A REDEVELOPMENT SCHEME
FOR A PORTION OF
BOSTON'S SOUTH END

by

JOSEPH RICHMOND TAMSKY

B. Architecture Yale University

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(1951)

Signature of Author .....
(Department of City and Regional Planning, January 30, 1951)

Certified by .....
Thesis Supervisor

.....
Chairman, Departmental Committee on Graduate Students

Cambridge, Massachusetts
January 30, 1951

Professor Frederick J. Adams
Department of City and Regional Planning
Massachusetts Institute of Technology
Cambridge, Massachusetts

Dear Professor Adams:

In partial fulfillment of the requirements for the degree of Master of City Planning, I submit this thesis entitled A Redevelopment Scheme for a portion of Boston's South End.

Sincerely,

"Grow old along with me! The best is yet to be,

The last of life, for which the first was made."

- Robert Browning, in

"Rabbi Ben Ezra"

TO MY WIFE

J.R.T.

A BRIEF GUIDE TO THE MAJOR SECTIONS OF THIS REPORT

The Introduction - Presenting reasons for the choice of subject together with a brief description of the project area and its people.

The Analysis - Describing the area, its people and characteristics. This is the collection of pertinent data in a particular order, designed to outline the existing conditions and some of their causes.

The Diagnosis - Evaluating the data to determine the character and suggest the direction toward which the planning process shall aim. Here we establish the goals which will result in a contemporary solution to the problem of this area.

The Synthesis - Presenting our solution to the problem of the rebuilding of this area; the essential characteristics of a new neighborhood of approximately 7,000 persons and 1,800 dwelling units.

The Conclusion - Summarizing the lessons of this thesis - personal and professional - the most important of which was the desirability, indeed, necessity of finishing such a work within the allotted time!

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Introduction -

During the last decade of the nineteenth and the first two decades of the twentieth centuries, the importance of the three-dimensional arts: architecture, sculpture, and landscape architecture, as contributary disciplines to the practice of City Planning, was vastly over-stressed. The social sciences were ignored or relegated to report appendices, and the political realities of the day received similarly short-shrift.

Today, in reaction to a period of the "City Beautiful", the planning profession, is perhaps swinging the pendulum to deny the place of art in city building; in its stead, we find a blind rush to the doctrine of the "City Beneficial" or the "City Statistical". One reason for this nonsense is probably the fact that planners seldom, if ever, have an opportunity to build cities. At any rate, the present need is for a comprehensive City Planning, the aim of which would be to realize the future city as a beautiful, functional and beneficial place for living. This thesis attempts to suggest one example of the planning process and its desired goal.

My reasons for the choice of this subject, i.e. "A Redevelopment Scheme for a portion of Boston's South End", were

(1) the desire to indicate the place of architecture as a discipline essential to the practice of a comprehensive city planning.

(2) the desire to contribute a study in an area of great potentiality and immediacy; namely, urban redevelopment.

(3) the desire to indicate a positive direction in which our cities may proceed in their re-establishment as living organisms.

The subject area of this thesis is a large neighborhood in Boston's South End. Bounded by Waltham, Washington, Northampton and

Tremont Streets, it has a gross area of about 110 acres. According to the U. S. Census (1940) approximately 12,000 persons resided here. In his excellent Land Use in Central Boston Walter Firey characterizes the area and its people thus:

" . . . (it) above all is a rooming house area, or, as it is more commonly called in Boston, a lodging house area. Its population consists mainly of dependent aged persons and transient middle-aged service workers. A high proportion of these people are entirely removed from kinship ties. In the case of the older people, they are typically widowed; in the case of the younger adults, they are unmarried, separated, or divorced. Those who have employment are working in insecure service jobs characterized by a high rate of turnover among personnel. (See Walter Firey, Land Use in Central Boston, Harvard University Press: 1947, page 291 et seq.)

The area chosen for this study is readily subdivided into five sub-sections: one in which broad-scale clearance is indicated and two in which selective clearance and rehabilitation could be justified. The final two sections appear to require clearance and complete reconstruction for commercial uses.

As outlined above, it has been my purpose to indicate how the existing spaces and structures could be rehabilitated or rebuilt entirely to provide a more adequate frame of reference for fulfillment of the functions of a healthy society. Indicated, in the following pages, are the process, and a possible end-result of planning for Boston's South End.

Joseph Richmond Tamsky

THE ANALYSIS

BOUNDARIES OF THE STUDY AREA (S.E.R.S.):

The boundaries of the study area were defined by the coincidence of several factors. They appeared to be self-evident by nature of the street pattern, and, to a certain extent, the land use pattern. Tremont Street, Dover and Washnigton Streets, and Massachusetts Avenue, were obvious boundaries which might have been used, except for two factors, one present and one proposed, affecting Massachusetts Avenue, and Dover Street respectively. First, Massachusetts Avenue, although a very heavily-trafficked street, does not separate the two halves of Chester Park, a residential square through which it passes. Traffic may place obstacles in the path of the pedestrian crossing the Avenue, but none great enough to prevent the use of its central park by those in search of a bench or some shade in an otherwise "paved" environment.

Dover Street, a commercial thoroughfare of less importance than either Tremont or Washington is a barrier to wholesome continuous development. It was abandoned as a boundary, however, when we discovered that the route of a new cross-town highway, indicated in the Governor's Master Plan for Highways (see Plate I), would probably lie to the south along the line of Waltham Street, leaving a narrow strip of land for commercial development between it and Dover Street.

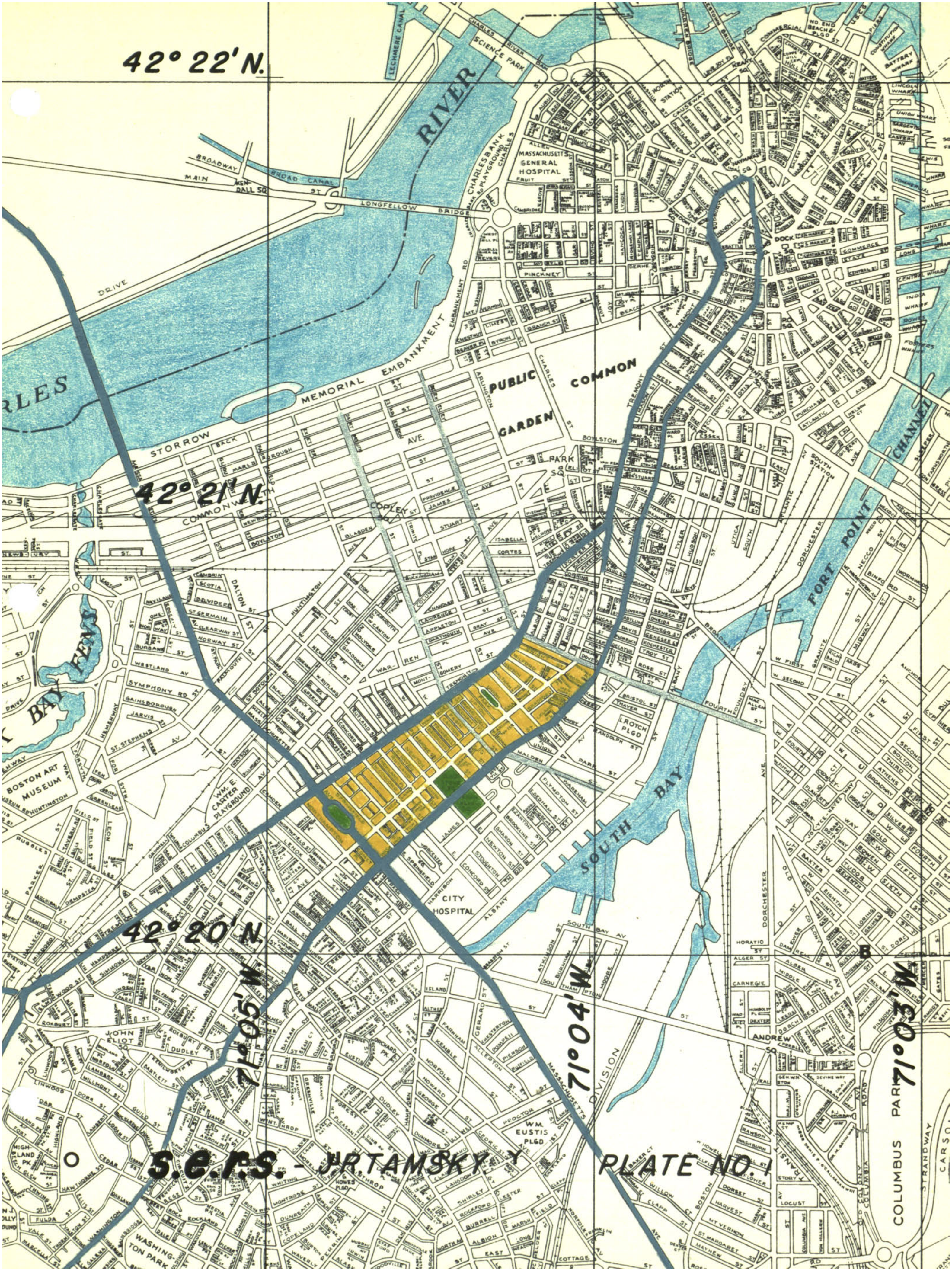
Thus, the study area was defined to include the southern half of Chester Park as far as Northampton Street and to exclude the area lying between the rights-of-way of Dover and Waltham Streets; the remaining boundaries were to be Tremont and Washington Streets, as previously indicated.

Plate I.

This map illustrates the intense relationship between the S.E.R.S.* and the City of Boston. Located midway between the Downtown and Dudley Square, and similarly with respect to Cambridge and South Boston, it is strategically placed as a higher-density-in-town-neighborhood. It is quite well served by public transit facilities which exist (this situation will achieve a near-optimum when the Shawmut Avenue subway is completed), and which connect it with the aforementioned communities, in addition to others further removed. The Back Bay and the Dudley Square section, which is second only to the "Downtown" in volume, number, and variety of businesses, lie well within walking distance of the project area.

The major streets emphasized upon the drawing are Massachusetts Avenue, the principal link to Cambridge and the South Shore communities; Tremont and Washington streets, which run from the very heart of Boston to Roxbury and points southwest; and two lesser ones: Dover Street connecting with the Back Bay (by way of Berkeley Street) and South Boston, and Dedham Street, which runs into the Back Bay also, by way of Dartmouth Street.

*S.E.R.S. - an abbrebiation for the short title of this thesis (South End Redevelopment Scheme) frequently used in these pages and plates.



42° 22' N.
42° 21' N.
42° 20' N.
71° 05' W.
71° 04' W.
71° 03' W.
RIVER
RLES
SCIENCE PARK
LONGFELLOW BRIDGE
MASSACHUSETTS GENERAL HOSPITAL
STORROW MEMORIAL EMBANKMENT
PUBLIC GARDEN
COMMON
FORT POINT CHANNEL
SOUTH BAY
BAY FENS
BOSTON ART MUSEUM
CITY HOSPITAL
COLUMBUS PARK
s.e.r.s. - J.R.TAMSKY
PLATE NO. 1

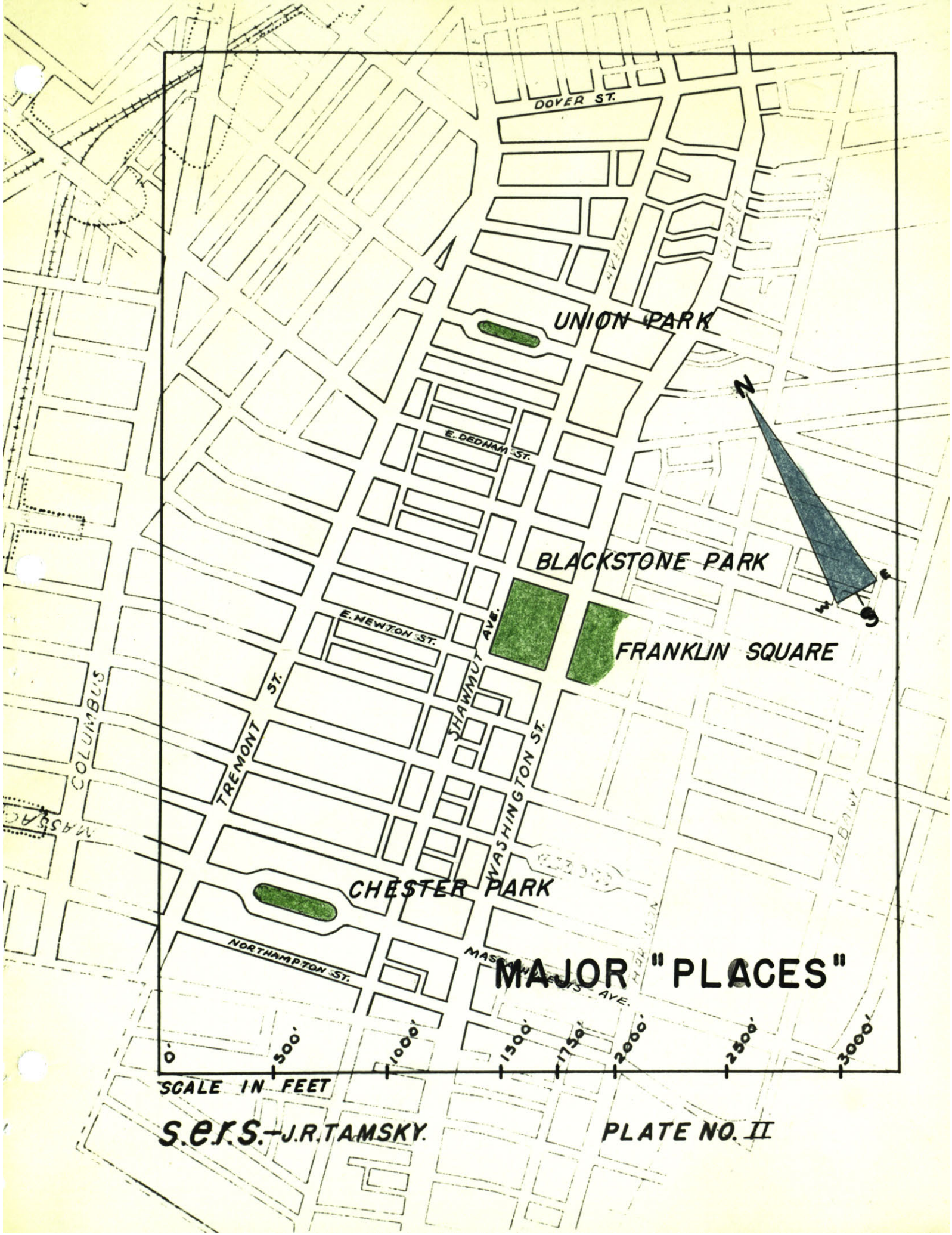
Plate II.

On this map we have shown the three key "places" to the redevelopment of this area. Chester, Union, and Blackstone Parks are reason enough for the approach of this thesis, which seeks to maintain and enhance by sensitive three-dimensional planning, the valuable portions of the existing urban fabric.

Chester Park straddles one of the most heavily-travelled highways in the metropolitan region, and yet has been maintained as a decent residential "place". The surrounding houses, which really make the park what it is, are continuous brick row units, four and five stories in height (including full basement and attic under a Mansard roof), quite well maintained and apparently "rehabilitate-able". They are very beaufiful despite their present low estate.

Union Park, though smaller than Chester Park, has a great deal of charm and is equally interesting. Here again the three to five story buildings are of brick frame construction, but, fortunately, are free from the heavy traffic flow of Massachusetts Avenue. Its residential character has been little changed during its 100 years of existence.

Blackstone Park, the last of the three, and largest, seems to have suffered most with the changing function of the area. It lies across Washington Street from Franklin Square and, in spite of the intervening elevated train tracks, forms a visual entity with it. At present this square has been penetrated by several non-residential uses, including a monstrous building which the City erected in the "twenties" to provide public baths, an auditorium, gymnasia, and a branch library. The eventual removal of the "el" and the reconstruction of the neighborhood hold promise of better times for this "place".



MAJOR "PLACES"

S.e.r.s.–J.R.TAMSKY.

PLATE NO. II

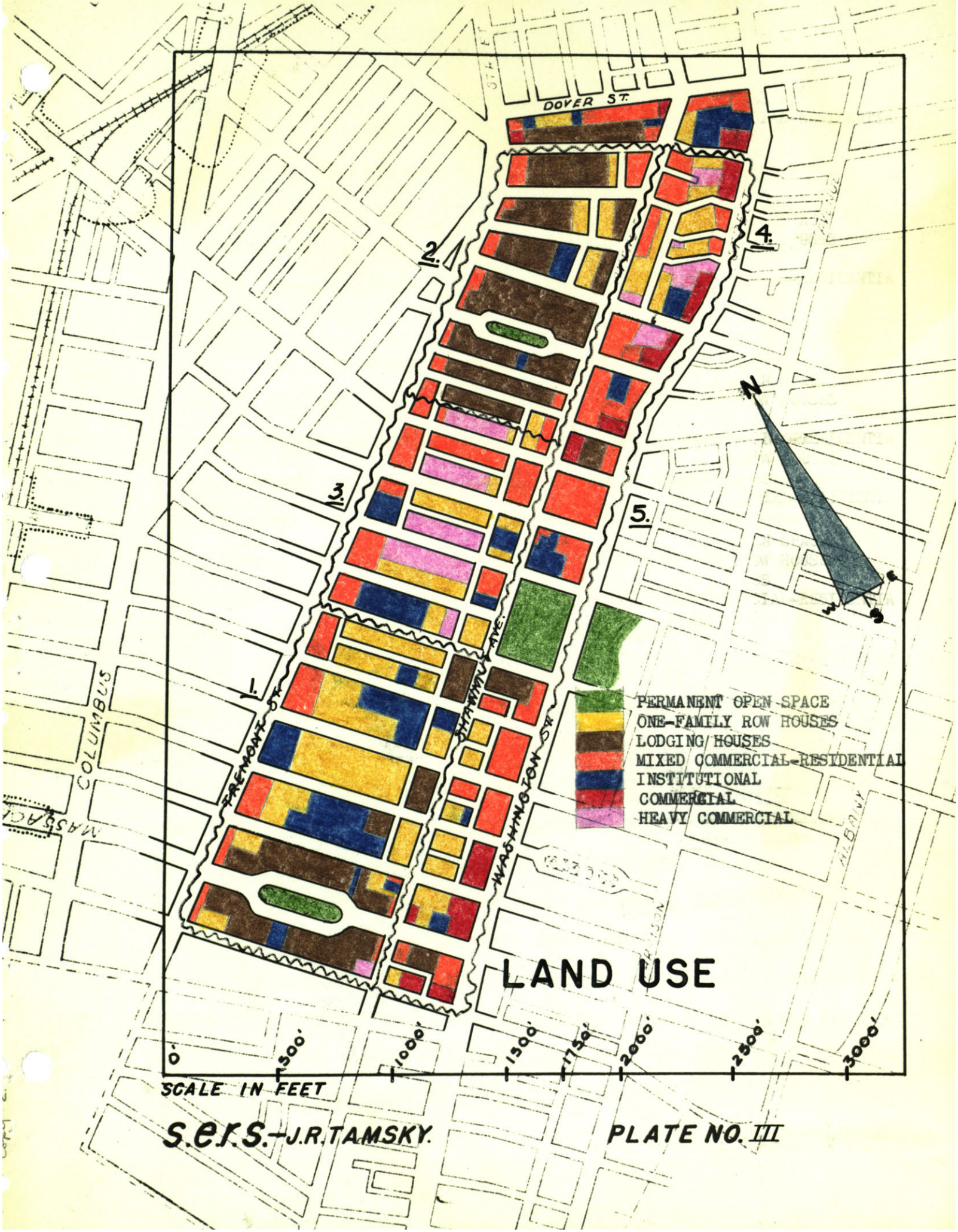

DOVER ST.
1.
2.
3.
4.
5.
N
FREMONT ST.
SHAWMUT AVE.
WASHINGTON ST.
COLUMBUS
MASSACH
ALBANY
PERMANENT OPEN SPACE
ONE-FAMILY ROW HOUSES
LODGING HOUSES
MIXED COMMERCIAL-RESIDENTIAL
INSTITUTIONAL
COMMERCIAL
HEAVY COMMERCIAL
LAND USE
0'
500'
1000'
1500'
1750'
2000'
2500'
3000'
SCALE IN FEET
S.e.r.s.-J.R.TAMSKY.
PLATE NO. III

Plate III.

This map is one of the vital tools of the planning process, indicating as it does the location and relationships which exist between the most important land uses of the study area. Although the entire area must be considered as a unit, the land use pattern shown here illustrates a possible division into five sub-sections for purpose of a more lucid description.

The first area, including Chester Park, is the southernmost, and is both the largest and best-maintained. It is dominated by the brick rows which function as lodging houses or single-family houses, depending upon the economic situation of the owner. There is little physical distinction between the two, and, in fact, even when indicated as single-family houses, they probably have five or more lodgers. The institutional uses include three churches (mentioning only those upon separate plots); an aged-men's home; and five nineteenth-century school buildings, only two of which are presently used for their original purpose. Of particular interest to us were the buildings of the South End House on Rutland Street. These consist of two of the old school buildings and one delightful new building pleasantly located within the walled garden which separates the other two. The group houses a branch center of the main settlement building (located in Union Park) and a combined art and music school.

The second sub-area demarked is the residential section that surrounds and receives visual emphasis from Union Park. Here again is the mixture of lodging houses and "single-family"dwellings described previously. However, the proximity of the Holy Cross Cathedral across Washington Street has stimulated the intrusion of several commercial uses which are a detriment to the area. As noted above, the South End House has its main quarters

on Union Park. Interesting enough, this area has been the locus of much more planning activity than any other section of the district. It has very considerable possibilities and is under more extreme pressures than the others. A peculiar, economically-stimulated phenomenon in evidence here is the very intensive development of the corner parcels. Practically every such parcel has been redeveloped within the last thirty or forty years in an effort to make more complete use of its greater "value". The utilization of the corner has always been a particular stumbling block in the mass use of the row house, and at the time of the development of the area, either such inefficiencies were not understood or they were not considered important in the schemes and values of the day. At any rate, some of the potentialities of twentieth century building sciences are in evidence in the corner treatment. In some cases tenements were erected and in others, the lower floors were simply converted to business uses.

Sub-area three is the outstanding example of mixed uses, with consequence of poor living conditions, and general dilapidation. Here are located most of the few industrial establishments with which we must contend: a large commercial laundry, a garage for intra-state buses, and a sub-station of the Boston Edison Company. While we do not consider the latter a nuisance in the usual sense, its great bulk (seven stories) in relation to a predominantly two-story pattern does make it a considerable problem or "scale" nuisance. The housing in this section is no better than deplorable: the prevailing dwelling type being the two-story wood-frame structure, badly in need of repair, yet of more recent construction than that of the other sections. In contrast to the two previously described sections, these conditions suggest the only solution to be mass clearance and reconstruction.

Sub-area four contains similarly shameful living conditions.

Here is the area of crowded blocks and twisted alleys (between Dover, Washington, and Waltham streets east of Shawmut Avenue), characterized by a "hodge-podge" of mean, low, cottage-type dwellings, and stores with apartments above. At one extremity lies the John J. Williams Elementary School (unfortunately situated between the proposed cross-town highway and Dover Street), and at the other, on Waltham Street, a five story structure housing a hospital for alcoholics. It is probable that this area was developed prior to the others in the S.E.R.S., for, as one can see on the next plate, it occupies some land which originally connected the town of Boston with the mainland. It has been the most affected by the Washington Street "el", (which actually changed direction to avoid it), the scale of which completely dominates that of the dwellings. Here again clearance seems to be the only logical solution.

The fifth and final sub-area is not really an entity at all. It is simply a long strip-development running along Washington Street south, even into Roxbury. Its character is determined by the necessity of accommodating the high land values which obtain along Washington Street and the blighting effects of the "el". It can only be described as an impossibly heterogeneous group of buildings without space either between or behind. The "Topsy-like" growth of the late nineteenth century, stimulated even further by the twentieth century's technical achievements in the "art" of building is here evidenced. Obviously clearance is again indicated.

Next in sequence we find a table setting forth the areas which are at present devoted to the several land uses described, and a few additional ones. The most important feature to be noted is the very high percentage of land area devoted to streets and almost none to active play. Despite the widespread dilapidation, indeed chaos, the area has a form which suggests a basis for re-vivification.

EXISTING LAND USE ALLOCATIONS, S.E.R.S.

Land Use	Square Feet	AREA Acres	% of Total
Residential	1,800,000	41.4	39.0
lodging houses	700,000	16.1	
one-family houses	955,000	22.0	
"walk-up" apartments	145,000	3.3	
Parks and Recreation	175,000	4.0	3.8
passive	175,000	4.0	
active	none	none	
Circulation	1,650,000	38.0	35.8
pedestrian	55,000	1.3	
local streets	895,000	20.6	
other (incl's ½ boundary streets)	700,000	16.1	
Work	495,000	11.5	10.9
retail shops	310,000	7.2	
other (incl's industry)	185,000	4.3	
Public and Semi-Public	350,000	8.1	7.6
public buildings	50,000	1.2	
public schools	40,000	.9	
churches	125,000	2.9	
other (incl's settlements)	135,000	3.1	
Vacant	130,000	3.0	2.8
ALL TOTALS	4,600,000	106.0	99.9

Plate IV.

Here we have delineated the water line as it existed over a hundred years ago, when the area under consideration was filled. Washington, then Orange Street, was the only connection between the original settlement of Boston and the hinterland; Roxbury, Hyde Park, Roslindale, Brookline, the Newtons, etc. It is important to note this situation because the filling of the flats to what is now the South Bay and the Charles Basin, were major factors in the development of the city, and had an important bearing upon the present pattern of development. The area was planned as a "high-class" residential district, which, indeed, it was for a period between 1860 and 1875. However, because of the construction of the horse railroad and the reduction of the selling price of the land, certain portions of S.E.R.S. were developed for the middle classes, like the surrounding sections which adjoin the Back Bay. These developments "forced" the elite out to the then developing Back Bay. This process left the row mansions for uses of greater economic intensity. This must have been one of the earliest examples of the now-common blighting process which has attacked the downtown areas of our major cities, the ever-continuing conversion of older large dwellings for multiple family use. [At any rate, it is clear that the social and physical situation which we now face commenced its development seventy-five years ago. Walter Firey states that, "By 1885 the South End had become wholly transformed into a rooming house area....." (Walter Firey, op.cit. page 64)]

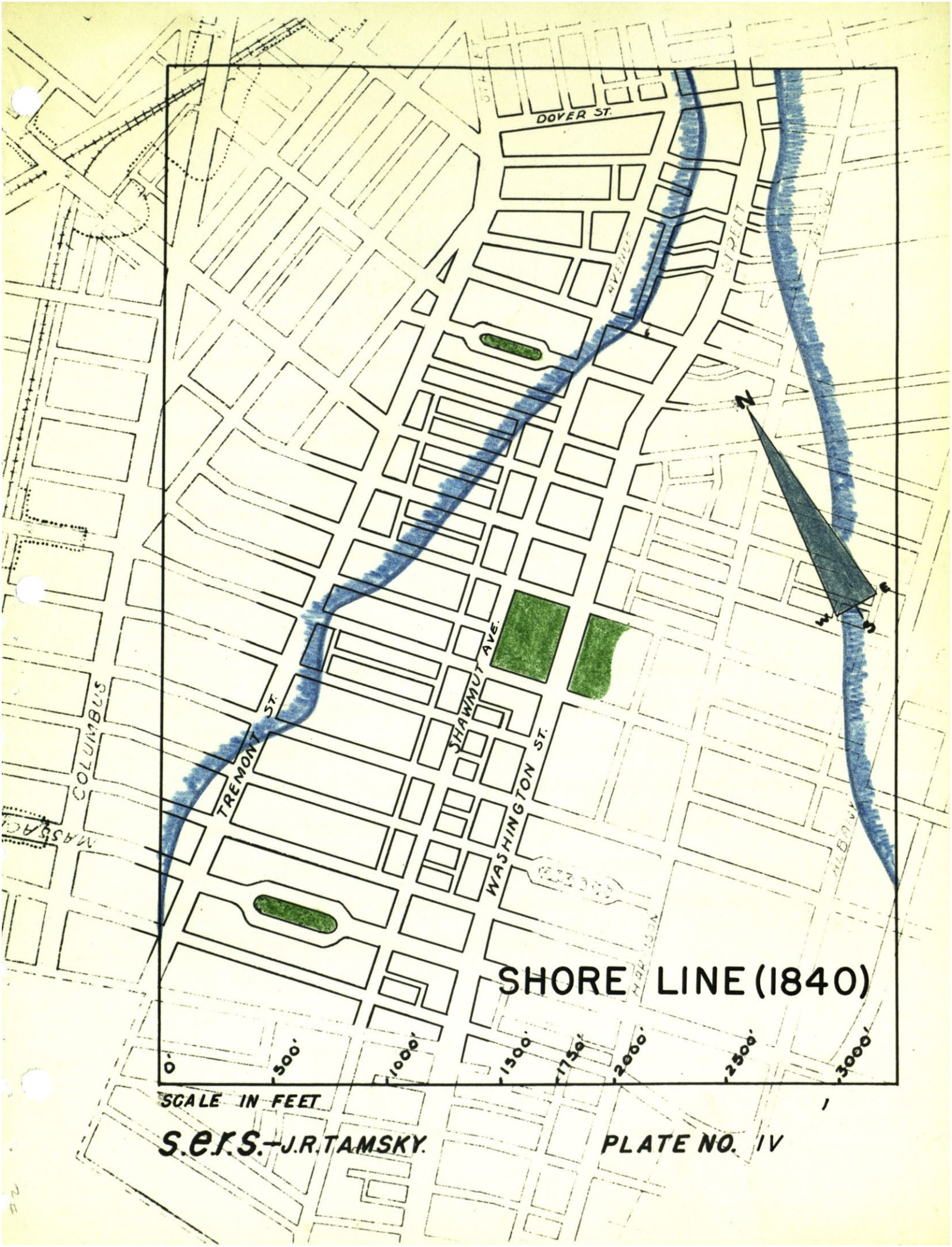
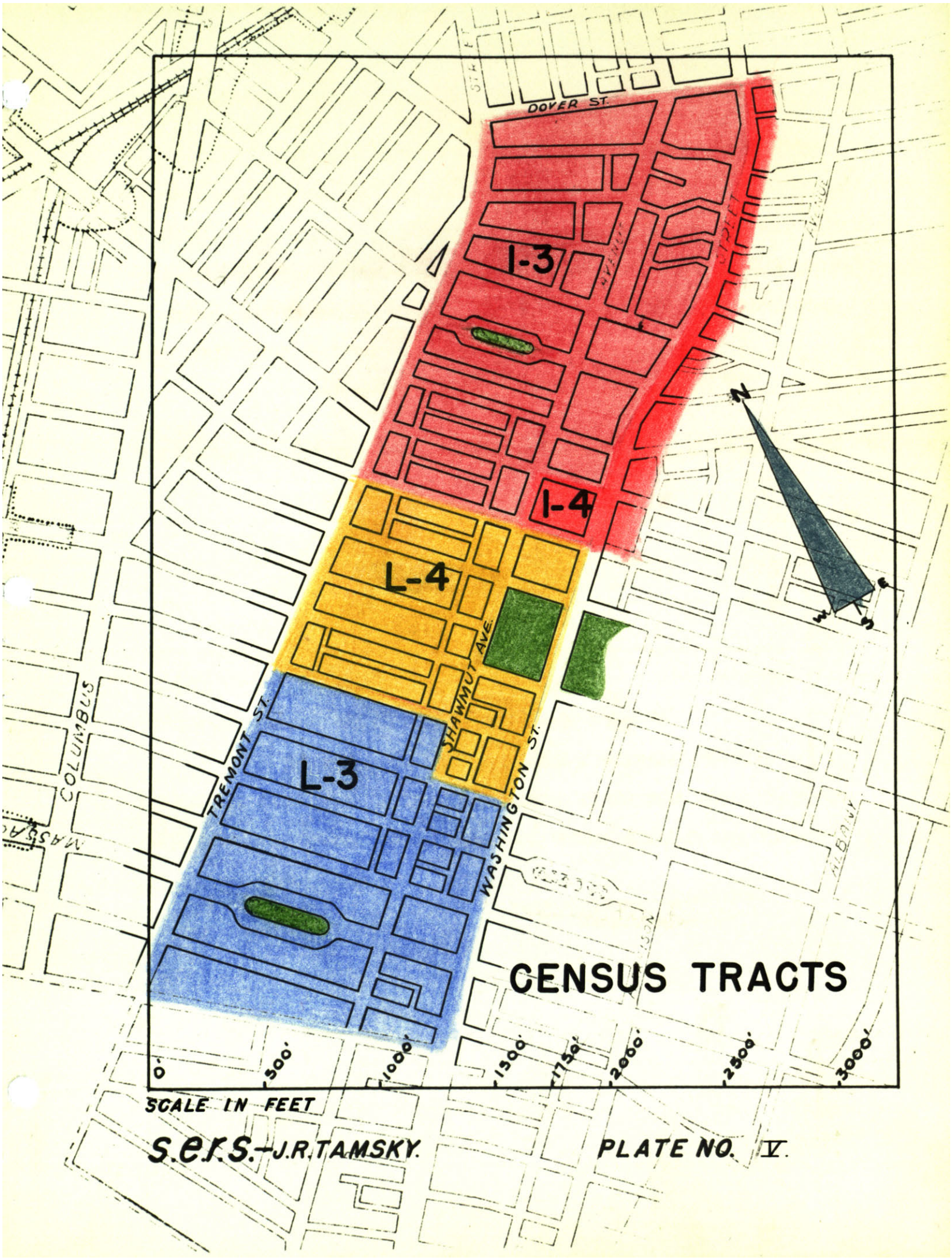

DOVER ST.
TREMONT ST.
SHAWMUT AVE.
WASHINGTON ST.
COLUMBUS
MASSACH
N
W
E
S
SHORE LINE (1840)
0'
500'
1000'
1500'
1750'
2000'
2500'
3000'
SCALE IN FEET
S.e.r.s.-J.R.TAMSKY.
PLATE NO. IV

Plate V

This map was included for the purpose of indicating the areas of the Census tracts which comprise the study section. It serves as a visual base for the statistical information gathered in the development of the thesis. The several disparities between the tract boundaries and the study area are not significant, except in the case of I-4, only one block of which comes within the area of our project. In the case of tracts I-3 and L-3, from which two blocks have been eliminated, these actually contain conditions which are at variance with those of the remainder of their respective census tracts. For instance, the blocks south of Northampton Street in L-3 contain row houses that are smaller, and presently occupied by families whose characteristics (size and age levels) are quite different from those living in the fine looking rows which make up the Chester Park oval.

In the case of I-3, which we have split at Dwight Street (the probable location of the new cross-town highway briefly discribed earlier), one finds that those dwellings facing Dwight Street are exactly like those on the south side of the street. The dwellings and land uses which have developed along Dover Street and in that entire block bounded by Dover, Washington, Dwight, and Shawmut Streets, are distinctly different from the others that make up the tract, and consequently, are better not included within the statistical base of this study.



CENSUS TRACTS

SCALE IN FEET

S.e.r.s.–J.R.TAMSKY.

PLATE NO. V.

The People:

We have determined that approximately 11,848 persons reside in this area's 2,552 dwelling units (U.S. Census - 1940). For lack of available block population statistics, the number of people was estimated by multiplying the number of occupied dwelling units by the average number of persons per household, as given for each census tract. The table below sets forth these figures:

ESTIMATED POPULATION OF S.E.R.S. (1940)

Column	I	II	III
Census Tr.	- Occ'pd D.U.'s	- Av. # Pers./D.U.	- Total # Persons*
I-3	1,077	5.24	5,660
I-4	61	3.94	238
L-3	683	5.11	3,490
L-4	731	3.36	2,460
TOTAL S.E.R.S.	2,552	4.6	11,848*

*Estimated: Column III is product of Columns I and II.

To determine the number of lodgers persently residing in S.E.R.S. we were forced into the utilization of the data presented in the table entitled, "Comparison of 'Household' Sizes, S.E.R.S. and the City".

Here we compare the three census tracts (which comprise S.E;R.S.) with the City of Boston in respect to household size. Columns V - VII indicate the tremendous bias in favor of large households.

A COMPARISON OF HOUSEHOLD SIZES: S.E.R.S. AND THE CITY

by Per Cent

Columns:	I	II	III	IV	V	VI	VII
Number in Household	City	Tract I-3	Tract L-3	Tract L-4	I minus II	I minus III	I minus IV
1	10.0	18.0	19.0	37.0	+8.0	+9.0	+27.0
2	22.5	20.5	27.5	23.0	-2.0	+5.0	- .5
3	10.5	11.0	11.0	9.5	+0.5	+0.5	- 1.0
4	17.0	10.0	8.0	9.0	-7.0	-9.0	-8.0
5	12.0	7.0	6.0	7.0	-5.0	-6.0	-5.0
6	7.5	55.5	4.0	3.5	-2.0	-3.5	-4.0
7	4.5	5.0	3.0	2.5	+0.5	-1.5	-2.0
8	2.5	3.0	2.5	2.0	+0.5	----	-0.5
9	1.5	3.0	2.0	1.0	+1.5	+0.5	-0.5
10	1.0	2.0	2.0	1.5	+1.0	+1.0	+0.5
11+	1.0	15.0	15.0	4.0	+14.0	+14.0	+3.0

From this information we assume that the lodgers now resident in S.E.R.S. would be represented by the difference between the city-wide average percentage for household sizes from 8 to 11+, and that indicated for the tracts as in columns V, VI, and VII. We felt that this percentage differential would afford us a reasonable estimate of the lodging house population, despite its obvious deficiencies. For example, most of the lodging houses in the South End are known to house from 10 to 20 individuals, and although a certain percentage are probably to be found in the smaller houses of the area, the majority most likely are accounted for in

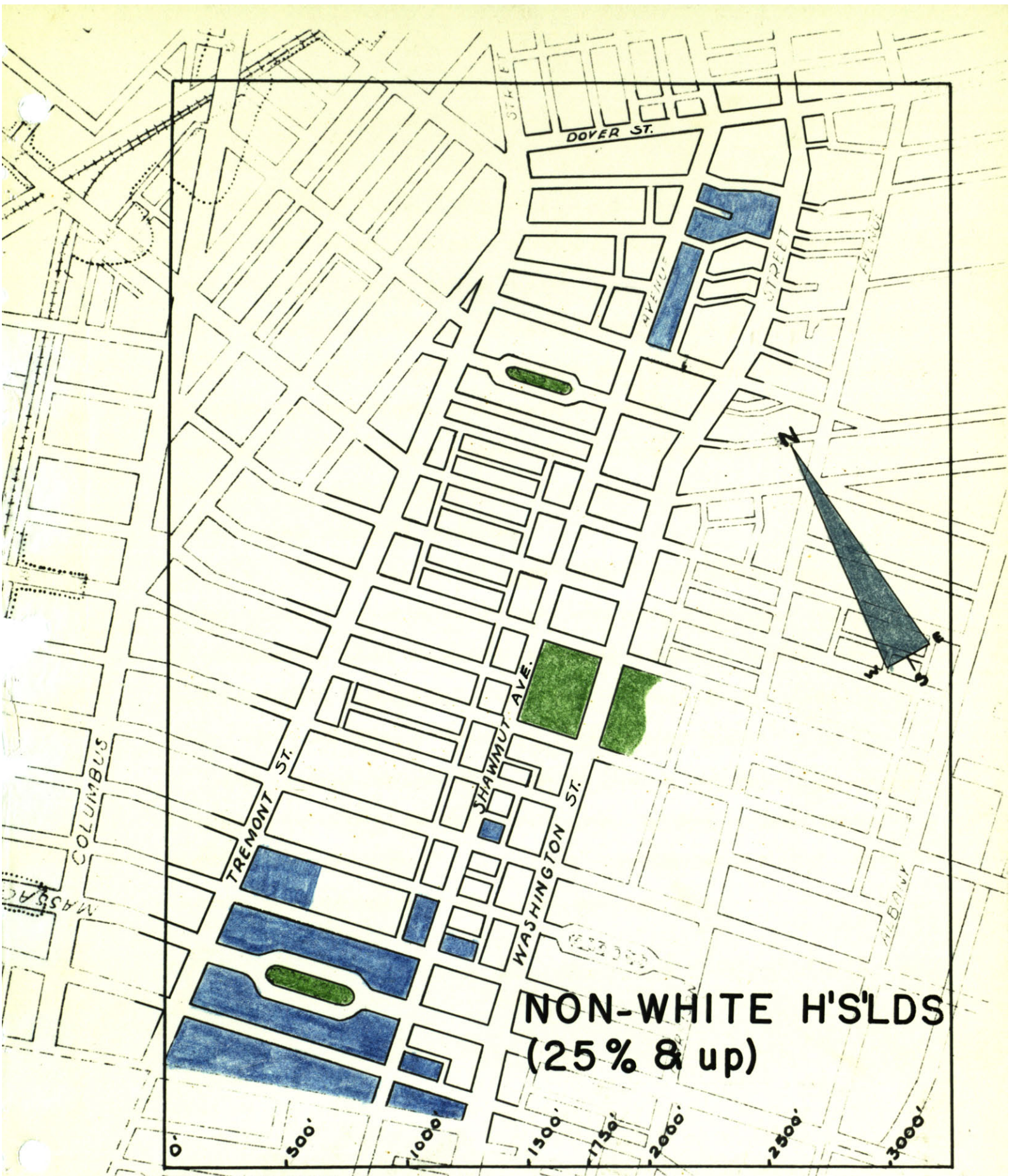
the larger ones. Furthermore, it is in these categories, household size of eight plus, that the discrepancy between the South End and the rest of the city is most evident, a condition most certainly caused by the presence of lodgers who are so characteristic of the area's population.

From this table we determined that there were approximately 2,398 lodgers (42.5% of Tract) in Census Tract I-3; 1,609 in L-3 (46.0% of Tract; and 285 in L-4 (11.5% of Tract); a tract dominated by one-family frame dwellings, as we have already seen. A grand total of 4,300, constituting roughly 36% of the entire community!

The AGE-GRADE PYRAMID, following, illustrates graphically the disparity in age and sex composition among the three census tracts in S.E.R.S. and that of the 154 tracts which make up the City of Boston. In this chart, the six age-grades are represented upon the vertical scale and the percentage of the total population and of age-grade which is male or female, is represented by the horizontal scale. Where, as in the three older age-grades, the percentages for S.E.R.S. exceed those for the city, we have indicated the discrepancy in red; the reverse is shown by the yellow areas. Thus, another of the salient population characteristics, described by Firey, is readily comprehensible.

In the usual case of the northern American city, the presence of Negroes in an area would be considered to indicate the locus of dilapidation, and other aspects of blight and slum conditions. It is interesting to note that in S.E.R.S. within the eight blocks shown by the Census to be inhabited by more than 25% Negroes, these criteria are quite inaccurate, or simply, more so than usual. Here the major concentration of Negroes is in the Chester Park section, which we have earlier seen to be well-maintained and one of the more pleasant portions of the area. As is often the case, the rentals are higher in these blocks, but they seem to be almost justified by the added amenities. We have indicated two blocks on the south side of Northampton Street, which, while not part of the project area, do have a very large percentage of resident Negroes and, which, with respect to this factor alone, show a high degree of similarity to the blocks lying within the project.

Several other population characteristics have been tabulated and are summarized in the following paragraph as further insight into the conditions existing within the project area.



SCALE IN FEET

S.e.r.s.—J.R.TAMSKY.

PLATE NO. VII

Most startling is the data concerning the labor force. Here out of a total of 11,817 persons age 14 and over (these figures are for the entire census tracts, not S.E.R.S.), 4,819, or approximately 41%, are listed as not in the labor force (including "out of work, "unable to work", "not reporting to work or other", etc.); of these 1,858, around 16% of the total, are "unable to work". A very large number of the residents of the area are aged, infirm persons on relief who are consequently dependent upon the several free hospital clinics within a half-mile area. These people require cheap housing within walking distance of the clinics since even the regular expenditure of carfare would mean a significant drain on their financial resources.

With respect to the labor force, the following occupation groups, listed in order of importance, were recorded as those most heavily represented within the tracts comprising S.E.R.S.: "service workers (not domestic)"; "operatives"; "craftsmen, foremen, etc."; "clerical, sales, etc."; and finally "laborers". The "service Workers" group is, of course, largely composed of persons employed by laundaries, restaurants, hotels and the like in the very lowest jobs: busboys, waiters, dishwashers, handy men, etc., "..... jobs characterized by a high rate of turnover among personnel." (Firey, op. cit. pg. 291)

The Housing

The scale of the accompanying Land Use Map precluded the indication of the several housing types which obtain within the S.E.R.S. project area. Actually there are three significantly different types of dwellings located here; the following is a list of them and their characteristics as described by the Boston Planning Board's study entitled Rehabilitation in Boston (Vol. III, January 1946):

single family house - occupied by one family and servants as per 1940 Census

apartment house - occupied by one family and roomers

lodging house - occupied by from 10 to 20 individuals who do not board

The Board's description indicated the average household size which it assumed obtained in the three categories as 3.86, 2.37 and 12.12 respectively.

Most of the dwellings are four stories in height. There being no figures available, we have estimated that perhaps 50% of all units are 4 stories; 30% 5 stories; and the remainder 2 and 3 stories. In these determinations basements were considered to be full stories when largely above grade or easily accessible from the street or front yard. Likewise, attics were considered as a full story because the majority are contained within Mansard roofs and thus provided full headroom and light.

All the dwellings are of non-fireproof construction; the largest proportion are brick-frame row-type structures ranging in age from 40 to 80 years. The exterior shells of most of these are apparently sound, with the exception of those where the owner has long been discouraged and, thus, not continued proper maintenance. On the other hand,

there are few wood frame structures (in the third sub-area; see Land Use Map) and some two-story brick rows (in the fourth sub-area) which are basically unsound and absolutely unsuitable for further habitation. These, particularly the wooden ones, are of more recent origin than the others and are largely represented by the yellow areas on the accompanying map indicating the median age of dwellings.

The density of existing dwellings is of further interest to the planner. In these determinations we have used the A.P.H.A.'s definition of net residential acreage which follows:

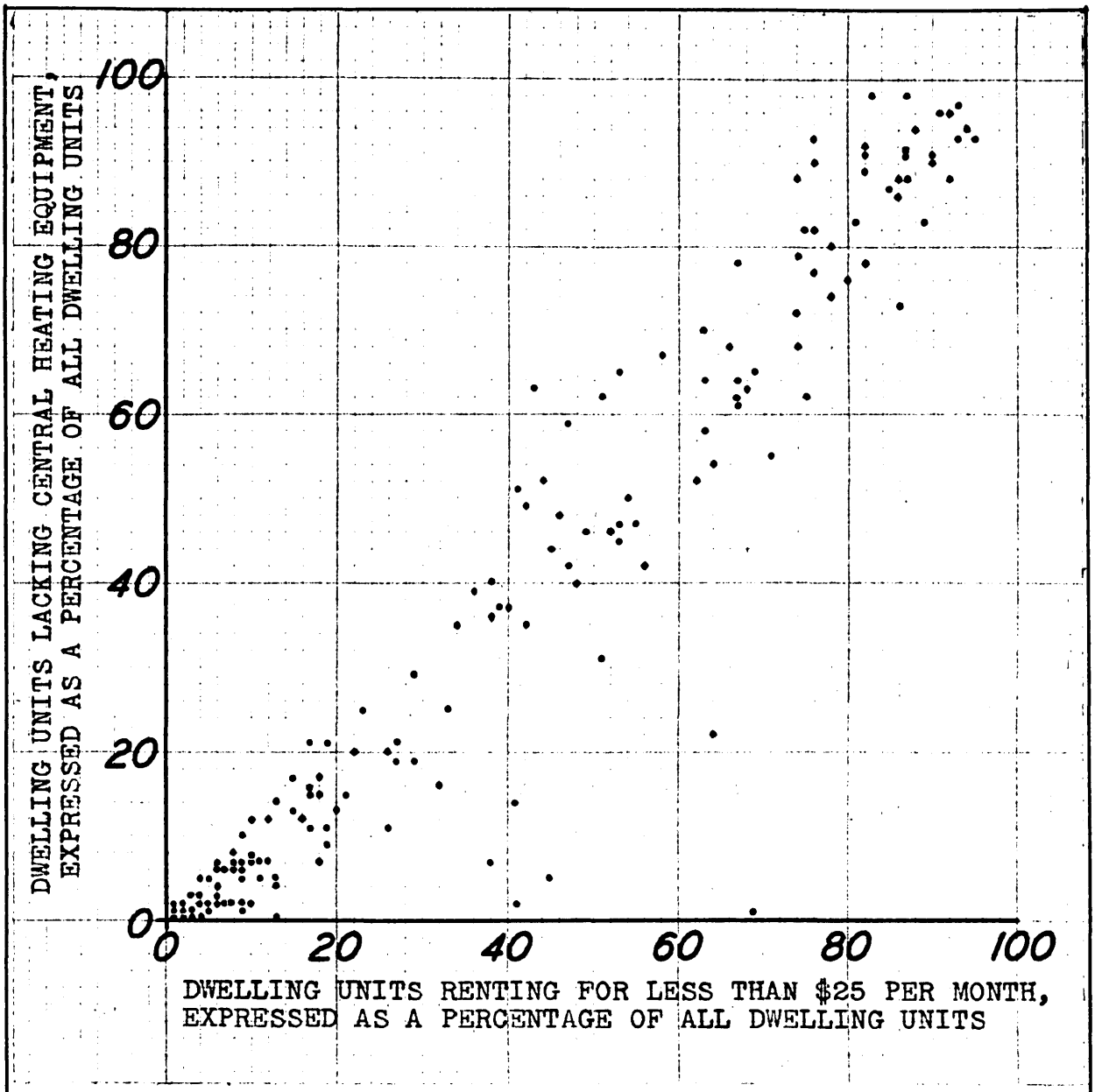
> " . . . the land devoted to residential buildings and accessory uses on the same lots, such as informal open space, drives and service areas, but excluding land for streets, public parking, playgrounds, and non-residential buildings." (Planning the Neighborhood, pg. 37)

11,800 individuals residing on 41.5 acres (including 50% of land co-occupied by a non-residential function) amounts to a density of 285 persons per acre, a very high figure for an area dominantly four and five stories in height. The household density is, of course, considerably lower because the lodgers increase the average household size by 12% over that for the city, or 25% over that for the national urban average. Even so, the figure of 61.5 units per net acre is definitely high, considering the low average height of structure, and further points up the tragic lack of outdoor recreation space as shown in the land use analysis.

Plates VIII and IX

These plates help to assess the quality of housing in the study areas. The first indicates the coincidence which exists between dwelling units described by the 1940 Census as lacking private bath facilities and those renting for less than $25.00 a month. The second equates the lack of central heat and a rental of less than $25.00 per month. Both are seen to coincide very closely in Census tracts where average rent was below that figure. The natural conclusion is that low rent is an acceptable criterion of poor housing conditions throughout the area. These scattergrams are illustrative of the Boston City Wide situation; in the S.E.R.S., however, we found that the incidence of low rent, as determined from the block statistics, corresponded closely with our visual evaluation of housing quality and used both for cross-checking purposes.

The next plate, X, gives the average rentals by block, as published by the Census. The two worst areas, described earlier, are readily seen to be the two masses of reds and orange, the first at the center of the study area and the second at the northwest corner. On the other hand, the Union and Chester Park sections are also readily discernable as dominated by the blue colorations which indicate rentals in excess of $30.00.



scattergram · COEFFICIENT OF CORRELATION 0.942

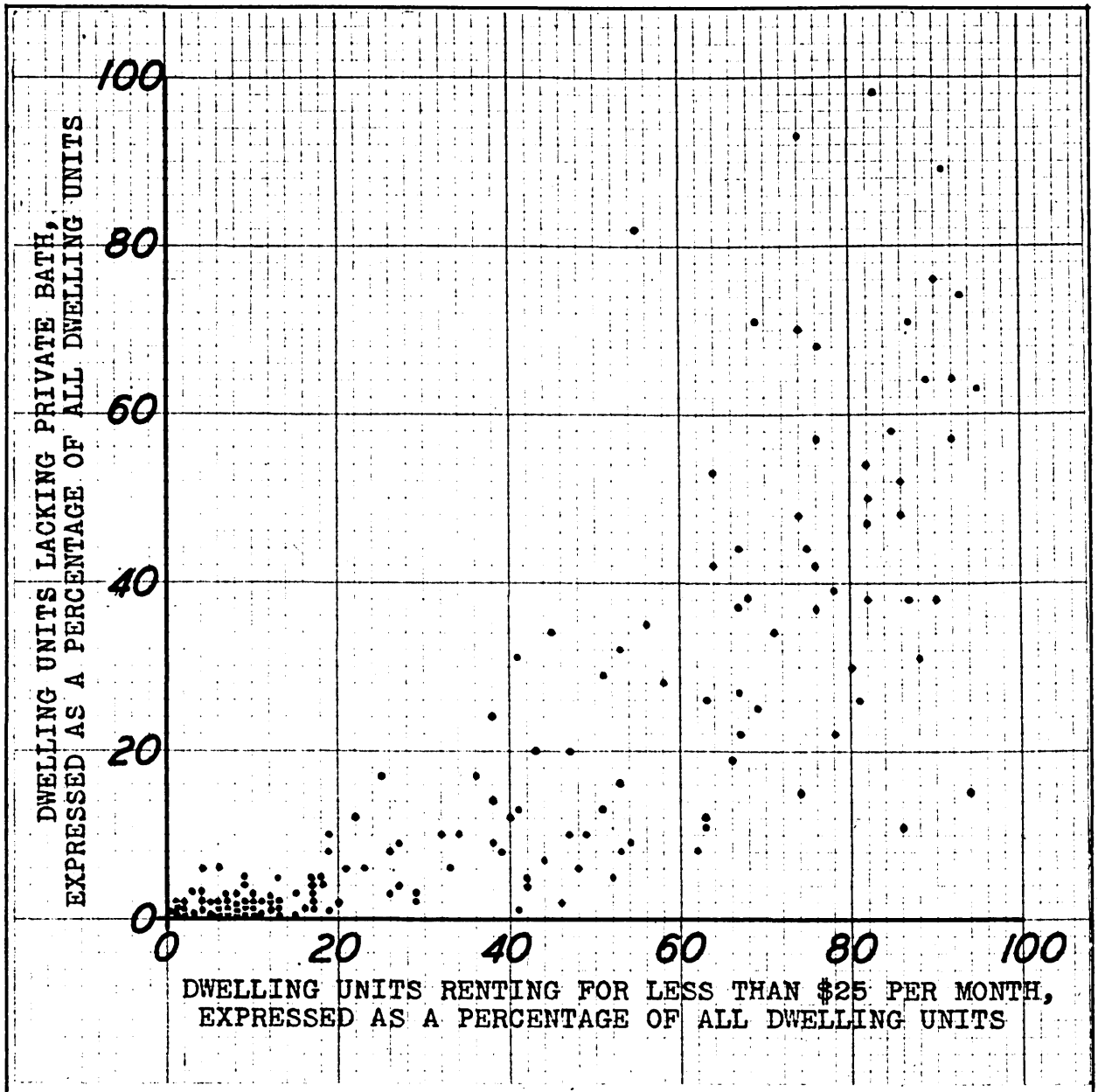
LOW RENT & LACK OF CENTRAL HEAT

FOR 154 CENSUS TRACTS IN BOSTON
SOURCE · U.S. CENSUS - 1940

COURTESY · *BOSTON PLANNING BOARD*

S.e.r.s. - J.R.TAMSKY.

PLATE NO. VIII



scattergram · COEFFICIENT OF CORRELATION 0.815

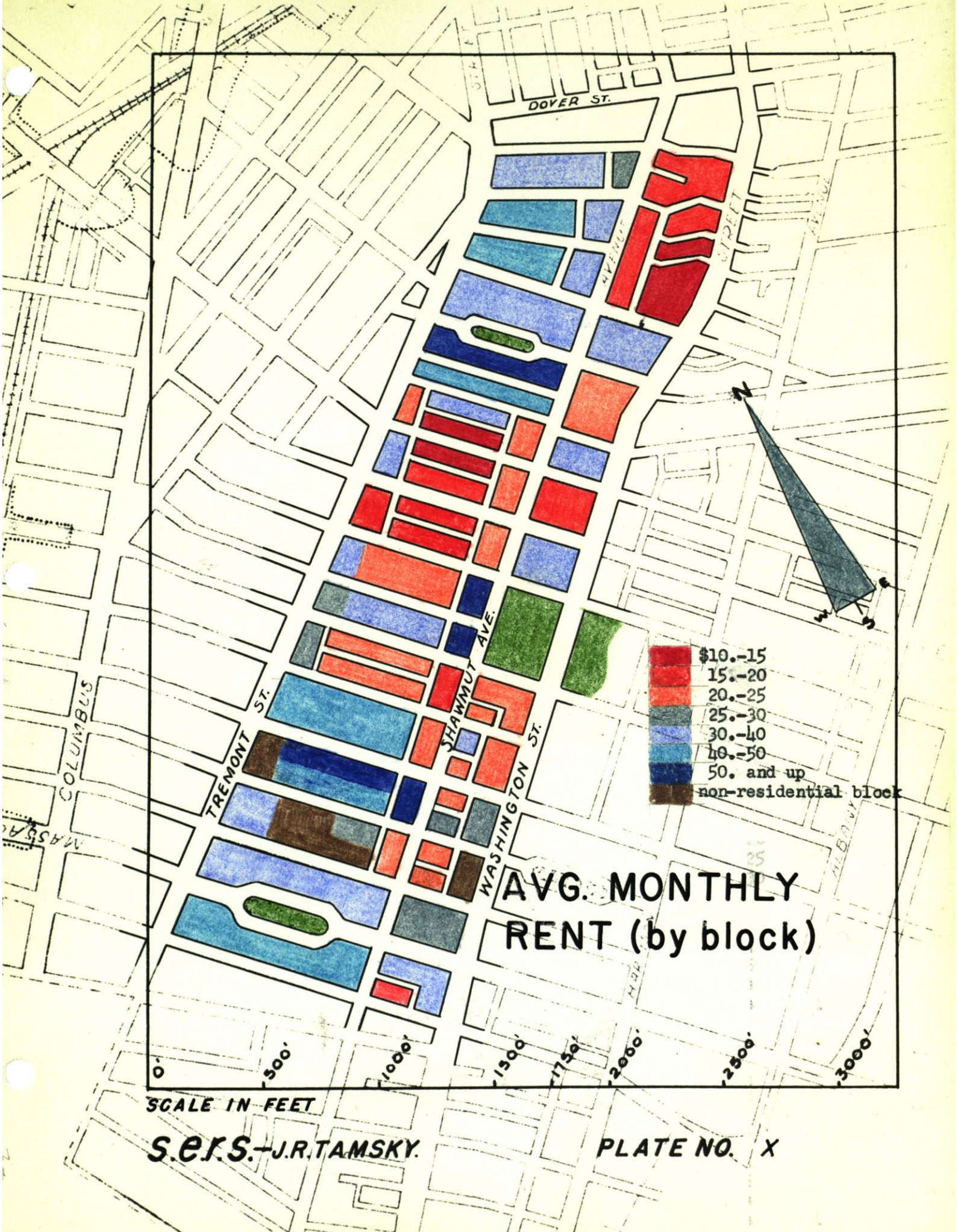
LOW RENT & LACK OF PRIVATE BATH

FOR 154 CENSUS TRACTS IN BOSTON
SOURCE · U.S. CENSUS - 1940

COURTESY · *BOSTON PLANNING BOARD*

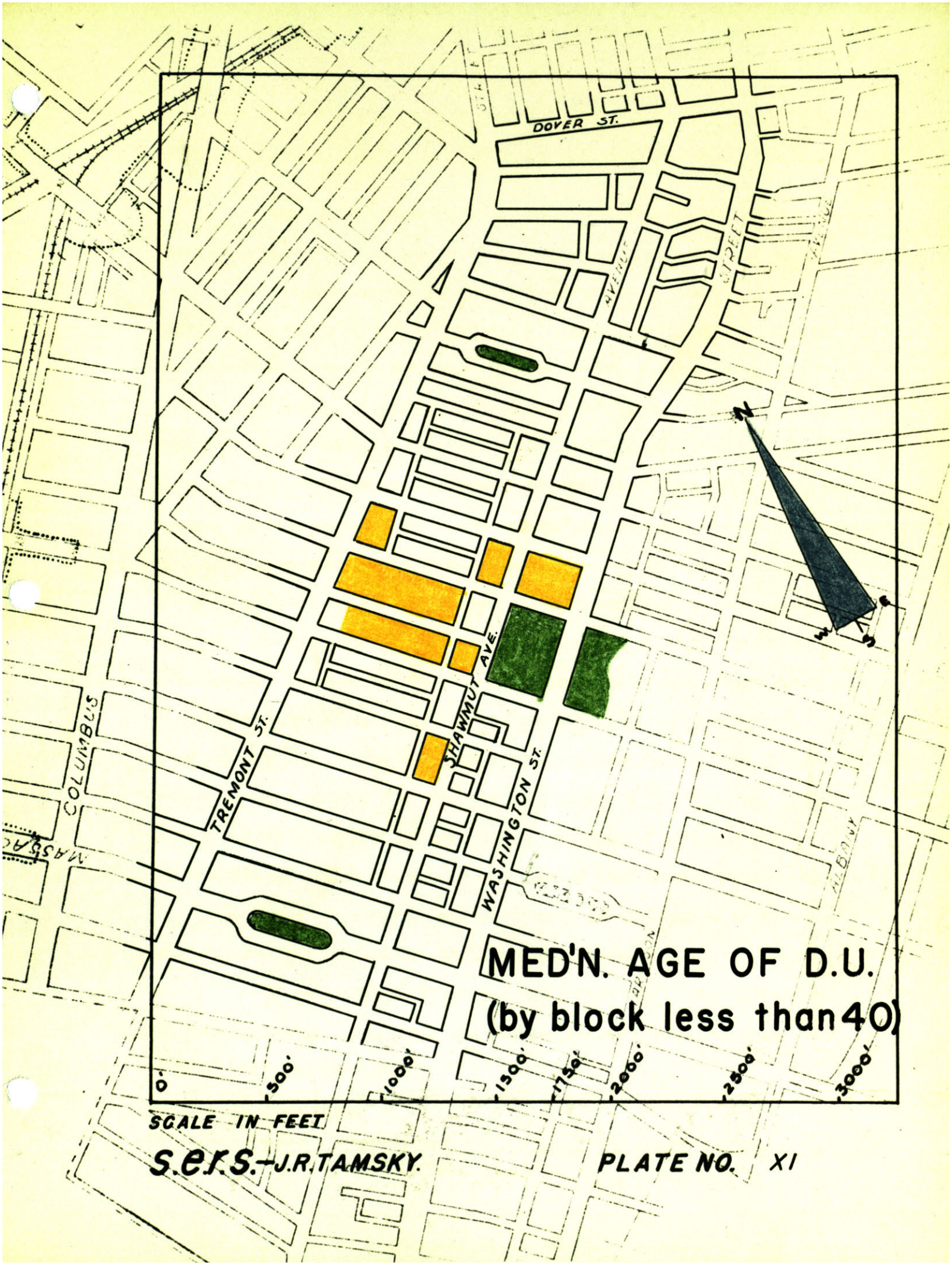
S.e.r.s. – *J.R. TAMSKY.*

PLATE NO. IX



S.e.r.s.–J.R.TAMSKY.

PLATE NO. X



MED'N. AGE OF D.U.
(by block less than 40)

SCALE IN FEET

S.e.r.s.—J.R.TAMSKY.

PLATE NO. XI

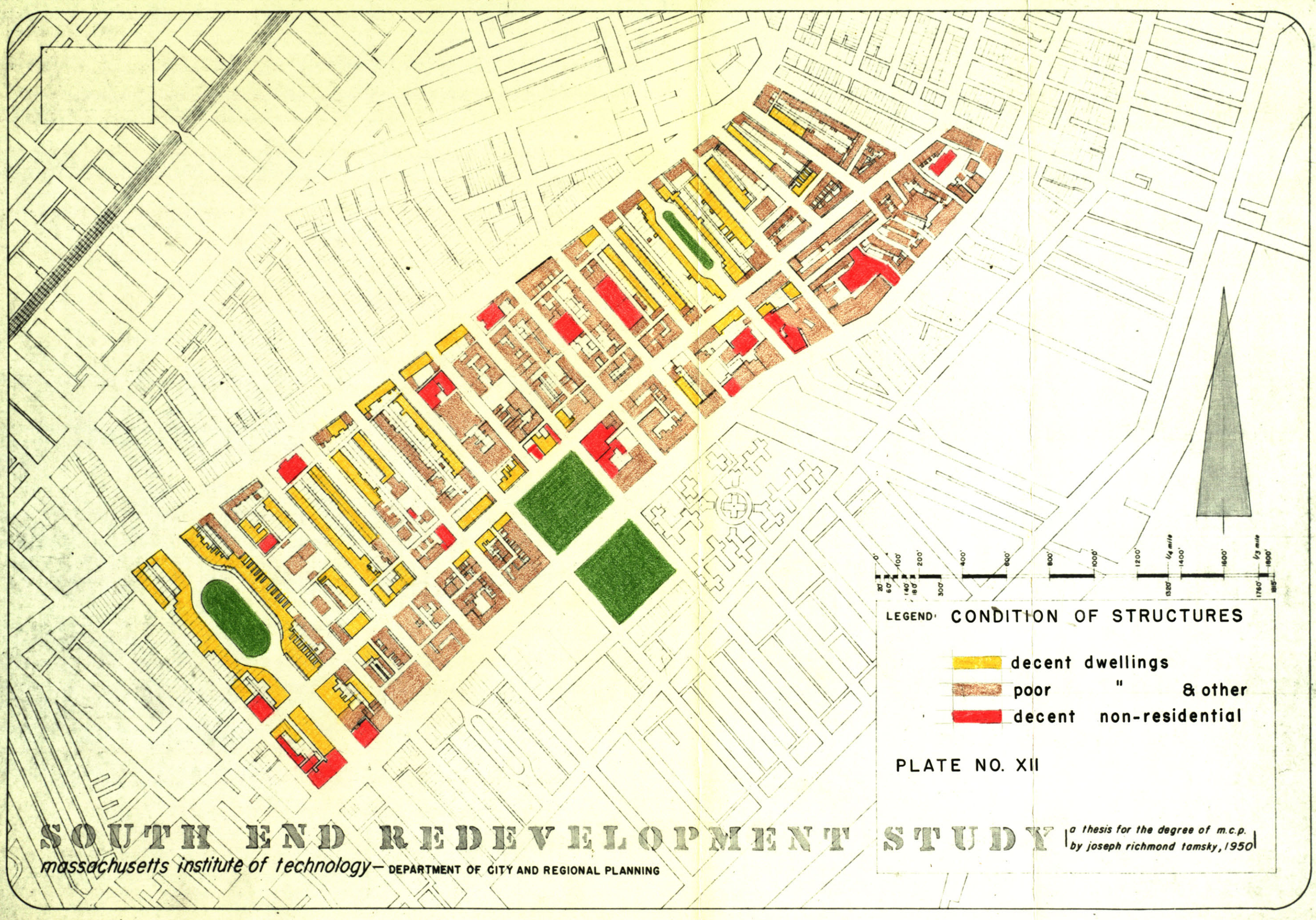
A Discussion of the Basis for Our Selection of Buildings Which Were to be Saved and Integrated into the Redeveloped Neighborhood (Cf. Plate XII)

One of the prime aims of this thesis was the indication, by example, of the possible integration of existing and wholly new buildings into a redevelopment scheme for the neighborhood. It seemed that many neighborhoods would be better suited to a process of partial clearance and integration than to the "easy" method of mass clearance and its implied wastefulness. A process such as this would, naturally, be more expensive in the planning stage and might also vitiate some of the economies commonly ascribed to the mass-production rebuilding that was practiced by housing authorities in the old P.H.A. program. It was our feeling that these economies, while frequently significant in a material or dollars-and-sense respect, are generally productive of a sterile pattern from both the three-dimensional and social points of view. Further, the added expense involved in integrated planning and in the rehabilitation of existing slum buildings would be more than offset by the variety of forms and the sensitivity to certain existing land values that are expressed by some parcels and existing buildings. In the S.E.R.S. there are a large number of individual and group structures of potential value to the redeveloped neighborhood. In a period of such intense housing shortage, these could be properly related to such new structures as might be necessary for the reconstruction of the neighborhood.

We have divided these rehabilitation units into residential and non-residential categories for the purpose of clarity in the accompanying plate and discussion.

Residential Structures

In the normal professional situation, a neighborhood which is



LEGEND: CONDITION OF STRUCTURES

- decent dwellings
- poor " & other
- decent non-residential

PLATE NO. XII

SOUTH END REDEVELOPMENT STUDY

a thesis for the degree of m.c.p. by joseph richmond tamsky, 1950

massachusetts institute of technology — DEPARTMENT OF CITY AND REGIONAL PLANNING

to be redeveloped would be surveyed in accordance with the appraisal method instituted by the A.P.H.A.'s Committee on the Hygiene of Housing, so that existing structures might be evaluated in terms of liveability, present and potential. This technique, when applied to each dwelling unit, would indicate its deficiencies and rate it on an "objective" scale. For the purpose of this study such a survey was out of the question because of the expense and time necessitated. In lieu of such, therefore, we have evolved a personal rating scheme which has no pretense at objectivity, but which would perform a similar function for this particular problem. The important point seemed to be to indicate which units should be maintained, thereby satisfying one premise of the thesis -- that existing structures can become a part of the new plan.

The basis for this rating system was, frankly, the aesthetic appeal of certain groups of dwellings. Other factors were derived from the accompanying maps and the plates such as those indicating average monthly rentals. These latter, particularly, considered in view of the scattergrams which follow them, appear to be reasonable indications of substandard dwelling conditions. The plates shown in the next section were also of considerable value in this process. Dwellings were rated in terms of their orientation, whether they received insolation or not, and also whether they were properly oriented with respect to the harsh northwest winter winds and the cooling summer breezes from the South and Southwest.

Non-Residential Structures

Quite another problem was presented in dealing with the non-residential structures which exist in large number in the project area. Here aesthetic standards alone would not serve as an adequate indication of the potential utility of a building. Furthermore, certain buildings

might be pleasant and structurally sound, but incapable of suiting a function considered to be compatible on the neighborhood level with residential buildings. Having a certain sympathy with the problems of churches, we considered them with a degree of leniency, actually indicating, finally, that seven of the existing eight should be maintained. On the other hand, experiences with anitquated school buildings and the firm belief that they can serve no useful purpose in the future, dictated as suitable for clearance every one of the seven buildings (only four of which are presently being used as schools). The large Municipal Building facing the northeast corner of Blackstone Park was spared because of its present and future utility as a recreation center for the area. We considered it well located for this purpose and suitable to the addition of a swimming pool*. Also, another gymnasium could be added in place of the inaccessible and poorly-designed second-floor auditorium.

Of the other non-residential buildings capable of performing a valuable function in the future, several are decent stores, a bank, a power sub-station, an art school. These latter two are particularly interesting. The art school building could be continued in its present use or could very easily be converted into a nursery school. The power sub-station, on the other hand, was a particularly vexing problem. First of all, its scale was tremendous and seemed impossible for integration into a predominantly residential scheme. On the other hand, it is a vital link in the city's electric power system. Finally, it caused no nuisance as far as we could determine; i.e., no heavy traffic servicing it, no large numbers of employees working there and no smoke, dirt, et cetera.

*The basement was originally designed for this purpose.

In conclusion, we must point out that all buildings and structures indicated as capable of being rehabilitated and integrated into the new scheme for this neighborhood, were not necessarily included in the final scheme. As in every other phase of this analysis, the attempt was to show, "objectively", the existing conditions. These were then subjected to certain diagnostic studies and finally, much modified, if indeed recognizable at all, were considered as a factor in the design.

THE DIAGNOSIS

THE DIAGNOSIS

By virtue of its excellent location with respect to both the retail shopping and business centers as well as to the Back Bay area, we considered the S.E.R.S. would be well suited to the housing of predominantly small families and groups of adults living together (as, for instance, a group of bachelor girls sharing an apartment). This idea reinforced by the foregoing analyses which indicate the present population of the area to be largely of this group (or these groups) we outlined the following tables to guide us in the design of the proposed neighborhood:

PROPOSED FAMILY COMPOSITION FOR S.E.R.S. NEIGHBORHOOD AND AVERAGE FAMILY SIZES

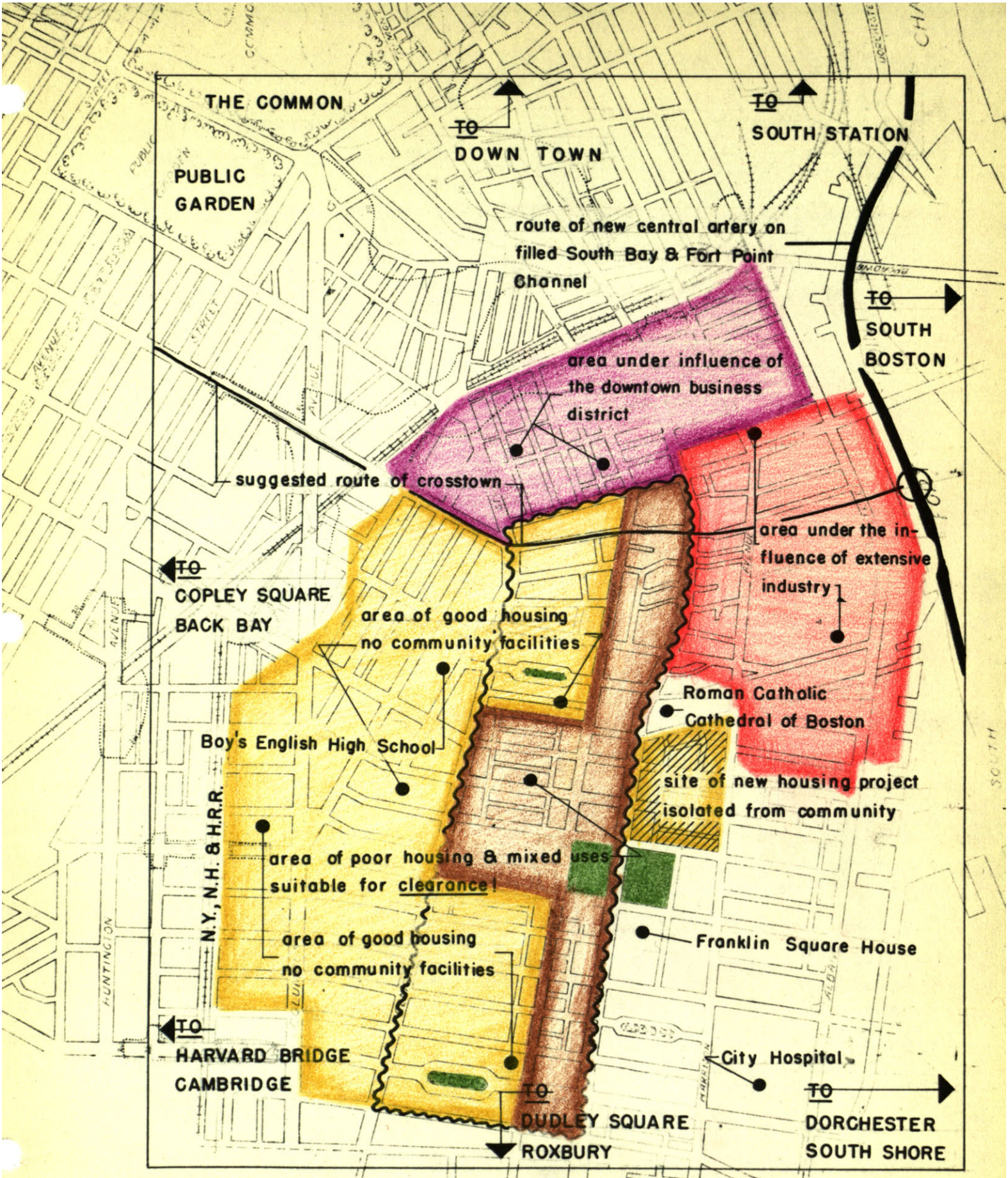
Composition	Size	# Units	# Persons
with minor children	6.0/unit	80	480
with minor children	4.5/unit	650	2,920
without minors	2.2/unit	525	1,150
adults, in groups	1.5/unit	400	600
adults, singly	10.0/"unit"	145	1,450
TOTALS	-------	1,800	6,600

Plates XIII & XIV

In normal situations such redevelopment plans as that with which we are concerned must stem from a comprehensive plan for the entire community. Such a plan would indicate the general boundaries of such a project and probably, in addition, would describe a general land-use plan. In Boston, at the time of the commencement of this thesis no such satisfactory comprehensive plan existed. Therefore, for the purposes of this project and its illustrated process we evolved the following map. The South End, areal factors (Plate XIII) and its sequel transportation factors (Plate XIV) in which we have attempted to suggest those major physical factors which must be integrated into a final or comprehensive plan for the section. These two maps are substitutes, only in this thesis, for the comprehensive plan which was lacking.

The "areal" factors with which the planner of the S.E.R.S. must concern himself are shown to be the prime relationship which exists between the area and the Downtown, Roxbury, Cambridge sections. Other important concerns are the encroachment of extensive industry and the location of the several major institutions which are a part of the district; i.e. South Station, Franklin Square House, City Hospital, Holy Cross Cathedral, to mention a few of the most important ones.

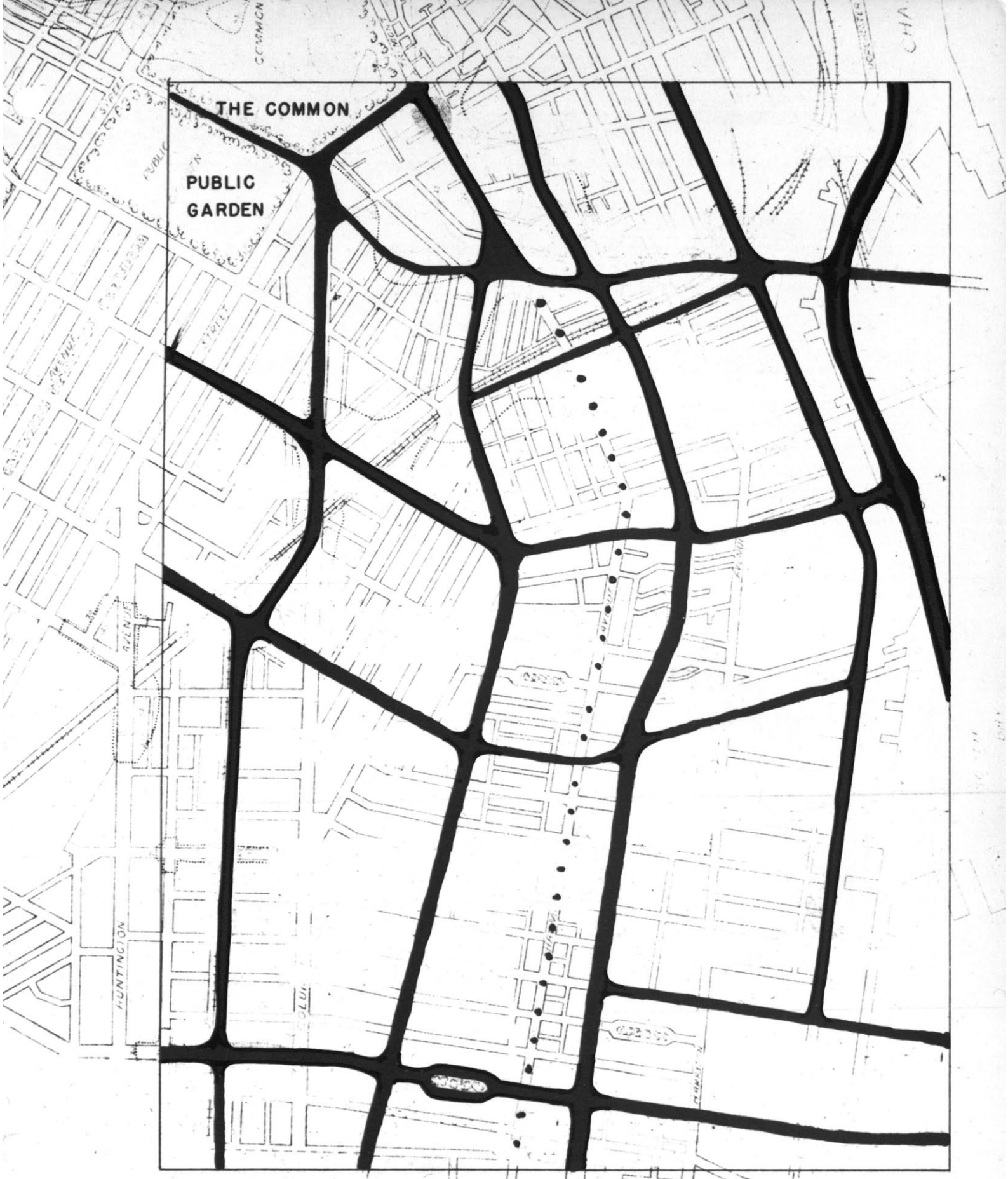
From the point of view of transportation two very important and comtemplated projects must be considered as paramount in the district's future development (or redevelopment). They are, first, the extension of the subway underneath Shawmut Avenue which will replace the antiquated and blighting Washington Street "el", and, second, the construction of the Central Artery from the vicinity of North Station around to South Station and the Fort Point Channel, part of which route is shown on Plates XIII



THE SOUTH END (areal factors)

S.e.r.s.–J.R.TAMSKY.

PLATE NO. XIII



THE SOUTH END (major transportation factors)

S.e.r.s.–J.R.TAMSKY. PLATE NO. XIV

and XIV and, in its entirety, Plate I. The construction of this route should go a long way toward the elimination of much through-traffic in addition to distributing local traffic more efficiently.

Other improvements in the circulation pattern for the district include the previously mentioned Berkely Street cross-town which would connect the Central Artery and the Embankment Drive, and finally, an improved Columbus Avenue artery which would be re-located along the tracks of the New York, New Haven and Hartford Railroad. These would increase traffic efficiency and allow for the integrated development of reasonably decent housing lying between Tremont Street and the tracks.

In the following plates are illustrated several factors which have guided the design or synthesis. These particular sketches are in the nature of interpretive drawings of previously analyzed material. They relate to the overall problem and constitute an articulation of the goals which the design stage must achieve.

Plate XV

The first and perhaps the most important of the group considers the several family-types which we feel should be accommodated in the new neighborhood and their probable dwelling-type preferences. It does not, of course, purport to be either a catalogue of family or of dwelling types, but rather to indicate the possible dwelling types which we feel to be desirable and practical, and the preferences of the particular families which have been deemed desirable in terms of these limitations.

Plate XVI

This plate illustrates one of the most important problems of which we were virtually unaware at the commencement of the project. The high-speed elevator apartment building has frequently been offered as the panacea for the problem of high density urban areas. It requires less area per dwelling unit by sharing the use of service areas, walks and approaches, playlots, and other residential functions. Also it covers less ground area per family housed than do lower walk-up apartments, for instance. There is no gainsaying these facts, though they may frequently be misrepresented and misunderstood.

The difficulty facing us, however, was the tremendous bulk with respect both to ground area and building size required by such an organization as that of a 300-unit apartment building. This bulk, while certainly very economically utilized, nevertheless required a scale of organization completely at variance with that existing in the area today. Actually this is a problem peculiar to the Twentieth Century, but which is proposed to be integrated into a Nineteenth Century pattern. The solution to this is to be found in the super-block rather than in the

YOUNG COUPLES
WITHOUT MINOR CHILDREN

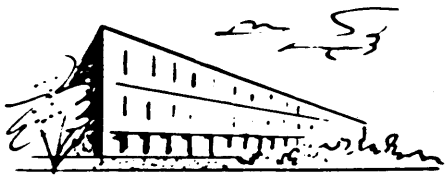
BACHELOR COUPLES

COUPLES WITH
MINOR CHILDREN

SINGLE INDIVIDUAL

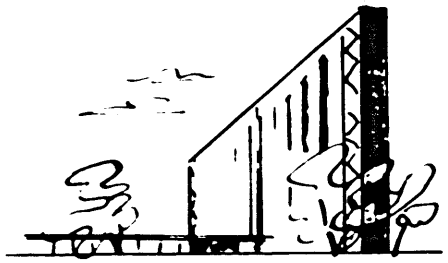
COUPLES BEYOND
CHILD-BEARING AGE

ROOMING HOUSES



WALK-UP APARTMENTS

ROW HOUSES

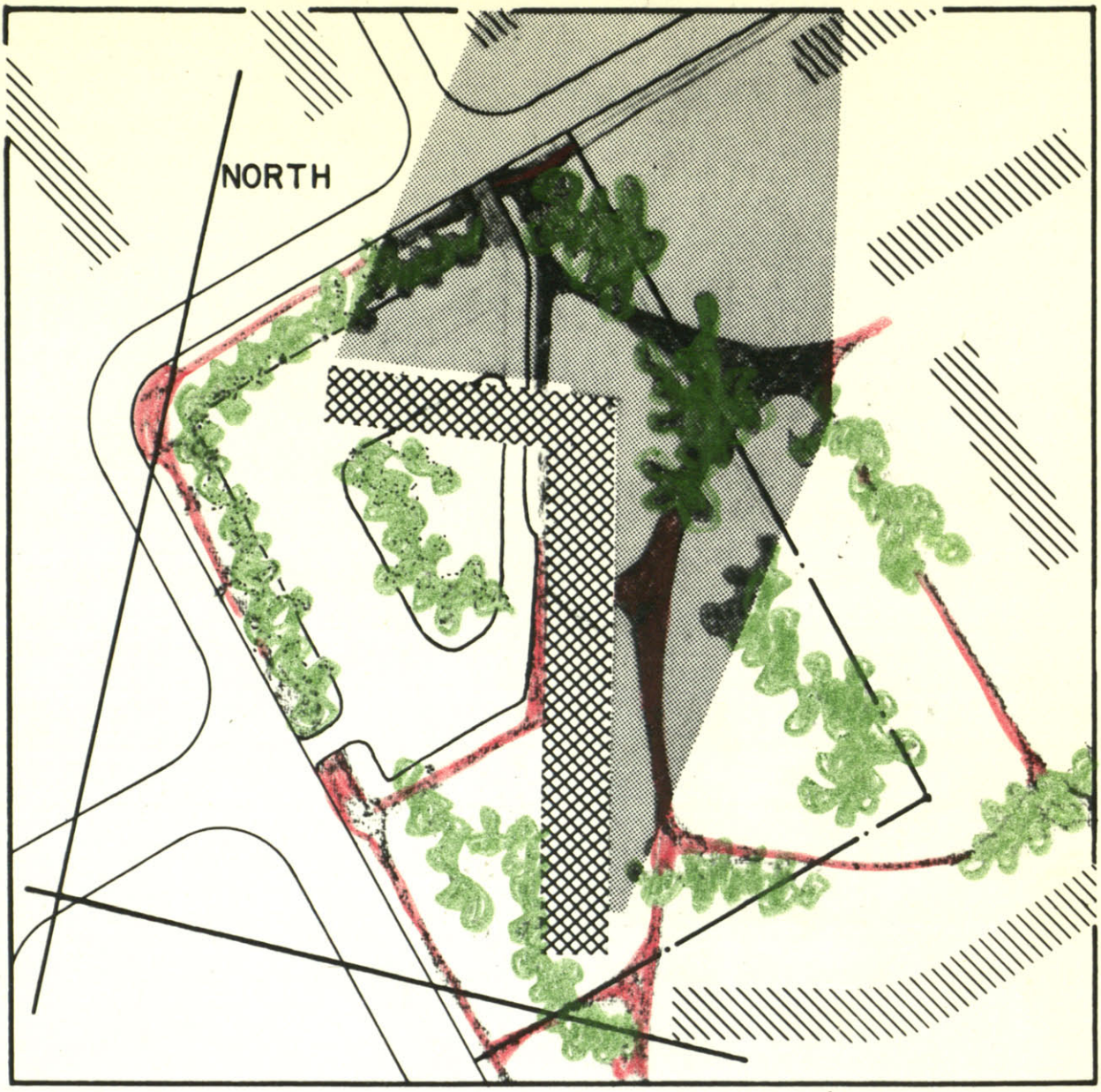


ELEVATOR APARTMENTS

FAMILY TYPES AND THEIR SUGGESTED HOUSING PREFERENCES

s.e.r.s.- J.R.TAMSKY.

PLATE NO. XV



SPACIAL REQIREMENTS OF AN APARTMENT BUILDING

13 storeys, elevators, 300 units.

total area 135,000 sq.ft. or 3.1 acres

building coverage	22,500 sq.ft.
outdoor living	64,500
parking	37,500
service, etc.	10,500

source· PLANNING THE NEIGHBORHOOD table 3

existing 700' X 200' block pattern. Streets can be closed, of course, and buildings torn down. The multiplicity of ownerships obtaining in such an area as S.E.R.S. will be simplified, yet underground utilities must be bridged, and nearby buildings must not be affected by the shadow of such a structure. Once again the question of proper orientation and its relation to the city plan or pattern comes to the fore. In some cases the streets can be closed and this type of building be so well oriented to the block that it will not interfere with the valuable underground utilities. However, in most instances the present pattern renders this impossible. What is required is an entirely new plan affecting a much greater area than ever before.

The illustration shows the spatial organization necessary and indicates further, the shadow which would be cast by that structure (13 stories; 300 unit on 3.1 acres, according to the standards of the A.P.H.A.'s C.H.H.) around the hour of 2.00 P.M. at the winter solstice. It can readily be seen that a much larger amount of space is directly influenced by the shadow pattern of the building than is required by the families residing therein. The worst shadow condition is shown, because in this latitude, snow lying behind such a great structure melts very slowly and is in evidence for weeks afterward.

Tall buildings, therefore, are not a panacea. They appear to be an easy solution to the very vexing problem of high-density liveability, but the responsibility of the site planner is hereby vastly increased. We have proposed their use in this area because they might afford a solution to the dwelling needs of the family types which we shall rehouse in the area -- young working couples without minor children; bachelor couples who work in the nearby areas of Boston, and whose apartment needs are mostly confined to the provision of a base of operations, etc. For these

people we provide the elevator structure, but with the full knowledge of the inherent problems.

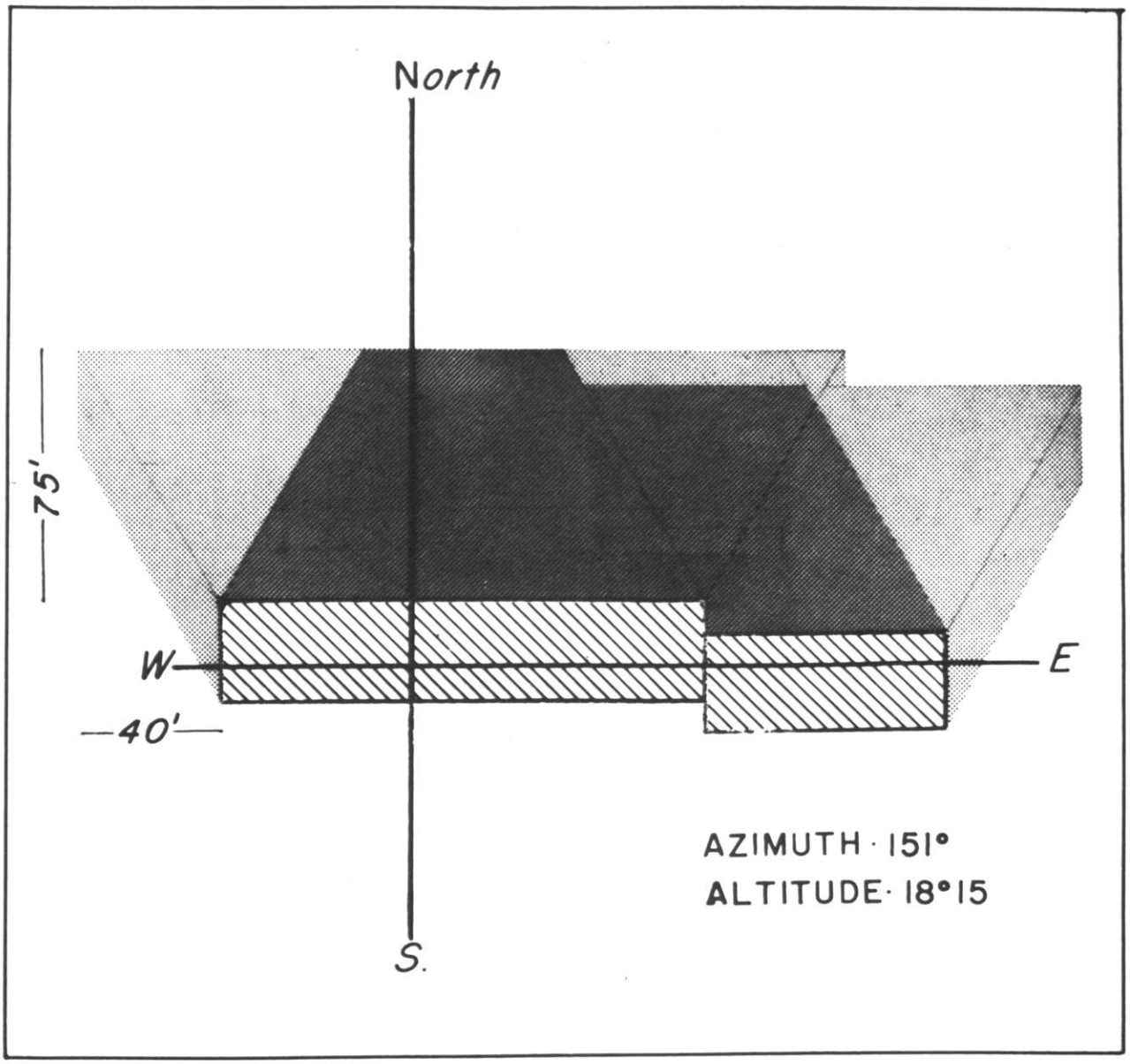
Plate XVII

As one of the analytical and diagnostic factors, the information illustrated by this plate assumes major importance. As in the preceding one, we have studied some of the problems of the building types intended for use in the redevelopment of this neighborhood. This illustrates some of the shadow problems of a three-story apartment building at the winter solstice. The height of the structure was taken to be approximately 30 feet, and the resulting shadow cast was determined to be 75 feet in extent. In the case of such a low building, the cast-shadow is a more important determinant of the spacing, because the outdoor residential functions are smaller in area and, consequently, more flexible in application.

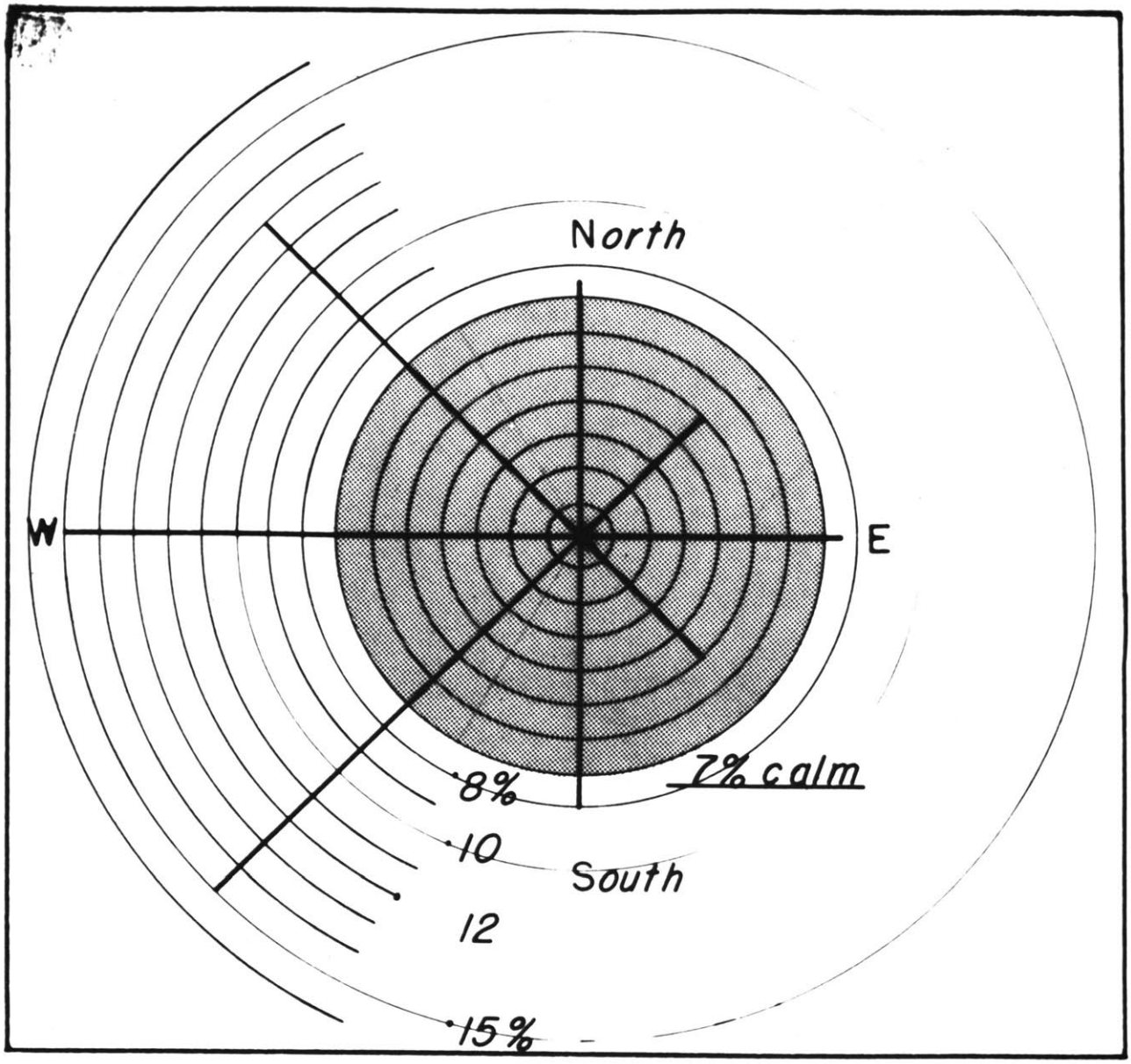
Although we have failed to indicate it, this type of structure would be more appropriately oriented east and west (as was the 13-story apartment), thereby providing insolation for the units located on both sides of such a building. We have discussed, earlier, the use of this insolation diagram with respect to the problems of existing buildings, and shall not repeat the information here.

Plate XVIII

This plate was drawn from information made available by the Boston office of the United States Weather Bureau. It shows the direction of the prevailing winds at the Municipal Airport and the percentage



SHADOWS CAST BY A 3STOREY BUILDING IN BOSTON
between 10a.m. & 2p.m. at the winter solstice



W
WIND ROSE FOR BOSTON
percentage for entire year · shading indicates calm(0-3mph)

s.e.r.s.- J.R.TAMSKY. PLATE NO. XVIII

of time in which they blew.

These data demonstrate the best orientation for this area in respect to protection from cold winter blasts (probably south and north) would, unfortunately, preclude the possibility of receiving the fullest benefit of the cooling summer breezes. We have come to the conclusion that southwest and northeast would probably result in the best condition year around, despite the fact that some cold air from the southwest would be uncomfortable during the winter months. Of the two orientation possibilities (for insolation and for wind direction) the former seemed usually more favorable, since the micro-climate produced by the buildings and their relationships would probably have a greater influence upon the wind conditions than upon insolation.

THE SYNTHESIS

THE SYNTHESIS

The problem of this plan, then, was to design a neighborhood for approximately 6,600 persons requiring about 1,800 separate units. The family composition was to be diverse, ranging from lodgers living in rehabilitated houses (accommodating 10 individuals) to families of 6 and more living in rehabilitated dwellings with separate entrances and private gardens. In between these extremes, apartments for "bachelor" couples or individuals, and families with fewer children, were to be included, as called for in the preceding section. The result was the site plan illustrated by the four maps of this section. The aims of this thesis have been presented earlier, but we believe that they will bear repetition to furnish further insight into the site plan as presented.

First, and foremost, was the goal of more open space in which to locate buildings, with its implications of more sunlight, fresh air, leisure space and clean, pleasant vistas, and also, more efficient access to all points in the area or neighborhood. Secondly, we tried to include dwellings of several types and sizes in pleasant relationship, that might facilitate the goal of a well rounded community. More explicitly, residents, in the course of their daily routine, might experience situations which would increase an understanding of the basic values of a democratic life. We faced the objective of relating the new and the old structures and spaces in such a manner as to increase the liveability of both.

And, finally, we must emphasize that it was never considered, nor expected, that by the physical rehabilitation and reconstruction of this area we could remake the social conditions which obtain there today or change those factors which cause their continuance in our society.

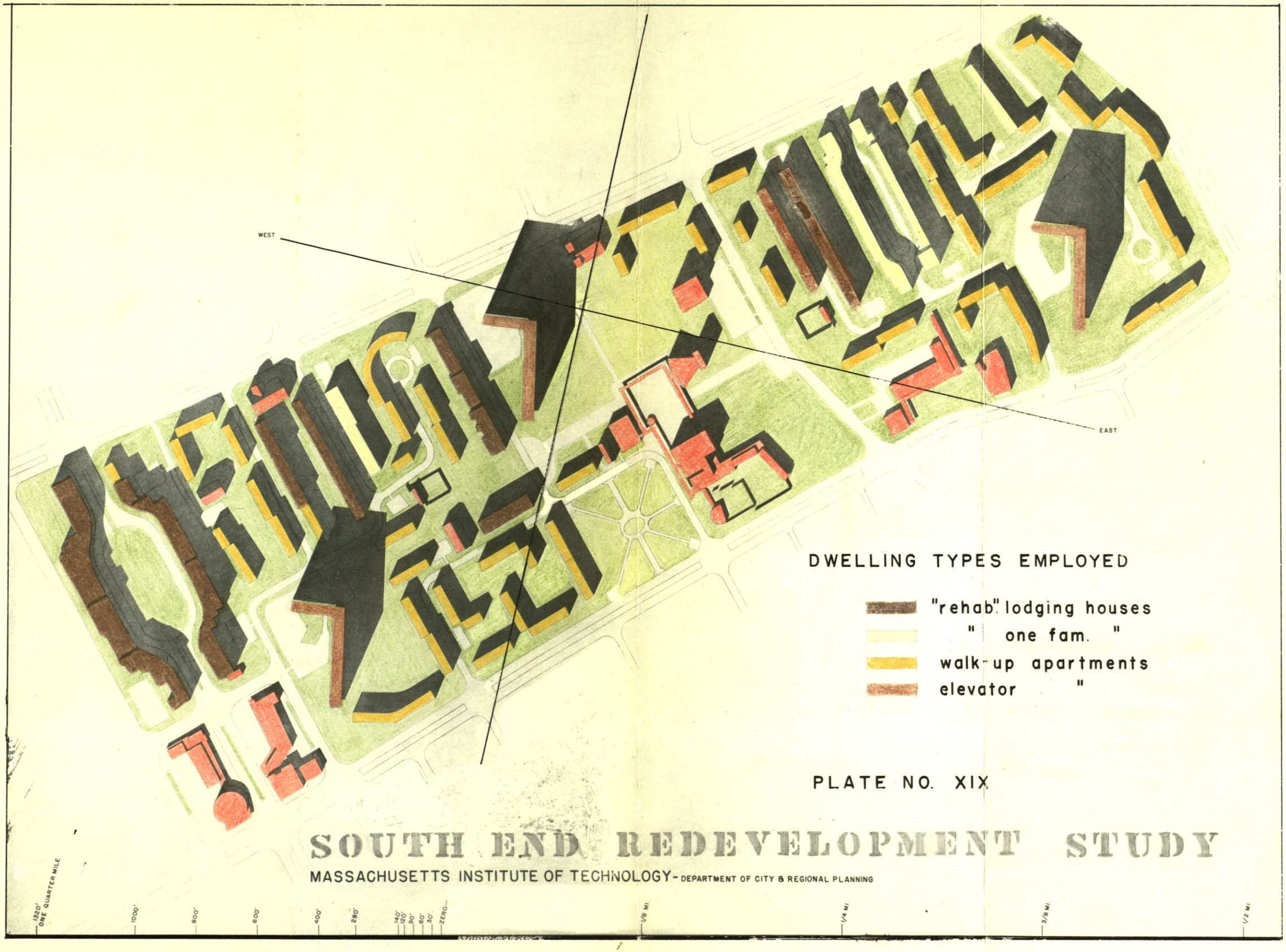
Our one and only hope was that this society, might, by several processes working in close harmony, modify certain of its self-defeating goals in such a way as to make probable the reconstruction of its cities along the lines of principles suggested in these plans.

Plate XIX

In this first plate illustrative of our synthesis, we have indicated the disposition and the types of buildings and spaces that have evolved through the design process. The exigencies of scale have made it impossible for us to present more than the general situation in this drawing. The three major "places" remain much as they are today and will be recognized as such by the viewer -- Blackstone Square alone among them has undergone modification. In the attempt to show the latter's new function we have redesigned it as a part of the community center, and expressed this by the emphasis placed upon the walks traversing its area. In a sense, this is not really a changed function, but rather a modified expression of what Blackstone Square is today. The four dwelling types are indicated by colors suggesting the variations in density which characterize them. The following table details these differences more carefully: (see page 37)

As evidenced by the plan and the figures which accompany it we believe that lodging houses will continue in demand and that, indeed, if supplied with the amenities normally associated with our standard of living they will perform such continuing function in a decent and efficient manner.

These units will require the addition of a bath on each floor excepting the topmost one; individual wash basins in each room and one large space to be furnished and set aside on the first floor for the common use of all residents; a living-room, in effect. Such changes will necessitate a reduction in the average number of persons per lodging house from 12.12 to 10.



DWELLING TYPES EMPLOYED

"rehab" lodging houses
" one fam. "
walk-up apartments
elevator "

PLATE NO. XIX

SOUTH END REDEVELOPMENT STUDY

MASSACHUSETTS INSTITUTE OF TECHNOLOGY - DEPARTMENT OF CITY & REGIONAL PLANNING

1320' ONE QUARTER MILE
1000'
800'
600'
400'
280'
140'
120'
90'
60'
30'
ZERO
1/8 MI.
1/4 MI.
3/8 MI.
1/2 MI.

DWELLING TYPES EMPLOYED AND THE DENSITIES AT WHICH THEY HAVE BEEN SHOWN

Type of Dwelling	No. of Units	Aver. No. Pers/Unit	Total No. of Persons	Net Res. Acreage	Net Res. Density
Rehabilitated lodging houses	144	10.0	1,440	12.6	126 pers. 11.4 units
Rehabilitated one-family houses	72	6.0	432	5.6	77 pers. 12.9 units
New walk-up apartments	678	4.4	2,987	34.0	88 pers. 20 units
New elevator apartments	900	1.8	1,700	9.3	183 pers. 97 units
All totals and averages	1,794	3.7	6,559	61.5	106 pers. 29.0 units

N.B. In the column "net density" the top figure is in persons per acre; the lower figure in units per acre.

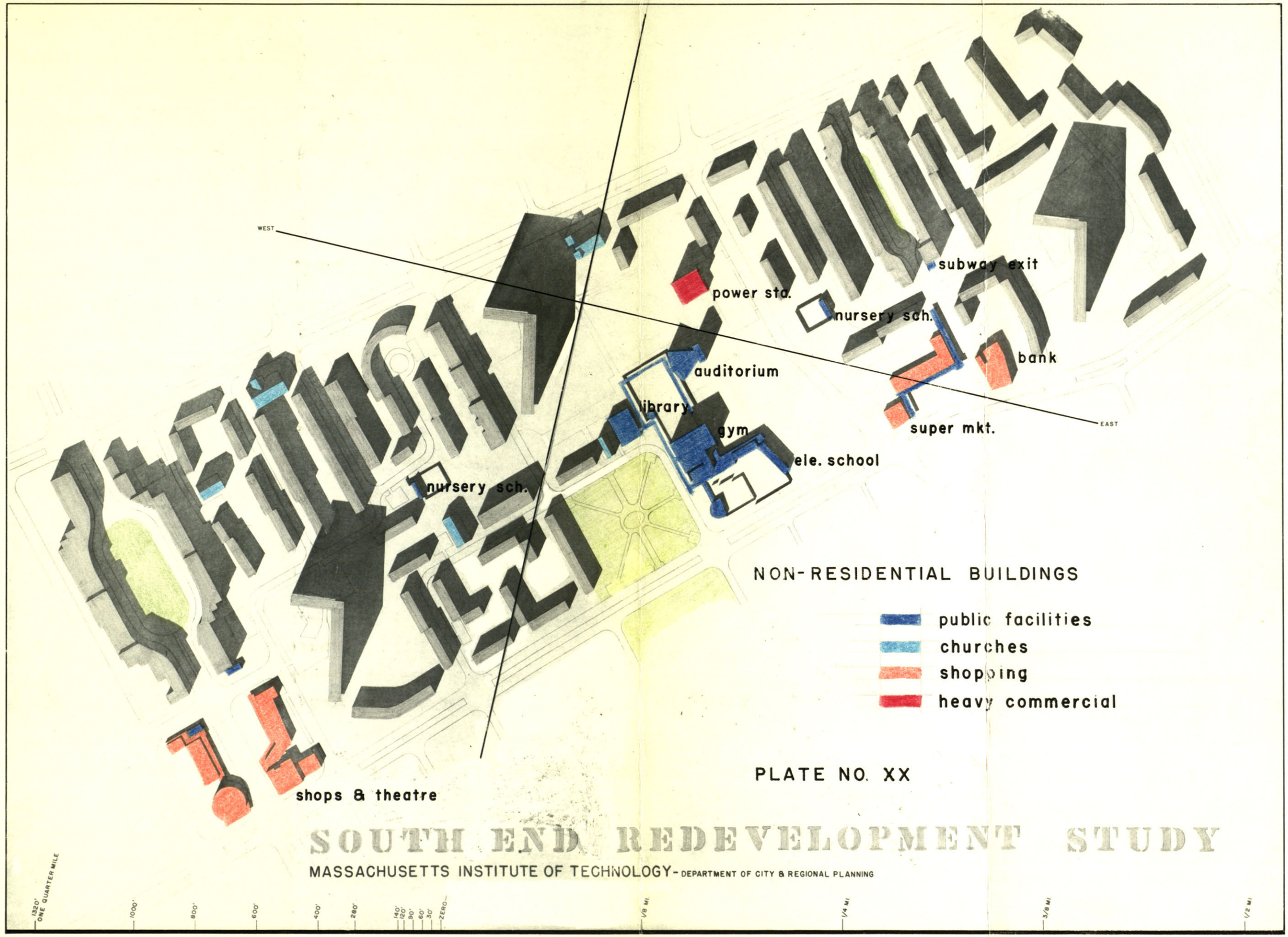
The other group of rehabilitated dwellings proposed to relate very closely to the new developments is that devoted to single family dwellings for occupancy by the few large families. These units, 72 in number, for families of five, six, seven, or eight persons, are substantially similar to the lodging houses described above, and in fact what differences do exist, are due to the selection process that designated those units with greater amenity, yards, accessibility, etc., as family dwellings. We believe that they can be rehabilitated by the replacement of some plumbing, the addition of a minimum toilet on the ground floor, refinishing, and vermin-proofing. Their indicated high density of 77 persons per acre is, of course, due to the large number of persons per unit and the fact that most of them are of three or more stories in height while displacing 800 square feet of ground area. The majority of the dwellings which are proposed to make up the neighborhood are wholly new apartment buildings of two distinct types. The first are three-story walk-up apartments which provide 678 units at densities of about 20 units per acre and 88 persons per acre. These buildings, while not the desirable solution to the problem of a family with small children, are necessitated by the overall density of the neighborhood which we wanted to keep reasonably low, or less than 25 units per acre, and the fact that substantially similar units are in use and in demand in the area today. We have related these particular units within small courts, where possible, because this was considered the most pleasant way to relieve the monotony of so many one sized structures, and because their plan lent itself particularly to a free utilization of the unbuilt land. Finally, and we suppose every urban redeveloper must ultimately do so, we have suggested the inclusion of three 300-unit elevator apartments whose main

purpose will be to house individuals, groups of adults, and childless couples. Despite very real drawbacks, their employment was indicated by the family composition of the area and its preferred dwelling types. In the case of two of the buildings (those at the extremities of the project) they have been placed across the new Shawmut Avenue subway right-of-way. That we were fully aware of this problem, is indicated by our comments in the preceeding section. However, we decided that the best locations were those which we chose and that the expense of bridging the subway tunnel (probably not too much greater than otherwise, considering that pile foundations will be necessary) would be more than compensated for by the added amenity of these locations, their convenience with respect to subway exits, and the fact that certain valuable buildings were saved thereby.

In summary, the dwelling units which were used, represent a distinct compromise with the standards to be desired for the city of tomorrow, but we feel that the added assets of the neighborhood, the convenience and variety inherent in city life, will continue to compensate for the privacy of a detached dwelling with its own garden.

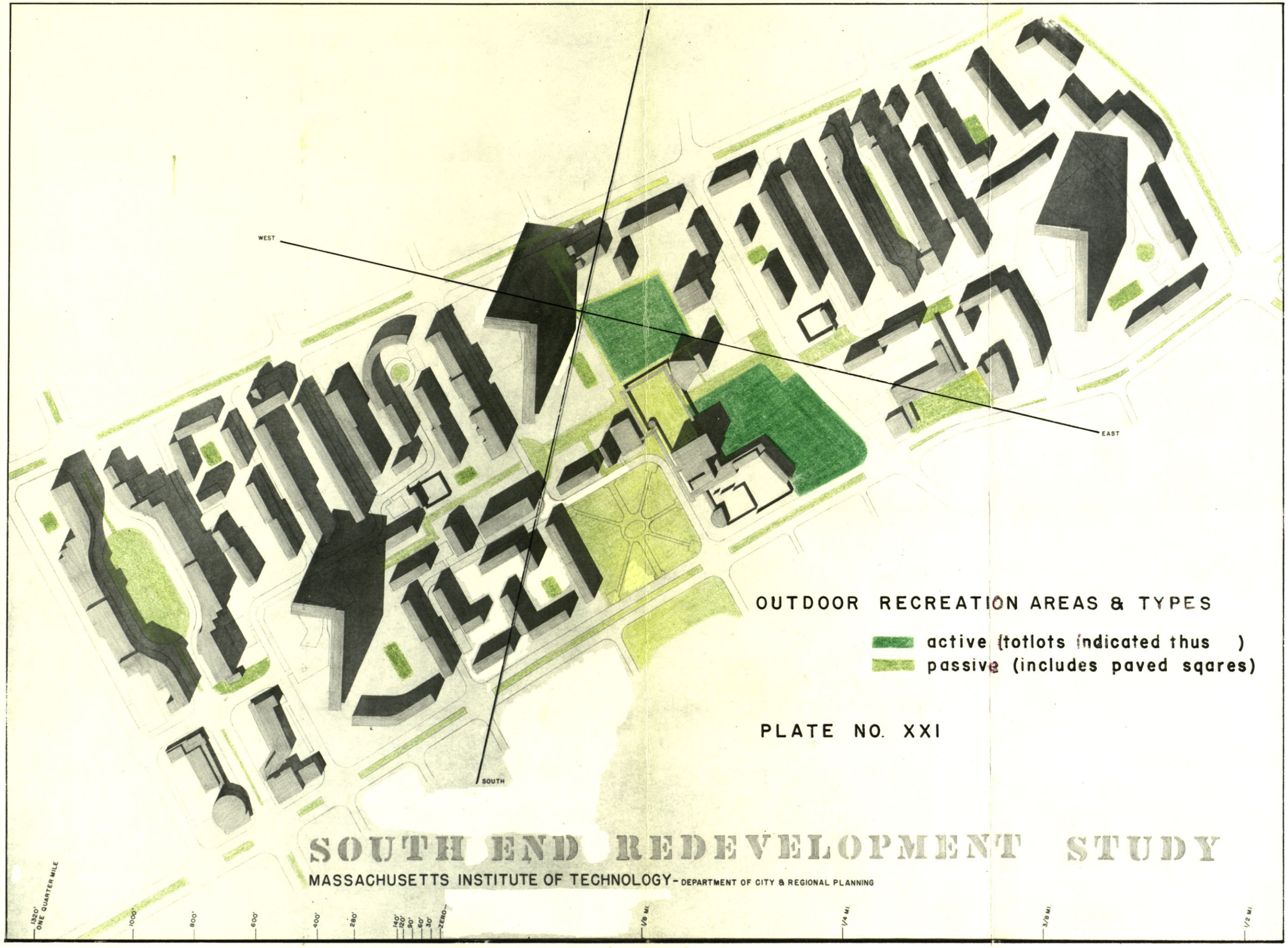
Plate XX

This plate describes the non-residential structures of the neighborhood, thereby completing the presentation of its built-up portions. A quick comparison with Plate XII is necessary in order to ascertain which buildings exist and which are proposed as part of the new construction. The five churches shown are all holdovers. The retail shopping facilities are not as easy to distinguish and our efforts were directed to the establishment of two worthy shopping centers, closely related to the subway entrances at Union Park and Chester Park, and with a consequent further requirement that they supply a larger population than that residing within the boundaries of the neighborhood. Among those retail facilities which have been rehabilitated are the bank, supermarket, some shops (including offices over), and the theatre as indicated. Finally, community facilities have been much expanded in order than the functions formerly provided by the South End House at its Union Park and Rutland Street buildings and the few existing, though inadequate, public buildings might be supplanted. We have indicated a new two-story elementary school building containing from 16 to 20 classrooms. Although, the number of school-age children (elementary school of six grades plus kindergarten) in this neighborhood will be somewhat less than the national urban average which was used by the A.P.H.A. in the determination of its standards (105 per 1,000 population), we estimated it at about 86 per 1,000; we have suggested the larger school to provide for the needs of the families living in the so-called "Cathedral Housing Project", just across Washington Street, whose residents are completely without community facilities of any kind. The school has been related very closely to the community building which occupies the north-east corner of Brookline and


WEST
EAST
power sta.
subway exit
nursery sch.
bank
auditorium
library
gym
ele. school
super mkt.
nursery sch.
shops & theatre
NON-RESIDENTIAL BUILDINGS
public facilities
churches
shopping
heavy commercial
PLATE NO. XX
SOUTH END REDEVELOPMENT STUDY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY- DEPARTMENT OF CITY & REGIONAL PLANNING
1320' ONE QUARTER MILE
1000'
800'
600'
400'
280'
140'
120'
90'
60'
30'
ZERO
1/8 MI.
1/4 MI
3/8 MI
1/2 MI

Shawmut Avenue and which we propose to modify by providing an additional gymnasium, a second story auditorium, and a swimming pool in place of the South End Branch Library (a space, incidentally, originally designed to house a swimming pool). The auditorium and library functions will be housed in new structures specifically designed for these all-important functions, in keeping with contemporary standards and techniques. These last are so placed as to achieve a new architecturally dominated urban square or civic center and are connected with each other and the gymnasia-swimming pool by a lightly constructed collonade. Theoretically, the square ought to become the locus and public expression of the spiritual and moral rebirth required in order to fulfill such a scheme as we propose.

The information presented upon the third plan sums up the important uses of the outdoor space. Immediately discernable are the comparatively small playgrounds; the first, northeast of the "square" and the second immediately adjacent to the elementary school. These two provide something less than the area suggested by the A.P.H.A. as "standard" for a neighborhood of this size and to that extent we consider the design inadequate. The provision of open areas suitable for the active play of elementary school children is a problem similar in size to that previously mentioned in connection with the tall apartment buildings. With respect to the needs of the adults and the very young children, on the other hand, we have been quite successful. Tot-lots of about 7,000 square feet and shaded sitting spaces of 1,000 square feet can be easily placed in proper relationship to dwellings and to each other, as suggested by the circular symbols on the drawing. The "walks" are emphasized because we feel that the pedestrian has been quite well provided for in this plan. His most frequent trips (we surmise) will lead him to the subway and the community



OUTDOOR RECREATION AREAS & TYPES

active (totlots indicated thus)

passive (includes paved sqares)

PLATE NO. XXI

SOUTH END REDEVELOPMENT STUDY

MASSACHUSETTS INSTITUTE OF TECHNOLOGY- DEPARTMENT OF CITY & REGIONAL PLANNING

center, and in these he has been provided simple, direct, and interesting routes. Of course, this plan considers all outdoor space as recreational in function -- areas not specifically so designed are intended to be park-like in feeling and continually inspiring. (see Plate XXI)

Plate XXII

The solution to the problem of automobile access is described in this final drawing.

Offstreet parking has been provided at a ratio of one space for every five families living in the single family dwellings and the three story walk-up apartments, one space for each lodging house (or ten lodgers), and one for every two families residing in the thirteen story elevator apartments. These figures are lower than those suggested by the A.P.H.A., but still adequate for a central city district. We believe that the automobile will soon occupy a more selective position in our society, or in the life of the city dweller. It will be used for business, when and if necessary, and its present leisure-time function will remain at nearly its present level. Instead, the public transit facilities will be expanded; and local recreational facilities of greater interest and accessibility will be developed. With respect to the street pattern, we believe that the more important improvements are shown. The proposed system involves three distinct types, differentiated by reason of function, ranging in size from forty to one hundred and ten foot right-of-ways. The first of these is the residential street, so-called because its primary function will be to provide convenient access to the individual dwellings and residential parking lots. It is presented as a two-way street with provision for curb parking on both sides. The second is the local street whose 60' right-of-way will provide room for four lanes of two-way traffic and, in addition, intermittent curb parking on one side only. This type is shown in the Chester Park section where its use has been dictated by the large number of "mass" functions to be served, the subway exit, the elevator apartment, and the large shopping center which is located at

WEST

EAST

MAJOR CIRCULATION

major thorofare
local street
residential street
parking areas

PLATE NO. XXII

SOUTH END REDEVELOPMENT STUDY

MASSACHUSETTS INSTITUTE OF TECHNOLOGY - DEPARTMENT OF CITY & REGIONAL PLANNING

1320' ONE QUARTER MILE 1000' 800' 600' 400' 280' 140' 120' 90' 60' 30' ZERO 1/8 MI 1/4 MI 3/8 MI 1/2 MI

that corner. In the case of Dedham Street, the utilization of this street-type has been proposed to accommodate a certain amount of non-neighborhood traffic, which we anticipate, at this point. It is needless to say that pedestrian crossings of such as this "local" street must be carefully designed because of its width and traffic volume. This plan cannot be adequately shown upon the small scale plates with which we have illustrated this work, however. Finally, the major thoroughfare: 110' wide, with a center island and tree lawns, and which functions to move traffic from one area of the city to another, is of prime importance in the metropolitan scheme and normally does not enter the neighborhood or pass through it. Tremont and Washington Streets and Massachusetts Avenue are of this category; the latter passes through Chester Park, but it has done so for over a quarter of a century without apparent detriment to the Park and so we have decided to continue this condition, hoping that some of the traffic volume of this artery will diminish with the construction of the "Belt Route" and the "Central Artery", as proposed by the "Master Highway Plan (1948) for the Boston Metropolitan Area". The entire design of major streets is predicated upon the necessity of their passing close by residential neighborhoods such as the S.E.R.S. and consequently such devices as tree lawns and center islands are employed to soften their physical impact.

We believe that such a street system as this represents one of the most important possibilities for the redevelopment of South End. It is obvious that the present street plan is wasteful and dangerous, since it occupies 38 per cent of the land area of the section, and lacks any functional differentiation. It, therefore, invites misuse of residential streets by trucks and other vehicles that have no business there. The plan

which we have presented calls for a percentage reduction of 14 per cent in the circulation area, representing approximately 15 acres, and differentiates street functions in such a manner as to effect a safer, quieter community for human living, rather than vehicular circulation.

In summary we should like to discuss the two tables which conclude this synthesis section. The first is a table of land use areas, being a comparison of the land use areas which exist in the study area at present and those which are the proposals of this plan. The six categories of land use which are presented are based upon the writer's concept of the functions of a city, plus two additional ones which are included to facilitate the comparison with existing conditions.

Starting with the first or residential group, it will be seen that we have increased the absolute amount, as well as the percentage of the neighborhood area that is devoted to the residential function of the neighborhood. As is frequently the case in such urban redevelopment schemes, we have added a new type of dwelling -- the elevator apartment, the use of which is frequently equated with the achievement of progress in a city. We have already discussed our reasons for employing such structures and indeed the others which have been employed. The important point to bear in mind when studying this table is the fact that we have halved the population and still consider that more, not less, residential land is necessary to the proper functioning of the neighborhood. Another point to bear in mind is that we have changed the dwelling types so as to bring them into closer relationship to the needs of the changed population characteristics of the neighborhood. What is now a rooming or lodging-house neighborhood shall be changed into a more varied and socially complete neighborhood, housing whole families as well.

The second group is that of parks and recreational land use. Here again we have increased the area devoted to this function and although the increase appears to be considerable (250%), it still falls short of the desirable standard for the population which we shall house. As a matter of fact, when one considers that the residential category,

above, includes tot-lots for the pre-school child and sitting areas for adults, it will be seen that the increase in area devoted to recreational uses has been even more considerable though still short of the generally accepted goal of ten acres per thousand persons. Actually we have only succeeded in providing for the needs of the adults of the neighborhood.

Third is the circulation category which, we believe, to represent our major "achievement" in the area. From a total of 38 acres presently given over to the effective use of the automobile we have subtracted approximately 15 acres to be devoted to "more productive" purposes. In addition to this, the figure given for residential land use includes off-street parking spaces for about 750 automobiles; although that area designated as "pedestrian ways" in the existing land uses serves as "ways" for all manner of unwanted rats and vermin, that proposed would be truly for human pedestrians.

The fourth category is designated as "work", and our "achievements" in this group have really been modest. Gone are the rows of stores which line Tremont and Washington Streets, occupying the first floor of the houses on those streets, but gone also are the frequent and, consequently, accessible grocery stores, coffee houses, and bars which contribute to the livelihood of their proprietors and the local residents. Gone, too, are the several industrial establishments which have contributed to the blighting process with their noise, litter, and generation of heavy traffic on narrow streets and alleys.

Public and semi-public land uses make up the fifth and all-important category. Here, it is felt that we have contributed much by a process of reapportionment. The net area devoted to this function is less by one acre than the seven now given over to its purposes; but we have

cut down on the number and variety of churches, and have eliminated the settlement houses. The former cut may be the result of our lack of contact with, and intimate knowledge of the people of the neighborhood (of this we are not sure because this study was an academic exercise allowing little time for the fruitful relationships with the people which we feel sure might normally take place); but the latter is the result of a personal concept of the function of the new society and its institutions and in which the settlement house is conspicuous by its absence. In place of these semi-public institutions we have planted larger and more adequate public institutions for the edification of the residents. Among the more important changes which we have proposed is the elimination of the three existing elementary schools, still in use for that purpose, whose total area amounts to slightly more than one acre, and their replacement by an up-to-date building, centrally located, providing decent classrooms, multi-purpose rooms, and outdoor play space as befits the new neighborhood and its children.

The final category applies only to the existing condition -- 3.0 acres of vacant land, with no positive contribution to make. This area really is made up of many small parcels formerly occupied by houses since condemned and destroyed.

The last table which we have included compares the land allocation standards which we have proposed with those which the Committee on the Hygiene of Housing of the American Public Health Association presented as standard in its recent publication "Planning the Neighborhood", (Chicago, The Public Administration Service, 1948). We have deviated from these standards in many respects, some more important than others. A brief description of these discrepancies is presented in the last column of the table -- at this point we intend to elaborate upon a few of them.

A COMPARISON OF LAND USE AREAS: EXISTING AREAS AND THOSE PROPOSED IN THIS PLAN

LAND USE	EXISTING AREAS Sq. Ft.	Acres	PROPOSED AREAS Sq. Ft.	Acres	PERCENTAGES Existing	Proposed
RESIDENTIAL					39.2	58.0
Lodging houses	700,000	16.1	548,000	12.6		
Single-fam. houses	957,000	22.0	244,000	5.6		
Walk-up apartments	148,000	3.4	1,480,000	34.0		
Elevator apartments	000,000	0.0	405,000	9.3		
PARKS & RECREATION					3.8	9.2
Active	000,000	0.0	126,000	2.9		
Passive	174,000	4.0	300,000	6.9		
CIRCULATION		38.0		23.4	36.0	22.1
Pedestrian ways	57,000	1.3	39,000	.9		
Neighborhood streets	896,000	20.6	296,000	6.8		
Other streets	700,000	16.1	600,000	13.8		
Parking (non-residential)			65,000	1.5		
Subway access			17,000	.4		
WORK					10.8	4.9
Retail shopping	309,000	7.1	135,000	3.1		
All other & industry	187,000	4.3	91,000	2.1		
PUBLIC & SEMI-PUBLIC INSTITUTIONS		7.1		6.1	7.6	5.6
Public buildings	52,000	1.2	44,000	1.0		
Elementary schools	44,000	1.0	135,000	3.0		
Nursery schools			18,000	.4		
Churches	122,000	2.8	74,000	1.7		
All other	135,000	3.1				
VACANT LAND	131,000	3.0			2.8	---
TOTALS	4,601,000	106.0	4,601,000	106.0	100.2%	99.8%

One reason for exceeding the "Standards" is the difficulty of dealing with a physical pattern a considerable portion of which presently exists. This is not only a fault of the approach but is inherent, rather, in the standards themselves, which were presented not as immediately attainable within a particular situation, but rather to be considered as goals toward which we must work in the ever increasing effort to restore dignity to our cities.

We have made an all-out effort to respect residential standards. Furthermore, while it is probably true that our average height of building is six or more stories (the figure from which we derived the A.P.H.A. Standard) the "Standard" was probably based upon a larger percentage of elevator apartments than we have proposed and is thus not exactly comparable.

Our failure to achieve a truly adequate amount of parks and playground space represents a real disappointment. It cannot be explained away by the fact that we expect a smaller number of children than the number assumed by the A.P.H.A. or even by the difficulties of planning within the existing pattern, although this latter was certainly a contributory factor. We simply were unable to provide the requisite area in decent sized parcels.

The allowances for school and community facilities are not significantly at variance to warrant comment, errors in measurement might easily have accounted for them.

With respect to shopping facilities we submit, however, that we are serving a larger population than that represented by the figure used in our calculations. The subway entrances have been designed in close relationship with the two shopping centers and, therefore, contribute a large non-neighborhood population.

Streets and non-residential parking are again hard to account for, the discrepancy being as small as it is. We have provided very little non-residential parking area and have cut to the minimum the area devoted to streets. However, it might be well to point out that we do have a major thoroughfare cutting through the neighborhood, a condition not considered desirable and, therefore, not provided for in the standards of the A.P.H.A. (this street alone requires approximately three acres, or 13% of our total circulation allocation).

A COMPARISON OF LAND ALLOCATIONS PER 1,000 POPULATION: S.E.R.S. vs. A.P.H.A. STUDIES

LAND USE	A.P.H.A. STANDARDS (acres/1000)	S.E.R.S. STANDARDS (Acres/1000)	S.E.R.S. TOTAL (Acres allocated)	BRIEF COMMENT ON REASONS FOR DISPARITY
RESIDENTIAL	3.64	9.4	61.5	Higher building coverage inefficiency of working within partially existing plan.
PARKS & PLAYGROUNDS	2.10	1.5	9.8	Part of passive recr'n. included above.
SCHOOL AND COMMUNITY BUILDINGS	.82	.9	6.1	Serves larger community and more churches.
SHOPPING	.60	.8	5.2	Serves larger community, includes power station.
STREETS AND NON-RESIDENTIAL PARKING	3.12	3.5	23.2	Inefficiency of working within a partially existing plan.
TOTALS	10.28/1,000	16.1/1,000	105.8	
DENSITIES	97.4	62.0		

N.B. The standards for the A.P.H.A. are figured for a six-story multi-family development and a 5,000 person neighborhood, which is the largest suggested by their publication "Planning the Neighborhood".

CONCLUSION

In the course of this study we have made some progress in our mental and professional make-up; the lessons which this thesis imparted were both professional and personal (the final advantage lying with the latter, we feel). In the following pages we shall briefly describe both aspects, drawing the conclusions which we have found to be of the greatest importance.

First, professionally, several aspects of the process of urban redevelopment have come to the fore, problems of which we were blissfully unaware at the commencement of the work ten months ago.

It appeared that we were approaching the subject from a rather new angle, having assumed that planners everywhere were relegating the three-dimensional aspects of their work to the file-and-forget drawer. More intensive investigation through our reading and conversations have indicated that this is not true. They have simply been saying that aesthetics has little or no place in their work; they have been afraid, so-to-speak, of admitting that a large number of their decisions were personally determined on the basis of personal reflection upon three-dimensional realities. In the fear of being labeled "long-haired dreamers" and "biunkies", etc., a large quantity of pseudo-scientific gobledegook, or rationalization, has been raised as a sort of "iron curtain" about work in the field and this student mistook the dressing for the substance! The approach of this thesis is in no way new or different except, perhaps, in the sense that it has been more clearly labeled and frankly presented. The approach is an eminently sensible method of redevelopment in that it appears to be both economically practical and socially acceptable, and further, in the sense that its process necessarily involves a real degree of local participation in its planning and accomplishment. With regard to the suggestion of economical practicability we expect that investigation

into the practice of mass clearance of slum areas, with little regard to the potential value of existing structures, will indicate that this process costs more in acquisition of land and buildings. Furthermore, the economies of mass construction as applied in field fabrication and erection are vastly overestimated. We expect that such ecological inquiries as are indicated by our present-day ignorance will show the value of an existing urban fabric to resident families. A sensitive attention to individual values will demonstrate conclusively that people subjected to the insecurity of low income and degrading living conditions still attach great meaning and importance to their neighborhoods and certain aspects of its physical being.

The individual treatment of urban neighborhoods and the proper respect for their existing character involves, we maintain, a similar respect for the inhabitants of the area and their values. By the sincere utilization of such a method of urban redevelopment the planner and his staff must necessarily contact the local residents and be involved in their problems as they must in turn become involved in the problems of the neighborhood's transformation by planning.

The replanning of built-up neighborhoods must necessarily take careful cognizance of the existing conditions and more, seeking to integrate them with the redeveloped plan for still another practical reason. Existing utilities such as streets, sewers, and pipe lines, frequently honeycomb the sub-surface of such an area and all-too-frequently effect the location of buildings and services by requiring bridging, in order to avoid them, or the destruction of wholly serviceable materials, by way of their replacement. In fact, as one goes forward with this idea, more and more reasons suggest themselves and lead one to dismiss, altogether, the so-called alternative "mass clearance".

With respect to existing legislation, again, we must admit that we considered this to be a facet of the study beyond the purview of this thesis. As in the case of costs and the analysis of the economic alternatives we can only surmise that the method which we have employed is possible under existing legislation. The "method" is now being used in the City of Philadelphia and our guess is that the reasons for failure in that city (ultimate failure, that is) will not include the use of the method but rather the basic inadequacies of the practice of redevelopment -- the utter irresponsibility of attempting redevelopment as a device for the resuscitation of urban fortunes and, more important, the further ghettoization of the Negro people. Despite the wealth of well-intentioned effort which attended the birth of the legislation, it has been captured by the anti-social forces amongst us and cannot be re-claimed until planners recognize the need for, and succeed in gathering the untapped forces of our people -- for the achievement of our common goals.

Somehow the follwwing comments appear to be anti-climactical in a professional study such as we have attempted; but the fact remains; that this has not been a professional work nor was it intended by the author that it should be. Rather we have always considered that we were involved in an educational scheme for the furtherance of our own and our colleagues' betterment. As it happened, our own betterment has been apparent, but the possible effect upon colleagues is very limited indeed. Consequently, pursuing what we consider to have been our accomplishments we shall attempt to outline some of the effective gains which have accrued to us personally.

We maintain that the thesis is a negative device for the education of individuals, albeit an effective one. For instance, for our

part we have learned the true results of procrastination, of changing one's ideas in the middle of a process, of the importance of finishing something which one has commenced, etc.

Secondly, we have discovered the absolute necessity of knowing exactly what one is about before diving in, and once in, keeping his mind upon the goal.

We could go on and on but perhaps the whole process can be summarized by suggesting that maturity is what we are seeking and the experience of completing a thesis goes a long way toward the achievement of that elusive condition of being.

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