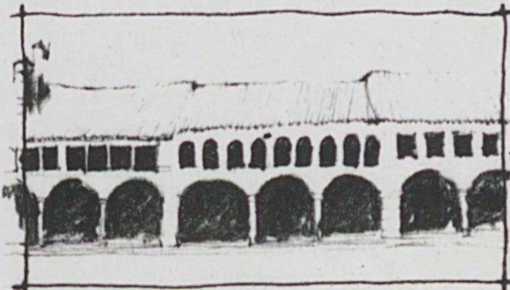


Context

A POINT OF DEPARTURE



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Robin Kendrick

Date

JULY 2, 1981

In dedication to my Mother

In memory of my Father

Friendship is the inexpressible comfort
of feeling safe with a person, having
neither to weigh thought nor measure
words.

George Eliot

Context

A POINT OF DEPARTURE

Context

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TOBIN KENDRICK

A professional paper submitted in partial fulfillment of the requirements for the degree of

BACHELOR OF ARCHITECTURE

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Contents

Acknowledgement	3
Preface	4
Davis	5
Theory	8
Form & Space Analysis	11
Form	12
Space	28
Site History	33
Program Development	35
Program	36
Codes	43
Site Analysis	44
Footnotes	52

Acknowledgement

Pulling together ones own abstract thoughts into a concrete form, such as a thesis paper, is always a difficult undertaking. I would like to thank some of the people that made this task easier for me. To David Matthews and Sixto Moreira for their guidance and advice. To Erica Crosby and Nancy Crosby for their very useful research about Davis. To Nancy, my sister, for the wonderful photographs she took for me. To Robert Traverso, assistant city manager, Davis, for his patient answers to my questions. And to my mother for her watchful eye on the local newspapers, her encouragement, and her love.

Preface

This paper deals with something that has been a question in my mind for the last few years. I have always believed an architect has an obligation to society to make his designs both sympathetic additions to the cities they are built in and individual expressions of his ideals and the ideals of the times he has built in. Yet it seems that these two responsibilities are in conflict with each other. When an architect has a strongly expressive design built it is often in conflict with the urban environment that surrounds it. On the other hand when he carefully designs a project in sympathy with its urban surrounding it often loses much of the expressiveness that is so much a part of a city's richness. To propose a solution to this conflict is the intention of this paper.

Davis, California is a very good example of a city that has been designed around an emphasis on sympathetic consistency. It's quiet, low-key, generally inexpressive character shows it. That is why I have chosen it for this study of expressiveness within the limitations of sympathetic design. It is also the city where I grew up and so I have an intimate knowledge of its character as well as a personal interest in how it continues to develop.

Because the theory and the following analysis are so closely related to the environment of Davis the text had to be organized in a slightly unusual manner. First, Davis will be introduced to set the background to which the theory is applied. Then, the theory will be introduced which will lead directly into the analysis that demonstrates the theory and applies it to Davis.

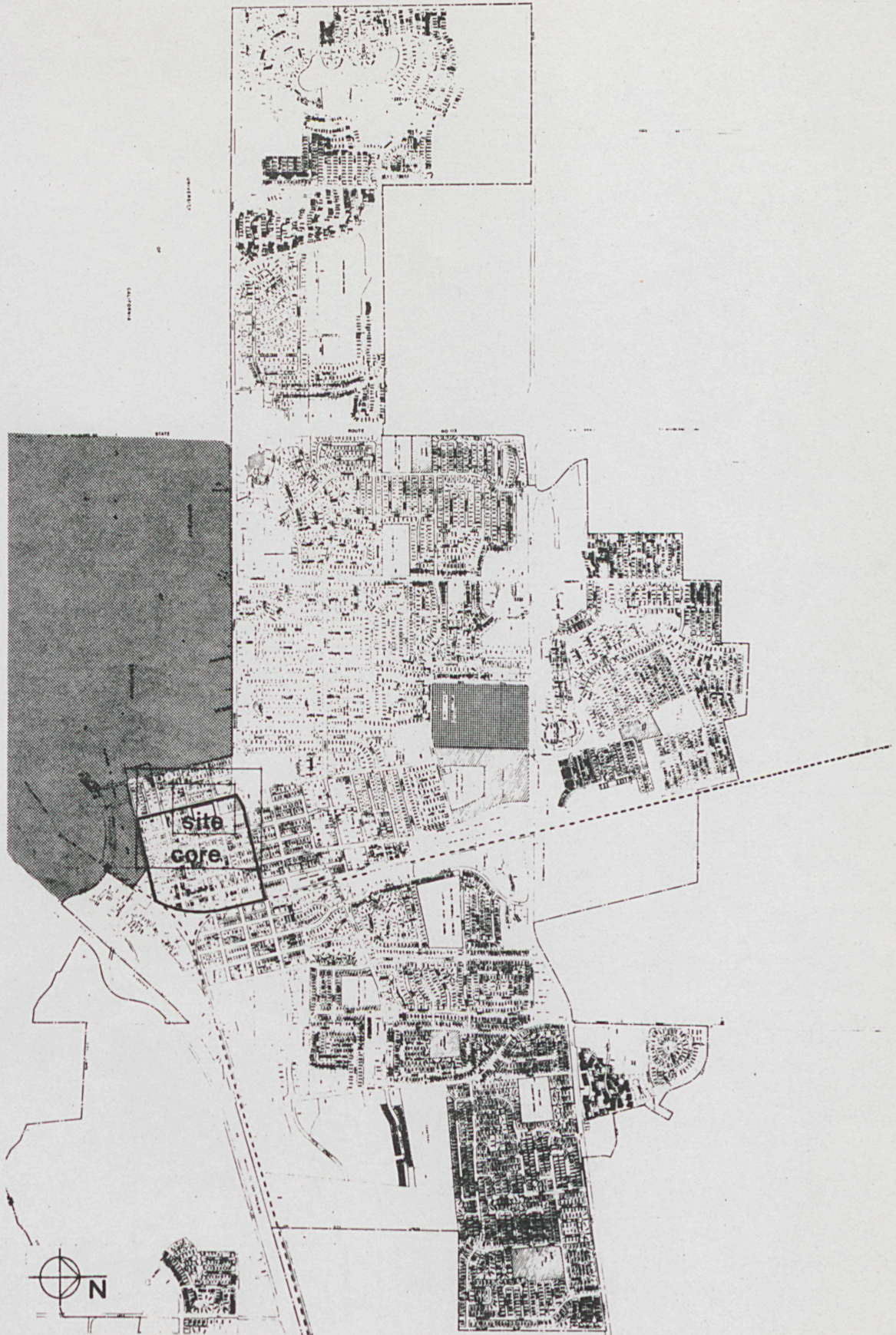
Davis

The site of the project being studied is in the city of Davis located in northern California about 70 miles northeast of San Francisco. It is a city of about 42,000 people sited in the open and flat Sacramento Valley. It was originally established in 1868 because of the railroad junction, but began to prosper when the University State Farm, now University of California, was located there in 1906. The University is Davis' main industry; the only other employers being light industry and commercial establishments mostly geared for the employees and students of the University.

Davis calls itself the "City of Bikes" and for a very good reason; there are nearly as many bicycles as people. Riding bikes is encouraged by the areas flat topography and the city government's development of an excellent bike path system. Public transportation is also very good because there is both a student run local bus system and a Sacramento based inter-city bus system. Along with the Amtrak Train Station there and Interstate Highway 80 on the edge of town, Davis is an easy place for someone without a car to live.

Davis has a very suburban character to it. The only buildings in the vicinity over three stories are on the central University campus and they are in a park like non-urban setting. Industrial development is mostly limited to small, light industry with the Hunt-Wesson Cannery on the north edge of town having the only major visual impact. Retail development has been carefully controlled to avoid any problems similar to strip developments of other cities. Finally, through the use of a design review board and codes and ordinances any major deviation from the suburban character, like brightly colored buildings, flamboyant signs, or "inappropriate uses", have been prevented.

The most unique feature of Davis is its compactness. Except for a few early developments the town does not extend beyond its tight city limits. This is because the county Davis is a part of has its development strictly controlled on the basis of soil suitability. Since most of the land surrounding Davis is good farming soil the city can only expand when land is annexed to it. This does not happen very often since the county commissioner, who must approve the annexation, stated that Davis must use up its vacant property before annexation can be allowed. So Davis stays compact while productive agricultural land lays right up against its boundaries.¹



Theory

"From the beginning of time man has recognized that to create a place means to express the essence of being. The man-made environment where he lives is not a mere practical tool or the result of arbitrary happenings, it has structure and embodies meaning. These meanings and structures are reflections of man's understanding of the natural environment and his existential situation in general. (The dimension of the man-made environment was intuited in the past, but is today reduced to the more superficial concept of 'function'.) A study of man-made place therefore ought to have a natural basis: it should take the relationship to the natural environment as a point of departure."

Christian Norberg-Schultz
Genius Loci pg. 50

The goal of this paper and the succeeding design solution is to study how the "meaning embodied" in place can be understood and applied to a new form for that place. Through this understanding new structures or built forms may reinforce the meaning of a place and be harmonious to that place. By acquiring meanings and being harmonious, new built form may become positive additions to a place.

This may be accomplished in many ways including the study of the political, economic, social, and visual aspects of the context. Only the visual context will be studied here because my greatest ability and education is in the visual and because the real project to be used for the design problem is already very much a product of its political, economic, and social context.

To start with, what is a visual context? In an urban setting, which is what is being studied, it will be defined here as the forms and spaces that make up the environment relevant to a site.

From this definition a simplistic attitude toward responding to context can be taken. By just duplicating the shapes, colors, textures, and so on of a visual context a structure can be made to blend into a setting. Yet if this attitude was consistently taken how would there be any context worth duplicating? By mere duplication the richness and variety of the great cities of the world would not have come into existence. Certainly many older cities have a consistent and unified appearance to them that would imply duplication. But their "coherent environment" has developed more out of the inhabitants preoccupation with buildings, streets, squares, statuary, and other concrete aspects of the city. Moreover the limitations in construction technology and building materials has confined the builders ability to express themselves. Also, in past eras there was not the present pace of building created by modern technology, only a slow pace that allowed forms and spaces to adjust to the forces present in a place. That is why the builders of the past could, without duplication, express themselves and their times in a harmonious way.

Finally, by duplication one places considerable importance on forms that are both transient to the context and of little relevance to the present. Although the forms of an existing context are a record of the past, and may be an important record worth preserving, they are creations of different times and of different circumstances than those of the present. So to build a structure that mirrors what it may outlast could lead to an awkward situation, in which a building would exist expressing ideals and concepts of a different society than that which built it. Lost would be any record of its builders own thoughts, interests, and ideals. A more sensitive and responsive solution would allow the expression of the builder and his times to come through, while being harmonious to the context as it exists and as it is likely to exist in the future.

The forms and spaces of the existing environment relevant to a site should be taken as indications of an underlying order that can be used as a framework to be worked within. Although it is not true of every urban setting, the context being studied here is generally indicative of contexts sensitive to the unchanging nature of a site. Society is always changing but man's basic needs and sensitivities to light, color, texture, scale, orientation, shape, and characteristics of space have not. When he builds he expresses a consistent reaction to the basic nature of the site through the substantive manifestations of these sensitivities (i.e., a brightly lit room, a blue wall, an open space, et cetera). Yet the final cumulative forms and spaces are not consistent because they are effected by the forces of politics, economics, society, and technology of the times they are built in. So to see beyond the influences of the times and to begin to understand the intransigent, underlying order of a site one must look intently at how man's sensitivities have been made real. By doing this, by breaking down a context into its basic elements of form (light, color, et cetera) and characteristic of space a contextual framework can be revealed. From this framework either new forms and spaces can be tested for their appropriateness or designs can be given a point of departure leading to a contextually harmonious solution.

Analysis Form & Space

The analysis of form and space is made up of many separate analyses that are not meant to be considered separately but as a systematic study of the whole. First, form is broken down into its relevant elements, many of which are again broken down into their characteristics. Second, space is broken down into the various characteristics it has relevant to the context. In both sections the element or characteristic being studied is first defined in a general sense then discussed in relation to the Davis' context. Each written study is also accompanied by visual studies of classic examples and examples in Davis.

Form

light

"Architecture is the masterly, correct, and magnificent play of masses brought together in light."³ Louis Kahn might have corrected LeCorbusier by saying, "not 'brought together in light,' but 'brought together in natural light.'" Natural light, Kahn believed, is the "giver of presence...the measure of things already made"⁴ and so is the most important element of form in the uniqueness of a place. That is why, while each element of form contributes to a place's uniqueness, each is also influenced by the presence of light a place has.

The presence of light a place has is, made up of both light's features of color, intensity, and shadow and its quality of change. All of these things relate to the latitude of location a place has as well as the place's particular natural characteristics like climate, vegetation, geology, topography and so on. They also relate to man's use of built and manipulated forms in reaction to these natural characteristics. This reaction, in particular, is what makes up the presence of light in an urban environment.

But natural light's features of color and intensity and its quality of change are insignificantly altered in an urban context compared to shadow. Indeed, the shadows that exist within a city are very much the creation of the built forms or manipulate natural forms of man. Since this study deals with an urban context for the purpose of adding more built and manipulated forms to that context, shadow is what will be studied here.

The contrast of light and shadow on built forms can be broken down into many characteristics. The ones that follow are specifically important to the context of the site: dark entry; rhythm in shadow; light, to dark, to light; recessed, darkened surfaces; and isolating shadow.

significant shadow



1

The presence of a significant shadow on a well lit surface makes that shadow the visual focal point for that surface. This type of focus is often used, incidentally or not, as the entrance to a building. (illus. #1) But for whatever reason that it exist, the dark entry is visually useful by adding the positive quality of mystery to the act of approaching a building. Also, when one arrives at the entrance it is both a spatial transition from outside to inside and a giver of a sense of intimacy and visual protection.



2

In Davis' core area the dark entry is usually used for the more private entrances of the residences (illus. #2) and less public side entrances, like the side entrance to the Presbyterian church northeast of the site. On the other hand, the public entrances like the front entrance to the church and the fraternity house east of the site are either mostly washed with light or have shallow shadows.

rhythm in shadow



3

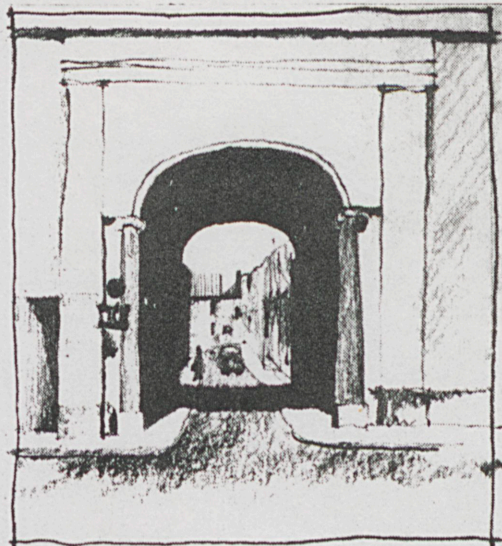
The characteristic of rhythm in shadow often occurs with a repetition of windows or recessed surfaces. (illus. #3). Rhythm is a way repetition can be brought into an aesthetic order since it is the regular or harmonious reoccurrence of similar form.⁵ While repetition is just the reoccurrence of similar form without any order between them.⁶



4

In the immediate area of the site the only rhythm in shadow that occurs is the rhythm of an illuminated house, to shadowy sideyard, to an illuminated house, etc. (illus. #4).

light, to dark, to light



5

Light, to dark, to light is not a rhythm nor is it repetitive, rather, it is a short sequence of three spaces. (illus #5). It includes the spatial qualities, to be discussed later, of "here/there" and "open/enclosed" defined by light. The shadowy space between two brighter lit spaces becomes a strong gateway from one space to another; giving definition to a person's movement through a specific context.



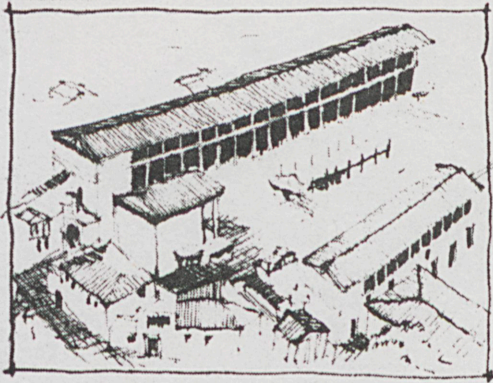
6

Light, to dark, to light is present in the immediate area's shadowy sideyards where a person moves from the public, street space to the private, backyard space. In the core commercial area this occurs again where there is "through block access,"⁷ the shadowy alleys being similar to the residential sideyards. (illus. #6). But the light, to dark, to light sequence occurs most effectively on the campus. (illus. #7).



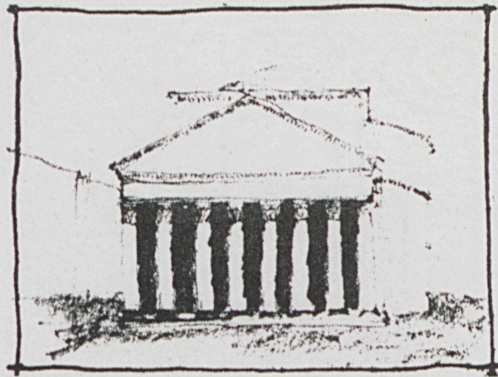
7

darkened surface



8

A darkened surface exists within the context of lighted surfaces and is not meant to imply dark northern exposures. The surface is recessed into darkness either by being pushed back into the building (illus. #8) or shaded by an overhanging element. (illus. #9). It expresses a place that is separated and protected from the surroundings.



9



10

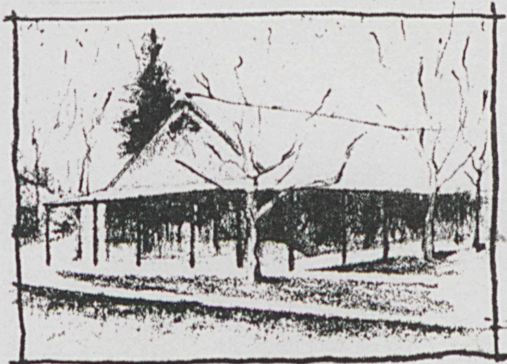
A darkened surface in Davis' core area usually means a dry place in the winter and a cool place in the summer. It exists near the site in the form of porches and in the core commercial area as awnings and awning like structures. (illus #10).

isolating shadow:



11

A continuous horizontal shadow can effectively float an element and thus emphasize it, such as the roof of a building, (illus. #11). A vertical strip of shadow can do something similar by isolating one section of a building from another and thus fragmenting it and breaking down its perceived size.



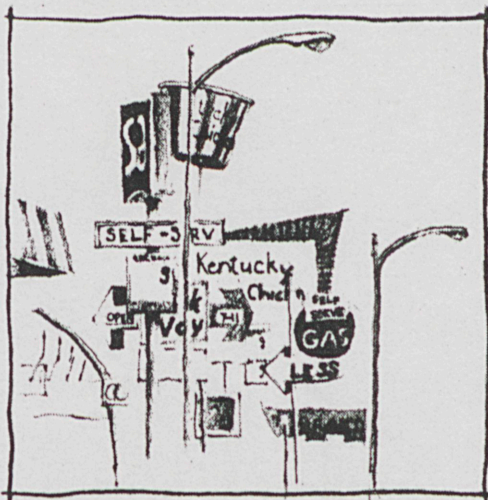
12

Because of the intense summer sun of the Sacramento valley most of the environmentally responsive buildings use overhangs which shade the building's windows and create fragments of horizontal shadows. (illus. #12). In the immediate area of the site vertical strips of shadow exist mostly in the gaps between the buildings.

color

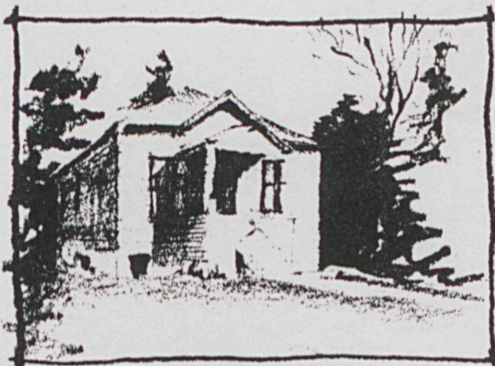
To begin to understand how colors can be dealt with in a way that is sensitive to the context it must be broken down into easily perceived characteristics. These characteristics are colors emotional content, tonal quality and ordering. A harmonious contextual use of color can then be accomplished by studying each of them separately, then bringing them back together for application to a design.

emotion



13

Emotions relation to color has been known for centuries. Red being related to high emotions, green to passive feeling, and so on with each being modified by tone and contrast. These emotion/color relationships are expressed in a context by colors either being used in reaction to the emotions present or to initiate particular emotions for the enhancement of a place's qualities. For example, the colors of suburbia are usually passive greens and browns or subdued shades of other colors appropriate for the passive existence of that style of life. Commercial areas are often expressed in bright emotional or high contrast colors to initiate excitement that will sell more products. (illus. #13).



14

The emotional character of the immediate area is very much like the suburban example used above. The colors are mostly limited to greens, browns, white, and shades of gray. (illus. #14). The plant life reinforces these colors with deep greens during the summer and grays, browns, and greens during the winter. All of these colors are in sympathy with the passive nature of the residential and moderate commercial activity there. Yet this does not mean brighter colors should be completely avoided, just that they should be used in a rational way to express commercial activities.

tone.

Tone is the quality of brightness a color has when it is combined with light and shadow.⁸ In studying a context the endless variety of colors, shadows and light intensities makes up the ambient tone. But it must be realized that it is only a tone of a moment since it will change with the different shadows and light of the seasons and the time of day.

Davis tends to have a darker earth tone because of its shadowy architecture, the use of earth colors, and the heavy vegetation. The oldest part of the core commercial area, with its lighter colors and lack of vegetation, is the only major exception to this.

order

The color ordering of a context is expressed in its limited color palette and its arrangement of that palette in space. Often when people are asked to visualize a place's colors they can narrow them down to a small number of dominant hues. These hues are the palette of colors that exist in a place because of its geographical location, geology, plant life, and inhabitance's cultural make-up. The palette is often subtly arranged in stratas or horizontal bands which include everything from the ground, to the building, to the sky. They are not always sharply defined by changes in hues, but by what hue and tones the mind expects to appear in a particular band.



15

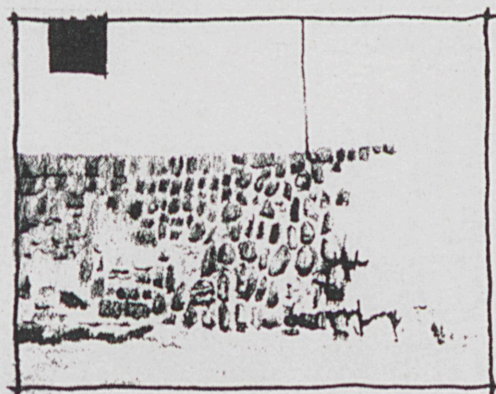
The immediate area's color palette, as referred to earlier, is green, brown, white and gray. These colors are arranged in five bands; ground, wall, roof, treetops, and sky. (illus. #15). The ground band is the greens of grass and low shrubbery, the wall band includes the full range of the palette's color in soft tones and hues, the roof bands holds mostly to dark browns and the treetops dissolves the earthy colors of brown and green into the ever changing blue of the sky.

texture

Texture is the sensuous experience that allows one to enjoy the intensely intimate pleasure of touch. Considering that it is experienced through both sight and touch makes texture a rather unique element of form. By this cross connection an association of sight to touch and touch to sight is created. On looking at a stone wall one can abstractly experience its texture and, conversely, by closing ones eye and touching the surface one can abstractly experience its appearance. Similarly by the sweep of the eye or the stroke of a hand, textures dissonant to the context can be perceived.

Texture has many characteristics and implications, but to keep an analysis of it concise, while still being broad enough to encompass most any form or use, it will be studied by three of its characteristics; tactile, visual and shadowing.

tactile



16

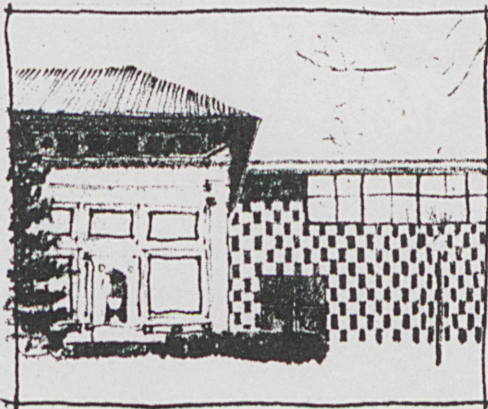
Although tactile textures can be perceived through sight, they are mostly associated with touch. The presence of tactile texture, by adding the sense of touch to how a person can sensually perceive a place, adds to a place's richness. Usually tactile variety and richness comes from the use of a variety of materials with their surfaces articulated to the advantage of touch. (illus. #16).



17

In the immediate area of the site most of the surfaces are made up of clapboard, (illus. #17) smoothed stucco and planted material.

VISUAL



18

It is possible for a texture to have no tactile quality, only visual, like the pattern of tiles or shapes painted on a wall.⁹ Although it does not represent the same texture to the touch as it implies, visual texture is a truthful texture of classic architectural expression, adding as much richness to a place as tactile textures do. (illus. #18).

There is no significant use of visual texture in Davis except for several wall murals in the core commercial area. This does not imply that visual textures can not be used to enhance a design, just that they should not indiscriminately contrast or conflict with the context.

shadow



19

Shadow is the visual modifier of tactile and, to a lesser extent, visual texture. Without shadow tactile textures would not visually exist; with shadow their harshness or softness varies with the angle of incidence of the light striking the surface. This variability, most prevalent in larger scale textures, (illus. #19) is a quality that adds to the dynamic presence light and shadow gives to a place.

Shadow is a very important part of the immediate area's surface character. Both the sawtooth pattern of clapboard and the smoothed yet irregular surface of the stucco are very much a visual product of the shadows in texture.

scale

The elements of scale relative to contextual form should be considered in two ways; generic and human. Generic scale is related to the sizes of buildings, building elements and spaces relative to other forms in the context.¹⁰ Human scale is related to the sizes of the same features as generic scale except relative to human dimensions.¹¹ Although human scale is always important in developing a design to fit people, it has little to do with a design fitting into a context. Generic scale is the scale most connected with contextual issues and so will be the scale studies here. It will be broken down into three general areas: massing, elements, and expression.

massing



20

Massing is how a person perceives the volume of a building or any element in the landscape. Breaking a volume into smaller masses by using segmenting voids or consolidating it into one big mass, varies the perceived size of a volume. How the massing in a context is broken down or built up is what defines its massing scale. (illus. #20).



21

In the immediate area of the site the massing is of a small scale. Generally it is made up of one story, single family homes with large, separating sideyards. (illus. #21). Their roof massing tends to vary from little significance to a balance between wall mass and roof mass.

elements



22

Elements, like windows, doors, and materials, create a scale of their own, separate from that of massing. The repetition of the general size and shape of an element in a context establishes this scale. (illus. #22).

The most important elements to consider in the immediate area are, in order of importance, windows, wall heights, material sizes, and doors.

expression



23

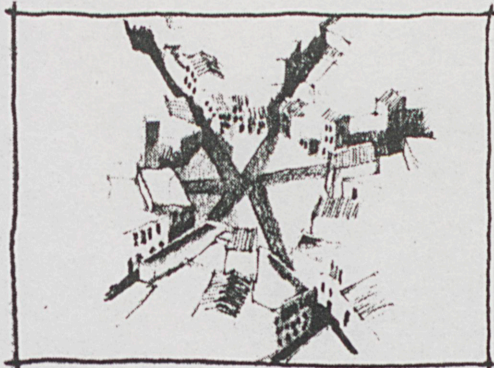
Often the scale of a massing or an element is an expression of a function. The contrast in a building's massing to the context may be an expression of the importance of the building's function. (illus. #23). The difference of a window's size from the context may be an expression of the unique function of the room it lights.



24

The exceptions to the residential scale of the immediate area are those buildings of special functions. The Presbyterian Church is a particularly good example. (illus. #24). It expresses its institutional function by the much larger scale of its front facade. Yet it maintains its sympathy to the context by using the same window size of the surrounding building.

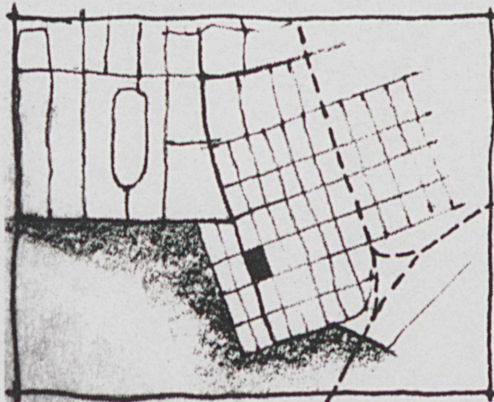
orientation



25

The orientation of the buildings in a town is the orientation of the people's movement through the town. For example, if the buildings of a town are oriented north-south and east-west, so are the majority of the inhabitants' circulation paths. Similarly if the buildings are oriented to the town center, (illus. #25) to a river, or to the main street, so are the paths of the inhabitants.

Through the orientation of these paths the perception, or "the image",¹² people have of their town is formed. For example, by one section of a town being oriented differently from that of the rest of the town makes that section a separate district in the minds of the inhabitants. If this change in orientation occurs in a one block area it appears as a violation of the dominant orientation and causes separation. Of course, when one deals with contextual issues this would be a negative situation, yet if handled in a way not disruptive to the context it can introduce positive townscape issues like focus, fluctuation, incident, and deflection.¹³



26

The orientation of the original city's orthogonal plan, which the site is located within, is based on the lay of the railroad tracks that cut through Davis. Outside of the original city area the orientation shifts to the north-south, east-west order of the agricultural landscape. (illus. #26).

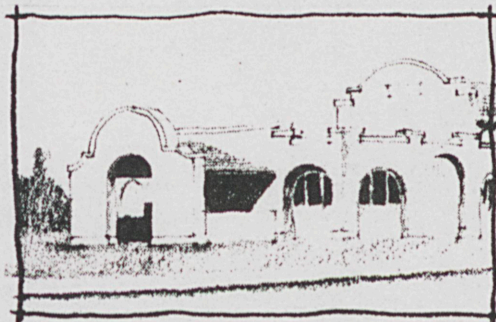
shape

Shape, the principle identifying element of a context's form, results from the specific configuration of a form's surfaces and edges.¹⁴ Most buildings, that are not of an amorphous shape, can be either abstracted into a single geometry or a collection of geometric shapes. Generally a context has a vocabulary of these shapes that relate to functions and meanings particular to the context.



27

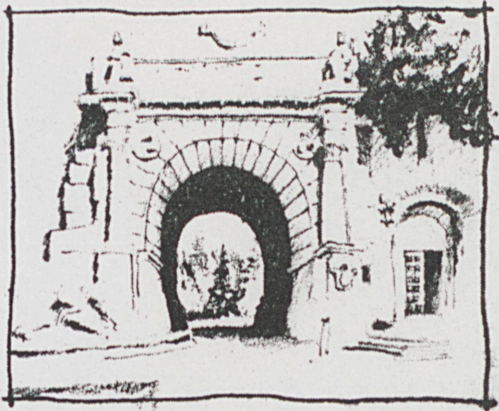
The shapes in and around Davis are many and varied and are illustrated in the many sketches of Davis here (illus. #27, 28) and throughout this paper.



28

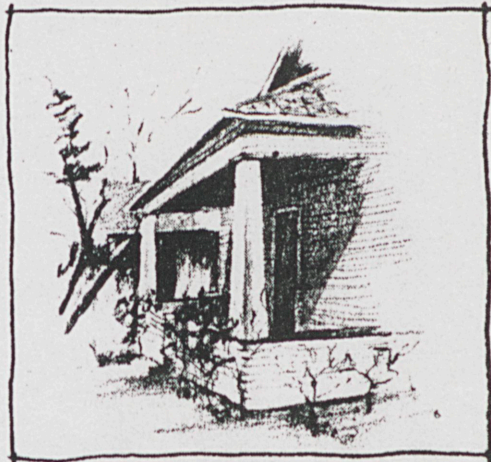
Space

here & there



29

Here and there exist when a foreground defines a here and a background becomes a there.¹⁵ It often is present with townscape elements of enframement, where a view is bounded; (illus. #29) inside/outside, where one space is clearly perceived as inside and another as outside; and entry/arrival, where one enters from a here and arrives at a there. The presence of here and there allows spaces to be layered, like from public to private areas, and creates views "out of" and "into".



30

In the core residential area, the porches (illus. #30) and, to some extent, the frontyards are a "here", with the sidewalks and streets being the "there". In the core commercial area this exists mostly in the new developments using courtyard space (here) that opens out into the streets (there).

possession

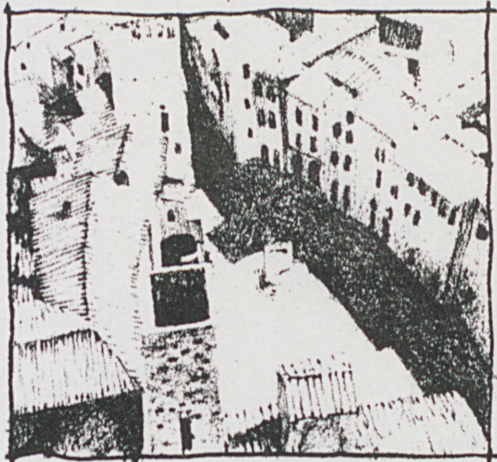


31

Possession exist when people or objects define a space's importance or function. When a group of people occupy and dominate a space they come into possession of it. (illus. #31) When an object gives focus to a space and dominates it the object tends to be in possession of the space. The result is that a space becomes clearly expressive of its reason for existence and losses any presence of ambiguity.

The possession of space by people in Davis is mostly at outdoor eating places. There are several places where this occurs in the core commercial area and it seems to be increasing in popularity. By contrast there seems to be no object possession of spaces in Davis.

shape



32

Shapes of space exist similar to the way shapes of forms do, except their edges are often ambiguous and define a volume instead of a mass. (illus. #32). The shapes of space range from the clear geometric to the vague amorphous with sinuous somewhere inbetween. Geometric spaces tend to be sharply defined, completing themselves in our mind's eye even when interrupted or altered by other shapes.¹⁶ On the other hand, amorphous spaces are ill formed, without character or aesthetic value, and have no volumetric order because their enclosing structures are unrelated in space, location, or detail.¹⁷ These spaces can be further defined as vertical or horizontal (linear) in relation to the configuration of their perceived longest dimension.

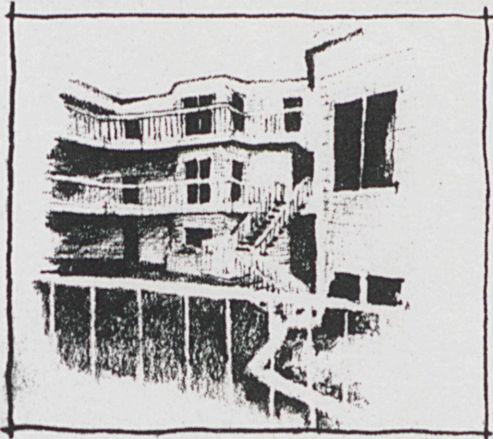


33

The shape of space in Davis is generally limited to the rectilinear shapes of the orthogonal plan and the sinuous shapes created by the area's heavy vegetation. In addition, some of the streets in the immediate area have tall, mature trees that define a cathedral-like vertical street space. (illus. #33). But generally Davis' spaces tend more towards amorphous shapes because, like most American cities, it does not have the defining densities of European cities.

open & enclosed

The condition of open and enclosed space is closely related to the shape of spaces. Spaces that have clearly defined shape usually have clearly defined limits and so are enclosed. (illus. #32). Although amorphous space can be enclosed as well, it usually occurs more with open space's vague boundaries. Both open and enclosed can have positive or negative qualities based on their form and relation to the context.



34

Open space surrounds Davis in the uncluttered farm land of the central valley and it seeps into the city in the form of many large, open parks. Enclosed space exists in the private backyards of Davis and in its newer core commercial development, (illus. #34) but is very limited.

Site History

The site designated in the Davisville original town plot as "Block 3, Range A" was used for 94 years by the Yolo School District for Central Elementary School. The land was deeded to the school district in 1870 by J. P. Jackson, et. al., of the Davis Land Comapny. The first school structure stood until 1903 when the Board of Trustees decided to expand, and purchased additional land in the same block. The original building was torn down and a larger one erected.

This second building was destroyed by a fire in 1918 and replaced with a modern building designed by Sacramento architects, George Sellon and Co. It was completed in 1920 and served as Davis' only elementary school for the next 30 years until one was built in the suburban area. Central school continued in operation until it was torn down in 1966.

The Sellon design was of the Mission Revival Style. It was large and multipurposed, being used by the town for community civic and social activities as well as school-related events. The auditorium was the town's only one. It had a hardwood dance floor and an elevated stage. In 1924, a west wing was added for more classrooms.

All the buildings were updated in 1936 after passage of State legislation requiring earthquake-proofing of elementary schools. The school district took the opportunity to enlarge the auditorium as well as to improve the lighting and ventilation systems.

Central School was finally torn down in 1966 because it was deemed "obsolete" by the Davis Joint School District Board of Trustees. In addition to not measuring up to earthquake standards, traffic congestion was a problem in the core area location. Also, very few children lived in the area. The school district sold

the site to the Arden-Mayfair supermarket chain and used the money to build the West Davis Intermediate School. Before any commercial development came about the site was sold to the city of Davis for the location of the new City Hall. When several attempted bond issues failed, the city decided to cut costs by proposing to renovate the old Emerson High School for their offices. The bond issue for this proposal passed requiring the Arden-Mayfair site to be sold again.

Currently, the only reminder of Central School that remains is the string of walnut trees which circumscribes the block. The first were planted by the Women's Improvement Club on Arbor Day 1906. The rest were planted in 1936 during the period of upgrading the school to meet earthquake requirements and community needs. The single large California Oak is of undetermined age but significant in childhood memories of Davisites who attended the school. Apparently, this tree being on the far end of the grounds from the classrooms, was a goal in races at recess.¹⁸

Program Development

When the city succeeded in getting the new city hall located in the old Emerson High School, the problem of what to do with the vacant Arden-Mayfair site (the name of the earlier developer stuck) had to be resolved. Since the site is at the edge of the ever expanding core commercial area, is adjacent to areas zoned mixed-use, and is embraced on three sides by residential development as old as 50 to 60 years, it was decided that a mix of commercial and residential development would be appropriate.

By stipulations in the sales contract the city could interpose this conclusion as to the use and development of the site. In fact, before any agreement could be made the developers involved had to hire an architect to draw detailed schematic plans and elevations. At the time of this writing the city had excepted a proposal that had been negotiated with the Central Park Plaza Association, the group of developers formed to develop the site, and were about to complete the final transaction.

For the purpose of this thesis and the study of contextual issues this actual situation will be changed in one aspect. Presently the city has set the price of the two acre Arden-Mayfair site at \$750,000. This fixed price requires a certain size of development to make the project financially viable to the developers. But to make the program more flexible and thus more responsive to the context the price will be considered variable. Although it may sound totally academic this situation is not far from being a possibility since at one time there was a question if the site should be sold at all.

Program

As with every stage of a design process the programming of a project should be influenced by the surrounding context. If the program was developed from the beginning of the design process, where the only givens were the conditions of the site and the interests of the owner, then a program could be established with size and functions sensitive to the context. This rarely happens and is not the case with Davis' Central Park Plaza. The general program that is now approved by the city is briefly this:

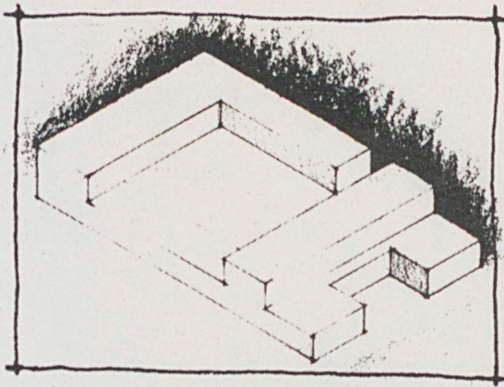
Retail:	51,000	(50%)
Office:	15,000	(14%)
Restaurant:	7,000	(7%)
Condominiums-17 units:	<u>30,000</u>	(29%)
Total	103,000	(100%)

Parking: 295 spaces (3 levels)

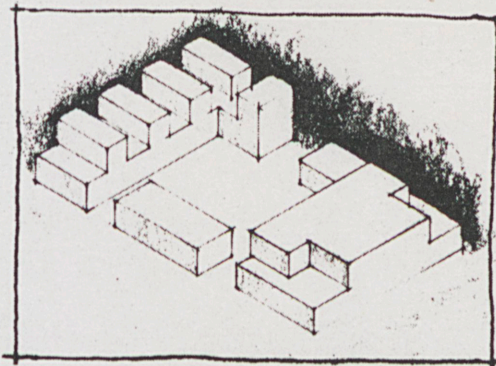
The functions were established by discussions between the developers, their architect, and the city, and by the master plan and adjacent functions. The size, as mentioned in the introduction to the site, is mostly determined by the price of the site (\$750,000) and the subsequent demands by the project's lenders and investors.

It is not the intention of this study to challenge the functions of the present proposal. To question their use would entail the broad and extensive study of city planning theory which, although related to contextual issues, is not the specific interest of this study. Let it just be said that the functions proposed appear to be sympathetic to existing functions as well as being consistent with the area's development trends.

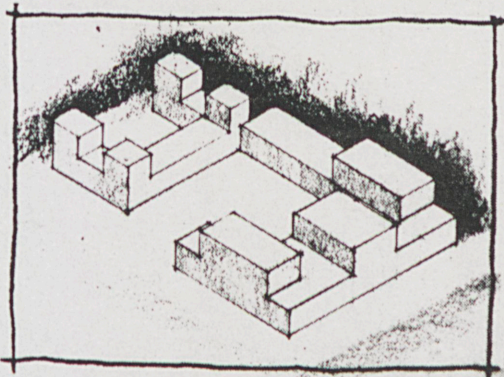
On the other hand the size of the project, because it concerns the visual aspect of the design, is of great interest to this study. For the academic exercise the price of the site, and so the size of the project, will be considered variable.



35



36



37

The present proposal would demand a development two stories high from sidewalk to sidewalk. Certainly the density in the new development must be increased from its contexts since this is the trend in core area as well as the whole city, but at first glance the proposed density seems excessive. To test this assumption and propose alternatives, three project sizes have been blocked out; full proposed size, two-thirds, and half proposed size. The full size study is made to exhibit the implications of the present proposal.

(illus. #35). The two-thirds size study is based on removing one level of the parking from the program, a major determining factor in size and cost of the project. (illus. #36). Finally, the half size study allows the parking to be in a compact two level arrangement. (illus. #37).

The parking for each size is as follows:

Full size	- 295 spaces
Two-thirds	- 200 spaces
One-half	- 160 spaces

retail

Retail space must be flexible in size and directly accessible to the public. It has been determined by the plaza developers that there is a need for retail spaces in the ranges of 8,000 to 10,000 square feet and 2,000 to 3,500 square feet. Because the number of retail sales are often related to visibility from, and accessibility to the public street space it is also important that these stores be at street level.

Estimate total floor area is 34,000 square feet (2/3) or 25,500 square feet (1/2). A structural modulus must allow division of floor space into 8,000 to 10,000 square feet areas and 2,000 to 3,500 square foot areas. Each space must have direct access to outside public space.

Facilities - 1 lavatory - 1 toilet per store.

Mechanical - as needed

office

To develop workable office space design consideration must include efficiency, flexibility, and accessibility. The efficiency of the space is determined by the module of column and window spacing, which must relate to the spatial requirements of standard office furnishings, and by the amount of floor area the circulation uses. The flexibility of an office space is also determined by the spacing module which must allow offices to be divided into efficient sizes. Finally, accessibility not only relates to circulation but the entrance of natural light and the ability to see out of the building, both of which determine how pleasant an office space can be to its occupants.

Estimate total floor area is 10,000 square feet (2/3) or 7,500 square feet (1/2).

To show the workability of the entire office space to be designed a portion of it will be laid out for an office of six lawyers.

Offices	- 1380 sq.ft. @ 230 ea.
Secretarial (3)	- 260 sq.ft.
Waiting	- 400 sq.ft.
Library/Conference	- 300 sq.ft.
Lounge	- 180 sq.ft.
Storage	- 250 sq.ft.
Toilets (men)	- 1 lavatory
	- 1 toilet
	- 1 urinal
(women)	- 1 lavatory
	- 2 toilets
Circulation	- as needed
Mechanical	- as needed

restaurant

The restaurant is the most demanding space in the Central Park Plaza Development because food services often have marginal financial existence. For this reason the restaurant will be given prominence in the overall design. That is why to maintain an efficient operation, the restaurant has not been proportionally reduced like all the other functions.

Estimate total floor area 5,000 square feet.

- Dining - 150 seats @ 18 sq.ft. per seat = 2,700 sq.ft.
- Kitchen - 2 turnover per hour
 - 15% vacancy at peak
 - 255 meals served per hour at peak
 - 1150 sq.ft. @ 4.5 sq.ft. per meal
- Storage - refrigerated - 80 sq.ft.
 - long term - 150 sq.ft.
- Guest Facilities
 - (men) 2 lavatories
 - 1 toilet
 - 2 urinals
 - (women) 2 lavatories
 - 2 toilets
 - waiting - 65 sq.ft.
 - coats - 24 sq.ft.
 - telephone
- Cashier - 25 sq.ft.
- Employee Facilities
 - lounge/dining area-150 sq.ft.
 - toilets - use guest toilets
 - showers - (men) 30 sq.ft.
 - (women) 30 sq.ft.
 - lockers - (men) 55 sq.ft.
 - (women) 70 sq.ft.
 - time recording
 - wash basin
- Mechanical - as needed

residential



MIDDLE AGE COUPLE, TEENAGE CHILDREN. The basic difference between couples with young children and grown children is usually the number of bedrooms needed. A private bedroom for each grown child is desirable, allowing privacy for all members of the family. Other space requirements increase in proportion to the number and size of members; for example, group spaces like the dining and living rooms must allow for more chairs, bigger tables, etc. In response to the demand for diversity of spaces for socializing a new space, the play or family room, must be added.

Consequently units may require as many as four bedrooms, a separate dining room, a play or family room, a utility room, and possibly a two-car garage.

The row house, town house, and patio house have to be large to accommodate so many spaces. If land area is tight, the patio house might have to be eliminated and stacking variations of the row house and town house encouraged. And, since the family is at its largest size more private outdoor space is necessary.



MIDDLE AGE COUPLE, GROWN CHILDREN. Middle and late middle age is considered by many as the best time of life. Children are gone, housework and expenses are less, and free time is more plentiful. People are generally still physically active.

Since territory does not have to be shared with children, couples can spread out a bit and have more privacy. Convenience is desirable so that leisure time can be enjoyed. With fewer family members less outdoor space is required. Most house types work well. Two bedrooms are about right: one for sleeping and one for a bedroom/study. A third bedroom is a nice luxury for overnight visitors. A separate dining room is important because people in this household group tend to entertain more frequently. The town house is the most efficient choice, but row, maisonette, or terrace would also be appropriate.

Unterman, Richard. Small, Robert E.,
Site planning for cluster housing.

p58

Because of the increasing value of core area property the city has determined that the residential section of the Central Park Plaza Development shall be made up of large luxury condominiums. Typically the households that could afford these units are middle age couples with teenage children and middle age couples without children (see description of need). These would not be the only people moving into these units but they represent a good guideline to developing a saleable design.

Estimate floor areas 1510 sq. ft. per unit at 12 unit (2/3) and 9 unit (1/2).

Kitchen	- 90 sq.ft.
Dining	- 100 sq.ft.
Living	- 200 sq.ft.
Study	- 140 sq.ft.
Bedroom	- 140 sq.ft.
Master Bedroom	- 180 sq.ft.
Toilet (Guest)	- 30 sq.ft.
Bathroom	- 100 sq.ft.
Storage	
Bedroom	- 30 sq.ft.
Entry	- 10 sq.ft.
General	- 250 sq.ft.
Laundry	- 80 sq.ft.
Mechanical	- as needed

summary

Area Totals (square feet)

Size	- full	2/3	1/2
Retail	- 51,000	34,000	25,500
Office	- 15,000	10,000	7,500
Restaurant	- 7,000	5,000	5,000
Condominiums	- 27,000	18,600	14,000
Total	- 100,000	67,600	52,000
Parking	- 295	200	160

Codes

Retail	B-2
Office	B-2
Restaurant	A-3
(less than 300 oc.)	
Apartment	R-1
Parking Garage	B-1

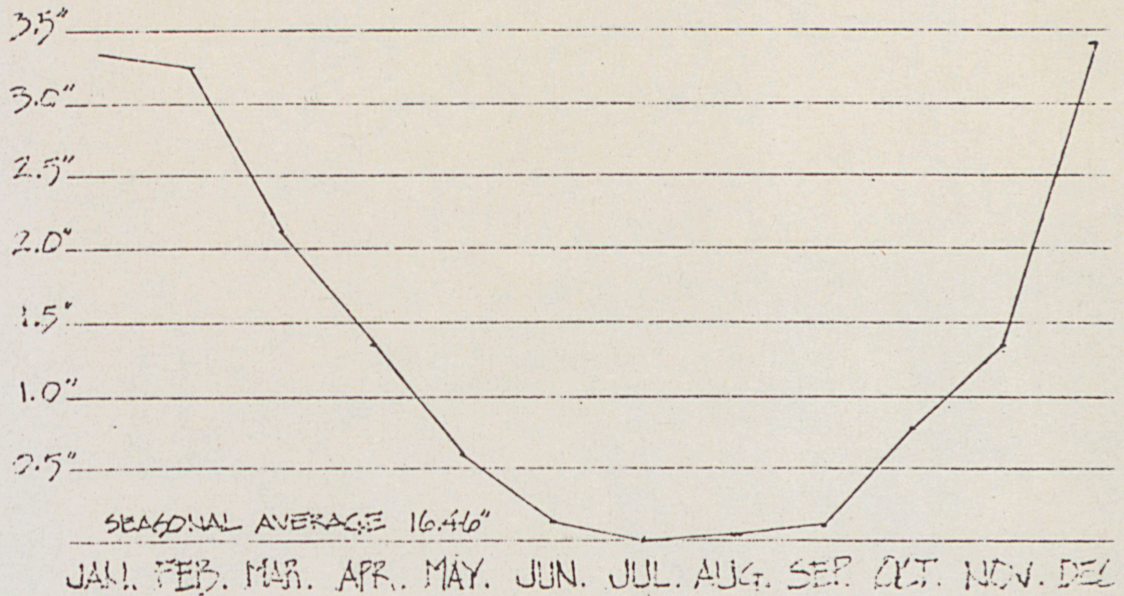
Fire Separation (hours)

	B-1	B-2	R-1
A-3	3	N	1
B-1		1	2
B-2			1
(for fire zone #1)			

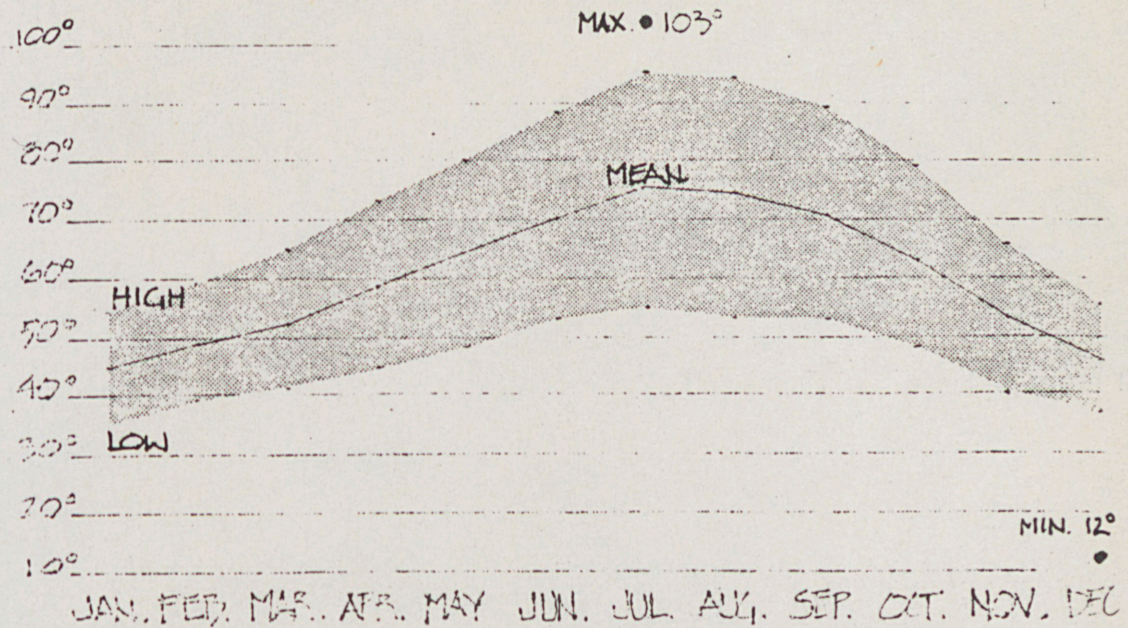
- A-3 - restaurant (less than 300 oc.)
 - must front directly upon or have access to a public street.
 - two exits, minimum
 - 15 sq.ft. per occupant, maximum
 - handicap access required
- B-2 - retail
 - with 50 occupants or more two exits are required
- B-2 - office
 - with 30 occupants or more two exits are required
 - 100 sq.ft. per occupant, maximum
 - handicap access required
- A-3 - apartment
 - with 10 occupants or more two exits are required
 - no handicap access required
- B-1 & B-2
 - park garage and retail/office
 - B-1 can be below B-2 and R-1 if;
 - * B-1 is type 1 construction
 - * 3 hour fire separation
 - * B-1 is restricted to storage of passenger vehicles.
- ANY - Above the first floor, any occupancy of 10 or more must have at least two exits

Site Analysis

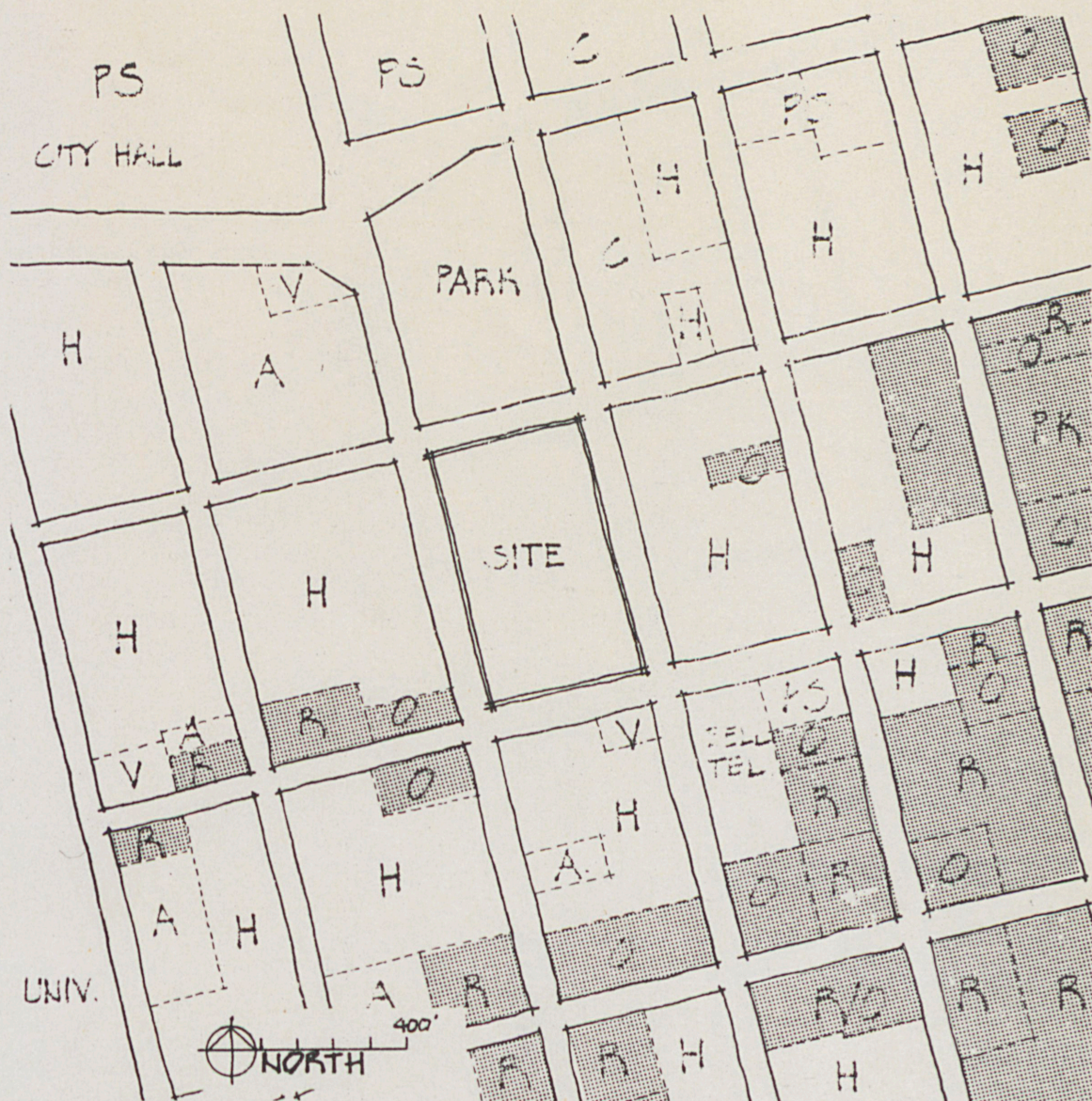
RAINFALL



TEMPERATURE F°



The storms in Davis usually come out of the south-southeast. The cooling summer breezes and the prevailing winds come out of the south-west. Occasionally there are strong, dry winds that blow out of the north.



commercial

O

office

R

retail

PS

public services

H

residential - detached houses

A

residential - apartments and townhouses

C

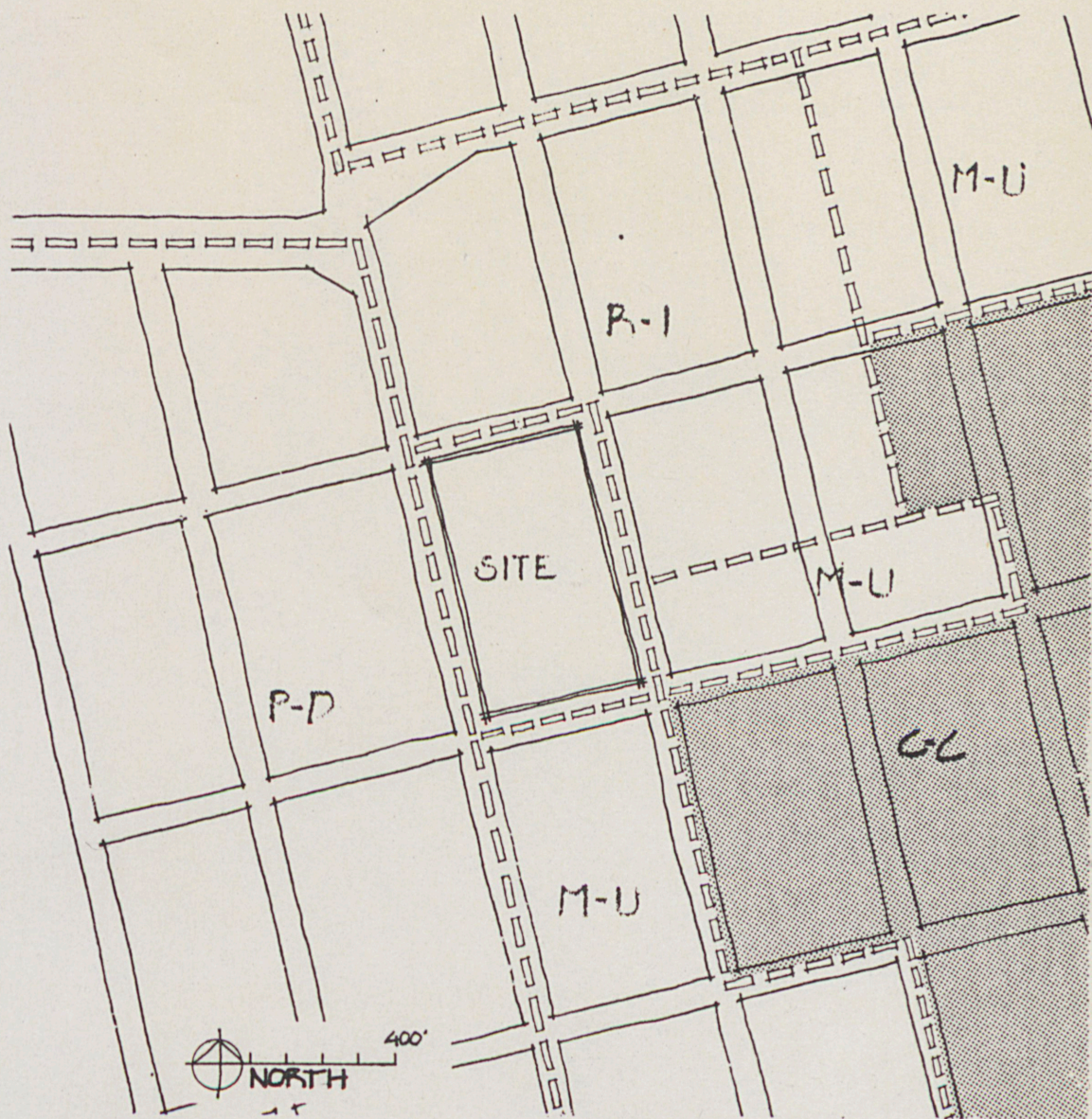
church

PK

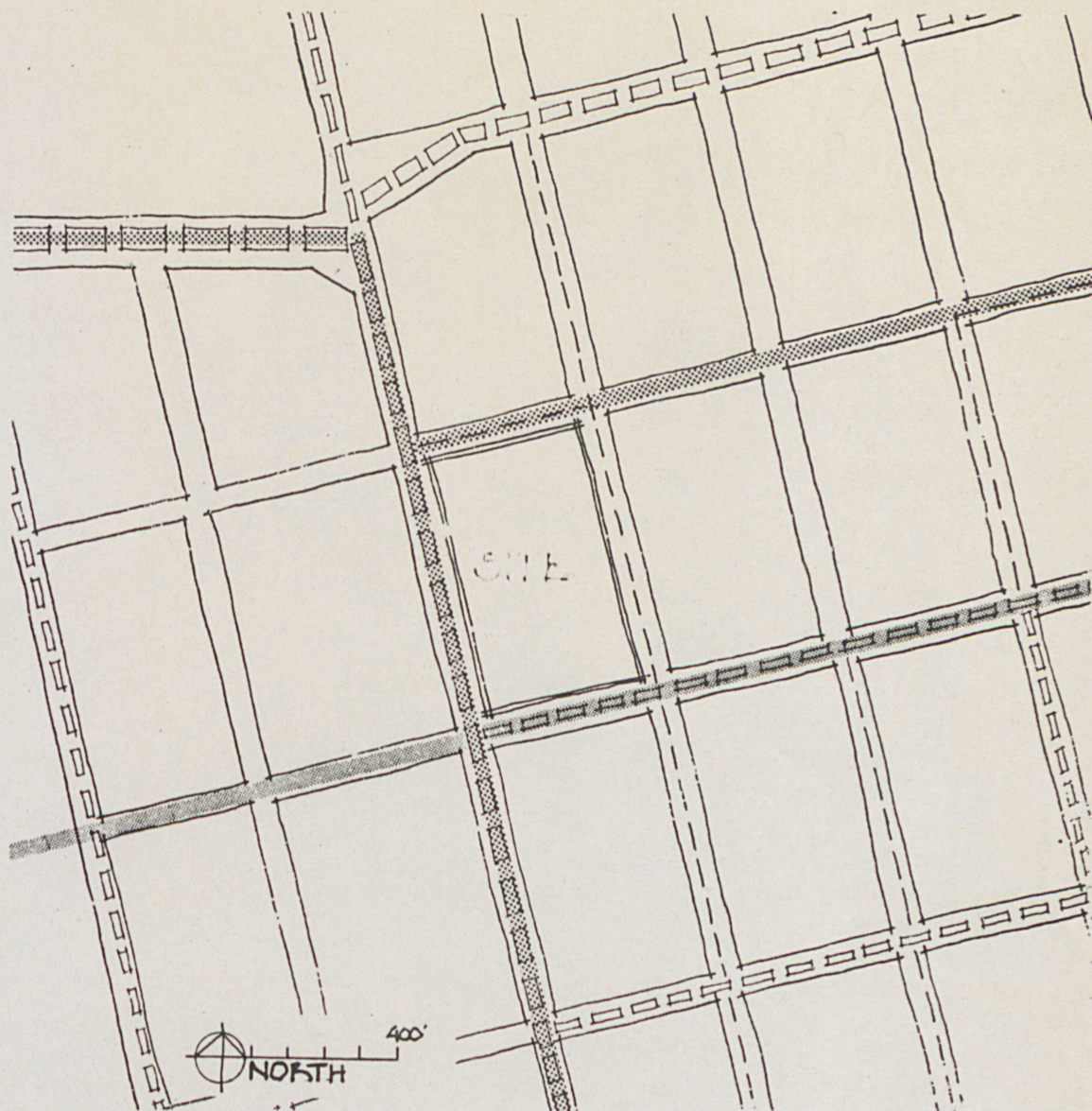
parking

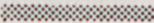
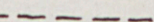
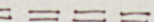
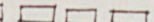
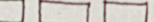
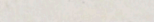
V

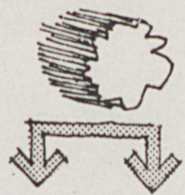
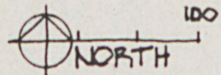
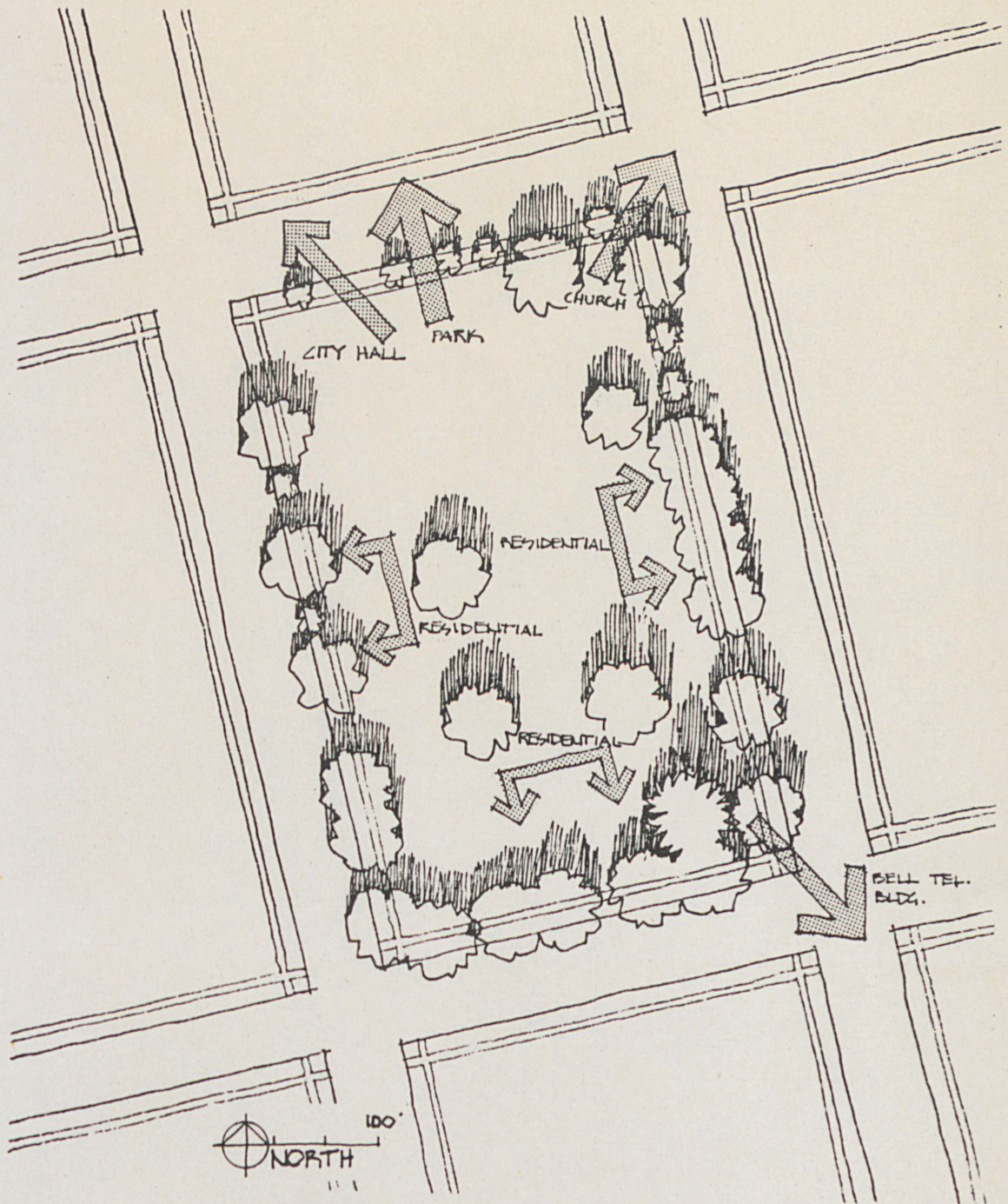
vacant



- R-1 Residential One Family
- GL Central Commercial
- P-D Planned Development
(mostly residential)
- M-U Mixed Use

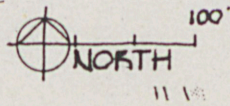
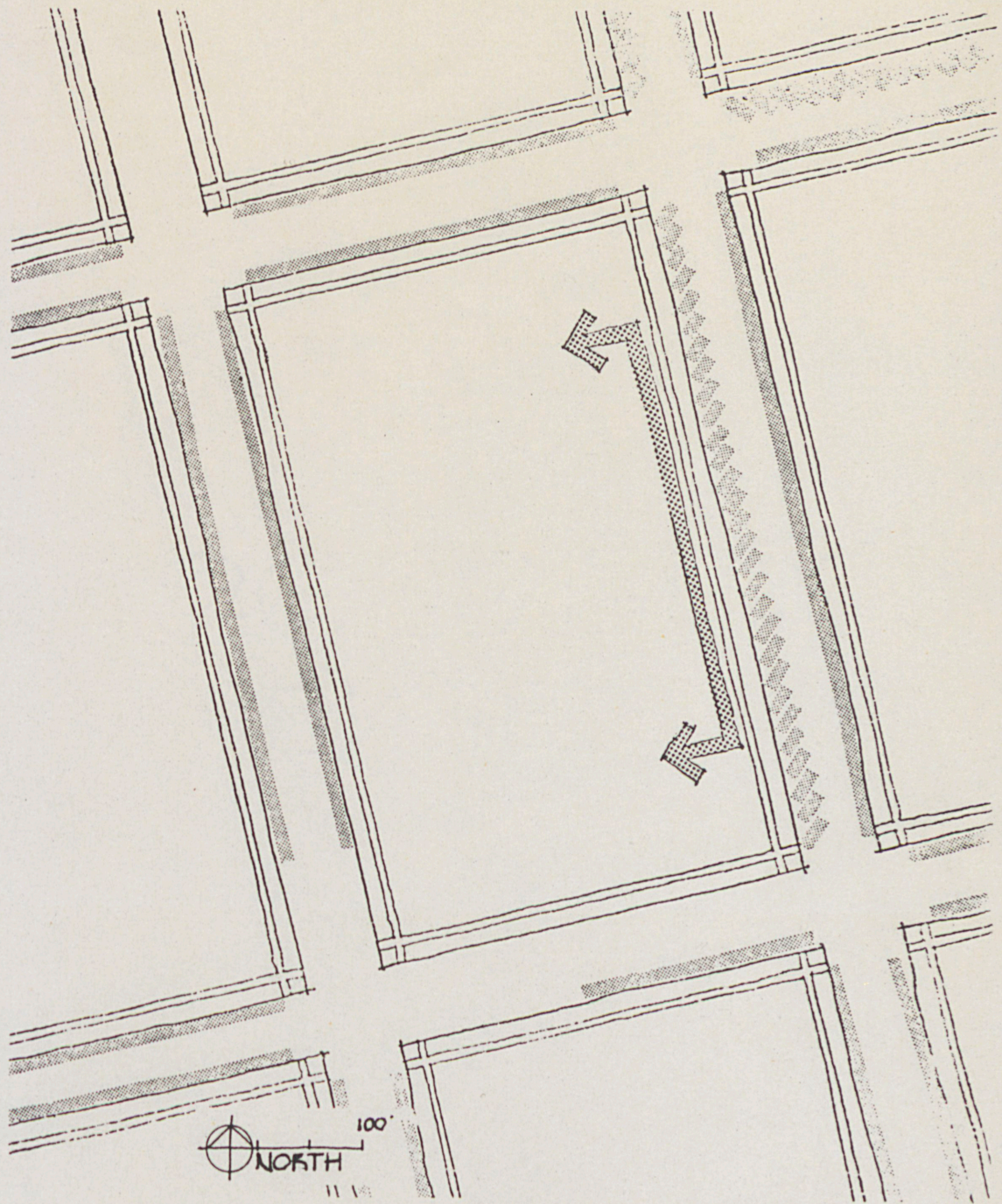


	bus route
	bicycle path
	traffic
	light
	moderate
	heavy
	very heavy

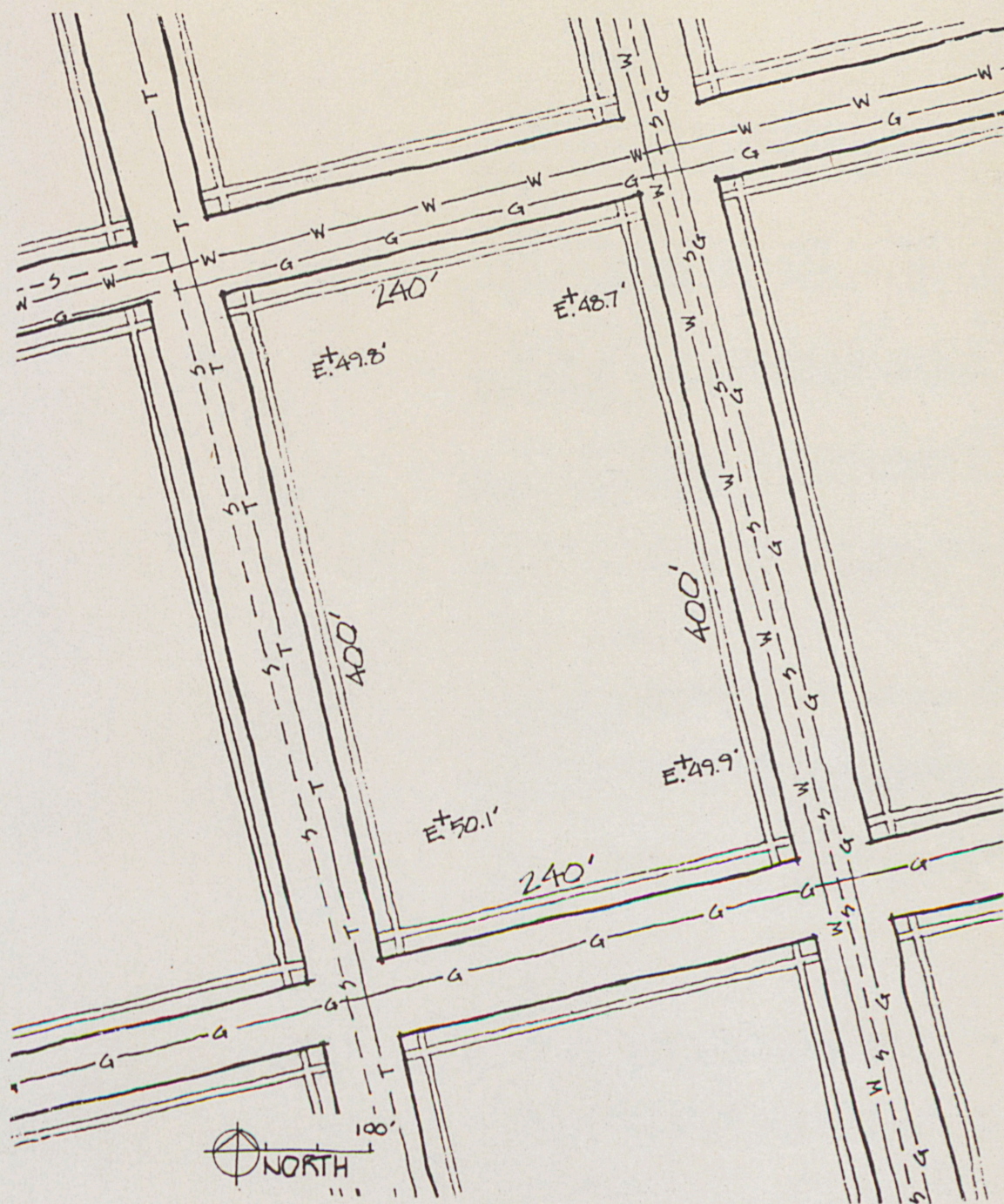


vegetation

views out



vehicle access
parking



- | | |
|-----------|-----------|
| — W — W — | water |
| — G — G — | gas |
| — S — S — | sewage |
| — T — | telephone |
| E+50.1' | elevation |

Footnotes

¹The information in this section is both from my personal knowledge of Davis and from an information pamphlet published in 1980 by the League of Women Voters.

²Christopher Alexander and Serge Chermayeff, Community and Privacy, Toward A New Architecture of Humanism: (Garden City, N.Y.: Doubleday & Co., 1963), p. 46.

³William M. L. Lam, Perceptions and Lighting As Formgivers for Architecture. (New York: McGraw-Hill Book Co., 1977), p. 5.

⁴John Lobell, Between Silence and Light, Spirit In The Architecture of Louis I. Kahn. (Boulder, Co.: Shambhala Pub., 1979), p. 20.

⁵Francis D. K. Ching, Architecture: Form, Space, and Order. (New York: Van Nostrand Reinhold Co., 1979), p. 368.

⁶Ching, p. 369.

⁷Davis Zoning Ordinances, Article I, Section 29-1. Definitions. 12-1977.

⁸Maurice DeSausmarez, Basic Design: The Dynamics of Visual Form. (New York: Van Nostrand Co., 1964), p. 80.

⁹Donis A. Dondis, A Primer of Visual Literacy. (Cambridge: The M.I.T. Press, 1973), p. 55.

¹⁰Ching, p. 226.

¹¹Ching, p. 226

¹²Kevin Lynch, Image of the City. (Cambridge: The M.I.T. Press, 1960), p. 47.

¹³Gordon Cullen, The Concise Townscape. (New York: Van Nostrand Reinhold Co., 1961), p. 26. 43, 44, 46.

¹⁴Ching, p. 50.

¹⁵James F. Barker, Michael W. Fazio, and Hank Hildebrandt. The Small Town As An Art Object. (Miss. State University, 1975), p. 102.

¹⁶Jere Stuart French, Urban Space, A Brief History of the City Square. (Dubuque, Iowa: Kendall/Hunt Pub., 1978), p. 23.

¹⁷French, p. 23.

¹⁸This section is mostly written by Erica Crosby who lives in Davis where she works as an illustrator and an independent researcher. She has worked for the Oregon Historical Society, Portland, in the research library; then, as a reference librarian for Multnomah County Library in the Portland area. Her research is based on information from the following sources:

Interviews with local residents.

Joann Leach Larkey, "Portraits of the Past", Davis Enterprise, Nov. 24, 1972.

Joann Leach Larkey (compiler), Davisville '68: The History and Heritage of the City of Davis, Yolo County, California. Davis Historical Society and Landmarks Commission, 1968.

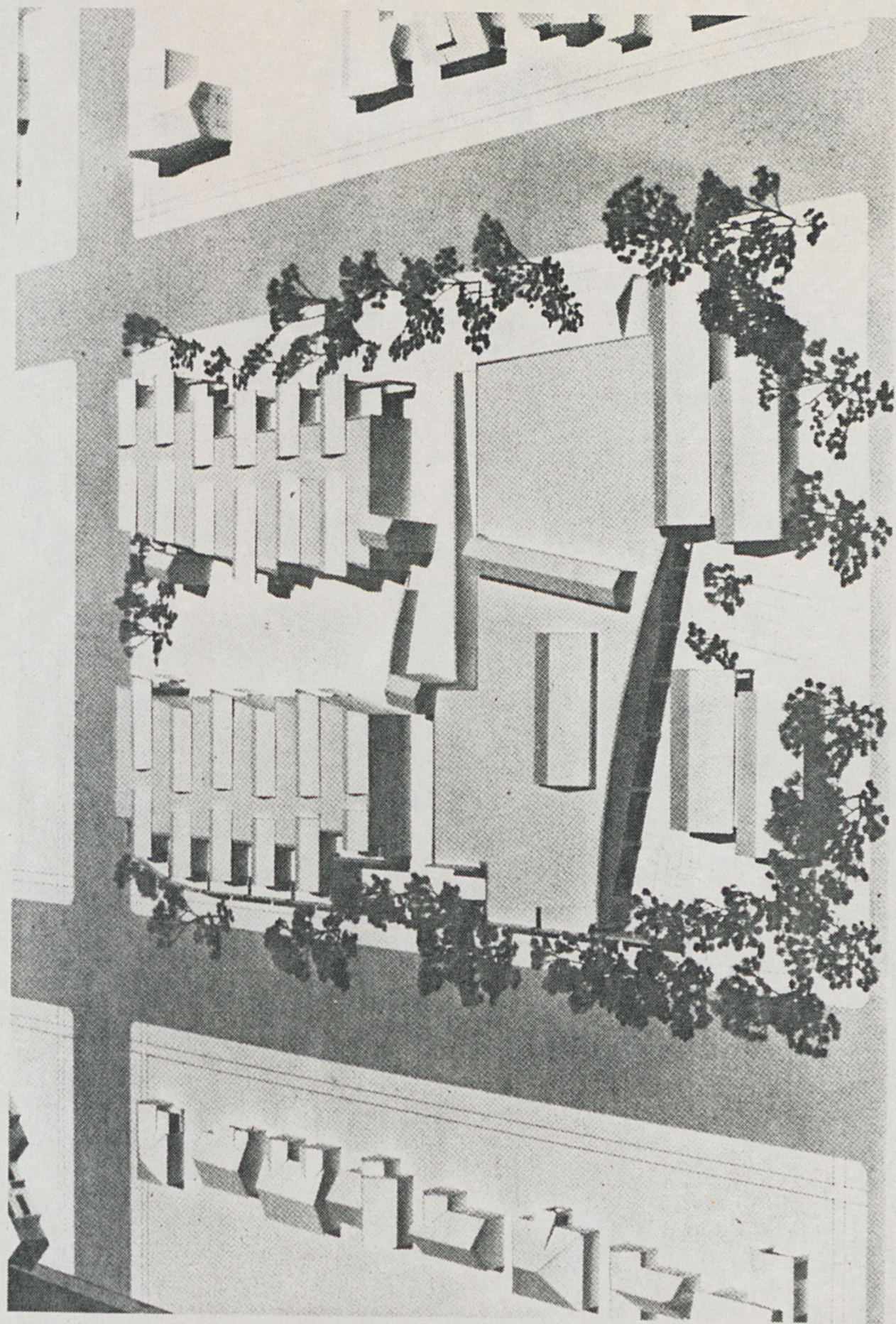
SOURCES

Krier, Rob. Urban Space (Statraum). New York: Rizzoli International Pub., 1979.

Lynch, Kevin. Site Planning, 2nd edition. Cambridge: The M.I.T. Press, 1971.

Norberg-Schultz, Christian. Genius Loci, Towards A Phenomenology of Architecture. New York: Rizzoli International Pub., 1980.

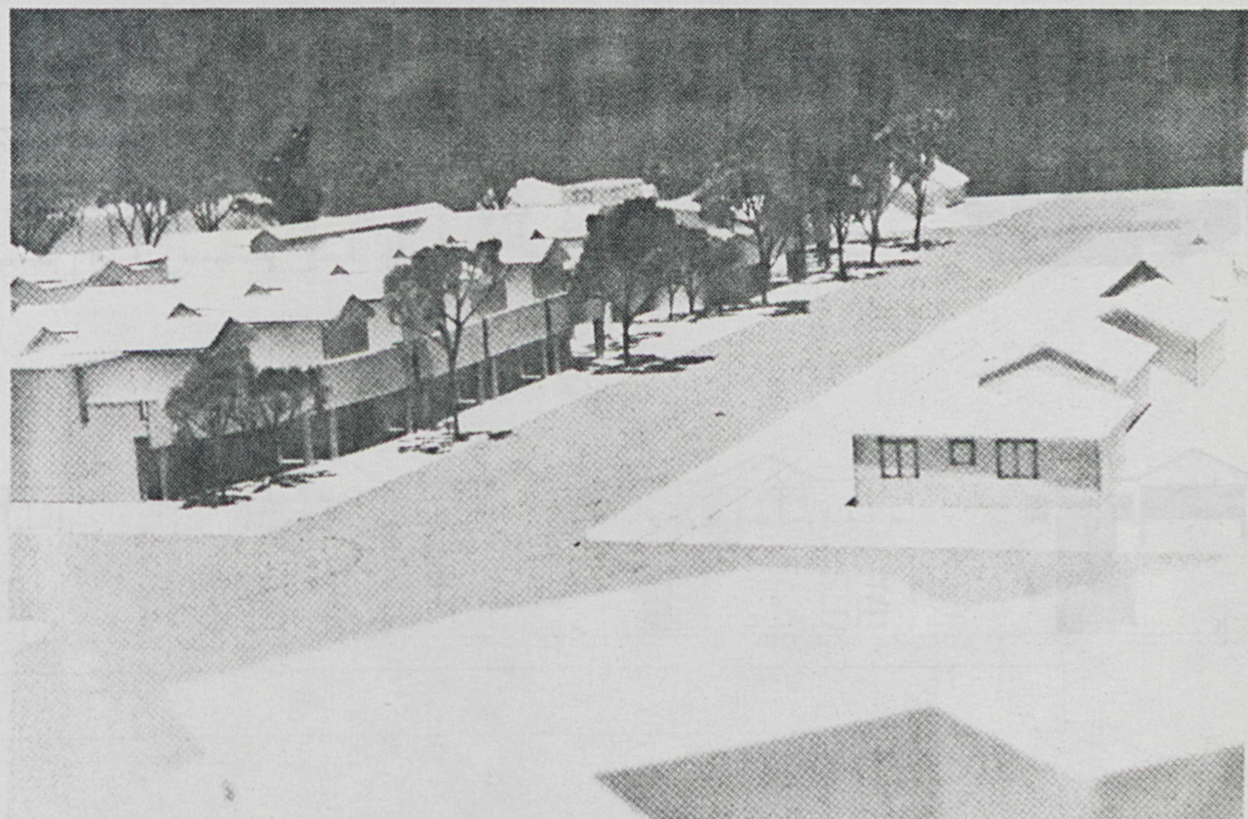
Scully, Vincent. American Architecture and Urbanism. New York: Praeger Pub., 1969.



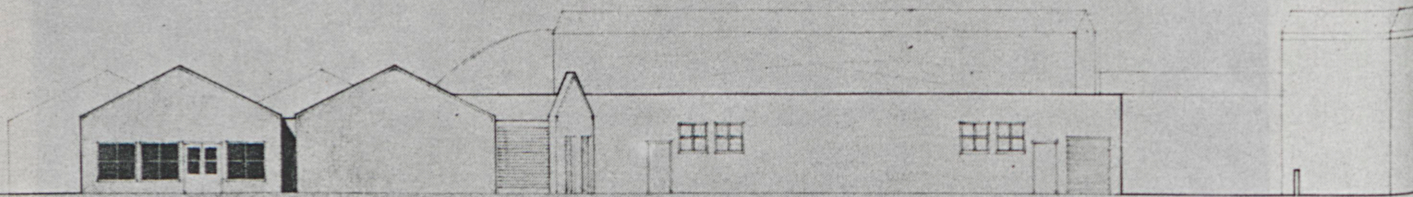
looking north



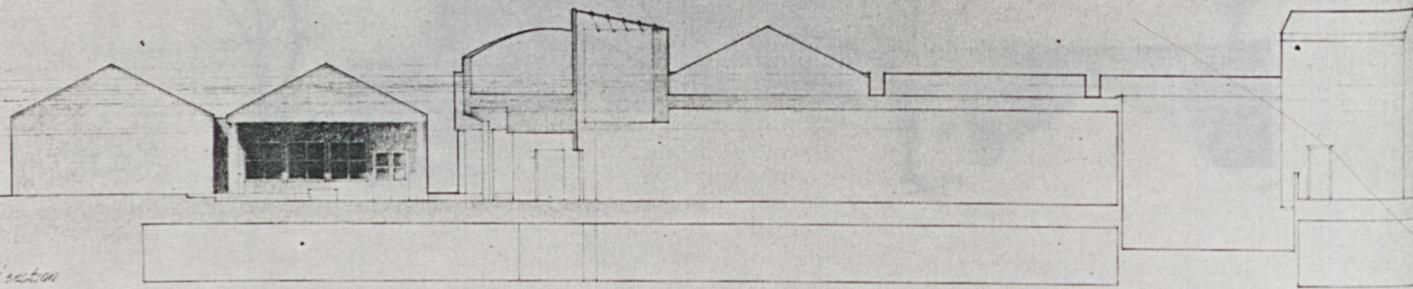
third st. entrance



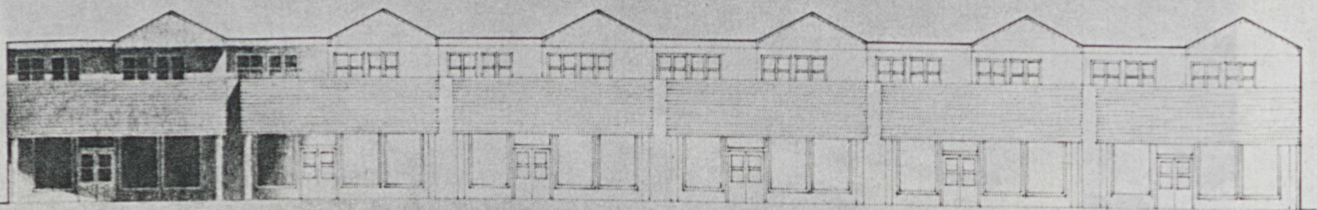
B st., looking south



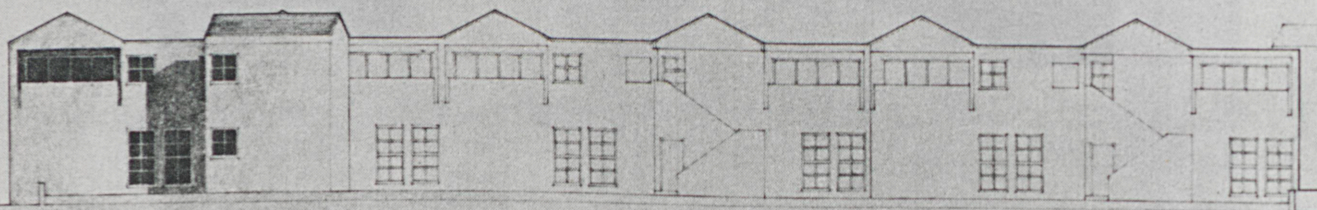
west elevation



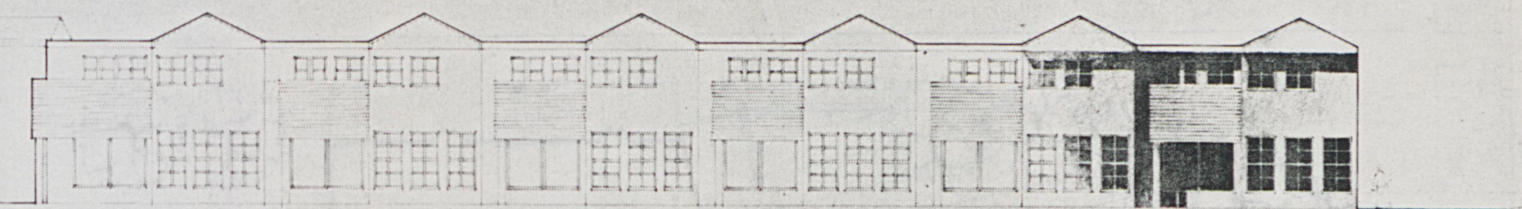
west elevation/section



east elevation

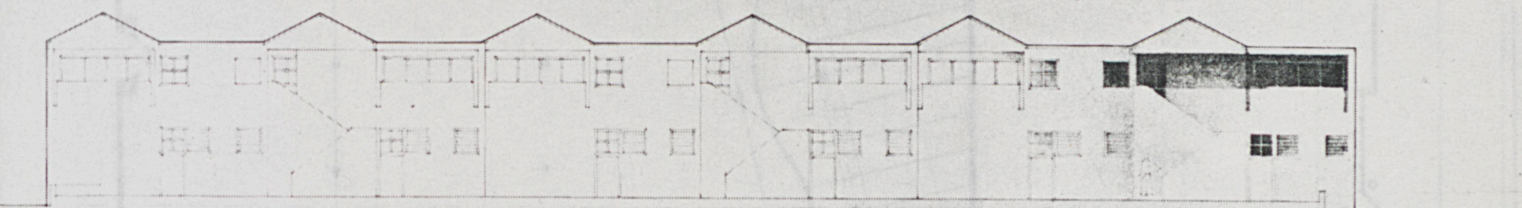


east elevation/section



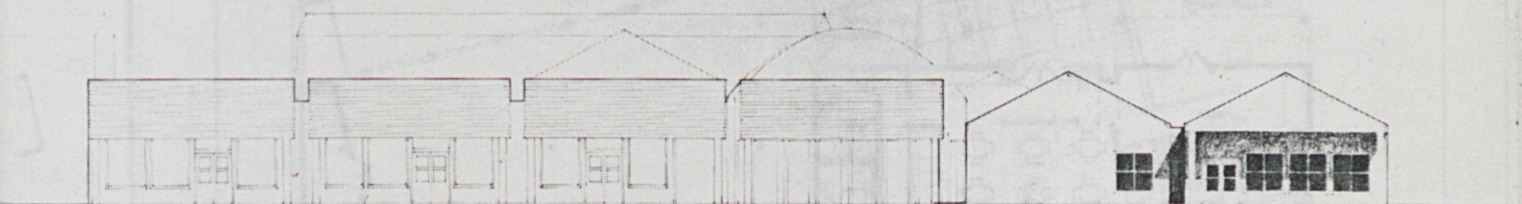
east elevation

east elevation



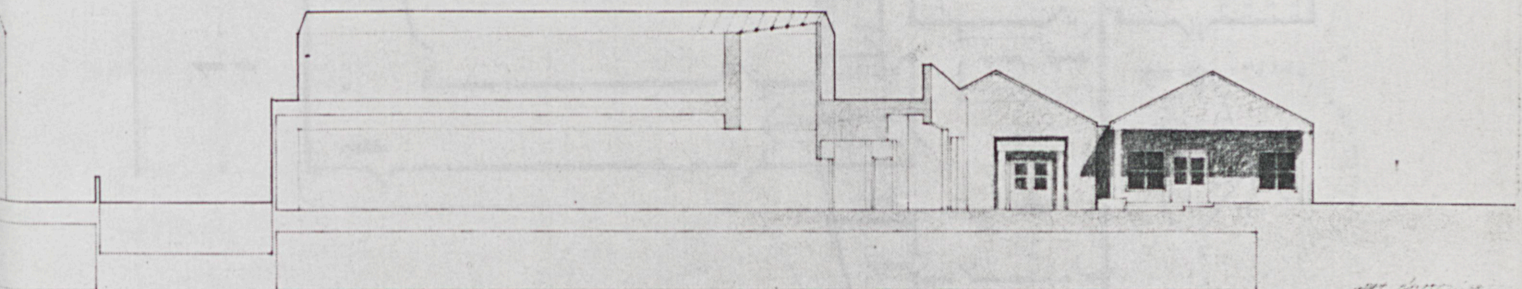
east elevation/section

east elevation/section
scale 1/8" = 1'-0"



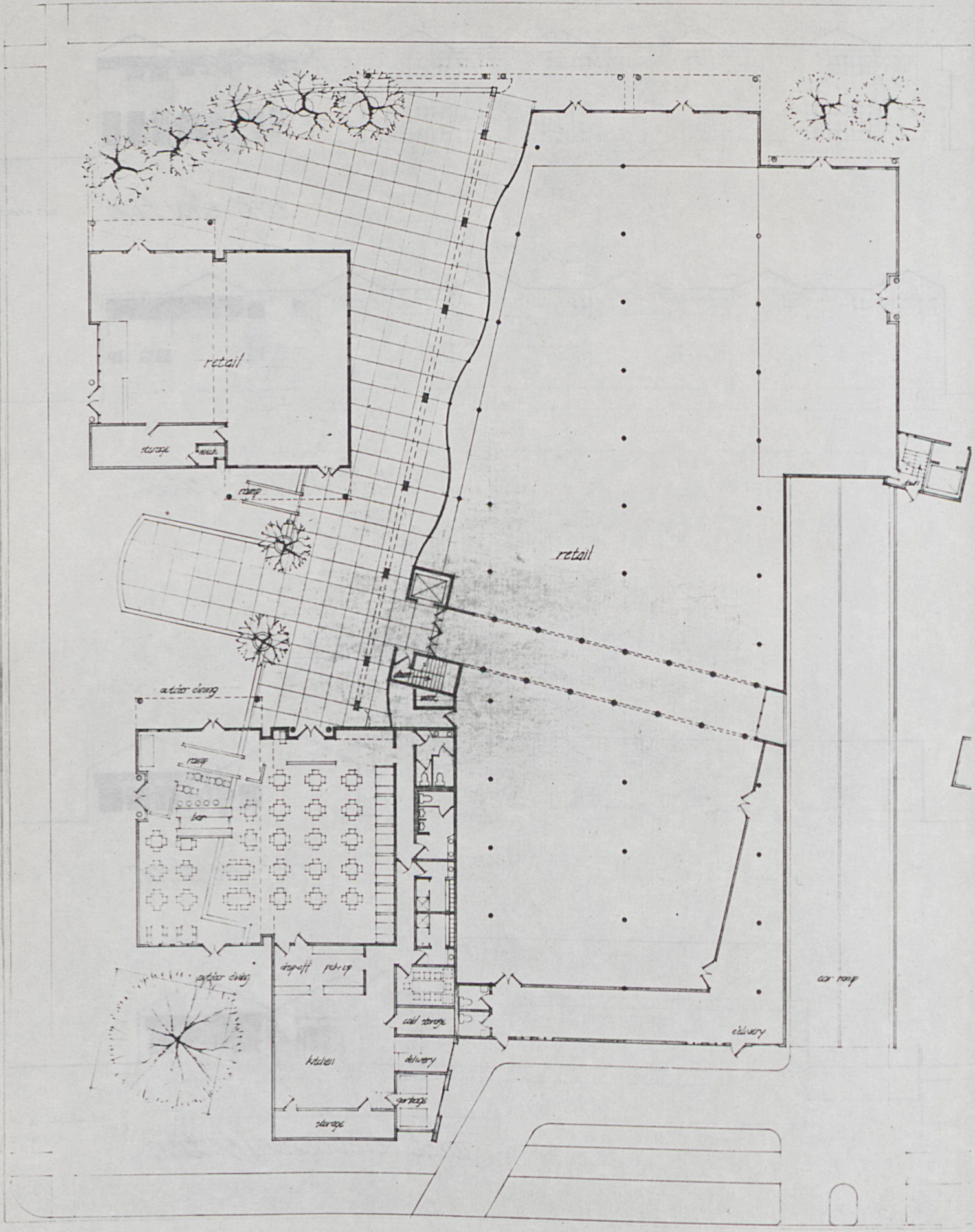
west elevation

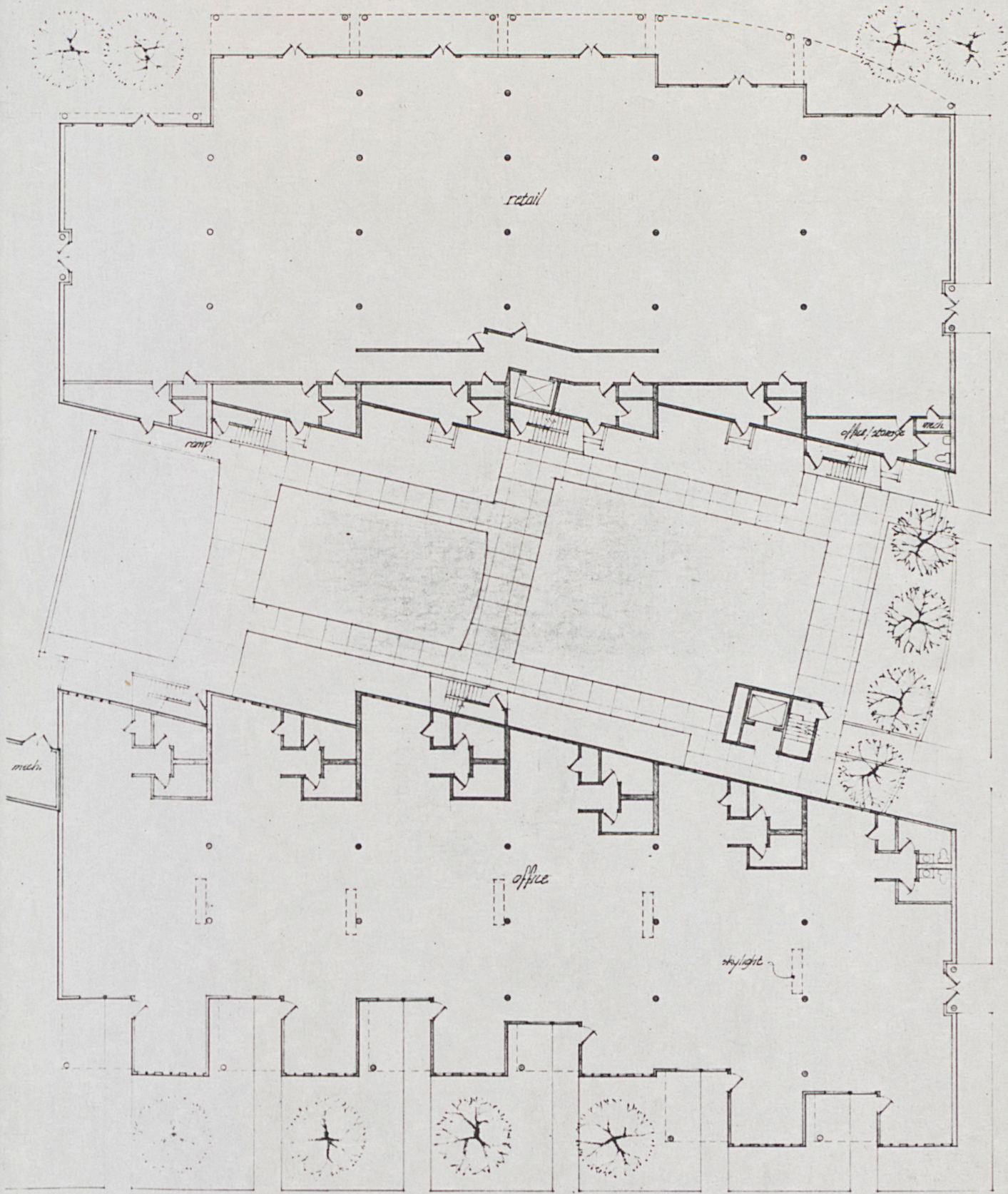
west elevation



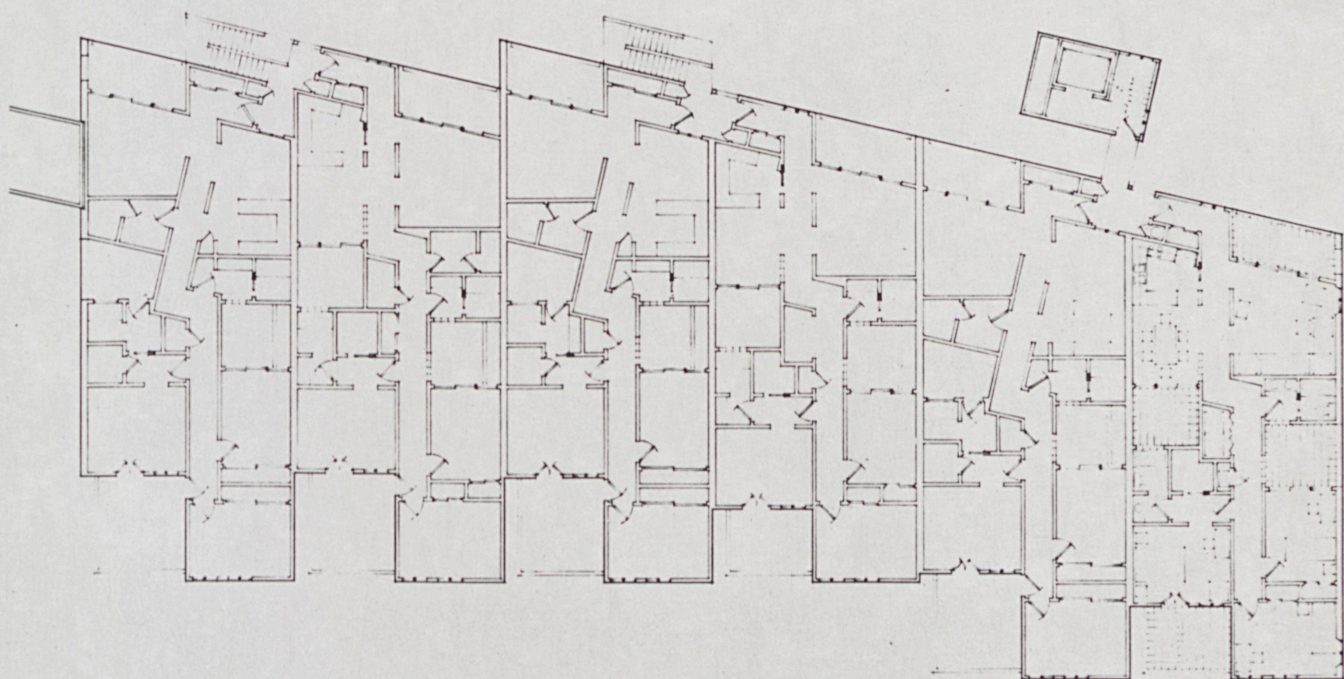
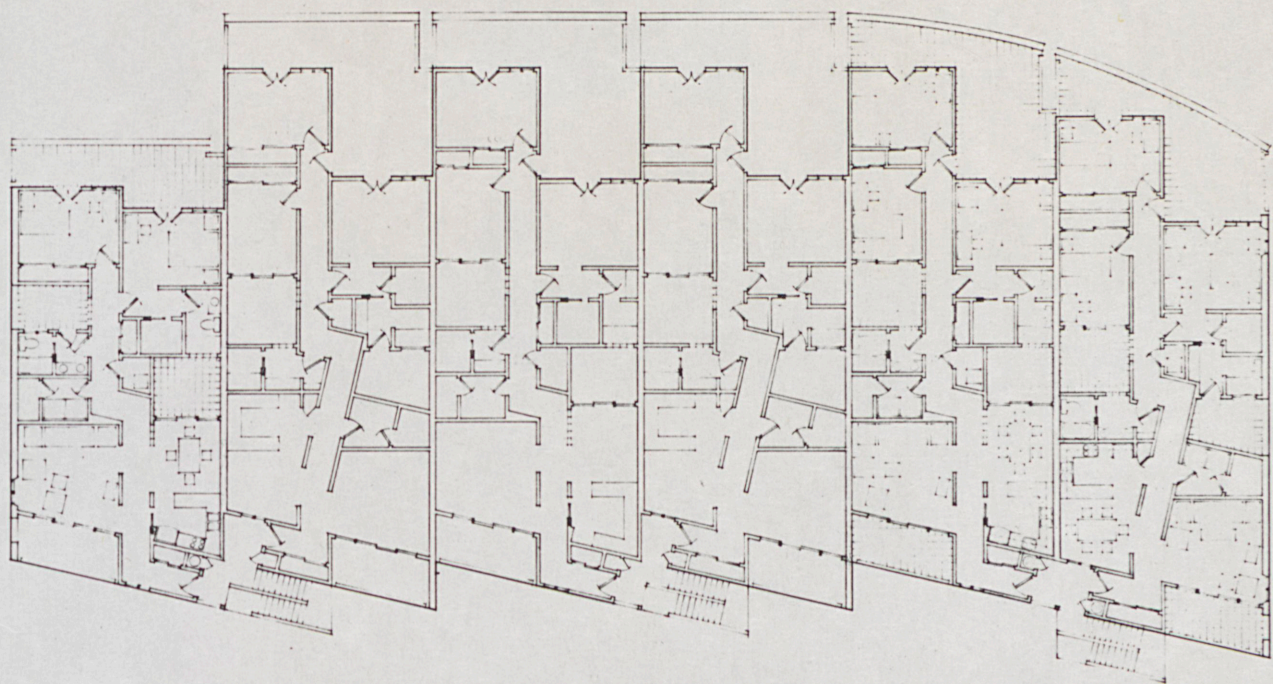
west elevation/section

west elevation/section
scale 1/8" = 1'-0"

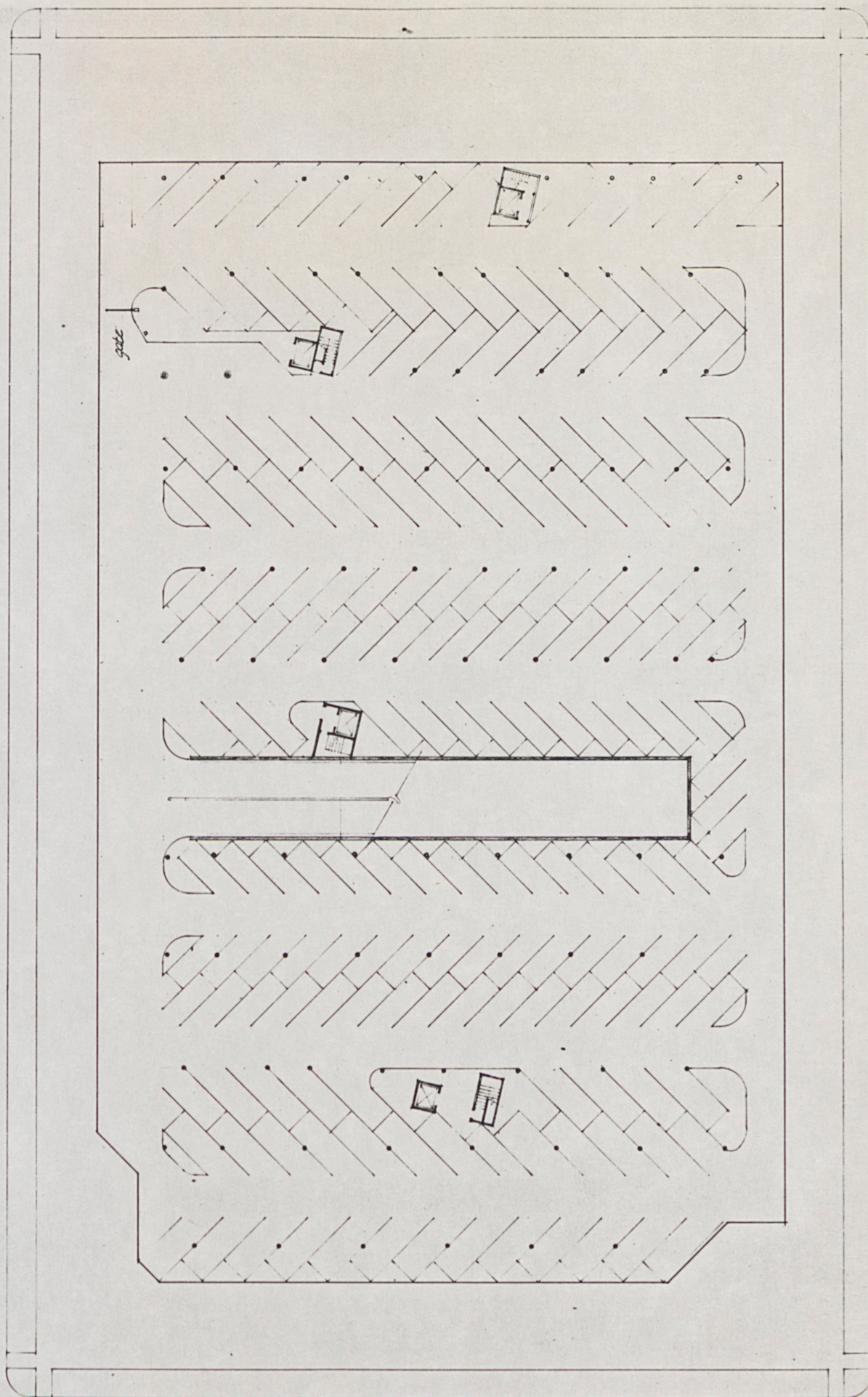




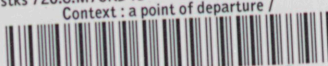
ground level • north ▽



second level • north ▽



parking level • north Δ

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