



a retirement community :

an environment for the middle-aged to mature

Submitted to W. Lawrence Garvin, Associate Dean
and Chairman, for partial fulfillment of 5th year
Thesis in completion of the Degree of Bachelor of
Architecture at Texas Tech University in Lubbock,
Texas.

Spring, 1981

Steven A. Mattson

DV
APR 1974
AC
808.2
T3
1731
10 33

TABLE OF CONTENTS

- I. BACKGROUND:
Goals and Objectives

- II. ACTIVITY ANALYSIS:
Patterns, Cycles, Relationships

- III. SITE ANALYSIS:
Conceptual Development

- IV. SPACE SUMMARY:
Detailed Equipment List

- V. SYSTEMS PERFORMANCE CRITERIA:
Building Code Extrapolation

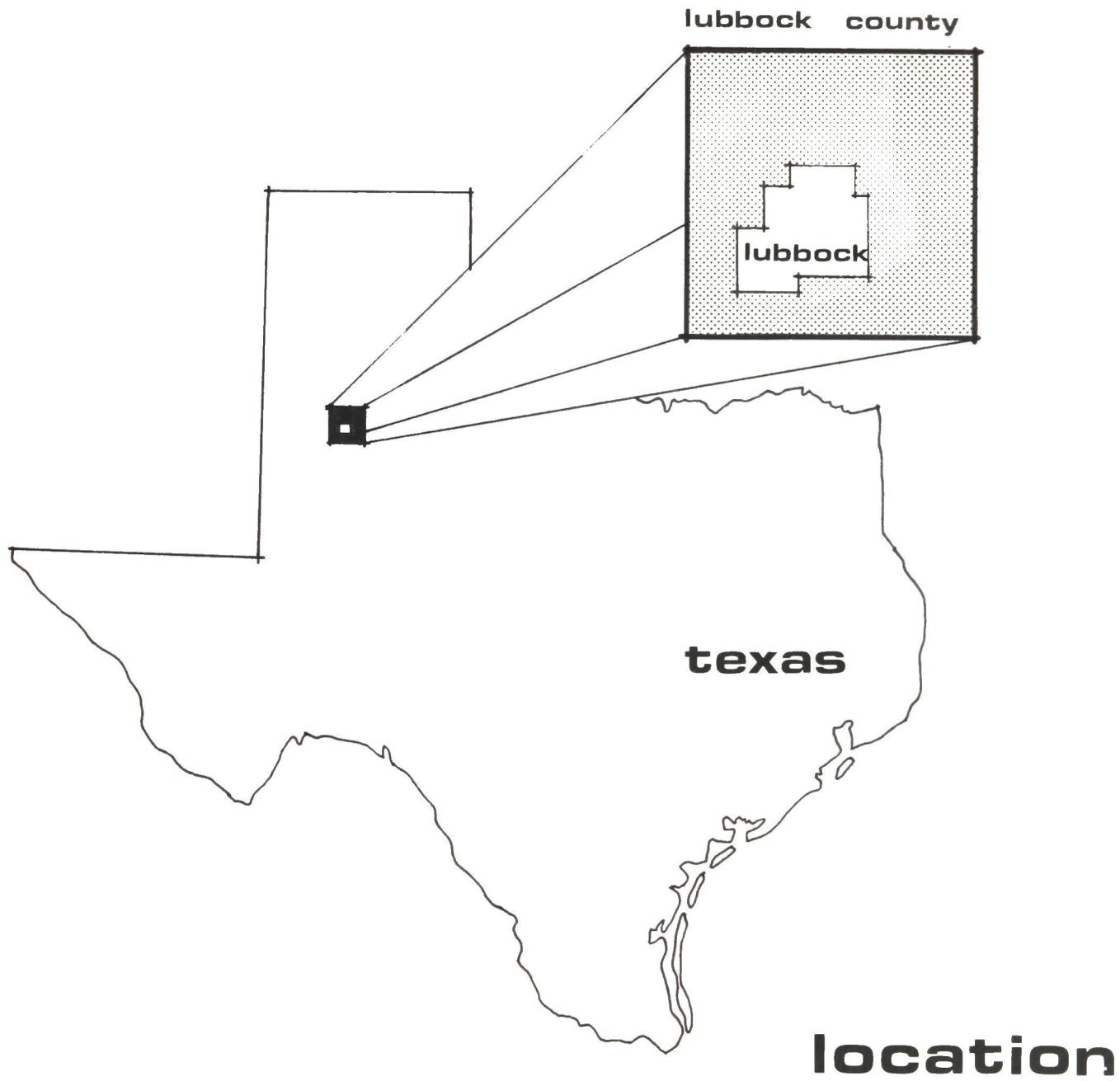
- VI. FINANCIAL AND COST ANALYSIS:

- VII. CASE STUDIES:

- VIII. APPENDIX:

- XI. BIBLIOGRAPHY:

background :
goals and objectives
problem statement



INTRODUCTION

Lubbock, Texas has progressed rapidly since its beginning where George Singer opened a small general store and post office in Yellowhouse Canyon during 1882. This store was the catalyst of the early Lubbock Community serving primarily cowboys, buffalo hunters and soldiers. Agriculture was the driving force in early business growth and the population and economy of the city have consistently prospered developing Lubbock into a major business area of the state.

Located in the nucleus of the expansive South Plains of Texas and Eastern New Mexico, Lubbock is referred to as the "Hub of the Plains" because its transportation systems radiate from the city similar the spokes of a wheel. Recognized as a fast growing city with a population of over 185,000, Lubbock has plenty of space to expand and currently is in a South Westerly direction within the city limits.

The city is a booming agricultural, wholesale, retail, medical, educational, and industrial center. Lubbock is among world leaders in the cotton and grain sorghum portion of the agricultural industry. Manufacturing has had a 95.2% increase in employment in the previous 10 years with several national corp-

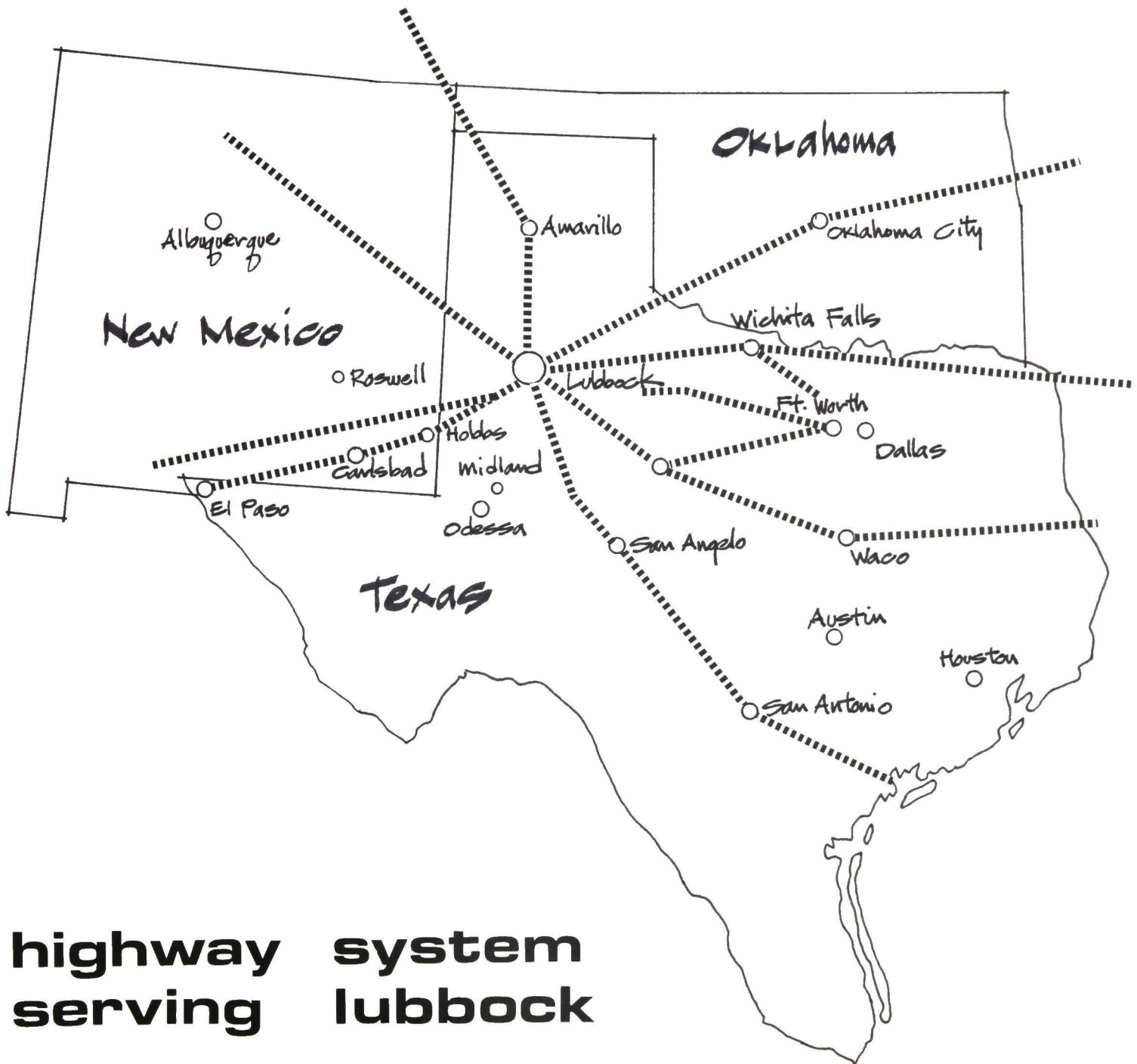
orations such as Litton, Levi, Texas Instruments, and Michelin relocating or branching to the metropolitan city area.

Several transportation facilities serve the Lubbock general area. Seven major airlines utilize the International Airport and other support comes from two railroads, several freight companys, and one interstate bus line.

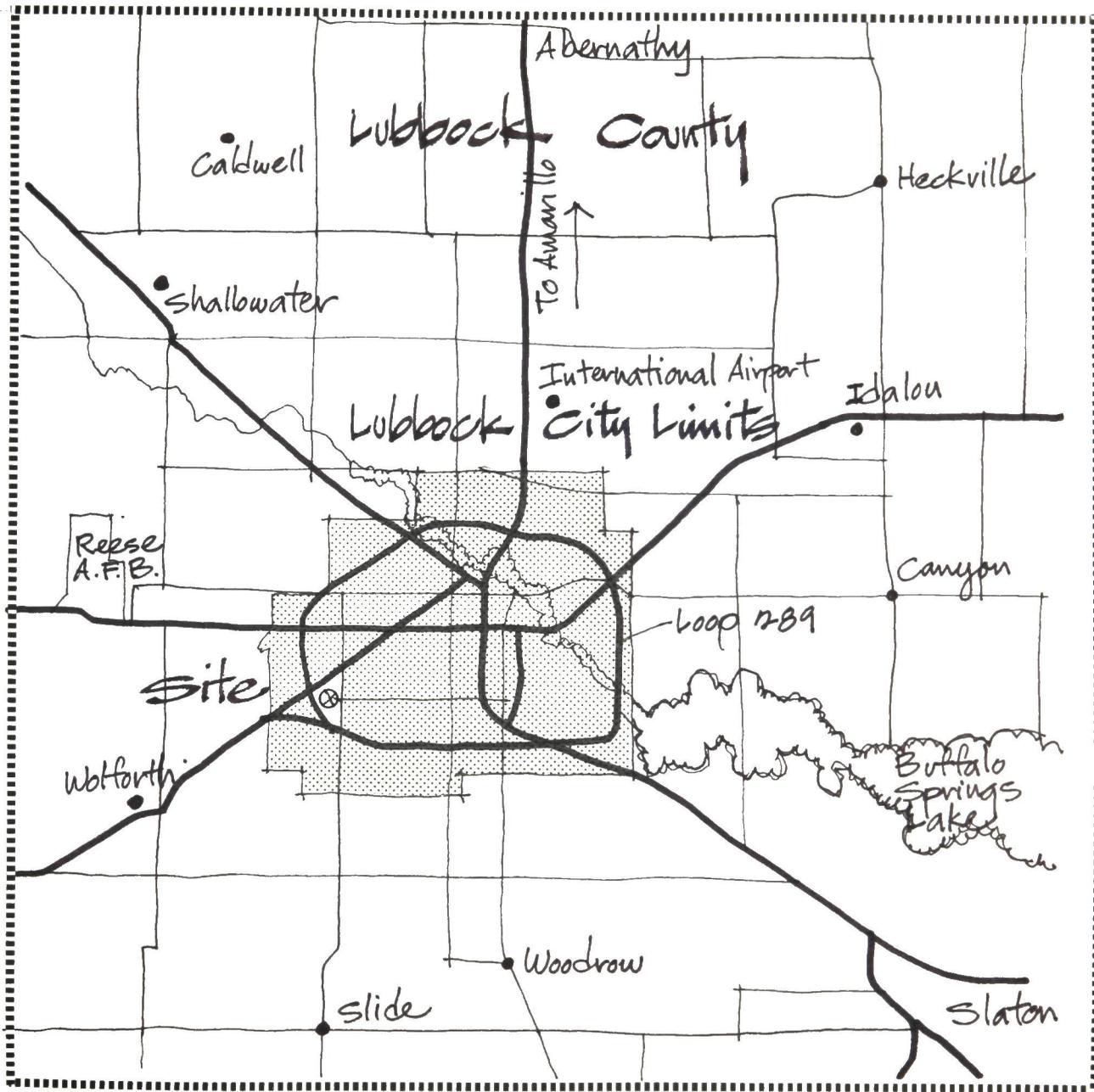
Recreation is enhanced by the recent Canyon Lakes Project interconnecting 6 lakes. Lubbock's 40 city parks, 4 community centers, 5 golf courses, 3 country clubs, and the outstanding College facilities support the recreational needs of the city.

Lubbock is a leading cultural center in Texas with entertainment in the form of a symphony orchestra, 20 movie theatres, a convention center, and the Annual Panhandle South Plains Fair. The city has outstanding museums and libraries along with 200 churches and 3500 motel rooms.

Reese Air Force Base is important to Lubbock's economy serving primarily as a jet pilot training center.



City
Access:



Lubbock
City
Limits

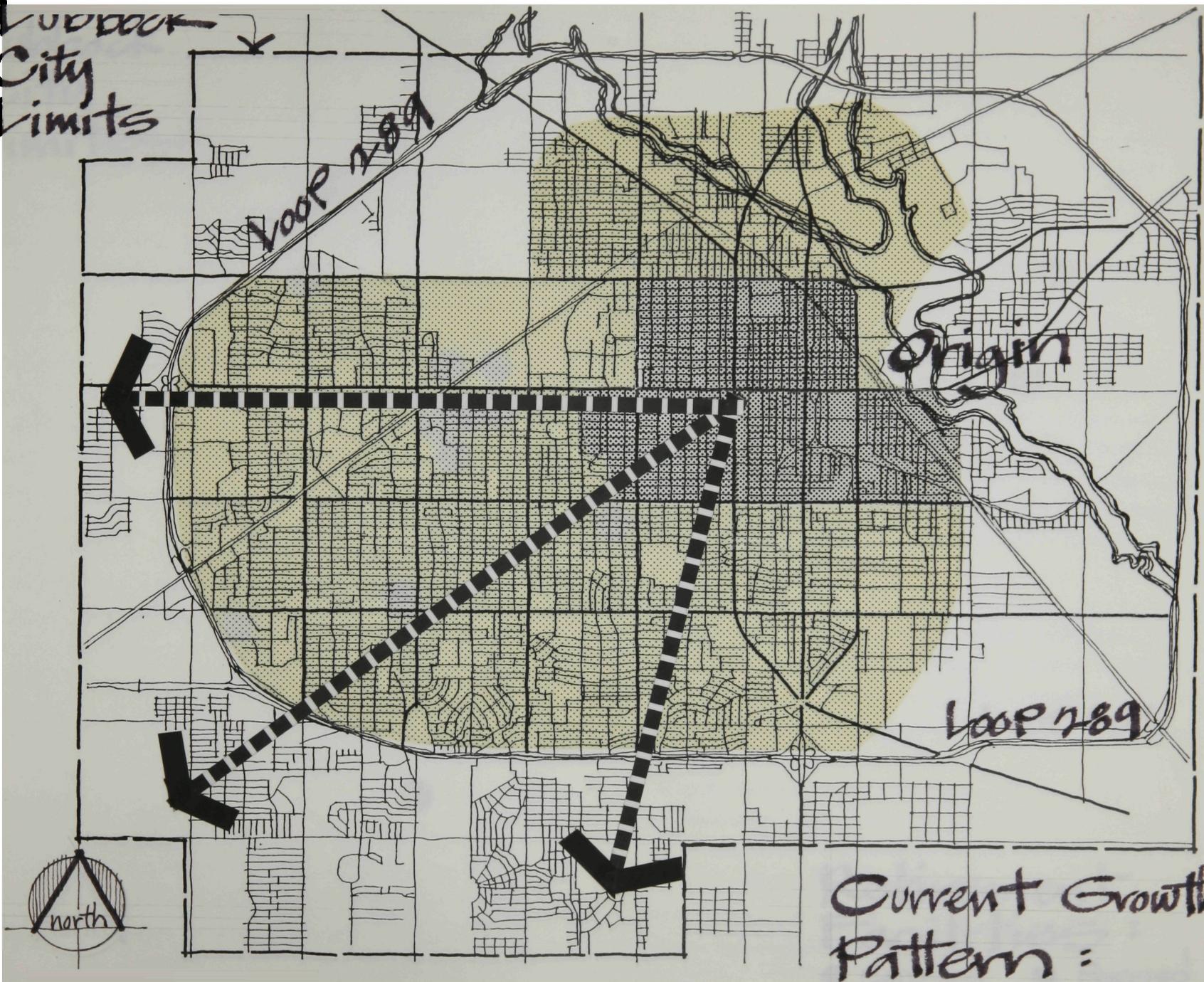
Loop 289

Origin

Loop 289



Current Growth
Pattern =



RETIREMENT FACILITIES IN LUBBOCK

Currently there are approximately 14 retirement and convalescent centers in Lubbock, accommodating more than 2,000 people. John Knox Village is perhaps the most popular and are currently expanding to meet the acute shortage of housing facilities for the elderly in Lubbock. These residents attempting to survive on fixed incomes are often challenged with "no vacancy" signs when searching for low-cost housing in the metropolitan city. The available number of units is far too small in number to satisfy the demand of the senior citizens. Existing apartment complexes remain congested with several keeping extensive waiting lists. Many elderly relocate to these developments with the expectation of it being their last move until death. Therefore, vacancies do not frequently occur thus magnifying the problem. We must expedite the initiation of planning proposals to satisfy present needs of our elderly in Lubbock before a further shortage crisis occurs. (Refer to elderly housing need in Appendix)

PRIMARY USER GROUP:

In the next decade, a greater proportion of residential accommodations will be needed to satisfy the economic needs of the middle-aged and elderly in

our society than at any time period in our history. Recently, more attention has been given to this age group because of public and media pressure directed towards our policy makers to recognize the needs of the older segment of our population. Everyday, there are approximately 4,500 persons entering this age group. This figure will escalate to one in every four citizens, when the post World War II generation reaches senior citizen status. The Life span of man has increased thru advances in medical technology. More of this age group are living alone due to divorce, death of spouse or mate, from children leaving home, or just from personal preference. Eminent future increases in benefits from Social Security and private pensions will enable this population segment to finance suitable accommodations.

This particular user group will comprise people ranging in age from 46 to 75 years of age who are considering or have already reached retirement age. A small percentage may choose to continue in full or part-time occupation. They will be of an independent, self-sufficient nature who are attracted to the potential of a planned residential community where a moderate "communal" atmosphere is optional in the form of Dining and Social activities. This development will affect primarily those individuals who have already purchased at

least one residence in their present lifetime, and have made "the big decision" to attempt one final large investment through buying or leasing.

The residents are still at the age in which adolescents could be living with them. Frequently, childless couples adopt younger children. Another consideration is the strong possibility of children related to residents who may wish to visit for short periods of time. However, adjustments for children in the living environment will be temporary since children adopt to standard designs as they grow.

The handicapped minority will also be considered because it is common for some people in this age group to be restricted and dependent from some form of handicap.

RETIREMENT:

Current 1972 population statistics reveal that 14.1% of our nations population is comprised of those at age 60 and older. According to "50 Plus Magazine" approximately 4,500 Americans retire everyday. As the birthrate drops in the U.S. the aged are becoming the fastest growing segment of our population.

Currently, there are approximately 45 million people over the age of 55. Presently, a man now 65 can expect to live to the age of 81. A woman now 65 can look forward to reaching nearly 85.

A major problem is their loss of occupational income leaving the majority to "survive" on social security or pensions. "Approximately 2/3 of the 14.1% stated above have incomes of \$5,500 or less."¹ Experts in the field of retirement say many people purposely avoid thinking about the future. When an individual terminates employment he or she is faced with general decisions of: where to reside? What activities to adopt and means of financial support. Psychologists think of the later years as a time of "redirection rather than retirement," stressing the importance of maintaining patterns in later years which were established during middle life. The time spent and routines established in work, leisure, and family roles in middle years will have a strong influence on adjustment in later life.

1. U.S. Dept. of Commerce, Bureau of Census, Consumer Income, Series P-60, no. 83, July, 1972.

The traditional retirement age is at 65, but these people continue to have employment options protected by Federal Law that delays mandatory retirement for most persons until age 70. This creates incentive to stay on the job longer. Some participants enrolled in Government service have the option to retire at 55 years of age. An increasing number of companies assist their employees in preparation for retirement and non-profit organizations offer seminars and training programs. These agencies advise people to begin planning for the future while in their 40's to allow time for a smooth transition from employment to retirement.

Frequently, a person entering the retirement stage is viewed by a portion of the norm as being obsolete, senile, and contributing little to a society that is predominately youthfully oriented. This is certainly an unfair and narrow-minded judgment and the older person is reluctant to accept that stigma. Productivity and involvement can be continued, only in a more passive manner. It is important that this opportunity at least be given the chance to develop.

The aging person's income and lifespace are two key elements which can make the difference between a happy retirement and future years of

scrimping and dissatisfaction. Although the average retiree spends approximately 70% as much as he or she did during employment, some areas of their budget may expand. Expenditures for medical, travel, and leisure may increase.

Recent U.S. Government figures indicate 90% of all retirees remain in their existing environment for a variety of reasons. They have sentimental roots adapting to the familiarity of their present surroundings. They don't want to alienate social and business interests. They wish to avoid the expense and hassle of relocating. However, thousands do make "The Big Decision" to move to specially planned communities. They quest for good weather, comfortable living conditions, security, and social interaction with persons in their own age group. They are searching for better health and recreational facilities. Their present neighborhood may be deteriorating, or existing home may be too large for their needs, budget, and time allowable for maintenance.

THEORIES ON AGING:

Contrary to a popular belief of our younger society, the basic human needs of our older people are identical to those of any age group. However, the continuing aging process is influenced and added to by specific need requirements.

Growing older can be defined as the "adaptation to changes in the structure and functions of the human body and the relation of those changes to their social environment."² The aging process creates problems and specific needs which have just recently become recognized as a major social, moral, and political issue in the United States. Through current research conducted in Gerontology our Socialologists, politicians, and planners now have efficient resources to assist in alleviating problems in the older generation. Most theories on the aging process tend to be generally similar although several scholars have formulated concepts of which are contradictory. The following accepted theories involving the aging process are only hypothetical in nature with speculations unsupported by concrete data.

2. Housing for the Elderly, Isaac Green, 1975, P.10

ROLE LOSS THEORY:

The aging become isolated from major family and work roles through widowhood and retirement, and damage to former symbolic life styles because of lower income following retirement. A general decline in health can impair the need to feel independent. This loss of roles is usually involuntary and unwelcome. It disturbs previous group associations, can lower prestige among peers, and reduces social integration. Role loss creates a reduction of responsibility and basically limits functioning. As a result, a role ambiguity evolves and one's lifestyle becomes open, flexible, and unstructured. With this undefined life-style, the elderly must utilize inactive inner sources to form tangible role expectations. Freedom from this responsibility tends to become a burden difficult to overcome. In earlier years, their roles typically structured expectations, requirements, and activities for them. Unstructured situations of later life generate depression and anxiety. To fill the vacuum of social expectations the elderly must develop private standards and personal definitions. "Many older people respond to their devaluation and ambiguous role by clinging to youthful norms as a means of dealing with new uncertainties."³

3. Roscow, Irving. "Socialization to Old Age", 1974, p. 9

LIFE CYCLE THEORY:

This is one of the most speculative concepts of aging, but due to its vast scope, it has proved too imposing to be tested. All individuals have personality traits which they have developed since childhood. Over our life span, we tend to retain this personality with some alterations. An individual's prediction of life satisfaction and levels of activity will primarily be determined by his personality. Therefore, people do not necessarily operate according to the structures surrounding them. "They suggest individuals do not follow a process of disengagement which is to increase absorption with one's self rather than involvement with others; individuals behave according to their personality."⁴

SYMBOLIC INTERACTION THEORY:

This idea stems from a major sociological perspective widely accepted with several applications and has been shown effective in explaining convalescent centers. An older individual formulates his self-image through interaction with others.

4. Fontana, Andrea. "The Last Frontier," p. 108.

Cultural values and meanings are the most important interactional elements. The direction in which an individual grows old depends largely on his surrounding environment and how it can be altered or adapted to. "This approach emphasizes the importance of environmental conditions on individual behavior thus providing a theoretical justification for offering professional help to the needy aged."⁵

ACTIVITY THEORY:

Older people will persist as long as possible in sustaining those behavior patterns in which they were most familiar with during their middle age. Conflicts arise when those who have been socialized to resist dependence on others find themselves somewhat helpless due to loss of health or limited economic resources. The elderly find reciprocation of assistance more difficult, leading to feelings of worthlessness. As a result, "the individual tends to withdraw from society and society from the old person, in preparation for the person's inevitable and impending death."⁶

5. Ibid, p. 108

6. Op. Cit. p. 145

SUMMARY:

One may derive from the previously discussed theories that the best years of our lives do not always come after retirement. However, that particular attitude depends upon the individual, and his past and future optimism on "life" itself. Many unwelcome elements gradually creep into the lifestyle of the elderly until they experience role loss, dependency on others, and the feeling of being obsolete. Withdrawal often occurs if these difficulties are not overcome by the individual's personality traits, or ego investments through social interaction and activities.

Therefore, it becomes mandatory for planners of housing for the middle-aged and elderly to conceptualize a spatial envelope for active people to increase self-esteem and life satisfaction.

HOUSING: CREATING A LIFESPACE

"A lifespace is some form of shelter that will protect and encourage the development of each individuals potentialities."⁷ It creates a haven which allows us to partially exclude our interaction from the environment. Shelter in the form of housing serves as an envelope for the family providing protection, privacy and a feeling of togetherness. Here intimate and personal environments are created affecting the lives of every individual. In the household or dwelling unit, residents can retreat to a safe, secure, and private area establishing a sense of "home". The majority of our life is spent here, requiring a varied and interesting atmosphere to support each individual's needs and aspiration. Quality should be of a standard to serve these needs and still be prevailing upon a healthy living environment to enrich the human heritage. Living units serve as a center for its total residential environment with a focus on activities, symbol of achievement and social acceptance. Shelter is a primary need, but we must also consider

7. Ray Faulkner, "Inside Today's Home,"
1975, p. 3.

security, comfort, self-expression and aesthetic satisfaction. People need physical survival from animals and other humans. Rising crime rates stimulate a desire for a defensible space.

Psychological

Privacy is a primary key to providing an opportunity for withdrawal, solitude and regeneration. This can be achieved by physical isolation or by barriers against the sight and sound of others. Alexander Kira describes 3 kinds of privacy: "being heard but not seen, being seen but not heard, being neither heard nor seen."⁸ Overcrowding can cause mental stress from a claustrophobic image. Edward Hall believes "people are limited by what they think they can do in a given space and what they regard as the critical distance from other beings."⁹ People should be able to control the physical and visual access to and throughout their living space.

8. Kira, Alexander. The Bathroom. New York: The Viking Press, Inc., 1976, p. 164-65.

9. Hall, Edward, The Hidden Dimension,
New York: Doubleday, Inc., 1966
p.13.

Social

Most people prefer to live in small groups frequently visiting with friends. Lack of human interaction or contact can cause depression. Human relationships among neighbors are strengthened when contact is promoted by dwellings assembled around a common shared space. People find the opportunity for visiting while situated on their own territory; the walk, porch, backyard, or in more public areas such as the laundry, parking lot, and recreation.

When a person has a "sense of place" he will usually improve it and not let it deteriorate. This insures continuity providing the individual with familiar surroundings built from a framework of doing things. Our living container will also serve as a social status symbol with the exterior facade portraying the image of how the individual wants to be perceived by others. Our homes are the setting for a slow process of growth, maturation, and aging and should enhance the lives of the occupants and fulfill their present and future needs.

According to a famous Anthropologist, "To have a territory is to have one of the essential components of life; to lack one is one of the most precarious of all conditions."¹⁰ Our personal territory can range from the limits of our land and home to actually within our lifespace containing more than one individual's territories. The number, cycles and relationships of those involved in a household must be considered closely in planning a living environment in order to satisfy the needs of everyone. Anthropologist Paul Bohannon defines the household as "a group of people who live together and form a functioning domestic unit. They may or may not constitute a family, and if they do, it may or may not be a simple nuclear family." From this statement we can derive numerous living arrangements but for purposes of this project we can narrow them down to those comprising large and small families, the couple, and a single occupancy arrangement. In planning for small and large groups, special consideration should be given to their spatial needs and the relationship and daily activity cycles of the parents, children and visiting relatives. There should be a realm for each participant and also a common area for the grouping of all.

10. Ibid, p. 13

A lifespace planned for more than one person should provide varying degrees of privacy and interaction with others. Each individual should have a portion of a space that expresses and extends his or her personality. In planning for a living arrangement of two people, whether married or living together, and not necessarily of the opposite sex, the need for personal privacy is still quite evident.

Occupancy:

Various designations for housing are usually dictated by density, types of user group occupancy, economics, community housing needs, and building codes. Housing is one of the most important purchases a family can make requiring considerable capital. Usually no more than 20 - 25 percent of the monthly income should be spent for housing and considerably less for those of retirement age.

Rental:

The local housing market often dictates the decision of families to buy or rent. Those searching for housing may find nothing suitable to rent or purchase or may lack the financial means or status to apply. Those of a transient nature usually will prefer to lease and avoid ownership providing a less permanent type of resident having few roots in the community. Leasing can offer economic opportunities to the elderly by providing flexibility in the range of unit types and sizes. Higher quality housing may be provided thru renting for those who lack the investment capital, but creates an absence of ownership pride thus threatening maintenance applications.

Ownership:

Possession of a home will provide a more permanent type of resident suggesting both financial and social status. Ownership will enable residents to establish a secure investment thus generating more interest in his immediate environment inducing correct maintenance. This type of occupancy allows freedom from rules and restrictions concerning the opportunity to change one's personal environment in the form of remodeling and cosmetic improvements. Owning can provide more living space for both interior and exterior creating more privacy for the entire family. Ownership can also be in the form of a Cooperative and Condominium where some expenses are shared by an identifiable group of residents.

Housing Unit Types:

- Detached Single-Family dwellings are usually located on separate and independent lots generally being owner occupied.
- Attached Single-Family housing are two or more dwelling units clustered in a low density grouping sharing common walls and frequently located on larger lots. Can usually be owner occupied or leased.
- Garden Apartments are medium density clustered dwellings generally in the rental category.
- Low and high-rise apartments are usually high density dwellings with rental application.

Policy Statement

Planned Unit Development:

An equitable solution to this particular housing problem would be to consider a resident owned clustered development with an option to lease. A planned unit development, will allow opportunities for a more satisfactory environment to be in harmony with community for the residents.

It will provide flexibility in building location, housing types, and land use creating more available open green space to preserve the existing natural features. This type of residential development has advantages for both the resident and the builder or developer. Construction costs decrease as density increases, thus clustering can offer larger dwellings of various types for less money. A P.U.D. can allow for a greater space for community recreation, pedestrian and vehicle pathways, and shared amenities. Efficient use of the land is a principal concern, and a P.U.D. requires less land used for streets, less grading and site preparation allowing better drainage and fewer utility runs. A development of this nature suggests a broader housing market and opportunities for the inclusion of retail in the complex.

GOALS AND OBJECTIVES :

- To create and maintain a functional, economic, and productive community for the middle-age to elderly age group.
- To stimulate and provoke the emotional senses of each member.
- To pursue and develop the intellectual needs of humans and their happiness.
- To conceptualize appropriate activities and ways of participation by members through communal sharing and use.
- To create a spatial pattern for interrelating activities involving social, personal, recreational, business, and cultural aspects.
- To generate a feeling of independence or create a positive feeling towards interdependence.
- To create new and continuous responsibilities for the members in the form of gardens, workshops, and extra-curricular activities.
- To provide adequate shelter in the form of housing for low and medium income families of retirement age.
- To furnish access to public and private spaces in conjunction with each dwelling and throughout the cluster housing in general.
- To provide a new neighborhood with architectural character for those currently residing in unsatisfactory conditions, and those coerced to relocate because of financial and economic woes.
- To create an environment which will become an integral element of urban growth fulfilling the social, public, and private needs of the individuals.
- To synthesize a pedestrian oriented neighborhood with linkages between the cluster housing and open spaces utilized by children and adult recreation.
- To improve the elderly's knowledge of services and housing types available to them with special consideration towards the enrichment of service delivery to all types of housing.
- To expand the opportunities to allow the elderly to participate in the planning and management of the housing development.

PROBLEM STATEMENT:

SCOPE:

The marginal "field" of this project will involve a planned residential environment consisting of approximately 100 to 150 dwelling units and the necessary ancillary services. This provision will be accomplished in the form of an attached single-family clustered housing envelope on 74 acres of land. The development will be pedestrian oriented and will satisfy the social, economic, and private needs of the middle-aged,

FUNCTION:

This retirement community must stimulate and satisfy the special needs created by the physical and social changes accompanying the aging process. The housing environment will generate activities thru communal affiliation of involvement in community projects.

FORM:

We must understand their human values and locational needs. Due to less mobility, they are limited to distance and need close proximity to

convenient support services to induce assertiveness. Consideration must be given to their psychological security and limited maintenance capabilities.

ECONOMY:

Retirement will restrict the majority of this specific user group to a budget. Initial and future cost control considerations will be satisfied thru application of current construction, solar, and energy conservation systems. Communally oriented social activities will influence interaction resulting from economic benefits.

TIME:

This community will play an integral addition to the immediate and contextural atmosphere of the metropolitan city. It must have a continuing process to satisfy dual purposes of planning for the needs of the elderly now and to allow for the middle-aged to grow into their space.

**activity analysis:
patterns, cycles &
relationships**

The basic human needs are just as profound for the middle-aged as they are for any younger age group. However, during the aging process, definite changes occur which accentuate growth in the relationship between our maturity and environment. Aging also creates changes in our abilities and paths of thinking which reflect into our physical and perceptual needs. To satisfy our physical demands we utilize our environment to maintain levels of comfort for physical health. With regard to the middle-aged and elderly we must consider scrutiny of convenience and overcoming both physical and mental handicaps. Due to the fact that the middle-aged and elderly are not as agile and vibrant as in earlier life the elderly begin to experience loss of health, particularly with respect to the 5 basic human senses. We use our 5 human senses in a perceptual way to collect and process information regarding our environments, and towards other humans in that context. Therefore, to create a lifespace we must understand how people grasp and comprehend space and how they view other people in that context. Social relationships with friends and distant family dissolve and start to dwindle away quite noticeably. These effects create uncertainty and confusion in the gratification of one's needs. To achieve this perception, "people carry and maintain in their

minds a map of the world with a fix position relative to where they are."¹ In the same manner people maintain a collection of social relationships accumulated during their lifetime.

People utilize their 5 senses to collect and construe data about their physical and social environment. Design fundamentals properly implemented can expedite this processing of information when the physical surroundings make sense, thus inducing discovery and expoloration, and allowing a choice of roles.

"Making sense involves being able to recognize what and where people are and how they relate to their mental maps of the world,"² Provisions for both variety and mystery can spark the person's inhibited desire to search and discover. A varied conglomeration of forms, shapes, textures and colors within a space can orientate a person's "fix" position much easier. The addition of mystery attractions, those partially seen or heard, can arouse new excitement and interest.

1. T.R. Lee, "Psychology and Living Space," Image and Environment (Chicago, 1973) p. 87-108
2. R.W. White, "Motivation Reconsidered: The Concept of Competence," The Psychological Review 66 (1959) p. 297-333.

To avoid the feeling of manipulation by spaces, people usually want to make their own judgements regarding where and what they will do and when and with whom they will do it.

To reinforce one's own personal idea of their role in the community, connections must be provided to the whole range of activity locations in the neighborhood and community in ways meaningful to each individual. Considering the specific user group, a full range of activities that people achieve during various stages in the life cycle deal with:

What is it?
Where and when it happens

With what frequency and
for how long?

With whom it happens

Why does it occur?

Does it reinforce human
beings physically and
spiritually?

Private Spaces:
Dwelling Unit Activities

SPACE FOR ENTRY/EXIT:

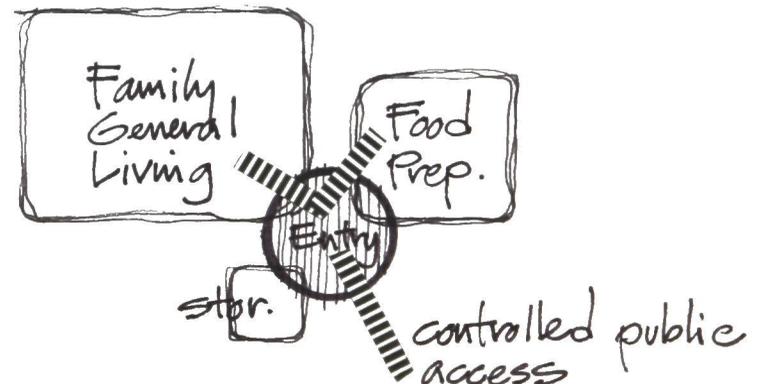
This activity marks the beginning of "home" territory, establishing a strategic transition point from the least public area of the development to the least private area of the unit. This space allows the resident to control access and privacy of his or her interior and exterior relationship, therefore, it should be a place and not just a door opening into some other space. To achieve entry privacy consider a space form that will prevent visitors at entry door from having a view into the dwelling and also undesirable sound transmission from the exterior. This can be accomplished by a separate vestibule, by extending an interior wall to shield the view, and locating door swings that will also block a view when partially opened. The vestibule or foyer allows a separation of entry from the unit itself, suggesting an intermittent pause or stopping place thus creating an "event" when entering or exiting the space. Since elderly residents usually need to maintain their individual identities, this space can provide walls and table area for the display of personal momentos, paintings, symbols and mirrors. The resident should have both visual and audio contact from outside to the resident inside. This facilitates

security and control by the resident of his or her environment. The entry/exit space should have direct accessibility to food preparation, the General Family living area, and to some form of storage. This space should be indirectly accessible to Dining, Personal Hygiene and Sleeping and Dressing.

Activities:

1. Conversing with visitor upon entering or exiting
2. The application and removal of outerwear
3. To lay packages down after entering
4. Sitting to put boots/shoes on
5. The storage of clothes

Occupancy: 2 person with 30 minutes maximum per day spent here.



SPACE FOR FAMILY/GENERAL LIVING:

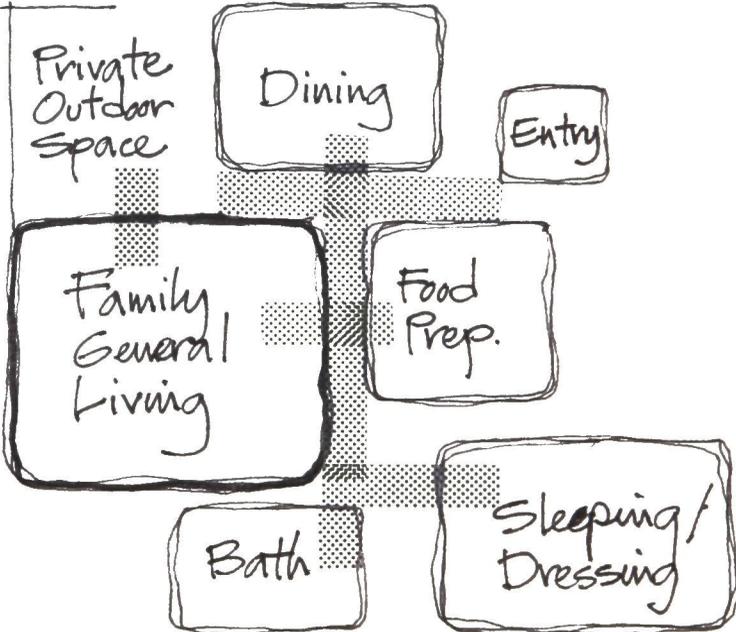
The major portion of family activity occurs in this group space allowing members of the household to gather for entertainment of themselves and friends. This space provides an atmosphere for such activities as general conversation, games, parties, enjoying music, eating or small childrens play. This activity space should have an indirect access to Food Preparation, Sleeping and dressing, Personal Hygiene for use by visitors, and some form of storage access. A direct access is necessary to the dwelling entry with a distinctive separation between the two spaces. A private outdoor relationship will aid in expanding the living space. Dining will need close proximity to this area and can effectively be combined into the same space. This space should have a strong visual and audio connection to the entry and private outdoor spaces with controlled contact to adjacent activities.

Activities:

Lounging, Meditation, viewing television, Reading, ironing clothes, entertaining guests, Conversation, Listening to music, Exercising, games, eating, small children's play

Occupancy:

1-6 persons including visitors with 4-7 hours/day spent here.



SPACE FOR SLEEPING/DRESSING:

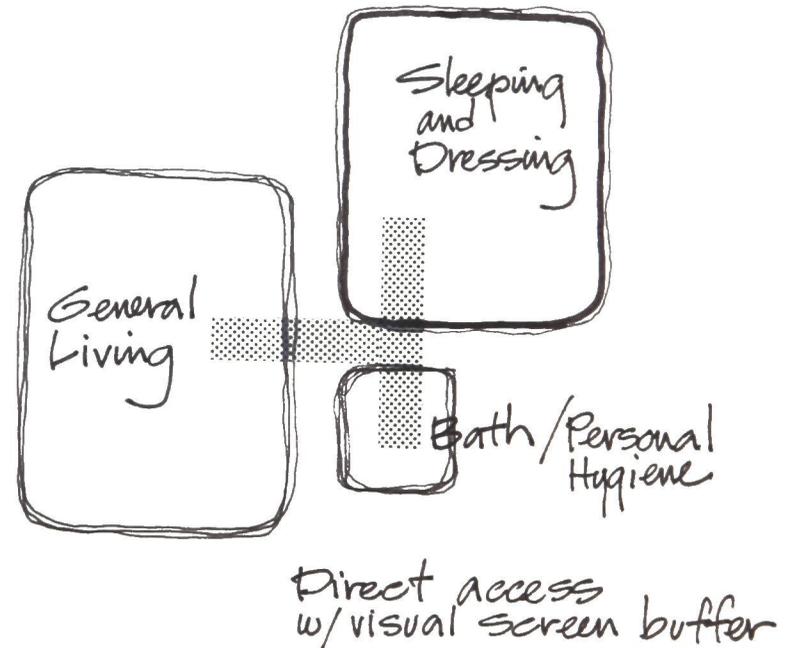
The elderly utilize this space more than any other age group except for infants. As people age their susceptibility to illness is greater, therefore they are bedridden more frequently or prefer more rest. This space is among the most private in the dwelling and should be designed to provide a quiet retreat at any time of the day. It can afford the best conditions in the home for concentrated reading, study, or meditation. Thus, for ideal provisions it should be a moderately sized, multipurpose, segregated space. Multiple residents should be able to execute activities without disturbing the privacy of another individual. This space should have primary accessibility to Personal Hygiene, Storage and clothing and for ideal conditions perhaps a relationship to a private outdoor space. There should be a direct route from the Sleeping area to Personal Hygiene but arranged so visitors can utilize the facilities without passing thru this space to insure privacy. Secondary accessibility is necessary to Food Preparation and Storage or Utility space. Visual and Audio contact should be kept at a minimum from all other activity spaces.

Activities:

Reading, Study, Meditation, Watching Television, Sewing, Dressing, Hanging clothes, Climbing into bed, Conversation, Sexual relations, Sleeping, Making the bed, Exercising, Watering plants

Occupancy:

1 to 2 person with 7-10 hours per day and night spent here.



SPACE FOR FOOD PREPARATION:

A great amount of activity in the home involves the preparation of meals and refreshments for the occupants and their visitors. This space is the primary gathering area for all family members, however, activity can occur at any time of the day or night involving any number of people at one time. Since the aging process affects mobility, convenience and efficiency must be considered to avoid unpleasant and tedious procedures which will discourage the occupant from cooking and eating. Proper diets are especially necessary for this user group, therefore, we must facilitate the preparation of meals to restrain the occupant from saying "Oh, I just don't feel up to it." This space should have primary accessibility to the dwelling entry for ease in transferring grocery packages. It should have a strong relationship with the Dining for convenience in the serving of food, but not alienated from other dwelling activities.

Activities:

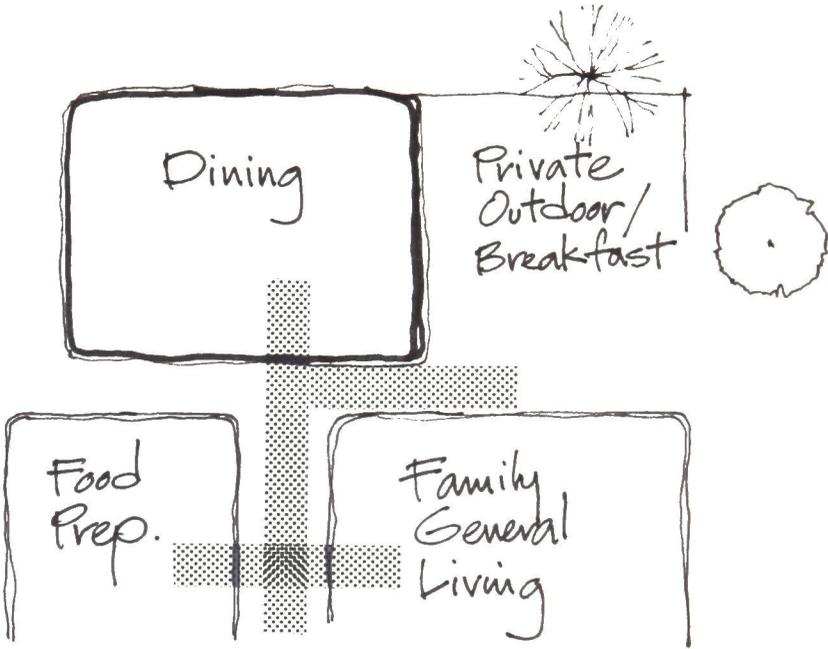
Walking with and the distribution of groceries, the cleaning and cutting of vegetables, fruits and meat
Cooking, Serving, Eating, Conversation, Dishwashing, Drying, Trash disposal, Food and utensil storage
Reading the newspaper
The payment of bills, planning of meals. Food Preservation, Canning, Freezing.

Occupancy:

1-3 persons with 3-4 hours per day and night spent here.

SPACE FOR EATING/DINING:

This particular activity is a primary aspect of group living, for meals are often one of the few daily events that assemble an entire household together for a single purpose. Except for quick snacks, meals typically are taken by the group as a whole, even though other daily activities may be kept separate. The Dining space can serve as the family social center where the members can exchange stories, play games, and have refreshments after their meal. Entertainment of friends usually involves the consumption of food and drink, since our society recognizes this offering as a token of hospitality. This space can serve as informal or formal space functioning as a separate area with close proximity to Living and Food Preparation or can work in conjunction with one or both.



Activities:

- Family sit-down meals
- Holiday Celebrations
- Formal Meals, Buffet, Snacks
- Outdoor meals, Small Children's meals
- The table setting of utensils
- Each person taking his/her chair location
- The serving of food, Eating with conversation
- Cleaning the table
- Table games, hobbies, arts & crafts
- Business paperwork, Payment of bills

Occupancy:

1-6 persons including visitors with 3 hours maximum spent here each day/night.

SPACE FOR PERSONAL HYGIENE:

Cleanliness is essential to good health, and due to the slower reflexes and mobility of the elderly, this space should allow for convenience, comfort and frequency of use. Necessary movement should be minimized or frustration and possibly health hazards arise. Since this space is perhaps the most private of all spaces it is preferable to screen the visual and audio possibilities from other occupants or visitors. This space should have a primary access from the bedroom for convenience during frequent use at both day and night. A secondary access from this space to General Living is necessary to accomodate guests.

Activities:

Reaching, Leaning, Bending, Twisting, Bathing, Shaving, Drying, Dressing, The elimination of body wastes, Primping.

Occupancy:

1 person with 1-2 hours per day and night spent here.

SPACE FOR PRIVATE OUTDOOR TERRITORY:

Some elderly people are confined to their dwelling units either by choice or physical reasons. Access to an outdoor extension offers a welcome change, an area to grow flowers, cook out, converse and enjoy the sun. This space provides access to fresh air for those with respiratory problems and also secure environments for socializing. Personal outdoor territory can provide a unit edge or transition zone where residents can catch glimpses of one another entering or exiting dwellings, thus improving their view of their exterior environment. This activity space can provide a refuge from fire occurrence if used in the form of balconies or terraces. It should be directly accessible to the general living space, Food Preparation or the Sleeping and dressing area.

Activities:

Conversation, entertainment, Cultivation of plants or flowers, Cooking and eating outside, Enjoying the sun, reading

Occupancy:

1-4 persons including visitors with 1-3 hours per day spent here.

Public Spaces:
Group Activities

SPACE FOR SOCIAL GATHERING:

The elderly need a social interaction space to entice them away from their immediate dwelling environment in support of their emotional needs. This activity space will be utilized at all hours during the day and evening for parties and indoor recreation such as billiards, ping pong, shuffleboard and table games. Activity during week-ends may increase with the inclusion of visiting relatives and children. This should be a durable and flexible environment allowing for a wide range of activities at various times of the day. Easy accessibility is necessary from all units and from the primary entry into the development.

Activities:

Conversing, snacking, parties, using bathroom, Swimming, billiards, ping-pong, shuffleboard, Table Games, arts and crafts

Occupancy:

100 persons with 1-3 hours/day spent here.

SPACE FOR COMMON LAUNDRY:

The majority of living units will have private laundry facilities, but it is still necessary to provide a public space for those residents who are not fortunate enough to own this convenience. This activity space should be centrally located in the development for easy access by all tenants. There should be no audio accessibility between this space and other adjacent areas.

Activities:

Receiving, sorting, preparing clothes, Loading, washing by machine or hand, drying in machine or hanging to dry, finishing, folding, ironing clothes, conversing, carrying baskets of clothes.

Occupancy:

3-10 persons with 1-4 hours per week spent here.

SPACE FOR HEALTH CARE/REHABILITATION:

An outpatient medical or dental clinic should be provided in this development for emergencies, and the convenience and care of the residents. A minimum requirement of installation should be a space for patient waiting and various examination and therapy treatment rooms. This activity should have direct access to the circulation system of the development. To insure the privacy of the users, vision between this space and adjacent areas should be carefully screened but not totally secluded.

Activities:

Patients enrolling for examination, undressing, Examining, dressing, conducting tests, exercise therapy.

Occupancy:

2-6 persons including staff

recreation can be transformed into functional and esthetically pleasing environments oriented towards development of the individuals body and mind.

**site analysis :
and conceptual
development**

SITE ANALYSIS:

There are a wide variety of determinates that can be applied to the final actual form of architecture in relationship to its site development. This form conditioning is affected by economics, current technology, social and political factors, access to materials and aesthetics. However, natural forms including geology, soil conditions, climate, and the ecology can also impose ideas into the shape and form of architecture. This analysis should suggest possibilities and opportunities of how this particular site should be used to its fullest potential.

Geography, Soil, Vegetation:

Lubbock County is located on a plateau area in Northwestern Texas often referred to as the Southern Plains Region due to its proximity to the panhandle of the state. The South Plains extend southward into the upper Pecos Valley and westward into eastern New Mexico. Although this area has a general elevation above sea level of 3,250 ft. there are no appreciable terrain features affecting wind flow across the plateau. The primary soil types consist of Amarillo sandy clay loam which are adequate for the cultivation of a wide variety of crops. This type of soil presents no major construc-

tion limitations except near drainage collection. Vegetation throughout the Lubbock area is generally sparse when compared with other U.S. Regions where lush vegetation is prominent due to a variation of climatic elements.

Climatology/Solar:

The climate of this Region is semi-arid, transitional between desert conditions on the west and humid climates to the east and southeast. The normal annual precipitation is 18.4 inches with the majority usually occurring during April, May, and June when warm, moist tropical air is carried inland from the Gulf of Mexico. This air mass produces moderate to heavy afternoon and evening convective thunderstorms, sometimes with hail included. The humidity is usually low with an average noon reading of 46% and up to 63% at 12:00 p.m. The direction of the wind is generally from the south with an average of 13 m.p.h. However, extreme velocities of 25-45 m.p.h. are very common during the months of December through June. Dust storms are a variable factor in the climate and are dependent upon the current and preceding years precipitation patterns and the agricultural practices of the local area. The most extensive dust storms are noted with southwesterly, westerly, or north westerly winds. Special consideration should be given to protection and screening against these irritating elements during the design

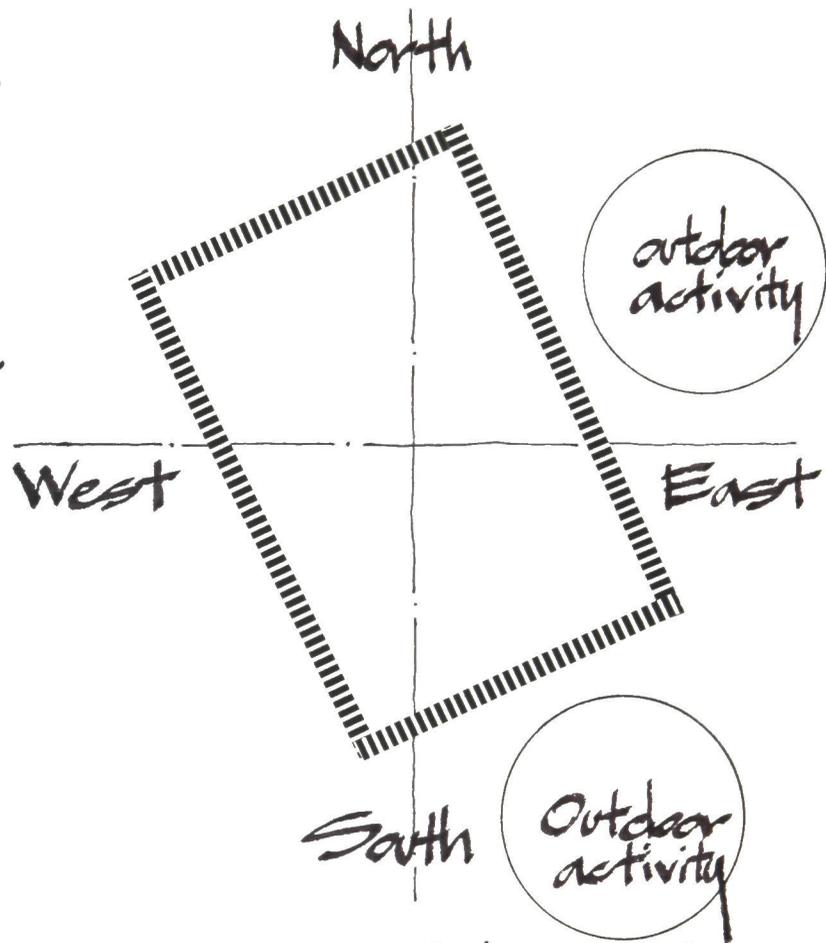
process by means of correct orientation on the site.

The summer heat is generally not considered aggressive largely because of the low humidity. The moderating factors are daytime wind and dry air with nighttime temperatures considered pleasant throughout the summer months. The normal annual temperature is 59.7°F with the warmest months being June, July, and August. Lubbock has generally mild winters with infrequent snowfall, and a monthly average temperature of 39°F during the coldest months of December and January.

Abundant sunlight is characteristic of the Lubbock vicinity throughout the year with an average of approximately 163 clear days per year. Lubbock is located in the Texas South Plains with a latitude of 33°39'N and a longitude of 101°49'W with a central standard time being used. From this point the compass varies 12° east of true north.

With the use of large amounts of fenestration, sun angles are of major importance in order to achieve the desired sunlight within the spaces.

Hot-Arid Region:	Maximize: Humidity Air movement in summer Shade in late morning/afternoon
Goals:	
Position on slope	low for cool air flow
Orientation on slope	East/S.E. for P.M. shade
Preferred winds	Exposed to prevailing
Clustering	E.W. axis for wind & shade
Bldg. Orientation	South to S.E.
Tree Forms	Overhanging roof
Road Orientation	Narrow, E.W. axis
Materials coloration	Light on exposed surfaces Dark to avoid reflection
Relation to Water	On lee side of water



25° S/S.E. bldg. orientation is generally preferred for this region to maximize solar and air movements.

Site Orientation

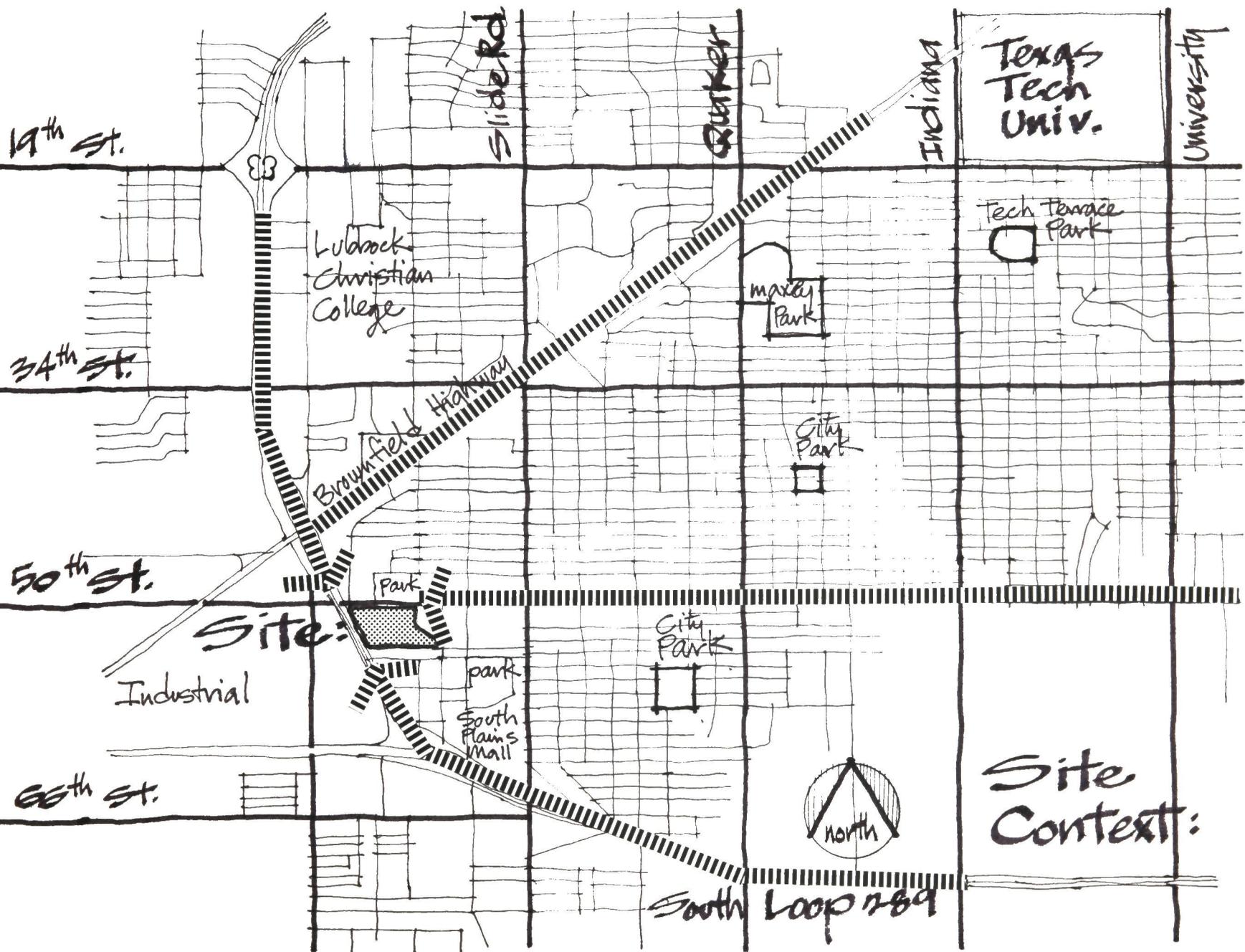
SITE ACTIVITY SPACES:

Site Entry/Exit:

The neighborhood will be reinforced with a distinct gateway to the development using solid elements visible from lines of approach to enclose a circulation path or perhaps a landmark sign. Visitors and residents should have excellent sight distance in both directions at the point of entry. The location of the entry will be determined by its traffic characteristics and by the size and shape of the site itself. Orientation should be away from heavy traffic but not to allow alienation from entry for those destined to find it. Along with safety and recognition, the entry must be in proportion to the neighborhood setting and future traffic projections. It is necessary to provide the correct intensity of artificial light to prevent possible glare at night from blinding motorists. The provision of a public transit/bus stop at the entrance is suggested to facilitate necessary transportation for the elderly. The utilization of landscaping principles should enforce security but not total concealment.

Arrival Court:

This space serves as an important image generator. For accessibility the arrival court should be of close proximity to the primary entry gateway to the development. Activities of this space include the pick-up and drop off of residents, their visitors and the arrival/departure of service vehicles including mail delivery, repairmen, and food supply delivery. Short-term visitor parking comprising 9 spaces per 150 units is required. Since cars will be loading and unloading passengers, the entry should have a canopy for inclement weather. The radius of the turn-around circle should be large enough to allow easy maneuvering of both cars and buses. For security enforcement, this space should be well lighted with even distribution. Landscaping and other screening devices are suggested for buffering the view and noise between the entry and the face of the arrival court.



19th St.

34th St.

50th St.

66th St.

Slid Rd.

Quaker

Indiana

University

Texas Tech Univ.

Lubrock Christian College

Mary Park

Tech Terrace Park

Brownfield Highway

City Park

Park

Site:

Industrial

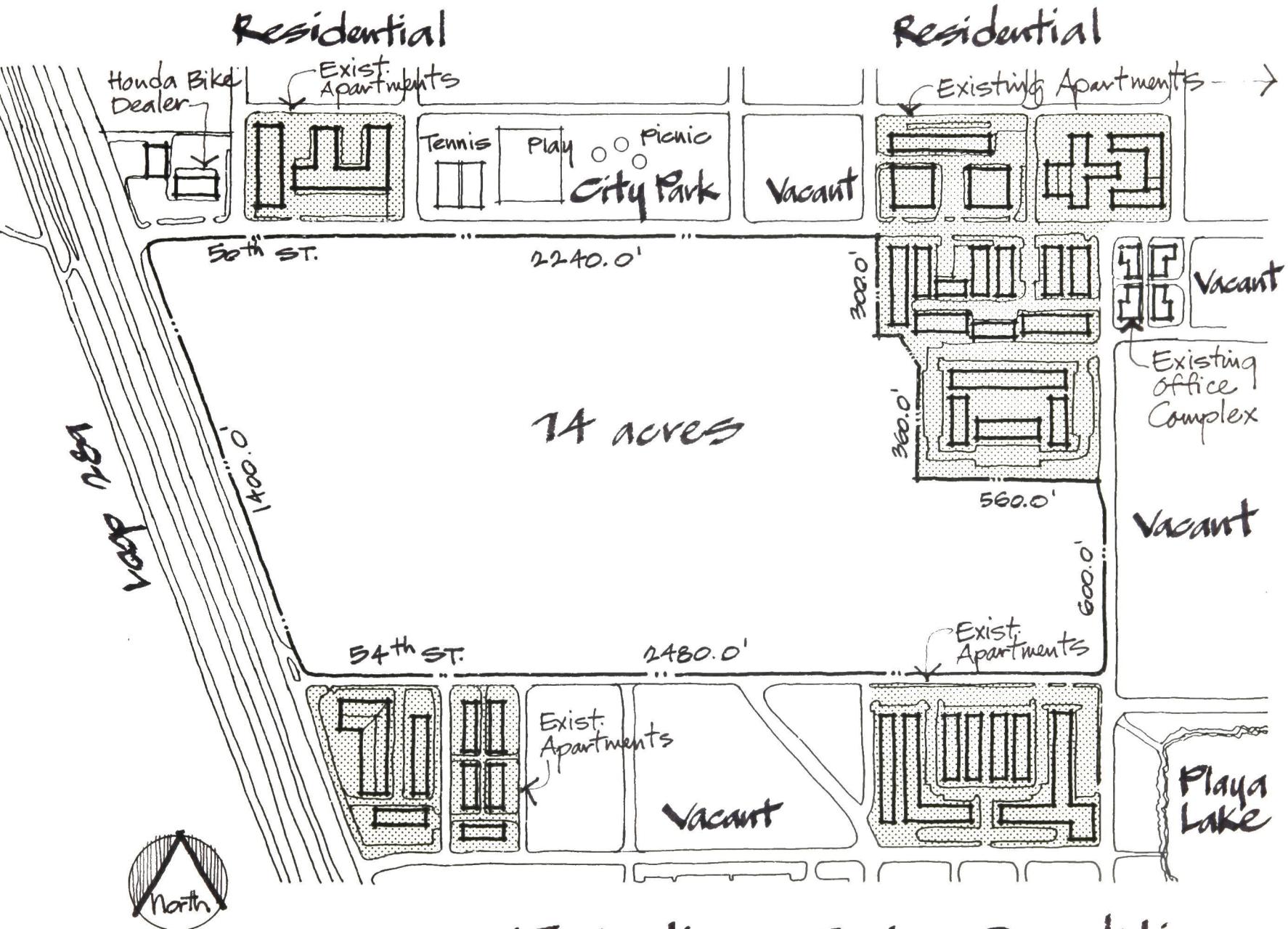
South Plains Mall

City Park

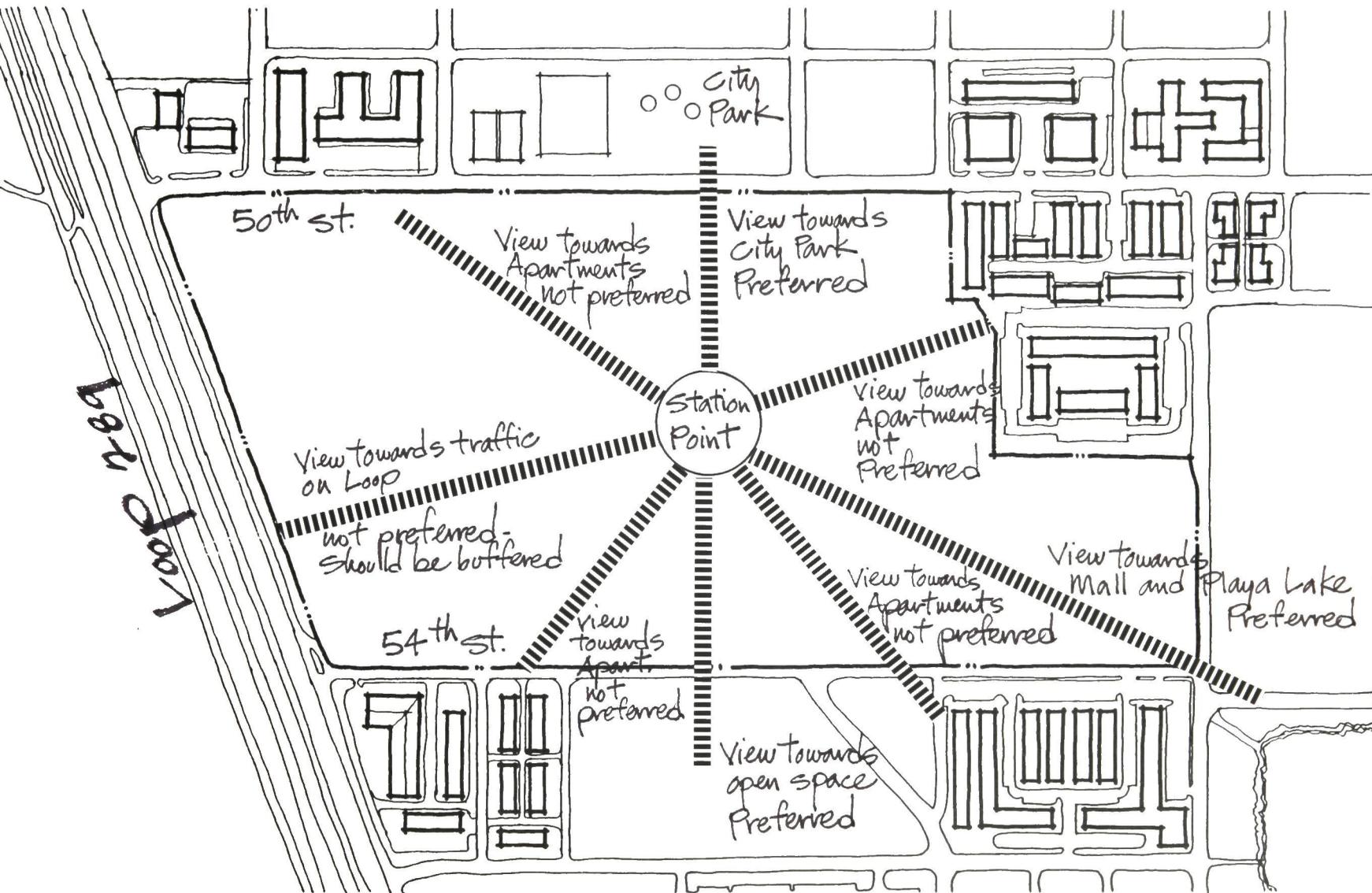


Site Context:

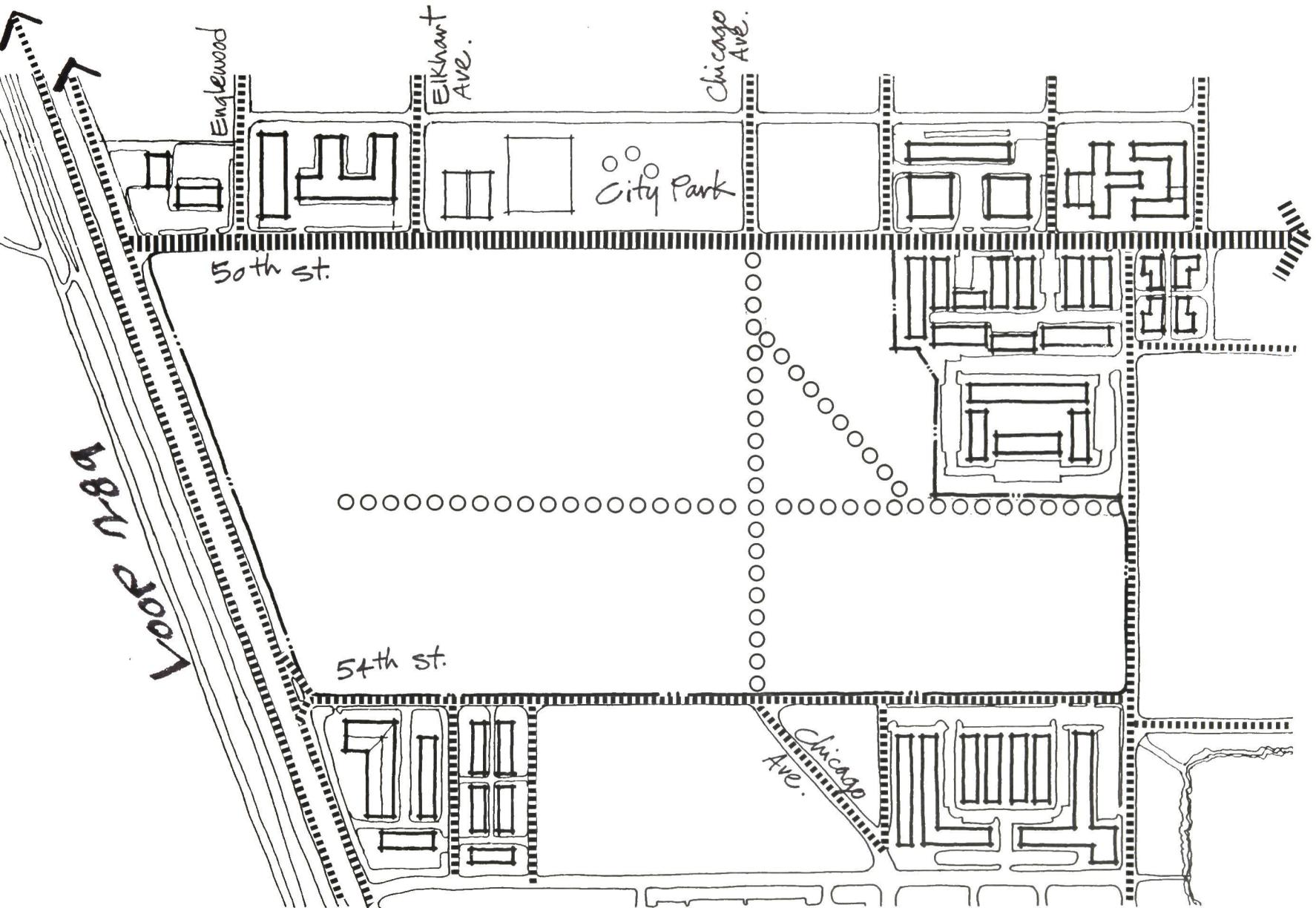
South Loop 789



Existing Site Conditions:
 SO: 1" = 400'

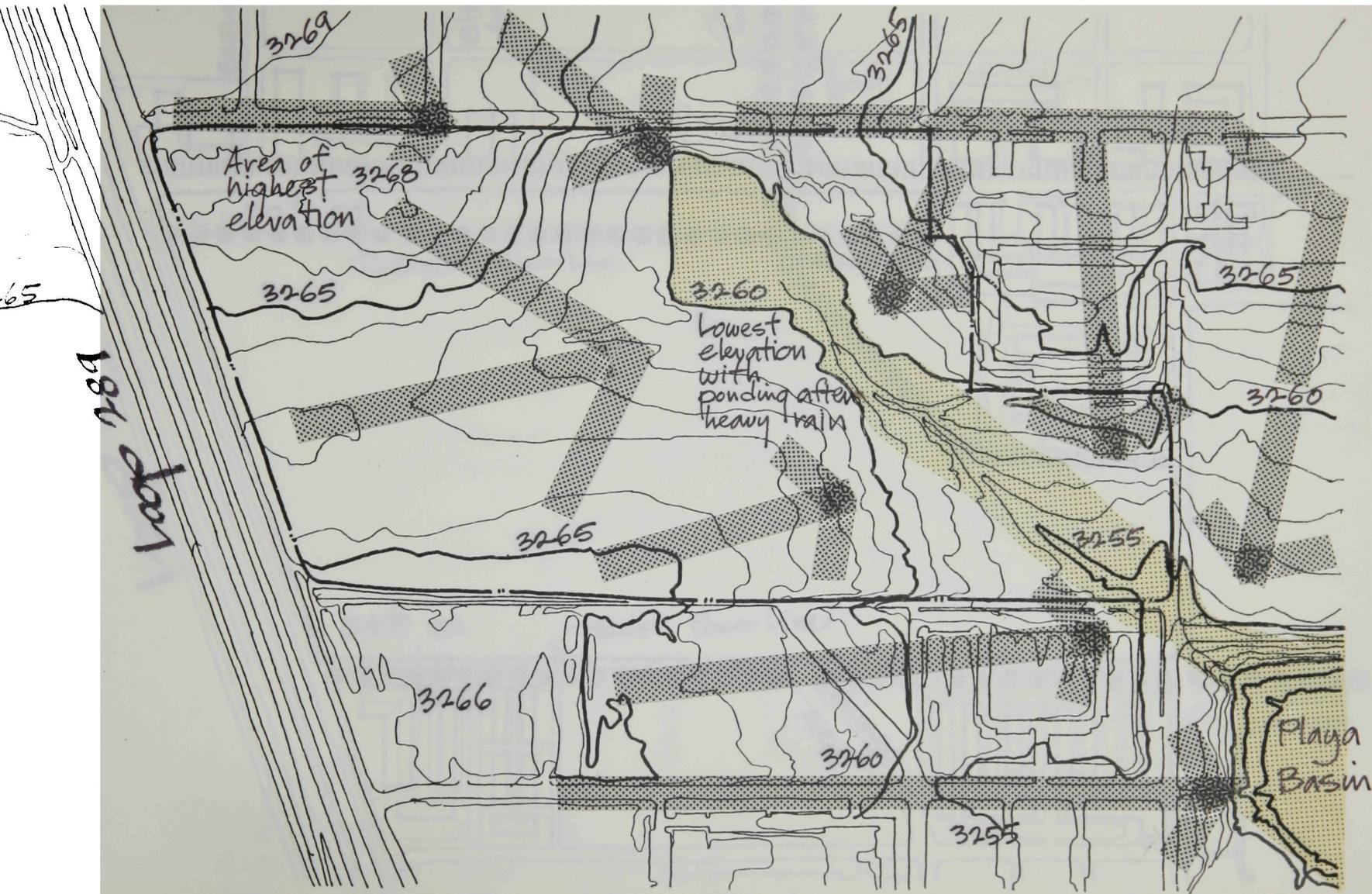


ultra Views:

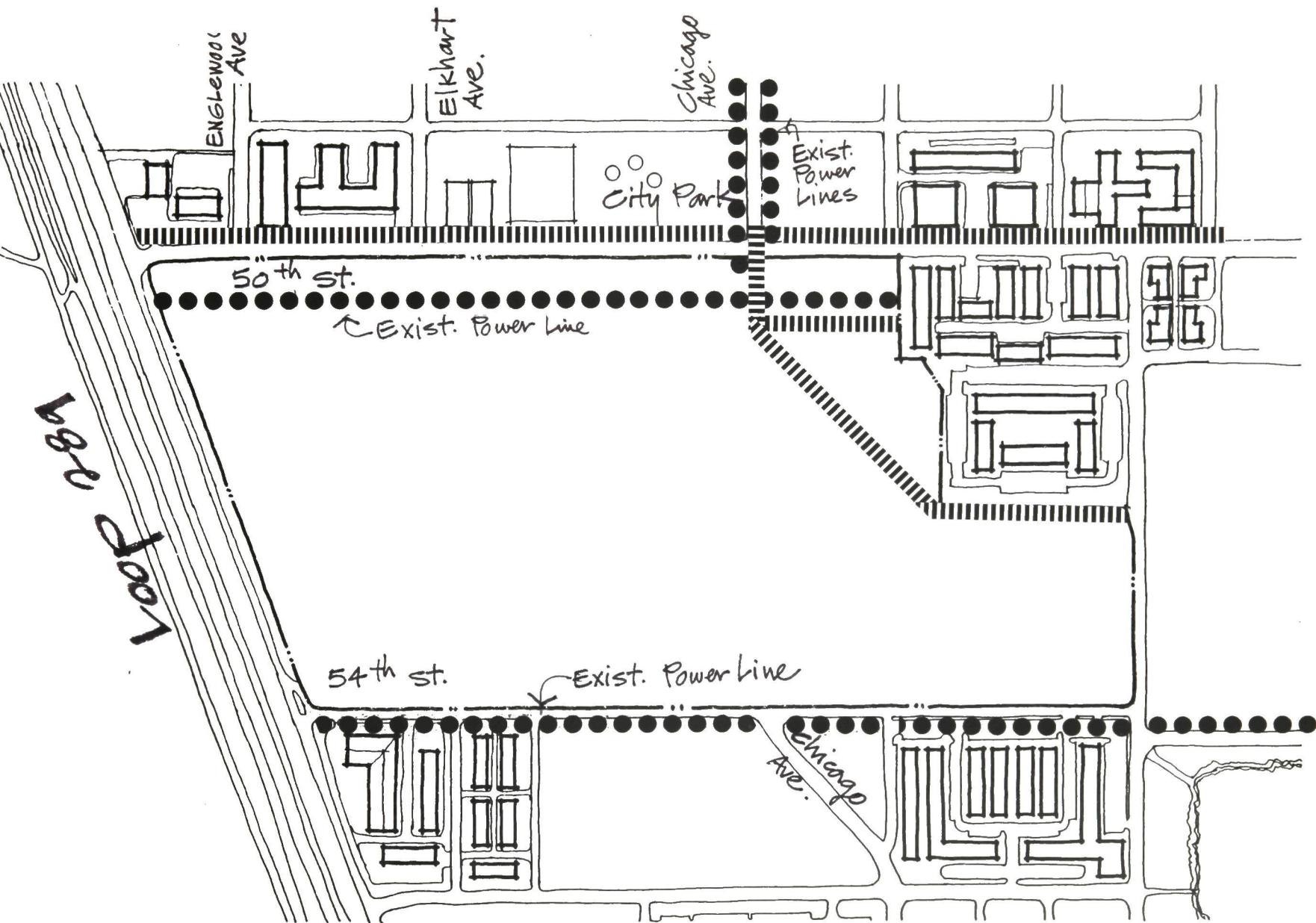


Circulation:

SC: 1" = 400'

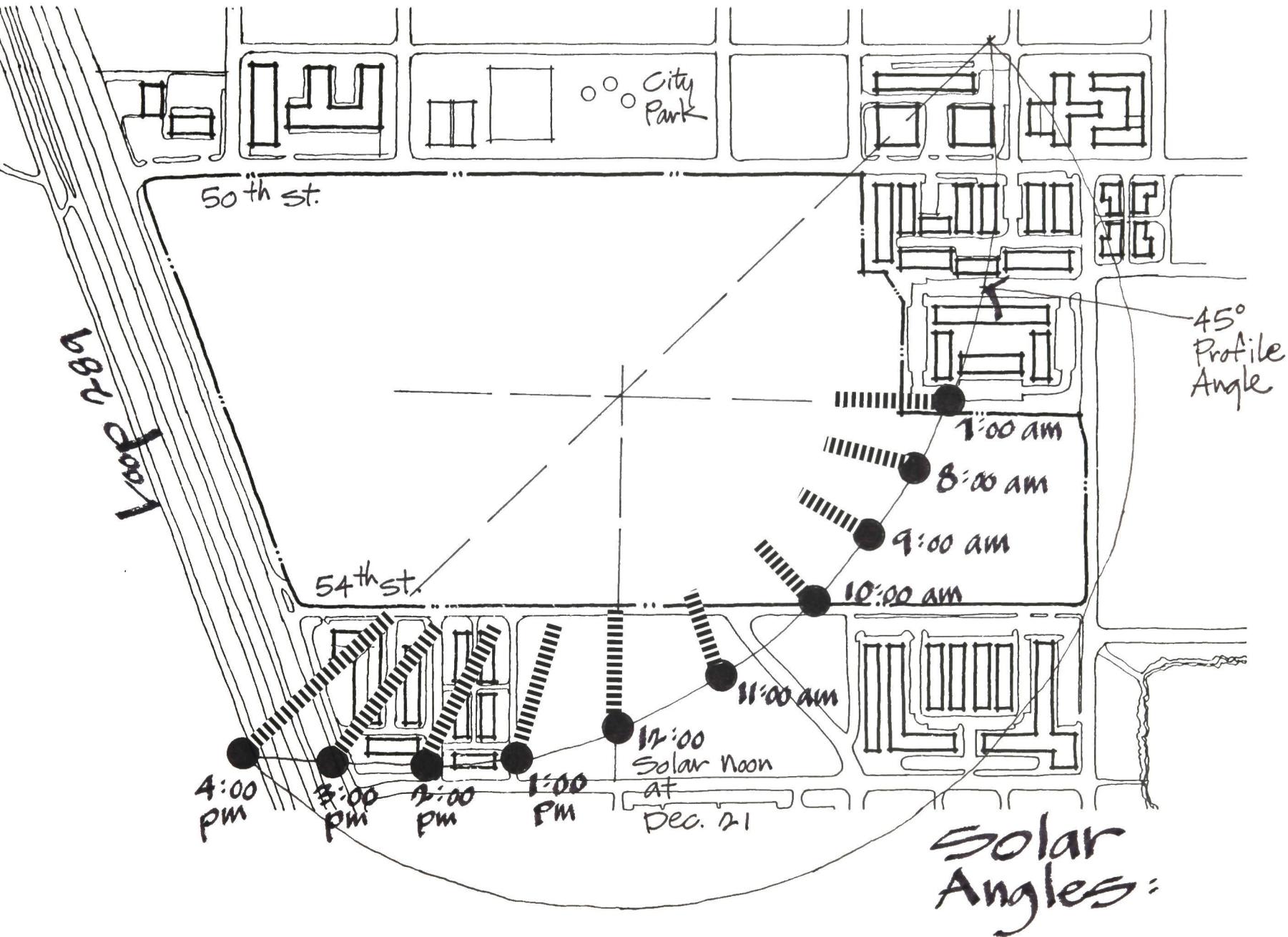


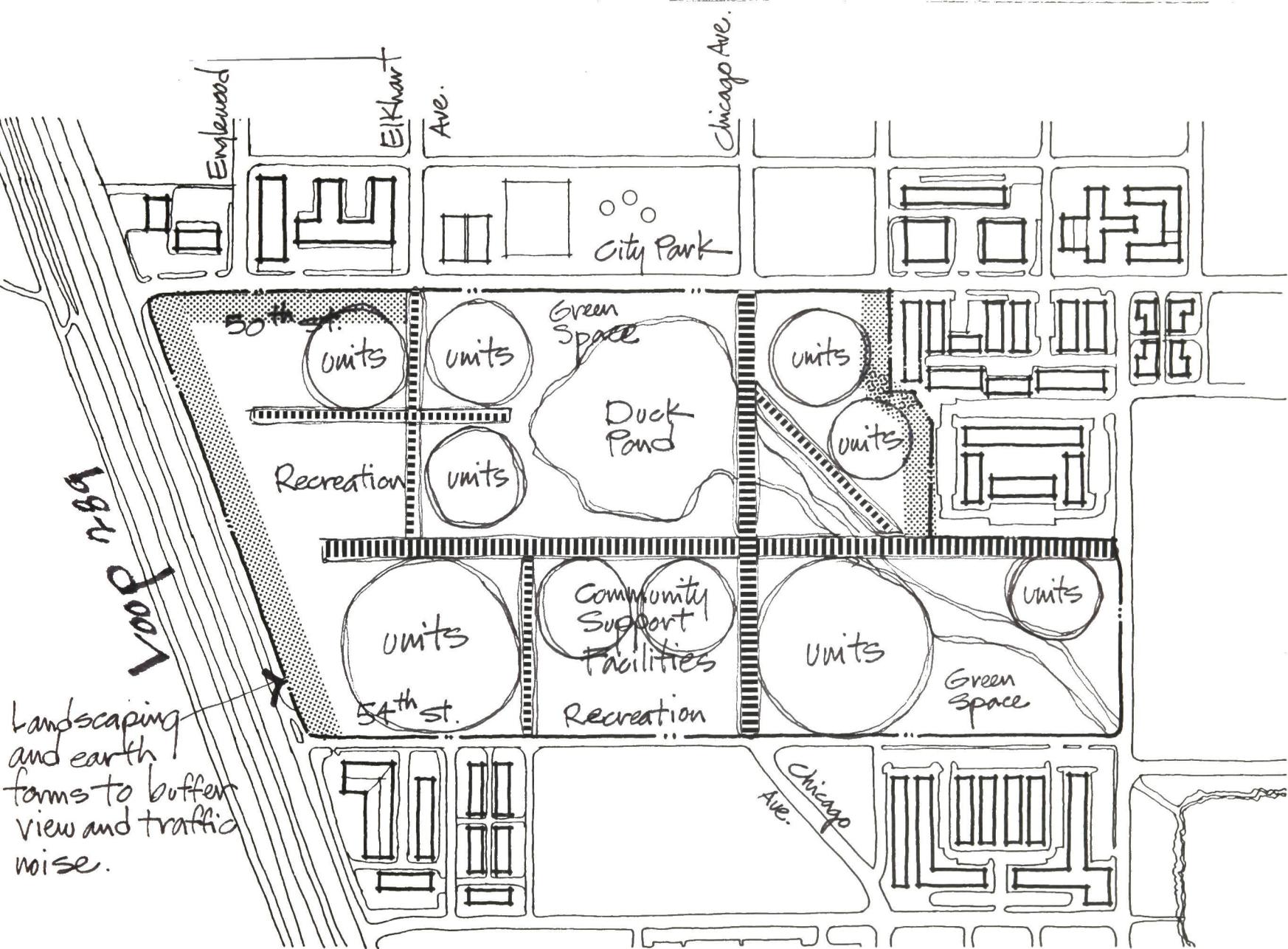
Contours/Drainage:
SC: 1" = 400'



Utilities / Easements:

SC: 1" = 400'





Conceptual Development:
 50: 1" = 400'

**space summary:
and detailed
requirements list**

SPACE SUMMARY:

The space summary is the transition from the activities involving people, to the description of the spaces where activity and people converge. This summary describes space area for primary and secondary activities and their performance characteristics. The structure of this analysis is consistent with the activity analysis involving a grouping of areas in functional relationships with a consideration to the advantages and disadvantages.

- Total: 27 s.f. net

DWELLING UNIT SPACES:

Entry Foyer:

- 2 person occupancy with 30 min./day spent here
- Storage closet for clothes, boots, etc. with a size at least 3'-0" long x 2'-4" deep or 7 s.f. net
- Space for sitting, standing to dress or greet guests of at least 4'x5' or 20 s.f. net
- Small chair for sitting to remove boots
- Sufficient wall space to allow the attachment of personal symbols
- Mail box/chute for delivery
- Front porch for outdoor sitting, viewing and waiting

Family/General Living:

A major portion of the day and evening is spent here by family members thus creating a necessity for interesting views towards the exterior environment. Fenestration should be carefully located to avoid a loss of internal privacy from outside, but at the correct height to allow seated persons a view out. Designer should avoid northern orientations, but allow for approximately 30% minimum of sun per day to penetrate space from the south and east. Due to the wide range of lifestyles, flexibility in furniture types and arrangements is important. Comfortable seating should be provided for each participant, with a minimum of 1 for each family member plus additional for visitors. The arrangement of seating and tables should be generally in an elliptical pattern to ease intensity of conversation. Good planning is more important than the size of the space, suggesting to allow more space than the minimum required to attract additional activities. Rectangular spaces are easier to furnish effectively and taller ceiling heights can create a variation in spatial dimension. In larger dwelling units consider the division of space to allow for a den or sewing area. This allows multiple residents flexibility to conduct various activities simultaneously. Lighting should be of a moderate intensity with highlights at strategic

points.

Requirements List:

1-4 person occupancy with 36 s.f./person
4-7 hours/day is spent here
Minimum dimension: 12'x14'=168 s.f, net minimum

Furnishings:

Size:

one couch.....	3'-0" x 6'-10"
two easy chairs.....	2'-6" x 3'-0"
one television.....	1'-4" x 2'-8"
one table.....	1'-6" x 2'-6"

SLEEPING/DRESSING:

This space can provide the best conditions in the home for concentrated reading, meditation, or sleeping. For ideal purposes the bedroom should be a moderately sized, multi-purpose, yet segregated space. Sufficient size is needed for flexibility of furniture arrangements, and unobstructed circulation. This activity space should have preferable views from its windows and there should be a direct route from bedroom to bathroom. Guests should be able to use the bathroom without passing through the space. Control of natural light can be efficiently done with draperies or blinds and adequate ventilation from windows is suggested.

Requirements List:

7-9 hours/day and night spent here

1-2 persons for primary space - 12'x14' = 168 s.f.
1 person for secondary - 10'x12' = 120 s.f.
1 storage/closet - 2-6"x6" = 15 s.f.

FURNISHINGS:

SIZE:

Closet storage	2'-6" x 6'-0"
Two twin beds or One double bed	3'-3" x 6'-6"
One dresser	4'-9" x 6'-6"
One table	1'-6" x 1'-6"
Two night stands	1'-6" x 2'-6"
One portable television	1'-6" x 1'-6"
One full length mirror	Varies

FOOD PREPARATION/KITCHEN:

Almost half of the work in the home involves the preparation and disposal of meals. Each cook has an individual style that affects food and equipment selection and the size and arrangement of the work area. The physical limitations of the elderly should be a major determinant in achieving an energy-saving, comfortable working environment. Due to the small area and tasks performed this space should be well lighted, both naturally and artificially. The kitchen should be located on an outside wall with an interesting view from a window and preferably morning sunlight. For convenience consider using an L or U shaped space for ease in turning from one counter to another while working. Equipment should be placed to allow enough operating room between it and any adjacent corner cabinet.

The design of work centers and their sequence determine how smoothly a kitchen functions in

expending energy in everyday tasks. Work centers, flexibly grouped, must be planned to accommodate both daily and periodic activities.

Refrigerator Center:

This work area is usually placed first or last in the sequence near the sink or serving area for convenience in storing or serving food. The refrigerator location should be considered so it does not block movement from one activity to another.

Mixing Center:

These activities involve the assembling and mixing of ingredients such as breads, pastries, salads and casseroles. A good location is between the sink and the refrigerator which holds many mix-first items.

Sink Center:

This area is multipurpose, serving to wash fruits and dishes and providing water for cleaning food and drainage for waste. This center is often located between the cooking and the mixing centers, since access to both is frequent. The sinks should be placed under a window for a view towards outside or to be used as a plant shelf.

Cooking Center:

This area becomes the busiest of the kitchen shortly before meals. A location near the sink and mixing centers and with proximity to the eating space will be most preferable. Ranges should not be located beneath windows to prevent curtain fires or the spray of grease on glass panes.

Serving Center:

This center stores those items that go directly from storage to the table, such as linens, utensils and accessories. The serve center is usually integrated with either the cooking or the refrigerator center and with proximity to the eating table.

An efficient kitchen requires at least 3 of these work centers and they should be grouped to minimize the path of walking.

Requirements List:

- 2 person occupancy with 3-4 hrs/day here
- Food Preparation.....80 sq.ft.
- Pantry/Utility Closet.....10 sq.ft.
- Optional laundry.....18 sq.ft.

108 sq.ft. net

Furnishings:

Size:

Refrigerator3'-0" x 3'-0" x 5'-8"
Range.....2'-6" x 2'-6" x 3'-0"
Oven.....2'-6" x 2'-6" x 3'-0"
Dishwasher.....2'-6" x 2'-6" x 3'-0"
Microwave oven.....1'-6" x 1'-6" x 1'-0"
Pantry/Utility storage....2'-0" x 4'-0"
Optional laundry.....3'-0" x 6'-0"
Wall and base cabinets with doors
Double sinks.....16" x 16" each
Countertop space 2'-8" wide x 36" high x
10 lineal ft. with drawers
Garbage disposal, trash compactor
Storage for trash, brooms and mops.

Eating/Dining:

Dining pleasure should be promoted by relaxation and sociability and that atmosphere is enhanced with an orientation towards an exterior space capturing morning sunlight. Consider the use of two or more dining spaces that merge into other spaces allowing for a variety of meals such as family sit-down, snacks, buffets, and more formal holiday celebrations. A direct relationship with an exterior eating space will allow this flexibility and aids in visually expanding the primary dining area. Dining surfaces for food and utensils should be from 27-30" high to facilitate use by this older age group. Seating should give comfortable upright support scaled with correct proportional height to the table, with special consideration to the circulation around the perimeter. This space should be planned in conjunction with the food preparation area to prevent cooking odors from infiltration but providing ease in serving. Acoustical control to expedite comfortable dining can be achieved through use of sound control materials and techniques. Natural morning sunlight is preferred with the combination of adjustable artificial lighting. Adequate ventilation is necessary for the comfort of large dining groups, but not of the quantity to cause unwanted drafts.

Requirements List:

From 1-6 person occupancy including visitors with 3 hours maximum spent here each day/night.

Minimum dimension:

1 bedroom unit: 12' x 12' = 144 s.f. net

2-3 bedroom unit: 12' x 14' = 168 s.f. net

Furnishings:

Size:

Table3'-6" dia. or 2'-2" x 5'-6" x 36" high

4 chairs min.....2'-0" x 2'-0" x 1'-6" high

Sufficient shelving for plants, books, etc.

Consider bar type counter for auxiliary eating space.

Personal Hygiene/Bathroom:

Careful thought should be given to the designing of this space to facilitate ease of use by both the elderly and those having a physical handicap. Their lack of mobility and reflex time require this space to be safe from sharp edges and slippery floor surfaces with a minimum of movement to carry out the various activities involving twisting, bending, and reaching. Bathing arrangements should include grab bars for easier maneuvering and showers should include a seat or stool. Avoid the location of bathtubs or showers adjacent to exterior walls to prevent cold down-drafts from occurring. Doors when opened should not disturb an individual using any of the fixtures, but shielding sight be operational for ventilation, and located to enforce privacy. Due to the high intensity of tasks in this space, good lighting is important. Along with a ceiling fixture, lighting should be provided at each side of the mirror for an even distribution. Strong acoustical control through efficient use of methods and materials should be considered to insure maximum privacy during use of fixtures.

Requirements List:

1-2 persons maximum with 1-2 hours per day and night spent here.

Minimum Dimension:

1 bedroom unit: 5'-6" x 6'-6" = 36 s.f. net.

2-3 bedroom unit: 6'-6" x 8'-6" = 55 s.f. net.

Furnishings:

Water closet/toilet

Lavatory basin with countertop

Bath or shower

Adequate grab bars

Mirror, toilet paper holder, towel bars

Medicine cabinet,

Storage for linen and cosmetic articles

Exhaust Fan

Emergency signal device to Manager's office.

Circulation/Hall or Corridor:

This space serves as a transitional element one activity area to that of another. Hallways should be convenient, safe, unobstructed and free of turns as possible, being at least 3'-8" in width to accommodate those residents in wheelchairs. Avoid narrow doorways that will cause a sensation of confinement and limiting the passage of large items. Large quantities of natural light is preferred and ventilation can usually be achieved by using this space as a return air location for the mechanical system.

Furnishings:

Built-in storage space, bookshelves.

Utility Space: Optional

This space is a noise generator and should be located without proximity to the more private dwelling spaces but possibly near the kitchen to allow for economy of the plumbing installation. The washer will need hot and cold water supply piping connections and the dryer will require a heat exhaust escape to outside.

Requirements List:

1 person occupancy with 3 hours per week spent here.

Minimum Dimension: 3'-0" x 6'-0" = 18 s.f. net.

Furnishings:

Size:

Washer.....2'-4" x 2'-4" x 3'-0"

Dryer.....2'-4" x 2'-4" x 3'-0"

Shelving.....1'-0" wide x 3'-0" linear

Optional service sink.....1'-6" x 1'-10"

Mechanical Space:

This space should be centrally located in the dwelling unit to economize on duct installation and should be acoustically treated to absorb the noise it will generate.

Furnishings:

Size:

Minimum Dimension:4'x5' = 20 s.f. min.

Water heater.....1'-6" dia. with 30 gal. capacity

H.V.A.C. unit.....2'-6" x 3'-0"

**systems
performance :**

SYSTEMS PERFORMANCE:

This particular analysis is provided to study the relationship of human lifespaces to the architectural support systems which serve them. Our dwellings are a type of envelope we create for ourselves to have some form of control over our surroundings in order to maintain a reasonable level of physical and emotional comfort.

James Marston Fitch describes architecture as being the "third environment formed by building an interface between the micro-environment of the human body and the macro-environment of nature."¹ Our "meso-environment" is primarily to shield people from excessive energy elements in nature.

To facilitate in providing adequate solutions during the design process, a review is necessary of the overall demands, limits, and performance requirements of each system.

1. James Marston Fitch, American Building. The Environmental Forces that Shape It. Boston: Houghton Mifflin, 1972.

ARCHITECTURAL DESIGN/CONSTRUCTION:

The assembly of partitions, floors, and ceilings should suggest a continuous enclosing envelope. Special attention should be given to seclude or buffer noise generators from quiet, more private areas. Avoid the location of sleeping areas adjacent to mechanical, utility and noisy public spaces. Privacy can be interrupted if sleeping areas share a common wall with noisy living areas in other dwelling units. Closets and storage spaces should be strategically located to serve as sound buffers between each activity space, and between housing units sharing a common wall.

Exploring the manipulation of vertical spaces, of volumes, can spark excitement and varying moods within the resident. Lower ceilings can induce a sheltered, intimate feeling, whereas expanded vertical heights will achieve an open, airy atmosphere. The growing demand for verticality has been the recent economic need to minimize the square footage within our lifespan. The variation of ceiling height can reduce awareness of shrinking floor space, especially in the same activity space where the effect of transition is magnified. It is a useful and effective tool in forming one's own

personal environment with regard to function and character, but should be within a reasonable proportion to the total area of the space and not restricting it.

We must recognize the physical limitations of the elderly when we design stairs and ramps keeping the runs straight and short to accommodate the handicapped. The elderly are less agile on foot with poor reaction/reflex time so we must minimize slip and stumble hazards. To avoid surprise by the residents, special consideration should be given to flooring materials at level changes. Levels should be clearly identified, occur only at normal locations and conform to ramp or stair requirements. Avoid strong patterns of colors and textures that can spark unwanted emotional strain. Light colors can visually expand space and dark colors will enclose or restrict the feeling of openness. Warm colors with an architectural residential appearance should be experimented with.

For reasons of economy and flexibility, all construction including dwelling units and larger community spaces will be of standard 2 x 6 wood frame with load bearing walls supporting prefabricated long span trusses. Special attention should be given to energy conservation techniques and future expansion.

STRUCTURAL:

The structure is the skeletal suspension for our built environment of human spaces, therefore requiring special study in the areas of strength and economy. Long span methods could be considered to prevent the obstruction in flow of activities in the lower floors by protruding structural members, thus actually allowing more space. In various active areas the structural elements can assist in solving and enhancing the volumetric implications. External and internal exposure of structural detailing can suggest or emphasize its own beauty. Attention should be given to sound transmission as the structural and mechanical elements are primary noise transmitters. Clustering of spaces may simplify some structural problems, but may intensify difficulties in circulation and distances between activities. Flexibility in future expansion should be a major planning consideration during the design process.

MECHANICAL:

The mechanical system is the nucleus for the environment comfort levels of our built spaces. Accounting for about 5-10% of the residential space this system should be visually, economically, and efficiently congruent with the whole. Lighting, heating and cooling systems help to make our homes more physically comfortable, cushioning the stress resulting from natural cycles of weather. The climate of our interior environment is controlled because each individual has different needs and tastes.

Heating and Ventilation:

The ideal heating system should supply enough heat to provide constant temperatures from room to room, to warm floors and walls, to avoid drafts, and to replace the body's heat loss.

Electricity, natural gas, and the sun are the most abundant man-made and natural forms of energy for generating heat in the Lubbock general area. For a project of this scope, the most economical controllable heating product could be steam or hot water supply to each dwelling unit and support facility allowing the option for more

comfort and individual control. The value of this system will increase when compared to forced air heating. Individual fan coils or unit ventilators are appropriate for small spaces such as laundries or other public and administrative locations. Due to current advances and interest in solar research, applications in both passive and active systems seem very attractive to this type of development. Large open spaces will require special attention due to their sheer size and the number of air changes required for human comfort.

Good ventilation will remove the hot, stagnant air from top of spaces and keeps fresh air in gentle motion. Natural ventilation through advantageous window and room placement is the most economical solution to summer heat. Location of windows and doors should be determined by whatever natural air movement is available. Guidelines in the Minimum Property Standards require a ventilating window area equal to 4% of the floor space in each activity.

Cooling/Air Conditioning:

Home air conditioning has become essential due to excessive high temperatures and humidity causing fatigue during work or play. Air conditioners remove heat and moisture from the air controlling the temperature, humidity and air movement. Central cooling systems usually with a heating device,

generally are much more efficient and inexpensive to operate than individual space units, although the cost of installation is higher.

Mechanical spaces should be placed centrally to the activity areas they will serve to reduce duct and piping layouts. Careful study should be given to the quantity of noise generated from the mechanical equipment and its effect of sound transmission disturbing adjacent activity spaces. All equipment and supply chases should be conveniently located for repair without disrupting the activities they serve. The life expectancy for each mechanical unit is between 15 and 20 years.

ELECTRICAL:

Light Conditioning:

Maximum physical comfort, safety, and emotional satisfaction depend upon optimum quantities of light. Natural and artificial light plays a functional and psychological element in human activities. Varying qualities and intensities of light can seem to shrink or swell space creating intimate or formal atmospheres. Planned lighting requires attention to brightness, location and direction, and its effect on colors throughout the space. In residential construction,

incandescent lighting is the most common but through an analysis of sun angles a coexistence of natural lighting can enhance the space and reduce energy consumption. In the larger public spaces fluorescent lighting is suggested due to its power consumption efficiency. The U.S. Department of Housing and Urban Development requires a window area equal to 10% of the floor space.

H.U.D. also requires that general power outlets be placed so that no point along a wall will there be more than 6 feet between outlets. Power outlets should also be provided above kitchen counters and with proximity to the Bathroom mirror. In large public spaces, outlets should be provided for frequent use by janitorial machines.

Wall switches should be placed to handle any traffic route through the living unit with control of those spaces just traversed. All other special electrical power demands should be wired into individual breaker boxes. The grouping together of related services will reduce wiring installation and repair costs.

For fire safety, smoke alarms should be wired into the ceiling, or when properly maintained they can be battery operated.

Site entry and approaches to each dwelling unit, public facilities and the parking areas should be well illuminated for security and visual purposes, but not interfere with activities within the spaces by reflection and glare. Basic standards should be selected for both beauty and ease of maintenance.

A city service transformer will supply present and future demand for electrical power to the development.

ACOUSTICS:

Conditioning sound increases comfort and privacy. The elderly have an inclination towards deafness with a decreased range of frequencies to hear, but still are susceptible to loud noises and desiring undisturbed daytime/nighttime silence. Acoustical standards will vary from maximum sound occurrence in each space. Placement of dwelling units in relation to the loud and active public spaces should be well sealed as to allow less than 55dB between adjoining rooms. Spaces should be oriented in such a way that sound will not be transmitted from outside sources. Transmission from adjoining spaces can be reduced by sealing joints between floor and ceiling, and with the proper sound absorption materials on and within the walls. Social gathering

areas such as the community center will be noise producers, so sound absorption rather than protection must occur. Attention must be given to the attachment of generators or mechanical units to primary structural members because the absorption and release of the sound vibrations will occur outside the structure. Each individual space and their surfaces should relate with the acoustical qualities of specific materials to achieve the desired performance levels.

LIFE SAFETY SYSTEMS:

Communication:

Communication can be received physically and mentally from any location by transmission of audio or visual messages. The housing complex and all support facilities should be well planned and designed combination of all systems that relay comfortable visual and audio messages to insure positive responses.

A primary mode of communication will be the telephone, but due to the age of this user group, emergency call/alarm devices shall be included in every dwelling unit with a direct connection to the manager's office. Each door entry to dwelling units should have an intercom system for protected

communication to outside from within their space. In public spaces there should be a manual general fire alarm system with the alarm boxes placed in a visible location near a natural path of escape.

TRANSPORTATION:

Transportation to and from this retirement community should be smooth, safe and efficient. Pedestrian traffic throughout the site should be planned so little or no vehicular circulation is intersected. This can be accomplished by retaining the vehicles to the perimeter of the site allowing only a small amount of resident traffic to disturb the environment. Separate entrances should be provided for service vehicles and city buses to assist in good circulation. To eliminate confusion and increase efficiency, proper signage of an identifiable graphic means should be supplied at all approaches and entrances on the site.

**financial and
cost analysis :**

CONSTRUCTION COST BREAKDOWN:

<u>ITEM</u>	<u>PERCENT</u>
Site Work and Grading.....	2.0
Masonry.....	1.4
Roofing.....	.8
Hardware.....	.7
Flooring.....	1.3
Painting.....	2.0
Equipment.....	3.7
Plumbing.....	10.0
H.V.A.C.....	6.6
Electrical.....	7.5
Rough Construction.....	26.0
Labor.....	<u>38.0</u>
Total 100.0%	

COMPONENT OF COST IN A DEVELOPED AREA

<u>ITEM</u>	<u>PERCENT</u>
Land.....	10.0
Site.....	1.5
Building Construction.....	50.0
Fixtures and Equipment.....	12.0
Fees.....	8.0
Finance Tax.....	10.0
Operating Equipment.....	1.5
Pre-Opening.....	4.0
Inventory.....	1.5
Working Capital.....	<u>1.5</u>
Total 100.0%	

Taken from 1980 Dodge Manual: For Building Construction Pricing and Scheduling, pp.4, New York: McGraw-Hill, 1980.

Desired cost reductions can be achieved by several methods. Some primary means of savings are by planning to meet the specific market objectives. Time consuming activities can be eliminated during construction and the structure can be simplified by the utilization of standardized components. The omission of air conditioning or other services in certain areas should be considered.

The cost of land and site development includes the demolition, preparation, landscaping and external works estate fees and charges. The cost of construction include the building shell, equipment, finishes, professional fees, and insurance. The costs of furnishings include the interior finishes, HVAC equipment, kitchen equipment, and all fittings.

The source of financial support will rely on capital costs and the current rates of interest.

This may allow for inflation rates or related to the date base. Finance during construction might pay for interim payments during construction at rates of interest.

Expenses prior to opening would include payroll costs, advertising and promotion. An initial working capital is needed for the financing of expenses, taxes, licenses, insurance, charges for public utilities and contingency costs.

The approximate cost for housing clustered as townhouses currently is \$42 per square foot of gross area. A residence has a building efficiency ratio of 85% with a circulation factor comprising the remaining 15%.

COST ANALYSIS:

Dwelling Unit Summary: 150 units

1 Bedroom unit:

730 net sq.ft. x 1.15 = 840 gross sq.ft.

840 sq.ft. x \$42.00 = \$35,300/unit

\$35,300 x 30 units = \$1,059,000

2 Bedroom unit:

900 net sq.ft. x 1.15 = 1035 gross sq.ft.

1035 sq.ft. x \$42.00 = \$43,475/unit

\$43,475 x 60 units = \$2,608,000

3 Bedroom unit:

1100 net sq.ft. x 1.15 = 1265 gross sq.ft.

1265 sq.ft. x \$42.00 = \$53,100/unit

\$53,100 x 60 units = \$3,187,000

SUPPORT FACILITIES:

Community Center.....5000 gross sq.ft.

Health Center..... 400 gross sq.ft.

Administration..... 350 gross sq.ft.

Laundry..... 250 gross sq.ft.

6000 gross sq.ft.

6,000 sq.ft. x \$50/sq.ft. = \$300,000

COST SUMMARY:

Dwelling units:

1 bedroom.....\$1,059,000

2 bedroom.....\$2,608,000

3 bedroom.....\$3,187,000

\$6,854,000

Support facilities..... 300,000

Total Building Construction Cost..\$7,154,000

TIME PHASING OF DESIGN AND CONSTRUCTION:

Use a 1% escalation cost factor per month from the date the construction documents are signed by all parties involved until the mid-point of construction.

Schematic Design.....2 months
Design Development.....3 months
Construction Documents.....6 months
Bidding or Negotiation.....2 months
Construction Phase.....2 years

Allow a minimum of 3 years for project completion with an escalation of 1% per month applied to 24 months which is mid-point of construction.

Present Total Building Cost.....\$7,154,000
Projected 24% inflated rate after
2 years.....\$1,716,960
Total Estimated Cost of Building
Construction.....\$8,870,960

LANDSCAPING:

Use a 4% figure for landscaping costs to include parking, paving, lighting, paths, and planting.

$$\$8,870,960 \times .04 = \$355,000$$

LAND:

74 acres @ \$10,000 per acre = \$740,000

SUMMARY:

Building Construction.....\$8,870,960
Landscaping..... 355,000
Land..... 740,000

Total Cost for Development.....\$9,965,960
Estimated.....\$10,000,000

TOTAL UNIT COSTS: Projected

1 Bedroom: Projected

$\$35,300 \times 1.24 = \$43,772$\$43,772
Landscaping..... 2,360
Land..... 4,900
Total Cost.....\$51,032

2 Bedroom: Projected

$\$43,475 \times 1.24 = \$53,900$\$53,900
Landscaping..... 2,360
Land..... 4,900
Total Cost.....\$61,100

3 Bedroom: Projected

$\$53,100 \times 1.24$\$65,844
Landscaping..... 2,360
Land..... 4,900
Total Cost.....\$73,104

case studies :

DESIGN COMPETITION:

In 1973, the Massachusetts Department of Community Affairs (D.C.A.) believed their housing program was not current in reflecting the current information available about planning living environments for elderly persons. The primary reason for this evaluation was that architects usually showed little concern for incorporating research findings into their designs.

In 1975, the Mass. D.C.A. sponsored a design competition inviting Architects throughout the nation to submit entries for a housing complex consisting of 80 to 100 units in the town of Dracut, Mass. The goal was to provide a specific state of the art knowledge for design research guidelines for future testing and evaluation. This must be a continuous process to optimize opportunities of designers and researchers to share information, and integrating that data into their designs.

This contest also gave the D.C.A. the opportunity to compare various architectural responses to an environmental setting developed from using a constant set of design criteria.

Since the competition was only a two week sketch problem, the winning proposals will be shown in schematic form only.

SITE DESCRIPTION:

The city of Dracut is located 20 miles Northwest of the Boston city limits between the Merrimac River and the New Hampshire State line. Actually it is an extension of the larger city of Lowell, a few miles to the South. It is in Lowell that most of Dracut's 20,000 people work, shop, bank, and seek entertainment. The site itself is rural, yet situated where the largest concentration of this town's population resides. There are only a few off site linkages available; a recreational lake 1/2 mile to the North, wooded areas to the Northeast, and a small shopping center to the Southeast. Bus service along Varnum Road provides transportation to and from Lowell each day. The 20 acre triangular site is vacant except for an existing building on the South property line. The topography slopes approximately 55' from the North boundary South to Varnum Road. Natural land forms include its rolling wooded areas and rock wall formations. Located in the New England Region, the climate is predominately cold and cool during the winter

and somewhat warm and humid throughout the summer months. This Region has 4 complete seasons with a broad range of temperature extremes and the wind is out of the Southeasterly direction at velocities of 8-10 mph.

Design recommendations for this locale are to optimize the application of wind and sun resources as alternatives to assist in energy conservation. It is important to repel the excessive heat and cold but allow winter sun penetration.

The 13 acre portion of the site shown shaded is to be developed in this proposal and the remaining 7 acres to be reserved for future expansion and recreational activities.

THE FOUR ENTRIES AND THEIR CONCEPTS:

The selected entries have both common and different solutions. All have a strong statement of a particular approach and provide on-grade access to more than 1/2 of the dwelling units. Each submittal is a tight scheme with a minimum disturbance of land having clearly defined social areas thus maximizing social interaction.

CLAMPITT, LESSER, ROMAN, ZEISEL

The proposal submitted by the Clampitt team introduced a "Gallery" concept with a central community building inducing an access from all units. This layout provides an easy view of the other members' outdoor activities. Low rise units aligned along a central covered walkway suggest a primary pedestrian link between units to encourage social encounters. Parking and vehicular transportation has been kept to the exterior with pedestrians internally maintained for access to the duck pond, bus stop, and recreational facilities. The jury felt the forms were too rigidly placed with poor treatment of the site but that alterations to the scheme could easily be done to accommodate flexibility. The jury did favor the idea of the strong separation of private and public activity spaces with a full view of people entering and exiting.

ROSENFELD AND CRACKWELL

This particular scheme initiates a "Street" through the center of an avenue of private units to serve as a vehicular and pedestrian path. The

community center located at the site entrance increases the potential for drop-in activity. The single story private units are aligned to form a barrier enclosing the street with all activity relating to it. There is one major access with secondary pathways to recreational areas situated outside the housing perimeter. The jury disliked the 550 ft. distance from one end to another and the separation of community facilities at opposite ends were somewhat unequally accessible to all.

PROGRAM

Units

Between 80 and 100 units in the following approximate percentages:

- o 75% one bedroom single occupancy units (approximately 475 net sq. ft.)
- o 20% one bedroom double occupancy units (approximately 520 net sq. ft.)
- o 5% one bedroom double occupancy units designed specifically for handicapped (approximately

600 net sq. ft.)

Minimum Furnishability Requirements for a Typical Unit:

Living room

- o couch (36" x 80")
- o 2 large chairs (30" x 36")
- o 2 small end tables (18" x 30")
- o TV console (16" x 32")

Living room or dining room

- o desk (24" x 42") with chair (18" x 18")
- o hutch or large extra piece of furniture (20" x 54")

Dining room or eating area

- o table (30" x 40") with 3 chairs (18" x 18")

Bedroom

- o either one double bed (54" x 80") and an extra piece of furniture (20" x 42") or two single beds (39" x 80" each)

- Beds must have 36" access on one side and 15" on the other
- o dresser (20" x 48")
- o chair (18" x 18")
- o night table

All units must have two means of egress provided in one of the following ways:

Corridor System: be able to exit in two directions from apartment door

Entry System: unit must have two doors leading to separate stairwells

Parking

Approximately 1 car per 3 units

Community Building or Buildings

- To be located only, not designed in detail.
 - o Dracut Housing Authority and Council on Aging Offices including common meeting room 600 sq. ft.
 - o 3-4 activity rooms of which 2-3 community-wide rooms can be combined to make a large space; one area to be used specifically by tenants; including kitchen 2100 sq. ft.
 - o Community-wide child day-care center with outdoor recreation 700 sq. ft.
 - o Maintenance facilities 800 sq. ft.
 - o Lobbies, circulation, rest rooms, and so on 800 sq. ft.
- Total 5000 sq. ft.

- o Parking: ± 20 car parking area with provision for bus to park and pick up passengers
- o Outdoor game areas

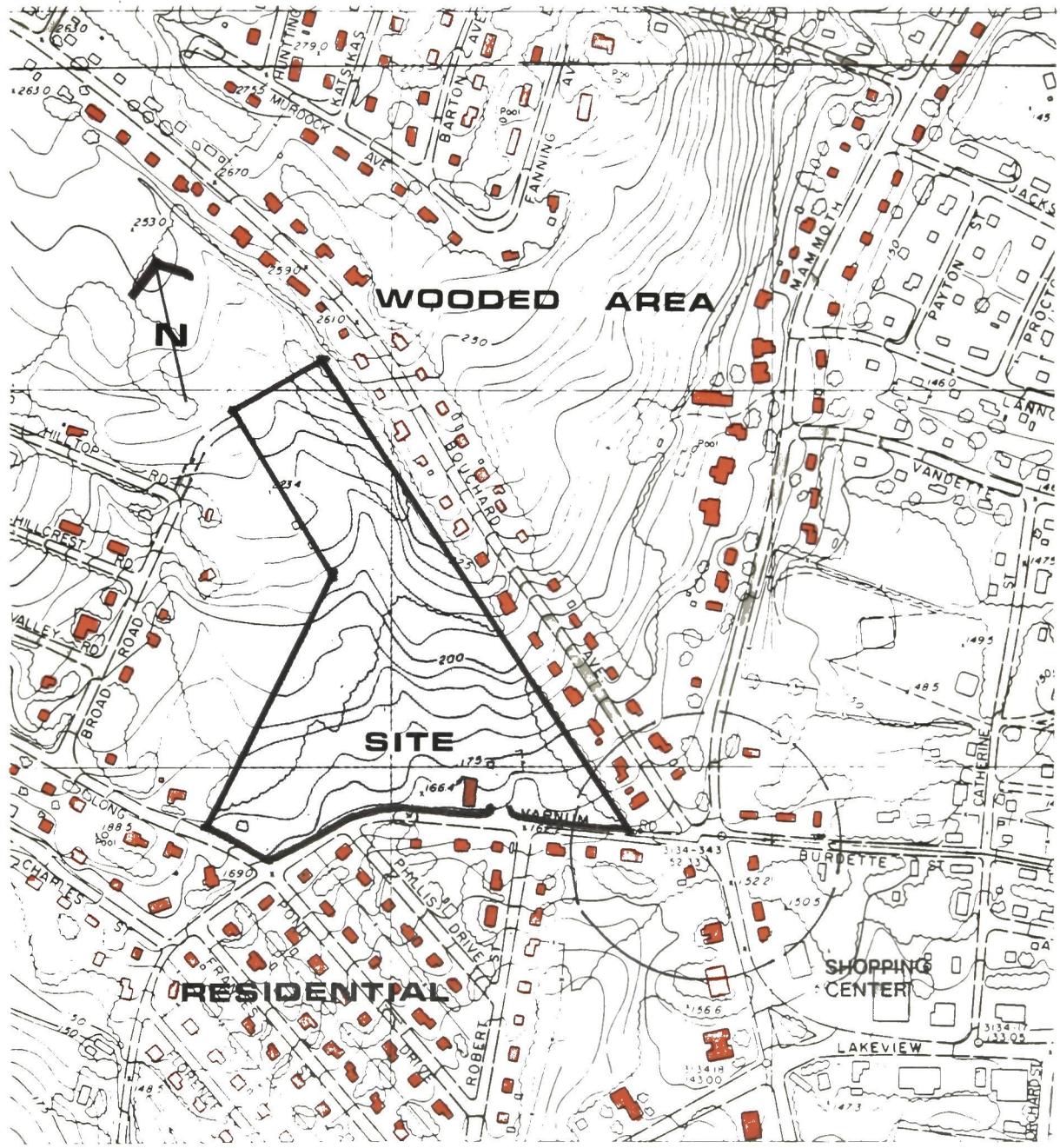
WAMPLER ET AL

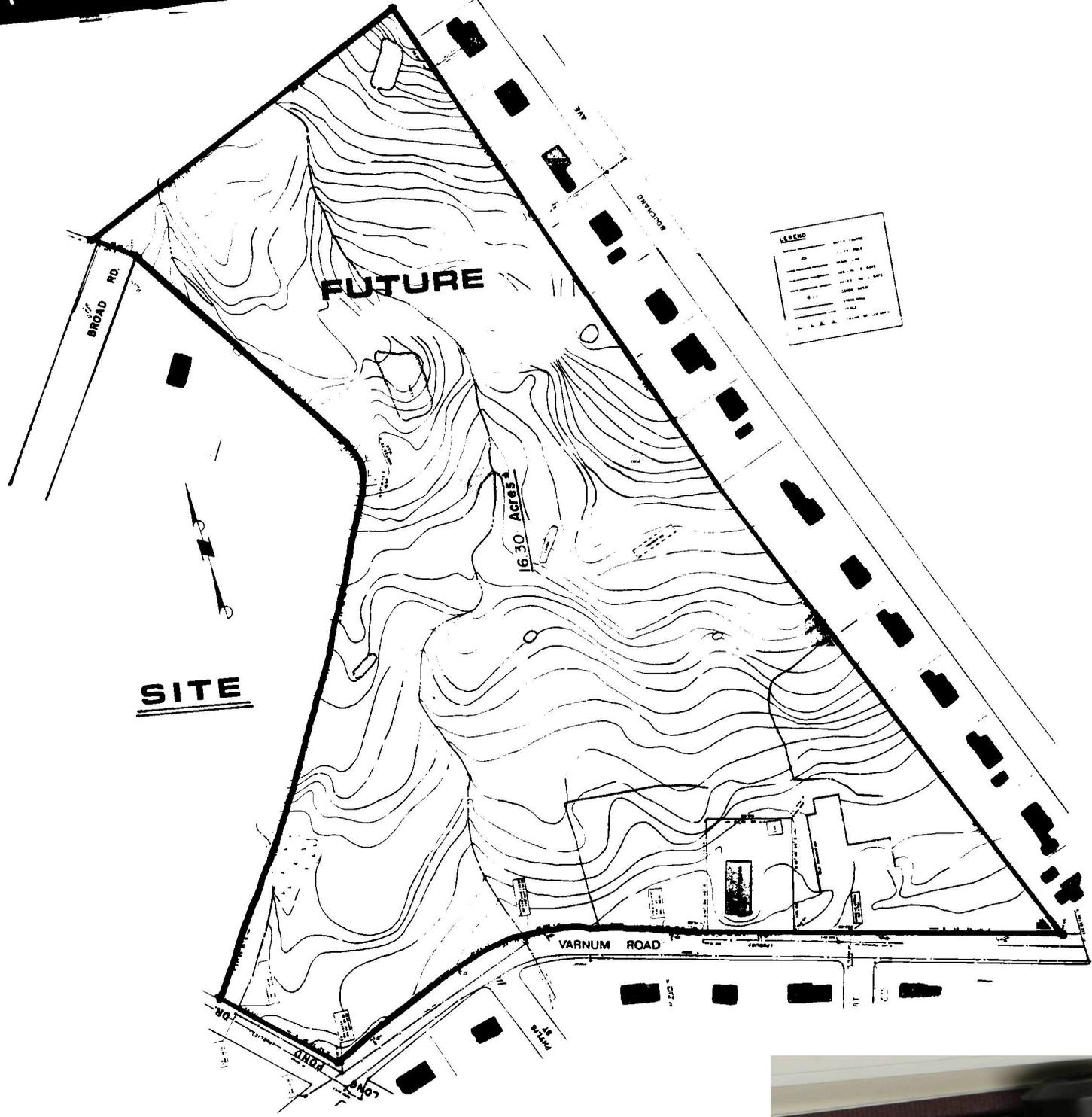
The Wampler team initiated a concept of an enclosed mall with the private units kept to the perimeter forming a barrier connected by a central pathway. By integrating social spaces they have decentralized the community activities to encourage socializing among residents and their visitors. The enclosed mall oriented pedestrian traffic within the site and retained vehicular transportation towards the perimeter but still allowed strong linkages to agricultural and recreational activities. The jury had doubts concerning the potential cost, about heating the central space, and no orientation of units to northern exposure. However, they felt this submittal had several favorable qualities. It offered a variety of living possibilities with availability of community spaces regardless of the weather conditions. Its accessibility and perimeter circulation was a strong design element.

LOWE AND OLES

This particular team has identified unit groups in a "Cluster" plan along a cross-axis connected by a pedestrian path. The community center is placed facing the path in two directions to provide easy access by residents and visitors. The social and community spaces enclosed within an arrangement of aligned and connected private units. The jury felt the units on the lower Southeast corner were alienated from the social facilities and they questioned the relation of parking to the center courtyards.

To summarize, we have seen how creative energies involved in a design competition can generate research and design ideas to benefit planners in the future developments responding to specific user needs criteria. In this case, the older segment of our population.





BROAD RD.

FUTURE

LEGEND

---	PROPERTY LINE
---	ROAD
---	RAILROAD
---	WATER
---	WOOD
---	ROCK
---	...

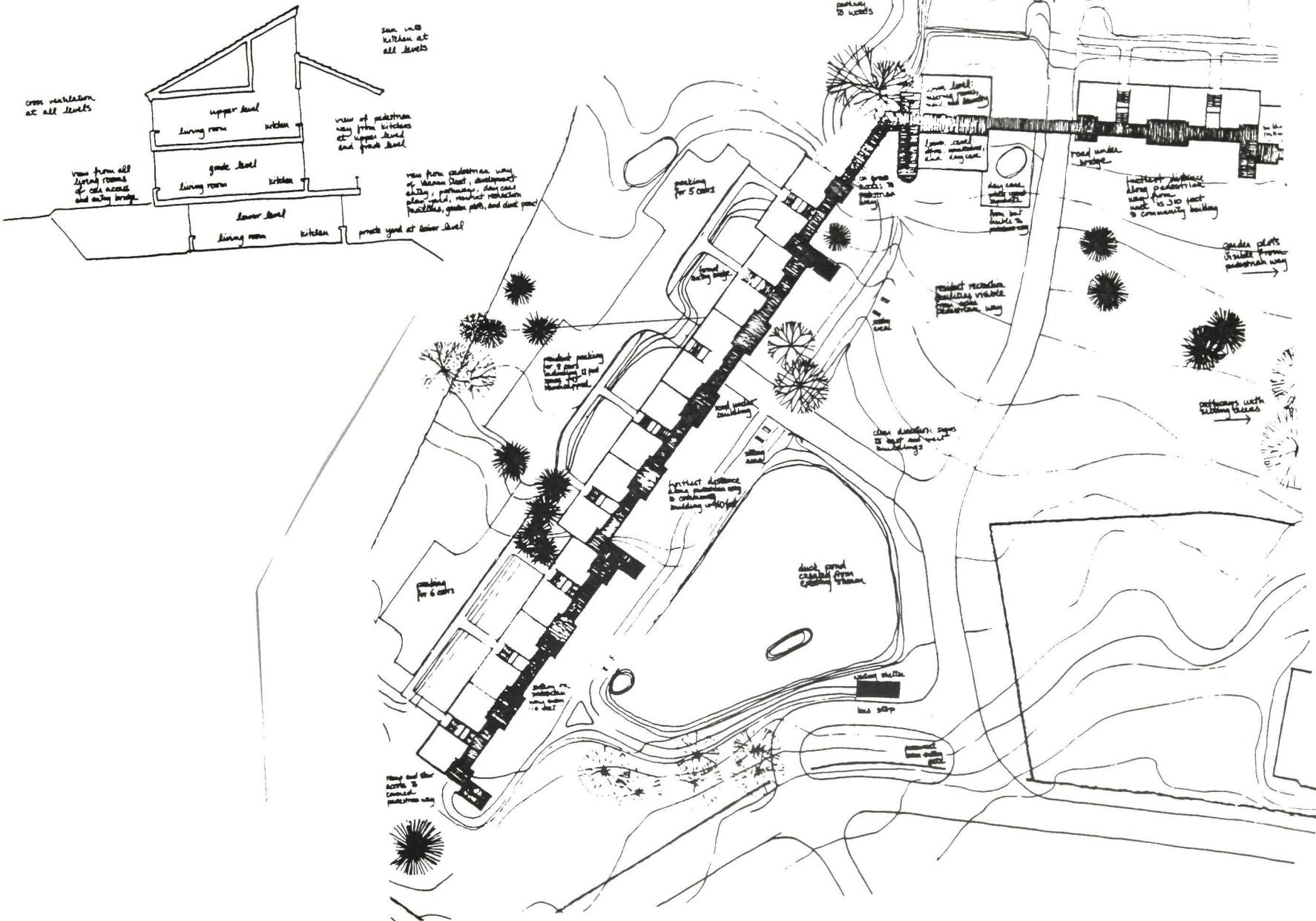
SITE

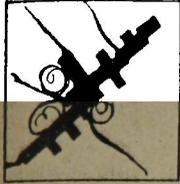
16.30 Acres

VARNUM ROAD

LONG ROAD

Gallery



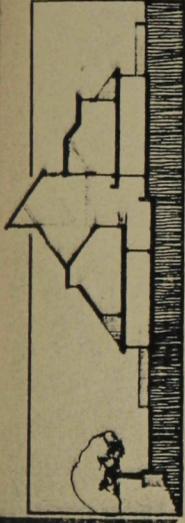


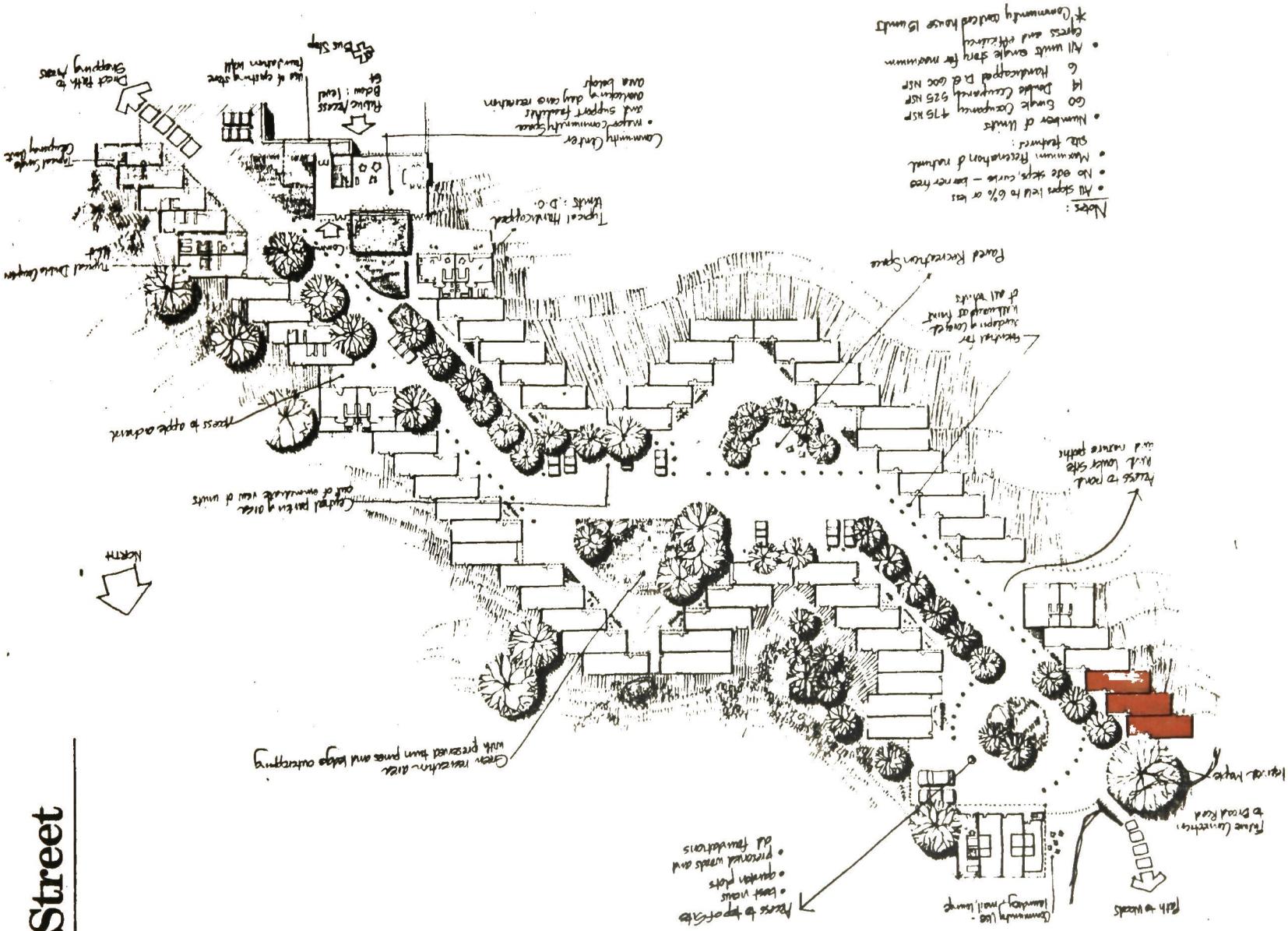
LIKE A VILLAGE STREET
FULL OF ACTIVITIES
PLACES FOR
NOT ONE CENTER
BUT

A SERIES OF PLACES
FROM THE PUBLIC ENTRY
TO THE QUIET TRAIL
IN THE WOODS
AS ACTIVITIES CHANGE
PLACES FOR PLAYERS
AND VISITORS

RESTROOMS
FOOD SEVER
CRAFT CENTER
PIZZERIA
WATER SEVER
COOKING
BATHING
WAITING
WATCHING
SITTING
SOUNDINGS

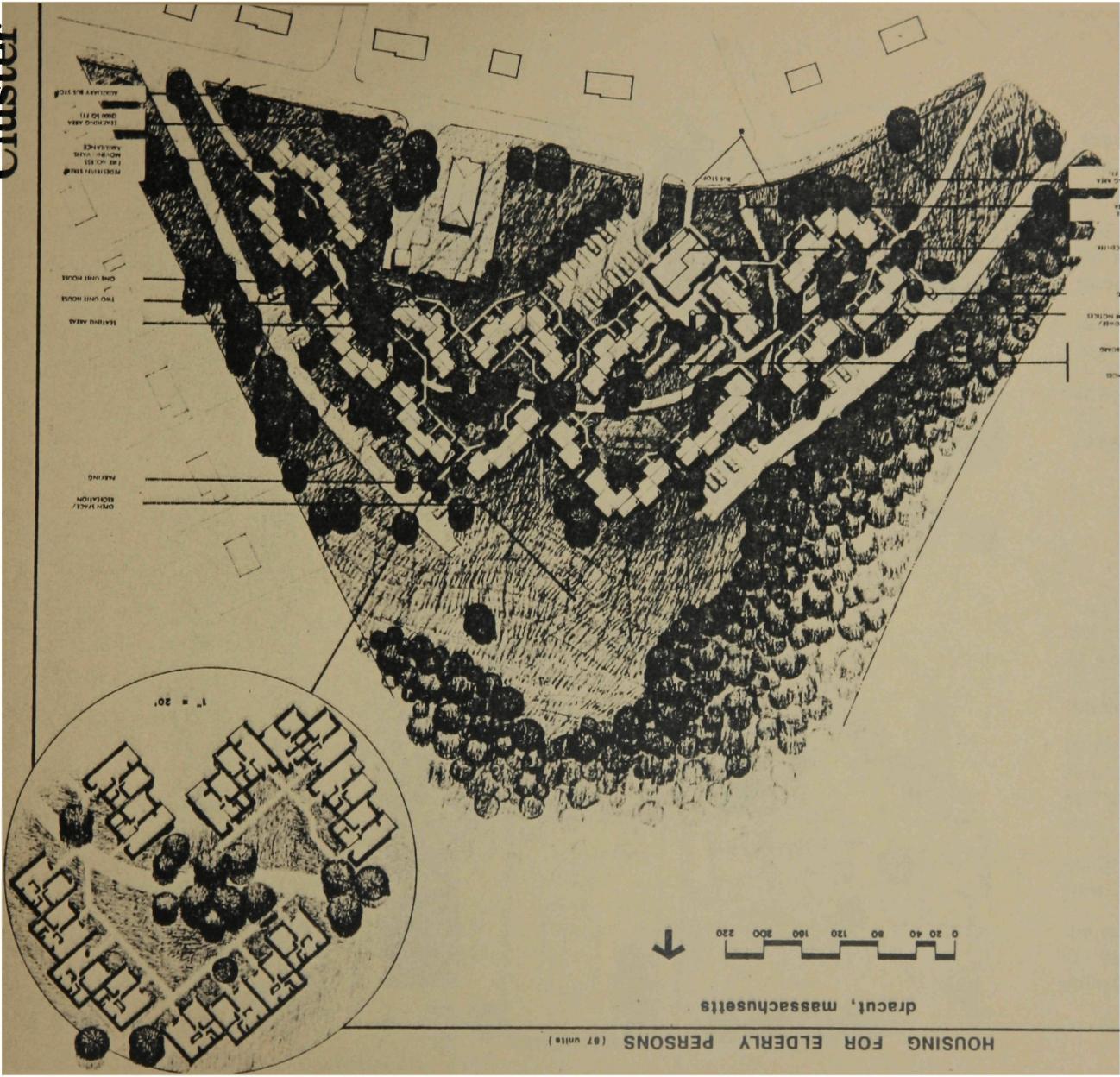
SECTION C-C

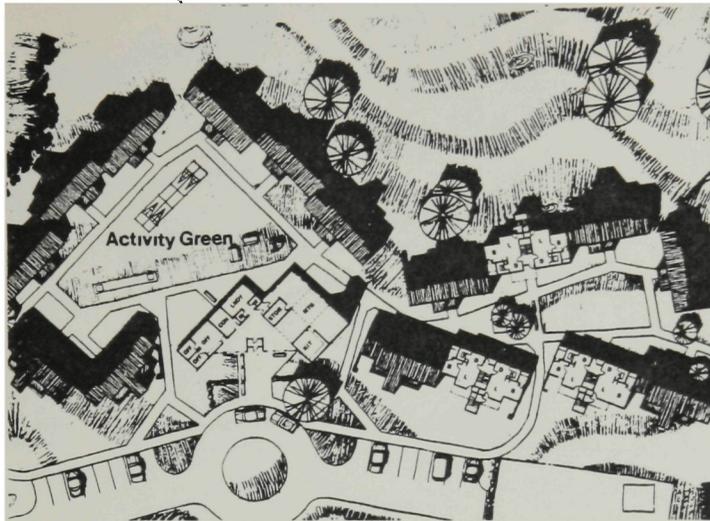




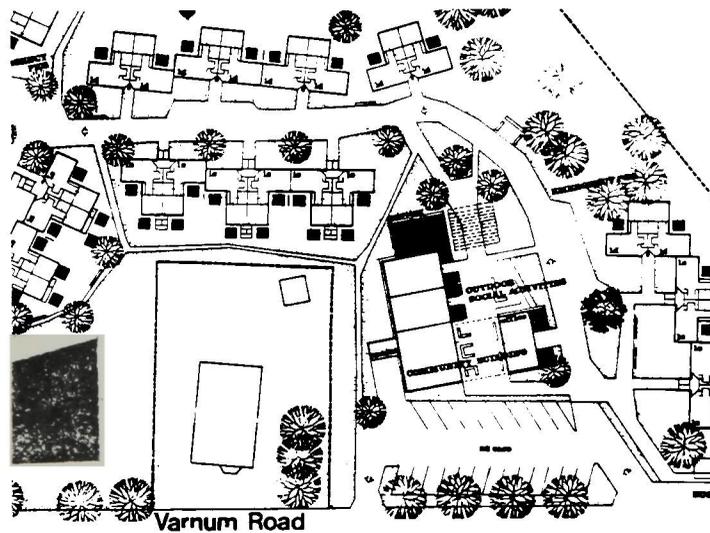
- Notes:
- All slopes will be 6% or less
 - Maximum Retention of natural
 - No side steps, curbs - barrier free
 - Number of Units
 - 60 Single Occupancy 715 NSF
 - 14 Double Occupancy 925 NSF
 - 6 Handicapped D of 600 NSF
 - All units comply with maximum access and egress
 - * Community Center house 15 units

Cluster

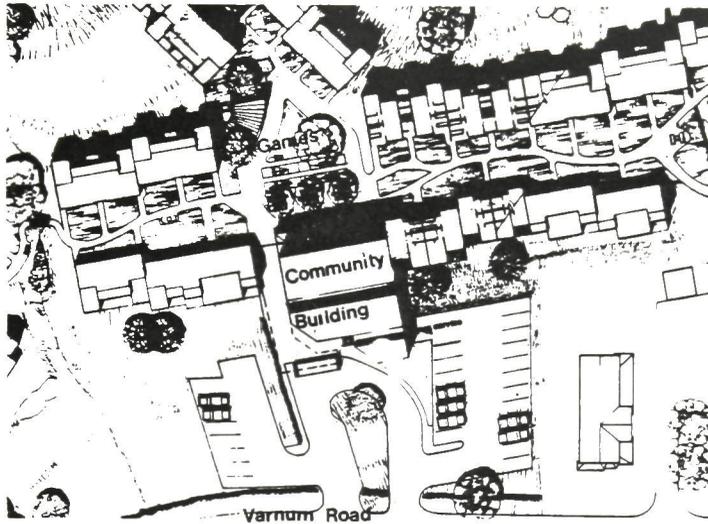




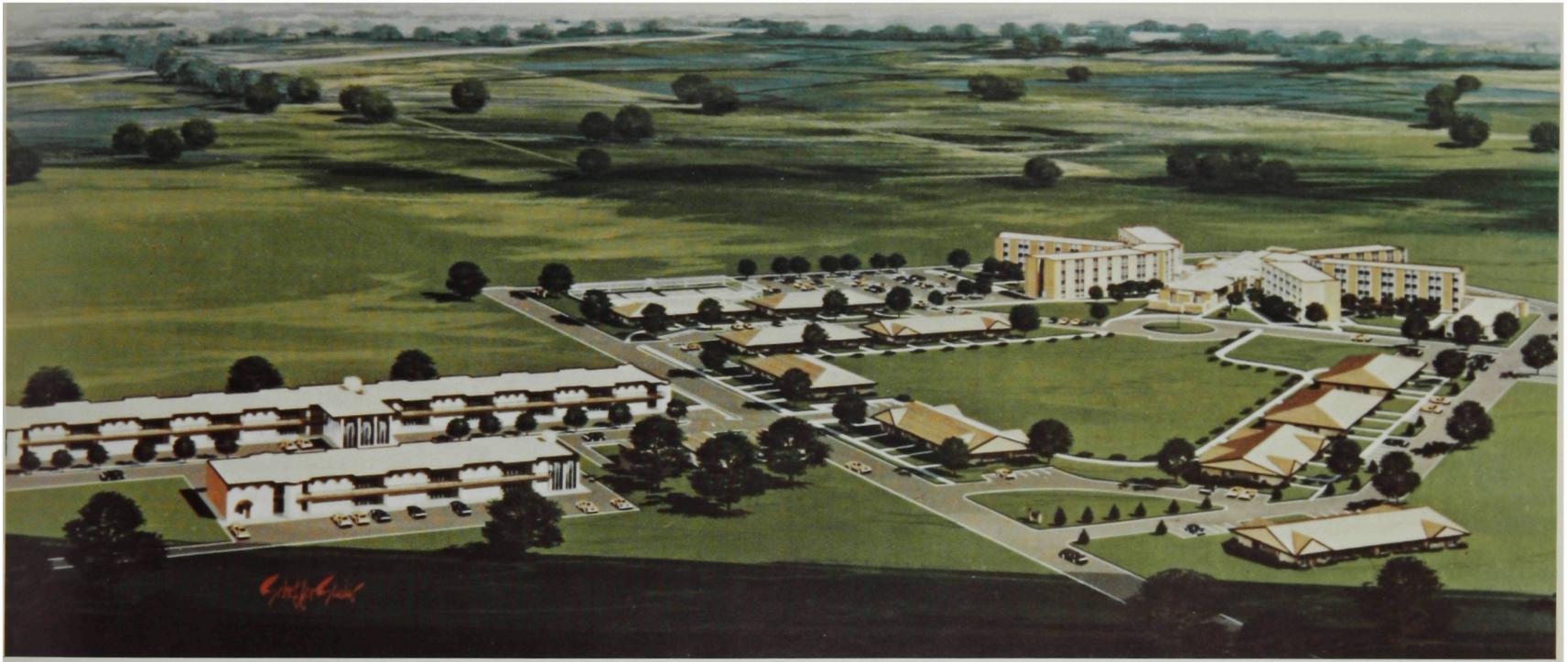
- + the community center just above the traffic circle is within view of many units
- + the center is located along heavily used resident pathways from parking areas to units
- + the community center is located near the outdoor activity "green"
- entry from the residents' side of the community center is poorly defined



- + the community building is located at both pedestrian and vehicular entrance to the site thus catching much of the traffic flow
- + there is a close relationship between the community building and the outdoor social activities area
- many of the units do not have a view of the community building
- the walk from some of the units to the community building is quite long



- + community spaces are grouped in one building at main entrance to site
- + all pathways lead to the centralized community building
- + crossing of vehicular pathways on way to community spaces is not necessary
- + outdoor game area is along the main pathway adjacent to the community spaces
- many units do not have a view of community center

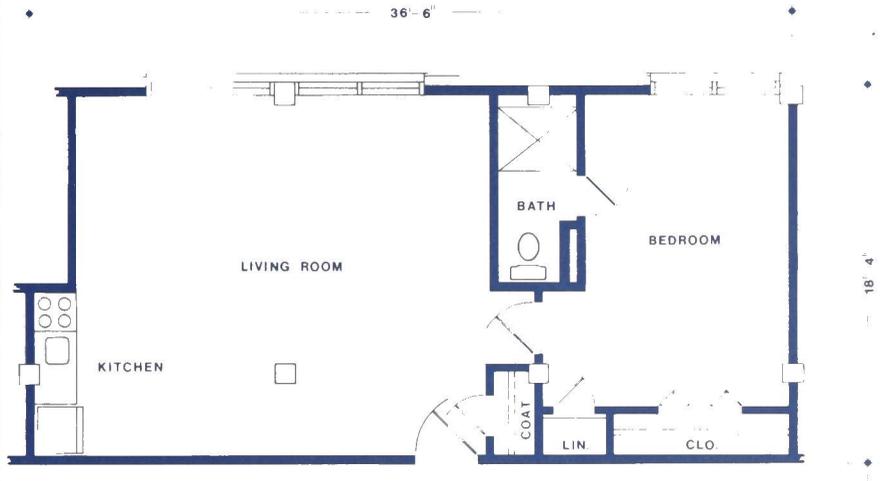


John Knox Village[®] of West Texas

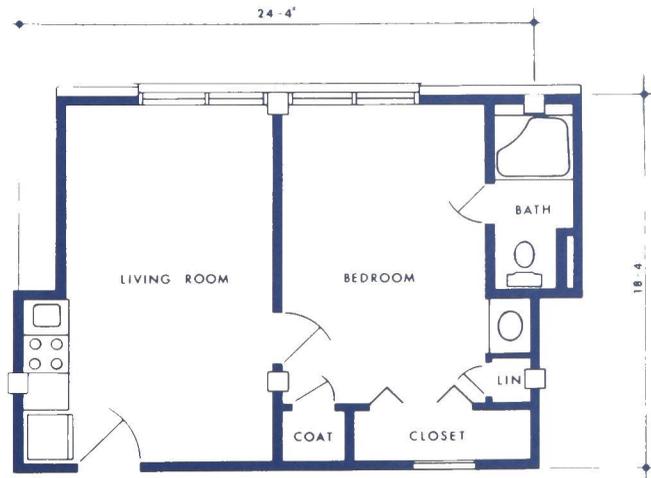
and *Verville Square*

1725 Norfolk Avenue
Lubbock, Texas 79416
(806) 793-3477

One Bedroom Apartments

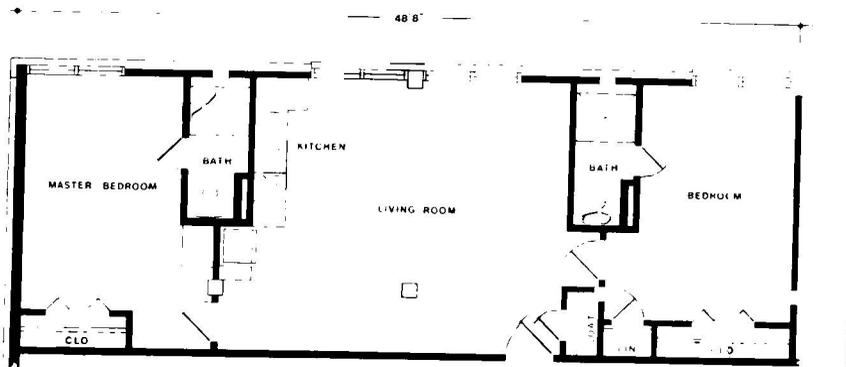
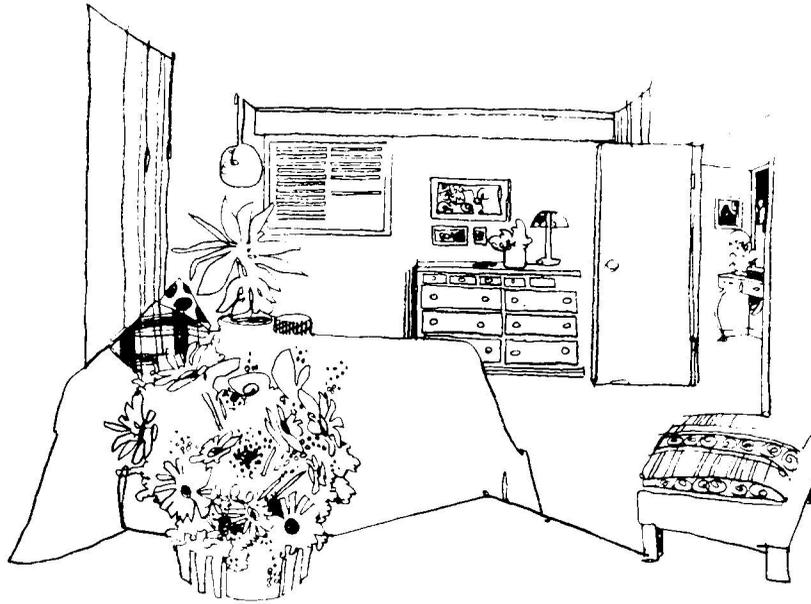


Executive One Bedroom Apartment

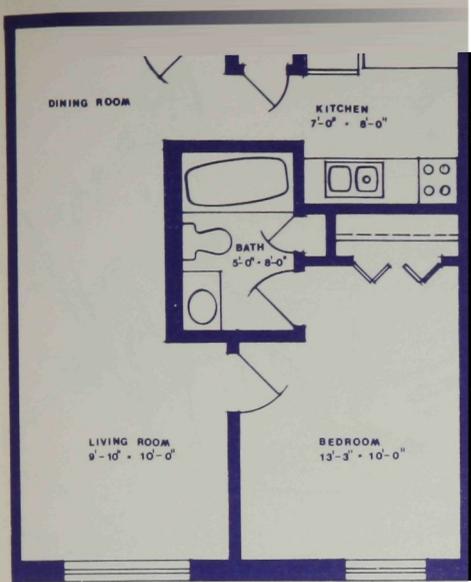


Regency One Bedroom Apartment

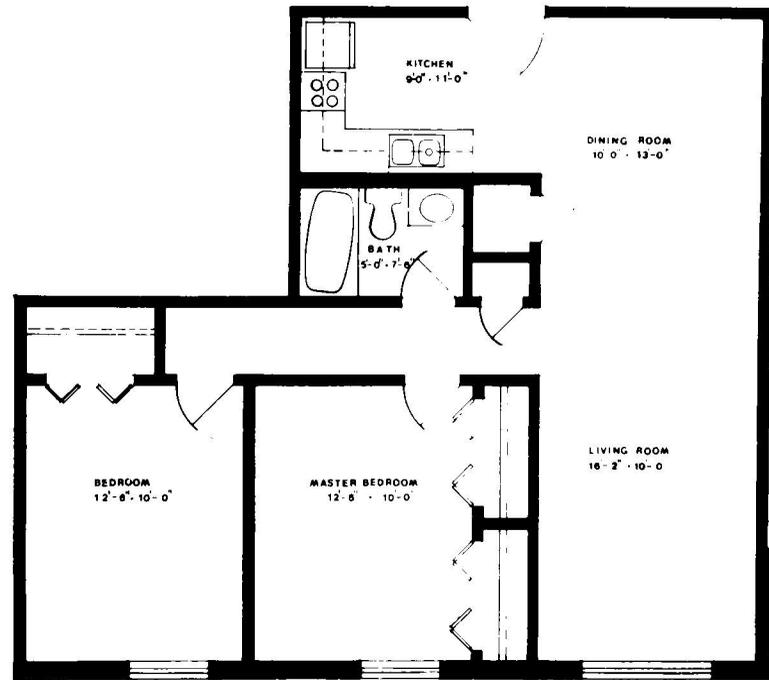
Two Bedroom Apartment



International Two Bedroom Apartment

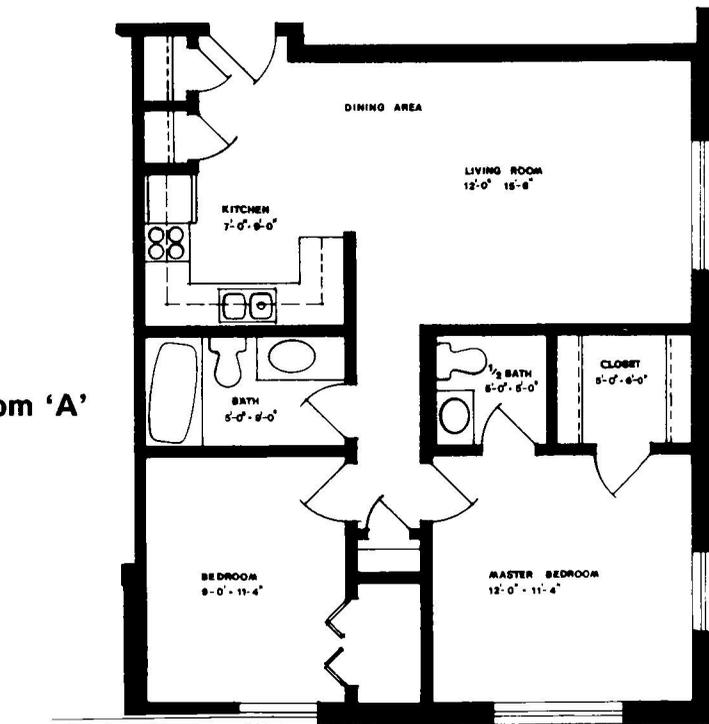


1 Bedroom



2 Bedroom 'B'

2 Bedroom 'A'



John Knox Village of West Texas



1717 Norfolk Avenue • Lubbock Texas 79415 • (806) 797 4305

SERVICE FEE RATE SCHEDULE

<u>UNIT</u>	<u>ENDOWMENT</u>	<u>FIRST PERSON</u>	<u>SECOND PERSON</u>
<u>VILLAGE:</u>			
STUDIO	\$15,950	\$227.00	\$100.00
ONE-BEDROOM	\$25,950	\$290.00	\$100.00
ONE-BEDROOM-C	\$36,950	\$353.00	\$112.00
TWO-BEDROOM-2BATH	\$44,950	\$441.00	\$112.00
<u>VILLAGER:</u>			
ONE-BEDROOM	\$28,950	\$328.00	\$112.00
TWO-BEDROOM-B	\$39,950	\$391.00	\$112.00
TWO-BEDROOM-C	\$41,950	\$391.00	\$112.00
<u>COTTAGES:</u>			
CORONADO (ONE-BEDROOM)	\$33,950	\$340.00	\$112.00
MONTERREY (TWO-BEDROOM)	\$43,950	\$403.00	\$112.00
MONTERREY (TWO-BEDROOM, 2-BATH)	\$45,950	\$403.00	\$112.00
<u>SEVILLE SQUARE:</u>			
MADRID (ONE-BEDROOM)	\$32,950	\$340.00	\$112.00
BARCELONA (TWO-BEDROOM)	\$49,950	\$428.00	\$112.00

MEAL PLANS

1 MEAL PER DAY-----	\$76.00 PER PERSON
2 MEAL PER DAY-----	\$112.00 PER PERSON
3 MEAL PER DAY-----	\$138.00 PER PERSON

SPECIAL
SOMEDAYS



at
LEISURE WORLD
SEAL BEACH

SPECIAL SOMEDAYS: Live them now at Leisure World.

These can be the best years of your life. You've worked hard to earn them. Now you have the experience and the time to enjoy things. Leisure World offers you the opportunity to relax and live the life you've always promised yourself, to make the special somedays you've dreamed about come true.

Leisure World is special. You aren't isolated in an "old folks" community. There's life and activity here, from golf to bike trails to community dances. You'll find yourself in the thick of things, meeting new friends, trying new experiences.

When you want to be alone, there's privacy and peace of mind here, too. The relief of having your own place without the trouble of upkeep and maintenance. The security of living in a community where it's safe to walk the streets, anytime.

Leisure World also gives you a strong voice in your own future. Your opinion counts here. You help elect the board that determines community policies, so you keep control over your life — and your investment.

Come take a look at Seal Beach Leisure World. Talk with our sales people, they're all Leisure World residents themselves. They'll show you those special somedays aren't as far off as you might think.







With

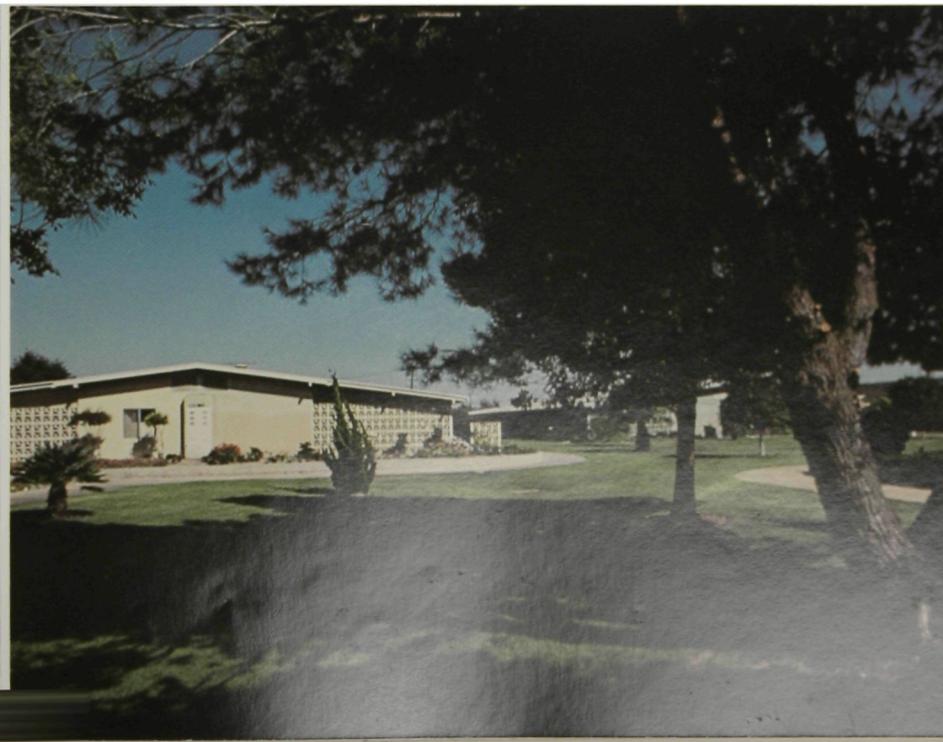
can have
Southern
And a
World
ping
no-
It's
is only
the
Long
The
full
Sc

Seal Beach Leisure World is ideally located to take full advantage of all that Southern California has to offer. The beach is only a mile and a half away, 3 miles to the Long Beach Marina. The San Diego Freeway runs along the northern edge of Leisure World, making it an easy 28 mile drive to Los Angeles International Airport. Disneyland is only 11 miles and Knott's Berry Farm is even closer.

It's easy to get around. Within Leisure World, there's no-fare minibus service, and some of the nearby shopping centers offer free bus transportation to Leisure World residents.

And of course there's the beautiful weather only Southern California can offer—plenty of sun, cool ocean breezes—making every day a special someday.

With the best of Southern California minutes away.



SPECIAL SOMEDAYS: Vacation living year-round.

Leisure World offers so many recreational oppor-

tunities it's like living in a vacation resort year-round.

There are facilities for most of your favorite outdoor

activities and indoor hobbies. There's always plenty to

do. Start your day at the swimming pool or golf course,

spend the afternoon in the woodworking shop or art studio.

In the evening, you can bike to the beach, dance beneath

the stars, or just relax in the special climate of Seal Beach.

Here are some of the recreational and community

facilities Leisure World offers:

9-hole, 3-par golf course with putting green

Swimming pool

Therapy pool

1 lapidary shop

2 woodworking shops

2 art and ceramic studios

2 sewing rooms

4 pool and billiard rooms

2 horseshoe courts

2 roque courts

16 shuffleboard courts

5 lawn bowling lanes

Amphitheater, 2500 seating capacity with

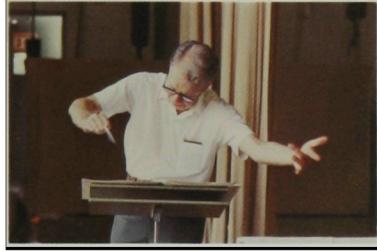
complete stage

4 clubhouses complete with 12 kitchens and

17 meeting rooms



After all these years it's so nice
to participate in community activities
again. Leisure World's like a
big family, very relaxed and friendly.



*I spent most of my life working.
I always have wanted to do
something artistic, and now I have lots
of free time to enjoy my music.*

SPECIAL SOMEDAYS: A feeling of community.

Living at Leisure World is like living in a small town. There's a real, old-fashioned feeling of community. Neighbors stop to chat on the street. There are chess and bridge clubs, a Little Theater group, arts and crafts festivals, choral groups, and dance clubs. Whatever your interests, you'll find friends to share them with.

Hobby classes are available in painting, ceramics, woodworking, lapidary, and jewelry making. There are community meetings, lectures, and club parties, all kinds of activities to make every day, and night, special.

SPECIAL SOMEDAYS: Everything you need in one place...

Leisure World is more than just homes and recreational facilities. There are churches, synagogues, a branch of the Orange County Library, Shopping, everything you need in one special place. Leisure World's minibus will take you where you're going and bring you back.

The weekly newspaper, The Golden Rain News, will keep you informed of community happenings: club meetings, church events, social gatherings, tours, and seasonal activities. The News carries regular reports on Board of Directors meetings as well as a weekly schedule of future events.

There are also plenty of opportunities within the community for those who want to continue working at a job, but who prefer the convenience and satisfaction of those services they can offer to their fellow residents.

...INCLUDING SHOPPING.

Leisure World has an adjoining shopping center with supermarket, beauty shop, restaurants, department store, banks, travel service, specialty shops, and professional offices.



Working at Leisure World is as much fun as living here. You meet a lot more people, and get a chance to be involved "behind the scenes" of community affairs.

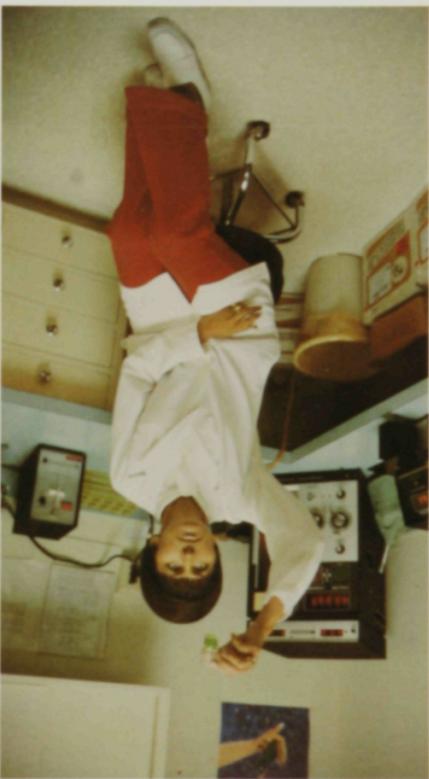


SPECIAL SOMEDAYS: Keeping you healthy...

Leisure World maintains a high level of medical care for residents. Physicians staff the Leisure World Medical Clinic during regular hours and Registered Nurses provide physician extender services 24 hours a day, 7 days a week.

The Clinic is a thoroughly up-to-date member of the American Association of Medical Clinics with complete x-ray and electro cardiograph facilities, physical therapy rooms and pharmacy. The Clinic maintains close ties with nearby hospitals and convalescent homes, and provides complete out-patient services.

Detailed medical records are kept on all Leisure World residents. 24-hour ambulance service is as close as a phone. You may never need any of this medical expertise, but it's good to know it's there if you do.



... AND SAFE

Streets are safe at Leisure World. There is always a guard on duty at each of the community's gates. They make sure they know the destination of everyone who enters. They're careful, but they're courteous. After all, they're all Leisure World residents themselves.

SPECIAL SOMEDAYS: How to make them happen.

Seal Beach Leisure World is run by a membership non-profit corporation: the Golden Rain Foundation.

The 6482 apartments are owned by 15 mutual corporations which provide housing to stock owners on a cooperative basis.

Residents from each of the Mutual areas elect the governing boards that determine community policies.

The policies are administered by a professional management organization: J. L. Moyer Company of Sepulveda, California.

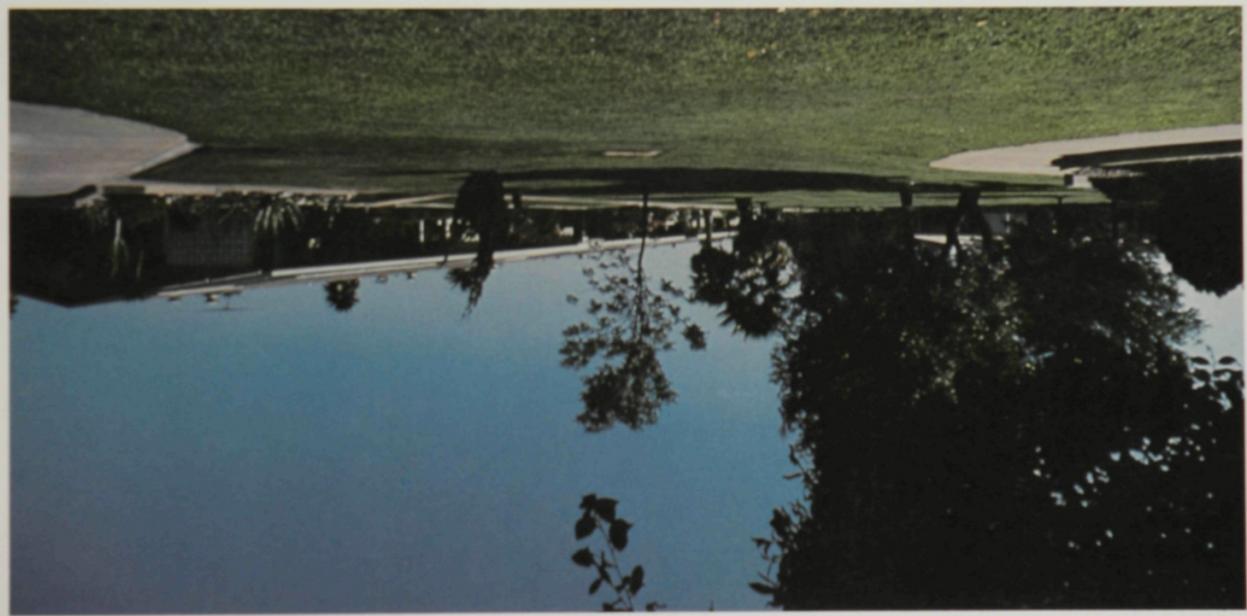
To live at Leisure World, you first must join the Golden Rain Foundation. Once you are a member, you are eligible to buy a share of stock in one of the Mutual corporations. Stock ownership gives you the right to occupy a home at Leisure World.

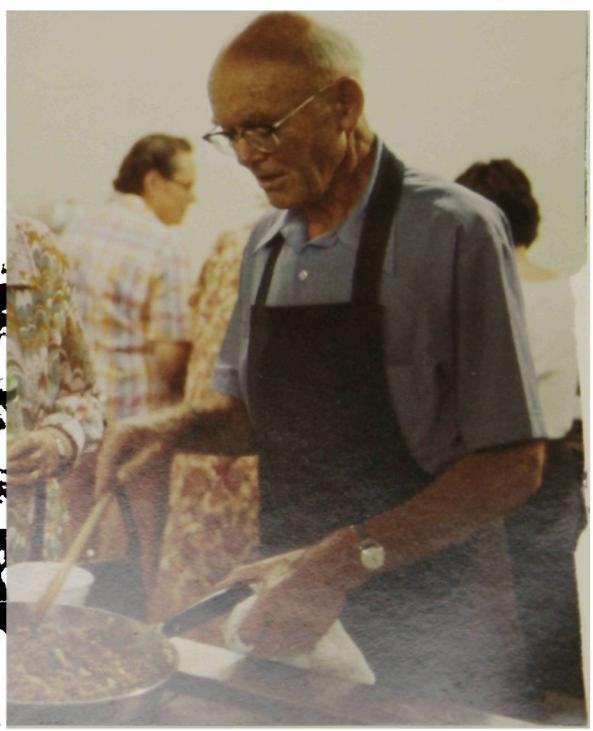
Monthly charges include reduction of the cooperative principal, interest, taxes, insurance, maintenance, gardening, recreation, and management service. Tax savings over individual home ownership are substantial. You might even find that a home in Leisure World saves you money.

Seal Beach Leisure World has been sold out for quite a while. However, apartments do become available from time to time. Price is determined by the value of the improvements and additions made by the seller.

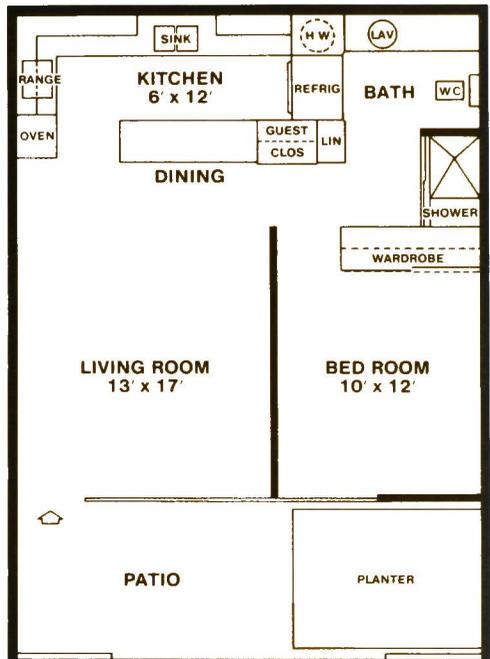
Come look. You may just find that this is the special place where your special somedays can happen.

Golden Rain Sales Office
J.L. Moyer Co., Broker
1901 Golden Rain Road
Seal Beach, California 90740
(213) 598-1388

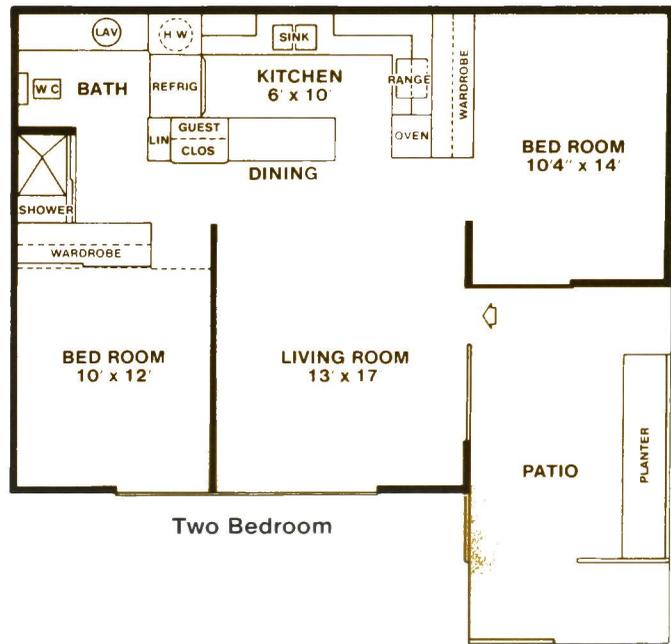








One Bedroom



Two Bedroom



**Step Into
The World of
Life-Care Retirement**

**John Knox Village[®]
of West Texas**

and its new addition

Seville Square

arts,
John
do,
or
lge,
an a
for a
the

e-Care Outlook • Setting

lawn
vs to
you
rash
iard-
your

The Villager • Seville Square

Activities • Services

appendix :

Housing Sites Narrowed Here

Feb. 24/80

By MARY ALICE ROBBINS
Avalanche-Journal Staff

PUBLIC HOUSING in Lubbock soon may move into a new era, with 132 units designed for low income families planned for the city's south or west sides.

At their meeting Thursday, members of the City Council reviewed and ranked 16 proposed sites for the housing project. But final selection of a site rests with the

U.S. Department of Housing and Urban Development.

In the past, public housing projects here have been located in North and East Lubbock. Currently, there are approximately 700 public housing units in three separate projects administered by the Lubbock Housing Authority.

Lubbock's Housing Assistance Plan identified the need for more low income housing, and the housing authority applied to HUD for an additional project.

Two Areas Left

However, new HUD regulations prohibit construction of additional public housing in areas where similar projects exist. So, the only areas that can be considered for the proposed project would be in South or West Lubbock.

According to City Planning Director Jim Bertram, HUD wants to disperse public housing projects, rather than concentrate them in one area that ultimately may turn into a ghetto.

Because HUD foots the bill for constructing the housing projects, it dictates where and when they can be built. Those cities that turn down housing projects run the risk of forfeiting their allocations of federal funds through the Community Development Program.

"It's all linked to the Community Development funds," Bertram said.

He explained that one of the conditions for a city to receive CD funding is that a housing assistance plan must be developed. This plan must identify a city's low income housing needs and present proposals on how the needs can be met.

Allocation Loss Possible

Lubbock currently receives about \$3.4 million annually through the CD program, Bertram said. If the city refused the proposed housing project, it would stand to lose its allocation.

The sites reviewed by the council Thursday were proposed by individual developers seeking to get the HUD contract. Council members recommended that four of the sites be removed from consideration because they are in areas not zoned for apartment complexes.

Those sites recommended for consideration are listed below in the order of their ranking by the city.

- 51st Street and Avenue N
- ✓ - 24th Street and Frankford Avenue.
- 56th Street and Chicago Avenue
- ✳ - 51st Street and Chicago Avenue
- Loop 289 and Frankford Avenue.
- 16th Street and Frankford Avenue.
- Loop 289 and Iola Avenue.
- 70th Street and Avenue P.
- 4th Street and Elkhart Avenue.
- 34th Street and LaSalle Avenue.

Scattered Projects Favored

Bertram noted that the majority of the proposed sites are not large enough to hold the full 132 units. However, HUD has favored the idea of scattering projects in an area, he said.

Vicki Foster, Community Development coordinator for the city, explained that the proposed project would be different in design from other public housing projects here. Plans call for the complex to be developed as clusters of two-family apartments, she said.

Families or individuals applying for the low rent housing must meet income guidelines established by HUD, Miss Foster explained. Under those guidelines, a family of four could not earn more than \$9,150 annually and a family of eight or more could have an annual income of no more than \$11,450.

The next step for the proposed housing project is up to HUD, which must make the final selection of the project site. Miss Foster said the selection could

City Looks At Housing Prospects

(Continued From Page One)

be made as early as the end of March.

According to Miss Foster, no public hearings are provided for in HUD's selection process. But she said that citizens wishing to make comments on proposed sites could contact Grover Colter, chief of housing programs for HUD's regional office in Dallas. Comments can be sent to Colter at 2001 Bryan Tower, Dallas, 75202.

In other action Thursday, the council agreed to install a street light and a "double-arrow" warning sign at 82nd Street and Brentwood Avenue.

Ron Modawell of 8016 Brentwood Ave. had asked the city to install a traffic collision barricade at the intersection of 82nd Street and Chicago Avenue to prevent cars from crashing into his home. On Dec. 8, 1979, a motorist apparently lost control of his vehicle and rammed into the Modawell house.

Council members decided against installing the requested barrier, noting that the city could be held liable in the case of a fatal accident.

Also Thursday, the council heard a status report on a proposed solid waste recovery project.

Feasibility Study Necessary

Before any plans can be made to initiate such a project, a feasibility study must be conducted. However, City Manager Larry Cunningham said his staff still is reviewing proposals from six consulting firms seeking to do the study.

Cunningham said that a recommendation on the firm to conduct the feasibility study should be ready in time for the next council meeting.

If the proposed waste recovery project is determined to be economically feasible here, the city may construct a plant to burn refuse to provide a supplemental fuel source to generate electricity.

See CITY LOOKS Page 14

Taken from Lubbock
Avalanche Journal
Feb 24, 1980

EDITOR'S NOTE: Last in a series on nutrition.

The number of elderly people in this country grows each year.

Because of the increase in life expectancy over the last half century, there are more and more people past retirement age. Perhaps surprisingly, only a few of these elderly are cared for in institutional settings. Fewer than 10 percent of Americans over 65 live in nursing homes.

This leaves the vast majority of elderly living in their own homes and apartments.

The problems faced by older citizens are finally being recognized by society. One of the problems faced by the elderly, according to Analynn Skipper, registered dietitian, is the difficulty of maintaining good nutrition. Studies indicate that many older citizens are inadequately nourished. There are many reasons for this, she says.

"Many retired persons live on fixed or reduced incomes," Skipper points out.

With limited financial resources and spiraling food costs, buying adequate food is sometimes a problem. Fresh foods, particularly meats, fruits and vegetables are often too expensive for the person on a reduced income."

Transportation is sometimes a problem, Skipper says. "Just getting to the store to buy groceries may be a major task for an older person. Those who cannot drive, or who are unable to walk or stand for long periods, must depend on others for their food supply."

Once at the store, the elderly person is faced with a whole new set of problems, the dietitian says. "Labels are difficult to read and are often confusing to the person with reduced vision. Bending to get food items from the bottom shelf may be uncomfortable. Many elderly persons report common-sized food containers are too large for one person. A quick check of grocery stores reveals the number of foods available in single serving containers is very limited. Small containers of food are often more expensive per serving than 'family packs' or 'giant economy size' containers.

"Food preparation may also be difficult for the elderly person. A widower, especially, is at nutritional risk if he does not know how to cook. Many men stop eating adequately after the death of

their wives, because foods they cook are not as tasty. Loneliness and depression often compound this problem. It is not as interesting to eat alone as it is to share a meal with someone else.

"Often elderly people tend to lose their desire for food. Food intake is a habit, and the elderly person may get into the habit of eating inadequately. This is especially true if food preparation is difficult, or if mealtime is unpleasant. Reduced appetite may also be related to lack of exercise.

"Difficulty with chewing may also interfere with adequate nutrition. Absence of teeth or poorly fitting dentures prevent many older persons from eating meats, fresh fruits and vegetables. These foods contain important nutrients not found in other foods.

"Susceptibility to food fads is another nutritional problem of the elderly. The elderly person who does not feel well is a prime target for food faddists. These hucksters convince the older person that their products will restore good health. The older person then spends his limited income for expensive and often useless products.

"Many elderly persons are on special diets for chronic illnesses. Special diets are prescribed for diabetics, high blood pressure, or heart disease. Diet is an im-

portant treatment of many chronic conditions. However, care must be taken to assure the special diet is nutritionally adequate. Elderly persons sometimes restrict their diets unnecessarily on the advice of friends, food faddists or advertisements."

While older people have many nutritional problems, there are several helpful programs available, Skipper points out. One program provides one hot meal each day to persons who cannot leave their homes. Meals are served to groups of elderly persons at various centers around town. Reduced price meals are sometimes offered to elderly persons at restaurants. Food stamps may be available to qualified older people.

Skipper suggests several things may be done to improve the nutrition of older persons. Nutritious, easily prepared foods should be made available to the elderly. Cheese, peanut butter, eggs and canned meat or lunch meat provide protein and do not require extensive preparation. Canned fruits and vegetables also provide vitamins and are easy to serve and eat. Cereal, bread and crackers also

With Shopping, Prepa

provide vitamins and minerals without extensive preparation. Milk is available in small containers. Powdered milk may be added to puddings and soups to add extra nutrients.

Food for elderly people should be flavorful and well prepared, the dietitian says. Food texture may be modified according to chewing ability. Pureed or strained foods may be seasoned with margarine, salt, and pepper to improve their taste. Regular food may be ground or chopped to make it easy to chew. Soups and casseroles are nutritious and easy to eat.

Others can help too, Skipper says. Elderly people should be encouraged to eat with others. Community meals or "dinner groups" are good ways to accomplish this. Friends and neighbors can help by taking to an elderly person a gift of food he is unable to prepare for himself; inviting him over for a meal, and sending him home with the "leftovers."

Exercise can also increase appetite.

Persons in almost any physical condition are able to do some type of activity. This may be as little as an evening walk, which may increase the older person's appetite, expand his interests, and help him to sleep better.

Older persons should eat a wide variety of foods, Skipper says. "Special diets should be followed only on the advice of a physician. A dietitian can help work out a daily plan for the special diet, but will only do so after consulting with the physician."

"Finally, elderly persons should know there are no special foods to make them feel better or younger. Good or poor health develops over many years. Special

*Taken from Lubbock
Avalanche Journal
March 27, 1980*

Sociologist Discusses Aging At

By RUTHANNE BROCKWAY
Avalanche-Journal Staff

"What do you do?"

It's one of the first questions strangers ask each other when getting acquainted, and a sociologist speaking Wednesday at Texas Tech called "occupational identity" a dangerous practice because it creates an identity problem when people retire.

"We must get beyond an occupational sense of self," said Dr. David Oliver, keynote speaker at the opening of Tech's three-day, second annual gerontology conference.

Oliver has three degrees, including a Ph.D., and training in gerontology, but he said he got his best knowledge on aging from his grandmother.

Early in his career, he asked his grandmother to name three good things about getting old. With pen in hand, Oliver awaited her words of wisdom.

"David, that's easy to answer," she said. "There are none."

Too often, senior citizens without transportation, help with meal preparation or other aid agree with that assess-

Tech Gerontology Conference

ment, he said.

But the biggest danger to senior citizens, Oliver said, is their uninformed adult children, a group that he said breeds the myths of old age. He defined them as people in middle-age who begin to treat their elderly parents as if they were children incapable of making their own decisions.

In fact, he said, that's why grandparents and grandchildren so often get along very well. "They have a common enemy," he noted in an anecdote.

He told of an 80-year-old man who lived in a house that appeared ramshackle from the outside, with its paint peeling. The interior had its problems too, for the old man couldn't reach high enough to repair the ceiling. But the floor space, where he could reach, was neat and clean.

"Concerned" adults wanted the aging man to move.

But the old man explained, "I love my home. I know my neighborhood. I don't want to leave."

Oliver said that as long as the old man is able to function on his own, he should be allowed to remain in his home. But he warned, if the old man is forced to move against his will, it would be the "start of his psychological death."

Oliver quoted grim statistics, noting that 25 percent of all U.S. suicides are old people and that for those over age 85, the suicide rate is 50 percent higher than the rest of the population.

He noted four levels of aging: biological, psychological, social and spiritual. Oliver said many senior citizens can expect to have one or more chronic ailments, but that functional health should be the concern, not perfect medical condition.

"The question is, 'Can you get to the grocery store? Can you get to church?'" he noted.

It's the social and psychological aspects of aging that are tougher to deal with, he said.

"It's tough to live without confidants," he said, explaining that the longer a person lives, the more close friends he or she loses to death because they move away, go to an institution or die.

Making new friends is good advice, he

agreed, but added that it isn't always easy to accomplish.

You have to look past the wrinkles to see the beauty of old age, Oliver said. He said his own older relatives "taught me how to live rather than how to make a living."

And for those who insist on identifying people by occupation only, he reminded the audience that few older people reminisce about their former jobs and promotions. Instead, they most often talk about personal relationships, fondly remembering family reunions, old friends and good times.

Taken from
Lubbock Avalanche Journal
April 10, 1980.

Perceptions of elderly invalid

By DOUG NURSE
UD Reporter

Several common perceptions about the behavior of older people are based on misconceptions and are invalid, according to Lynn Self of Sandoz, Inc., a pharmaceutical company specializing in drugs for the aged.

Self spoke Wednesday to an estimated 50 representatives from various nursing homes from Texas and New Mexico as part of the center for studies on aging division of Continuing Education at Tech. The conference will continue today in the University Center.

He attacked several common perceptions about older persons, calling the perceptions "fables" and

challenging the perceptions one-by-one.

Among the common beliefs Self challenged was the assumption that since the old person is old, and getting older is an irreversible, downhill process, the person's mental condition can only get worse.

"Many tendencies of deterioration in the old patient have nothing to do with physiological aging," Self said. "Much can be done to reverse mental deterioration."

Depression is a major cause of mental deterioration, he said. Depression can be caused by loneliness and trauma, Self said.

Self questioned the belief that old people should be put in quiet rooms and left alone so

they may enjoy their privacy.

Being alone for long periods of time makes the older person's mental state worse, because the lack of environmental and social stimulation contributes to disorientation and delirium of the elderly, he said.

A common treatment for depression or anti-social behavior in nursing homes is the use of drugs, Self said. Many times nursing home patients are given drugs unnecessarily, he said.

"A lot of times the nursing staff will oversedate a patient," Self said. "Then they don't know how to rectify the problem. Sedation is reversible; you just take off the drug. The side effects of sedation are the problem."

The most common form of drug abuse in nursing homes is frequent administration of pain killers, he said.

"Pain killers are given freely," Self said. "There need to be tighter controls."

Another problem in nursing homes is the application of out-dated methods of treatment, he said.

"That's why we have seminars and conferences," Self said, "to educate doctors and nurses about modern techniques in treating old patients."

responsible.

Elements in the recovery program aimed at older persons with alcohol problems involve detoxification, diet and exercise, he said. Re-establishing a rational approach to the problems and situations which face these persons is also an important part of the recovery process.

Taken from Texas Tech
University Daily, April 11, 1980.

Experts Discuss Housing For Elderly

By MARIE HOMEYER
Family News Staff

Housing is a problem for many people in the United States today. For one sector of society — the elderly — the problem is compounded.

At a recent mini-conference on housing for the elderly, the subject was discussed and recommendations for improvement were offered.

"Housing for the elderly is becoming a larger problem every day," A.N. Sengupta, professor of architecture and planning at Texas Tech University, and area representative to the conference, said.

"There are 5,000 people entering that age group every day," he said. "When the post-World War II generation reaches that age, every one out of every four citizens will be classified as a senior citizen."

"The purpose of the conference was to prepare for that time — because when it hits, it will hit suddenly."

Sengupta learned of the conference through his association with the Gerontology Institute on the Tech campus. He expressed a desire to attend and was selected.

The conference was divided into four major categories — development and finance, home ownership, existing housing and displacement, and physical and social environment. Sengupta was involved with the last category.

"Physical aspects of housing for the elderly is my area of expertise," Sengupta said. "But planning and designing of buildings involves bringing in the human needs. In that sense, I also am knowledgeable in the social needs."

"The conference was a series of workshops, and I served as a panelist," he said. "After discussing the issues, we made recommendations for policies to improve housing for the elderly."

"The purpose of the recommendations

was to draw the attention of the Legislature to the problem," he said. The desired result is financing for projects to carry out the recommendations.

Four recommendations were offered by Sengupta, a native of India, and his associates. They were:

1. Expand housing choices to maintain continuity in elderly living. "One solution," Sengupta said, "is for the elderly to continue to live in their own homes and to provide them with as many services as possible that are geared to the needs of the elderly. But it is more expensive that way. Nursing homes and centers for senior citizens, such as John Knox Village here in Lubbock, are more economical."

2. Improve service delivery to all types of housing — high income, middle income and low income neighborhoods.

3. Improve the elderly's knowledge of services for them and housing types available to them. "So many times, the poor do not realize there are alternatives to what they are experiencing. They do not know that they can get free help," Sengupta said.

4. Expand the opportunities to allow the elderly to participate in the planning and management of housing. "The elder-

ly, for the most part, are not senile as many people think," he said. "They represent a valuable resource for themselves and for the society in general."

"I think it is wrong when the solutions to the problems of housing are talked of only in terms of the elderly," he said. "The problems and solutions should be considered on a broader basis."

"Other countries, such as the Scandinavian countries, are working with the entire society in terms of housing, and on top of that they are solving the problems of housing for the elderly."

"In isolating the problems of the elderly, the problems of the remainder of the society are being ignored," he said. "By helping all aspects of society, the elderly will be helped also."

The recommendations offered at the mini-conference will be offered to the National White House Conference on the Aging.

The conferences such as the one Sen-

gupta attended are divided into two levels — regional-state and national mini-conference. Each division provides feedback to the other. About every ten years, all the feedback is assembled and presented at a national gathering. The next national conference on the aging, he said, will be in late 1981.

Taken from Lubbock
Avalanche Journal
October, 1980.

Using Need Faces Lubbock Elderly

That threw the city out of balance in proportion to the housing needs for other low-income groups, she explained.

The Department of Housing and Urban Development will not provide Lubbock any additional assistance to build housing projects for the elderly until the housing needs of the other groups are met, Mrs. Covey said.

Lubbock has three federally assisted housing projects offering subsidized rent or sliding scale rental contracts to persons over age 62. The rental costs are based on an individual's income. All three complexes are in south and southwest Lubbock and provide 272 apartment units for senior citizens or handicapped residents.

But despite the federal government's ruling that Lubbock has overbuilt in housing projects for the elderly, the number of units available fall far short of meeting the needs of local senior citizens. The existing complexes remain constantly full, and two maintain lengthy waiting lists.

"I stay full all the time and I have around 250 names on the waiting list," said Nell Clark, manager of the Silver Village.

Roberta Lockard, manager of the Homestead apartments, said she has an even longer waiting list, with more than 300 persons hoping for a vacancy. The complex receives almost daily inquiries from prospective tenants, she said.

Parkview Place, which opened in September, 1978, stopped accepting names on its waiting list, said manager Elsie Andress. "We never have a vacancy," she said, but added that she still receives between four and eight calls per day from senior citizens searching for an apartment.

Parkview has 72 apartments, with 70 of its tenants receiving a rent subsidy, Mrs. Andress said. She explained that a subsidized tenant's rent is based on 25 percent of his monthly income with bills paid.

The company which manages Parkview Place made plans in March, 1979 to build another housing project for the elderly in the Lubbock area, Mrs. Andress said. At that time, she said, a waiting list was started. More than 400 persons have signed the list.

The firm, William G. Young Managing Co. of Overland Park, Kan., was bidding on a project to be funded through HUD. Mrs. Andress said the project fell through after Congress failed to appropriate any money for it.

According to one apartment manager interviewed, many elderly residents move into these complexes with the expectation that they will live out their days there. Vacancies don't normally occur, the manager said, unless a tenant dies or must move into a nursing home.

Bayner Hightower, a resident at Parkview Place, said she waited about two years to get her apartment — and her

See LOW-COST Page 14

Low-Cost Housing Need Faces Lubbock Elderly

(Continued From Page One)

name had been placed on the waiting list before the housing project ever opened.

Mrs. Hightower spent about 1½ years living in a local retirement hotel. The hotel was nice, the elderly woman said, but she wanted an apartment where she could do her own cooking.

While Lubbock does have an adequate supply of apartments, senior citizens frequently cannot afford to live in them. "People with fixed incomes can't get out here and pay high rents," Mrs. Hightower said. "I know I can't."

In addition to the three housing projects for the elderly, Castle Gardens Apartments also reserves 30 units for individuals requiring rent supplement assistance. Most of those units are rented to the elderly, a spokesman noted. But that complex also remains full and has a lengthy waiting list.

D.C. Fair, director of the Lubbock Housing Authority, noted that some senior citizens live in the housing units maintained by his agency.

Elderly residents also have qualified for rent subsidy assistance under the Section 8 program administered through the Housing Authority, Fair said. Currently, he said, 13 residents at the Pioneer Retirement Hotel receive Section 8 rent subsidies.

To qualify for Section 8 assistance, the income limitation for a one-member household is \$10,350 a year. A couple's annual income must not exceed \$11,850.

Some senior citizens may be able to qualify for apartments in two new public housing projects planned here, Fair said. Plans call for construction of a 36-unit project at 51st Street and Avenue N and a 96-unit complex at 24th Street and Frankford Avenue.

Fair said that one-bedroom units could be rented to elderly applicants, or an older couple could qualify to rent a two-bedroom apartment.

But plans for the projects currently are in a holding pattern, Mrs. Covey said. A lawsuit filed by Frenship School District has blocked construction of the complex planned on Frankford Avenue, she explained.

Until that suit is settled, the projects apparently will remain in limbo.

Mrs. Covey did offer some hope for senior citizens who need low-cost housing, but noted that the elderly may have to wait a few years before their housing problems are solved.

The city is scheduled to begin work on a new Housing Assistance Plan sometime next fall, she said, and that plan probably will include some goals for the elderly.

Taken from Lubbock Avalanche
Journal, Dec. 12, 1980

bibliography

REFERENCES

ARCHITECTURAL PROGRAMMING:

- Alexander, Chris. The Timeless Way of Building.
New York: Oxford University Press, 1979.
- Friedmann, Arnold. Environmental Design Evaluation.
New York: Plenum Press, 1978.
- Hall, Edward, The Hidden Dimension.
New York: Doubleday, Inc., 1966.
- Lang, Burnette, Moleski, and Vachon. Designing
for Human Behavior: Stroudsber,
Pennsylvania: Dowden, Hutchinson, and
Ross, Inc., 1974.
- Preiser, Wolfgang. Facility Programming.
Stroudsber, Pennsylvania: Dowden,
Hutchinson, and Ross Inc., 1978.
- Sanoff, Henry. Methods of Architectural
Programming. Pennsylvania: Dowden,
Hutchinson, and Ross Inc., 1977.
- White, Edward T. Concept Sourcebook.
Architectural Media Ltd., 1975.

PSYCHOLOGY OF AGING PROCESS:

- Botwinik, Jack. Aging and Behavior: A
Comprehensive Integration of Research
Findings. New York: Springer Publication
Co., 1973.
- Burr, Helen. The Psychological Functioning of
Older People. New York: National Council
of the Aging, 1967.
- Sinick, Daniel. Counseling Older Persons:
Careers, Retirement, Dying. New York:
Human Resources Press, 1977.
- SOCIOLOGY:
- Elgin, Duane. Voluntary Simplicity:
Life Style of the Future. The Futurist
Magazine, Aug., 1977.
- Loether, Herman. Problems of Aging:
Sociological Perspectives. Belmont,
California: Dickenson Publishing Co., 1967.
- Sarason, Seymour. Work, Aging, and Social Change.
New York: Free Press, 1977.

RETIREMENT/ECONOMIC:

Barkin, Solomon. Periodical - Flexibility of Retirement Age. Organization for Economic Cooperation and Development: Paris, 1970.

DeCrow, Roger. Periodical - Older Americans: New Uses of Mature Ability. American Association of Community and Jr. Colleges, 1978.

Edmunds, Evelyn. Early Retirement: Expectations of Middle-Aged Workers and Reports of Early Retirees: Thesis at Texas Tech University, 1978.

U.S. Government. Periodical - Journal on Age, Work, and Retirement. Wash. D.C., National Council on the Aging, 1978.

HOUSING:

Christison, James. Emphasis on Living: A Manual on Retirement Housing: Valley Forge, Pa. Judson Press, 1970.

Davis, Richard. Housing for the Elderly. U.S.C. Ethel Percy Andrus Gerontology Center, 1973.

Faulkner, Ray. Inside Today's Home. New York: Holt, Rinehart and Winston, 1975.

Gelwicks, Louis. Planning Housing Environments for the Elderly. Wash. D.C., National Council on the Aging., 1974.

Green, Isaac. Housing for the Elderly: The Design and Development Process. New York: Von Nostrand Reinhold, 1975.

Karnes, Liz. Alternatives to Institutionalization for the Aged. An overview: Monticello, Illinois: Council of Planning Librarians, 1975.

Rowles, Graham. Prisoners of Space? Exploring the Geographical Experience of Older People: Boulder, Colorado: Westview Press, 1978.

Smith, Bert. The Pursuit of Dignity: New Living Alternatives for the Elderly. Boston: Beacon Press, 1977.

RECREATION:

Erter, Jeannette. A Determination of Recreational Activities of Greatest Interest to Members of Senior Centers in Texas. Thesis at N. Texas State University, 1975.

Machnick, Joseph. Recreation in Planned Retirement Villages. Univ. of Oregon: Microform Publications, 1975.

Russell, Ruth. The Meaning of Recreational Activities to the Elderly. Univ. of Oregon: Microform Publications. Thesis at Penn State Univ., 1973.

SITE ANALYSIS/PLANNING:

Davis, Sam. The Form of Housing. New York: Von Nostrand Reinhold Co., 1977.

De Chiara, Joseph, Site Planning Standards. New York: McGraw - Hill Book Co., 1978.

Lynch, Kevin. Site Planning. Cambridge, Mass: The M.I.T. Press, 1979.

Untermann, Richard. Site Planning For Cluster Housing. New York: Von Nostrand Reinhold Co., 1977.

REFERENCES TO LUBBOCK, TEXAS:

Lubbock For All Reasons, Lubbock Chamber of Commerce, 1974.

Economic Facts and Figures about Lubbock, Lubbock Chamber of Commerce, 1977.

Lubbock Comprehensive Plans Prepared by the City of Lubbock Planning Department:

Population and Economics, Report no. 1, 1977.

Community Facilities, Report no. 3, 1976.

Housing, Report no. 4, 1974.

Neighborhood Analysis and Community Renewal, Report no. 5, 1976.

Land Use, Report no. 7, 1974.

Planned Unit Development Analysis, 1975.

Urban Image Analysis, Report no. 7-11, 1975.

Lubbock Total Area Plan, Volume 3, 1976.

THESIS DOCUMENTATION

FOR

"A Retirement Housing Development"

Lubbock, Texas

Submitted by

Steven A. Mattson

Arch. 461

Spring 1981

Solution:

The primary intention of this project has been to provide shelter in the form of housing for low and medium income families of retirement age involving those approximately 60 to 75 years of age. This is a functional, economic, and productive community for a large volume of people approximately 600, with common interests, needs and preferences. Special emphasis has been given to conceptualize appropriate activities inducing participation by residents through communal sharing and use. A spatial pattern for these inter-relational activities involving social, personal, recreational, business, and cultural aspects has been accentuated. The creation of new and continuous responsibilities for residents in the form of gardens, workshops and arts and crafts studios will generate a feeling of independence or induce a positive response towards their interdependence. Resident participation in the planning and management of the development will improve the user groups knowledge of services focus on enrichment. A major concern has been to synthesize a pedestrian oriented neighborhood

with carefree access linkages from private to public spaces in conjunction with their relationship to the contextual site development.

These special needs of this particular user group and the immense area of the site with its 72 acres has initiated acute responses towards reaching a final design solution for this project. Conceptually, a riverwalk from drainage runoff in linear form through the site has been initiated to serve as a linkage element connecting one end of the site to the other and the entire development to the centrally located community center and ancillary services. Alternating adjacent avenues of parking and greenbelt pocket recreation areas penetrate into the site from its perimeter but maintaining the parking to the exterior allowing the greenbelt to flow throughout the core. Housing units totaling 420 are in the mass form of medium and high density cluster arrangements which extend from the avenues to permeate the site. The

units of various sizes have been grouped primarily with a mixture of family size to spark association throughout the community. The larger dwelling units have been grouped in the northwest section of the site to allow proximity for children's access to the adjacent city park. Major earth berming and intense landscaping along the west property line will screen the units against undesirable winter winds and oppressive traffic noise generated from the highway loop. The tennis and smaller more passive recreation areas will also be filtered and protected by the strategically placed natural earth forms throughout the site.

The medium density dwelling units have been assembled in formations of 5 connecting units arranged in clusters containing 20 and 30 units extending from the parking avenue. Special considerations are the orientation of the units with a view of the riverwalk and southern exposure allowing passive solar collection, and yet not emphasizing the view to sacrifice an undesirable northern orientation. Conversation pits are provided at locations

between the clusters to induce the resident's escape from their individual territory towards an area of social focus. A horizontal progression of private to semi-private to public common space is clearly distinguished in the dwelling cluster property lines emphasizing one's own personal territory. A modest vertical progression in the heights of the units themselves with the single story kept to the ends of the clusters will soften the impact of the building to the ground and allow further view upon entry to the riverwalk and community recreational areas. Resident and visitor automobile parking has been recessed down with ramps up to the units to filter the view and undesirable noise generated from the traffic.

The higher density units contained in (5) 4 story modules located in the northeast section of the site will have direct proximity to the community center thus augmenting the attendance needed to justify the center and its future dining accommodations. These unit modules offer

security, flexibility, and an impressive view of this site and the surrounding environment. Parking has been kept to the perimeter near existing major roads to maintain pedestrian orientation towards the interior of the site allowing a large space for recreation.

The community center and all support facilities are centrally located serving as a magnetic focus from all directions of the site further expedited by the pathway along the perimeter of the riverwalk which directly connects the units to the center. The complex will also attract participants from the existing apartments located towards the southeast area of the site whose residents are among the same age group. The center is elevated above the surrounding dwelling clusters expediting views and vistas to and from the structure. A diversity of recreational, social and leisurely activities and future dining facilities will comprise this major community focal area. An adjacent island in the lake will serve as a central outdoor congregating area providing a passive

recreational and picnic area. Intense landscaping will offer shade to the participants.

City transportation service has been planned for at strategic locations near the perimeter of the site. Housing accommodations will involve direct ownership or an optional choice to lease the individual unit. The development management will offer landscape maintenance of the entire community thus relieving unnecessary burdens upon this particular user group.

This housing development through the basic concept of clustering individual housing units will initiate economy for both the developer and the resident inducing lower land and construction cost allowing for a greater area of common green space. The orientation of the overall site development towards the interior of the site, will provide a secure, serene and desirable environment for those seeking a comfortable retirement atmosphere.