

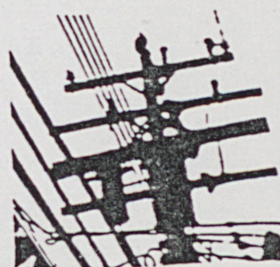


P378
.L7253

architecture of the commercial strip
mark g. little

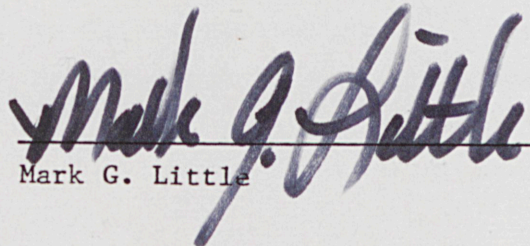

LIBRARY
Montana State University
Bozeman

This thesis is dedicated to the International
Geophysical Year which, in spite of our invitation,
failed to show.



STATEMENT OF PERMISSION TO COPY

In presenting this paper in partial fulfillment of the requirements for a Bachelor of Architecture degree at Montana State University, I agree that the library shall make it freely available for inspection and study. I further agree that permission for extensive copying of the paper for scholarly purposes may be granted by my Major Professor or, in his absence, by the head of the library. It is understood that any copying of this paper for financial gain shall not be allowed without my written permission.


Mark G. Little



"Everyone likes to live in the suburbs. Everyone pokes fun at the suburbs. That's fair enough. Everyone respects those who made the suburbs. Everyone despises the suburbs. Everyone's friends live in the suburbs. Everyone hates the kind of people who live in the suburbs. Everyone wants bigger and better suburbs. Everyone thinks that there is just too much suburbs. You and I live in the suburbs - it's lovely to have a nice home in the suburbs. The whole idea of the suburbs fills us with dismay, alarm, and frustration. Almost everyone's business is dedicated to making life in the suburbs more and more and more enjoyable. The suburbs are a crashing bore and desolating disappointment. The suburbs are exactly what we asked for. The suburbs are exactly what we've got."

- Humphrey Carver

Cities in the Suburbs



ARCHITECTURE OF THE COMMERCIAL STRIP

BY

MARK GERALD LITTLE

PROFESSIONAL PAPER SUBMITTED IN PARTIAL
FULFILLMENT FOR THE DEGREE

OF

BACHELOR OF ARCHITECTURE

APPROVED;

Henry E. Sounsan, Jr.

ADVISOR

R. J. Meeker

THESIS COORDINATOR

[Signature]

DIRECTOR SCHOOL OF ARCHITECTURE
MONTANA STATE UNIVERSITY

BOZEMAN, MONTANA

JANUARY 7 - JUNE 13, 1986

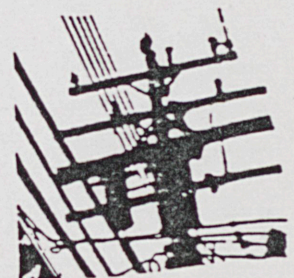
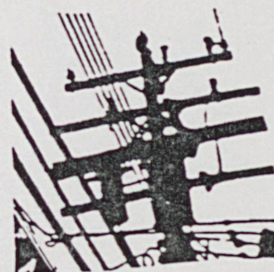


TABLE OF CONTENTS

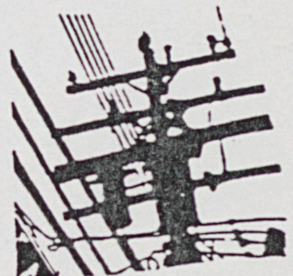
	pg.
Preface	
Introduction	1
Rationale	13
Case Studies	15
Program	26
Mall	27
Restaurant	29
Filling Station	30
The Region	33
Billings	35
The Site	38
Climate	41
Design	46
References	69
Bibliography	71



Within the context of ever expanding the American dream, we have been confronted with recent attitudes concerned with the analysis and the criticism of existing American urbanism. Out of our highly mobile society and the mechanisms that make it possible we have developed a form of popular culture that is strictly our own. In our hurried effort to try to develop this part of the globe established only a few hundred years ago, we inadvertently have created a man-made mess from our own turmoil. When we attempt to pursue the fruits of our own urbanism we find that it contains neither the fulfillment of the whole nor the identity of the individual. Its image is one seemingly destined to be that of chaos. However, when the form of popular culture is such that it becomes the center for our social interaction and the market for our commerce it achieves something much more than that.

Robert Venturi, in a book entitled Learning From Las Vegas, believes that the commercial strip achieves much more. Venturi claims that the strip is not chaotic, but rather it is the achievement of an entirely new spatial order. He states that this new order is the realization of the automobile and a form of highway communication melded into a new expression that turns away from pure architecture in favor of one that is derived from popular culture as a mixed media.

preface



Regardless, it is of our own fruition that we have brought a character upon our cities that can be said to be less than beautiful.

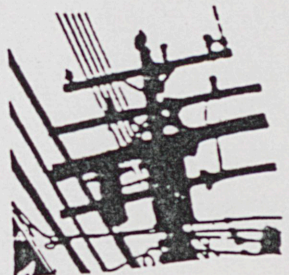
Our suburbs are interminable wastelands dotted with millions of monotonous little houses on monotonous little lots and crisscrossed by highways lined with billboards, jazzed-up diners, used-car lots, drive-in movies, beflagged gas stations, and garish motels. Even the relatively unspoiled countryside beyond these suburban fringes has begun to sprout more telephone poles than trees, more trailer camps than national parks. And the shores of oceans, lakes and rivers are rapidly becoming encrusted with the junkiness of industries that pollute the water on which they depend.

- Peter Blake
God's Own Junkyard

It becomes, seemingly, popular culture gone awry. .

. .

Or has it?

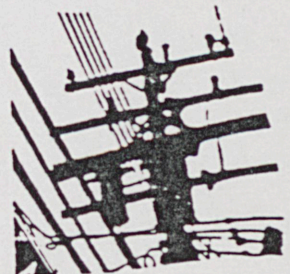


"And then one Thursday nearly two thousand years after one man had been nailed to a tree for saying how great it would be to be nice to people for a change, a girl sitting on her own in a small cafe' in Rickmansworth suddenly realized what it was that had been going wrong all this time, and she finally knew how the world could be made a good and happy place. This time it was right, it would work, and no one would have to get nailed to anything.

Sadly, however, before she could get to a phone to tell anyone about it, the earth was unexpectedly demolished to make way for a new hyperspace bypass. . ."

-Douglas Adams

So Long, And Thanks For all the Fish



Thesis Statement

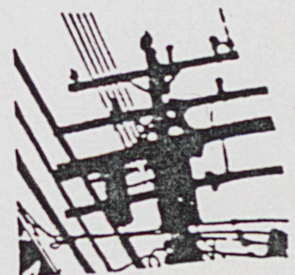
The purpose of this thesis is to examine strip architecture as it pertains to American society and to provide a rational solution by attempting to deal with the problems that are associated with strip architecture.

This examination will not alter the dynamics by which the commercial strip works, but rather, will try to reflect an idea that says there is a better way.

This thesis is a proposal, born of intuition and conviction, partly as a critique of our present environment that becomes of itself an examination into popular culture as the existing pattern.

Thesis Project

The design of a mixed-use development consisting of a shopping mall, a restaurant/lounge, and a filling station to be located in Billings, Montana.



It is hard to pinpoint exactly those forces that were brought to bear in the creation of the commercial strip. Our society, at some point in time, made a move that severed American culture from the urban environment and traded it in for a suburban one.

The seeds that were initially planted and matured to shape suburban American were sown long ago. However, not all is lost when we come to recognize where this suburban American came from.

Charles Mumford Robinson, in a book entitled The Improvement of Towns and Cities and written prior to 1901, gives a sense of direction that led to our present situation by then writing:

'We buy the land by the acre and sell it by the lot', epitomizes a familiar operation in suburban real estate, and reveals at once the opportunity for aesthetic plotting which is one secret of success in selling. The thing, then, for the city to do, is to see that the acres are brought into harmony with each other as well as the lots, that all areas are made to conform with the one general plan for the whole suburban property.

Trite as this seems, it is repeatedly ignored, where cities have so many other interests that they forget their fringing outskirts. There results those unplanned, bedraggled suburbs which make so dreary an approach to the great cities. . . .

Greater problems, causing the decentralization of American cities, were just on the horizon. Following the drastic blow dealt by the depression and the state of confusion and panic that then ensued, the Roosevelt administration introduced a host of remedies, the most historic of which is the New Deal. The Secretary of Agriculture during the New Deal era (1933), Henry

introduction



Wallace, felt that the problems incurred by this nation were due to an imbalance between the city and the country. With his agencies support, recovery gained faster in farm income and employment than in any other sector. Since this endeavor proved to be such a big success, further experimentation occurred. As a project of the new resettlement administration, satellite cities were developed in certain areas of the East that were deemed appropriate. This project, however, did not last long due to serious financial shortcomings which in effect left those satellite cities as nothing more than suburbs. . . hardly paving way for "a new type of civilization."¹ This was only first in a long line of government measures that attempted to re-establish what was lost in the grip of depression.

It was thus that in attempting to revive the economy, the way was 'paved' for the rapid decentralization of the cities after 1935. Other developments helped - the shorter workweek, government mortgage guarantees - but the suburbanization of American life could not have taken the form it did without society's indirect subsidization of the automobile industry.²

Further legislative and agency measures eventually formed the Public Works Administration (PWA) and its by-product - the National Planning Board. President Roosevelt felt that it was necessary to put the development of the country on a planned basis, and wanted a permanent long-range planning commission that could lay out a program for national development.³ While these programs seemed a stop in the right direction at the time their benefits fell far short of their goals.

In spite of its innovations, like public housing, employment programs, and experimental new towns, the New



Deal did not solve the problems of the cities. True, it got rid of most of the "Hoovervilles" and the tar-paper shacks that had sprung up along the roadsides during the depression, but as soon as these were gone another form of blight began to appear along those very same roads and highways. 4

This time it was commercial in nature. The selling of automobiles, shoes, clothing, and groceries in the new commercial strips in suburbia and even further out in the urban-rural fringe dealt further blows at the city, which had hitherto drawn all the shoppers to its central business district. Especially hard hit were the shopkeepers of small towns, who found it impossible to compete with the prices and attractions of the outlying shopping centers. 5

The most frightening aspect of the entire aspect of this suburbanization of America is the fact that it had been predicted many years earlier.

When H. G. Wells predicted in 1902 a new form of settlement pattern which he called "the urban region" would develop, especially in the United States, he was fifty years ahead of the event. In the new urban regions, said Wells, a citizen of Philadelphia would feel quite at home in Albany and vice-versa. . .

From these beginnings, it seems, that the forces of suburban life would grow swiftly and deeply in the undercurrents of popular culture for a long time to come.

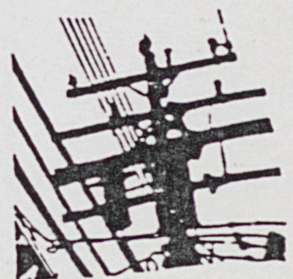
The phenomenon was not new, yet as late as the 1920's it could still be said that the central cities dominated all phases of the American culture. This was no longer so. While the talking pictures were killing



bit-city vaudeville, other changes were taking place. Although the centers were still powerful magnets, many of them were beginning to lose population; and it was now the suburbs that conditioned not only people's lives but their thoughts and the communications media as well. Magazines with a national circulation became suburban-oriented; humor on radio and television revolved around the problems of suburban living. Although there were problems - long commuting hours for the men, women of child-bearing age tied more tightly to the home, rising taxes combined with a lack of public services, and so on - there were vast compensations. A shorter working week and the growth of labor unions provided more leisure time coupled with job security. The movement of industry to the urban-rural fringe provided a choice of employment. There was the blessing of privacy, not only within the four walls of one's Federal Housing Administration mortgage-guaranteed home, but outside on the much larger lot that the outer reaches of urbanization now afforded, and where father could build his boat in the backyard while the children splashed in their plastic pool. Suburban shopping centers remained open in the evenings, so that the whole family could go, or mother could take the older children while father remained home with the baby. 6

However, government and the masses were not the only ones to receive the blame of pushing suburbia. Others placed the blame upon the architects as well.

The massive, monotonous ugliness of most of our Suburbia must be blamed, in part, on those architects and planners who used to advocate a kind of garden-city development in which each family would have its own plot of land and its own house smack in the center of that plot. One of the leading advocates of this ideal was Frank Lloyd Wright, whose "Broadacre City" concept envisaged one-acre plots per family for most Americans. Wright was, of course, greatly influenced by the agrarian traditions of eighteenth- and nineteenth-century America; and while his proposals reflected those traditions and ideals, they hardly faced up to the desperate problems created by recent population growth in this country (an increase of 350 per cent



in Wright's lifetime alone) and in the rest of the world.

What happened to Broadacre City (with one-family-per-acre), of course, was that it became Suburbia (with about five-families-per-acre). Yet, despite this rather basic change in density, those who proceeded to practice what they thought Wright had preached made no changes in concept; so that Suburbia today is what Wright himself called, in his later years, "a series of anonymous boxes that go into a row on row upon row", and what others have called "the great suburban sprawl".

Suburbia got that way for two simple reasons: first, because the developers who built it are, fundamentally, no different from manufacturers of any other mass-produced product: they standardize the product, package it, arrange for rapid distribution and easy financing, and sell it off the shelf as fast as they can. And, second, because the federal government through FHA and other agencies set up to cope with the serious housing shortages that arose after World War II, has imposed a bureaucratic strait jacket on the design of most new houses, on the placement of these houses on individual lots, on landscaping, on street-planning, and on just about everything else that gives Suburbia its "wasteland" appearance. As Senator Harrison Williams of New Jersey put it recently: "The Federal Government, directly and indirectly through the laws it writes, the programs it enacts and the regulations it issues, has contributed more than its share to the ugliness of our landscape."

In fairness to both the developers and the bureaucrats, it should be said that they have certainly produced those "improvements and comforts" which Henry Clay hoped to see spread over the entire United States. Suburbia has more open space, more greenery, more modern kitchens, more gadgets than Urbia. But all of this, and much more, could have been achieved in infinitely better ways - better for those who grow up in Suburbia, better for those who must daily look at the dreary monotony of Suburbia, and better for those who have to pay for Suburbia.

For the sad fact is that America's Suburbia is now functionally, esthetically and economically bankrupt. 7



It should be said now that even though much of this rhetoric is primarily concerned with only a small portion of suburbia it is - in effect - concerned with the commercial strip.

Regardless, it seems that those people of whom we were to entrust with the development and the guidance by which our cities and our country could take form had led us astray. Still, a third factor existed in the formation of our suburban environment that was not entirely under our full control.

There is not much that we can do about the population explosion that lies at the base of all this; but there is something we should have done long ago about the pattern of housing this exploding population. For the suburban pattern that has developed in the United States not only eats up land at a mammoth rate, but is bankrupting most suburbs and is, further, making life there only slightly less intolerable than on tenement streets.⁸

From these forces, which acted through a very long time, the modern movement created a collection of isolated and unrelated fragments of every size and shape that were only vaguely related to the human experience.

However the question is why is the commercial strip such an undoubted success? Some insight into this can be interpreted from the following:

Commercial strips offer instant access for people with cars. Parking is bountiful, the merchandising pace is fast, people service themselves, and large inventories of specialty items are maintained. Strips draw customers from a large community, but offer little for the pedestrian or bicyclist. Yet the disorganization, visual clutter, traffic conflicts, repetitive services and awkward intersections may actually be a disservice to auto-oriented shoppers. Because land and energy were cheap when strip development began, the spread-out pattern was desirable. But now as land and energy are becoming more expensive, a need exists for organizing greater efficiency.⁹



For most Americans it seems, the journey is over when the car is parked.

However, not all of the problems nor all of the successes of the strip can be explained by the automobile. There is much more to the commercial strip that has weaved its way into the ways in which we think and live.

This spread-out form of living suggested to many Americans that there was no other settlement pattern which could suit their way of life so well. True, conservationists deplored the way the land was disappearing before the bulldozer, and planners warned of problems of communication and ill-advised development. . .

. . . But generally speaking, few were concerned about altering the way of life or revolutionizing the building pattern. The sociologist Robert C. Wood, who later became an official of the Federal Department of Housing and Urban Development, saw no drastic changes in view. "We know of no other time," he observed, "when a revolution took place when the existing system was solidly established, and its citizens, as they understood the goals of their domestic society, content." 10



So it seems that this "new way of living" had so deeply sifted its way into our way of living that we were non-committed to alter its course.

These were the forms in which the commercial strip was to arrive in history, but, the question remains of how we are to presently address the strip in a way that is more beneficial to the people who interact with it in their everyday lives. Various solutions have been tried.

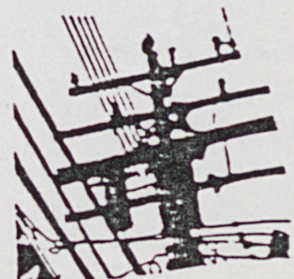
Paolo Soleri gave us an enigmatic alternative in his radically new way of thinking as expressed in the designs of Arcosanti. According to Soleri, the problem with city 'sprawl' is:

Sprawl is a pathological event. It suffers from gigantism with all the derivative handicaps and shortcomings: environmental disruption, waste, pollution, energy and time depletion, expensive logistics, segregation, and urban decay.

If we add up the time-space-machine-energy cost of forced driving (at the exclusion of pleasure driving), we reach the inescapable conclusion that we must be mad. . . a topsy-turvy kind of culture. Worse yet is the life negation constructed by suburbia, the ultra-segregation of habitat. 11

Arcosanti is indeed at one end of the scale when it comes to addressing the problems of our cities. Sadly, however, it will be a very long time before the results of this bold experiment will be realized - if ever.

Others provide answers less encompassing or as radical as Soleri's. These people foresee the implementation of new values but within our current methodology. It is this type of thinking that will most likely receive the most attention from those who would reshape our society.



Peter Blake, in his book entitled God's Own Junkyard, gives some insight into how he would see the reshaping of our cities.

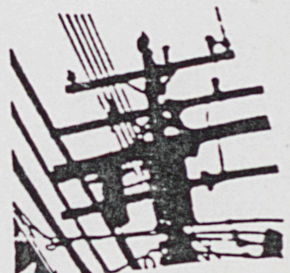
In short, it makes eminently good economic sense for Suburbia to encourage a mixture of building types, if not only to reduce the cost of public schools. Quite obviously, it makes just as good economic sense to encourage the concentration of buildings on the one hand, and of open park land on the other, so as to reduce the length of roads and utilities, and the cost of policing or maintaining them.

The wholesale destruction of our countryside is clearly not the inevitable result of the population explosion. It is the result of incompetence and ignorance on the part of those who determine the shape of our suburbs. And it is also the result of pressures from those who speculate with land and who have a vested interest in making buildable land scarce and thus, increasingly valuable. Under the present system of suburban development, the land speculator has been able to make phenomenal profits: between 1950 and 1960, while the Consumer Price Index went up just a little more than 10 per cent, the price of suburban land rose anywhere from 100 to 3,760 per cent, and the end is nowhere in sight.

All the arguments against suburban sprawl cited above deal with practical problems: how to make Suburbia function better by providing really usable outdoor spaces of different kinds; how to make Suburbia more varied socially by attracting people from different age- and income-groups, and how to make Suburbia self-supporting by reducing its operation costs.

If these practical arguments were heeded, the resulting new kind of Suburbia might also be beautiful. It will not become so automatically, for there are more bad architects than good ones, and more hit-and-run developers than developers willing to spend a little extra time on planning and design. 12

His words are, in effect, pretty harsh concerning those of us who have the most effect in the shaping of our society. However, he doesn't say that it cannot be done.



If we look at the strip from a societal/behavioral viewpoint we might draw similar conclusions.

If we want human cities, we must take a humanist approach to architecture and urban design.

Design, after all - and this is my whole point - begs the question of its effect on behavior. Design is an effect of behavior. It is the manifestation of our "response to the range of factors constituting [our] environment", as my Webster's defines "behavior". It is a form of behavior which Webster's calls among other definitions, "the treatment shown by a person towards another or others especially in its conformity with or divergence from the norm of good manners or social decorum". There are well-behaved cities like Zurich and barbaric cities like Los Angeles. 13

In addition:

You may deplore the abominable taste of the masses with its love for kitsch, stable lanterns, shutters that don't shut and Ed Stone's confections. But you can also question whether, if design is indeed a form of behavior, our architects aren't behaving like arrogant snobs. It seems snobbish that they keep trying to shock rather than please people. The shock never endures. It is always better, as Mies has said, to be good than to be original. A good design should never need to be rationalized. It should speak for itself and to everyone. 14

And now, a final viewpoint lamenting upon the problem of suburbia.

The incompatible material thrown up nowadays along our main arteries has particularly crude and raw appearance, for two reasons. It is scattered in a much looser and more straggling fashion as the whole space-time dimension of cities has been stretched out. A promiscuous use of land is made possible by cars and trucks; the hunt-and-peck form of real estate development



is encouraged by a vehicle that can bypass, leap-frog, and skip the intervening spaces to reach the cheaper land. Furthermore, the raw material itself that is spewed out by the cities has become more and more diverse and miscellaneous. The suburban landscape has become cluttered with an ever larger miscellany of buildings and mechanical apparatus as city life has multiplied our possessions and occupations and interests. We need only to open the yellow pages of a telephone directory to contemplate the diversity of professions, trades, and services that are nourished by a large city, each requiring some specialized equipment and accommodation: morticians, mortgages, motels, and masseurs; market researchers, marriage counselors, and music arrangers; machine tools, mobile homes, and monument makers. No item of this paraphernalia of the modern is inherently offensive or ugly - - if smelly and noisy industries have been weeded out and isolated. Gas stations and common roadside restaurants should give colour and gaiety to the scene, and be a pleasure to look at and use. We have not yet learned to appreciate the new and strangely beautiful shapes devised by the engineers in electronics and chemistry, the spheres and the volutes and spirals, the architecture of power and speed. The artifacts of the modern city offer ever fresh aesthetic qualities. The novelty and diversity of these forms are not in themselves offensive, but the contradictions in the way that they are placed can be extremely disturbing. 15

He goes on to state:

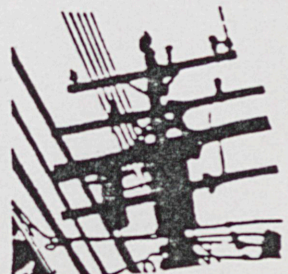
The problem is, of course, that the suburbs are not made by the people who live there. They arrive afterwards. Suburbanites have had cause for complaint that what they find on arrival is not an expression of their desires and ambitions. The suburbs don't look remotely like anything they could have imagined; this has not been the fulfillment of a dream. To a large extent the suburbs have been an accident, the consequence of an interplay of forces in land speculation, in traffic arrangements, and in the bid for consumer markets. The people who arrive in the suburbs have been inarticulate: they have neither formulated nor expressed their desires. How could they? They weren't there when the decisions had to be made. 16



So what is the solution to the commercial/suburban strip? There seem to be as many opinions as there are voices to express those opinions. What sort of Suburbia are we truly capable of creating?

Such a Suburbia may actually become sufficiently attractive and lively to generate its own industry or business, and to cease being merely a "dormitory" for some nearby metropolis. If this were to happen, the suburb itself would gain immeasurably in color and variety, and the region would gain immeasurably in reduced transportation problems. 17

The suburbs and the commercial strip share the very same forces that shaped their dualistic beginnings. The important fact of the matter is that they have become a vital part of our lifestyle and shouldn't be treated as something 'disposable'. What matters is that we begin to show concern for the cities that we live in.



As stated previously, this thesis is an examination into popular culture as the existing pattern and into strip architecture in particular. To develop objective goals about an emotionally charged, bias filled subject creates special problems. This thesis as well as the goals pertaining to it have been established, hopefully with this in mind.

The goals for this thesis were established by reflecting upon those intrinsic elements of the strip that are seen as having either a desirable or positive effect upon our present situation or as having the opposite effect upon our lives. In order to do this the strip was viewed as anpposite effect upon our lives. In order to do this the strip was viewed as an intangible generic 'given' as it presently exists - - - wherever it may be.

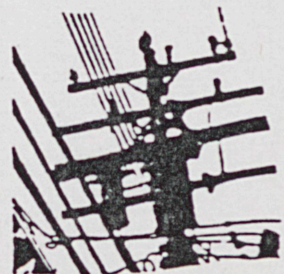
The forces that occurred in order to create the strip are easily enough defined: automobile consumerism, lenient zoning, government loans, and the piecemeal annexation of land into our cities to name but a few. This thesis, however, and the goals that are established for it concern themselves with the tangible elements and forces brought to bear which provided effect upon the strip.

Those positive elements which exist in order to create the environment in which the commercial strip flourishes are as follows:

- functional and locational efficiency ,
- sign, symbol, and image
- the "vital mess"
- economically feasible
- consumerist orientation
- automobile orientation
- traffic pattern orientation
- "middle class"

It would be utterly foolish for this thesis and the

rationale



goals that pertain to it to ignore these most basic elements. Therefore, the goal of this thesis is to address, encourage, and/or enhance those desirable qualities or elements that have come together to amek the commercial strip a middle class success.

However, not all of the qualities that are attributed to the strip are seen as positive. The following elements are seen as a detriment upon the commercial strip and not necessarily a detriment to the strip itself. The goal of this thesis will attempt to address positively those elements as follows:

- mass produced buildings
- a non-vernacular
- noise
- overpaving
- lack of pedestrian oriented design
- 'like' genre

These goals would be more correctly labels as sub-goals. The ultimate goal is to recognize the commercial strip as it exists and not alter it in any way by which it could no longer function as such. The goal of this thesis is to enhance the possibilities of the strip through a methodology derived from a deeper understanding.

The commercial strip has found its place in our society and, more correctly, in the ideals of this American society. This will serve as the point of departure by which this realm of popular culture can be examined.



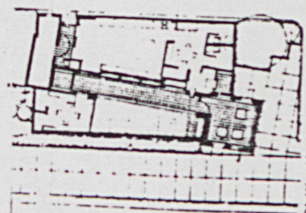
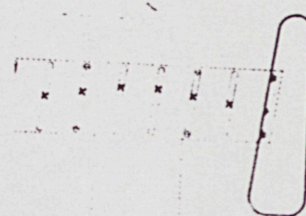
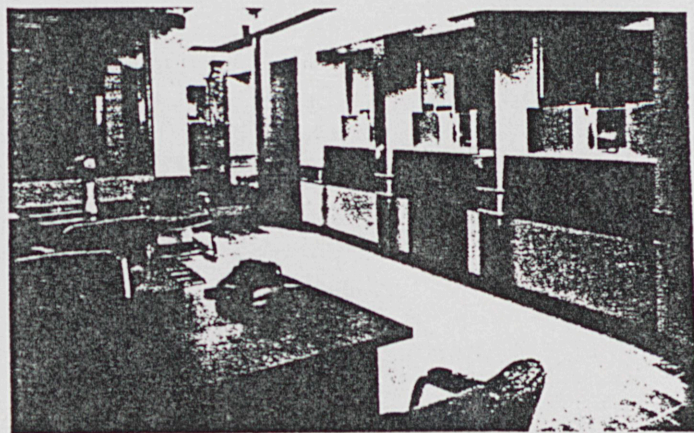
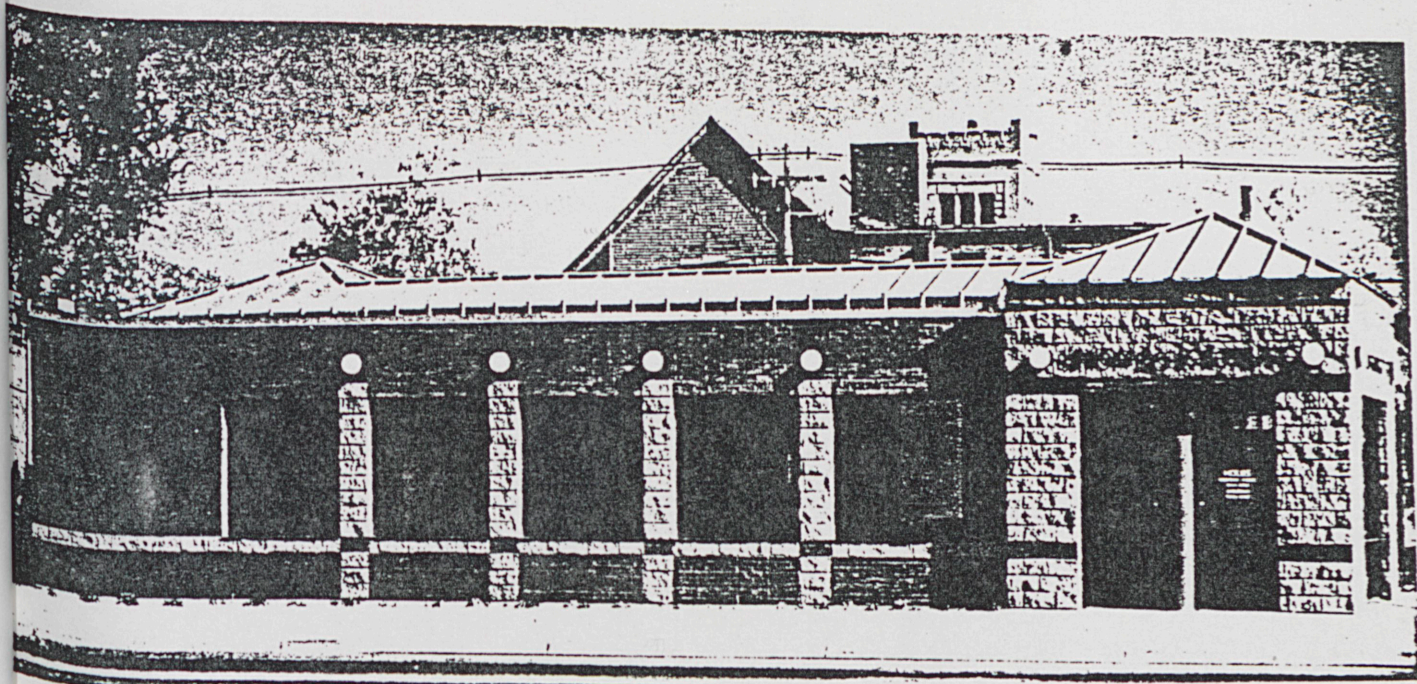
In order to make visual sense out of the actual makings of popular culture as related to the commercial strip it is pertinent to look at the precedents which bring us to bear upon our present situation. What is established within precedent may have important meaning in that it may provide clues toward a better understanding of the commercial strip.

The following case studies have been derived from two sources: the first is God's Own Junkyard by Peter Blake which is a personal editorial criticizing the way in which our Urban/Suburban landscape has been developed; the second source is an accumulation of various projects from an assortment of architectural periodicals which highlight, according to my own definition, those 'purveyors of good form'.

These case studies fall purposefully into two very diverse orders which provide a view into the past, present, and future expression of strip architecture. They offer examples into both the order that can be achieved and the disorder that is the commercial strip. It is within examples such as these that the visual attributes of the strip can be examined.

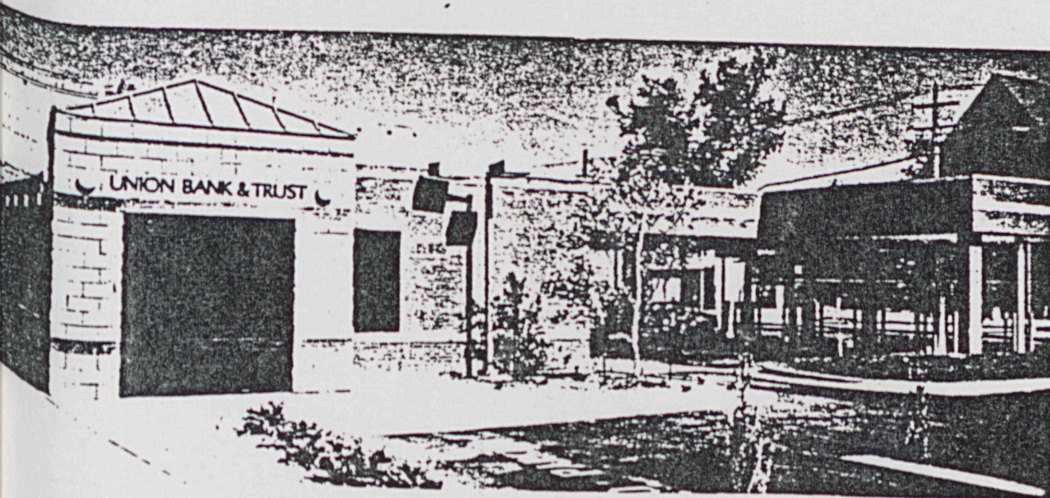
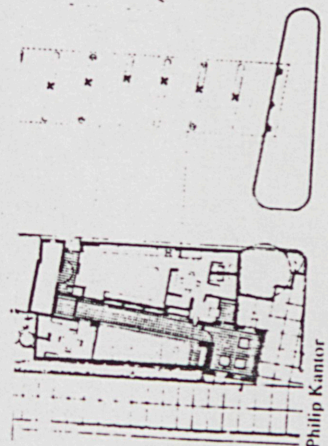
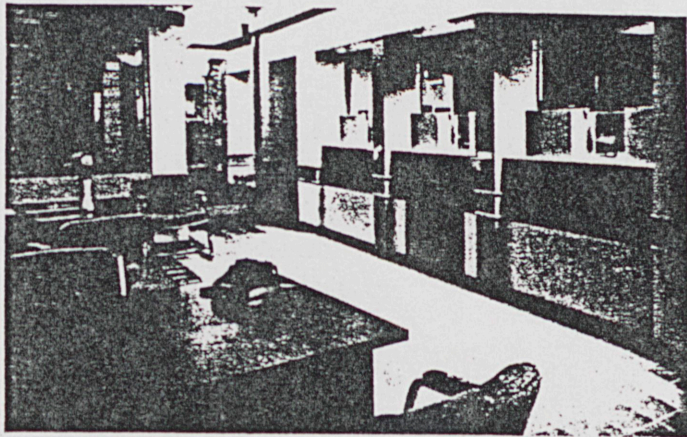
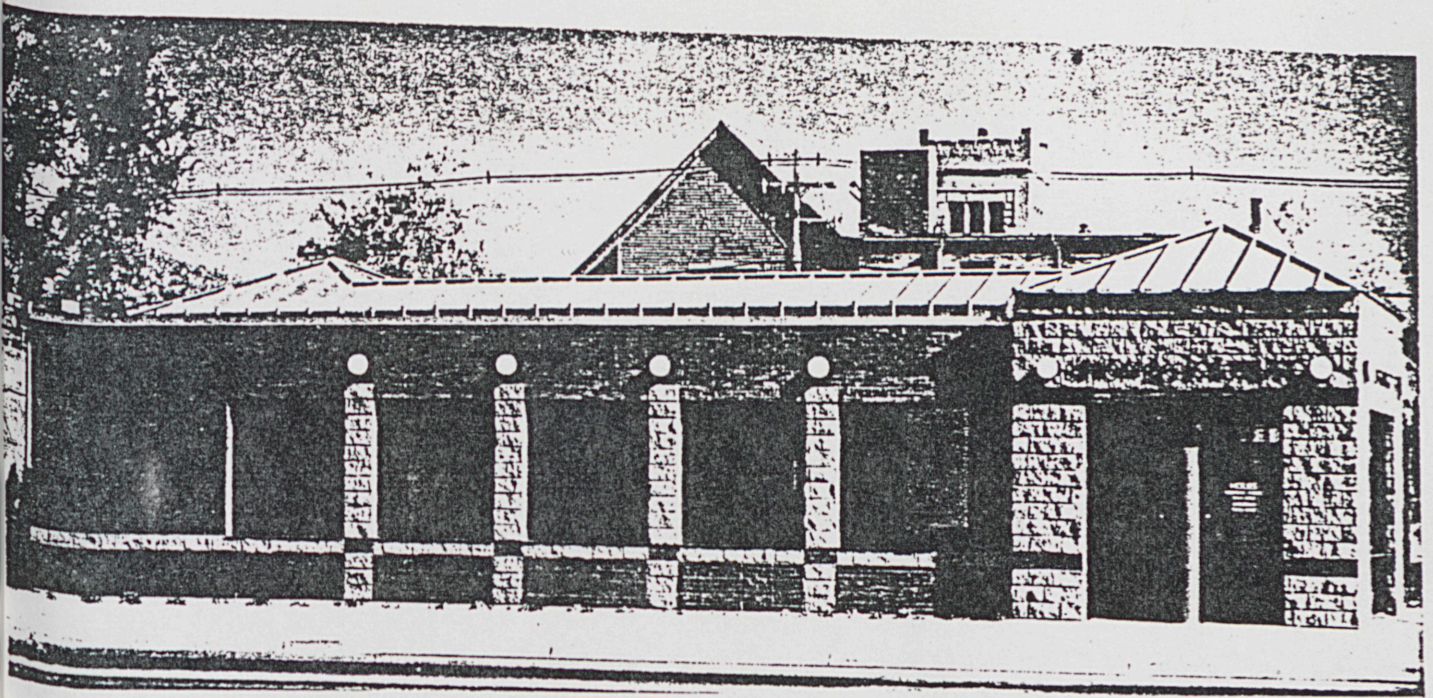
case studies





Philip Kantor





9241

SEASIDE
TERRACE

CONDOR

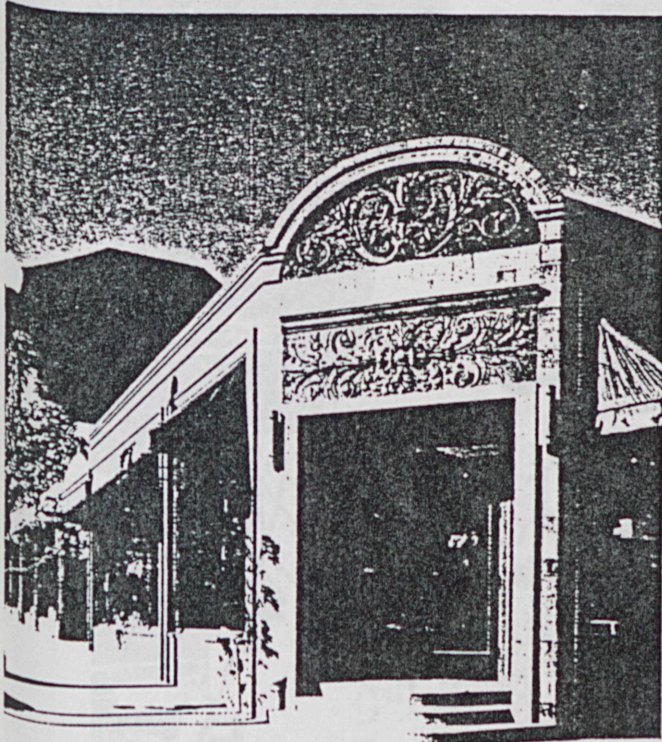
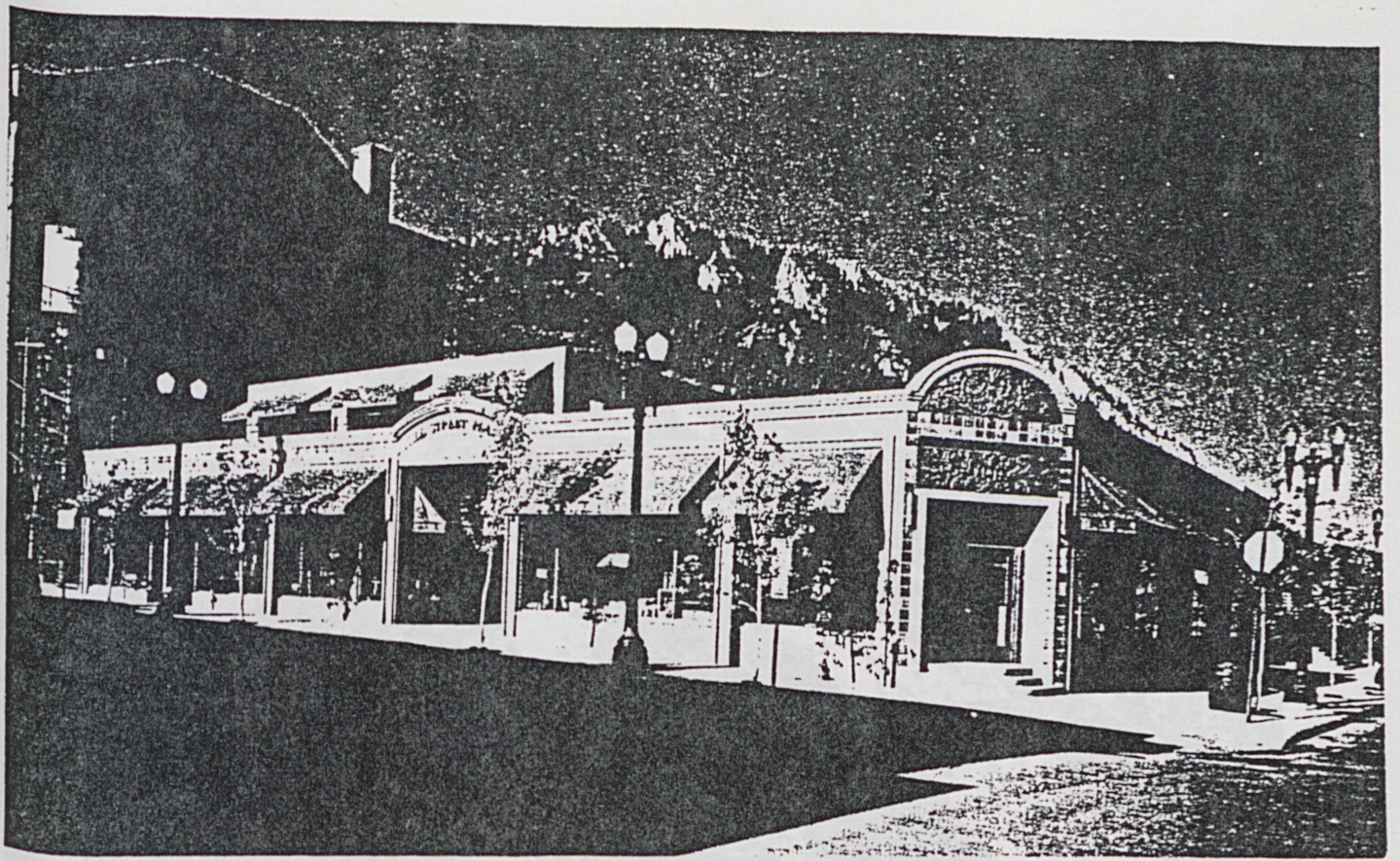
MAISON D'ANCIEN

DE
ACE
TICRED
APPROVED
444
MOTEL

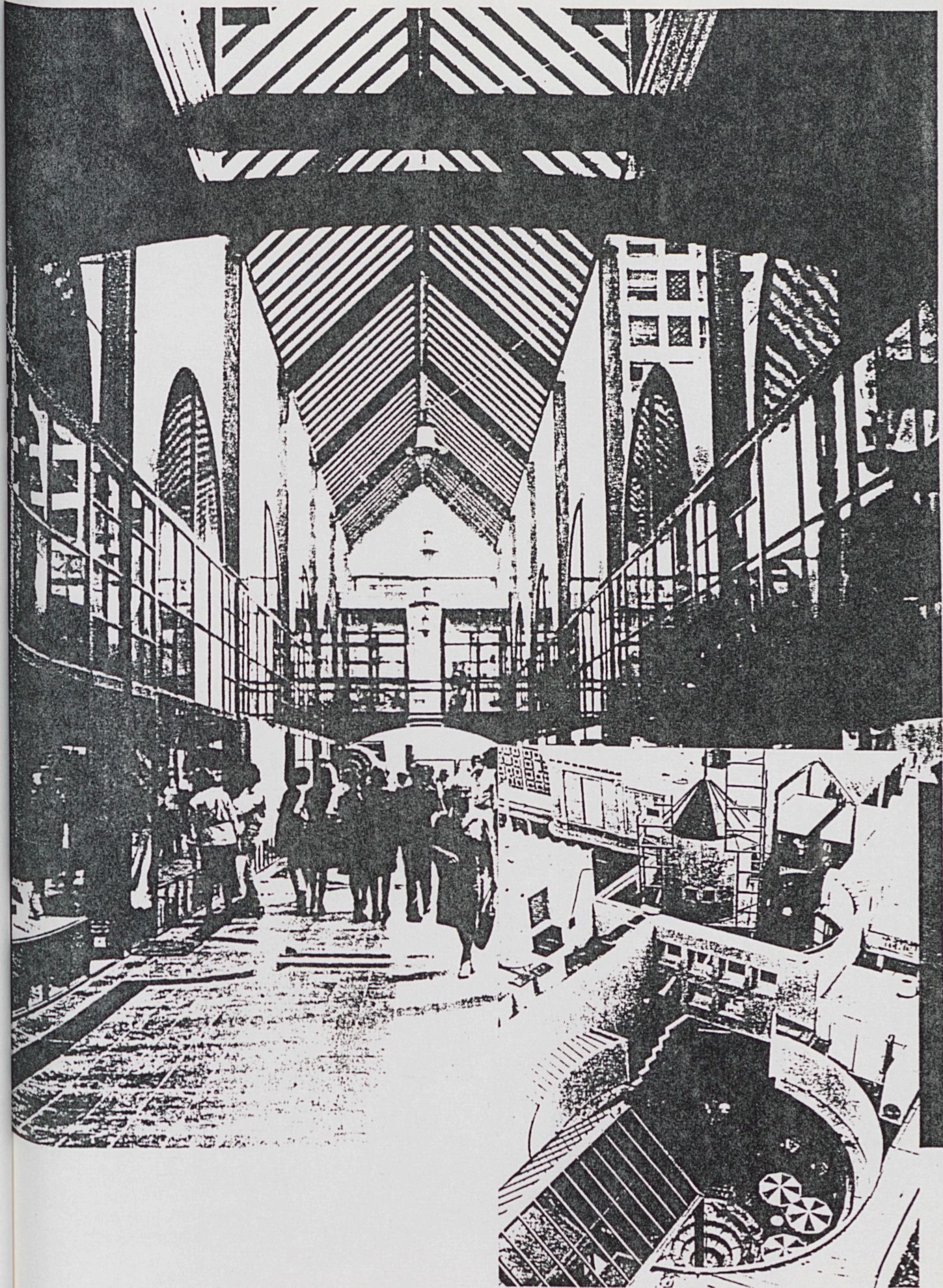
AIR
SEA
HO

9257
CONDITIONED
SIDE VIEW
MOTEL APTS
VACANCY

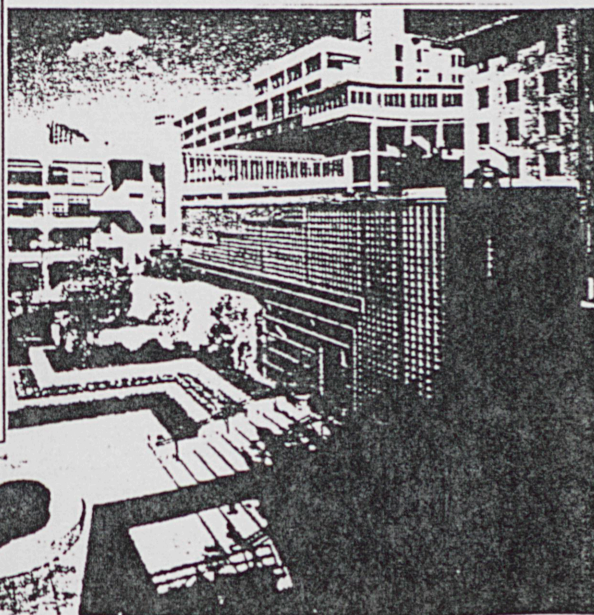
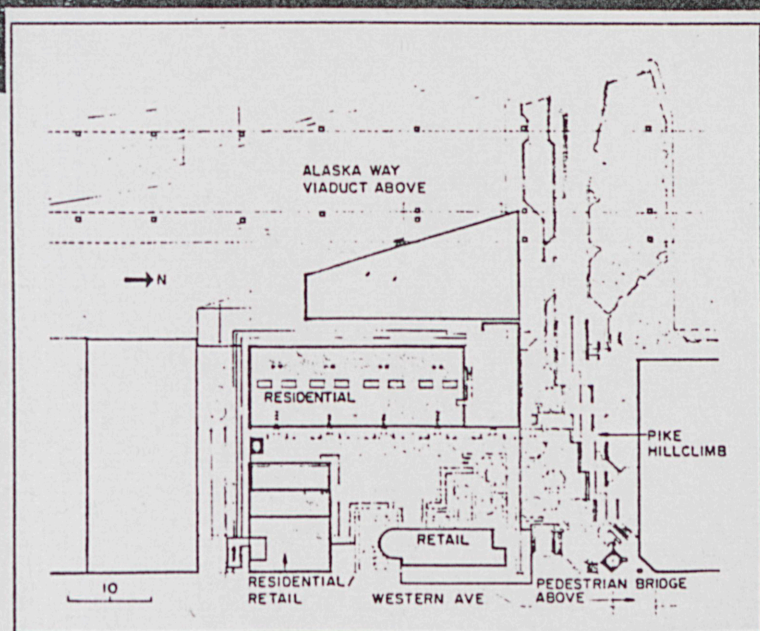
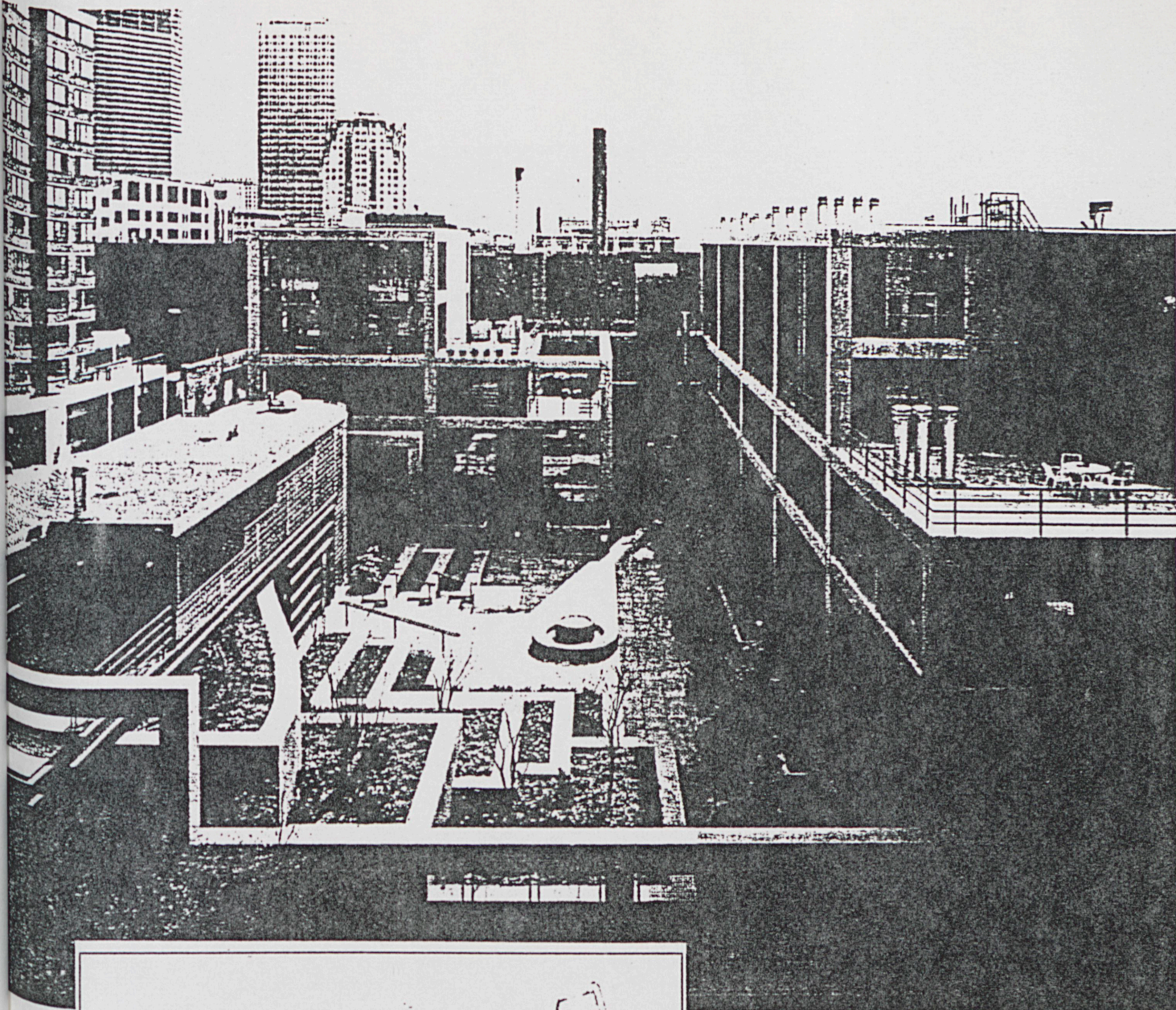
The OTIS
9257
MARINA
PRIVATE BEACH
MOTEL
VACANCY

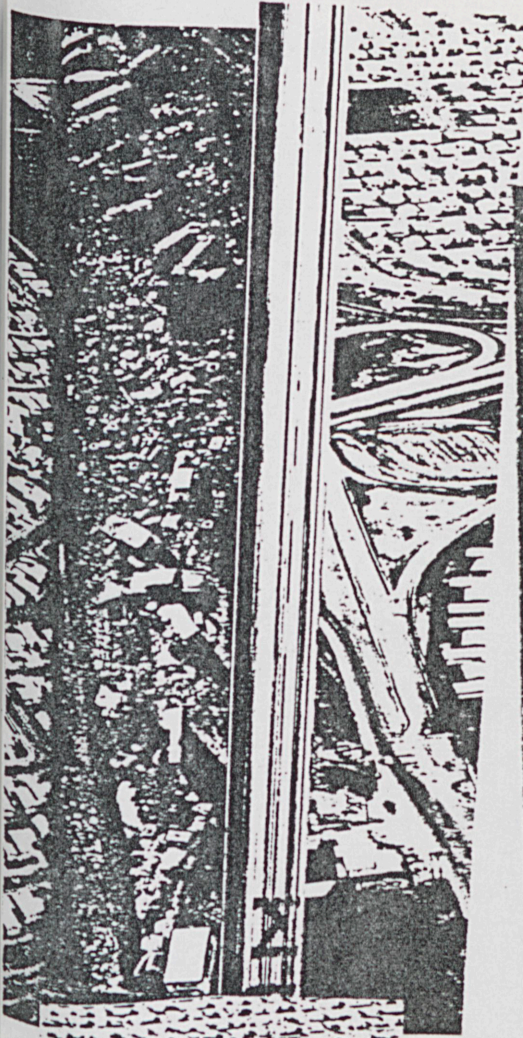


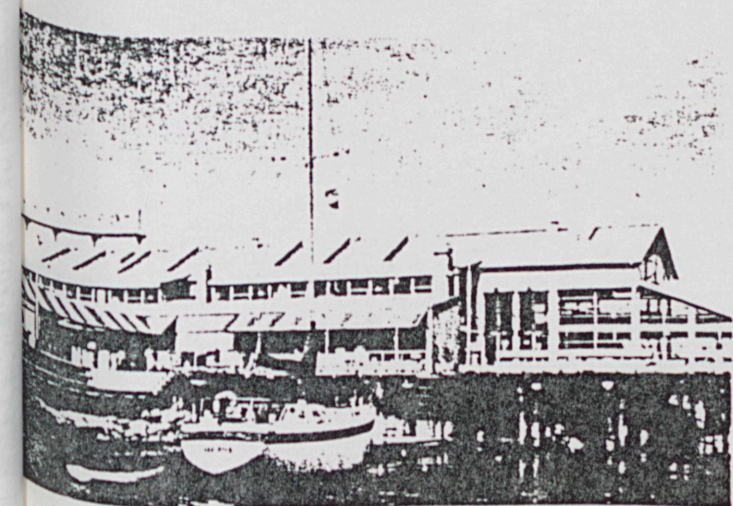
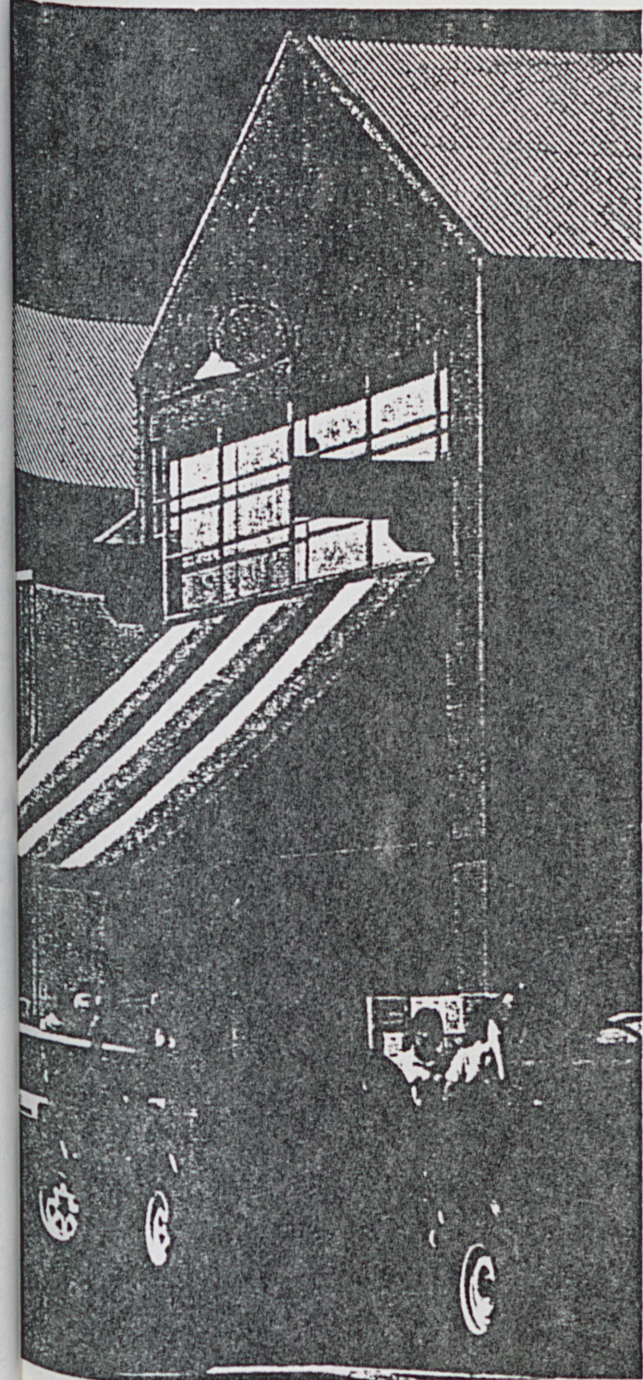












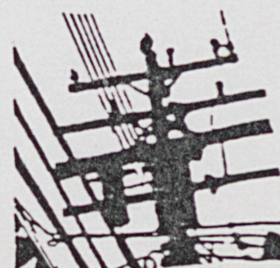


From the programming, the gathering of facts, the studying of precedent, the establishment of needs, etc., the evolution of this thesis must take on a certain embodiment by which the form, function, and the goals may be tested. This program had to be derived from a variety of sources since there is no directly bearing precedent on the subject matter upon which this thesis is based. These sources include the study of: mixed-use developments of appropriate size; sourcebooks for building types; facilities which contain similar functions; and other related architectural projects which exhibit desirable qualities such as: 'sense', 'fit', and 'vitality'.

There are a myriad of functions on the strip: hotels, motels, gas stations, plazas, malls, flower shops, carpet stores, furniture stores, auto parts shops, restaurants, bars, used-car lots, and on and on . . . The ultimate decision to choose a shopping mall, restaurant, and filling station was done intuitively after taking a cursory examination of the possibilities and determining those functions that could work compatibly upon the same site.

The form that this thesis will take is as follows:

program



shopping mall

The shopping mall will be a large, focus activity for the development. It will consist primarily of open retail rental space as well as a provider for minimal service amenities. This function will accommodate the largest number of people due to the high customer turnover rates expected for retail business.

Types of retail shops expected:

- clothing/shoe store
- curio shops
- bookstore
- hair salon
- electronics/video/audio
- bicycle shop

The mall will provide only gross retail square footages for rent with the in-store layouts to be determined by the particular business. In addition, the shopping mall will be formed around a common circulation corridor common to all of the retail area and in conjunction with on-site circulation. Of secondary importance will be an outdoor plaza area to be used for a variety of activities as well as pedestrian circulation and uses.

The shopping mall should: 1) afford a separation between the pedestrian and the auto; 2) be in close proximity to the restaurant and the outdoor cafe' area; 3) provide a method of establishing security for the retail establishments; 4) accommodate the possibility for future expansion of the retail area.

The mall should be situated as to provide protection from inclement weather as well as create a buffer between itself and the noise that may arise from the major traffic arteries.

Consideration should be given to service as well as to access onto and off of the site.

mall



Finally, one of the most important design considerations is the provision of flexibility within the basic floor plan of the retail rental spaces to accommodate changes that might be required by specific business. Such flexibility would call for a simple and fairly straightforward structural system.

space requirements

The mall will consist of a variety of rental space ranging in size from 300 sq. feet up to 2000 sp. feet.

retail rental area	- 20,000 - 25,000
office rental area	- 5,000
restrooms 4 @ 150	- 600
service amenities (phone, etc.)-	100
maintenance	- 500

- 31,200

mechanical	- 2,000
circulation	- 4,700

TOTAL BUILDING AREA - 37,900

parking - 80 - 100 stalls



restaurant/lounge/patio cafe'

The restaurant/lounge/patio cafe' is a pivotal function within this development. It will serve not only shoppers from the mall, but also those people who come to the site in order to use only this function.

The important feature of this facility will be the diversity of services. Foremost is the main restaurant/dining area. In conjunction with this will be a small outdoor patio cafe'. Additionally, a lounge area will be provided. All three functions will be served by a central kitchen area.

Proper siting should be established in order to provide a visually attractive appearance to the passerby in order to advertise business and yet in a way to minimize the noise, smell, and visual distraction of the strip.

Functionally, this facility will be the most complicated in terms of internal relationships. Proper planning is of the utmost importance in the success of any restaurant.

space requirements

restaurant

lobby/cashier	-	300
dining area 120 seats	-	2,000
restrooms 2 @ 120	-	240
dishwashing	-	200
bus station	-	100
storage		
cold	-	200
dry	-	300
miscellaneous	-	100
receiving	-	100
employees		
lavatory 2 @ 75	-	150
lockers 2 @ 120	-	240

restaurant



lounge	-	300
manager's office	-	220
chef's office	-	150
janitorial	-	150

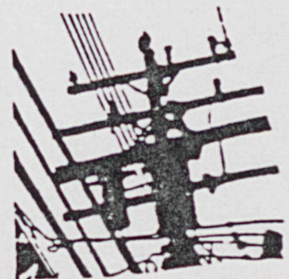
lounge		
seating area	-	800
bar	-	300
restrooms 2 @ 100	-	200
dishwashing	-	20
cold locker	-	150
dry storage	-	100

	-	7,220
--	---	-------

waste/refuse	-	200
mechanical	-	1,000
circulation	-	500

TOTAL BUILDING AREA	-	8,920
---------------------	---	-------

parking		
customer	-	80 stalls
employees	-	10 stalls



filling station

One of the most highly recognizable and widely used functions found in the suburban strip is the automobile service station. Due to the dynamics of our high automotive society, the service station can be found on every convenient corner location in virtually every city across the country.

However, the old standard of the station that pumps gas and services the car has been drastically changed. Today the norm is one of dispensing your own gasoline and checking the oil yourself in front of the local food basket.

Siting and access requirements of the filling station are pertinent to its relative success as a retail outlet. Easy access into and out of the major flow of traffic is one of the largest determinents to the relative use or disuse of this facility. Ideally there should be two entrance points: one off a major traffic artery that handles 70% of the adjacent traffic, and another entrance/exit from a secondary traffic artery that handles 30% of the traffic load.

In addition to the dispensing of petroleum products this facility will incur another additional function, that being a convenience retail food store.

The major problems to be addressed in a filling station are gasoline spills and smell, traffic and traffic patterns, signage control, and ancillary products, i.e. air, water, etc.

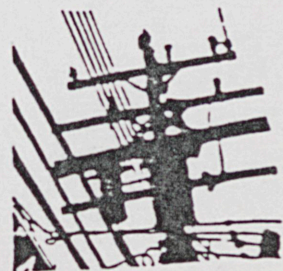
filling station



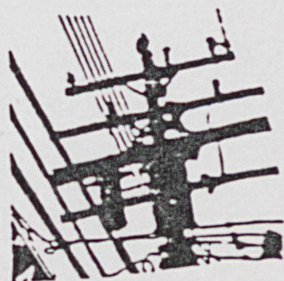
space requirements

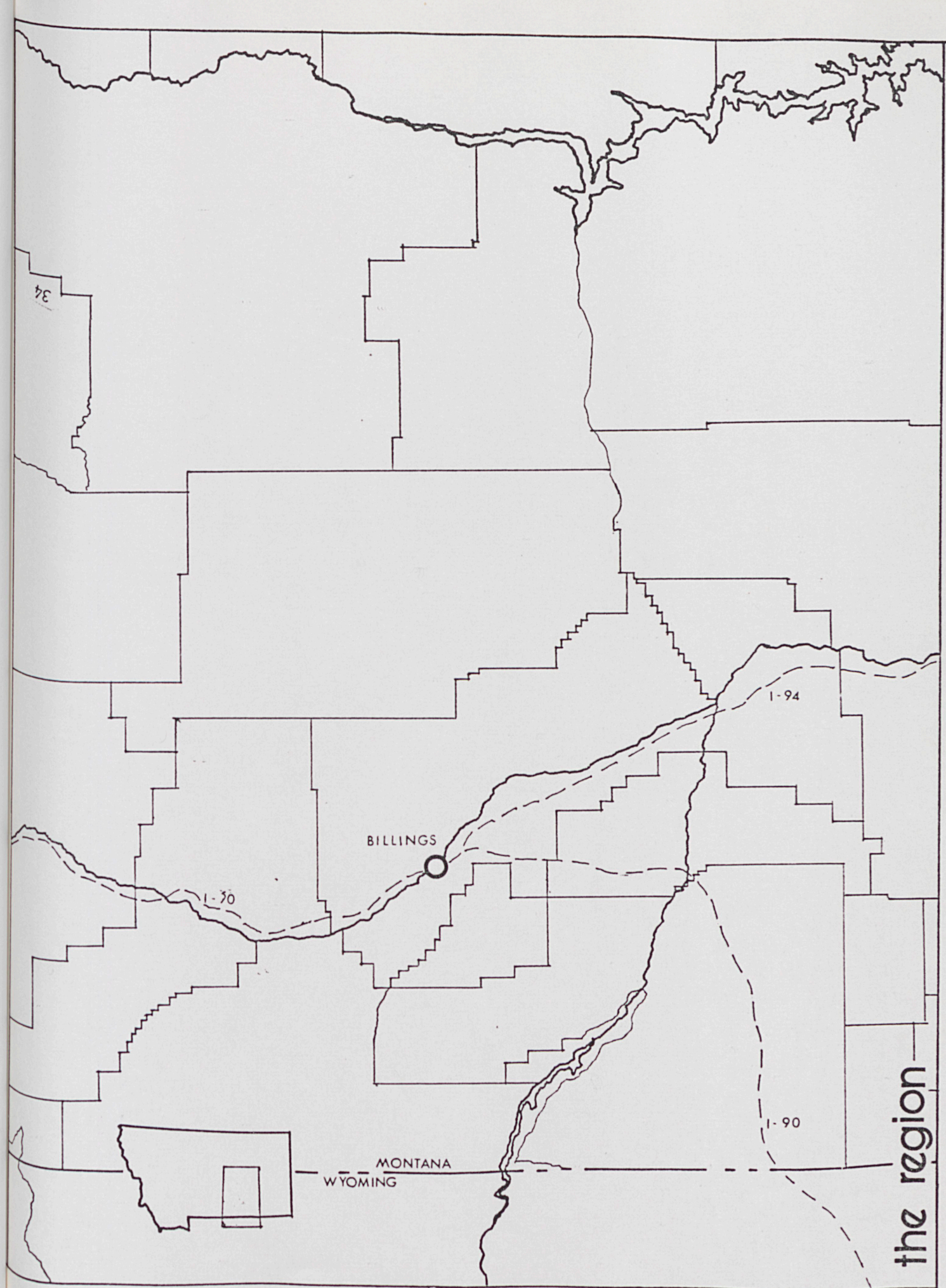
The estimated space requirements for a 5 pump/2 island filling station/convenience store are:

retail sales area	-	800
cold locker	-	200
cashier area	-	150
office	-	120
restrooms 2 @ 80	-	160
telephones	-	20
maintenance	-	100
	-	1,450
mechanical	-	200
TOTAL BUILDING AREA	-	1,650
parking	-	8 stalls
auto fueling		
5 pumps/2 islands	-	3,500



the region

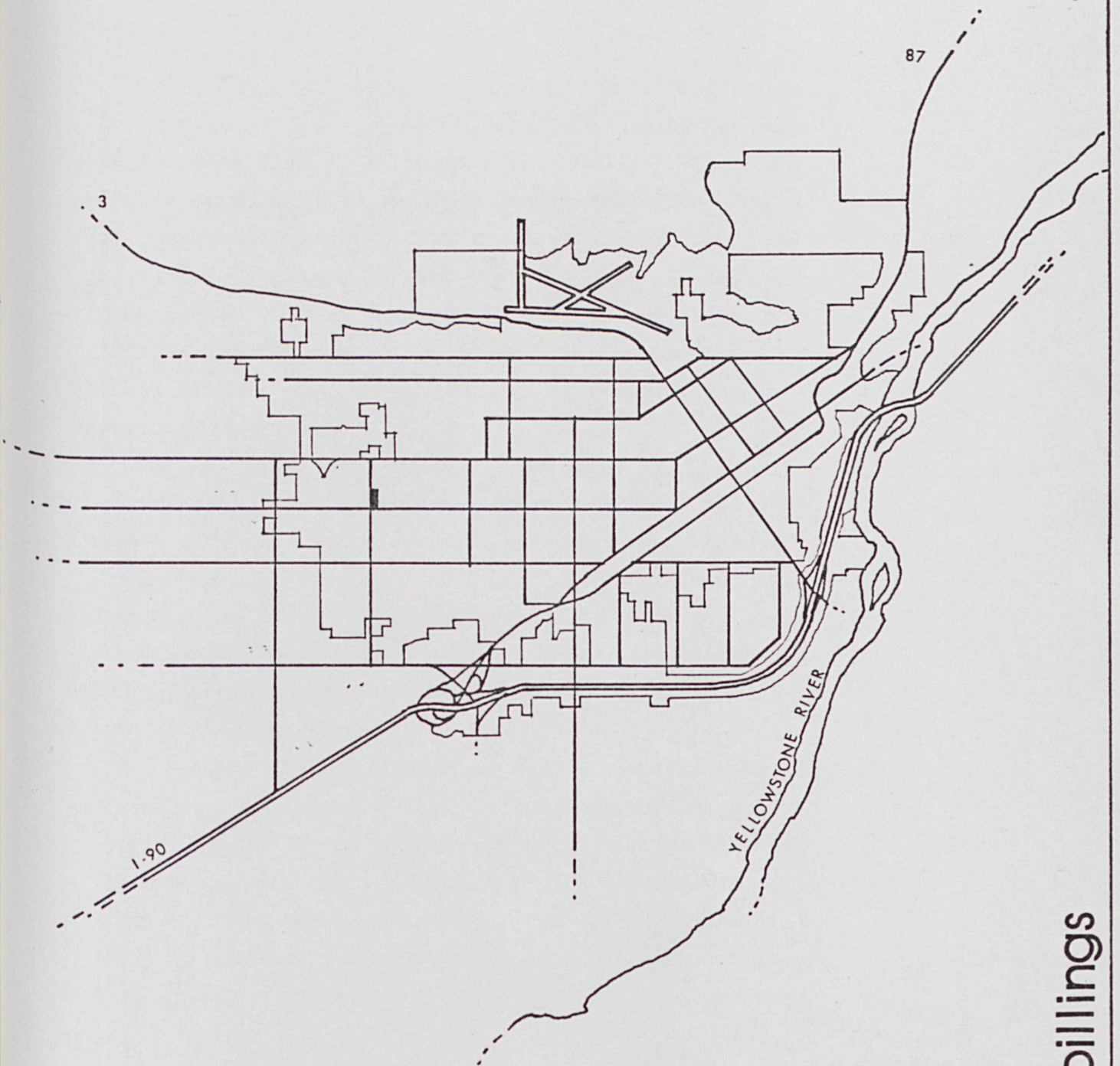




the region

billings



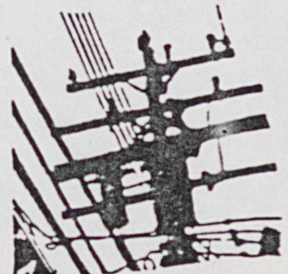


billings

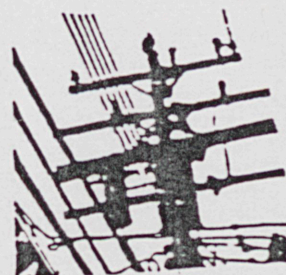
Billings, Montana, located in Yellowstone County[pop. 108,000 (1980)] upon the banks of the Yellowstone River, was founded in 1882. Billings was firmly established as an urban center due to the coming of the railroad which had a major impact upon the relative permanence of many western cities during that time period. Prior to the arrival of the railroad, the Yellowstone River which is located to the south and to the east of the city provided transportation via riverboat steamer.

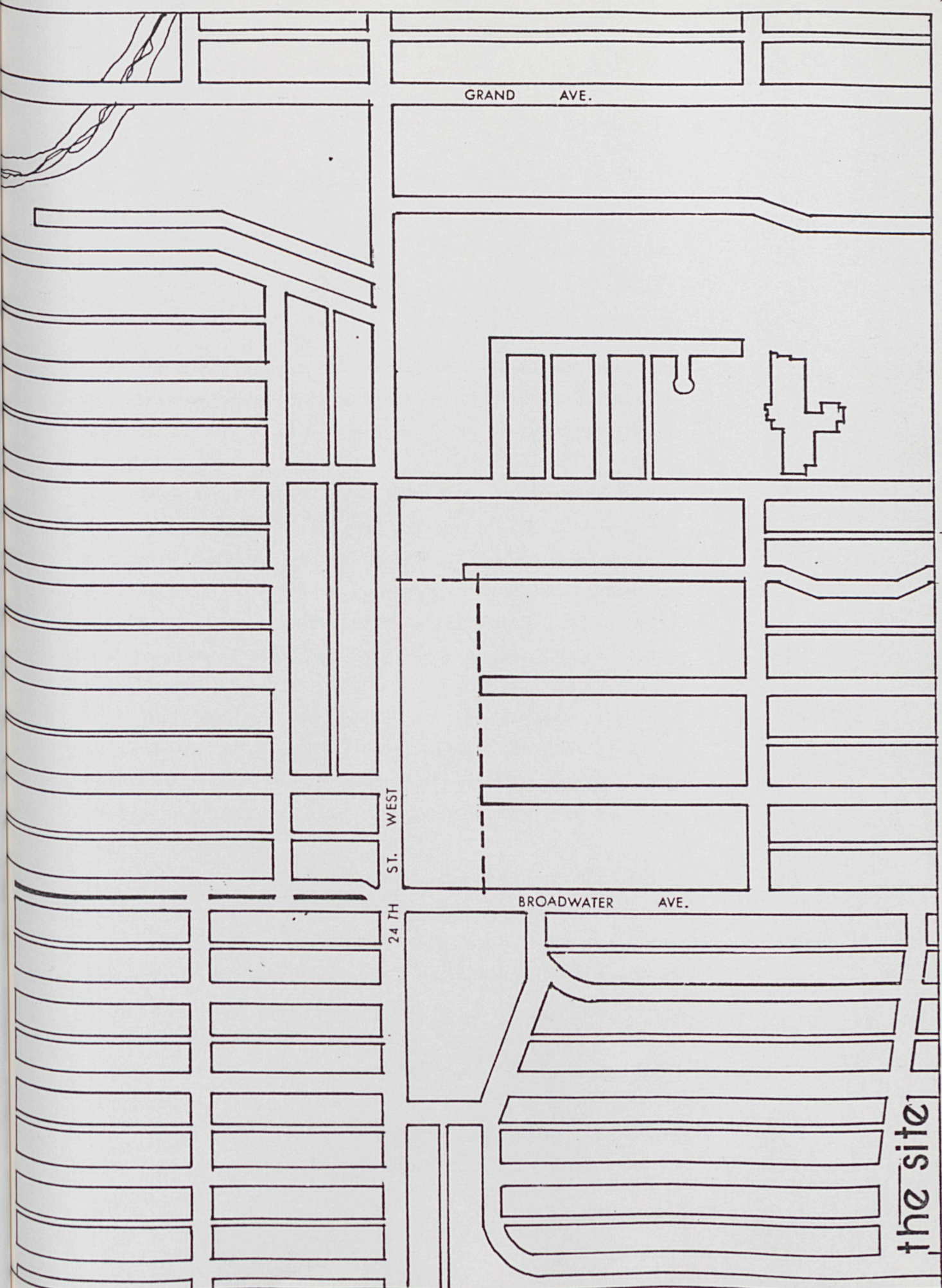
From its centralized location, Billings is connected by four interstate highways directly to many major metropolitan areas of the west and midwest. Interstate 90 provides a direct route to Chicago, Spokane, and Seattle. Interstate 94 is a direct route to Minneapolis. Interstate 25 via I-90 links Denver and Billings. Los Angeles and Salt Lake City can be easily reached by I-15 and I-90.

Because of the interstate system and its central location, Billings has been aided dramatically in its establishment as the major commercial nucleus within a 4-state region. With the rapid growth involved in such a major commercial center it is of no surprise that Billings shows a great diversity that is common to this type of urban center.



the site





GRAND AVE.

ST. WEST

24 TH

BROADWATER AVE.

the site

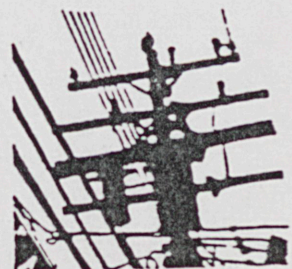
The site area at the corner of 24th Street West and Broadwater Avenue was chosen because it provided an unusual diversity in its character as it pertains to the strip.

24th Street West as it connects to the King Avenue interchange off I-90 is rapidly developing into a major entrance into the city. Due to this it has rapidly evolved into a fairly dense strip complete with numerous retail outlets, commercial food outlets, car dealers, and gasoline stations. It is a somewhat typical strip development.

The site, however, is a more transitional area. It is in direct proximity to neighborhood residential areas that have yet to be engulfed by the strip. The development that has thus far invaded this area has been rather piecemeal.

To the north of the site the strip is again re-established but is presently undertaking a relatively new image in regards to strip developed. However, upon the arrival of 24th Street West onto Grand Avenue, there is a final and dramatic change. Grand Avenue is the largest and densest example of strip in the entire region and is host to a myriad of typical strip entities.

It is due to this diversity of contest that this site was chosen as the focal point to establish the framework for this thesis.

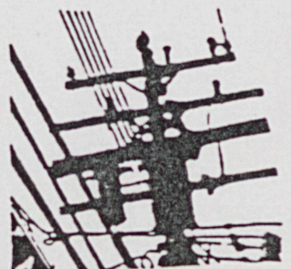


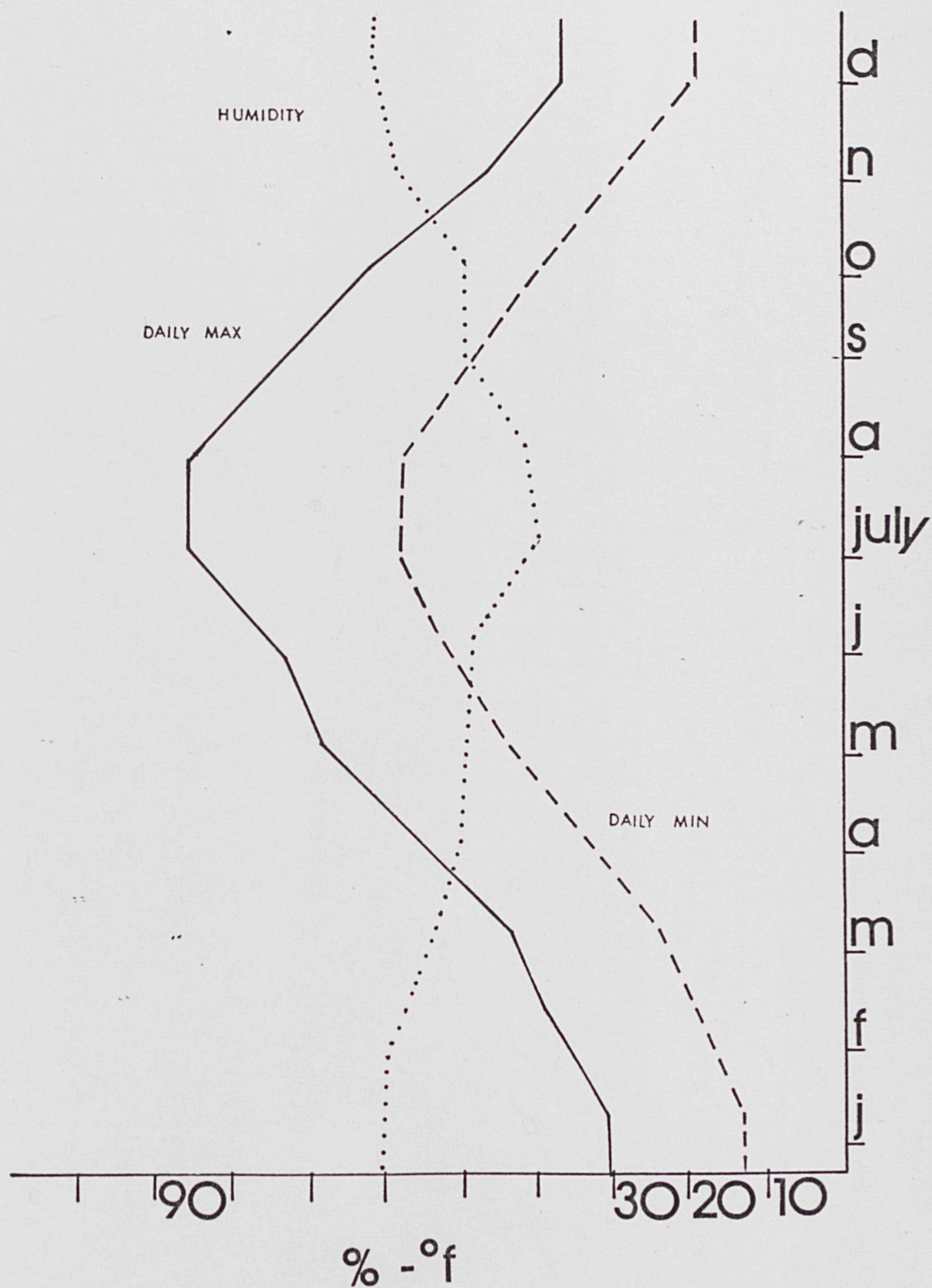
climate

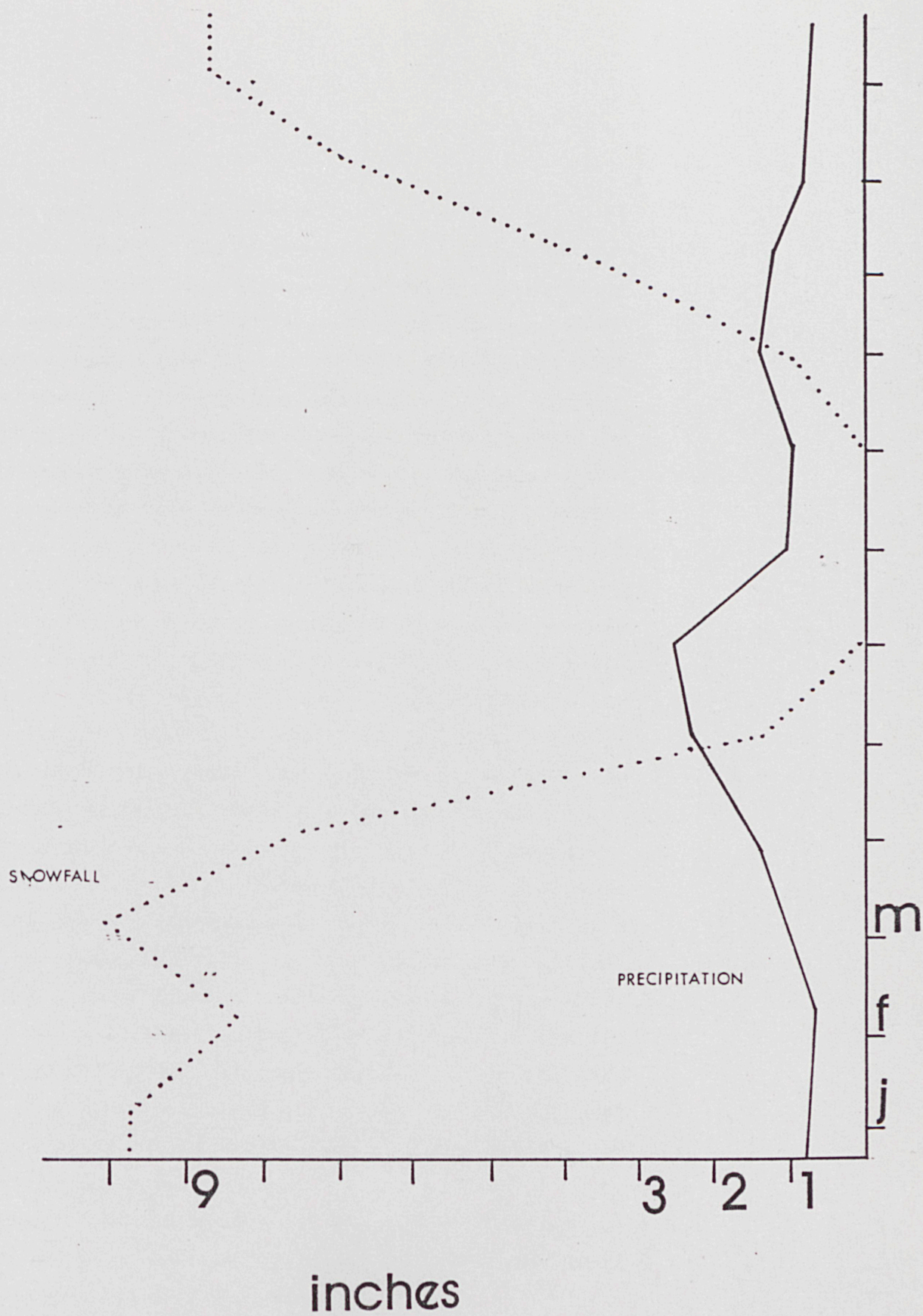


Billings, Montana, at an elevation of 3100-3600 feet above mean sea level, is situated in the borderline area between the Great Plains and the Rocky Mountains and has a climate which takes on some of the characteristics of both regions. Its climate may be classified as semiarid, but with irrigation and the favorable distribution of precipitation during the spring and fall months, it is possible to raise a variety of crops in the area.

Some of the basic climate data for the Billings area can be found in the following diagrams.







The design for this commercial strip was based on evident concepts. These concepts deal with the two realms which must coexist upon the strip--those being the automobile realm and the pedestrian realm. Where the development faces the street, it rises vertically and becomes a repetitive element much like a train passing by. The only visual relief to this would be small elements that could be seen in the windows of the retail areas as well as the cacophony of signs spaced along the top of the buildings. The largest visual relief upon the side of the development which faces the street would be the explosion of the heavy arcade through the end of the restaurant. This arcade would provide a visual club as to what occurs on the side of the development which faces away from the street.

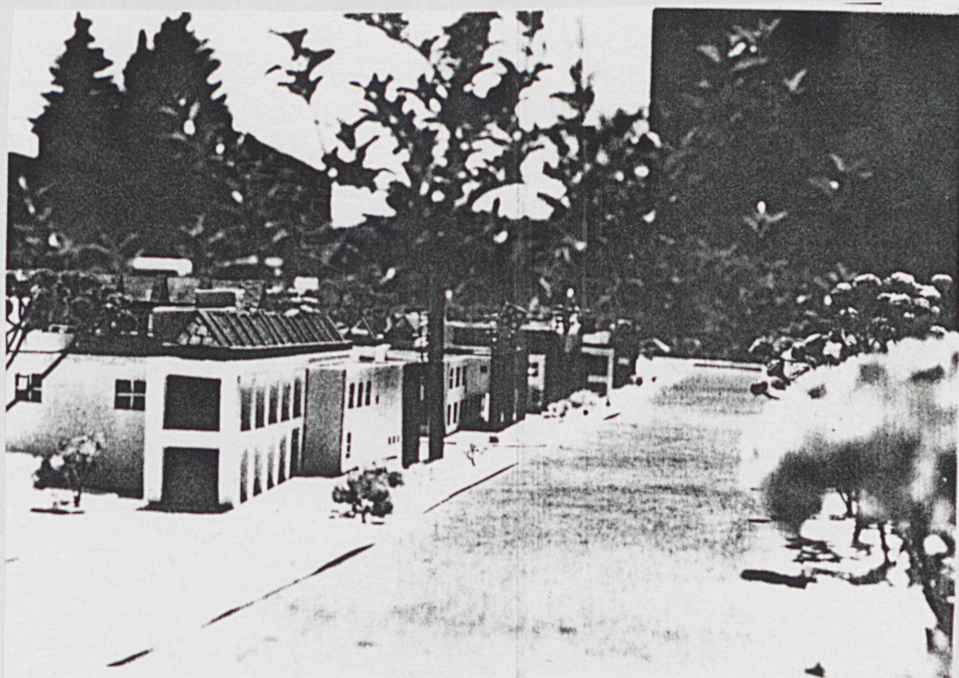
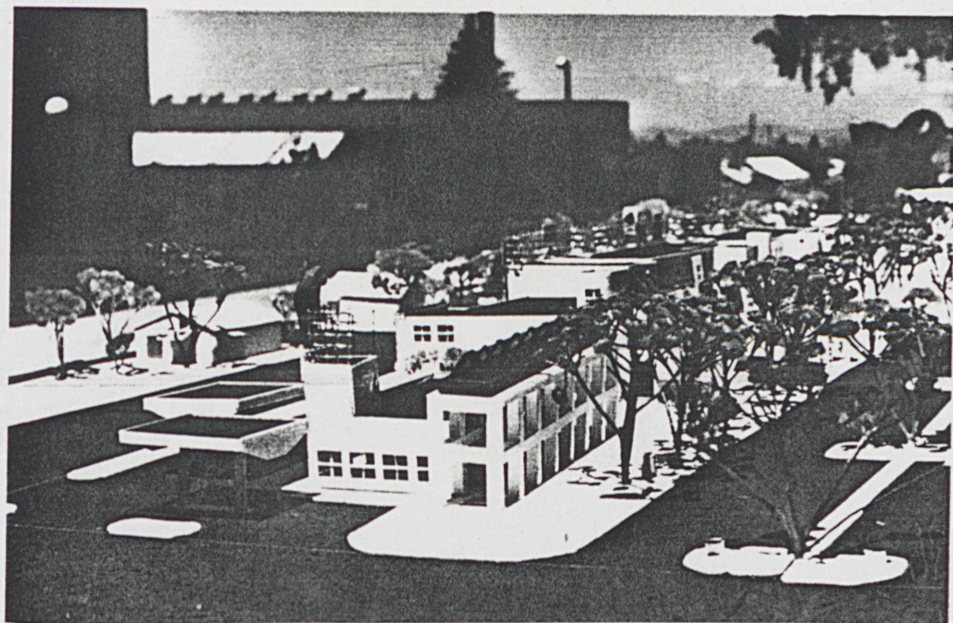
The pedestrian realm away from the street takes on an entirely different character. It is organized on a path which is skewed away from the grid that organizes the network of streets comprising the strip. On this side the development gradually steps up and away from the plaza providing relief as opposed to the vertical austerity that is shown on the side appressing the auto. To enclose this space, an umbrella of trees follows the skewed pedestrian path through the plaza. As the site passes from plaza to parking and then to the adjacent neighborhood areas, it becomes increasingly buffered by bermed landscaping and trees.

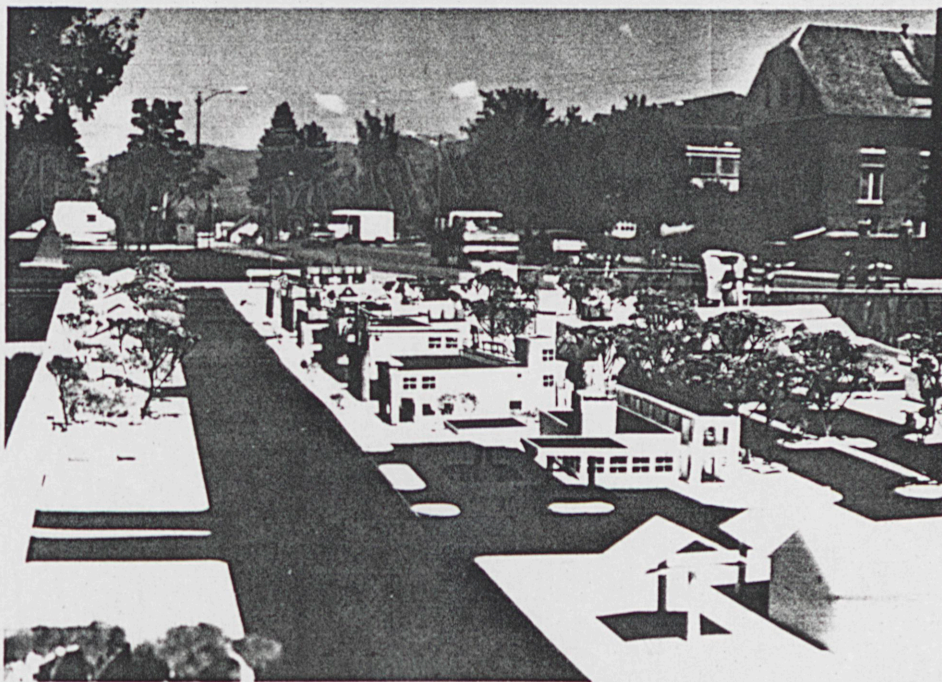
Thusly, two realms of development (the auto and the pedestrian) have been addressed in distinctly different ways but upon the same buildings.

What follows is simply a final representation of the design of this commercial development.

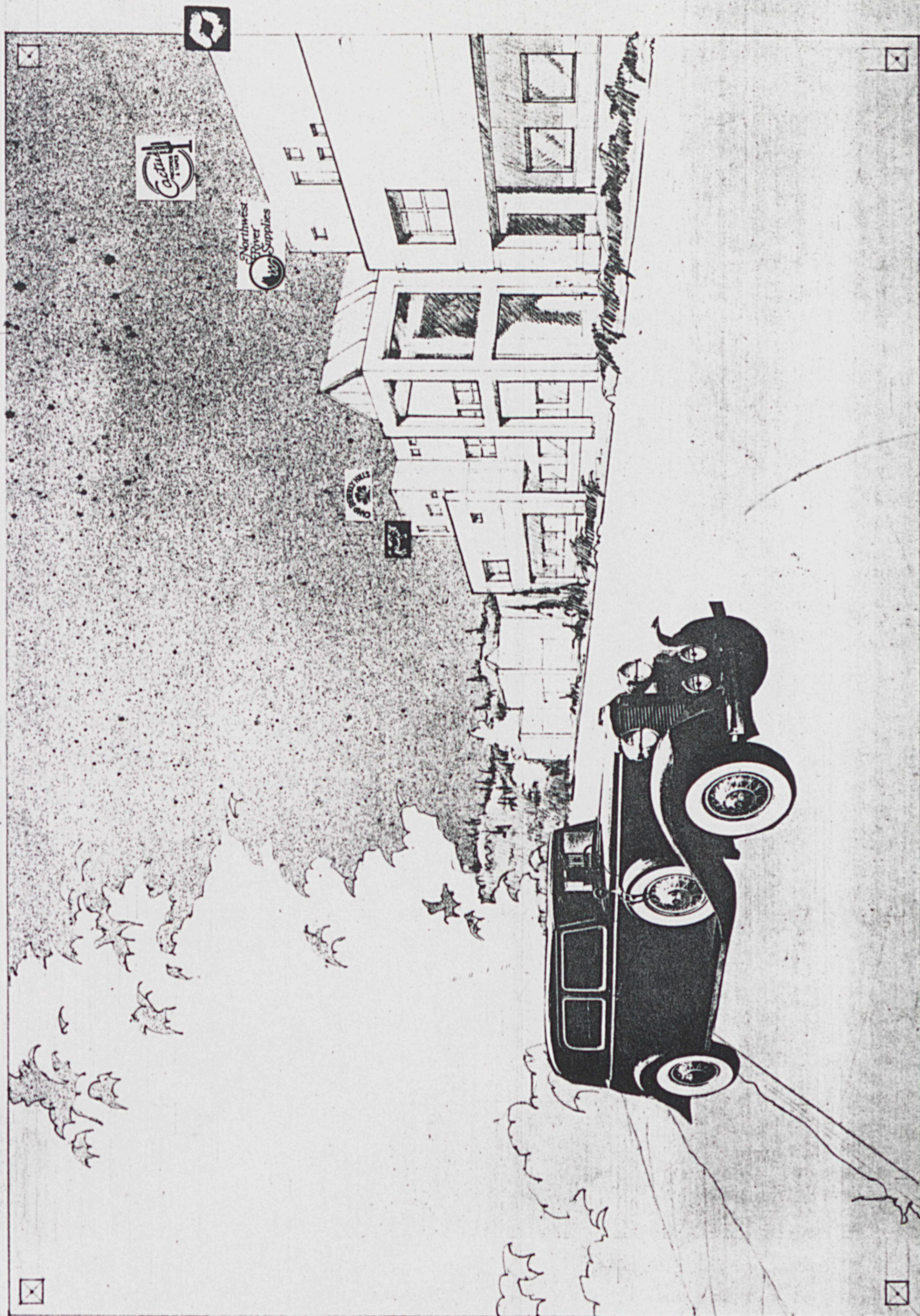
design

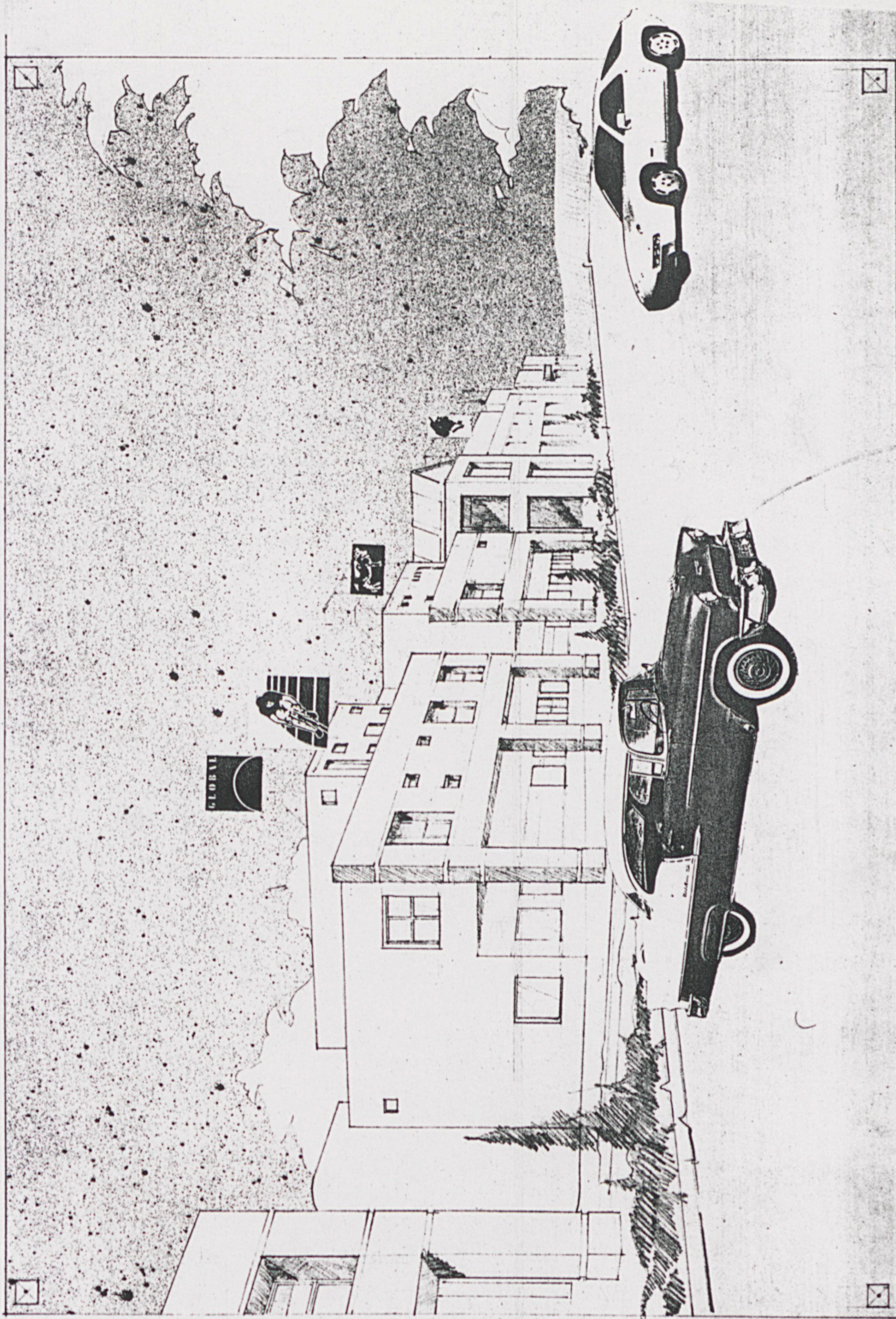


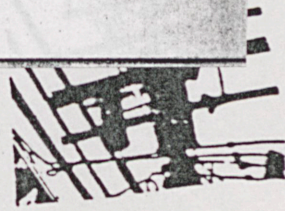
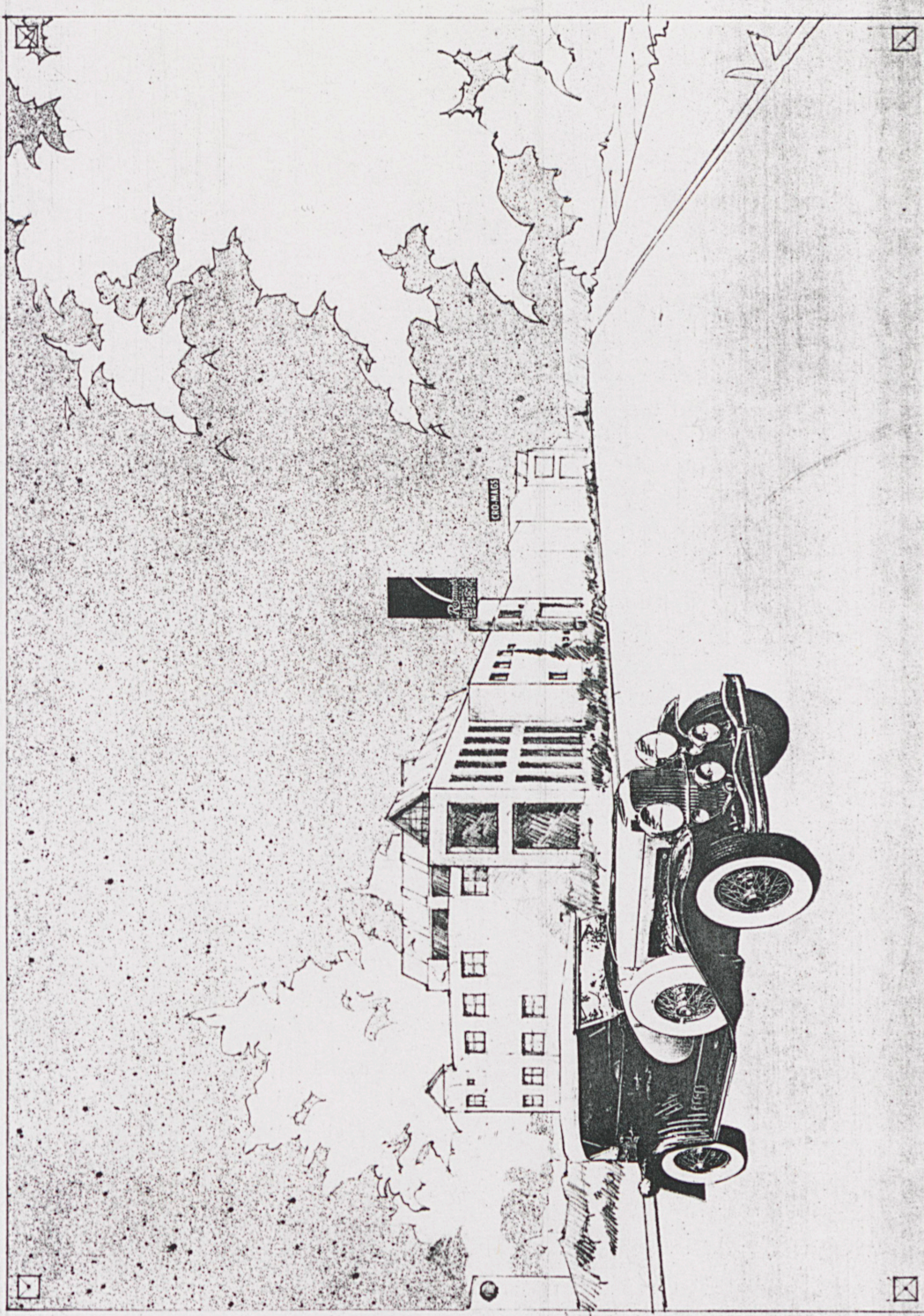


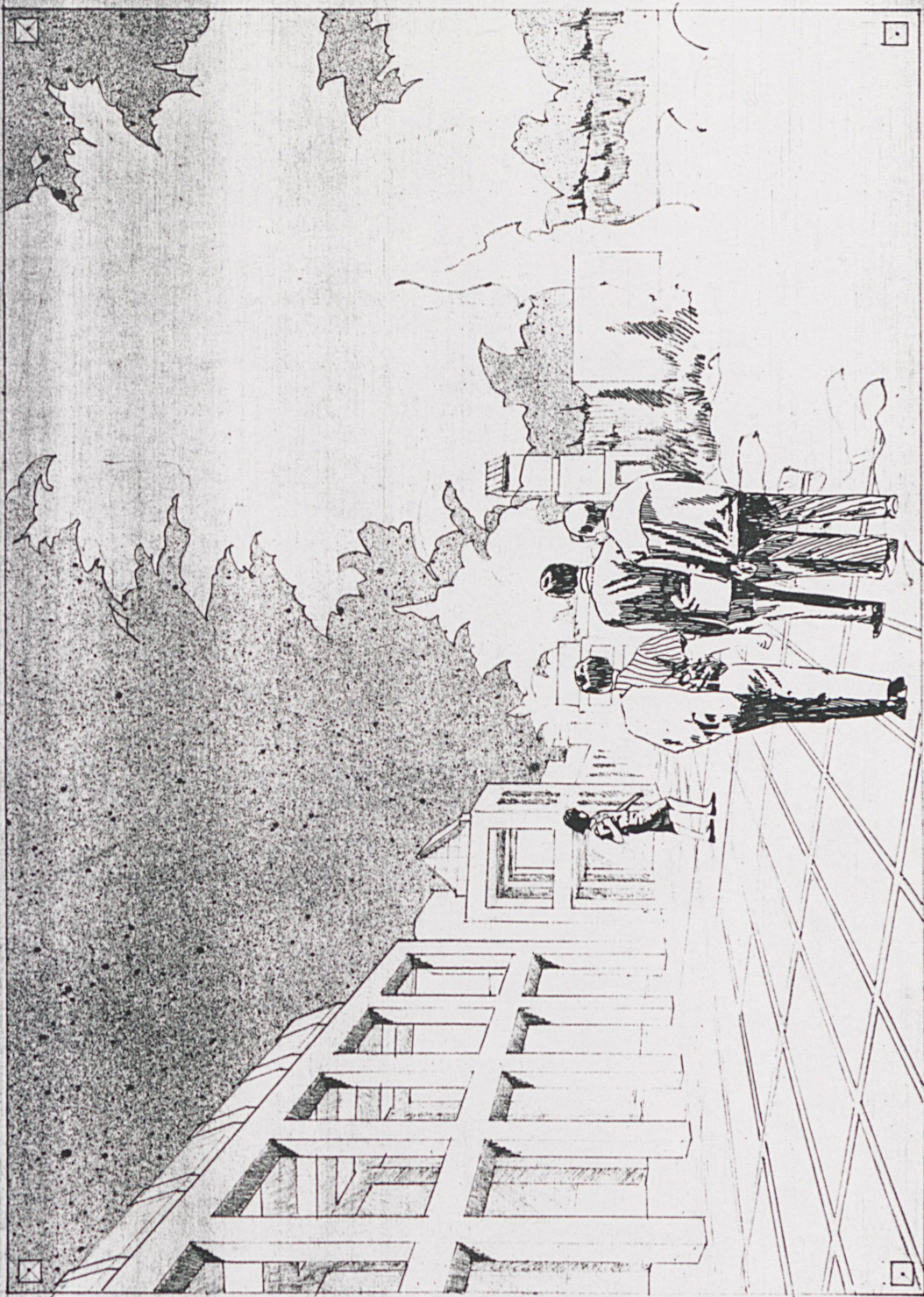






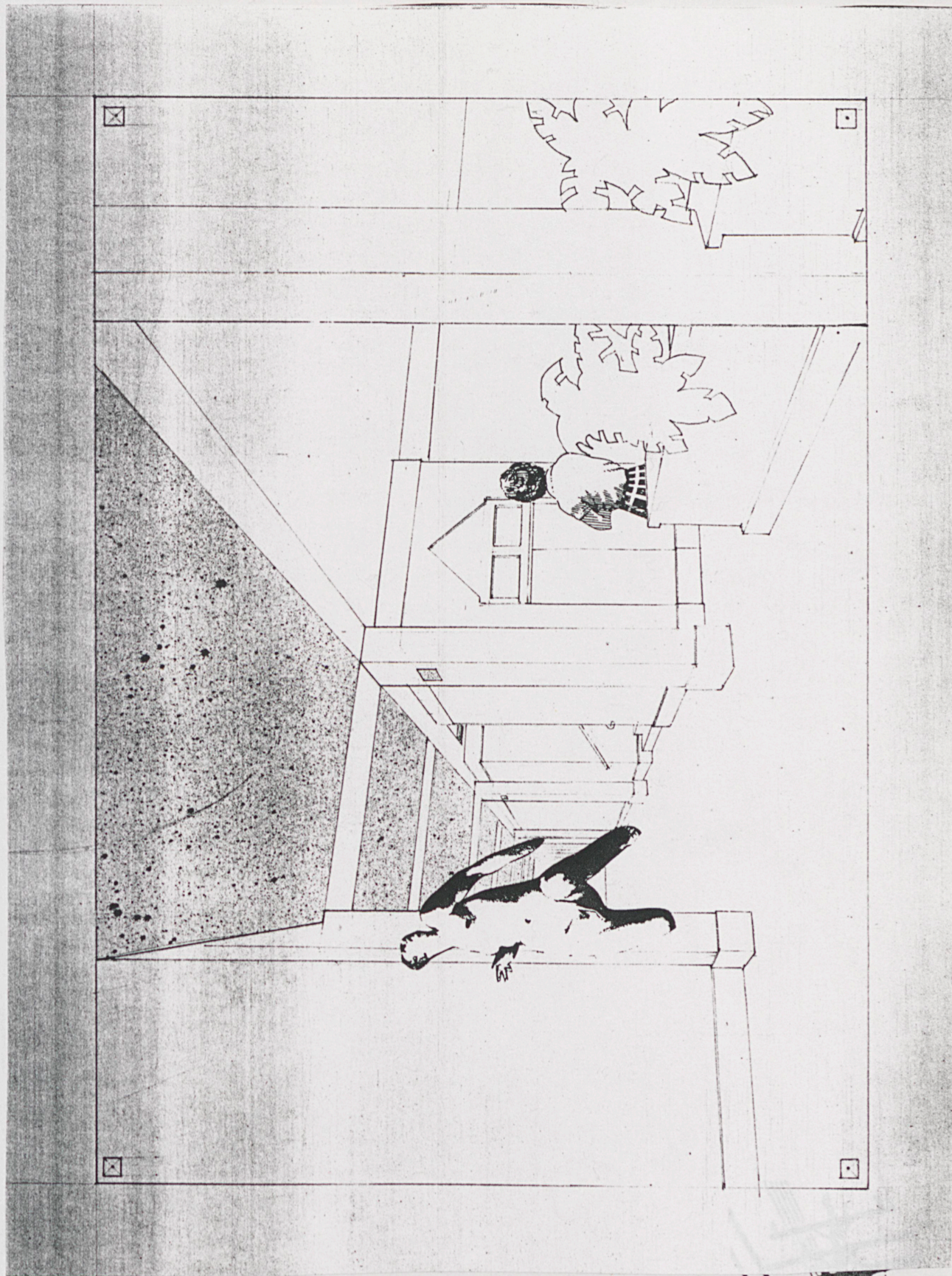


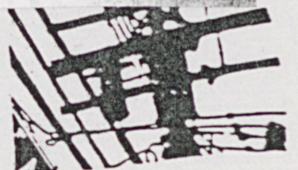
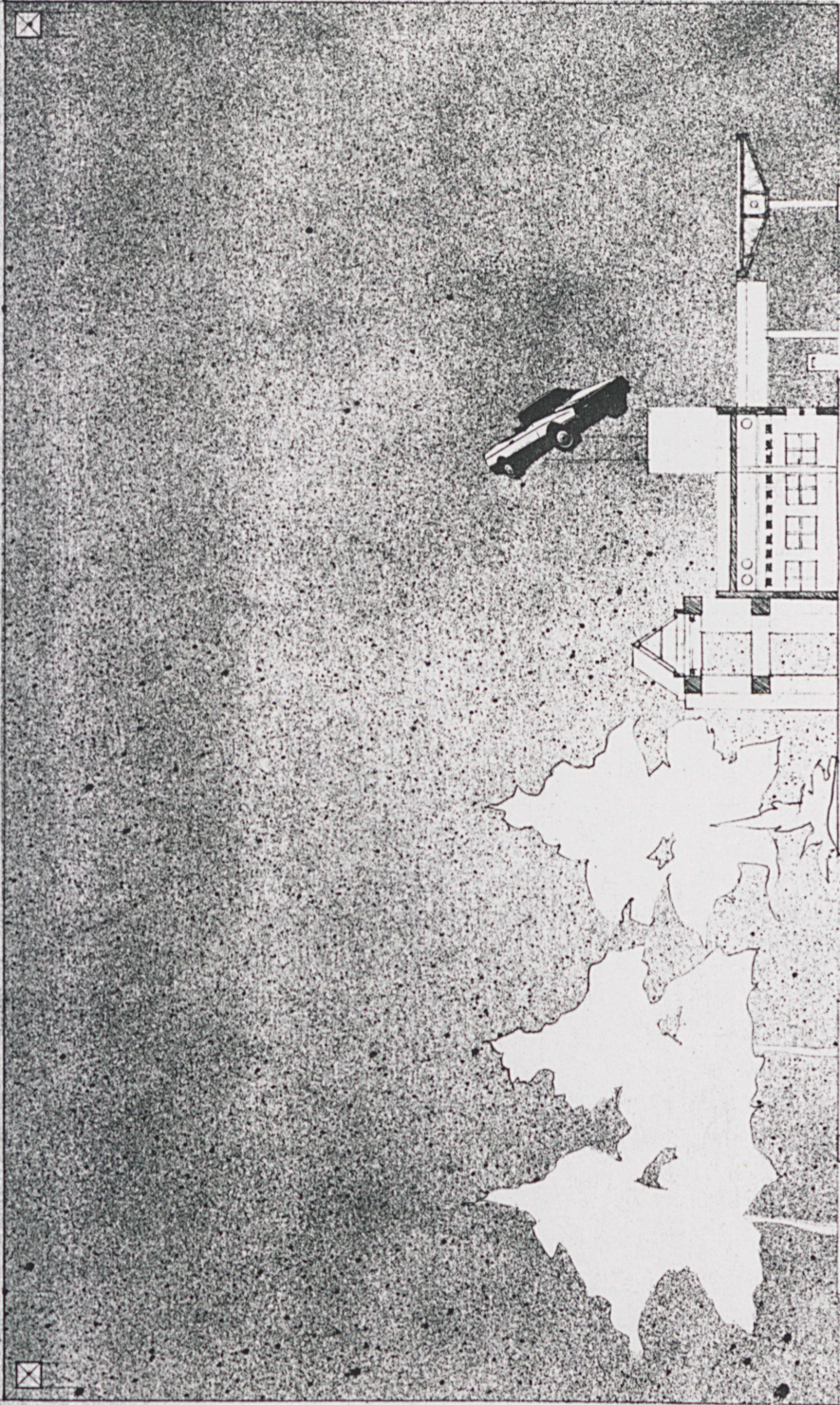


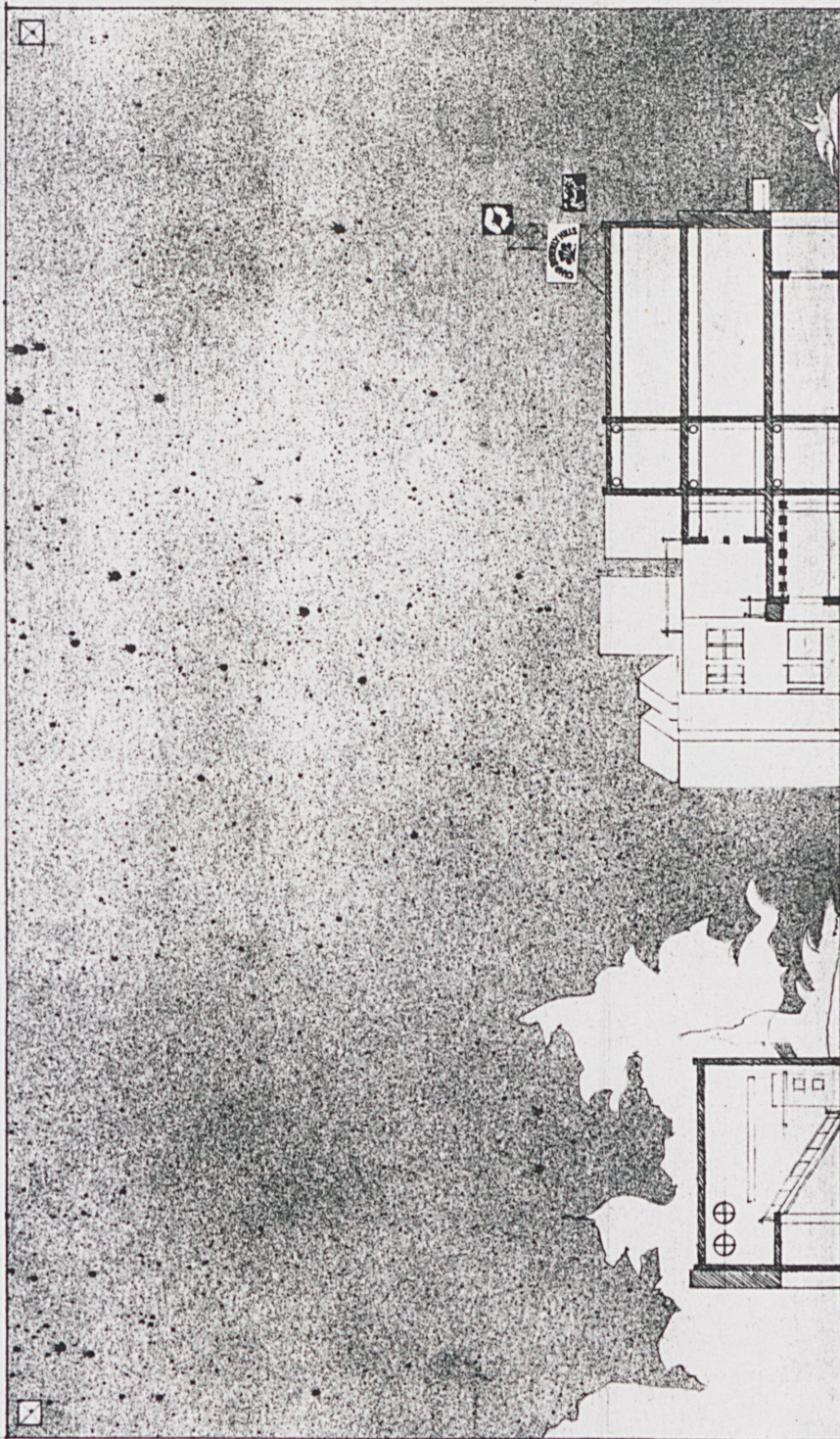


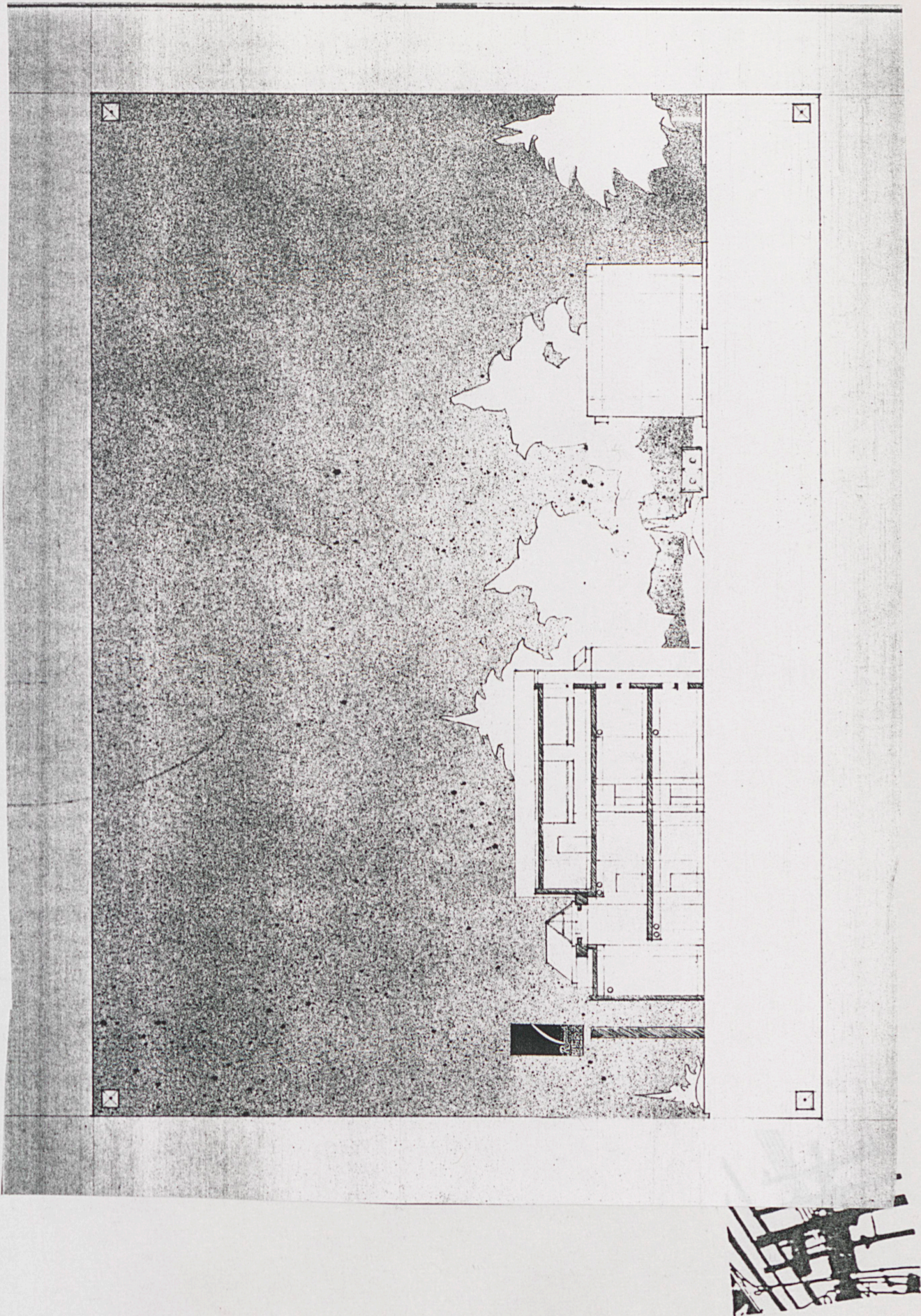






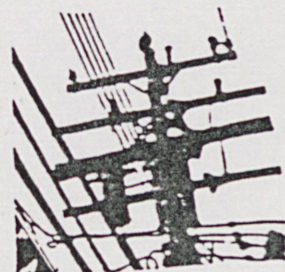






- 1 Tunnard, Christopher. The Modern American City.
(New York & London: G.P. Putnam's Sons, 1901).
p. 80 - 82.
- 2 Ibid p. 82
- 3 Ibid.
- 4 Ibid. p. 85.
- 5 Ibid.
- 6 Ibid p. 86-87.
- 7 Blake, Peter. God's Own Junkyard: The Planned
Deterioration of America's Landscape. (New York/
Chicago/San Francisco: Holt, Rinehart, and Winston.
1964). p. 17 - 18.
- 8 Ibid p. 18.
- 9 Untermann, Richard K. Accommodating the Pedestrian.
(New York/New York: Van Nostrand Reinhold Co. 1984).
p. 222.
- 10 Tunnard, Christopher. The Modern American City.
p. 87.
- 11 Soleri, Paolo. Arcosanti: An Urban Laboratory?
(Avant Books and Cosanti Foundation. 1983).
- 12 Blake, Peter. God's Own Junkyard: The Planned
Deterioration of American's Landscape. p. 29.
- 13 The University of Chicago: Center for Policy Study.
The Social Impact of Urban Design. (Chicago; Center

references



for Policy Study. 1971). p. 66.

14

Ibid p. 70 - 71.

15

Carver, Humphrey. Cities in Suburbs. (Toronto, Canada: University of Toronto Press. 1962). p. 14.

16

Ibid p. 119.

17

Blake, Peter. God's Own Junkyard: The Planned Deterioration of America's Landscape. p. 20 - 21.



- Adams, Douglas. So Long, and Thanks for All The Fish.
New York: Harmony Books, 1984.
- Alexander, Christopher; Ishikawa, Sara; and Silverstein, Murray. A Pattern Language: Towns-Buildings-Construction. New York; Oxford University Press, 1977.
- Ashley/Myer/Smith. City Signs and Lights: A Policy Study. Prepared for the Boston Redevelopment Authority and the U.S. Department of Housing and Urban Development. 1971.
- Blake, Peter. God's Own Junkyard: The Planned Deterioration of American's Landscape. New York/Chicago/San Francisco: Holt, Rinehart, and Winston, 1964.
- Carver, Humphrey. Cities in the Suburbs. University of Toronto Press, Toronto, Canada. 1962.
- Curran, Raymond J. Architecture and the Human Experience. Van Nostrand Reinhold Ld., New York, New York. 1983.
- DeChiara, Joseph, and Callender, John Hancock, ed. Timesaver Standards for Building Types, 4th ed. New York: McGraw-Hill, 1973.
- Frieden, J. Bernard & Kaplan, Marshall. The Politics of Neglect. MIT Press, 1977.
- Gurman, Richard J. S., and Kaufman, Elliott. American Diner. New York: Harper & Row, 1979.
- Lynch, Kevin. The Image of the City. MIT Press/ Joint Center for Urban Studies, 1960.
- Mdegolies, John. The End of the Road. New York: Viking Press, 1981.



Robinson, M.A. Charles Mulford. The Improvement of Towns and Cities. G. P. Putnam's Sons, New York & London, 1901.

Sanoff, Henry. Visual Attributes of the Physical Environment. North Carolina State University/School of Design, 1969.

Scully, Vincent. American Architecture and Urbanism. Praeger Publishers (Holt, Rinehart & Winston) NY/NY, 1969.

Soleri, Paolo. Arlosanti: An Urban Laboratory? Avant Books and Cosanti Foundation, 1983.

The University of Chicago: Center for Policy Study. The Social Impact of Urban Design. Center for Policy Study (Chicago), 1971.

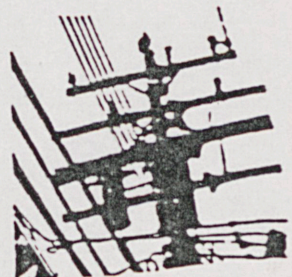
Tunnard, Christopher. The Modern American City. Van Nostrand Reinhold Company. New York/New York, 1968.

Untermann, Richard K. Accommodating the Pedestrian. Van Nostrand Reinhold Co., New York/New York, 1984.

Wilson PH.D., Forrest. A Graphic Survey of Perception and Behavior for the Design Professional

ARCHITECTURAL RECORD, Jan. 1984 pp. 108-109 "Main Street Revival"

ARCHITECTURAL RECORD, Feb. 1984 pp. 134-137 "An Uphill Design for Downtown Housing"



ARCHITECTURAL RECORD, Feb. 1981 pp. 104-107 "Pike & Virginia Building, Seattle, Washington"

ARCHITECTURE/August 1984 pp.72- "Solid and Subtly Colored Bank in a Seedy Commercial Strip"

ARCHITECTURE/Sept. 1984 "Two Arcades by Two Architects Meet and Meld"

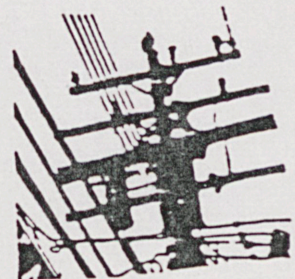
ARCHFORM - August, 1957 v. 107

PROGRESSIVE ARCHITECTURE - September, 1957 v. 38

Interiors. "Restaurant Design: The Operative Approach"
Interiors, v. 132 (March 1973): 113-115.

PROGRESSIVE ARCHITECTURE, Nov. 1982 pp. 102-109 "New Goods in Old Tins" Sally Woodbridge.

Cities, Their Origin, Growth, and Human Impact. Readings from Scientific American, Introduction by Kingsley Davis. 1973, Scientific American, Inc.



MONTANA STATE UNIVERSITY LIBRARIES



3 1762 10082647 6

