters ( )
   c. The community-at-large ( )
   d. Existing community organizations ( )
      If yes, which ones? ________________________________
   e. Local businesspeople ( )
   f. City of Boston ( )
   g. Future owner/developer ( )
   h. Other (please explain) ( )

5. How involved would you like to be in the planning and development of the ledge?
   a. Active member of working committee ( )
   b. Receive notice of meetings ( )
   c. Be polled for your opinion on major issues ( )
   d. Be kept informed of issues, decisions, etc. ( )
   e. Other (please explain) ( )

NAME* _______________________ ADDRESS _______________________ PHONE ______
   Homeowner ( )
   Tenant ( )

If you have any questions, please call Andrew Smith at the Planning Commission office, 442-0050.

*If you do not wish to identify yourself, please indicate where on the hill you live, i.e. Upper Calumet St., Ward St., Tremont St. It will help us see if it matters where someone lives when it comes to their feelings about the Ledge. Thank you.
November 27, 1979

Mr. Edward Strasser
Harvard Real Estate Office
1350 Massachusetts Avenue, 8th Floor
Cambridge, Massachusetts 02138

SUBJ.: Ledge Site, Roxbury, Massachusetts

Dear Mr. Strasser,

Several months ago, Harvard announced its intention to sell the Ledge Site, also known as Quarry Site, for $1.5 million to anyone with the resources. Subsequent to that announcement, I have continually perused the local Real Estate Advertisement to find its disclosure. With no results, I am encouraged to believe that this land won't be sold on the open market.

To rectify the concern at the neighborhood planning level, there are four questions for resolution. Does Harvard still intend to sell the site? Will there be any restrictions as to whom Harvard will sell the site? Will there be any preference given to community-based purchase of the site? Where and when will it be advertised? Your response on all information you have about the sale of the site would be gratefully appreciated.

I look forward to an early acknowledgment.

Yours sincerely,

[Signature]
Researcher
Appendix
A.04
WORKING DEVELOPMENT ANALYSIS ASSUMPTIONS

The following data is used for computing construction costs, tax/employment generation; and parking/traffic generation. These figures represent estimates used for general planning purposes to identify the approximate scale in each category.

Construction Costs

These figures have been used to determine the construction costs of potential development. All costs are 1978 dollars; costs include contractor's overhead and profit but do not include A/E fees, unusual site development costs, or land acquisition.

.... Retail:
  Small retail (neighborhood market or convenience store) $30/SF
  Department store scale $25/SF

.... Office: $50/SF

.... Residential:
  New Construction $40,000/DU

.... Open Space: $3.25/SF

.... Parking:
  Structured $5,000/space
  Surface $1,000/space
**Construction Employment***

This formula has been used to determine the total amount of construction employment associated with potential development.

....All Land Uses: 50% of construction/$15,000 per employee = Total man years of construction employment

**Permanent Employment***

These formulas have been used to determine the approximate permanent new employment associated with potential development. They are based on broad averages found in the Boston area; however, actual numbers will depend on the specific nature of new development.

.... Retail:

  Small Retail 1 employee/1000 SF
  Other Retail 1 employee/300 SF

.... Office:

  1 employee/250 SF

.... Residential:

  1 employee/50 DU

**Property Taxes***

These formulas have been used to determine the approximate level of property tax associated with potential development (not considering a 121-A alternative).

.... Retail:

  Small Retail $1.50/SF/yr. (corresponds to 24% of gross income)
  Other Retail $2.00/SF/yr. (corresponds to 25% of gross income)

.... Office:

  $2.25/SF/yr. (corresponds to 25% of gross income)
Residential:

Market Rate
Subsidized

$700/unit/yr. (corresponds to 20% of gross income)
$300/unit/yr. (corresponds to 15% of gross income)

Parking Demand#

These formulas have been used to estimate that the amount of parking is customarily required by different types of development.

Spaces/1000 SF

.... Retail:

1.5 - 3

.... Office:

1 - 2

.... Residential:

Elderly
Non-elderly

.5
1

Trip Generation^c

These formulas have been used to estimate the number of automobile trips which customarily are generated by different types of development.

Trips/1000 SF/Average Day

.... Retail:

Small Retail
Other Retail
.... Office

40 - 65
45 - 75
7 - 9

.... Residential:

Elderly
Non-elderly

,5 - 1
3 - 4

Source:

*Means Construction Cost Data, 1978
#Boston Zoning Code & Enabling Act, City of Boston, 1973
^Trip Generation, Institute of Transportation Engineers, 1976
Appendix A.05

NEIGHBORHOOD CENTER COMPOSITION BY TENANT CLASSIFICATION *

<table>
<thead>
<tr>
<th>TENANT GROUP</th>
<th>PERCENT GLA</th>
<th>PERCENT SALES</th>
<th>PERCENT TOTAL CHARGES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food</td>
<td>26.9</td>
<td>44.0</td>
<td>21.9</td>
</tr>
<tr>
<td>Food Service</td>
<td>5.5</td>
<td>3.4</td>
<td>7.2</td>
</tr>
<tr>
<td>General Merchandise</td>
<td>16.7</td>
<td>9.1</td>
<td>12.7</td>
</tr>
<tr>
<td>Clothing and Shoes</td>
<td>5.9</td>
<td>4.4</td>
<td>8.2</td>
</tr>
<tr>
<td>Dry Goods</td>
<td>4.2</td>
<td>1.8</td>
<td>4.8</td>
</tr>
<tr>
<td>Other Retail</td>
<td>17.3</td>
<td>13.6</td>
<td>18.1</td>
</tr>
<tr>
<td>Financial</td>
<td>3.4</td>
<td>0</td>
<td>4.2</td>
</tr>
<tr>
<td>Offices</td>
<td>5.1</td>
<td>0</td>
<td>5.5</td>
</tr>
<tr>
<td>Services</td>
<td>6.0</td>
<td>2.7</td>
<td>8.3</td>
</tr>
<tr>
<td>Other</td>
<td>5.1</td>
<td>20.9</td>
<td>8.9</td>
</tr>
<tr>
<td>Vacant</td>
<td>3.4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The neighborhood center has its major tenant in the food group; those tenants represent 27 percent of GLA, 44 percent of sales, and 22 percent of total revenue. The "other retail" category (drugs, hardware, etc.) comprise the second major tenant group and represents about 18 percent of total charges. (Total charges include minimum rent, overage rent, and common area charges.)

* This list of tenants was taken from Dollars and Cents of Shopping Centers, 1975. Adjustments were made to the figures to represent Mission Hill's market demand.
### Optional Housing Composition

#### Housing Types and Dwelling Units per Acre*

<table>
<thead>
<tr>
<th>Type</th>
<th>Dwelling density</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Family</td>
<td>1 - 5</td>
<td></td>
</tr>
<tr>
<td>Two-Family</td>
<td>6 - 10</td>
<td></td>
</tr>
<tr>
<td>Townhouse</td>
<td>6 - 14</td>
<td></td>
</tr>
<tr>
<td>Garden Apartment (2- or 3-story)</td>
<td>15 - 20</td>
<td></td>
</tr>
<tr>
<td>Multi-story Apartment (up to 7 story)</td>
<td>25 - 35</td>
<td></td>
</tr>
</tbody>
</table>

* Ten townhouses or 18 garden apartment units per net acre represent optimum density for each of these housing types.

#### Lot Areas and Dwelling Densities*

<table>
<thead>
<tr>
<th>Dwelling Unit Type</th>
<th>D.U.'s Per Net Acre</th>
<th>Assumed Average Sq. ft. of Lot per D.U.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Family</td>
<td>1</td>
<td>32,000</td>
</tr>
<tr>
<td>Single-Family</td>
<td>2</td>
<td>16,000</td>
</tr>
<tr>
<td>Single-Family</td>
<td>3</td>
<td>11,000</td>
</tr>
<tr>
<td>Single-Family</td>
<td>4</td>
<td>8,000</td>
</tr>
<tr>
<td>Two-Family</td>
<td>5</td>
<td>6,000</td>
</tr>
<tr>
<td>Townhouse</td>
<td>10</td>
<td>3,000</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>2,000</td>
</tr>
<tr>
<td>Garden Apartment</td>
<td>18</td>
<td>1,600</td>
</tr>
<tr>
<td>Multi-Family Apartment</td>
<td>50</td>
<td></td>
</tr>
</tbody>
</table>

* These parameters were taken from *The Community Builders Handbook*, 1968. Urban Land Institute.