

RETAIL/COMMERCIAL EDGES IN THE CONTEMPORARY
URBAN CONTEXT

by

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B.E.D., NORTH CAROLINA STATE UNIVERSITY, 1978

Submitted in Partial Fulfillment of the Requirements
for the Degree of
MASTER OF ARCHITECTURE

at the
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
June 1982

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MASSACHUSETTS INSTITUTE
OF TECHNOLOGY

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JUN 2 1982

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ABSTRACT

RETAIL/COMMERCIAL EDGES IN THE CONTEMPORARY URBAN CONTEXT

by Brian Charles O'Neill

Submitted to the Department of Architecture on May 14, 1982 in partial fulfillment of the requirements for the Degree of Master of Architecture.

This thesis ascertains what morphological and functional characteristics are germane to retail edges. The work is structured around and supportive of an attitude that views social interaction as a vital and necessary attribute of urban life and therefore of retail systems design and development in cities.

The edges along three major Boston retail streets, Quincy Market--North and South Market Streets, Washington Street, and Boylston Street, are studied and documented. Pattern descriptions are developed which provide a language upon which to build future urban retail edge interventions that work not only on a return-on-investment level but also towards stimulating public life. A first step towards the use of the language is illustrated via a set of design guidelines for the redevelopment of the south Boylston Street edge along the Prudential Center.

Thesis Supervisor: Tunney Lee

Title: Associate Professor of Architecture and Urban Studies

ACKNOWLEDGEMENTS

I want to dedicate this effort to Elizabeth, whose constant support has been the pillar of seven years of architectural study and practice; and to my family, who have always been so positive towards all I have sought.

Special thanks go to Professor Tunney Lee for his patient understanding, intellectual rigor and human spirit, that contributed so much to helping me give direction and organization to my thoughts.

Gracious appreciation is also extended to Professors John Habraken and Stan Anderson for their inspiration and clear thinking on so many issues I have for years struggled with.

And to my close friends and associates at M.I.T. for all their daily stimulation and encouragement, thank you.

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PART ONE

Introduction

Streets have been and are the first and last vestige of public social spaces. The marketplace, since the Greek agora and before, has continually represented and acted as the most informally active and collective places within the urban landscape. Over time, the formal definition of retail/commercial streets and spaces has evolved according to climatic, cultural, marketing and technological forces. At any instant, in any place, marketplace architecture reveals a disposition and quality that, to some hard to determine degree, affects and reflects social interaction and attraction.

This study suggests that the most important characteristic of retail edges is one of liveliness. It is not just the presence of goods for sale that interests the citizen, though the right merchandise at the right price is a most effective element in fostering commercial success. But ask people what shopping means to them, or just watch them and it is also found to be fact that they seek a mood, a place, a pageantry and a humanization in their shopping experiences.

Given then that the urban retail image is real, and given that it is one of liveliness it should pay to examine closely environments that exist as lively urban retail places. Architecture can not make people interact, but built form does influence and helps make possible social human behavior including purchasing. What is suggested is an interdependent phenomenon where architecture is asked to respond to behavioral needs and behavior responds to physical patterns. These physical patterns and their relationships are adopted and transform slowly over time. So too are the stereotyped images people hold and respond to.

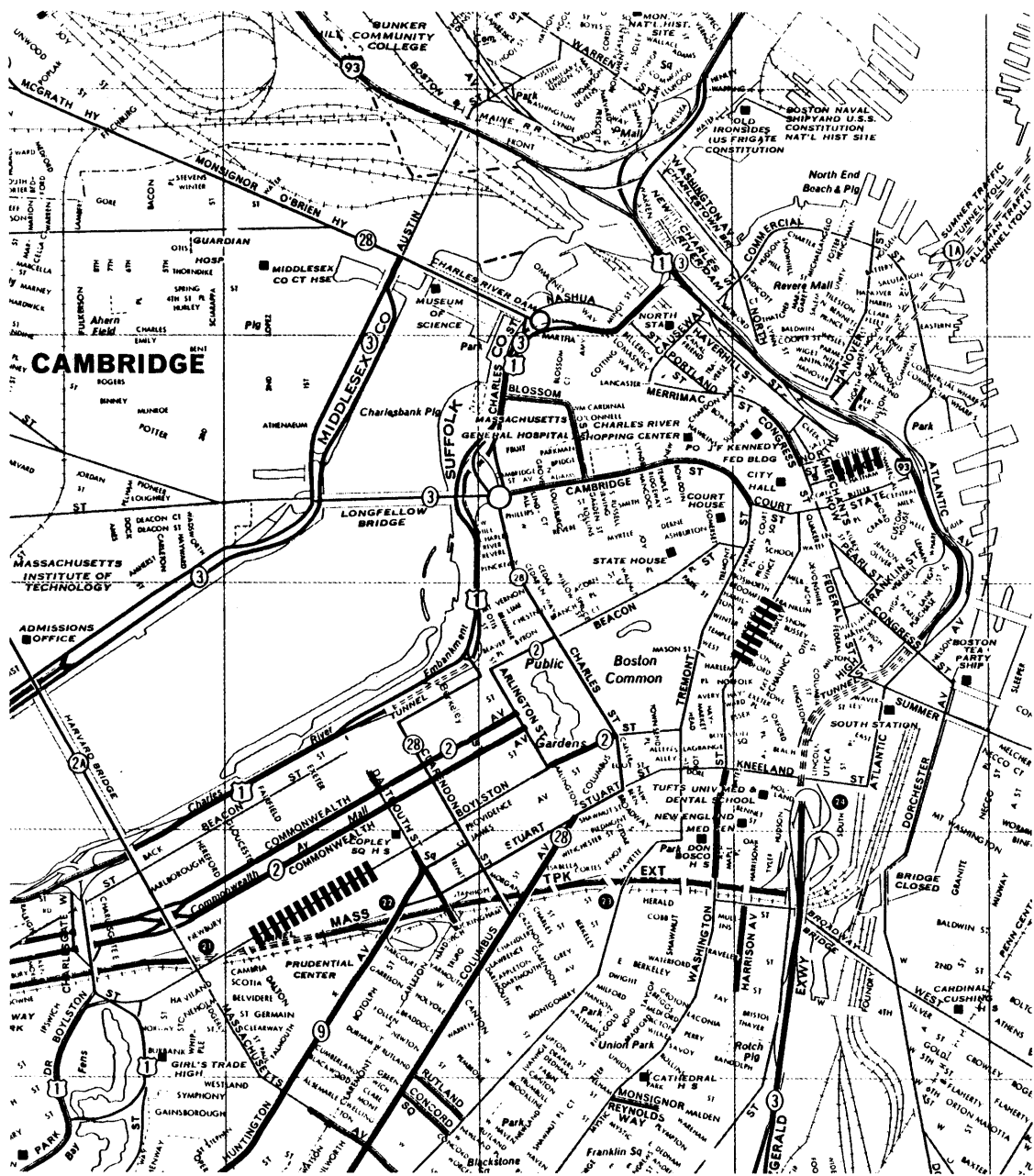


fig. 1

PART TWO

Method

Restated, this thesis maintains that retail street edge liveliness is imperative to its own maximum legibility, as well as to public response and activity. The logical next step, then, is to identify and structure exactly what relationships and patterns play a role in the urban retail edge image. The purpose and end aim is to distinguish for specialists a workable vocabulary and method for retail edge design and intervention within a specific context.

To do this, three prominent and enduring retail sites in Boston are examined. They are, in order of presentation:

- 1) Quincy Market; North and South Market Streets
- 2) Washington Street; from West Street to Bromfield Street
- 3) Boylston Street; from Hereford Street to Exeter Street

Figure 1 locates the sites under study. The three of them form a linear progression that is directional with the central Boston peninsula. They are experienced successively and imagined as such by many pedestrians. Together, these three retail street districts are

the most impressionable and legible retail edgeways alive in Boston today, save for Newbury Street that lies parallel to and one block's distance from Boylston Street. Its fabric was originally designed to be residential and, though now it is a highly successful retail area, it was not thought prudent to include such an "impure" example in this research. While each of the three sites chosen is perceived on its own terms, the analysis seeks to find:

- 1) characteristics common to all three edge districts
- 2) characteristics and variations particular to each street

Each block edge contained within each site was analyzed in terms of morphology and function. For each site the north edge is first described and then the south edge.

Introducing each block edge is a data sheet listing the following information:

Traffic Flow Counts These are functional/behavioral edge qualities indicative of the "popularity" of the edge. Counts were taken during both weekdays and weekends during similar hours of the day. Although the counts for a particular hour of the day along a street were always obtained during the same hour of the day, times for a specific time of the day usually ended up being taken on different days of the week. For example, the 1000 hour counts for all the blocks on Boylston Street might have been gathered on a Wednesday, the 1900 hour counts for these same blocks might have been taken on a Thursday. The concern here was to discern relative

traffic flows as distributed along a retail street, especially opposite sides of the street where one edge was felt to be more lively than the other. The information also gives a general comparison of activity intensities between the three sites.

Street Level Use Types Edges were observed to house varying functions: retail (A) meaning sales of durables and raw food stuffs; restaurants (B); entertainment (C) bars, theaters, museums, physical recreation facilities, etc.; office (D); bank--institutional (E); other (F). The numbers for each type of use are given, then the sequence they happen in viewing the block from left to right with the total number of street level functions at the end.

Access Access is recognized to be of two orders; physical, via entries, or, visual, per windows. The number of doors along each block edge is cited and when divided into the block length, an average door to door spacing is derived. Windows are of two types; those where the passing pedestrian can see into the shop, its merchandise, its people, its pageantry, and those where such penetration is obscured by shallow displays. While entries virtually always occur on the lower I/E zone, visual access does exist within the upper I/E zone, and hence the justification for its existence. A percentage expression is given for that area of

facade in each zone given over to a. accessible windows and b. non-accessible windows over the length of the block.

Wall Facade These parameters are self explanatory.

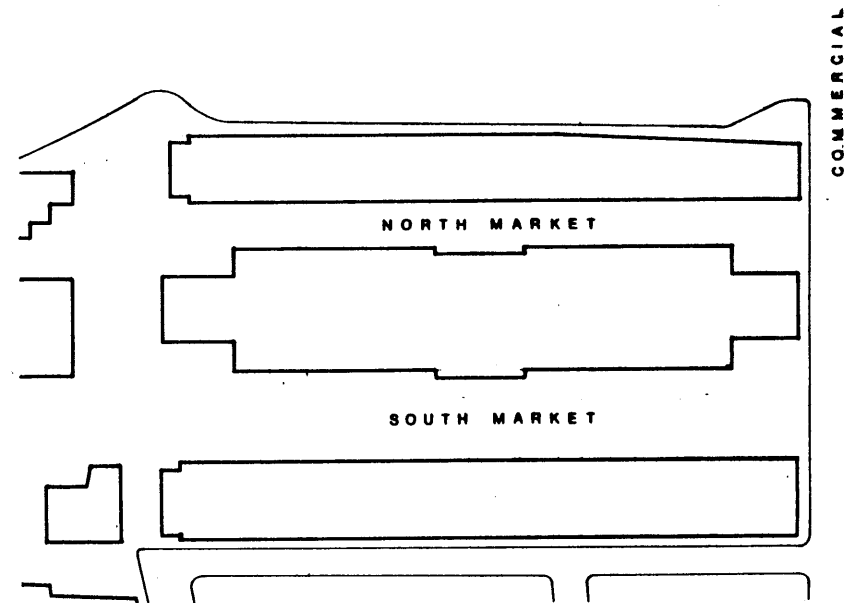
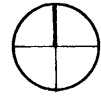
Signage This category attempts to roughly describe the character of the edge graphics.

Following the data sheet are diagrammatic sections taken through the block with a narrative description explaining the relationships. Finally, detailed elevations and edge plans describe the texture of the edges and aid in discovering pattern relationships. A "zonal" depiction of the conditions, similar to one introduced in the SAR publication entitled "The Methodical Formulation of Agreements Concerning the Direct Dwelling Environment", is applied. Storefront facades and office entries, both expressions of access, are, for the purposes of analysis, referred to and detailed in elevation as a lower zone of interaction and exchange (I/E zone). All zones are dimensioned to the right of the drawings. When the B zone of the elevations is divided into three parts, the middle section represents an intermediate I/E zone i.e. an elevated floor with a significant number of retail uses. All drawings are @ 1" = 30'.

Directly below the edge plans and above the elevations are two rows of figures. The lower ones tell the width of the individual buildings and the upper numbers list the widths of the street level shops and

office entries. These "sector" dimensions tell average distances between stores and could be valuable in designing support structures for retail inhabitation.

NORTH & SOUTH MARKET STREETS



South Edge - South Market

TRAFFIC FLOW

Hour	Weekday	Weekend
1000	269/hr	291/hr
1200	594/hr	896/hr
1500	415/hr	508/hr
1800	705/hr	696/hr

COMMENTS

STREET LEVEL USE TYPES

Retail (A)	20
Restaurant (B)	2
Entertainment (C)	0
Office (D)	3
Bank, Institutional (E)	0
Other	3, P=passage through building
Sequence/Total	28...B-A-A-A-A-D/P-A-A-P-D/P-A-A-A-A-D/P-A-A-A-A-A-A-B
	$\frac{A}{A}$ $\frac{A}{A}$ $\frac{A}{A}$ $\frac{A}{A}$

ACCESS

Average Distance Door to Door	24 feet
% Glass	a) Accessible 70%
	b) Non-accessible 30%

WALL FACADE

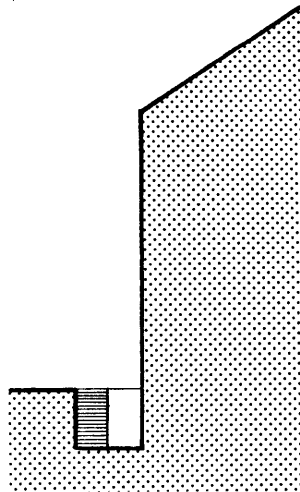
Ave. Bldg. Height	65 feet
Ave. Bldg. Width	24 feet
% of Opaque Wall	15%
Materials, Colors, Texture	smooth grey granite

SIGNAGE

Types many canopy; round bracket at office/passage entries; long rectangular at upper stories

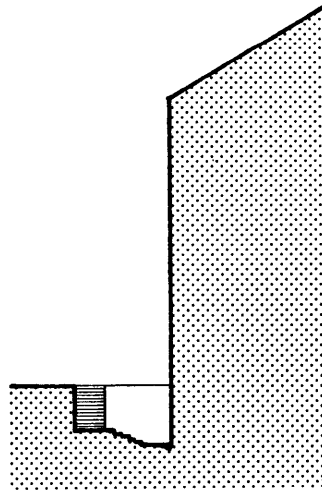
Location most at first floor canopy height

Three of the four below grade stairwells along the North Market Building have straight runs of stairs set parallel to the street. Approach is from one direction.



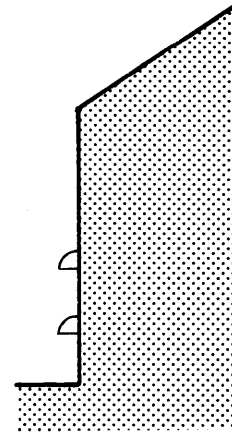
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A fourth centrally located stair along the North Market Building can be entered from either direction. Half way down, a common landing occurs where a change of direction takes place down a set of stairs set perpendicular to the building.

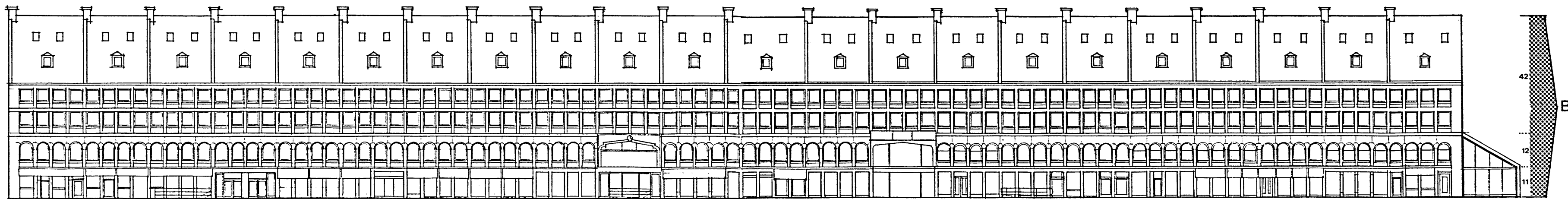
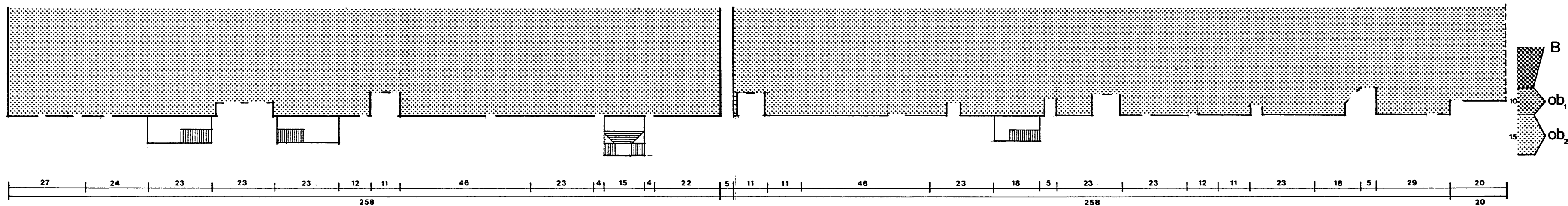


15

It is typical to use canvas canopies on both the North and South Market Buildings. Often they are "stacked" with second story shop window canopies over ground level awnings.



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North Edge - South Market

TRAFFIC FLOW

Hour	Weekday	Weekend
1000	224/hr	198/hr
1200	460/hr	680/hr
1500	377/hr	491/hr
1800	420/hr	509/hr

COMMENTS

STREET LEVEL USE TYPES

Retail (A)	7
Restaurant (B)	1
Entertainment (C)	1
Office (D)	0
Bank, Institutional (E)	0
Other	0
Sequence/Total	9...A-A-C-A-A-A-B-A-A

ACCESS

Average Distance Door to Door	53 feet
% Glass	
a) Accessible	80%
b) Non-accessible	20%

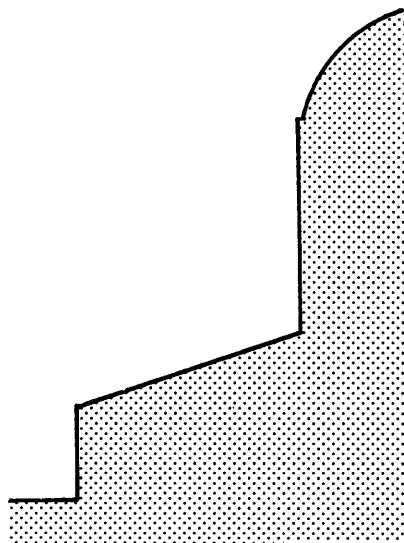
WALL FACADE

Ave. Bldg. Height	45 feet
Ave. Bldg. Width	179 feet
% of Opaque Wall	35%
Materials, Colors, Texture	light colored granite

SIGNAGE

Types	canopy and painted on glass; a couple wood plaque
Location	average about eight feet above grade

At the main entrance on the south side of the Quincy Market Building the glass and steel shed system is raised four feet taller than the adjacent shed "wings". As well, the system extends out from the central, domed rotunda six feet from the plane of the "wings". The doors sit flush with the wall.



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South Edge - North Market

TRAFFIC FLOW

Hour	Weekday	Weekend
1000	174/hr	199/hr
1200	440/hr	976/hr
1500	314/hr	450/hr
1800	420/hr	512/hr

COMMENTS

During cold months (when these numbers were taken) planters and snow along this edge prevented larger numbers of people from walking along the edge. Although glass is relatively unobstructed, merchandise and activity is oriented inwards.

STREET LEVEL USE TYPES

Retail (A)	7
Restaurant (B)	1
Entertainment (C)	1
Office (D)	0
Bank, Institutional (E)	0
Other	0
Sequence/Total	9...A-A-C-A-A-A-B-A-A

ACCESS

Average Distance Door to Door	53 feet
% Glass	a) Accessible 80%
	b) Non-accessible 20%

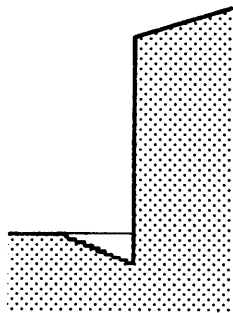
WALL FACADE

Ave. Bldg. Height	45 feet
Ave. Bldg. Width	179 feet
% of Opaque Wall	35%
Materials, Colors, Texture	light colored granite

SIGNAGE

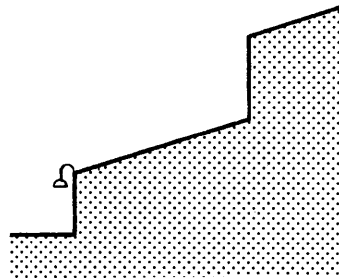
Types	canopy and painted on glass
Location	average about eight feet above grade

At both ends of the Quincy Market building, on both faces, are pairs of stairs leading to below grade retail shops. The steps continue past the door threshold.



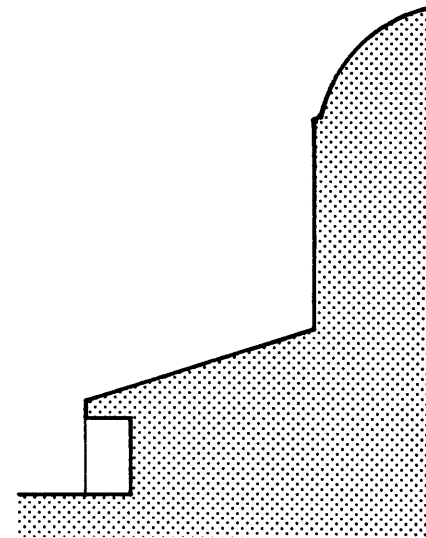
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The typical section through the glass shed along the Quincy Market Building.



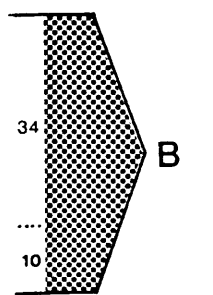
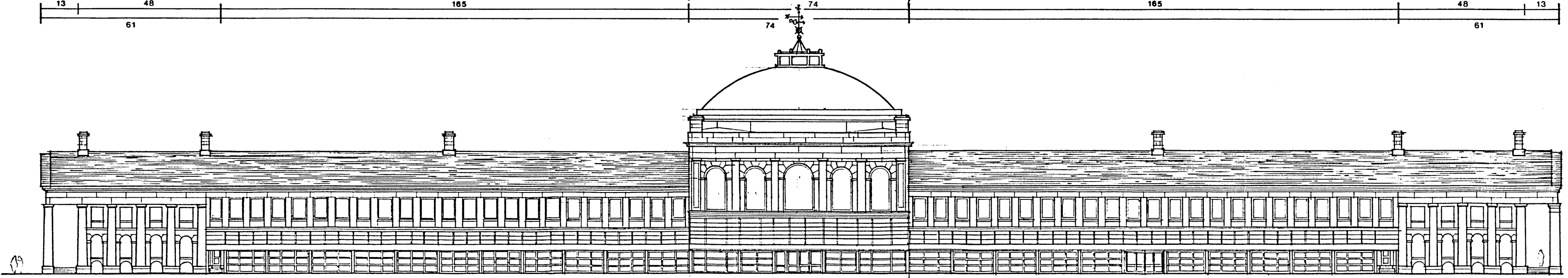
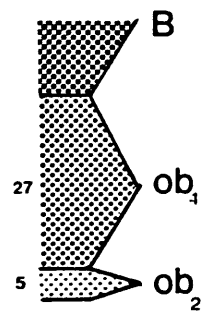
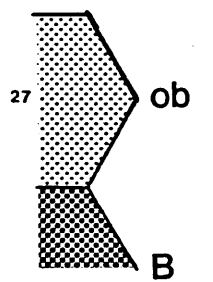
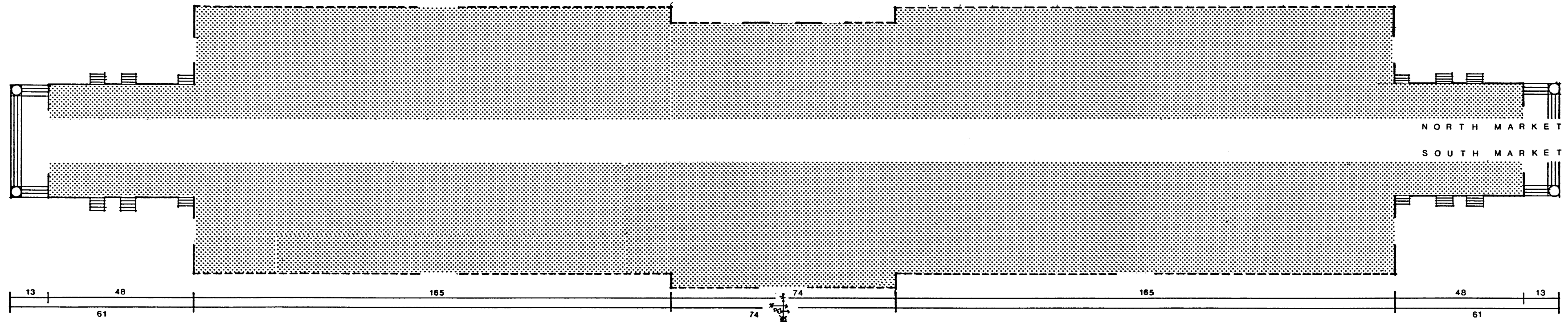
26

At the main entrance on the south side of the Quincy Market Building the glass and steel shed system is raised four feet taller than the adjacent shed "wings". As well, the system extends out from the central domed rotunda six feet more than it does from the gabled "wings". The doors are recessed six feet to be in line with the general wall plane of the shed system on either side.



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North Edge - North Market

TRAFFIC FLOW

COMMENTS

Hour	Weekday	Weekend
1000	273/hr	314/hr
1200	762/hr	1400/hr
1500	565/hr	976/hr
1800	613/hr	815/hr

STREET LEVEL USE TYPES

Retail (A)	12
Restaurant (B)	4
Entertainment (C)	2
Office (D)	0
Bank, Institutional (E)	0
Other	1, P=passage to building
Sequence/Total	19...B-B-A-A-A-A-B-B-C-A-P-A-A-A-A-A-A-A-C

ACCESS

Average Distance Door to Door	30 feet
% Glass	a) Accessible 80%
	b) Non-accessible 20%

WALL FACADE

Ave. Bldg. Height	60 feet
Ave. Bldg. Width	22 feet
% of Opaque Wall	15%
Materials, Colors, Texture	smooth, grey granite

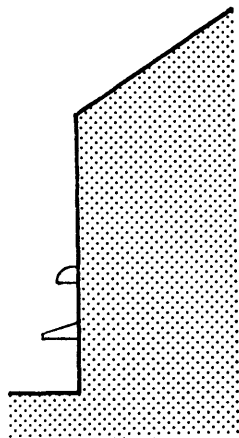
SIGNAGE

Types	small wood hung under glass canopy; some canopy at second story; some long rectangular at upper stories; displaced directories at gallery entrance
Location	most at first floor

On the North Market Building a glass shed canopy runs almost continuously over the street level shops. Frequently, second story canvas canopies are also employed.

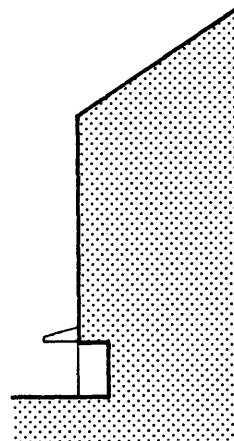
A couple of the sidewalk shops have shallow entry niches under the glass shed canopy.

The entries to the Gallery is notable for its deep recess, two stories in height. Long colorful banners set between the windows above the entry make the entrance more readable from a distance.

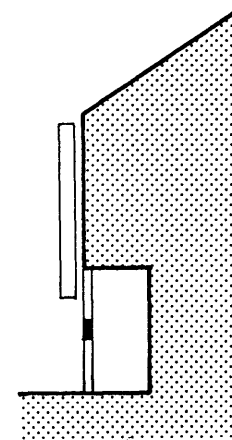


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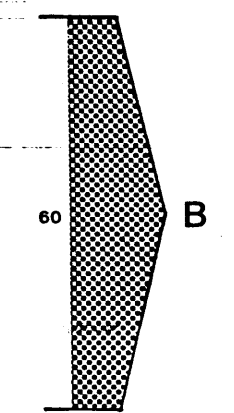
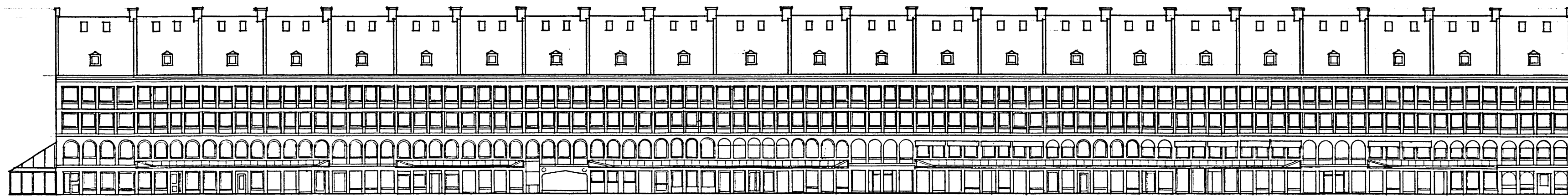
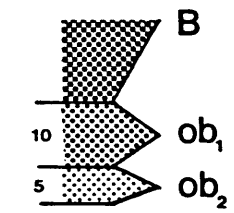
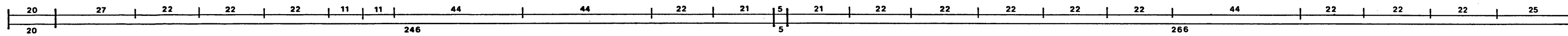
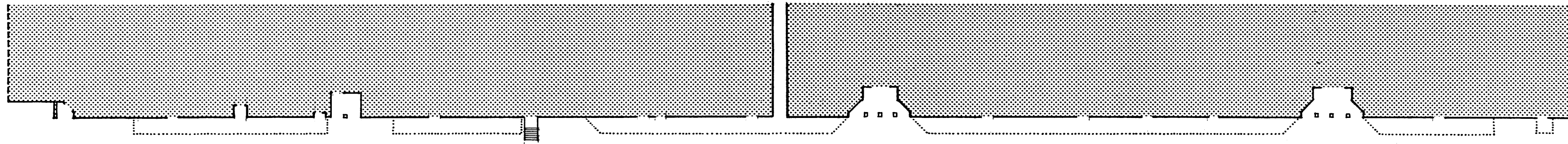
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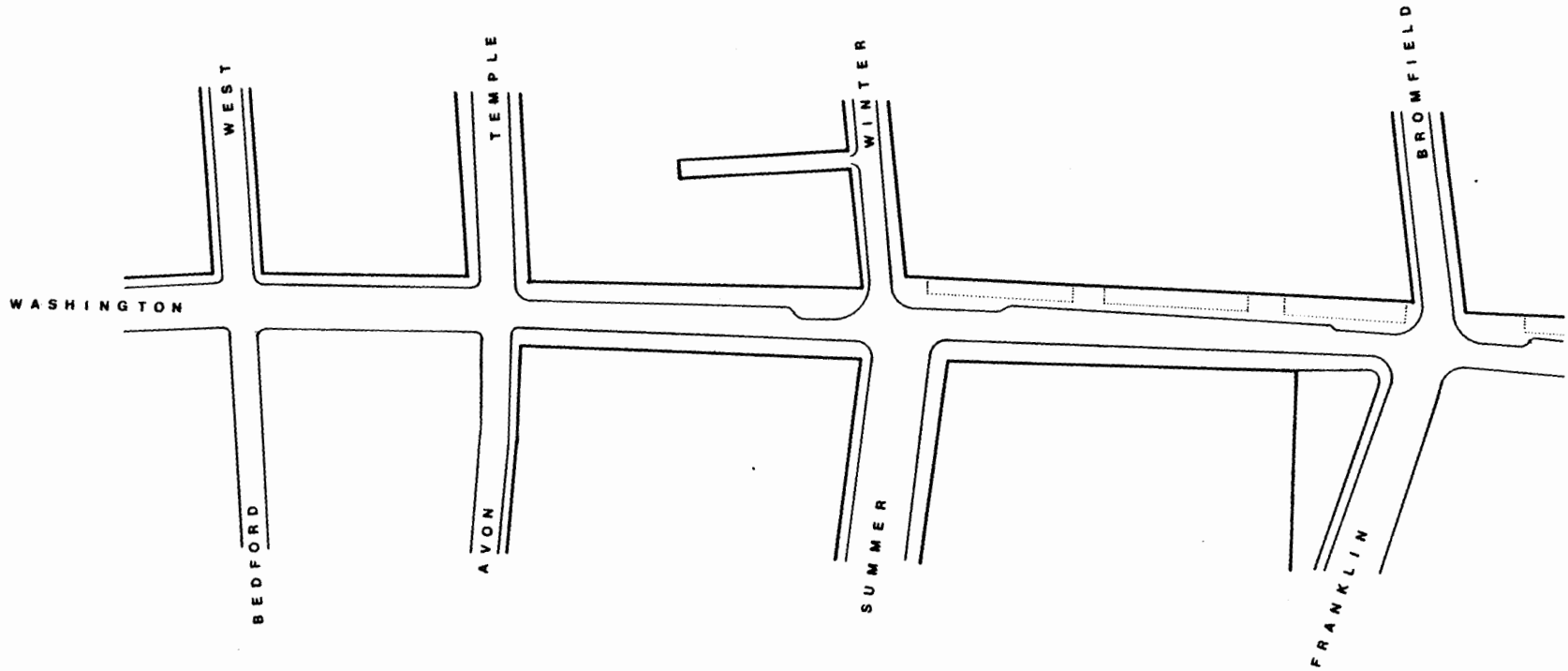
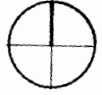
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WASHINGTON STREET



North Edge - West to Temple

TRAFFIC FLOW

Hour	Weekday	Weekend
1000	708/hr	649/hr
1200	1548/hr	1238/hr
1500	1236/hr	1372/hr
1800	811/hr	1160/hr

COMMENTS

Counts taken on the south edge, between Bedford and Avon, now under construction for the Lafayette Place project, revealed about half the amount of traffic than on the opposite side of Washington Street. The sidewalk is half as wide as the other side of the street along an open edge bordered with chainlink fencing.

STREET LEVEL USE TYPES

Retail (A)	5
Restaurant (B)	0
Entertainment (C)	0
Office (D)	1
Bank, Institutional (E)	0
Other	2, V=vacant(former retailing)
Sequence/Total	8...A-A-A-D-V-V-A-A

ACCESS

Average Distance Door to Door	20 feet
% Glass	a) Accessible 25%
	b) Non-accessible 75%

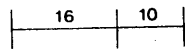
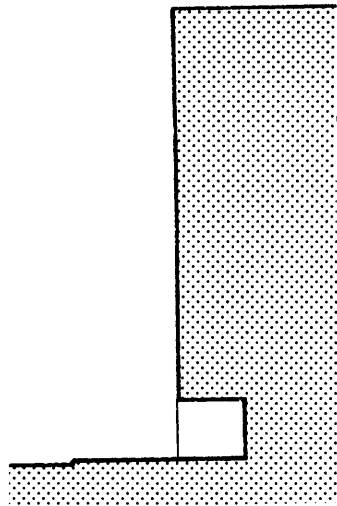
WALL FACADE

Ave. Bldg. Height	102 feet
Ave. Bldg. Width	80 feet
% of Opaque Wall	35%
Materials, Colors, Texture	terra cotta with metal bays; some brown brick

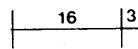
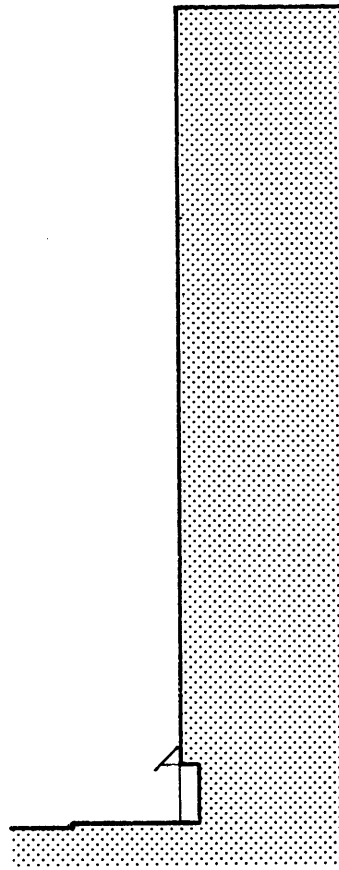
SIGNAGE

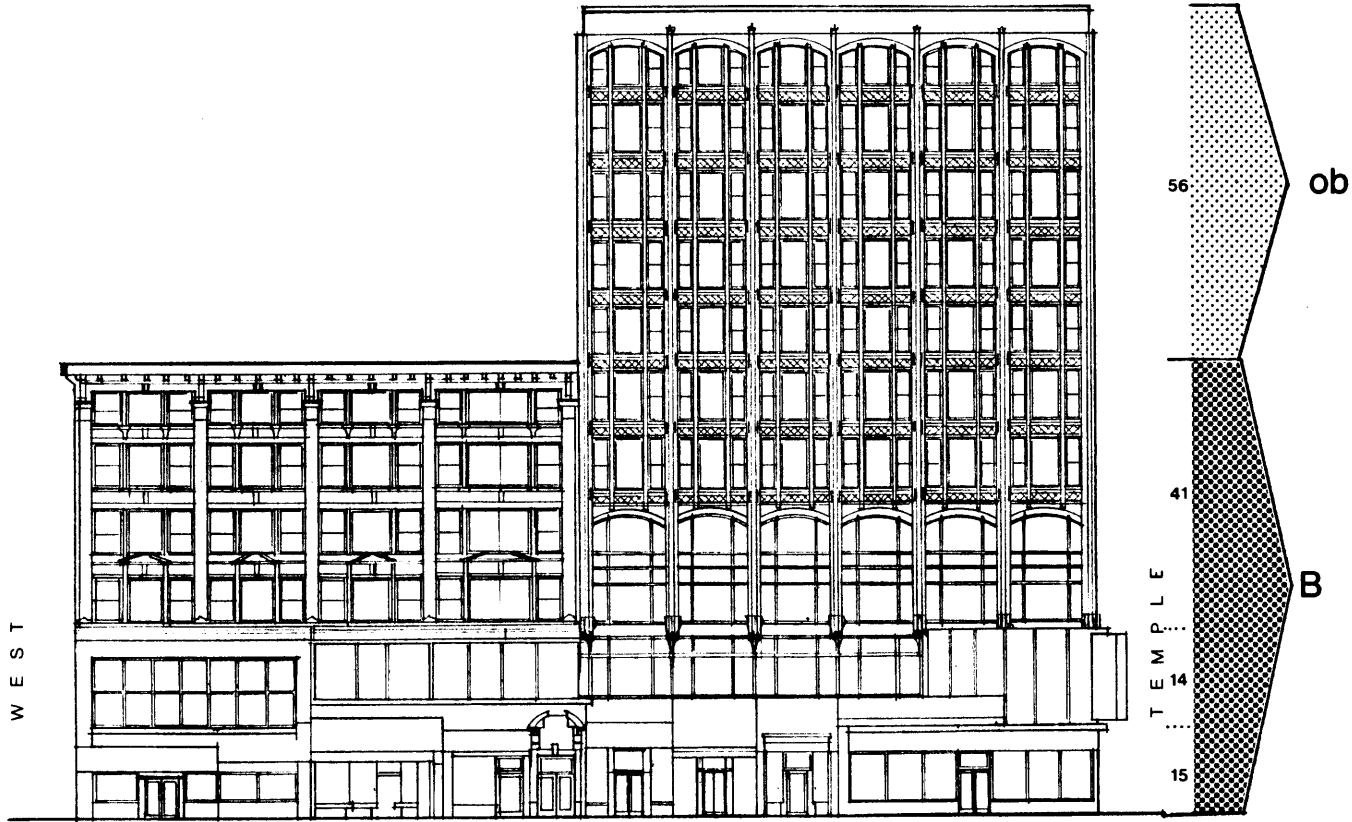
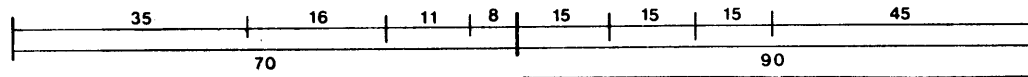
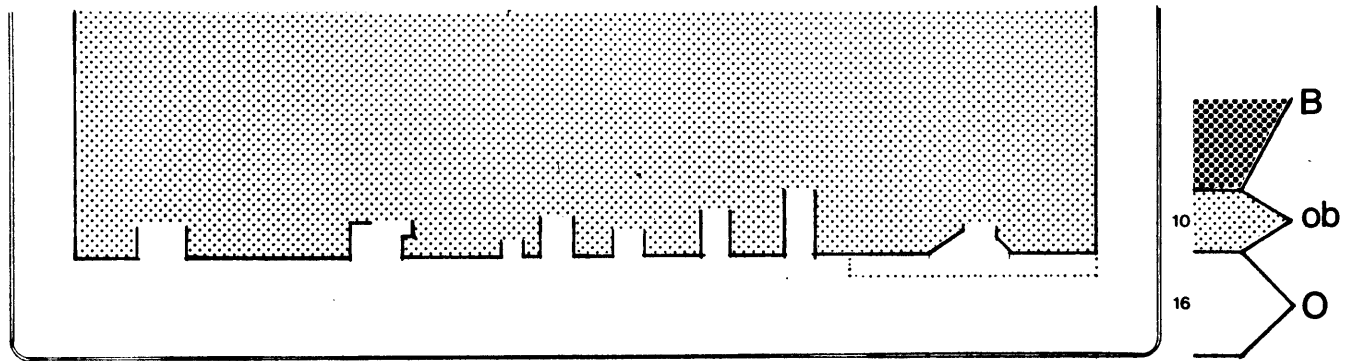
Types	most take up width of store front, in large letters of light on dark background and dark letters on a light background
Location	average about ten feet above street level; on both second and third floor shop fronts

The clothing shops have recessed entry niches with displays along them.



The shoe store has a shallower than normal entry alcove but has an unusually long street front in which to display its selection. A narrow canvas awning helps identify the store and protect the shoes from winter light.





North Edge - Temple to Winter

TRAFFIC FLOW

Hour	Weekday	Weekend
1000	1248/hr	842/hr
1200	3012/hr	2280/hr
1500	1572/hr	2670/hr
1800	890/hr	1490/hr

COMMENTS

Flow of traffic mainly east bound; west bound traffic increased by people crossing from south edge to north edge

STREET LEVEL USE TYPES

Retail (A)	6
Restaurant (B)	1
Entertainment (C)	0
Office (D)	1
Bank, Institutional (E)	0
Other	1, T=MBTA entrance
Sequence/Total	9 ...A-A-A-A-D-B-A-T-A

ACCESS

Average Distance Door to Door	29 feet
% Glass	a) Accessible 45%
	b) Non-accessible 55%

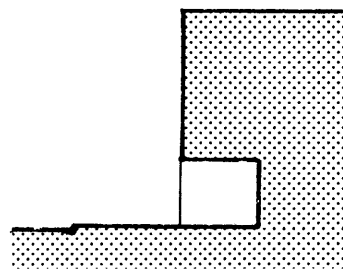
WALL FACADE

Ave. Bldg. Height	93 feet
Ave. Bldg. Width	43 feet
% of Opaque Wall	55%
Materials, Colors, Texture	light stone color terra cotta; metal decorated spandrels; Kresge has all metal front

SIGNAGE

Types very large letters and backs that hide building fronts
 Location average fourteen feet above street level

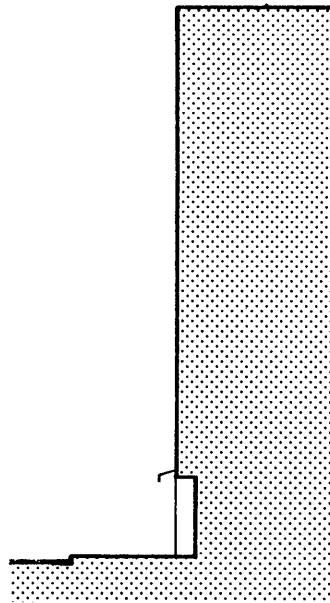
Typical of shoe and jewelry stores is a deep a deep and wide alcove in which to display merchandise.



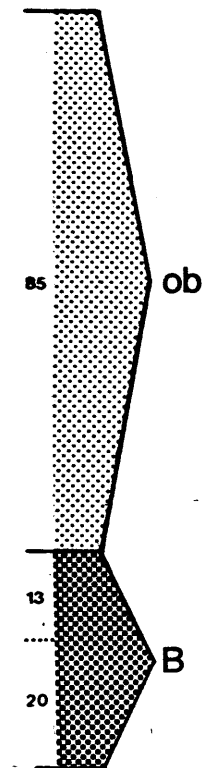
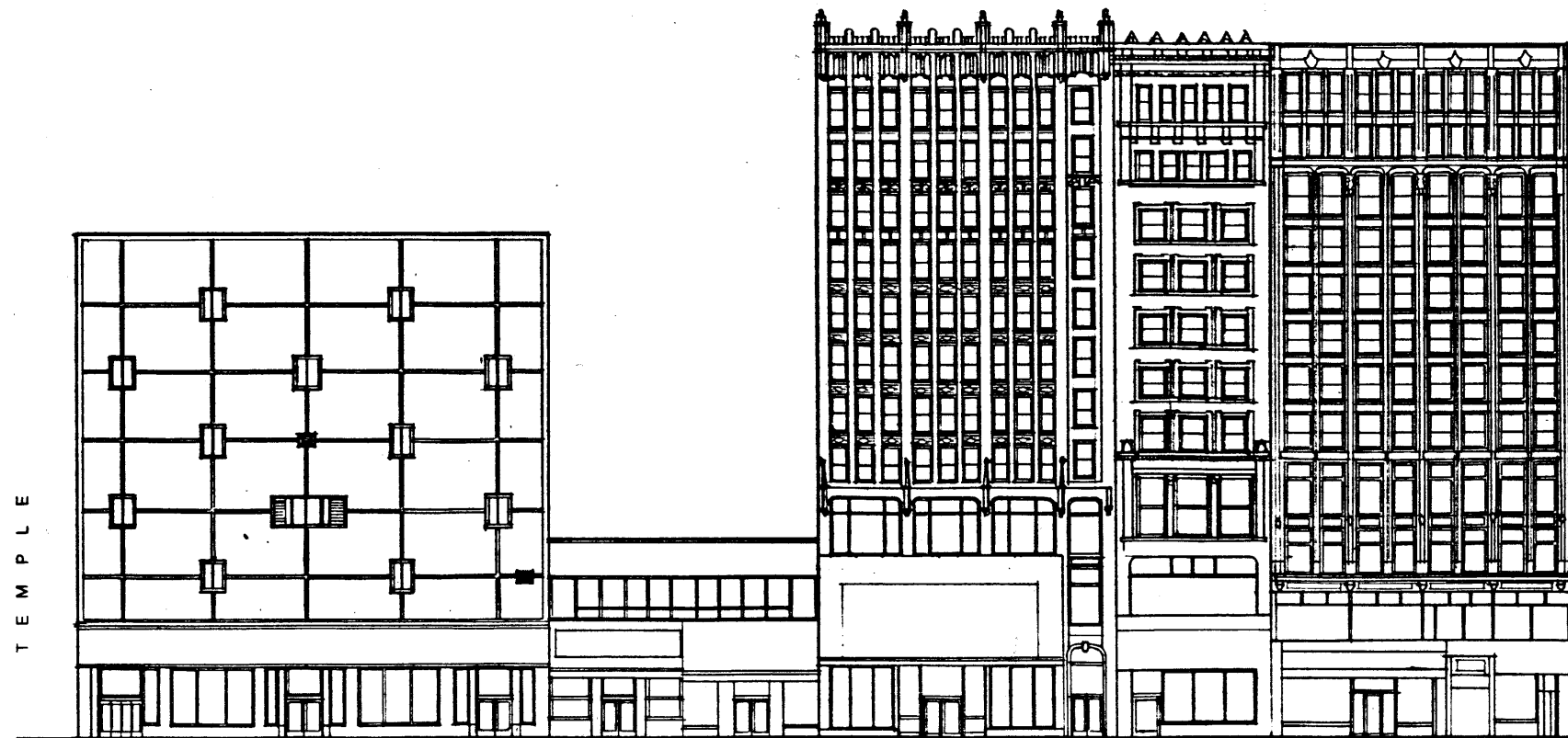
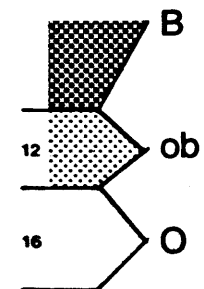
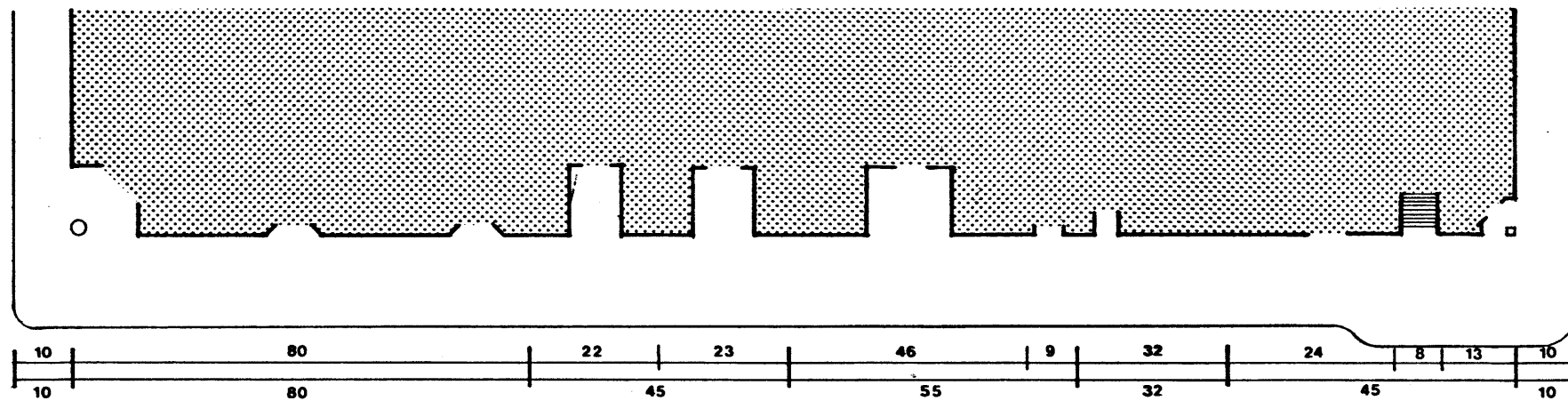
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The S.S. Kresge department store has a couple shallow entries which announce themselves for lack of any other such element.



16 3



North Edge - Winter to Bromfield

TRAFFIC FLOW

Hour	Weekday	Weekend
1000	2280/hr	1915/hr
1200	5580/hr	2510/hr
1500	3224/hr	2786/hr
1800	1892/hr	1960/hr

COMMENTS

About half of the second level spaces are used for retailing, mostly clothing

STREET LEVEL USE TYPES

Retail (A)	12
Restaurant (B)	1
Entertainment (C)	0
Office (D)	3
Bank, Institutional (E)	1
Other	
Sequence/Total	17 = A-A-A-B-A-A-A-D-A-A-D-E-A-A-A-D-A

ACCESS

Average Distance Door to Door	23 feet
% Glass	
a) Accessible	45%
b) Non-accessible	55%

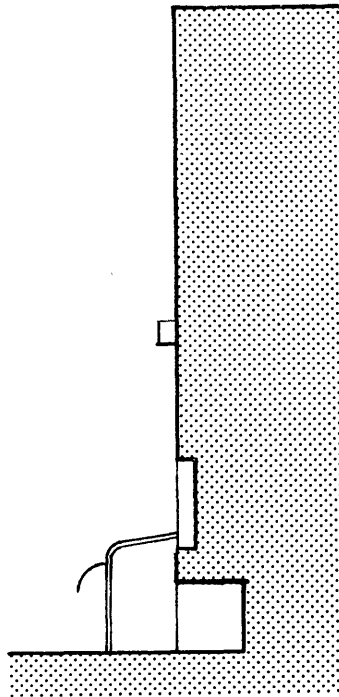
WALL FACADE

Ave. Bldg. Height	99 feet
Ave. Bldg. Width	50 feet
% of Opaque Wall	35%
Materials, Colors, Texture	terra cotta and precast stone with pressed metal spandrels; grey color

SIGNAGE

Types large metal (flat) with some neon; letters tend to be supergraphic size...up to two feet tall
 Location some on canopy, most at from nine to fourteen feet above ground "behind" canopy

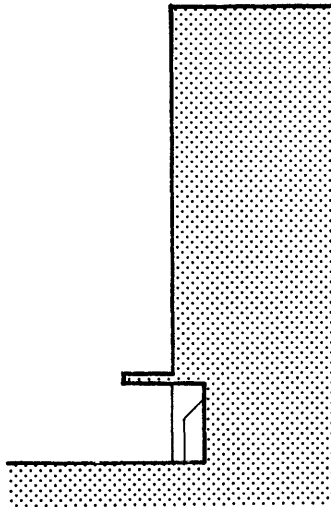
On the north edge of Washington Street a near continuous clear plexi canopy covers the sidewalk, containing the many pedestrians with its roof and supporting columns. The edge of this building has an upper level recess (unused) and a decorative iron balcony that is too shallow for use.



5 | 10 | 10 |

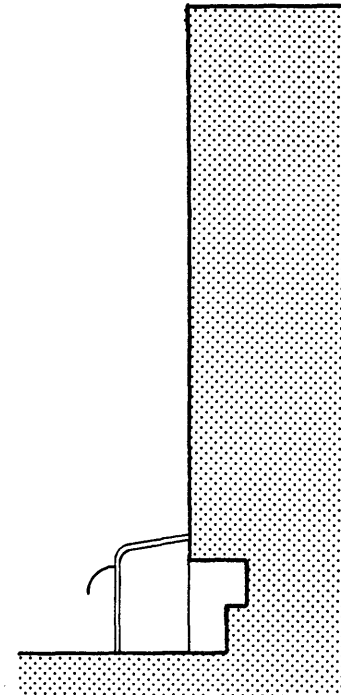
34

This edge has a tall and deep entry nook with the doorway articulated by way of a low doorway infill element that juts out into the recess.

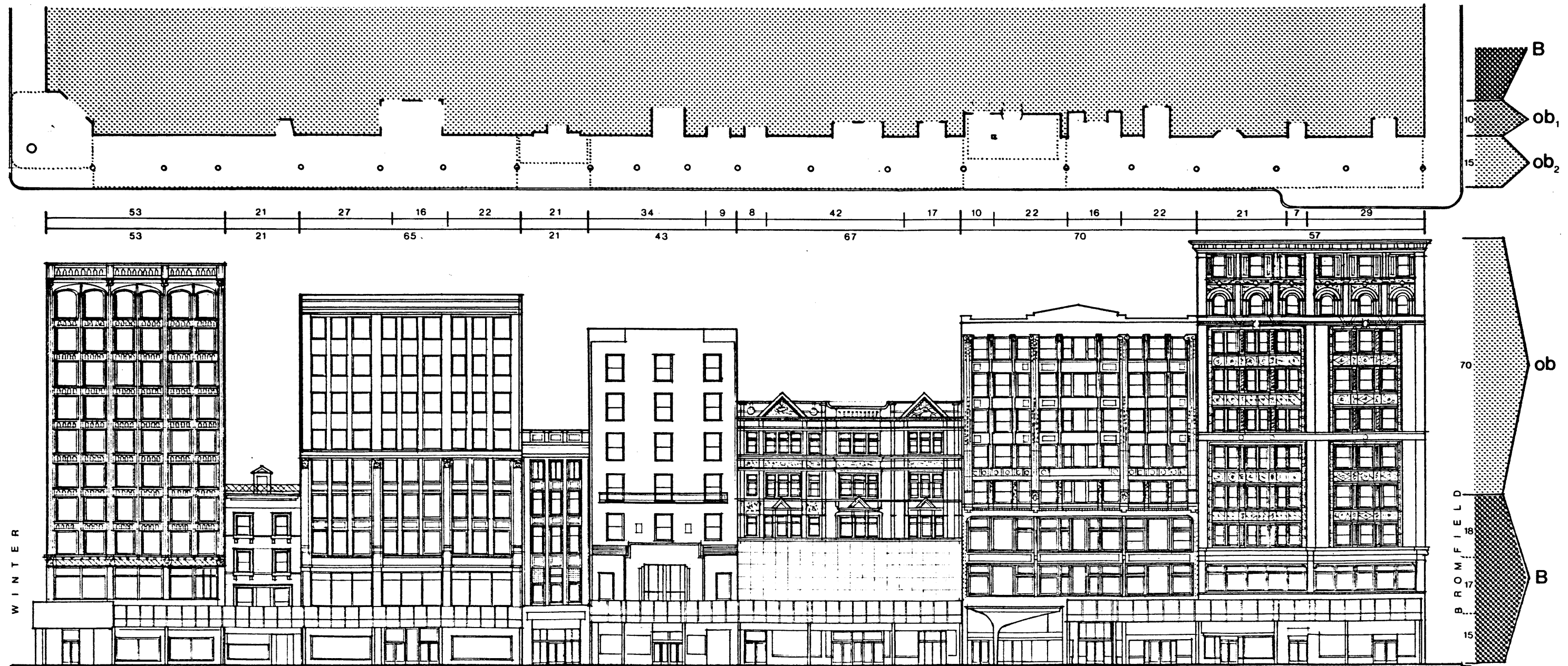


8 | 5 |

The plexi canopy on this same edge is broken at a shoe store by a cantilevered non-translucent canopy. The entrance is recessed and the door surrounded by glass shed display cases.



5 | 10 | 6 |



South Edge - Franklin to Summer

TRAFFIC FLOW

Hour	Weekday	Weekend
1000	1782/hr	1200/hr
1200	4482/hr	3685/hr
1500	3265/hr	3787/hr
1800	1980/hr	2222/hr

COMMENTS

most traffic heading west.

STREET LEVEL USE TYPES

Retail (A)	2
Restaurant (B)	0
Entertainment (C)	0
Office (D)	0
Bank, Institutional (E)	0
Other	1, T=MBTA entry
Sequence/Total	3...A-A-T

ACCESS

Average Distance Door to Door	91 feet
% Glass	a) Accessible 15%
	b) Non-accessible 85%

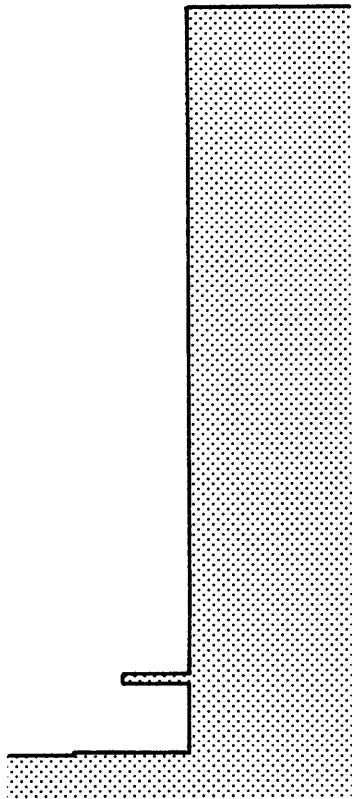
WALL FACADE

Ave. Bldg. Height	86 feet
Ave. Bldg. Width	136 feet
% of Opaque Wall	75%
Materials, Colors, Texture	terra cotta (light stone color and reddish color); grey granite and lighter colored stone panels

SIGNAGE

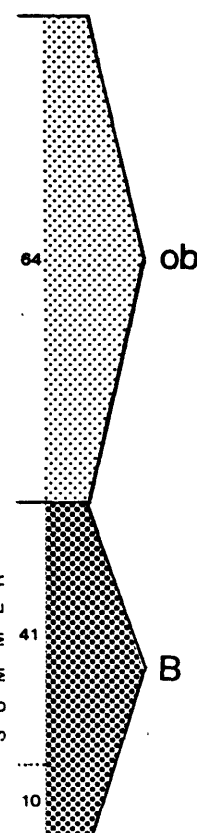
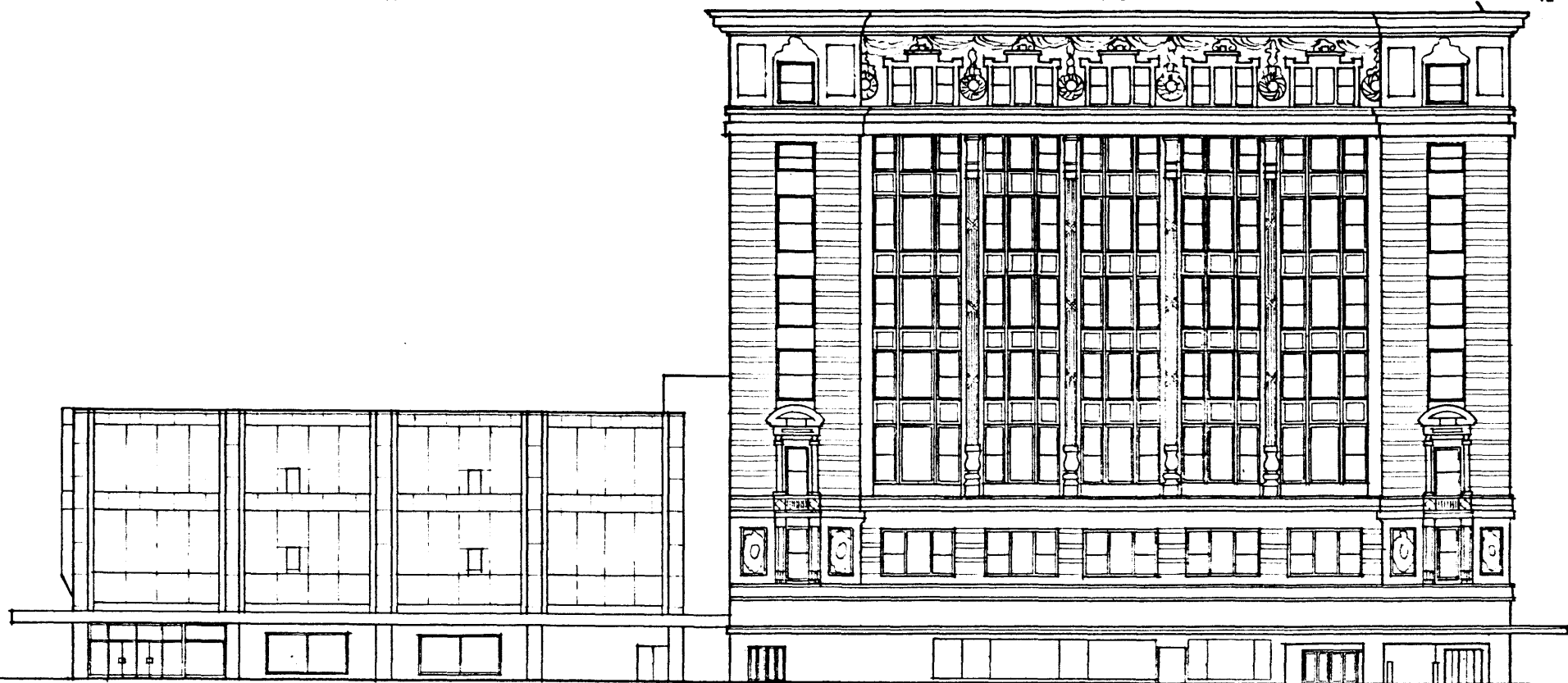
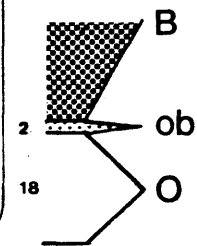
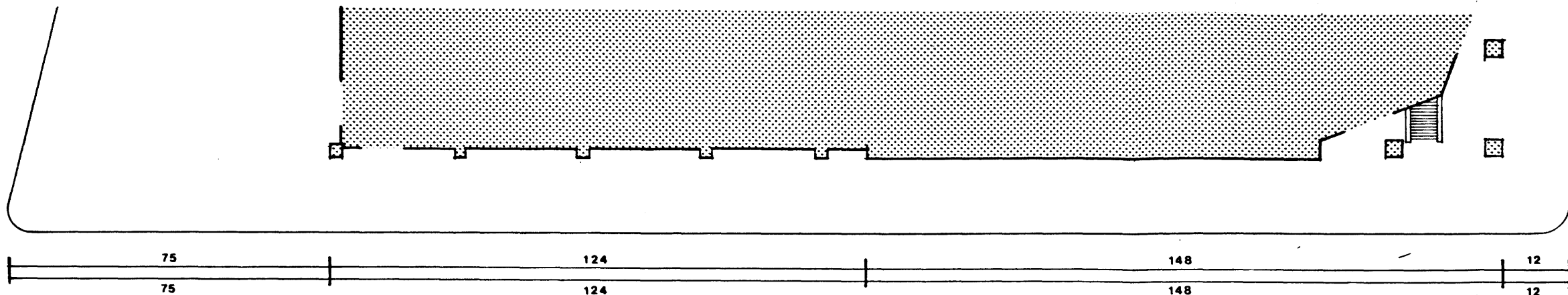
Types	virtually none
Location	

The old and new Filene's have continuous, opaque cantilevered canopies over the sidewalk. Being the north facing edge, the result is a dark but snow-free sidewalk.



8 10

37



FRANKLIN

South Edge - Summer to Avon

TRAFFIC FLOW

Hour	Weekday	Weekend
1000	780/hr	568/hr
1200	1386/hr	866/hr
1500	1212/hr	987/hr
1800	898/hr	871/hr

COMMENTS

Most traffic walking east.

STREET LEVEL USE TYPES

Retail (A)	2
Restaurant (B)	0
Entertainment (C)	0
Office (D)	0
Bank, Institutional (E)	0
Other	0
Sequence/Total	2...A-A

ACCESS

Average Distance Door to Door	270 feet
% Glass	a) Accessible 30%
	b) Non-accessible 70%

WALL FACADE

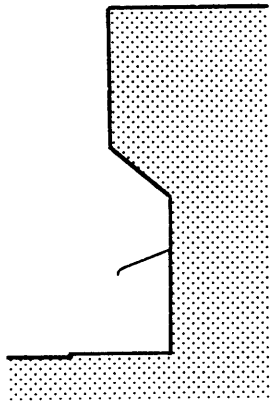
Ave. Bldg. Height	53 feet
Ave. Bldg. Width	181 feet
% of Opaque Wall	90%
Materials, Colors, Texture	red brick

SIGNAGE

Types	letters in relief
Location	above plexi canopy, about 16 feet above street level

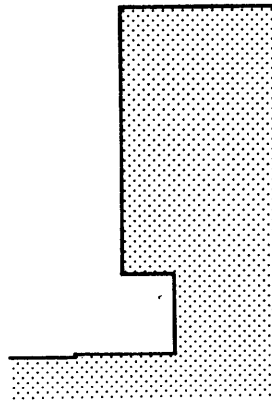
The entries to the new Jordan Marsh store are covered by clear plexi-glass canopies with the upper half of the building corbeled out.

Except for the entries, the edge at street level is a tunnel made by cantilevering the mass of the building out over the sidewalk.

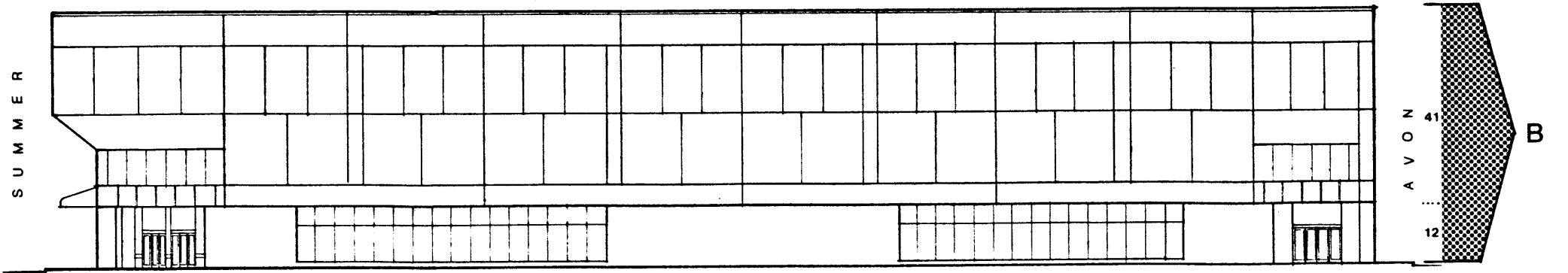
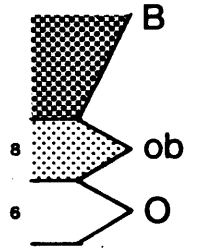
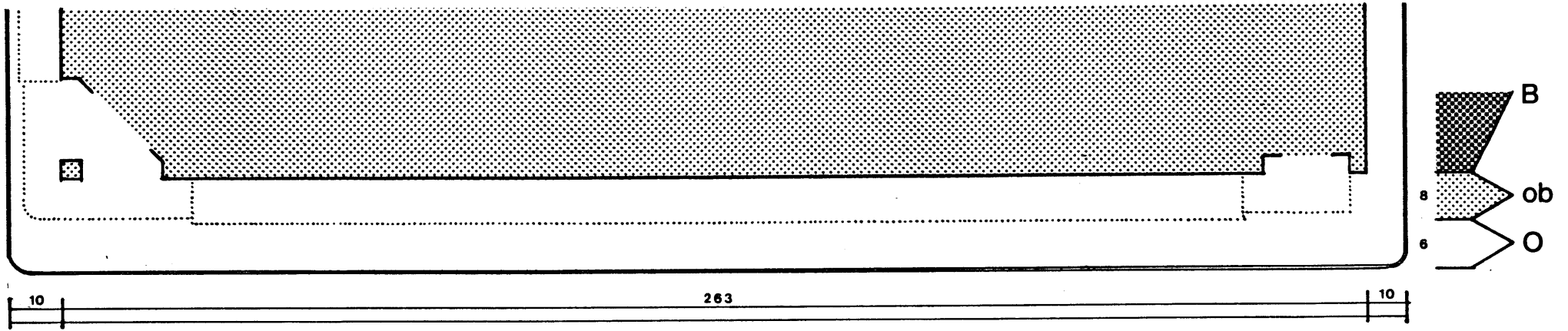


6 8

40

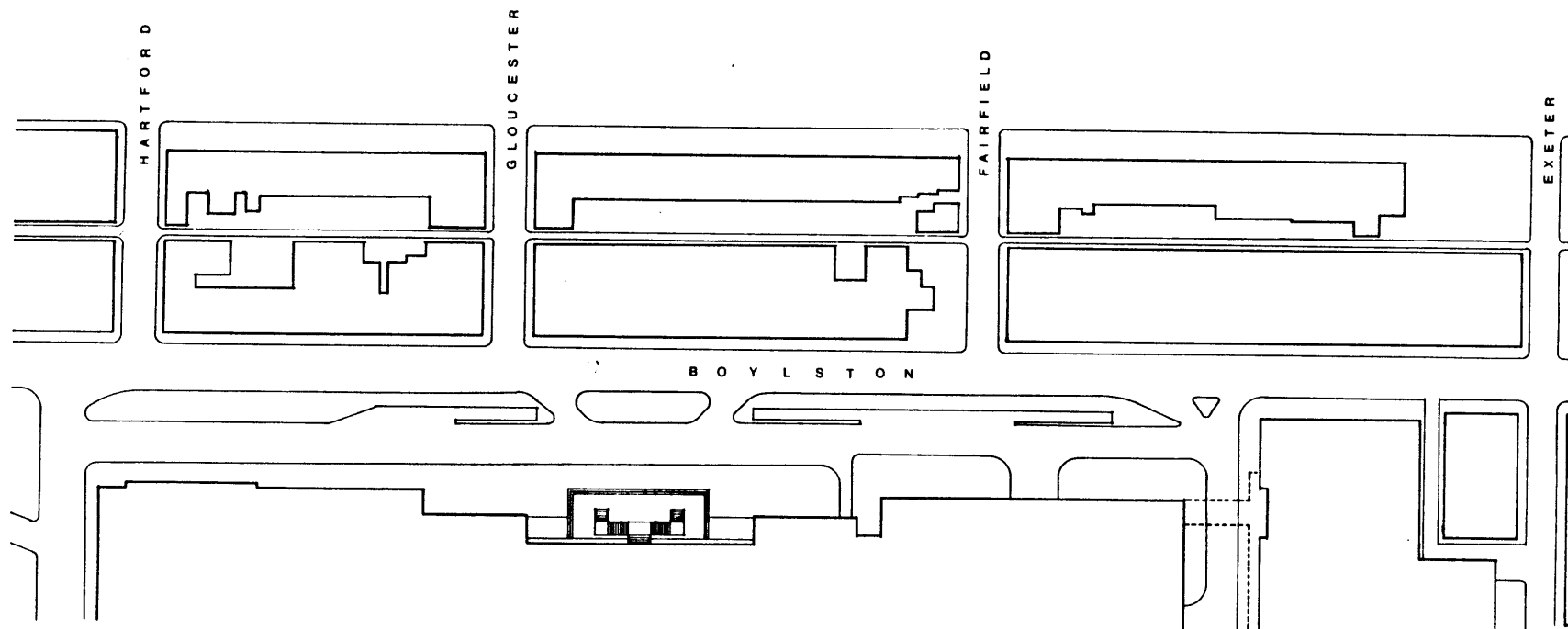


6 8



41

BOYLSTON STREET



North Edge - Hereford to Gloucester

TRAFFIC FLOW

Hour	Weekday	Weekend
1000	282/hr	216/hr
1200	630/hr	495/hr
1500	517/hr	508/hr
1800	446/hr	520/hr

COMMENTS

STREET LEVEL USE TYPES

Retail (A)	1
Restaurant (B)	4
Entertainment (C)	0
Office (D)	3
Bank, Institutional (E)	3
Other	0
Sequence/Total	11...E-E-E-D-B-B-D-B-B-D-A

ACCESS

Average Distance Door to Door	29 feet
% Glass	a) Accessible 60%
	b) Non-accessible 40%

WALL FACADE

Ave. Bldg. Height	51 feet
Ave. Bldg. Width	63 feet
% of Opaque Wall	70%
Materials, Colors, Texture	Institutional buildings of red brick with precast/stone lintels, etc. middle bldg. of curtain wall w/ white and red brick; E. end of precast stone w/ metal bay inserts

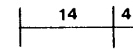
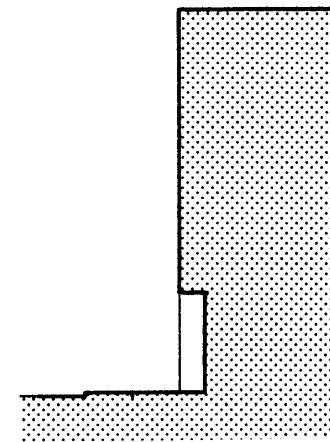
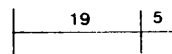
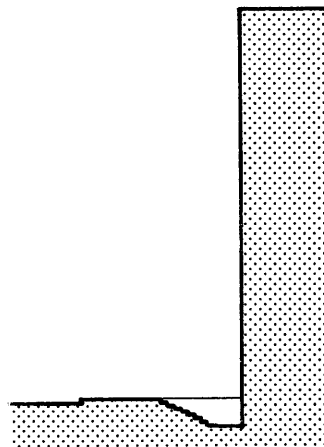
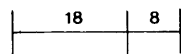
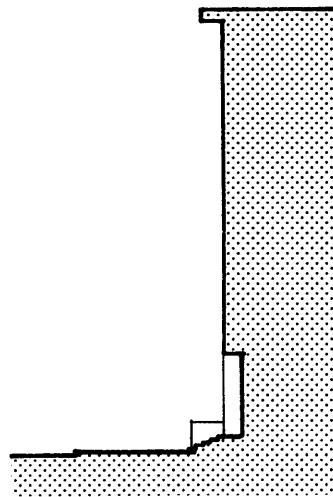
SIGNAGE

Types	large and insensitive to bldg. front
Location	average of 16 feet above street level

The length of this Tennis and Racquet Club building is buffered from the sidewalk by a ten foot wide stretch of grass with perimeter bushes. The entrance cuts through this zone. A stoop is raised above grade a few steps and the doors recessed from the plane of the facade by a couple of feet. A decorative balcony helps to identify the entrance point. This building has a pronounced hanging cornice.

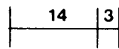
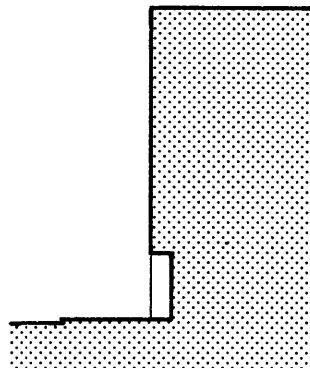
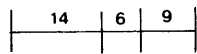
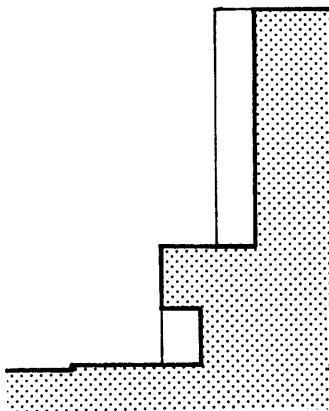
Next to the Racquet Club is a sunken well a half floor below grade. Steps set perpendicular to the street lead down to the two institutional entries.

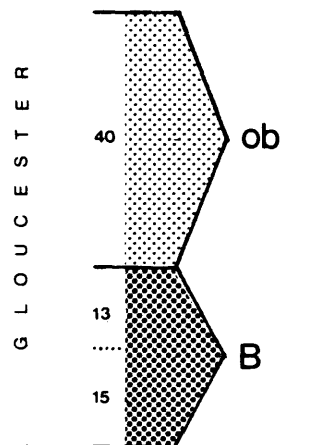
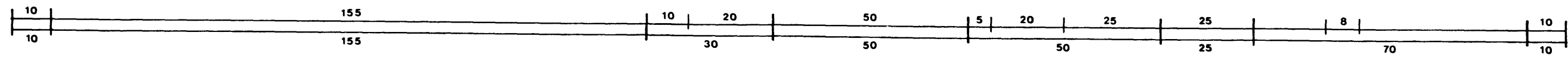
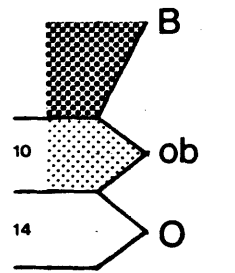
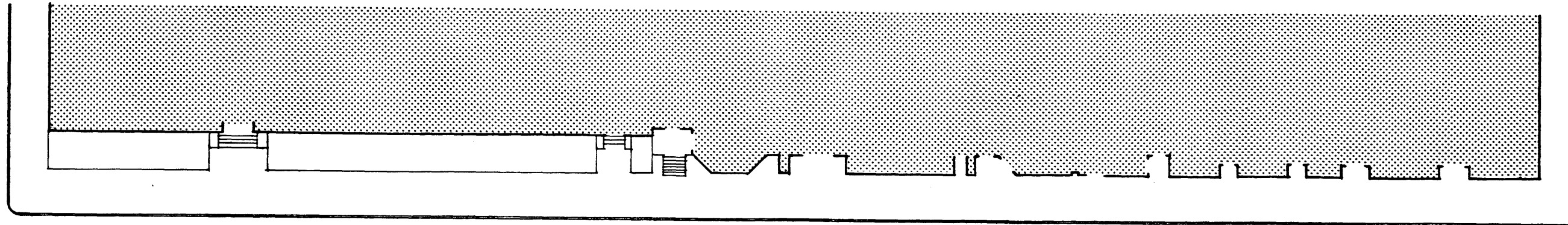
The facade of this school is broken by a tall entry niche.



The rounded bays are covered at street level by an attached shop-front. Entry alcoves mark the entrances to the restaurants, both requiring a turn of ninety degrees to enter.

The corner building housing inexpensive clothing has shallow entry niches.





North Edge - Gloucester to Fairfield

TRAFFIC FLOW

Hour	Weekday	Weekend
1000	372/hr	281/hr
1200	846/hr	758/hr
1500	594/hr	1242/hr
1800	406/hr	621/hr

COMMENTS

STREET LEVEL USE TYPES

Retail (A)	7
Restaurant (B)	2
Entertainment (C)	2
Office (D)	9
Bank, Institutional (E)	5
Other	4, V=vacant
Sequence/Total	29...D-B-C-E-D-A-A-A-D-D-E-A-A-D-B-D-C- $\frac{A}{V}$ -D- $\frac{E}{V}$ -D-V-V-E-A-D-E

ACCESS

Average Distance Door to Door	16 feet
% Glass	a) Accessible 80%
	b) Non-accessible 20%

WALL FACADE

Ave. Bldg. Height	51 feet
Ave. Bldg. Width	42 feet
% of Opaque Wall	50%
Materials, Colors, Texture	W. end=stone veneer with metal and glass secondary; middle=metal and glass curtain wall; E. end=brick and stone

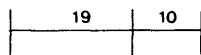
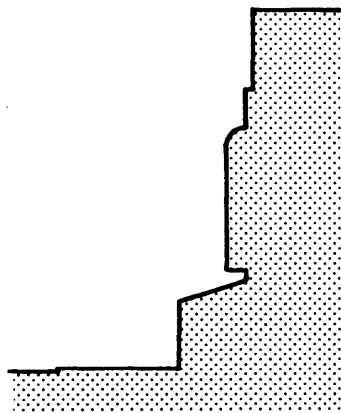
SIGNAGE

Types	W. end with canopy graphics while E. end has larger store width signage that is larger
Location	average about 11 feet above street level

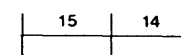
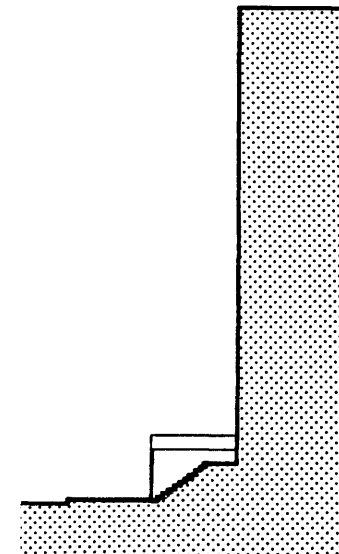
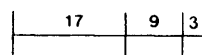
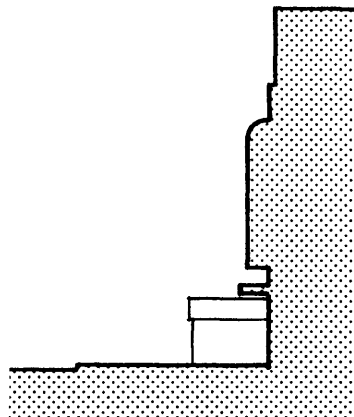
Near the corner, this section is alive with expressive territories of internal uses. On what was formerly the roof of the original building of stone facing is a one story penthouse addition whose facade is in plane with the original one. The main building has three cast iron bays, three floors tall that extend out from the building facade. The latest addition is a glass shed housing a restaurant at street level.

At the same building described above is an entry composed of a recess into an attached shop-front of shallow dimension out of which a canvas canopy is extended.

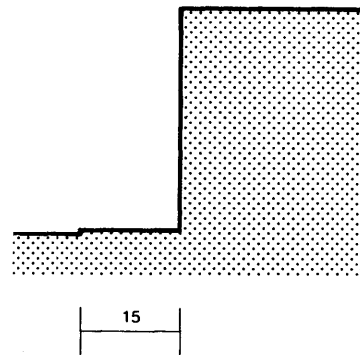
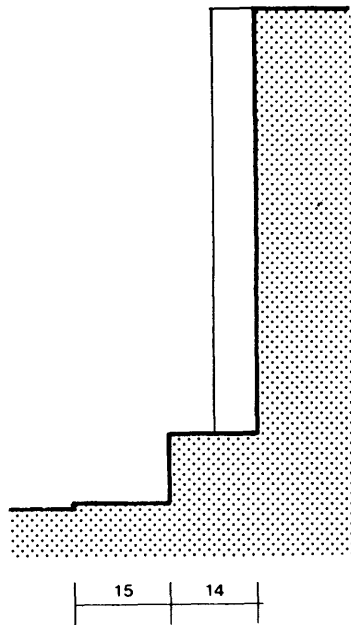
The stairs leading up to second story services at this same building are open steel treads. One must pass under a beam to climb the steps. The entry doors are into half-round bays that run the entire height of the building.



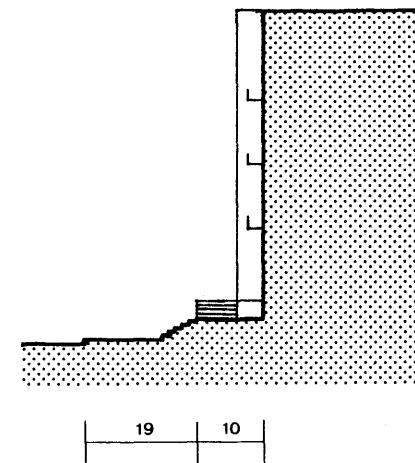
48



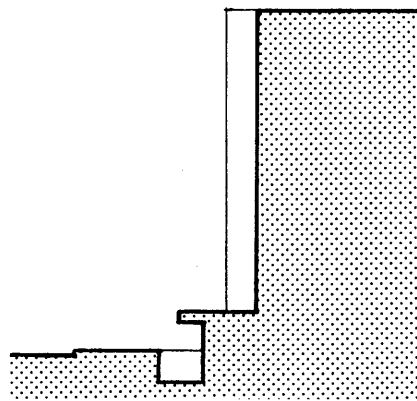
The one story attached shopfront at this building has a flat roof that is unused.



Two of the four elevated entrances occur between half-rounded bays. These entries lead to interior lobbies from which access to upper level offices is gained. Two other flights of steps branch up perpendicular to the two stoops. One leads to a record store the other to a copying center. Iron balconies at the upper floors are unused but might be for fire safety.



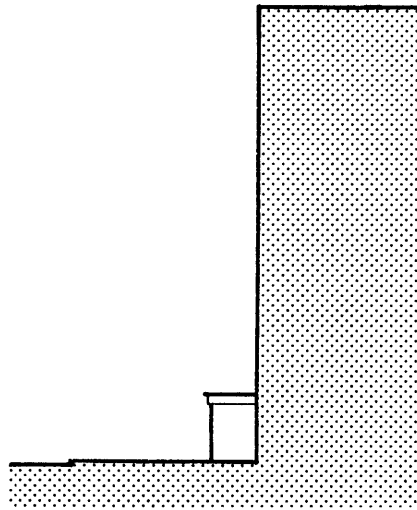
The only other below grade uses a-
long Boylston Street are about five
feet below grade with uninterrupted
steps running parallel to the side-
walks. Cantilevered balconies five
feet above grade give the sunken
wells partial rain and sun protec-
tion



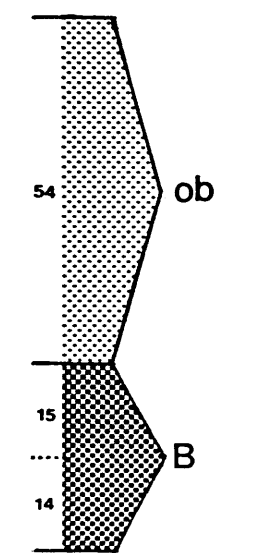
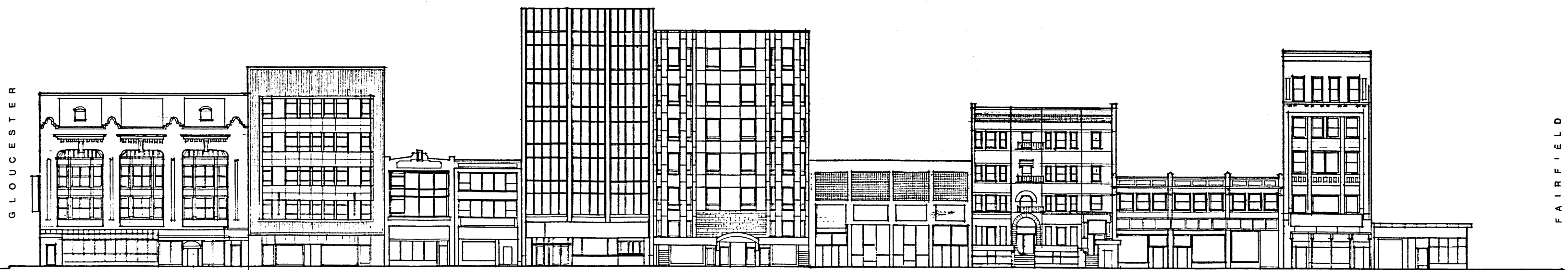
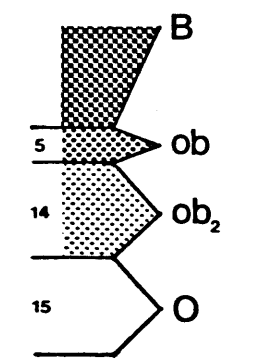
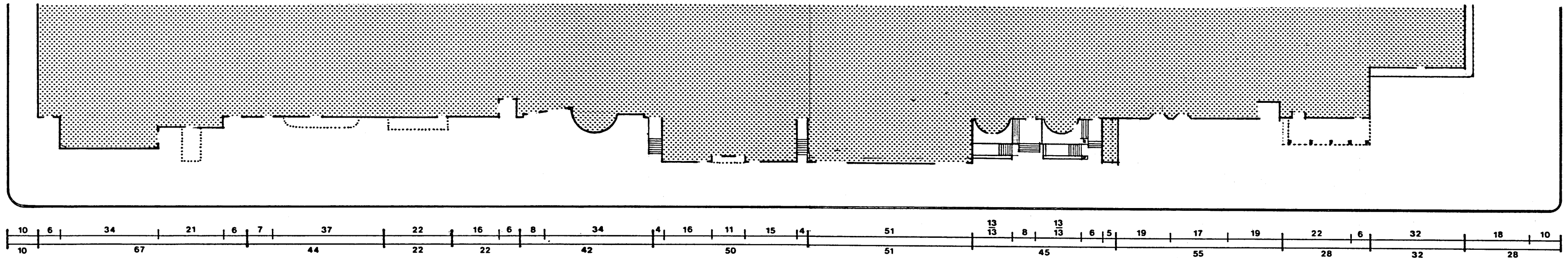
16 | 7 | 6

50

At the antique store near the corner
of Fairfield and Boylston the side-
walk is very wide but partially
claimed by a solid canopy supported
by columns. It would seem the owner
of the store is protecting his val-
uables from the sun, besides extend-
ing his store.



21 | 8



North Edge - Fairfield to Exeter

TRAFFIC FLOW

COMMENTS

Hour	Weekday	Weekend
1000	708/hr	636/hr
1200	2034/hr	1978/hr
1500	965/hr	2244/hr
1800	1616/hr	1534/hr

STREET LEVEL USE TYPES

Retail (A)	14	
Restaurant (B)	9	
Entertainment (C)	0	
Office (D)	8	
Bank, Institutional (E)	1	
Other	0	
Sequence/Total	32	...E-D-B-B-A-B-A-B-D-A-A-D-B-B-B-D-A-A-A-A-B-D-A-A-A-D-A-D-B-D-A-A

ACCESS

Average Distance Door to Door	19 feet
% Glass	a) Accessible 40%
	b) Non-accessible 60%

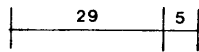
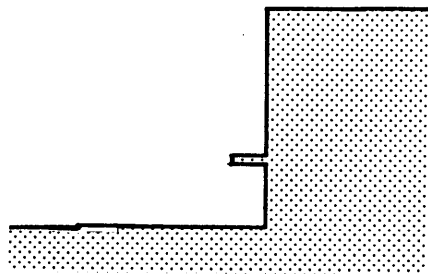
WALL FACADE

Ave. Bldg. Height	61 feet
Ave. Bldg. Width	60 feet
% of Opaque Wall	30%
Materials, Colors, Texture	red brick with precast insets (lintels, etc.); metal bays;

SIGNAGE

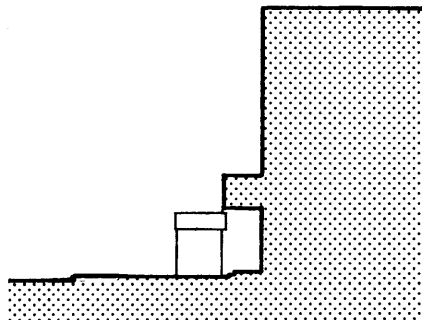
Types	small awnings; flat wood with flat colors; some plastic with backlighting
Location	most between first and second floor, about 13' above ground level

The corner building, in this case a bank, is set back from the street more than the rest of the buildings on this block. The main entrance is marked by a cantilevered canopy; the only one of its kind on this block.

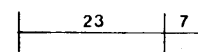
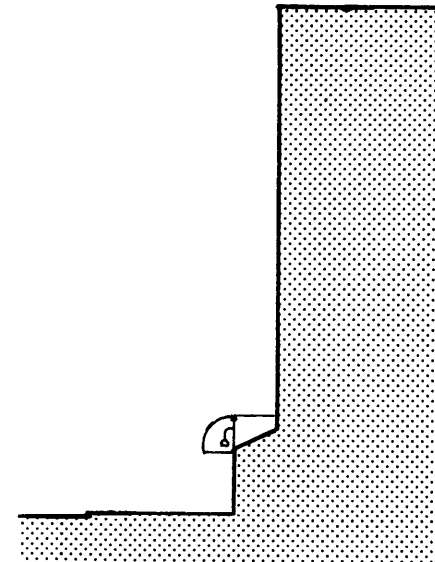


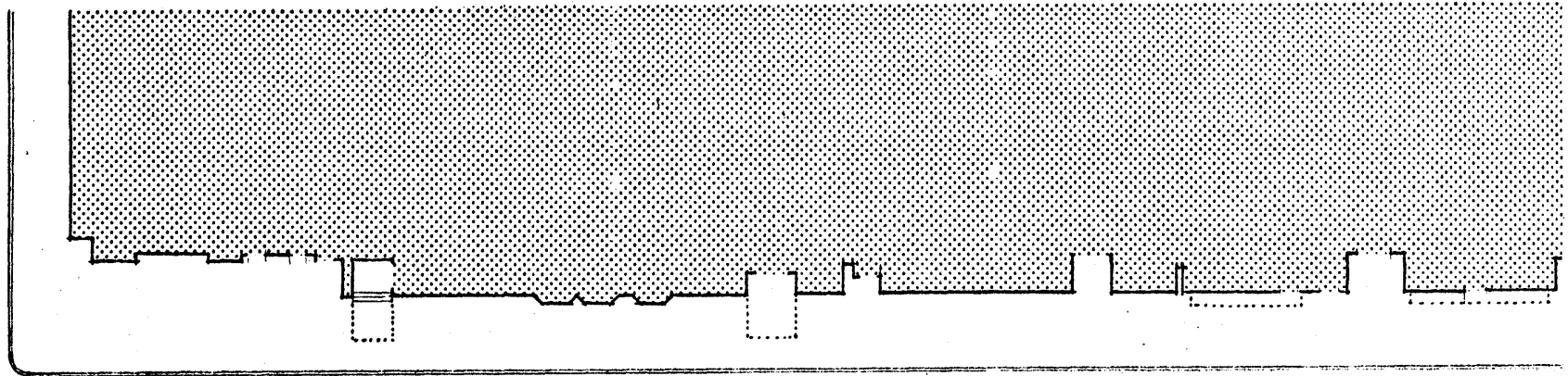
53

The entry progression to this restaurant is more complex than most. First there is the projecting canvas canopy leading into a recessed nook. Three steps up are required to enter this nook before finally turning ninety degrees to pass through the door.



One of the more interesting attached shopfronts is a shallow glass shed with an attached canvas awning which conceals an industrial bracket lamp. The awning stops the sun from hitting the eyes of the counter help in the morning hours while still allowing a soft, warm light into the shop. Latter in a sunny day, streams of sunlight penetrates the sales area of the bakery catching the eyes of passing pedestrians.



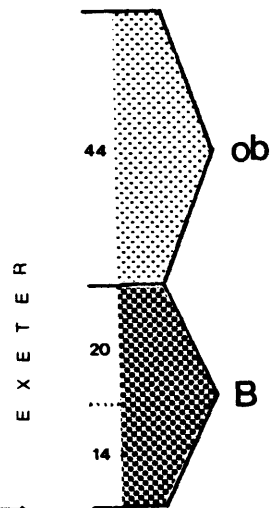
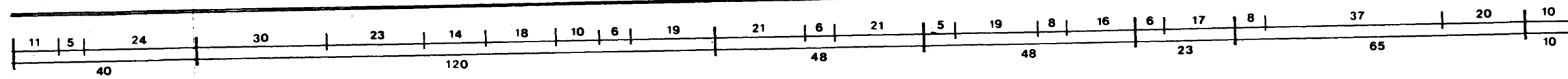
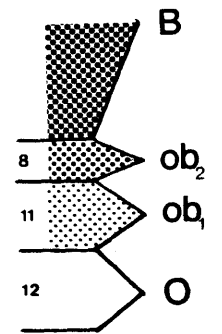
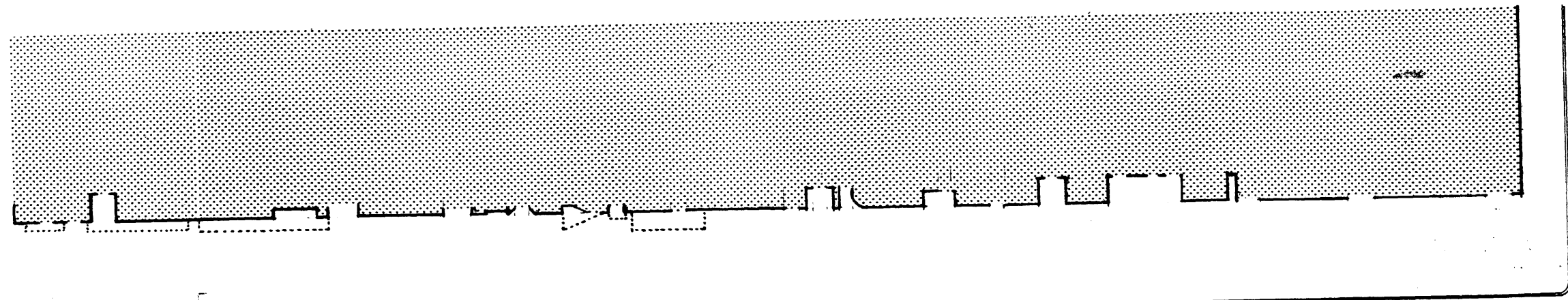


F A I R F I E L D



55

55



56

South Edge - Exeter to Ring Road

TRAFFIC FLOW

COMMENTS

Hour	Weekday	Weekend
1000	102/hr	98/hr
1200	942/hr	876/hr
1500	1002/hr	727/hr
1800	427/hr	396/hr

STREET LEVEL USE TYPES

Retail (A)	1
Restaurant (B)	0
Entertainment (C)	1
Office (D)	0
Bank, Institutional (E)	2
Other	0
Sequence/Total	4...E-E-C-A

ACCESS

Average Distance Door to Door	75 feet
% Glass	a) Accessible 50%
	b) Non-accessible 50%

WALL FACADE

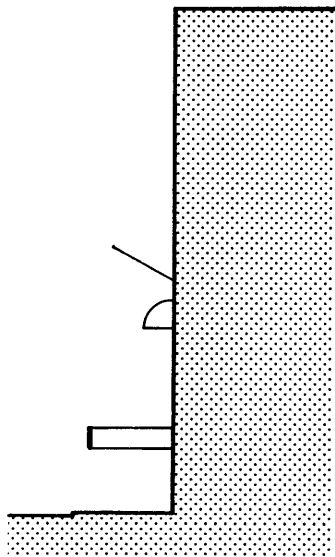
Ave. Bldg. Height	50 feet
Ave. Bldg. Width	135 feet
% of Opaque Wall	85%
Materials, Colors, Texture	Lennox hotel is of red brick with stone insets Lord and Taylor is of white brick with concrete

SIGNAGE

Types	Lennox has signage similar to that existing on opposite side of street; Lord & Taylor has only
Location	very large logo about 25 feet above grade

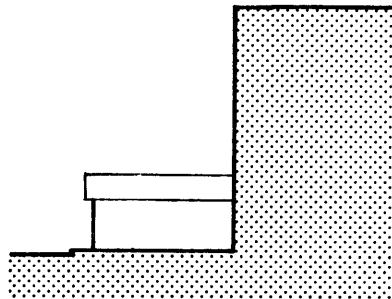
The Lennox Hotel is notable for its broad entry canopy with bright blue entresol level canvas canopies above. Two flagpoles add to the distinctiveness of the entry position.

The 22 foot long canopy at the Lord and Taylor store adds a mark of distinction and feeling of presence to what is otherwise a very flat edge.

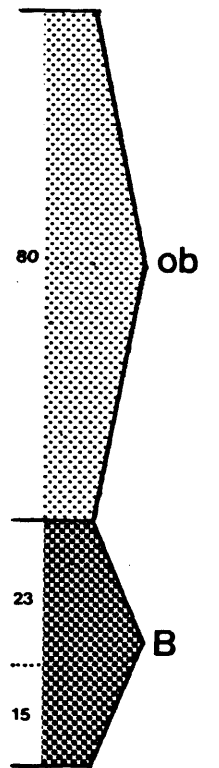
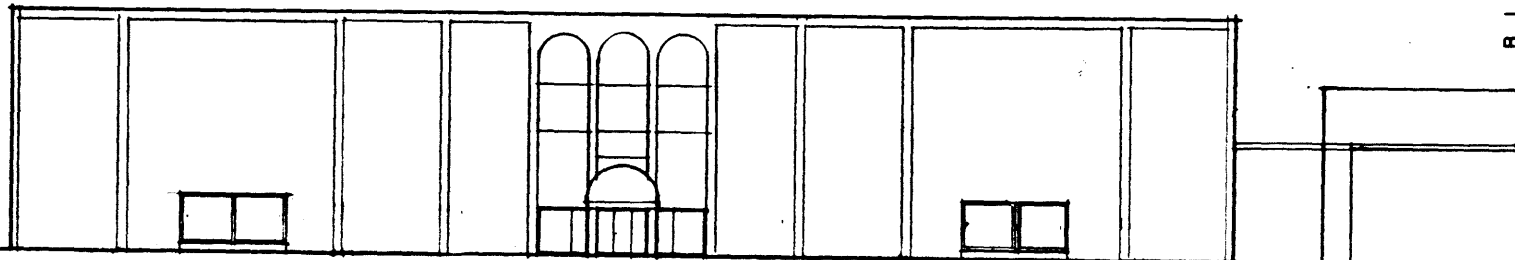
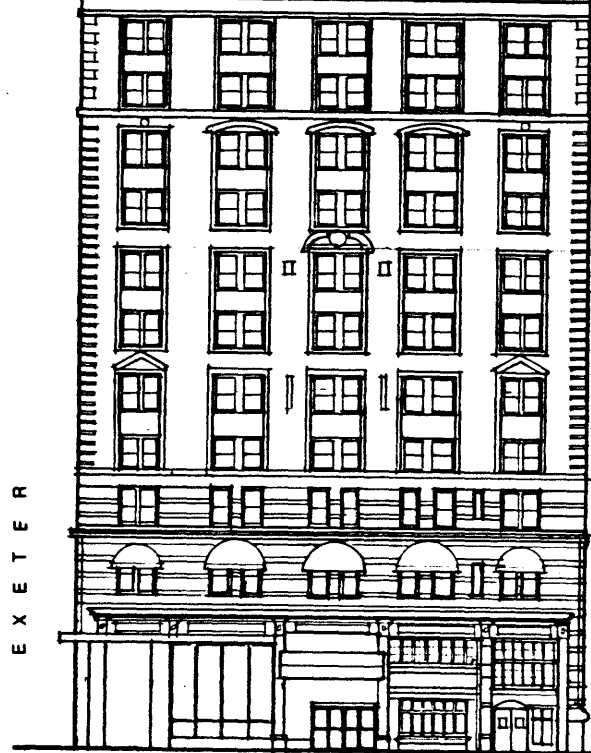
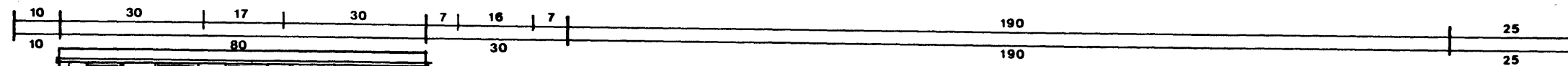
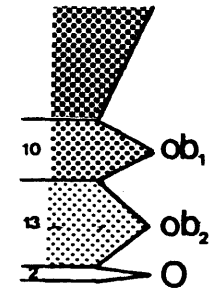
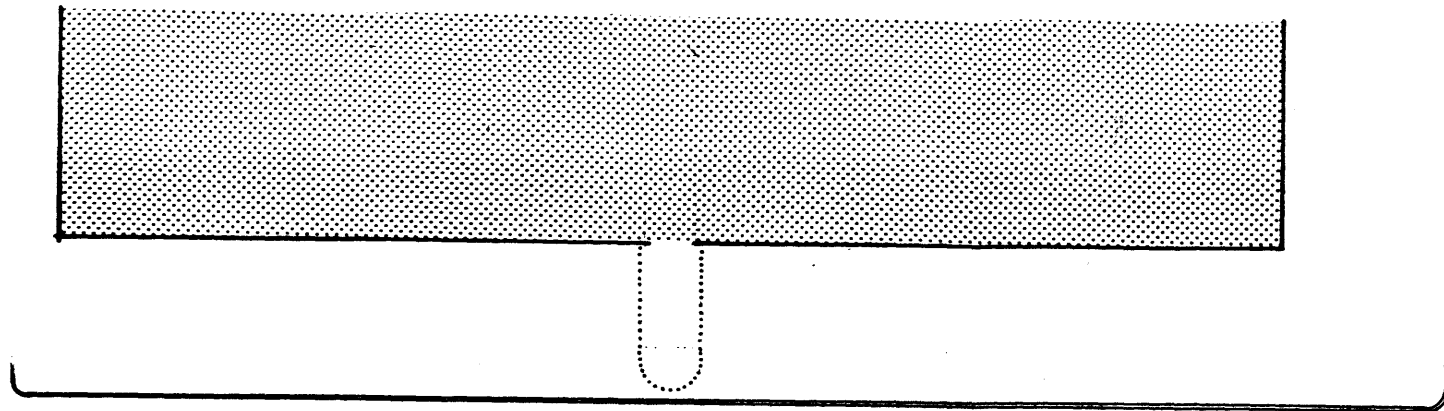
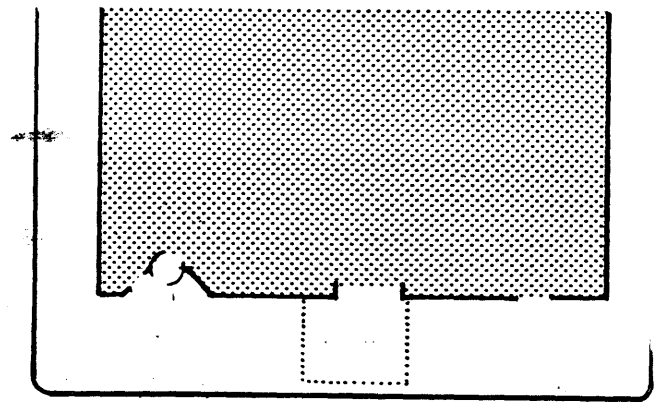


2 | 16

58



2 | 23



R I N G R O A D

South Edge - Ring Road to Dalton

TRAFFIC FLOW

COMMENTS

Hour	Weekday	Weekend
1000	216/hr	87/hr
1200	1870/hr	890/hr
1500	1320/hr	1821/hr
1800	595/hr	626/hr

STREET LEVEL USE TYPES

Retail (A)	3
Restaurant (B)	0
Entertainment (C)	0
Office (D)	1
Bank, Institutional (E)	1
Other	2, P=passage
Sequence/Total	7...A-P-P-A-A-D-E

ACCESS

Average Distance Door to Door	191 feet
% Glass	a) Accessible 25%
	b) Non-accessible 75%

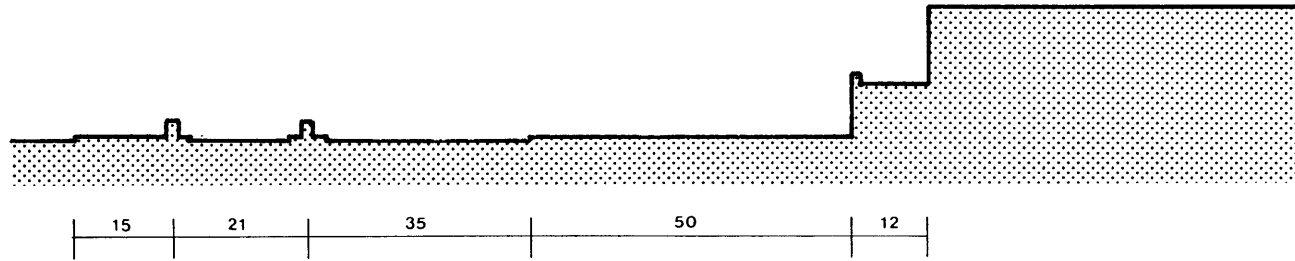
WALL FACADE

Ave. Bldg. Height	20 feet
Ave. Bldg. Width	203 feet
% of Opaque Wall	80%
Materials, Colors, Texture	precast concrete and stone panels with reflective grey glass

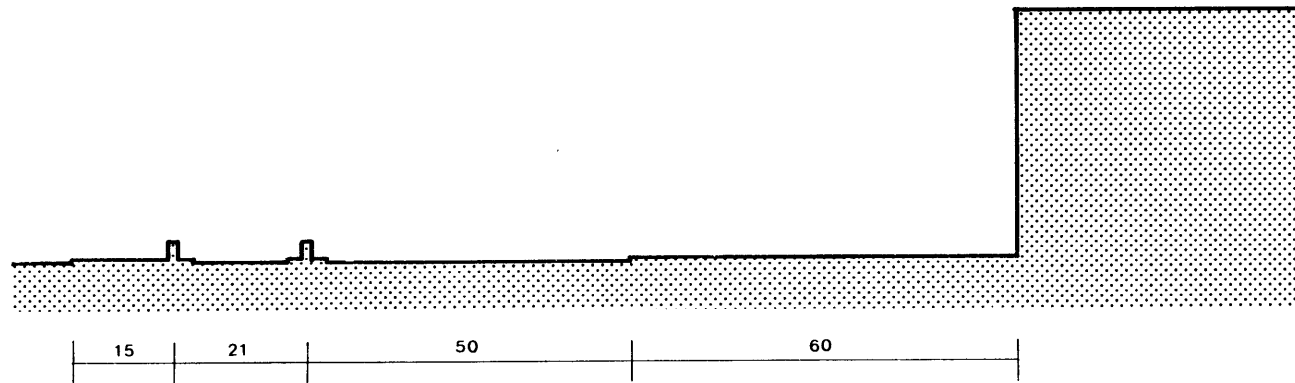
SIGNAGE

Types	dull, colorless
Location	separated from entry; some above lower I/E zone

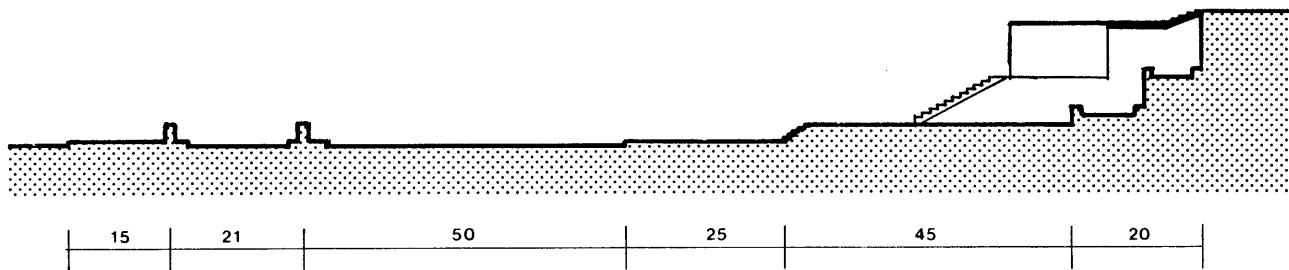
The edge of the Prudential Center nearest the busy block that Lord and Taylor punctuates is but an elevated platform wall buffered by a raised planter set back from Boylston Street, first by a sidewalk (little used) then a ramp to below grade parking, the Ring Road and then another very wide sidewalk.

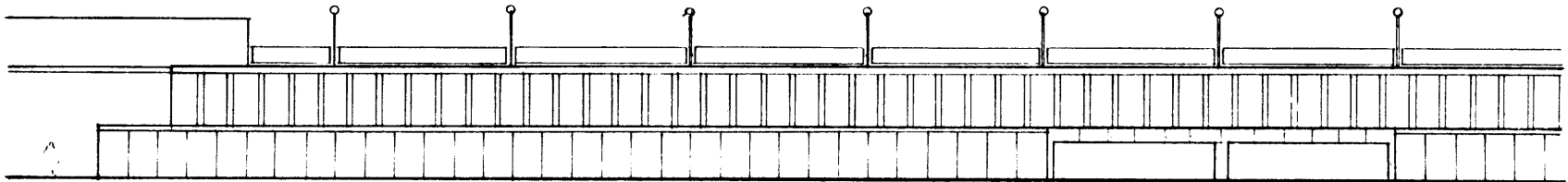
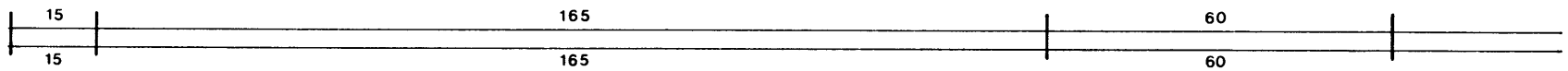
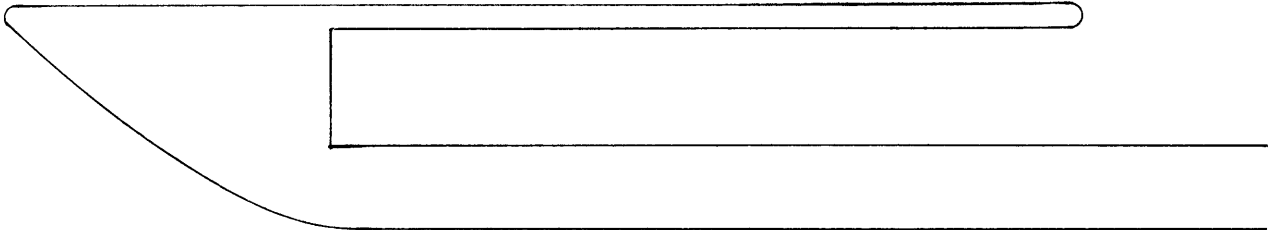
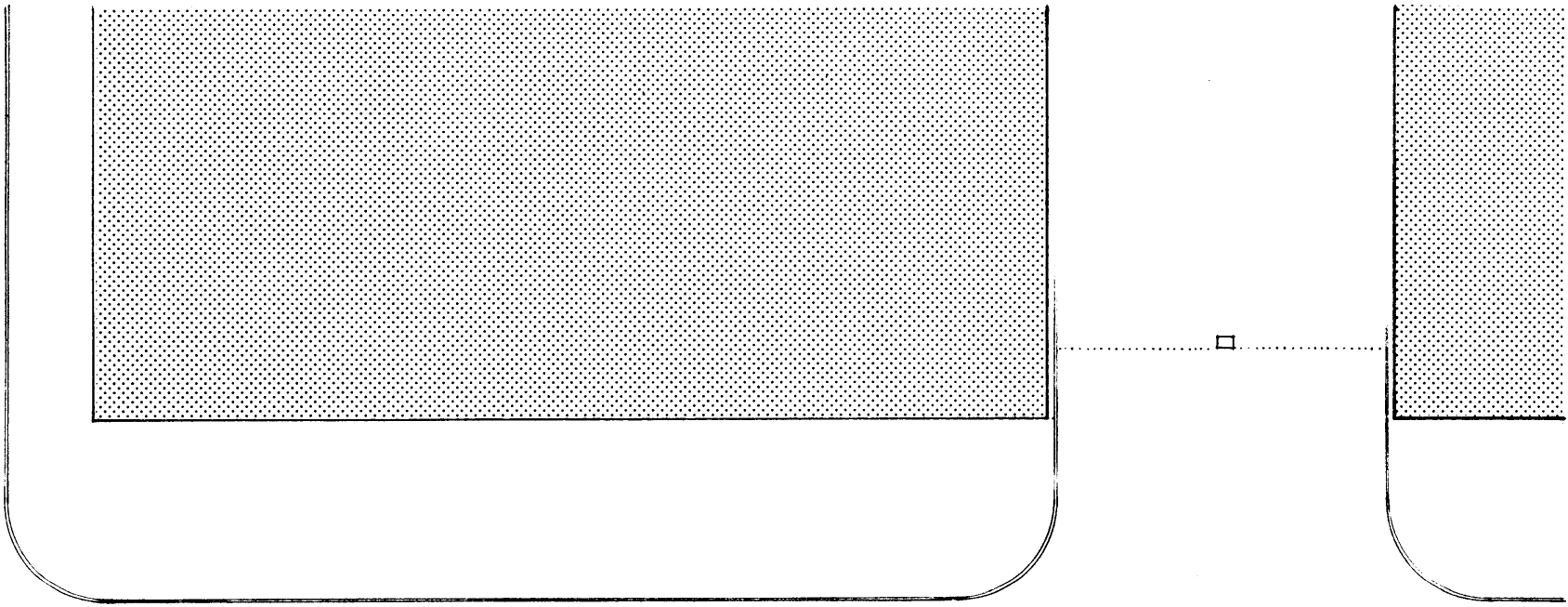


At the two escalator entries to the elevated shopping concourses, the edge, while set back even more from Boylston Street, is taller and more felt. But the reflective glass curtain walls obscure all visual access to what is behind the facade.

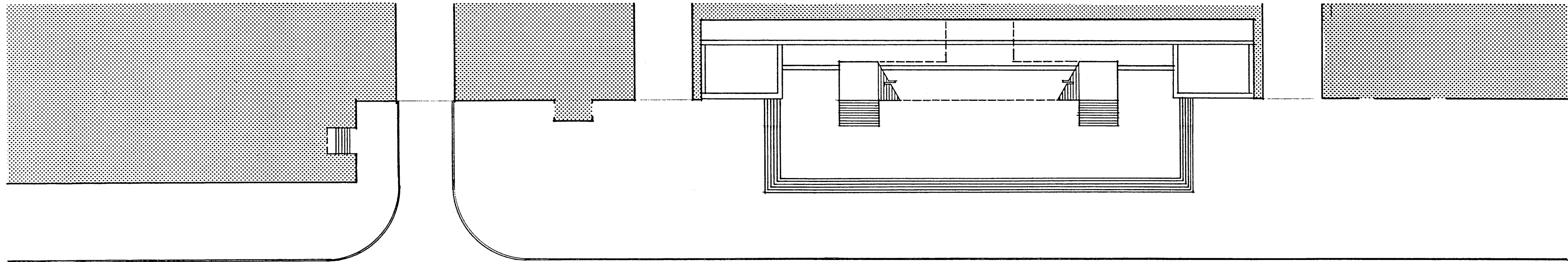


Between the two escalators, on axis with the Prudential Tower is a split stair leading up to the North Court. The stair is set back from the road more than anything else along the Prudential edge. Underneath the open stairs are terraced planters and lots of dead space.

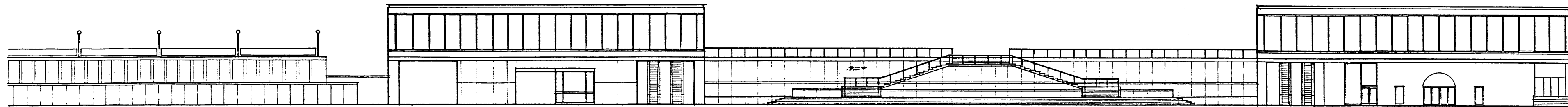
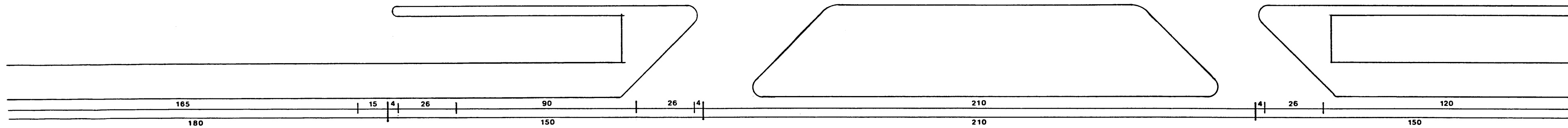


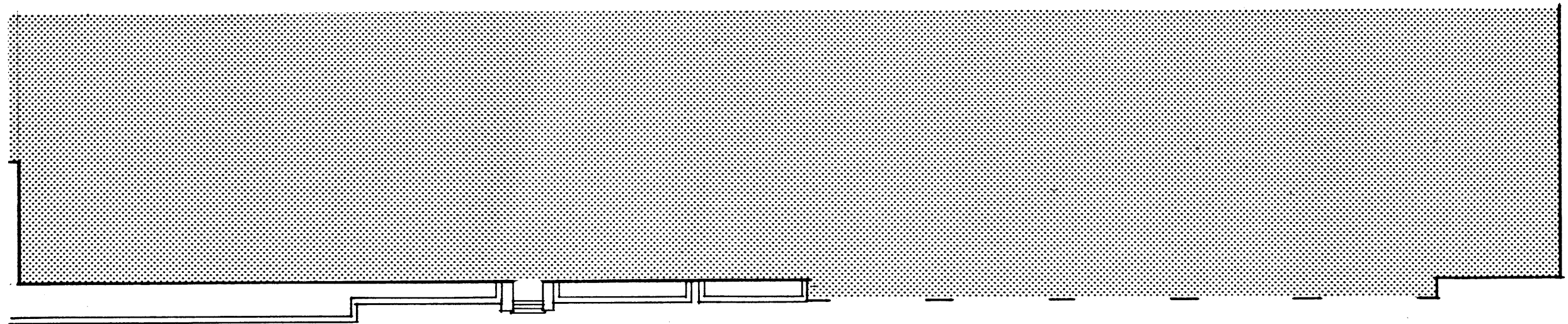


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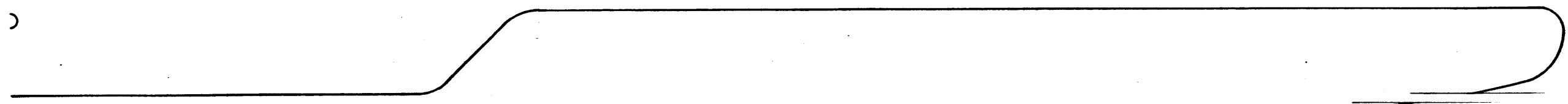


R I N G R O A D





R I N G R O A D



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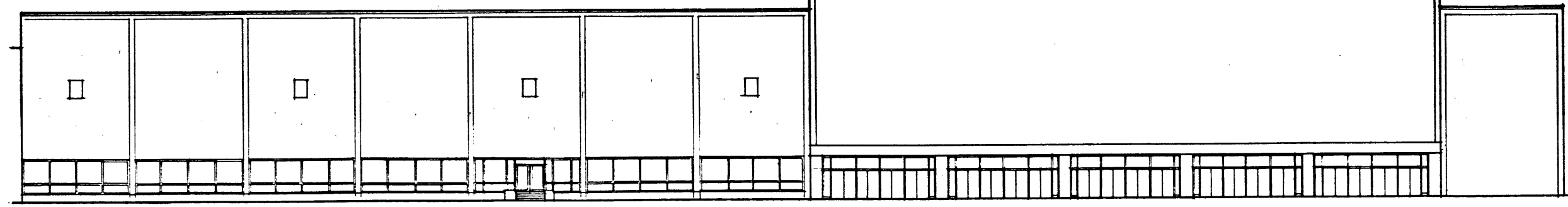
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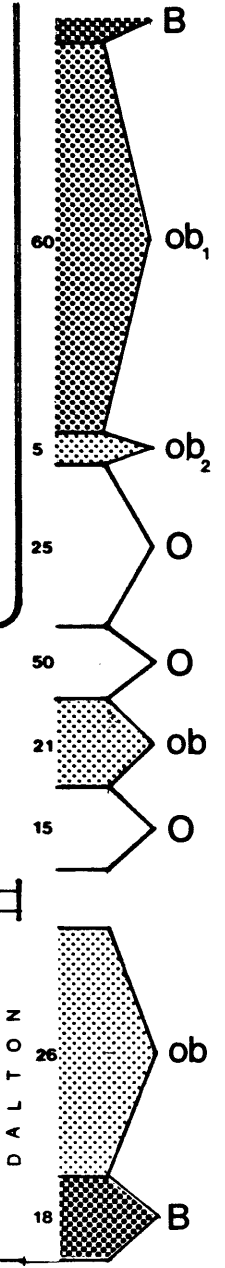
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D A L T O N

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18



65

PART THREE

Analysis - Patterns for Retail / Commercial Edges in Boston

In his work A Pattern Language, Christopher Alexander makes a first attempt at codifying the many morphological and functional interdependencies that enliven mans' built world. He writes:

The fact is, we have written this book as a first step in the society-wide process by which people will gradually become conscious of their own pattern languages, and work to improve them.

It is as if he recognizes the weaknesses of his work in not attempting to list how people and places differ across the globe. Indeed, such a task must be left to people in those particular places.

Built continuums are the essence of environments that touch our spirit. Continuums make places alive and unforgettable. The intricacies of patterns must be delineated if today's modern societies are to succeed in perpetuating and improving that which lives. A place might actually draw its potency from the absence of certain patterns. Patterns lose conviction when they are based on individual values about what is right. They must be based on observable

findings.

Certainly, none of Mr. Alexander's patterns are wrong. But it is wrong to expect them all in all places at all times. By definition, patterns are things that recur. New patterns can be introduced to a place. Indeed they have for centuries. But study shows such change to be an evolutionary process. It is gradual. Patterns move from proven relationships between familiar sizes and positions of materials. New patterns should fit with the old, not overpower it. The genius loci should remain intact. It is a part of peoples' identity, and identity is arguably the very stuff of our existence.

Part Two of this thesis documents observations that reveal patterns of retail edge liveliness in Boston. Some patterns presented in A Pattern Language are confirmed but described in terms that are special to Boston. Additional smaller patterns are suggested from the site observations. Together, they make a case for a typology of patterns; in this case, retail edge patterns in present day Boston. But like in A Pattern Language, the properties are a preliminary formulation. As time progresses, it is hoped more information will confirm what now borders on unsubstantiated belief in certain constructs. The bias is towards a vocabulary of patterns that make Boston retail edges alive and legible.

Each pattern introduced traces the format used by Christopher Alexander:

For convenience and clarity, each pattern has the same format. First, there is a picture, which shows an archetypal example of that pattern. Second, after the picture, each pattern has an introductory paragraph, which sets the context for the patterns, by explaining how it helps to complete certain larger patterns. Then there are three diamonds to mark the beginning of the problem. After the diamonds there is a headline . . . This headline gives the essence of the problem in one or two sentences. After the headline comes the body of the problem. This is the longest section. It describes the empirical background of the pattern, the evidence for its validity, the range of different ways the pattern can be manifested in a building, and so on. Then . . . is the solution--the heart of the pattern--which describes the field of physical and social relationships which are required to solve the stated problem, in the stated context. This solution is always stated in the form of an instruction--so that you know exactly what you need to do, to build the pattern. Then, after the solution, there is a diagram, which shows the solution in the form of a diagram, with labels to indicate its main components.

After the diagram, another three diamonds, to show that the main body of the pattern is finished. And finally, after the diamonds there is a paragraph which ties the pattern to all those smaller patterns in the language, which are needed to complete this pattern, to embellish it, to fill it out.

Finally, the patterns are presented with those of a larger sized nature preceding those that are smaller in size.



EDGES ON BOTH SIDES

Within Boston, there exist SHOPPING STREETS (#32) that attract citizens from near and distant neighborhoods. This pattern is vital to shopping streets that will be always alive as PROMENADES (#31) within the general WEB OF SHOPPING (#19).

* * *

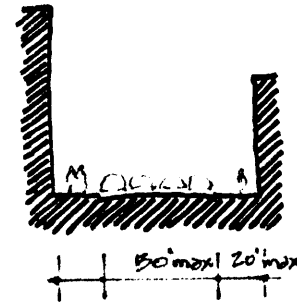
The power that a shopping street has to be a magnet for social interaction rests solidly on the fundamental needs for a place that is supportive of the social needs of people.

The way a place is massed is expressive of and fundamental to its nature. People sense what a place is and react accordingly. Bill Rawn in his thesis on the "Asymmetrical Spine" documents that streets with the most activity are streets with buildings on both sides of the path. Boston's busiest commercial street, Washington Street, is also its narrowest. As stated before, people tend to shop and move along the most alive edges. Where Boylston Street feels the tightest, between Fairfield and Exeter, the traffic counts were the highest. This is taken to be supportive of the notion that shopping streets should have "walls" that spatially contain the street.

People enjoy shopping that is roughly centralized. To walk from one side of the street to another, to lead a visual and walking path that is back and forth, from light to dark to light, from clothing shop to food store to bookshop...to act on impulse and be surrounded by people are the basic ingredients of an exciting shopping district. Retailers are conscious of the "feeding frenzy" phenomenon where customers are stimulated into buying by the behavior of other people around them. Action creates more action.

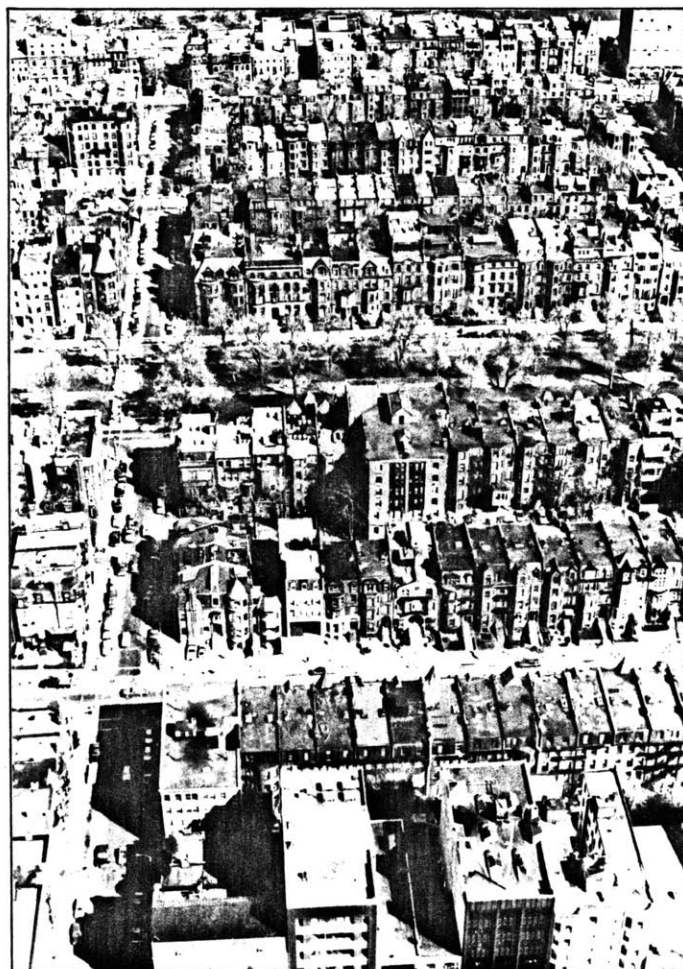
therefore:

Line both sides of shopping streets (preferably narrow ones) with buildings and shops with a setback of no more than twenty feet. Keep the buildings dense with a minimum height of two stories.



* * *

Within the framework of the double loaded retail street, subdivide the density with IDENTIFIABLE BLOCKS. Limit the heights of the structures on either side according to TWELVE STORY LIMIT--SOUTH FACING EDGE and SIX STORY LIMIT--NORTH FACING EDGE. Be sure to construct the blocks as a group of CONNECTED BUILDINGS with VARYING HEIGHTS and expressions of horizontality--BUILDING FRONTS.



IDENTIFIABLE BLOCKS

There are within cities places known as shopping districts that form WEB OF SHOPPING (#19). Often, these districts serve as NEIGHBORHOOD BOUNDARIES (#15) between IDENTIFIABLE NEIGHBORHOODS (#14). Oriented along the WEB OF PUBLIC TRANSPORTATION (#16), the shopping edges are subdivided into block components.

* * *

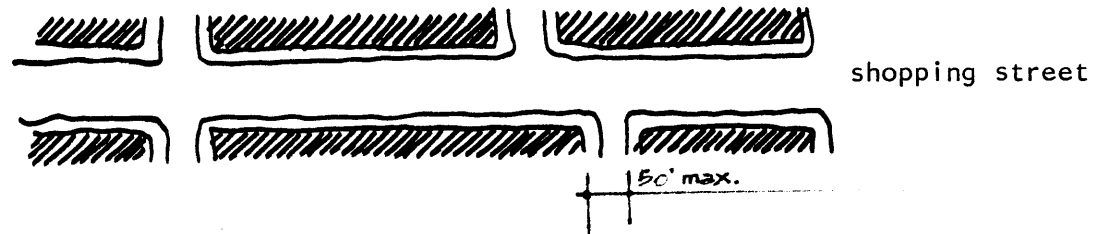
People in urban settings need to find themselves in an ordered network of buildings and spaces. It is not necessary or desirable for shopping districts to isolate themselves from the community fabric. They need to exist with what already exists, which is what people identify with and have pride in, when it works well.

Due to zoning ordinances, conventions of urban design and traditional building practices that reflect practical concerns of safety and convenience, Boston has, like most modern cities, grown along a path dictated by efficiency. It has rectangular city blocks circumscribed by pedestrian and vehicular paths. Light and distributed access to the shopping areas are guaranteed by the regular penetration of shopping zones by generous lanes of access. Congestion at what might otherwise be central entry points, is relaxed. People can park within

a reasonable radius from the heart of the shopping district. These and the citizens choosing public transportation comfortably know they will not have to follow some circuitous route to approach their destination. The network remains open from essentially all directions and service deliveries enjoy quick, unencumbered routes. The pedestrianization of Quincy Market and Washington Street has not changed this pattern. The North and South Market buildings go so far as to provide pedestrian tunnels at their mid-sections. Street openings provide intervals of light and space that add to a lively quality and enrich the promenade experience. They are in fact an ordering mechanism both physically and perceptually.

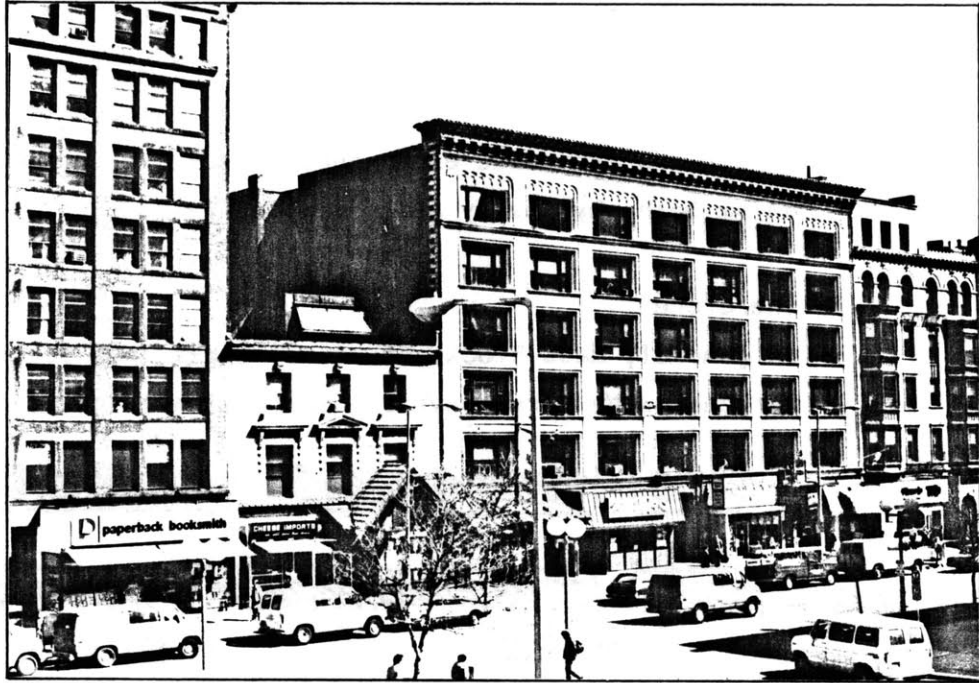
therefore:

In general, mass blocks of retail edges into lengths of 300-600 feet. Perpendicular streetways should be an average of fifty feet in width.



* * *

On one side of the road or the other, swell the pedestrian path out for corner activity-PLACENESS OF CORNERS. Intensify the corner with the elements of this pattern.



BLOCK AS CONNECTED BUILDINGS

An IDENTIFIABLE BLOCK is an additive assemblage of individual interventions. The character of a BLOCK COMPLEX contributes to making the MAGIC OF THE CITY (#10).

* * *

This pattern avoids the mistaken notion of building a block as a monolithic whole.

Boston and its densities are the result of individual acts of building that combine over time. A unity with diversity results. A complicity¹ results that is symbolic of the social life of the community. At the Market buildings a repetition of 22' wide units is made into a 550' long block. On Boylston and Washington Streets individual buildings range from widths of 22' to 85'. The block is given an incremental quality. Party walls add to this arrangement by reinforcing a visual quality that bespeaks of individuality,

¹According to William Hubbard, complicity is "a feeling of rightness about a created thing...We could in fact define this complicity as a willingness to suspend our demand for certain truth so that we can obtain something we value more than certainty."

variety and change. Large, monolithic blocks are avoided. Filene's, Jordan Marsh, Lord and Taylor and the Prudential Center edge are violations of the pattern and suffer from pedestrians avoiding these edges. Admittedly, there could be other factors such as light qualities and transportation nodes that effect this phenomenon. But such "institutionalized" retail establishments build knowing, or thinking, the mere type of operation they represent attracts people. And they do, but the shoppers behavior does not indicate the edges of these buildings to be lively i.e. conducive to social interaction.

Institutional buildings are recognizable by having greater widths. In sum, the blocks are made to read as so many separate parts. This orients the pedestrian along his path.

therefore:

Build each block to read as a set of buildings along the edge that range in width from a small dimension of 22' to a maximum of 85'. More public buildings should, in general, be the longest.



* * *

A city block that is a complex of buildings gives a high density and is a first determinant of edge liveliness. Each building will in turn have a readable character of its own-BUILDING FRONTS- and in complimentary fashion vary in NUMBER OF STORIES. South and north facing edges become distinct-TWELVE STORY LIMIT-SOUTH FACING EDGE and SIX STORY LIMIT-NORTH FACING EDGE.



VARYING HEIGHTS

A BLOCK AS CONNECTED BUILDINGS is incomplete without variation in building heights. This pattern gives a lively quality to the IDENTIFIABLE BLOCK by allowing every block to have a different cadence at its uppermost stories.

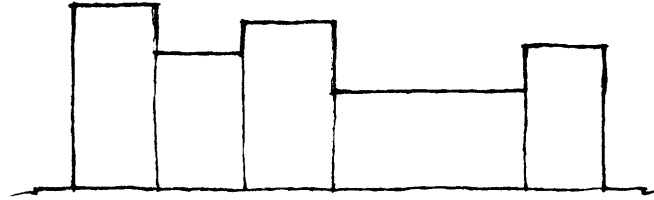
* * *

Patterns do not live unless subtle changes occur in positions and dimensions of space and form. Blocks do not read as a complex of buildings nearly as well unless parapet lines step and sew a seam with the sky. The documented o/b zones show how widely heights of buildings differ along a lively edge. The Market buildings can be considered as a non-thematic or atypical case. These buildings have lively edges because of the strength of their other patterns governing lively edge conditions. The continuous eave line works instead to focus attention on the domed section of Quincy Market which is itself a built element in an open zone. On Washington and Boylston Streets the buildings are not a frame for some central symbol or event. The buildings instead stand for a free decentralized network of merchants.

therefore:

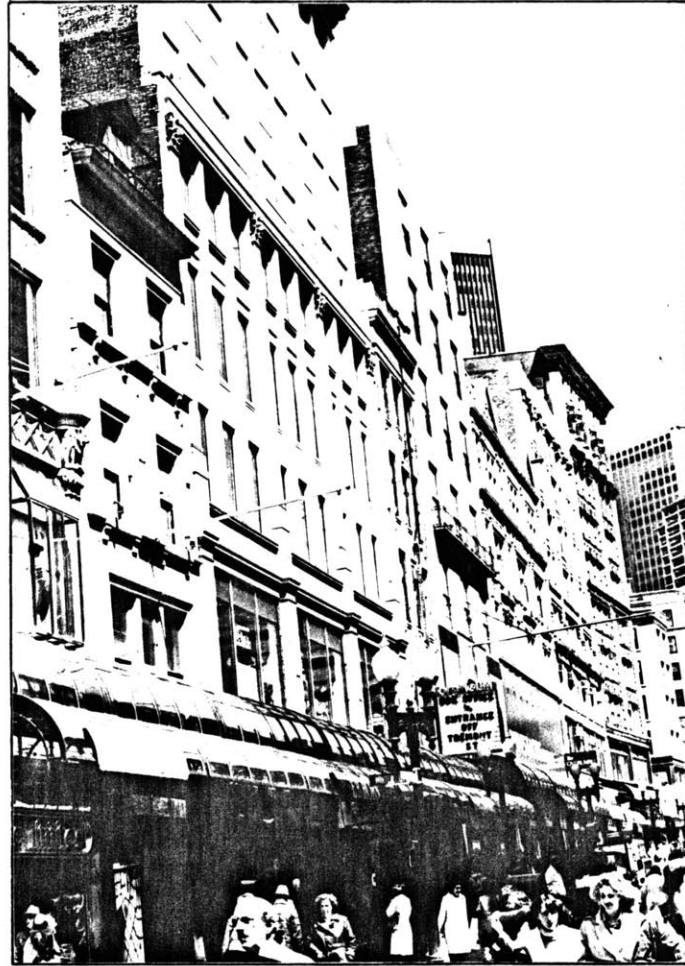
Building heights should vary from building to building, up to fifty feet difference. Even cornice lines are acceptable when the building

widths are relatively narrow.



* * *

While both sides of a shopping street should have a crenelated skyline, the solar and view orientations of the respective edges are reflected as well-TWELVE STORY LIMIT FOR SOUTH FACING EDGES and SIX STORY LIMIT FOR NORTH FACING EDGES. The separate buildings gain more individuality and expression by giving buildings of similar heights a common language of materials, bay sizes, bay insets-BUILDING FRONTS.



TWELVE STORY LIMIT-SOUTH FACING EDGE

Building densities are higher along retail/commercial streets- IDENTIFIABLE BLOCKS- and locate proximate to ACTIVITY NODES (#32). They are in tune with major stops along the WEB OF PUBLIC TRANSPORTATION (#16). A peak height is a requisite for ordering VARYING HEIGHTS.

* * *

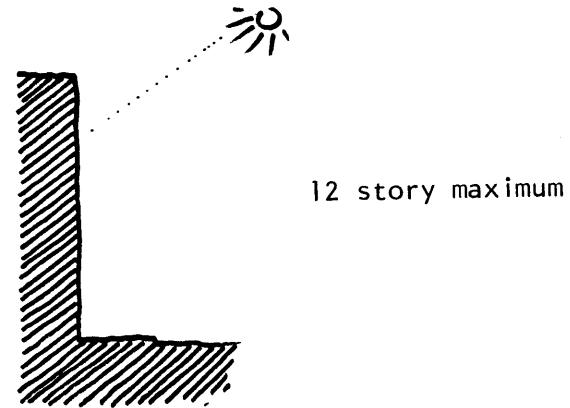
Boston is a city of frequent cloudy days, generous views and cold temperature. If the very tallest buildings in the city occupied shopping streets, citizens would not experience a healthy, enjoyable and shared quality of light and view.

All of the sites exhibit a trend to build to an average height of 65' or about five stories. A minimum roof line of two to three stories is the rule with the exception of a filling station at the corner of Boylston and Fairfield-a non-thematic element. The tallest buildings are along Washington Street, the heart of Boston's CBD. There are seven structures that reach a height of 120'. Despite the narrowness of Washington Street, people were noticed to peer up at the higher reaches of these buildings, requiring concerted effort to do so. Being on the north side of the street, the facades are lit by the sun and maintain a lively quality. Tall buildings that face north would

be gloomy in appearance and would block the light that might hit the structures on the north side of the street. Even within a narrow street, if a twelve story limit is followed people at the street edge will sense the sky. The street is contained but not overpowered.

therefore:

The tallest buildings should be limited to ten to twelve stories or about 120 feet. These should happen on the north edges.



* * *

Use this pattern to begin at a large size the differentiation between opposite sides of the street. BUILDING FRONTS will in turn reflect differences in density and use.



SIX STORY LIMIT--NORTH FACING EDGE

EDGES ON BOTH SIDES derives a dynamic from the assimilation of
CONNECTED BUILDINGS that use in counterpoint fashion VARYING HEIGHTS.

* * *

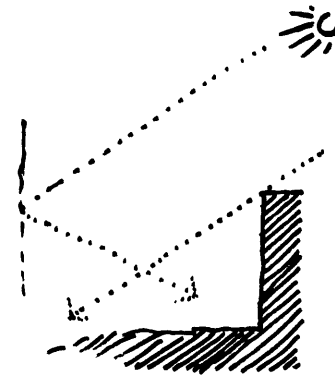
While retail edges receive much of their life and identity from
having higher densities, they must respect basic needs of light,
view and air.

Washington and Boylston Street have lower densities on their southern
edges. At Quincy Market, where the South Market building is taller
than the Quincy Market building, the street is very wide, 85', as
compared to the North Market Street (45') where the North Market
building is taller than its southern neighbor. In this way a relation-
ship is maintained that respects the admittance of early morning and
winter sun angles.

therefore:

Design the North facing edges to be lower in height than the South
edge height, approximately six stories maximum.

6 story maximum



* * *

Lowering the height of the south edge encourages the assembly of an identifiable collection of BUILDING FRONTS different in nature from the north edge. A framework is set for an ASSEMBLY OF FUNCTIONS that reponds to different lighting and behavior conditions.



BUILDING FRONTS

It turns out that aside from NORTH FACE and SOUTH FACE definitions and the pattern of VARYING HEIGHTS, the individual buildings that make up a BLOCK OF CONNECTED BUILDINGS must attend to a level of expression that controls the interest of the everyday pedestrian.

* * *

People who want to shop outside, those that enjoy the proximity of shop to street and the out-of-doors, appreciate a setting that is theatrical, whether they are conscious of it or not.

Path and facade do relate. How do people remain interested in a facade over long periods of time? Traffic counts reveal a correlation between the absence of articulated, lively facades and the absence of people along such an edge. Blank facades tend to force people to the other side of the street or to an interior world. This is the inference from the comparison of north and south edge traffic counts along Boylston and Washington Streets. The south sides of both of these streets are for all practical purposes devoid of life producing patterns and exhibit a corresponding decrease in edge traffic. At Quincy Market the same holds true during the cold months when the glass doors are all closed giving a dull and unmitigated edge.

Facades that are lively seem to have a tripartite composition. To begin, the street level bay is typically more pronounced due to its greater ceiling height. This level can be referred to as the lower or exchange zone. Many of the fronts along Washington Street and the North and South Market buildings have a level above this zone that is a transition level between the twelve to sixteen foot lower bays and the regular and more compressed ten foot floor-to-floor bays of the midsections. The uppermost stories become highly articulated with changes of structural expression and increased decorative motifs. One of these motifs is the use of small arched windows or reveals. This type of motif is generated by a much larger pattern which finds the column distribution such that large columns at the exchange zone are set apart as widely as possible. These columns often are obscured by shopfronts attachments. At the intermediate levels the column spacing is narrowed. Columns soar uninterrupted to the top floors where again the column spacing tightens. Sometimes there is a horizontal definition where the various zones begin and end. Just as often one finds an entresol level that serves as a transition zone between the lower-exchange zone and the intermediate zone.

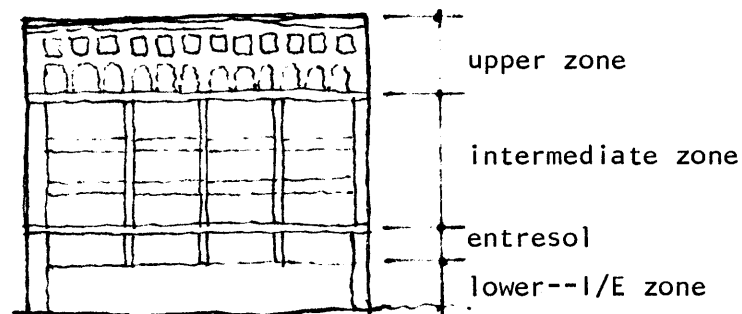
Along a given street, similar skin materials are used in buildings of about the same height. In this way the pattern language gains more "complicity". At Quincy Market the fronts are of grey trabeated granite. Boylston Street buildings from three to five or six stories favor red brick facing with light colored stone insets for window sill, keystone, and quoin definition. Washington street architecture, until

the construction of the new Jordan Marsh store, keeps to a vocabulary of applied stone or terra cotta.

On Boylston Street, in addition to the use of Back Bay materials, half rounded bays and angular bays the entire height of the buildings are found. Lighter bay infill is occasionally used at intermediate zone positions. Bays increase light and view from the building and add a surface plasticity that is distinctive.

therefore:

Building fronts should be tripartite compositions having a pronounced street level floor ten to sixteen feet tall. Intermediate floors should be shallower and even in appearance. The uppermost stories should be the shallowest with a sense of lightness and ornament. Materials should stay the same with buildings of relatively the same height, used in consistent ways with some variation. In the Back Bay, bay windows should be used at repeated intervals.



* * *



CORNER AS PLACE

Where streets intersect, ACTIVITY NODES(30) develop. One type of node is the urban street corner where tall buildings help define (BUILDING HEIGHTS) the network of roads and paths and take advantage of the light and view and thereby earmark IDENTIFIABLE BLOCKS. This pattern shows relationships that make corners live.

* * *

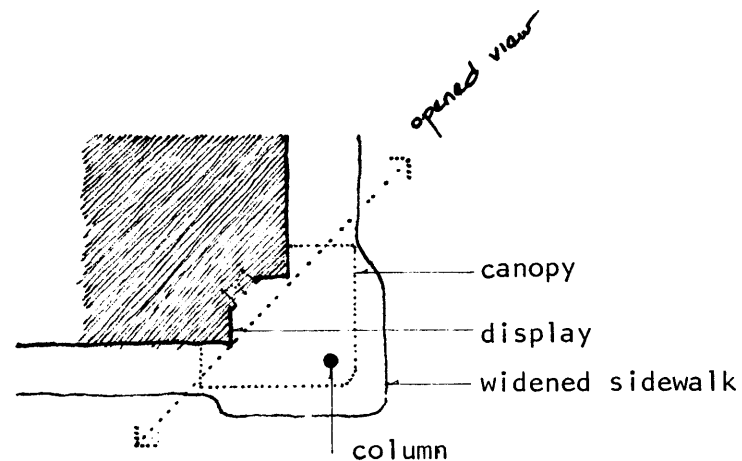
As Christopher Alexander points out, "the process of walking is far more subtle than one might imagine. Corner locations are unique and prized by shopkeepers as well as office workers but for different reasons. At street level, corner shops gain a prominence by addressing themselves to pedestrian traffic on two streets instead of one as is usually the case. They benefit from the congestion often found at corners. To maximize visibility and reduce congestion for easy entry, it is common for the corner of the building to be recessed. That is, the o/b zone is left open.

At the corners of Washington Street and Temple and Winter Streets the corners are notched with doors at a diagonal. At the Quincy Market building the corners are effectively open porches. In all cases, the building or a canopy overhangs and protects people at the corner.

Columns are commonly situated at corners. In this way, the sidewalk proper is separated from the entrance. The boundary is ambiguous though and by shortcutting the corner between column and entry door there is a feeling of already entering the store, which makes staying there easier. Field surveillance shows people gather, stop, rest, take their bearings and chat with friends at corners more often than midway along the block edge. Even at Quincy Market and Washington Street where the "streets" are closed to vehicles, pedestrians cling to corner edge positions rather than the openness in the street.

therefore:

Encourage sales and social pedestrian activity by notching urban corners. Place a column at the corner to distinguish between public and private territory and to divert people "into" the shop. Shelter the niche with a rounded canopy or by overhanging the building.





ATTACHED SHOPFRONTS

Of the three zones that typify BUILDING FRONTS, the most important is the lower. ATTACHED SHOPFRONTS intensify the street edge and contribute to making CORNERS AS PLACE.

* * *

Shopkeepers need a framework that is adaptable to their changing needs. Pedestrians need to easily and quickly identify individual stores from one another and sense what each store has to offer.

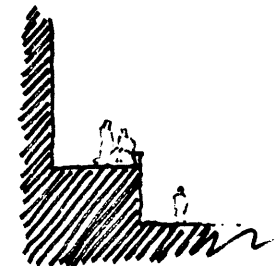
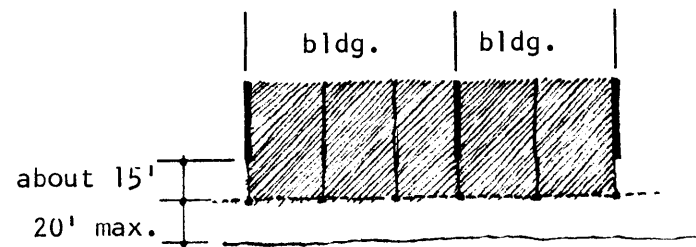
Sections taken through edges along Boylston Street and Quincy Market show a similar attitude towards making shopfronts that are to scale with pedestrians. These sections are one story additions of light structural systems. On Boylston Street they are decorated in widely varying styles while at Quincy Market a repetitive glass and steel system is used. Each has its advantages. The sheds at Quincy Market have garage door walls that are open in the summer months. People and goods spill out into the path. The edge is extended and less defined. An air of festivity and spontaneous buying abounds. Food and bookshops along Boylston Street also move into the path, though with more difficulty and less security due to the lack of walls that open.

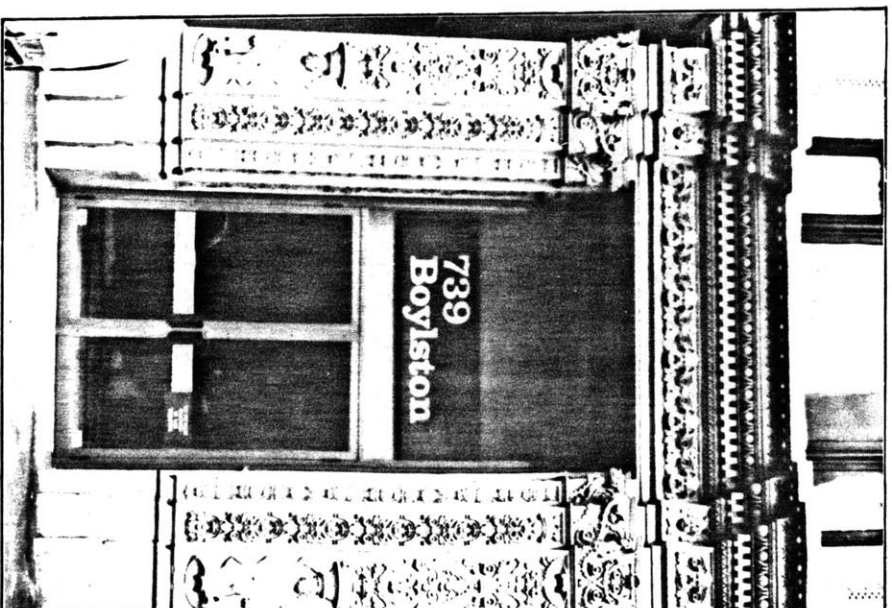
At all three sites, the lower zone was mostly glass, doors included. This practice maximizes display space and minimizes barriers between the public and the "privacy" of shops. Where glass sneds are used (Quincy Market and Warburton's on Boylston Street) light can be controlled to reduce utility bills and give even the smallest stores an air of spaciousness. Spots of direct sunlight inside a shop attract peoples' attention subtly but surely.

An unused advantage of the flat roof attachments on Boylston Street is the potential for above grade balconies and cafe terraces. Economical and flexible stairs could be easily added and/or moved as need dictates.

therefore:

Where sidewalk widths and building set-backs allow, build out shop-fronts that are on average 15 feet in depth and 10-16 feet tall. Space supporting members at roughly 22 foot intervals or in similar relation with the supporting building's exterior composition. Provide sliding and or roll-up doors and walls of glass to encourage an open air shopping atmosphere. Where the attachments are with flat roofs, space should be left for vertical access requirements.





FAMILIES OF ENTRANCES

Street level edges are then combinations of ATTACHED SHOPFRONTS and BUILDING FRONTS. Neither is complete without a way to enter and this leads to the pattern of entries, FAMILIES OF ENTRY.

* * *

The problem of finding the way to the people and places of our daily business is an everyday one. Buildings should assist us in this task by clearly marking where to go into the buildings and shops.

Along any of the streets documented, one will find offices, restaurants, retail shops, institutional branches and headquarters, places of entertainment, etc. People carry subconscious images that clue us into finding the type of function we are looking for. If it were a bank, we would look for signs along the way, a front that was large and of impersonal nature, a walk-up window with a banking machine. What other clues might there be?

Along Boylston and Washington Streets entries to upper level office floors, banks theaters, hotels etc. there is virtually no transition space provided between sidewalk and door. Doors are merely holes punched in walls. They are usually found in the middle of the

building front. If not, these doors are juxtaposed with the party walls. They typically have tall ornamental borders that set them apart from the less decorated but more spatially defined shopfront doors. At the North and South Market buildings, the office/lobby entry portals are all glass recessed eight feet from the facade in what is otherwise nondescript fashion.

Entries that lead to upper level galleries are marked by wider and taller than normal alcoves, perhaps of a distinctive shape as at the North and South Market buildings as well as at the Corner Gallery on Washington Street. These are appropriate places to locate stairs to below grade functions. By centralizing vertical accesses, as at the Arcade on South Market Street, choices become more visible and convenient to the shopper. A not so successful example of this exists at 829 Boylston Street. There, two separate stairways lead up and two down. The arrangement lets you enter one shop without exposure to the other. Instead, it would make sense to have a common stair for all below grade shops so if one goes down to a shop and doesn't find anything of interest, at least there is another store to discover without having to go up and down again to what might be another disappointment.

The central entries to Quincy Market jut out eight feet on the south side while the north portal is just a recess without first jutting out. Both entries assume a taller elevation than the adjacent shopfronts. Shopfront entries are commonly recessed in niches of from three to

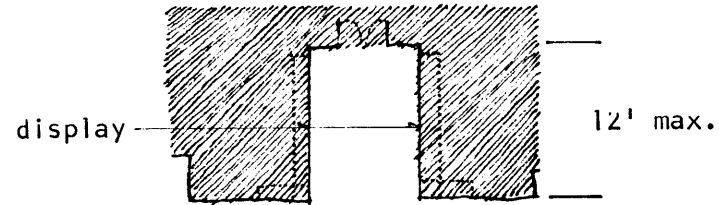
twelve feet from the sidewalk. Shops which seem to thrive on comparative shopping customers, especially shoe and jewelry merchandisers, have the deepest setbacks. This apparently minimizes street frontage while giving equal or greater amounts of display space. It ensures that pedestrian traffic will have a head on view of the wares. The transition space created by so large a gesture is an in-between zone that gets one "in" the shop without having first to push a door.

therefore:

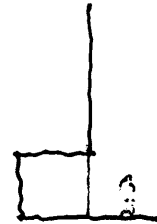
Entries to grade level retail shops should be recessed three to twelve feet with widths of four to eight feet. The deeper the recess, the wider the opening should be. Warm materials should be the case.

Entries to upper level offices and street level institutional uses need not be recessed. If they are, the portal should be plain with cold materials (glass, stone, steel). Locate these entries in the middle of the building front or to the extreme side positions. When not recessed, the doorways can be ornamented with glass overdoors another feature. Always make the doorway taller in some way than its neighbors.

Where shopfronts have entries to internal shopping galleries, raise the roof or alcove ceiling line, jut out into the sidewalk more or use a different niche shape.



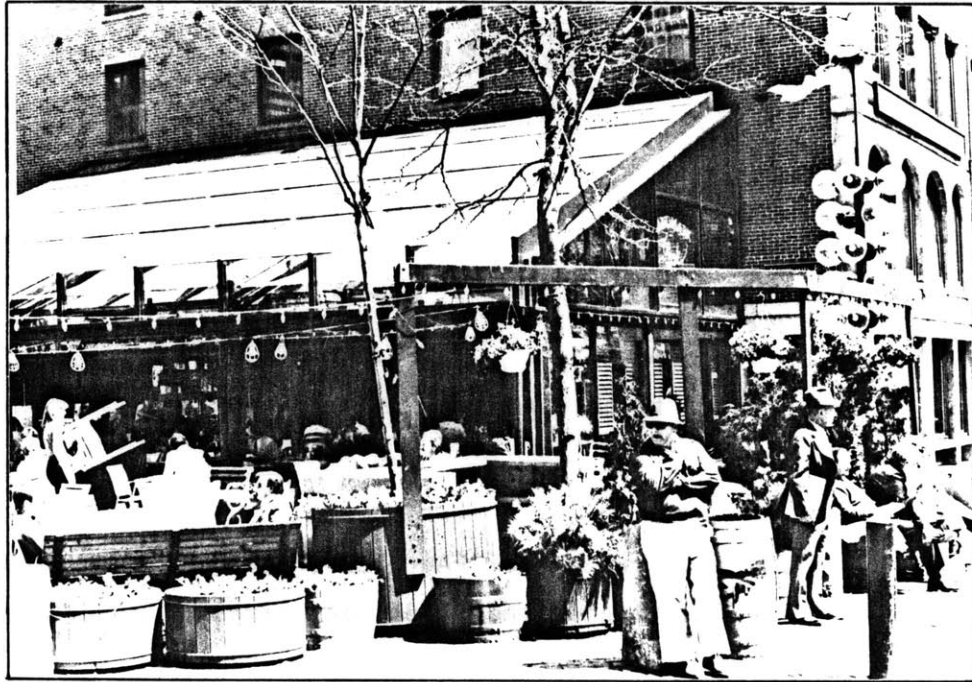
entry to gallery



typ. entry niche

* * *

Let requirements of FAMILIES OF SIGNS and POOLS AND STREAMS OF LIGHT influence the shapes and sizes of entry elements.



RESTAURANTS ON THE STREET

As part of the cadence of ATTACHED SHOPFRONTS, restaurants deserve special attention as suggested by the entry transition, FAMILIES OF ENTRANCES.

* * *

Restaurants along shopping streets are both a delight and an anomaly. That is, diners want to enjoy watching the "outside" while maintaining a distance and privacy.

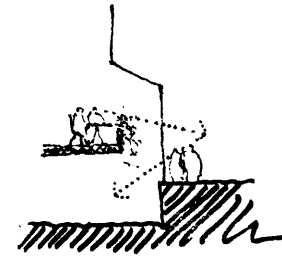
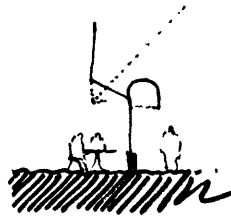
Restaurants differ from cafes. At cafes, people like an atmosphere of openness and exposure. They like seeing and being seen. Restaurants offer a more secure, tranquil and intimate experience. There, the street scenery is still desirable but viewed from a greater distance. The Oyster Bar and the Olde London Pub and Grille on Boylston resolve the conflict between dining intimacy and street exposure by building a virtually solid wall. The windows that are provided are opaque from the outside. A person wondering from the outside about what is on the inside must make a strong commitment to find out. The Burger King on the same street uses half solid walls below waist height with continuous clear glazing above. A sense of privacy is obtained while allowing passing people a view in. The

Wok-In on Boylston has an all glass front but the dining floor is sunken four feet below the sidewalk level so there is not a sense of confrontation between outsiders and diners. But here the view out is through passing legs and at more sky than faces and shops.

Most of the restaurants at the Market street level use half-walls and screens (such as frosted glass, curtains and plants) to give the right public-private gradient. A few eating establishments are on the second floor level. Diners sit along the windows with superior outlook positions. But here the pedestrian is not able to get much of a sense of the restaurant as a space or its clientele. Perhaps a close to ideal set-up is at Durgin Park where the ground level floor is set back from an all glass (north facing) front. Generous views to the inside and to the outside exist while distance between the two is kept. Viewers can see the below grade bar from the sidewalk. Light is admitted to what otherwise would be a very dark place.

therefore:

Working with the clues provided by the observations, two options for pleasant dining along the busy streets of Boston seem likely. One is at ground level using half-walls and screens. The other is a main dining floor a couple of feet above street grade set back several feet from a full length glass wall. Second level dining should be in conjunction with some visually accessible street level dining.



* * *

Give a bit more territory between sidewalk traffic and diners by using CANOPIES. This is another way to get FILTERED LIGHT(#238).



CANOPIES

Within the milieu of BUILDING FRONTS, PLACENESS OF CORNERS and ATTACHED ENTRANCES is a range of sheltering and attention grabbing devices known as CANOPIES.

* * *

There is a modern need for comfortable passage...and a special, timeless beauty about colored canopies.

Canopies are well used along Boston shopping streets. Three types were found:

- a) transparent (glass;plastic)
- b) translucent (canvas;plastic)
- c) opaque (metal)

Washington was the only street with opaque projections but for a couple along Boylston Street. The entire length of the Filene's store is dominated by a twelve foot cantilever. Jordan Marsh has a continuous eight foot overhang. Both make this side of the building edge dark and uninviting. Opaque canopies on the south facing edge cut down on store window glare and make the path cooler on hot, sunny days.

Washington and North Market Streets both have extensive lengths of

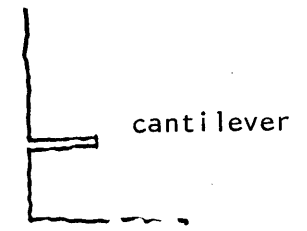
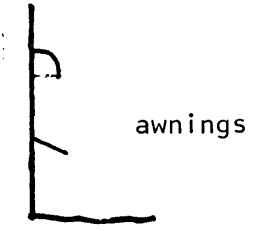
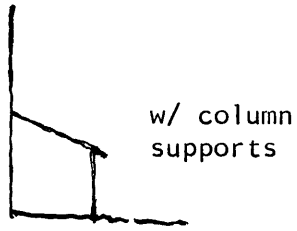
transparent glass canopies on their north sides. Like solid canopies, they are effective in sheltering people and path from snow and rain. Their sense of enclosure is not as great though. The use of supporting columns on the Washington Street canopy adds to the sense of containment. Considering the other side of the street is virtually dead and lifeless, the attitude seems appropriate.

It is amusing to notice the absence of a glass canopy on the South Market building when so much else is similar between it and the North Market building. People were observed not walking so close to the edge of the South Market. One reason might be the interruption of the edge by three stairwells. The great width of South Market Street adds to the distance between path and edge.

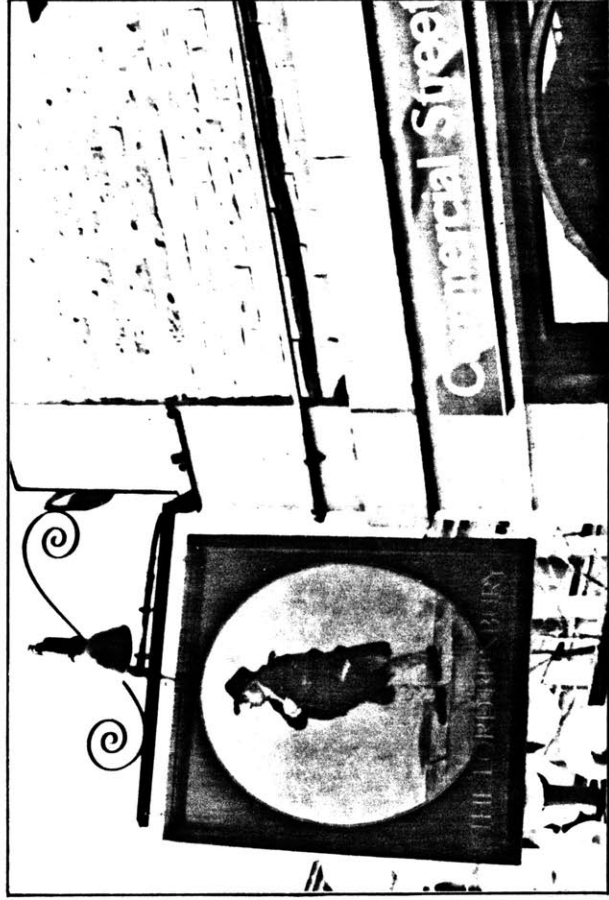
All three shopping streets used with considerable frequency canvas canopies. They contribute qualities of FILTERED LIGHT (#238) and WARM COLORS (#250). As visual ornament, they direct attention to the many second story uses at the Market.

therefore:

Use solid canopies along the south facing edge only. Glass canopies can be used on either side. Column supports can be used to separate the shop from a path or a path from another edge. Colorful canvas canopies should be used all over and at higher elevations to draw attention to the presence of what might otherwise be hard to discern above grade public uses.



* * *



FAMILIES OF SIGNS

BUILDING FRONTS, ATTACHED SHOPFRONTS and RESTAURANTS ON THE STREET are rarely complete without signs. They are a significant contribution to the MAGIC OF THE CITY (#10).

* * *

Competition is a fact of retail life, each store vying for attention. Each then needs a strong identity.

One cannot imagine a shopping street without signs. Not only are they important sources of useful information, but they give a special dimension to a places' pageantry. It becomes immediately apparent on Washington and Boylston Streets that the south edges are virtually void of signage, whereas the north edges are packed with them. There are signs on the canopies, signs covering whole sections of building fronts, bracketed signs that face the strolling shopper head on and a proliferation of smaller signs in windows with very specific information on sales and services. Together the signage makes a layered band of graphics with the smallest signs near eye level and the largest up to eighteen feet above street level. These larger signs read well from the middle of the street and from the opposite edge, sometimes. They are out of place at Washington Street since it has become pedestrianized.

Boylston is the one street looked at that is heavily trafficked with automobiles, yet this street has smaller signs than the narrower and "malled" Washington Street. The largest stores have the least amount of signage apparently relying on their sheer physical presence to gain attention. Where sidewalks are very wide, free-standing signs are positioned perpendicular to the direction of traffic.

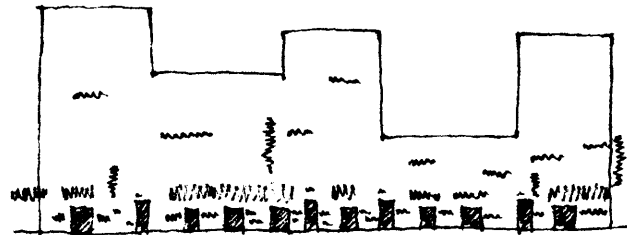
At the Market, signage is more minimal. Since traffic is pedestrian, this seems to make sense. But here window graphics gives over to "tasteful" window displays of the merchandise. On the South Building, canvas canopies abound, with the store name prominently placed on them. Below the glass canopy on the North Building is a procession of small wood signs that face the flow of people. The largest signs at the market buildings occur on the painted railings around the sunken wells, apparently making up for some lost store visibility. Banners and freestanding directories are placed at major entry points. The Market buildings use signage all the way up to the cornice lines. Large but of muted colors, these effectively convey a sense of occupation to areas of the building front that might seem dead otherwise. The south facing edge of Washington Street also has a number of second floor level uses that deploy signs. A lively quality is contributed that is supportive of the notion that the entresol is a zone of transition between the upper and lower zones.

On all the street edges, signs at office entries were kept to eight inch address numbers over the doors. At chest height, there is often a

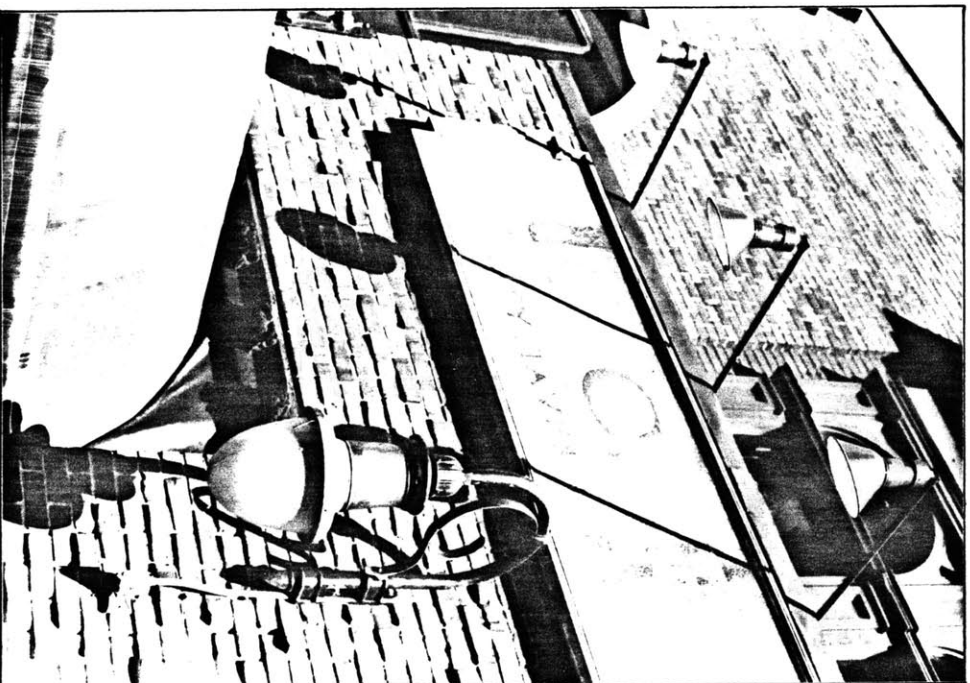
plaque to either side of the doors with the name of the building and sometimes a directory if it is short.

therefore:

Use a variety of sign types-bracketed, canopy, building front and window with no store having more than seven per cent of its building front area obstructed with signs. Do not use flashing signs. Orient signs more for pedestrians than for cars. Office signs should be relatively monochromatic and simple, set above the doors. All signs for retail uses should intensify at the entries with the most continuous signage between the street and entresol levels.



* * *



POOLS AND STREAMS OF LIGHT

By ordering edges to be alive, daytime activity should be optimal. This pattern makes the most of the larger patterns by keeping edges alive and stimulating at night.

* * *

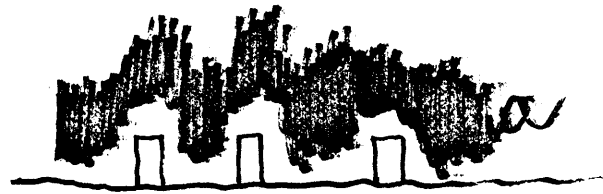
When it is dark, lights direct people's attention putting shops on display. Lighting that is undirected and uniform is confusing and uninviting.

Under the continuous, hard surfaced canopies at North Market Street and Washington Street, lights are placed in a line down the path. The path is a stream of light with pools and eddies of light of a greater intensity where entries occur. Where the entries are recessed soffit lighting occurs. At other times, or in conjunction with soffit lighting, bracket lamps announce the doorways. At the Arcade and the Gallery entrances on the North and South Market Streets, lamps on poles are set out from the alcoves. Territories are made by pools of light that are perceived as important and social. Where people are not wanted the level of illumination is low and even. People congregate where the lighting is brightest. People feel secure and "wanted" by edges that accommodate night life. It then makes sense,

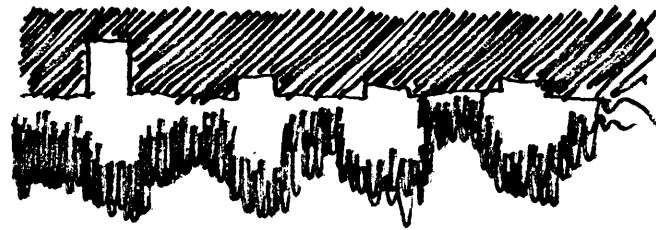
as at Quincy Market, to group functions that remain open at night. The intensity of light and activity produced is something lost on Washington Street.

therefore:

Place lights in continuous lines to brighten the paths between night activity spots and connect the pools of light that should occur at gathering spots. Group entries to night spots where possible.



elevation



plan

* * *

Shades, CANOPIES and CLIMBING PLANTS (#246) can help make light come alive and give a FILTERED LIGHT (#238) with WARM COLORS (#250).



The Prudential complex. A new commercial-residential redevelopment zone separates Back Bay (lower left) from the South End (top right).

Design Guidelines

CONTEXT

Part Three of this thesis exposes the extreme non-thematic and unlive-ly qualities of the Boylston Street edge along the Prudential Center. This edge, as it exists, is withdrawn from the logical and natural pedestrian flow, relying heavily on the captive day work population at the Prudential Tower for almost all of its activity. The soon to be realized 250,000 square feet of new retail space at Copley Place will put the Prudential retail core under stiffer economic strains. Already, casual and informed observation reveals store vacancies and a marginal amount of mercantile success. The bridge that will connect the South Prudential Court with Copley Place is likely to take more noon time traffic from the Prudential than it gives.

Coincidentally, there is city wide pressure for the expansion of the Hynes Auditorium to allow for more and greater conventions that in turn bring significant consumer dollars to Boston and particularly to the Boylston Street district already studied. This expansion is viewed by many to be the key to increased retail/commercial survive-

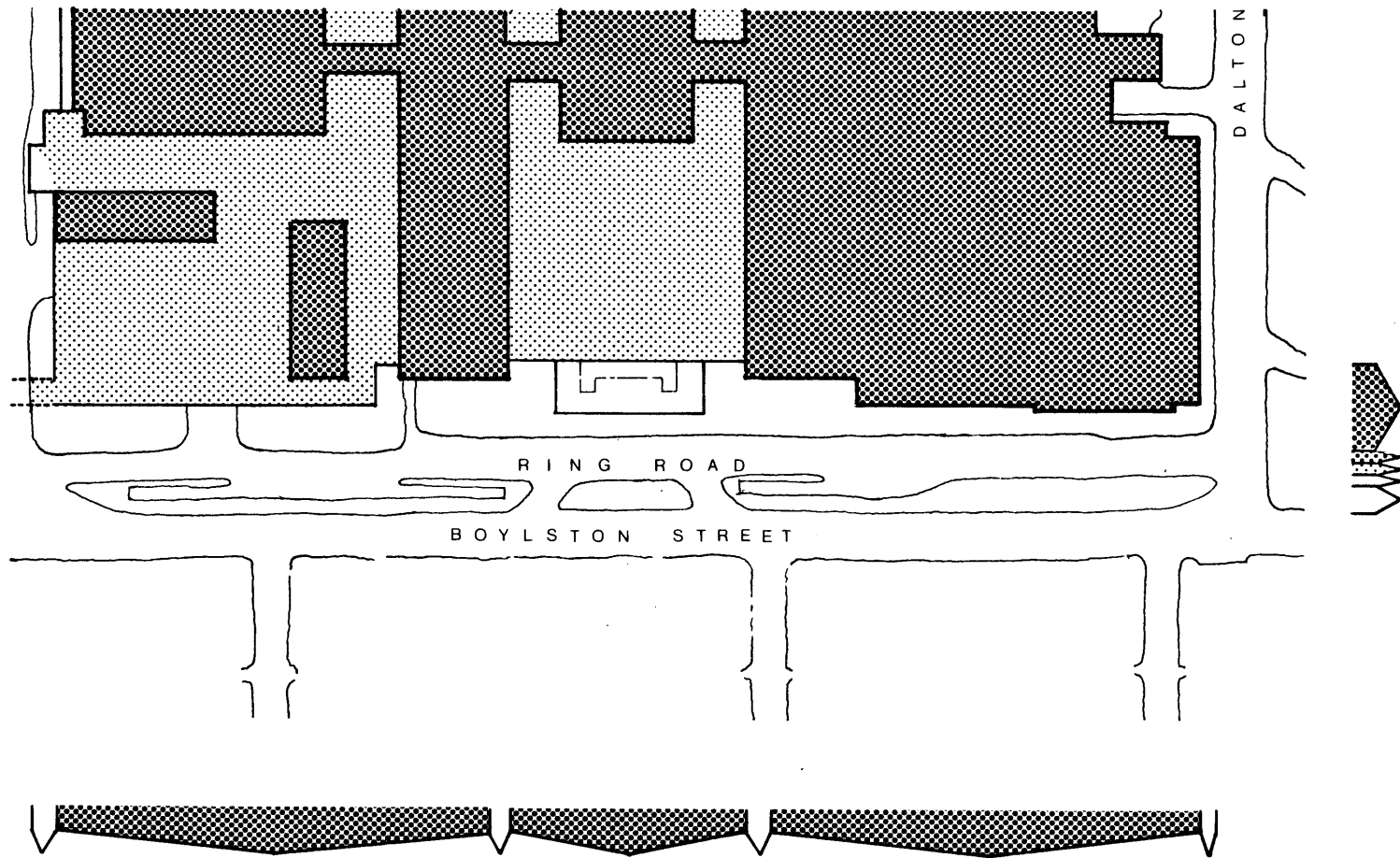
ability for years to come. In total, these considerations weigh heavily for a reinvestigation of the development of the Prudential edge along Boylston Street. If it is true that lively edges can attract and manipulate pedestrians, the case for new and extensive retail/commercial intervention is given added cause.

A first step towards the rejuvenation of the south Boylston edge between the west Ring Road and Dalton Street is the generation of a set of design and development guidelines. Guidelines are finding increasing usefulness in the urban design process, especially in large projects where public and private concerns must both be represented. The project at hand is a good example. The Boston Redevelopment Authority must approve whatever design the Prudential Company proposes. They also have control over the alterations to the auditorium.

9. Long narrow strips of open space between buildings are strongly discouraged. In general, open spaces should contain at least 1,000 square feet and have a minimum dimension of 30 feet.
10. Open spaces physically or functionally inaccessible to pedestrians because of their configuration or immediate surroundings are discouraged.
11. Exterior open spaces should be unobstructed from their lowest level to the sky. However, arbors or trellises, awnings or canopies, umbrellas or kiosks, railings and fences, flag poles, steps, ornamental fountains, statuary, elevated pedestrian bridges, which permit accessible areas thereunder, benches or other similar street furniture are considered permitted obstructions. Such permitted obstructions should not occupy more than 50% of an open space. Trees and other plantings are not considered to be an obstructions.



Unfortunately, most guidelines tend to be historical and graphical accounts that recommend, in quasi-objective and systematic manners, principals of use, scale, form and linkage. Smaller scale relationships that might be deduced from contextual conditions and used to add up to a wholistic design are commonly ignored. It is thought that this is a serious shortcoming of contemporary urban design practice. What is needed, as suggested in much of the SAR research, is a systematic approach to organizing design information so that the participants can proceed along an orderly path of agreement/decision making.



SITE AS IT EXISTS WITH ZONING INDICATED

121

fig. 2

As this thesis has so far implied, retail edges do have identifiable continuities that blend to formulate meaningful environments. Patterns are the building-blocks for architectural interventions. This chapter attempts to model the usefulness of the foregone analysis. This is done keeping in mind that the site is special and asks for a workable transition from the conventionality of north Boylston Street to the elevated platform that is the core of the Prudential Center.

ZONING

What form then should design guidelines take to mold unknown programming issues into a design that will best guarantee edges that are lively and relate to the existing milieu of the north side of Boylston Street and on a larger level to the Boston genius loci? We have now a language describing retail edges in Boston, but the guidelines would be weak and indirect without some site specific directives. To get at a leaner picture of what might be requisite and appropriate to developing the Prudential Center's Boylston Street frontage, a set of "zoning" documents is introduced where a zone is defined as an area to which specific rules are attached. These communicate graphically positions and dimensions of built and open spaces and their respective functional parameters.

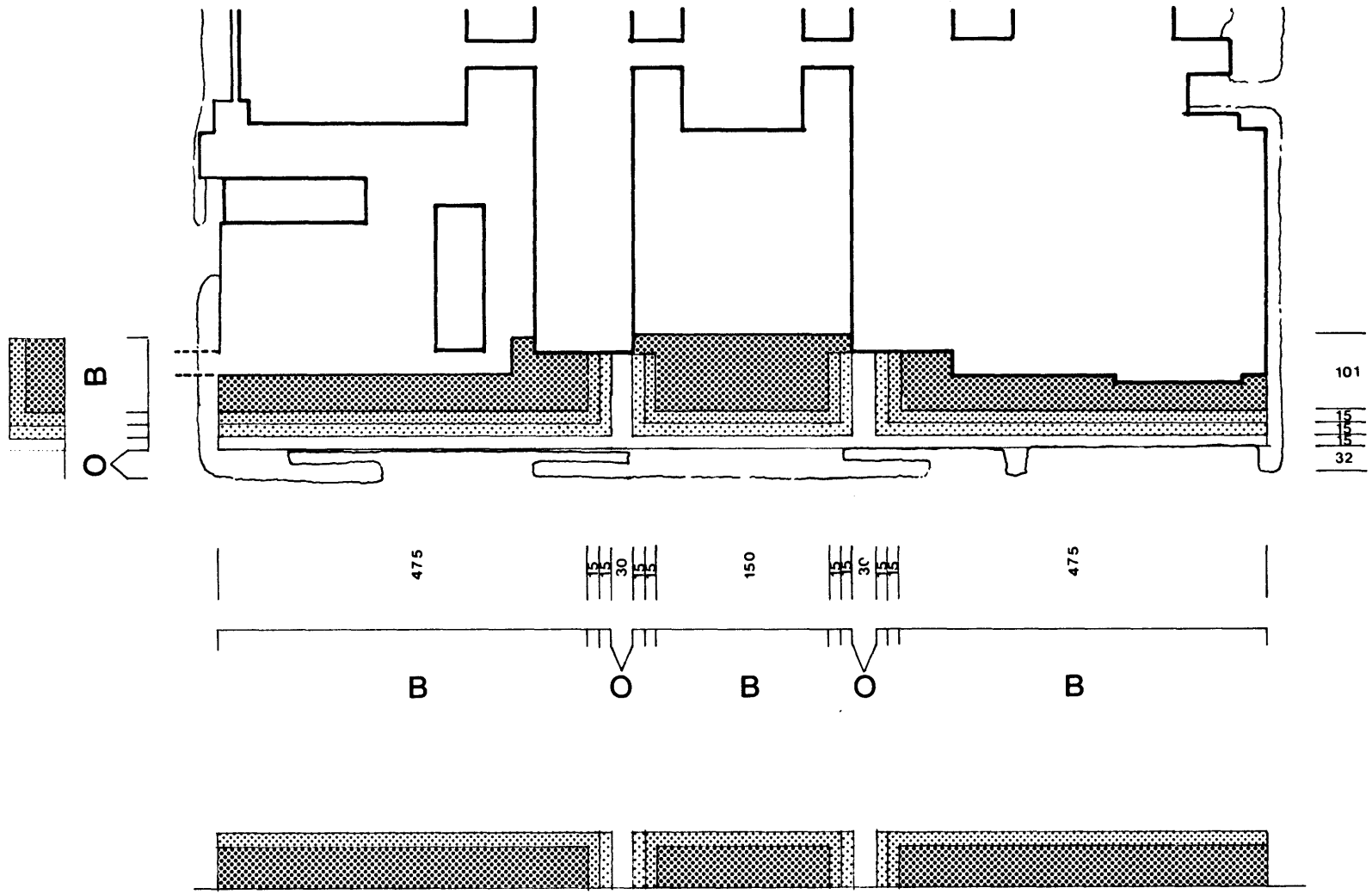
Figure 2 is illustrative (@ 1"=200') of the present built site conditions. To the sides are positional indicators of the recommended UB network. The zones are more fully described and developed via a set of agreement sheets (pp. 124 - 138). These documents represent a frame-

work from which more refined, personal decisions can be based. The documents follow a coding set forth in the chart below, where:

M=morphology
F=function
tb=thematic building
to=thematic open space
ntb=nonthematic building
nto=nonthematic open space

Each document, with the exception of the "zoning sheet" refers to one number on the matrix. The zoning sheet contains matrix numbers 1 and 2. Its information is repeated on the succeeding documents for easy reference. Along with each sheet is an explanation of how the pattern language exhibited in Part Three has influenced the zoning projections. In this way the patterns relate to zoning and vice-versa. The two are mutually supportive tools for guiding architectural designs that are to be "alive" at their street edges.

	M	F
tb	1	5
to	2	6
ntb	3	7
nto	4	8

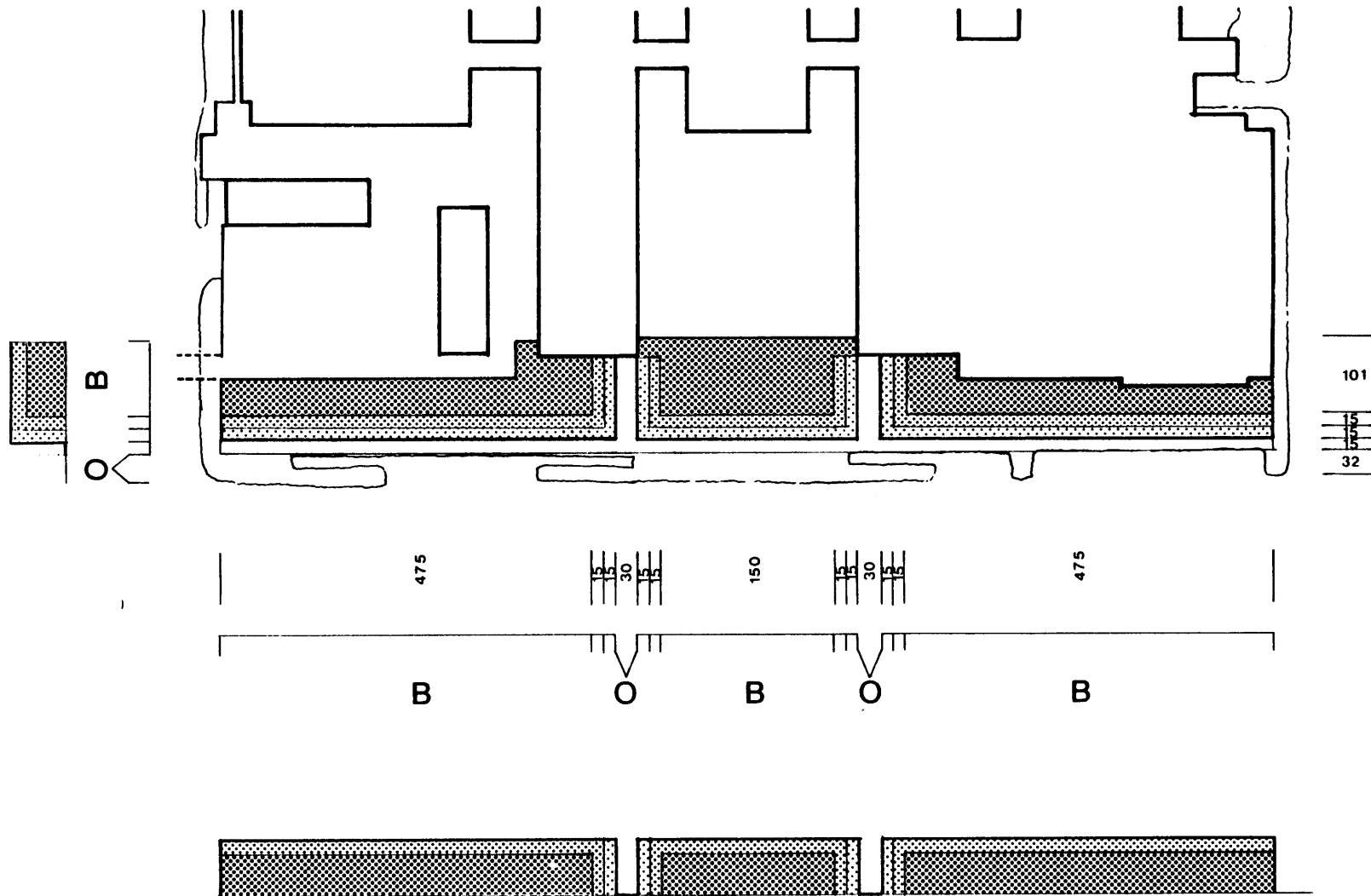


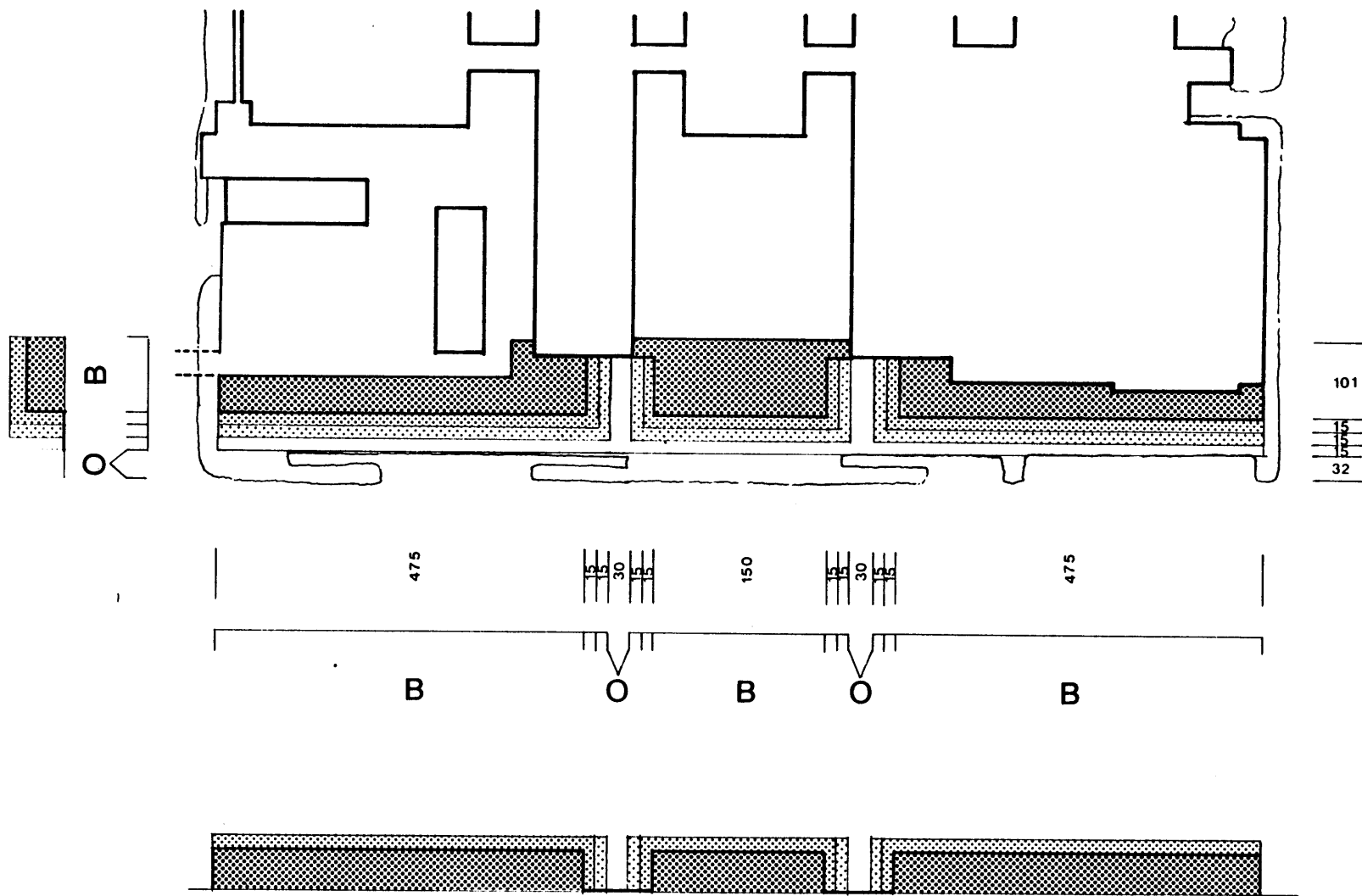
Zoning Sheet
document 1+2

EXPLANATION SHEET FOR DOCUMENTS 1 and 2

Anticipation of real concerns of economy is cause to keep the below grade parking ramps, however, they are made to access directly onto Boylston Street. These ramps locate the edge of the juxtaposed pedestrian path, which is given a width of fifteen feet; a dimension found to be the minimum allowable for easy noon time pedestrian traffic. The next two zones, ob_1 and ob_2 , are also fifteen feet in depth. It is recommended that shops located in this zone not exceed a height of ten feet at the margin line (where the o/b zone meets the 0 zone). The ob_2 zone can and should be built using the ob_1 zone for canopies, stairs and signs and lights. The building height here should be, on average, around 45 feet, as advised by the pattern EDGES ON BOTH SIDES and SIX STORY LIMIT--NORTH FACING EDGE. Entry niches should not penetrate beyond this zone. An advantage to keeping building heights to a minimum and set back is to reinforce the pattern of PATHS AND GOALS (#120) wherein people on the sidewalk can catch glimpses of the Prudential Tower.

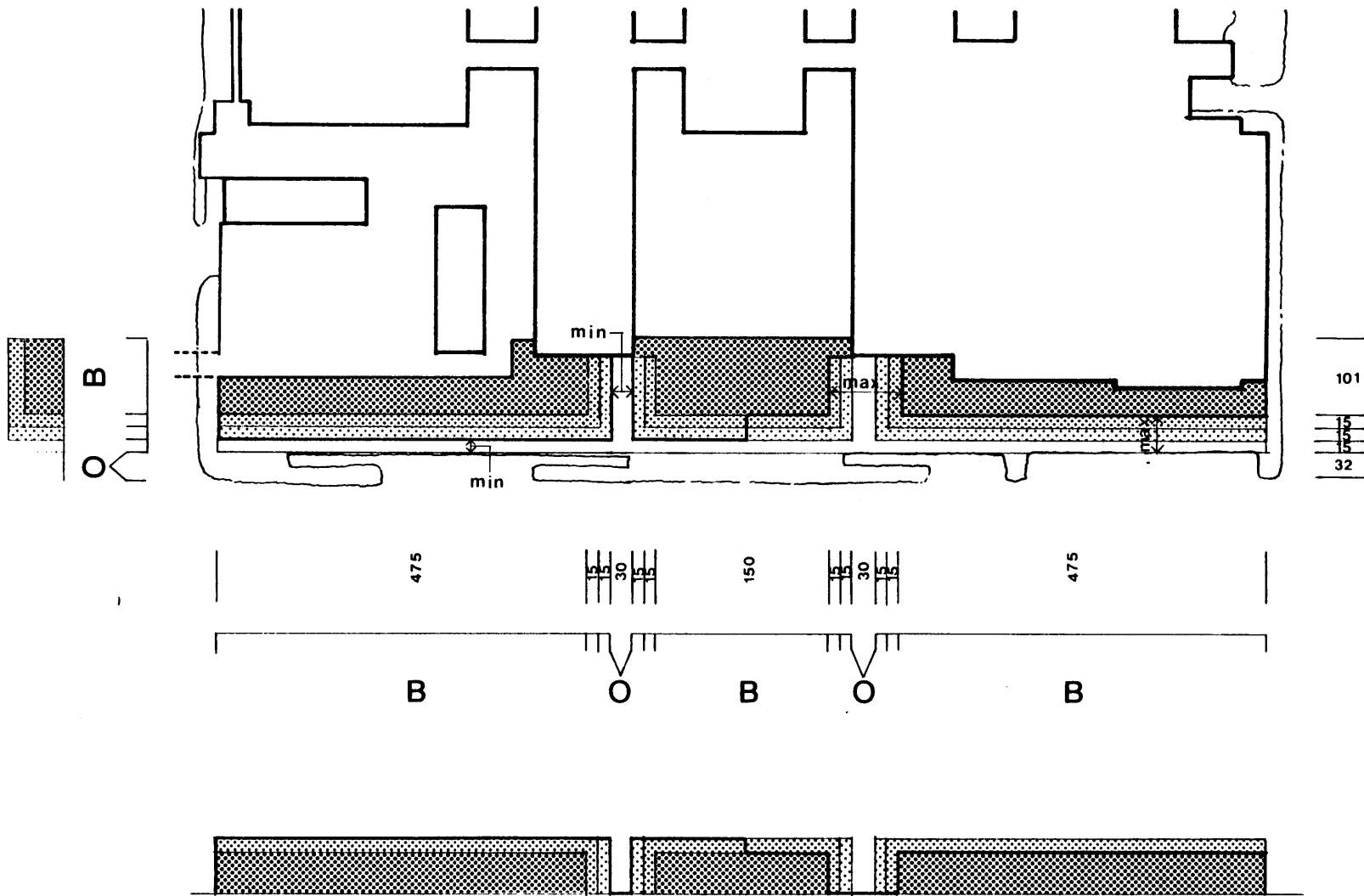
Another economical gesture is to keep the existing vertical access points leading to the existing shopping arcades. This is an opportunity as well to create IDENTIFIABLE BLOCKS which should be a main concern on the site since no through streets are possible.





EXPLANATION SHEET FOR DOCUMENT 1

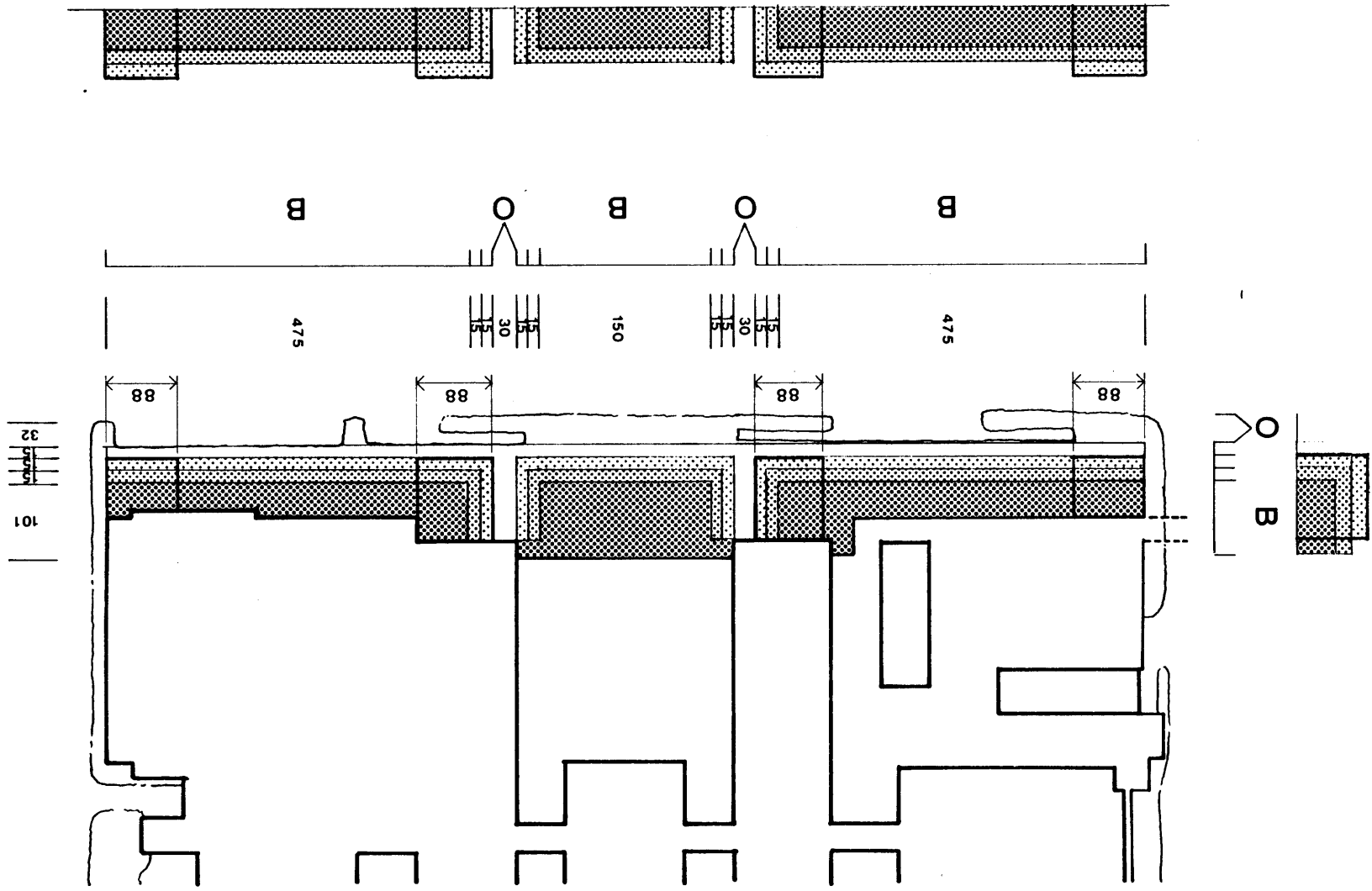
The two sheets sketch the maximum and minimum built possibilities, respectively. Neither is to be taken literally, since the pattern VARYING HEIGHTS demands that building heights differ. In reality, the outline of the built zones will zig-zag up and down from a maximum of 65' to a minimum of 40-45'.



EXPLANATION SHEET FOR DOCUMENT 2

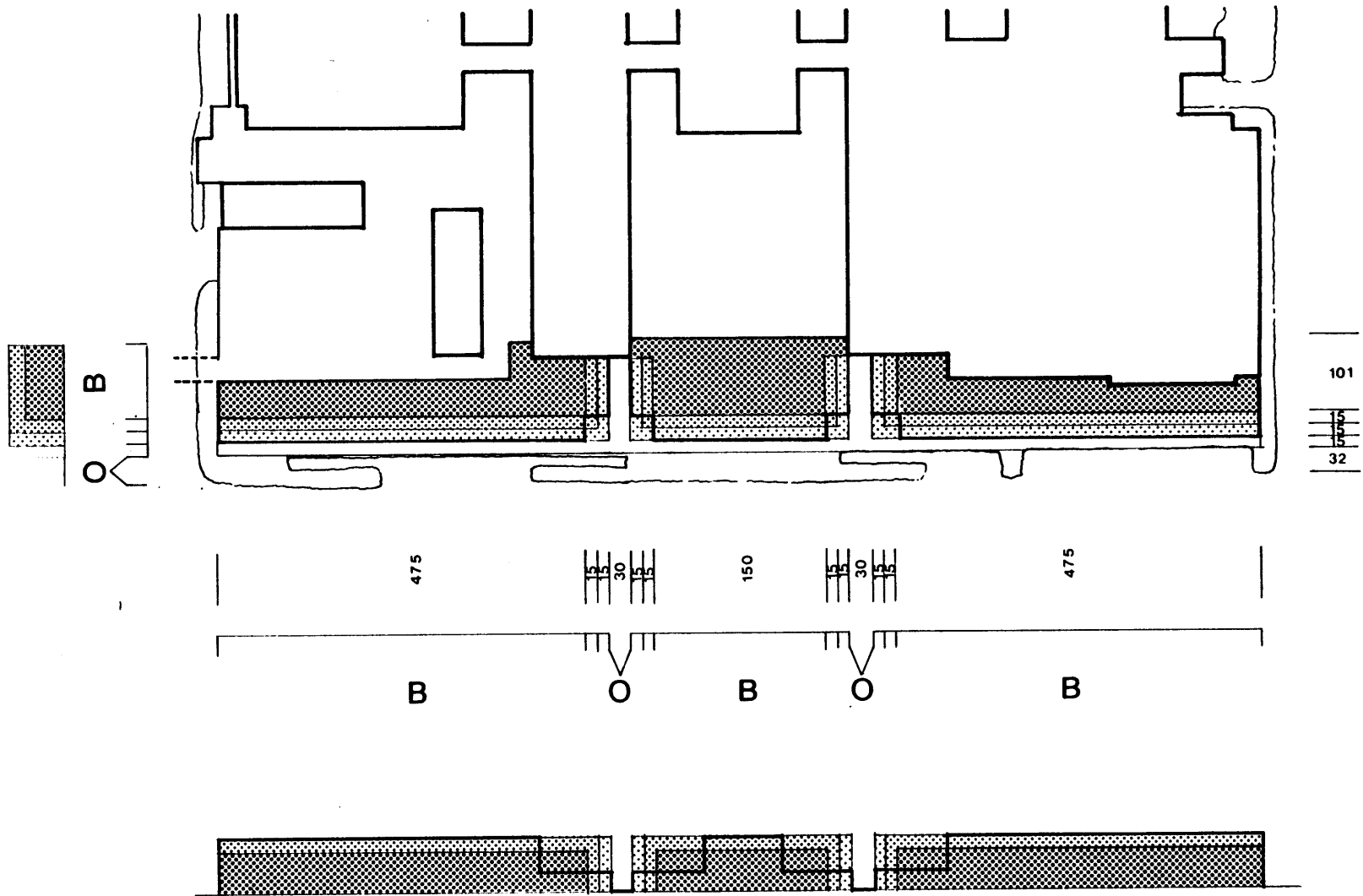
The maximum and minimum open space variations are illustrated. As with the outline of the built elements, the open space should be one of reciprocal relationships i.e. one of an in and out, up and down configuration. If the maximum sidewalk dimension is taken, it should be filled with CANOPIES, FAMILIES OF SIGNS and stairs running parallel to the direction of movement in accordance with FAMILIES OF ENTRANCES.

Public plazas are the result of making the maximum open dimension at the two (or one) access ways leading up to the elevated Prudential concourse.



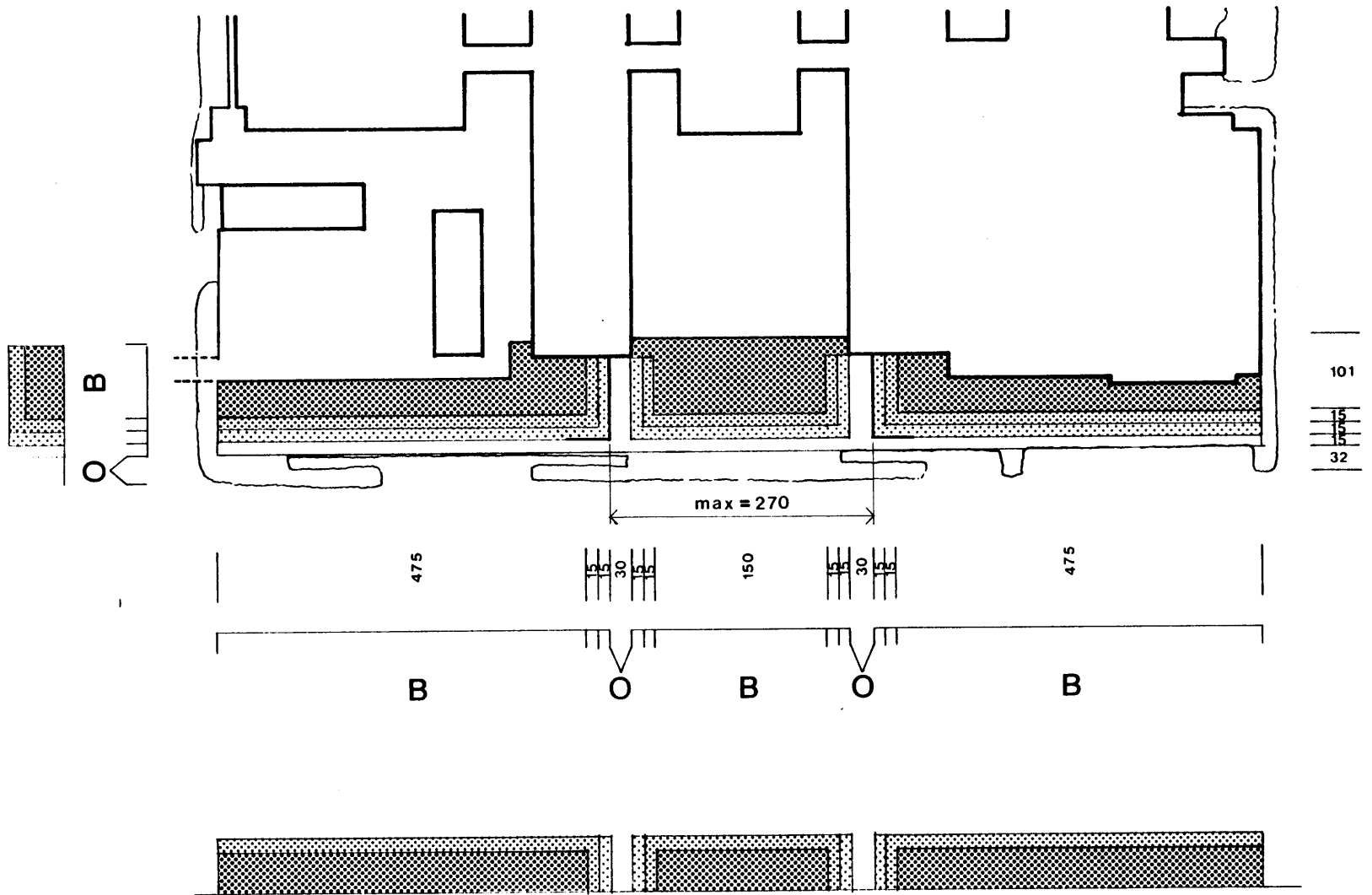
EXPLANATION SHEET FOR DOCUMENT 3

Nonthematic built areas should occur at the corners of the IDENTIFIABLE BLOCKS, whether they be of the maximum or minimum built dimensions. The widths of these corner buildings should be about 88' or equal to about three shopfronts. With a maximum height of 88 feet, it is felt a cube form would add some visual stability to the edges, register on a smaller size the square shape of the Prudential Tower and counterpoint with the tall and slender silhouette of the apartment towers. If the greatest height allowable is not desirable, be sure to keep even lower the adjacent structures as recommended in the pattern VARYING HEIGHTS.



EXPLANATION SHEET FOR DOCUMENT 4

A deviation from the instructions given in Document 3 is to occur at the corners of the middle block. Here, the corners should be eroded rather than built-up to allow brief views of the elevated North Court (or what is left of it) with the Prudential Tower behind. The maximum height of these corners shall be two stories. One story with roof "balconies" is recommended. A result of this as indicated in the bottom section is a taller center structure which strengthens the bilateral symmetry of the Tower and gives visual direction to it by the stepping effect it creates. This central element could be the place to situate an indoor entry and vertical circulation core. In this case building would occur in the 30' 0 zones.



EXPLANATION SHEET FOR DOCUMENTS 4 AND 8

It might be desirable to create a public open space on axis with the Prudential Tower to allow for a relatively unobstructed view of the tower from portions of the sidewalk. If the decision is made to keep the zone completely free of buildings, large terraces and ramps are mandatory to make the area habitable and a transition from street to elevated concourse. The zone is for pedestrian circulation only.



EXPLANATION SHEET FOR DOCUMENT 5

The distribution of functions and uses should be responsive to ideas set forth in the pattern GROUPS OF USES. A retail "corner" across from the Lord & Taylor would invite people to continue a path down Boylston from the Lord & Taylor store or from Saks 5th Avenue. A corner grocery, perhaps the Star Market now at the Prudential Center, should be at this position (CORNER GROCERY #89). The areas marked "C" should be the most intense with densities of small retail and entertainment (bars, dining) proprietorships. Newspaper stands should be included as this is where traffic will be the busiest with people entering and leaving the Prudential Center via this area. Document 6 suggests the use of the 32' 0 zone at the middle of the site for a bus stop. The pattern BUS STOP (#92) requires provision of a multitude of activities that contribute to public life and liveliness.

Area D most probably will be given over to the expansion of the Hynes Auditorium facilities. This zone could well house retail functions as well on street level. The entry to the auditorium would then be at the corner of Boylston and Dalton, punctuating the "block" and the retail strip as a whole in view of the discontinuity posed by the expressway overpass.

PART FIVE

Epilogue

In an era when cities are increasingly viewed as sensitive living organisms requiring complex managerial and design controls to maintain physical identity and social order, the inventions of modern city planning are contemporaneously falling short of some of the best of intentions. Cities cry for dollars to aid their failing economies. Huge projects are subsidized to increase tax bases and fill urban eye sores.

Two projects are underway in Boston, Lafayette Place and Copley Place, that represent the current trends. Internally oriented, the structures are near carbon copies of the prototypical suburban shopping center with long unbroken edges facing the streets.

The guess is that these developments feel they can avoid the mistakes made at the prudential Center. But will they? The belief with Lafayette Place and Copley Place, as it was for the Prudential Center, is that a mixed use complex in the city can be self sustaining. The other belief is that the development will be so magnificent that its

drawing power will be innate, something like Filene's or Jordan Marsh who can afford not to address edge accessibility and liveliness.

But urban retail strips are predominantly pedestrian zones in contrast to suburban commercial zones/malls where the exterior is shaped in response to the dominance of automotive concerns. The success of suburban shopping centers depends on their accessibility via the automobile. Similarly then, the city merchants must achieve an optimization of accessibility. At the suburban shopping center the consumer, once arrived, is a captured buyer within the confines of an interior mall. This marketing concept can work in cities, in fact one could say the city is the origin of this idea. But the city mall must first lure the flow of pedestrian traffic off the sidewalks into the shops. To do this means building lively edges with shops along the sidewalks and streets as the success of Boylston and Washington Street attest. The urban shopping world then should be hybrid i.e. one that offers the freedom of interior malls while not sacrificing public street activity.

As seen in other American cities, such as the Gallery in Philadelphia, urban renewal projects of a retail nature can be successful to retailers, developers and cities. What remains questionable is whether these schemes are true optimizations of accessibility and location. This thesis, while recognizing the viability of current projects, questions their long term, yet unproven effectiveness and correlative degrees of accessibility.

This thesis has argued that optimization of accessibility is a precondition to street edge liveliness and has sought to delineate in concrete terms qualities of retail edge design in Boston. It does not make sense that an advanced society should forfeit its urban character for the sake of survival. To build responsibly one must address contemporary economic and aesthetic factors. Yet new retailing techniques with corresponding innovative architectural qualities ought to be possible while addressing the urban street as it always has been; preserving its public life while achieving as great or greater economic rewards for those who take the risks of retail/commercial development.

It is not anticipated that all or even the majority of future retail/commercial development will take the form or attitude that sees suburban malls transplanted into the city. It is to a more incremental and traditional pattern of growth that this thesis can probably best hope to be applied. The insights provided here will hopefully aid in convincing city planners, retailers and others of the validity, on more than a single level, of the importance and actual advantages inherent in lively edge design and the methodic documentation of urban edges and place qualities.

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