

RADICAL RESTRUCTURING: The Conversion of Our Lady of Mount Carmel

PETER ARTHUR DUBIN  
Bachelor of Fine Arts, Architecture  
Rhode Island School of Design  
Providence, Rhode Island  
June 1976

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

June 1984

© Peter Arthur Dubin 1984

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

Signature of author . . . . .

Peter Arthur Dubin, Department of Architecture, March 14, 1984

Certified by . . . . .

Rosemary Grimshaw, Instructor, Department of Architecture, Thesis Supervisor

Accepted by . . . . .

Rosemary Grimshaw, Chairperson Departmental Committee for Graduate Students

MASSACHUSETTS INSTITUTE  
OF TECHNOLOGY

JUN 1 1984

LIBRARIES

Rotch



# RADICAL RESTRUCTURING: The Conversion of Our Lady of Mount Carmel

3

by  
Peter Arthur Dubin

Submitted to the Department of Architecture on March 14, 1984 in partial fulfillment of the requirements for the degree of Master of Architecture.

## ABSTRACT

This thesis studies the restructuring of a vacant parochial school in East Boston, Massachusetts, to 17 residential units of varying sizes. It formulates a process for dismantling the authoritarian imagery of the existing institutional structure and develops in its place a residential syntax compatible with the surrounding rowhouse neighborhood. This is accomplished by creating an additive fragmentary composition which implies continuity with the adjacent residential fabric. Further, the thesis addresses the need for major exterior intervention in building rehabilitation to establish a dialectical association between the buildings enclosing form and its redefined context.

Thesis Supervisor: Rosemary Grimshaw  
Title: Instructor, Department of Architecture



Special thanks to Antonio DiMambro and Terri.

Dedicated to my father, my uncle, my great uncle and  
the memory of my grandfather.



## Contents

7

INTRODUCTION: Radical Restructuring .....	8
CONTEXT: East Boston; Past and Present .....	12
EXISTING: Our Lady of Mount Carmel School .....	20
PROPOSAL: Residential Units .....	34
APPENDIX 1: Space Inventory of Our Lady of Mount Carmel School .....	56
APPENDIX 2: Space Inventory of Proposed Residential Units .....	58

## Introduction

Georg W. F. Hegel  
*Phenomenology of Spirit*  
1807

" . . . the spirit of the time, growing slowly and quietly ripe for the new form it is to assume, loosens one fragment after another of the structure of its previous world. This gradual crumbling to pieces, which did not alter the general look and aspect of the whole, is interrupted by the sunrise, which, in a flash and at a single stroke, brings to view the form and structure of the new world."



## Radical Restructuring

The concepts of radical restructuring are based on the following suppositions, developed during the course of this thesis, which have their roots in Hegelian and Marxist theories of dialectical materialism.

First, any building or structure is neither an independent, nor a distinct object. It is a slight fragment within an ever-changing network of interdependent structures and forces that act upon them. This interdependence of structures and forces may seem to be so obvious that there may not appear to be cause for calling attention to it. Yet it is important to recognize that while water is water one moment, changes in atmospheric pressure and temperature may change it to steam a moment later. So, too, with buildings. A structure that is a school today may be affected by pressures such as declining birth rates, population shifting and governmental desegregation policies.

Second, no structure is ever in a static state. It is always developing in some manner, to some extent, changing by growth and decay. Structural frameworks can remain basically the same yet partitions may be removed, mechanical systems updated or furnishings removed or added.

Third, there comes a point in the life of a building when a radical restructuring takes place. After a long period of gradual development, various pressures acting upon a structure force a major intervention that radically alters the structure's composition and gives birth to a new course of gradual development.

The restructuring must be thorough to be effective. Too often, in building rehabilitation, a kind of schizophrenic condition is created when a building's interior is drastically altered to accommodate a new use, and the exterior is considered sacred and left untouched. A building's

10 exterior, or form, must be reflective of a building's current use, or content. Form and content are interdependent and undissociable, and to disassociate the two is to deny reality.

This thesis proposes the residential conversion of a vacant parochial school, Our Lady of Mount Carmel School, located in the Jeffries Point sub-neighborhood of East Boston, a neighborhood of Boston, Massachusetts. In order to place the school in a contextual frame of reference, the thesis traces the historical development of East Boston, then examines the neighborhood as it exists today. Following that is a description and analysis of the vacant school building which precedes the proposal to restructure the building.



**Context**

*Harbor Islands, from a 1711 map  
Before landfill created East Boston*

12



## East Boston; Past and Present

East Boston was created by joining, with landfill, five islands in Boston Harbor. During the 1600's and 1700's the islands were mainly used as farmland. Since the 1830's the islands have been enlarged, leveled and merged into a single mass of land three times the size of the original islands. After 1835 East Boston began developing as an industrial and shipping center where goods were transferred between ships and trains that connected to all the manufacturing centers of New England.

During the 1850's and 1860's, Irish fleeing the potato famine arrived in large numbers. They formed the bulk of an unskilled labor force which extended East Boston's railroad systems, built its piers, and worked as stevedores on its docks.

After the Civil War, as a result of the decline of the wooden shipbuilding industry, East Boston's economy began a long decline that wasn't reversed

until the beginning of Italian immigration in the 1880's. Real estate speculators purchased middle class houses, subdivided them and rented them out to the immigrants.

After the turn of the century industry thrived in residential areas and along the waterfront, providing immigrants with low-skilled, low paying jobs. Foundries, machine shops, mills, shoe and garment factories were established.

After 1905 larger numbers of Italian immigrants began arriving. The first Italians came by way of the North End area of Boston, but later immigrants began settling directly in East Boston. They were attracted by lower rents and more open space than was offered by the North End. By the 1920's many families had set down permanent roots in the area. Money was raised by the community to build two churches, our Lady of Mount Carmel and St. Lazarus.

- 14 The population of East Boston reached its peak, at 64,000, in the mid 1920's. With implementation of national immigration restrictions in 1924, the population began to level off. In the early 1930's a vehicular tunnel between East Boston and downtown was built. That construction and the construction of an expressway in the 1950's pushed thousands of families from their homes and merchants from their shops. The population declined steadily until the late 1960's when it stabilized at around 38,000.

The single major force affecting the socio-economic growth of East Boston's neighborhoods has been the development since 1922 of Logan Airport, born on the reclaimed flats of East Boston. Most of the growth of the airport occurred during the 1950's and 1960's when air traffic volume increased dramatically. Airport expansion was accommodated not only by landfill in the harbor but also by encroachment into

neighborhoods. Logan Airport today occupies two-thirds of the land area in East Boston.

As a result of having been relatively isolated from the rest of the city until the 1950's, East Boston has retained its ethnic homogeneity and remains a solid, predominantly Italian Catholic population. However, current changes in life-style patterns threaten the stability of the tightly knit, family oriented communities. Most neighborhoods in East Boston don't offer a wide variety of housing types, services and amenities that many young families and families with rising incomes desire. Much of the housing stock is comprised of small cramped units designed for poor immigrants. This often results in families with changing characteristics relocating outside East Boston, to developing communities that offer broader choices in housing and amenities.

Most of the housing in East Boston is made up of

wood frame three deckers and masonry rowhouses. Only 5.1% of the housing units are within structures containing four or more units. Most of that housing is extremely densely packed. East Boston as a whole has less than half the open space per person than the city average. Jeffries Point, the neighborhood in which Our Lady of Mount Carmel School is located, is even more densely populated than the East Boston average.

The Jeffries Point neighborhood is located at the southern portion of East Boston bounded by Logan Airport and Porter Street on the north, Conrail railroad yards on the west, and Boston Harbor on the south and east. Not only is it close to Logan Airport and the Airport Massachusetts Bay Transportation Authority station, the neighborhood has close proximity to the Maverick-Central business district and the Maverick M.B.T.A. station.

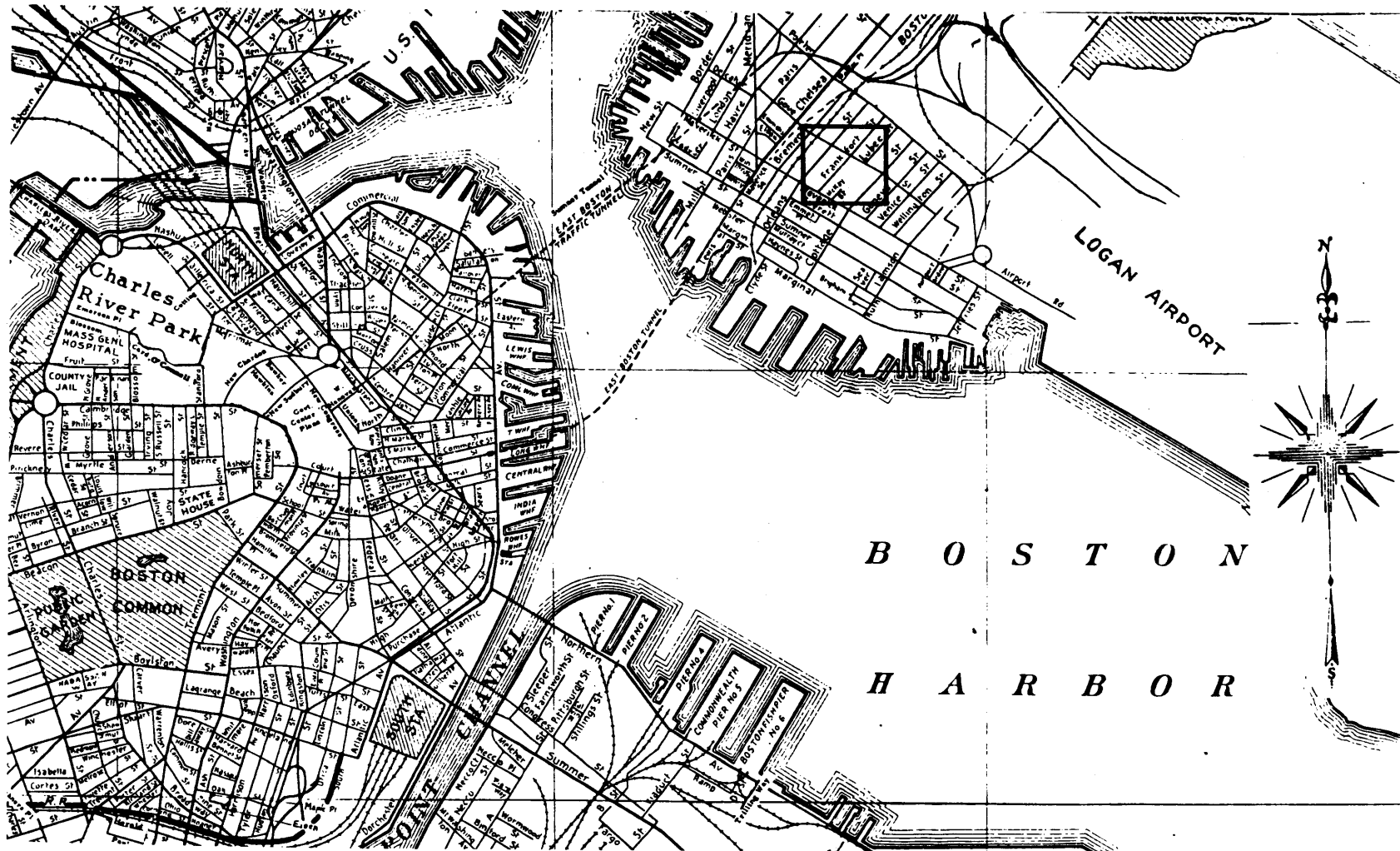
The predominant housing types in Jeffries Point

are two and three decker row houses. According to the 1980 census, of its 640 housing units, 117 were owner occupied, 465 were renter occupied and just under 90% of the residential buildings were owner occupied. Although the area is undergoing little gentrification it is shifting from a lower status neighborhood to a higher status location. Much of the area is owned by Massport; however, recently divestiture and negotiations for further divestiture have occurred, indicating future neighborhood stability.

Our Lady of Mount Carmel school is one of several buildings which make up Our Lady of Mount Carmel complex on Gove Street, at Frankfort and Orleans Streets in the center of Jeffries Point. Across Frankfort Street and Gove Street from the school are Our Lady of Mount Carmel Church and Rectory and Our Lady of Mount Carmel Convent, all still in use. On Frankfort and Orleans Streets adjacent to the school are three and six flat brick row

Map of Boston Harbor, date unknown  
 Site area within heavy outline  
 (see enlargement on following page)

16





Boston Redevelopment Authority  
Plot plan showing site area



18 houses. Almost all residential structures in the area are still owner occuppied. Across Orleans Street is a six story industrial loft building, under investigation by developers as a potential residential conversion.



Existing

*Cover sheet for Our Lady  
of Mount Carmel School  
contract document specifications*

20

A. D. 1929  
SPECIFICATIONS  
OF LABOR AND MATERIALS FOR THE  
PAROCHIAL SCHOOL FOR THE OUR LADY OF MOUNT CARMEL PARISH  
TO BE ERECTED AT EAST BOSTON, MASS.

---

WILLIAM CARDINAL O'CONNELL ARCHBISHOP, BOSTON

---

REV. UGOLINO BIFARINI RECTOR

---

Raymond C. Gorrani, Architect  
Worcester, Mass.

---

GENERAL CONDITIONS

The Contract Document consist of the Agreement, the General Conditions of the Contract, the Drawings and Specifications.

The Owner is the Roman Catholic Archbishop of the Boston Diocese, Massachusetts, represented for the purpose of erecting the School by Reverend Ugolino Bifarini O.F.M.

The Contractor shall be responsible to the Owner for the acts and omissions of his subcontractors and of all persons directly or indirectly employed by him or them in connection with the work.

The term "person" or "anyone" as employed herein shall be taken to include a firm or corporation.

The term "Subcontractor" includes only those having a direct contract with the Contractor and it includes one who furnishes material even though he does not work.

## Our Lady of Mount Carmel School

In the late 1920's Our Lady of Mount Carmel Parish began searching for a means of providing a parochial education for children of parishoners. In 1925 the Donald McKay public school had been built one block east of what was to become Our Lady of Mount Carmel School. After the Donald McKay School was erected the parish retained the services of John Guarino, a local architect, who, with William B. Colleary, consulting architect of Boston, formulated plans for a parochial school at Gove Street, between Frankfort and Orleans Streets. No action was taken with the Guarino plans and subsequently the parish hired Raymond C. Gorrani of Worcestor, Massachusetts to pick up where Guarino had left off.

The schematic organization of spaces in the original Guarino plan is similar to the executed Gorrani design. A large auditorium fills most of the basement and classrooms are strung along the Gove Street facade on two upper floors. A major

dissimilarity, however, between the Guarino and Gorrani designs is that in the original Guarino scheme the upper floors are organized around a double loaded corridor with classrooms at the front and service spaces clustered at the back. When Gorrani took over as architect he moved the services down to the basement, rotated the rectangular classroom orientation ninety degrees and pushed the corridor to the back of the building, making it single loaded.

The Guarino plans accommodated the skewed angle of Gove Street by creating a stepped orthoganal Gove Street facade. Gorrani eliminated the stepped massing at Gove Street and pulled the Gove Street facade flush with the property line which maximized utilization of lot area and created a unified, quasi-symmetrical, authoritarian front elevation.

The design as executed consists of a lower floor

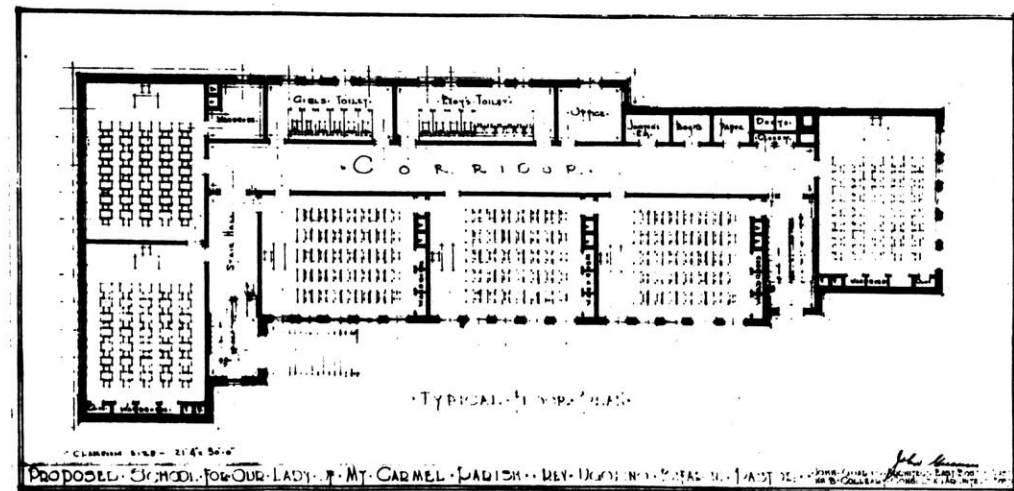
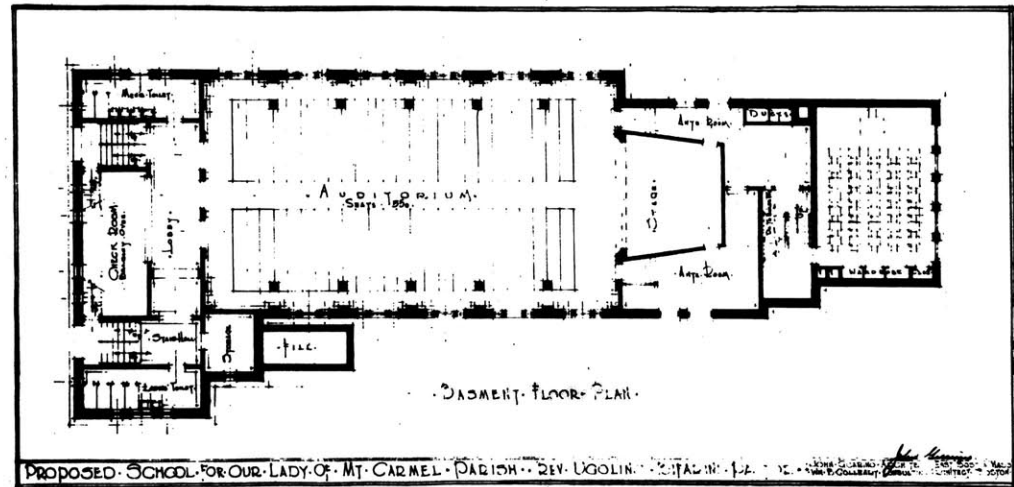
22 with a sixteen foot high auditorium, toilets, storage, and boiler rooms, and two upper floors of eleven foot high classrooms and teachers' offices.

The structural system, designed by Morrison-Stevens Company, Structural Engineering, of Boston, Massachusetts is a concrete joist and slab floor construction with reinforced concrete columns and a 13 inch masonry wall with a 4 inch red face brick.

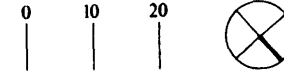
A 6'-6" single loaded corridor connects classrooms fronting onto Gove Street. The classroom size varies due to lot configuration but typically the classrooms are rectangular with approximate dimensions of 25 feet by 32 feet.

Complementing the red face brick on the facades is a cast stone ornamentation. Parapet, cornice, sills, steps and platforms at entrances are of a

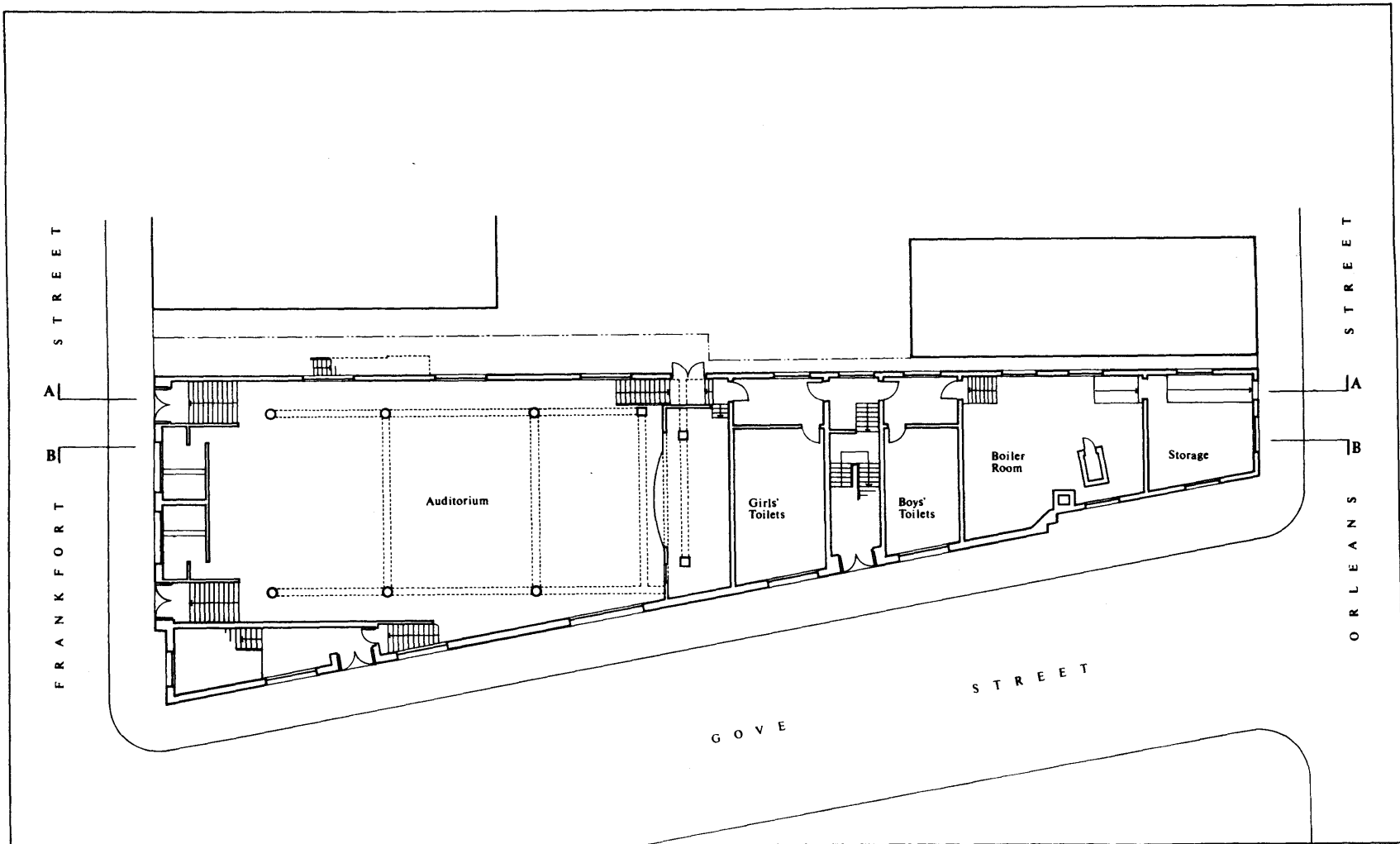
bush hammered granite. The roof is a four ply tar and gravel built-up roof. The windows are large institutional double-hung with steel sash and wire glass. Inside, the walls, beam casings, ceiling and ornamentation are of plaster over lath. The auditorium floor is a cementitious surface over cinder concrete and the upper floors are linoleum over concrete. Both main stairs are of steel construction with terrazzo treads.



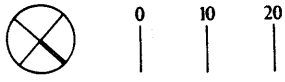
First floor plan



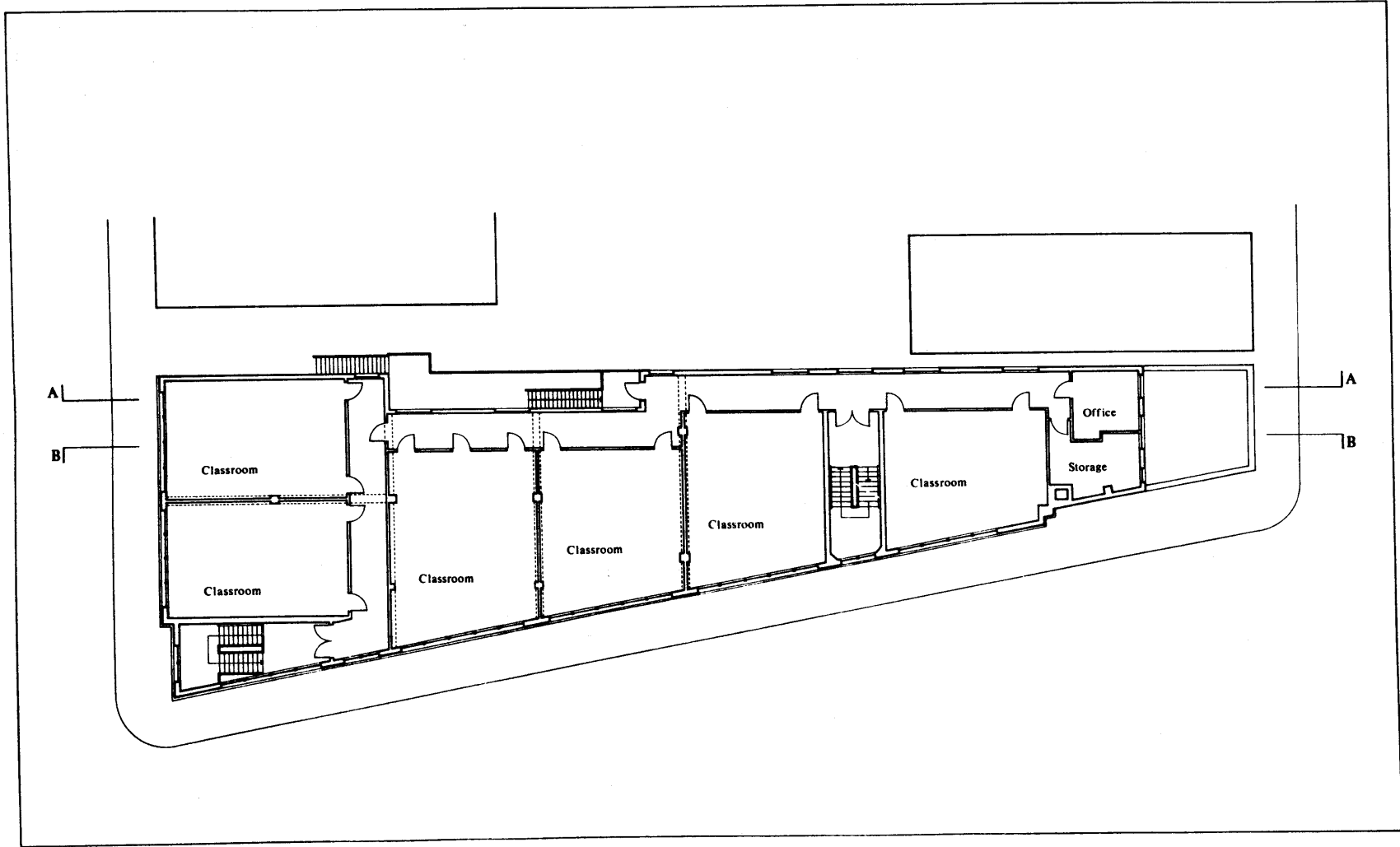
24







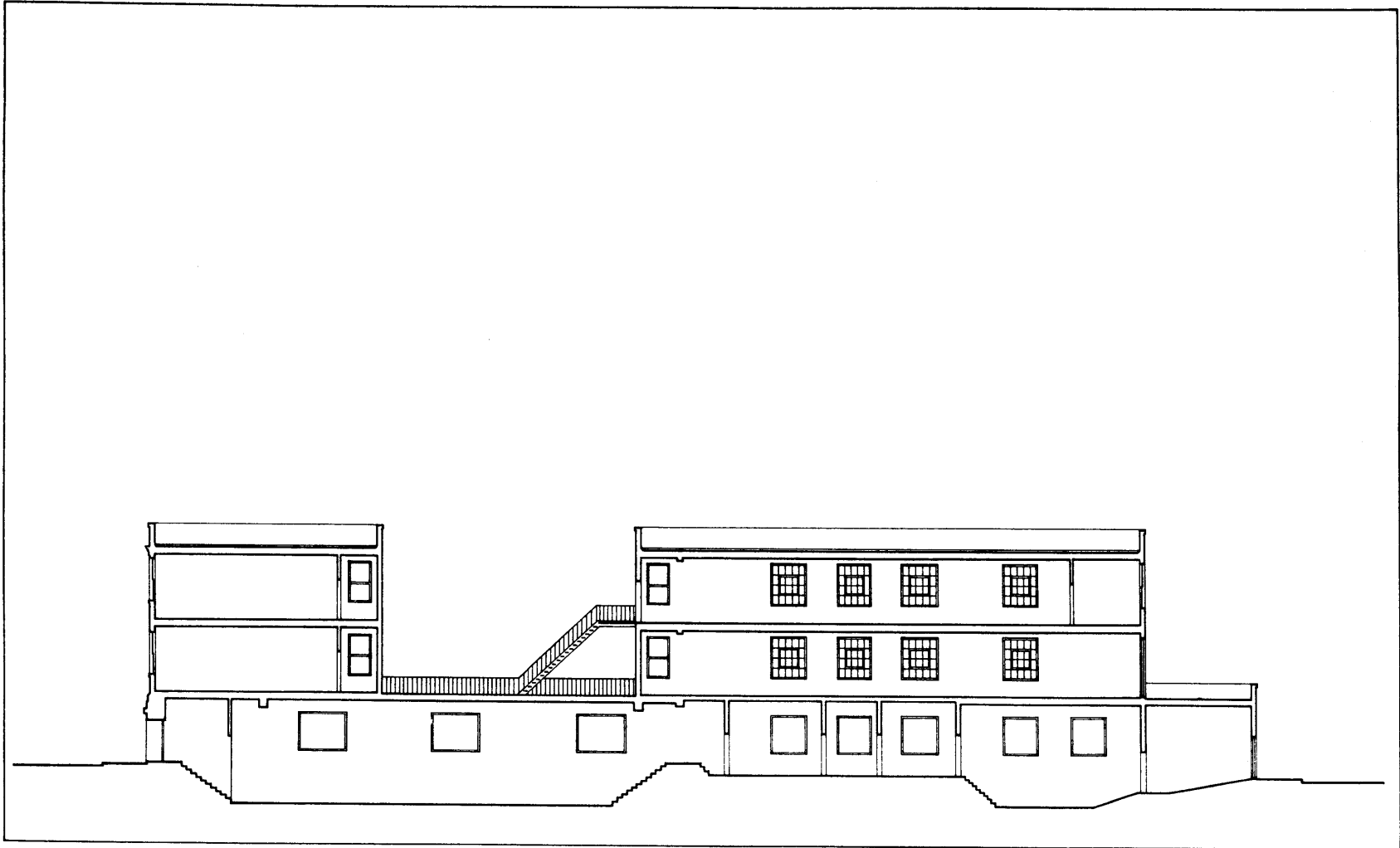
*Second and third floor plan*



*Section A*

0 10 20

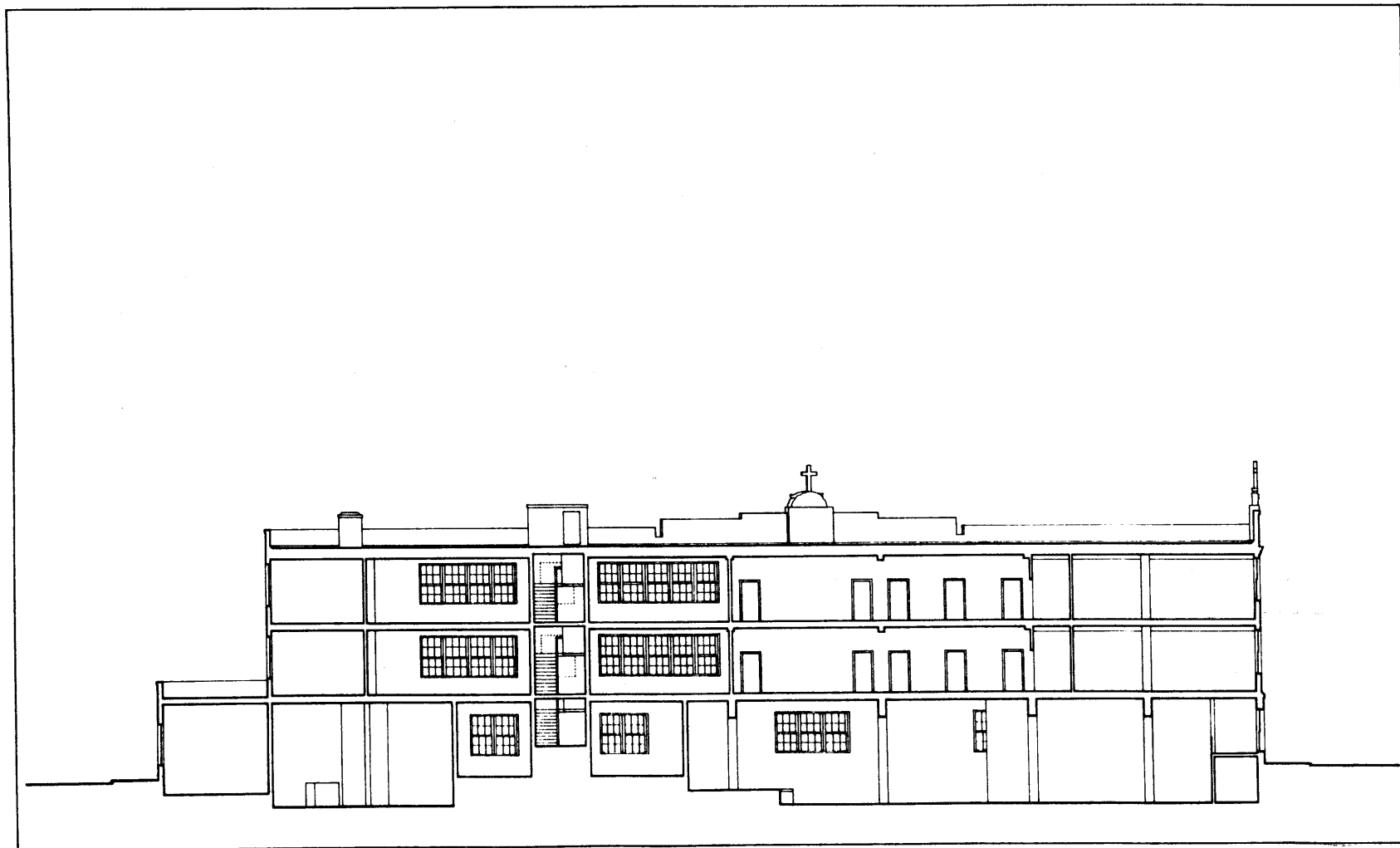
26

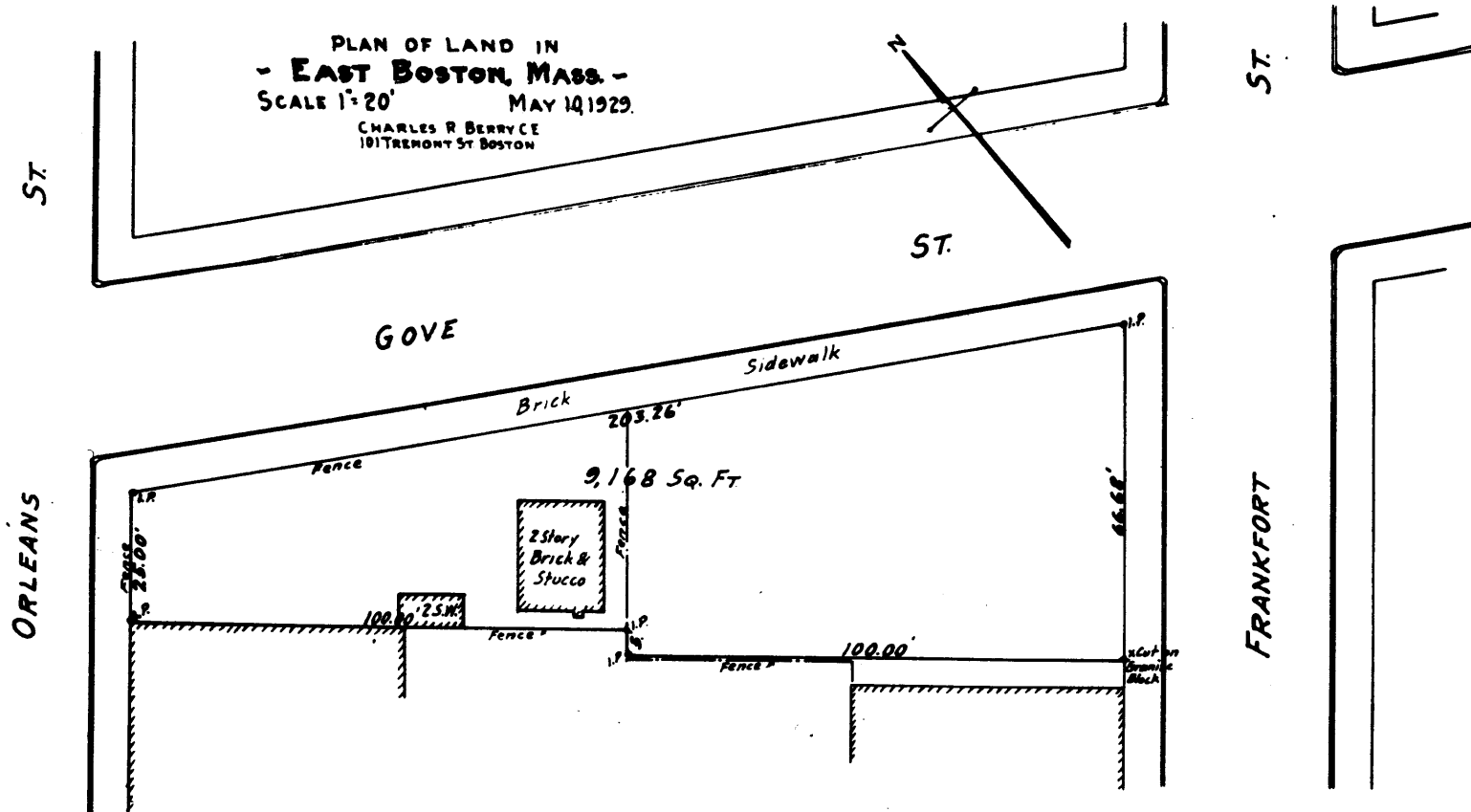


0 10 20

Section B

27

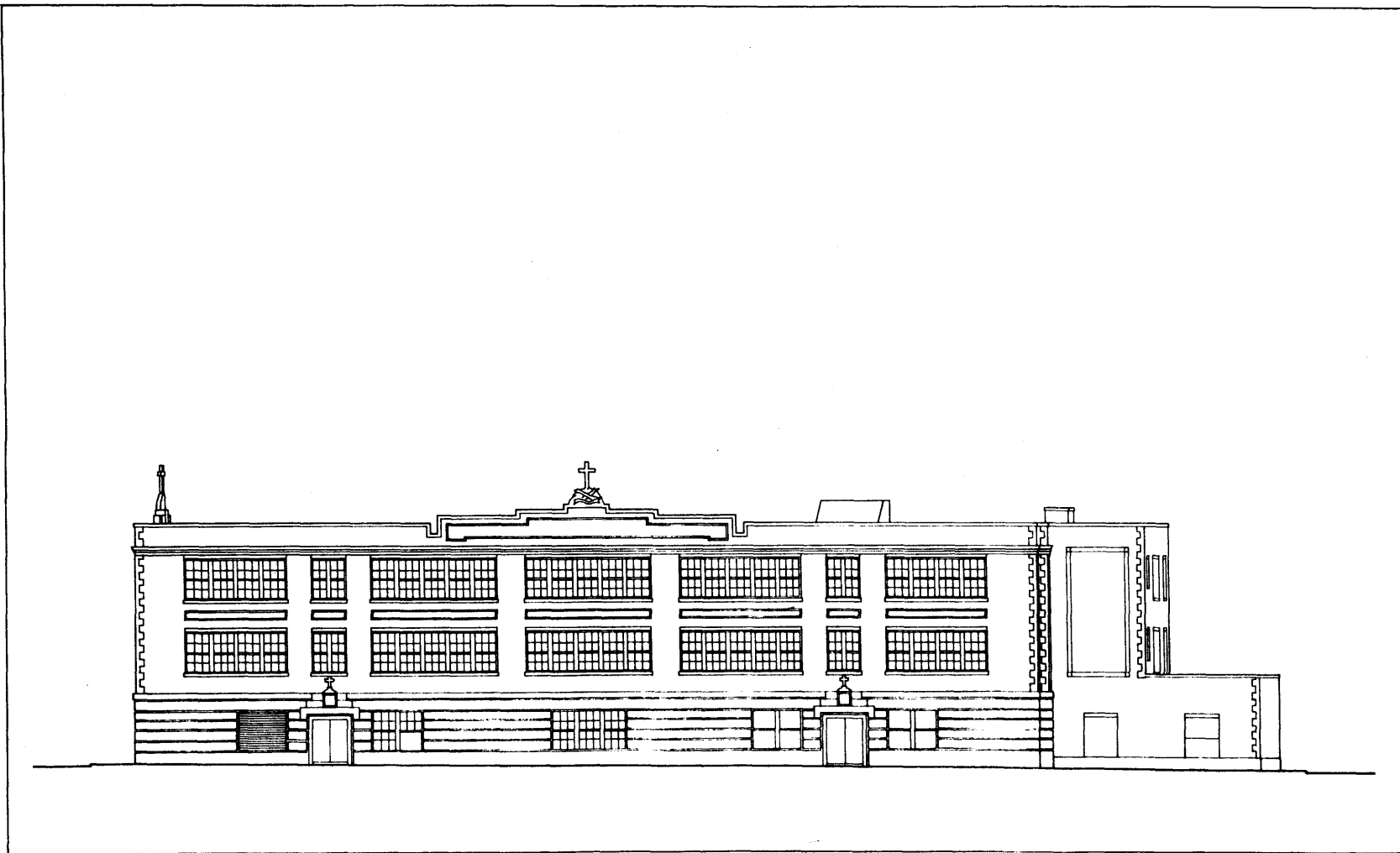




0 10 20

*Gove Street elevation*

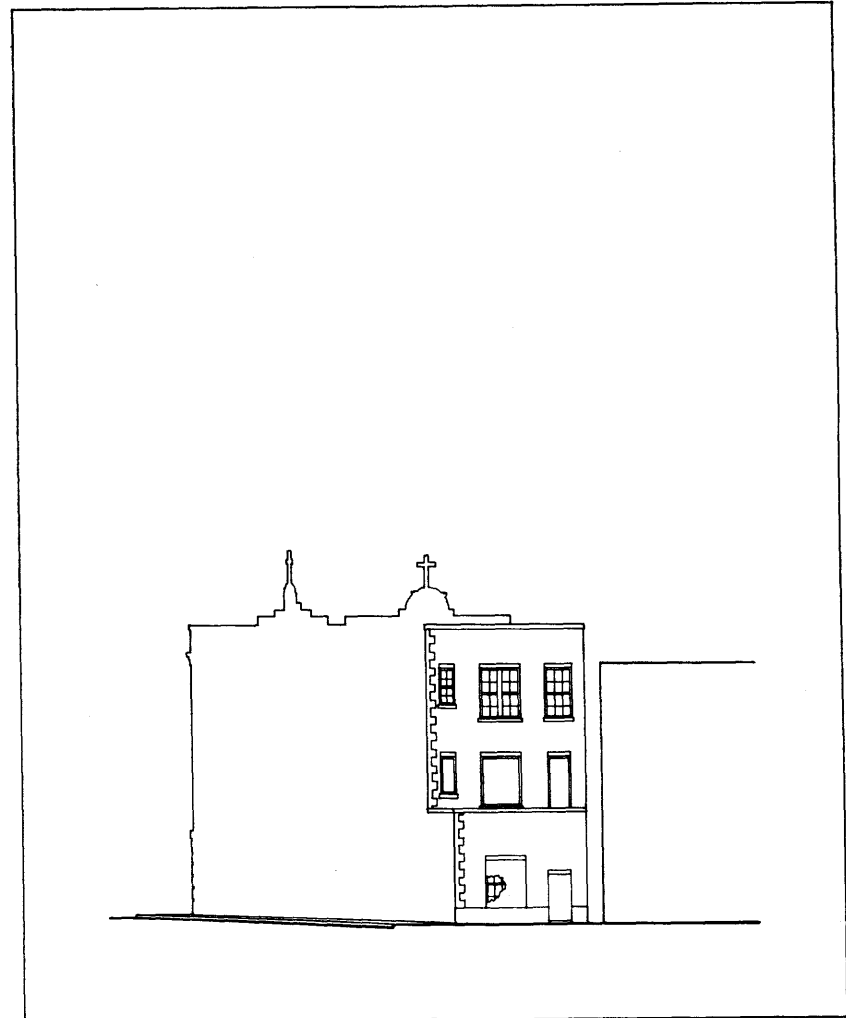
29



Frankfort Street elevation  
Orleans Street elevation

0 10 20  
| | |

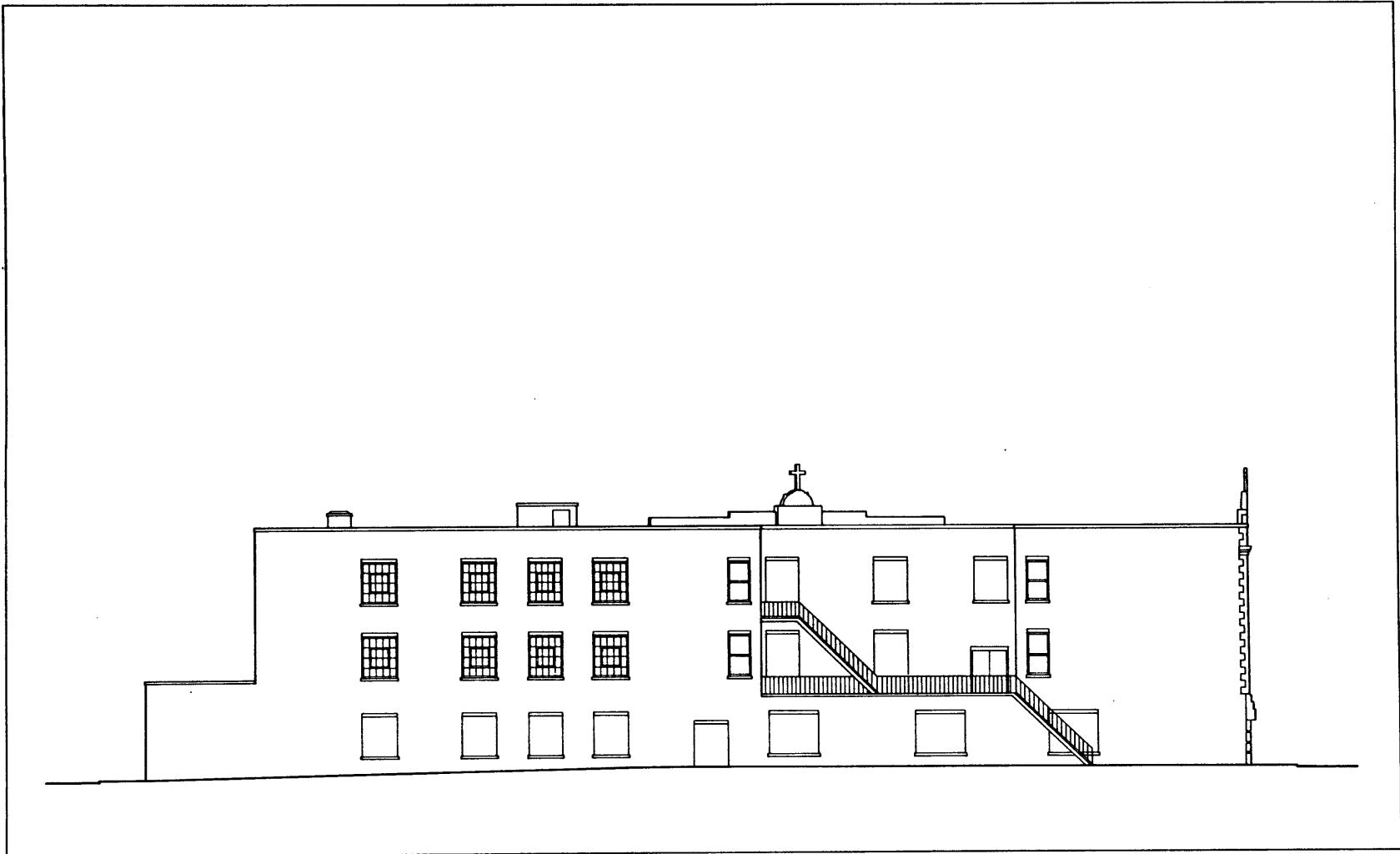
30



0 10 20

*Rear elevation*

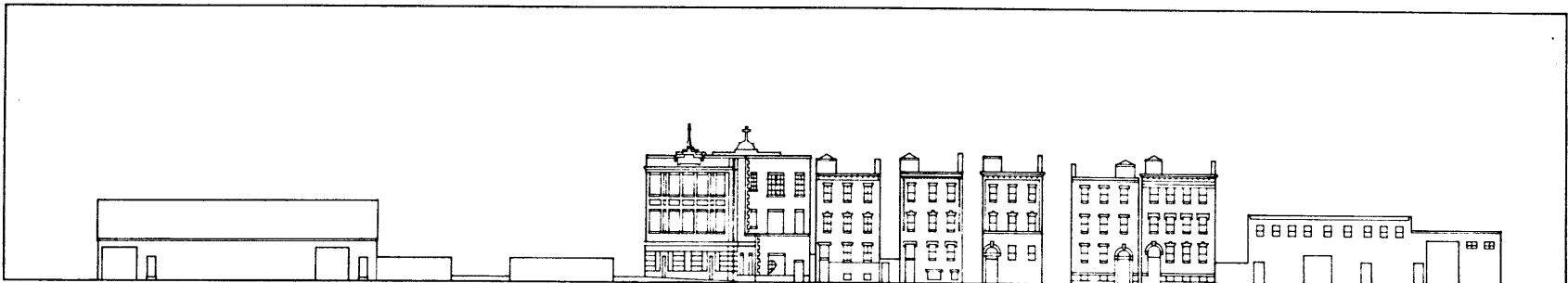
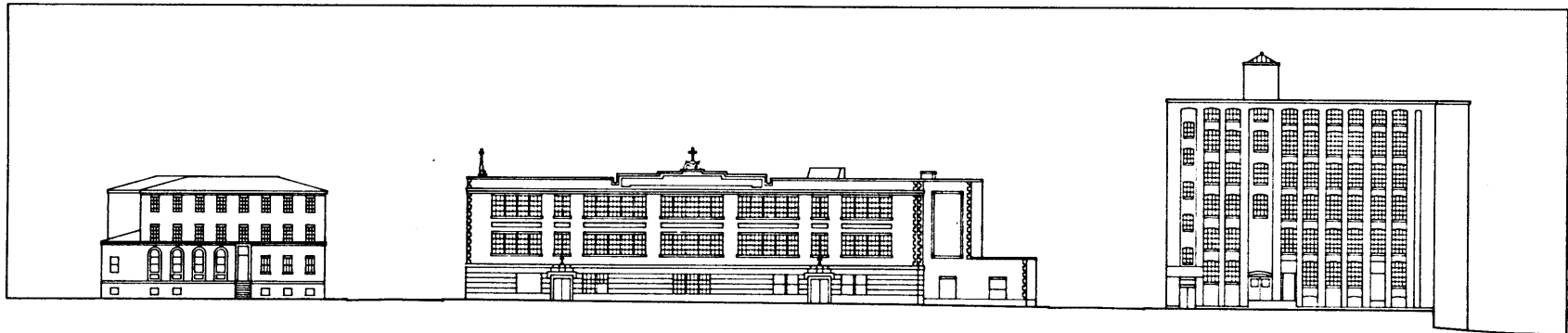
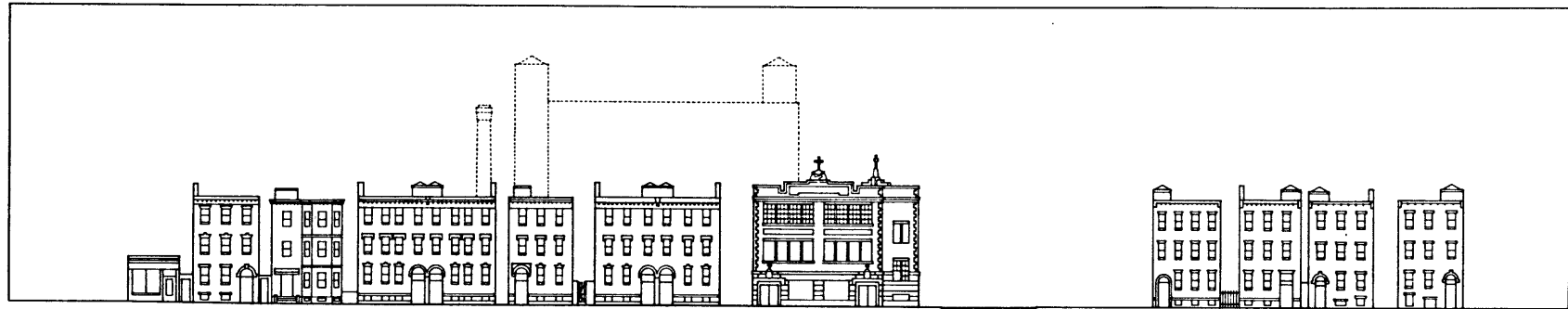
31



*Elevation of Frankfort Street*  
*Elevation of Gove Street*  
*Elevation of Orleans Street*

0      25      50  
 |      |      |

32









## Residential Units

The following is a proposal for the radical restructuring and conversion of Our Lady of Mount Carmel School to an aggregation of residential units. Included in the complex are seventeen units ranging in size from 593 square feet to 2374 square feet and ranging in type from studio flat to four bedroom duplex.

Several factors precipitated the decision to convert the structure's use from educational to housing. Beyond the general notions that both a surplus of schools and a shortage of housing exist in the Boston area are several specific generators. First, there is a lack of available housing, especially family-sized units, in the Jeffries Point neighborhood. Most of the nearby housing is in three flat and six flat tenement rowhouses built for immigrants after the turn of the century and contains small and cramped units in need of repair. There are few vacancies in these buildings. Second, the structures which

are contiguous to the school building on both Frankfort and Orleans Streets are masonry rowhouses. Third, the school was constructed of a durable fireproof concrete and masonry construction appropriate for residential structures. Finally, the existing interior classroom module of 800 square feet to 950 square feet is well suited to the insertion of a one or two bedroom flat, or the upper or lower floor of a three or four bedroom duplex.

Once housing was chosen as the structure's new use, it was decided to utilize the rowhouse typology as an organizational element, both internally and on the structure's exterior. Because 95% of the housing in East Boston is in structures containing three or fewer units, and because all the housing adjacent to the existing school building is rowhousing, it was considered important to integrate the new housing into an existing neighborhood fabric by conceptually replicating the

36 rowhouse systemization.

The classroom module, into which either a residential flat or half a duplex unit fits, is reflected on the existing facade in terms of a structural bay containing two halves of brick piers and one bay of fenestration. The fenestration width corresponds closely to the width of a typical adjacent rowhouse. Further, the width of the brick pier corresponds closely to the space between detached rowhouses. Once this discovery was made, an aggregate rowhouse parti was formulated and elements were used to construct and reinforce the concept.

There were two essential related tasks in developing the rowhouse idea. First, the monolithic bulk of the existing structure had to be broken in such a way that the new building would read instead as an aggregation. Second, the institutional horizontality of the school had to be

destroyed and replaced by a series of vertical elements.

Bay windows are employed in the design which not only furnish a strong sense of verticality but provide a repetitive reference edge which defines the limits of rowhouse segments. The cornice is broken at the brick piers, which creates a discontinuity at the symbolic space between rowhouses. The large masonry openings have been partially infilled with tile over concrete block which not only contributes to the energy efficiency of the building, but relieves the horizontality and brings the building into scale with its neighbors. Two large communal roof decks and several terraces on Frankfort and Gove Streets serve to further break the massing of the new structure.

There are two areas of major new construction in the proposed design. The one story wing on Orleans Street, which is somewhat dilapidated due

Our Lady of Mount Carmel School  
Application for Permit to Build, 1929

to water seepage in the masonry wall, is to be razed and replaced by a four story addition. A new mansarded fourth floor is to be constructed over the existing roof. Evidence of the capability of the existing structure to support an additional floor was found in a note on the original structural drawings and on a note on the building permit jacket.

The units are of three basic types. Five duplex units utilize the existing first floor and a new mezzanine level constructed between the existing floor and ceiling. These levels are referred to in the proposal as ground floor and first floor. Six flats are located on what was the second floor, also referred to in the proposal as second floor. One additional flat is located on the third floor. Five more duplex units are located on the original third floor and the new floor constructed over what was the existing roof. In the proposal, these levels are referred to as

4278  
No. 4278  
OCT 3 '29  
CITY OF BOSTON  
BUILDING DEPT.

Application for Permit to Build.

FIRST CLASS BUILDING

EXAMINATION OF PLANS.

OCT 23 1929

Approved [Signature]  
Superintendent of Plans.

Plans OK

At present School is 2 story structure. Present roof eave for future 3d floor.

Examined

Rec Oct 19 1929

By [Signature]

Note from structural drawings  
indicating potential for  
additional floor

38

— SECOND FLOOR FRAMING —

SCALE 1/8"=1'-0"

NOTE: ROOF FRAMING SAME EXCEPT AS SHOWN.

*Present roof calculated for future  
3rd floor.*

*Column reinforcing carried above roof  
in sleeves and protected against rust.*

third and fourth floors.

Each of the lower duplex units has a separate entry at grade, reinforcing the notion of separate townhouses. The bedroom levels are located several steps above grade to create a visual privacy, so one can see out over the street, but passersby are too low to see in. The more public living spaces, i.e. kitchen, dining and living are located down one flight from grade at the ground floor. Two of the larger units have outdoor terraces off the living rooms, carved out from the earth. One of the larger units has a separate bedroom-bath suite off the main living space. All units have study balconies overlooking double height living rooms.

The second floor flats are the smallest of the three unit types. They include studio, one and two bedroom units. Typically they have living-dining spaces publically oriented to Gove Street.

The projecting bays on Gove Street help to break the living-dining room into two definable areas.

The upper level duplexes are entered on the third floor which contains the more public areas of kitchen, living and dining rooms. Wherever possible, kitchens are located at the building perimeter with a view of Gove Street. The fourth floor contains bedrooms within a mansarded space. Also on the fourth floor, in the center three units, is a skylighted, gabled penthouse which covers a small study and the stair down to the third floor. Many of the units, both flat and duplex, have studies which are open to hallways but have the potential to be enclosed and converted to an extra bedroom should the need arise.

All upper floor units are served by one of two existing stairways. Means of egress are provided by those stairways, as well as by a shared exterior egress system located at the rear of the

structure. Creating the shared fire escape permits the reclaiming of the rear corridor on most floors, increasing the units' net square footage, and the building's efficiency. 39

Three organizational systems serve to order the street elevations of the complex: the rowhouse verticality, a tripartite horizontal layering, and a diagonal pattern overlay. The original school structure has a base of rusticated concrete and granite belt coursings. The walls, above the base, are of red face brick and are topped by a granite cornice. The fourth floor which has been added in the proposal completes the classical triumvirate of base, middle, and top. By enclosing the new floor in a mansard form, a large amount of square footage has been added without substantially increasing the apparent mass of the building. The three different unit types of lower duplex, flat and upper duplex, correspond to the elevational layers of rusticated base,

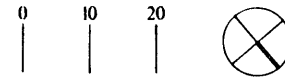
40 brick middle, and mansard top. The diagonal facade patterning of masonry infill, balcony railings and cornice banding is in counterpoint to the vertical and horizontal forces. It weaves in and out of the face brick plane, tying together disparate facade elements.

In contrast to the ornate street facades, the rear of the structure is less formally composed and more planar, as is the case with the adjacent row-houses. Windows on the rear elevation are larger, to accept the southern sun and offer a view of the foliage at the interior of the block.

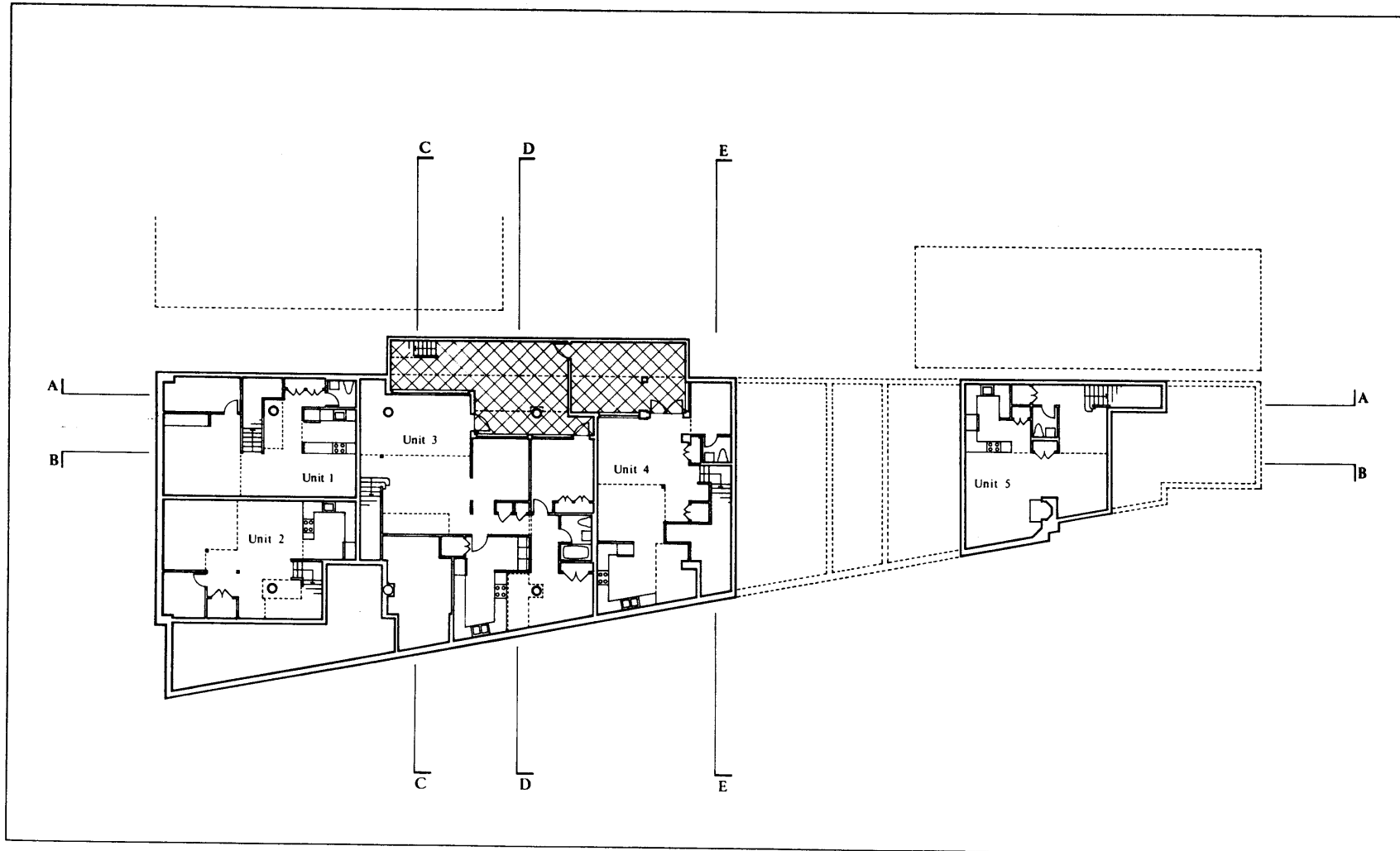




Ground floor plan

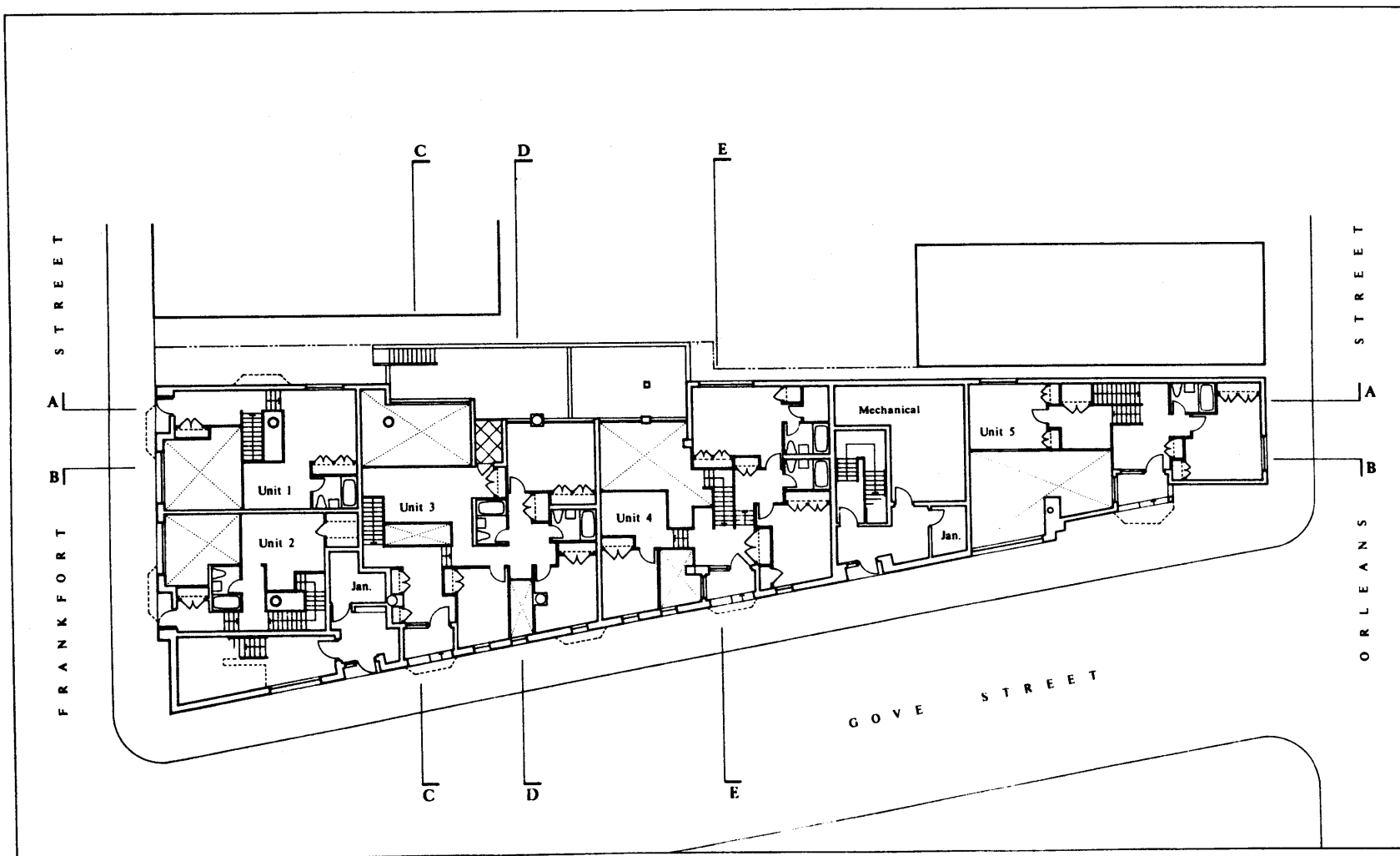


42

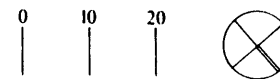




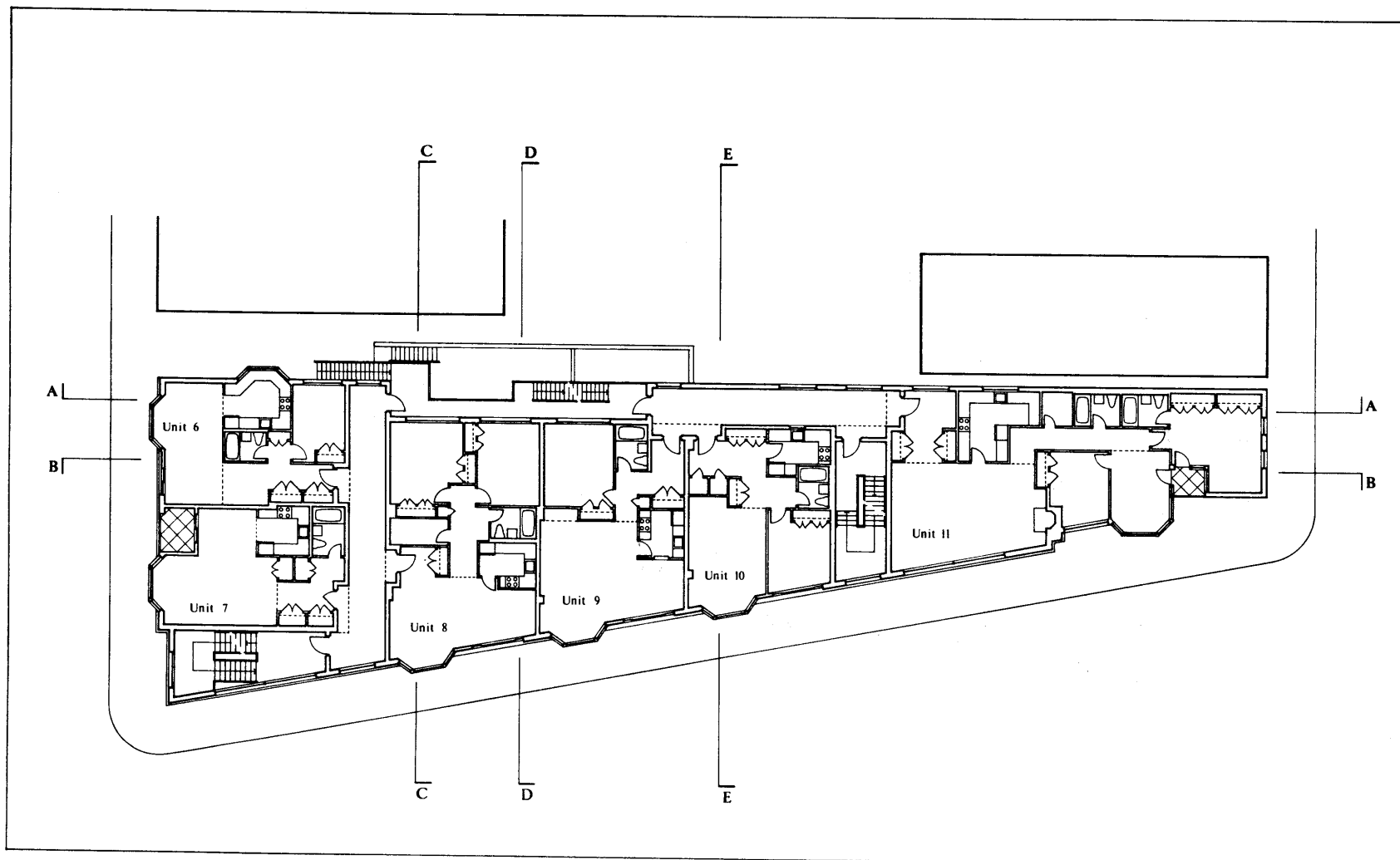
*First floor plan*



Second floor plan

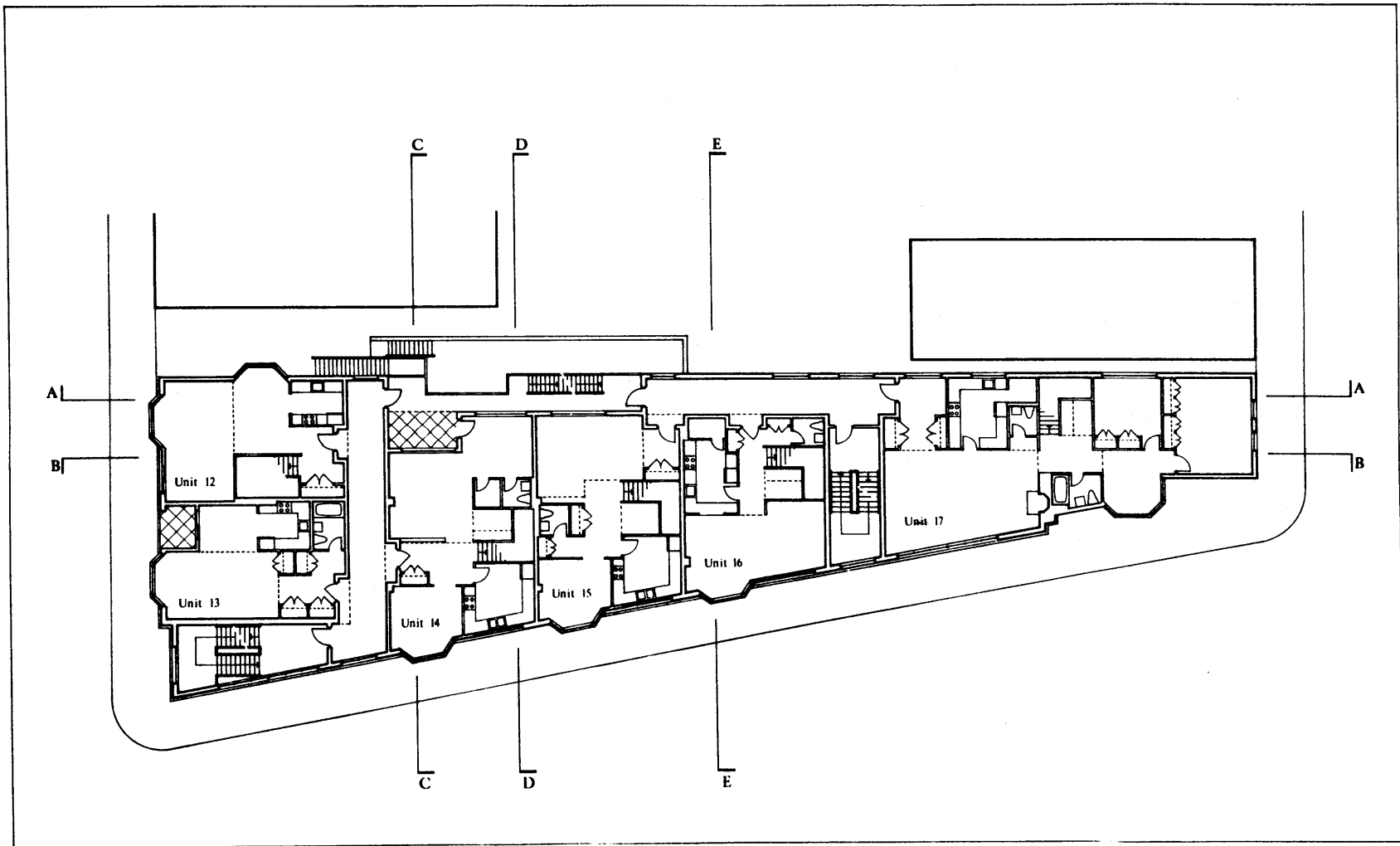


44

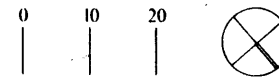




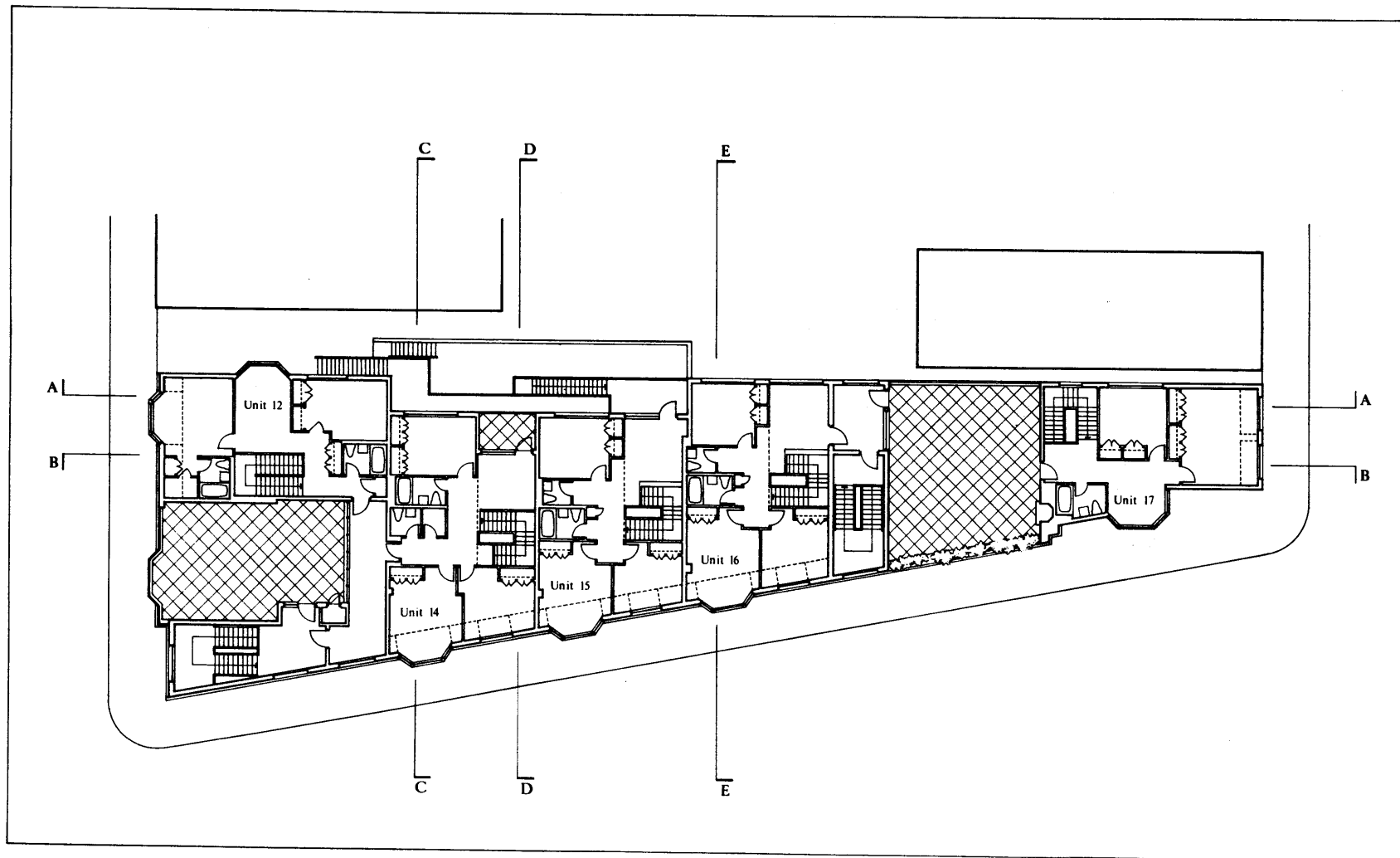
Third floor plan



*Fourth floor plan*

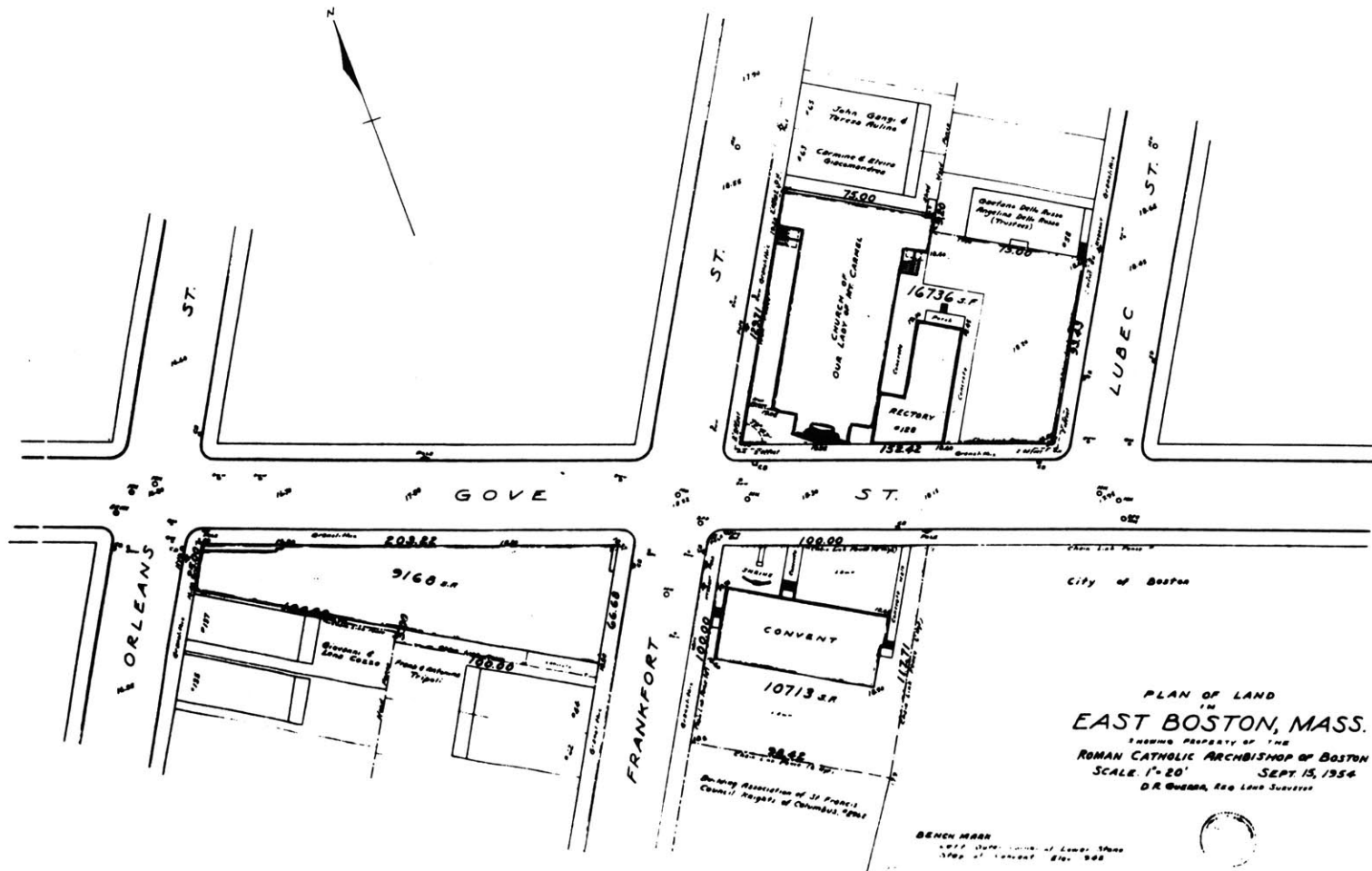


46



Plan of land in  
East Boston, 1954

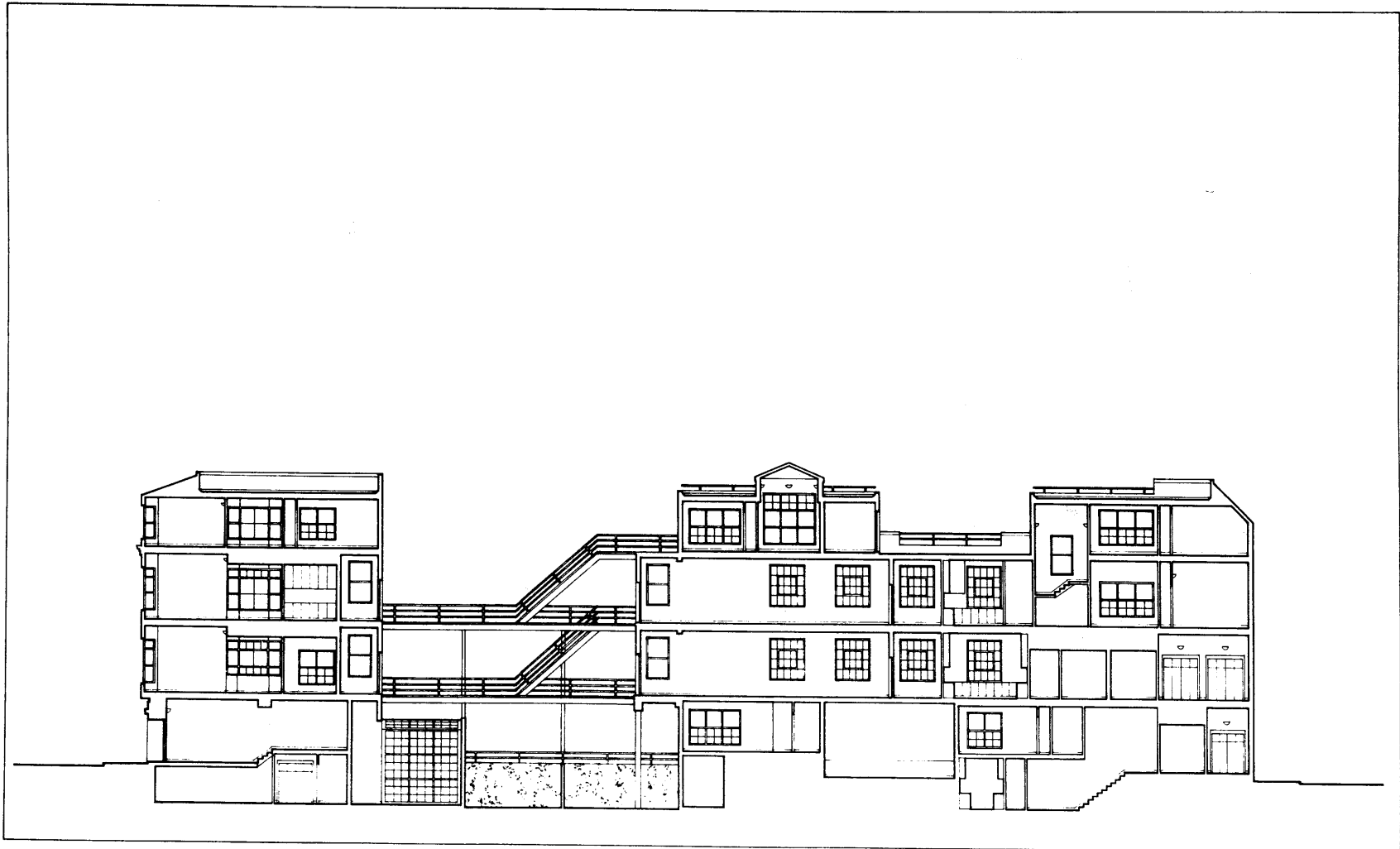
47



Section A

0 10 20

48





0 10 20

Section B

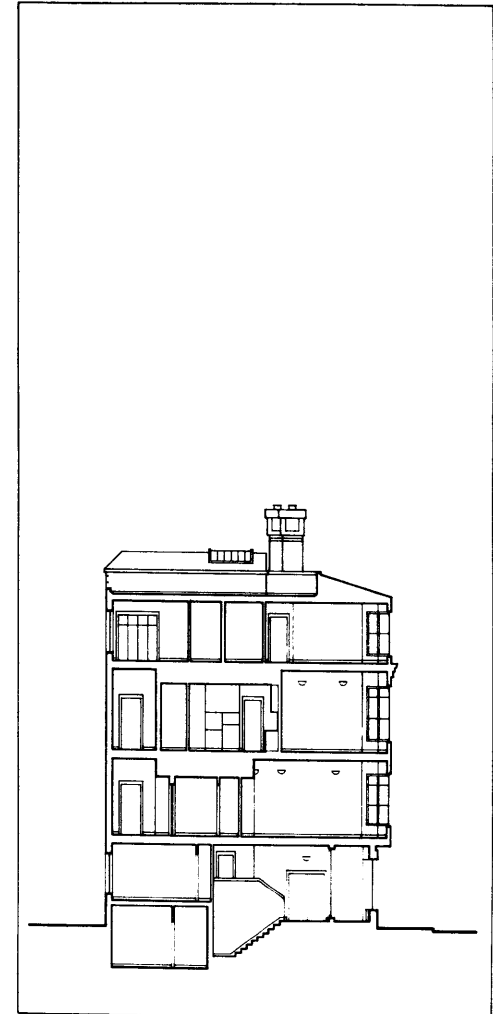
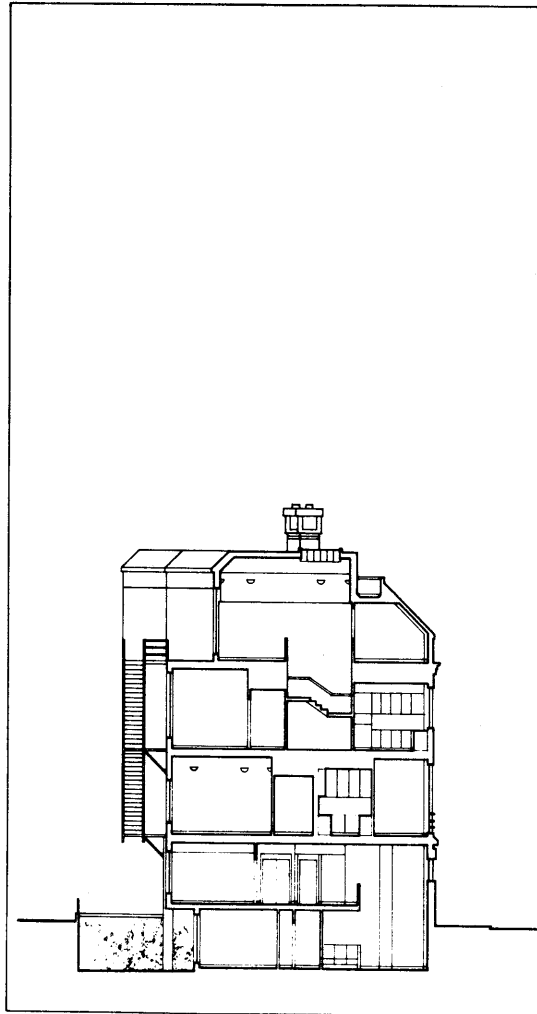
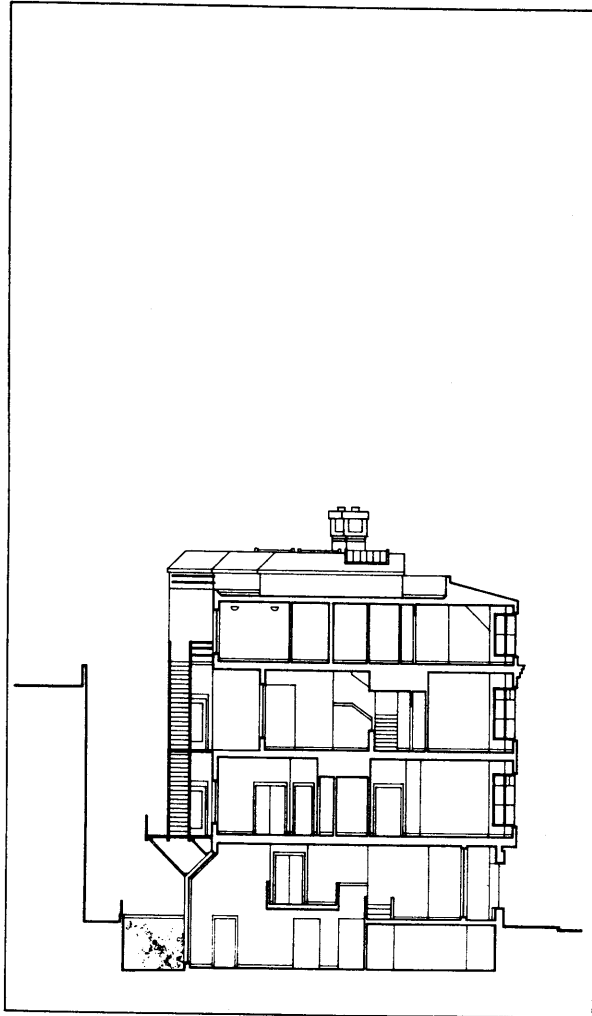
49



Section C  
Section D  
Section E

0 10 20  
| | |

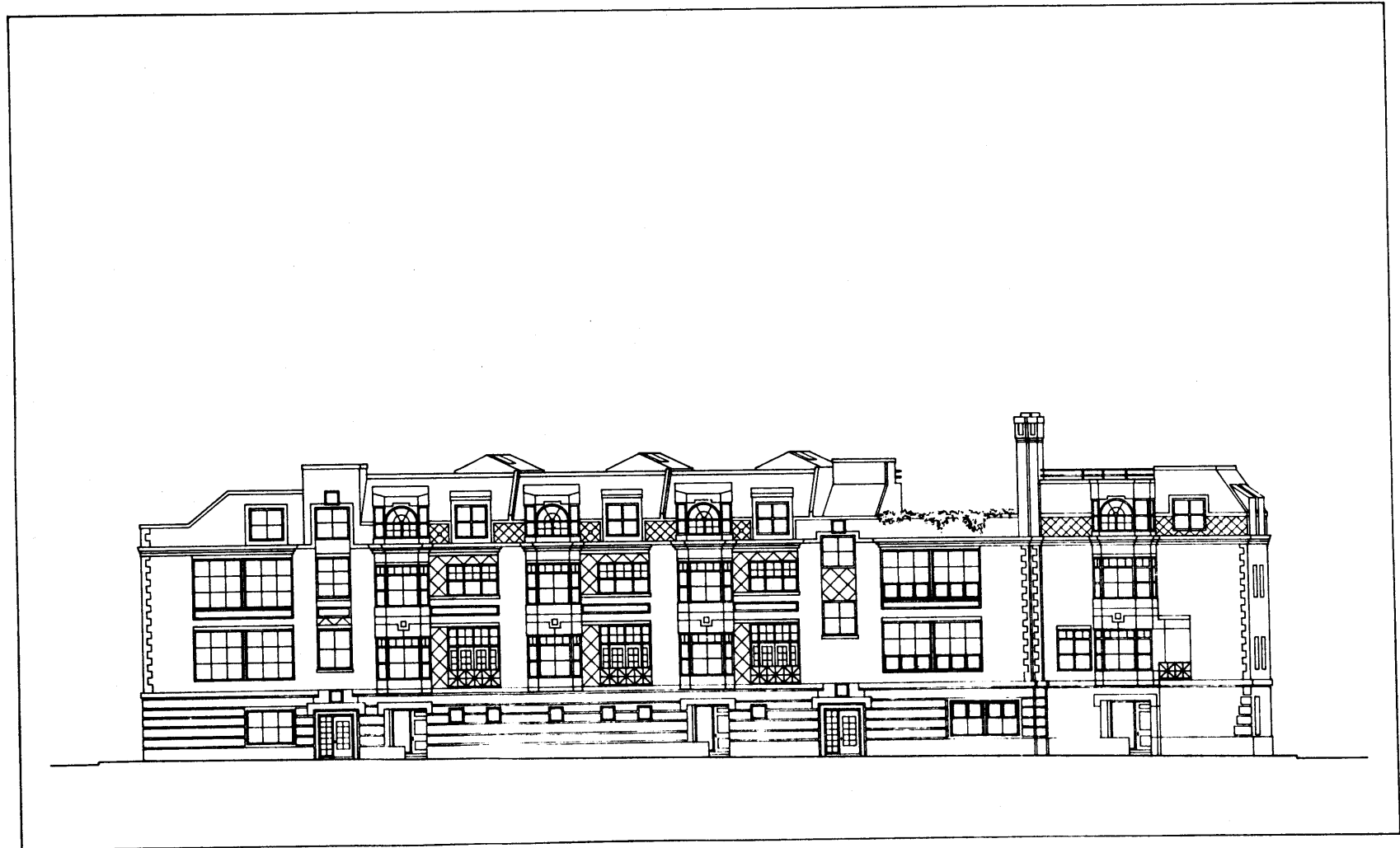
50



0 10 20

*Gove Street elevation*

51



Frankfort Street elevation  
Orleans Street elevation

0 10 20

52



0 10 20

*Rear elevation*

53



*Elevation of Frankfort Street*  
*Elevation of Gove Street*  
*Elevation of Orleans Street*

0      25      50  
 |      |      |

54





## Appendix 1



## Space Inventory of Our Lady of Mount Carmel School

57

The following is an inventory of floor areas contained within the various spaces in the school:

### First floor

Auditorium	4100 s.f.
Girls' toilets	430 s.f.
Boys' toilets	285 s.f.
Boiler room	800 s.f.
Storage room	360 s.f.
Stairs and corridors	995 s.f.
Total	6970 s.f.
Total net (excluding stairs and corridors)	5975 s.f.

### Second and third floors

Classroom	700 s.f.
Classroom	670 s.f.
Classroom	865 s.f.
Classroom	730 s.f.
Classroom	725 s.f.
Classroom	640 s.f.
Office	155 s.f.
Storage	175 s.f.
Stairs and corridors	1640 s.f.
Total	6300 s.f.
Total net (excluding stairs and corridors)	4660 s.f.

Building total	19,570 s.f.
Building total net	15,295 s.f.

## Appendix 2

## Space Inventory of Proposed Residential Units

The following is an inventory of floor areas contained within the proposed residential complex:

### Unit 1

#### Ground floor

Living-dining room	164 s.f.
Kitchen	72 s.f.
Half bath	25 s.f.
Storage	94 s.f.
Ancillary	94 s.f.

#### First floor

Bedroom-study	270 s.f.
Bathroom	48 s.f.
Entry	90 s.f.
Storage	28 s.f.
Ancillary	40 s.f.

Total	925 s.f.
-------	----------

### Unit 2

#### Ground floor

Living-dining room	446 s.f.
Kitchen	100 s.f.
Storage	80 s.f.
Ancillary	40 s.f.

#### First floor

Bedroom	175 s.f.
Entry	42 s.f.
Bathroom	40 s.f.
Storage	45 s.f.
Ancillary	100 s.f.

Total	1088 s.f.
-------	-----------

### Unit 3

#### Ground floor

Living-dining room	470 s.f.
Study	121 s.f.
Kitchen	110 s.f.
Breakfast area	70 s.f.
Bedroom	130 s.f.
Bathroom	44 s.f.
Study	160 s.f.
Storage	50 s.f.
Ancillary (Terrace)	94 s.f.

#### First floor

Bedroom	192 s.f.
Bedroom	138 s.f.
Bedroom	121 s.f.
Study	220 s.f.
Bathroom	44 s.f.
Bathroom	44 s.f.
Entry	100 s.f.
Storage	106 s.f.
Ancillary	160 s.f.

Total	2374 s.f.
-------	-----------

## Unit 4

Ground floor	
Living-dining room	367 s.f.
Kitchen	126 s.f.
Breakfast area	65 s.f.
Study	67 s.f.
Half bath	22 s.f.
Storage	22 s.f.
Ancillary (Terrace)	40 s.f.
First floor	
Bedroom	208 s.f.
Bedroom	158 s.f.
Bedroom	115 s.f.
Study	100 s.f.
Bathroom	44 s.f.
Bathroom	44 s.f.
Entry	90 s.f.
Storage	110 s.f.
Ancillary	130 s.f.
Total	1708 s.f.

## Unit 5

Ground floor	
Living-dining room	312 s.f.
Kitchen	100 s.f.
Half bath	25 s.f.
Storage	21 s.f.
Ancillary	106 s.f.
First floor	
Bedroom	186 s.f.
Bedroom	168 s.f.
Bathroom	44 s.f.
Entry	80 s.f.
Storage	63 s.f.
Ancillary	160 s.f.
Total	1265 s.f.

## Unit 6

Living-dining room	295 s.f.
Kitchen	110 s.f.
Bedroom	118 s.f.
Bathroom	44 s.f.
Entry	54 s.f.
Storage	42 s.f.
Ancillary	20 s.f.
Total	683 s.f.

## Unit 7

Living-dining-sleeping	350 s.f.
Kitchen	80 s.f.
Bathroom	44 s.f.
Entry	55 s.f.
Storage	46 s.f.
Ancillary (Terrace)	24 s.f.
<b>Total</b>	<b>593 s.f.</b>

## Unit 8

Living-dining room	312 s.f.
Kitchen	74 s.f.
Bedroom	178 s.f.
Bedroom	166 s.f.
Bathroom	44 s.f.
Entry	36 s.f.
Storage	100 s.f.
Ancillary	86 s.f.
<b>Total</b>	<b>996 s.f.</b>

## Unit 9

Living-dining room	390 s.f.
Kitchen	68 s.f.
Bedroom	187 s.f.
Bathroom	44 s.f.
Entry	60 s.f.
Storage	30 s.f.
Ancillary	40 s.f.
<b>Total</b>	<b>819 s.f.</b>

## Unit 10

Living-dining room	256 s.f.
Kitchen	76 s.f.
Bedroom	137 s.f.
Bathroom	44 s.f.
Entry	35 s.f.
Storage	60 s.f.
Ancillary	60 s.f.
<b>Total</b>	<b>718 s.f.</b>

## Unit 11

Living-dining room	476 s.f.
Kitchen	145 s.f.
Bedroom	212 s.f.
Bedroom	130 s.f.
Study	150 s.f.
Bathroom	44 s.f.
Bathroom	44 s.f.
Entry	105 s.f.
Storage	95 s.f.
Ancillary (Terrace)	110 s.f.
<b>Total</b>	<b>1511 s.f.</b>

62

## Unit 12

## Third Floor

Living-dining room	430 s.f.
Kitchen	80 s.f.
Entry	70 s.f.
Storage	16 s.f.
Ancillary	50 s.f.

## Fourth Floor

Bedroom	186 s.f.
Bedroom	152 s.f.
Study	115 s.f.
Bathroom	44 s.f.
Bathroom	144 s.f.
Storage	65 s.f.
Ancillary	170 s.f.

---

Total	1522 s.f.
-------	-----------

## Unit 13

Living-dining-sleeping	350 s.f.
Kitchen	80 s.f.
Bathroom	44 s.f.
Entry	55 s.f.
Storage	40 s.f.
Ancillary	24 s.f.

---

Total	593 s.f.
-------	----------

## Unit 14

## Third floor

Living room	225 s.f.
Dining room	140 s.f.
Study	132 s.f.
Kitchen	138 s.f.
Entry	75 s.f.
Half bath	25 s.f.
Storage	35 s.f.
Ancillary (Terrace)	110 s.f.

## Fourth floor

Bedroom	182 s.f.
Bedroom	140 s.f.
Bedroom	136 s.f.
Study	110 s.f.
Half bath	24 s.f.
Bathroom	44 s.f.
Storage	70 s.f.
Ancillary (Terrace)	150 s.f.

---

Total	1736 s.f.
-------	-----------

## Unit 15

## Third floor

Living room	340 s.f.
Dining room	140 s.f.
Kitchen	138 s.f.
Entry	45 s.f.
Half bath	25 s.f.
Storage	32 s.f.
Ancillary	180 s.f.

## Fourth floor

Bedroom	182 s.f.
Bedroom	138 s.f.
Bedroom	120 s.f.
Study	115 s.f.
Half bath	24 s.f.
Bathroom	44 s.f.
Storage	44 s.f.
Ancillary	124 s.f.

Total	1631 s.f.
-------	-----------

## Unit 16

## Third floor

Living-dining room	310 s.f.
Kitchen	121 s.f.
Entry	30 s.f.
Half bath	30 s.f.
Storage	40 s.f.
Ancillary	150 s.f.

## Fourth floor

Bedroom	180 s.f.
Bedroom	132 s.f.
Bedroom	126 s.f.
Study	120 s.f.
Half bath	24 s.f.
Bathroom	44 s.f.
Storage	40 s.f.
Ancillary	124 s.f.

Total	1471 s.f.
-------	-----------

64

## Unit 17

## Third floor

Living-dining room	448 s.f.
Kitchen	136 s.f.
Entry	86 s.f.
Bedroom	236 s.f.
Bedroom	132 s.f.
Half bath	27 s.f.
Bathroom	45 s.f.
Study	70 s.f.
Storage	86 s.f.
Ancillary	110 s.f.

## Fourth floor

Bedroom	236 s.f.
Bedroom	130 s.f.
Study	70 s.f.
Bathroom	45 s.f.
Storage	44 s.f.
Ancillary	156 s.f.

---

Total	2057 s.f.
-------	-----------