



SIMPLEX REDEVELOPMENT STUDY  
by  
DOUGLAS KELLAWAY GOVAN  
BSCE, University of Wisconsin  
(1962)

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ABSTRACT

Simplex Redevelopment Study  
Douglas K. Govan

Submitted to the Dept. of Architecture on May 14, 1971, in partial fulfillment of the requirements for the degree of Bachelor of Architecture.

MIT is studying the redevelopment of 20 or more acres, formerly used by industry, near its campus in Cambridge, Massachusetts. Housing, commercial office space, and some community facilities are likely new uses.

Existing conditions are analyzed very early in the planning process in the belief that goals and objectives for development should be shaped by potentials for physical improvements. Further, that developmental success is critically sensitive to the need to exploit every opportunity to benefit the existing environment, on one hand, and to tap every resource to benefit itself, on the other.

Certain schemes and strategies are proposed which mutually benefit new development use and neighboring users: commercial Central Square, the entire MIT community (particularly West Campus residents) and the residential community of Cambridgeport.

An illustrative plan is offered, demonstrating one possible way response to issues raised could result in an architectural plan.

Suggestions are made for carrying forward the perceptions: by testing them in the continuing process of Simplex Planning, by challenging some of their assumptions, and by finding the proper mode for their presentation to influence without predetermining subsequent planning and design.

Thesis Supervisor: Donlyn Lyndon  
Title: Professor of Architecture  
Chairman, Dept. of Architecture

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MIT announced<sup>1</sup> in mid-1969, its purchase of property formerly owned by the Simplex Cable and Wire Company, 18.7 acres in close proximity to its West Campus. Intentions were pronounced to create "urgently needed new housing in Cambridge and new commercial development that will add significantly to tax revenues and employment opportunities in Cambridge," but not to expand the academic campus of the Institute.

A number of advisory committees<sup>2</sup> elaborated these intentions, raised certain potentials, and began describing "objectives and policies" for the development. In December of 1970, the MIT Planning Office undertook the "NWA Pilot Plan," an intensive task force effort<sup>3</sup> for planning and development of Simplex and related properties. This thesis has developed in parallel with the Pilot Plan and in part constitutes advice to the task force by Donlyn Lyndon, chairman of the Dept. of Architecture, in his role as staff consultant.



It is heavily indebted to Robert Simha, Institute Planning Officer; Richard Dober, Pilot Plan Director; and the Pilot Plan staff for access to information and guidance.

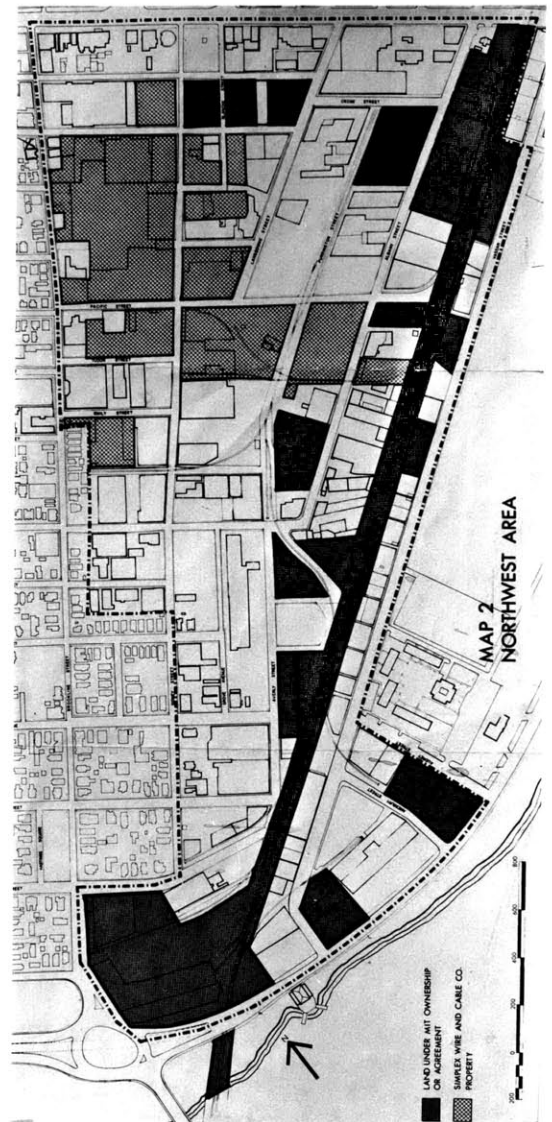
NWA = Northwest Area

Northwest Area

- = Simplex Properties
- + property on which MIT holds option or owns
- + commercial and industrial holdings by others

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= 135 acres, roughly triangular, bounded by Massachusetts Avenue to the North, MIT and the Charles River basin to the East, and Cambridgeport to the West.



From the outset, work grew from pilot plan efforts. However, it differed purposely in a number of ways.

Physical Emphasis Early in Planning Process

While Pilot Planning is comprehensive, ranging from collection of basic data like maps, demographic statistics, etc. to studies of project implications on the job market in Cambridge, it has logically started by concentrating on the crucial areas of financing and economic analysis. Emphasis has been on what uses can be incorporated and when, and those answers have not come easily.

Thesis intent has been to analyze the urban context, using the M.I.T. Planning Office's most current, but admittedly tentative, assumptions for development in order to illuminate potentials and stimulate discussion of problems. This early physical emphasis is taken in the belief that there is/should be a reciprocal relationship between objectives and form. Decisions on what should be built and where should be influenced by context and opportunities to optimize potentials for environmental improvement and commercial success.

Total Solutions

While separable planning aspects (such as traffic, land acquisition, use, etc.) can be abstracted and isolated for clearer understanding, it is strongly contended that analysis must place them back in context, and choices

between alternatives must be taken in view of their -4-  
implications with respect to all other aspects. The best  
traffic access pattern is not necessarily the best solution  
with regard to residential environmental quality, continuity  
with existing urban fabric, etc.

While easily stated in principle, it would often seem  
elusive in practice. The planning and design processes  
should use but not succumb to reductive analysis which has  
its place in understanding and communication. Decision  
making and resulting plans, however, must cope with and  
reflect the considerable complexity of interacting forces  
at work.

#### THESIS INTENT (ATTITUDES)

In february, 1970, the Corporation Joint Advisory  
Committee issued a report<sup>4</sup> which reflected two broad  
catagories of attitude, designated 'A' and 'B'. Although  
oversimplified here, the recurring thematic difference  
between the two positions revolved about the connection/  
integration of the Simplex development with its surrounds  
vs. its separation/segregation from selected neighboring  
elements, notably Cambridgeport.

This thesis contends that separation may be appropriate  
where incompatible uses are in conflict, but that it is  
properly applied at a much finer grained level than as  
general policy toward the adjacent neighborhood. Generally  
in favor of an integrative approach, this study explores

specific possibilities to make positive connections:

-5-

- to exploit environmental assets for use by more people.

- to give an individual in the N.W.A. a wider range of alternatives for living and recreation.

With regard to the inevitable reconciliation of the new, large scale development with the old, less dense surroundings, a planning and design approach is sought which puts positive value on the existing fabric; one which incorporates its virtues and contributes to the solution of its problems. This attitude is not purely altruistic. It respects the sensitive balance between success and failure of new development, and reflects the belief that the new can and must profit by taking advantage of existing area potentials.

In order to uncover potentials, the urban context is analyzed at two levels:

- 1) Regional, metropolitan Boston.
- 2) NWA boundaries, or Interfaces.

The process works from outside to in, elaborating existing conditions to which Simplex planning must respond.

Proposals are made. They do not pretend to exhaust the possibilities, but they do represent a sort of minimum standard of formal objectives. And they are made with the belief that solutions need not imply a choice between benefit to MIT or benefit to Cambridge. Solutions should, as a rock bottom criteria for consideration, benefit both simultaneously.

#### Order of Analysis

- 1) Regional Context
- 2) Central Square
- 3) Massachusetts Avenue
- 4) West Campus
- 5) Cambridgeport
- 6) Traffic

REGIONAL CONTEXT



Metropolitan Image

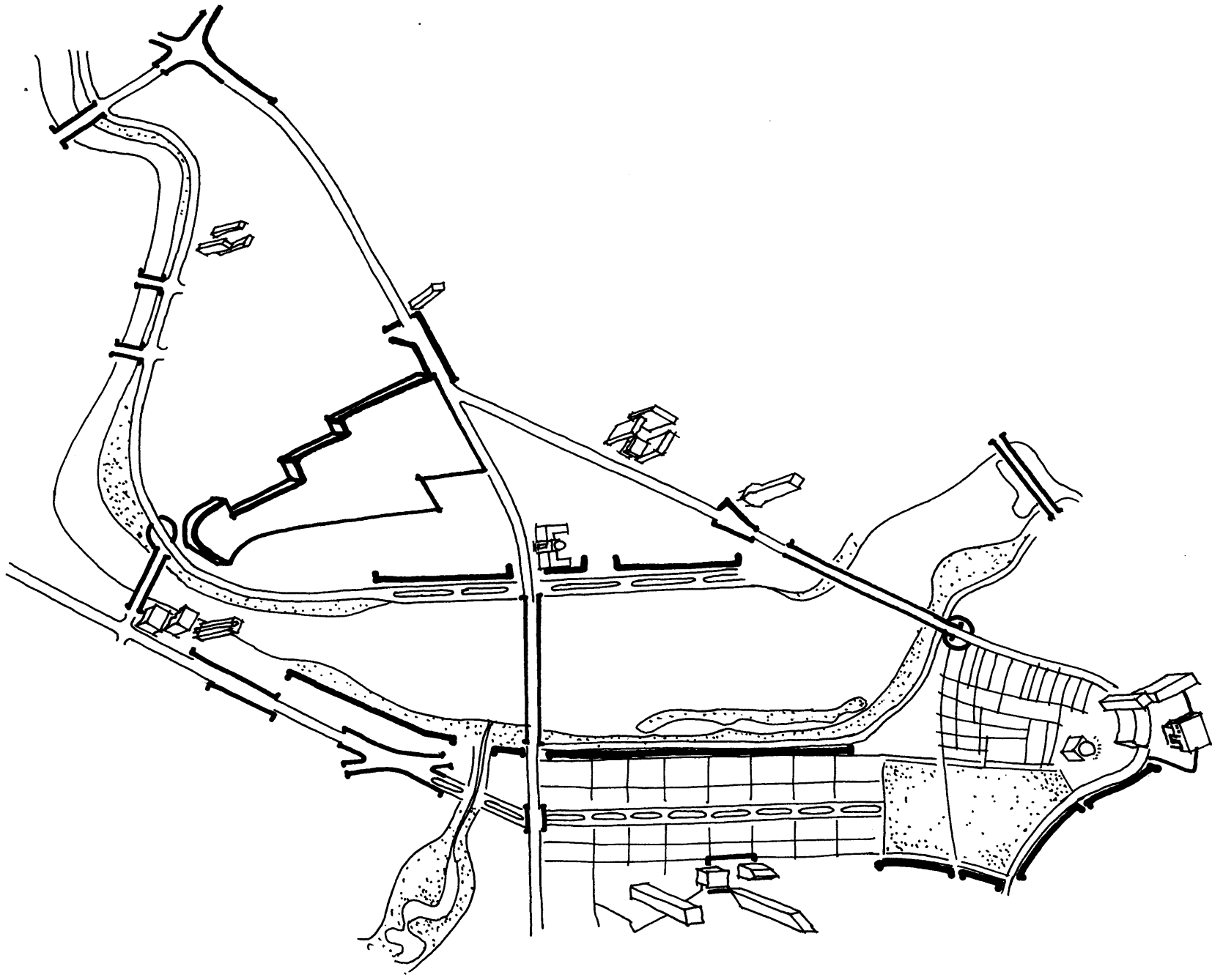
Commercial and Retail Centers  
linked via Main Street and  
Massachusetts Avenue



Charles River Basin

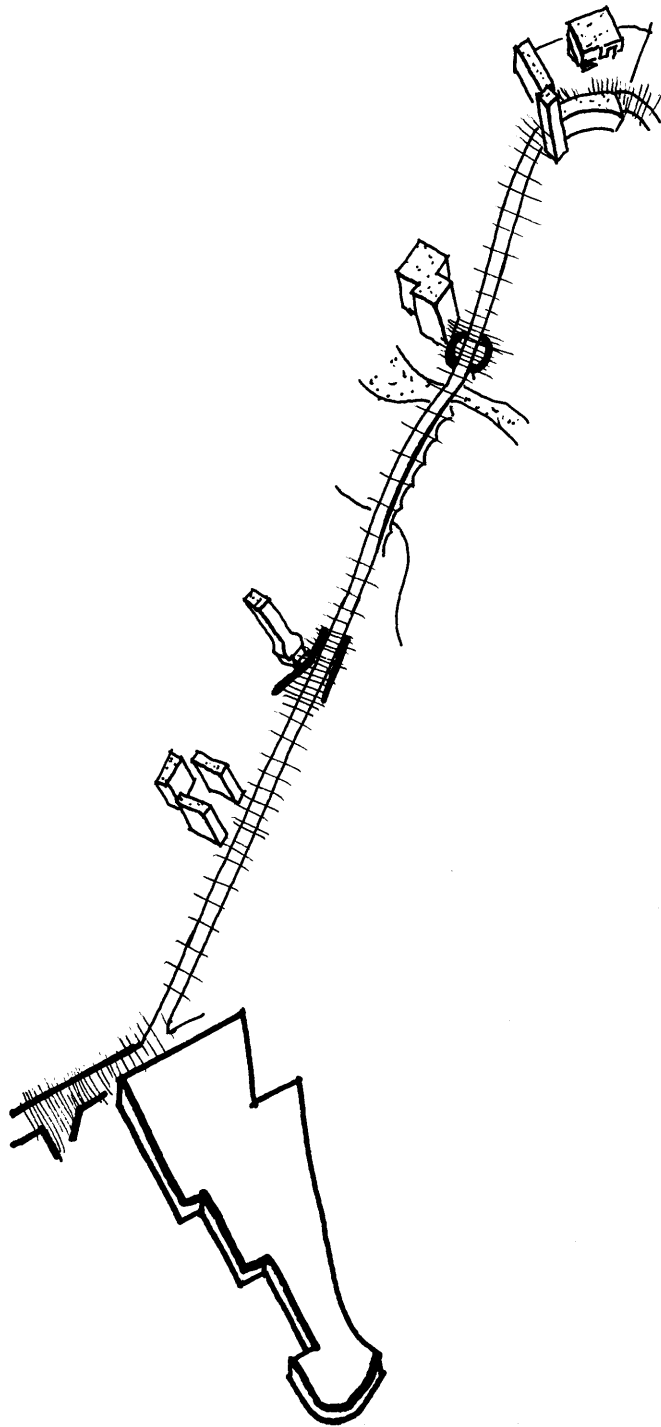


Boston University and  
Commonwealth Avenue



Proposals

The major commercial development must take advantage of its relationship to, and resulting association with, the greater metropolitan system. Response to this system is more than visual image; it is a factor in the commercial success of the development. Commercial pressure in downtown Boston has resulted in intensive construction of large-scale office building, spreading from the central city into Back Bay, creating 'the spine' along Boyleston Street whose major monument



(soon to be contested by John Hancock) and present termination is the Prudential Center. Although this study has not attempted to substantiate the probability or timing, it observes that factors such as distance from the C.B.D.



and land values may make alternatives to intensifying and expanding the Back Bay spine look attractive to future investment. Main Street could be the organizing element and transit link (surface and subway) about which a second 'spine' is built to satisfy long range, metropolitan commercial growth. Government Center holds down one end of such a development. Central Square and the northwest corner of the NWA terminate the Cambridge end, while Kendall and Technology Squares are events along the way.

Even if development of Main Street is not realized on such scale, the proposition that Simplex will add new commercial development to benefit Cambridge and to realize economic return sufficient to subsidize attractively priced housing, requires that opportunities be maximized to insure success. Regional imageability and proximity to transit systems are opportunities that press consideration of:



1) Acquisition of property at the intersection of Main Street and Massachusetts Avenue, as well as the Fenton Shoe Company and other enterprises in the block immediately

behind, in order to make a bold connection to the Simplex parcel.

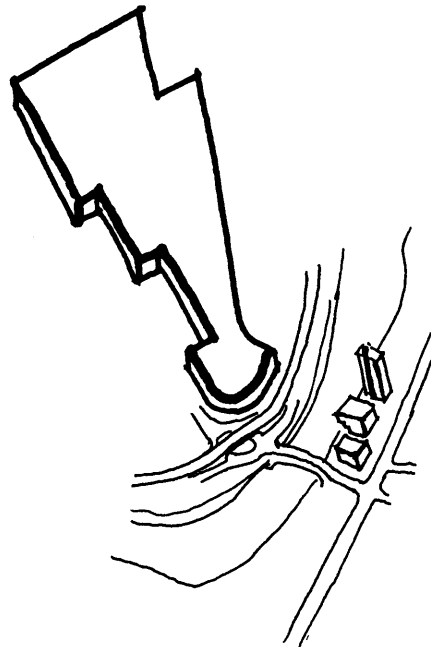


2.) Acquisition of property at Sidney Street and Mass. Avenue (occupied by Seymour Chevrolet) as a front door on Mass. Avenue, would be complementary to (1). It is not equivalent, however, lacking direct reference to Main Street. It is also inferior with respect to its relation to commercial activity in Central Square, a point to be elaborated later.



3.) An organizational and land-use scheme that capitalizes on the potentials of regional relationships. This includes recognition and exploration of the development potential of the Southern 'toe' of the N.W.A., presently owned by M.I.T. but occupied by the Polaroid Corporation. The relationship of this site to Boston University's

housing market, the recreational desirability of the Basin, and proximity to public transit on Commonwealth Avenue via the B.U. Bridge, are factors which should be weighed in M.I.T. long range development planning.



CENTRAL SQUARE

Central Square is a resource alive with activity and retail commerce.



Cambridge has an interest in promoting policies to reinforce its economic vitality. These include limiting the spread of businesses along Mass. Avenue, providing off-street parking, and encouraging residential development close to Central Square. Simplex development can respond to each.

But, particularly with regard to intensifying rather than diluting economic activity, Simplex has a key role to play. Crucial to Simplex, as well as to Central Square, is the degree to which new commercial development can avoid competition while deriving nourishment from and reinforcing the considerable vitality that exists now.

At least three factors argue for direct and active association between Simplex development and Central Square.

Distance is important in that mutual benefits of casual contact and attraction of one-stop shopping depend on the ability of pedestrians to perceive and to traverse the whole.

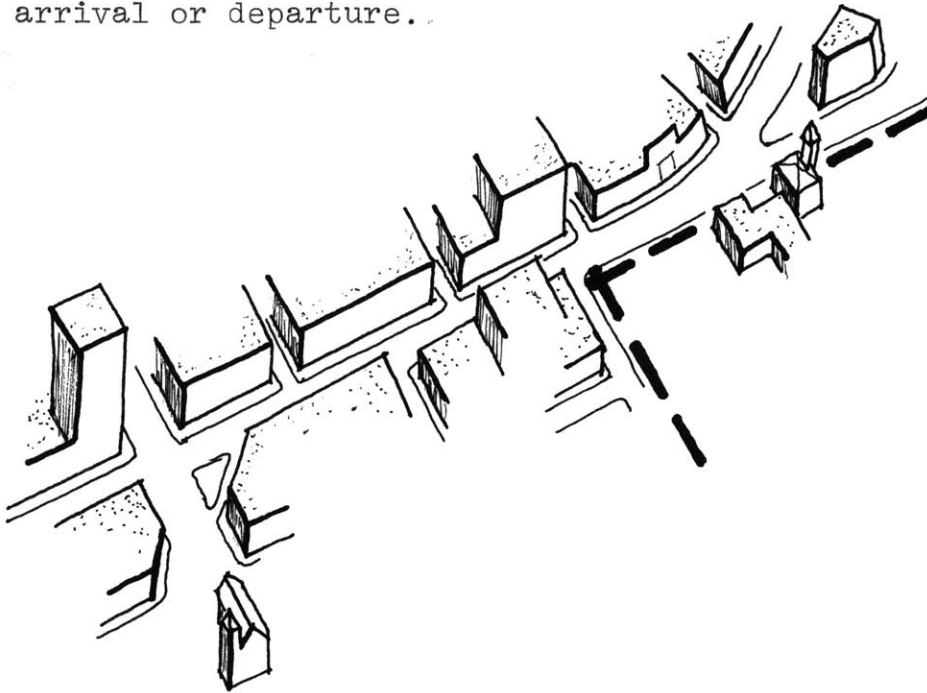
Continuity of Activity is important to a system of relatively small enterprises which depend upon their collective drawing power and the proximity of user generators such as a Simplex corporate office development.



Two kinds of deadening breaks to continuity of activity exist now along the South side of Mass Ave, east of Brookline Street. Bars with a lot of men hanging around and a concentration of liquor and pawn shops is one. This block is generally less trafficked than other Central Square frontage. The other break occurs at the Salvation Army Bldg, a zone where interaction between store front and passersby is nil, as pedestrians focus straight ahead and skirt brick wall, fire

station doors and used car salesmen.

Image of Central Square is obscure at its East end. In contrast to the intersection of Mass. Avenue and Prospect St. which clearly reads as a defining element, uses and built forms trail off in a way which provides little sense of arrival or departure.



### Proposal

New commercial development should be linked directly to Central Square, by intense utilization of property to be acquired at the corner of Brookline Street and Mass Avenue with frontage on Mass Ave opposite Main Street.

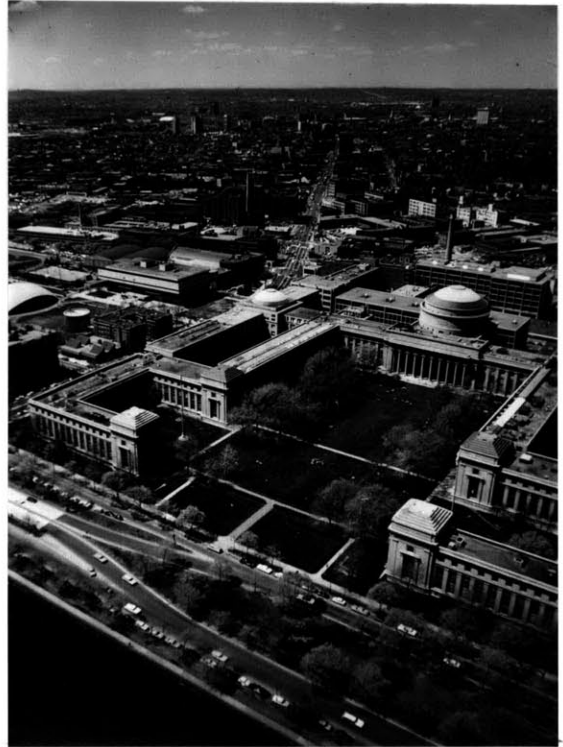
(see previous section, Regional Context)



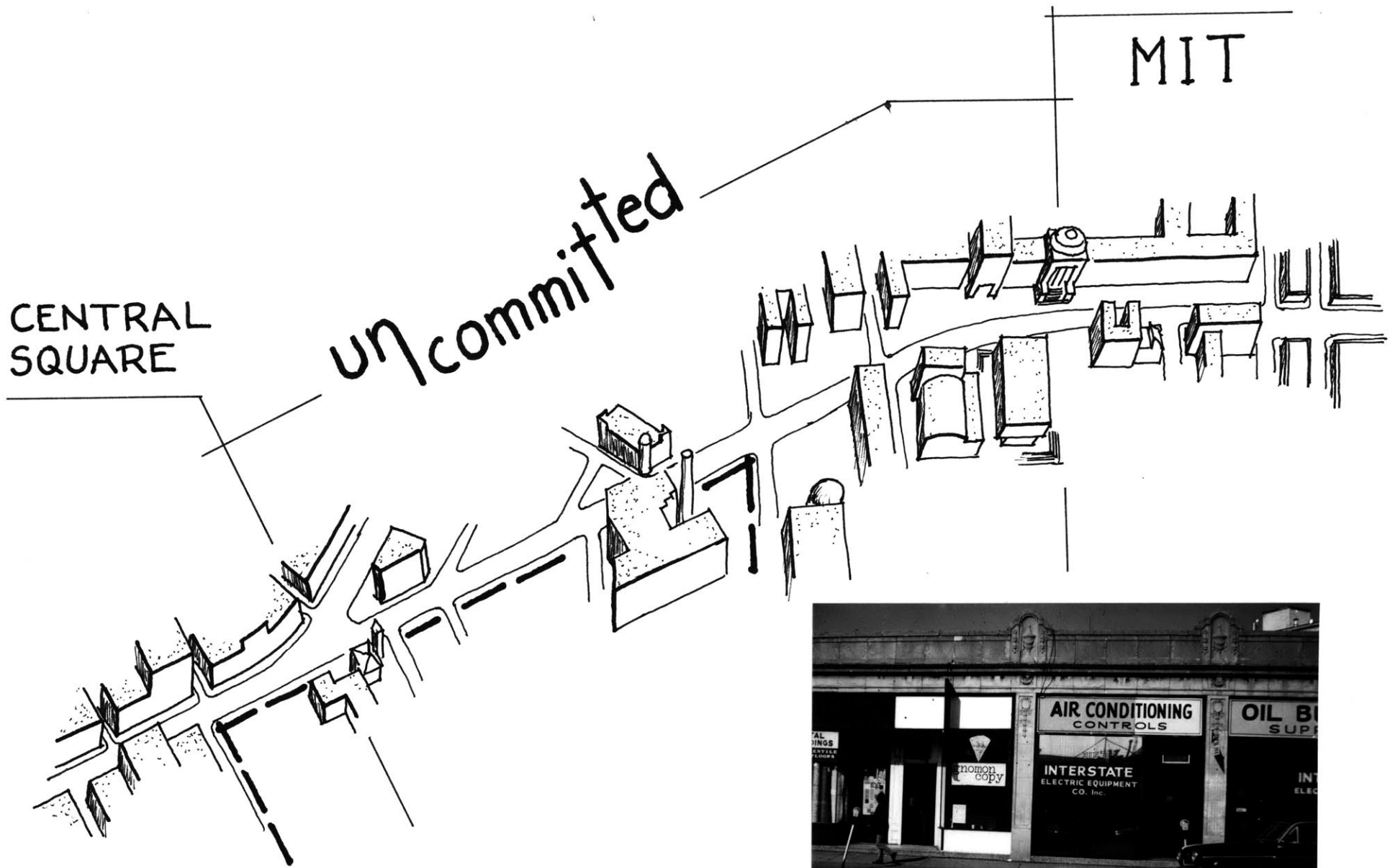
MASSACHUSETTS AVENUE

Project interface

- with high degree of uncertainty
  
- of present and increasing importance as a pedestrian route for the M.I.T. community



Massachusetts Avenue has mixed commercial frontage which includes small bars and eating places, but is predominantly marginal and unrelated to passers-by (auto parts and misc. wholesaling). It's built character varies from bold and inhibiting (Necco Factory) to weak and ambiguous (Seymour Chevrolet) to strong with implications for local architectural response (M.I.T.'s Graphic Arts bldg.) and an apartment building opposite Seymour and Sidney St.) With M.I.T. at one end and Central Square at the other, the section of Mass. Avenue in between represents an uncommitted link of many, marginal, short term uses, and vague experiential quality.





While first reaction might propose a high-powered new building or complex on Mass. Avenue to capitalize on its vulnerability, such an approach would not enjoy the degree of symbiotic benefit from nourishing activities and uses that sites closer to Central Square do. It would precipitate further stretching of commercial activity beyond reasonable concentration near Central Square. This argument is not meant to preclude the possibility of eventual commercial development of the 'link'. It does suggest that now opportunities are surer closer to Central Square where development need not await the supportive moves of others over the period of time necessary to build a 'critical mass'.

### Proposals

1.) Build relatively dense residential component one block back from Massachusetts Avenue. Existing evidence suggests good prospects for survival, and housing questionnaire data reveals enough 'singles and childless couples' interested in convenience to M.I.T., mass transit, and 'the action'.



2.) No large residential or commercial venture need be undertaken in the block facing directly on Mass. Ave. between Sidney St. and the Necco factory.



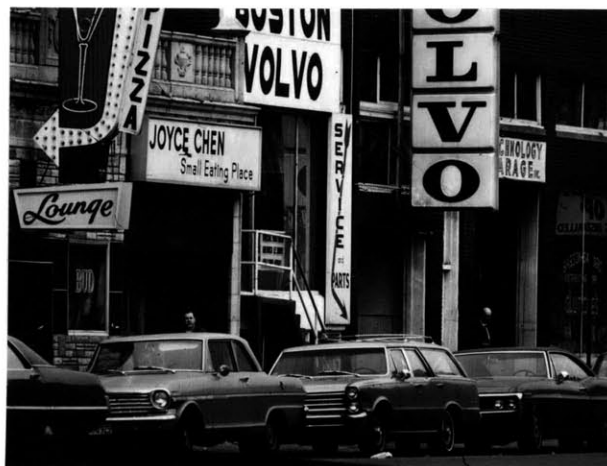
Instead, a few key, small acquisitions over a period of time would:

- set the stage for later development, perhaps with major change in the 'triangle' North of Mass. Avenue.
- maintain influence but avoid premature committment now.
- afford select oppportunities to make active, small scale, environmental events to improve the Mass. Ave. trip to M.I.T. from Simplex and Central Square.



3) Opportunities to liven Massachusetts Avenue include:

- minor renovation to the Volvo garage for subsidized rental to vendors, marginal business with low or no overhead, political efforts, etc. In short, bazaar-like enterprises that enrich an area by providing activity and interest.



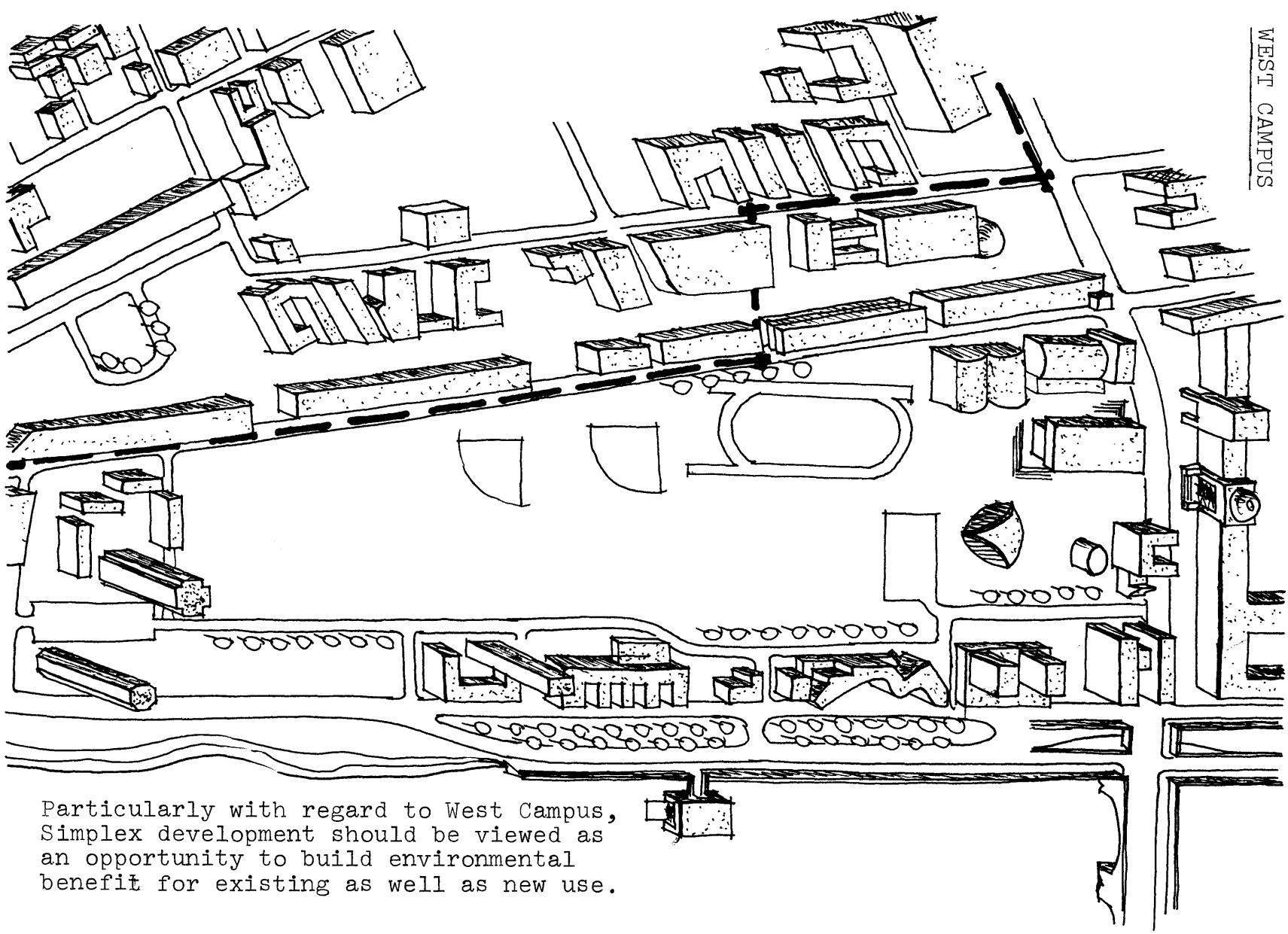
- encourage, perhaps subsidize, more eating and drinking places, news stores, etc., whose conspicuous absence around MIT is a dubious distinction among great urban universities.



- remove or renovate for public use a building used by Interstate Tool Company, which is sited on a small, triangular block significantly on the way to everything.



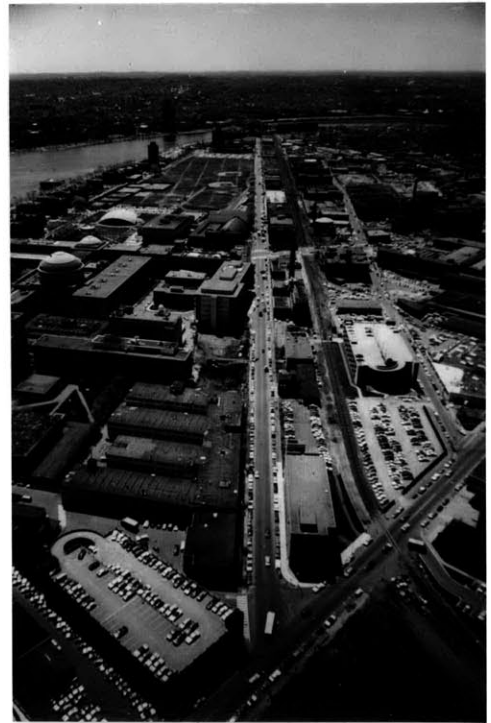
WEST CAMPUS



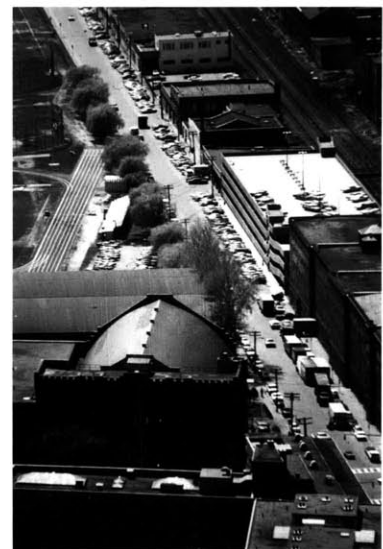
Particularly with regard to West Campus, Simplex development should be viewed as an opportunity to build environmental benefit for existing as well as new use.

Vassar Street

Presents an impenetrable and shockingly unsympathetic edge to a residential campus. John Kenneth Galbraith: "One gazes at the lovely auditorium and chapel of Eero Saarinen at M.I.T. and then on to a parking lot, a candy factory, and a storage warehouse. I can't think that there is any concept of professional achievement which justifies juxtaposition to eyesores."<sup>5</sup> One need not operate out of an aesthetic sense of 'clean' forms vs. eyesores to wonder at the juxtaposition of investment and use at work along Vassar Street. A chain link fence protects the playing fields while the pedestrian commuter vies with trucks.



Large scale residential development of Simplex will force attention to finding acceptable pedestrian paths through the warehouse wall. Much will be lost, however, if it stops at that. Large scale and strongly imageable, a connection is essential which establishes a sense of association with established qualities of campus green. It seems especially crucial for an otherwise upstart residential tract amid the residual clutter of waning industry. Pilot planning is looking to deploy a large, new athletic facility, which may in part span Vassar, Albany and the Grand Junction right-of-way. Locating a dense, large scale component of housing or another dormitory complex with levels bridging across, should also be considered.



## Westgate

Pilot Planning has focused on development of 'Fast Track' land packages, which include Simplex and miscellaneous acquisitions north toward Mass Ave. An alternative approach bears scrutiny. Acquisitions to the South, while claiming Vassar Street for campus use, could reinforce and build sorely lacking quality into the Westgate environment.



In close proximity to recreational assets, Westgate is curiously isolated from them. Memorial Drive traffic makes the river a harrowingly dangerous objective. Mutilated chain link fence bears witness to the frustration of residents, who must walk a quarter-mile to get at Briggs Field. And Fort. Washington, an historic city park, is absolutely guarded from assault by mothers and children by the warehouse 'wall' and the St. Johnsbury Trucking Company.

Even short of dislodging St. Johnsbury, limited acquisition of Vassar St. warehousing could begin a long term strategy that:

- 1) Reclaims Fort Washington as a usable public asset.
- 2) Converts Vassar Street to local campus use in the short run.

3) Considers replacing Vassar St with a new road using the Grand Junction right-of-way.

4) Builds new housing for families with vehicular access branching from the new road, an open relationship with Briggs Field, and making contact with Simplex housing to the North.

### Briggs Field

Exchanging portions of Briggs playing fields for Simplex housing is being studied by Pilot Planning, though not in the form described above. Exchange does not imply reducing the net amount of open play space, but it does suggest distributing smaller and more accessible pieces throughout Simplex and NWA development. Thesis departs from Pilot planning in rejecting any scheme that makes a large scale swap because:

1) Large scale swaps imply putting specialized Varsity facilities in close proximity to housing. Their maintenance requires careful protection by cyclone fence.

2) Open space swapping hold great potential to organize groupings of housing which provide variety as well as identity within the development. Small parcels will do this, while large fields will separate.

3) In conjunction with pedestrian paths and bicycle ways, small and various open spaces can be events which organize and make more interesting continuities with the whole.

4) Small scale, unfenced spaces, scattered for maximum accessibility to residents will promote use and sense of belonging.



Riverfront

Unheralded in song or verse, the Charles River Basin nevertheless constitutes a precious asset. Despite almost complete isolation by high speed roadways, people use it.



Opposite MacGregor Hall, where the roadway splits, the walled edge ends. New uses are accommodated to the South by the flat shoreline.



Campus planning should acknowledge exploitation of the riverfront as an important goal.

Improvements are possible to ease crossing Memorial Drive near Westgate. Paving a way across the median near MacGregor, where the divided highway makes crossing less hazardous, is a simple step. In conjunction with another Westgate tower expansion, a level could bridge or tunnel to link campus to the waters edge. And positive exploitation might provide a marina or public recreation facility as the residential community grows.

Short of these devices, however, it is now time to consider restricting the extent of high construction along Memorial Drive. It is still possible to make a large scale open space continuity to the riverfront, with a sense of commonality and connection with the whole residential campus, including Simplex. Reserving the gap between MacGregor and Westgate, developing it as public green for use by the entire spectrum of ages and uses, is recommended. It is too valuable a resource to ignor or isolate.



CAMBRIDGEPORT

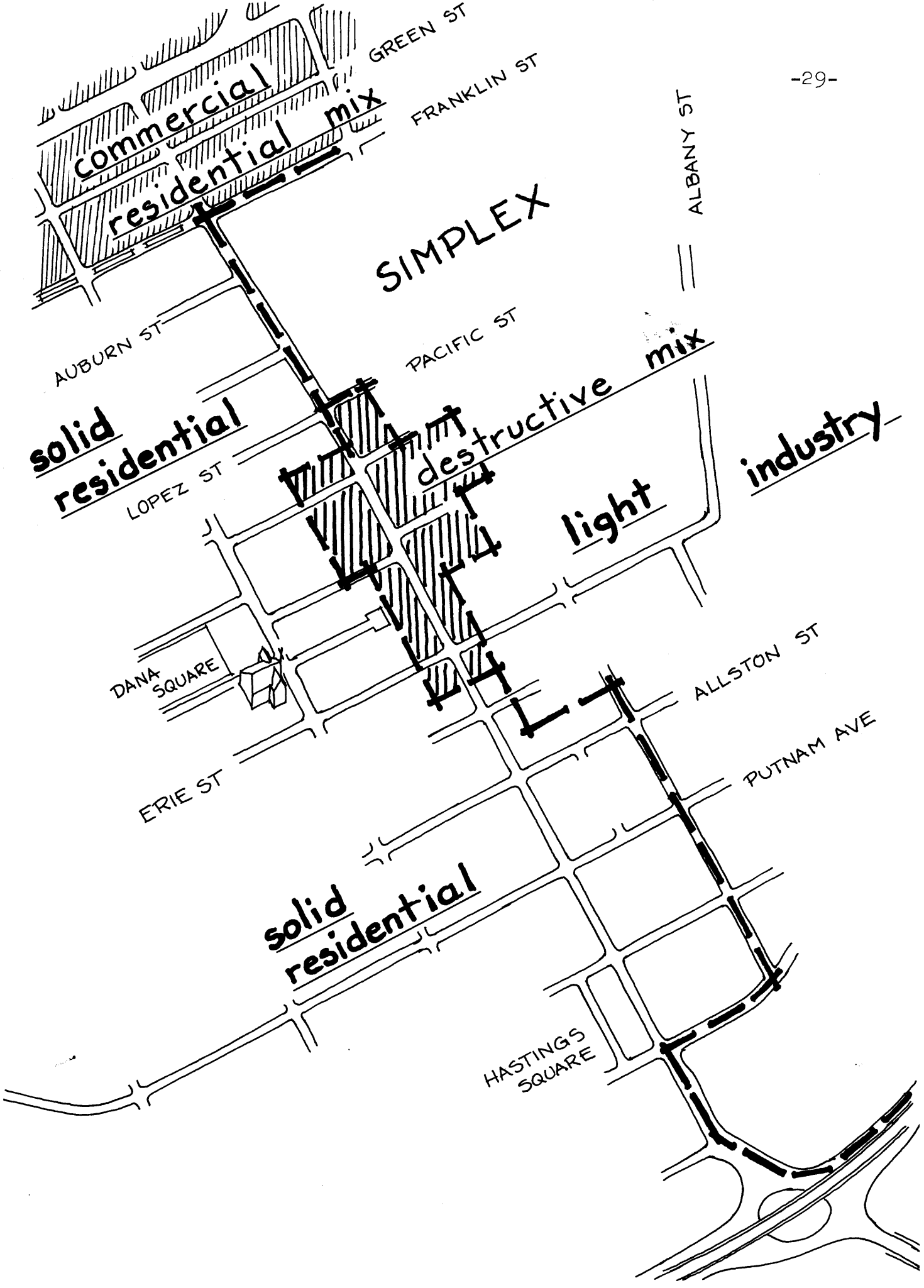
NWA and Cambridgeport meet about a meandering, imaginary line in the vicinity of Brookline St. Examination of conditions along the interface has led to identification of four zones.



Solid Residential - South vicinity of Hastings Square

Destructive Mix  
Erie to Pacific Streets







Solid Residential -  
E-W connecting streets -  
Lopez, Watson and Auburn

Commercial/Residential  
Mix - Franklin, Green  
Streets - near Central  
Square



### Proposals

Focus is on potentials for making mutually beneficial improvements for stable, residential Cambridgeport and new residential development in the NWA.

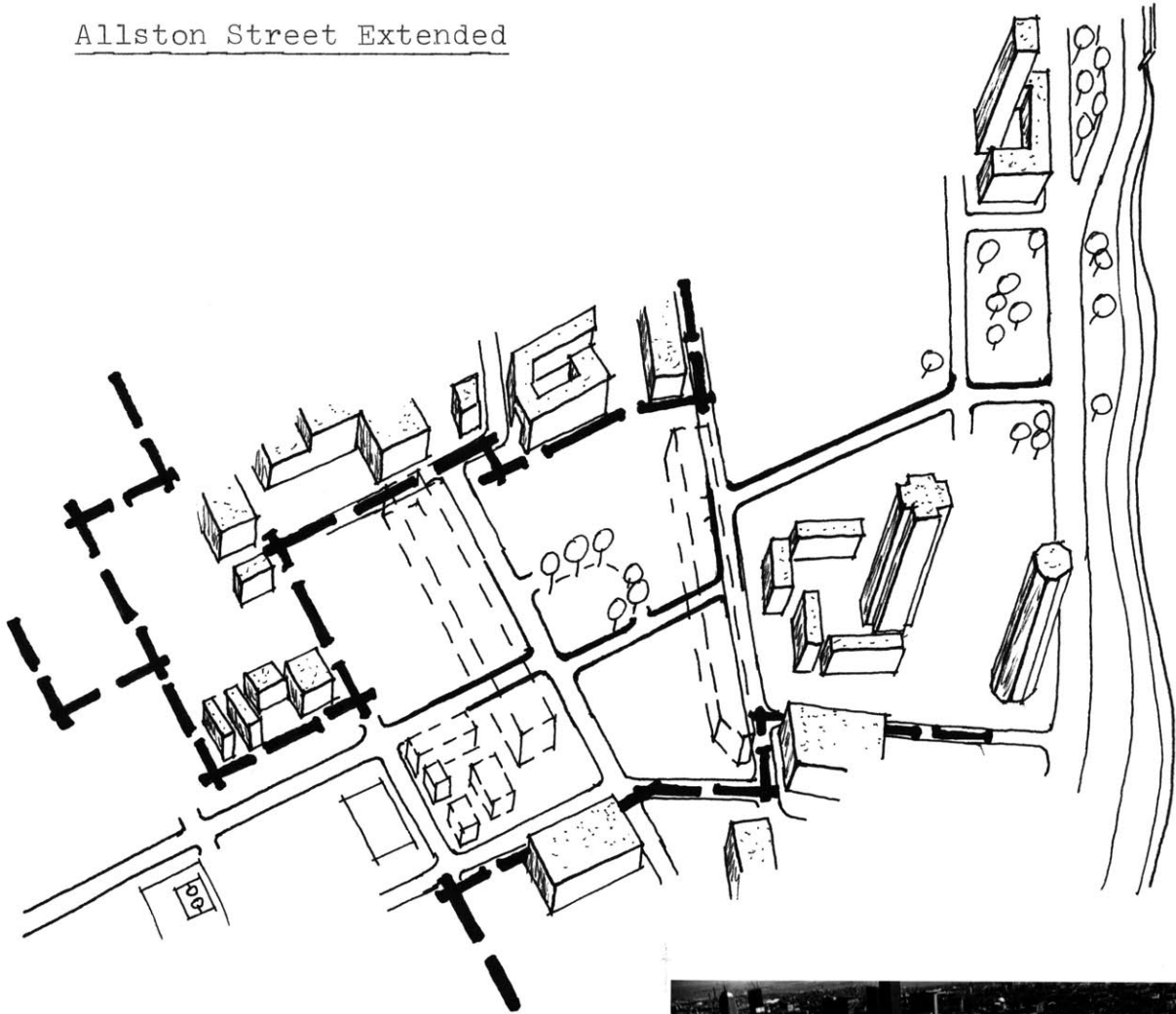
Extension of Streets

These proposals to extend streets should be interpreted on at least two levels. Firstly, is the actual physical implementation suggested with its attendant obstacles such as property acquisition, City approval, etc. Secondly, and most importantly, is the implied strategy of creating over a period of time a series of urban forms which both link, thereby making accessible, environmental assets and eliminate environmental nuisances.

It may be argued that planning cannot realistically count on St. Johnsbury Trucking departing the area. It should not rest at that, however, until MIT has exhausted its power to influence events. Serious study is urged in considering the combined acquisition of St. Johnsbury trucking and a portion of the Vassar St. warehouse 'wall'. With minimal construction of footpaths, much would be gained for Cambridgeport, Simplex and Westgate residential quality.



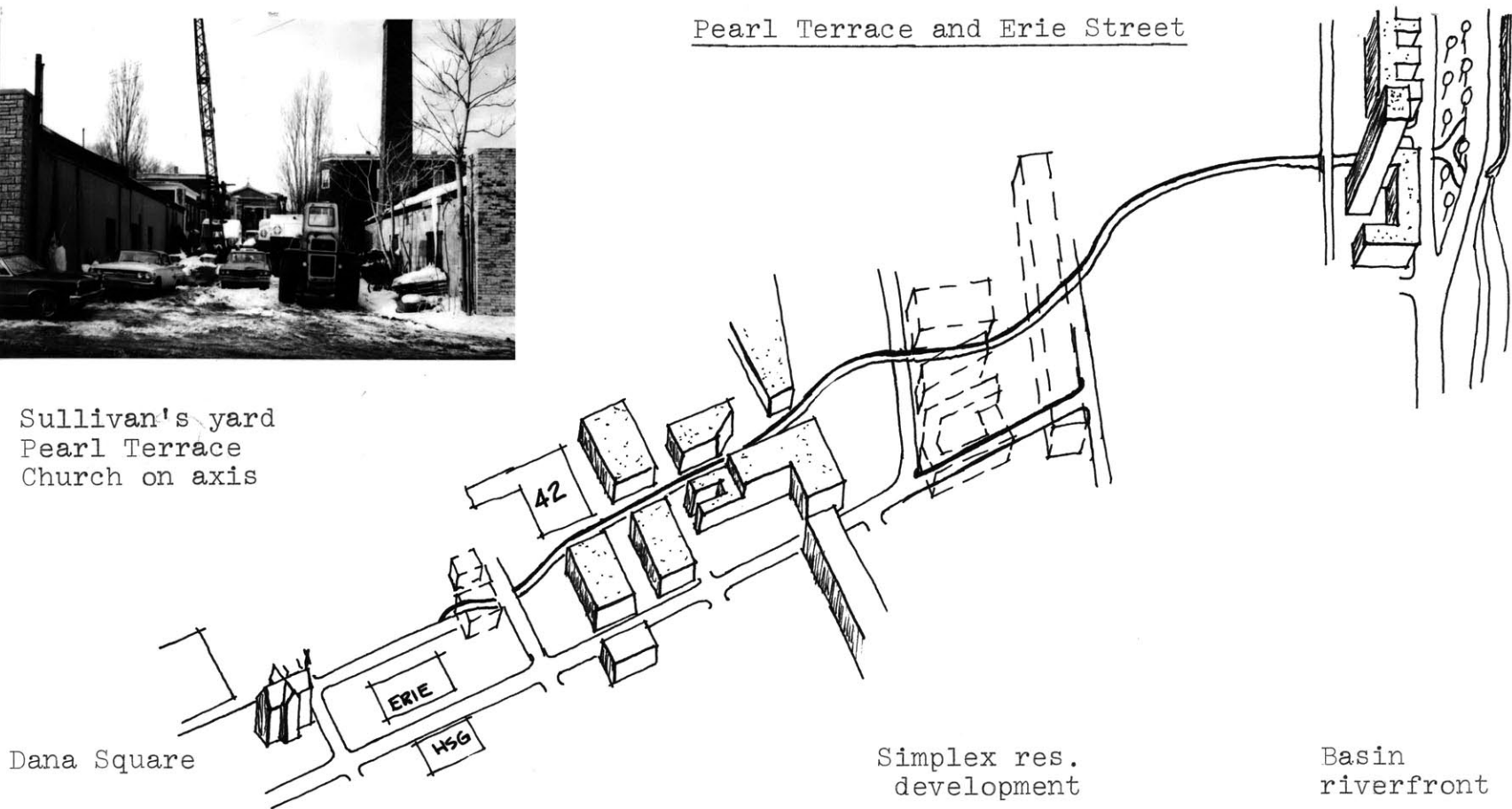
Allston Street Extended





Sullivan's yard  
 Pearl Terrace  
 Church on axis

Pearl Terrace and Erie Street



Dana Square

Simplex bldg. 42  
 and Draper Lab bldgs.

Simplex res.  
 development

Basin  
 riverfront

Briggs Field

o eliminate incompatible  
 uses

Erie St. - M.I.T. spons. housing project  
 Catholic Church



Pearl Terrace (Speridakis Ter.) - Erie Street System

Dana Square and the Catholic Church represent the imageable heart of Cambridgeport, which could form one end of a link between that neighborhood, the NWA development, West Campus and the riverfront. Fortuitously grouped along that axis are the new Erie St. 'Turnkey' public housing project, MIT occupied Draper lab buildings, Simplex Bldg 42 and close proximity to the likely Southern extremity of the Simplex residential development.

Intense redevelopment near Mass Ave. will likely displace dilapidated Blanche St. housing. Simplex Bldg 42 represents a logical site on which replacement of low-income Blanche St. units could be accomplished in advance of the major redevelopment schedule. Such a project might also acquire Jeremiah Sullivan, Inc., Excavation Contractors, for low-income housing and eliminate an incompatible use. A simple path for pedestrians and bicycles could link all the aforementioned positive events into a coherent whole.

Behind the specific proposal is the notion that the impact of constructive investments can be maximized if they add to a cohesive urban system. Also implied is the desirability of using such system potentials to influence future deployment of improvement projects to maximize collective impact.

Destructive Mix

Residential/Light Industry



BUT - it does not necessarily follow that they cannot mix.

- it is not the industrial processes that are destructive.

WHAT IS THE PROBLEM?

JUNK DOMINATES

- irresponsible discard and  
apathetic acceptance.

- this is MIT owned Simplex land adjacent to Bldg 42!



STREETS AND SIDEWALKS ARE GIVEN TO

- undisciplined storage by industry with inadequate space.
- hopelessly inefficient shipping and receiving operations.



- fast, noisy and dirty TRUCKING and REGIONAL TRAFFIC.



Proposals for Constructive Mix

Studies of physical changes to improve conditions were made. They include:

- street use patterns that eliminate trucking from predominantly residential streets and close certain streets for pooling of industrial loading and storage space,
- interim use of large Simplex storage buildings by light industrial uses relocated from residential areas,
- buffering devices.

Indeed, some such measures may be employed eventually, but the major significance of this analysis is an idea which grew out of it - the proposed JOINT STUDY of the area by MIT, Cambridgeport citizenry and industrial users. More will be said about the proposal in a later section of the thesis.

SIMPLEX - Direct Interface

- Solid Residential - Lopez, Watson, Auburn Streets
- Commercial/Residential Mix - Franklin, Green Streets



SYMPATHETIC RESPONSE

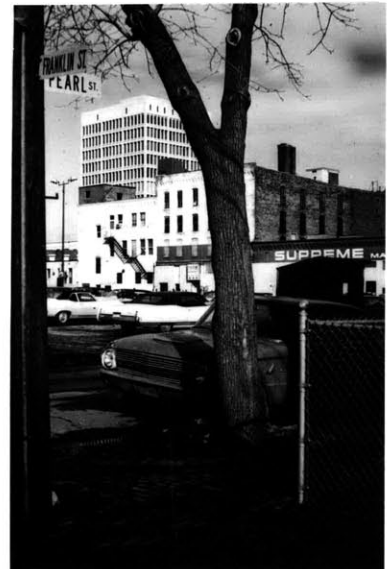
to SCALE and USE

Lopez, Watson and Auburn Streets provide a solid residential environment which nevertheless needs investment to upgrade general conditions. Simplex development in palatable doses could bolster neighborhood confidence and value. Danger lies in overdoses of juxtaposed incompatible uses, extremely high jumps in land values, massive building scales and high densities that overwhelm existing services and infrastructure. Social responsibility dictates response which is sympathetic. But there are practical reasons as well. Clear definition of a development that is alien, new and relatively wealthy seems the surest way to invite vandalism as well as resentment. Simplex needs to enlist community self-interest in solving their mutual problems of 'inner-city' life.

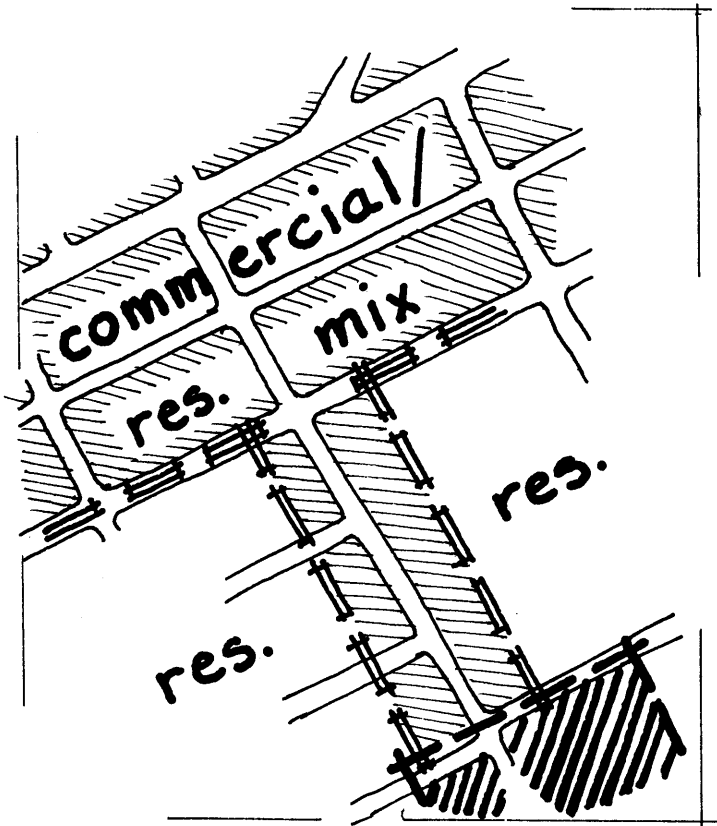
Western edge of Brookline Street opposes Simplex. It is a tenuous balance of positive and negative residential forces. Opportunities are rife for small scale sympathetic development.



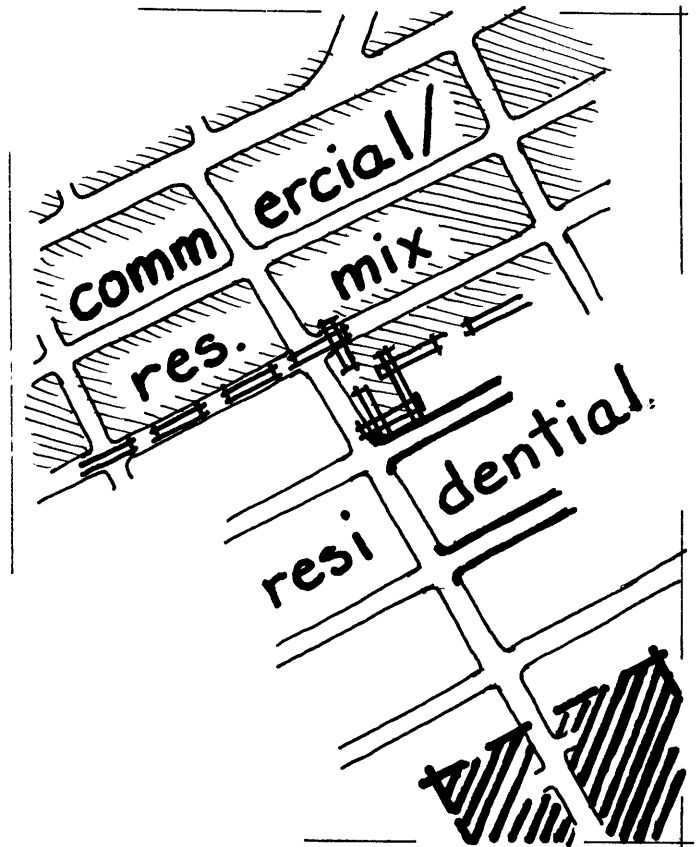
Commercial activity behind Central Square and tailing uncertainly down Brookline Street.



Development strategies that encourage vigorous commercial development along Brookline Street do not exploit commercial potentials elaborated earlier, but rather soon run risks of isolation and competition with Central Square.



Reinforcement of the existing residential use patterns across Brookline St. is endorsed as a general intention, but the extreme of literal duplication across the entire edge seems to force a situation which time and economic forces must resolve.



Proposal

Positive connections of three kinds are sought to reinforce the residential edge of Cambridgeport; commercial, residential, and community facilities. A strategy is envisioned that allows fringes of an intense commercial development, oriented to Mass. Avenue and Central Square, to grow along Brookline at grade level, tending to service local users, and perhaps including professional offices. Because intense use will probably dictate multi-story buildings with offices above, close to Mass. Avenue, their deployment must be sensitive to the scale and rights to sunlight of the existing neighborhood.





Extension of the commercial/  
residential street/use pattern  
into Simplex is logical in making  
functional continuities. This  
replication of healthy urban  
patterns is a way of capitalizing  
on what works well in the existing  
scene. It also represents adapting  
new development to existing fabric,  
a device to avoid inhibiting  
juxtapositions.



Residential replication across  
Brookline Street adjacent to the  
Destructive Mix Area is a premeditated  
attempt to influence future trends  
there. Accepting existing street/use patterns, sensitivity  
to scale and transition between densities are formal  
intentions. Land use swaps could be made to improve light  
industrial functioning and residential integrity. And open  
space use, shared by new development and Cambridgeport  
residents, should be exploited with access provided for  
each on 'home turf.'



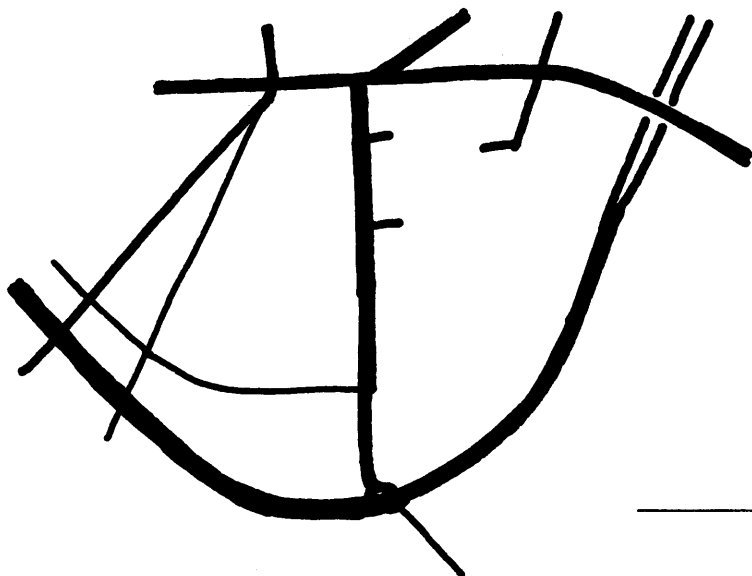
Decisive determination of limits for commercial and  
residential growth along Brookline Street is questioned.  
A policy of loose fit seems appropriate, with an established  
but open-ended mix taking place about the third use, the  
Community Resources Center.

It is presently assumed that activities might include day care, health care, elementary school, teen and adult education/recreation facilities, etc. Some elements might be located on the Cambridgeport side of Brookline Street. Such a Center is a means to promote association about a shared use, between the two 'communities.' Organizational schemes which break up tendencies toward an introverted 'center' are welcomed, moreover. De-centralization of small scale but self-sufficient 'resources' and their deployment, mixed with retail enterprise, along pedestrian ways holds promise to involve and concentrate users. Diversity of activity and users is crucial to produce vitality, responsibility and a sense of security by both communities.

TRAFFIC

Although an Inner Belt Highway routing through the NWA would have catastrophic impact to Simplex planning, it has not been studied in depth due to its uncertainty. Routes considered and implications to the area are well documented in "Cambridge Highway Study."<sup>6</sup> In addition to obvious loss of land for use, all alignments would rend severe divisions between Simplex and campus, Central Square, Cambridgeport and one possibility cuts Simplex in two. Expensive solutions using air rights over a depressed roadway seem inevitable. Another regional traffic project, with less devastating effect, is a semi-mechanical or monorail system using the Grand Junction right-of-way and connecting downtown Boston, Back Bay, Boston University, MIT and points North in a large loop.

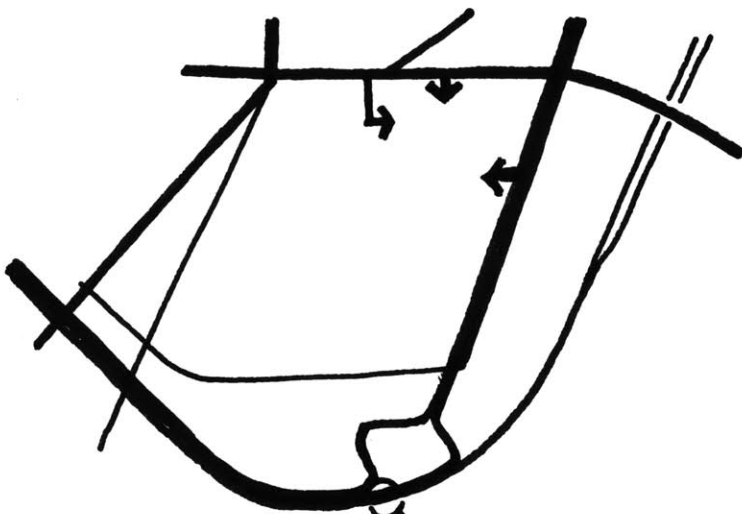
Thesis studies have assumed that neither 'super-system' can be counted upon and tries to make improvements on a more local level. That does not imply that regional traffic can be ignored, however. Three possible strategies are envisioned:



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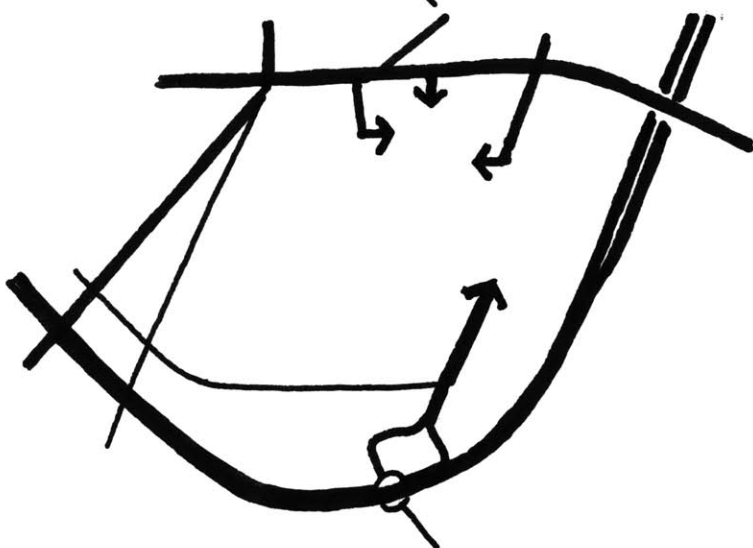
Ring the NWA

1



Draw Through

2

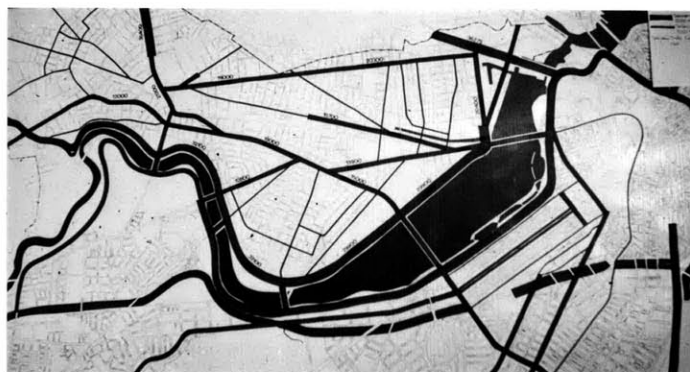


Discourage Through  
Ease In

3

- Volume counts do not show desire to cut N-S through Cambridgeport and NWA.

- no clear routes North (to Rte 93) or South and West (to Mass Turnpike and Rte 2) exist without major new construction



- through N-S traffic uses River St, Western Ave, Prospect Street or Memorial Drive. Ring NWA, by improving Brookline St, and Draw Through, via Vassar, Albany or Grand Junction, would create another parallel route in close proximity.

- necessity for another parallel through route is questioned.
- most importantly, high speed and heavy through traffic is not in the interest of residential quality for either Simplex development or Cambridgeport.

Proposal

Simplex planning should develop schemes to discourage through use, but improve access into the NWA for residents, MIT and other commuters who work in the area, and local trucking only.

Commuters to MIT, Simplex, Polaroid, Tech and Kendall Squares, etc.

- improved access is highly desirable if not absolutely necessary now.
- Simplex alone would add an assumed 1600 cars.

Proposal

- 1) Access from the South be improved by utilizing unused Grand Junction right-of-way for a new road replacing Vassar St. (see previous suggestion for new housing under Westgate)
- 2) Study feasibility of converting abandoned railway bridge across the Charles for use by autos with direct connection to Storrow Drive.
- 3) Access from the North and Mass Avenue must recognize the diffuse variety of paths to and through East Cambridge. Alternative routes



with many points of contact with Massachusetts Ave are appropriate.

4) With a new road diverting Sidney to the East, some three blocks South of Mass Ave, create a one-way loop system using Vassar and Albany Sts to link MIT, Simplex, Tech Square and the Polaroid 'triangle' into a coherant association. It would also tie together the major parking areas and structures in a functional loop.



#### Trucking to Local Light Industry

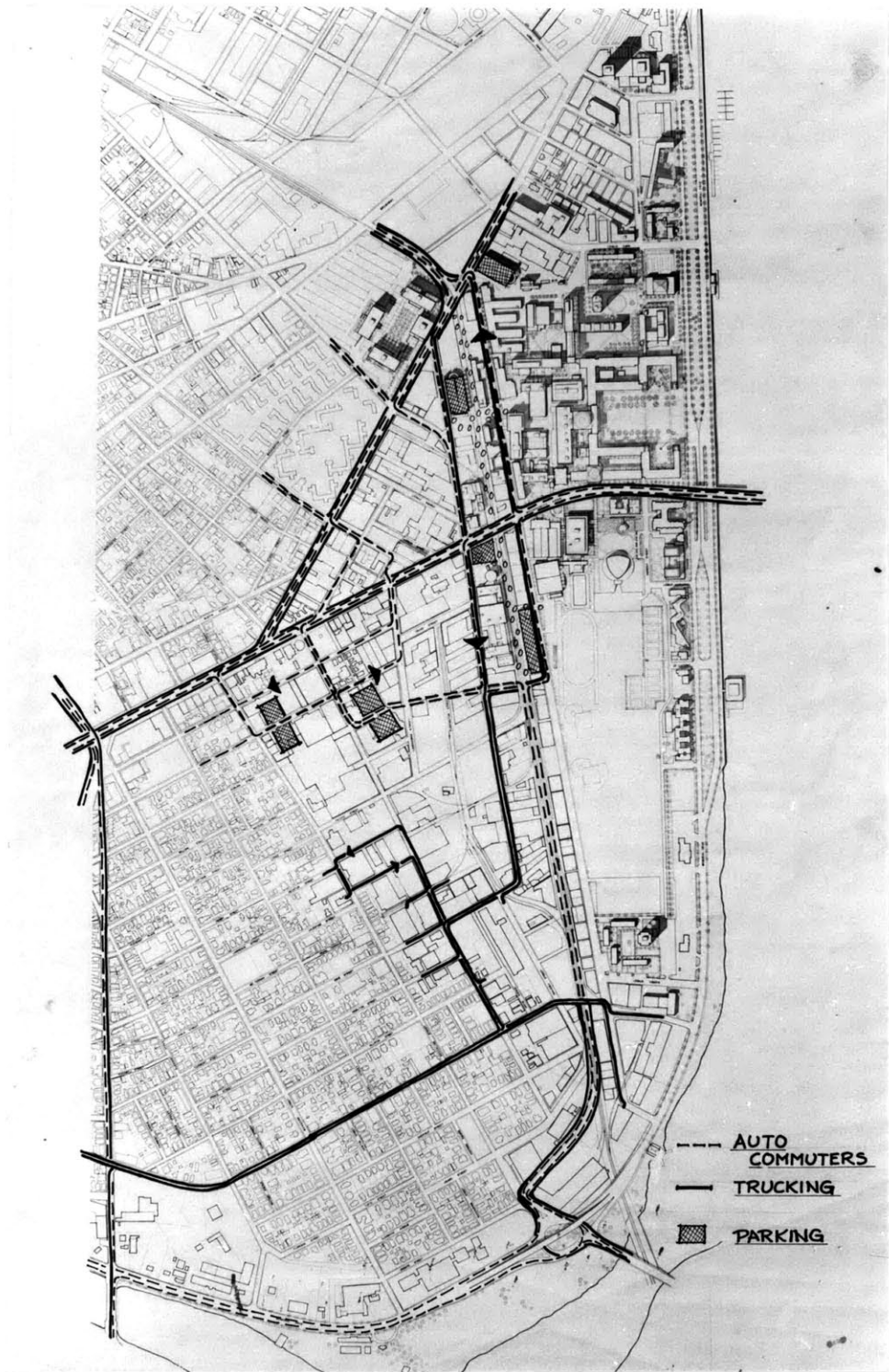
- long term decline is expected
- however, the foreseeable future must provide for it. Detrimental effects to residential environment can be minimized by limiting selectively its use of streets.



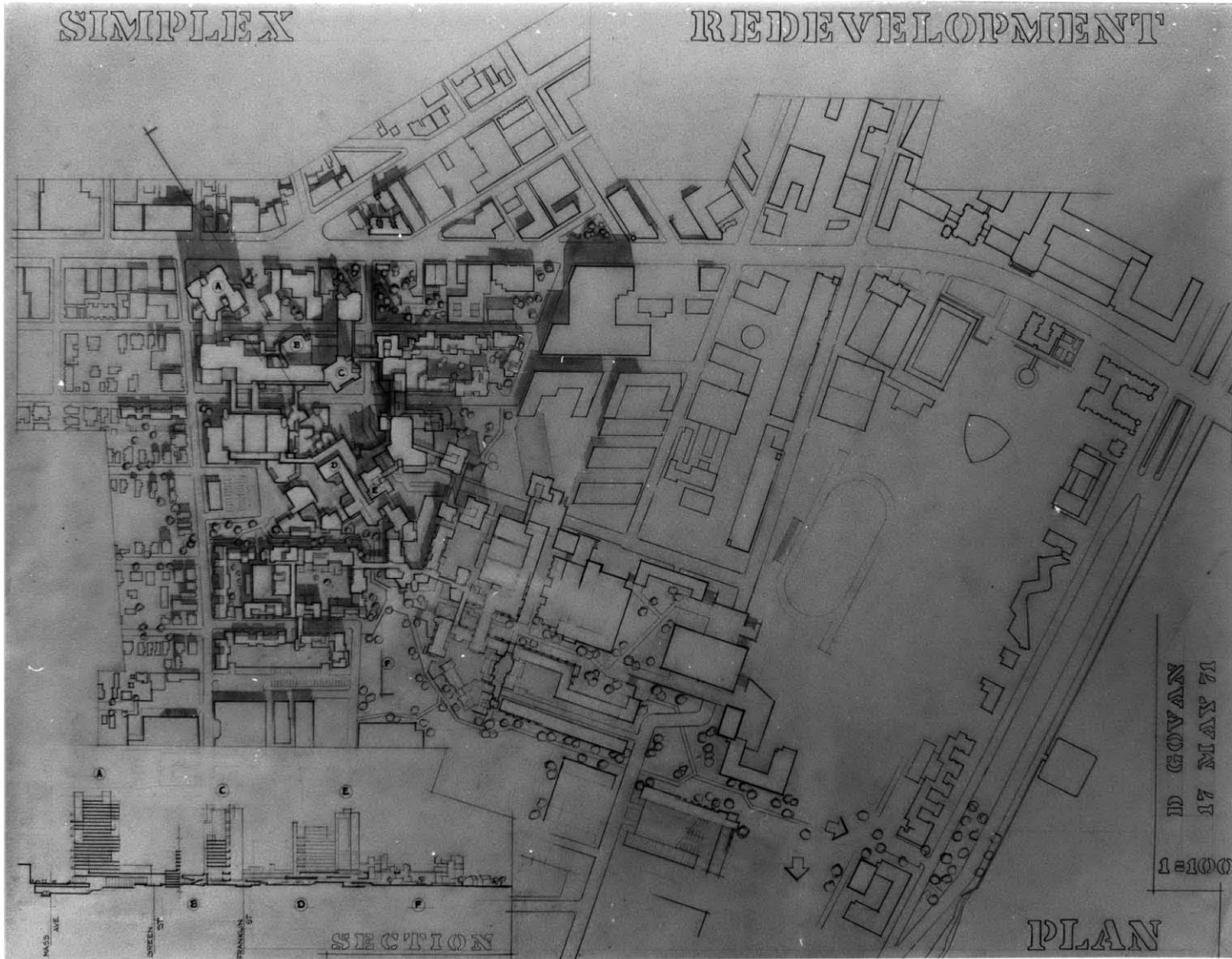
#### Proposal

- 1) Access be limited to Albany and Vassar Sts, from the North, and to Putnam and new Grand Junction or interior Polaroid roadway, from the South.
- 2) Putnam be extended across the Grand Junction to serve warehousing and users to South of Westgate.
- 3) Brookline and Vassar Streets be closed to through use by trucking. Access to Cambridgeport industries is limited to Sidney from the South cross connected to Albany by Erie Street.
- 4) E-W Cambridgeport Streets be closed where housing prevails.

VEHICULAR TRAFFIC SCHEME







TOWARD A PLAN

TOWARD A PLAN



Programmatic Assumptions

The illustrative plan represents an arbitrary point in time when approximately 1200 dwelling units, 720,000 sq ft of commercial office space, community facilities including theatre, gymnasium and elementary school, and parking at one car per dwelling and one car per 1000 sq ft of offices is needed. These quantities were derived for early Pilot Plan projections.

While demonstrating how ~~that~~ much stuff might be deployed, the plan does not argue that much is necessary.-- or that it is enough. Less can, and probably would, be constructed before the depicted plan was realized. More can be added toward MIT, south toward Westgate and lower Cambridgeport, and intensification along Brookline Street is anticipated. Future development might cross to the north side of Massachusetts Avenue.

One important aspect of the assumptions is subject to question, however. Residential density is fixed at the very high level of 80 units/acre. Derived by computer analysis, it represents a density beyond which monthly rental for an average dwelling cannot be reduced by adding more units to absorb costs. Another approach is suggested, which would derive building types and density from residential demand and user preferences, rather than break-even economics. Analysis could proceed to identify the 'premium' to be paid for an optimum environment and work on ways to close the gap.

Concept of Multi-Use

Pilot Planning has from the beginning envisioned the mixing of uses three-dimensionally and intensely. "Multi-use buildings solve this problem (return on inflated cost of building sites) by aiming at two or more real estate markets -- furthermore, successful renting of large buildings often depends on adequate supporting services, such as shops and restaurants . . . multiple uses amortize carrying charges such as cost of land, interest and taxes -- over more than the limited 8-hour business day."<sup>7</sup>

With ancient beginnings, the concept seems to be periodically re-discovered and is currently immensely popular. "Shopping centers began adding office buildings and office buildings began adding retail space. From this simple principle comes the multi-use complex with its parking for shoppers and office workers by day, and for theatre, hotel and residents by night."<sup>8</sup> As well as parking and appurtenance, this concept of efficient use can be applied to streets, walkways, public open space, utilities, certain structural costs, and public services like police, fire, sanitation, etc.

Multi-use is extremely important in promoting round-the-clock use and intense activity. "A mixture of uses needs an enormous diversity of ingredients if it is to be sufficiently complex to sustain city safety, public contact and cross-use," contends Jane Jacobs.<sup>9</sup> Certainly as it contributes VITALITY and SENSE OF SECURITY, multi-use provides the Two Essential ingredients for successful development.

Design Cookbook

Presented in scattered fashion here, is a brief compendium of ideas culled from recent periodicals dealing with multi-use developments.

1) Most recent and many long standing examples, are organized about linear pedestrian movement patterns.

- "design a track which is the actual path of movement of the most number of people . . . then design the space around this flow . . . continuous series of design experiences," - Market St East, Philadelphia. 10

- "A new alleyway, 24 ft wide and open to the sky . . . branching off this is an intricate arrangement of stairways, balcony arcades, bridges, shop entrances and display windows," - The Cannery, San Francisco. 11

- "open spaces threaded together along its walkway system are formal and informal, expansive and intimate," - Charles Center, Baltimore 12

- "pedestrian spine of tightly-knit urban character: a sequence of malls, squares and pedestrian ways flanked by communal elements," - Belconnen, Australia. 13

2) Pedestrian walkways can, however, be desolate design extras, unless they link strong attractions, and:

- "footpath is the shortest route . . . has its own series of experiences . . . little stores, stopping places, views . . . compactness makes the separate pedestrian system economically feasible," - Cumbernauld, Scotland. 14

- "the idea is that people instinctively follow the course-of-gravity," - Grand Central Concourse, New York. 15

3) Vertical concentration of parking generates pedestrians at upper levels, setting up the possibility of a convenience walkway system above grade. Vertical concentration can also be a means to comprehensibility. Immediate contact with light, air, activity and view of destination are important considerations toward precluding post-mortems like:

- "perhaps people dislike the huge parking garage underneath the Center, which is complicated and somewhat confusing." - NW Zentrum, Frankfurt. 16

4) "Sufficient complexity to sustain city safety . . . enormous diversity," - Jane Jacobs 17

Does not necessarily sacrifice comprehensibility. Design must, however, allow perception of the whole and clear paths to destinations within.

5) "flexible, open ended complex that could incorporate future growth and change," - Grand Central City. 18

6) "physical forms are sufficiently diverse to be interesting," - Battery Park Project, New York. 19

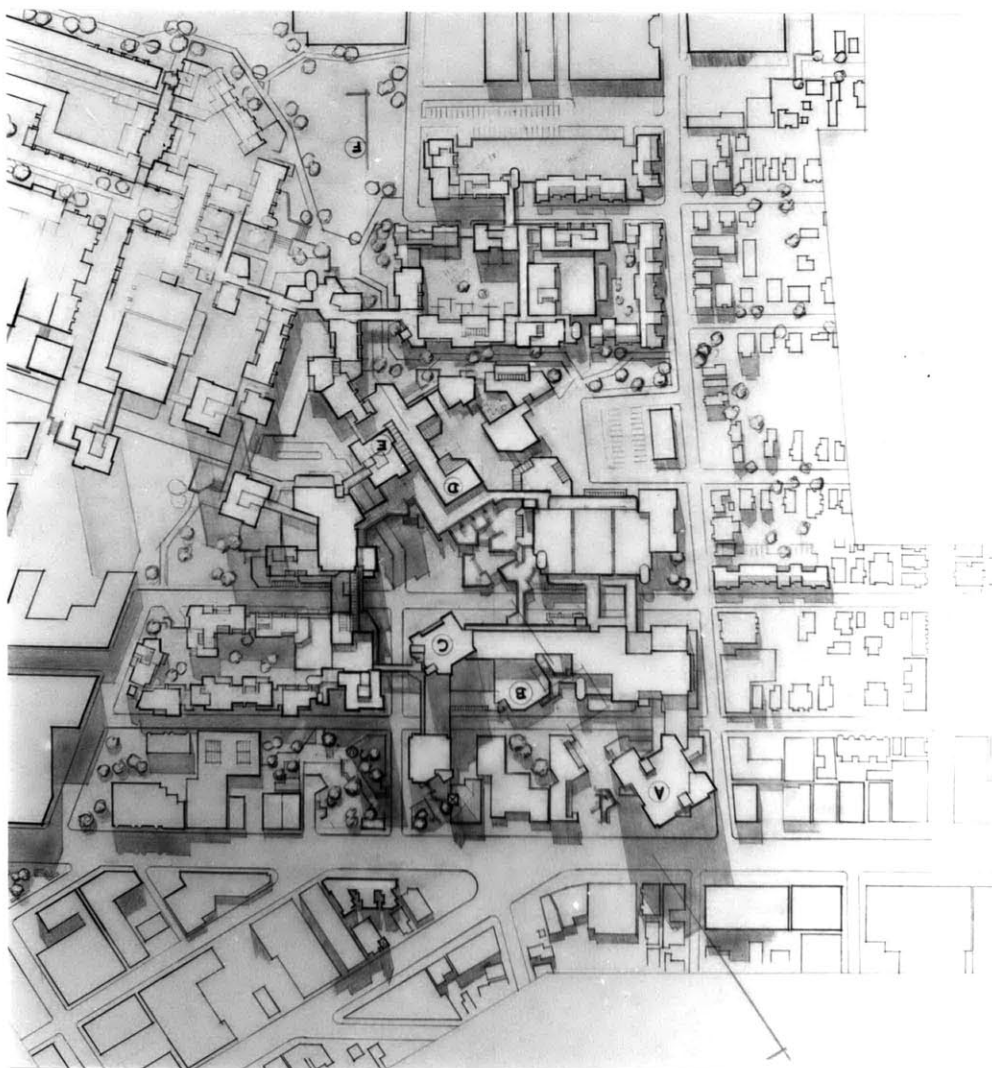
7) "to a certain degree the architecture seems to be too important," - NW Zentrum. 20

8) Finally some philosophy, which sounds right, despite of its questionable correlation to the final form of the project it describes:

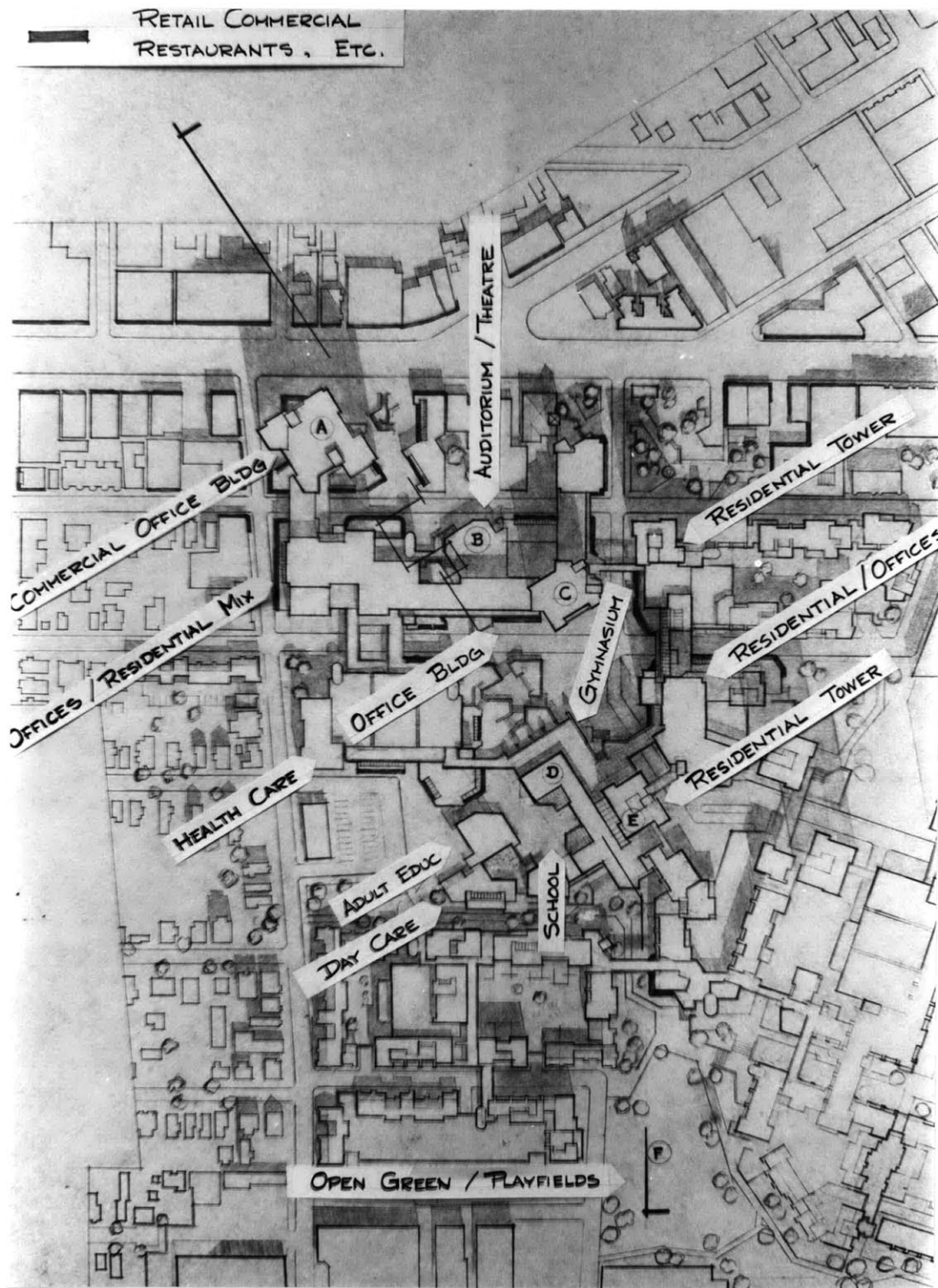
- "an architecture oriented to total experience, involving all the senses (not merely visual) and involving movement as a primary activity - rather than static objects to be looked at; an architecture of participation, where form is understood as process rather than object: related to discovery of patterns rather than the imposition of patterns," - Ray Affleck, Architect Place Bonaventure, Montréal. 21

Public Use Corridor / Mixing Place

A plan is sought that makes strong and positive association with Central Square and metropolitan Boston at one end of a clear, active pedestrian path, which connects to residential Cambridgeport at its other end with community resources as a focus, about which the two 'communities' mix and meet.

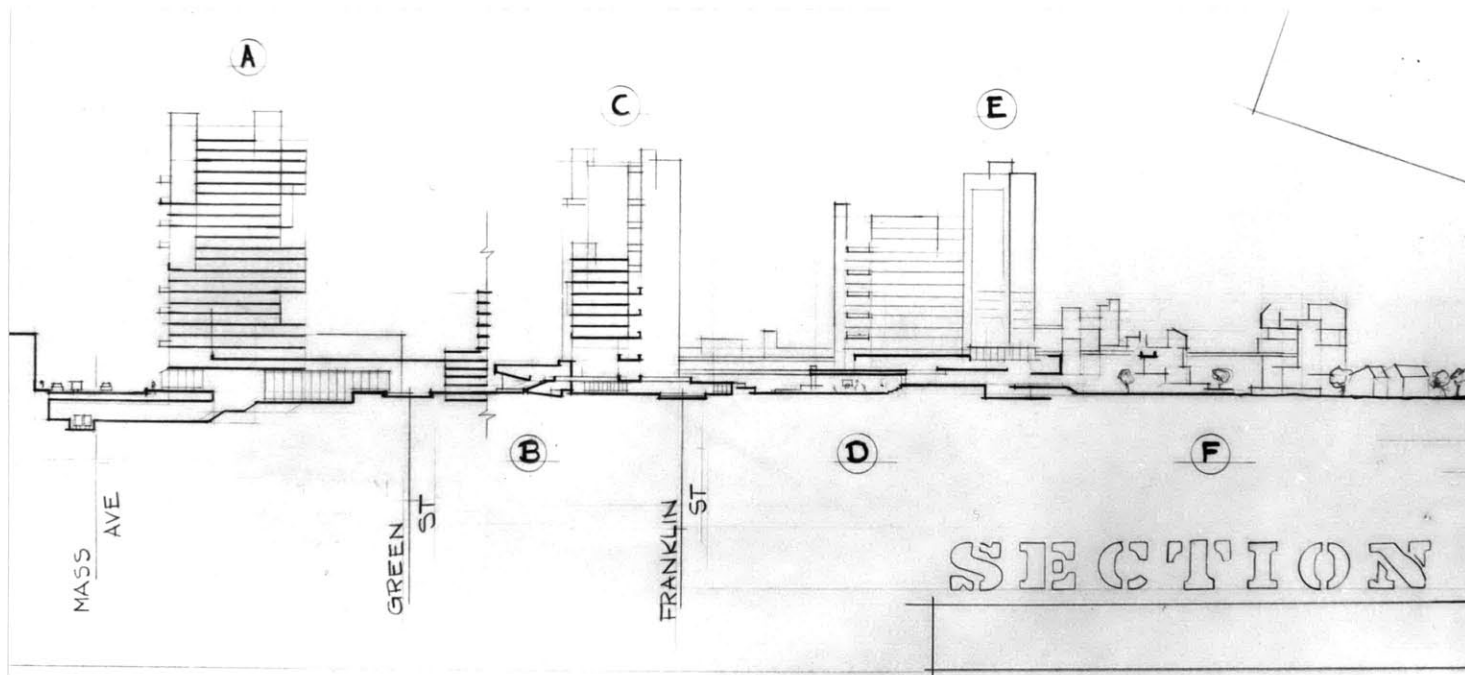


Commercial and community facilities are mixed and strung along an intense and highly structured system of public walkways near grade lined with retail enterprises.



Residential density builds from association with Cambridgeport, fairly dense Mass Ave oriented, and Campus housing toward the development center, where tall buildings are the norm.

Mixed commercial and residential space will be built with slabs and towers. Elevated and depressed pedestrian walkways will reinforce the grade system and provide convenient alternatives to it. However, great care is taken make logical and easily negotiated ways to higher levels.





Many paths, unstructured residential connectors as well as the structured spine, lead to a special place. It is a sort of climactic events place where success will be measured by vitality -- the degree to which it is USED.

restaurants - places for  
refuge -  
space for frenetic rush hour -  
automobiles and people  
gymnasium - auditorium  
shops - sunlight and shade -  
night lights - fountain?  
sculpture - movement - music -



RECOMMEND

JOINT STUDY OF CAMBRIDGEPORT INTERFACE

Two major limitations are obvious with regard to the Cambridgeport interface analysis.

1.) They are one-sided. Well intentioned toward objectivity, they are, nevertheless, the views of an outsider.

2.) They are limited to physical considerations for the most part. These matter, but are only a portion of the relevant concerns of residents to be affected.

Therefore, it is urged that continuing Pilot Plan efforts concentrate on ways to study jointly, with Cambridgeport citizenry and industrial/business interests, two categories of concern:

1.) What effects will the Simplex development have upon the area and the people in it?

2.) What can Simplex development provide to benefit the area and the people?

Difficulties in recruiting real representation and in allocating funds are acknowledged, but the basic purpose seems clear and critically important. If M.I.T. must spend months and thousands of dollars studying its interests in order to act, do not the people vitally affected by that action deserve at least a fraction of that time and those resources to study their interests and understand their options?

Something more directly interactive than

Questionnaires written, circulated, and interpreted by M.I.T. is suggested; something more substantial than review of the M.I.T. Planning Office's graphic presentations of plans and renderings. Time, funds, access to information and parity of control in designing the process and in making decisions, are fundamental.

The specifics of analysis and the proposals contained herein are not raw material for such an effort, But the idea of coalescing community participation about the notion that three landowning parties ( Cambridgeport, light industry, and M.I.T.) have vital interests and much to be gained in cooperative planning of the physical environment, is important.

RECOMMEND

ILLUSTRATIVE PLAN WITH A DIFFERENT EMPHASIS

It was suggested earlier that densities reflected in this plan should be challenged. An approach was identified which grew from more precise determination of characteristics and needs of the residents for whom the housing is planned.

There are other emphases, consistent with that approach, which have not been developed adequately.

1) Implications and possibilities associated with the 'toe' and eventual relationships between Simplex, Westgate, campus and Cambridgeport could be elaborated into a long range plan, which might hold clues for short range planning now being overlooked.

2) Deploying residential development to improve Westgate depends on additional land acquisition. All other livable schemes do too, however, and that land is not necessarily more expensive or difficult to acquire than the warehouse 'wall' and St. Johnsbury Trucking.

An exploration of formal solutions to capitalize on potentials elaborated earlier with regard to Vassar Street, Westgate, Briggs Field, the Riverfront and south Cambridgeport is urged. Together with attention to a program derived from resident needs, such an approach holds promise in providing the most tangible benefit to the most members of the MIT community.

RECOMMEND

MODE OF REPRESENTATION

No apology for ideas expressed is intended. There is, however, unease concerning their mode of representation. If they are valid, they ought also be transmittable. Criticism is acknowledged concerning the degree of specificity of the 'illustrative plan.'

- Paradoxically, a specific plan is not a very specific communicative device. Interpretations vary between individuals. Indeed, the ability to interpret them at all is an individual trait. And there is a high level of buried assumption that, on the one hand, presumes a higher degree of project development than exists early in the planning process, and on the other, tends to obscure the fundamental ideas.

- It seems not so clear, however, that specificity need preclude a wide range of considered solutions. In fact, it is strongly contended that something more specific than blobs are necessary to stimulate understanding and discussion of what is being proposed. It is also contended that the specifics of formal possibilities should play an influencing role in the setting of objectives.

Somewhere about the fine line between open-endedness and noncommittal representation, there is a better mode of presentation for ideas that MIT designs to influence the way in which Simplex is planned and designed.

FOOTNOTES

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