

BUILT CONTINUITIES
A Study of the Use of Variable Access Systems for Architectural Design

by
RICHARD JONATHON FURMAN
B.S.A.D., Massachusetts Institute of Technology
Cambridge, Massachusetts
June 1981

Submitted to the Department of Architecture in Partial Fulfillment of the
Requirements of the Degree of Master of Architecture at
Massachusetts Institute of Technology

February 1984

© Richard Jonathon Furman 1984

The author hereby grants to M.I.T. permission to reproduce and to distribute
copies of this thesis document in whole or in part.

Signature of author
Richard J. Furman, Department of Architecture January 18, 1984

Certified by
Maurice K. Smith, Professor of Architecture, Thesis Supervisor

Accepted by
Chester Sprague, Chairman Departmental Committee for Graduate Students

Roich

MASSACHUSETTS INSTITUTE
OF TECHNOLOGY

APR 19 1984

LIBRARY



Room 14-0551
77 Massachusetts Avenue
Cambridge, MA 02139
Ph: 617.253.2800
Email: docs@mit.edu
<http://libraries.mit.edu/docs>

DISCLAIMER OF QUALITY

Due to the condition of the original material, there are unavoidable flaws in this reproduction. We have made every effort possible to provide you with the best copy available. If you are dissatisfied with this product and find it unusable, please contact Document Services as soon as possible.

Thank you.

The images contained in this document are of the best quality available.

Built Continuities

A Study of the Use of Variable Access Systems in Architectural Design

by

Richard Jonathon Furman

Submitted to the Department of Architecture on January 18, 1984 in partial fulfillment of the requirements for the Degree of Master of Architecture.

ABSTRACT

The purpose of this thesis is to develop an alternate process of architectural design based on a variety of schemes which respond to different aspects of any given project and site. The major focus of each exploration is the influence of pedestrian access on the building form. After the investigations are compiled a final projection will be synthesized as an assemblage of the strengths of each exploration. This method should enable the project to contain more than a strong design decision.

Thesis Supervisor: Maurice K. Smith
Title: Professor of Architecture

04



Acknowledgements

- to Maurice K. Smith -my friend without whose direction none of the
consultant questions would have been in focus.
- to Shun Kanda -for Sushi, Sake and the beginning of my design awareness.
- to Bob Slattery -for friendly, therapeutic fishing trips.
- to Don Mills -for the jokes (I was blamed for), the influence of clarity, and the comraderie.
- to Dennis Carlberg -for asking "What do you want to do that for?", the, "built" peanut butter sandwiches, and a sense of light and all that entails.
- to Grace Napier -though she never knew it, with the love, understanding and friendship she helped my through the worst times.
- to my parents Larry
Gloria Furman for their patience, unquestioning support and invaluable guidance through the longest process.

Table of Contents

-Introduction	10
-The Explorations	
-Projection A	28
Access	
-Variable Use	38
-Projection B	44
-The Courtyard System	56
-Projection C	58
-Working Method and Analysis	
-Dimensional Analysis of Building Systems	69
-Information about the Working Process	78
-On Dimensional Diagrams and Other Systems	83
-On Generating Vocabulary	84
-On the "Built" Access	86
-An Informed Beginning	
-Assimilation	92
-On "Joining" Systems	107
-What is Not Here	111
-Conclusions	114
-List of Illustrations	118
-Bibliography	121

Introduction

INTRODUCTION

Whether

- walking down a busy street
- hiking in the woods
- navigating a raging river
- trout fishing in a stream

the perception of our
environment depends on our

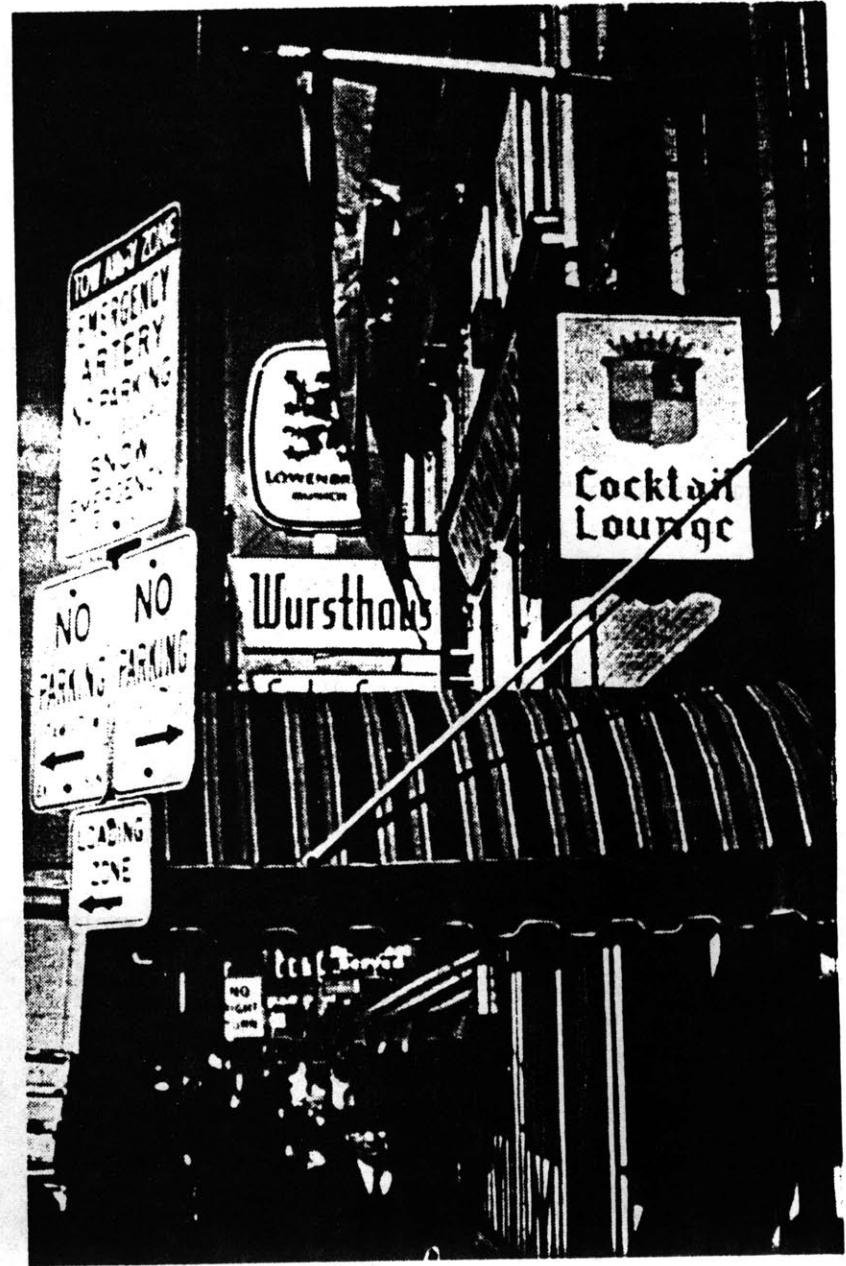
- location
- sense of smell
- taste
- touch
- hearing
- sight
- movement through that
particular region

In fact, much of our time
is spent moving

- from place to place
- past territories
- through experiences

That may or may not be perceived.





12

Because of this our view
and understanding of the
environment is determined
by

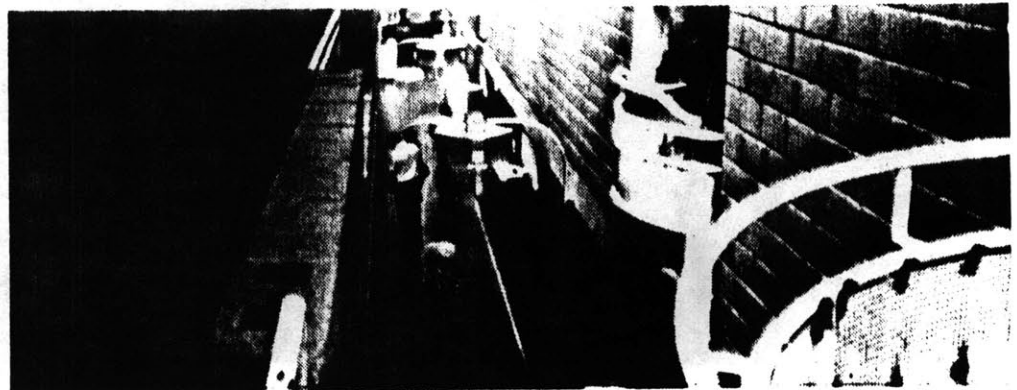
- knowing how to get
somewhere
- where a particular place is
in relation to another

From Webster's Unabridged Dictionary

- access - (ǎk sĕs)
1. permission, liberty or ability to enter, approach, communicate with or to pass to and from.
 2. freedom or ability to obtain or make use of.

This demonstration reaffirms
the suspensions
beliefs that much of
the user's time is occupied
with the question,

"how can I use
get to...?"
enter



All of the issues of building organization are loaded into the word access.

Issues of public light screen private shadow wall depend on the form of location of the public realm; not simple adjacencies. For the most public place in many buildings is the access.



Assumption - the experience
of movement

-is a strong influence on
our perception of the
environment

-should be a powerful means
of designing the built
world.

Method - (given a particular
site and program)

is to explore different

projections

advocating a
responses

specific aspect
criterion of the

project. The final response
is an assemblage of all.

Site - Harvard Sq. Cambridge, Mass.
is bordered by
Mt. Auburn St.
Holyoke Place
Winthrop St.
Boylston St.

dense urban fabric
strong pedestrian
force
variety of users.





SITE PLAN

16

Program - retail/commercial
leasible office
space
Harvard University
office space
Harvard Student
Housing and
support
facilities.



When dealing with a multi-faceted program
a complex site

one can employ one of four methods
of design:

1) juxtaposition

or "fit the pieces"
one works with all
facets of the
design until
everything fits.

2) juggling

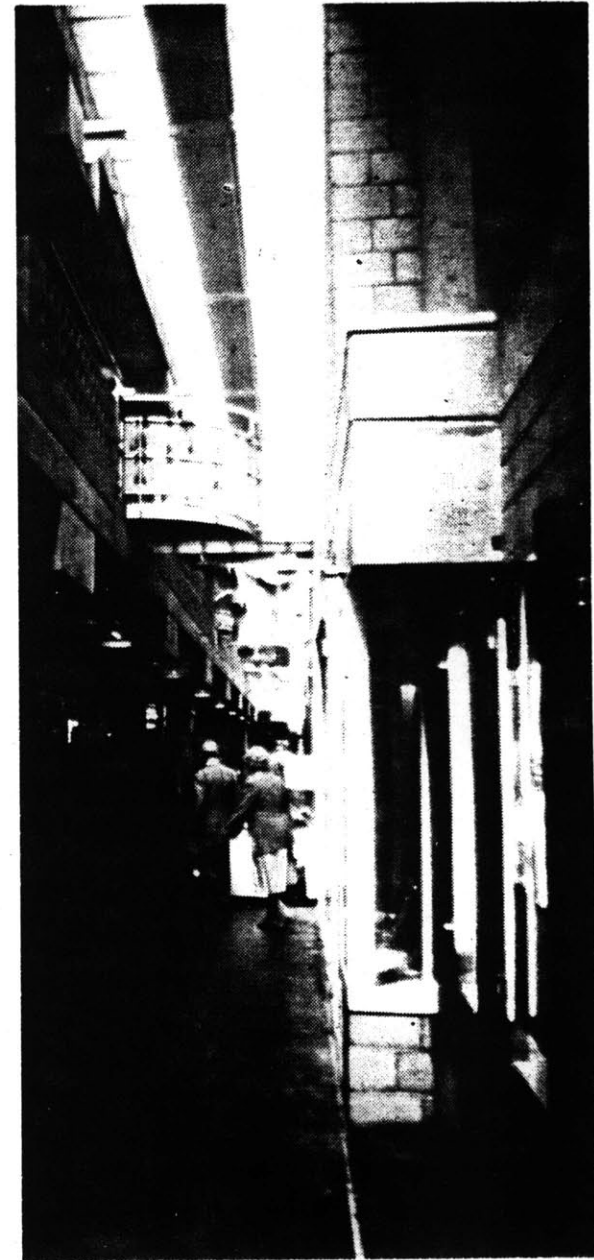
keep every aspect
up in the air
until the optimal
situation is
found. One change
can effect every
decision.

3) selection

simply deal with a select number of influences and the others are either subservient to those or not addressed at all.

4) variable advocacies

work out three or more schemes reinforcing a different aspect each time to ascertain the use and position of each in the final projection.





In Harvard Square the different pedestrian forces can support distinct parts of the program.

- 1) movement in the Mt. Auburn St. direction (A)

- promotes retail/commercial development at ground
- reinforces the long dimension of the site
- provides more public contact with the site.

- 2) movement perpendicular to Mt. Auburn St. (B)

- Harvard students' path to/from class
- promotes student related facilities
- allows less public contact with site.



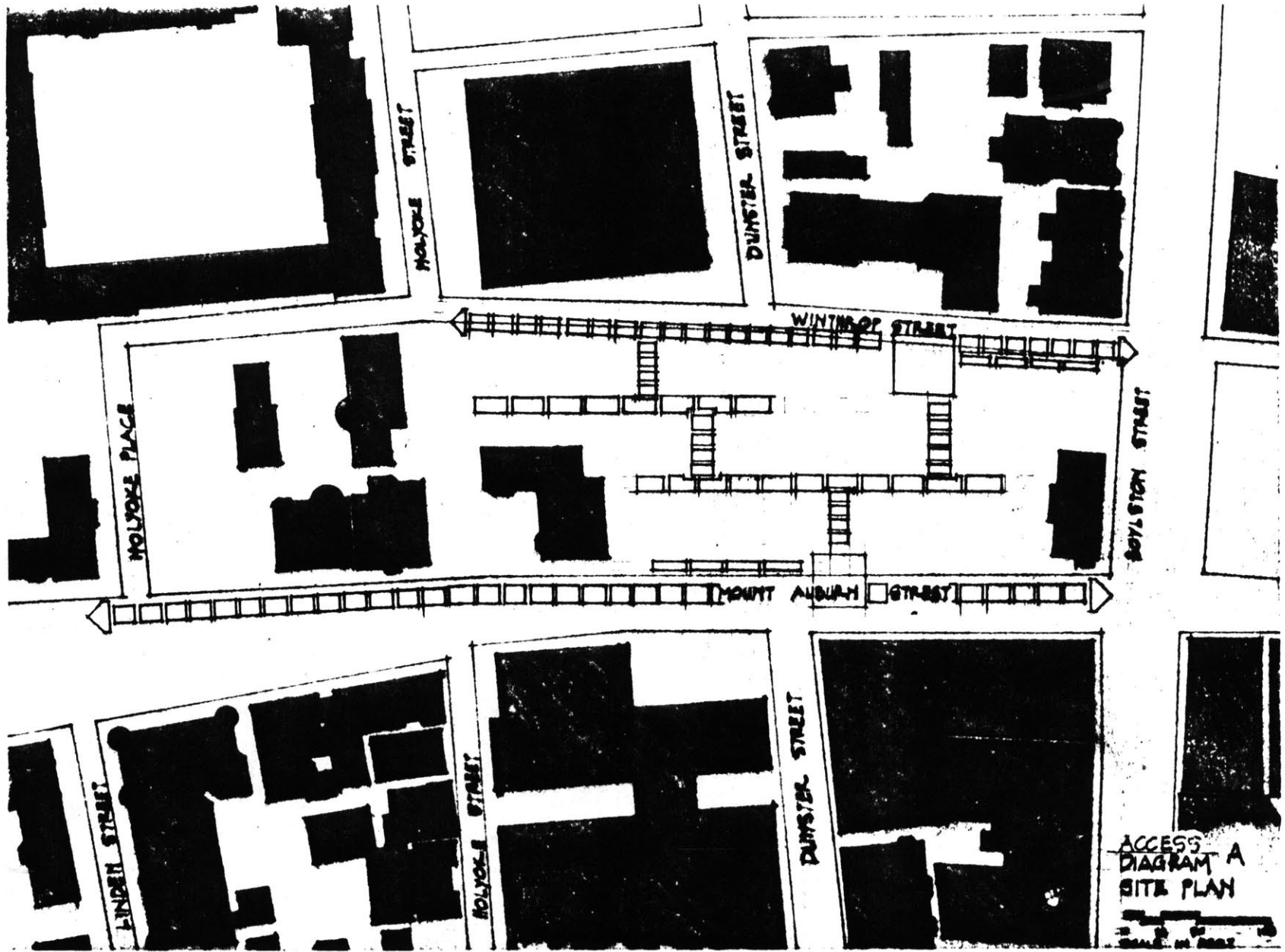
Drawing by Sam Stenberg, 1953.

3) perimeter access (C)

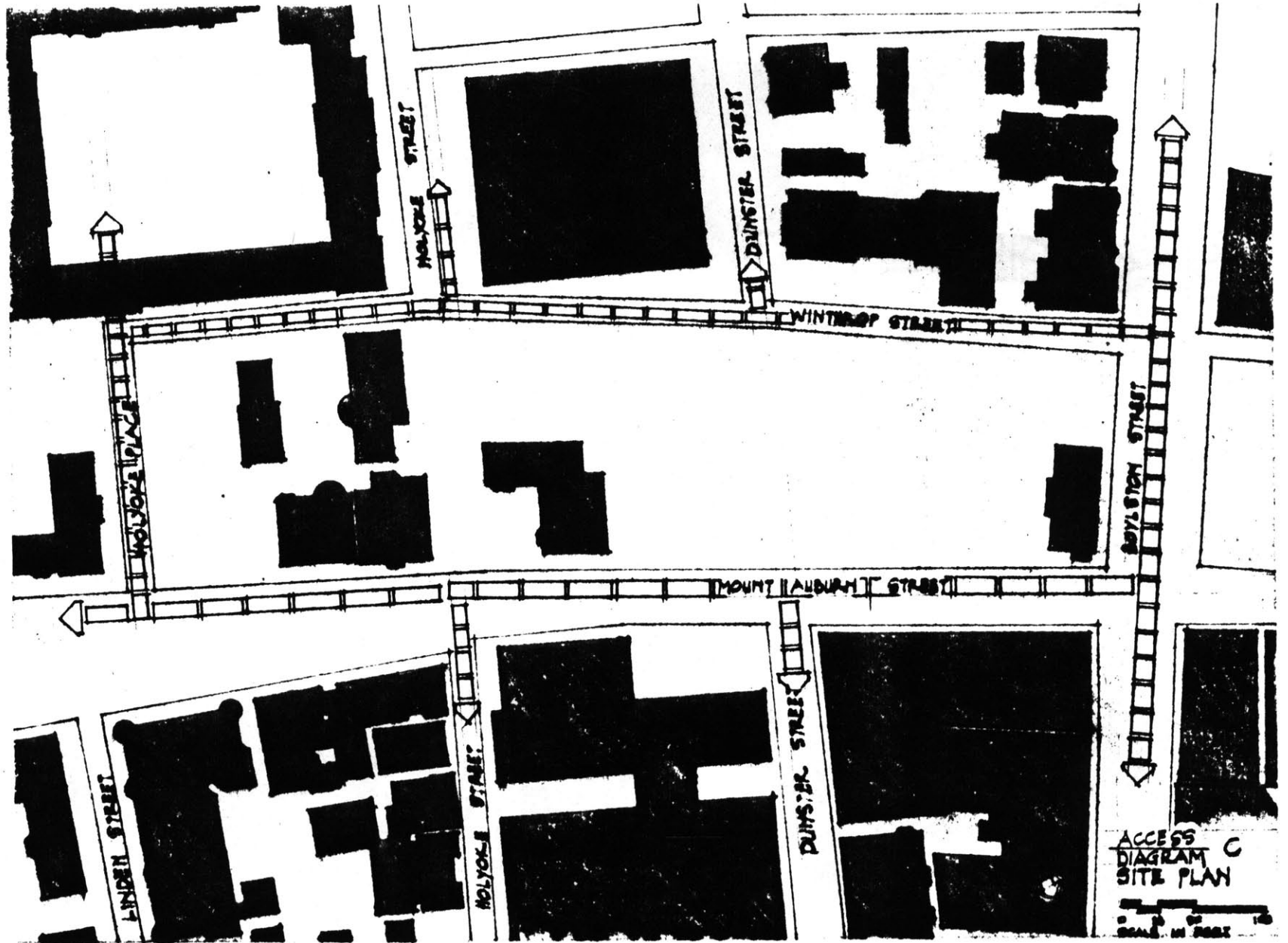
- no site penetration of access
- public zone is always at street
- similar, in theory, to most block developments in the area

In addition each advocacy would require a slightly different method of designing. This attitude is expounded further along in this paper (see dimensional diagrams), however, initially it is crucial to exaggerate the differences among the three explorations in order to see each advocated aspect in its own light.









ACCESS
DIAGRAM C
SITE PLAN

SCALE: 1" = 100'

General List of Illustrations

include:

- 1) simple access diagrams
(already shown)
- 2) diagrams of site organizations
- 3) dimensional analyses of diagrams
- 4) design of building
assemblage systems
vocabularies
- 5) dimensional analyses of building systems

to illustrate:

- the underlying principle or generating force of the particular exploration.
- annotated systems used to build the diagram and the relationships among the various constituents
- the dimensional correspondence at the site size, between the design and the context, and within the design
- the working method of each exploration
- the differences in the physical definition of each projection.
- dimensional consistency within each system
- relationships to other building methods.



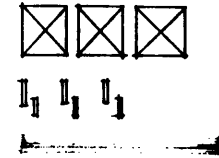
The Explorations

- projection A
- variable $\frac{\text{access}}{\text{use}}$
- projection B
- the courtyard system
- projection C

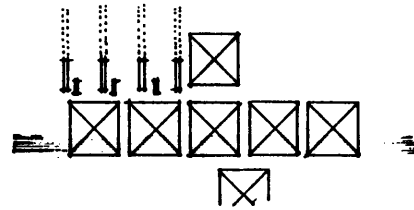
Site Diagram A

this shows the relationship among

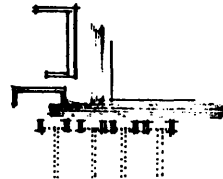
- the square system
- the frame system
- the access system



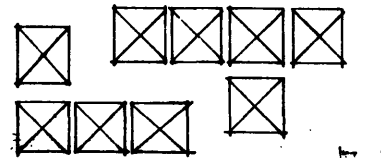
In general, the squares are present at the exchange between the use territory and the access zone.

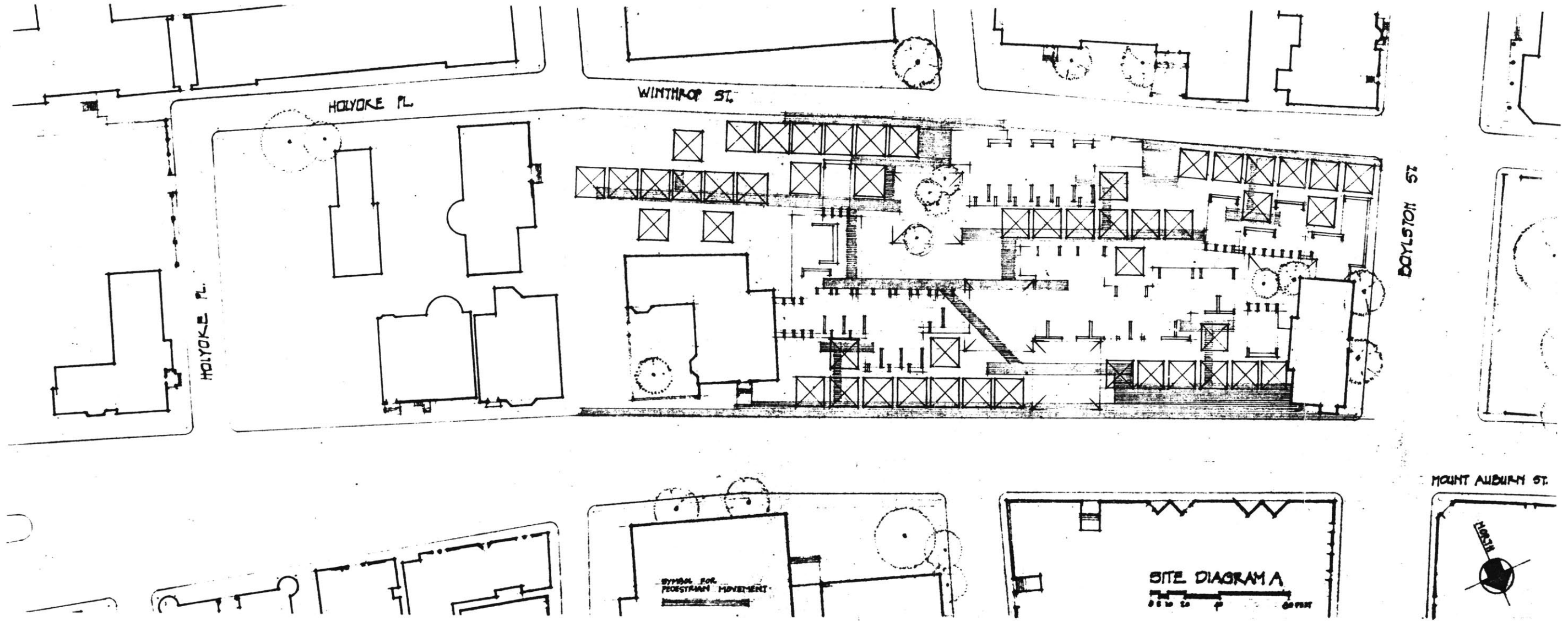


There are places where there is access without the presence of the squares...



...and conversely there is a region where the squares build the use territory.





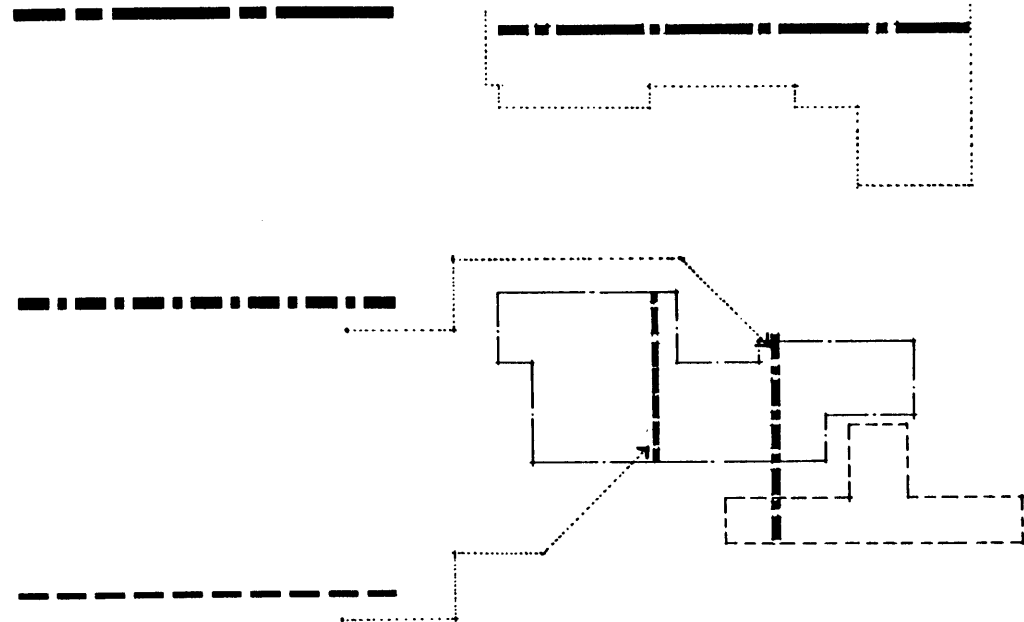
Dimensional Diagram of
Organization A

Certain dimensions are used consistently to give a larger order to the three systems working together in this projection.

The longest straight dimension of access possible before entering a territory. Based on the length of the neighboring Lutheran Church.

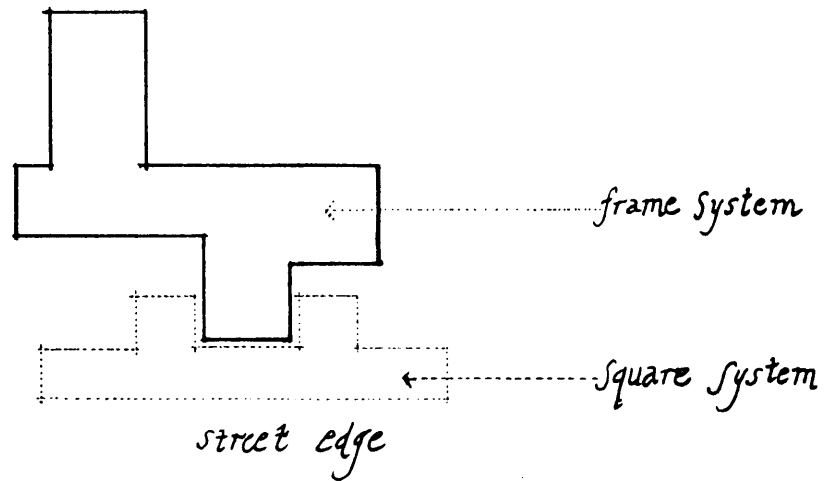
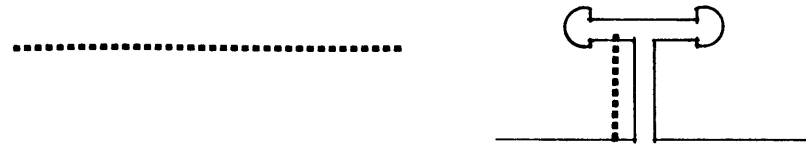
Length and/or depth of the two building systems together based on the depth of some of the buildings on the site.

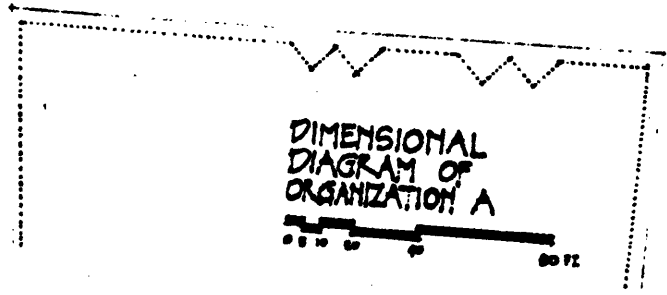
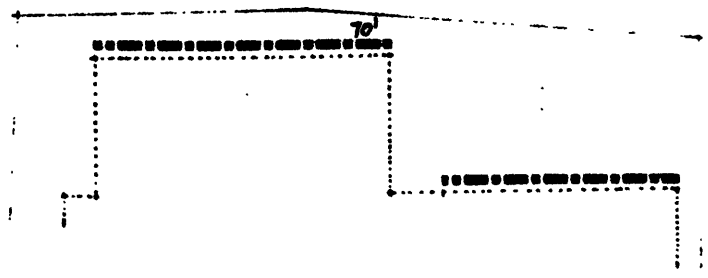
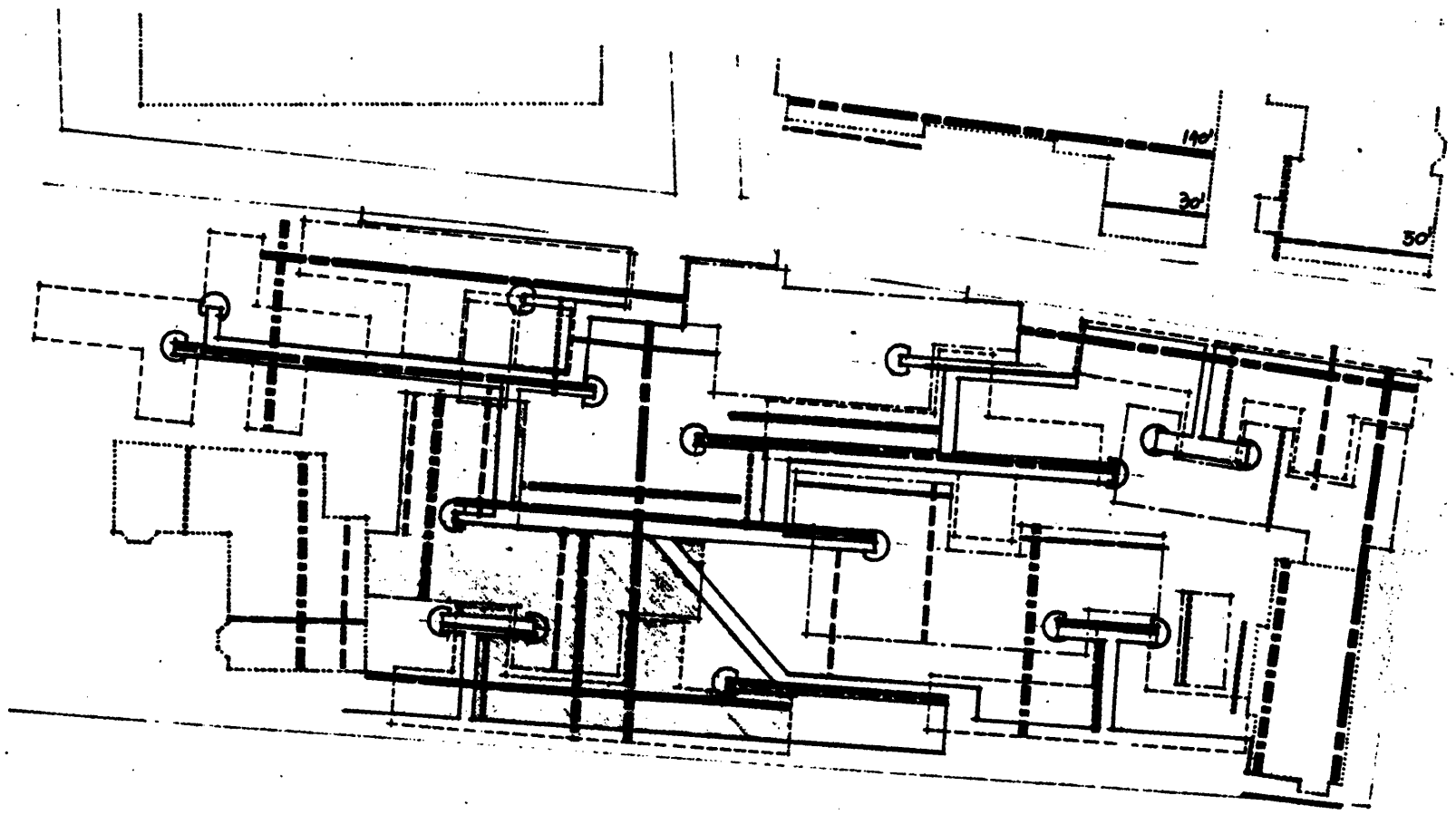
Depth of the built territory belonging to one system only. Also based on dimensions of buildings on the site.



The smallest building size dimension in the context used, primarily, as the usual displacement from the public access into a built territory.

The addition of the squares and the frame is assembled throughout the site as a surrogate street edge to bring the "street public" into the building.





Building System A Plans
Sections

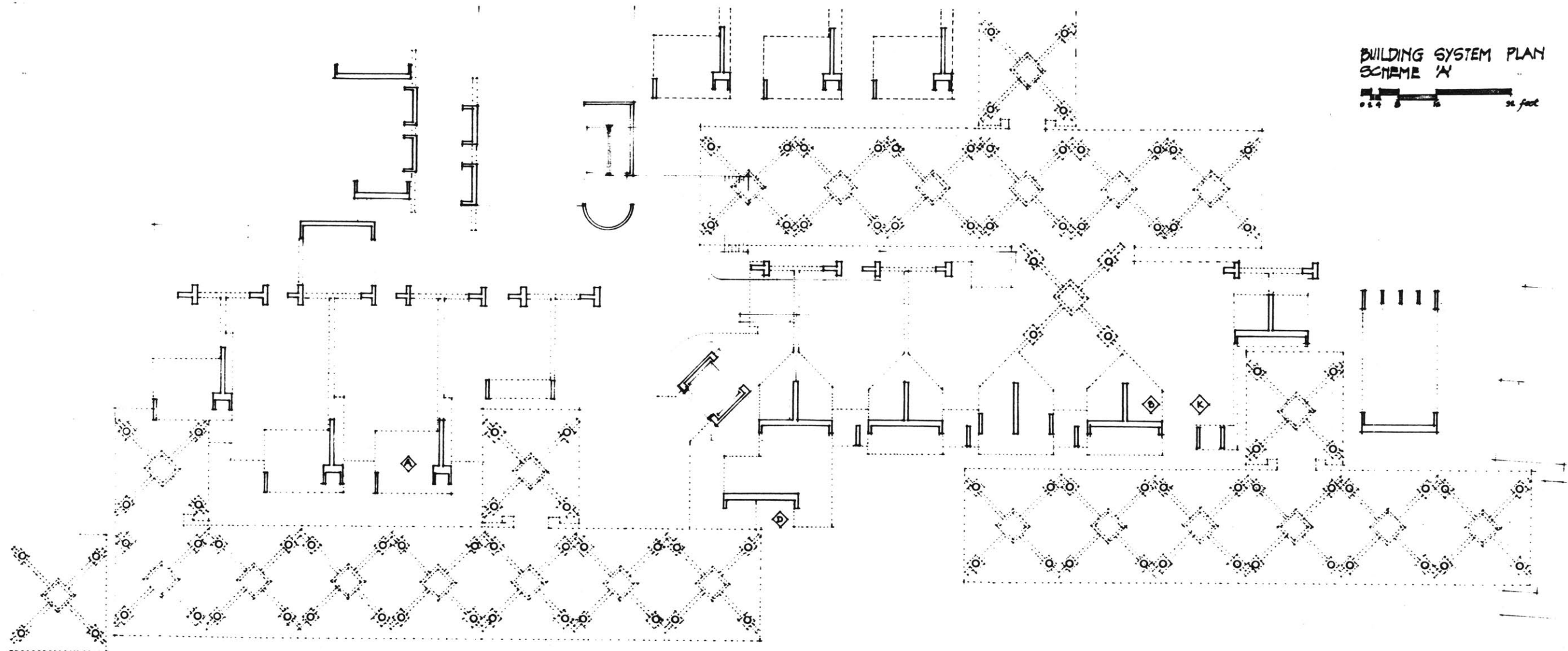
This system is designed to be open and frame-like because the users of a tenants retail commercial building may change frequently.

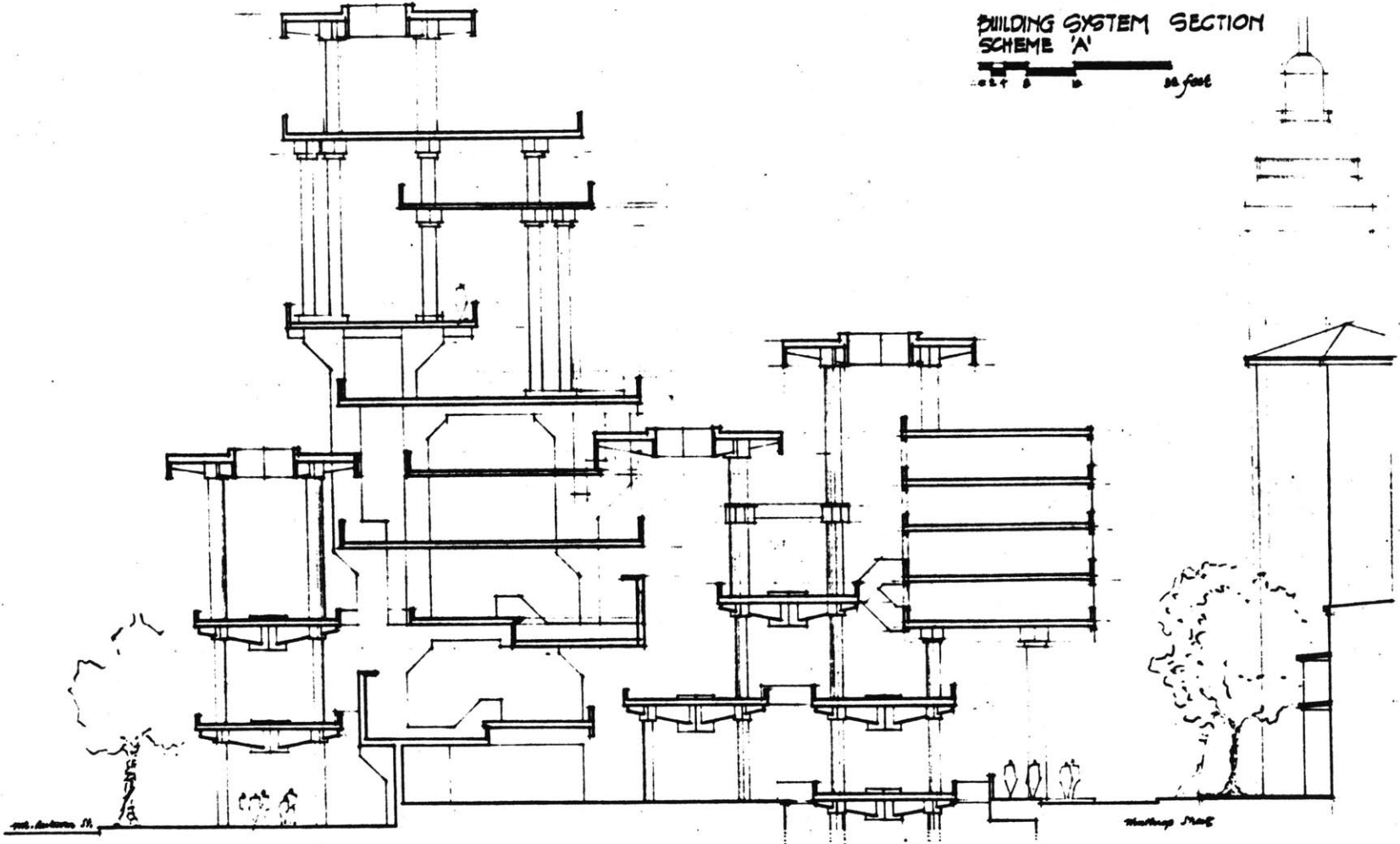


Therefore, it is flexible -to accommodate frequent changes
not neutral -so the system can live with the secondary and tertiary inhabitations.

if the primary system is not strong enough the secondary and tertiary systems could take over.

BUILDING SYSTEM PLAN
SCHEME 'A'





Variable	Access
	Use

The preceding drawings show possible variations of enclosure. The building system...

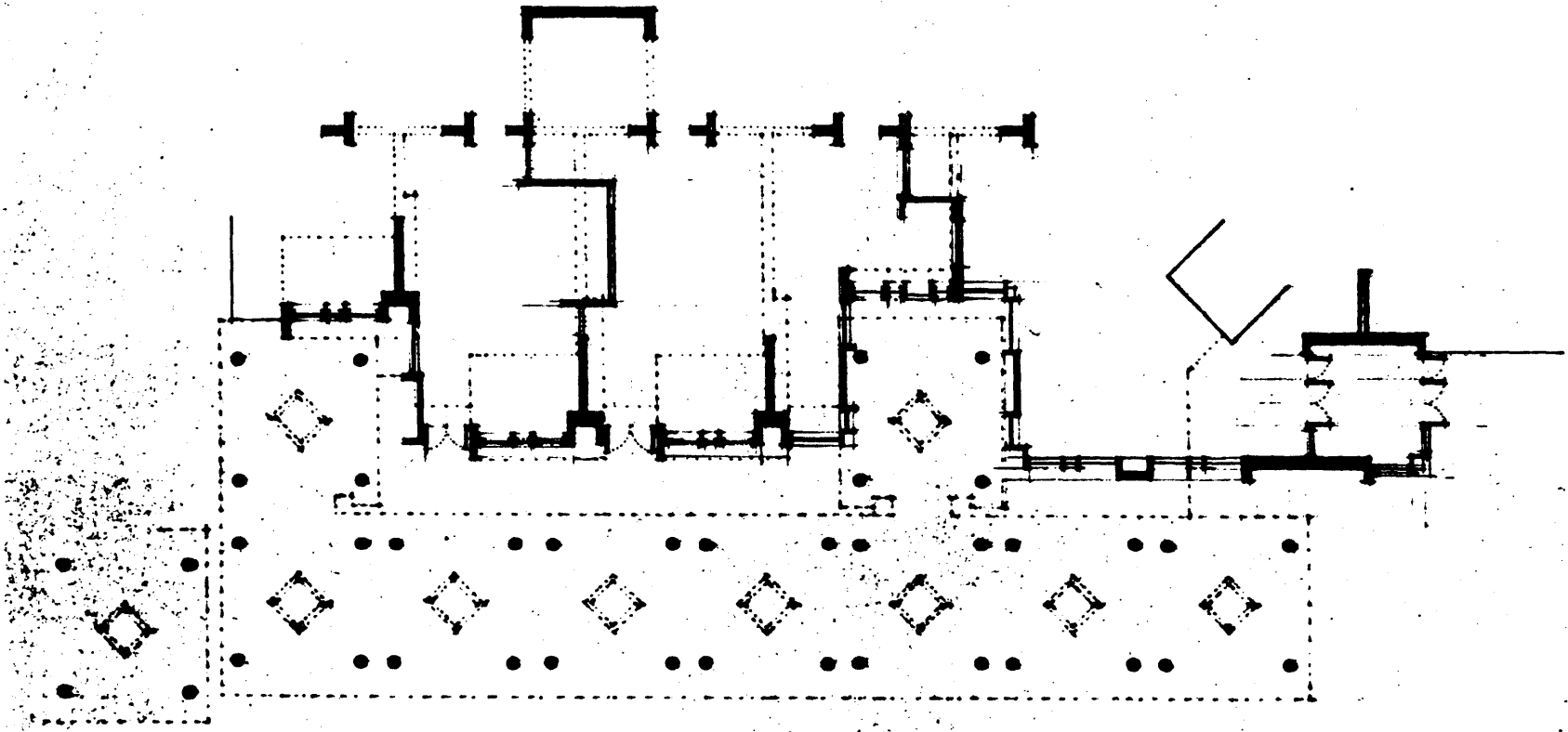
...when added to the propped slab system makes deep zone of exchange between the use territory and the access.

This allows

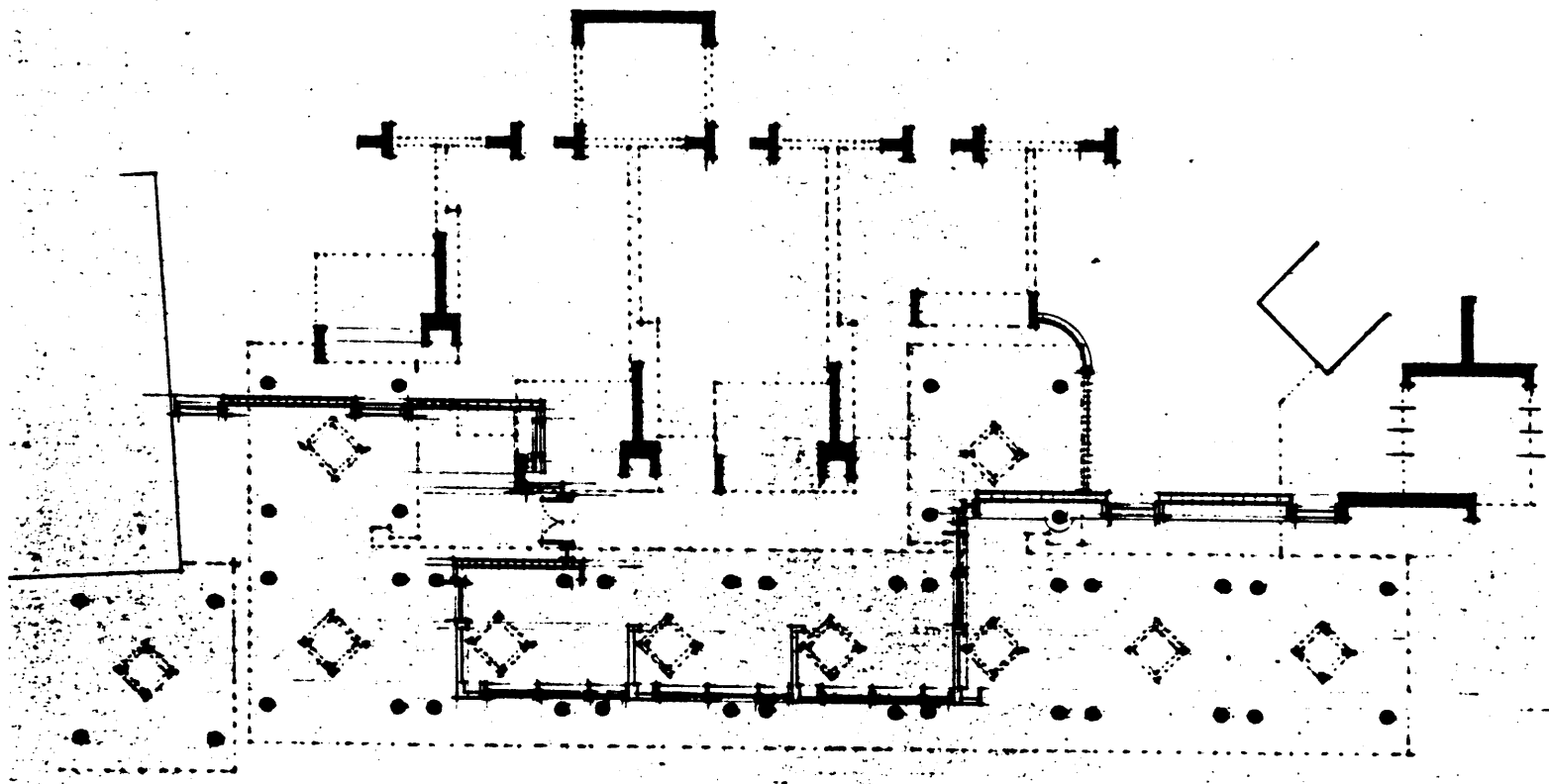
-street edge inhabitations
A & B

-open frame
-permits change within the defined territory

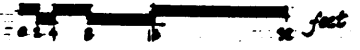
-the enclosure to define
claim
territory outside of the frame system
-some of the public access to move easily into the zone of the frame system.



STREET EDGE INHABITATION
PLAN 'A'
0 2 4 6 8 10 12 feet



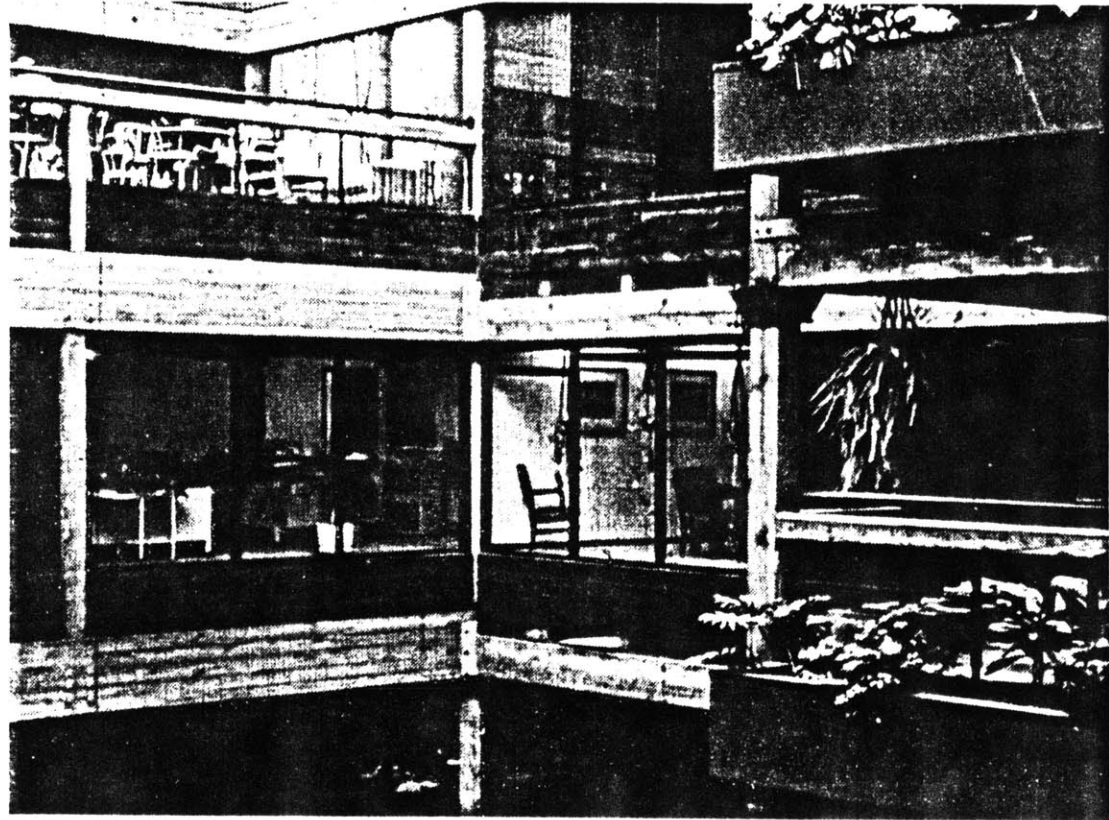
STREET EDGE INHABITATION
PLAN 'D'



The illustration of Butler Square shows the static relationship between an existing building system and the office enclosures. This is a one to one relationship between primary system and enclosure.

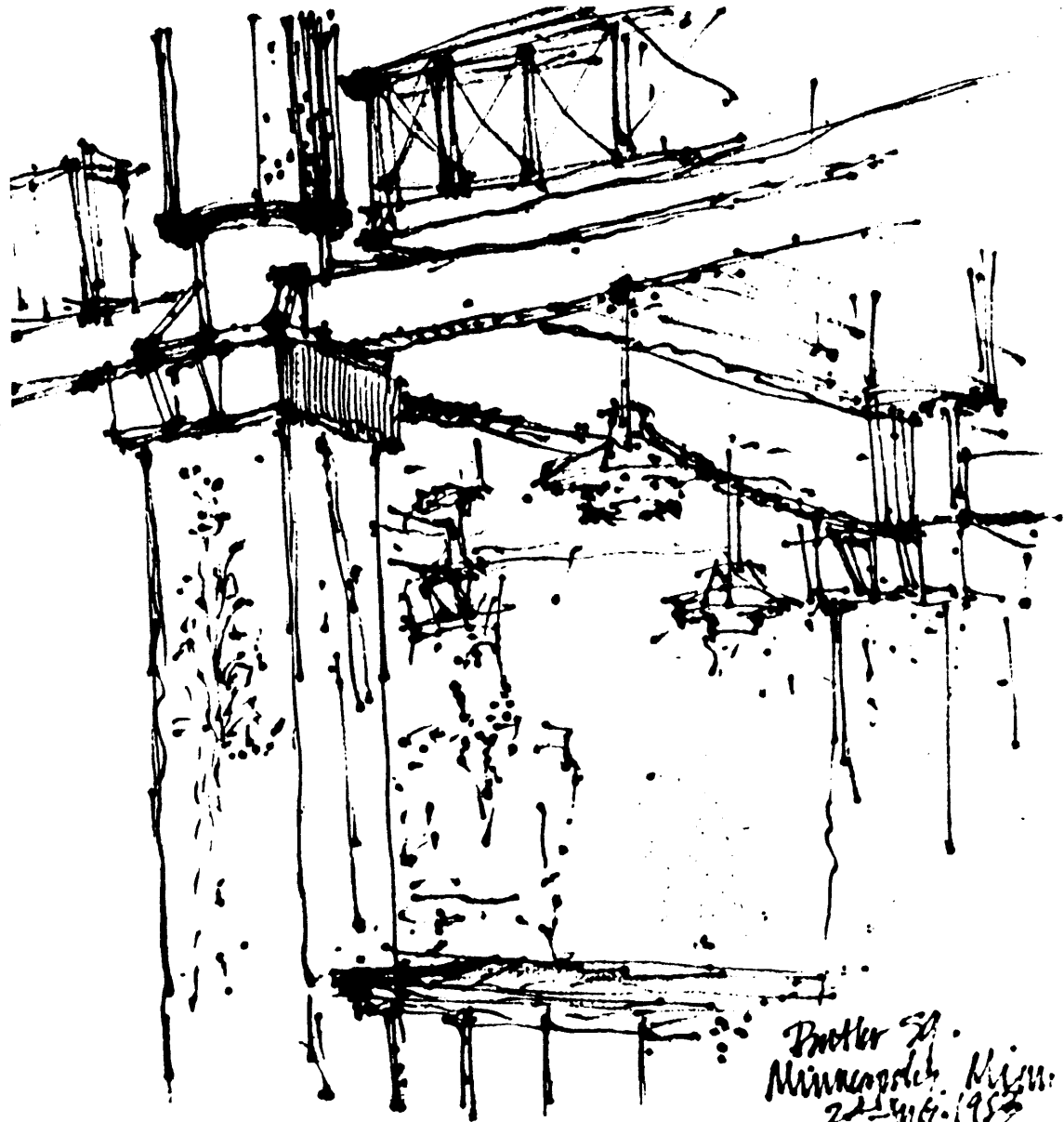
-heavy timber construction

The street, where there is a lot of public life, is no place for such predetermined hierarchies. If that sort of design were to be insisted upon at the public interface, the result would be minimal relationship between the inside semi-public and outside public.



The usual relationship in these cases is visual connection through a planar, tempered glass storefront and maybe a depressed entrance.

This system is against that kind of apathetic response. If the building is to be part of the street it should take part in the street activity.



Brook St.
Minneapolis, Minn.
2-1-1957

SITE DIAGRAM B

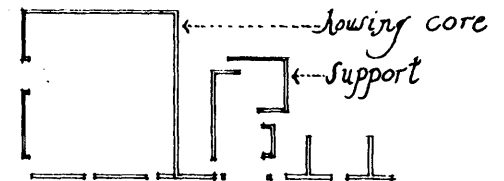
In this scheme access

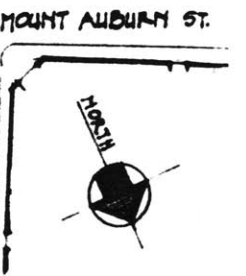
- is perpendicular to Mt. Auburn Street
- accommodates the Harvard student flow to and from class
- promotes student-related uses

The student-related use referred to is a development of student housing and some support facilities.

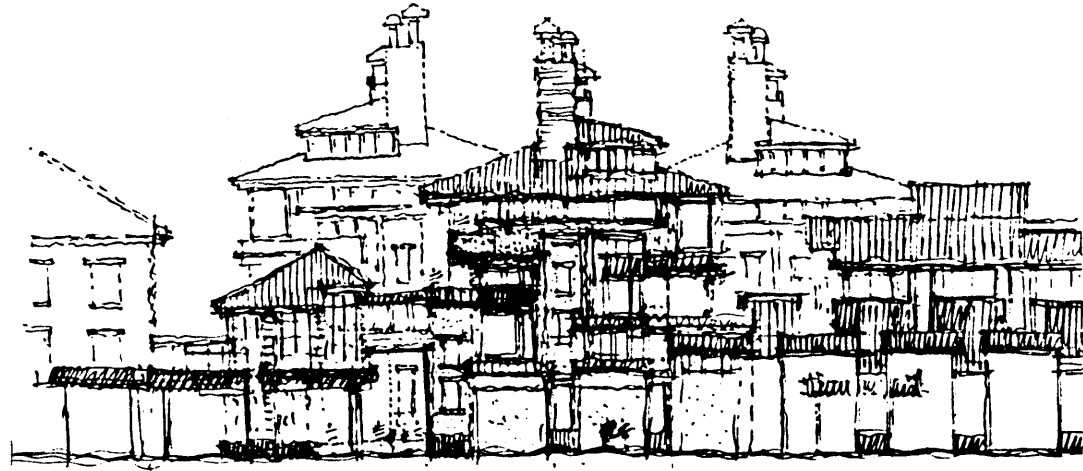
The housing will be

- "object-like" (in form)
- similar to neighboring private clubs
- very "wall-like" and solid





In this diagram the housing cores are shown as 50' X 50' squares. The "field" of support facilities in which the objects live is less complete but more "wall-like" than Scheme A.



the "field"

- helps to reinforce the strength of the Mt. Auburn Street direction.
- channels the movement into the site at specific points
- provides some protection from the street to the inner most zone of the site.

The general site organization -reinforces the understanding
of the interior private zone

-is a courtyard system

-by making a plaza
or stopping place
claimed by the
buildings

-which clues
movement from the
lighted street to
a lighted court-
yard through a
dark region



*a larger courtyard may
have several smaller defined
courtyards inside it.*

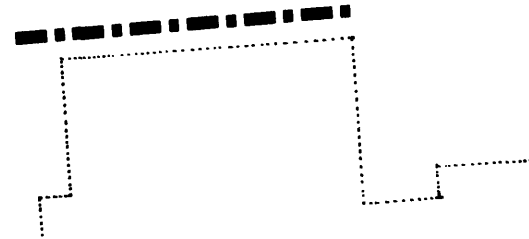
Dimensional Diagram
of Organization B



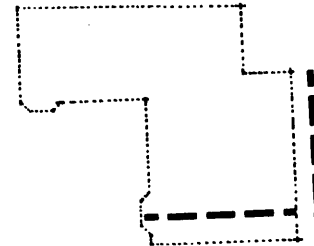
-the dimensions of a block which has been displaced in this projection. It is the distance between the two entries to the site.



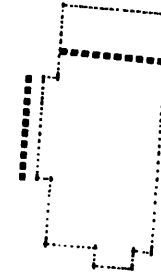
-appears here as the longest distance from the site entry to a building entry. This is taken from the Holyoke Center where the dimension is from the street to the building entry.

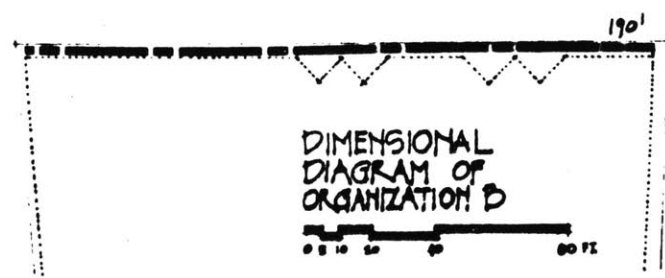
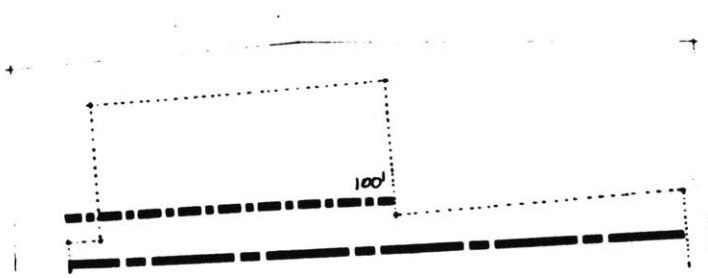
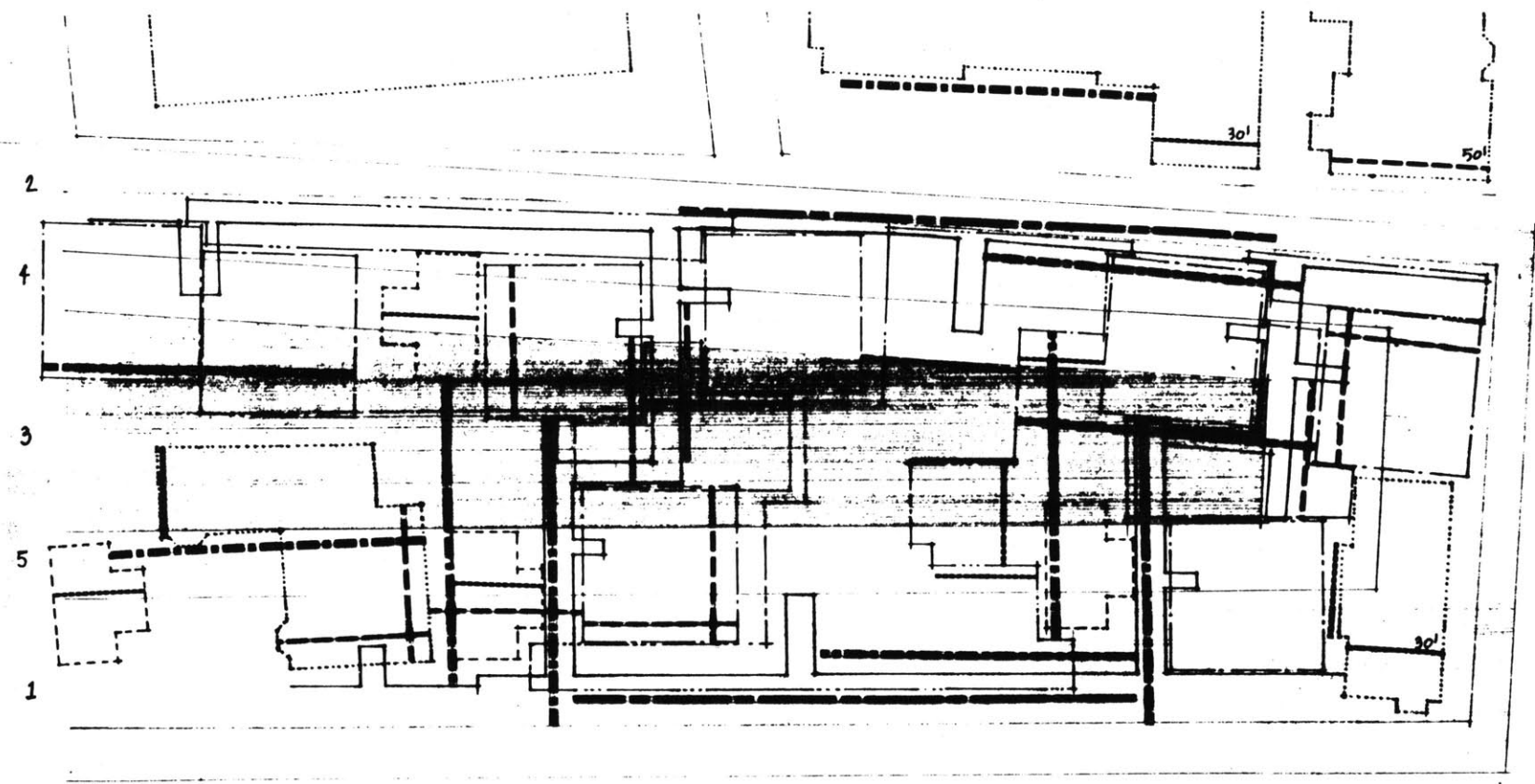


-taken from the small buildings in the context this becomes the dimension of the housing core as well as some "designed" open space



-taken from the context this is the smallest significant dimension at the "site" size (smaller dimensions depend upon the building system for their existence)





Building System Plan
Elevation B

The housing has

-less variable design
than Scheme A

-because of the more private
and less changeable nature of
the use.

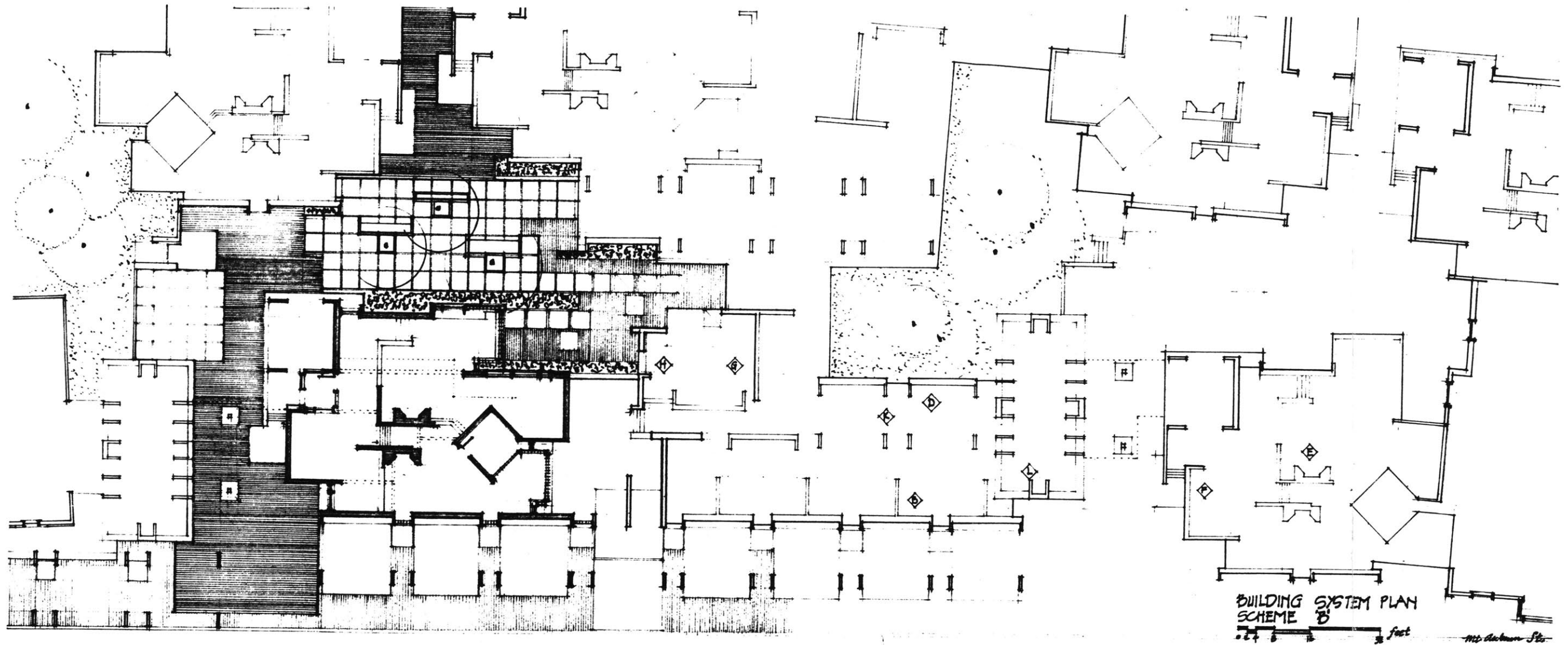
-reference to existing
morphology

-while not direct copies of
any particular building, they
do share some material and
dimensional relationships

This plan shows

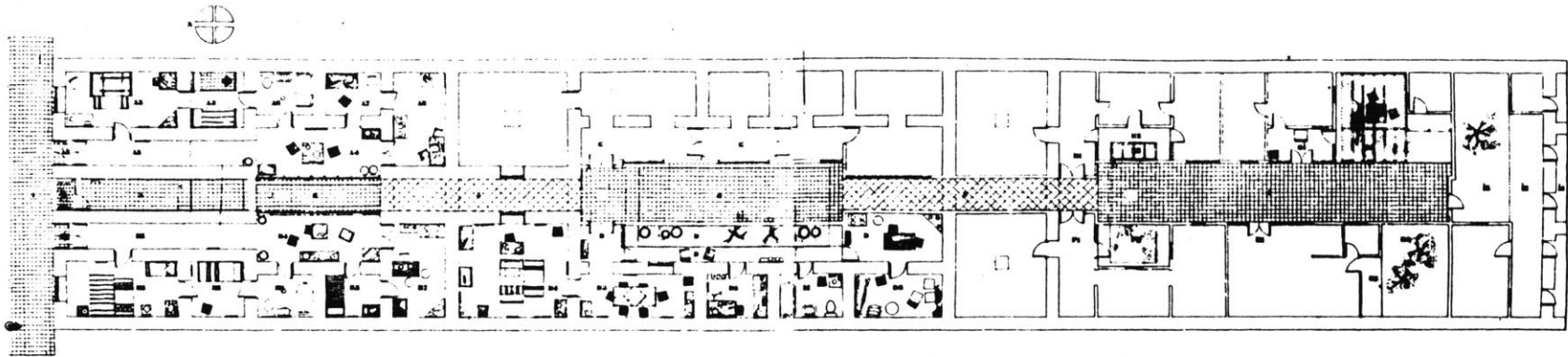
-system of building
-deployment of housing
-building of access
through the site.

Therefore, an exhibition
of all of the factors
which work together to
acknowledge the different
zones in the site.





MOUNT AUBURN ST.
ELEVATION - SCHEME 'B'
0 24 8 16 32 feet



The Courtyard System

The courtyard system is a spatial structure that allows larger open plazas spaces to have separation and privacy from other places. The process of moving from a lighted area through a darker passage back into the light brings one through various degrees of privacy. This enables one to design a collective place that is away from the street and

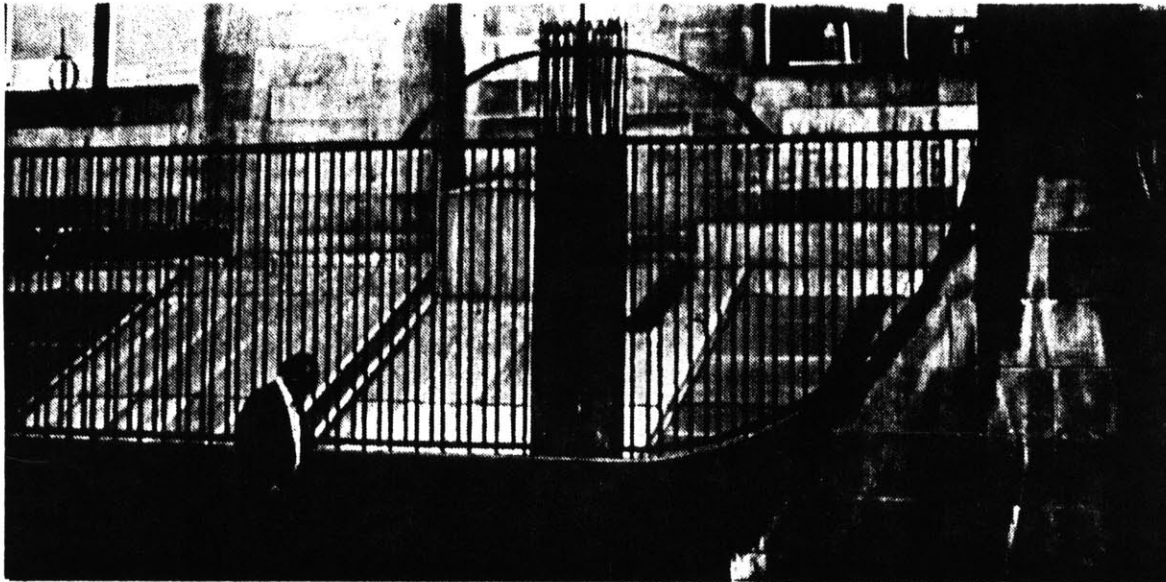
define it as such. One example of this is Ciudad Knossos in Santiago, Chile. The plan shown here (drawn by Fernando Domeyko as part of his compiled research of Santiago, Chile) illustrates this principle at work. The plazas are collective public places off of which every house has an entry. They are linked by dark "streets" which serve as connections to the main street but also define the plazas as discrete territories. There is one difference between this system and the system used in Scheme B. Here the street is private and all entries are on the plaza. In Scheme B all entries are in the dark street. That leaves more territory in the plaza for use.



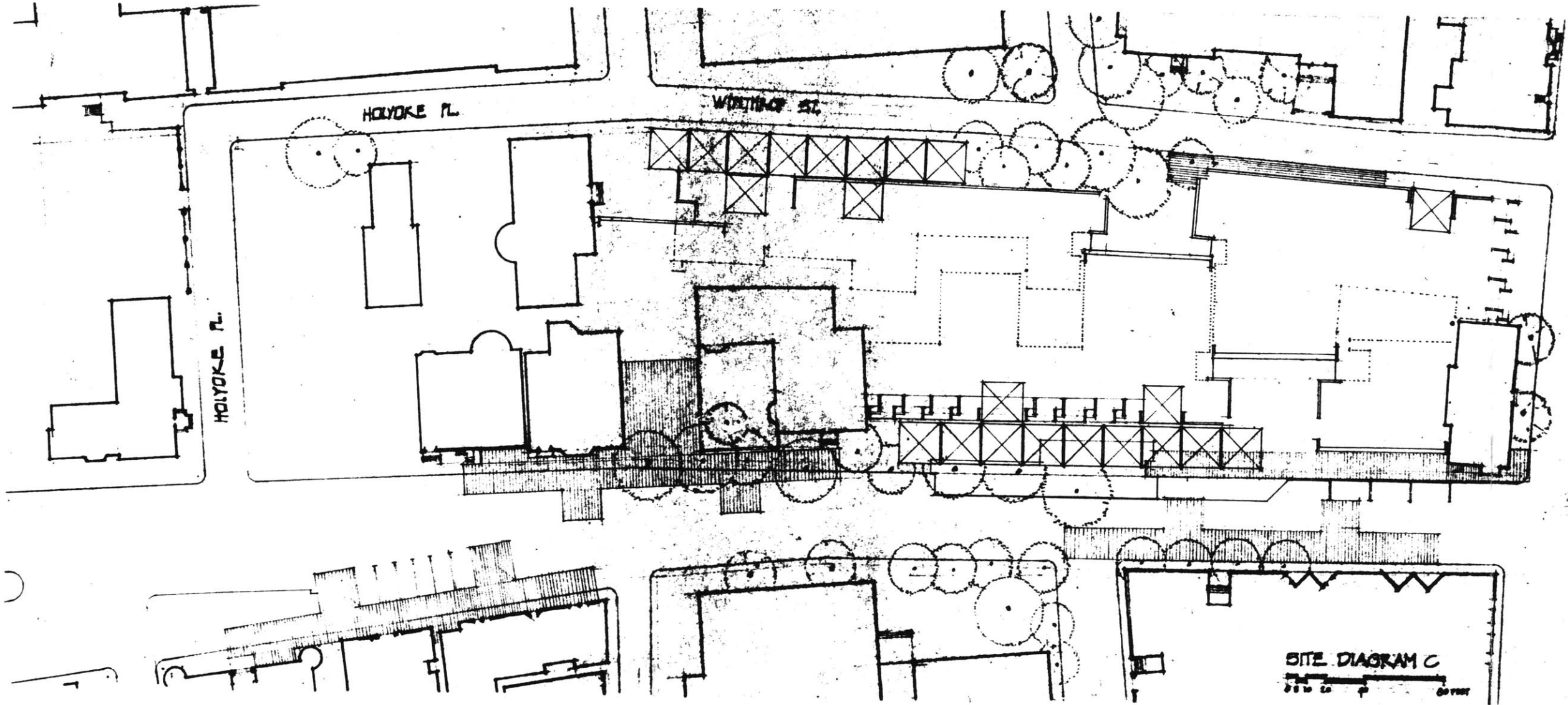
Site Diagram C

The public access never permeates the site in this exploration. Therefore, this exploration is concerned with

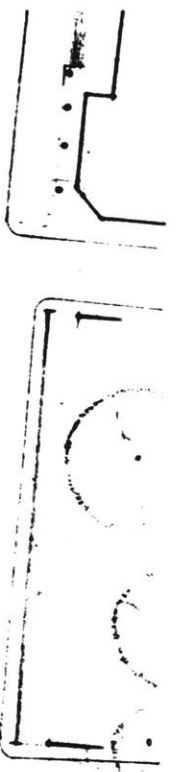
- the building and modulation of the street zone
- relationship between the built street zone and the surrounding context
- the understanding of the street zone as building



- building the street zone is a major step in realizing the space around a building is as important as the building itself.

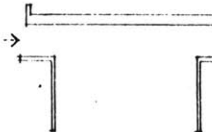
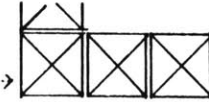


SITE DIAGRAM C
0 10 20 30 40 FEET



The elements used in this scheme are

- the propped up slab system
- frame system
- wall system
- continuous surface system



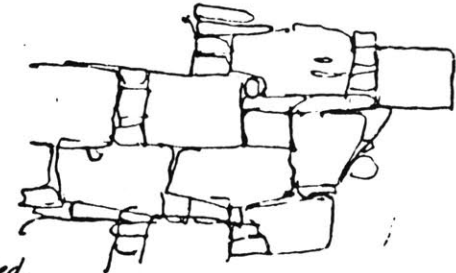
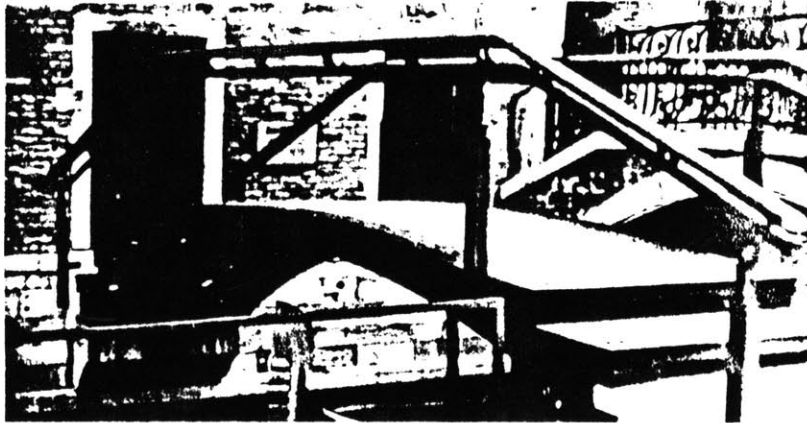
as well as

trees
and
paving



The trees and paving are the only building elements that can be controlled outside of the immediate site. They

- extend the zone of the site
- support relationships present in the context.



some surfaces may be paved while others may support weight in other ways. (for example: the canals of Venice.)

Dimensional Diagram of Organization C

This diagram shows the

-dimensional relationships between the building and context

-effort to $\frac{\text{support}}{\text{reinforce}}$ them



-a common large building dimension in this context

-largest building size
-reinforced by trees and paving to show from where it originates.



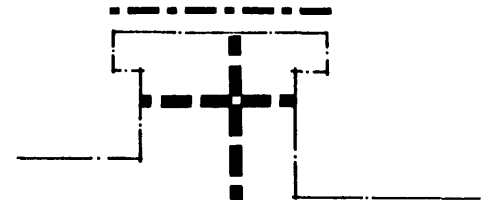
-next largest building size used to illustrate the relationship between the Lutheran Church and the site.

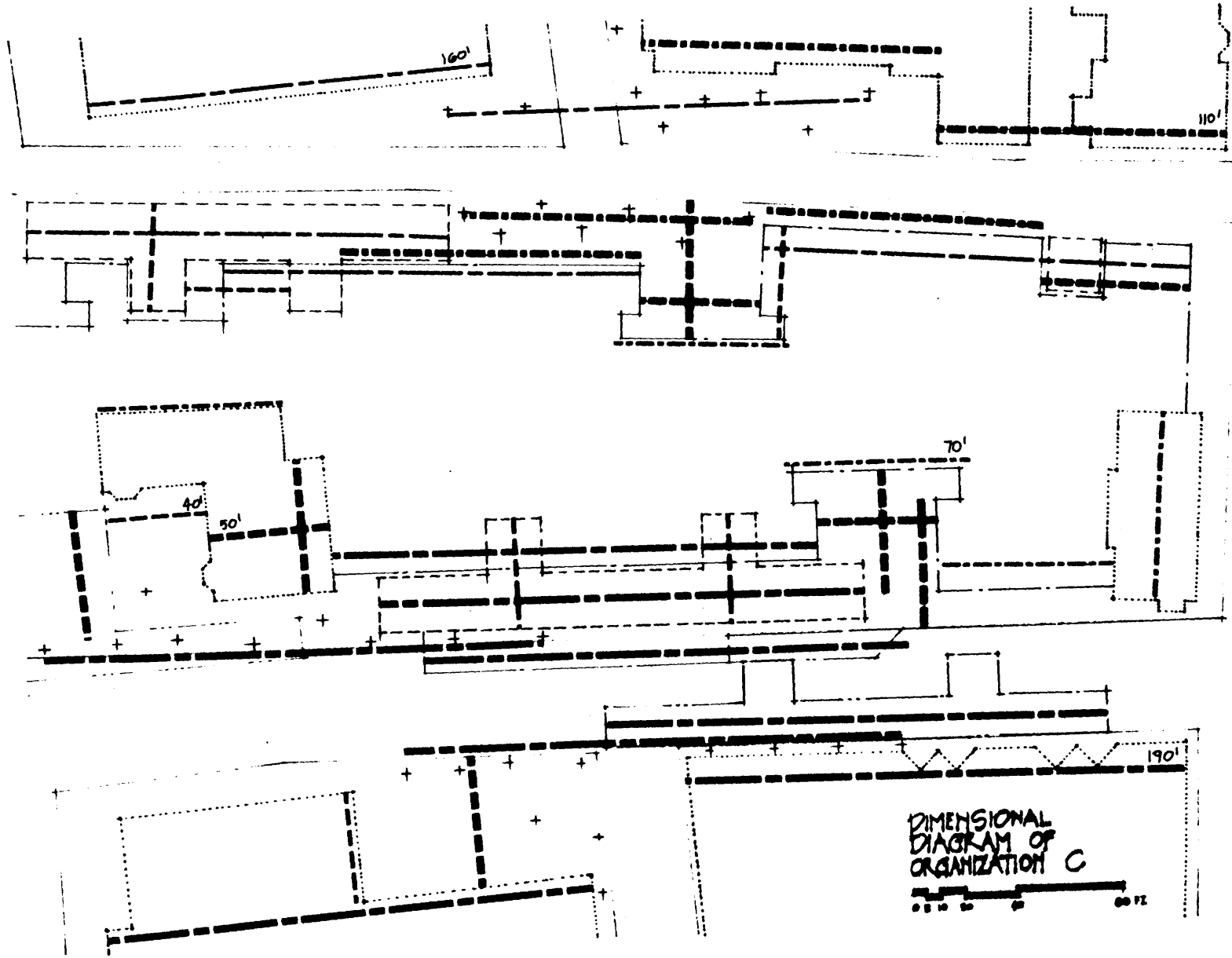


-small building size used as the largest wall dimension.



-small building size used to dimension the open public plazas and access zones.





Building System Plan C

These systems

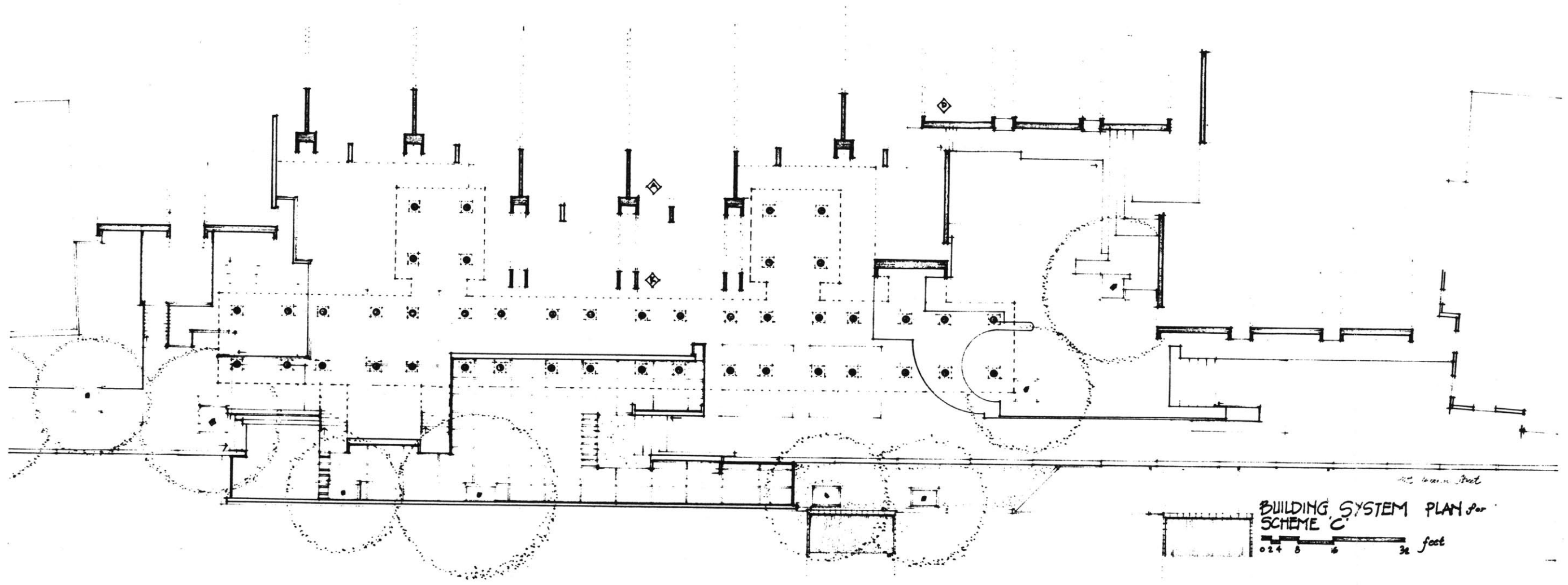
- are similar to those used in Scheme A.
- contain wall-like characteristics to prevent penetration through the site.
- when added together allow for a street zone that is more than 40' deep.

This drawing also explores some of the various ways territorial entries can

be designed
defined

(i.e. with level
material change
direction





BUILDING SYSTEM PLAN for
SCHEME C
0 12 24 36 feet

The Working Method

- dimensional analysis of building systems
- information about the working process
- on dimensional diagrams and other systems
- on generating vocabulary
- on the "built" access

A

Dimensional Analysis of Building Systems B

C

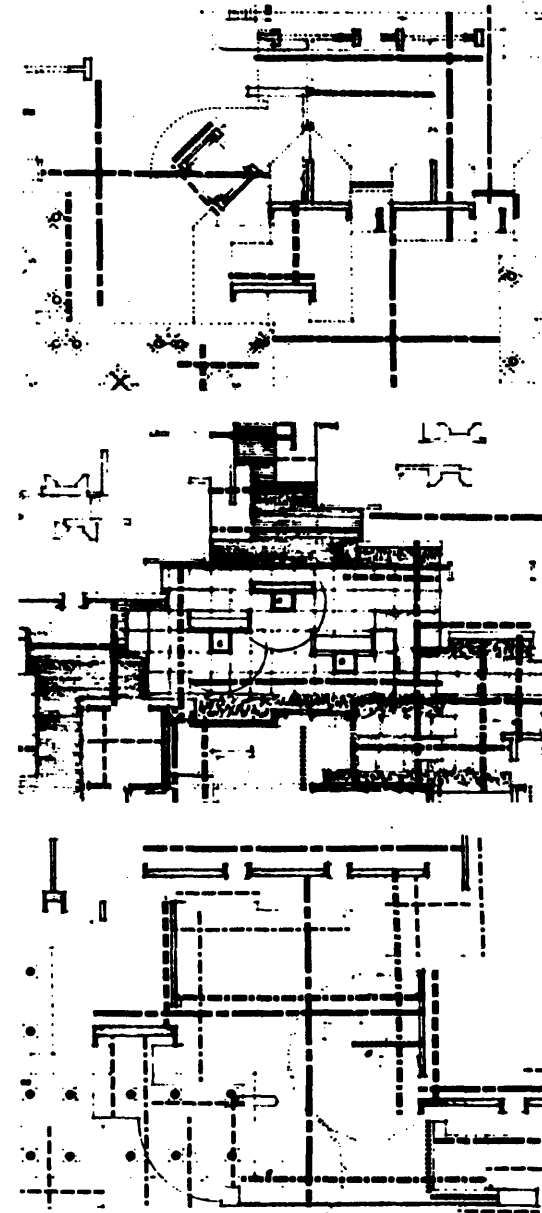
these drawings show

-the dimensional system
being used

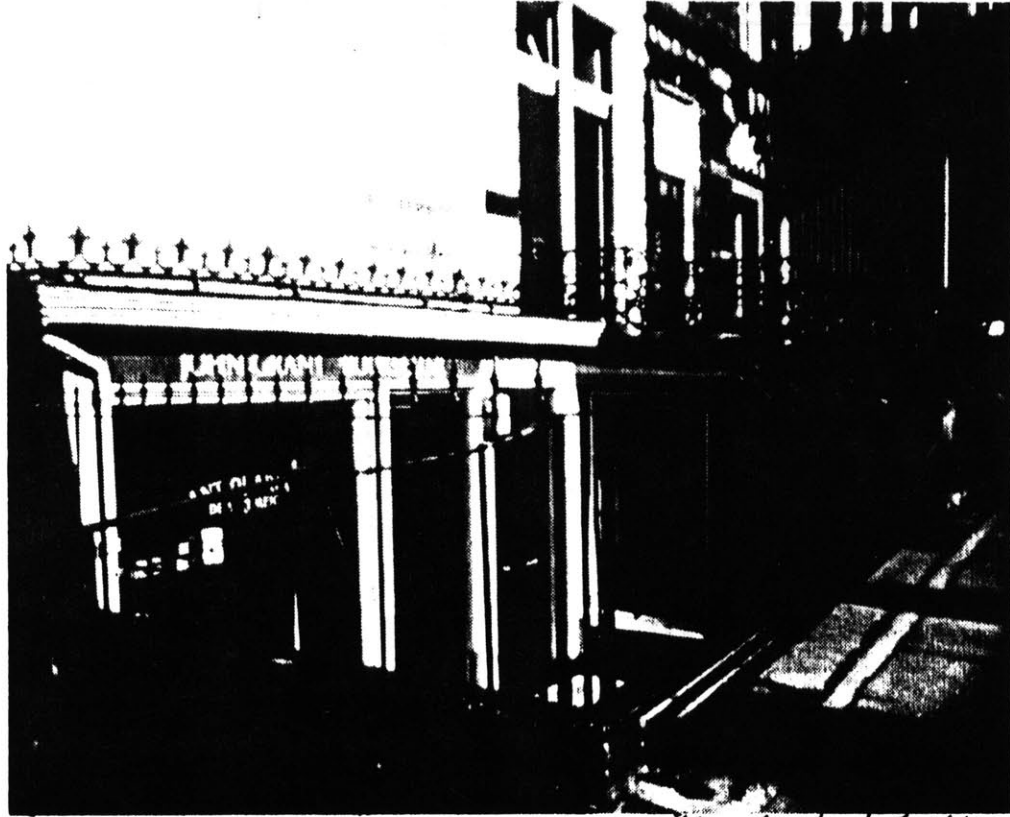
-correspondences with the
other explorations

-more information about the
working process.

- 4' -smallest dimension
private entry
light from above
- 8' -private access width
threshold between two
territories
space between two systems

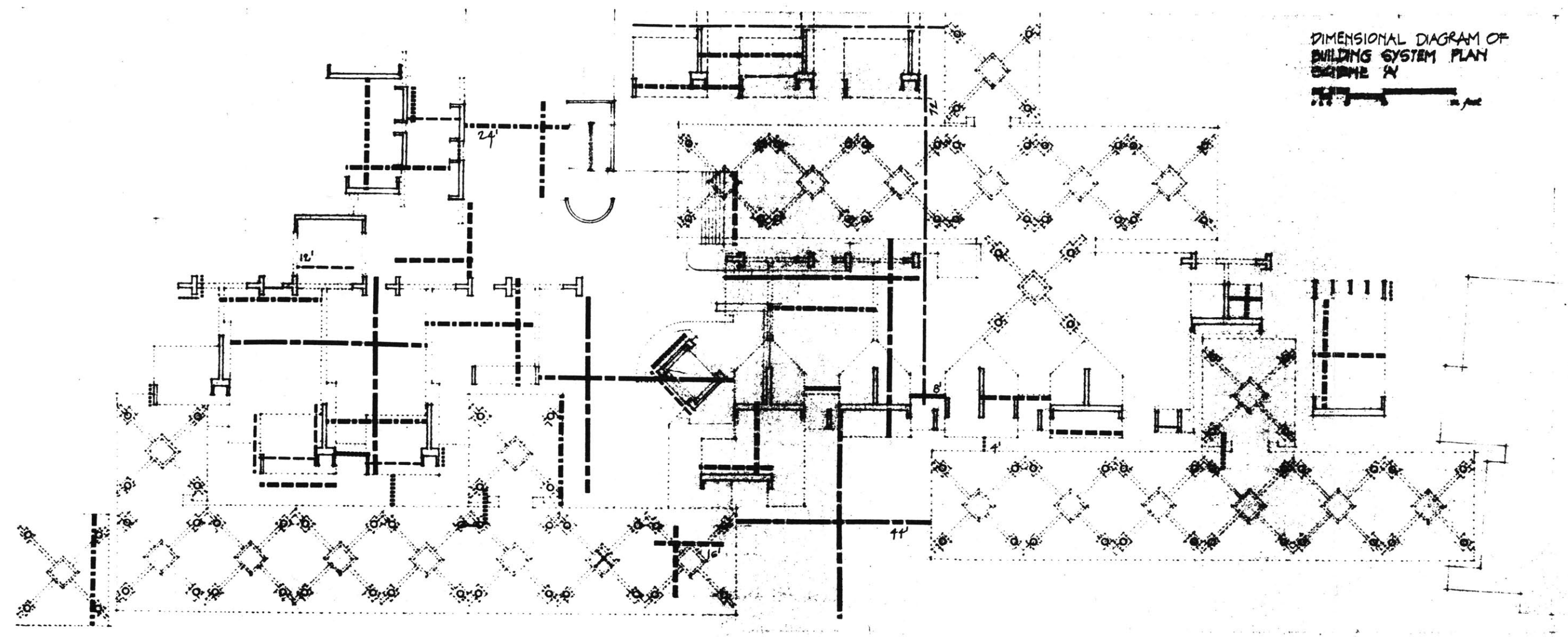


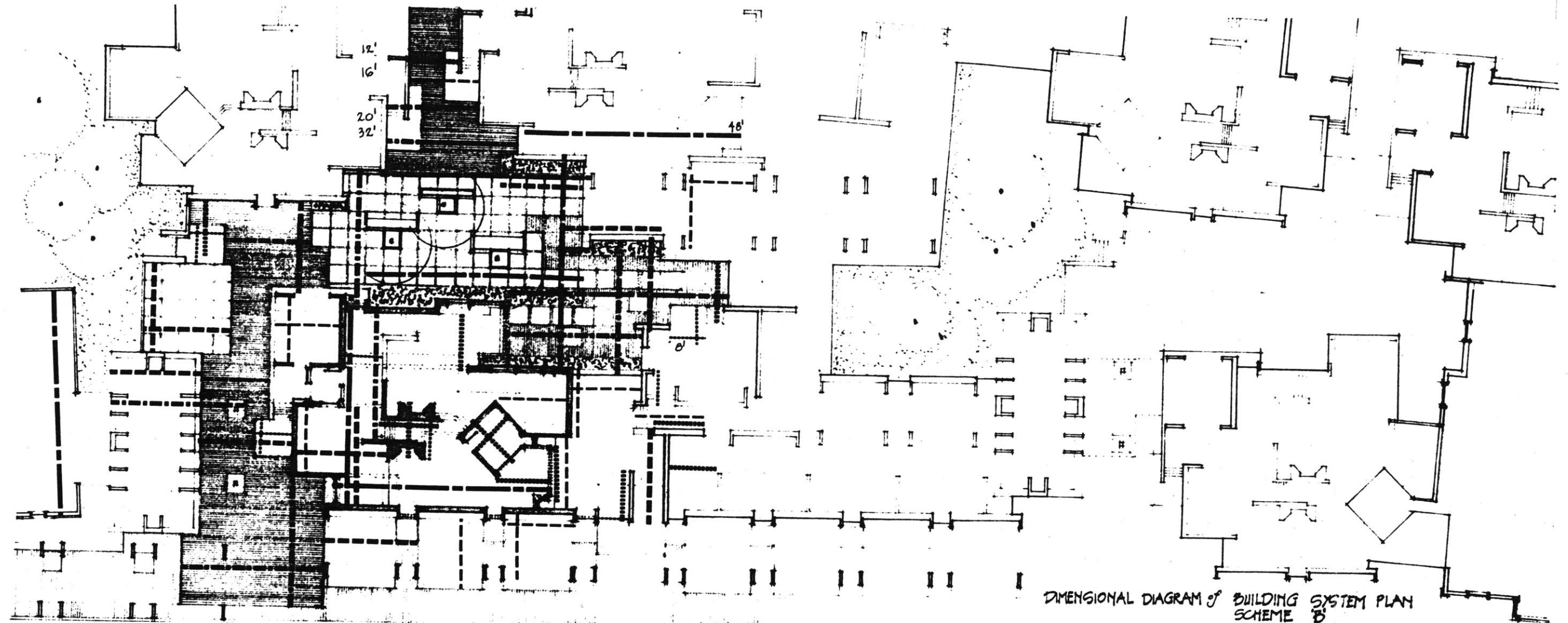
- 12' } -standard room $\frac{\text{height}}{\text{size}}$
- 16' } -public access width
standard dimension of
most elements in the
building system.
- 20' } -usual bay size (frame
system)
- 24' } -small access related
territories
- 32' } -the largest open public
plaza territories
- 40' } -clear height in public
access territories
- 48' } -deepest dimension of
use territories before
more top/sky light is
admitted.



*The standard building
dimension is reflected
here in the stair and
lowered territory*

DIMENSIONAL DIAGRAM OF
BUILDING SYSTEM PLAN
SCHEME X

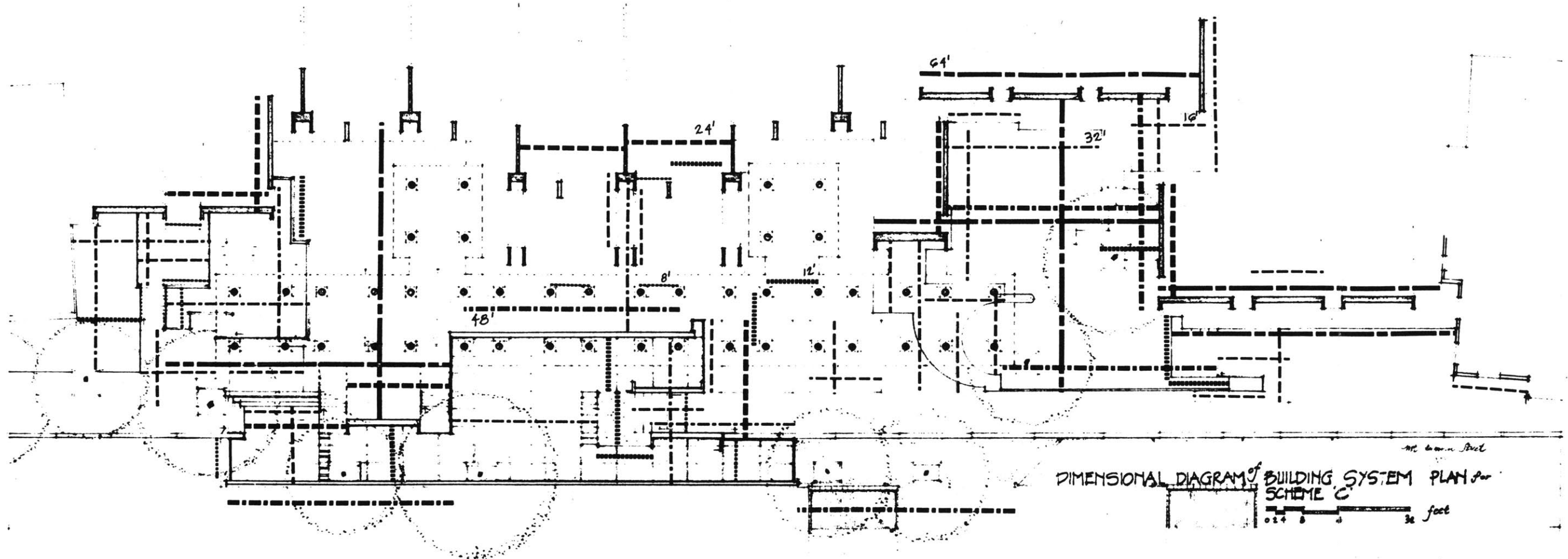




DIMENSIONAL DIAGRAM of BUILDING SYSTEM PLAN
SCHEME B

0 12 24 36 48 feet

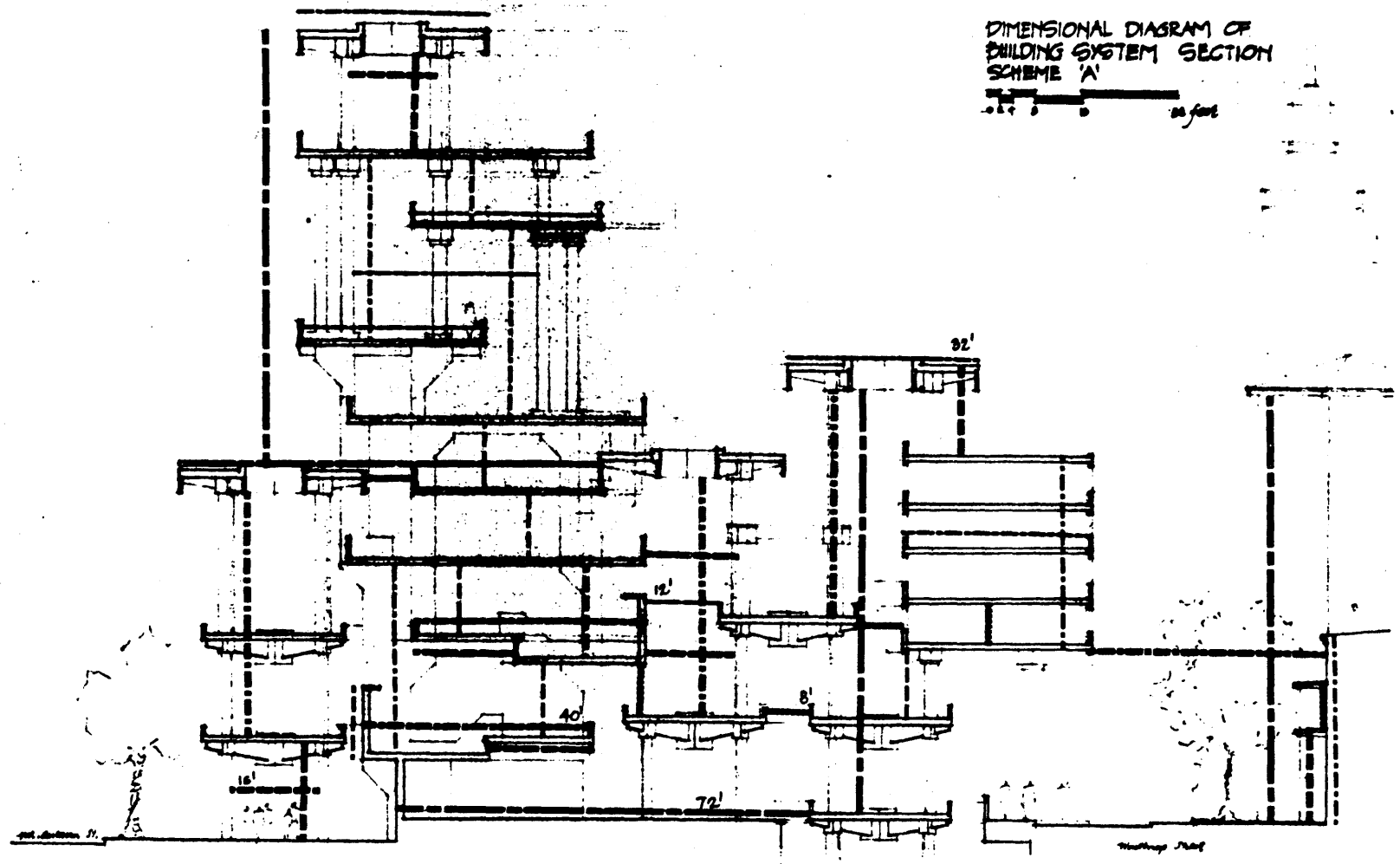
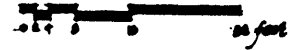
M. S. Arthur, Sr.



DIMENSIONAL DIAGRAM of BUILDING SYSTEM PLAN for SCHEME C

0 12 24 36 feet

DIMENSIONAL DIAGRAM OF
BUILDING SYSTEM SECTION
SCHEME 'A'



Information about the Working Process

There are three distinctions
among the dimensional
correspondences

-leading decision

-following decision

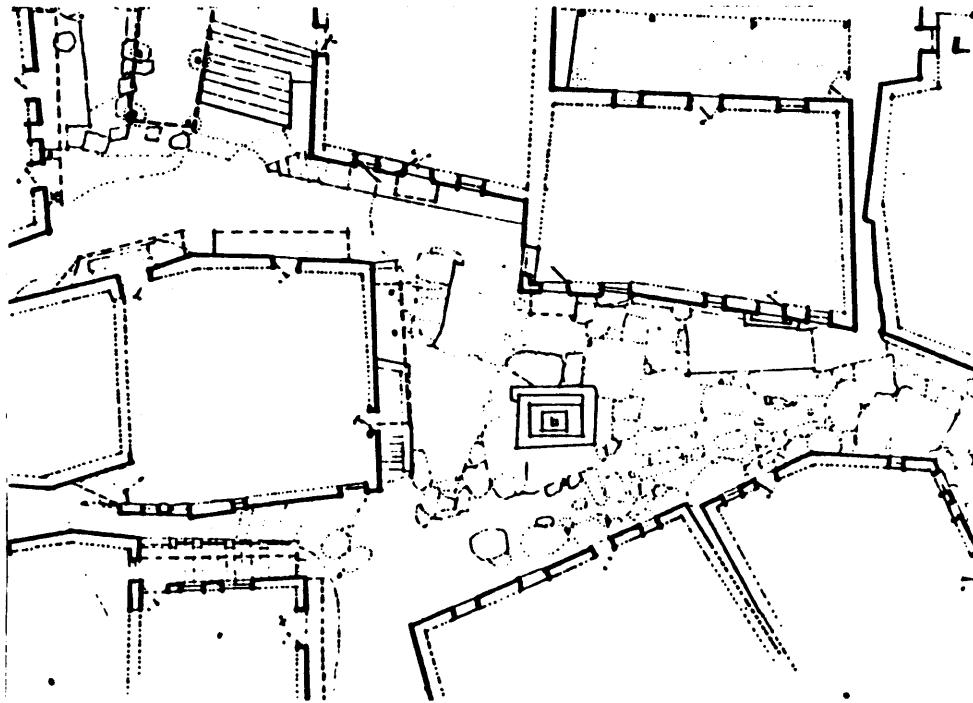
-gift

-initial systematic
moves

-next layer of adjust-
ment

-dimensions already
present in the context

-a result of specific
deployment of systems
but not previously
considered.



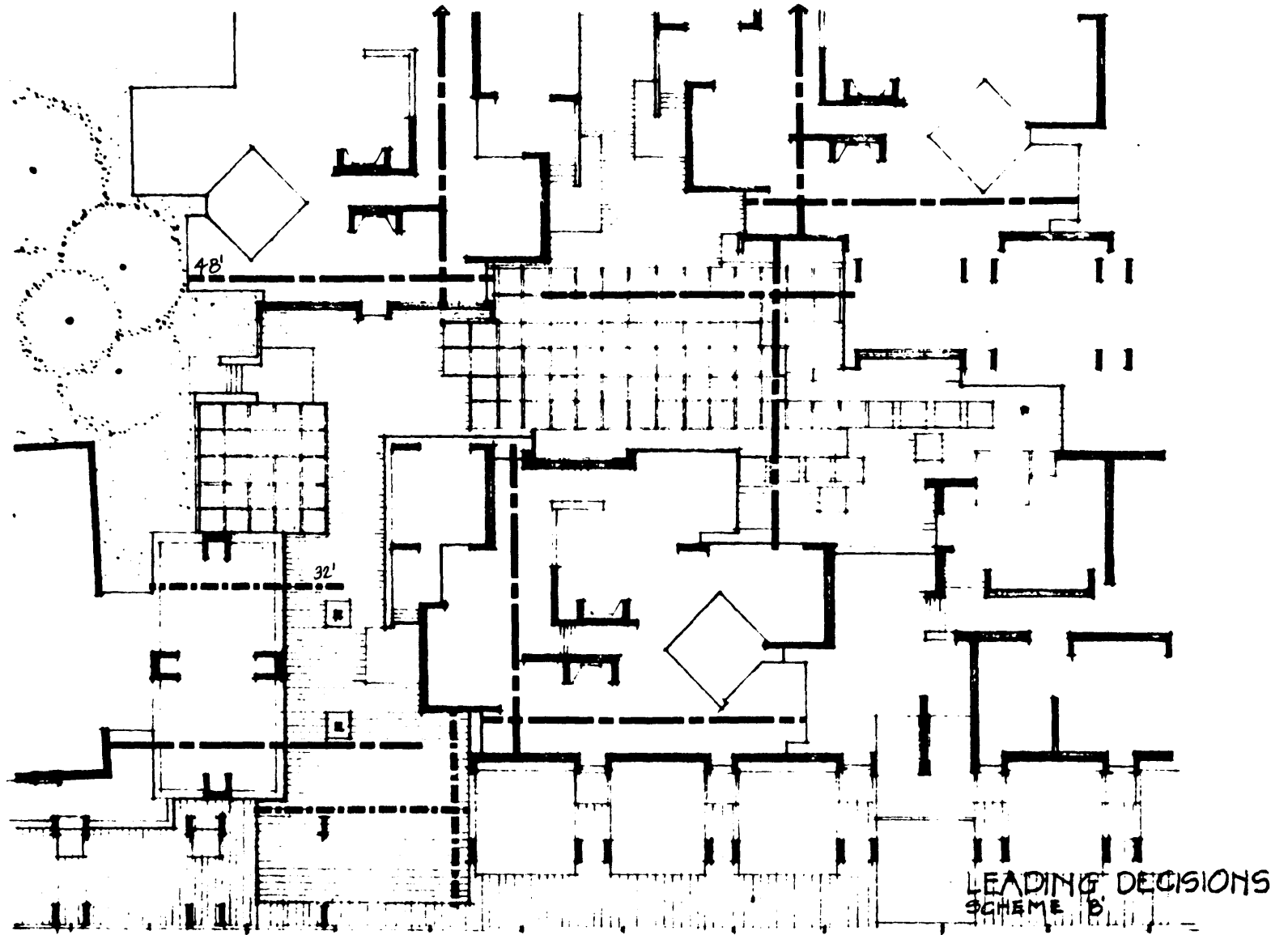
*this shows the dimensional relationships
between the built piece and
the space it defines.*

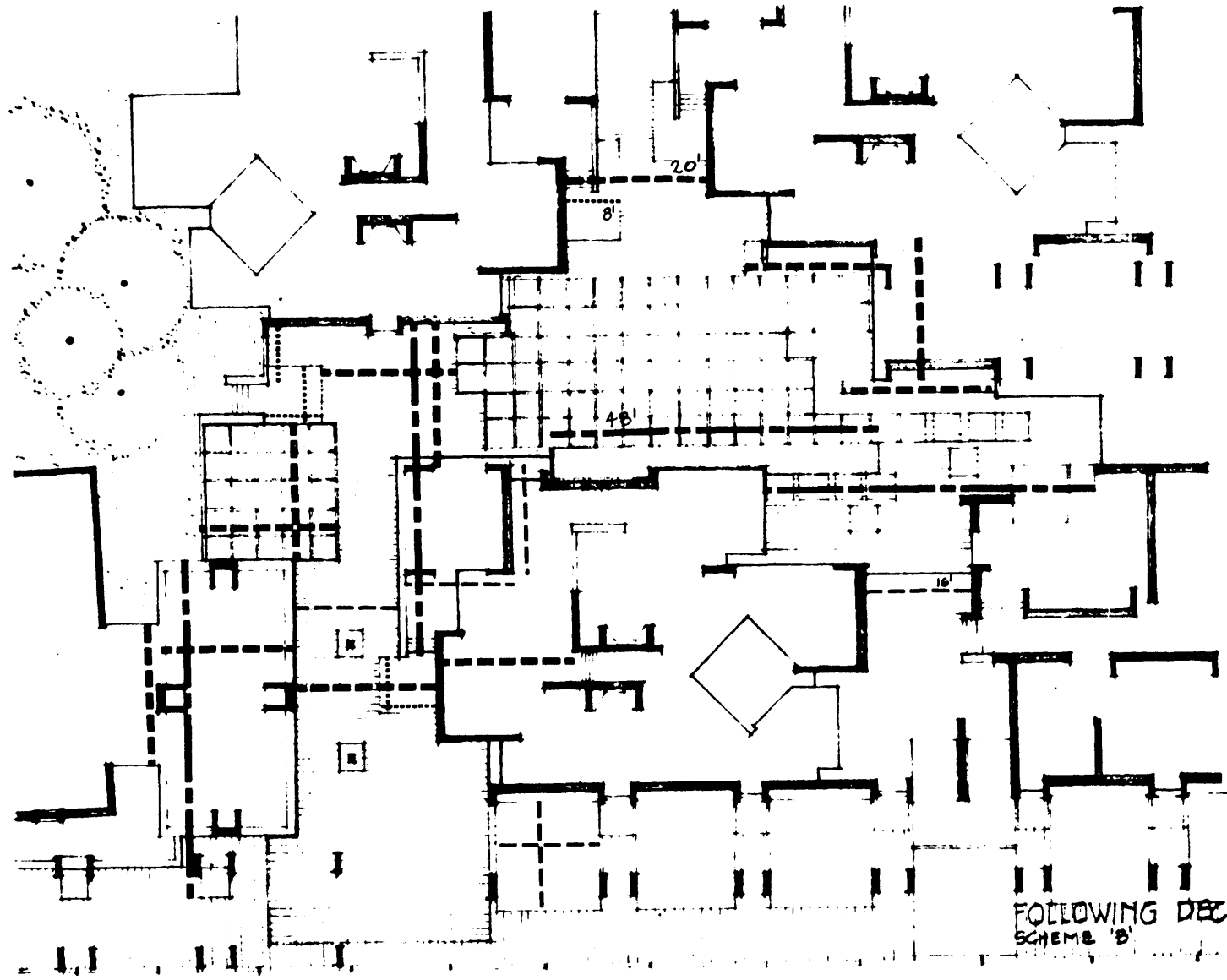
For Example

- Scheme B
- leading decisions
 - size of territory at streets and plaza
 - space between housing units
 - design of housing units

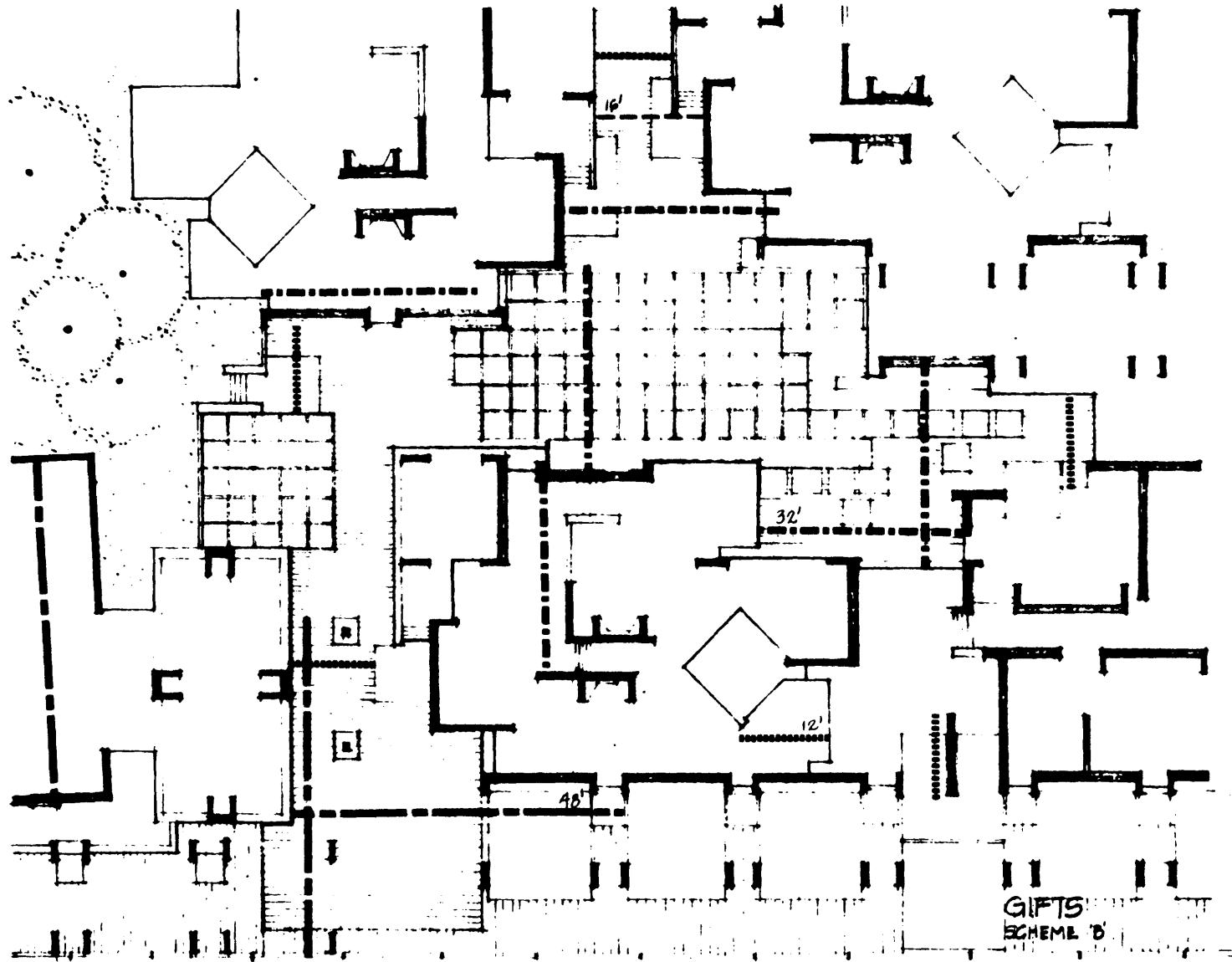
 - following decisions
 - dimensions of territories between
 - threshold dimension
 - connection of plazas
 - areas surrounding plazas.

 - gifts
 - due to compulsive systematic dimensioning of the pieces and deployment in a systematic manner...
 - ...there are more common dimensions created than actively designed.





FOLLOWING DECISIONS
SCHEME 'B'



On Dimensional Diagrams and Other Systems

The dimensional system is an understanding of the use of dimensions within a given territory. It is not a grid or insistant imposition on the site. These dimensional diagrams are simply a "check" and illustration of this understanding. In addition, the system should be developed to accept the presence of something very different from itself and should be relatively "self-stable" at a small size so that pieces of the system can be assembled in different ways.

This is so that one system does not necessarily control the whole site.



*this entry is not dictated
by a larger system.*

On Generating Vocabulary

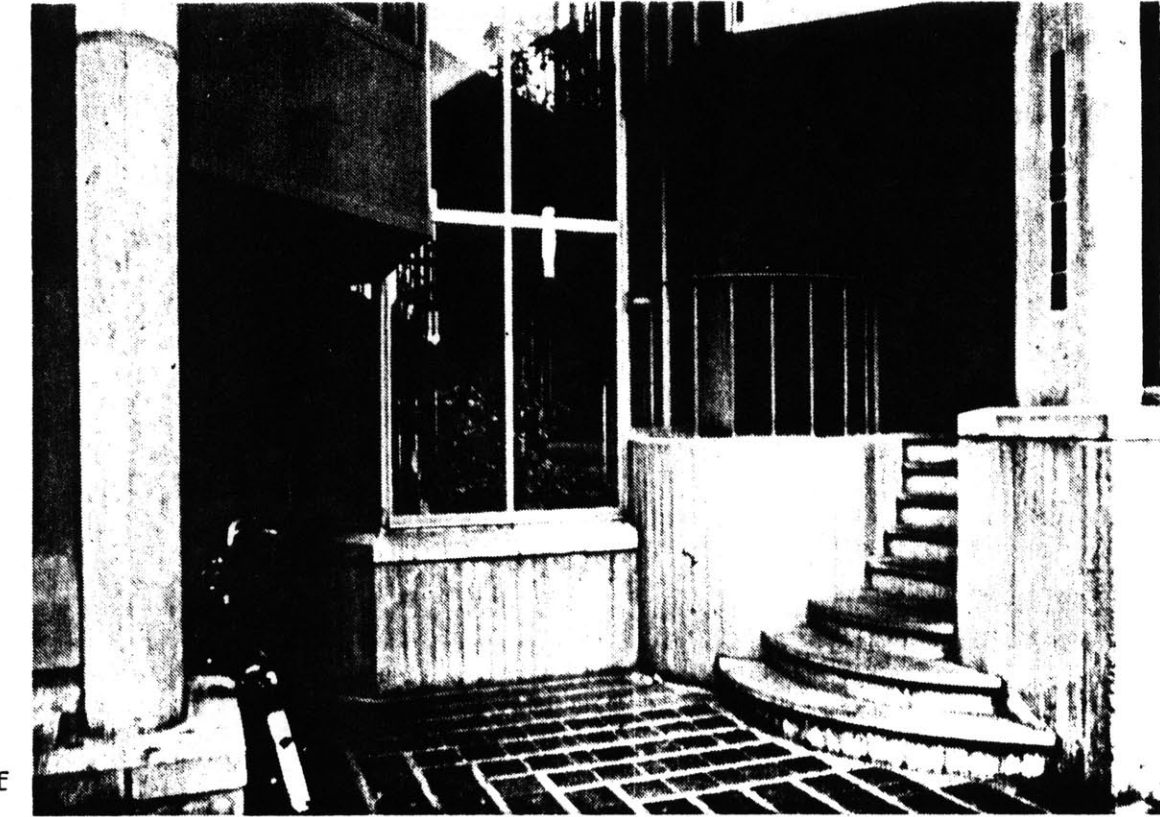
-For the purposes of
compatibility.

and

-Knowing the final
projection is an
assemblage of many
different systems

The vocabulary
pieces of each
system come from a
similar root
background.

The dimensional qualities of
each system are similar to
each other so they

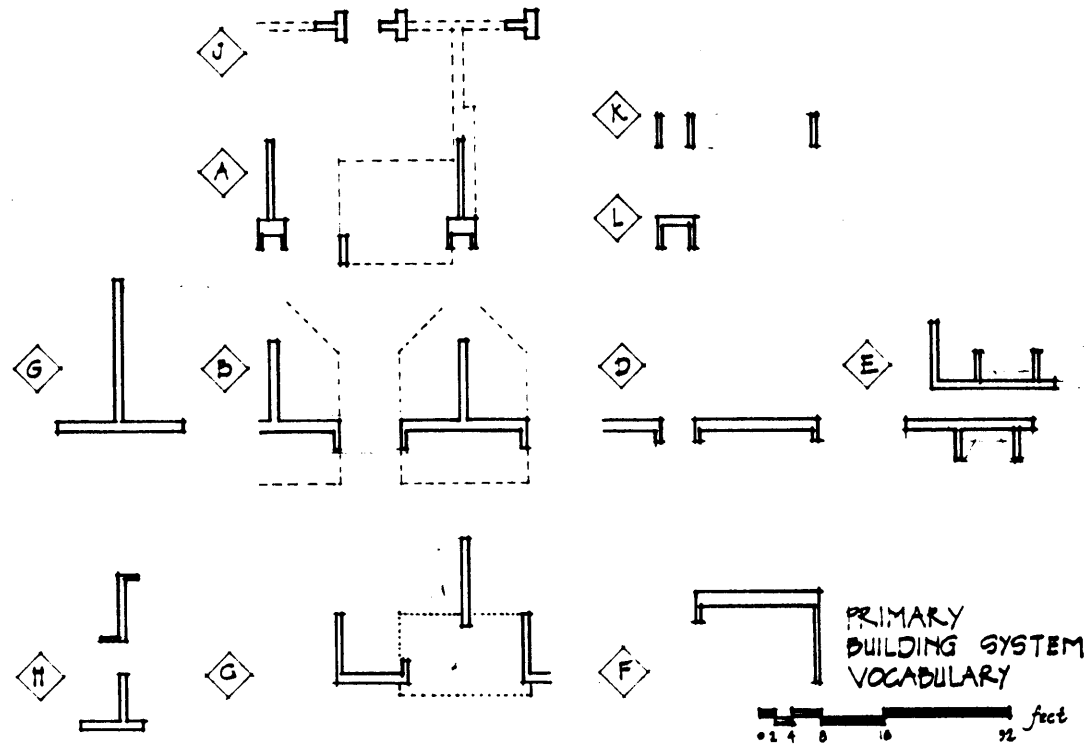


-can be exchanged at will
-do not have to be located on
the site as the projections
suggest.

*this shows the compatibility
between the concrete and
the glass systems.*

In this way the synthesis
will be an easier process of
arrangement.

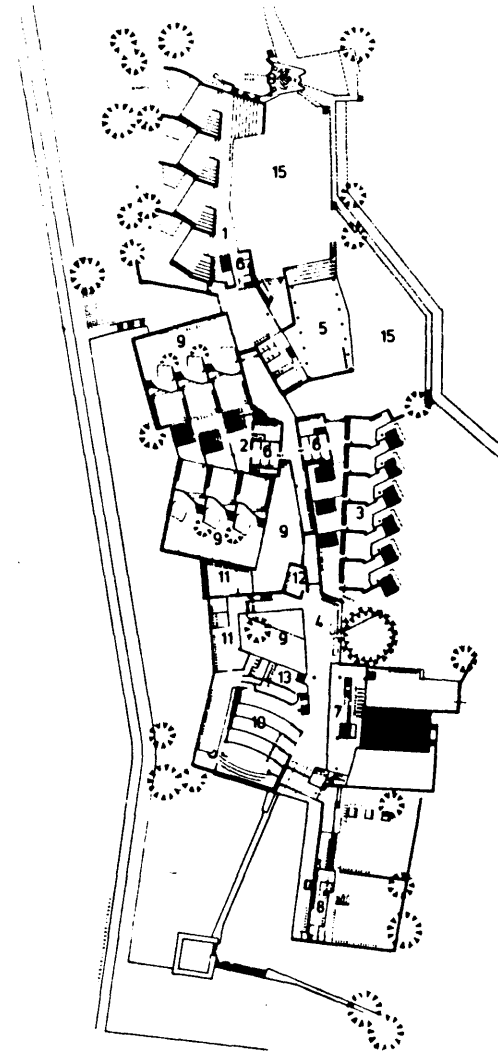
The vocabulary is derived from a simple frame piece **A** which when fattened **B** becomes a wall piece. The assemblage then can be reversed to get **C** which has much more screen and claims the same amount of territory as **B**. If the stem is removed from **B** the shallow "U" results **D** which can be altered in dimensions **F** or used as fireplaces **E**. The wall piece **B** may also be lengthened into a "T" **G** and that may be assembled with two pieces **H**. Along with the frame pieces come pieces **K** and **L** which are derived in dimension from **A** but can be used individually.



On the "Built" Access

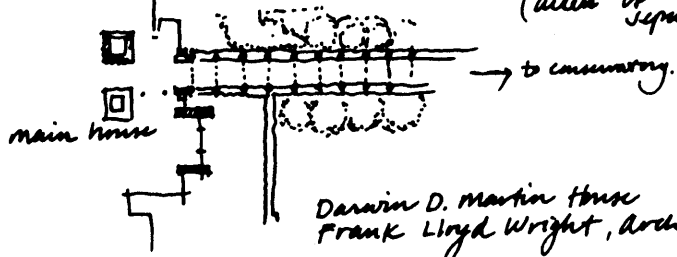
There are three major ways of building the access:

- 1) building it directly -that is, whatever structural or spatial system being used defines only the access zone.
- 2) build it with the territories on either side -the access zone is defined as the slack region in between two or more built territories.
- 3) build it optionally -that is, the access zone is built directly within the neighboring territories and allows for the use to claim some space.



access definition

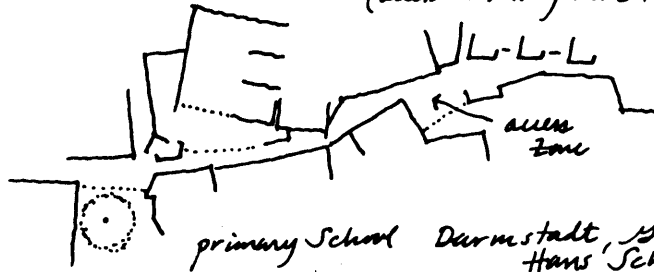
- 1) Build it directly movement is controlled by the building system.
(access is separate from use)



Darwin D. Martin House Buffalo N.Y.
Frank Lloyd Wright, Arch.

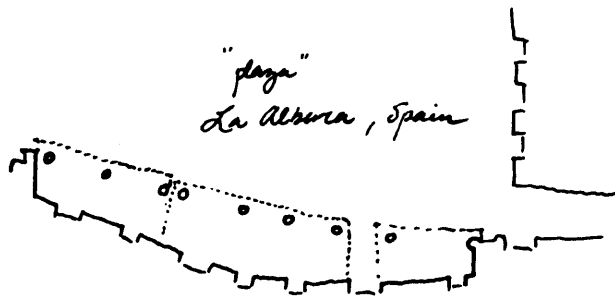
- 2) use space between built territories

movement is in "slack" zone.
(access has very little to do with the use.)

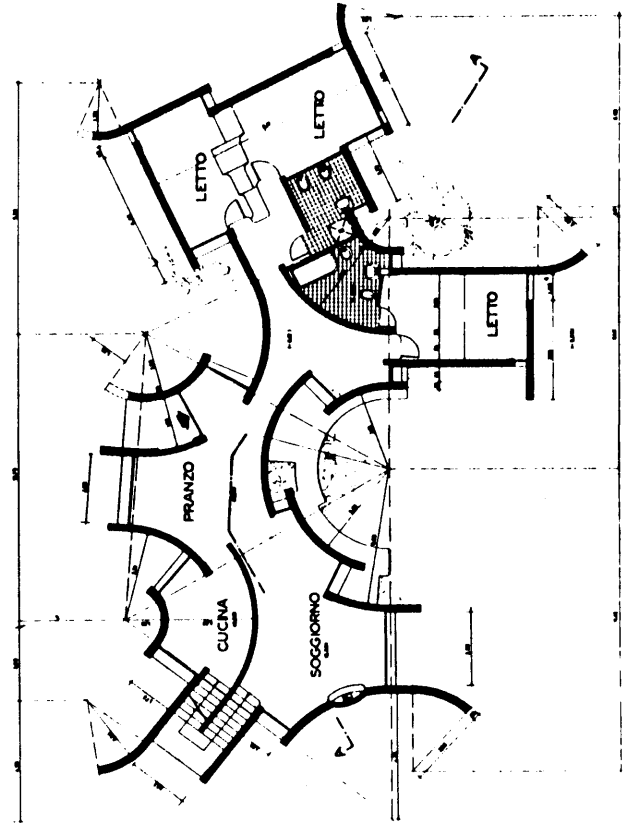


primary School Darmstadt, Germany
Hans Scharoun, Arch.

- 3) adjacent built territories also build access zone
definition is optional (use or access)



"plaza"
La Alhambra, Spain

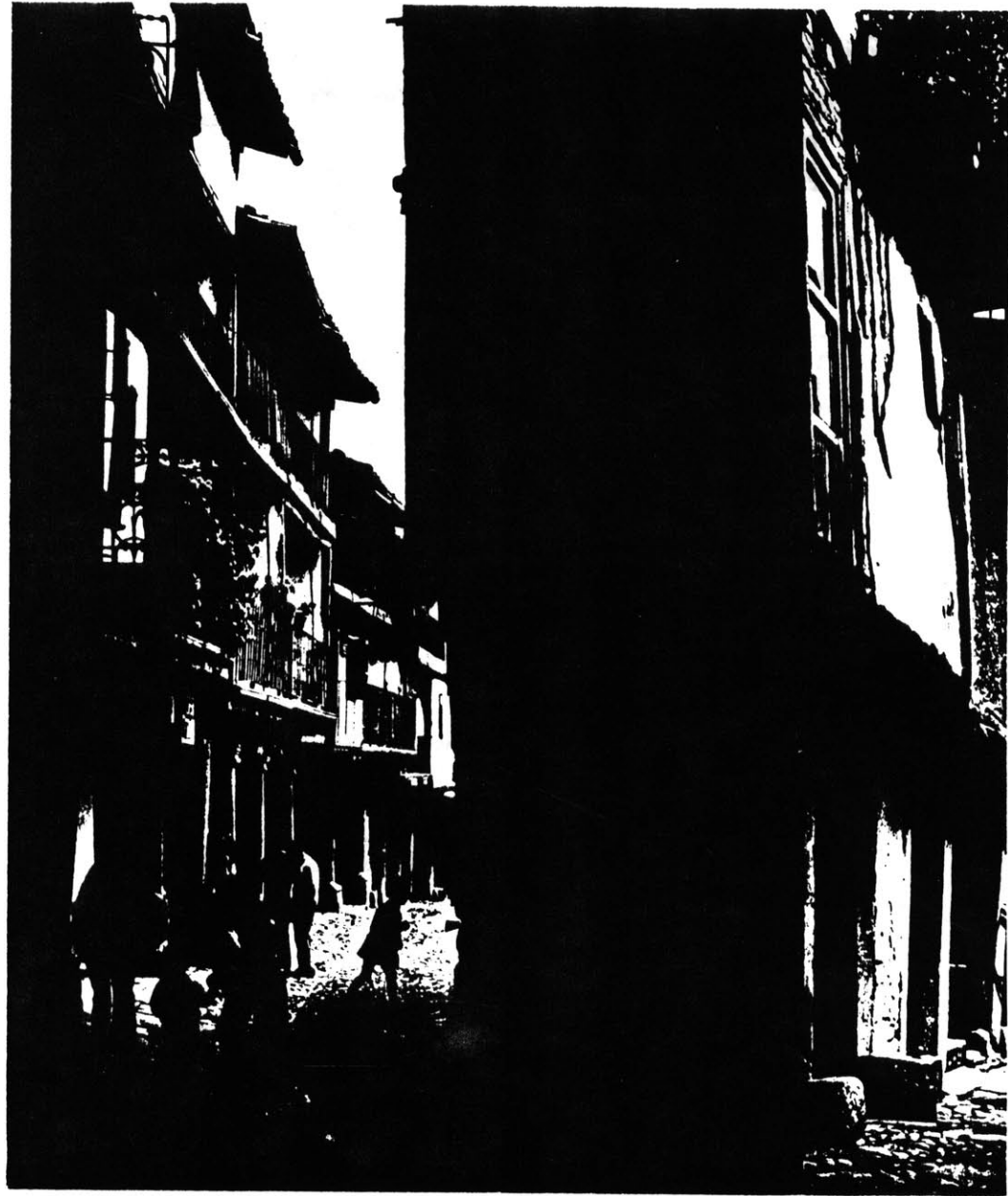


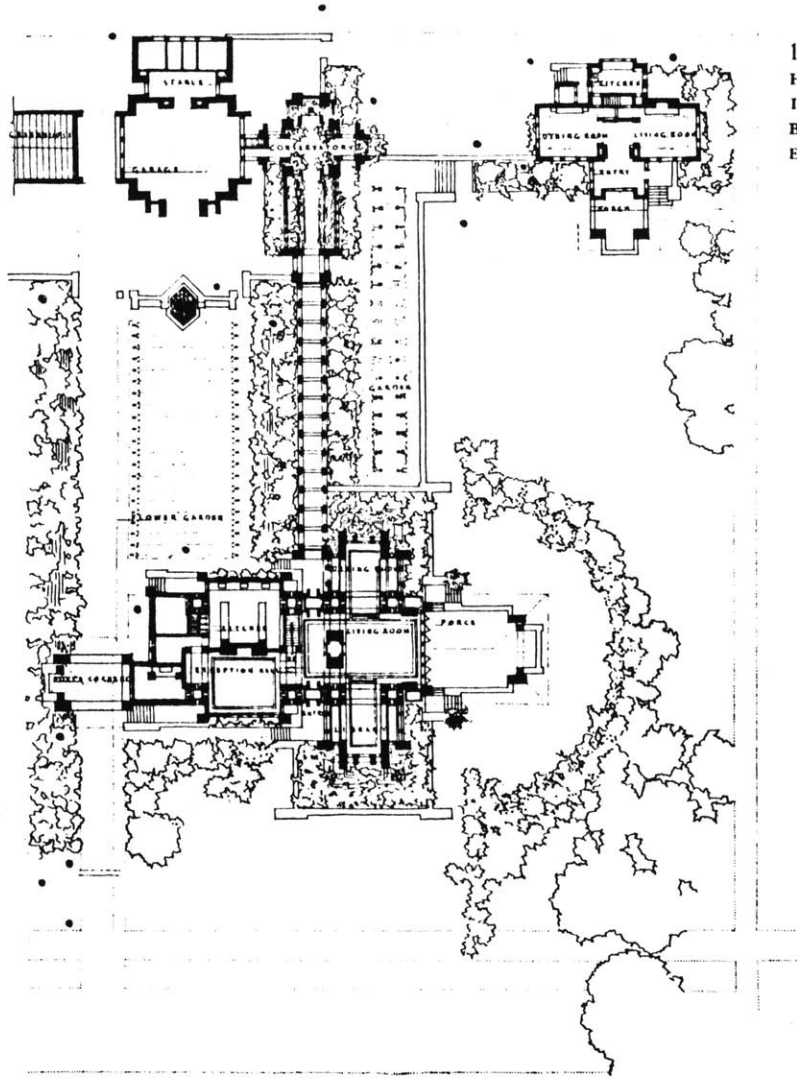
the access here is defined
as the slack between the
cylindrical rooms.

The first two methods are used where the access remains relatively separate from the territories on either side and essentially acts as service. The third method is most useful when there is desired contact and exchange between the access and the use.



the columns define both the access and/or additional territory to be claimed by the building





100. DARWIN D. MARTIN
HOUSE AND ADJUNCTS,
125 JEWETT PKWAY,
BUFFALO, N. Y. 1904.
ESTATE PLAN.



*in these cases the access
is defined by columns or
walls directly.*

An Informed Beginning

- *assimilation*
- *on "joining" systems*
- *what is not here...*
- *conclusions*

Assimilation

The second part in this process has two facets

1) editing

-the ability to evaluate
criticize
each project in terms of
their strengths
weaknesses.

2) assemblage

-the usage of the strong
characteristics of each
design in conjunction with
one another.

This is not a collision or
super-imposition of the
various design projections.

"Assemblage" means the
joining, arranging or adding
of different pieces
systems. Each

projection is made of a
distinct system or set of
pieces that can continue or
not. Therefore, in whole or
part, the system can be used
independent of other
influences.



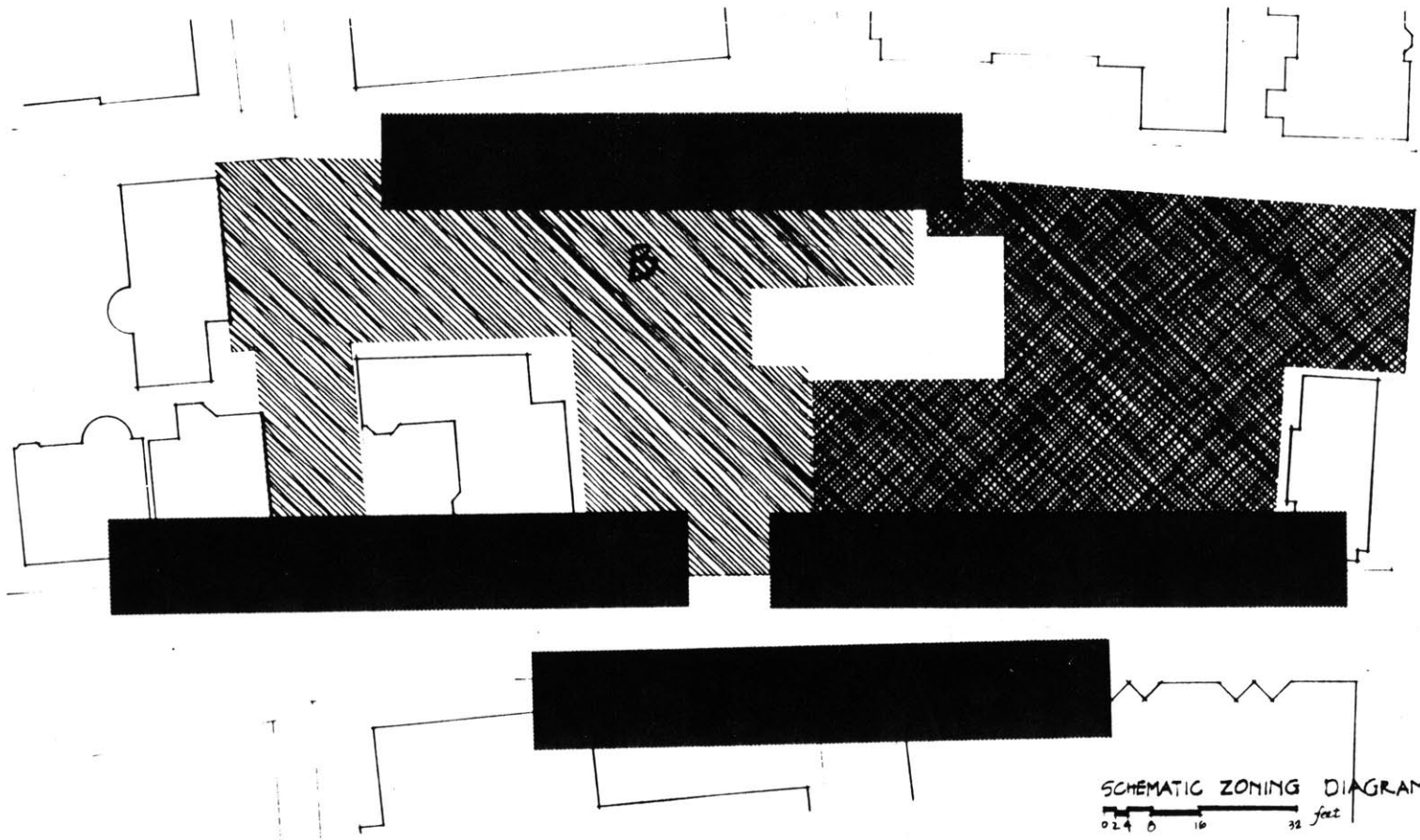


Schematic Zoning Diagram

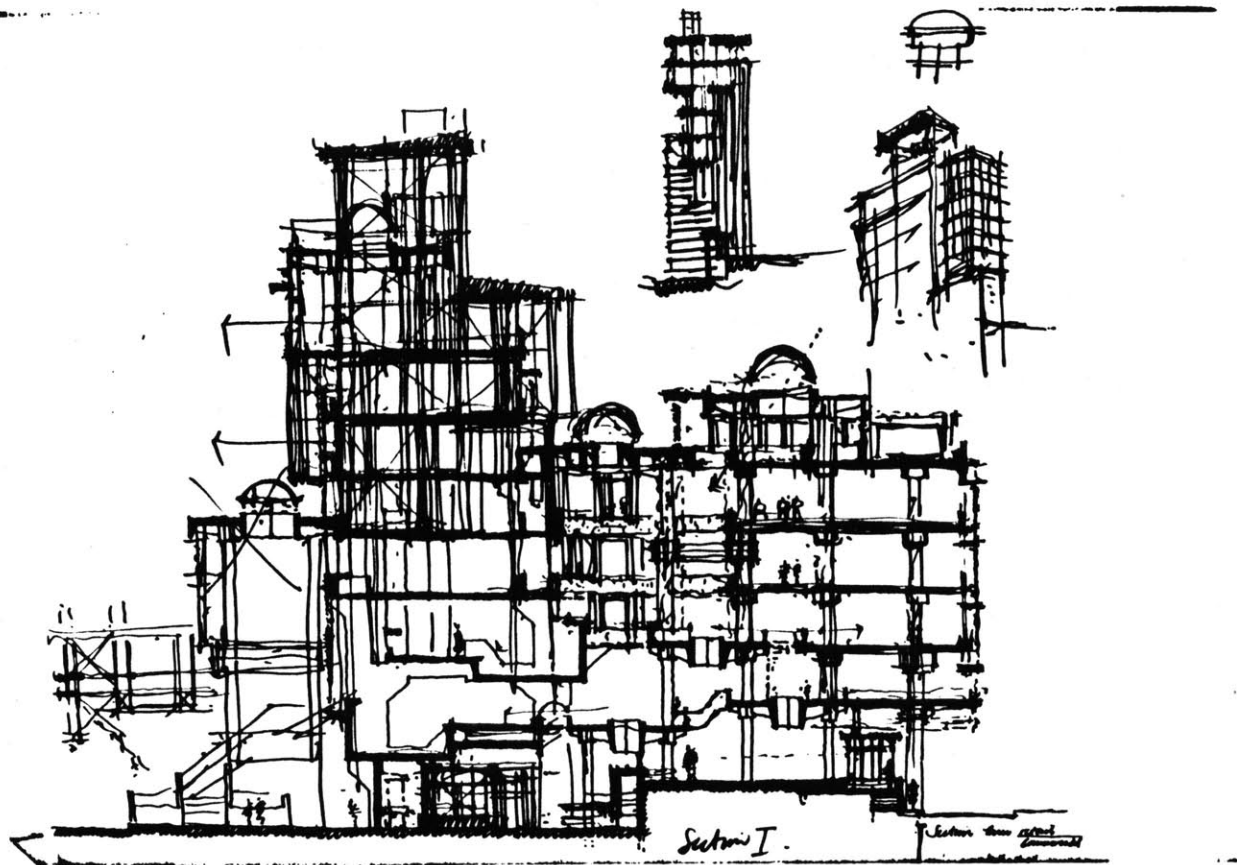
This diagram shows a possible assemblage of the three schemes.

Scheme A) the strength of this scheme was its location nearest the Cambridge public edges, Boylston Street but as it neared Mt. Auburn Street the Harvard student housing on Mt. Auburn the transition to that use and relationship to that section of Mt. Auburn Street became ambiguous.

Scheme B) the strength of this scheme was in its location near the other forms of student housing and activity. Therefore, the Winthrop Street edge of the site was most suitable. However, as it neared the most public edges its relationship with the street seemed brutal. The only housing core that does make it to Mt. Auburn does not enter directly off of the street.



Scheme C) The kind of intensity of street zone design used in this scheme is most appropriate for the retail/commercial zone of this project. Therefore, the most definition is on Mt. Auburn in relation to the "Cambridge public" movement.



Site Diagram of Final
Projection

These diagrams illustrate the schematic zoning diagram. The same symbols are used here as in the previous three schemes and can be traced back to these projections.

And Dimensional Diagram of
Final Projection

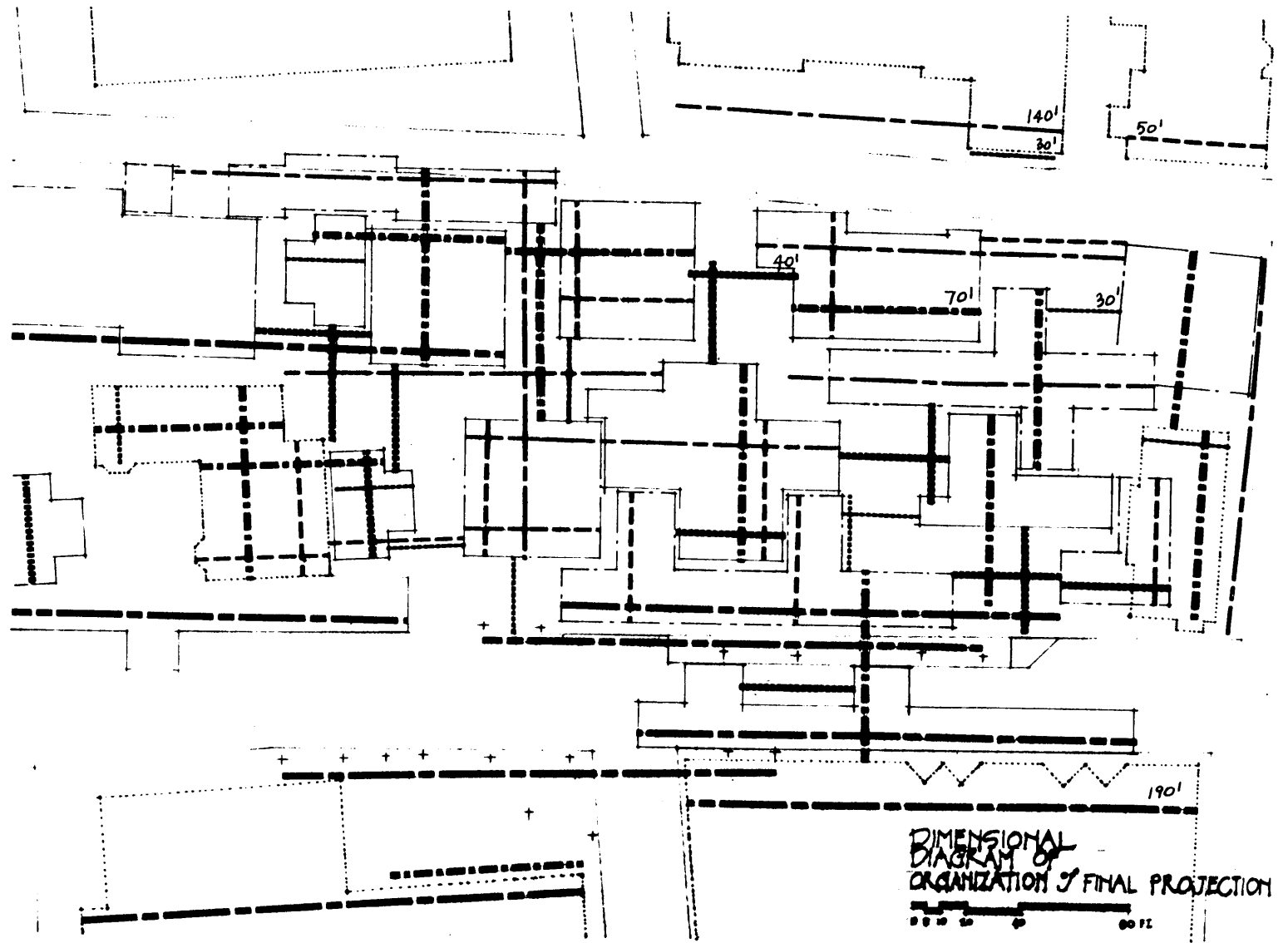
The dimensional diagram not only reiterates the the previous three schemes it also shows the dimensional consistencies among them.

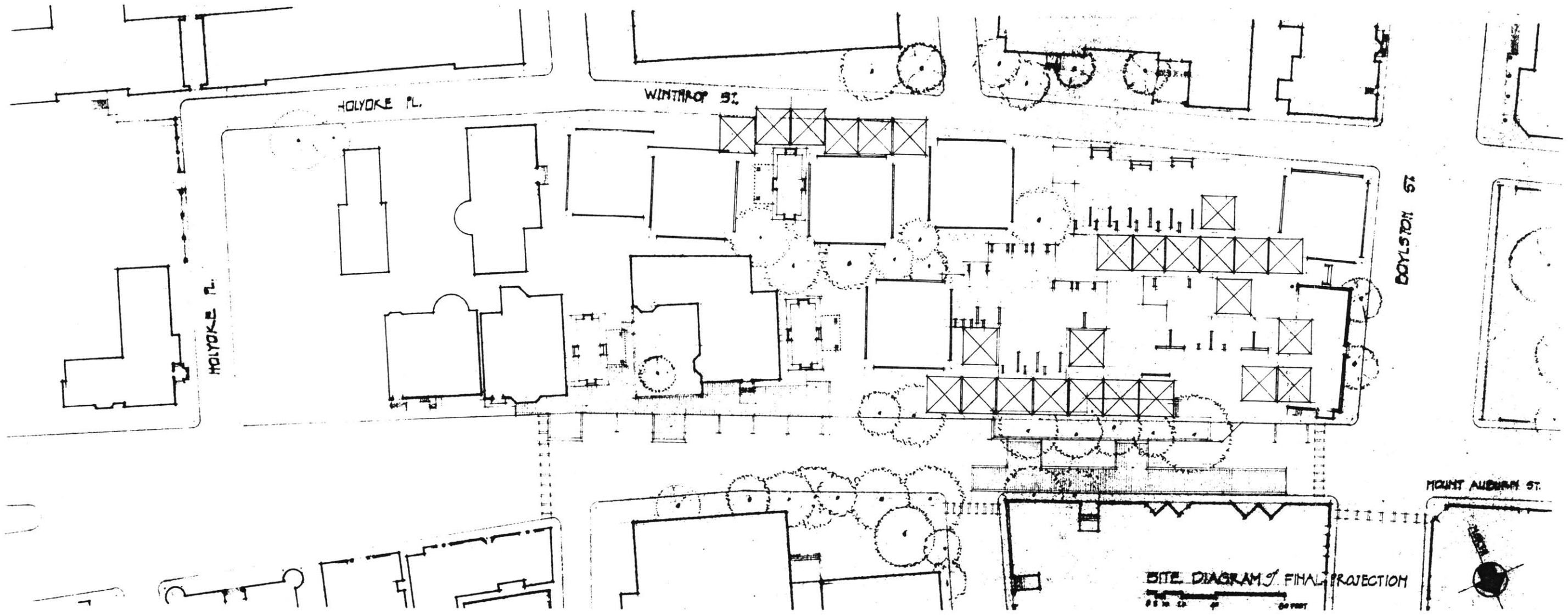
Plans

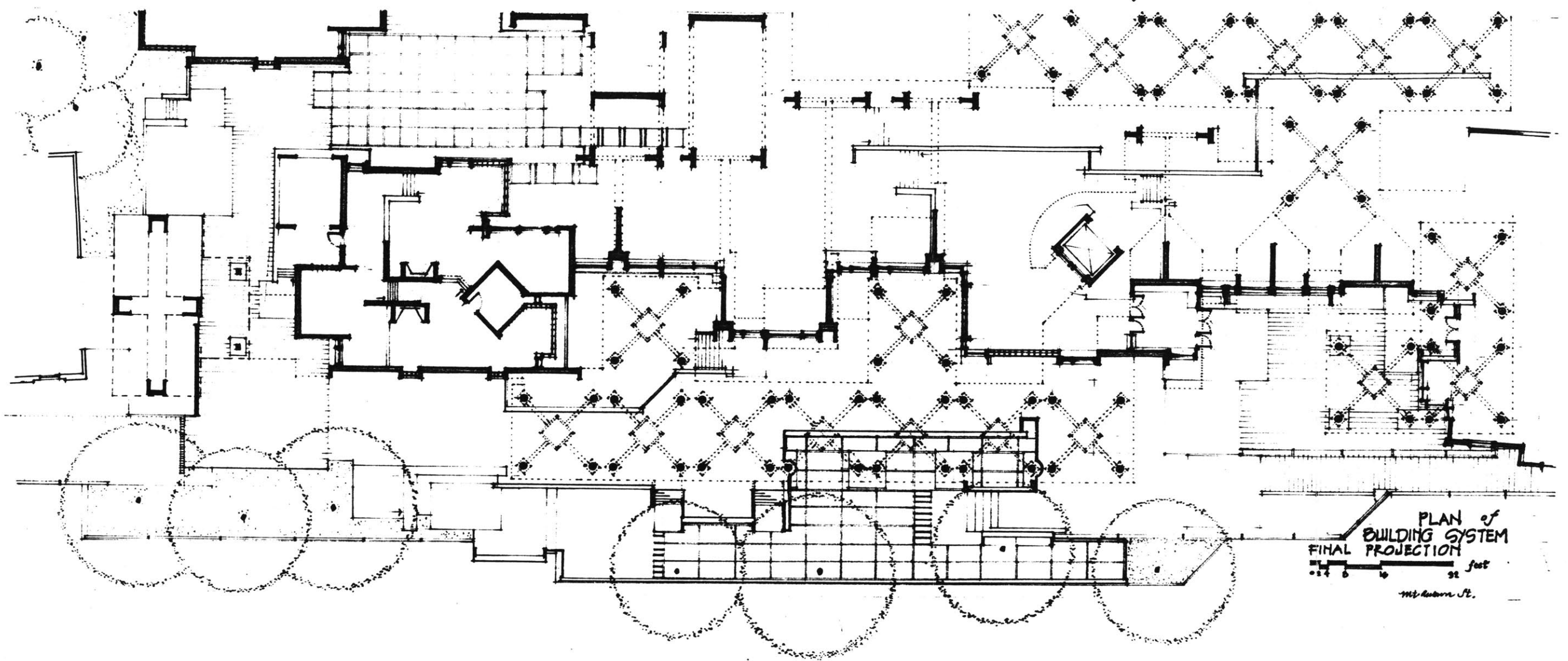
Building System Diagrams Section

Elevation

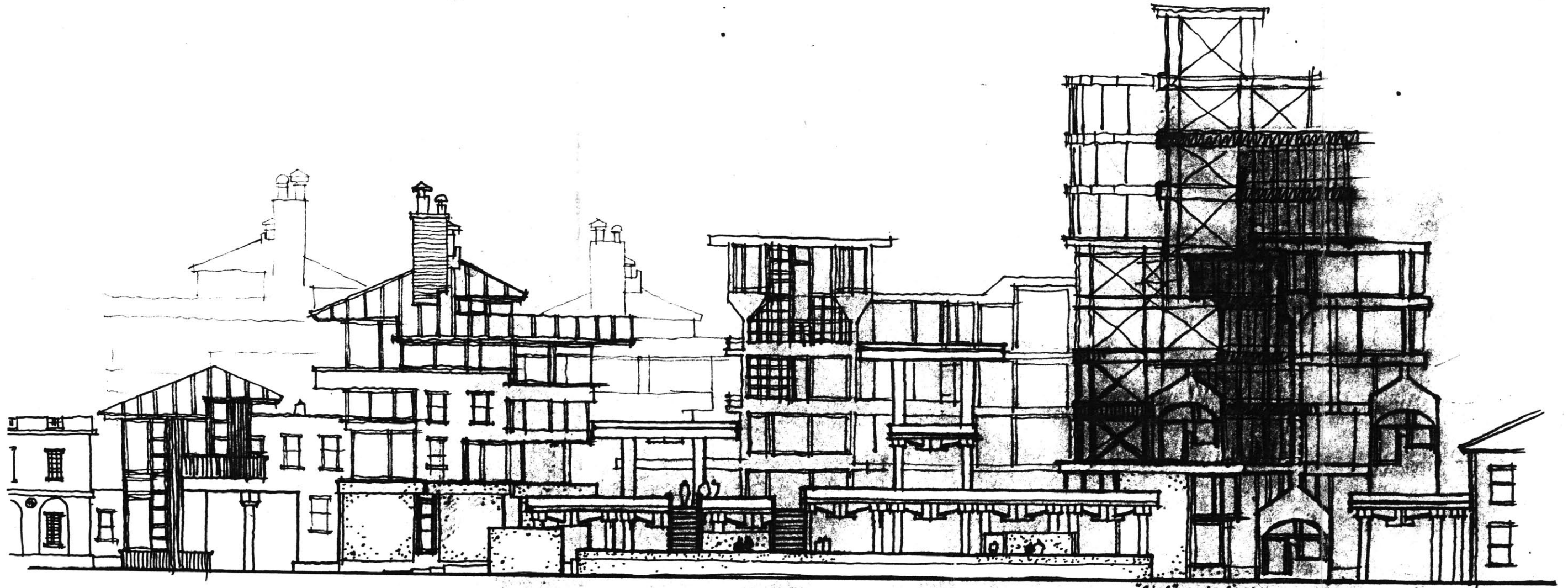
These diagrams show, in more detail, the joining of the three schemes. The first three levels of the sections and elevations is the only zone that has been worked out by this method.







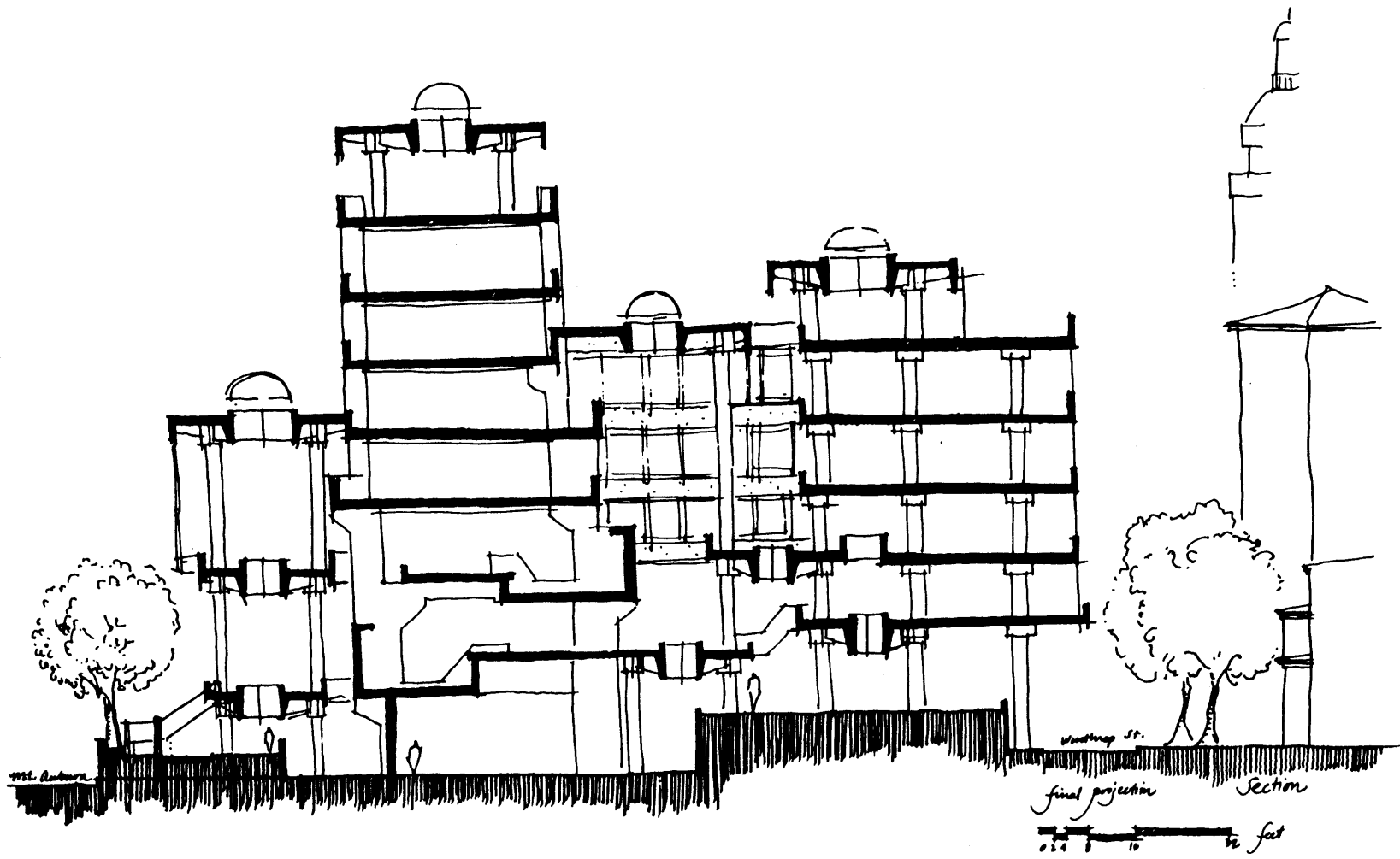
PLAN of
BUILDING SYSTEM
FINAL PROJECTION
0 4 8 12 16 20 24 28 32 feet
M. L. L. S.

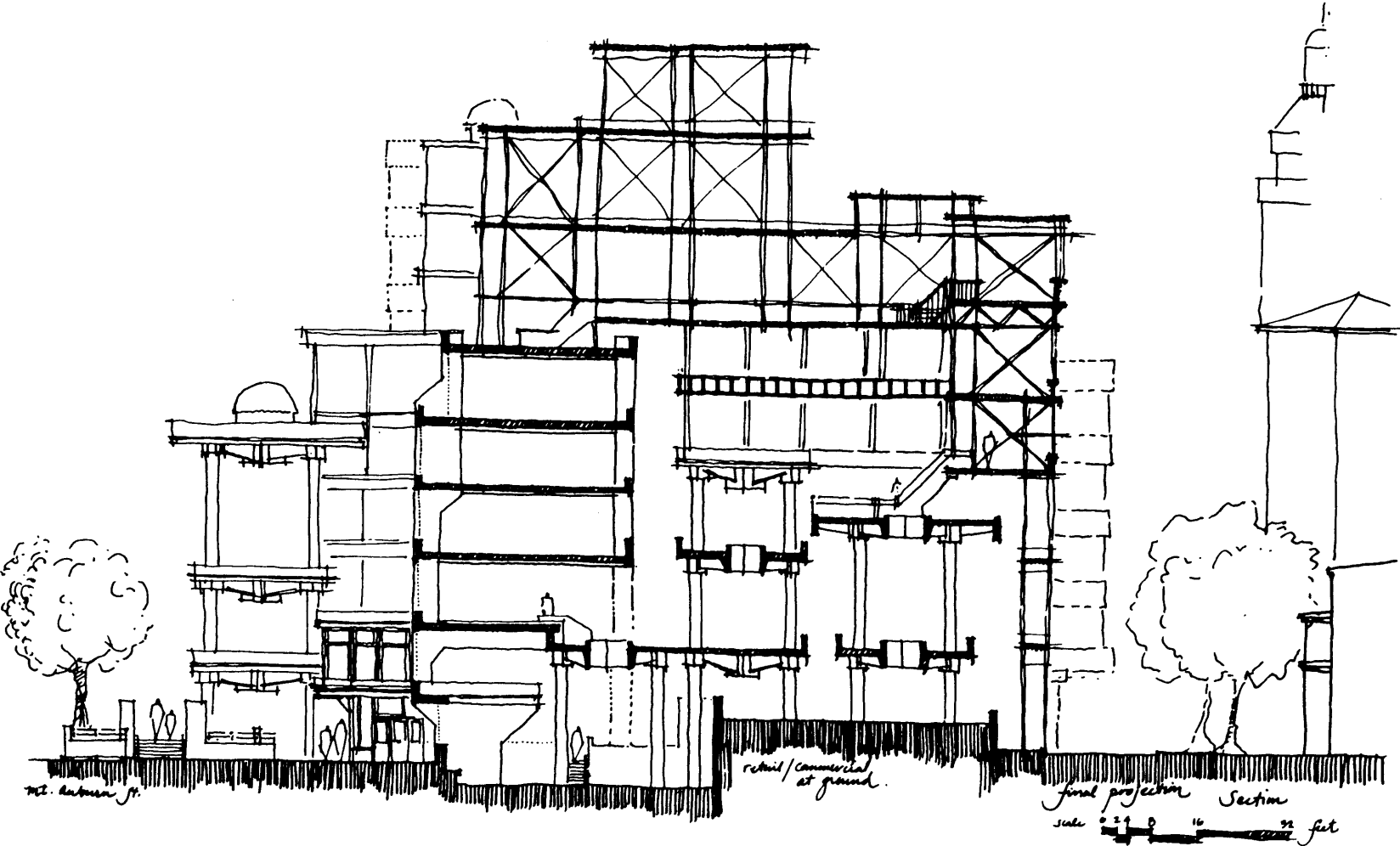


first projection

141 Auburn Street
Elevation Study.





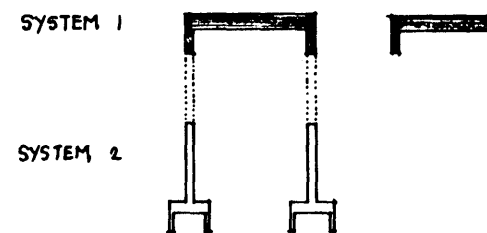


On "Joining" Systems

There are three methods of joining systems:

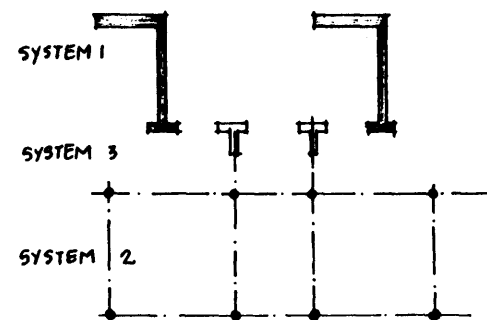
1) direct contact

-that is, where there is no space between systems, one simply becomes the second either through juxtaposition or dimensional compatibility.



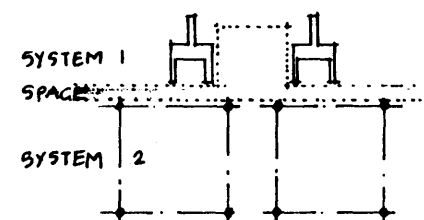
2) direct transformation

-where a separate third system is designed (with attributes of the others) to intermedate between the two systems.

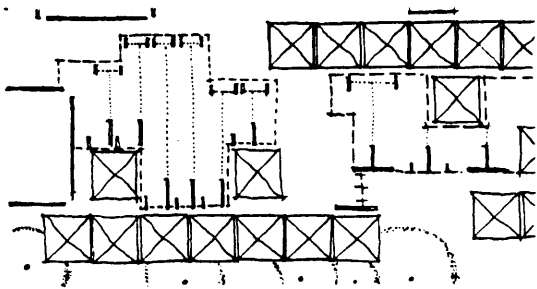


3) spatial assemblage

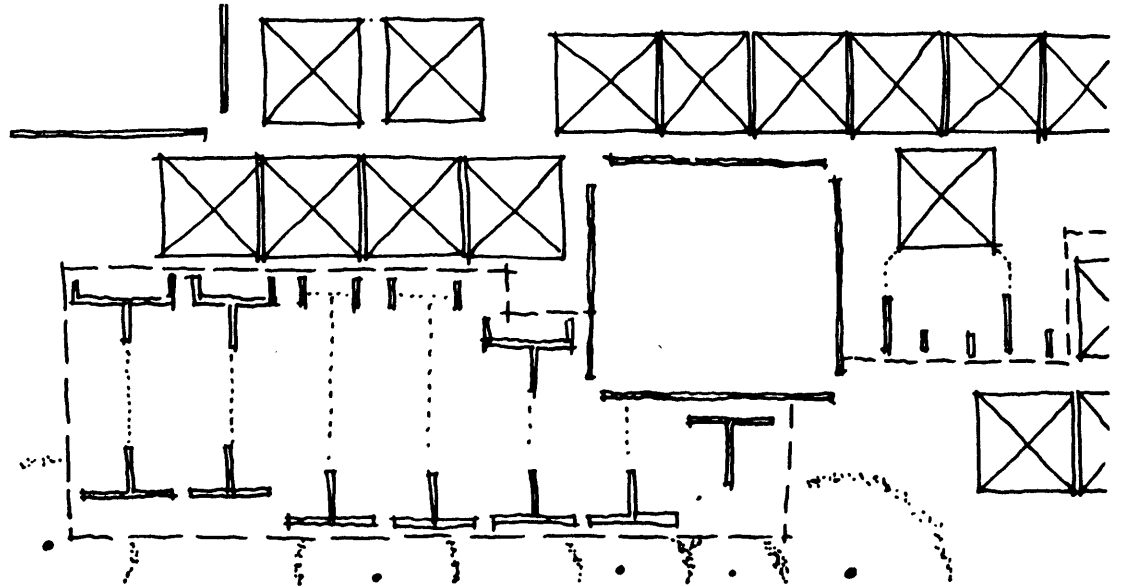
-where the two systems do not come in direct contact with one another. Instead there is some space between that is $\frac{\text{shared}}{\text{claimed}}$ by both systems.



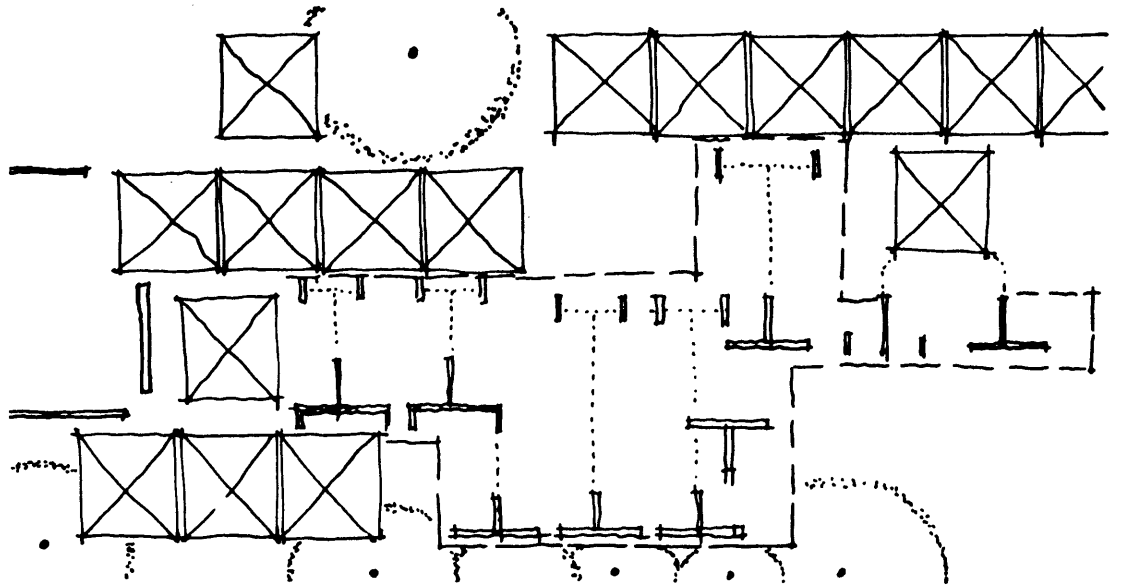
The method of conjugation used most frequently in this projection is that of direct contact. The systems (as stated earlier) are compatible because they share the same roots. In addition, the resulting projection scheme could be quite different if it only relied on the influence of the building system and not the context or use.

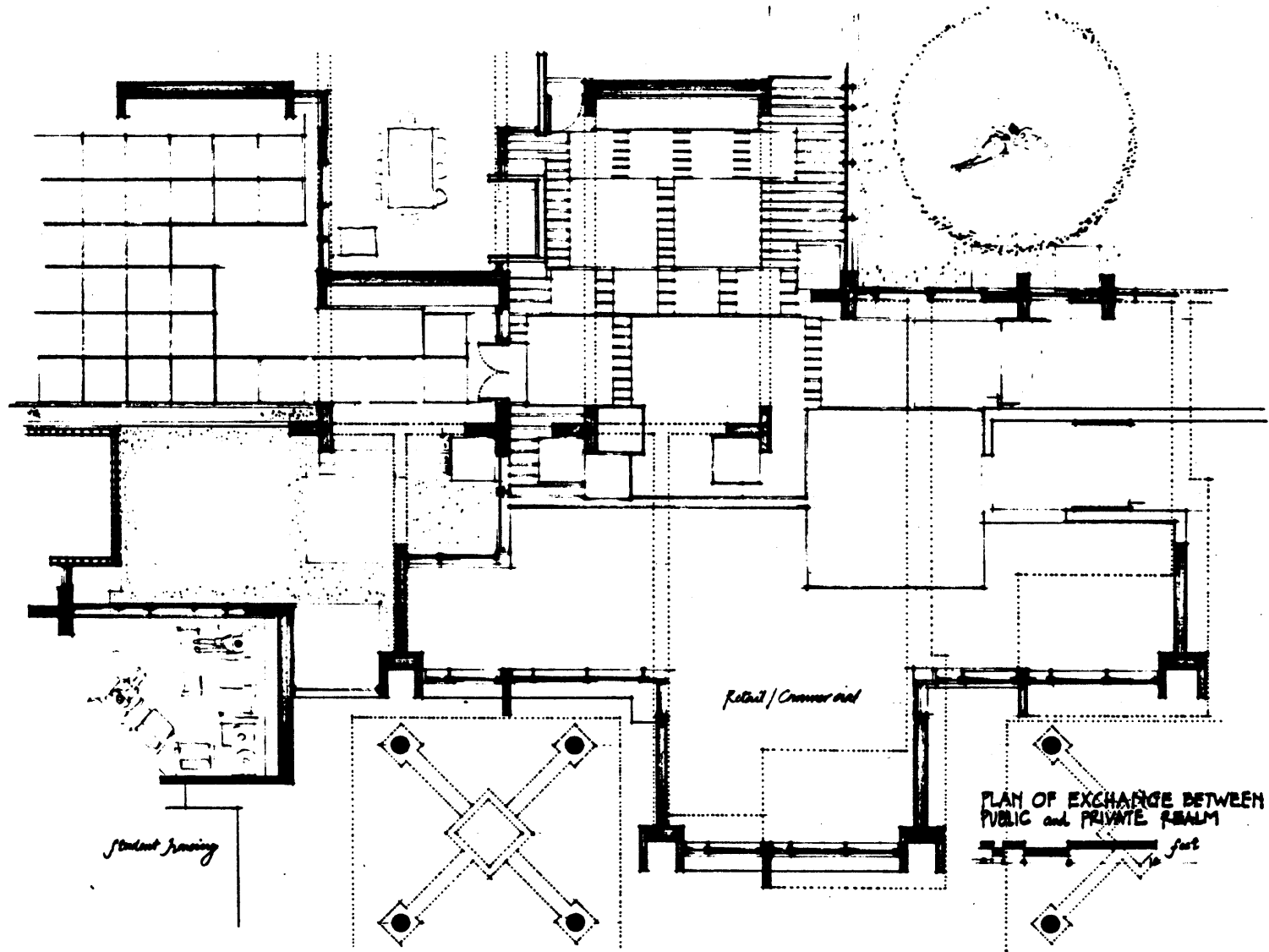


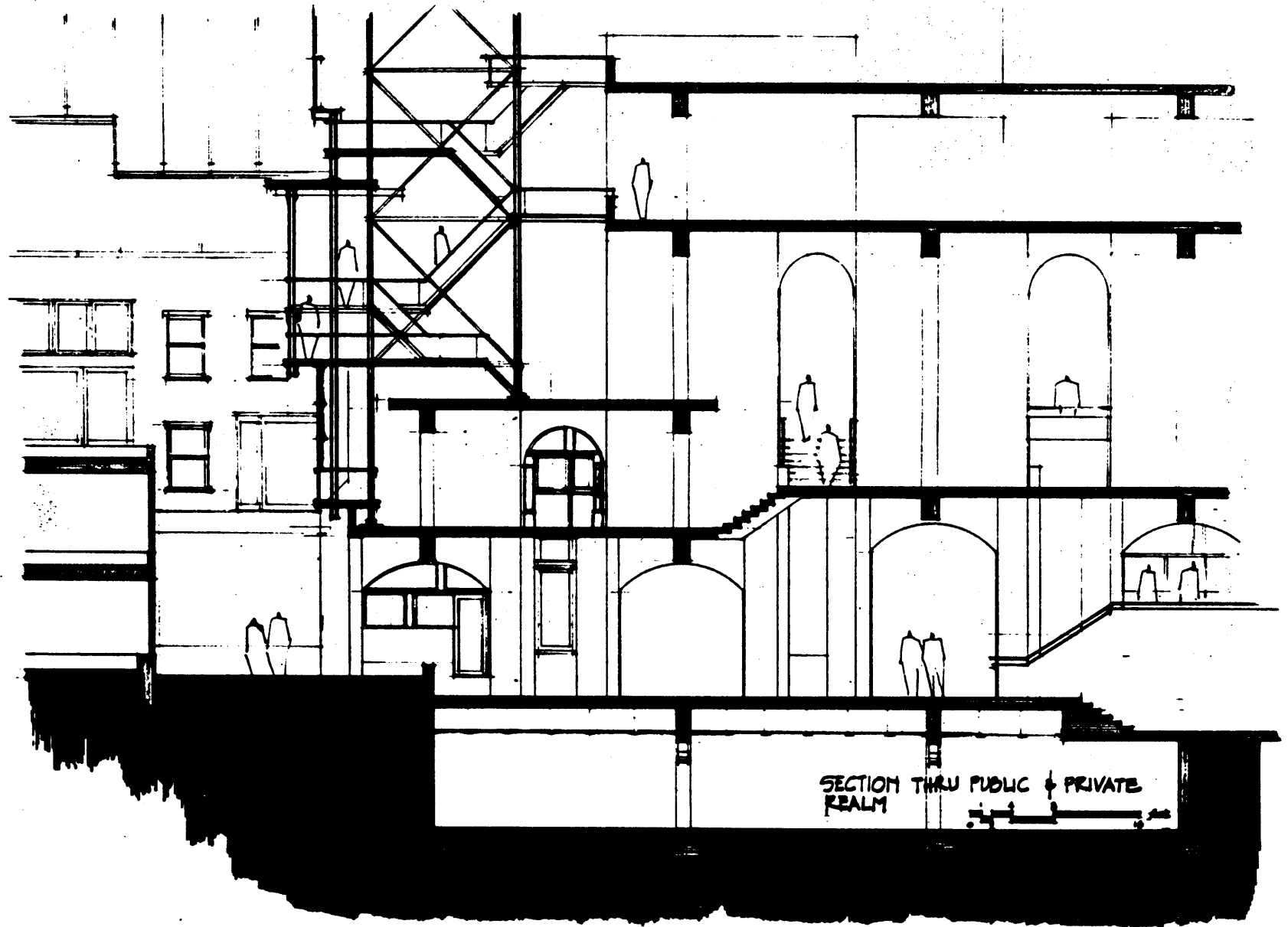
original diagram



possibilities







SECTION THRU PUBLIC & PRIVATE
REALM

What Is Not Here

The result of this investigation is information about making the public designing access zone in a project. What it is not is a building. While the issue of movement through a building drives many other aspects of the design, in general it only touches upon them in a tangential way. There are many more issues which should be advocated in the building design so they may be seen in their own light as well.

1) landscape

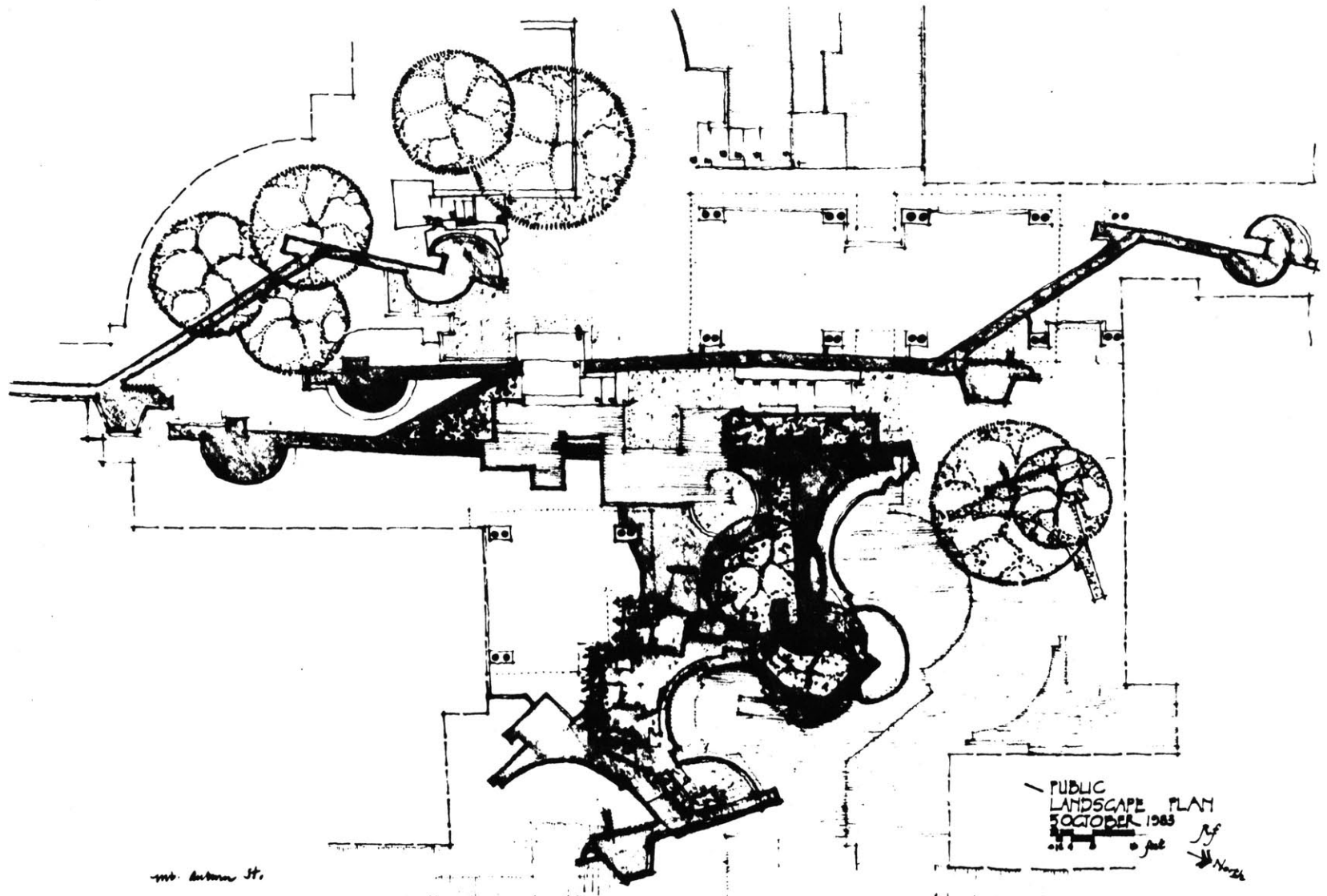
-both interior and exterior. To be developed as if it were the most important issue in the site development.

2) vertical access
highrise development

-as a possible formal result to the higher density of the development. Some aspects of this could be used in the the final building.

3) alternate access
systems

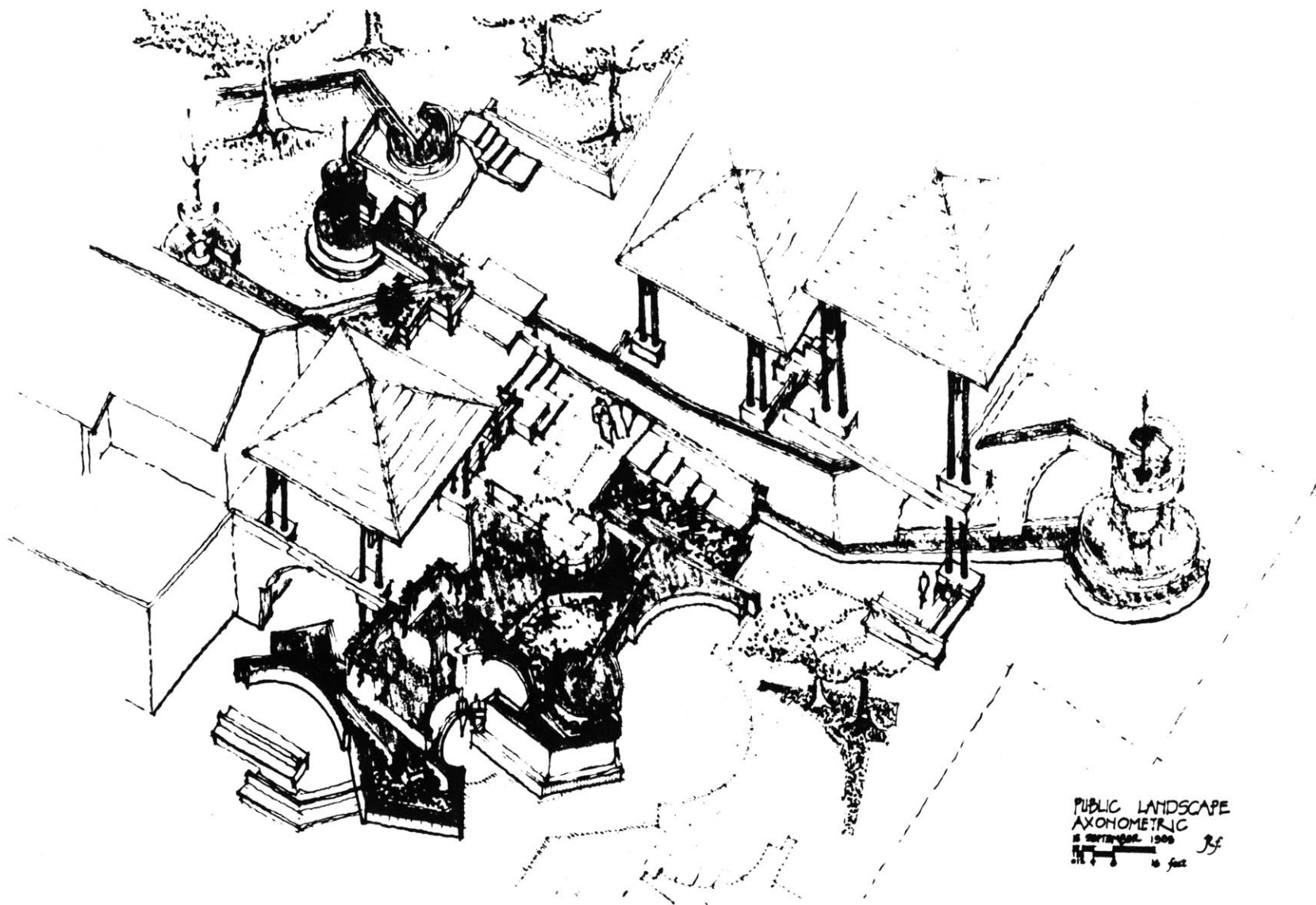
-how adaptable is the building to the reception of horizontal access at a raised level?
How will it change the building?



mt. Auburn St.

PUBLIC LANDSCAPE PLAN
OCTOBER 1983

Jf
North



Conclusion

This thesis has been an illustration of a working method. No buildings have been designed, although any scheme could be taken to completion. What's more, the true value of this exploration lies in the development of an attitude toward working with

various facts
constraints.

Implicit in this process is the analysis and evaluation of the context site.

Initially, the game was to pick one aspect of the project and push that as far as one could.

-to find its strengths and weaknesses

Then, three such investigations were added together.

-Coincidentally, each one was strong where the others were less so.

However, a major benefit of this exploration
method

was to develop dissimilar systems; each one intensifying the characteristics of the other.

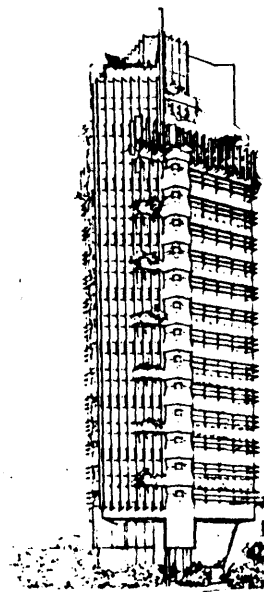
Therefore, one would work at more than one or two aspects of the design at a time.

- light could not be seen without shadow
- public open space would not read without closed, contained privacies.

In this project the programmatic difference between the needs of retail development and those of housing promoted a major difference within the design

- the development of a flexible building system that did allow some options but not all possibilities
- the development of privacies that had some aspects of the other systems but were extremely closed and contained few options.

This difference begins to promote a clear understanding of whether one is in a public or private territory.



Architecture—planning in general—breathes with great difficulty today. The breathing image epitomizes my conception of twin phenomena—we cannot breathe one way—either in or out. I am concerned with twin phenomena, with unity and diversity, part and whole, small and large, many and few, simplicity and complexity, change and constancy, order and chaos, individual and collective; with why they too are ignobly halved and the halves hollowed out; why they are withheld from opening the windows of the mind! As soon as they materialize into house or city their emptiness materializes into cruelty, for in such places everything is always too large and too small, too few and too many, too far and too near, too much and too little the same, too much and too little different. There is no question of right-size (by right-size I mean the right effect of size) and hence no question of human scale.

What has right-size is at the same time both large and small, few and many, near and far, simple and complex, open and closed; will furthermore always be both part and whole and embrace both unity and diversity. No, as conflicting polarities or false alternatives these abstract antonyms all carry the same evil: loss of identity and its attribute, monotony. Right-size will flower as soon as the mild gears of reciprocity start working—in the climate of relativity; in the landscape of all twin phenomena.

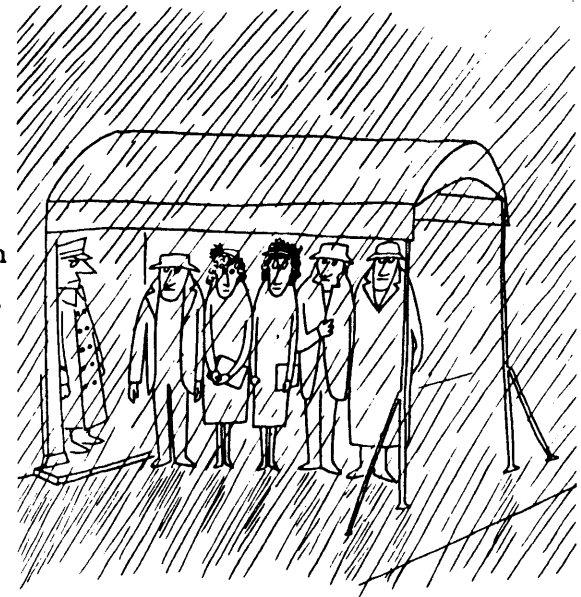
Van Eyck, 1959

from
TEAM X PRIMER p.5

-the point is all of these
places
distinct forms should have
uses
different characteristics
so they can be understood
as different.

-to be sure

-it is not clear how accurate
a sense of the environment
the average consumer has
-one does not know how much
form information needs to be
present to advise the user on
what to do, where to go, etc.



The poor man's portico.
Drawing by Saul Steinberg, 1947.
(Courtesy, The New Yorker)

The question remains,

"can there be too much?"

(too much information
-change
differences)

If, for instance, there was
no signage in public
buildings.....

...how much of the organization
would be understandable to
the user?

(How it would be
understandable
leads back to the issue
of access.)

-This paper is not against
signs.

-It is for a clearer under-
standing of the built
environment.

Perhaps one that is designed
with a more optional
variable method.



List of Illustrations

(all photographs are by the author unless otherwise noted)

page

- 10 Yosemite Falls, Yosemite National Park, California, by William Henry Jackson, from American Photographers and the National Parks, p. 11.
- 11 A unknown
- B Harvard Square, Cambridge, Mass.
- 12 Musik Centrum, Utrecht, Holland, Herman Hertzberger, architect.
- 13 Mikonos, Greece, from Global Architecture, Villages and Towns, # 1, Aegan Sea, p. 61.
- 14 Harvard Square, Cambridge, Mass.
- 16 Ibid.
- 18 Musik Centrum, Utrecht, Holland, Herman Hertzberger, architect.
- 20 Cartoon by Saul Steinberg from Streets for People, p. 157.
- 21 Murano, Italy.
- 25 A Newbury Street, Boston, Mass.
- 25 B Home for unwed mothers, Amsterdam, Holland, Aldo Van Eyke, architect.
- 34 The Garage, Harvard Square, Cambridge, Mass.
- 41 Butler Square, Minneapolis, Minnesota, Arvid Elness Arch. Inc.
- 48 Harvard Yard, Harvard University, Cambridge, Mass.

- 50 Burano, Italy
- 56 A Ciudad Knossos, Santiago, Chile, drawing by Fernando Domeyko from his analysis of Santiago, Chile.
- B Harvard Square, Cambridge, Mass.
- 57 Mikonos, Greece from Global Architecture, Villages and Towns, # 1, Aegan Sea, p. 63.
- 58 Glasgow School of Art, Glasgow, Scotland, Charles Rennie MacIntosh, architect.
- 61 A Bridge to Galleria Stampalia, Venice, Italy, Carlo Scarpa, architect.
- B Drawing of paving by Alvar Aalto from Sketches, p. 117.
- 64 Edinburgh, Scotland, street entry.
- 70 Ibid.
- 78 Drawing of Combarro, Spain by Maurice Smith, Thomas Hille, Andrés Mignucci.
- 83 Flat Aan de Singel, Amsterdam, Holland, Albert Cahen, architect.
- 84 Home for unwed mothers, Amsterdam, Holland, Aldo van Eyke, architect.
- 86 Plan of Primary School, Darmstadt, Germany, Hans Scharoun, architect, from Scharoun - A Monograph, p. 15.
- 87 Plan of Casa Andreis, Scandriglia, Italy, Paolo Portoghesi, architect, from On the Search for Lost Architecture, p. 118.

- 88 A Aibar, Spain, from Streets for People, p. 100.
- B La Alberca, Spain, from Global Architecture, Villages and Towns, # 1, Iberian Towns, p. 86.
- 89 A Plan of Darwin D. Martin House, Buffalo, New York, Frank Lloyd Wright, architect, from In the Nature of Materials, # 100.
- B Perugia, Italy, from Streets for People, p. 193.
- 92 Drawing of the Rebuilding of New York City, from Streets for People, p. 40.
- 111 Drawing of Price Tower, Bartlesville, Oklahoma, from Frank Lloyd Wright Three Quarters of a Century of Drawings, # 209.
- 112 Cartoon by Saul Steinberg from Streets for People, p. 82.
- 113 Clarence Schmidt Residence, from Clarence Schmidt, p. 49.

Bibliography

Books

American Photographers and the National Parks, Robert Cahn, Robert Glenn Ketchum, The Viking Press, New York, 1981.

Iberian Villages, Norman Carver, Dobbs Ferreri, New York, 1981.

Italian Hilltowns, Norman Carver, Documan Press, Michigan, 1980.

Architettura Moderna in Olanda (1900-1940), Giovanni Fanelli, Monte Oriolo, 1978.

In the Nature of Materials, Henry Russell Hitchcock, Hawthorne Books, 1942.

Frank Lloyd Wright Three Quarters of a Century of Drawings, Alberto Izzo, Camillo Gubitosi, Horizon Press, 1981.

Scharoun - A Monograph, Peter Blundell Jones, G. Fraser, London, 1978.

Clarence Schmidt, William Lipke, Greg Blasdell, Robert Hull Fleming Museum, University of Vermont, 1975.

Streets for People, Bernard Rudofsky, Van Nostrand Reinhold, New York, 1982.

Genius Loci, Christian Norberg-Schultz, Rizzoli, New York, 1979.

On the Search for Lost Architecture, Christian Norberg-Schultz, Officina Edizioni, Roma, 1975.

Sketches - Alvar Aalto, edited by Goran Schildt, M.I.T. Press, Cambridge, Mass., 1978.

Introduction to Architecture, James C. Snyder & Anthony Catanese, McGraw Hill, New York, 1979.

By Their Own Design, Abby Suckle, Editor, Watson Guptill Publishers, 1980.

Modern Dutch Buildings, F.R. Yerbury, Schribner Publishers, New York, 1931.

Theses

Explorations of Collective Form, Thomas Chastain, M.Arch. 1981.

People's Places, Renee Chow, M.Arch. 1980.

Architectural Journeying, Steven Imrich, M.Arch., 1979.

Periodicals

Global Architecture, Villages & Towns Series 1-10.

Global Architecture, # 51 Carlo Scarpa, Olivetti Showroon, Querini Stampalia, Castelvecchio Museum.

Spazio e Societa, # 17 & 18, M.I.T. Press.

L'Architecture D'Aujourd'hui, # 141, Herman Hertzberger, Montessori School, Delft, Holland.

Bauwelt #64, Herman Hertzberger, Insurance Building, Appeldorn, Holland.

Architect's Yearbook # 14, Shun Kanda, The Street and Hiroba of Japan.