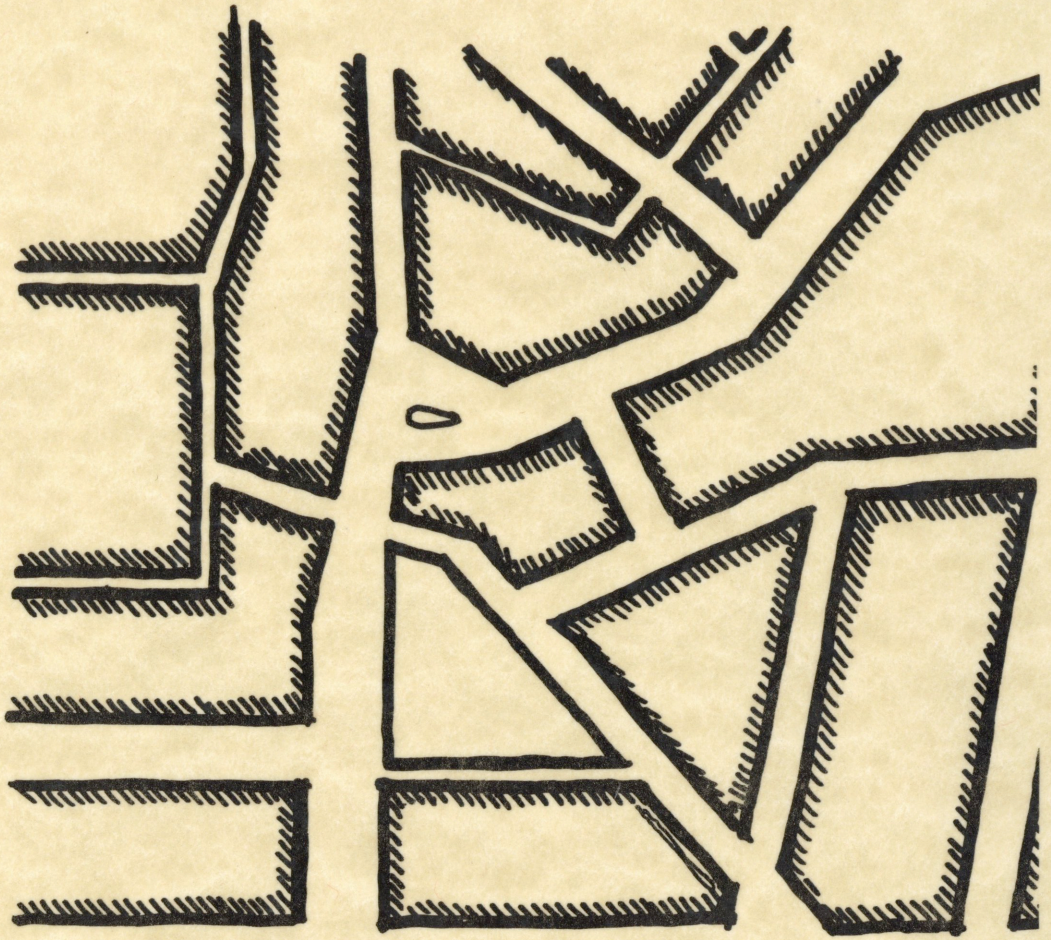


A DOWNTOWN DEVELOPMENT

ROCK SPRINGS, WYOMING

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THE DEVELOPMENT OF A CITY BLOCK WITHIN DOWNTOWN ROCK SPRINGS, WYOMING

by

Joseph Demshar

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

of

BACHELOR OF ARCHITECTURE

Approved:

Advisor

Thesis Coordinator

Director, School of Architecture

MONTANA STATE UNIVERSITY
Bozeman, Montana

June 5, 1982

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INTRODUCTION

THESIS

PROJECT

The development of a city block within downtown Rock Springs, Wyoming.

STATEMENT

To develop an appropriate work of architecture based upon an analysis and subsequent understanding of the natural environment and of the culture.

PROJECT DESCRIPTION

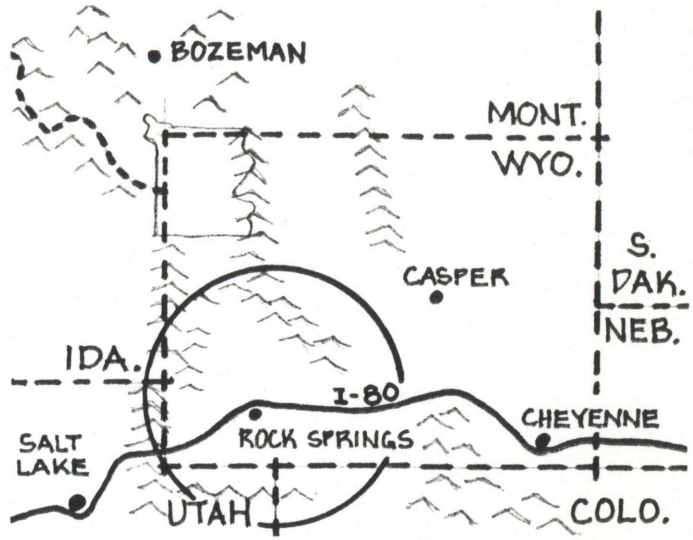
The project is the development of a 35,000 square foot site within the Central Business District(CBD) of Rock Springs *(fig. 1,2,3)*. The CBD has deteriorated considerably within the last ten years; therefore, the development of this site may be an initial step in the revitalization of the CBD.

This particular site was chosen because it is the most blighted site within the CBD. Many of the former buildings have been removed, and those which remain are in poor condition and utilize the site poorly.

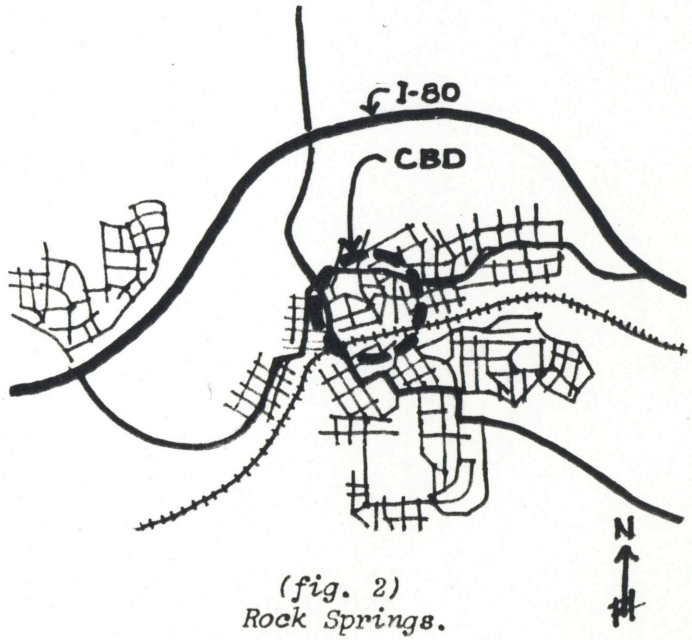
For the purpose of this thesis, it is assumed that the City would purchase the site, then lease it to a developer for a minimal sum[1]. I have been retained by the developer as the designer.

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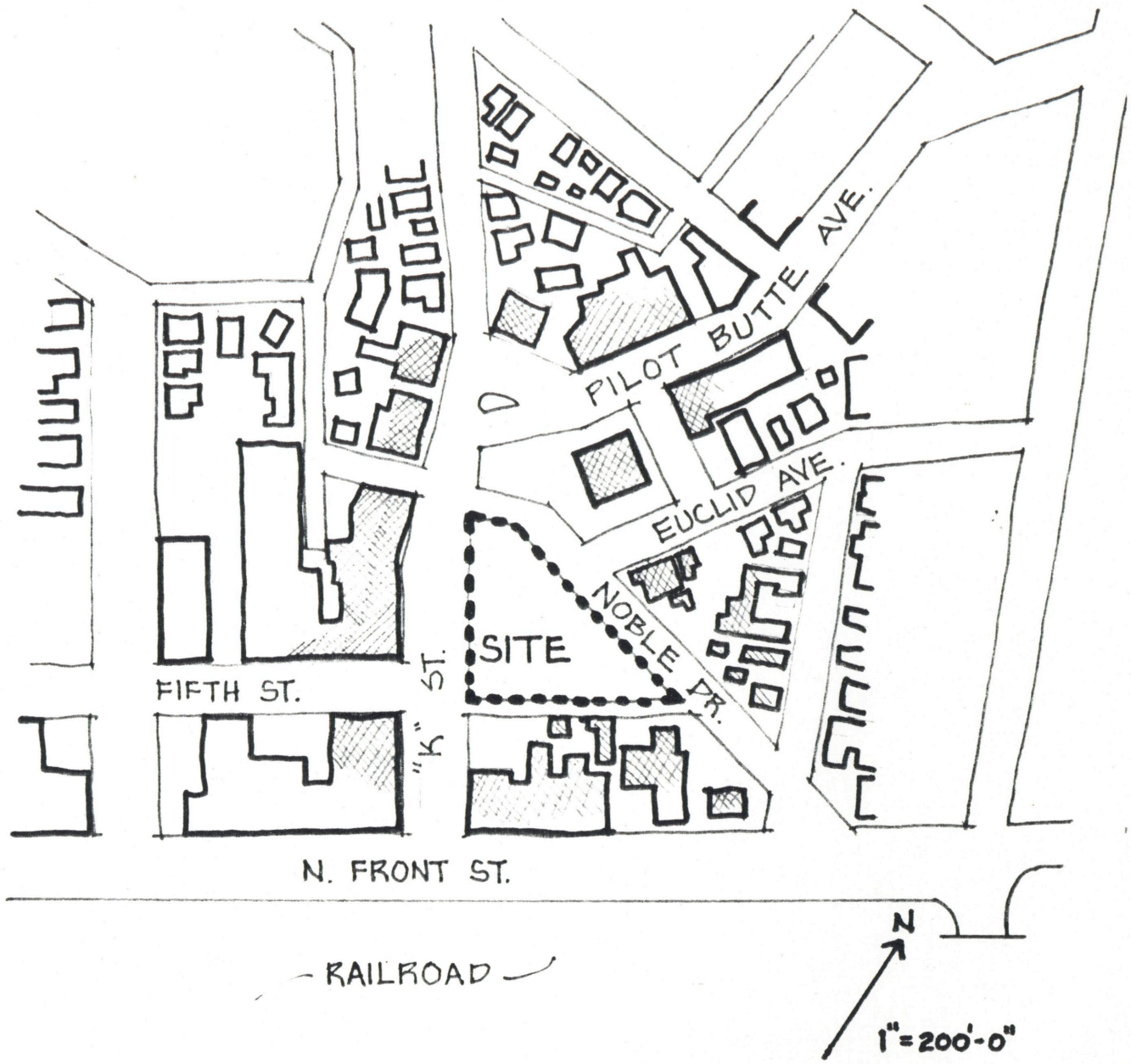
[1]For example, an entire site could be leased for as little as $1.00 per year, making land within the CBD competitive with cheaper land at the fringes of the city. Rich Unger, Rock Springs City Planner, interview, Dec. 1981.



(fig. 1)
Regional map of Western Wyoming.



(fig. 2)
Rock Springs.



(fig. 3)
Site & vicinity.

THEORY

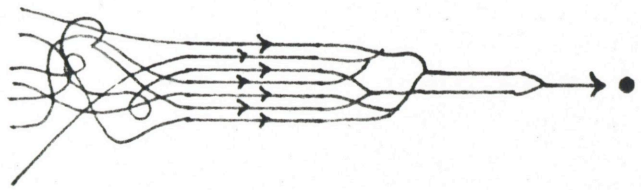
It is a goal of this thesis to develop a schematic architectural solution; however, prior to the development of that solution this thesis will explore pertinent natural and cultural characteristics of the site and the region. I believe that an analysis of the site and region is a tool that can be used to uncover appropriate concepts from which to develop a solution[2]

When a work captures the "spirit" of its environment and its users, it transcends mere building and becomes art. It is the meanings captured within and conveyed by the work which entitles it to be called architecture; "Architecture comes into being when a 'total environment is made visible.'"[3] Therefore, an attempt will be made in this thesis, to create a work of art which conveys the spirit of the region and of the people.

This approach cannot presuppose any specific style and must not exclude existing styles either. It only suggests that the decision to employ a specific style or vocabulary is based upon an understanding of the place, and not on an arbitrary stylistic preference. Furthermore, it suggests that a style may be modified or adapted to conform with the spirit of the place[4]

Regionalism is a term which comes to mind when one talks about an appropriate response to the environment; however, regionalism connotes the literal use of traditional materials and forms which is a naive attempt at capturing the spirit of a region. The approach that I am dealing with is not regionalism, and I have diffuculty coining any phrase for it. It is a process in which the spirit of the place is internalized within the designer, and a solution is created that is in harmony with the regional environment and culture.

The process begins with the analysis of specific pertinent characteristics, followed by the synthesis of this material into concepts. The concepts are the basis for the development of the program and conceptual solutions which evolve until the final soltion is reached. This book will parallel this process in that the first part of the book is a summary of my research; the second part is a discussion of the synthesized concepts. The third part documents the simultaneous programming and conceptual design phase, and concludes with the final solution*(fig. 4)*.



(fig. 4)
Process diagram.

[2]A related philosophy,"My buildings are not made to win prizes, but to please the owners and fit the places where they are built.". E. Fay Jones, lecture, Jan. 21, 1982.

[3]Christian Norberg-Schulz, Genius Loci (New York: Rizzoli, 1980), p. 23.

[4]Norberg-Schulz shows how styles were modified by the existing character of Prague. Christian Norberg-Schulz, Genius Loci (New York: Rizzoli, 1980) Chpt.IV.

ANALYSIS

THE NATURAL ENVIRONMENT

THE TOPOGRAPHY

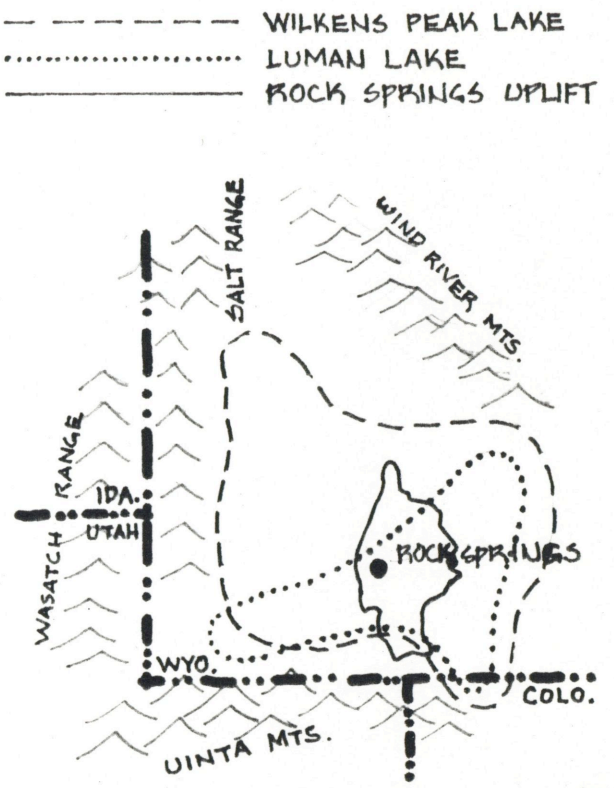
The topography or surface texture of Southwestern Wyoming is void of significant vegetation; therefore the scars of millions of years of geologic activity are exposed. My topographical analysis will begin with the geologic history of the region[5]. During the late Cretaceous and early Tertiary periods (40-70 million years ago) the gradually rising Rockies began to restrict drainage out of the region; water accumulated and formed an inland sea *(fig. 5)*. The sea eventually broke through the eastern end of the Uinta Mountains and drained south toward the Gulf of California in what are now the Green and Colorado Rivers. As the lake bed dried, the sedimentary strata began to erode leaving a landscape of weathered buttes and deep gorges *(fig. 6)*.

The Rock Springs Uplift *(fig. 7)* is a geologic deformation of the ancient seabed responsible for the particular topography near Rock Springs. The Uplift is an anticline, the top of which has eroded away; the sheer cliffs that remain reveal multicolored strata which stripe the region in horizontal bands. The strata ranges from white to red in color, while the alkaline basins are light in color.

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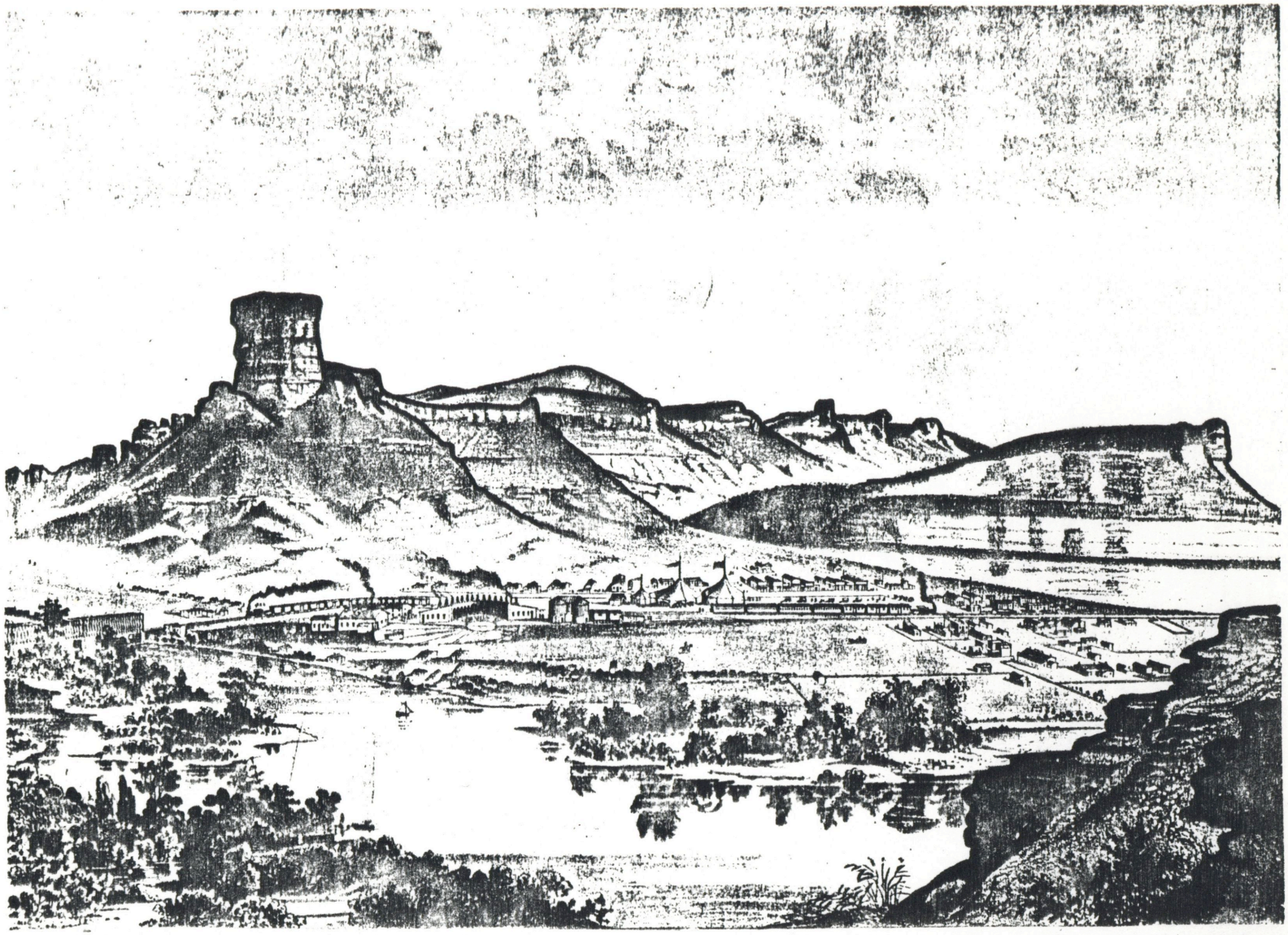
[5] I construed this history from two sources: John McPhee, Basin and Range (New York: Farrar,Straus,Giroux,1980); and, Wyoming Geologic Association Guidebook, The Rock Springs Uplift, 19th Field Conference, 1965.

Rock Springs is located on the western edge of the Uplift. The site of the project is within the original townsite, a relatively flat area along Bitter Creek bounded by cliffs to the north and west. The site gradually slopes down toward the north *(fig. 8)*. The existing topography should be similar to how it was prior to mans arrival, because the CBD has not been significantly altered since its spontaneous birth in the 1860's.



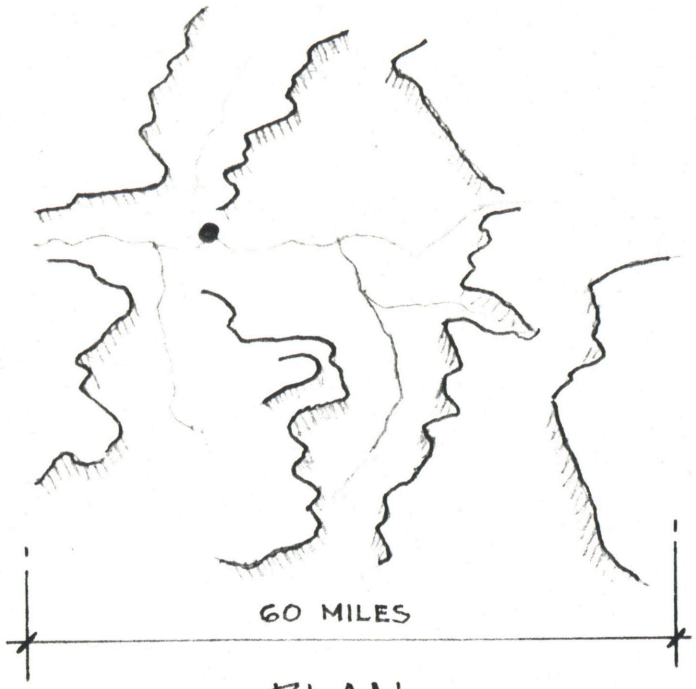
Wyoming Geological Association

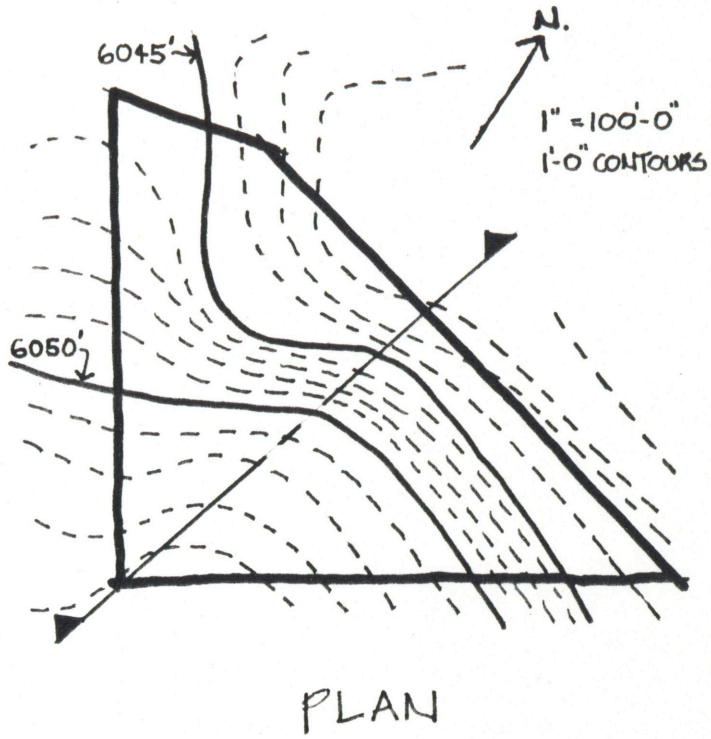
(fig. 5)
Geologic Lakes.

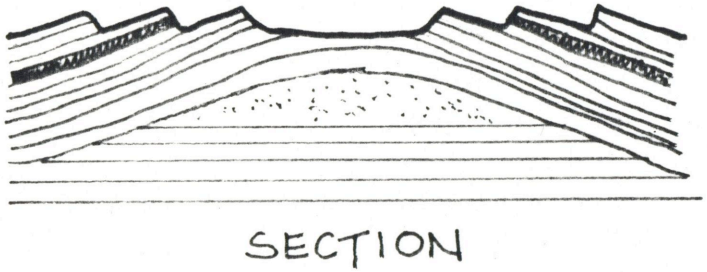


John W. Reps

(fig. 6)
Typical topography.







(fig. 7)
Rock Springs Uplift.



(fig. 8)
Site topography.

THE CLIMATE

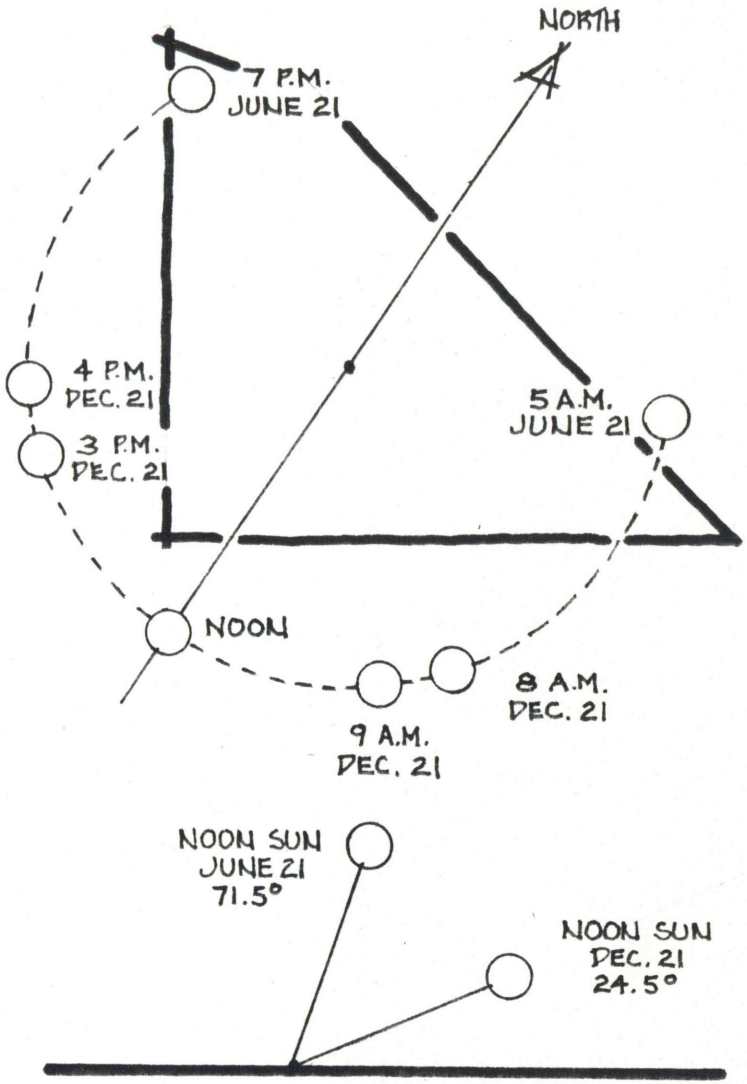
Much of Southwestern Wyoming is a plateau situated at between 6000 and 7000 feet above sea level, surrounded by mountains which reach over 13,000 ft.. The mountains to the west, the Wasatch and Wyoming Ranges, create a rainshadow across most of the plateau; therefore the climate can be called a high desert.

> While the mountains are fairly humid, the plateau is definately arid. The climate is characterized by short, warm summers; long, cool autumns; short but cold winters; and cool stormy springs. Prevailing winds from the west frequently reach high velocities[6]

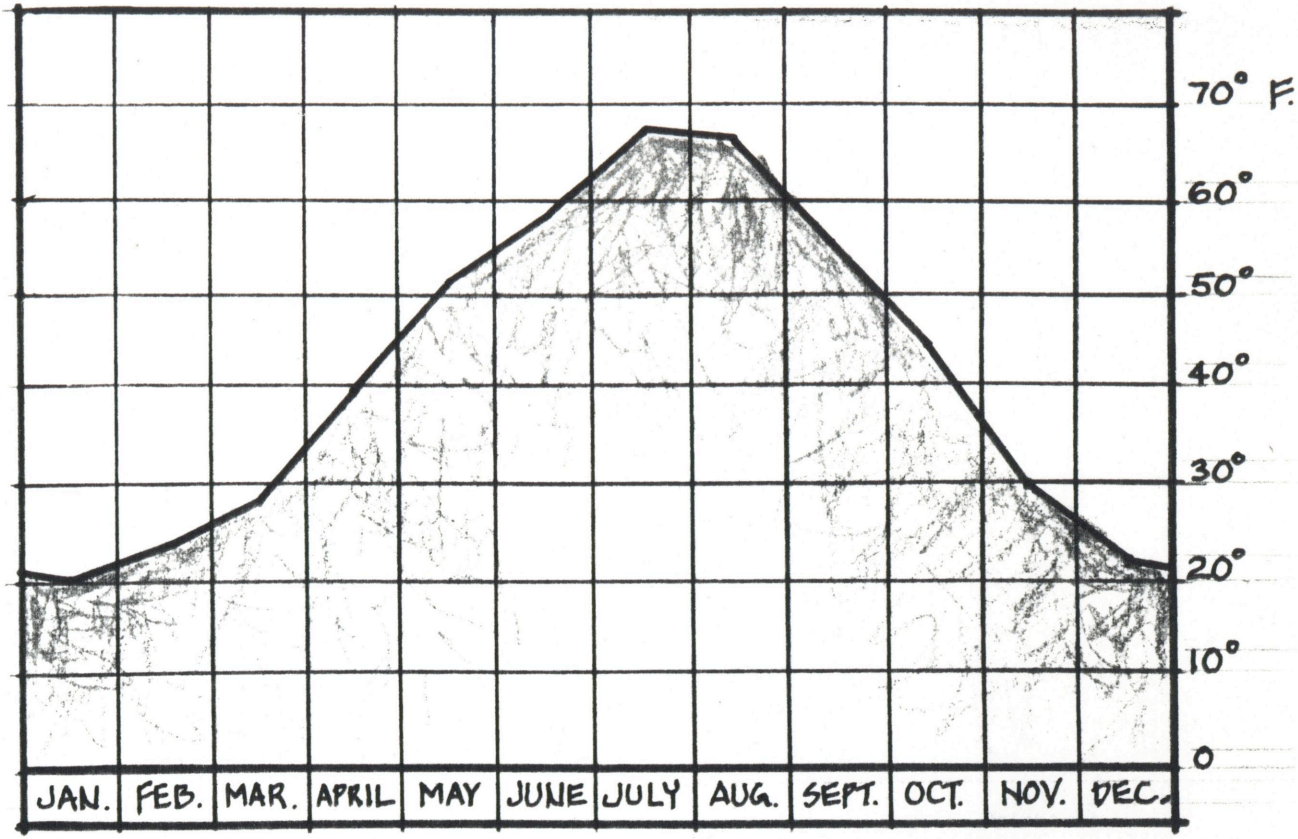
The climate is harsh;the temperatures are extreme, rain is infrequent but sometimes violent, and the persistent winds cause summer sandstorms and blizzards in the winter. A graphic analysis of the climate follows *(fig. 9-12)*.

---

[6] Richard E. Lund,"A Study of the Resources, People, & Economy of Southwestern Wyoming" (Cheyenne, Wyo.: Wyoming Natural Resources Board, 1962), p. 3.



(fig. 9)
Solar data.



AVG. MONTHLY TEMPERATURE

EXTREMES IN 1980:

90°	JULY 18
-16°	JAN. 31

MEAN DAILY MAXIMUMS

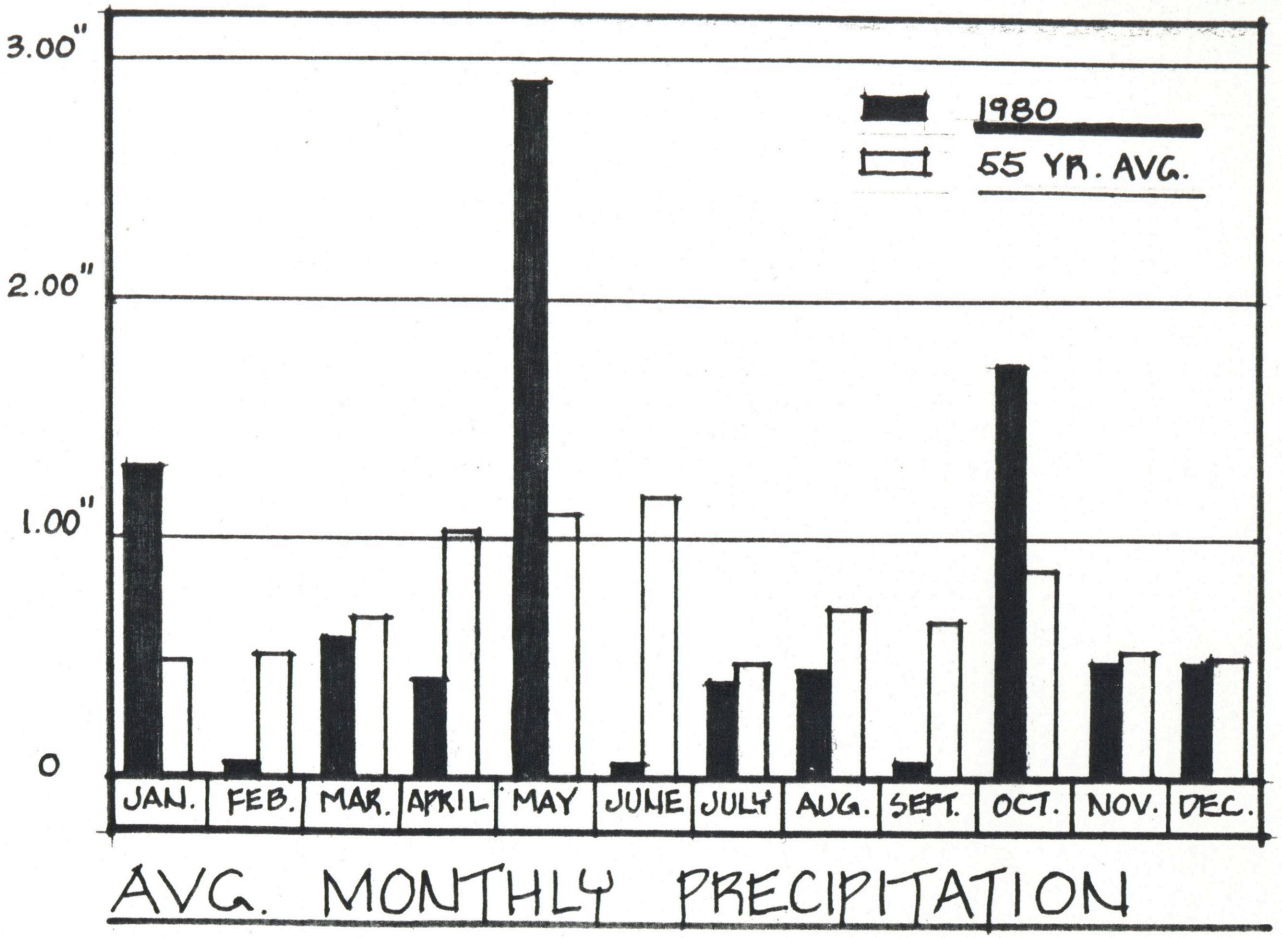
JULY	86.7°
JAN.	32.2°

MEAN ANNUAL TEMP.

43.0°

National Oceanic and Atmospheric Administration

(fig. 10)
Temperature data.

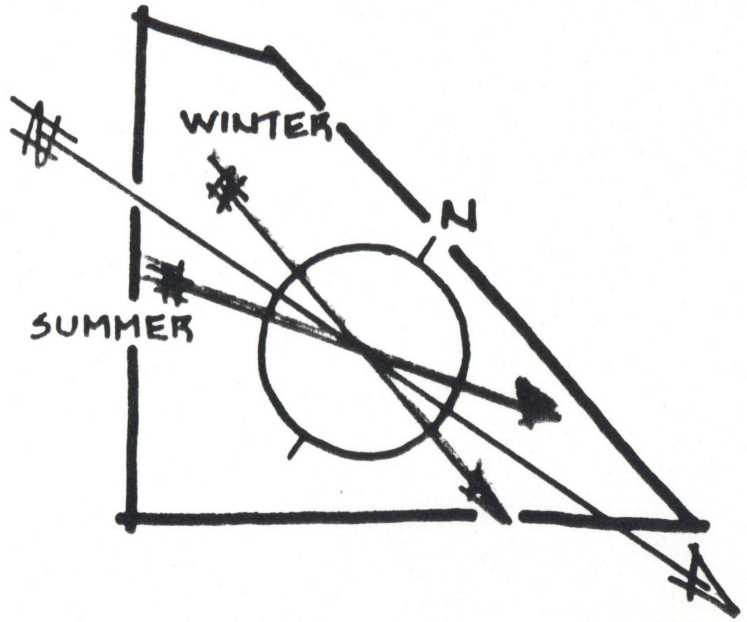


AVG. YEARLY PRECIP.:	8.79"
AVG. YEARLY SNOWFALL:	42"
AVG. RELATIVE HUMIDITY:	45%

National Oceanic and Atmospheric Administration

(fig. 11)
Moisture data.

WINDS ARE CONSISTENTLY WESTERLY.



AVG. ANNUAL WIND VELOCITY

9 MPH

(fig. 12)
Wind data.

THE SOCIO-CULTURAL MILIEU

THE HISTORY

The story begins over 100,000,000 years ago when Southwestern Wyoming was an equitorial coastal swamp, sometimes above, sometimes below the water.[7] These rhythms produced alternating layers of solid sediment and rotting vegetation, supplying the region with an abundance of fossil fuels today. The rising Rocky Mountains interrupted this process and a lake formed in the new basin.[8] This lake deposited a layer of trona[9] within the Green River Basin, supplying another source of revenue for the region today.

The Indians who used the area, the Shoshone, Crow, and Ute, did not have any use for the mineral deposits and preferred lusher hunting grounds elsewhere.[10] Early explorers and trappers including John Colter, Robert Stuart and the Astorians, and Jim Bridger visited the area, and eight of sixteen fur rendezvous were held in the Green River Basin.[11] However, until the great westward migrations, the area had few visitors, and no residents.

In 1850, the Federal Government authorized the building of an Overland Stage station at the "spring among the rocks,"[12] but until the arrival of the railroad in 1868, the Rock Spring station remained a singular structure.

> The present town site of Rock Springs was then a mere sagebrush, greasewood, and alkali flat, over which roamed herds of antelope, and flocks of sage chickens.[13]

Early entrepreneurs had already begun digging coal at Rock Springs prior to the arrival of the railroad. The mines provided work for anyone willing to come to the city, and by 1875, the population reached 1000.[14]

> Houses were built where the fancy of the builder dictated, and as a consequence, the streets followed a crazy-quilt, zig-zag pattern.....the center of the populationand business followed

---

[7] John McPhee, Basin and Range (New York: Farrar,Straus,Giroux, 1980), p. 133.

[8] See geologic history on p. 7 .

[9] Trona is sodium sesquicarbonate, a crystalline substance used in the manufacturing of glass, soap, and is the major component of baking soda.

[10] Richard E. Lund,"A Study of the Resources, People, & Economy of Southwestern Wyoming" (Cheyenne, Wyo.: Wyoming Natural Resources Board, 1962), p. 7.

[11] Ibid.

[12] Union Pacific Railroad, History of the Union Pacific Coal Mines, 1868-1940 (Omaha, Neb.: Colonial Press, 1940),p. 46.

[13] Ibid.

[14] Ibid., p. 49.

> the creek bed being located on what is now "M" Street and on North Front Street. With no subdivisions laid out to care for new building, buildings were promiscuously built on what later became Bridger and Pilot Butte Avenues, and "K" Street.[15]

The earliest settlers were English, Scotch, Welsh and Irish, many with previous coal mining experience. In the 1890's, the influx of immigrants became predominantly Mediterranean and Eastern European. The ethnic ties were strong; although a sense of community was also strong in the frontier city, and strong ethnicity gradually dissolved. Today, the most evident European heritage is the wealth of traditional foods; i.e., sausage, bread and pastries.

Coal remained the predominant economic base until 1954, when the Union Pacific Railroad phased out its coal burning locomotives; fortunately trona had been inadvertantly discovered by a drilling rig in 1938, and the first mine opened in 1947.[16] The trona industry gave new stimulus to the economy of the region, and today is a significant part of that economy. Today the Green River Basin is the largest producer of soda ash (refined trona) in the world, producing 1/4 of the world supply, and 40% of the domestic supply.[17]

The coal industry has begun to redevelop within the last ten years. Three mines have recently opened in the area, one of which supplies coal to the 2000 megawatt Jim Bridger Power Plant twenty miles east of Rock Springs.

However, it is the oil and natural gas industry which is the most significant industry in the area today. Rock Springs had been a minor center for natural gas production since the early twentieth century, but recent discoveries near Rock Springs, and the highly tauted Overthrust Belt, 90 miles to the west, have fostered the largest industry in the area today.

The demographic changes brought about by the recent boom, and related construction have been significant. The cities population grew from 11,000 in 1970 to 20,000 in 1980 *(fig. 13)*, disrupting the once stable "village" structure.

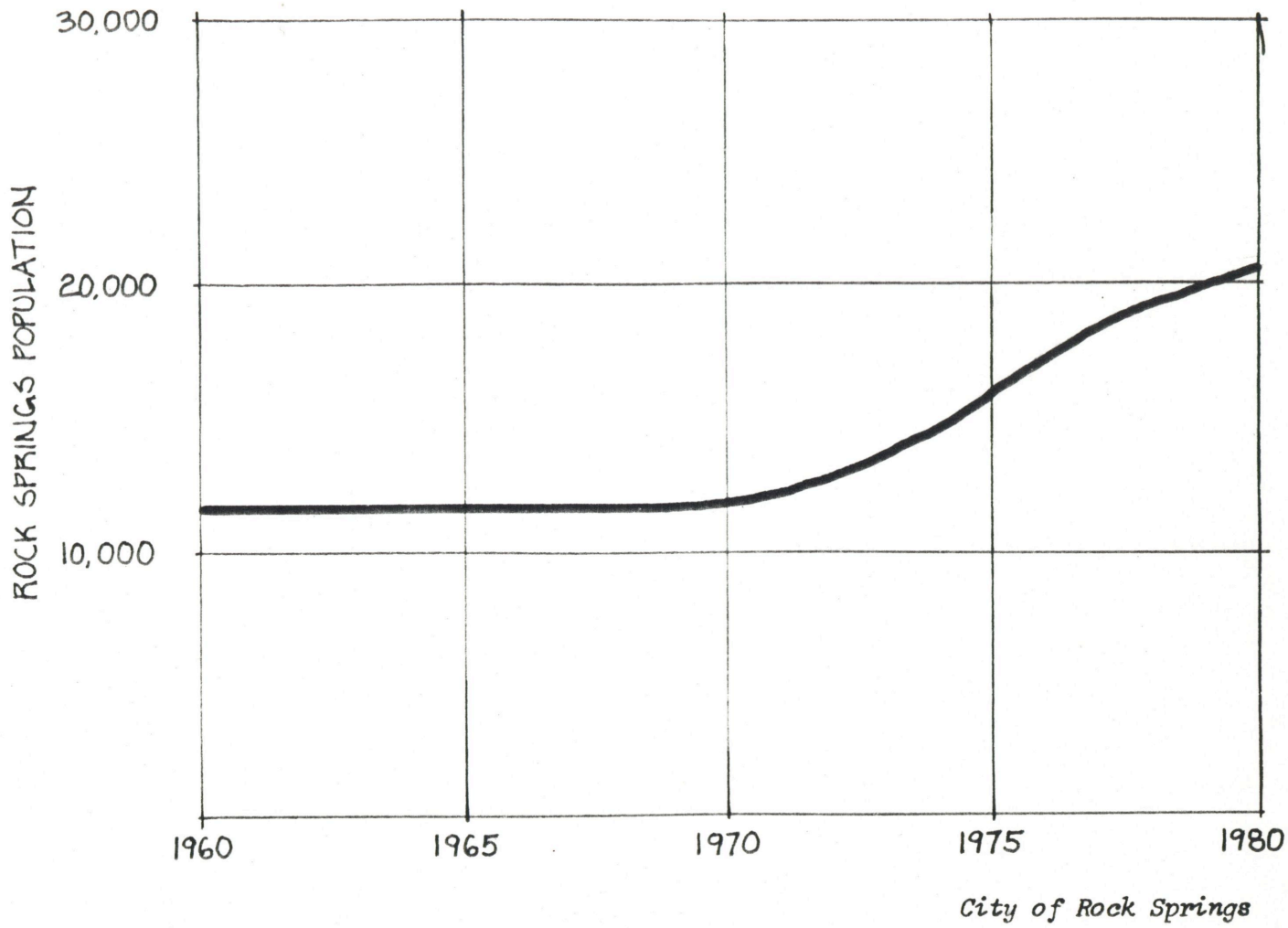
Although a predominance of the oil workers come from the southcentral states of Texas, Louisianna, and Oklahoma, this group like the original ethnic groups, does not constitute a unique group, but blends into the general population. If any characteristic exists within the populus, it is the predominance of blue collar workers, serving in the oil, mining and construction industries *(fig. 14)*.

---

[15] Ibid., p. 50.

[16] Richard E. Lund, "A Study of the Resources, People, & Economy of Southwestern Wyoming" (Cheyenne, Wyo.: Wyoming Natural Resources Board, 1962), p. 10.

[17] City of Rock Springs, "Economic & Population Forecasts 1974-1995", July 1974, p. 7.



(fig. 13)
Population growth graph.

AVERAGE EMPLOYMENT IN SWEETWATER COUNTY
1953

Industry	TOTAL		SEX		STATUS			
						Unpaid	Hired	
	Percent	Number	Men	Women	Owners	Family	Number	Payroll
No. of People Over 14		15,750	8,660	7,090				
Percent Employed		58.7%	84.4%	27.3%				
MINERALS*	28.4	2,622	2,557	65	12	0	2,610	$11,748,143
MANUFACTURING	1.4	130	110	20	25	4	101	296,351
AGRICULTURE	4.6	425	409	16	129	106	190	601,000
GOVERNMENT	7.1	654	340	314	0	0	654	1,961,727
RETAIL TRADE	19.3	1,899	1,097	691	370	66	1,352	3,506,461
SERVICE FIRMS**	36.2	3,350	2,595	755	374	29	2,947	11,245,036
WHOLESALING	1.4	128	119	9	24	0	105	393,054
OTHER	1.6	147	84	63	0	0	147	165,078
	100.0	9,244	7,311	1,933	934	205	8,106	$29,916,850

* Includes coal, trona, gas, oil, and other minerals.
** Includes the railroad, and construction.
Source: Survey made in March and April, 1954.

City of Rock Springs

(fig. 14)
Employment graph.

THE BUILT ENVIRONMENT

THE STREET NETWORK

The city began on the north side of the railroad tracks, in an organic, topographically responsive manner. From this core several grid systems grew out in response to the expanding city*(fig. 15)*. This organic core of twisting streets has a European quality, rare in gridiron American cities; however, the irregular lots are diffucult to utilize, and the streets do not accommodate the automobile efficiently.

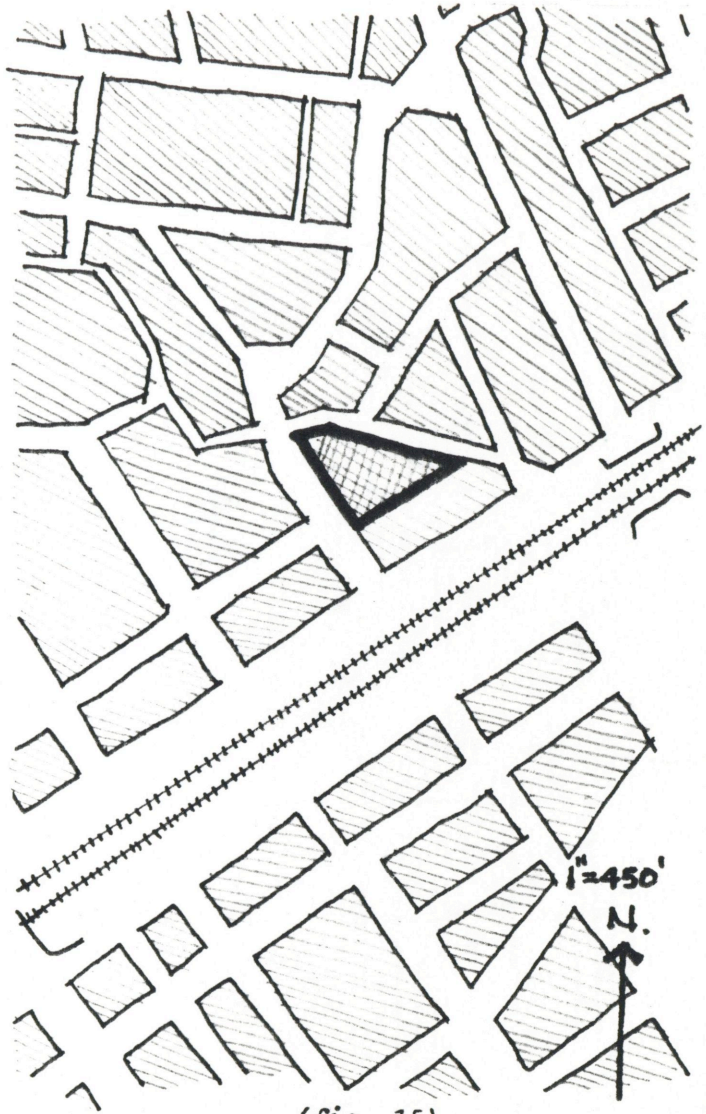
THE ARCHITECTURAL CONTEXT

The architecture within the urban core dates from the late nineteenth and early twentieth centuries, and can be called "Western Commercial;" it relies on a decorated retail front attached to an otherwise utilitarian shed behind. The earliest fronts are Victorian in style*(fig. 16)*; however, the typical style is Classicism. The Classic buildings emphasize the horizontal line*(fig. 17)*.

The three most permanent buildings in the area utilize the Classic vocabulary*(fig. 18a, 18b, & 18c)*; horizontal elements such as the cornice, entablature, corbels and string courses are emphasized, and are never interrupted by pilasters or other vertical elements.

The predominant material is reddish, brown masonry, although it is not frequent enough to be considered consistent. Other materials used are wood, cast-iron facades, pressed tin panelling, glazed tile, stucco and stone veneer.

Typical architectural features include the parapeted false-front*(fig. 19)*, recessed entries*(fig. 20)*, clerestory lighting*(fig. 21)*, and articulation of the retail level from upper stories*(fig. 22)*.



(fig. 15)
Streets within the CBD.



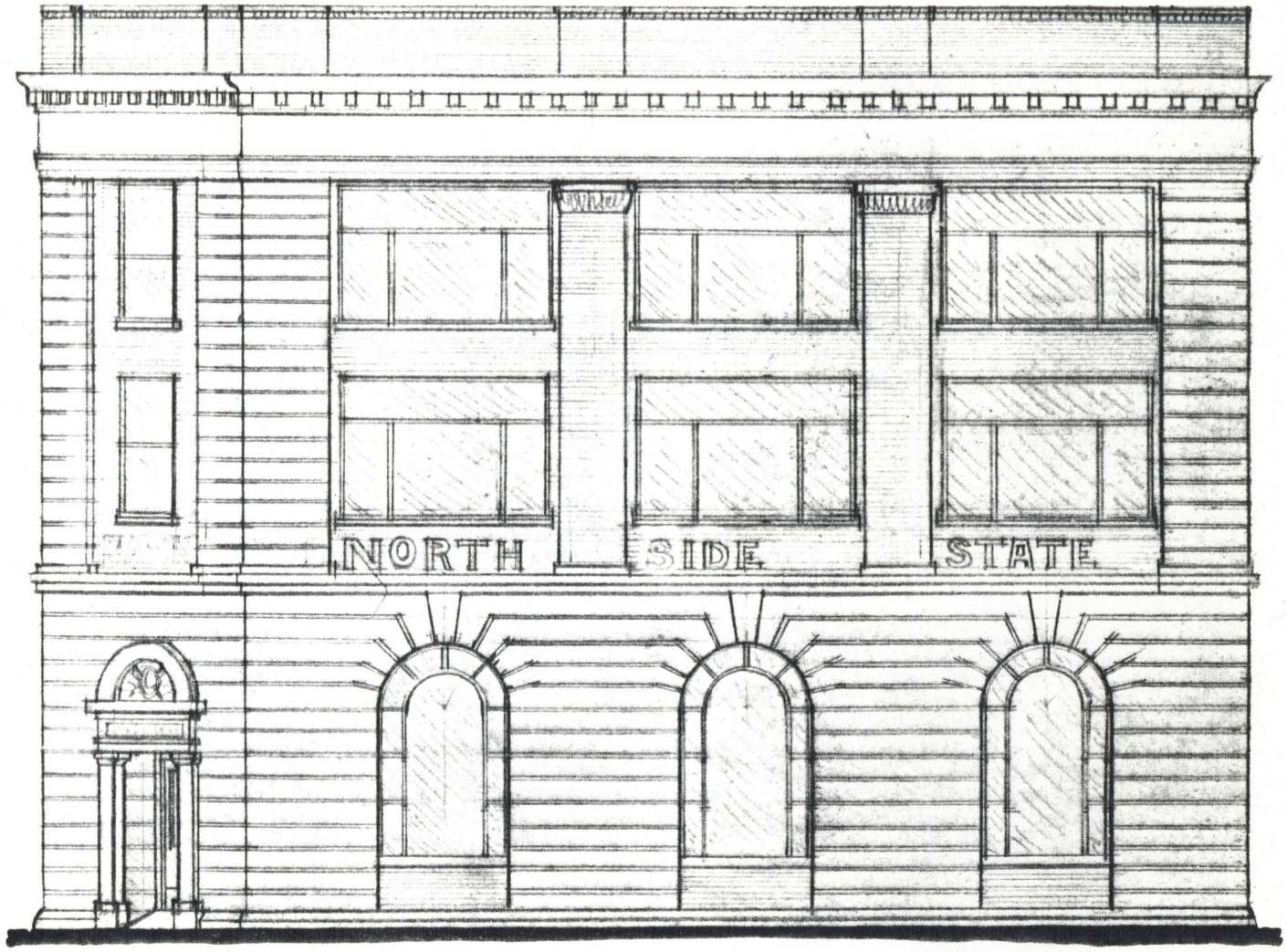
1/8" = 1'-0"

(fig. 16)
Commercial Victorian.

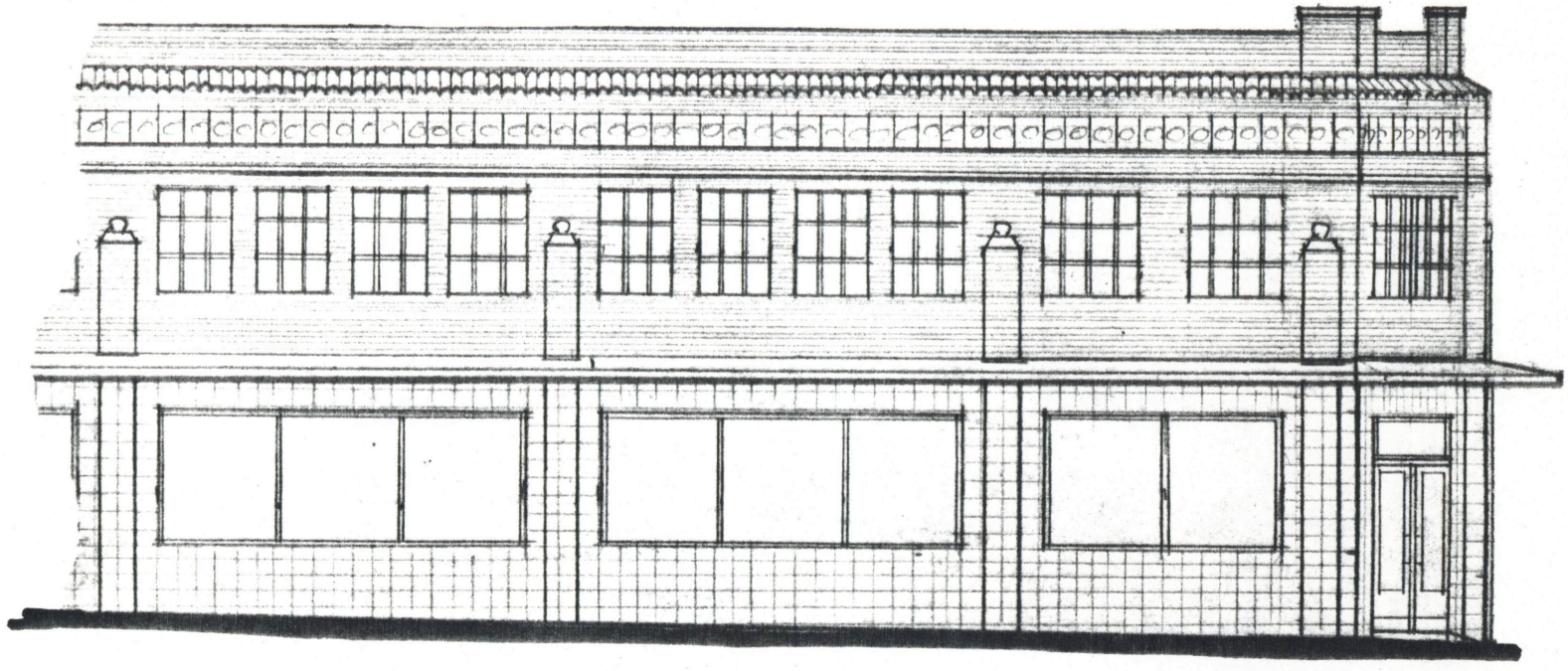


1/8" = 1'-0"

(fig. 17)
Commercial Classicism.

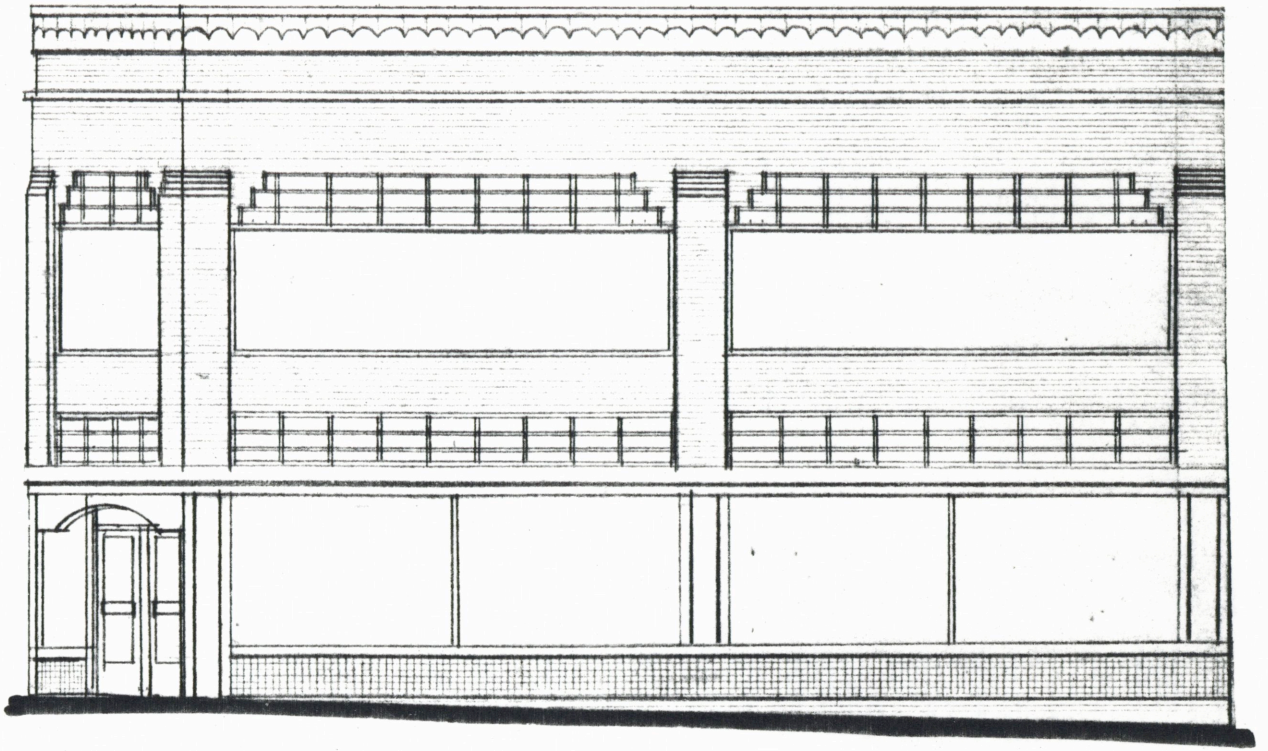


(fig. 18a)
North Side State Bank.



1/8" = 1'-0"

(fig. 18b)
Parker Brothers Building

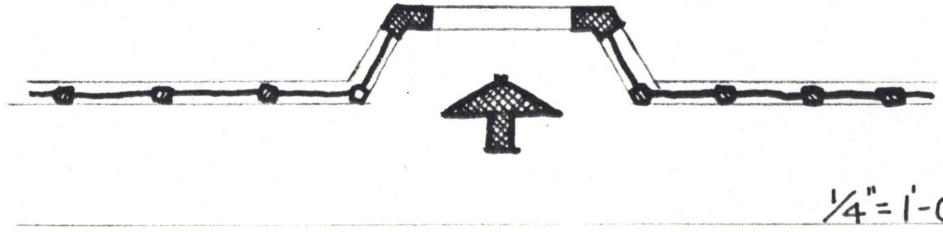


1/8" = 1'-0"

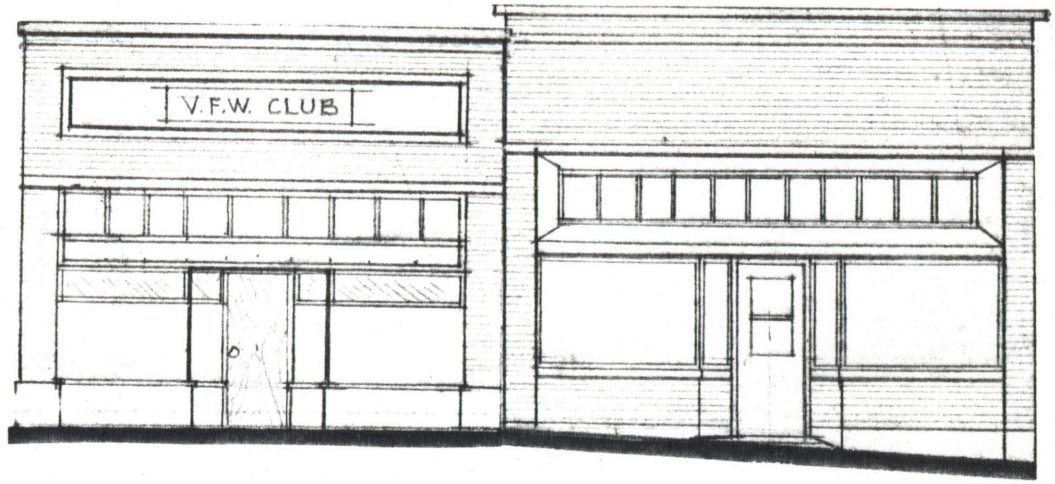
(fig. 18c)
Union Merc Building.



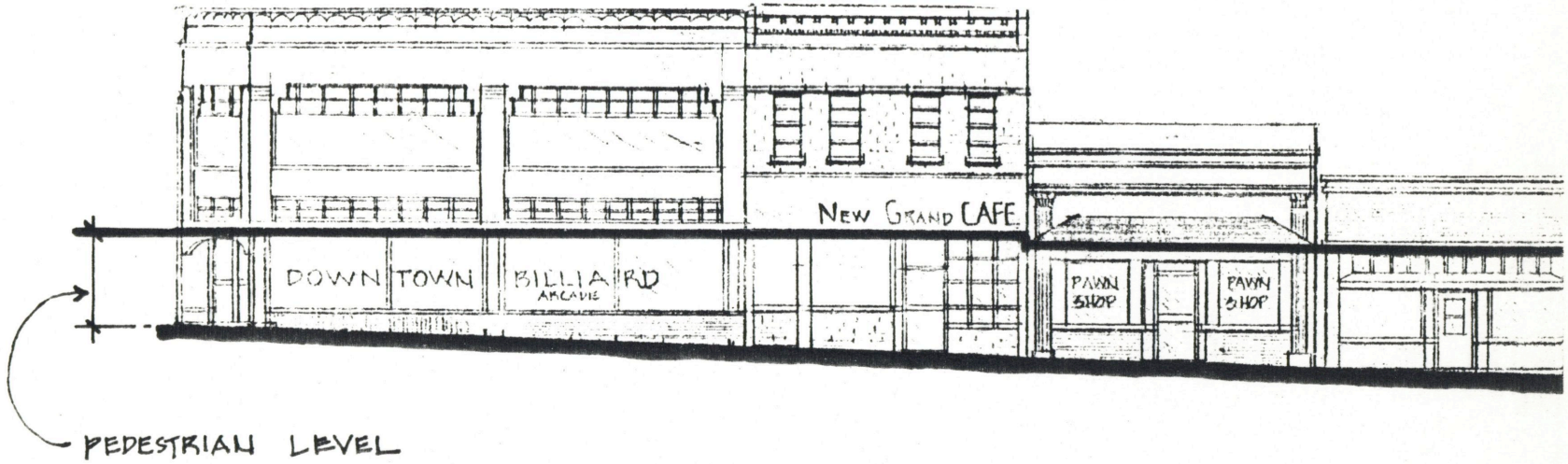
(fig. 19)
Parapeted false fronts. 1/8" = 1'-0"



(fig. 20)
Recessed entries.



(fig. 21)
Clerestory lighting. 1/8" = 1'-0"



(fig. 22)
Articulation of the street level. 1/16" = 1'-0"

LAND USE AND CIRCULATION

The Central Business District(CBD) *(fig. 23)* is severed by the Union Pacific Railroad into a Northside(NSBD) and a Southside(SSBD). The SSBD includes City Hall, the Post Office, professional offices, and retail. The NSBD is the larger of the two, includes my site, and has deteriorated over the past ten years. Following is an analysis of land use and circulation adjacent to my site, beginning due north and continuing in a clockwise manner*(refer to fig. 23, 24, & 25 during the following analysis)*.

NORTH

To the north of my site is Pilot Butte Avenue, it is one segment of the NSBD which has maintained an active retail trade. Pilot Butte links the NSBD with the eastern parts of the city, a residential area with strip development along U.S. 30.

The intersection of Pilot Butte and "K" Street, northwest of the site, has potential to be developed into a major focus within the CBD; although, the existing spatial definition is poor, and the potential node is not being utilized.

Traffic, both vehicular and pedestrian, along Pilot Butte is high, and would increase provided the NSBD stabilized and improved.

EAST

The residential area east of the site is one of the oldest in the city, and is somewhat blighted. The area has recently been rezoned B-2; therefore, it is ripe for redevelopment. Current pedestrian and vehicular traffic within this area is minimal, although, in the event of commercial redevelopment, traffic could increase. Noble Drive, the northeast boundary of the site, is currently a glorified alley, possessing little character.

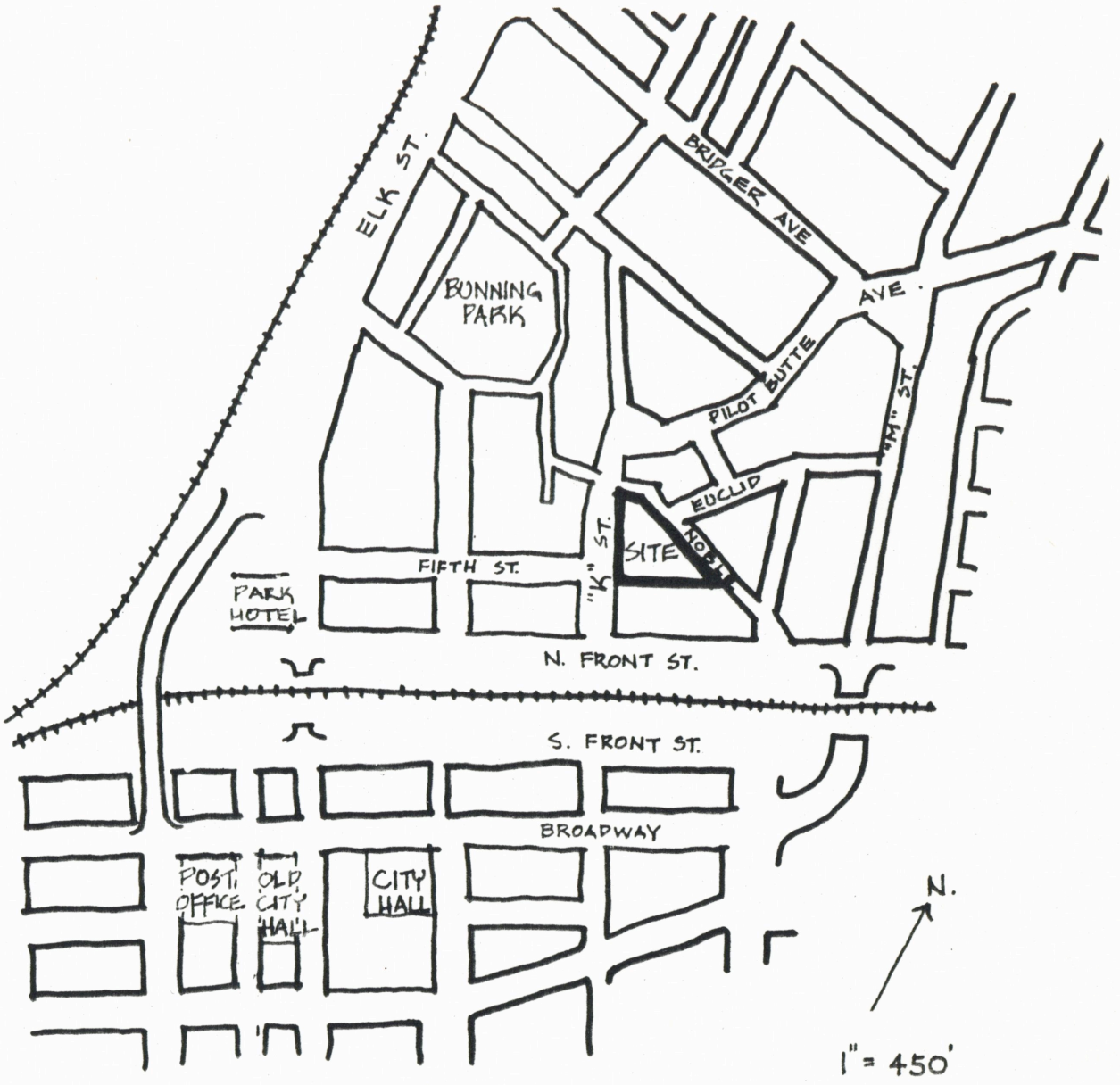
SOUTH

An alley on the southern boundary of the site, seperates the site from the backs of five buildings fronting North Front St.. The backs of these buildings are somewhat unpleasant, however future development of their rear entries could compliment and benefit from this thesis project.

Pedestrian and vehicular traffic is high along North Front. To the south of North Front, the railroad creates a rigid edge.

WEST

The main body of the NSBD lies to the west of the site,some businesses have survived the recent hard times, and professional offices have reoccupied some of the buildings. The Park Hotel anchors the southwestern corner of the NSBD, and is adjacent to a pedestrian grade separation linking the two halves of the CBD.



(fig. 23)
The CBD.

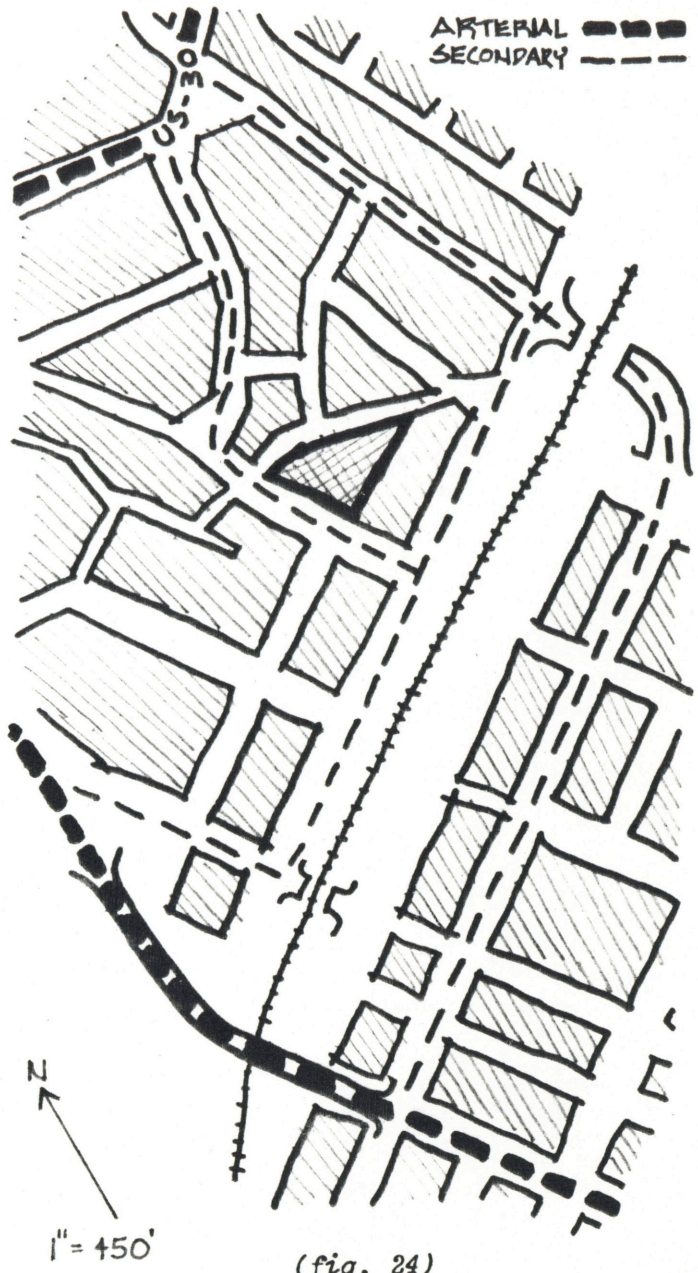
Bunning Park, the cities oldest and most intimate park is located three blocks west of the site; the park is off of main circulation and as a consequence possesses a secluded, private character.

"K" Street, the western edge of the site has significant auto and pedestrian traffic, and its bars and restaurants do good business. "K" Street gained some notoriety from a CBS "60 Minutes" broadcast aired several years ago, highlighting the prostitution which freely operated within the NSBD. The area receives police scrutiny, and the ladies are routinely rounded up; but the situation persists due to a surplus of well paid single males within the city.

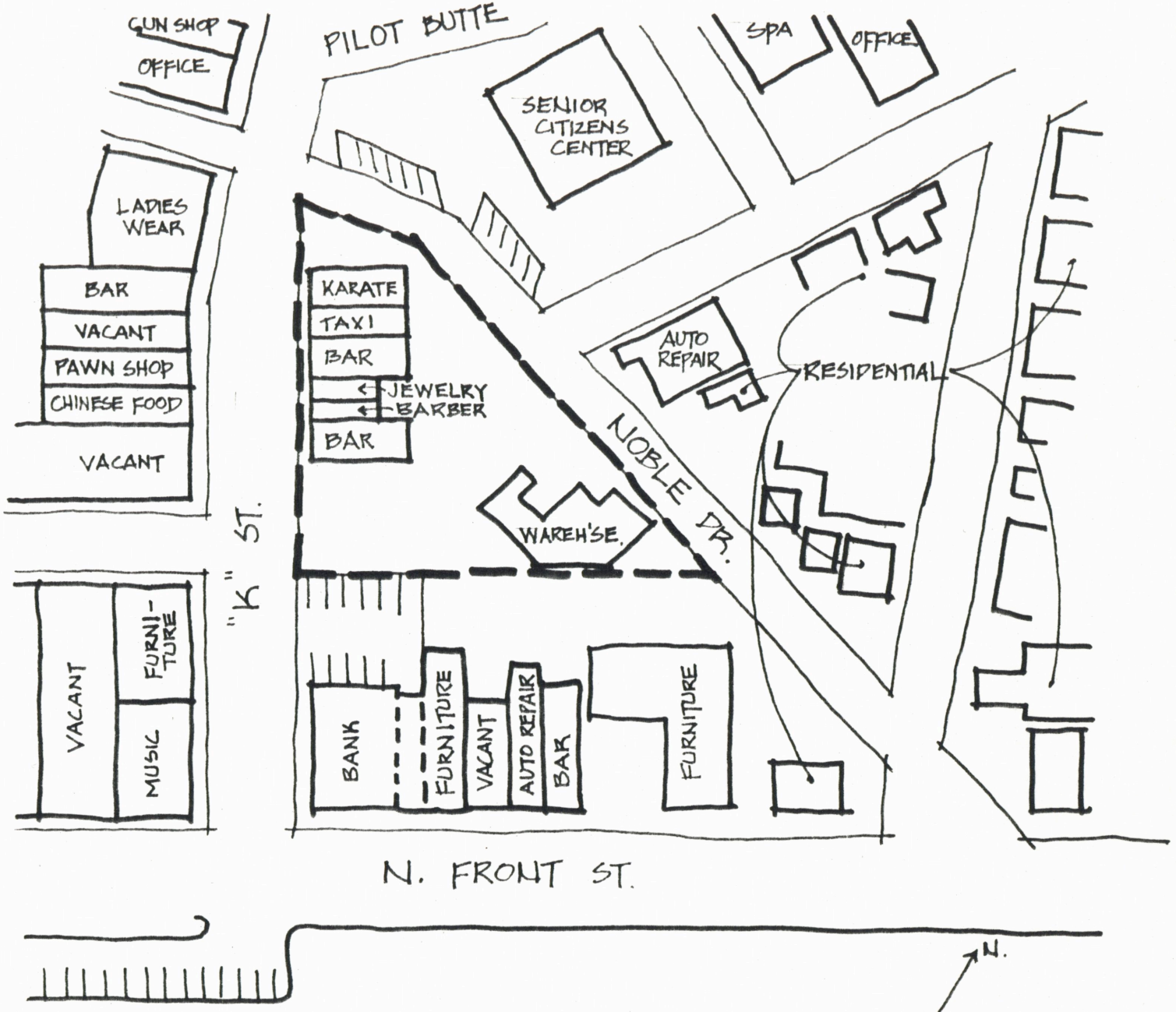
In general, the west remains a vital generator of activity adjacent to the site; it is zoned B-3 CBD which allows commercial parking structures, and less stringent zoning requirements.Its potential for growth is good, provided that shoppers can be reattracted to the NSBD.

THE SITE

Only 1/3 of the site is occupied by building*(fig. 25)* ; the remaining buildings are in decay, and their siting is irrespective of maximum site utilization. The southern portion of the site is undermined and could undergo subsidence in the future. The site is in less than optimum condition; therefore, a successful development would be a positive step in the revitalization of the NSBD.



(fig. 24)
Circulation within the CBD.



(fig. 25)
Existing site and vicinity.

CONCEPTS

The previous analysis provides factual information to be used as reference during the design process; more importantly, the analysis has led to a number of design concepts which are important to the development of an appropriate project. These concepts concern:

the street character,
the culture,
the geology, and
the climate.

THE STREET CHARACTER

It is necessary to preserve the existing downtown to as great a degree as possible because it is an historically significant part of the city; it possesses the unique, character of a frontier, mining town; and its organic structure is topographically responsive and intimately scaled. Furthermore, man yearns for some degree of stability within his built environment.

The existing street system developed "in-situ" as the city grew, responding to the topography, and to the pedestrian. These organic streets contribute significantly to the character of the CBD because of their pedestrian scale, and their fluid, organic flow.

The idea that stability within the built environment is an inherent human need deals with the idea of familiarity; when an individual is familiar with his surroundings, when he feels "at home", he is more likely to utilize a space, and feel comfortable doing it. Minnett argues that due to the rapid rate at which our environment is changing, urban designers should consider preserving the status quo, rather than inducing more change![18] Stern has similar views:

> The principle thrust of the inclusive approach to city building is preservationist in the broadest sense: it seeks to build for the life styles of the people and not to alter them to suit some abstract sense of form. It also seeks to reinforce the qualities of urbanity that some of cities already possess.[19]

By responding sensitively to the existing structure and use patterns within the downtown, the project will fit better within the area, and be a congruent part of the downtown. It will be perceived as a friendly, familiar element rather than an alien intrusion.

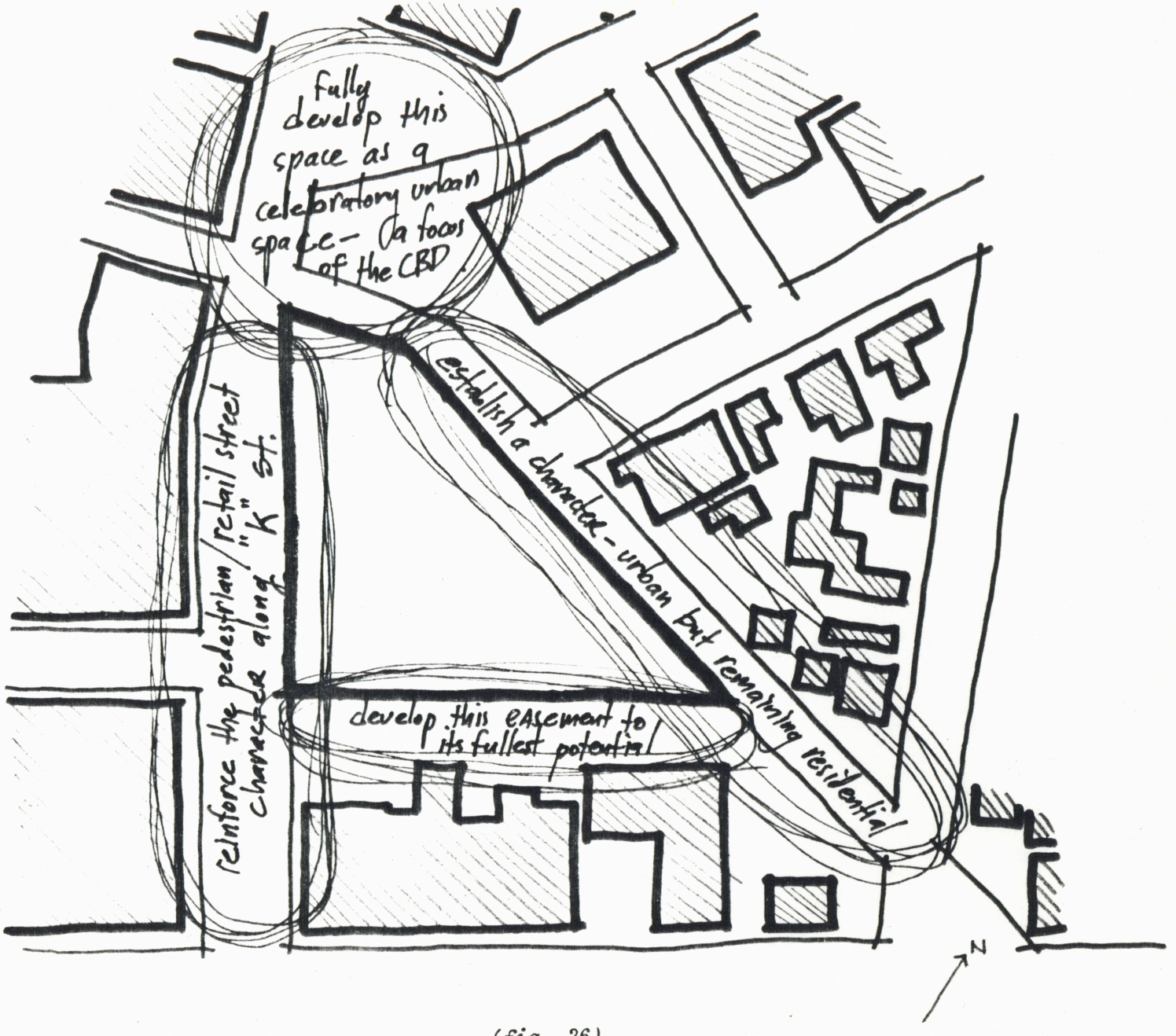
Analysis of the streets bounding the site has suggested these responses *(fig. 26)*:

1) that the retail street corridor along "K" St. be reinforced;
2) that the intersection of "K" St. and Pilot Butte be developed into a focus of the CBD;
3) that a character be established along Noble Dr. that is sympathetic to its urban location but retains a residential atmosphere;
4) that the required easement be utilized to its fullest potential.

---

[18] John Minnett, lecture, Oct. 8, 1981.

[19] Robert A.M. Stern, New Directions in American Architecture (New York: George Braziller, 1977), p.97.



(fig. 26)
Urban design concept.

THE CULTURE

The healthy economy coupled with the adverse climate of the region, ensure that new residents will come to Rock Springs in relation to the various mineral industries. This suggests that the population will continue to be predominantly blue-collar; the working man is and will continue to be the largest segment of the population. Other social characteristics of the city are an ethnic heritage, and the presence of an individualist, frontier attitude.

It is diffucult to define the wants of the blue-collar worker; however, it is necessary to define a number of initial responses. Providing enjoyable urban spaces where one can spend a day off is an obvious response. Providing goods and services which cater to the blue-collar worker is another response; a shop specializing in quality work clothes, such as coveralls, gloves, and boots would be an excellant choice, a bar is another.

Ethnic cultures are not strong in the city; however, many residents retain the culinary vestiges of their heritage. Providing an outlet where specialty foods could be obtained may preserve and strengthen the rich culinary heritage within the city.

A frontier attitude[20] exists within the city; this is an attitude of individuality fostered by the geographical distance between Rock Springs and major cultural/population centers, and intensified by living in a vast desert. One can easily be an individualist in an environment where civilization is symbolized in the dust of an approaching vehicle miles away, or in the overgrown tracks of an abandoned seismograph road.

Individuality suggests formal, architectural possibilities: that buildings and their respective facades can respond individually to specific contextural stimuli; that current architectural trends or fads can be regarded as unimportant to the regional culture; and that a whimsical, unorthodox vocabulary can be used.

THE GEOLOGY

The topography of the region is dramatic, and influences the inhabitants of the region. Norberg-Schulz states:

> Firstly, man wants to make the natural structure more precise. That is, he wants to *visualize* his understanding of nature, expressing the existential foothold he has gained. To achieve this, he *builds* what he has seen.....Secondly, man has to *complement* the given situation, by adding what is lacking. Finally, he has to *symbolize* his understanding of nature.....A natural character is for instance translated into a building whose properties somehow make the character manifest.[21]

---

[20] Although not as strong as it once was, the frontier ethic may reemerge as a strong regional attitude in the West. Toffler talks about strong regionalist attitudes becoming a tendency in the future. Alvin Toffler, The Third Wave (New York: William Morrow and Co., Inc., 1980), Chpt. 22.

[21] Christian Norberg-Schulz, Genius Loci (New York: Rizzoli, 1980), p. 17.

Metaphorical allusion to the geologic structure of the region is a device that can tie the building to the environment, making it more familiar to its potential users; therefore the user is able to "dwell"[22] within the spaces created.

The main unit of the geologic structure is the horizontal slab of strata, the architectural metaphor being the line. Emphasizing the horizontal through the use of line coincides with the existing Classical context; therfore a vocabulary stressing the horizontal seems to be a logical choice.

THE CLIMATE

Rock Springs is within a desert climate; therefore its inhabitants are desert dwellers. In the desert, one desires an intimate counterpoint to the omnipresent desert, this counterpoint is the oasis.

> In the cosmic landscape.....the enclosed garden or paradise becomes the ultimate goal.[23]

"Oasis" suggests shade, water, enclosure, and a general sense of protection from the elements. The colors implied are blues and greens. The oasis becomes th paradisiacal counterpoint within the cosmic, desert environment.

Albert Camus wrote,"There is the Arab house, which conceals beneath ironic colors, the importance of escape toward the ideal and the infinite."[24] Although, Camus wrote about mans search for an escape from the complexities of life, architectural implications can be abstracted from his work. The oasis, like the Arab house, is an escape from the pressures of ones environment, and is a requirement for "dwelling" in the desert

> For settling, he[the arab] needs the oasis, that is, he needs an intimate place within the cosmic macroworld.[25]

If the desert dweller does indeed need the escape provided by the oasis, then developing the site and the urban core as an oasis would draw people to the CBD, increasing its chances for a successful redevelopment.

---

[22] "Dwelling" defined as existing meaningfully. Ibid., pp. 5&6.

[23] Ibid., p. 48.

[24] Albert Camus, Youthful Writings (New York: Random House, 1977), p. 187.

[25] Christian Norberg-Schulz, Genius Loci (New York: Rizzoli, 1980), p. 45.

DESIGN

PRELIMINARY PROGRAM

MIXED USE

The case for mixed use within city centers is stated eloquently by Jane Jacobs:

> The district[CBD]....must serve more than one primary function; preferably more than two. These must insure the presence of people who go outside on different schedules, are in the place for different purposes.[26]

Jacobs goes on to say,

> Insufficient primary mixture is typically the principle fault in our downtowns....without a strong and inclusive central heart, a city tends to become a collection of interests isolated from one another.[27]

The inclusion of differing functions within the development of the site seems to be a logical goal. The primary conforming city center functions as listed by Victor Gruen are:

residential,
government,
private business administration,
retail trade, and
culture and art.[28]

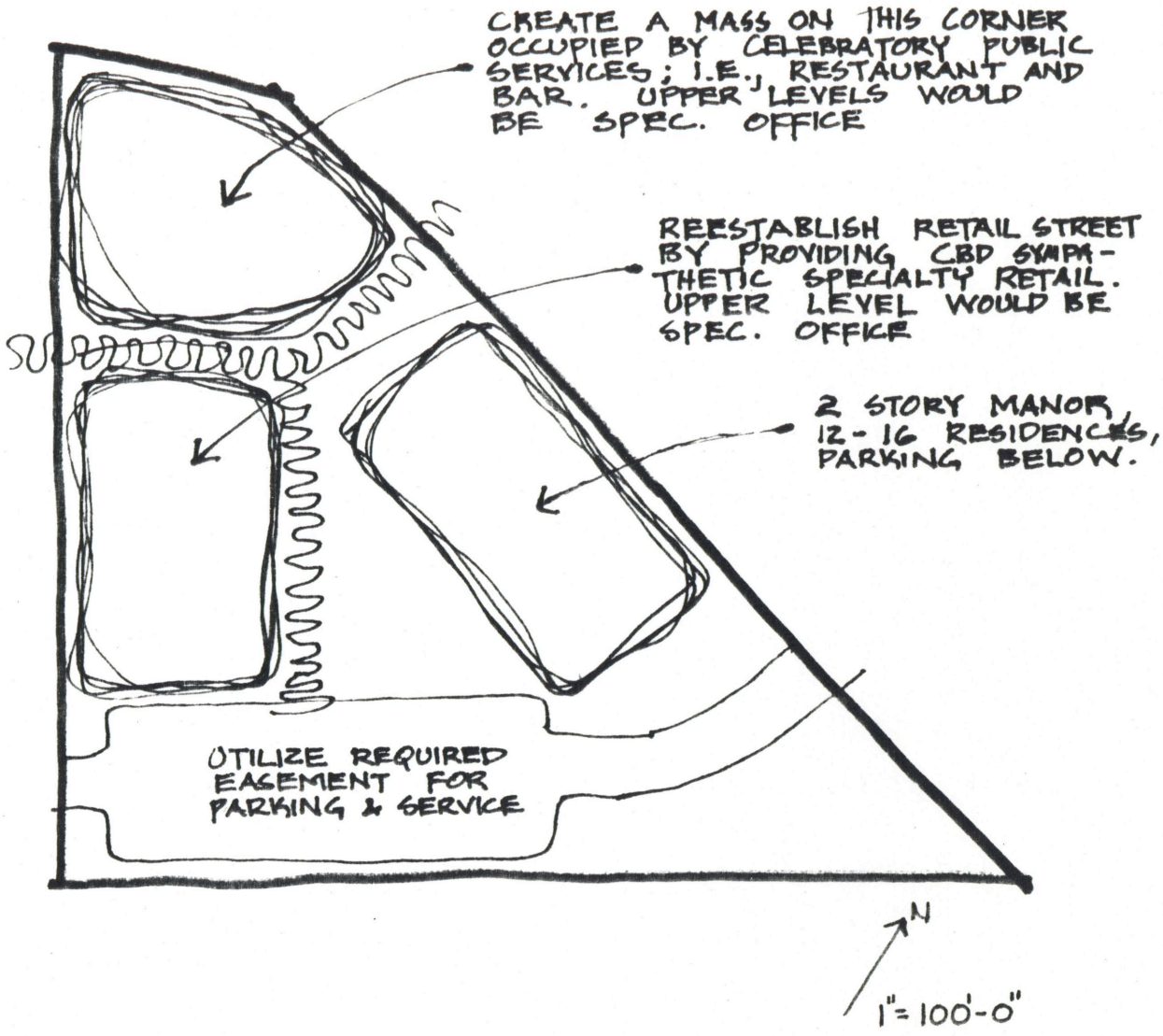
City government is already adequately housed within the SSBD, and the existing cultural facilities seem to be sufficient; suggesting that retail, office, and residential are the functions to incorporate into the design*(fig. 27)*.

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[26]Jane Jacobs, The Death and Life of Great American Cities (New York: Vintage Books, 1961), p.153.

[27]Ibid., p. 164.

[28]Victor Gruen, Centers for the Urban Environment (New York: Van Nostrand Reinhold Co., 1973), p. 160.



(fig. 27)
Use concept.

RETAIL

A store is a place where merchandise is arranged to be shown to its best advantage to prospective customers. A well designed store is one that embodies a thorough knowledge of merchandising methods, efficiency, maintanence and buyer psychology.[29]

T

The underlying and basic desire in all these settings is to create a pleasant environment-not only for the purpose of buying goods and services but also to satisfy a social need.[30]

Initially the program called for:

a)	neighborhood grocery,	2500 sq. ft.
b)	restaurant,	2500 sq. ft.
c)	bar,	2500 sq. ft.
d)	bakery,	1500 sq. ft.
e)	jewelry, and	500 sq. ft.
f)	barber shop.	500 sq. ft.
		10,000 sq. ft.

This program was intuitive and its only justification was that three uses, bar, jewelry, and barber are existing uses.

In order to test the program against existing successful shopping developments, ten centers were surveyed (see Appendix A), the results are as follows:

department stores*	29.0%
apparel and shoe	13.6%
special retail**	16.4%
food retail***	13.1%
restaurant and bar	9.2%
service****	7.5%
appliance/hardware/furniture	6.1%
financial	5.9%

* includes expanded drug stores, etc.
** drug, jewelry, gift, book etc.
*** deli, grocery, bakery etc.
**** theatre, barber, cultural etc.

Comparing and averaging this list against a survey of businesses within Calgary's CBD (see Appendix B) results in:

department stores	28.4%
apparel and shoes	17.2%
special retail	15.6%
food retail	10.0%
restaurant and bar	9.2%
service	7.5%
appliance/hardware/furniture	5.9%
financial	4.9%

[29] Emrich Nicholson, Shops (New York: Architectural Book Publishing Co., 1945), p. 11.

[30] Louis G. Redstone, New Dimensions in Shopping Centers and Stores (New York: McGraw Hill Book Co., 1973),.

This composite was then compared against the original program, and the existing ratio within the downtown.

	original program	composite from above	existing uses
dept. store	0	28.4%	9.0%
app. & shoe	0	17.2%	11.3%
spec. retail	5.2%	15.6%	19.1%
food retail	35.0%	10.0%	0
rest. & bar	52.5%	9.2%	12.4%
service	5.2%	7.5%	10.2%
app/hdw/furn	0	5.9%	28.3%
financial	00	4.9%	10.2%

DEPARTMENT STORES

There is a deficiency; although, many existing buildings formerly housed department stores, and could be reused as such again. The site is small; therefore a suitable department store would cover most of the site, in contradiction with the concept of mixed use.

APPAREL AND SHOES

A deficiency exists; therefore, clothing and shoe stores would be appropriate.

SPECIAL RETAIL

Although a deficiency does not exist, a current belief is that special retail is an excellent CBD use.

> Large department stores have typically lost trade; the chain variety stores have stayed about even; and the small specialty stores have increased their business, and usually have increased in number.[31]

FOOD RETAIL

There is a need for food retail in the area, and this concurs with the original program. Adjacent residential areas may change use in the future, and are served by nearby supermarkets and "quick stop" services at the present. Therefore the neighborhood grocery called for in the original program can be replaced by specialty foods, which would draw a regional rather than neighborhood clintele. A bakery, ethnic food store, and deli would fit the category of specialty food stores.

RESTAURANT AND BAR

The CBD has an abundance of bars and restaurants, each catering to a specific clientele, and all doing good business. Therefore, a restaurant and bar seems appropriate, even though a need does not exist.

SERVICE

A barber shop already exists on the site; therfore it is logical to replicate it. However, my main concern is devoting as much of the ground floor to retail as possible.

---

[31] Jane Jacobs, The Death and Life of Great American Cities (New York: Vintage Books, 1961), p. 147.

APPLIANCE/HARDWARE/AND FURNITURE

A surplus of these outlets already exist within the CBD, and they are not prime CBD uses; therefore they are not included as uses.

FINANCIAL

The North Side State Bank is adjacent to my site, and is a fine building in good condition. The NSBD could be developed into a financial center; however, several banks have recently relocated on the fringes of the city, closer to newer residential areas.

SUMMARY

At this point, the program calls for:

a) special retail 40%
b) apparel and shoes 40%
c) specialty foods 20%

exclusive of,
d) restaurant and bar of 3000 sq. ft..

SPECIAL RETAIL

Shops range from 300 sq. ft. to 3500 sq. ft., and the average size is 1200 sq. ft.[32]

stationary	records/music
gifts	jewelry
books	fabrics
tobacco	hobbie
camera	stamp/coin
optical	art supplies/frames
cosmetics	china/glass/pottery
leather goods	bicycle

APPAREL AND SHOES

Shops range from 200 to 2500 sq. ft., and the average size is 2000 sq. ft.[33]

shoe store	tailor
mens wear	lingerie
womens wear	formals
childrens wear	uniforms
work clothes	woolen goods

SPECIALTY FOODS

Shops range from 500 to 1500 sq. ft., and their average size is 1000 sq. ft.[34]

bakery	sea food
candy	ethnic foods
deli	Italian
butcher	Scandinavian
dairy goods	Slavic
green grocer	Oriental
health foods	Greek etc.

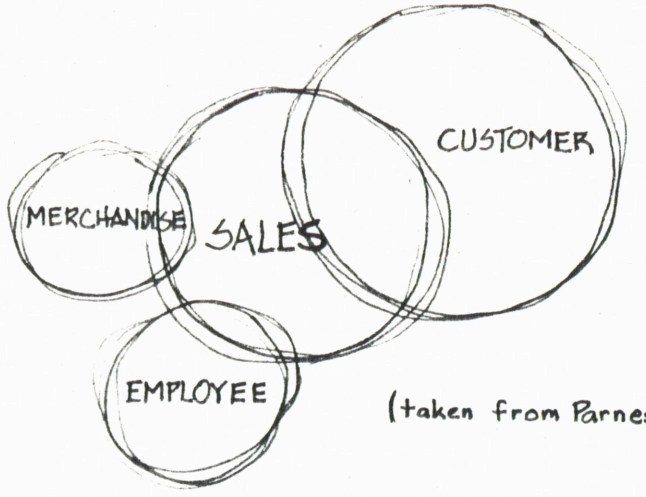
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[32] City of Calgary, "Downtown Retail Study," vol. 1, 1979, p. 47.

[33] Ibid., p. 41-3.

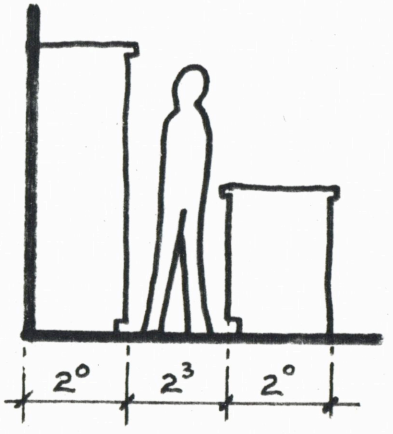
[34] Ibid., p. 33.

GENERAL RETAIL INFO.



(taken from Parnes)

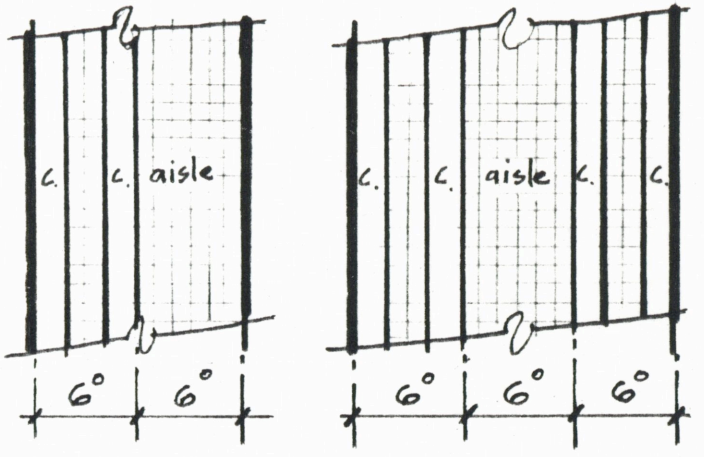
MERCH'DSE	EMPLOY.	SALES	CUSTOMER
Receiving Marking Storing	Entry Lounge Bathrooms Offices	Forward stock Cust. service Cash & wrap Counter sales	Entry Display Circulation Dressing Rms.

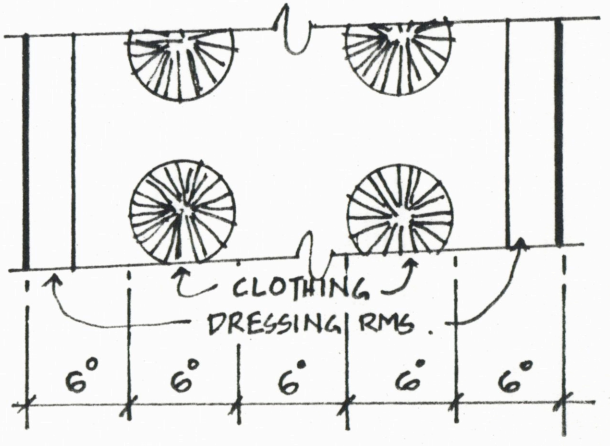


TYPICAL COUNTER

A MODULE

THE TYPICAL 6 FT. COUNTER SUGGESTS A 6 FT. RETAIL MODULE.





OFFICE

To ensure maximum rentability the offices should be able to accomodate a wide variety of uses and space requirements

SMALL PROFESSIONAL OFFICE

One or two partners, possibly a secretary/receptionist; 200 to 500 sq. ft..

lawyer	accountant
insurance agent	stock broker
real estate agent	

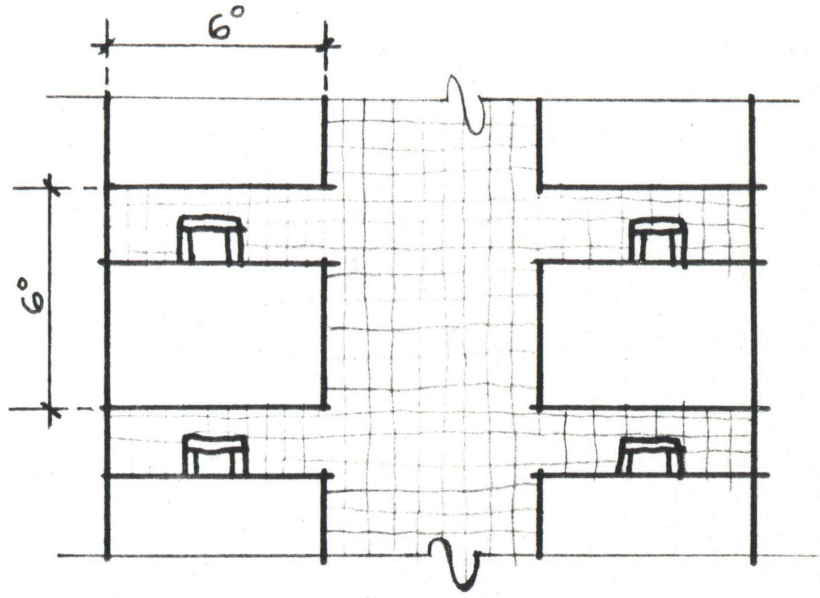
LARGE PROFESSIONAL OFFICES

Number of employees varies; many of these uses require large areas per person; e.g., architect's office.

architect	advertising agency
interior designer	artist

CORPORATE SIZED OFFICES

This category includes branch and head offices for large firms;including, oil companies, insurance firms, law firms and accounting firms. Open plan office space is required along with conference rooms, and private offices for the higher administrators.



A 6° MODULE WORKS WELL FOR OPEN OFFICE, AND ACCOMODATES PRIVATE OFFICES WELL (12' x 18').

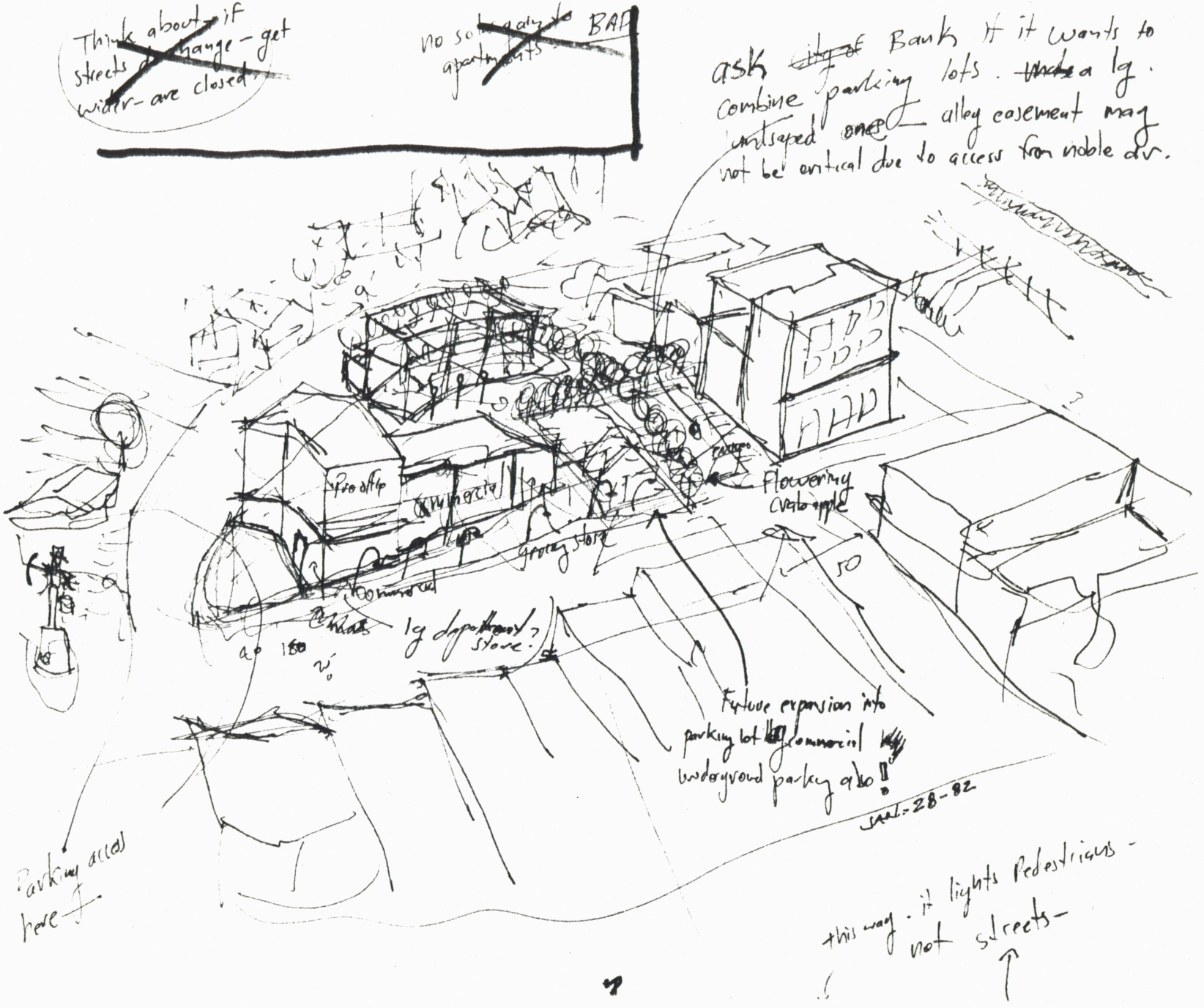
RESIDENTIAL

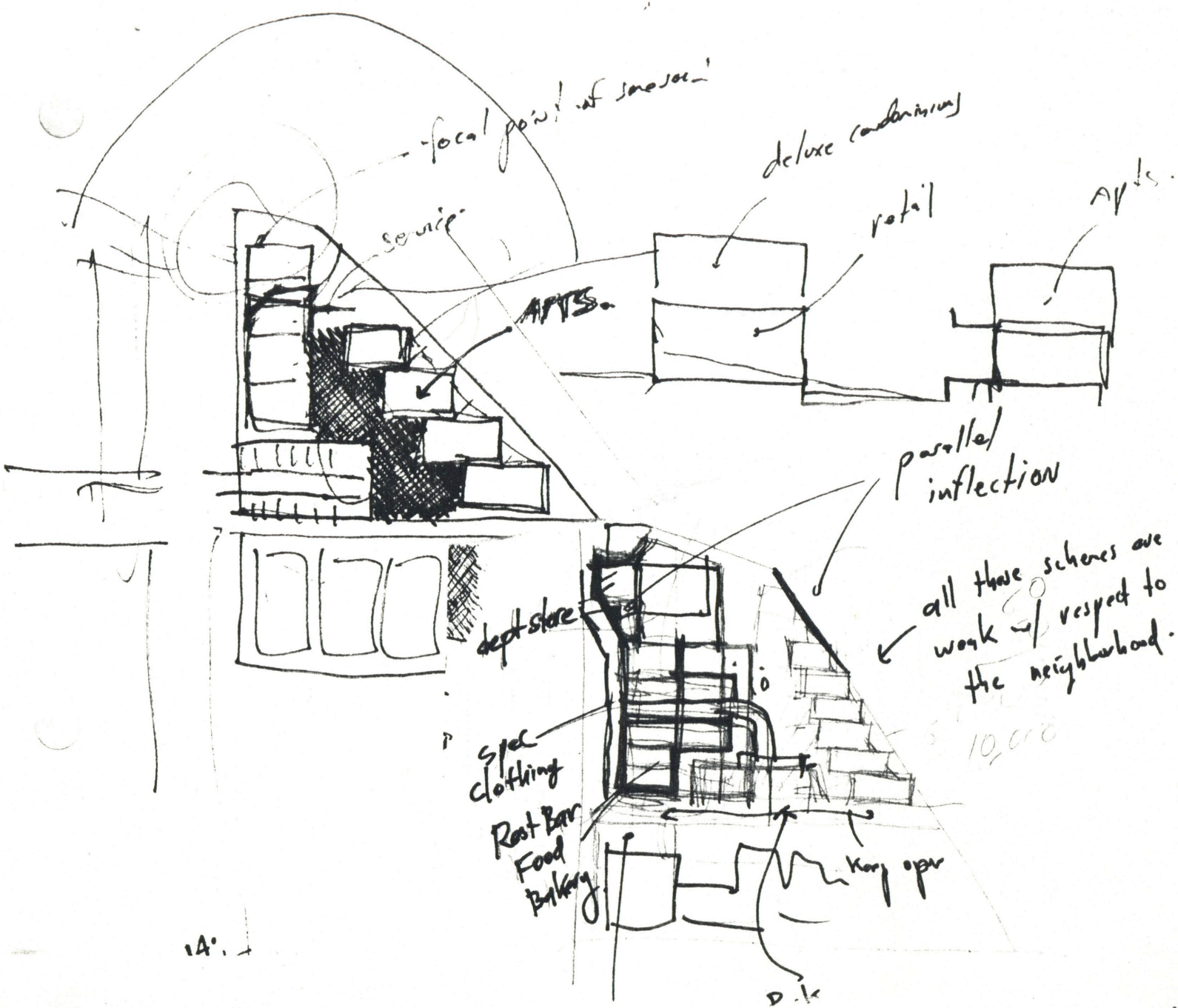
Due to the urban location of the project, and the demography of the area, the residential units should be programmed with singles, young marrieds without children, and the elderly. An initial program suggests:

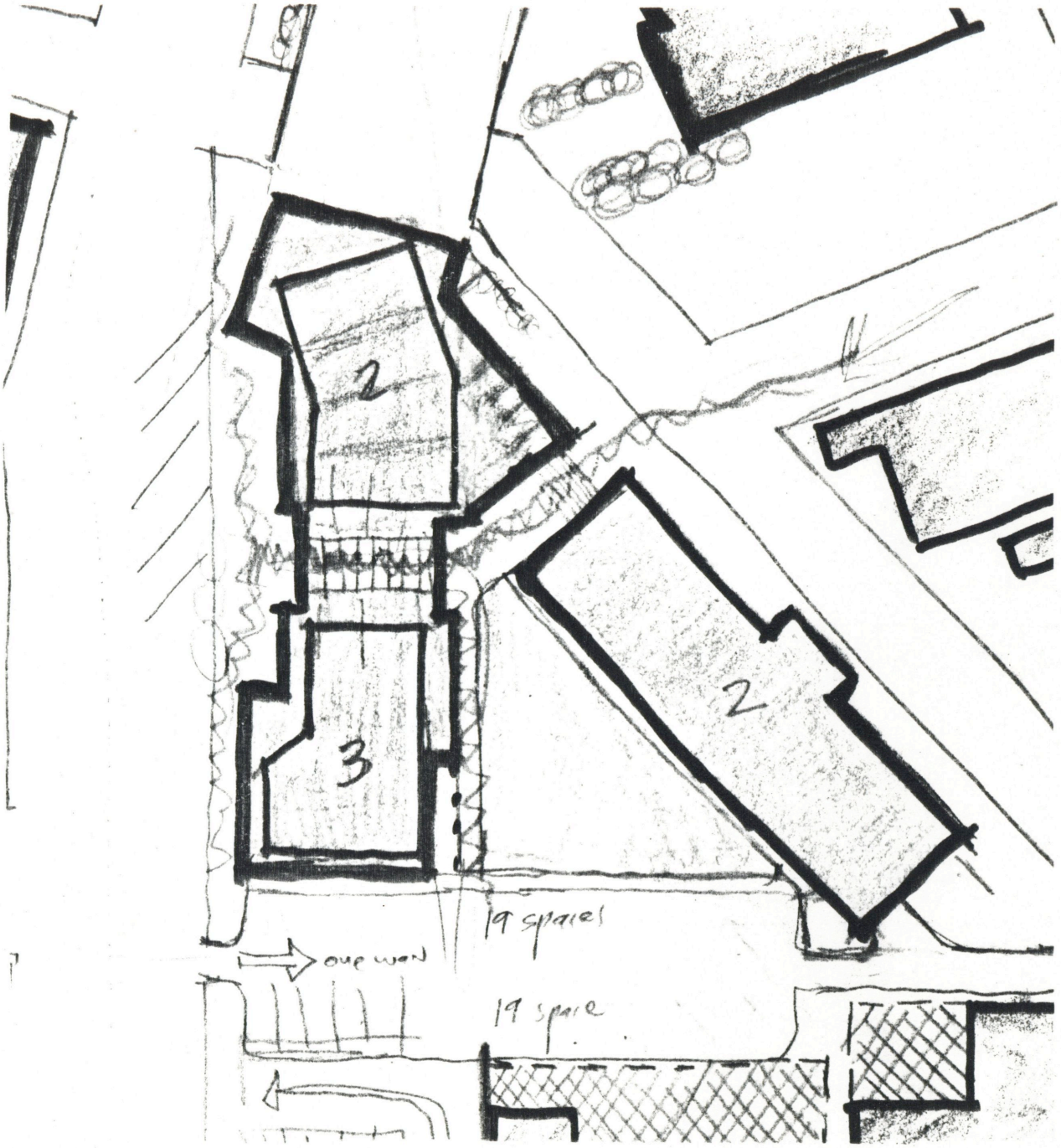
4 efficiency units	@ 600 sq. ft.
8 one bedroom units	@ 800 sq. ft.
8 two bedroom units	@1000 sq. ft.

The suggested 20 units would be adjusted during the design, and is only a suggested starting point.

DESIGN DEVELOPMENT

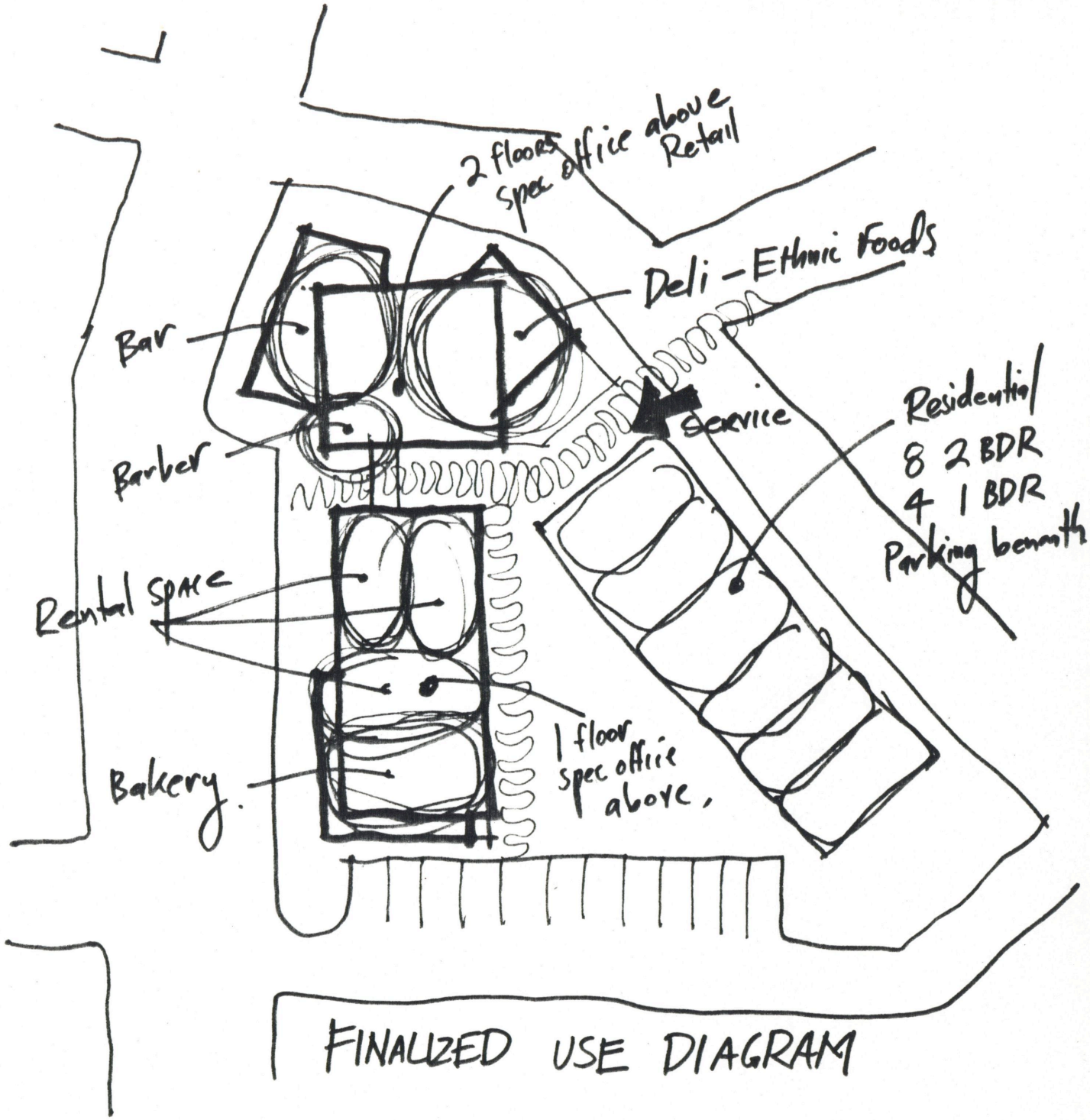

Think about if change - get streets wider - are closed.
no so BAD apartments
ask Bank if it wants to combine parking lots. a lg. unusual alley easement may not be critical due to access from noble dr.
Flowering Crabapple
Grocery store
lg department store?
Future expansion into parking lot commercial
underground parking also!!
Parking access here
this way - it lights Pedestrians - not streets -


focal point of space
source
deluxe condominiums
retail
Apts.
APTS.
parallel inflection
all these schemes are work w/ respect to the neighborhood.
dept store
Spec clothing
Rest Bar Food Bakery
Key spa
14'


2
3
2
19 spaces
one way
19 spaces

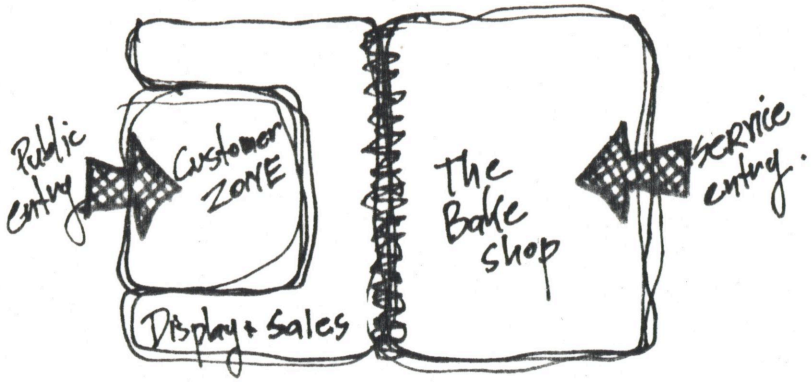


Initial Vocabulary – Southwest corner of site.


2 floors spec office above Retail
Deli - Ethnic Foods
Bar
Barber
Service
Residential
8 2 BDR
4 1 BDR
Parking beneath
Rental space
1 floor spec office above.
Bakery.
FINALIZED USE DIAGRAM

SECONDARY PROGRAM

THE BAKERY



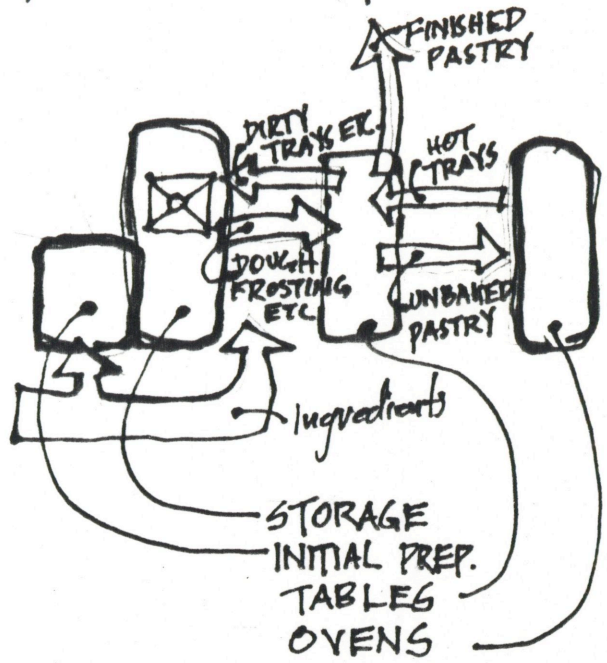
CUSTOMER ZONE

* PROVIDE AMPLE LINEAR DISPLAY SPACE, TO MAXIMIZE CUSTOMER INTERACTION W/ BAKE GOODS
* PROVIDE A SITTING SPACE, WHERE ONE CAN ENJOY THE PASTRIES & DRINK A CUP OF COFFEE.

DISPLAY & SALES

* ADEQUATE BUT EFFICIENT CIRC. SPACE BEHIND COUNTER.
* COUNTER ITSELF SHOULD MAXIMIZE DISPLAY CAPABILITIES.
* COFFEE MAKING AREA W/ SINK.

THE BAKE SHOP



STORAGE

* STORAGE FOR BOTH DRY & REFRIGER. INGREDIENTS. ADJACENCY TO INITIAL PREP. AREA AND SERVICE ENTRY.

INITIAL PREP.

* TABLES & SINKS WHERE DOUGHS & FROSTINGS ARE MIXED, DISHWASHING.

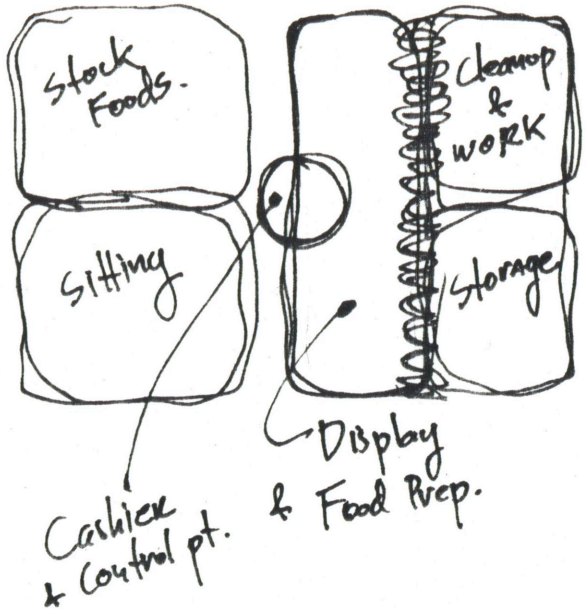
TABLES

* PRIMARY WORK SPACE. PASTRIES PREPARED, TRAYS LOADED & UN-LOADED.

OVENS

* WHERE THE GOODIES ARE BAKED! 4' x 6' TYP. UNIT SIZE.

THE DELI.



STOCK FOODS

* SHELVING & BINS FOR SPECIAL DRY FOODS ; I.E, POLENTA FLOUR, WHOLE GRAIN FLOUR, AND SPECIALIZED ETHNIC FOODS

SITTING SPACE

* BOTH INDOOR & OUTDOOR SPACE FOR SAMPLING FOODS, OR EATING SOUP & A SANDWICH.
* ATMOSPHERE SHOULD BE SIMPLE, & UNSOPHISTICATED IN DECOR, BUT ELEGANT IN PROPORTION & DESIGN.

DISPLAY & FOOD PREP.

* PROVIDE AMPLE LINEAR DISPLAY COUNTER.
* SUFFICIENT CIRC. FOR EMPLOYEES.
* WORK SURFACES FOR CUTTING, & WRAPPING OF MEATS & CHEESE, & MAKING OF SANDWICHES.
* ESSENTIAL THAT PREP. OF FOODS BE VISIBLE TO POTENTIAL CUSTOMERS.

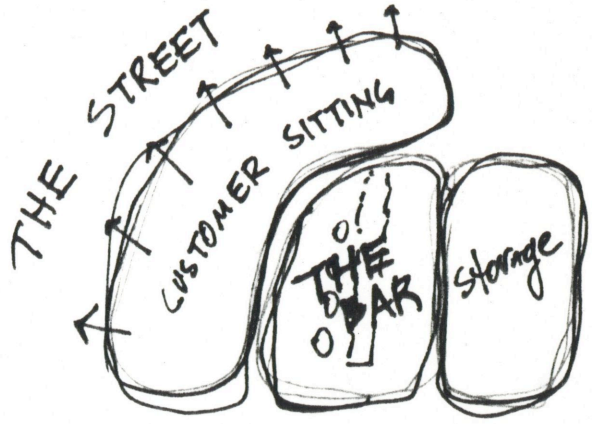
CLEANUP AND WORK

* VISIBLY SEPERATED FROM PUBLIC
* PROVIDE SOME WORK SURFACE, A STOVE FOR SOUP, CHILI, AND STORAGE.
* PROVIDE SINKS FOR CLEANUP.

STORAGE

* PROVIDE AMPLE STORAGE FOR BOTH DRY & REFRIGERATED GOODS.

THE BAR



CUSTOMER SITTING

BY UTILIZING THE ADJACENCY TO THE MAJOR STREET, THIS BAR CAN OPEN UP TO THE STREET, UNLIKE MANY TRADITIONAL DARK, SECLUDED BARS.

THIS TYPE OF "EUROPEAN" BAR IS AN EXCELLENT DAY TIME BAR, ESPECIALLY DUE TO ITS LOCATION W/IN A POTENTIALLY ACTIVE RETAIL AREA, AND THE POSSIBILITY OF SERVING FOOD FROM THE DELI, IN THE BAR

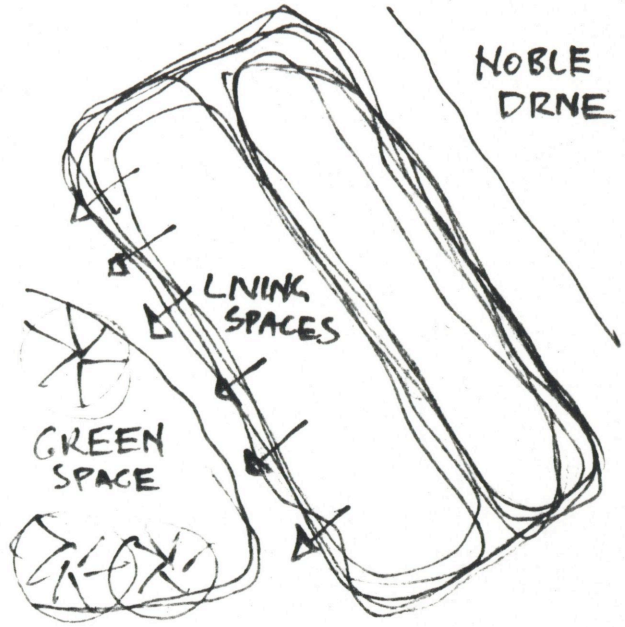
THE BAR

THE BAR, ITS STOOLS, AND BACKBAR IS THE CENTER PIECE, THE GEM, OF A DRINKING EGTABLISHMENT. IT IS THE STAGE SET IN WHICH THE BARTENDER, USING JEWELED HANDS, PRODUCES A MYRIAD OF EXOTIC BEVERAGES, AND WHERE PEOPLE CONGREGATE TO WATCH, DRINK & CONVERSE.

STORAGE

PROVIDE AMPLE STORAGE FOR COLD BEVERAGES, AND KEG HOOKUP BEHIND BACKBAR

RESIDENTIAL



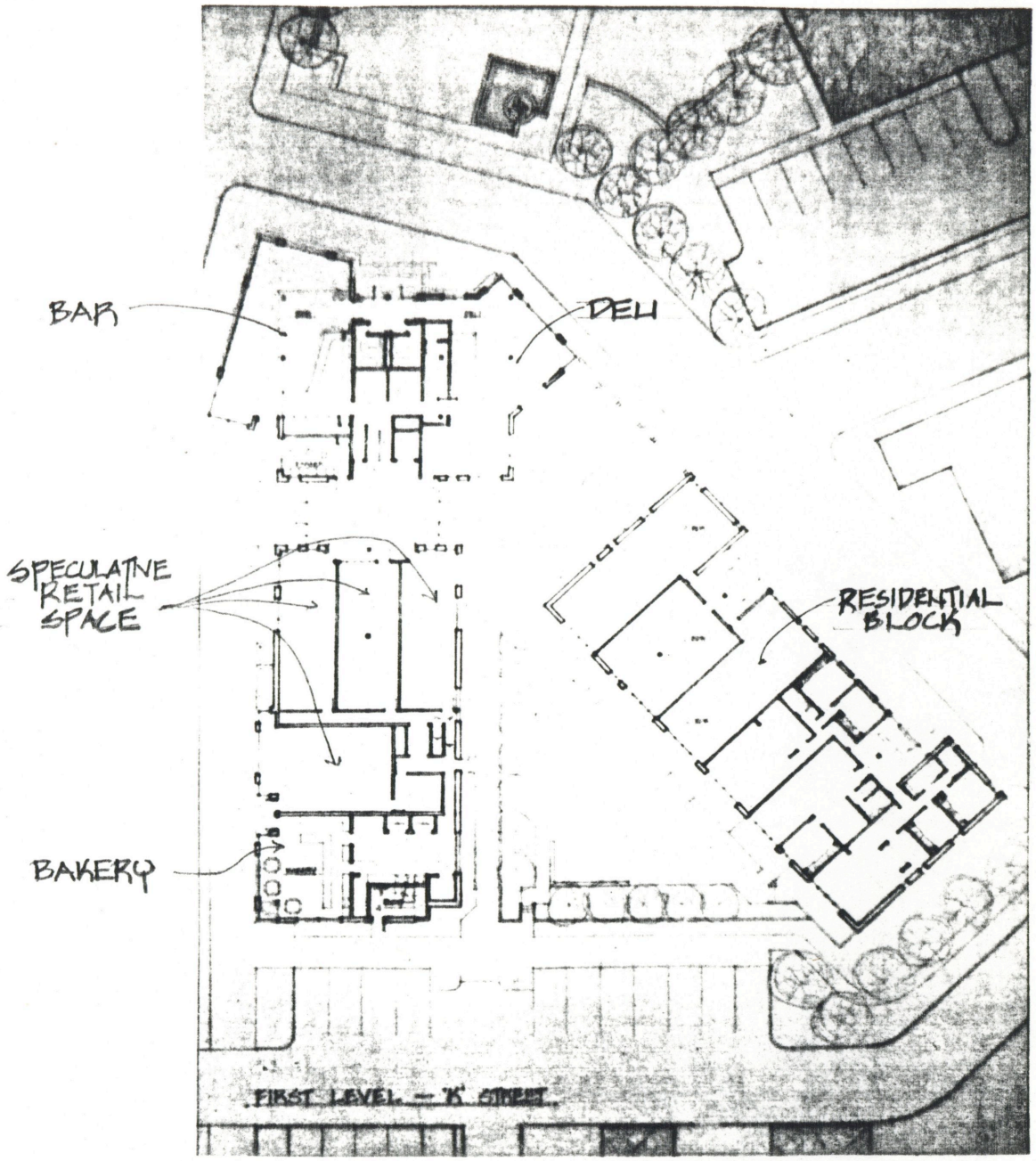
THE LIVING SPACES; I.E. LIVING, DINING ETC. SHOULD BE ORIENTED TOWARD THE ENCLOSED GREEN SPACE, ALL UNITS SHOULD HAVE BALCONIES FACING THE GREEN SPACE.

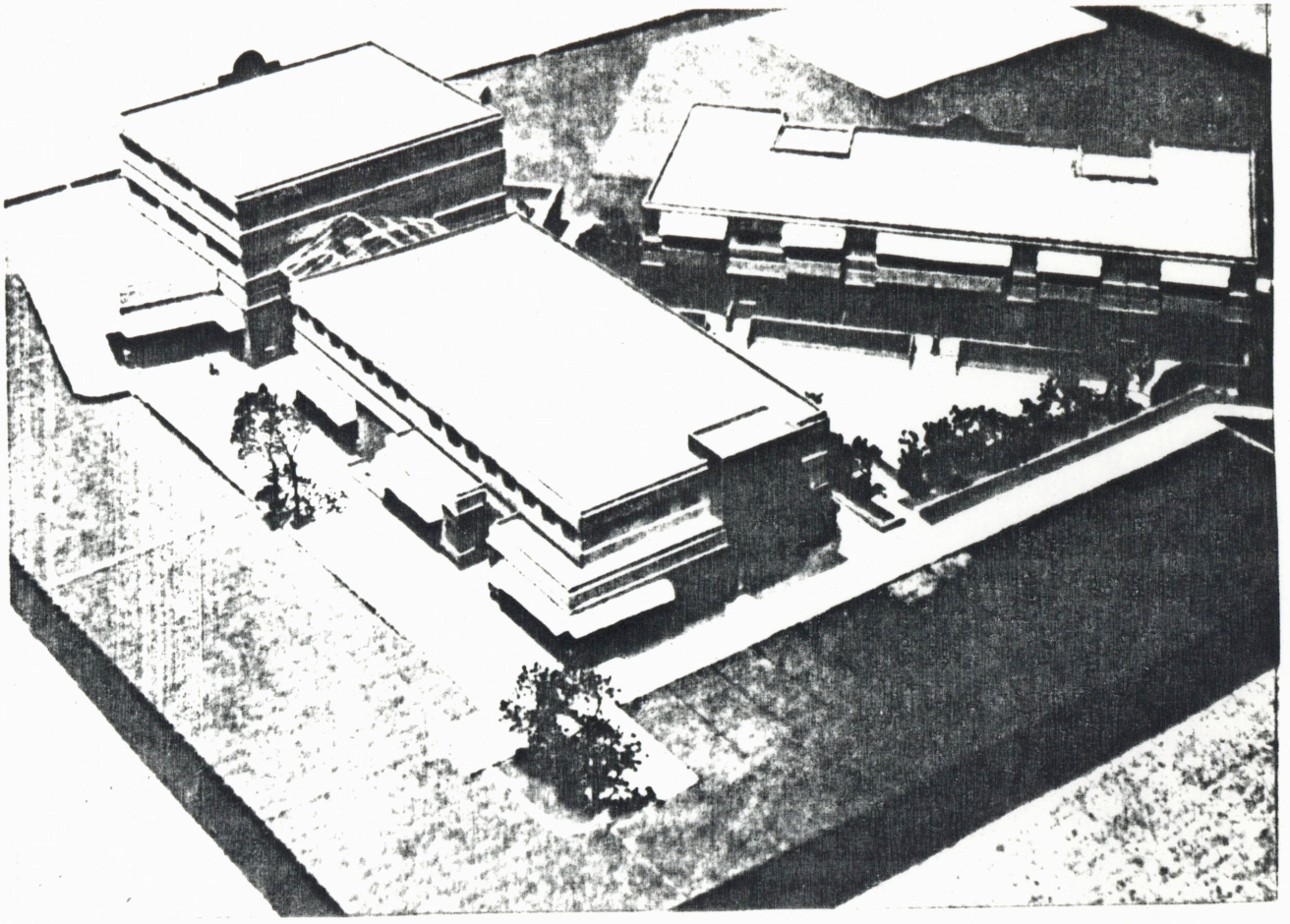
MIX

THE ORIGINAL PROGRAM CALLED FOR EFFICIENCY UNITS, AND A PREDOMINANCE OF ONE BEDRM. UNITS.

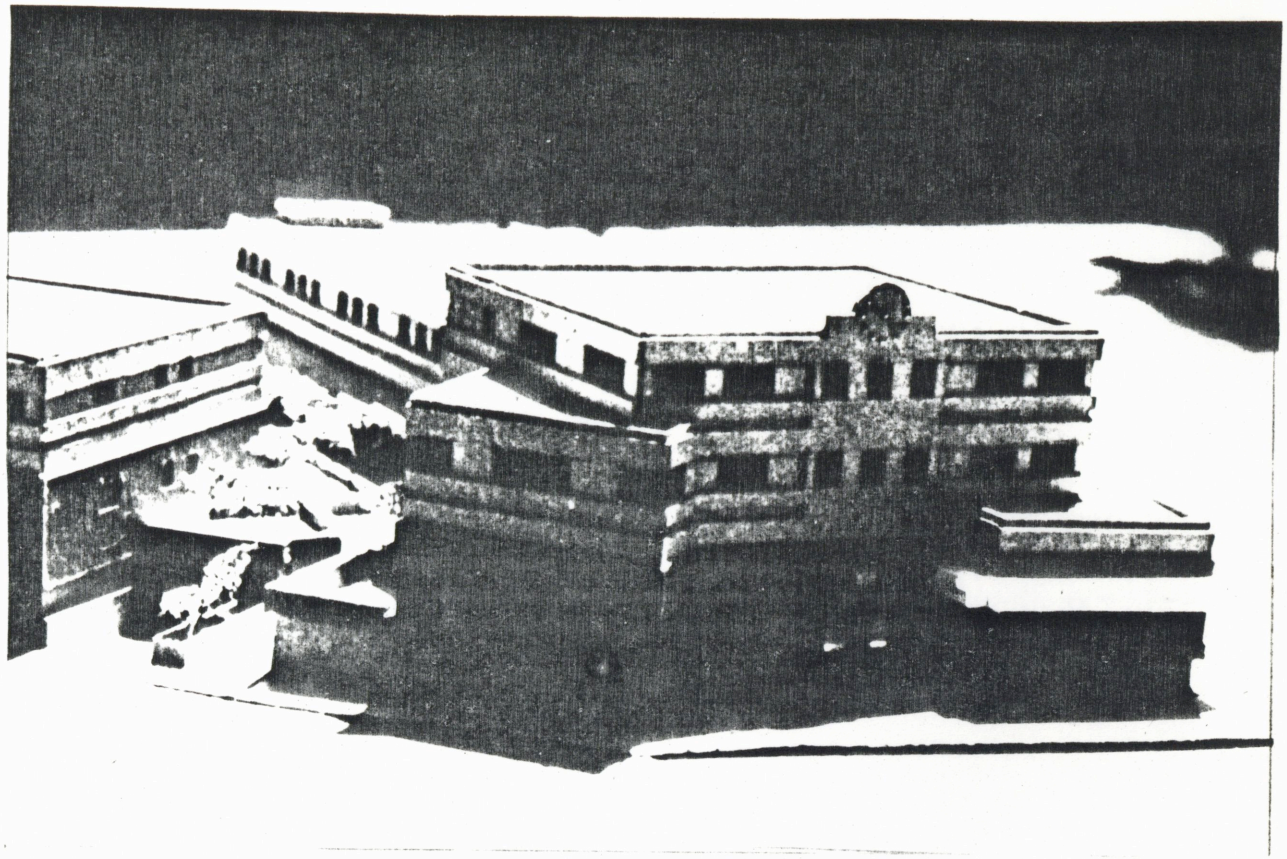
DUE TO THE MANOR LIKE QUALITY DEVELOPING IN THE DESIGN, AND THE POTENTIAL UNRENTABILITY OF EFFICIENCY UNITS, SHOULD THE CITIES OVERCROWDING, SUBSIDE. THE PROGRAM NOW CALLS FOR 8-2 BEDRM. & 4-1 BEDRM. UNITS.

THE SOLUTION

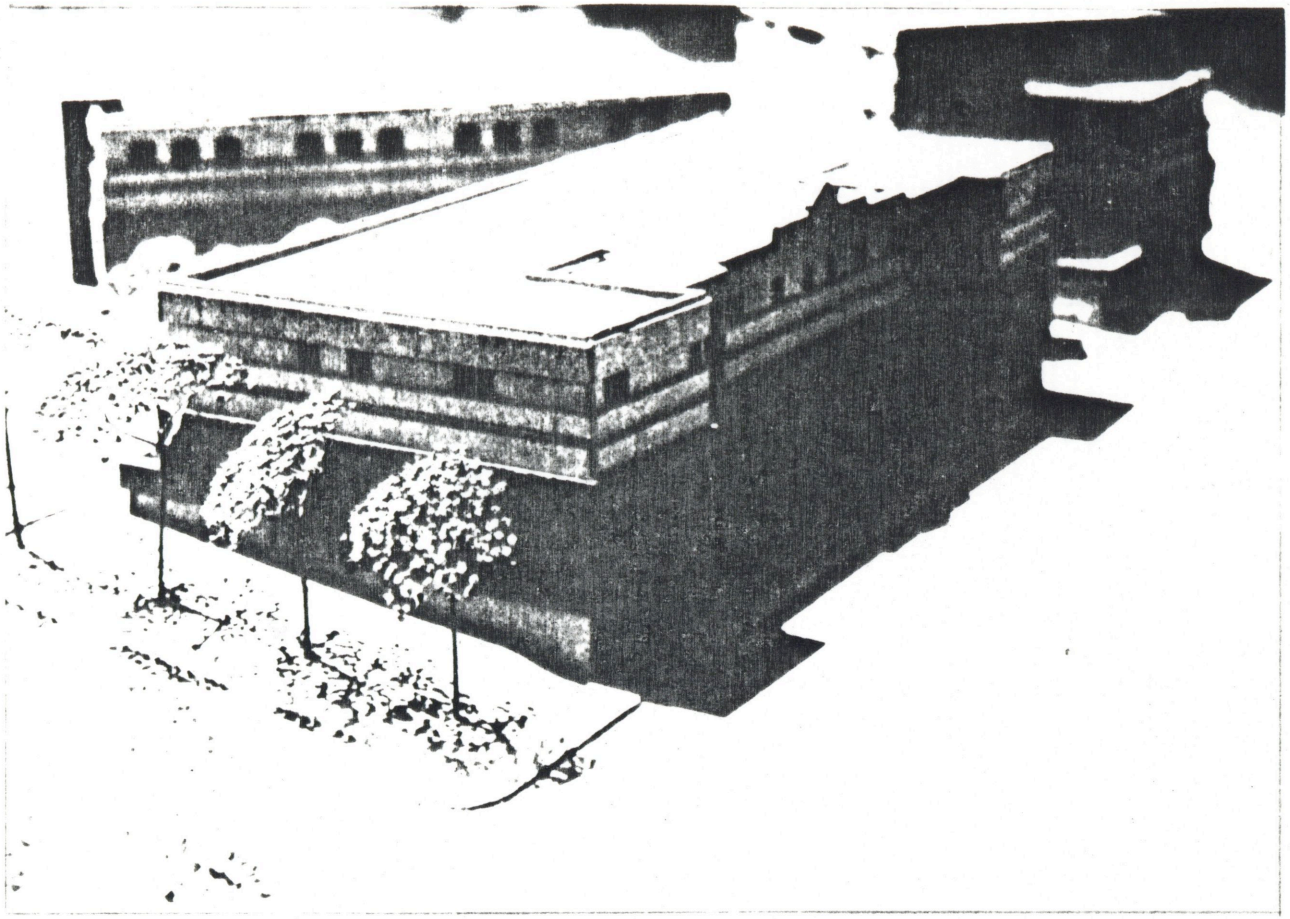

BAR
DELI
SPECULATIVE RETAIL SPACE
RESIDENTIAL BLOCK
BAKERY
FIRST LEVEL — 'K' STREET



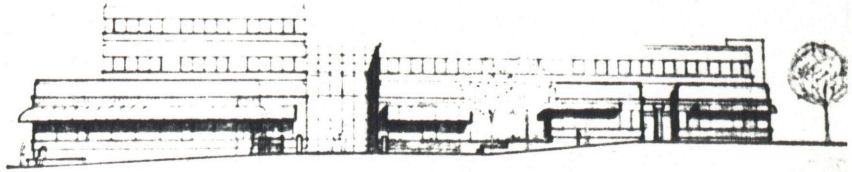
MODEL FROM SOUTH

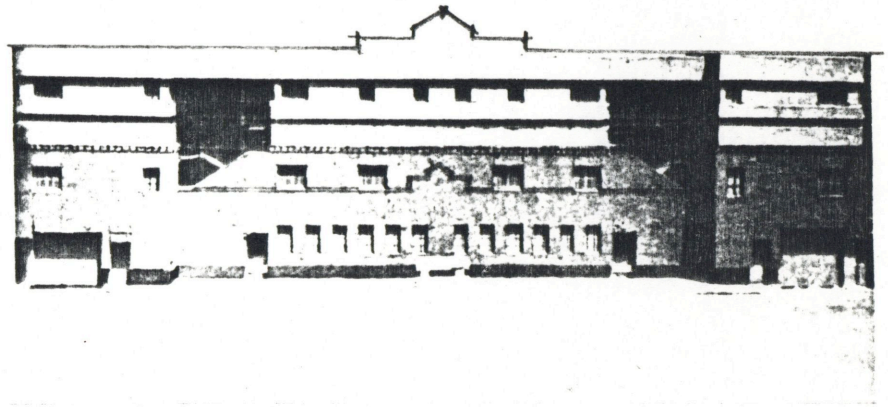


VIEW FROM NORTH

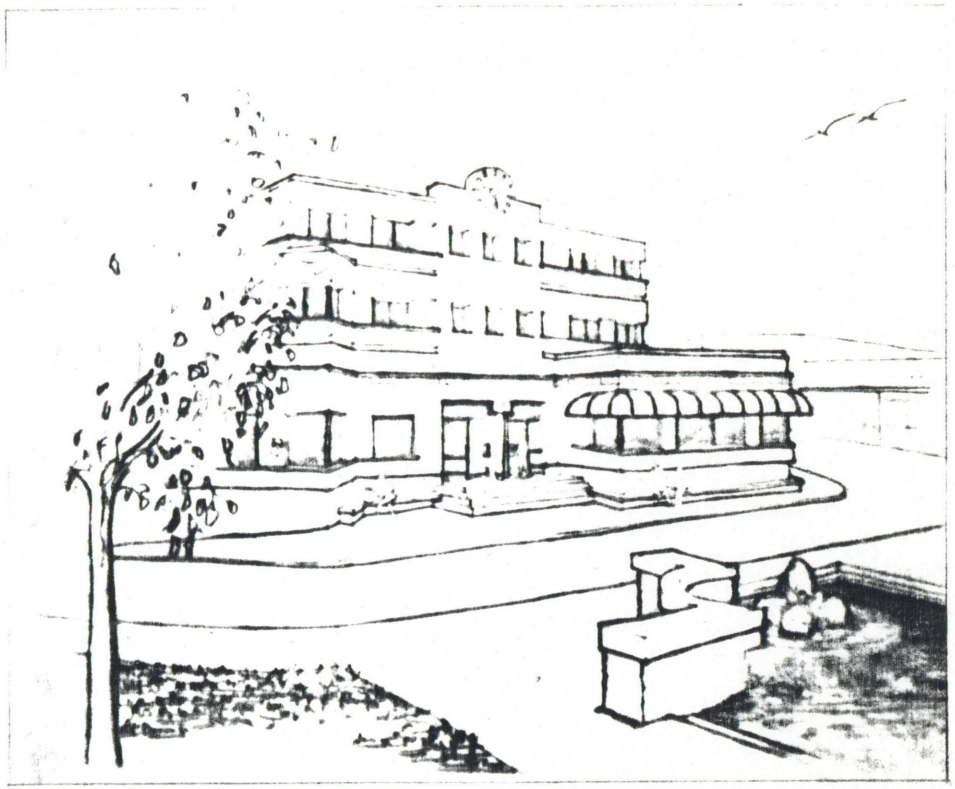


VIEW ALONG
NOBLE PR.





RESIDENTIAL UNITS ALONG NOBLE DRIVE



PERSPECTIVE FROM NORTH



INTERIOR OF BAR

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APPENDIX A - RETAIL SURVEY

THE FOLLOWING SURVEY, COMPILED FROM KETCHUM, RUBINSTEIN, REDSTONE & THE ARCHITECTURAL RECORD, WAS CONDUCTED TO GIVE A MIX OF USES CONSISTENT W/ SUCCESSFUL DEVELOPMENTS.

	KETCHUM	RUBINSTEIN	RUBINSTEIN	RUBINSTEIN	ARCH. RECORD	ARCH. RECORD	REDSTONE	REDSTONE	REDSTONE	REDSTONE	AVG.
DEPT. STORE	.70	.48	.44	.31	.58	—	—	—	—	.40	.29
APPARAL & SHOE	.05	.23	.22	.16	.20	.20	.05	.10	—	.15	.14
SPECIAL RETAIL	.05	.14	.14	.04	.13	.15	.25	.40	.25	.10	.16
FOOD RETAIL	.16	—	.03	—	—	.18	.35	.10	.35	.15	.13
REST. & BAR	.02	.04	—	.05	.44	.09	.05	.05	.20	—	.09
SERVICE	.04	—	.06	.08	.03	.04	.15	.20	.10	.05	.08
FINANCIAL	—	.17	.06	.34	.02	—	—	—	—	—	.06
APP/HDW & FURN.	—	.03	.03	—	—	—	.15	.15	.10	.15	.06

APPENDIX B - RETAIL COMPOSITE

	APPENDIX A	PRORATIO TO ADJUST TO COL. 4	COL. 1 PRO-RATED AS PER COL. 2	CALGARY CBD SURVEY	PRORATIO TO ADJUST TO COL. 3	COL. 4 PRO-RATED AS PER COL. 5	AVERAGE COL. 3 & 6	PRORATIO TO ADJUST TO COL. 1	COL. 7 PRORATED AS PER COL. 8
COLUMN #	1	2	3	4	5	6	7	8	9
DEPT. STORE	.29	1.29	.38	.32	1.13	.36	.37	.77	.28
APPARAL & SHOE	.14	1.29	.18	.24	1.13	.27	.22	.77	.17
SPECIAL RETAIL	.16	1.29	.21	.17	1.13	.19	.20	.77	.16
FOOD RETAIL	.13	1.29	.17	.08	1.13	.09	.13	.77	.10
RESTAURANT & BAR	.09	—	—	—	—	—	—	1.00	.09
SERVICE	.08	—	—	—	—	—	—	1.00	.08
FINANCIAL	.06	—	—	—	—	—	—	1.00	.06
APP/HDW. & FURN.	.06	1.29	.08	.07	1.13	.05	.06	.77	.05
AUTO REPAIR	—	—	—	.12	—	—	—	—	—

APPENDIX C - UBC SEARCH

OCCUPANCY TYPES

RETAIL & OFFICE	B-2
DELI & BAR	A-3
RESIDENTIAL	R-1
PARKING	B-1

FIRE WALL SEPARATIONS

	A-3	B-1	B-2	R-1
A-3		3 HR.	NONE	1 HR.
B-1			1 HR.	2 HR.
B-2				1 HR.
R-1				

CONSTRUCTION TYPES

THE SIZE OF BUILDINGS THAT THE PROJECT MAY DEMAND, MAKES TYPE II-N, III-N, & V BORDERLINE CONDITIONS; WHILE TYPE II-1 HR. OR TYPE III-1 HR. ARE SUFFICIENT.

TABLE 33-A

	2 EXITS REQ. IF OCCU. EXCEEDS	SQ.FT. OCCUPANT	HANDICAP EGRESS REQ.
BAR & DELI	50	15	YES
MULTI FAMILY RESIDENTIAL	10	300	IF OVER 3 STORIES
PARKING	30	200	YES
COMMERCIAL KITCHEN	30	200	NO
OFFICE	30	100	YES
GROUND LEVEL RETAIL	50	30	YES
UPPER LEVEL RETAIL	10	50	YES

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