A Design for Hiram Market

New Brunswick, New Jersey

by

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ABSTRACT

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Hiram Market is the name given to a four block, 8.8 acre site slated for redevelopement in downtown New Brunswick. A study done in 1974 by Wallace-McHarg and Associates looked at the possibilities of the site for large scale office and commercial use, while preserving much of the existing buildings. A 1976 report by I.M. Pei and Partners targeted the area for residential use of modest-to-high density, with minimal building preservation. This latter study viewed Hiram Market from a city-wide perspective, based on land use and transportation strategies. The former looked more in depth at the physical possibilities of the site itself.

For my thesis, I decided to see how the pressures for high-density residential developement indicated by Pei could be accomodated within the framework of extensive, though not total, building restoration. No structure on the site could ever be designated a landmark in itself, but the neighborhood taken as a whole comprises an image of old city New Brunswick which is of great value. Thus, the issue of this thesis is to resolve how new built forms of a different scale and character will be integrated within the fabric of the old ones.

In order to accomplish this goal, it was necessary to first analyze the existing conditions on the site with regards to environment (sun, wind, vegetation, soils, topography) function (land uses, pedestrian and vehicular circulation) and physical form (underground conditions, renovation potentials, codes and zoning). Then the image which I was trying to preserve was defined according to uses, activities, built forms, and vistas. Buildings which did not aid and abet this image were scheduled for demolition, and guidelines for extending this image into the new construction were put forth.

Analyses completed, three areas with distinct physical conditions emerged. Area I is along streets of pedestrian importance which contains all the buildings designated for restoration, and is adjascent to many parts of the existing city fabric. The second area is inside the "frame" generated by the first area, largely internalized and having to integrate with the back sides of the other areas. Area III is along Memorial Parkway, and thus must integrate with each of the other areas; it also deals with a scale of highway and open space which is quite different from that of the city's elements.

General considerations for the new developmental program (parking, open space, massing) were now examined in the context of each of these built areas, and of the surrounding cityscape. Evaluation of alternatives and formulation of design objectives eventuated a different scale and character for each area. Area I is to be the "image wall", its sizes, shapes and styles to relate to the restored elements which comprise part of it and to the city elements with which it comes into contact. Public uses occur on ground level, while upper floors are given to residential use. It is to rely on the mixed pedestrian and auto activities and open spaces of the city streets for much of its amenity. Area II relies on its insulation and different scale to achieve a different character. Buildings here are higher, but not so high as to be visible from the old streets. Open spaces are almost exclusively given over to pedestrian activities and are more generous dimensionally than the old city streets. Land use is almost exclusively residential. Area III integrates Hiram Market and the downtown as a whole with the dramatically different scale of the highway and river. The greater building height allows a layering of residential use above indoor recreational facilities and automotive-related commercial and service uses. An acoustic and visual buffer for the smaller-scale portions of the site from the highway is therefore achieved. Residences in this Area derive amenity from the extent of their open view and the proximity of recreation and parking.

Specific design requirements were now outlined, dealing with public facilities needs, the intended quality of dwelling units, specific dimensional constraints, and major structural constraints. Design at fortieth scale was then finalized.

Thesis Supervisor: _____

Imre Halasz, Professor of Architecture

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"Though neither intelligence nor education are necessary to the Christian...wisdom is. Wisdom is having a practiced sense of what is important, of having an understanding where real values lie, of knowing where the priorities are. It does not automatically come with age."

-Saint Augustine

"Nothing in the world can take the place of persistence.

"Talent will not: nothing is more common than unsuccessful men with talent.

"Genius will not: unrewarded genius is almost a proverb.

"Education will not: the world is full of educated derelicts.

"Persistence and determination alone are omnipotent."

-Ray Kroc, Chairman of the Board, McDonald's

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Special thanks to God for the strength.
Thanks to the United States of America, the greatest nation that is, ever was, and ever shall be.
Thanks to my parents for working so hard to put me through this place.

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Thanks to everyone else.

INTRODUCTION

BACKGROUND

New Brunswick, New Jersey in 1976 may be the epitome of the struggling small city along the eastern seaboard. Having begun as a settlement along the major land route in the colonies, it developed into a thriving port of sorts in post-revolutionary times, supported by nearby agricultural development as well as industrial mills along the Raritan River. Late nineteenth century railroads, industrialization and immigration spawned the development of the densified city based on enterprises such as Johnson and Johnson, the pharmaceutical supplies manufacturer. The advent of the automobile age, however, eventuated the decline of downtown New Brunswick in the twentieth century. In the last ten years, while the confluence of the New York, Newark and New Brunswick metropolitan areas has generated precipitous growth in the area, it has occurred almost entirely outside the city itself. New Brunswick now is populated largely by the elderly, poor minorities, college students, and blue collar ethnics and minorities. Retail facilities and industries, following the purchasing public and lower taxes respectively, have fled to the suburbs too.

While New Brunswick may have its problems, matters could be worse. Johnson and Johnson still maintains its international headquarters in the city, and the seat of the

county government is located here. Rutgers, the State University, is a five-minute walk from downtown. The convergence of automobile, railroad and bus transportation routes provides the New Brunswickan with easy commuter access to New York (35 miles), Newark (25 miles) or Philadelphia (55 miles). More distant destinations are also within easy reach. Finally, the many neighborhoods, though by no means affluent, are socially strong.

In 1973 a group of concerned business and community interests in the city came together to form New Brunswick Tomorrow, a private corporation whose tasks were to revitalize the Central Business District, to insure the continued strength of the residential communities, and to try to eliminate the negative image the city had acquired. This group hired the American Cities Corporation to devise a corporate structure to facilitate accomplishment of these goals.

In early 1976 the restructured New Brunswick Tomorrow hired the architectural and planning firm of I.M. Pei and Partners to prepare a scheme for the physical rejuvenation of the city's downtown. This proposal was to assimilate the worthy features of all previous downtown studies as well as to offer a fresh approach to the problems of the CBD. Based on an overall land use and transportation strategy (Figures A, B), this scheme targeted four areas for "immediate action." One such area, designated "Hiram Market", is a four-block, 8.8 acre site bounded by Neilson

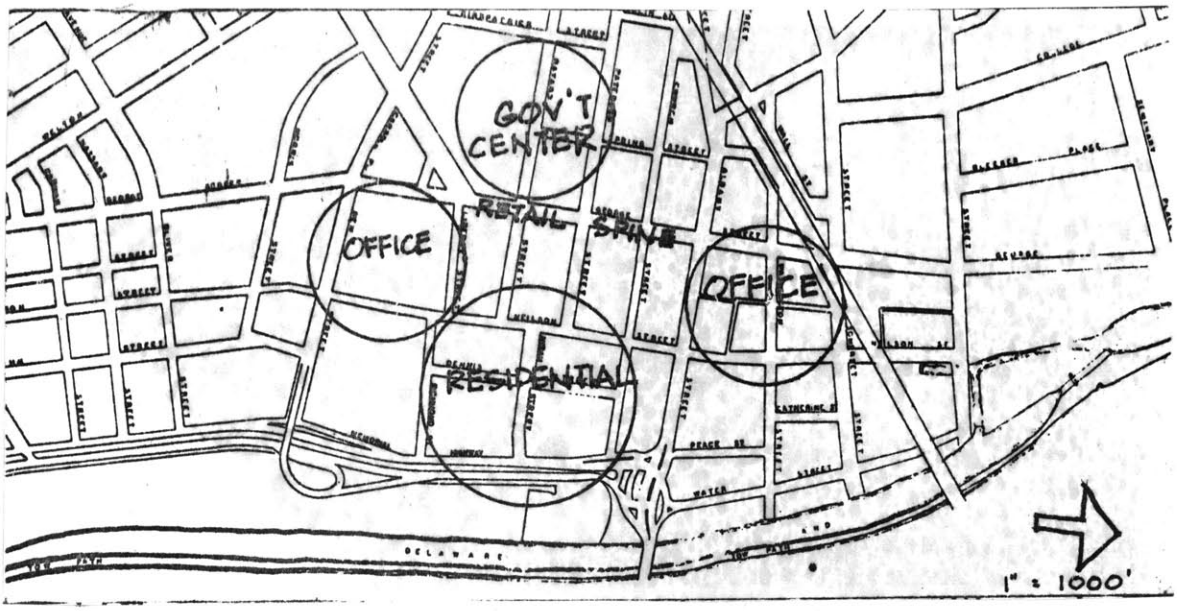


FIGURE A Land Use Strategy from I.M. Pei and Partners' "Downtown New Brunswick, New Jersey"

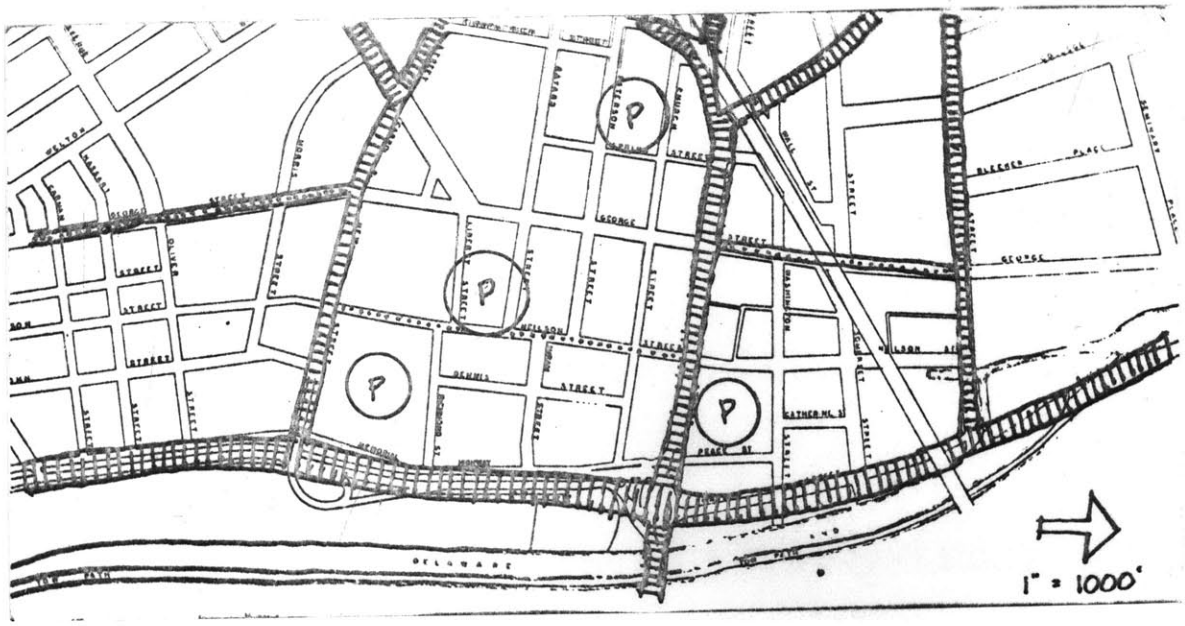


FIGURE B Transportation Strategy from same source

Street, Church Street, Memorial Parkway, and Richmond Street. It is to be a high-density upper-income residential neighborhood intended to support the demand for in-town housing created by the new mixed-use office developments at the north and south ends of George Street (see Appendix I).

Furthur plans for Hiram Market are delineated in the Pei proposal (Figures C, D). Demolition of almost the entire site is recommended, to be rebuilt with rows of modern townhouses and stacked duplexes and triplexes, all five-stories high. An option for two high-rise towers in the

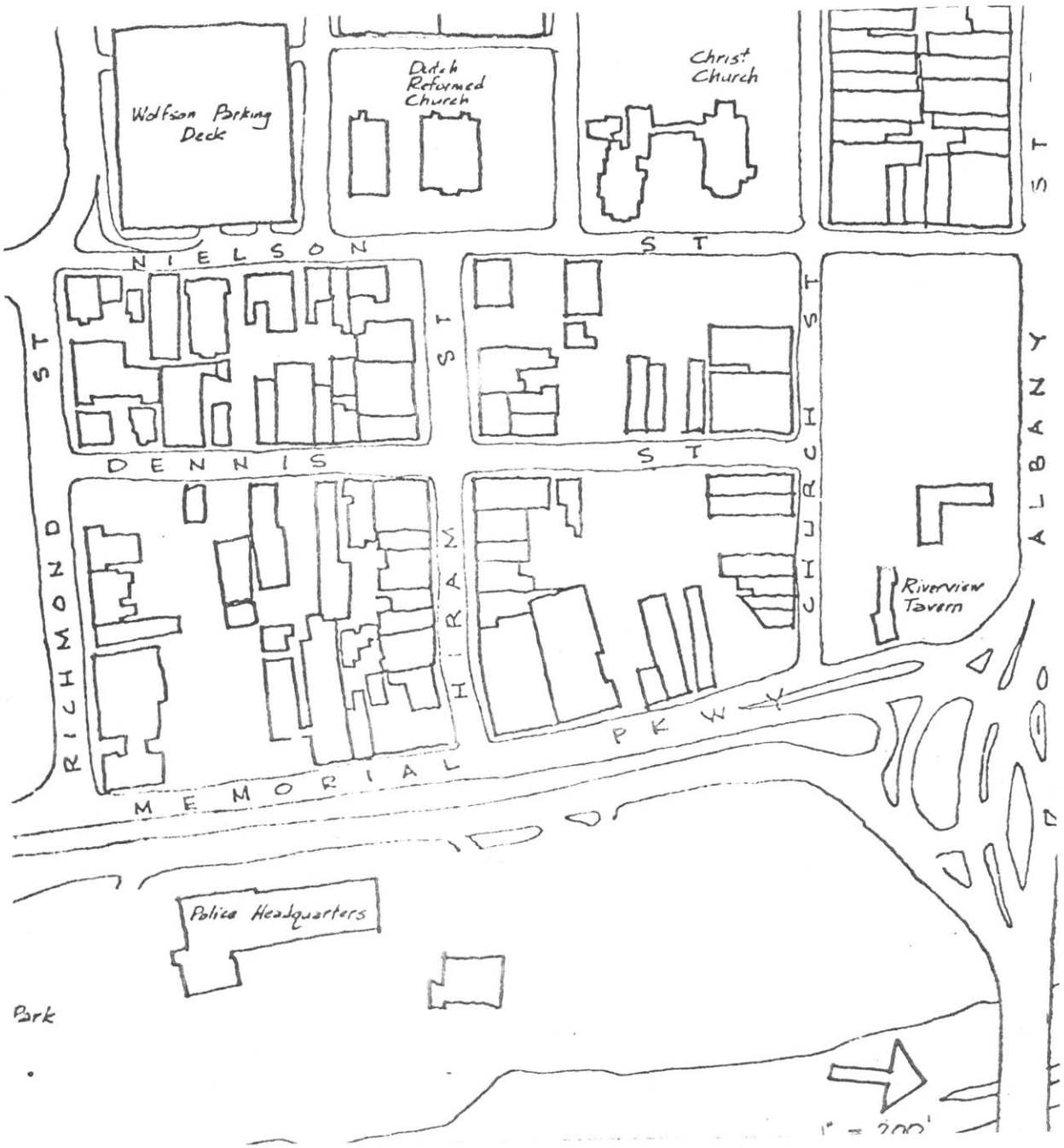


FIGURE C Hiram Market in its present state

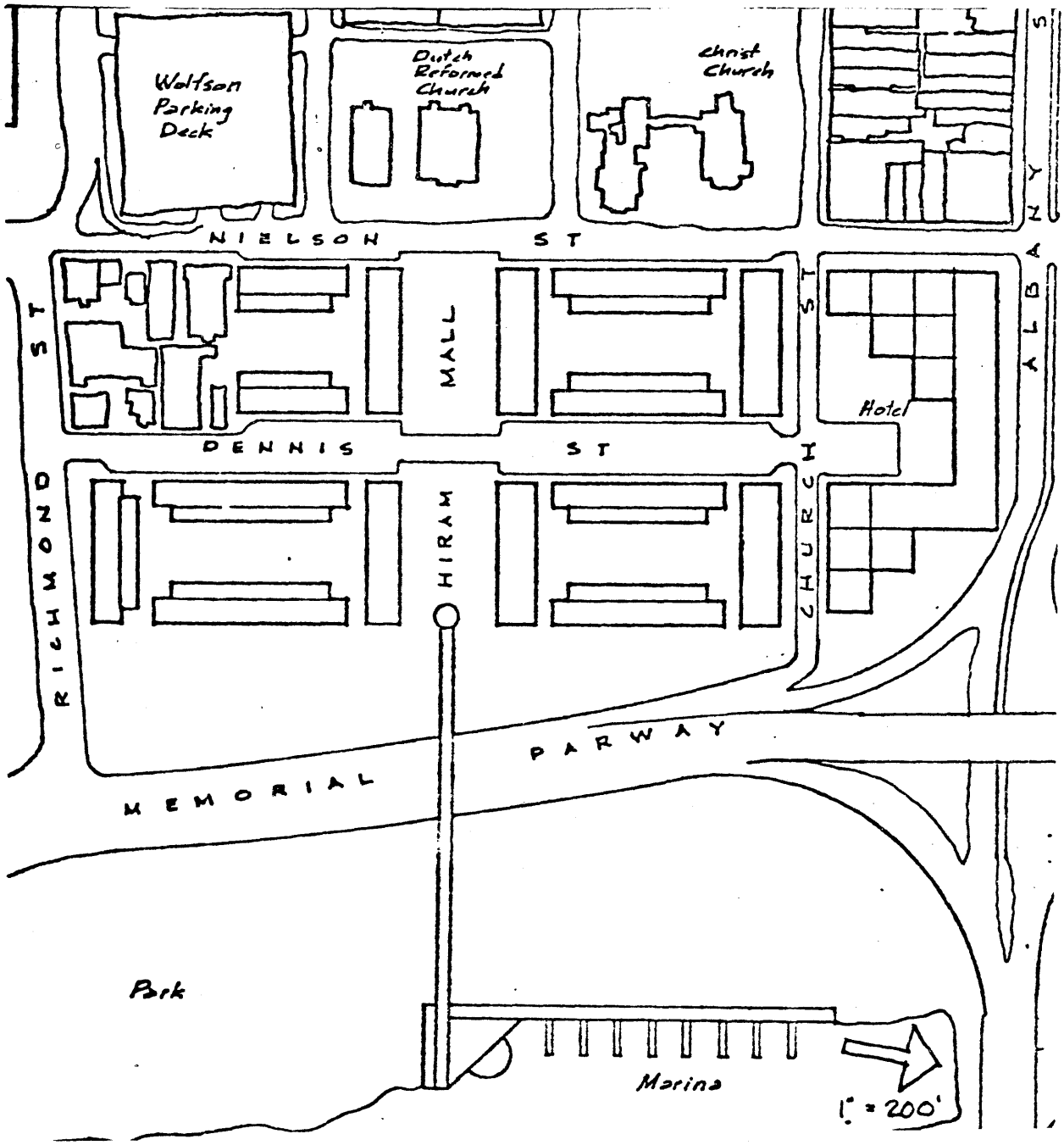


FIGURE D Hiram Market as proposed by I.M. Pei and Partners

southeast block was also considered, increasing the number of dwelling units from 375 to 650.

External conditions adjacent to the site will interact with Hiram Market. These are a proposed motor hotel to the

north, a rejuvenated and extended Boyd Park across the Parkway to the east, and the Commercial Plaza office development to the south. Also to the south is a vacant lot partially used for surface parking. This is likely to remain so, or to be developed as a cultural center. The western edge, now the site of two fine old churches and the Wolfson Parking Garage, will remain unchanged.

One of the earlier reports which was a partial basis for this scheme was entitled "Hiram Square", done in 1974 by Wallace, McHarg, Roberts, and Todd Associates of Philadelphia. At the time, this site was seen more for its retail and office potential. More importantly, this report was done with the objective of preserving the existing structures on these four blocks.

Hiram Market at present is a dilapidated relic of the early and mid-nineteenth century Central Business District of New Brunswick, when the life of the city was still tied to the river. It is also the most architecturally cohesive urban neighborhood in New Brunswick and indeed, anywhere in central New Jersey. For this reason, and because sensitivity to our past heritage should be more acutely felt as we start our third century with the bicentennial celebration fresh in our minds and hearts, demolition of this area should not be a foregone conclusion.

GOALS

The role of this site within the framework of the CBD as put forth in the Pei proposal will be accepted. The general specification of high-density residential land use will also be considered a given condition. Physical redevelopment potential of existing buildings and possible land uses, as put forth in "Hiram Square," will be considered too. Information from these sources was used as guidelines, but not as program requirements.

No building in the neighborhood will be designated an architectural landmark. Not one is significant in itself, but the combinations of buildings and activities here taken as a whole constitute an image which is significant, especially when seen in the context of the prominent Dutch Reformed Church. This edifice ties the entire neighborhood together in itself and into the city. It is this image which must be preserved.

Within the context of a high density residential neighborhood which includes extensive, though not total building restoration, the problem of integrating new built forms of a different scale and character into an old city fabric becomes the central issue of this thesis.

In order to facilitate my study, a strictly physical framework approach was taken. Thus the actual number of dwelling units would be a result of the design process rather

than a specific goal to aim for. Also, no social or economic studies of the site were undertaken. Instead, such conditions were assumed from the information which was available.

I. ANALYSIS OF SITE CONDITIONS

ENVIRONMENT

Sun and Wind

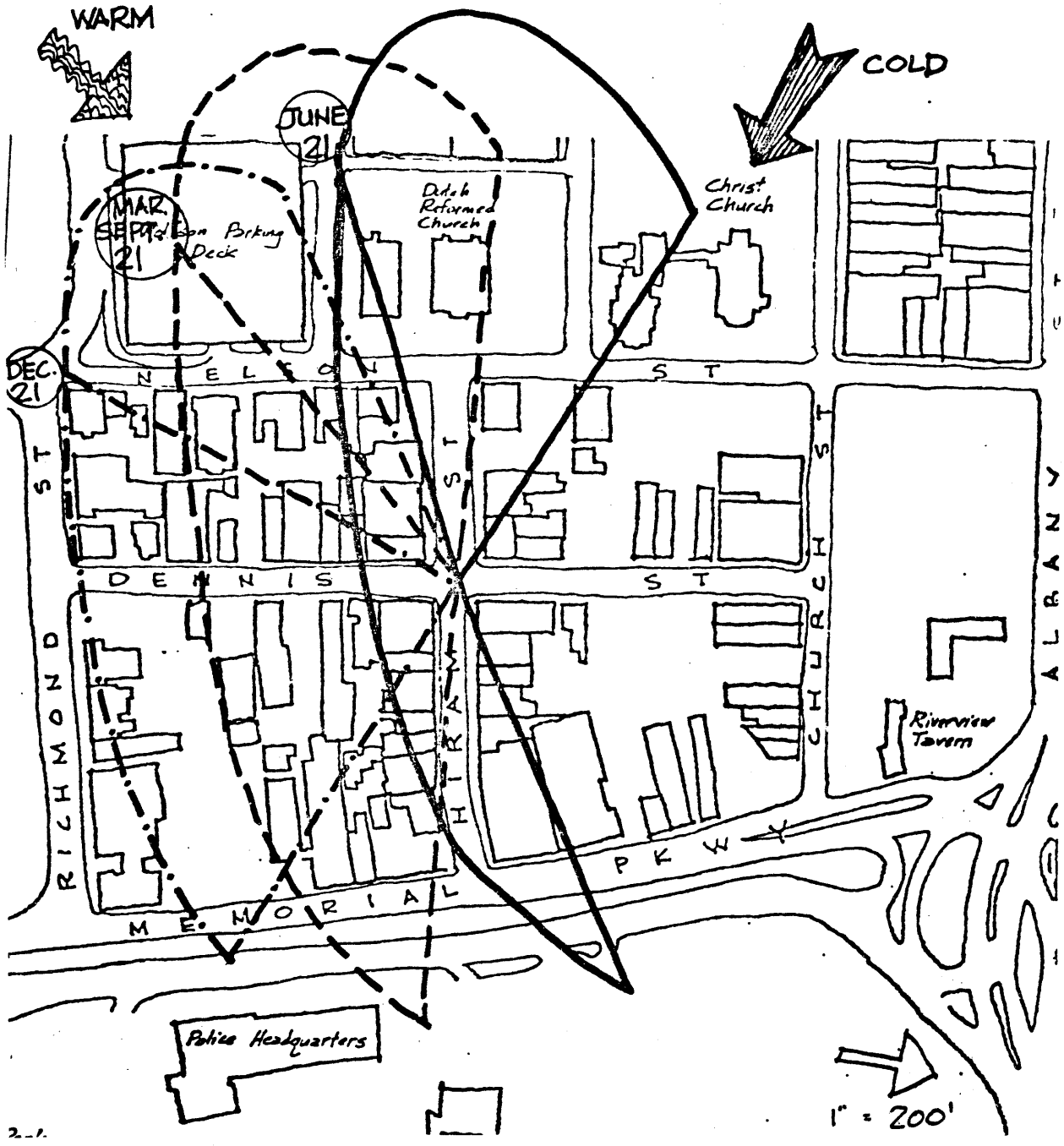


FIGURE I-A Seasonal sun angles and prevailing winds

Topography- Land below the 10' contour line is located in a designated flood hazard area. Any construction here must permit free flow-through of flood waters. Land below the 15' contour is in a floodplain. New construction must have finished floor elevations of at least 16'. Topography produces no special vistas or other conditions, as site is nearly flat.

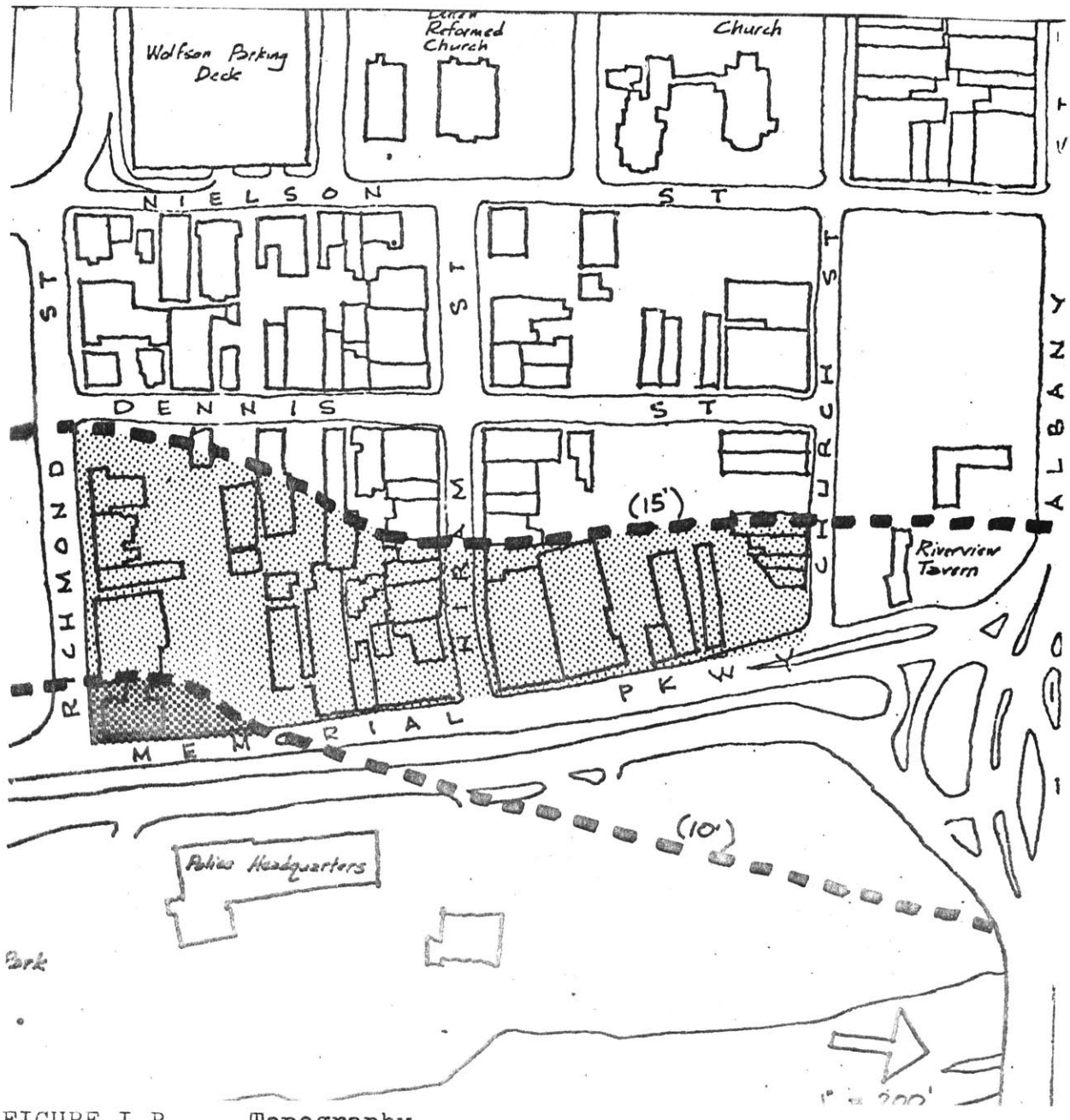


FIGURE I-B Topography

Soils- Blue shale, with a bearing capacity of approximately six tons per square foot, is uniform over the extent of the site. Bedrock is located about thirty feet below the ground surface. Soil is likely to contain a high amount of lime and concrete, resulting in high acidity, with a PH of 7 to 5. Excavation would likely be hampered by the presence of old foundations imbedded beneath the surface. Subsurface water is relatively close to the surface as well.

Vegetation- High acidity in the soil and dense urban land use has accomodated only weeds between buildings and some ailanthus trees to grow prosperously. No discernable vegetation pattern or outstanding growth is obvious on the site.

FUNCTION

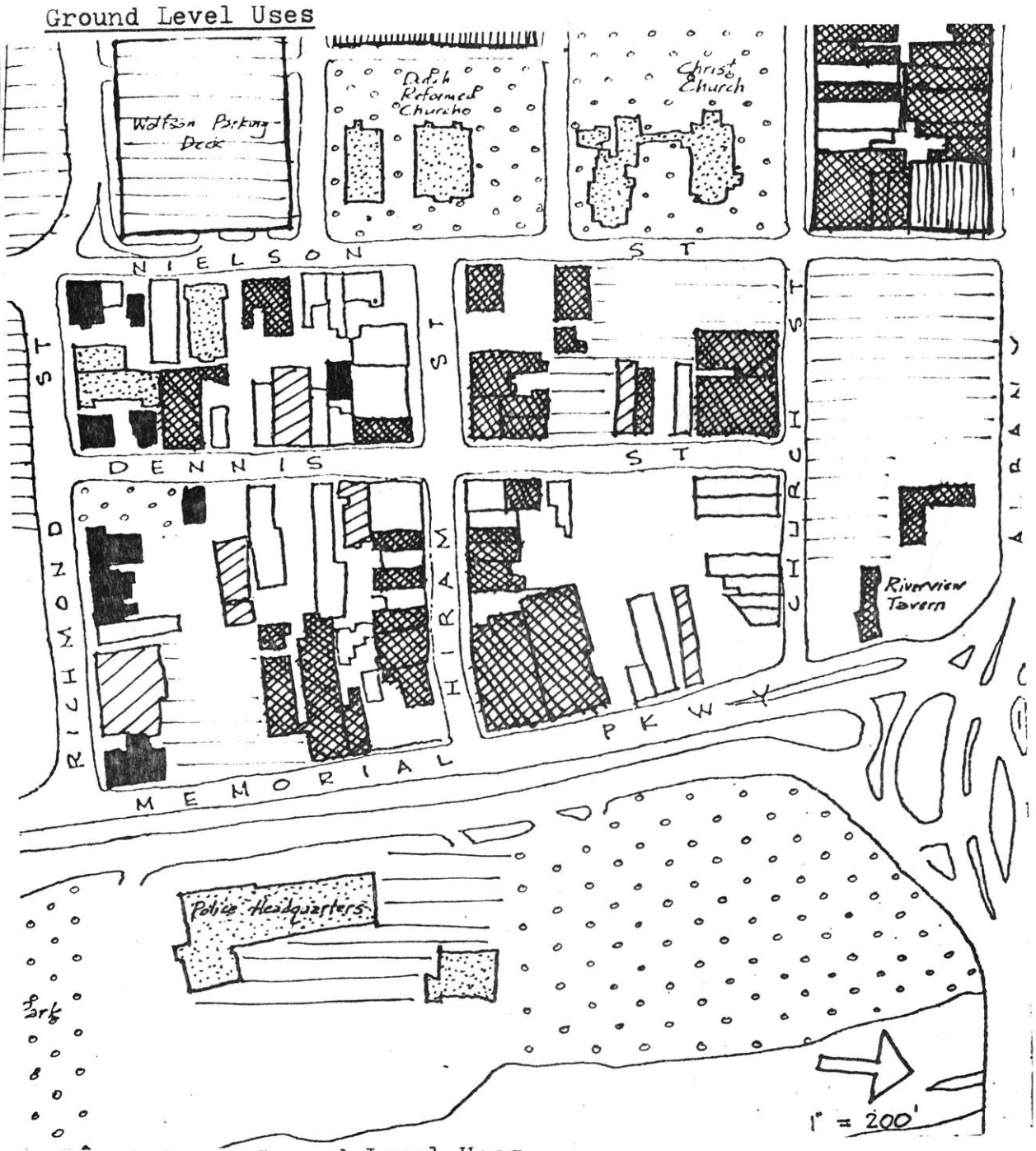


FIGURE I-C

Upper Level Uses

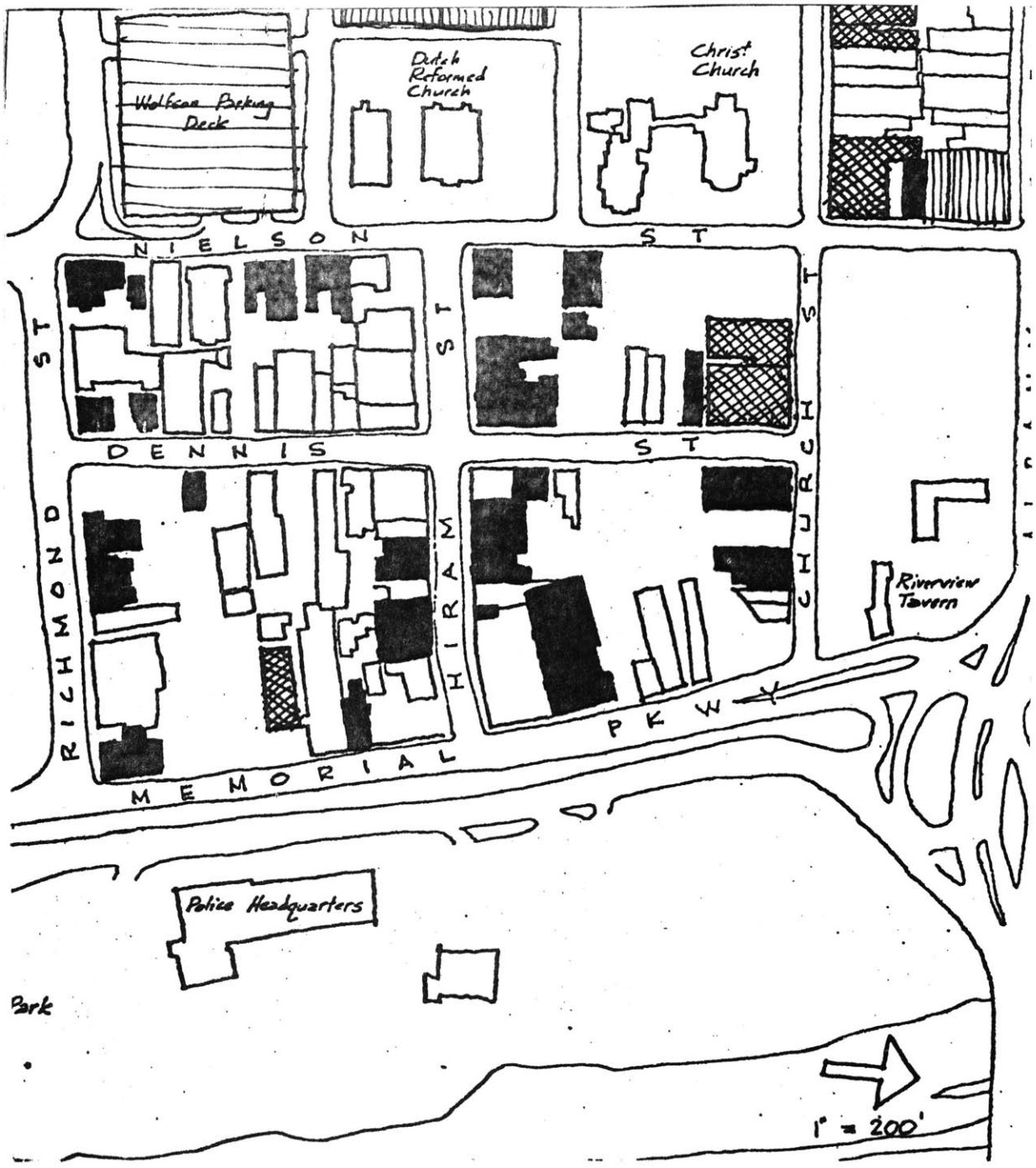


FIGURE I-D Upper Level Uses
same key as above

Pedestrian Circulation

FIGURE I-E Pedestrian Circulation Nodes and Paths

Vehicular Circulation

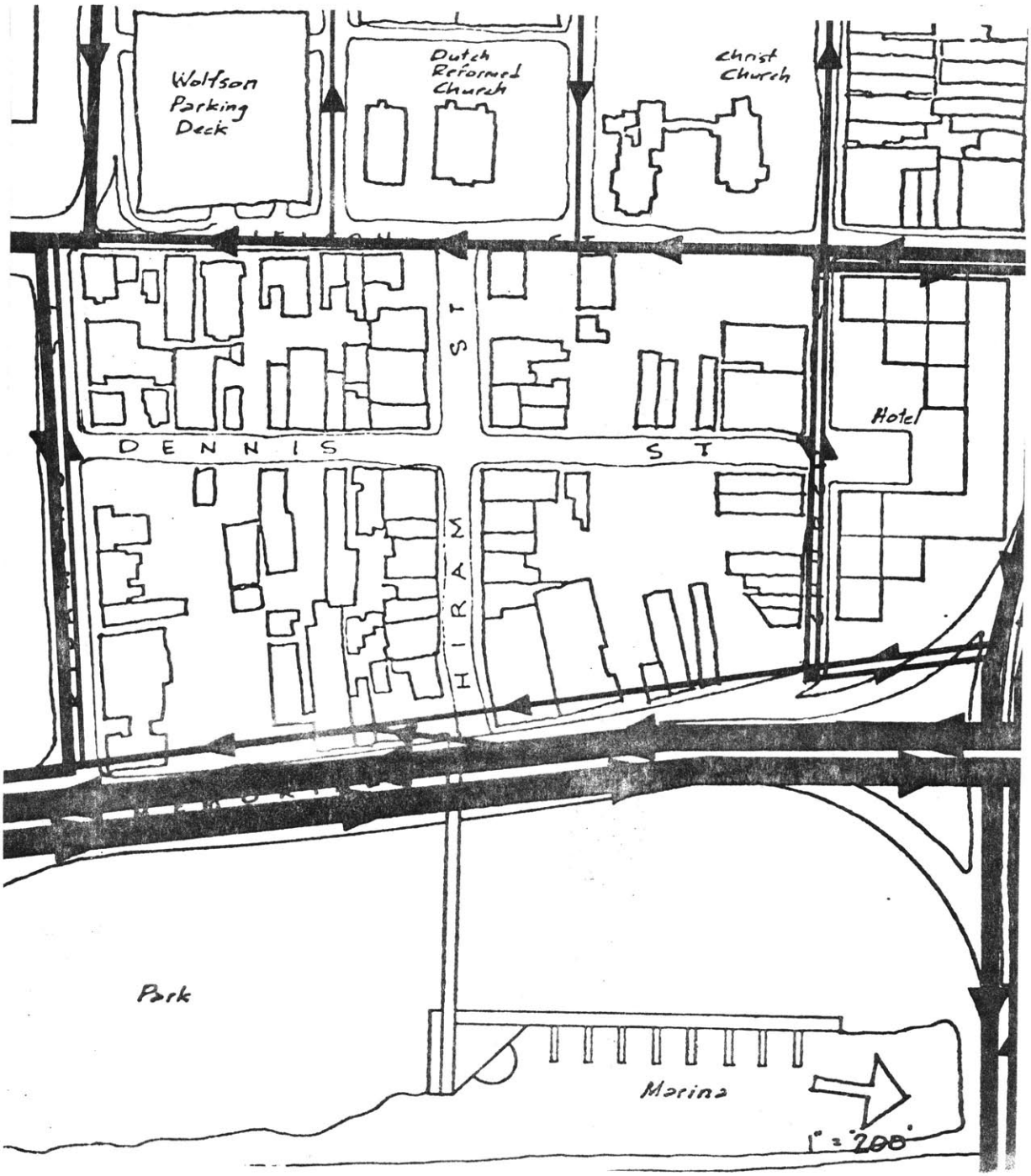


FIGURE I-F Motor Vehicle Traffic Relative Volumes and Directions in Proposed Circulation System from "Downtown New Brunswick, N.J."

PHYSICAL FORM

Underground Conditions

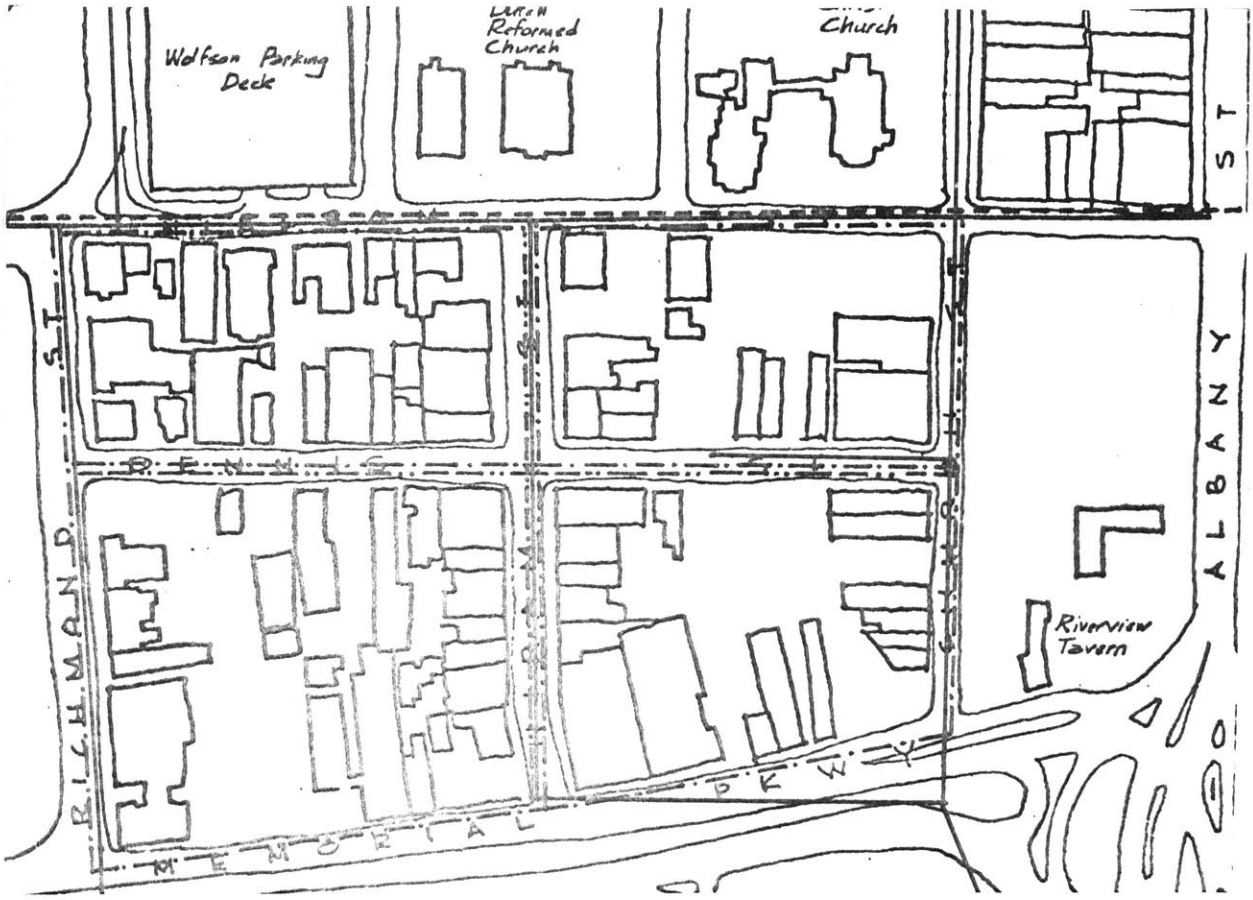


FIGURE I-G Underground Conditions

telephone conduit — — — — — —
electric lines — . — . — . —
gas lines - - . - - . - - . - -
storm/sanitary sewers ————————

Redevelopment Potential

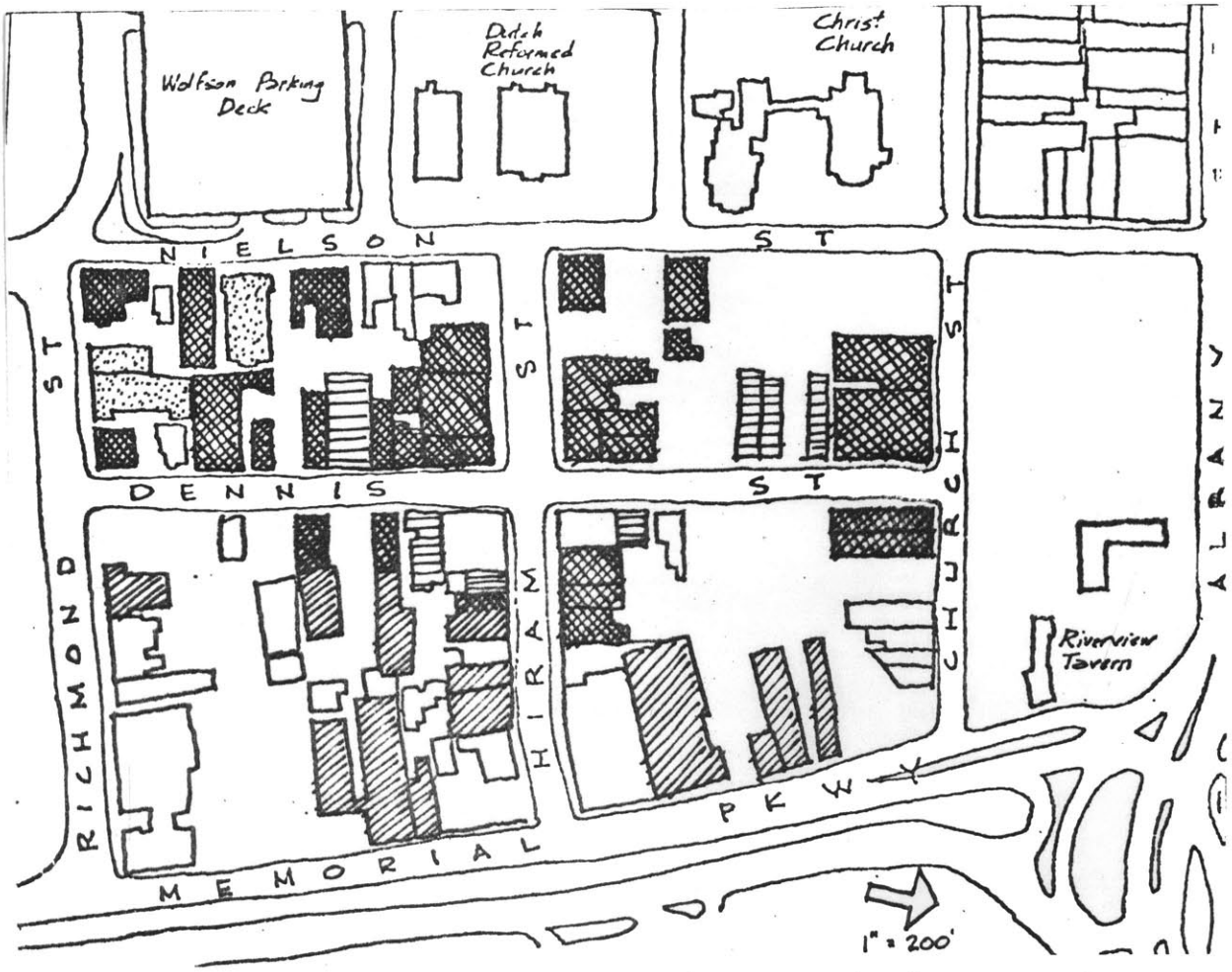


FIGURE I-H Redevelopment Potential of Existing Structures from "Hiram Square"

structure must remain
entire structure reusable
upper floors only reusable
ground floor only reusable
entire structure not reusable

Codes and Zoning- Since this is an exploration of a development with density far exceeding that permitted in the existing codes, they will not be adhered to.

II. NEIGHBORHOOD IMAGE

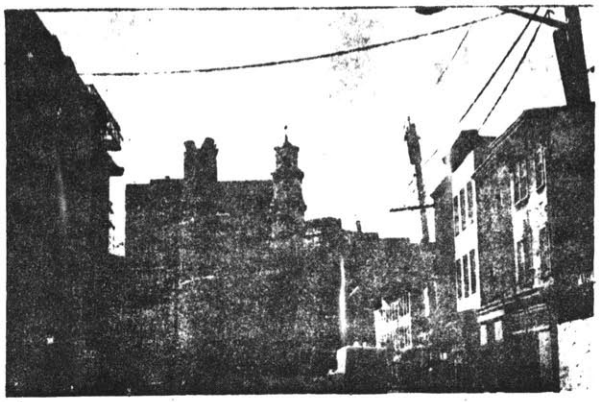
DEFINITION

Land Uses and Activities- Part of the richness of Hiram Market derives from the ground level mix and upper level homogeneity of building uses over the whole site. Within this overall variety, each street is able to show a peculiar character. Commercial uses predominate on Hiram and Church Streets; Richmond Street is residential in nature; Dennis Street combines service with residential uses and Memorial Parkway mixes service with commercial uses; finally, Neilson Street, due to its proximity to the present-day downtown and due to the location of the church edifices across from the site, shows a mishmash of commercial, office, and service uses, all dominated by the image of institutional land use.

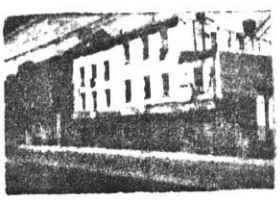
The ranges of the pedestrian, vehicular and service domains and the manner in which they mix provides a richness in some places which supplements the use mix. Historically a marketplace, Hiram Street mixes all these activities. Its place in the vehicular circulation pattern has been unimportant, and this has allowed pedestrians to maintain dominance without eliminating private or service vehicles from participation in the street activities. Neilson Street is more given to motor vehicles, but pedestrian activities are still a major staple of the street's life. This is also the case on Church Street. Neither one sees much service activity. Richmond Street is

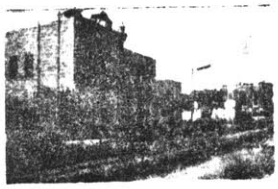
more automobile-oriented, Dennis Street is dominated by service activity, and Memorial Parkway is devoid of pedestrian life, totally overwhelmed by the speed and noise of highway activity.

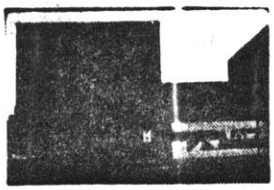
Built Forms- The single most important built form which identifies the entire district is the Dutch Reformed Church, a handsome stone structure dating from colonial times, with a steeple soaring 85' into the sky. This steeple is still an important visual element in the New Brunswick skyline. The importance of this building must be emphasized.



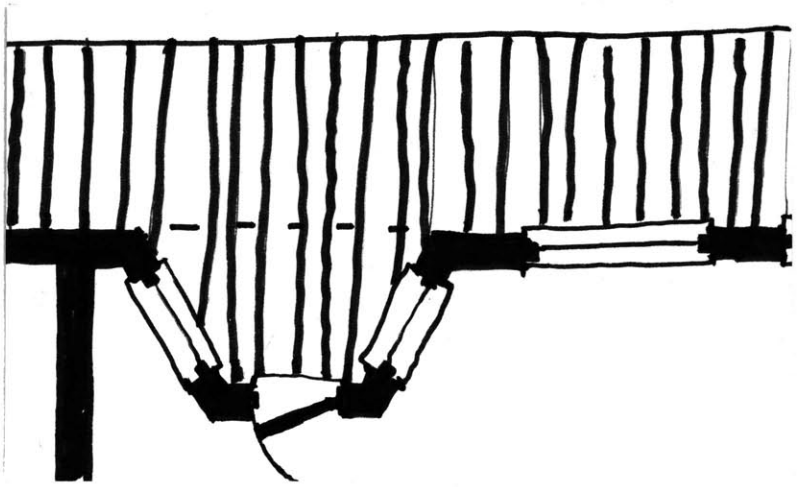
Another built form characteristic which is recognized as part of the image is the manifestation of the use differences between the ground floors and upper floors. Ground floors of non-residential use are indicated by large areas of glass for commercial display purposes, while windows above are small and separated.





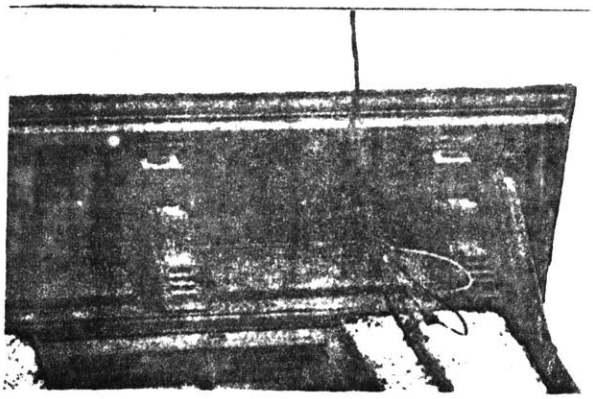


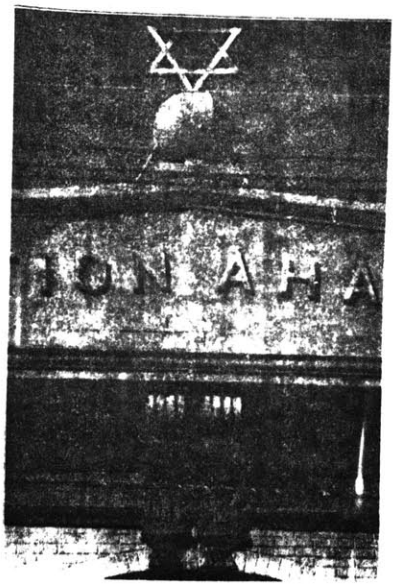
Another important element of the neighborhood image is the manner of defining the pedestrian domain. Virtually all buildings, with the exception of those of the institutional variety on Neilson Street, push out to the property line at the street. Narrow streets, such as Church and Neilson Streets, must accomodate considerable vehicular traffic and as a result sidewalks are not generous, not exceeding 8 feet. This lack of dimension is compensated for on these streets by the presence of inlets to the ground floor shops, where those on foot can move out of the mainstream of pedestrian traffic to windowshop. Streets with wider dimensions and wider sidewalks, like Hiram Street, have no such inlets. Entrances to upper level residences are separated from the public sidewalks by a step which removes them from grade and occasionally by a small inlet. The pedestrian domain is separated from the vehicular domain only by curbs, not a most effective device on important pedestrian ways. Some streets do not even maintain this level of separation. Dennis Street features continual curb-cuts for motor vehicles, disrupting the pedestrian continuity.

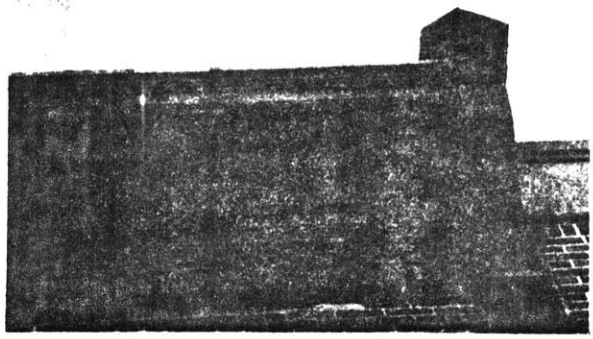


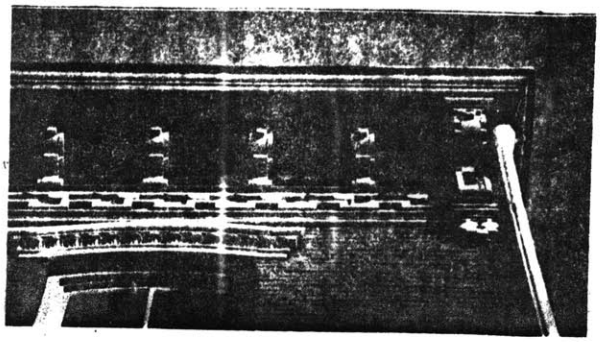
Probably the most distintive feature of this image which I am attempting to preserve is that of the architectural details evident on the great majority of buildings here. Some examples of such details are:

Cornices

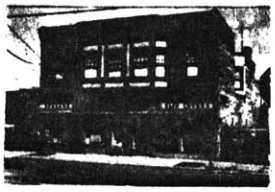




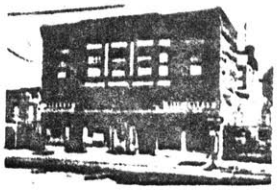


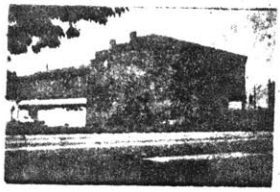


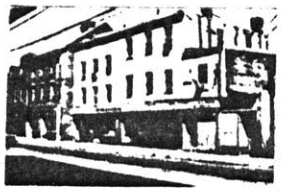
Occasional Dormers, Eyelids and Bay Windows



Graphics in bands above display windows

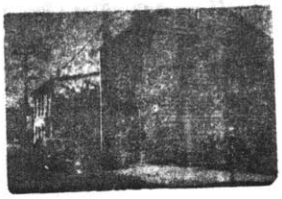
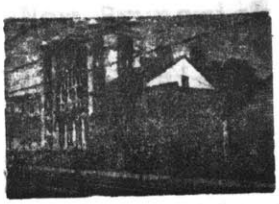
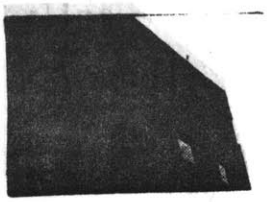
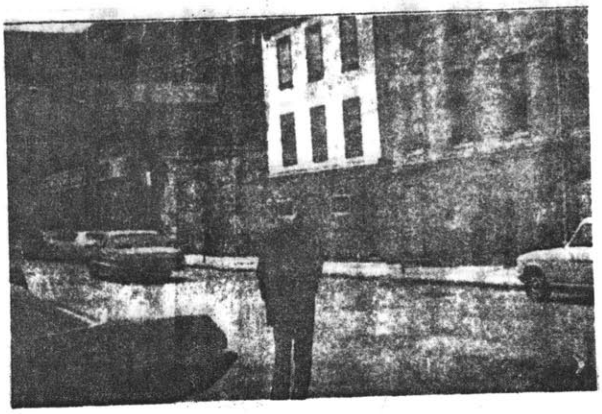






In addition, such details as the small upper-story windows with their detailed lintels are also an asset.

A wide variety of materials on the building facades is also an important aspect of this Hiram Market image. Such materials as brick, wood, asphalt shingle, and aluminum are shown in the pictures below (left to right). The large photograph shows stucco and porcelain enamel facade applications. Brick is the predominant material, evident on more than half of the existing structures. Wood buildings comprises 20%, stucco 13%, stone 7%, porcelain enamel 6%, asphalt shingle 3%, and aluminum 1% of all the facades.

Dimensional characteristics of building heights, widths and street wall definitions also play a large role in the constitution of the neighborhood's quality. Such dimensions are summarized below:

Street Name	Heights min.	Heights avg.	Heights max.	Widths min.	Widths avg.	Widths max.	Wall Definition
Hiram (north side)	20'	32'	38'	17'	25'	32'	91%
Hiram (south)	32'	34'	38'	28'	46'	60'	91%

Street Name	Heights min.	Heights avg.	Heights max.	Widths min.	Widths avg.	Widths max.	Wall Definition
Neilson	18'	31'	44'	20'	41'	50'	84%
Church	12'	33'	36'	25'	36'	45'	89%
Richmond	14'	29'	42'	20'	42'	50'	79%
Dennis	12'	30'	38'	15'	34'	75'	46%
Memorial	21'	36'	42'	15'	43'	70'	42%

Vistas- existing views and those suggested by the Pei proposal were defined and evaluated keeping the criteria of size, quality (based on greenery and activity), extent of open view, and symbolic importance in mind. Among the major vista generators were 1) the Raritan River and Boyd Park, visible directly from the eastern edge of the site and indirectly from Hiram and Richmond Streets, 2) the Dutch Reformed Church, visible directly down Hiram Street all the way to the highway and park, and 3) the churchyards along Neilson Street, visible directly from most of Neilson Street and indirectly from Hiram Street. Minor vista generators included 1) Hiram Street itself, visible from buildings along the street and from nearby parts of Dennis Street, and 2) the proposed motor hotel across Church Street, visible from Church Street itself, Dennis Street, and the midpoint of Hiram Street.

MAINTENANCE

Instead of trying to justify the reasons for saving each and every building that I wanted to remain, I instead asked which buildings could be demolished? This was felt to be a

more generous attitude toward the existing neighborhood. Demolition criteria were based on the character of the building and its location. Two kinds of criteria were established, the first being those whose severity dictated the destruction of the building, and the second being those which in combination with other drawbacks might necessitate demolition. These are summarized below:

By character of the building:

A building must be demolished if: 1) it is one floor in height, thereby precluding vertically mixed uses, 2) it is not reusable according to Figure I-H. A building will be considered reusable if it classified for reuse in the entire structure or in the upper floors only. Structures in this latter category show ground floors below the 15' contour line. If this floor were elevated, the entire building could be reused. Buildings with a ground floor only available for reuse would be wasteful and dangerous to keep, 3) it is not of institutional use and it is set back from the property line, and 4) it exhibits none of the materials defined as integral to the image.

A building may be demolished if: 1) it does not exhibit architectural details of the image, 2) it is of service use, 3) it has a "backyard" attachment that must go, and 4) it shares a party wall with a demolished structure.

By location of the building:

A building must be demolished if: 1) it is situated below the 13' contour level, which would cause ground floor fill problems, and 2) it directly faces Memorial Parkway.

A building may be demolished if: 1) it is situated on a street with no major amenity, 2) it is situated on a street with no pedestrian value, 3) it is situated below the 15' contour level.

A combination of three from the "may be demolished" categories, as long as both building character and location contribute at least one such reason each, was felt to justify the destruction of a building.

Buildings which can remain on the site and physical features in the vicinity of the site which are likely to be constructed in the overall downtown redevelopment are illustrated in Figure II-A.

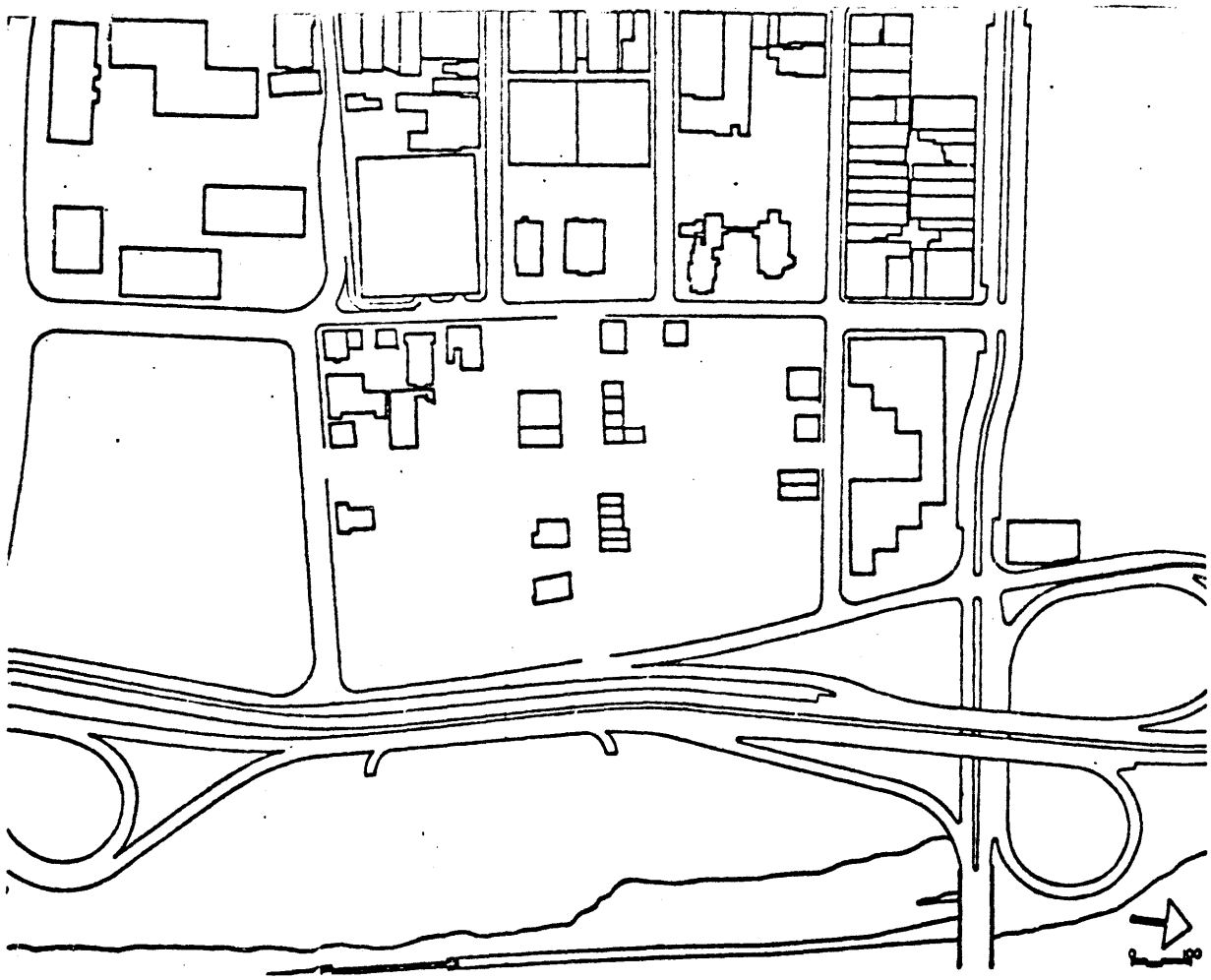


FIGURE II-A Existing Buildings Not Scheduled for Demolition and Physical Features Extraneous to Site Proposed in "Downtown New Brunswick, N.J."

EXTENSION

Land Uses and Activities- The overall mix of land uses shall be maintained, with prime public uses occupying the streets around the periphery of the development, and secondary uses inside. Viable pedestrian/automobile mixes should be maintained as well. On Hiram Street, the ground level should be given to commercial use with a pedestrian emphasis, though auto traffic should be allowed to a limited extent, including on-street parking. Neilson Street will see a continued mix of ground level uses. Infill buildings will be residential, while existing structures will accomodate commercial use at the corners and office or community uses elsewhere. Infill on Church Street will be for residential use, with an option for conversion to commercial use. The presence of the hotel would likely necessitate ground floor commercial use on Church Street, for which existing structures will be used. The hotel side of this street should provide more generous pedestrian accomodations between Dennis and Neilson Streets. Richmond Street will continue to be residential in nature with wide sidewalks and on-street parking. Dennis Street will convert to residential use but at least part of it should accomodate parking. Service uses will be shifted to Memorial Parkway, where they will have easy access and be adjacent to a negative environmental factor. Upper floor uses will be residential, except on Hiram Street, where an option for office use should exist.

Built Forms- The ground level/upper level use difference manifestations should continue to happen in new construction. Architectural details should be imitated where the old city image is important. The overall building dimension variety, and the jagged skyline it produces, should be continued. Heights, widths, and street wall definitions should be consistently, though not literally, adhered to. For example, new construction can exceed the heights of the tallest structures on a street by approximately the same dimension that the taller old structures exceed the low old buildings. The vocabulary of sidewalk inlets should be continued on Neilson and Church Streets, and shunned on the others. Finally, facade materials should follow the patterns existing in the neighborhood.

Vistas- Four important views must be maintained and exploited. The first is the view of the church from the park, river, and highway. While the vista from the first two can be appreciated for a time from one point, the auto traveller on Memorial Parkway gets perhaps the most interesting experience of this view. The church steeple, though visible among the other elements of the skyline, is hardly prominent from a distance. As the driver passes the foot of Hiram Street, however, he gets a full, though fleeting glimpse of the proud structure. Unfortunately, no built form along the highway edge gives a clue of the presence of this vista to the fast-moving traveller, and it can be easily missed. This problem must be resolved.

The second vista is that of the river which can be seen from the entire eastern edge of the site. The third is the view of the churchyards which is available to almost the entire length of the site on its western side. Finally, the view of the hotel from Hiram Street, through Dennis Street, must be achieved. This vista should be closed at each end, to give proper visual importance to both.

III. AREAS OF DISTINCT PHYSICAL CHARACTERISTICS

Based on the site analysis and on the demolition schedule drawn from applying the criteria for maintenance of the neighborhood image, three areas of distinct physical characteristics emerge on the site (Figure III-A). Area I fronts the streets and is identified by small building and space dimensions, variegated shapes and styles, and views and activities focused on the street. Within this area, three subdivisions can be seen. Area I-A is furthur identified by a continuous street wall, relative regularity of dimensions, and a view onto a street

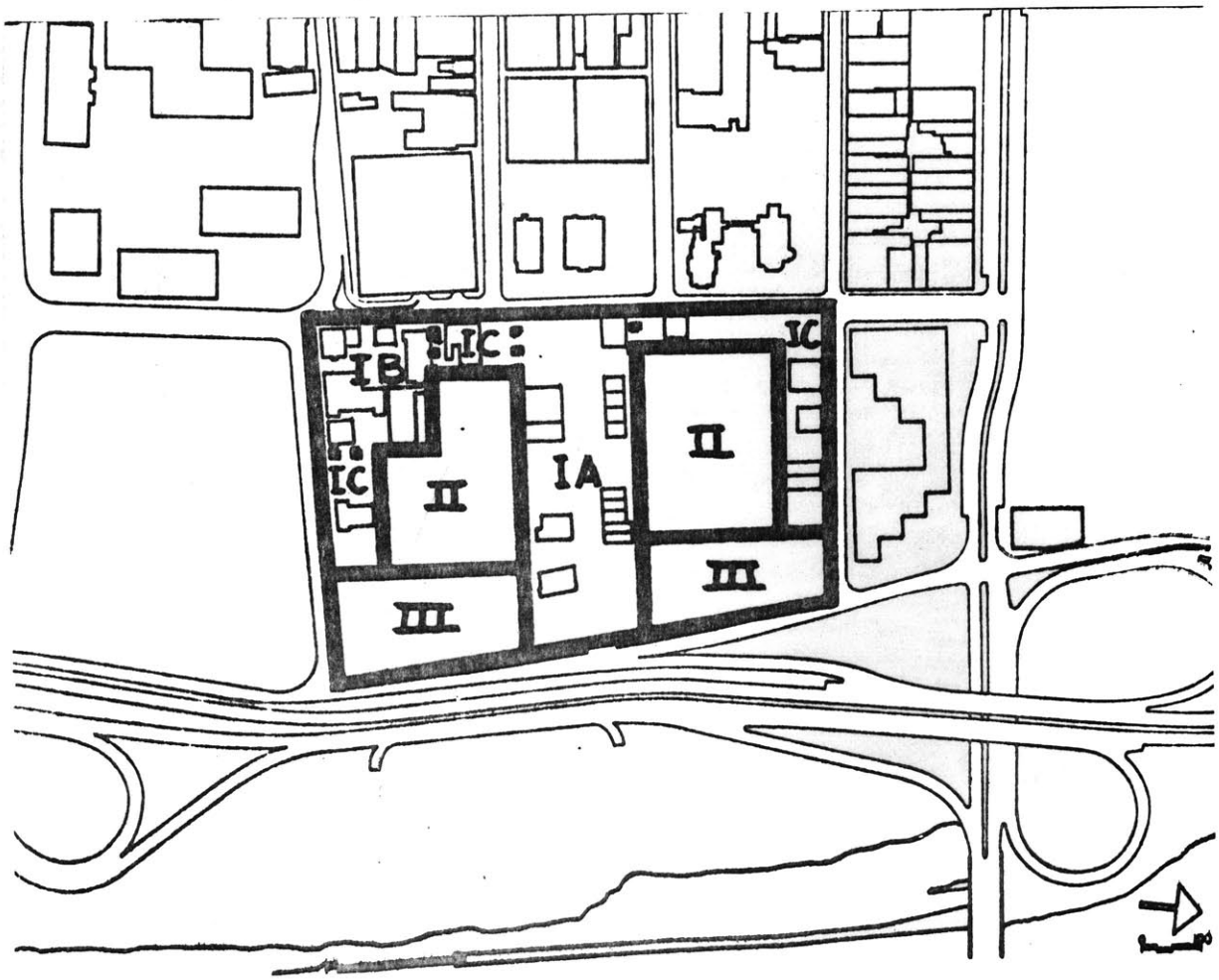


FIGURE III-A Areas of Distinct Physical Characteristics

which itself has important views. Area I-B is featured by two large institutional buildings and several others all arranged in a cluster around an open space of intimate scale. One of these structures does not front on a peripheral street. Area I-C is characterized by a broken street wall, and the most variety in building surface materials.

Area II is of larger dimension and does not come into contact with any streets with pedestrian value. It also is lacking in amenities, and in addition new buildings and spaces here must integrate with the back sides of the Area I and probably Area III features. Because of this insulation and the large open dimensions which will be created by demolition, Area II will have to rely on a scale and character quite unlike that of Area I in order to achieve a reasonable residential environment.

Area III is also defined by large dimensions, as it extends nearly uninterrupted for over 800 feet. This area is almost entirely in the floodplain as well, necessitating special accomodations to achieve the required floor elevation. Its adjacency to Memorial Parkway makes it important to integrate built forms here with the special needs, such as acoustic isolation and air pollution buffers, which the highway generates. Finally, the open space of the park and river offers a major amenity. An extended view of this feature is ideal, and buildings must be high to take advantage of it. How these large dimensions integrate with the smaller sizes of Areas I and II is an important consideration.

IV. GENERAL CONSIDERATIONS FOR THE NEW DEVELOPMENT PROGRAM

Different alternatives for accomodating major features necessitated by the new program were explored and evaluated. This was done at both the schematic level (1"=100') and at site planning scale (1"=40'). This process was by no means as rational as it appears in here. Rather, the following represents a distillation of my trials and errors presented in schematic form.

The impact of features such as parking, open space and massing had to be examined at large scale. Programmatic needs or functional roles were stated, conditions generated by off-site influences were pinpointed, and alternatives were drawn from possibilities for each of the Areas of Distinct Physical Characteristics. The site was seen to be roughly symetrical about the Hiram Street "axis", both in terms of dimensions and in terms of the configurations of these three Areas. Therefore a model was abstracted which could apply to each of two "superblocks" formed by dividing the site along Hiram Street. This was used for purposes of weighing the relative advantages and disadvantages of all the alternatives.

PARKING

Capacity- The Pei proposal suggests a maximum developable square footage of 650,000 s.f. for the site. Hiram Street was suggested as a retail street on the ground level. Based on existing store depths here, this would amount to 45,000 s.f. of space, leaving 605,000 s.f. for housing. Assuming one parking space will be needed for each residential unit, 605 parking spaces will be thus required.

The "Hiram Square" study cites a need for 225 spaces for commercial parking. Other sources suggest anywhere from 100 to 257 spaces, with most near that figure noted by Wallace-McHarg and Associates.

A total of 830 parking spaces, 605 for housing and 225 for commercial use, will be deemed necessary for automobiles using facilities on the site.

Circulation- See Figure I-F. It will be assumed that Hiram Street will remain open to vehicular traffic, and Dennis Street will be at least partially accessible to motor vehicles. This is necessary for firetruck access.

Conditions Generated by Off-Site Influences- see Figure IV-A.

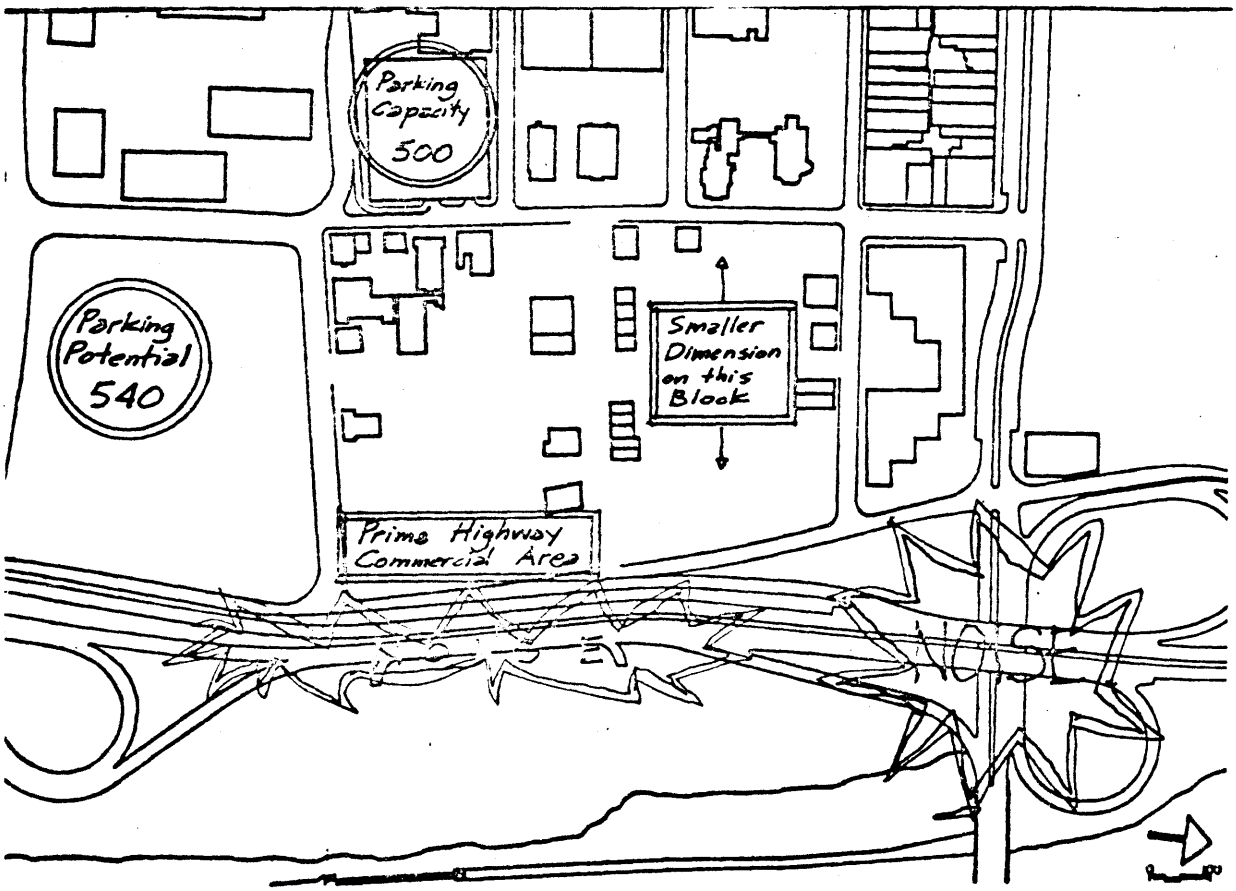


FIGURE IV-A Conditions Influencing Parking Decisions

Alternatives- Four possible parking conditions exist on the site, which are 1) no parking, 2) surface parking lot, 3) parking garage up to four levels, and 4) parking in a strip along the highway. These generate the following alternatives:

	Area I	Area II	Area III
A.	none	none	highway strip
B.	none	none	surface lot
C.	none	none	garage
D.	none	surface	highway strip
E.	none	surface	surface lot
F.	none	surface	garage

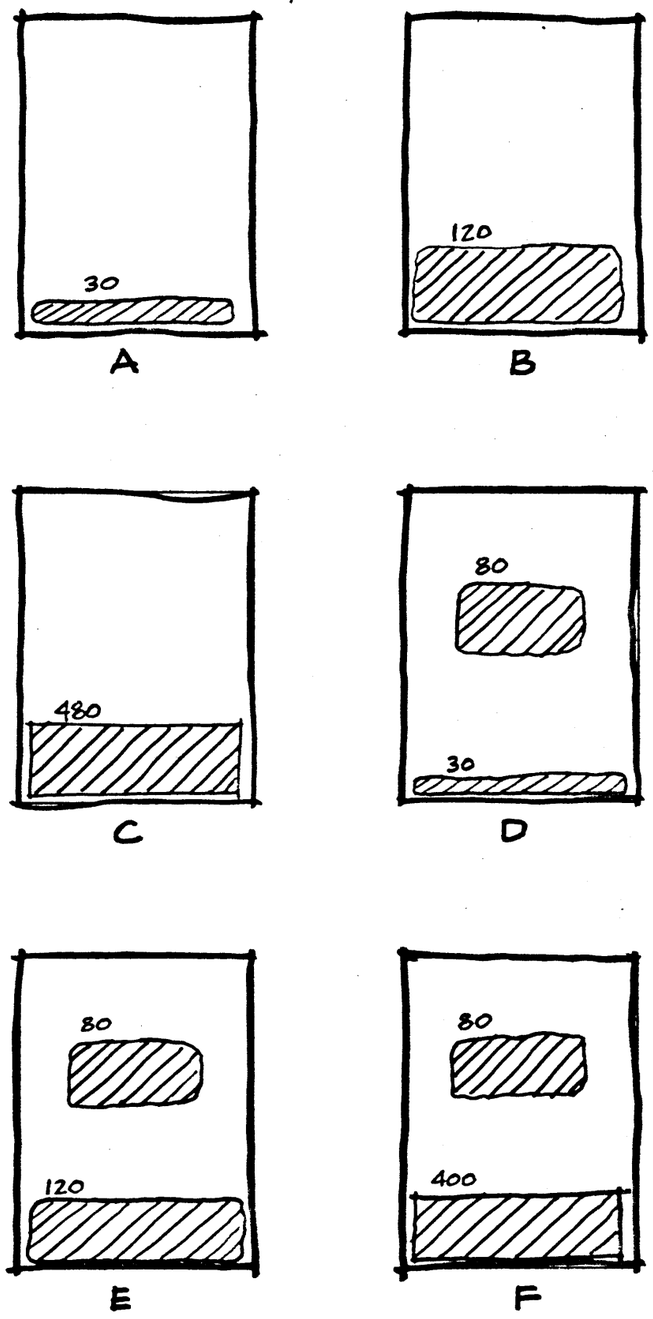


FIGURE IV-B Parking Alternatives

Evaluation- "Superblock" north of Hiram Street.

	A	B	C	D	E	F
FUNCTIONAL NEEDS						
-access to highway	-	o	+	o	o	+
-capacity capability	-	o	+	-	o	+
-minimal land coverage	+	o	+	o	-	-
-need for proximity to off-site parking	-	o	+	-	o	+
MASSING/VISUAL IMPACT IMPLICATIONS						
-minimal eyesore from park/highway	o	-	+	o	-	+
-minimal on-site eyesore	+	o	+	-	-	o
-utilization as noise buffer	o	-	+	o	-	+
-minimal shadow	+	+	-	+	+	-
OPEN SPACE IMPLICATIONS						
-minimal land coverage in Areas I and II	+	+	+	-	-	-
-maximum height in Area III to achieve extended view	o	-	+	o	-	+
-compatibility with built framework	+	+	+	o	-	-

Allocating a scoring method of two points for every (+), one point for every (o), and no points for every (-), the conclusion is reached that alternative "C" is the best for this block. Repeating this procedure for the block south of Hiram Street, alternative "D" will be seen to be best able to accomodate parking for that block.

OPEN SPACE

Roles of Open Spaces- Open spaces will perform at least one of four functions: 1) Visual amenity, a space full of greenery and "soft" forms to contrast with the "hard" forms of buildings, 2) Pathway, to accomodate pedestrian and/or vehicular traffic, 3) Vista, to accomplish the creation of a view, and 4) Recreation, to provide places for play and rest.

A visual amenity is generated by the presence of a natural feature in the landscape, or by a man-made modification of the natural environment which maintains many natural features. Boyd Park and the churchyards are two examples. Pathways are generated by existing circulation nodes, any large terminal for non-pedestrian transportation, and any large building. Vistas are generated by large open spaces, good quality open spaces, long-distance views, and landmarks, as mentioned before. Certain kinds of recreation are likely to occur in different realms of community and privacy. The size of the space and the nature of the definition of the space play important roles in determining which recreational uses are compatible with it and where the public, semi-public, semi-private, and private recreation takes place. These relationships are summarized below:

Domain	Space	Recreational Activities
Public	large, not necessarily defined by built forms; can be off-site if easy access	baseball, basketball, tennis, bicycling, boating, picnicking, relaxing, outdoor theater, hanging out

Semi-Public	medium scale, partially defined by built forms; on-site	swimming, paddle tennis, car washing, child's play, relaxing
Semi-Private	smaller scale, wholly defined by built forms; on-site	lawn games, basketball, shuffleboard, badminton, child's play, relaxing, gardening
Private	small, adjacent to unit	child's play, relaxing, gardening, working

Open Space Generators and Off-Site Conditions- see Figure IV-C.

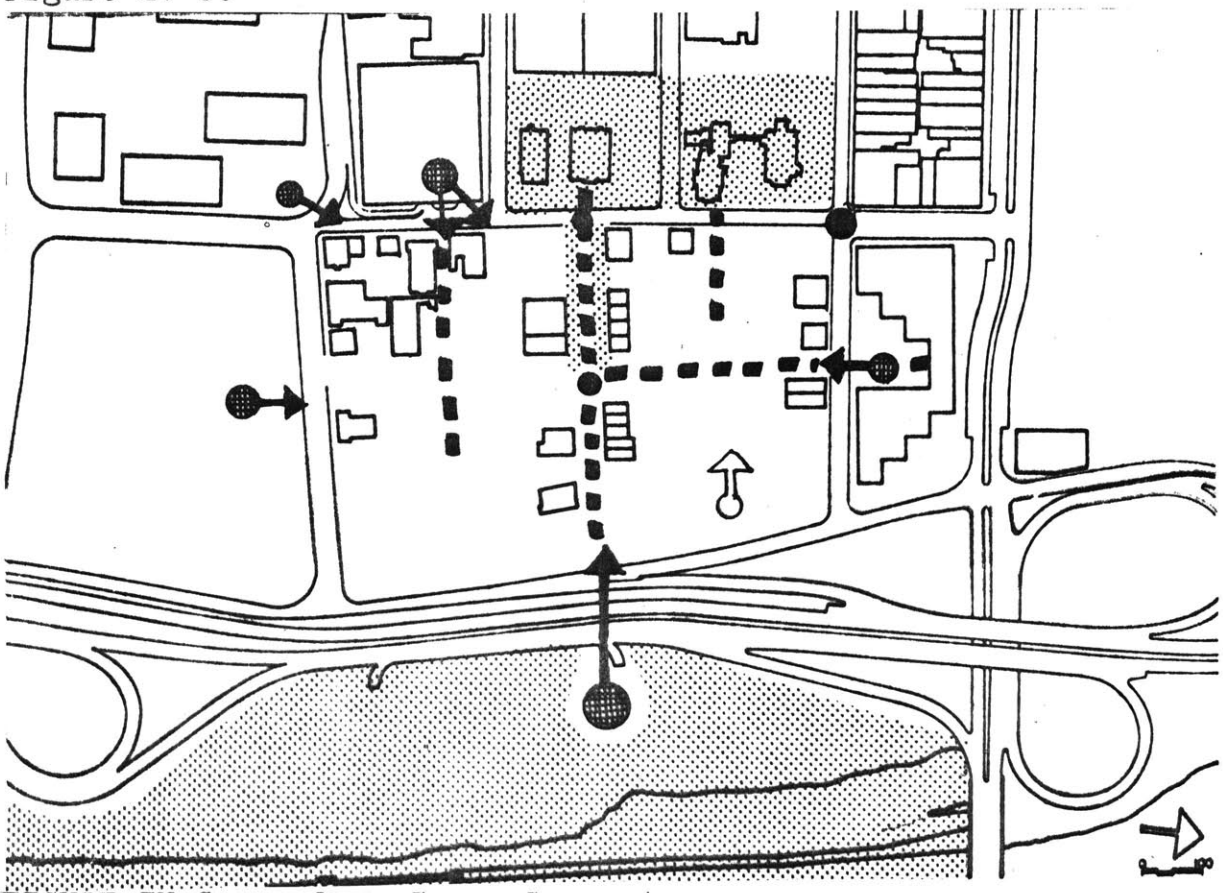


FIGURE IV-C Open Space Generators

visual amenity
pedestrian circulation node
vista

Alternatives- drawn from open space generators locations.

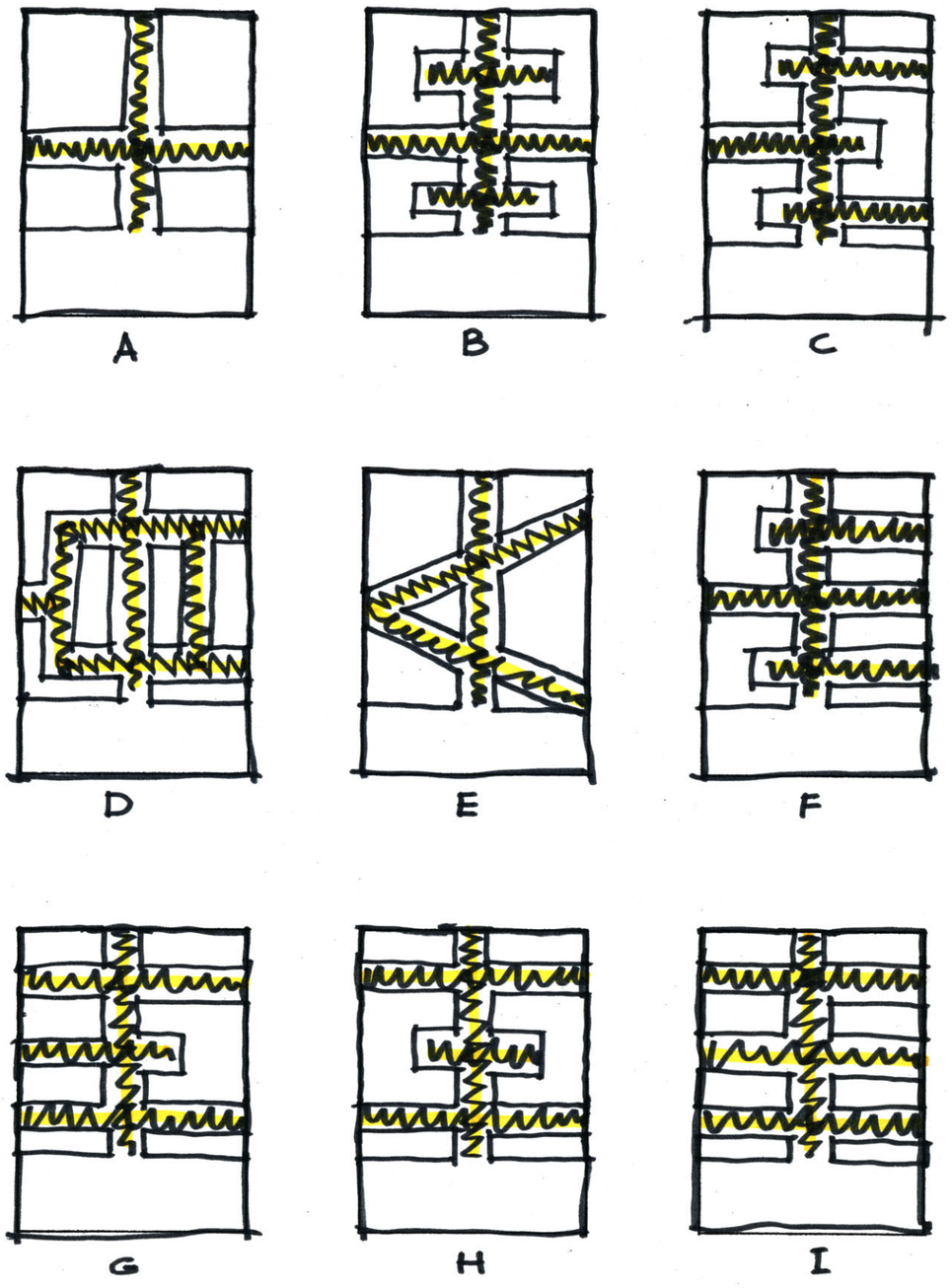


FIGURE IV-D Open Space Alternatives

Evaluation- "Superblock" north of Hiram Street.

	A	B	C	D	E	F	G	H	I
FUNCTIONAL NEEDS									
-ability to place circulation emphasis on Hiram Street	o	o	+	+	+	o	o	+	-
-compatibility of open spaces scale to that of non-public recreation	-	+	+	o	-	o	o	+	o
-minimum penetrations to inner-most parts of block	+	+	o	o	o	-	-	-	-
-mix of partially-defined and well-defined spaces	-	+	+	o	-	o	-	o	-
BUILT IMPLICATIONS									
-maximum open space	-	o	o	+	-	+	+	o	+
-compatibility with existing built framework	+	+	o	-	-	o	o	-	o
-compatibility with scale change in Area III	+	+	o	o	o	o	-	-	-
PARKING IMPLICATIONS									
-possibility for access at mid-point of block	+	+	+	+	+	+	+	-	+
-possibility of integration with surface parking	-	o	o	+	-	+	+	o	+

From this evaluation, open space network "B" can be seen to offer the best possibility for success on this block. Repeating the procedure on the block south of Hiram Street, configuration "C" will prove to be most suited.

MASSING

Existing Conditions On and Adjacent to the Site- See Figure IV-E.

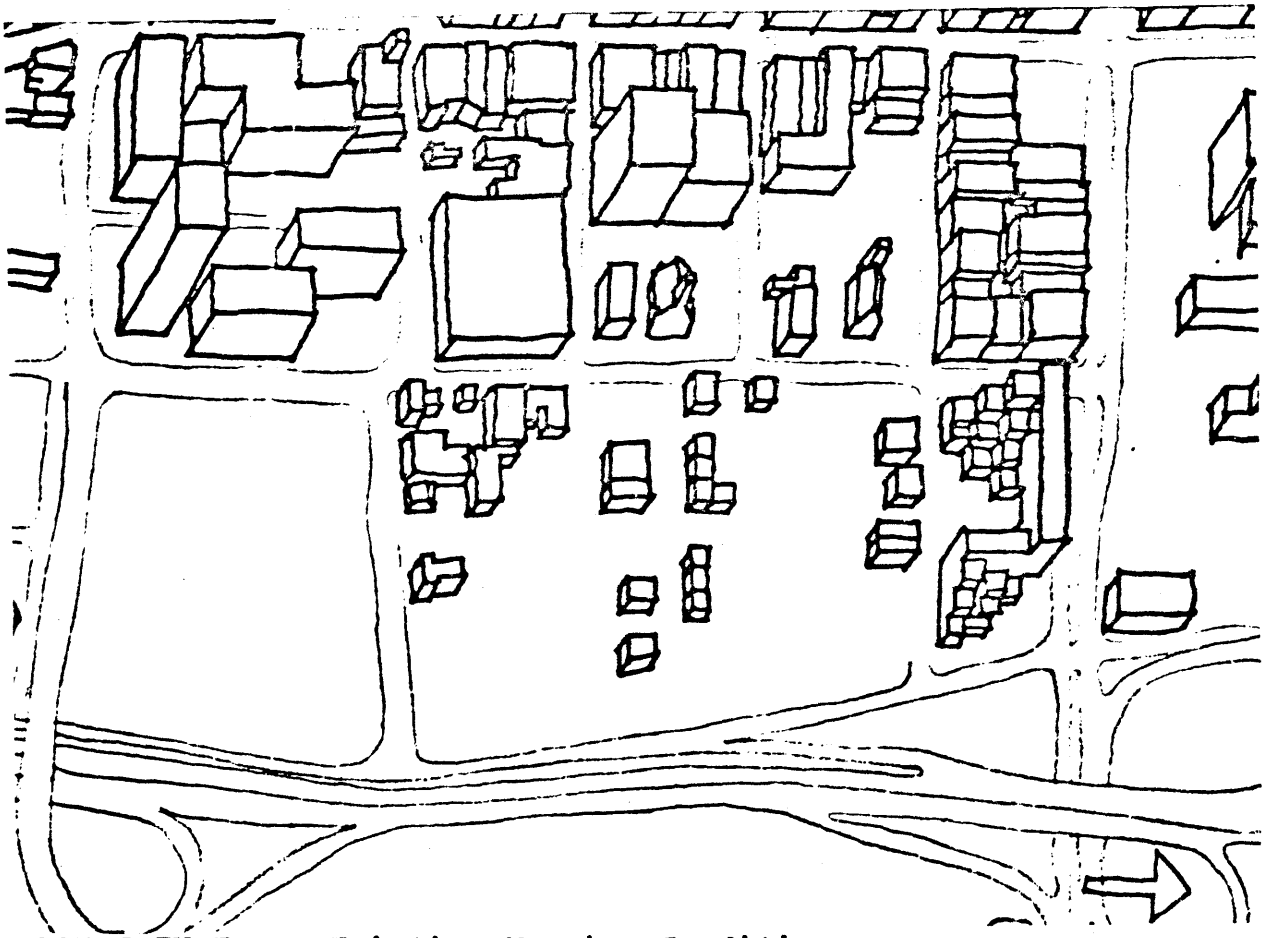


FIGURE IV-E Existing Massing Conditions

Alternatives- Historic height is defined as that of the preserved structures, image height as that limited by the pedestrian view over the Area I buildings. No specific limit is put on highway-scale height at this point.

	Area I	Area II	Area III
A.	historic	historic	historic
B.	historic	historic	highway-scale
C.	historic	image	historic
D.	historic	image	highway-scale

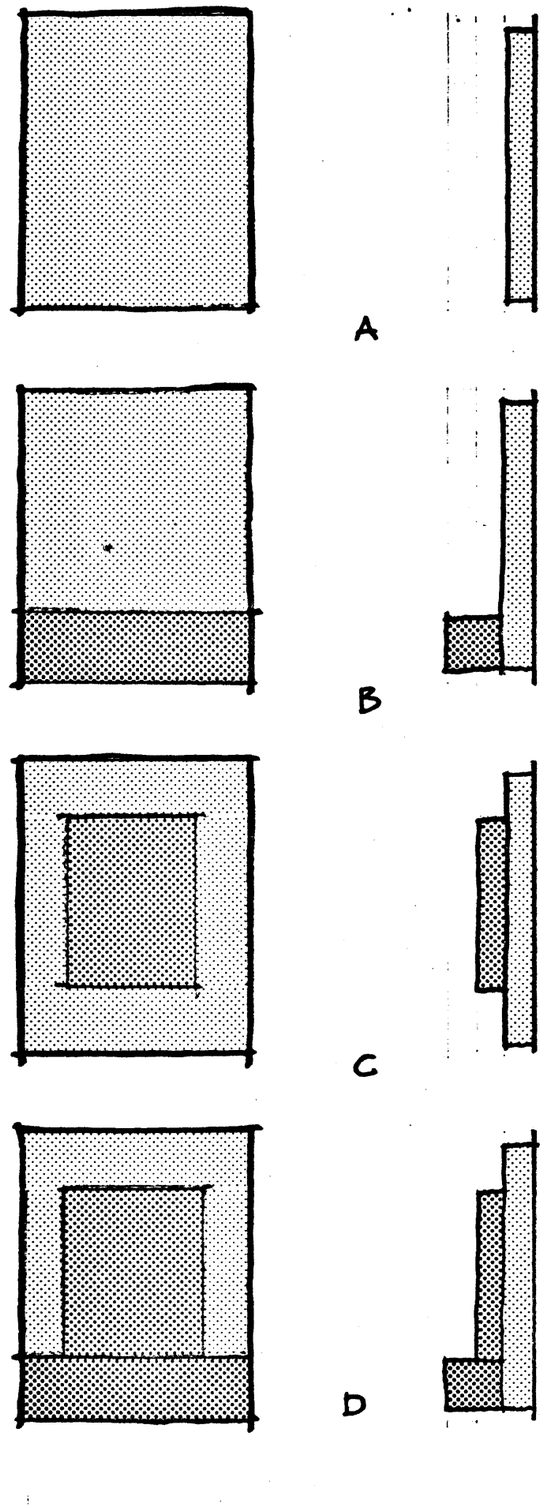


FIGURE IV-F Massing Alternatives

historic

image

highway-scale

Evaluation- "Superblock" north of Hiram Street

	A	B	C	D
FUNCTIONAL NEEDS				
-capacity potential	-	o	o	+
-potential to accomodate large service or parking structure	-	+	o	+
ENVIRONMENTAL FACTORS				
-year-round sunlight penetration to all parts of site	+	+	o	-
-early morning sun	+	-	o	+
-minimal wind blow-out potential	+	-	o	o
-minimal off-site shadows on residential uses	+	+	+	+
-noise buffer for Areas I and II	-	+	-	+
OPEN SPACE IMPLICATIONS				
-maximum units which view major amenity (park/river)	-	+	o	+
-possibility for most Area II amenity	+	+	o	o
BUILT FORMS				
-compatibility with adjacent built forms	-	+	-	+
-ease of scale transition between Areas I/II/III	+	-	+	+

As a result of tabulation of this evaluation, alternative "D" is chosen as the most feasible option. Repeating the process for the other block will also result in the choice of alternative "D".

DENSITY

Three methods were used in order to obtain a preliminary estimate of the capacity of the site for dwelling units. Different floor-area ratios or unit per acre figures, taken from sources noted, were applied to the different physical Areas characteristic to the site. Area I has 108,700 square feet of land, Area II has 168,800, and Area III has 105,300.

	Area I	Area II	Area III
Estimate A 738 Units			
-McLaughlin, "Density..."			
Characterization	Lo-Rise	Mid-Rise	Hi-Rise
Floor-Area Ratio	1.88	1.95	1.97
Units @ 1000 s.f. each	204	329	205
Estimate B 702 Units			
-Mills, Planning			
Characterization	Rowhouses	Six-Story Apartments	Hi-Rise
Density in units/acre	60	80	100
Units	150	310	242
Estimate C 664 Units			
-deChiara, Manual...			
-U.D.C., Housing...			
Characterization	3-story	6-story	10-story
Dwelling and Support Space per Unit in s.f.	3600	3600	3600
Units	91	281	292

V. DESIGN OBJECTIVES

LAND USE

Ground level land use strategy is illustrated in Figure V-A. All upper level uses will be of the R-1 variety unless otherwise indicated.

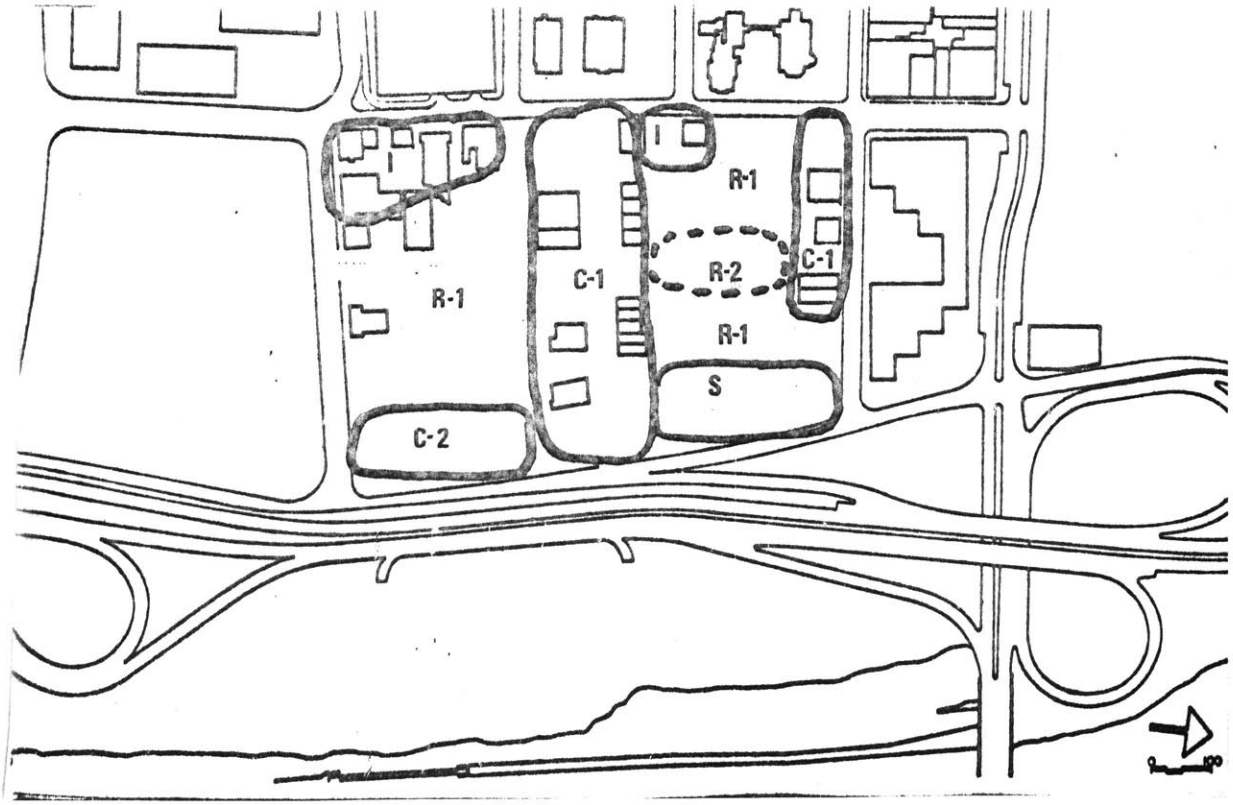


FIGURE V-A Ground Level Land Use Strategy

R-1	residential
R-2	residential with capacity to change to commercial
I	institutional or community facilities
C-1	pedestrian-oriented commercial (office use can displace residential use above)
C-2	automobile-oriented commercial
S	service-multi-level parking beneath community-oriented recreation

PEDESTRIAN CIRCULATION

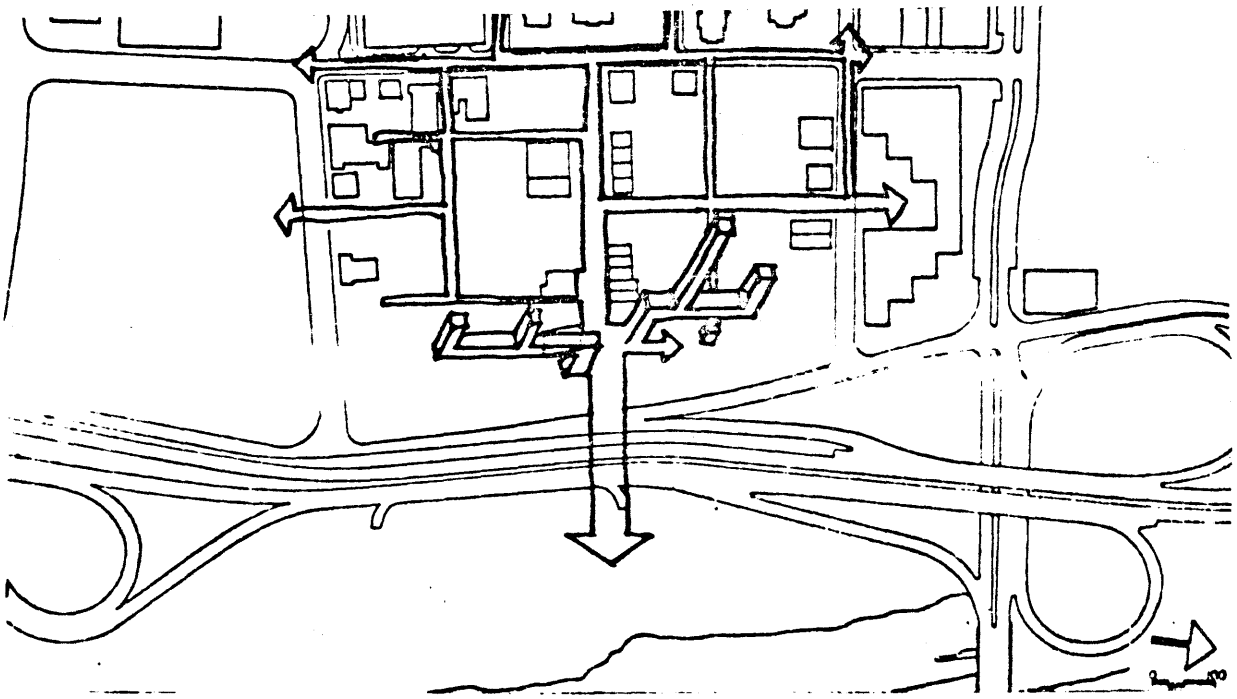


FIGURE V-B Pedestrian Circulation Strategy

VEHICULAR CIRCULATION

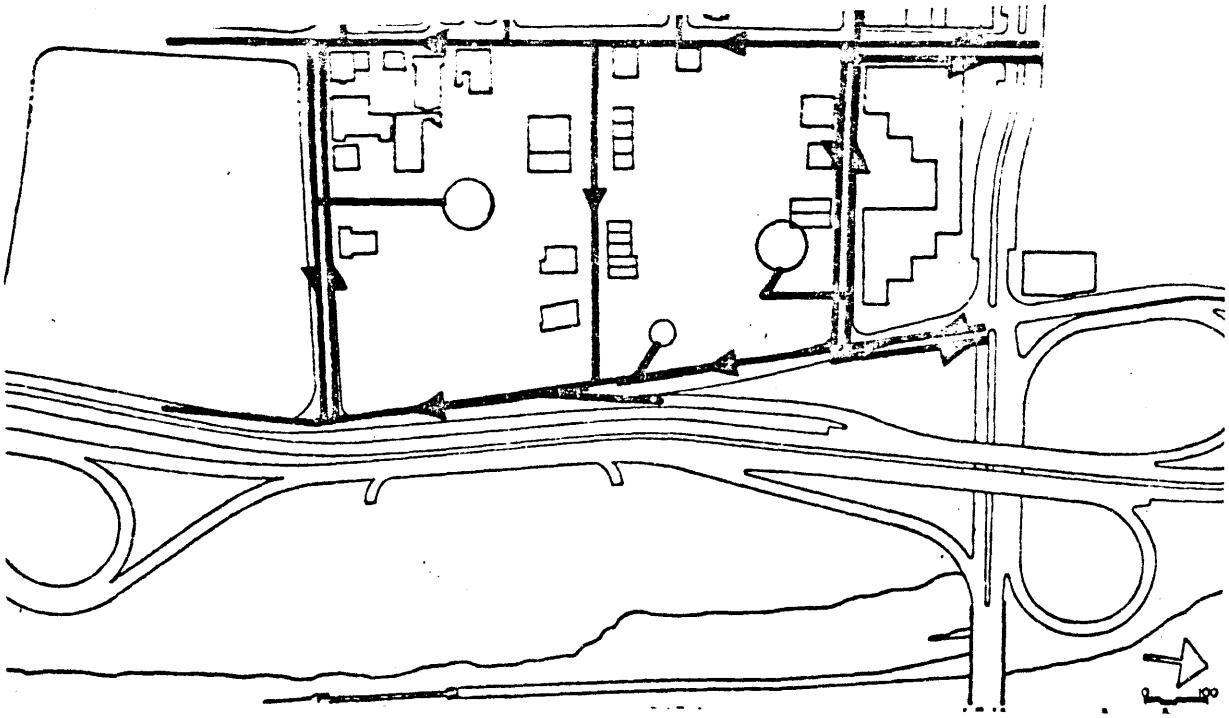


FIGURE V-C Motor Vehicle Circulation Strategy

OPEN SPACE

FIGURE V-D Open Space Network Strategy

MASSING

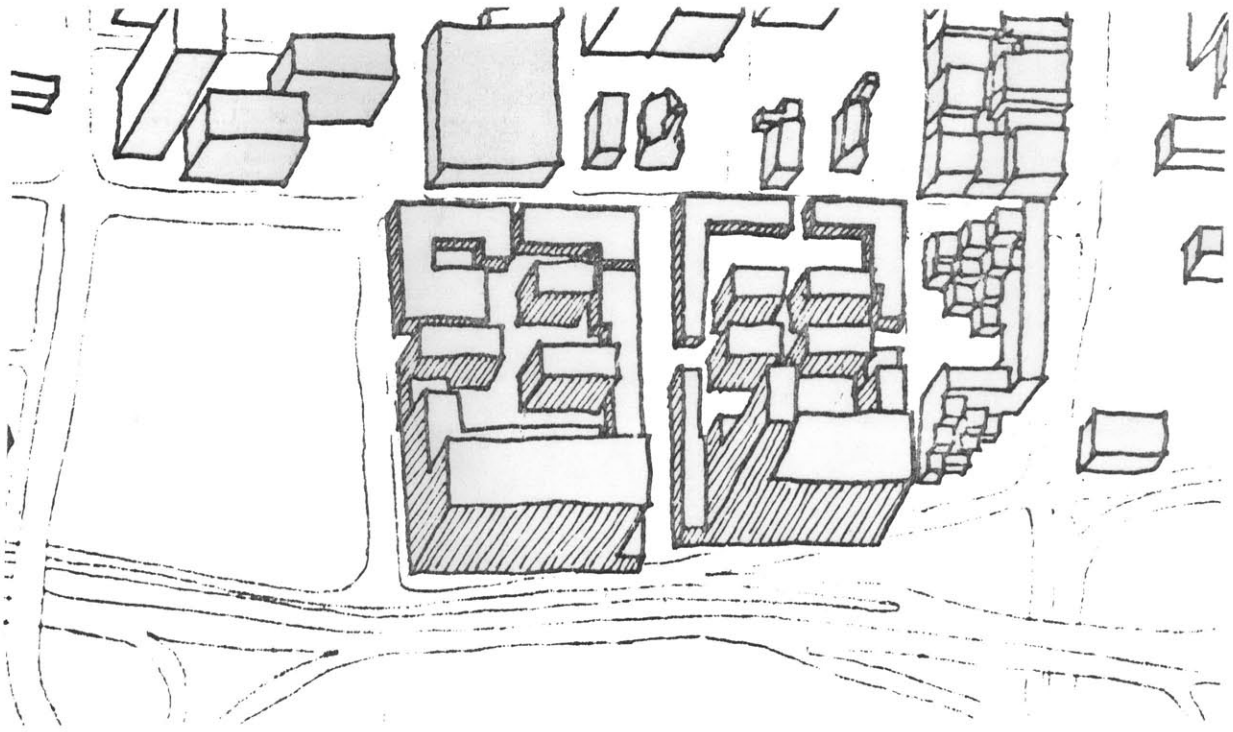


FIGURE V-E Massing Strategy

IMAGE INTEGRATION

The existence of three distinct physical Areas which can not all be seen at once yet must still be visually congruous necessitates the formulation of a strategy for their integration.

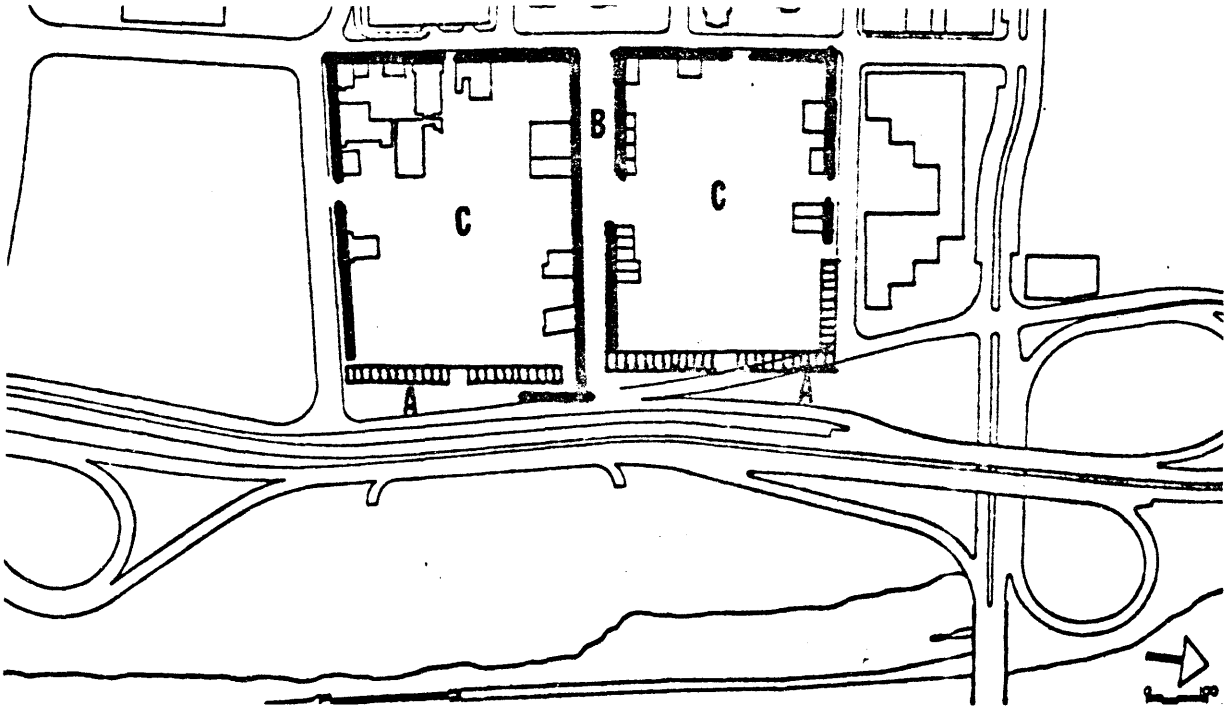


FIGURE V-F Image Integration Strategy

A sleek, glittering, gleaming image of modernity with horizontal emphasis which presents the highway traveller with his first look at the new New Brunswick. A hi-rise at Hiram Street will call attention to the presence of the landmark at the other end, the church.

B historic image consisting of genuinely restored buildings and artificially genuine restorations as infill. Glimpses of the other images can occur in strategic locations.

C mix of scales and building types makes a mishmash of styles, shapes, and sizes most appropriate for this part of the site. This image will for the most part be hidden behind the historic view, but will reveal itself in places to highway-goers.

VI. DESIGN REQUIREMENTS

PUBLIC FACILITIES

Likely Demographic Breakdown of Hiram Market Populace- By the nature of its urban setting and by the nature of upper-income developments, residents of Hiram Market are likely to fall into one of the following categories: 1) young single professionals and office workers, 2) graduate university students, 3) young married couples, either with no children or with one or two small children, 4) professional people past child-rearing age, or 5) retired people who desire in-town living. Not much family base is likely to exist in this neighborhood. The suburbs offer more in the way of family environment and educational facilities for those who can afford to live there. Upper income families presumably could afford it. Dwellings should allow for unit expansion, however, in case economic or social changes make family living here a possibility.

Available Space for Public Use- A total of 68,370 square feet of space is presently suitable for public uses. This total is broken up accordingly: on Hiram Street, ground floors of existing buildings amount to 22,670 square feet, and infill will amount to 19,650 s.f. On Neilson Street, ground level space of existing structures totals 12,300 s.f. On Church Street, 13,750 s.f. of space is present on the grade level of the old buildings. Ground level space in infill construc-

tion would amount to 6400 ss.f.

Commercial Facilities Needs- The commercial space estimate for development without a department store, taken from the "Hiram Square" study and projected to a site development total of 650,000 square feet, amounts to 39,000 square feet. Estimates for commercial needs deduced from residential development planning sources show a need for 47,800 square feet. In order to pinpoint more accurately the space needed for stores, a list of commercial facilities was drawn up from those either recommended in any one of the various studies, existing on the site, or felt to be required by the nature of an historic district (see Appendix II). Allocating area requirements by use, a final estimate of 40,100 square feet of commercial use is arrived at.

Community Facilities Needs- Social, educational and transportation facilities require 18,000 square feet of space. Recreational facilities for year-round use will need 39,000 square feet of space.(see Appendix II).

Generic Relationships - Three generic relationships between the dwelling unit and open space are possible: 1) private on/in structure or on grade adjacent to unit, common open space reduced to access, 2) private on/in structure or on grade adjacent to unit, common open space shared by group of units, and 3) common open space shared by group

of units. Area I will have relationship 2) for residents of infill construction, and relationship 3) for residents of restored buildings. Area II will be characterized by relationship 2). Area III will have relationship 1).

Three generic relationships are also possible between the housing unit and parking accomodations. These are: 1) common on-grade parking integrated with open space, near to and shared by groups of units, 2) common on-grade or in a structure separate from and shared by groups or all units, and 3) common in structure attached to housing and shared by groups of units. Area I is characterized by relationship 2), Area II by 1) or 2) or both, and Area III by 2) or 3).

QUALITY OF DWELLING UNITS

Visual Privacy Needs- Street-to-apartment privacy can be accomplished by any one of the three devices shown in Figure VI-A. Visual privacy between apartments can be achieved by

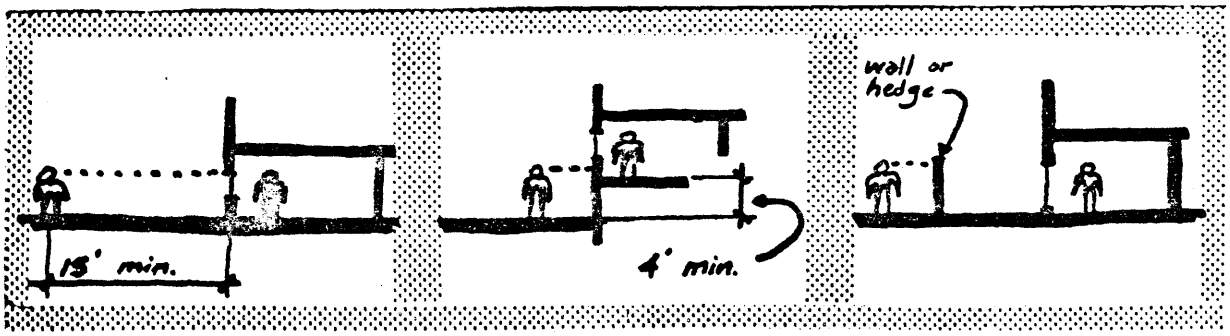


FIGURE VI-A Street-to-Apartment Visual Privacy

following the dimensional guidelines specified according to

Figure VI-B.

Penetration into Rooms	Distance between Windows
0'	0'
2.5'	10'
5'	30'
10'	45'
15'	60'
20'	70'
30' +	80'

In no case can a window or a wall be located within 30' directly in front of a window.

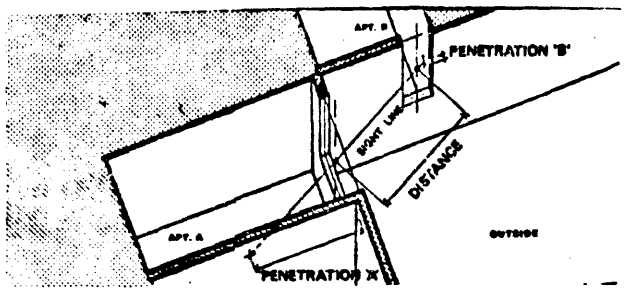


FIGURE VI-B Apartment-to-Apartment Visual Privacy from New York City Urban Design Council

Sunlight Needs- Each and every dwelling unit must receive direct sunlight for some portion of the day all year round. Large-scale built features on the east side of the site and off the site to the west will preclude early morning and late afternoon sun penetration to a good portion of the site. The entire site does have a favorable orientation for the sun from mid-morning to mid afternoon, when light will come predominately from the south. Figure VI-C shows building mass in Area II which will be constrained by the view of the historic image from pedestrian paths, the angle of the noon sun from the south at the winter solstice, and visual privacy needs.

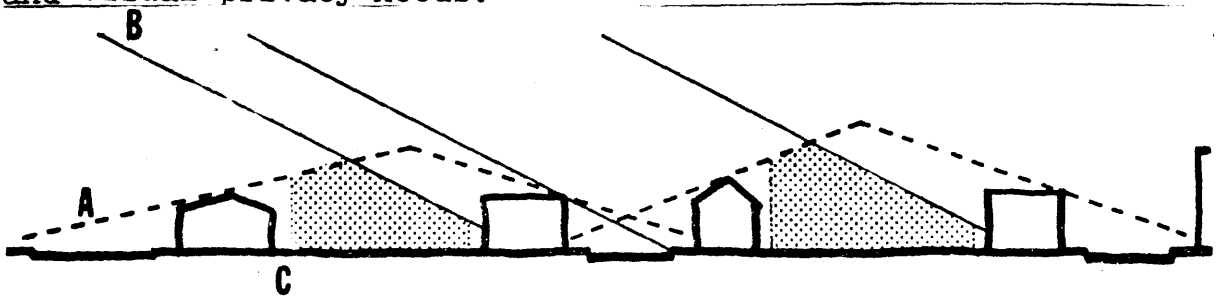


FIGURE VI-C Allowable Building Mass in Area III

A sight lines of pedestrian view over top of historic structures
B winter solstice sun angle at noon from south
C open space visual privacy buffer

Dimensional Requirements- The basic assumption used for design purposes in the Pei proposal alloted 1000 square feet per dwelling unit. This assumption will be followed, but variations on this standard size will be needed in order that the design be able to adjust to eccentricities. In order to understand the range of these variations, it is first necessary to examine the sizes of spaces needed in the unit and the arrangements of these spaces according to functional groupings. Dimensional ranges can then be assigned to these groupings and applied to a system of zones generated by the nature of built conditions likely to be encountered on the site. Possible functional spaces and their sizes are summarized below. The former dimension is that along the side of exterior exposure, the latter the depth of the room:

Space	Code Designation	Size
Living Room	L1	20x13
Living Room w/ Dining	L2	25x13
Kitchen	K1	12x10
Kitchen w/ Dining	K2	15x12
Master Bedroom	B1	15x12
Bedroom	B2	11x11
Den	D	11x11
bathroom	b	8x5
entry	e	5x5
storage	s	4x4
circulation	c	10x6*
Open Space	O	12x6**

*specific dimensions only apply if circulation is vertical, such as stairs

**minimum dimension

Spaces can be grouped according to function:

Interior Active: L1, L2, K1, K2 Exterior: O
Interior Passive: B1, B2, D
Interior Service: e, b, s, c

Some rules must be applied to space allocation within these functional groupings. In interior active areas, only one Living and one Kitchen function can occur. In addition, only one of these may have an attached Dining function. In interior passive areas, any combination of two different spaces may occur. The only exception to this is that two B2 spaces can exist.

Five different types of built conditions are likely to be encountered on the site. These, and dimensional qualities applied to them from the above examination, are detailed in Figure VI-D. Also shown is an indication of which Areas of Distinct Physical Characteristics each type can be used in.

Zone	Maximum Dimension	Minimum Dimension
a*	16'	12'
b	10'	6'
c	10'	6' or 0'
width	30'	20'

*at least half of zone a space must have minimum depth of 14'

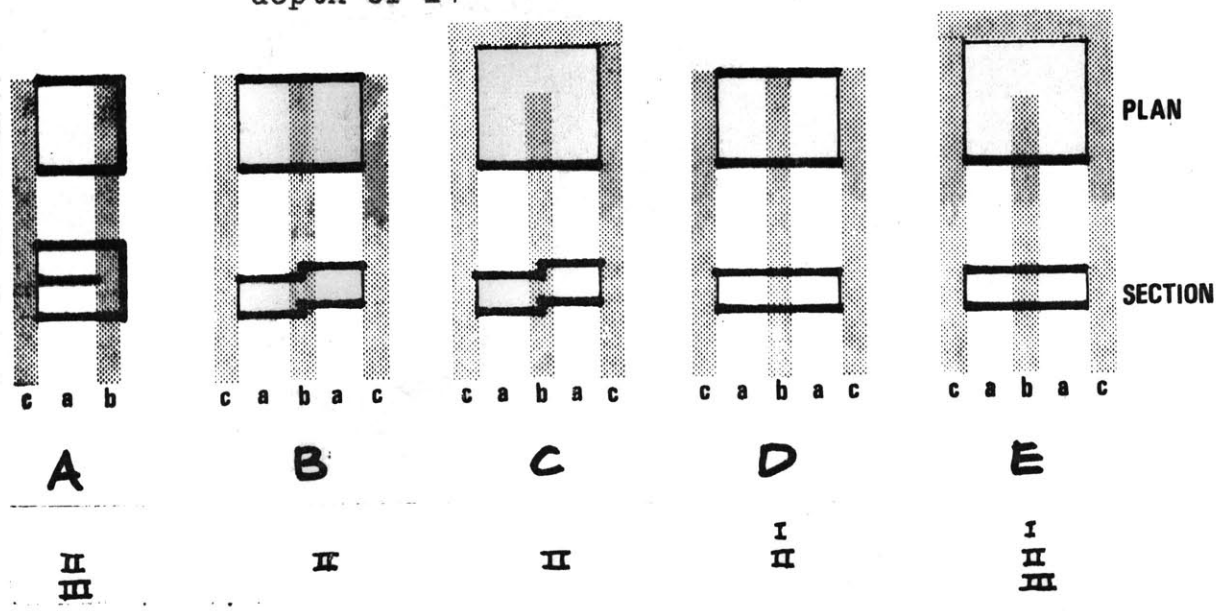


FIGURE VI-D Space Zoning in Likely Building Types

BUILT QUALITIES

High-Rise Visibility- The high-rise tower which will mark the location of Hiram Street along Memorial Parkway must be of such a height that it will not be visible from the pedestrian level of any street on which the historic image is important. Hiram Street will be an exception, because visibility of this tower and the Dutch Reformed Church are both desirable in order to establish the visual connection between the two landmarks. Neilson Street, Church Street, and Richmond Street, however, must not feel the presence of this built element.

Highway Facade Height- A height ceiling of 95' south of Hiram Street and 125' north of Hiram Street should be maintained along the highway, in order to continue the scale of construction which fronts this thoroughfare. Additionally, building mass just south of Hiram Street must be cut back in order to allow year-round sun penetration into the street.

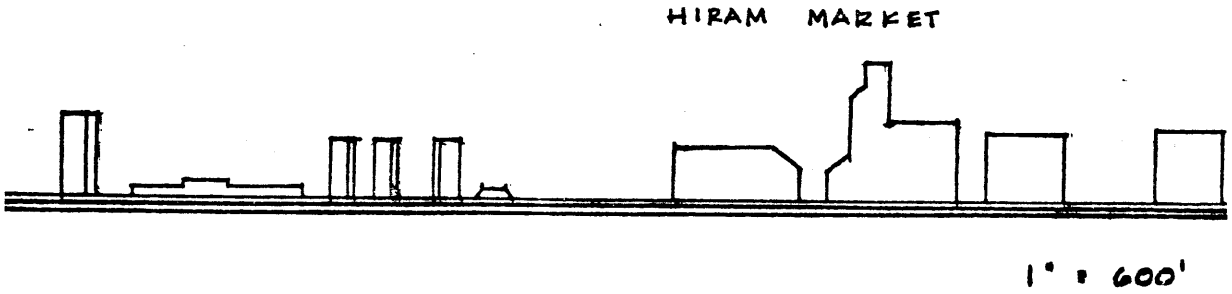


FIGURE VI-E Memorial Parkway Elevation from Commercial Avenue to Washington Street

Hiram Mall- Any enclosure or other built forms on Hiram Street should conform to the outlines for such specified in "Hiram Square" (see Appendix III).

Subsurface Construction- Due to difficulties encountered in excavation on sites with imbedded foundations from old structures, and also due to the high water table, excavation beyond four feet below the surface should be minimized.

VII. DESIGN SOLUTION

LEVEL D

HI-RISE RESIDENTIAL TOWER. VISIBLE EVEN FROM NEW JERSEY TURNPIKE, CALLS IMPORTANCE TO "HIRAM MARKET" AND DUTCH REFORMED CHURCH AS SYMBOLS OF NEW AND OLD NEW BRUNSWICK RESPECTIVELY (1). DUPLEXES STACKED WITHIN MEGASTRUCTURE (2).

LEVEL C

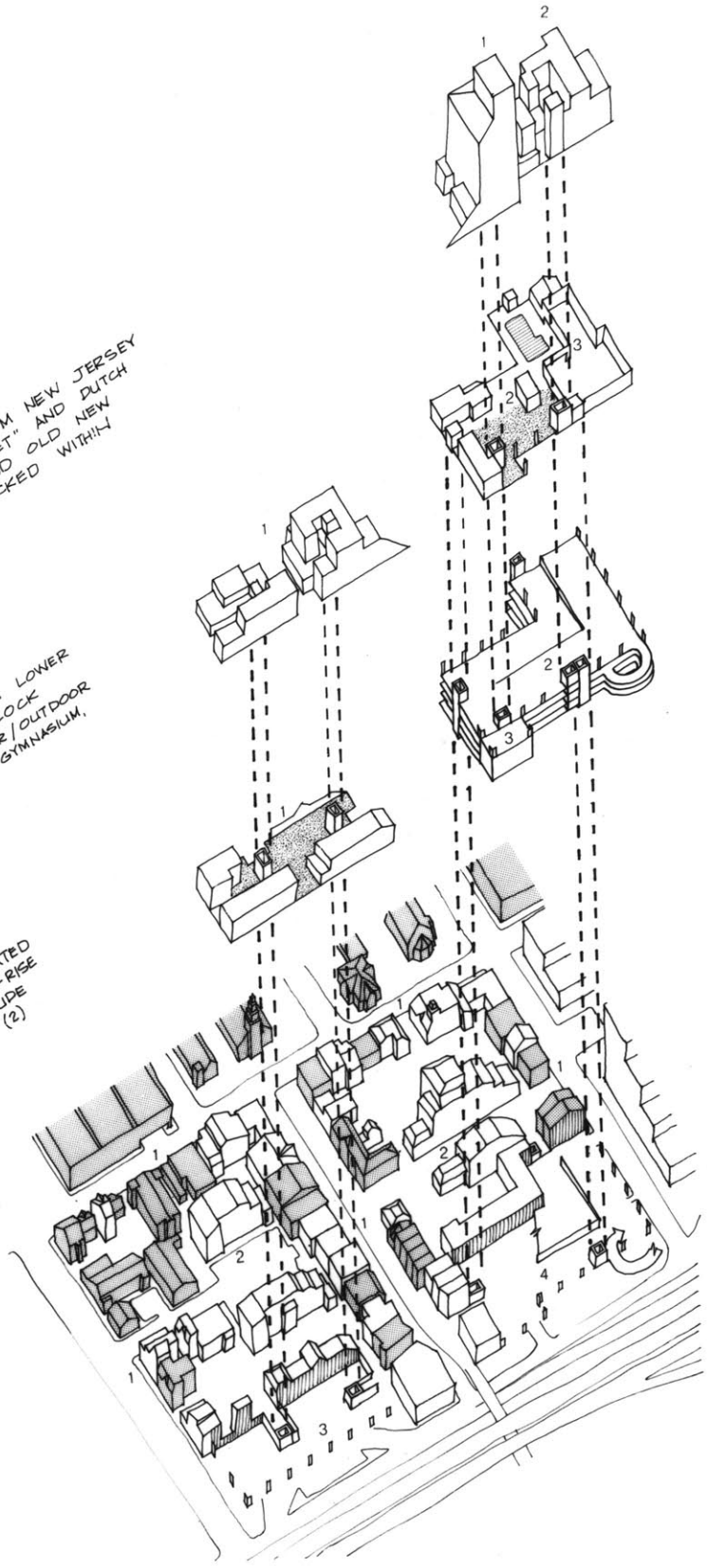
DUPLEXES STACKED WITHIN MEGASTRUCTURE ON LOWER BLOCK (1). "REFERENCE LEVEL" FOR UPPER BLOCK HI-RISE DWELLINGS (2). LARGE SCALE INDOOR/OUTDOOR RECREATIONAL FACILITIES, INCLUDING POOL AND GYMNASIUM, FOR USE BY ALL HIRAM MARKET RESIDENTS (3).

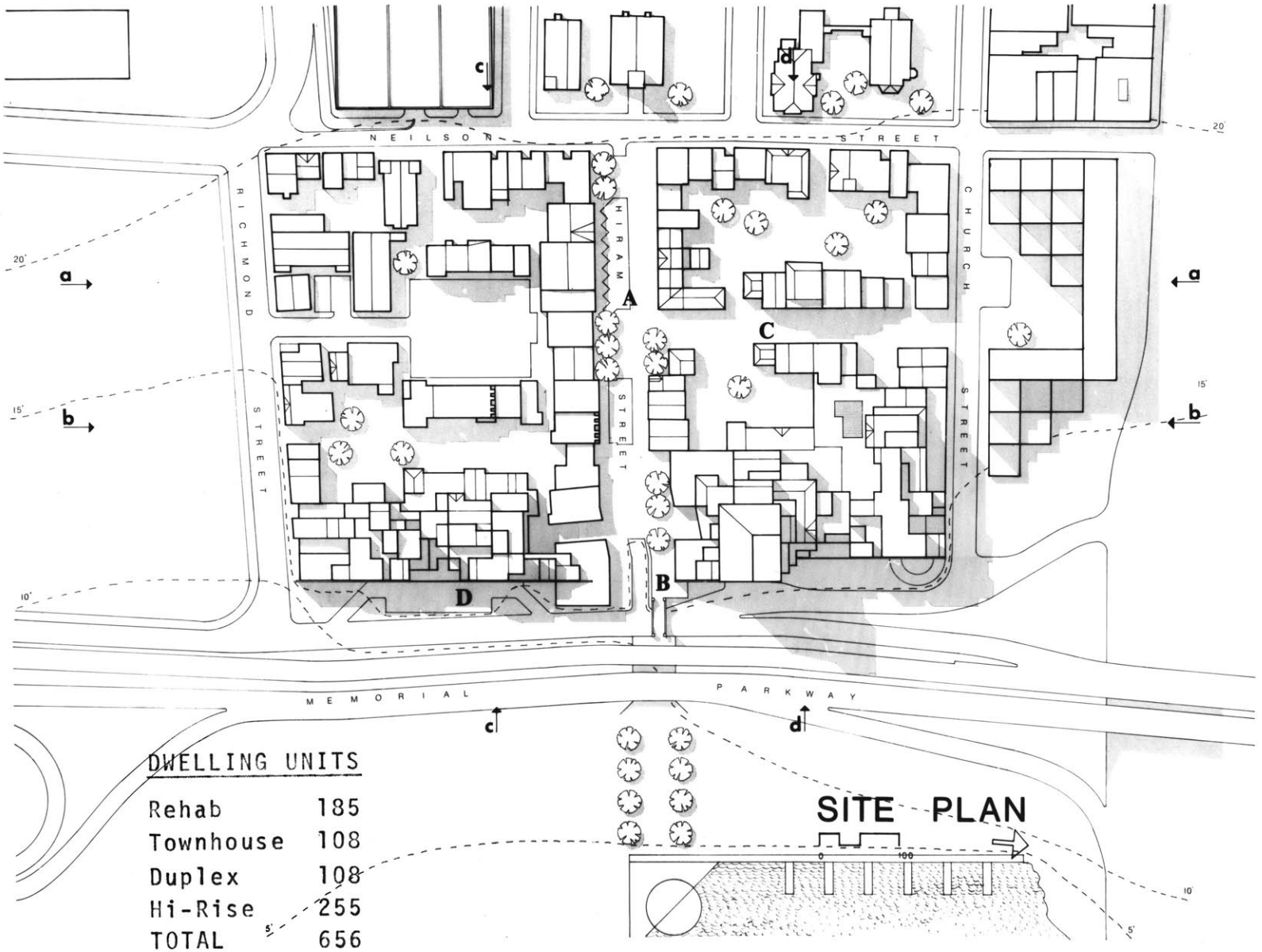
LEVEL B

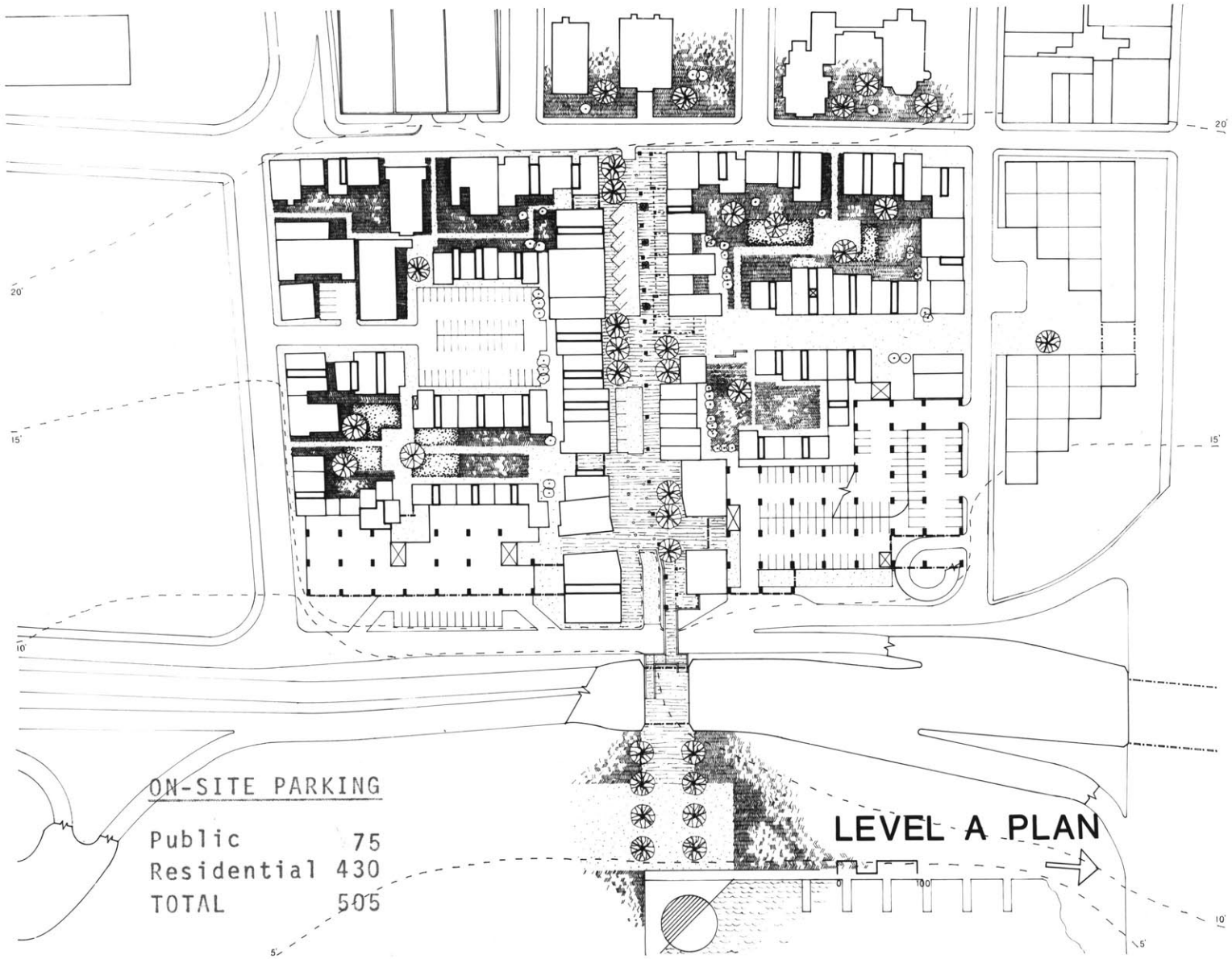
SMALL SCALE INDOOR RECREATIONAL AMENITIES LOCATED ON "REFERENCE LEVEL" SERVING LOWER BLOCK HI-RISE DWELLINGS (1). FEATURES ON UPPER BLOCK INCLUDE THREE-LEVEL PARKING GARAGE FOR RESIDENTS (2) AND MECHANICAL SPACE (3).

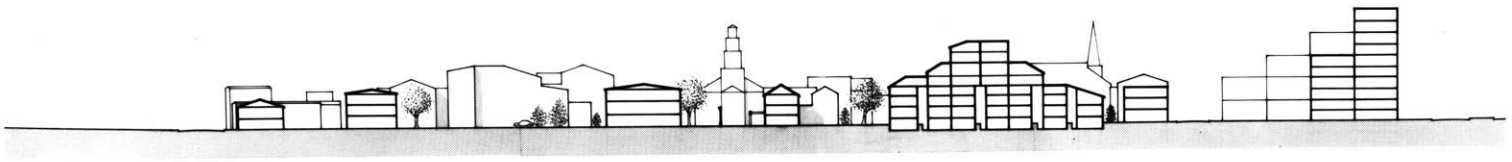
LEVEL A

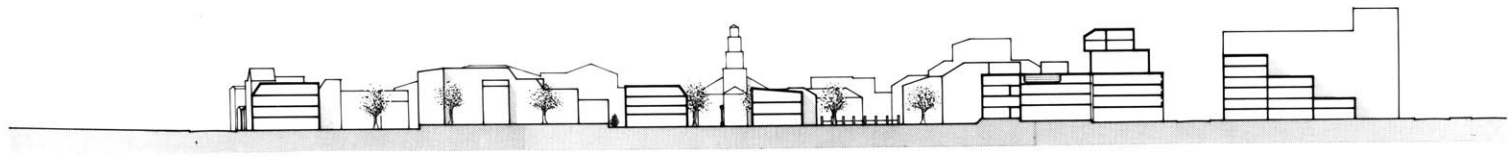
GROUND LEVEL INTEGRATION OF RESTORED (SHADED) BUILDINGS WITH NEW CONSTRUCTION, OF COMMERCIAL WITH COMMUNITY AND RESIDENTIAL USES AROUND PERIMETER STREETS OF DEVELOPMENT. RESIDENTIAL TOWNHOUSES ON UPPER FLOORS (1). MID-RISE STACKED DUPLEXES INSIDE THIS FRAME (2). AUTOMOTIVE-RELATED COMMERCIAL (3) AND PUBLIC PARKING (4) ALONG HIGHWAY.

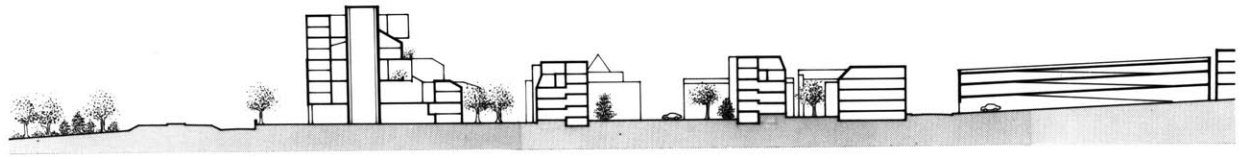


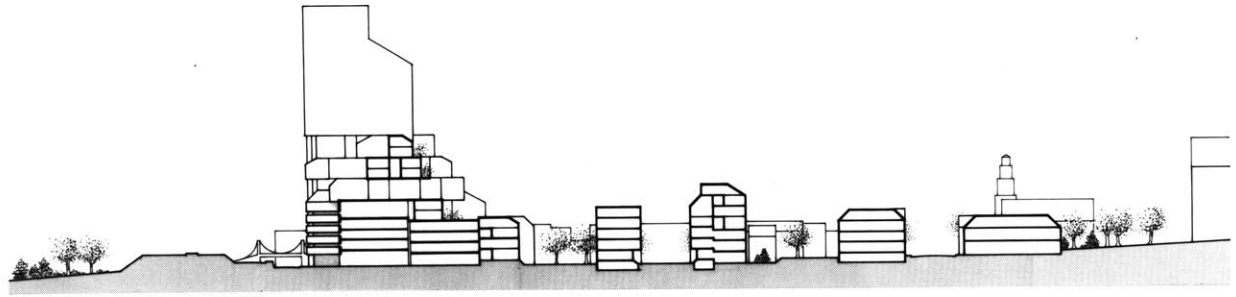

NEILSON STREET
RICHMOND STREET
HIRAM STREET
CHURCH STREET
MEMORIAL PARKWAY
A
B
C
D
a
b
c
d
20'
15'
10'
5'
DWELLING UNITS
Rehab 185
Townhouse 108
Duplex 108
Hi-Rise 255
TOTAL 656
SITE PLAN
0
100


ON-SITE PARKING
Public 75
Residential 430
TOTAL 505
LEVEL A PLAN
0
100
20'
15'
10'
5'



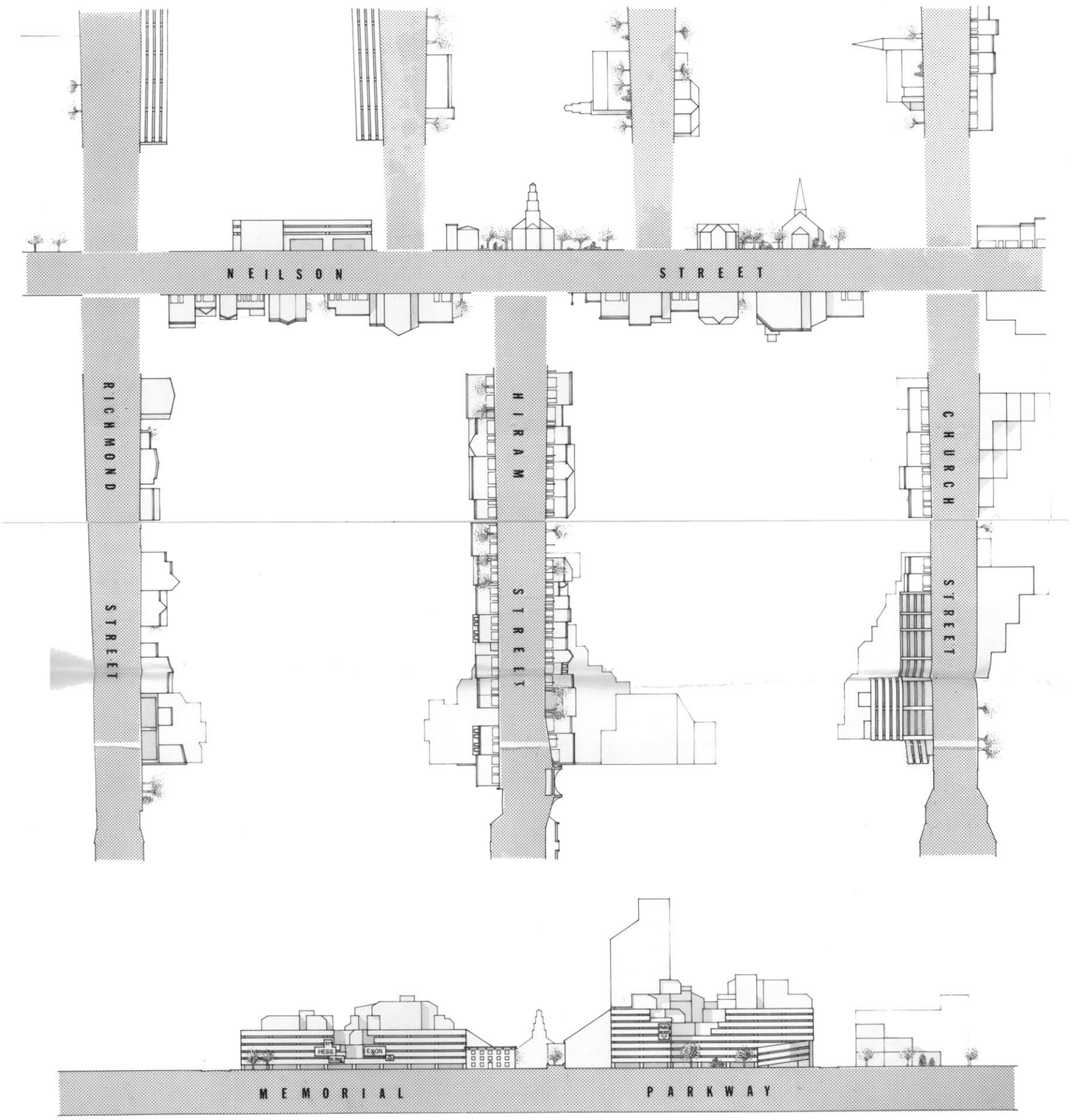






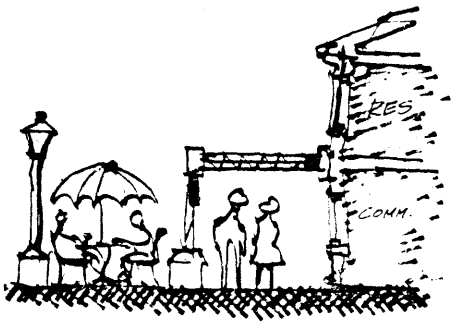
SECTIONS

0 100


NEILSON STREET
RICHMOND STREET
HIRAM STREET
CHURCH STREET
MEMORIAL PARKWAY
HESS
EXXON
ELEVATIONS
0
100

VIEW

SECTION



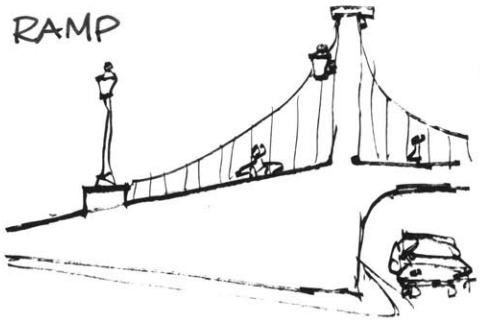
A.
hiram

POSSIBLE STOREFRONT

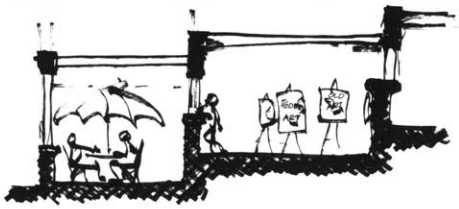
B.
bridge

VIEW TOWARD RIVER

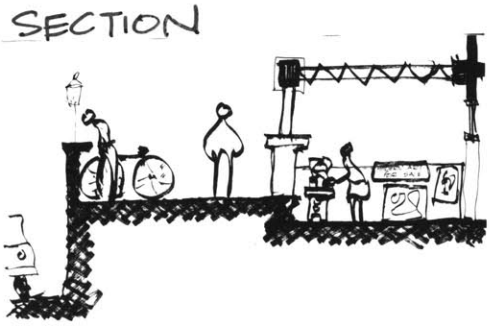
RAMP



STEPPED TERRACES



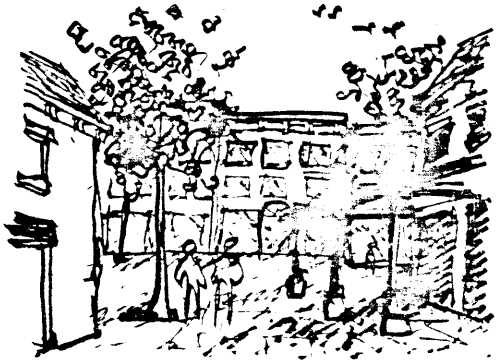
SECTION



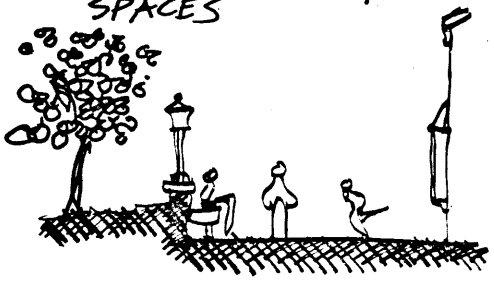
C.
dennis

VIEW TOWARD HIRAM

AT HIRAM CORNER

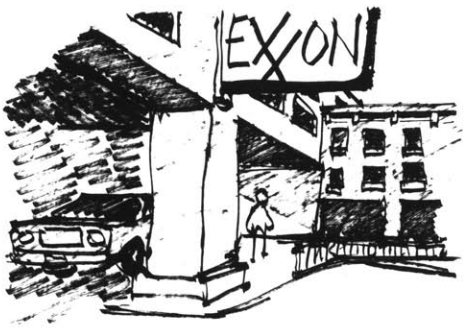


SEPARATE STREET/OPEN SPACES



D.
highway

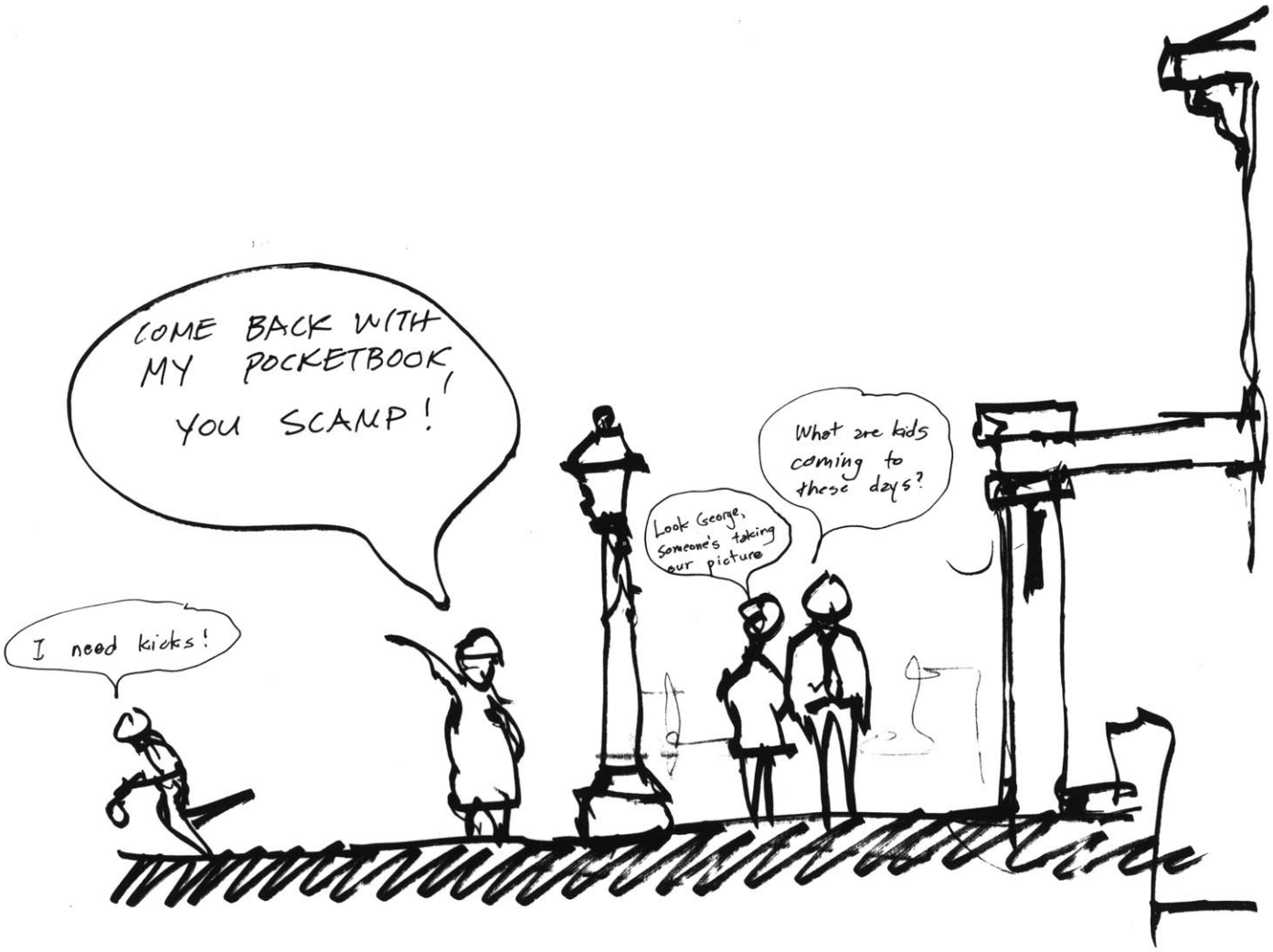
VIEW



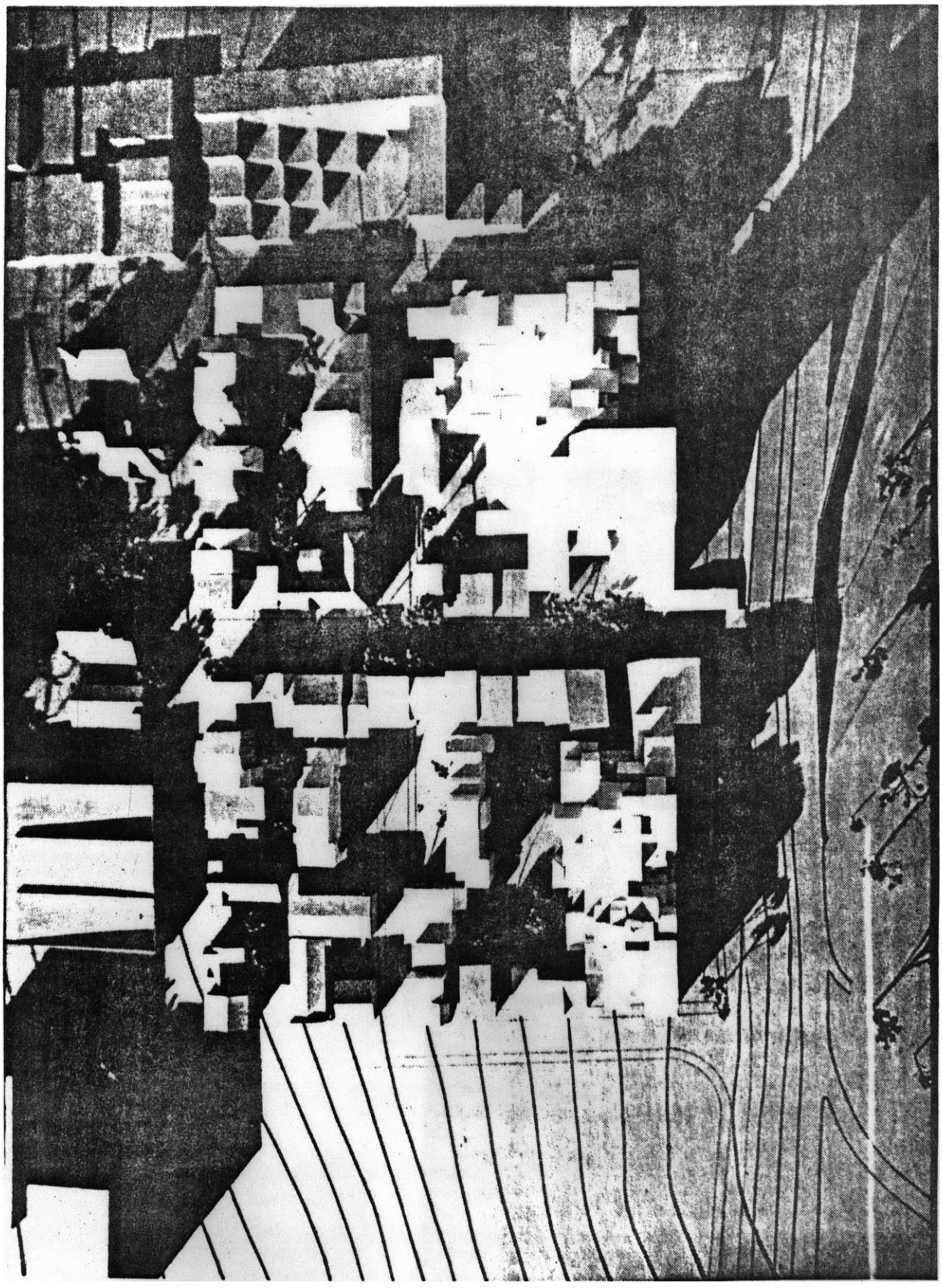
AREA II BREAKTHROUGH

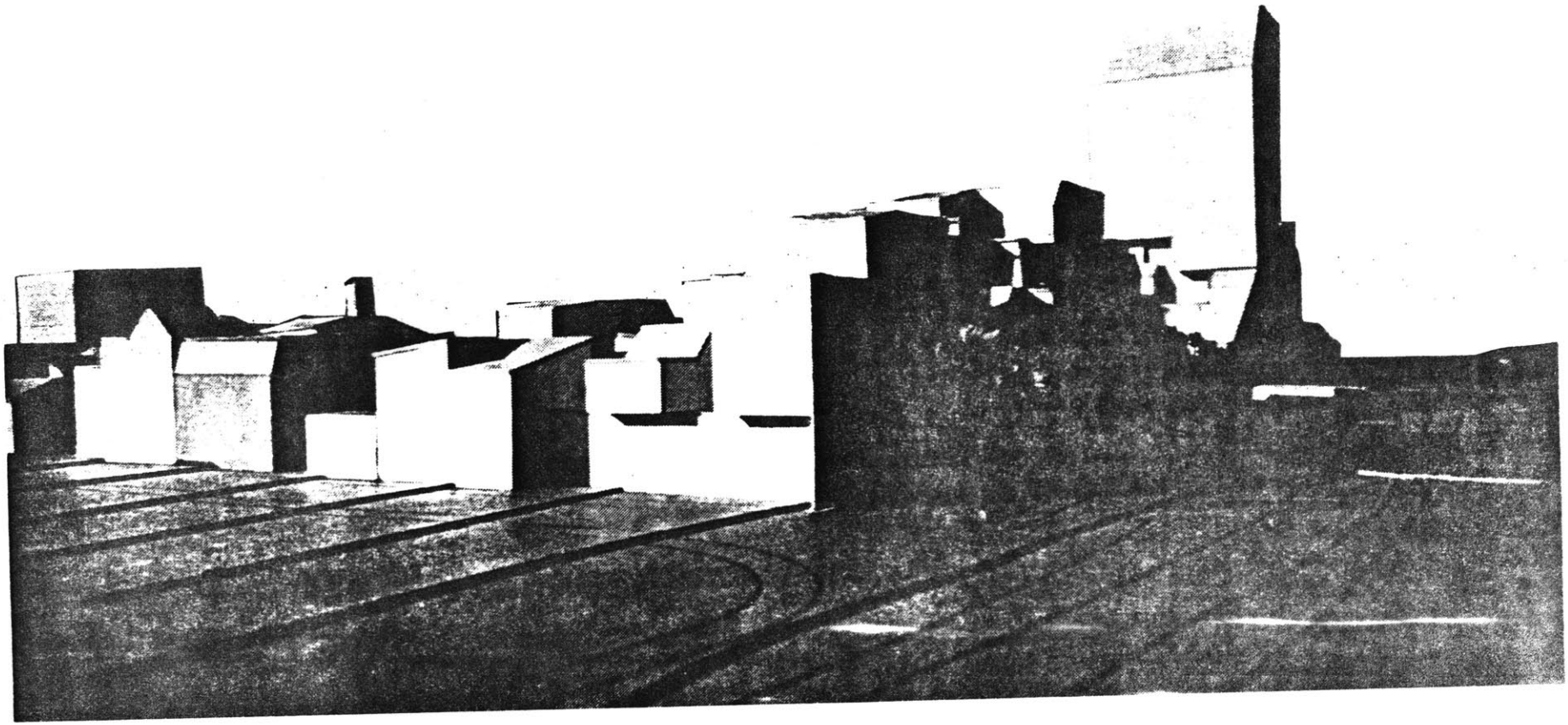

LIQUORS
WINES
Krausers
FOOD STORE
CLAIM TO FAME SHOPPE

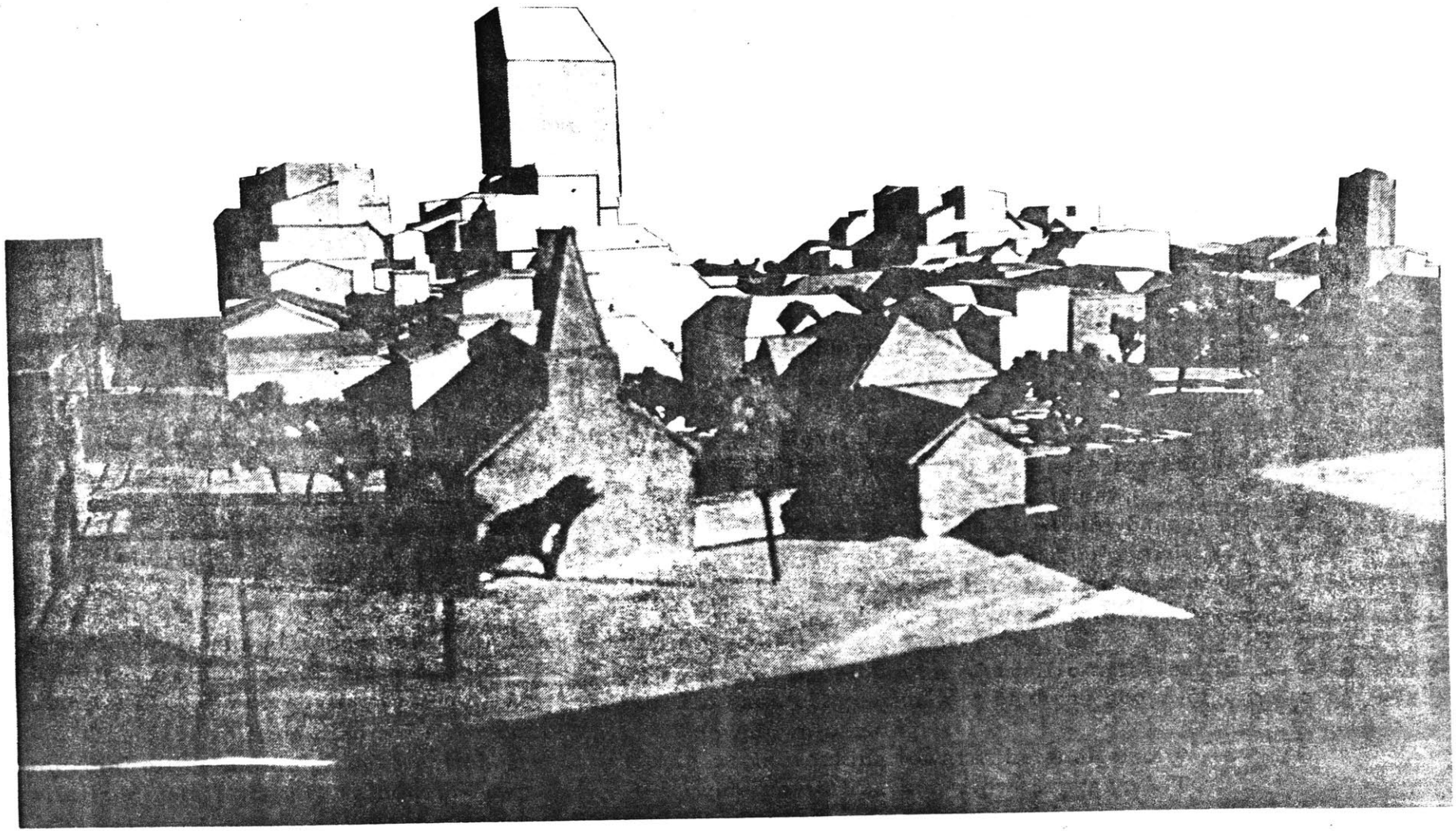

ANTIQUES



NEW HIRAM MARKET VIEW







APPENDIX I Summary of "Downtown New Brunswick, N.J." by I.M. Pei and Partners

INTRODUCTION

New Brunswick Tomorrow has established two priority objectives for the revitalization of the City -- economic development and neighborhood preservation.

To help guide the economic development phase of this effort, New Brunswick Tomorrow commissioned the internationally acclaimed architect and urban planner, I. M. Pei.

I. M. Pei

Mr. Pei and his associates have proposed a conceptual land-use blueprint for the revitalization of the New Brunswick downtown business district.

The comprehensive plan includes all the essential components required to seize what Mr. Pei has described as "major development opportunities in the New Brunswick downtown area for substantial growth and revitalization."

The $150 million plan calls for commercial office building construction, revitalized retail activity, a new in-town residential community, expanded governmental office space and cultural center, improved traffic circulation and parking facilities. Completion of the Route 18 extension is a critical element of the plan.

At completion, the bottom line for the entire community would be as many as 5,000 new jobs, as much as $25 million in additional retail sales in New Brunswick and substantial additional local tax dollars.

Highlights of the proposed downtown revitalization plan are:

* Construction of four new office buildings with a total of 525,000 square feet of space.

* Revitalization of the George Street and Railroad Plaza retail areas for both daytime and nighttime activities.

* Transformation of Albany Street (Route 27) into a tree-lined boulevard.

* Construction of new housing in the Hiram Market area of the downtown business district.

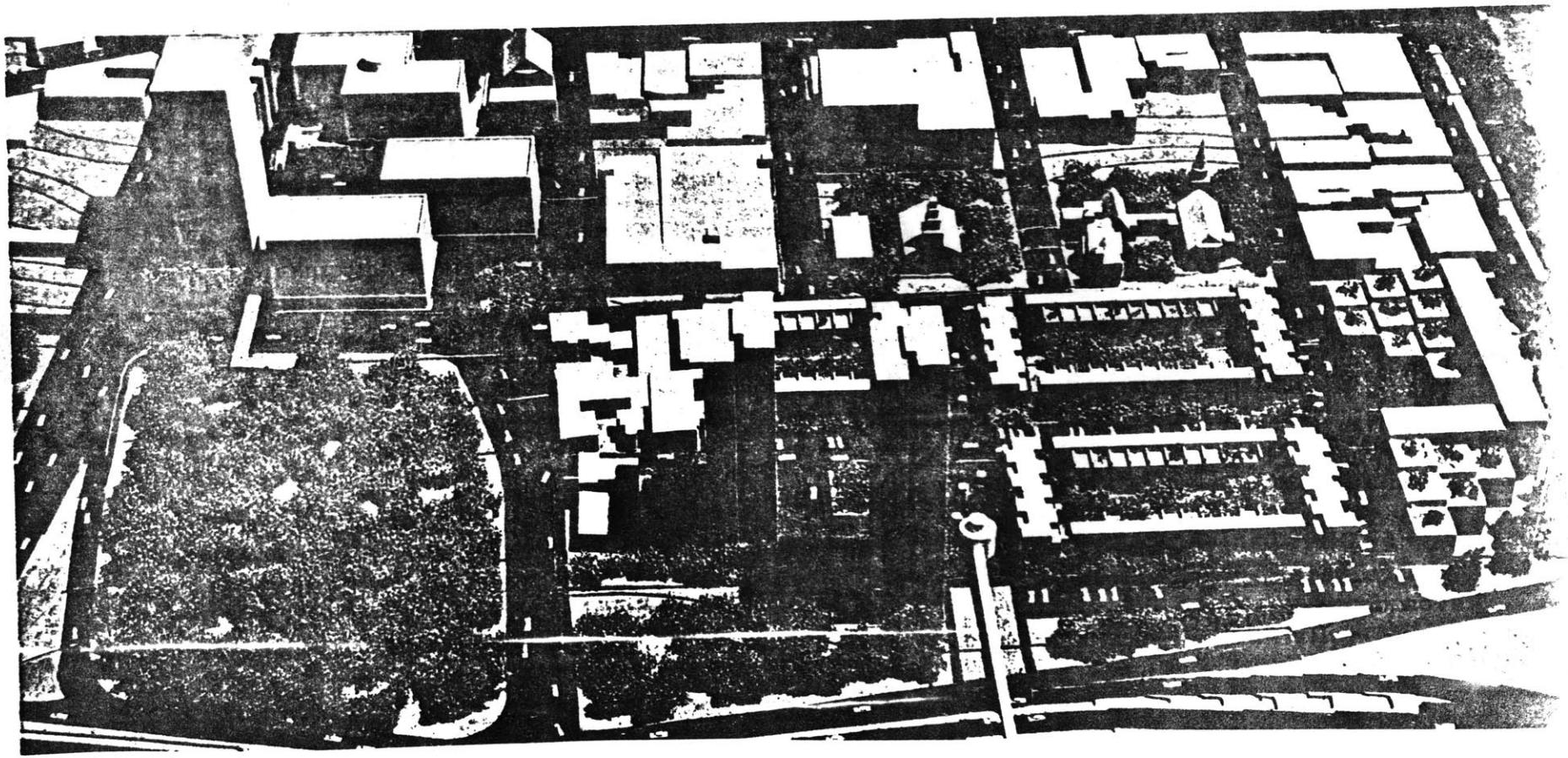
* Development of traffic arteries to ease congestion and of three nodes of downtown parking.

In working toward the goal of city-wide revitalization, New Brunswick To-

morrow also has established priority neighborhood action areas. This assures that, even as economic development advances in the downtown core, the momentum of progress involves plans and programs to improve and stabilize the physical and social qualities of life in residential sectors of the community.

THE DOWNTOWN PLAN

These are the major components of the framework for redevelopment action --- immediate, short-range and longer-range --- presented by I. M. Pei to New Brunswick Tomorrow.



COMMERCIAL PLAZA

The two-block, 8.5-acre development area in the southeast corner of the downtown core, cleared in the 1960s under urban renewal, is now a vacant and gaping hole in the urban fabric of downtown New Brunswick. However, the tract also represents an important immediate-action opportunity for redevelopment and is the most appropriate place to begin the process of downtown revitalization.

The first stage will be a five-story office building on George Street. The structure will close the "open wound" on George Street and will trigger other downtown redevelopment. It will be of unique design, with a landscaped plaza area and a glass-enclosed lobby to serve as a pedestrian pass-through to other components of the Plaza site.

The second stage calls for construction of three additional office buildings on the Commercial Plaza tract. Two would be "low" structures similar in scale to the first stage building. The third would be a multi-story building. The three second-stage buildings would provide total floor space of 400,000 square feet.

HIRAM MARKET DEVELOPMENT

A new residential community would be created in the 10-acre, four-block Hiram Street area where New Brunswick began. The community would include new low-rise construction spaced between buildings of architectural and historic significance that can be preserved. The area, bounded by Neilson, Church and Richmond Streets and Memorial Parkway (Route 18), would help maintain New Brunswick's strong tradition of in-town living.

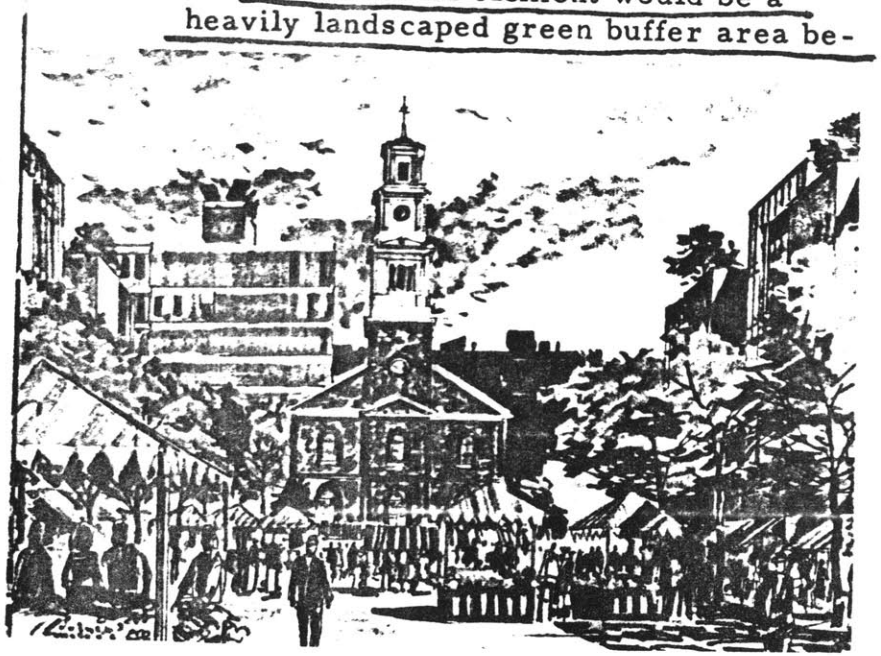
The proposed plan would strike a

balance between environmental concerns and economic feasibility, with two alternative approaches:

1) A "low" alternative to provide 375 units in clusters of town houses and row houses of five stories. There would be terraces, interior courtyards and landscaped plazas.

2) An alternative would be a maximum of 650 units by combining town houses with other unique architectural concepts around a town plaza, beneath which two parking levels would be built. Under this alternative, more land would be left as open space.

An essential element would be a heavily landscaped green buffer area between the new Hiram residential community and Route 18 for noise protection and privacy. To reunite downtown New Brunswick with the Raritan River, a pedestrian crossing of Route 18 would lead into a proposed riverfront park, which would include a public marina and amphitheater. New Brunswick Tomorrow is developing a strategy for expanding both the size and use of Boyd Park, which runs along the River.



Hiram Street, itself, would be a pedestrian place filled with shops, cafes, kiosks and trees.

GEORGE STREET AREA

New Brunswick is a city in transition as a retail center. Accordingly, plans call for downtown New Brunswick to consolidate and strengthen its role as a specialty retail and activity center.

The revitalized retail activity area would be concentrated on a 1,500-foot stretch between Albany and New Streets. To maintain an "intimate pedestrian environment," the existing low scale of buildings would be retained rather than large-scale office or retail construction. Specialty shops and pedestrian walkways would be encouraged.

George Street

The ultimate goal is to de-emphasize vehicular traffic on George Street, enhance bus transit and give more space to the pedestrian. This would include narrowing George Street and using the additional footage on each side for new trees, benches and fountains. However, the goal of utilizing George Street basically for pedestrians and shoppers is not possible until the Route 18 extension and other traffic improvements are completed to relieve traffic pressures.

TRAFFIC CIRCULATION

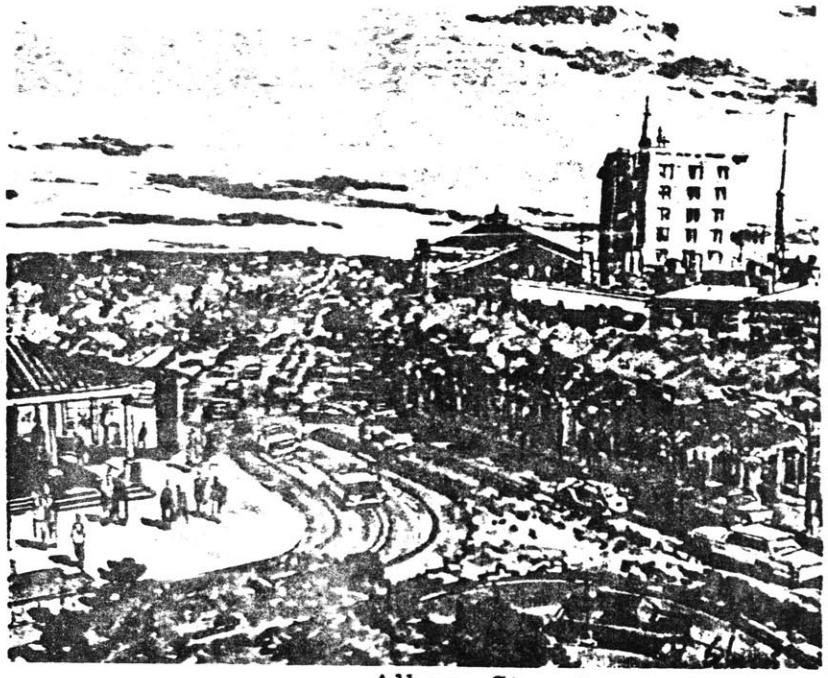
The New Brunswick street system has evolved as a strong pattern of radial spokes converging at a single point, the downtown core. The problem is that downtown streets can no longer absorb this traffic from all points. A new system is required to redistribute vehicles by intercepting radial streets leading downtown. Further analysis is required to determine the best solution to the problem.

Mr. Pei describes Route 18 as "vital to the future of New Brunswick" and a key element in creating a rational traffic pattern for the central business district. Steps proposed to make Route 18 serve downtown more effectively include appropriate entrance and exit ramps.

ALBANY STREET CORRIDOR

Albany Street (Route 27) is now congested, confusing and ineffective as a traffic arterial and physically is blighted. The transformation of Albany Street can set the stage immediately for a host of downtown revitalization projects and is a prerequisite for the regeneration of the entire northern half of the downtown core.

The plan would substantially widen



Albany Street

the right-of-way of Albany Street from the bridge to the railroad station, mainly on the north side. This would allow for widened sidewalks and a landscaped median that would be constructed to separate lanes of opposing traffic. Trees would be planted and landscaping done on both sides of the street.

RAILROAD PLAZA - HOTEL COMPLEX

The "greening" of Albany Street would enhance the Railroad Plaza area as one gateway to New Brunswick. The Railroad Station, described by Pei as a pleasant and attractive building, would be rehabilitated.

A new quality downtown hotel is recommended on the south side of Albany, between Neilson Street and Memorial Parkway, one of the gateways to downtown. Market projections indicate a 200-room hotel is feasible, with future expansion to 300 rooms. Conference facilities would be a feature of the hotel, which would be of unique design.

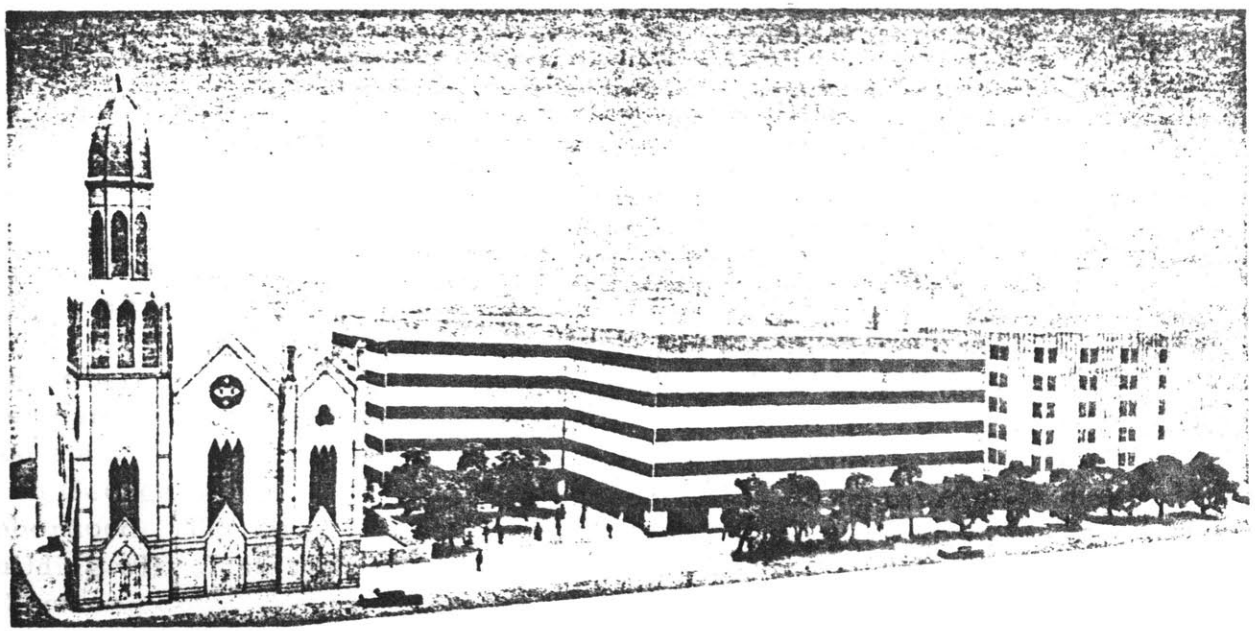
New park, retail and entertainment uses would be developed east of the Station along Albany and George Streets, including cultural-recreational facilities, restaurants and cafes.

Railroad Plaza

First Stage,

Commercial Plaza

Development



PARKING

Three major reservoirs or nodes of downtown parking are proposed to intercept traffic and provide long-term parking before cars get to the center of downtown. High-turnover, short-term parking would take place in smaller lots, garages and on-street spaces within the downtown core.

The first node would be the lower block of Commercial Plaza, where surface parking would meet the demand for several years. As commercial and residential growth takes place, structured parking would become feasible.

The second node would be in the northeast quadrant of the downtown core, directly accessible to the downtown traffic loop on Hamilton and Water Streets. It would serve office development in the area. The third node is a longer range possibility located on the western edge of the core.

NEIGHBORHOOD RELATIONSHIPS

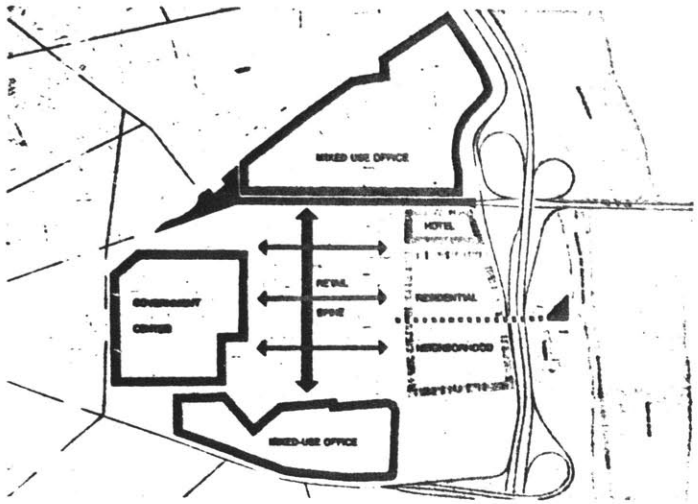
The downtown concept is concerned with adjacent neighborhoods on two levels -- the nature of major arterials leading into the downtown area and the interface of developments in the business district as they affect immediately adjoining residential communities.

Lower George Street between New Street and the Douglass campus is an emerging neighborhood spine. A greater bus transit emphasis on George Street will benefit this neighborhood. The first Commercial Plaza building will close the gap between neighborhood and downtown. The proposed U. A. W. housing development at New and George Streets, and the proposed adjacent community center will further create a strong and healthy link to the core area.

Livingston Avenue is the grandest boulevard of New Brunswick and a major gateway to the downtown. The gateway point itself offers several splendid sites for future office and mixed-use redevelopment. Livingston should retain its public and city-wide aspects as exemplified by its many churches, library and other institutions.

French Street (Route 27) is a major commercial thoroughfare. It is healthy and an economic asset to the city. As the downtown portions of Route 27 along Albany Street are redeveloped for new office and related uses, a portion of this highway-oriented commercial usage could be relocated to French Street.

Somerset is a dual-use street. It is a major arterial by virtue of its size and capacity. It is also the center of New Brunswick's Hungarian community with its concentration of restaurants, churches and organizations. With improved signalization and more efficient use of the roadway, the street can function well for both vehicular and community use.



Appendix I Source:

APPENDIX II Public Facilities Needs

Commercial Facilities:

Antiques, Arts and Crafts, Apparel
Bar, Barber, Bakery, Beauty Salon
Convenience Store
Delicatessen, Drugs
Fast food
Gifts
Hardware, Hair Styling
Laundry, Liquors
Nightclubs
Records, Restaurant
Stereo Equipment, Sportswear
Tobaccos

Total: 40,100 square feet

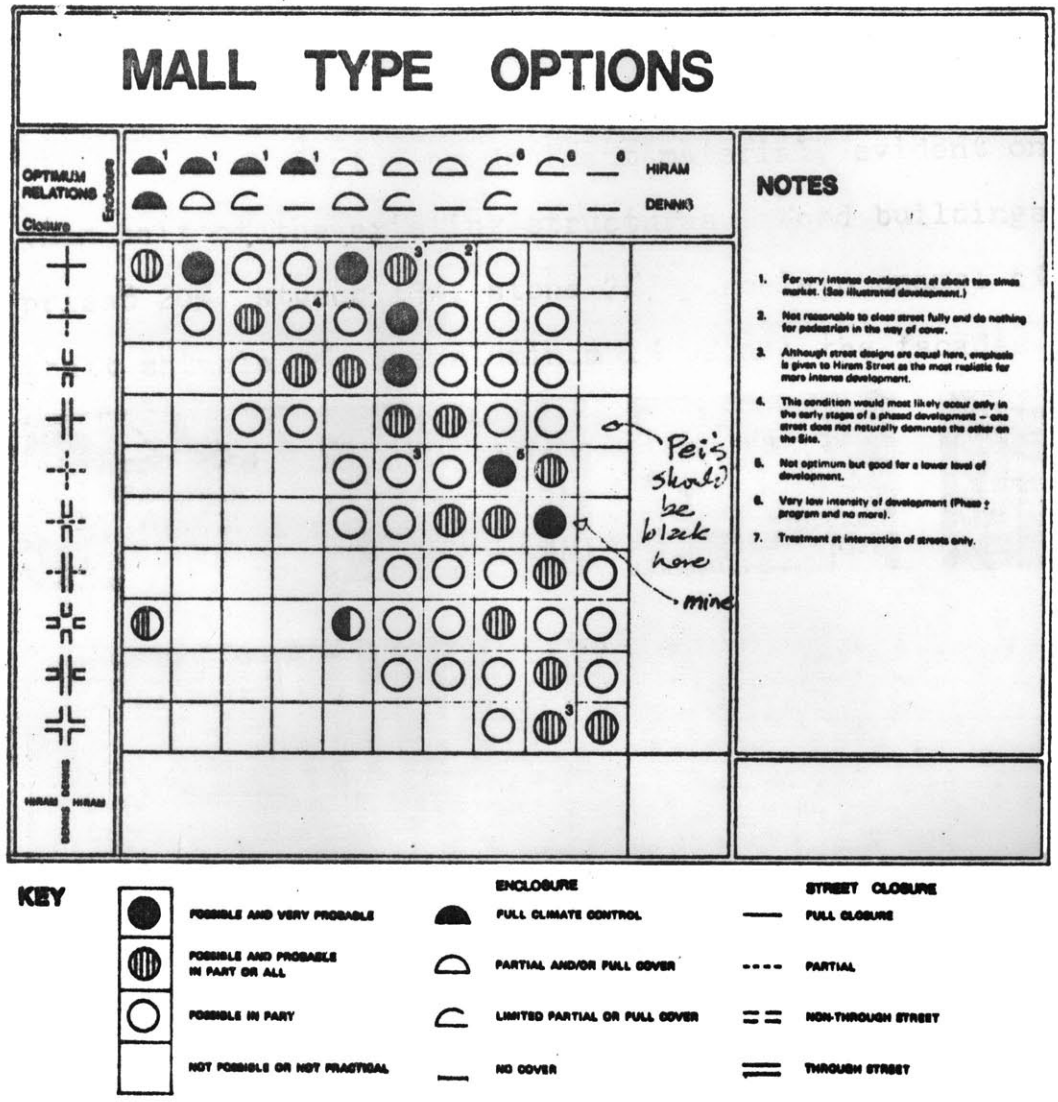
Community Facilities:

bus depot, crafts workshops, day care, elderly center, games, library branch, museum, nursery school, post office, social club

Recreational Facilities:

games, gymnasium, handball, health club, squash, swimming, weights.

APPENDIX III Hiram Street Mall Enclosure Options



Appendix III Source: Wallace, McHarg, Roberts, and Todd Associates, "Hiram Square" p. 41

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