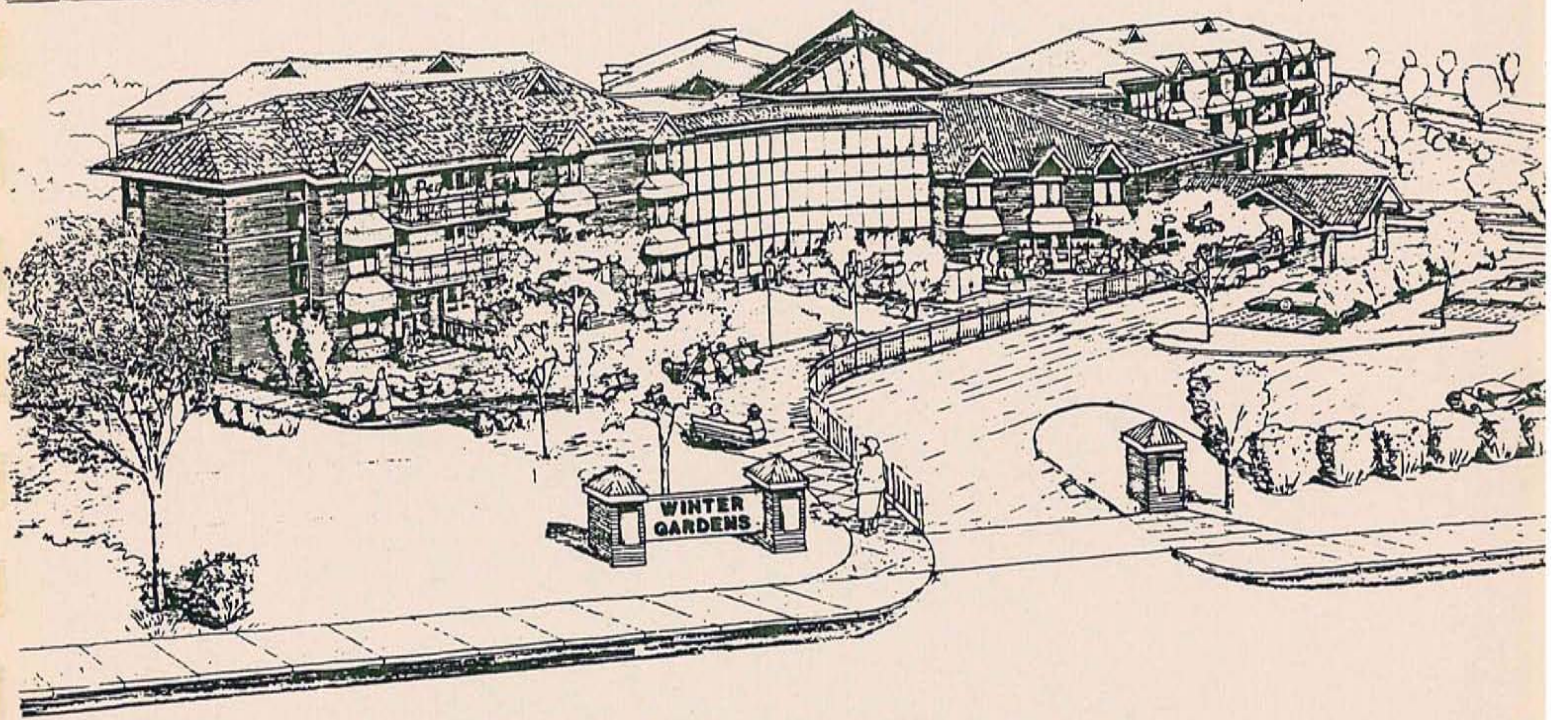


thesis



**winter
gardens**

THESIS

"WINTER GARDENS"

**A COMPREHENSIVE
LONG TERM CARE HOME
FOR THE ELDERLY**

by Alan J. Downing

November 1988

TABLE OF CONTENTS

	PAGE
1. PREFACE	
a. Thesis Statement	1
b. Synopsis	2
c. Abstract	3
d. Definition	7
2. INTRODUCTION	9
A. <u>RESEARCH REPORT</u>	
3. BACKGROUND	
a. The Issue	14
b. Historical Context	16
4. CURRENT CONCEPTS	
a. Review of Facility Types	19
b. Current Concepts in Saskatoon	25
c. Existing Facilities Review	29
Plans	
- Ordrup Vej	
- Parkridge Centre	
- Lutheran Sunset	
5. THE AGED	
a. The User Profile	35
b. The Aging Process	37
c. Needs of Elderly	41
d. Demographics	47
6. RESPONSIVE DESIGN	
a. Responsive Design Concept	48
b. Residents' Room Study	53
Plans	
- Existing Room	
- Improved Room 1,2,3,4	
- Bathroom	
- View	

7. LEGAL DATA	
a. Health Care	54
b. Regulations	58
c. Financial Trends	62
d. Project Cost Control	64
e. Conclusions	69

B. SITE DATA

8. SITE	
a. Site Selection	74
b. Site Analysis	80
c. Context	82
Plans	
- City	
- Neighbourhood	
- Context	
- Photographs	
- Site Forces	
d. Site Development	84

C. ARCHITECTURAL PROGRAM

9. OBJECTIVES	
a. Objectives of Facility	88
b. The User	89
c. Care Services	92
10. PROGRAM	
a. Project Description	95
b. Program Summary	105
c. Program Diagrams	111
11. DETAILED DESIGN REQUIREMENTS	
1. Circulation Spaces	112
2. Winter Garden	125
3. Residential AREas	128
4. Nursing Dispensaries	148
5. Health Care Areas	155
6. Recreation & Activity Areas	160
7. Day Care Centre	173
8. Food Services	175

9.	Housekeeping	178
10.	Administration	181
11.	Staff Areas	186
12.	Service Rooms	189
13.	Outdoor Recreation	192
14.	Communication Systems	194
	CONCLUSIONS	195

D. CONCEPT

12. CONCEPT PLANS

- a. Site Plan
- b. Concept Plan
- c. Family Pod
- d. Project Floor Plans
 - Main Floor
 - Second Floor
 - Third Floor
 - Basement
- e. Resident Suites Plans
 - Suite A, B, C Concepts
 - Suite A & C Development
 - Suite Entry

13. DESIGN CONCEPT REPORT

- a. Site Organization 196
- b. Building Organization 199
- c. Functional Relationship 208
- d. Building Form 209

E. DESIGN

14. DESIGN DEVELOPMENT REPORT

- a. Introduction 211
- b. Outline Specifications 215
- c. Cost Estimates 218

15. DESIGN DRAWINGS

- 1. Perspective Drawing
- 2. Site Plan
- 3. Main Floor
- 4. Second Floor
- 5. Third Floor
- 6. Basement

7. Elevations & Sections
8. Typical Residences
9. Model Photograph
10. Context Plan
11. Detail Sections
12. Atrium Details
13. Color Elevation
14. Structural/Mechanical plan
15. Set of Slides

BIBLIOGRAPHY

preface 1

1a. **THESIS STATEMENT**

I propose to develop a new environment "Winter Gardens" for the frail and disabled aged population who desire something more than the traditional Nursing Home to live out their retirement years.

1b. **SYNOPSIS**

The Challenge of Architecture is to design buildings to meet the needs of the user.

This **Thesis** serves as an attempt towards understanding how the architectural form of the Traditional Nursing Care Home in Saskatchewan can be made more responsive to the needs of the user, the frail aged person.

In the **Research Report** I investigate an accurate **understanding** and **representation** of the user needs and relate the underlying historical, social and cultural forces which influence the needs and the architectural form.

The **conclusions** demonstrate the need for a new "environment" to serve the evolving aged society of Old-Old, and forms the premise to develop the Architectural Program.

The Thesis illustrates a synthesis of these needs in relation to context and architectural form, resulting in "**Winter Gardens**".

However, Society is often reluctant and slow to accept change and new concepts, thus, the report is extensive with purpose to convince.

Time is of the essence for our aging society.

1c. ABSTRACT

A Thesis starts with an inspiration! An idea based upon personal convictions, human experience, social influences, tradition and cultural values.

An idea that responds to the demands by the frail and sick aged populations to have choice of something better than the health caring and confines of a traditional Nursing Home.

I envision a "winter garden", where the frail and debilitated elderly people mingle with families, friends, neighbours, children and nurses.

The wheel chair reliant and the bedfast sit relaxed in the peaceful surroundings of the garden, observing the activities and feel accepted by the society as part of the milieu.

The "winter garden" symbolizes the end of the summer season in Saskatchewan, which is captured for enjoyment of the Aged over the long winter season.

The garden is a peaceful and delightful environment, with walks, ponds, plants, trees, bridges, terraces and birds, all arranged in different ways and to be enjoyed both within and from the windows of the surrounding home.

I envision the Aged housed in 'family pods' which form part of the complex and adjoin the winter garden. Each 'pod' recreates the environment of the lost family home and surroundings. Their new 'family pod' is composed of eight elderly persons each with an individual private 'residence room', which are adjacent to living room with cozy fireplace, dining room with a view and handy snack kitchen for making tea for visitors and friends. Plants and sunlight impart a healthy atmosphere. The entire setting imparts a family atmosphere, promotes well being, companionship and helping each other.

Each 'pod' has a separate identity and each room is individual so as to recognize the Aged as individuals and not an anonymous population. Choices shall be available to accommodate degrees of independence, privacy and lifestyle.

The 'pods' are linked by indoor 'streets' which are pleasant, with sunlight, plants, trees and sitting areas all designed to help re-

create treasured memories. The streets lead to 'nodes' where the services, the formal lounges, the activity centres and health dispensaries are located.

The rehabilitation areas are health spas.

The Seniors Day Care Centre is a vibrant place where the outside aged join the inside aged for mutual satisfaction. Interaction with the community is assured and the aged residents are not isolated.

The health care needs of the residents are accommodated by appropriate 'neighbourhood located nursing dispensaries' which provides nursing care as needed and when summoned by the individual. The complete spectrum of care shall be available.

Electronic gadgetry, computers, personal monitors, and signal devices designed for easy use by the elderly shall be standard conveniences incorporated to assist the tasks of supervision, mobility and communications. The environments shall be designed to be supportive and incorporate the developments of such research groups as the Focus Society, all with purpose to maximize the independence potential of the aged resident, and relieve the nurses of the many mundane tasks. The nursing staff shall impart the needed human caring aspects and health monitoring.

The entire complex shall have easy access to the outdoors, so as to experience the short Saskatchewan summer. The landscape shall provide walks, rest areas and activity areas in a setting of natural gardens which creates a sheltered, secure and accessible place.

This facility shall be located in the Saskatoon Nutana district which is an established mature neighbourhood.

The site provides easy access to the shops, adjacent parks and nearby seniors housing which is ideal for the elderly who have limited mobility and stamina. Also, the public who are shopping at the mall may drop into the 'Winter Garden', the aging public shall drop into the 'Day Care Centre' and the Aging residents shall be and feel part of the action. The bedfast residents may view this hustle and bustle from their room windows or lounges. The convenient access to the adjacent park area, offers

opportunities to residents for afternoon or evening walks, either by themselves, in groups or assisted by volunteers.

The time to build this 'Winter Garden' is now since Society is changing and receptive! This is the age of recognition for the Elderly, the disabled and the sick, who seek equal opportunities in life. The Aged populations are changing with increased numbers, increased longevity and increased expectations. Our parents generation and our generation have experienced the 'good life' in Saskatchewan, and we want it to continue to old age especially during those final years when our health deteriorates. The reality of aging and increased longevity means that these final stages in life may last over ten years. The traditional nursing homes are no longer ideal for everyone and some of us want more than a health care facility.

Society is reponding with new forms of 'enriched' housing, and community home care services to meet the needs of the mobile aged populations, however the "old-old" frail and sick or debilitated aged await solutions to their problems and desires for suitable home alternatives. The inevitable process of an aging population continues and presents a challenge unique in the history of mankind.

The increasing costs of health care has spurred the search for alternatives to medical care. Hospital research has now determined that the proper environment can effectively improve one's well being, which is a significant factor in the recovery of patients from illness. For example the healing temples of ancient Greece, were elaborate buildings rich in gardens, libraries and spa waters creating an environment to help recovery. We are coming to the same conclusions, and the same philosophy applies to the Long term care issues of our sick aged.

This new concept 'Winter Gardens' is expensive but we are in an age where standards of living are increasing in Saskatchewan. The majority of our income pays for our home, travel, entertainment, food, clothes, hobbies, luxury and other wants which make for the good life. Many middle income groups are financially well prepared for their retirement years as evident from the increasing numbers of elderly going south for the winter. Clearly, more elderly are prepared to pay for their well being and enjoyment of life. Such desires do not stop when

aging disabilities pose limitations, however the lack of environment choices do. In order to attain this life style this group of affluent aged want more and are prepared to pay higher costs for better accommodations and the environment of this 'Winter Gardens'.

Personal care services may be dispensed on an "as needed basis" only, with specific formulas for payment by individual or with government care subsidies. The Saskatchewan government should subsidize the medical care and develop programs which allow the health and medical care components to be dispensed on an "as needed basis". The present classification system of Levels of care I, II, III and IV with qualifying formulas should be modified to allow individual choice. Day Care programs for seniors and 'respite' beds for short term visits should be incorporated to meet community needs.

Today, major companies are contributing funds to hospitals and other socially worthy projects, presumably for tax benefits but more importantly, it creates a good corporate image to be seen as a social benefactor. On this project "Winter Gardens", a giant corporation will be approached to provide funding for the 'winter garden', a corporate symbol and a symbol for "aged well being".... and happy retirement years in a community.

"Winter Gardens" provides a new image for the 'Aged Retirement Home', a truly Comprehensive Long Term Care Home.

Our Aged deserve the best for those last difficult years and we demand the best for our future.

"Winter Gardens" provides this choice!

1d. THESIS DEFINITION

The project title "Comprehensive Long Term Care Housing for the Elderly" requires some explanation to clarify its meaning and scope.

The term 'comprehensive' refers to the inclusion of a range of care services, and a range of accommodation choices.

The term 'long term care' refers to the provision of care services on a long term basis, meaning permanency of residence.

The term 'housing' is used to emphasis the project as a 'habitat for living' rather than an institution.

The term 'Elderly' is used to emphasis this project is for the aged population only, with focus on the older and more debilitated segment.

These explanations are significant when compared to the variety of organizations and composition of existing "special care facilities".

Existing 'special care facilities' are often selective in services and limited in scope of life styles resulting in many variations and mutations. This project covers a broad spectrum in one facility and it provides a 'home' not an 'institution'. I focus with a purpose on the 'special care facilities', the last domain, where 'society' has not yet fully explored but is now on the brink of change.

The issue is the 'Special Care Facility'.

The solution is "Winter Gardens". A new model of Special Care home which provides an alternative to meet the needs of our changing society.

Thesis Proposal

I investigate and present "Winter Gardens" as an alternative concept of retirement care home for the elderly which provides a choice of life style, personal or medical care and accommodation.

I focus on the frail old-old aged group who most need the 'care service' type environment and require accommodation of a full range of aging conditions, from chronic dependency to relative independence.

I recognize the aging process and the changing needs of the

elderly and promote well being and life enhancement by meeting the needs of the elderly as individuals and not a stereotyped group.

Finally, I explore the existing regulations, management and economics and health care and management systems and recommend policy changes to accommodate this new concept.

introduction 2

2. INTRODUCTION

A significant number of older people reach a stage in their lives when declining health and reduced mobility render them incapable of independent living and necessitate their move into a 'nursing home' which provides long term assisted care. Many of these homes are based on the hospital origins which produces an institutional rather than a home environment and perhaps are suited more to the short recuperative stay than the lengthy retirements of the elderly.

"We know that given a choice most older people prefer to stay out of these institutions. In response Society is developing community support systems and enriched housing with the purpose of delaying the requirement for institutional care. However, with greater longevity this demand will expand and the characteristics of institutional living are likely to be imposed once you are dealing with a highly dependent population," says Sylvia Goldblatt of the Canada Mortgage and Housing Corporation. "The challenge is to design institutions that bring quality to the life of the confused elderly person, the wheel chair reliant elderly person, the bedridden senile or mentally intact elderly person."

In this Thesis I investigate and propose a solution to the emerging problem of providing suitable accommodation for the Old-Old segment of our Aging population in Saskatchewan and which integrates it rather than isolates it from society.

However, this problem of housing and caring for a significant aging population is a phenomenon unique in the history of mankind and therefore the research report is rather extensive in order to properly understand the issues, the influences and the needs of the elderly.

RESEARCH SECTION

The Issues

The first section of the report defines the issues, the aging scenario, the social forces which determine aged needs and their dissatisfaction with existing institutions. The need for an alternative environment is clearly established.

Historical

Next we examine the historical evolution of the Institutions for caring for the aged and the influences of society which developed manifestations of the current problems in such facilities. We need to consider the evolution of the things to be taken account of when designing a new concept of environment.

Current Concepts

The **third section** describes the current concepts in Nursing homes, the Saskatchewan background and the current trends. A few selected existing facilities are investigated and analyzed to illustrate the limitations of our present concepts. It shows how the 'form generator' of the nursing component has influenced our environmental priorities and proposes to change these to a "user form generator". Nursing homes are the last domain of our aged and the need for an alternative choice is demonstrated. However, in order to design this new environment, we must understand the aged user.

The Aged

The **next section** describes the aging process, the characteristics of the elderly and their needs and explores how the environment can be made more responsive, which should be the goal of architecture. Such issues as privacy, independence and life satisfaction are discussed with purpose to demonstrate the importance in the design of "Winter Gardens". A review of the demographics of the aging population in Saskatchewan indicates the magnitude of this problem and supports the opportunities for new environments to meet demand.

Responsive Design

Our goal to make environments more responsive to the needs of the frail aged person requires the exploration of such issues as responsive design, accessibility, adaptability, barrier free environments and control. This section describes these requirements in terms of the implications for the user with respective design accommodation and society's changing attitude.

Resident's Home

In long term care insitutions, the resident's room is their private domain or home and therefore requires special

consideration. This section of the report explores the various possibilities, needs and uses. It explores the evolution of the resident room in care facilities.

Care Services

Health care is crucial to maintain the well being of the aged with their increasing debilities, and its careful, invisible integration into the facility is especially critical to the concept of "Winter Gardens". The report examines the current philosophies of fixed designations of care levels with respect to their influence on the aged person, and the building form. A new concept and philosophy of care is proposed which responds to the user demands for choice and continuum of care.

Regulations

The constraints of Health regulations, social policies, legal issues and codes are discussed in the next section. These determinants evolve from society and have impact on the architectural solution, therefore some changes are proposed to meet the needs of the new 'Utopia' and needs of a changing society.

Financial

Lastly, the research report explores the Financial aspects, and suggests a viable philosophy on the funding of such facilities. A new philosophy for project cost control is discussed with its implications on project design.

Conclusions

The summation of the research report clearly defines the viability and need for 'Winter Gardens' and formulates the concepts on which to develop the architectural program which follows in the next segment of this Thesis document.

ARCHITECTURAL PROGRAM

Objectives

The **objectives** and philosophy of the facility, the implications of the care services requirements and the new goals are now defined for this unique facility.

The user and the accommodation requirements, the care philosophy and facility operations are defined, in consistence

terms for useful development into the program spaces.

Architectural Program

Next, the **architectural program** major space elements and services are described in terms of their use and basic concepts, in order to provide a broad over view of the building functions.

The program of requirements are based upon the investigation of functional needs rather than rigid compliance with known standards.

The detailed design requirements for each room and space are fully evaluated and developed to meet the new concepts of responsive design for the elderly as explored in the research report. The criteria for each space is assembled in terms of the room function, user group, activity, space relationship, size requirements, atmosphere, responsive design fitments and context.

This information is translated into architectural program diagrams which is the first step to transform the program into design. The diagrams are assembled into major space blocks which illustrate the small space elements and their relationships. The space needs, design form criteria and context are identified in concise terms for synthesis into a design concept.

SITE DATA

The Site analysis evaluates the criteria for the selection of a site and after research of several locations, the most appropriate site is selected. The zoning bylaw requirements, the site context and neighbour hood influences and the climate forces are explored with purpose to determine their influences on the building location and design.

CONCEPT

During the design process, several site and building organization concepts were explored and evaluated in order to determine the most appropriate design concept. This initial formulation of the design concept for the building is illustrated by the sketch plans. The scheme satisfies the program and the needs and desires of its users.

PRELIMINARY DESIGN

The next section of the report outlines the design development of the project and describes in further detail the building design and its accommodations of the program requirements. The site and building concept organization, the functional relationships and building form are discussed. A complete summary of the Architectural Program is provided for convenient reference to the project design.

An outline specification describes the building materials, the structural system and mechanical and electrical systems.

A detailed project cost estimate based upon the elemental cost analysis format is provided and follows the project cost philosophy described in the research report.

DESIGN DRAWINGS

Finally, the last section of this Thesis contains the preliminary design drawings, photograph of building model and a perspective drawing of the proposed building.

BACKGROUND

3

3. BACKGROUND

3a. THE ISSUE

The traditional issue of architecture meeting the needs of our changing society is the issue here. Society determined our 'Special Care Institutions' for the aged and now society is changing its program of requirements and architecture must meet the challenge.

In recent years we have seen Society focus on the minority groups and respond to their demands for 'accessibility' standards. Prior to that time the disabled populations had to cope with the environment as best as they could until architecture responded to the dictates of society.... and so with the aged.

The voice of the elderly is no longer silent and society is now recognizing the new expectations for their retirement years. They desire to be recognized as individuals with rights of self determination and to be unshackled from the stereotyped image of the aged. Such organizations as the National Advisory Council of Aging are communicating these demands, and Society is reacting at a feverish pace to comprehend the complexity of the situation. Social research to fully understand the aged as individuals and not as an anonymous group is becoming a priority and the architects challenge is to design buildings to suit these needs and values.

One such need is the reluctance of some 'aged' to live in a special care institution and this co-incides with society's need to reduce the health care burden. Thus, new concepts of 'Enriched housing' and community home care systems emerged to meet these needs. But, as the aging populations continue to age, the institutions are eventually required. The demand on these establishments is already critical and it will become a greater problem to accommodate the increasing numbers of frail, disabled and functionally impaired aged. This is a situation never before experienced on this scale by society and is a task made more complex by the aged populations demand for choice.

In my Thesis, I respond to the challenge and focus on the 'Special Care Homes', which are the last domain of the elderly. However, at the present time in Saskatchewan, the institutional living of the Special Care Home is no longer acceptable as the only choice to the new aged generation. Many old people wish to continue with their life style and not be forced to relinquish a life time of habits in exchange for the security and health

care of the traditional institutions. They desire an environment that duplicates more of their experience of 'house' and not an institution.

A 'home' is a place of life time a place where our aged spent most of their growing life, entrenched with social and cultural roots and is essential to the well being of man. There is no reason to change this essential environment when old and frail and in fact it becomes increasingly more important in those retirement years when aged, are less mobile and more disabled. The 'home' becomes their world.

3b. **HISTORICAL CONTEXT**

In the **early** history of our culture, life expectancy was rarely above 35 years of age and the problem of caring for the aged did not exist. Few reached old age or they expired very rapidly and needed only minimal attention from family or church. Some of our cultures such as the Eskimo continue similar life styles today, and the aged person simply dies when his useful life has expended.

Later, in **sixteenth** century England, the emergence of new social attitudes resulted in the establishment of the first public institutions for caring of the ill and the infirm aged, although, most remained with their families.

At the beginning of this century; less than 4% of the population in Canada were 65 years of age or older and the average life expectancy was only 50 years old. Families traditionally supported their aged parents and hospitals cared for the ill-aged.

This attitude was soon to change as families were not able to or chose not to care for their aged. Increased longevity meant longer periods to care for the aged who had increased debilities and also many aged parents wished to live independently from their offspring.

By the 1960's, the aging population had doubled and the demand for special facilities to house and care for the ill-aged began increasing.

In Saskatchewan, the provision of such facilities were often the responsibility of the various church denominations or ethnic groups with funding assistance from government. Typically, these facilities were 'residential care homes' which provided shelter, meals and personal care needs for the aged with low levels of nursing care. The Department of Social Services established regulations, licencing controls and designated classifications of care services.

Ten years later, the declines in health of the aging population necessitated the provision of nursing care facilities. Such facilities traditionally provided skilled nursing care on a long term basis and hospitals serviced the severely ill. However, the increasing demands and longer period of residence resulted in "extendi-care" facilities which provided for the more intensive level II nursing care. Today, the emergence of Level IV special health care facilities responds to the need for increasingly intensive and specialized care over longer periods of time.

Thus, the nursing care facilities evolved to meet the program demands of a changing aged population and society. In Saskatchewan, in response to the system of different levels of care classification, many separate facilities developed to meet the needs of these specific groups. Such facilities are known by a variety of names - Personal care home, residential care home, nursing home, intensive care home, which may or may not relate to the various levels of care services.

However, the aging process is not static and many aged found it necessary to transfer from facility to facility as their health care needs increased. Thus, in response, the multi-level care philosophy evolved to provide the full spectrum of care from the personal care to the intensive care all in single complex. But, society is changing and these health care oriented facilities are no longer acceptable as the only choice. In response, society is now providing the 'enriched housing' concepts which provides for the life style needs of the aged at the lower levels of care spectrum, and retirement complexes provide a grouping together of elderly housing and nursing care facilities.

However, the nursing care facilities face these increasing difficulties, to accommodate the demands for intensive health care, maintain multi-level care philosophy, respond to the aging process and meet the new demands for life style choice of the aged.

It is appropriate to suggest that our cultural perceptions of the aged as a stereotyped dependent population resulted in these health care priorities and such attitudes are slow to change.

The more socially progressive attitudes of such countries as Denmark, Sweden and Britain has led them into a direct confrontation of these issues dealing with health care housing for the elderly. For example, in Sweden where the government takes responsibility to care for the aged, the basic goal is to provide the elderly with secure, modern housing with supportive medical and special care resources. Such principles as a normalization, individualism and self determination are given equal consideration to health care. Innovative forms of housing have been pioneered which attempt to amalgamate the division between housing care and health care. However, this is only just the beginning of the aging revolution and each country will mold different solutions in response to its cultural background and environment.

In Saskatchewan the problem of creating suitable health care housing is a significant challenge and "Winter Gardens" provides a solution. It is based on the premise that a significant number of elderly shall continue to require the group living setting with shared personal care and health care services on a long term basis, where the fundamental act of dwelling is considered a priority over health care systems and high costs prevent the tailoring of the environment to the individuals.

CURRENT CONCEPTS

4

4. **CURRENT CONCEPTS**

4a. **Review of Facility Types**

In order to gain perspective on the relationship of the new 'Winter Gardens' in the environments used by aged it is desirable to review the full range of current facility concepts.

The different types of housing and institutional facilities used by the aged seems almost infinite in numbers with a broad range of available living arrangements, and settings for social, personal and health care services. However, certain landmark facilities have evolved in response to the particular needs of society to accommodate the aged as they progress through the aging process.

Elderly Housing
Enriched Housing
Senior Day Care Centres
Residential Care Homes
Nursing Homes
Continuum Care Retirement Communities

A brief description is provided as follows:

1. **Elderly Housing** (Independent)

It is a Conventional housing concept with a small amount of recreational area and provides a sense of security through a live in caretaker. It was developed in response to the need of housing seniors with low rental cost as a main objective. The elderly care for themselves and require no supervision. Some units are handicapped accessible.

Examples: The C.M.H.C. Senior Citizen apartments located in Saskatoon ... Oliver Place, McNaughton Place, McAskill Place, Luther Tower, Scott-Forget, or in Rural Saskatchewan ... Unity, Outlook.

2. **Sheltered Housing** (Independent)

Sheltered housing is similar to the above senior housing however it includes more supportive services from the surrounding community.

It was developed by Saskatchewan Housing Corporation in response to the elderly's need to retain independent living but requiring some supportive response system.

Examples: St. Volodymyr Villa, Saskatoon.

Congregate Housing where older people live together in a

group environment is a modified development of alternate housing.

3. **Enriched Service Housing (Assisted Independent)**

A very recent development is the Enriched service housing which offers assistance in independent living despite the increasing functional disabilities and frailties which often accompany old age. The apartment units are designed to be accessible and supportive, and some care service programs are provided, with limitations when the elderly require 24 hour service.

Developed in response to the desire of the elderly to retain independent living and society's desire to encourage this concept. Traditionally, the elderly have to move into residential or nursing care facilities or hire private care givers when home care service does not cover all of their care needs.

4. **Senior Day Care Centres**

Senior Day Care Centres are social, activity and communication centres for elderly people who enjoy coming together for common events and services. Skill activities, recreation, counselling, health care and meals are provided. Developed by Society in response to demands by elderly for help to remain living in their own homes and provides a reinforcement to the home care service.

5. **Residential Care Facility (Semi-dependent)**

Residential Care Facilities provide a level of care for older people who can no longer live independently in elderly housing, but do not need the medical services provided in a Nursing home. In Saskatchewan such facilities provide Level I and some limited Level II care which includes help with personal needs, and supervision with daily living and meals. Residential settings are group living with small rooms or suites.

Examples: Residential Care homes in Rural Saskatchewan Bigger, Outlook.

Such facilities are regulated and controlled by the Department of Health and Social Services.

Comment: However, the current format of these

facilities is often based on the nursing unit model with an institutional atmosphere and regulated care programs, which require the elderly resident to sacrifice normal life styles in exchange for service environment.

In response to the reluctance of the aged to move into such facilities and societies concerns over high costs, the new 'enriched housings' have been developed which offer a viable alternative to the residential care homes.

A current problem with these facilities is their inability to provide increasing support as the elderly age and the resulting limitations on life style choice.

6. **Nursing Homes (Dependent)**

Nursing homes are health care facilities licensed by the Province to provide long term nursing care as well as custodial care, personal care, meal service, housing and housekeeping all within a group living environment.

They were developed by Society to provide accomodation for the many older people who cannot manage in more autonomous living environments.

Residents are functionally impaired, chronically ill or recovering from surgery and require 24 hour nursing care, supervision and personal care, assistance with bathing, dressing, toileting, mobility and eating. Such services are classified as Level II and III care.

Examples: Frank Eliason Centre, Oliver Lodge Nursing Home, Lutheran Sunset Nursing Home, Sherbrooke Community Centre, Sunnyside Nursing Home, in Saskatoon.

Comment: Nursing Homes are facing a major problem, being that of providing an increasing range and intensities of health care, with more flexibility of choice, for longer periods of of permanent residency and all within a residential setting which provides life style choices and responsive to the needs of the user.

The problem is complex, my solution is "Winter Gardens".

7. **Continuum Care Facilities (Life Care Centres)**

Based on the concept of Continuum of care, these facilities allow residents to live independent life styles, while ensuring that social support, residential care and

long term health care will be available when needed in later states of life.

Typically, these facilities are a grouping together of Day Care Centre, elderly housing residential care and nursing home all in a single development.

The wide range of residential settings and services available when and if needed and the smooth transition between levels of care attracts those older people who want permanency of residence in a clear setting of housing and care alternatives.

Examples: Lutheran Sunset Home, Saskatoon, Maple Knoll Village, Ohio.

Comment: Such facilities are often large and complex which requires significant development in terms of financing and population support to sustain its viability. Such constraints limit its opportunities to large sites, high population communities or special sponsor organizations.

At first glance such a facility appears ideal for the aging resident who desires permanent accommodation. However closer examination reveals limitations in grouping together the various established facility types. At the higher care levels requirements of the Nursing Home section, the restrictions on normal life style and independence remain imposed on the resident. The format of the Nursing Home remains the same and other choices are currently not available in Saskatchewan.

8. **Conclusions:**

The previously described facilities designed for use by older people can usually be characterized by their specific supportive, living and social environments and by the physical settings they provide for the delivery of personal, social and health care services.

Services which older people need range from very low to very intensive for example:

- Security
- Recreation and Social activities
- Assistance
- Counseling
- Companionship

- Residential Services (housekeeping, laundry, meal preparation)
- Personal Care (assistance with bathing, toileting, grooming, eating)
- Custodial Care (24-hour supervision)
- Therapy (Rehabilitation, physical, occupational, mental health)
- Health Care (long term chronic, out-patient)
- Seniors Day Care

Not all services need be provided in a specific facility and the least service is generally deemed best since it maintains the greatest level of independence for the aging user at the least cost. Unfortunately, most older individuals do not fit neatly into this order of services and few require a specific maximum level of service plus all of the services below that level.

Most older people need a small amount of low level service one day, perhaps some higher services on the following day and a different mix of services on the third day.

The challenge to provide services on a flexible basis is made more complex by the changing perceptions of the aged and their needs. They require shelter and services designed to offer individual privacy, independence, care and services as needed, financial support and social and psychological support. All of these are geared towards helping the aged to maintain an improved life style and abilities to function.

Other, countries such as Denmark and Sweden have been pioneering residential care housing concepts towards this goal of maintaining life style choices with increasing levels of services. The Province of Saskatchewan is now following similar trends with its enriched housing at the low end of the care spectrum.

However, the challenge of the 'Nursing Care Home' alternatives remains unresolved and only Denmark is just starting to address this issue.

The need for an alternative to the Nursing Home which

provides life style choices for the elderly who require a high levels of care remains a valid challenge.

"Winter Gardens" meets this challenge and proposes an alternative environment! It provides an 'enriched' form of Nursing Home with a continuum of care accommodation, all in a residential setting and which offers life style enhancement to the residents.

4b **CURRENT CONCEPTS IN SASKATCHEWAN NURSING HOMES**

i. Introduction:

The concept of the traditional nursing care homes in Saskatchewan evolved from a union of home and hospital to meet society's demand for a place to house the ill aged. The hospital component providing the health care dominated and the home component took a secondary role since the original intentions were for short periods of patient habitation until their recovery or expiry.

Based upon the efficiencies and experiences gained from hospitals, the building and organization is formed around the nursing unit with its nursing station controlling the resident rooms oriented along corridors. Small resident rooms resulted from the goals for the care and easy monitoring of patient, economics of more units per building area and group bathing, eating or activities were organized to management efficiencies.

These facilities continue to be conceived, programmed and designed on the premise of providing supportive care services for the aged as the primary goal and the social aspects of 'home living' qualities take a secondary role. A review of the various nursing homes in Saskatoon illustrate that this tradition continues to influence design.

"Winter Gardens" departs from this tradition and proposes a new concept with the priorities reversed.

This new concept shall be developed around the needs of the elderly resident as the primary user of the building and not the nursing unit and health care management.

It contributes to the concept that buildings responsive to the needs of the user, promote their well being and its therapeutic design offers support and security without stigma and domination.

ii.. Background:

A nursing home is viewed as a facility in which a wide range of personal care and regular nursing services are provided for people who are no longer able to live on their own or with family, but do not require intensive medical care such as a hospital might provide.

The services provided may include accommodation, supervision, personal care, nursing care and medical supervision and care.

An institution for the elderly may be part of a hospital, or residential complex or be a separate unit. Some institutions may provide only one type of service or care while others may deliver two or more services. There is no single concept of a nursing home for elderly, except that it provides long term care and accommodation.

However, whether a nursing home qualifies to be an institutional or residential form depends upon the environment in which the services are provided. Thus the term "nursing home" is rather loosely used to cover an array of different environments which provide similar services.

iii. **Saskatchewan Trends:**

In Saskatchewan, these health care facilities provide long term nursing care and services within a group living environment for the aged.

They provide specific ranges of care in response to the Care Level classification system established by government programs. Typically Levels II and I care is provided, however the recent demands towards the higher care Levels III and IV are impacting.

It is anticipated that Future Trends shall accommodate much of the Level II populations in 'super enriched housing' to allow nursing home accommodations of the increasing numbers of Level III and IV populations.

Special intensive care facilities are now developed to accommodate these demands for higher levels of care, such as the new Parkridge Centre, Level IV care facility in Saskatoon. Certain care services are deemed best provided in a specific facility where groups of older people with similar needs and requirements are accommodated and cost effectiveness, efficiency and qualities of care are the goals.

However, this trend of specialization conflicts with the opposing objective of multi-level care to attain permanency of residence and avoid the relocation syndrome for the elderly.

iv. **Current Design in Nursing Homes**

The architectural form of the nursing home responds to the program demands and a brief discussion of **current development types** provides an understanding of these requirements and resulting developments.

1. **Spaces**

The Principal form generator is the nursing unit, typically an administrative unit that includes up to sixty beds in private or semi-private resident rooms.

The **nursing unit** includes:

Central bathrom (1 tub per 10 patients)

Dayrooms

Group Dining

Nourishment kitchen

Nurse Station

Medical Storage Room

Treatment Rooms

Counselling Rooms

Housekeeping

Storage

Resident Rooms

Other spaces include:

Administration

Central Kitchen & Laundry

Therapy Rooms

Activity Rooms

Central Lounges

Multipurpose Rooms

Beauty Salon

Gift Shop

Chapel

2. **Developments**

- a. Nursing Homes are developed in multiples of approximately 40 beds to meet nursing unit requirements. The levels of care and the regulatory agencies together with the management, social and economic constraints affect this determination. (i.e. higher care levels may required 24 beds to a nurse station)

(It should be noted here, that the rigid care classification system and society's perceptions of a quality care service determined this design approach in Saskatchewan.)

- b. Maximum sizes of 150 beds are promoted on the

assumption that high concentrations of sick elderly people may tend to encourage their isolation from the community or cause abnormal neighbourhood development.

- c. Resident rooms have been very small, following the hospital model of bed-sit room with an adjacent toilet room.

Variety in the type and size of resident the rooms to accommodate different life styles is virtually non-existent. However, recent developments have been towards increasing the sizes of the rooms and promoting all rooms to be private.

Obviously, more development is required in this area when many residents now spend years in such environments.

"Winter Gardens" provides this development.

- d. Nursing Units are planned for efficient organization, minimum staffing and cost when easy supervision and limitations on travel distances for staff are the major considerations.

The nursing unit compacts the living and activity spaces into a much smaller area than before experienced by most residents. The elements of normal residential space hierarchy include porch, entry area and living room are no longer available to separate private from public spaces.

4c. EXISTING FACILITIES REVIEW

1. Introduction

A brief review of some existing nursing home facilities is provided to illustrate the current architectural forms and program priorities.

The majority of examples are from the Saskatoon area however examples are included from Denmark and United States of America to illustrate comparative developments.

2. Denmark

The housing and care policies are based upon maximizing independence in a normal setting and stresses the de-institutionalizing of health care. The Government structuring makes this possible by allowing the integration of housing, nurse care and recreation policies. Denmark is now pioneering the re-shaping of traditional long term care into housing rather than health care facilities.

However it is important to recognize that Denmark has not promoted the same intensive orientation to Health Care dependency, as is currently evident in Canada, thus the nursing homes reflect less intensive care service.

Example:

Ordrup Vej, Nursing Home in Copenhagen, is a 48 unit skilled-care facility, which is a residential care oriented model.

The residential rooms have entry vestibule, toilet room, tea kitchen and patio.

The 12 rooms are grouped in a cluster and two clusters share common central facilities, with unobstrusive nursing station.

Refer to Diagram A-1.

3. Sweden

The Swedes have placed a high priority on providing adequate and supportive housing responsive to the needs of the elderly.

However, they have explored developments in the residential care sectors only, and their principals of life

normalization have not been extended into the nursing homes and long term care centres. These are based on the health care model where quality and level of social services are not consistent with other housing forms.

But, there is a growing concern to de-institutionalize the long term care settings in order that the chronic ill and mentally impaired elderly have equal opportunities.

The division of housing and health care organizations has led to difficulties in fulfilling the principals of life normalization.

4. **Britain**

Innovative forms of residential care and sheltered housing have been explored, but the intensive care facilities remain as isolated institutions, especially those facilities which accommodate the mentally impaired with physical disabilities. However, the need for de-institutionalization of long term care facilities has been recognized.

5. **Saskatoon Area**

During the course of this research, visits were made to many existing residential, nursing and special care facilities in Saskatchewan.

The purpose of these visits was to obtain a general comparative picture of the following:

- Organization of Facility
- Residents
- Staffing System
- Care Services
- Observe the building function and relationships
- Determine what goes on and who does what
- How many beds and type of rooms
- Circulation system
- General atmosphere and architecture
- Ancilliary Facilities

A few selected Saskatoon examples are reviewed.

1. **Lutheran Sunset Home, Saskatoon** 1987
This entire complex is a continuum care facility which has expanded over a period of many years to meet the increasing demands of aged. It now incorporates the original residential

and nursing care home, the 1975 addition of the elderly housing high rise and the recent 1987 expansion of Intensive Care wing for Levels III and IV care services.

The original nursing care section now fails to accommodate the current aged needs and is scheduled for upgrading, but existing constraints make it difficult to accommodate.

The residents in the high rise apartments now require larger size apartments with accessibility features and more service to accommodate the frailties of aging. Such requirements are difficult to retrofit and reluctant residents must move to the nursing wing.

Further comments shall be restricted to the Intensive care facility since it represents the later developments in Nursing Care environment and is the focus of this study.

Analysis

Location:	setting in residential area
Organization:	Three storey. Residents areas on two floors with ancillary spaces on third floor.
Layout:	Nursing unit form generator with two corridor wings of resident rooms and central nurse station.
Beds:	Total 80 beds.
Ratio:	40 beds per nursing unit.
Care:	Levels III and IV extended care.
Residents:	Aged 75 years old. Long Term residence.
Room Types:	Individual resident rooms with own toilet room and recessed entry vestibule. All rooms same type.
Atmosphere:	Residential
Ancillaries:	Day care, multipurpose room, therapy, craft activities, greenhouse, sun deck, tuck shop.

Refer to Diagram A-2 for plan.

Comments:

This facility demonstrates a definite trend by society to recognize and accommodate the aged residents need for their own private room with toilet and a room large enough to accommodate wheel chair accessibility. However, the rooms illustrate the continuing influence of the nursing component.

The architectural form is sensitive to the goals to minimize the 'institutional' quality and promotes residential atmosphere where possible within the constraints of the program.

The recessed entries to residents the rooms relieve corridor monotony and help territorial identity. The planning successfully attempts to group the resident rooms near central dining, lounge and services with purpose to minimize resident room isolation and create a neighbourhood. However, the basic concept of this facility remains as a traditional nursing home, and clearly illustrates the need and trend towards an alternative choice of facility, such as "Winter Gardens".

2. **Parkridge Centre, Saskatoon**

This special care facility illustrates the latest developments to provide an environment for the emerging demands for the more intensive Level IV care services.

Analysis

Location:	Setting on boundary of residential area and adjacent to commercial.
Organization:	Two storey. Central atrium mall with mezzanine provides the circulation system and ancillaries. Basement for staff, kitchen, laundry, mechanical.
Layout:	3 Nursing wings oriented to the central core on both floor levels. The nursing unit is the form generator with resident rooms controlled from nursing station.
Beds:	Total 238 beds composed of: 45 short term (rehabilitation and assessment) 90 long term frail elderly 75 long term impaired elderly (Alzheimer's) 10 Respite short stay (home care)
Ratio:	40 beds per nursing unit.
Care:	Level IV intensive care.
Staff:	6 to 8 staff per 40 bed nursing unit 1 nurse per 24 patients.
Residents:	All persons with disabilities including aged. Short and long term residence.
Room Types:	Individual and semi-private rooms with shared toilet room. All rooms similar.
Atmosphere:	Institutional.

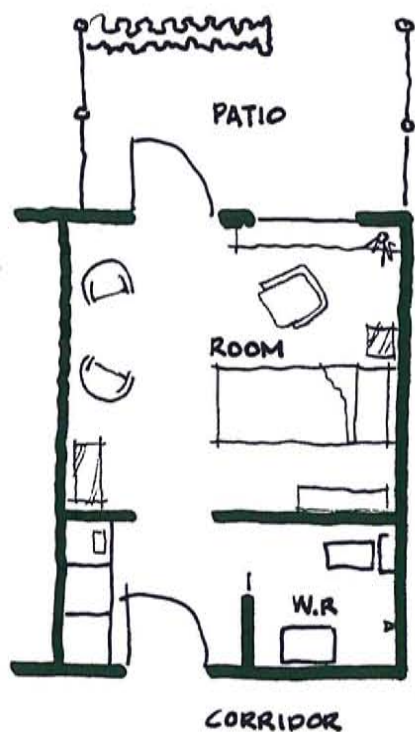
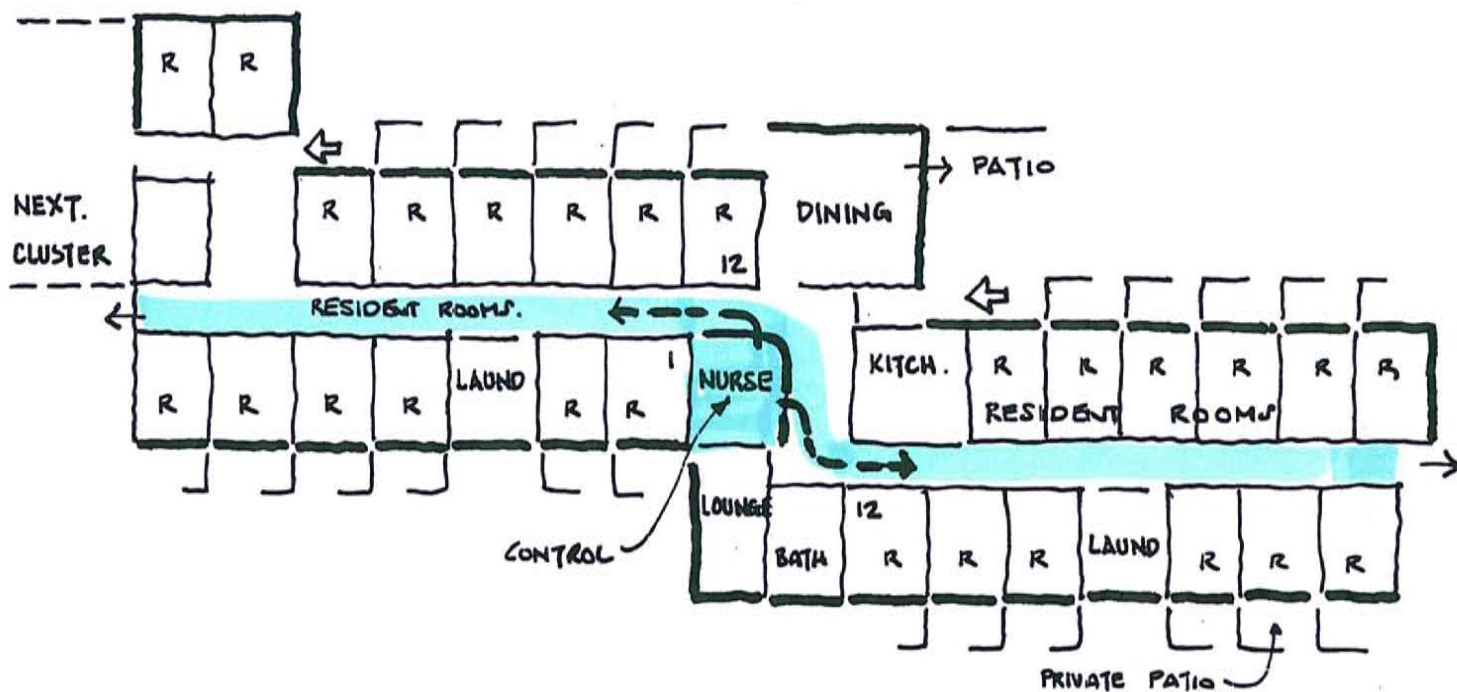
Ancillaries: Day Care, Therapy Pool, Greenhouse, Library, Multipurpose Room, Therapy, Social Work, Gift Shop, Hair Salon, Micro Computer Communication, Visitor Children's Play Area.

Refer to Diagram A-3 for plan.

Comments:

This is a large institutional complex and the architectural form has attempted to capture the residential image. The exterior form is residential, however the 'institutional aspects' are minimized in the central atrium core only. The strong nursing component dominates the residential wiring and the resident rooms follow the traditional hospital model.

However, the intentions of this facility is to provide special health care to its residents with its institutional priorities, however the basis concepts illustrate the trend by society to improve the environments to promote well being of the occupants.

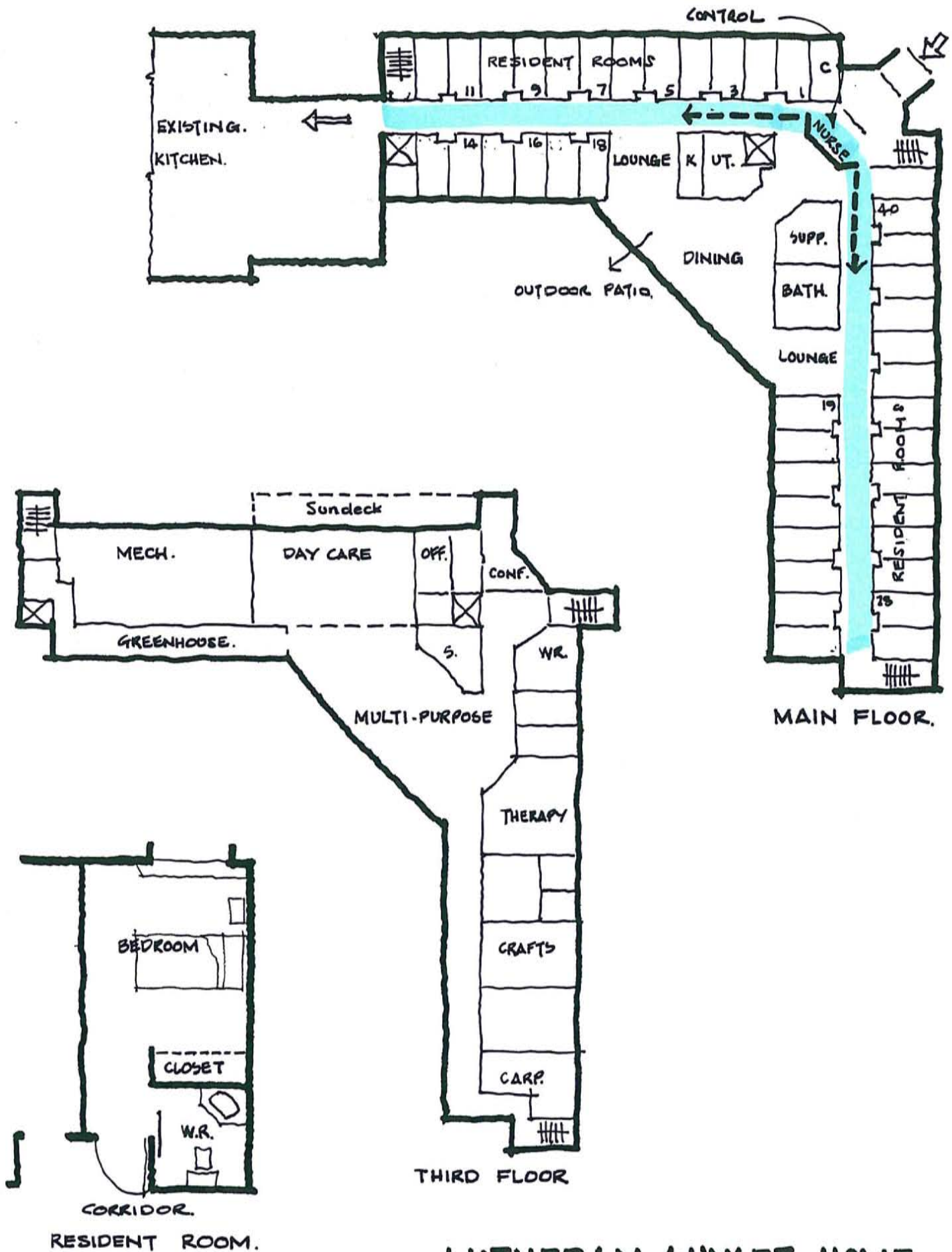


RESIDENTS ROOM.

ORDRUP VEJ.

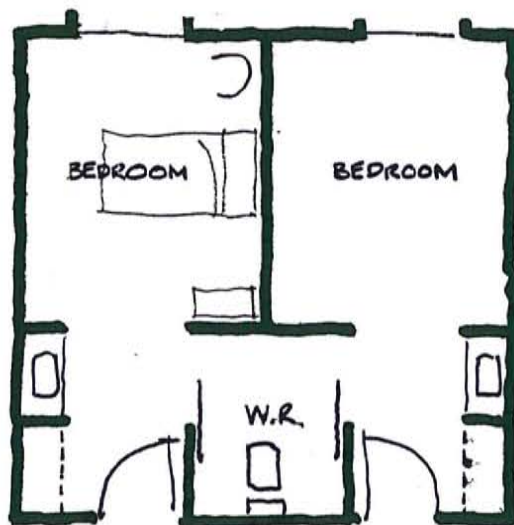
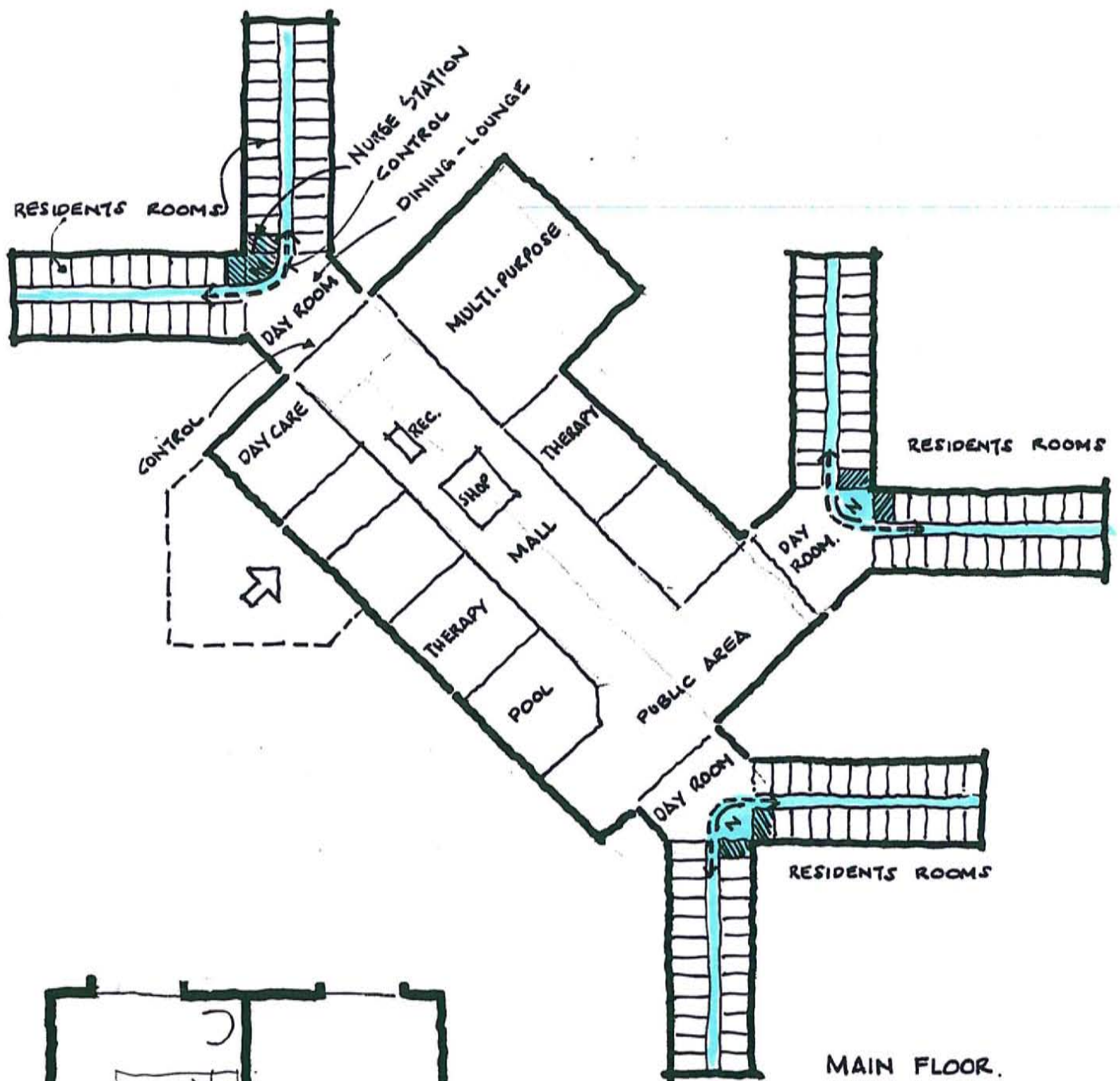
DENMARK.

NURSING HOME



LUTHERAN SUNSET HOME . A.2

SASKATOON. NURSING HOME



RESIDENTS ROOM.

PARKRIDGE CENTRE.

SASKATOON.

SPECIAL CARE

THE AGED 5

5.THE AGED INTRODUCTION

In order to meet the Thesis objective, we require a complete understanding of the user, the aged person.

Societies past perceptions of the aged has developed a stereotyped image of their needs and expectations which are not valid for the older person of today.

Current research into gerontology and the communications from our aging populations confirm this reality. Who are the aged, what are their needs and how do we accommodate their frailties are valid questions which must be answered in order to design environments which are sensitive to those needs.

This investigation focuses on the frail older person as the primary user of this facility. The user profile describes the resident's characteristics in terms of individuals rather than the previous categories according to classifications of care levels.

The aging process is explored, its characteristics of an aging condition and the design accommodations required of the environment and the physical, social and psychological implications. The needs of the elderly are recognized and defined in terms appropriate for design. The major issues of privacy, independence and choice are evaluated in detail since our aged population has voiced a strong need for environments which are sensitive to these life style requirements. Also, the elderly do not wish to be isolated from society.

The section on Demographics illustrates the dramatic changes in the aging society and demonstrates the demand and need for this new concept of "comprehensive long term care housing for the elderly".

5a. THE USER PROFILE

We focus on the aged group called the "old-old" in the 80 years or over bracket who suffer some health related debilities, can no longer live independently and require institutional based services covering the full range of care. Although please recognize that the actual age bracket is not the controlling factor, but rather the conditions of well being. Many elderly from the 'middle-old' group may require the same assistance.

This group of elderly are typically referred to as the "slow-go's" or less capable, less active and the "no-go's" or incapable, not active.

Characteristics:

"Slow-go's"

- Old age frailties
- Wheel chair disabilities
- Function impairments (mild)
- Mobile with or without assistance

"No-go's"

- Severe old age frailties
- Wheel chair disabilities (assisted)
- Severe function impairments
- Bed ridden
- Mobile with assistance of bedfast

Typical Resident:

A typical resident shall most probably be a woman of 85 years old, living alone and slightly functionally impaired. Mobility is possible however some daily personal care assistance is required.

The resident may be a slightly younger woman of 75 years old, but arthritis cripples the hands. Mobility is possible but assisted care living is required.

Or, a resident may be an older couple or two companions where one partner is severely functionally impaired and the other functional and mobile but frail. Both desire to live together.

A typical resident may be an elderly man, bedridden due to heart attack but mentally alert.

A typical resident may be a slightly senile elderly woman, who occasionally loses mind control and wanders, sufficient to require the care home environment.

An elderly resident may be wheel chair bound and be mobile either independently or require assistance.

And, finally a resident may be a severely functionally impaired, senile and bedridden old man. Only the eyes to the soul tell the storey.

Aging is not a static condition and residents may progress from a healthy active condition one day to an inactive condition the next day and represent any one of the above "typical residents". Each of these residents desires the environment to be responsive to their needs, where small degrees of life enhancement or independence mean so much. "Winter Gardens" challenges to be sensitive to these needs, views the environment through the eyes of the user and removes the obstacles.

5b. **AGING PROCESS**

Aging is a process of life resulting in decline of the body abilities and occurs at different rates with each individual. The aging process results in failing vision, hearing, respiration, senses, nervous systems, slower responses and loss of memory. These characteristics reduce our ability to perform daily tasks and affect our competence, ego and self image.

Physical Status:

Reduced functioning abilities.

Disabilities resulting from a chronic ailment such as arthritis or Parkinson's disease which vary from mild to chronic.

Emotional Status:

Mild confusion.

Mental deterioration resulting from senility.

Emotional depression.

Social passage implications.

Mobility:

Varies from ambulant, ambulant with mechanical aids, independent at wheel chair level and bed-fast.

Thus, the aging process reduces our abilities to adapt to the environment with resultant limitations in life style. If environments are designed to suit the elderly's changed and changing needs then individuals may overcome many of the obstacles. A supportive environment increases the elderly person's capabilities to maximize independence and reduces the requirement for care services or assistance.

The following aging conditions are related to the respective required design accommodations, which shall be considered in the new environment "Winter Gardens" with its goal to be responsive to the user needs.

a. **Physical Changes & Design Accommodations**

i. **Mobility is reduced.**

Stooped posture impedes walking and sitting. Heart conditions causes low energy. Ear damage causes loss of balance and loss of vision reduces awareness.

Design to assist mobility, decrease tripping hazards, accommodate slow reaction times and sight limitations, using such features as Handrail cues, edge of floors contrasted and minimal gradients. Time delayed devices

are set to allow time for the elderly to complete access.
Minimize travel distances.

ii. **Strength and Stamina**

Joints become rigid and muscles weaker. Reduced stamina.

Design to accommodate difficult grasping of hands, minimize reaching tasks. Recognize that the residents' movements require more exertion which makes distances a major consideration.

Frequent rest stops along corridors and garden walks.

Access to toilet, bath, door knobs, window controls etc. are designed to operate with simple push or pull action since operation of small buttons, inserting key in lock etc. are difficult for the elderly to coordinate.

iii. **Visual Acuity**

Reduced color sensitivity.

Increased glare sensitivity.

Loss of visual field, acuity and adaptability.

Design for increased light levels, better colour differential, less glare, increased signage size and increased contrast for better vision.

Relate information about the building via the other senses. For example the Warm sun at a window identifies its location.

Windows at end of corridor cause undesirable glare on flooring.

iv. **Hearing**

Decline in discerning a voice from background noise.

Decline in higher frequency sounds (alarms, bells, etc.)

Design using alarms in both visual and audible sounds of the correct frequency.

Reduce background noise and improve sound acoustics.

Some background noise aids orientation.

v. **Tactile, Thermal Sensitivity**

Decline of sensitivity.

Design using surfaces texture to provide warnings.

Tactile clues.

vi. **Memory Loss**

Decline in memory and speed of brain.

Senility.

Decline in orientation ability.

Design with repeat symbols, information and simple circulation routes to compensate if forgetful.

Avoid design situations which reinforce senility such as self locking doors.

Incorporate landmarks to assist orientation.

Avoid repetition of elements without special identification, for example all elevator floors look alike and thus confusing to elderly with regards to orientation.

b. **Psychological Changes & Design Accommodation**

Speed of processing, storing and expressing information declines with age. It has a depressing effect.

Reduced functioning of senses forces elderly to limit activities to negotiate environments with less challenge.

Design to recognize these impairments and accommodate.

Environment shall offer variety and choice with opportunities for elderly to be fully tested as well as to simply survive.

Environments designed to accommodate only a status level of competence will reinforce the elderly's failure when not able to adapt or promote passivity in those not challenged.

c. **Social Changes and Design Accommodation**

Social adjustments and family separation is traumatic for elderly. Age does not change the nature of man since the same desires for independence, control, choice, privacy and intimacy are present. However these needs are difficult to meet when increasing care services are required, although these clinical demands must not over shadow the personal and social needs.

Design to accommodate the 'invisible' handicaps of elderly such as loneliness, incontinent, social aspects of eating.

For example, relaxed atmosphere in dining room promotes socialization not just eating.

Bathrooms located close to activity areas accommodates quick access for elderly's reduced bladder control.

Finally, Environments are perceived by the detection of the

senses of light, hearing, smell and taste thus "Winter Gardens" is designed to recognize and accommodate the declination of the senses.

5c. **NEEDS OF ELDERLY**

Kahana research studies reveal that the well being of an aged resident is a function of, the nature of the environment, characteristics of the person and degree of fit between person's need and ability of environment to meet these needs.

Institutionalization has a significant and traumatic impact on the individual. The change from independent to dependent status, adjustment to new role in life, reduced privacy, social isolation and abandonment are difficult experiences of adjustment and further compounded by the frailties of aging.

Thus, the elderly need a facility with the supportive physical and psychological atmosphere to enhance the image of the aged and promote well being.

As a minimum the following psychological needs must be recognized and accommodated to meet this goal. Environments designed sensitive to these 'needs' help aged cope with these difficulties.

- a. Sensory experience.
Sensory losses compensated by information systems.
(Visual & hearing & senility assistance)
- b. Tactile Stimulation
Compensate for reduced touching, excitement and curiosity.
(Design to improve involvement with community)
- c. Interaction with others.
Choice must be available and social interaction encouraged.
(Balance of private and public spaces in planning)
- d. Privacy.
Essential for well being and must be adequate.
(Individual resident suites.)
- e. Variety
Offsets routine and helps alertness.
(Day Care Centre, winter gardens, changing vistas)
- f. Predictability.
Assists security of the familiar.
(Reduce conflict and distraction)
- g. Identity.
Maintaining individual identity and improving the aged image.
(Design to allow personalization and territorial claim)

- h. Autonomy.
Independence and self reliance.
(Rehanced by environments which are supportive, allow control, privacy and accessible)
- i. Activity
Meaningful activities and accessible.
(Enhanced by adequate spaces for activities which are barrier free)
- j. Orientation.
Keeping track of time is essential framework of life.
(Help improve orientation and comprehension of environment.)
- k. Reflection.
Opportunity to reflect on past.
(Quiet areas.)
- l. Love
Physical contact.
(Private bedrooms)
- m. Aging as a universal process.
(Flexible environment concept.)
Also, the aged must cope with significant emotional problems when moving into an institution, which must be considered in the program design. Environments cue behaviour and thus may help residents to cope with these difficulties.
 - a. Change in routine and style of living.
(Concept of normalization in life style helps to minimize impact.)
 - b. Decreased social role and interaction.
(Integration with community and activity encouraged.)
 - c. Individual and Cultural stigma.
(Environments promotes a new image.)
 - d. Dependency on others.
(Supportive environment helps to minimize dependency.)
 - e. Intermixing with mentally impaired.
(Isolation and segregation is undesirable)
 - f. De-personalization.
(Allow personalization of environment.)

However, three important factors have been identified by the elderly as priority items necessary to maximize self determination as individuals Privacy Independence

Choice and are discussed as follows.

1. **Need for Privacy, Independence and Choice**

Choice of life styles, privacy and independence are essential to our individuality, self esteem and well being, however we must understand that the requirements of the Frail Elderly are of a different nature with different priorities.

ii. **Privacy**

The Elderly experience a narrowing down of privacy, where compromises are made in exchange for a reduced mobile life style, increased assistance and dependency, however all privacy need not be abandoned. The elderly need to retain maximum control over their privacy and be alone at times with no forced interaction, but not isolated.

The proper environment design should accommodate these needs and allow elements of choice and control. Privacy is an important concept which requires understanding in terms of the elderly and their psychological capabilities. Privacy exists at many levels which the elderly must have the ability to protect.

Everyone regardless of age needs privacy of event for toilet, bathing, sex and dressing, privacy of lifestyle and habits.

The environment accommodates the privacy element by using heirarchy of spaces and walls. For example, the residents bedroom requires special separation and noise isolation with control over the door. The tradition of open doors to the rooms for monitoring of patient is not private, and locked doors are not always the solution or possible.

"Winter Gardens" explores the concept of spaces with edges and progressive levels of privacy which provide a gentle reminder of ownership. Monitoring of sick elderly can be assisted with electronic systems, however the bed fast elderly need opportunity to view the corridor activities and not feel isolated. This project accommodates the need for privacy without isolation.

Bathrooms need to be private for activities of toiletry, bathing, dressing which often take a long time and energy

to complete. The elderly may accept the helping attendant but do not wish their intimate activities to be common knowledge to their peers. For these reasons, this project 'Winter Gardens' provides individual bathrooms to each resident room.

b. **INDEPENDENCE**

The elderly experience a gradual decline of independence as their need increases for assistance with their daily tasks. Supportive environments can contribute towards this assistance by resolving the physical and social barriers encountered by the elderly. "Winter Gardens" addresses these needs and promotes the concept of 'barrier free' environment which allows the individual to choose the degree of self dependence and not require forced assistance.

Most elderly wish to retain the maximum independence to their capabilities, however recognize that each individual chooses their own degree of independence or dependence.

Society views the concept of self dependence as an important goal in terms of social, clinical and economic benefit and provides programs to assist this aim.

c. **CHOICE**

Society's perceived needs of the elderly verses the matter of choice by the individual requires careful consideration.

Many existing institutions provide an environment with services for the specific groups of elderly which do not allow much individual choice, since their programs are based upon societies perceptions of the elderly as a stereotyped population and priorities are often based upon economics, staffing or management.

However, the aged demand that choices must be available in what ever forms of housing or care facilities or services. The built environment must allow choice.

The codes and legislation must be revised to allow choice.

Health and care systems must be adaptable to allow choice.

Thus, the real and changing needs for choice by the aged, need to be defined and prioritized, in order to be accommodated, and acknowledging that it is not probable to tailor design to each individual.

Choice means the availability of opportunities on the following human values.

- Maximum of self determination.
- Decisions for one self.
- Continued interests and activities.
- Remain in Society.
- Privacy and Independence.

d. **ENVIRONMENT AND CARE SERVICE CHOICES**

The following is a list of **suggested choices to be available to the elderly** in the facility proposed herein.

1. **Range of health service.**
 - From 24 hour chronic support to minimum daily checks.
 - Casual or day care only as needs require.
 - Flexibility of changing from chronic to casual as health changes.
2. **Range of residential care.**
 - From casual to daily to intensive 24 hour care.
 - Flexibility of changing as needs require.
 - Choice of none.
3. **Range of Residential Suite/Room**
 - Semi-independent Suite complete with kitchenette, bath, living area, etc.
 - One or two bed units (for spouse or companion)
 - Smaller efficiency type apartments for dependent living.
 - Size variations in suites with options for outdoor access.
 - Variety in environment types and sizes, but recognizes the constraints.
4. **Flexible**
 - Allows change of environment to suit changing needs for lifestyle. e.g. Converts kitchenette into closet, etc. when no longer cooking.
 - Adaptability to maximize independence.
5. **Group or Private Meals**
 - Accommodate some snack preparations on-suite.
 - Meals delivered to room.
 - Central dining facilities.
 - Choices of private or group as individual preferences on a daily basis.
 - Non rigid schedules.

e. **ISOLATION**

The aged person requires some informal network of friends and family as we all need, therefore the design and location of this project must accommodate and enhance such opportunities.

Location is critical to avoid isolating the aged. The site selected is in an established neighbourhood of elderly housing, since the elderly usually prefer familiar surroundings and friends nearby. The easy accessibility to adjacent parks, shops, churches and transportation should encourage the more capable elderly to go out and interact with the community.

The Day Care Centre incorporated into this project encourages the community to visit "Winter Gardens" and interact with the less capable elderly. The 'family pod' concept of this project offers opportunity for the residents to know and help each other.

5d. **DEMOGRAPHICS**

Demographic statistics show that the aged population is increasing dramatically in terms of numbers and ratio to overall population.

Saskatchewan has nearly the highest ratio of aged at 12% of population, with an increase of 1.5% annually since 1961 and projects a population of 155,000 seniors by 2001. The most significant growth has occurred in the 75 year old group which projects 35,000 increase by 2001. The eventual emergence of the post war baby boomers in twenty years time illustrates the magnitude of this aging crisis.

Also, greater longevity due to improved health care results in higher average age of the elderly population.

Such conditions of an aging population with declining health status due to the aging process, generates a unique demand for special care homes.

The Saskatchewan Housing Corporation report on 'Task Force on Senior Citizen Housing' conducted in Saskatchewan illustrates the large demand for seniors housing and enriched housing now which shall later turn towards the nursing homes. Approximately 20% of this group shall eventually require such accommodation. We focus on the old-old elderly since this group includes an increasing population of the handicapped, physically frail, blind, confused, bedridden and senile who require some forms of dependency. The current environment choices for this group has been the most limited.

However, this group of aged presents as great a cross section of capabilities, perceptions and environment expectations as any other group. Health, wealth, status, ego social skills and strengths are varied and must be recognized in design. Yet aging is dynamic and thus we must accommodate the worst case individual scenario and the more capable individual scenario plus the changing from one extreme to another.

"Winter Gardens" provides the environment adaptable to meet these needs.

RESPONSIVE DESIGN

6

6A RESPONSIVE DESIGN CONCEPT

The concept of responsive design incorporated into "Winter Gardens" is not simply the inclusion of 'accessibility standards' but the consideration of all the physical, social and psychological barriers which confront the aged individual. The goal is to minimize physical restrictions and encourage access to all areas.

i. Barrier Free Design

Barrier Free Design concept refers to the principles involved in the design of sites and buildings that are accessible to and useable by the aged, the wheel chair bound and the people with physical impairments. Special design features are considered for each physical limitation and the solutions satisfy these requirements. However, at times some compromises are necessary to reduce the conflicts between opposing needs of individuals.

For example, a blind person prefers a floor with texture but such a floor impedes wheel chairs, thus the compromise is a hard surface floor. The sound rebound assists blind and yet is suitable for wheel chair traction.

Also, many barriers originate from social and psychological factors such as when the elderly are told that they are unable to achieve thus creating a learned helplessness.

It is important that the designs for these needs select forms which blend into the building and do not create an image of an overly supportive environment with its tradition of individual and cultural stigmas.

However, we do not promote environments to "baby" the individual but only to provide assistance, since risk and responsibilities reinforce our sense of accomplishment and the environment should not remove all risk situations but allow some challenge.

ii. Control

Control over the environment symbolizes a self determined life style and preserves the quality of independence and privacy however due to the physical impairments and health loss many elderly find it difficult

to achieve such control.

Environments can be designed to help the elderly maximize this control by minimizing their dependency and sense of helplessness. The barrier free design principles increase the ability of the elderly to use the built environment, however they require opportunities to control their interaction with others. Thus the design of space hierarchy, view windows, locks on doors and other features in the environment assists these needs of social control.

Social Integration can be aided by planning since areas of high activity are attractive to residents and they often choose to sit near entrances, dining areas, staff office, nurse stations, etc.

iii. **Accessibility**

If barrier free design is to be achieved there are special design features that must be considered for each physical limitation and design solutions must satisfy these requirements.

A summary of these items is listed below for later consideration in the detailed design requirement section.

Physical limitations

- Frailty endurance
- Walking impairment
- Walking aid
- Wheel chair
- Manual impairment
- Sight impairment
- Hearing impairment
- Multiple sensory loss
- Orientation impairment

Exterior Accessibility

- Paved and natural surfaces
- Curbs and obstructions at grade
- Ramps, stairs and handrails
- Parking and unloading
- Waiting and seating areas
- Recreation
- Plants

Lights and signs
Interior Accessibility
Circulation
Finishes
Living and dining spaces
Recreation
Bath and toilet facilities
Kitchens
Exits
Doors and windows
Obstructions
Light, heat, acoustics, cooking and humidity
Water temperature, Fire Alarm, Communication
Systems, Signage.

Design

Each physical limitation listed above shall be specifically considered and referenced to each physical building element where accessibility resolved.

iv. Adaptability of Environment

Adaptability means the design of features to allow environment modifications to meet the needs of the aged resident over a wide range of disabilities. It is a design concept developed to address the problems of elderly individual differences and changes in capability over time. e.g. Elderly experience a wide range of the age related impairments over time.

As a result of the great variety of differences and changes which they undergo, a single room design seldom fits exactly the specific requirements of different older people.

These individual differences are essential and create design requirement differences that are important elements in or living environment. e.g. Ability of kitchen counter, sink or shelf closets to be raised, lowered or modified to accommodate the needs of either mobile or disabled elderly.

In addition certain beneficial elements should be incorporated based on current accessibility standards or other codes. e.g. Lever handles, larger bathrooms, blocking for future grab bars, anti scald showers, front

load washers, front range controls, casements windows, flexible shower hoses, etc.

A further aspect of adaptability is its forward looking qualities to accommodate future changes, which are difficult to predict but need some considerations to ensure long term usefulness of the facility.

v. **Flexibility Concept**

Flexibility in design responds to the differences in "accessibility" needs. For example, the blind versus the wheel chair resident, where one requires environment for standing height and the other sitting, but only one requires assistance devices for vision.

Thus, all aged do not need all accessibility features to be accommodated in the facility, only selected items where required. However, the environment design must be flexible to accommodate any.

v **Design Goals**

The project design shall incorporate the following issues:

Long Term Care		
Privacy	-	Design to assist attainment
Independence	-	Design to support
Residents needs	-	Primary objective must be satisfaction of residents.
Flexibility & Adaptability	-	Environment accommodates change
Staffing Flexibility	-	Consider temporary help
Choice	-	Choice of environment and care. Codes must allow.
Control	-	Residents control over environment.
Responsive Design	-	Design concept to aid elderly overcome barriers and includes social and psychological factors.
Support Systems	-	Therapeutic environment to compensate for disabilities.
Communications	-	Responsive to user needs.
Innovative	-	Winter Gardens
Residential Atmosphere	-	Homelike
Economics	-	New Philosophy
Image	-	Eradicate stigma
Security	-	Residents must be and 'feel' safe
Scale	-	Residential
Social	-	Opportunities for casual social interaction.
Activity	-	Design to encourage participation in activities.
Encouragement	-	Warm, receptive atmosphere to support daily life.
Personalization	-	resident
Integration	-	Resident desire not to be isolated.

Consider the implications of above aspects on project planning with purpose to enhance the benefits to the residents and reduce the staffing or supportive service requirements.

6B. Resident Suites

The majority of the nursing care facilities in Saskatchewan provide the resident suites as a single bedroom with a shared toilet. Most rooms are small and identical with the only variety provided by occasional rooms for two occupants.

This concept is based upon the hospital room model and offers limitations to a normal living experience. Such conditions are traumatic to the older person who is in residence in the same small room for over 10 years.

Such features as non locking doors, small room size, and lack of normal amenities may assist the provision of care services but they restrict the life style choices of the resident.

It is possible to meet both of these requirements.

Firstly, we accept the premises that the suite is the home of the aged resident and therefore it must meet their needs of normal habitation.

Secondly, we recognize the frailties of aging and design the environment to be responsive to these needs. Such an accommodation allows the resident to habitate with maximum independence and reduces their care assistance requirements.

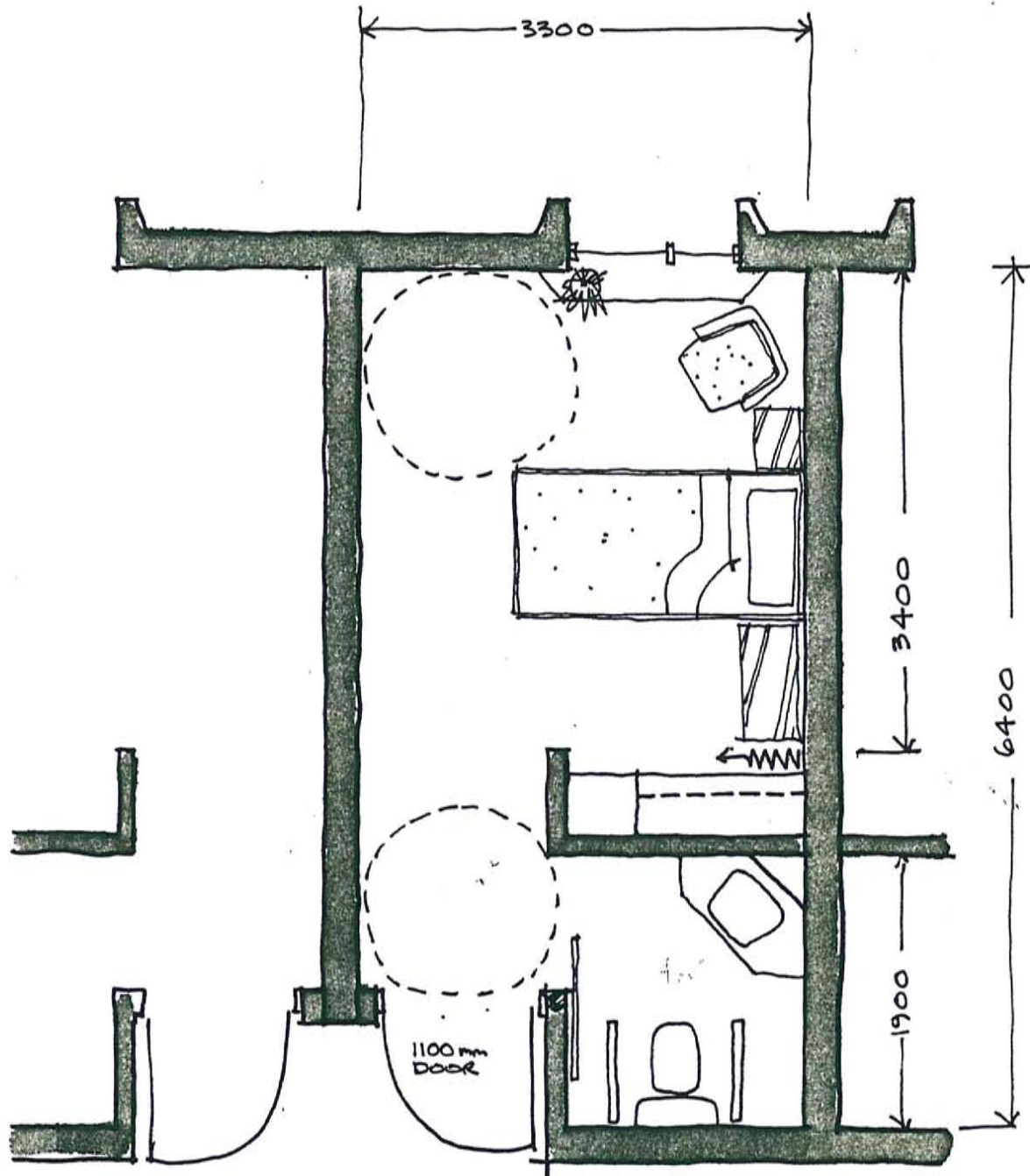
Thirdly, we accept that the residents health and functioning deteriorations imposes limitations on their expectations of the suite in terms of its size. A more compact environment is acceptable and desired. A compromise is attained to provide a suite with living spaces for normal habitation and yet not to become overwhelming and isolated.

A review of the resident room evolution and its various possibilities are explored with the selected suite diagrams.

For this project the suites designed as Concept Type A, B and C are selected as the most appropriate to meet the aged resident needs.

Each suite incorporates several features to accommodate the changing needs of the resident, and includes the responsive design concepts. Each suite is fully accessible for a wheel chair reliant person and the bedfast resident.

The bathroom in each suite includes a built in shower and is equipped with features to meet the needs of any resident.



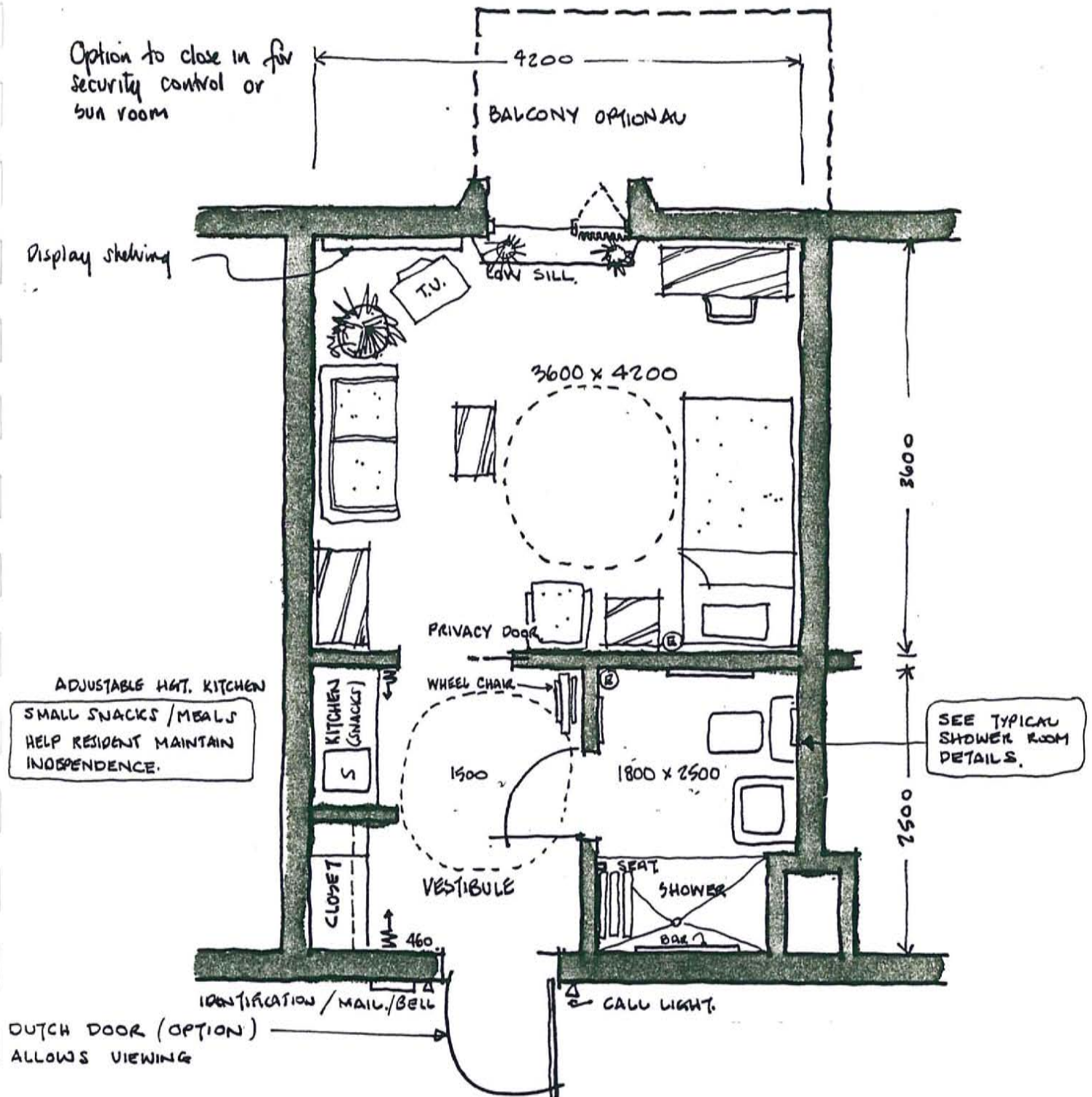
Hospital Type arrangement. - Nursing care
Limited privacy. Limited personal items

AREA.

20 m²

EXISTING TYPE RESIDENT ROOM





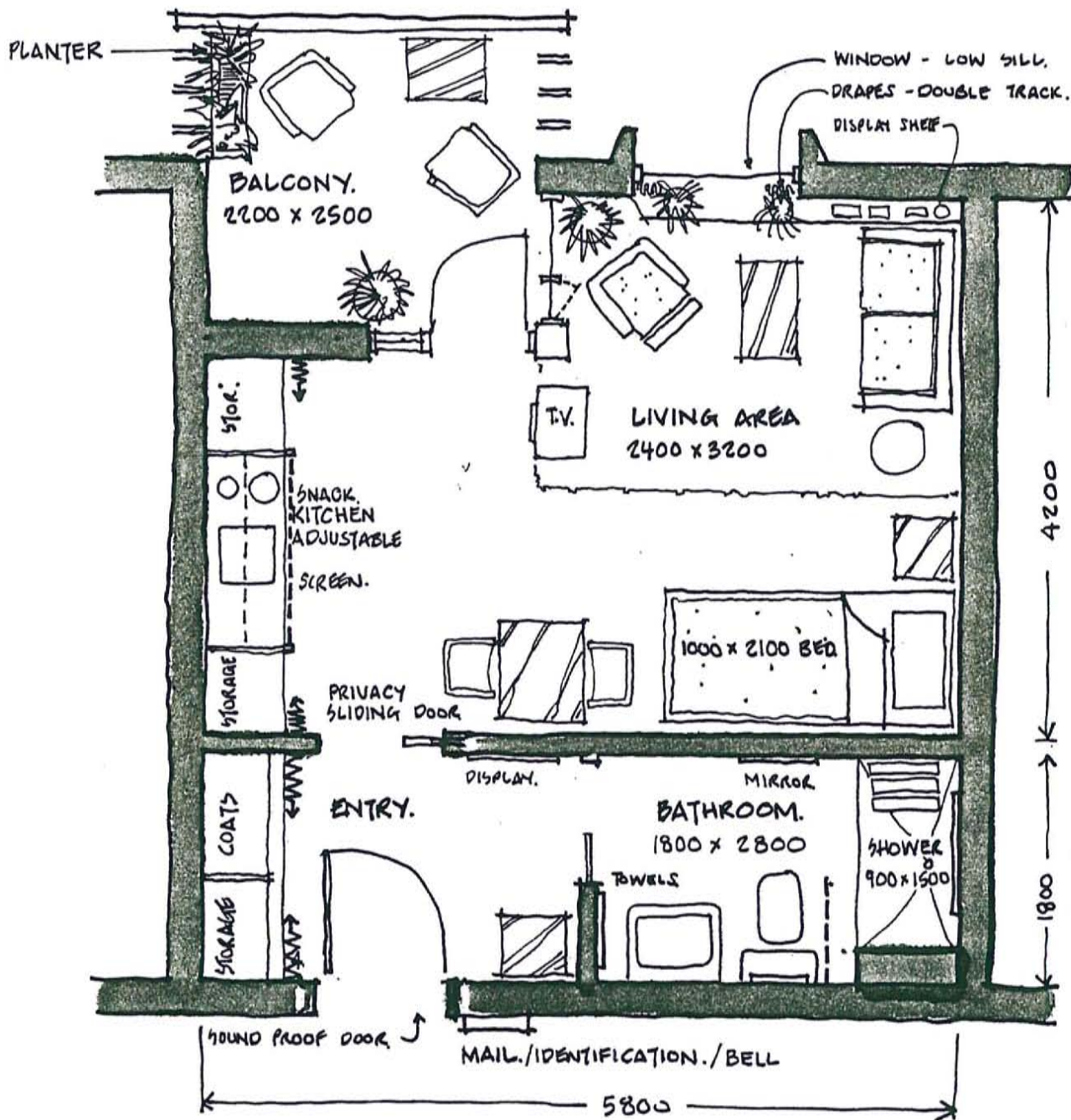
Improved privacy. Personalized space & room for furniture. Nursing care

AREA

26 m²

IMPROVED RESIDENT ROOM

1.

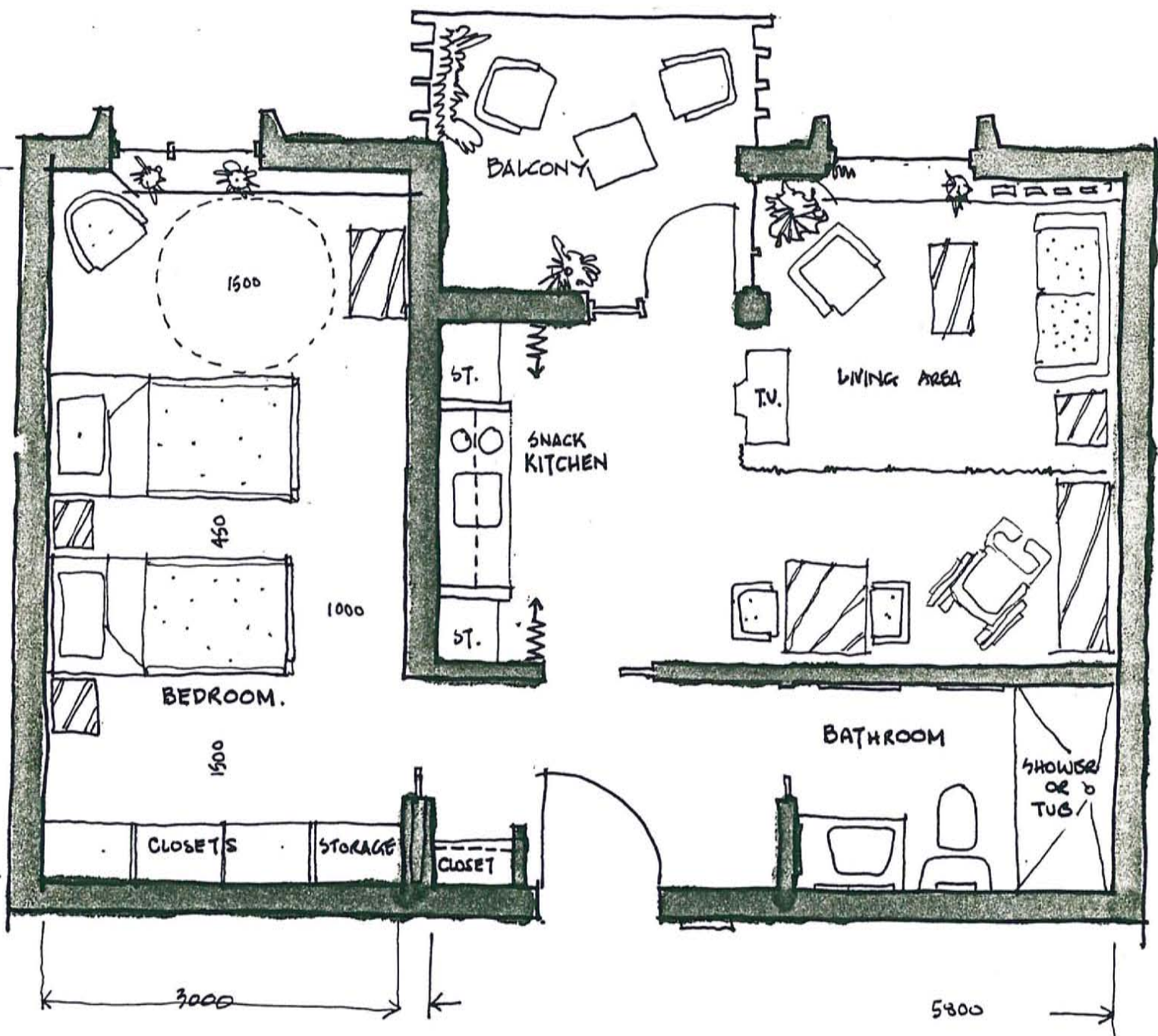


Semi-dependant living w/ care service.
Privacy, outdoor access, snack kitchen.

AREA
36 m²

IMPROVED RESIDENT SUITE

2



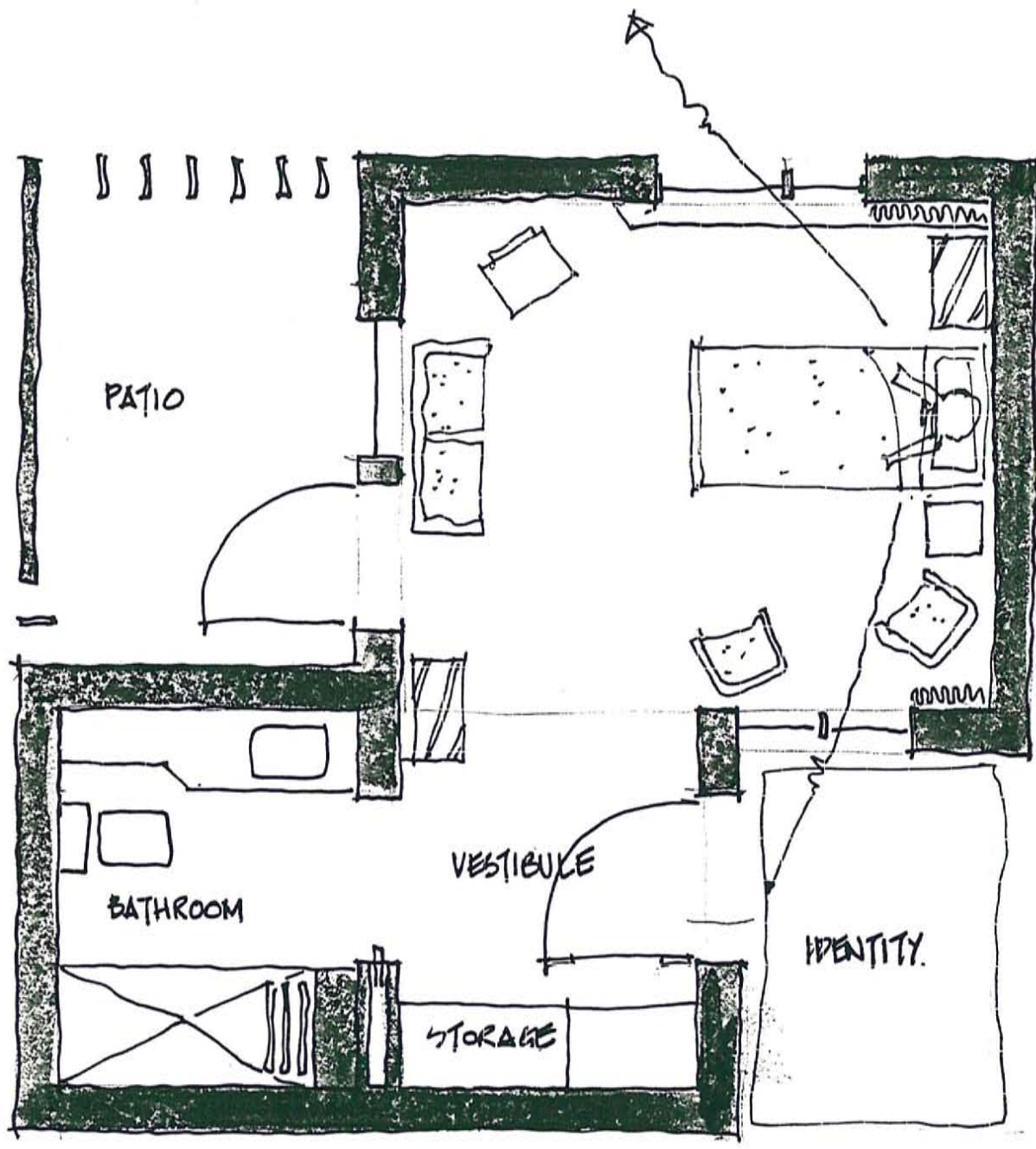
Two room type w/ snack kitchen.
 Semi-dependent living w/ care services.

AREA

54 m²

IMPROVED RESIDENT SUITE

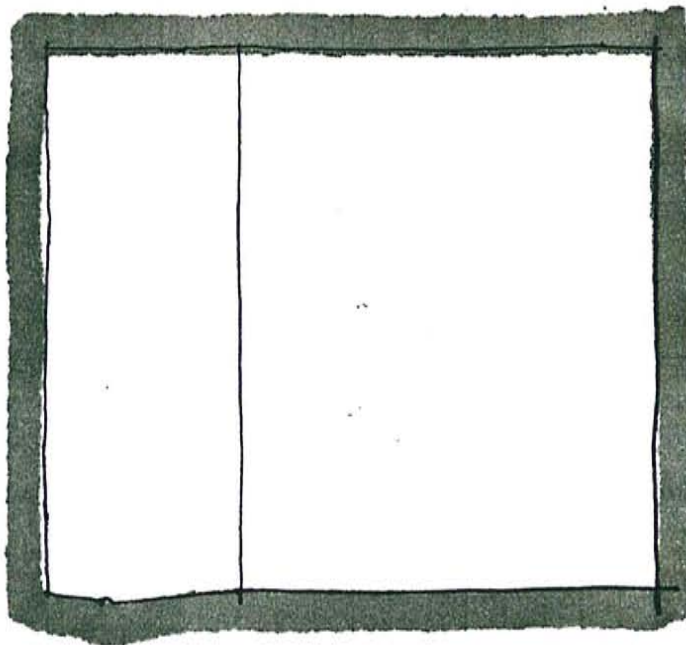
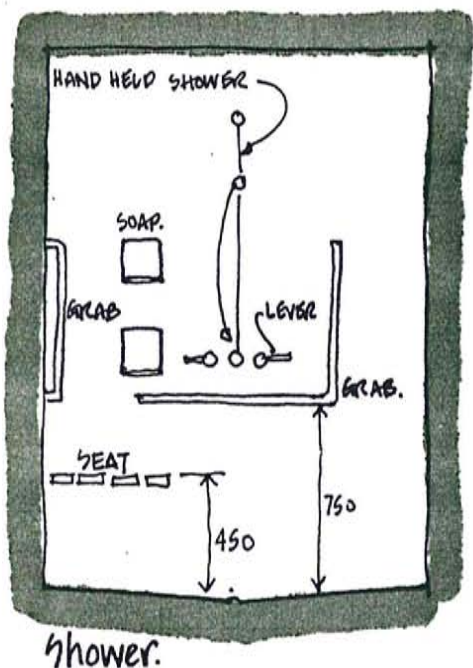
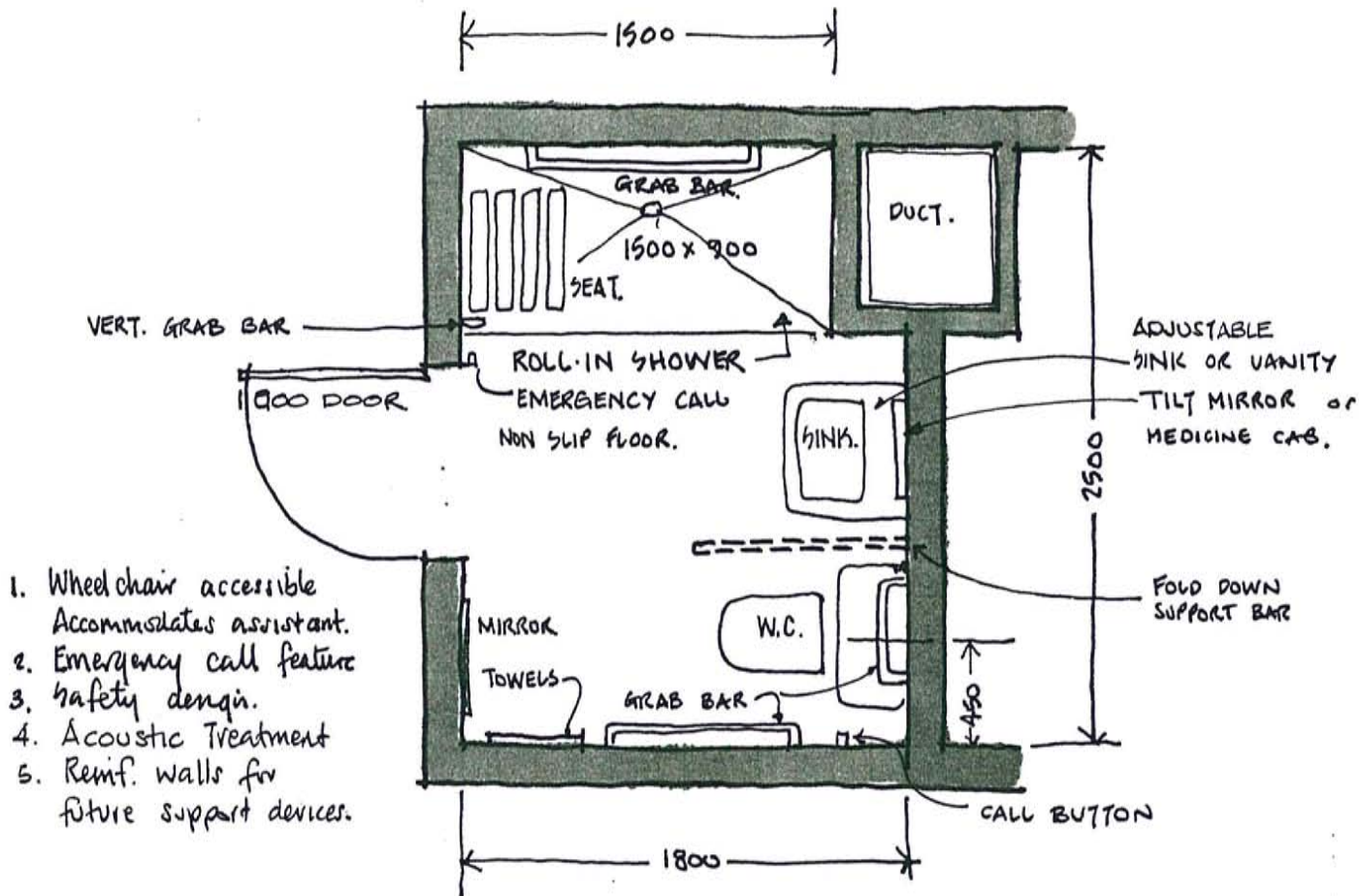
3



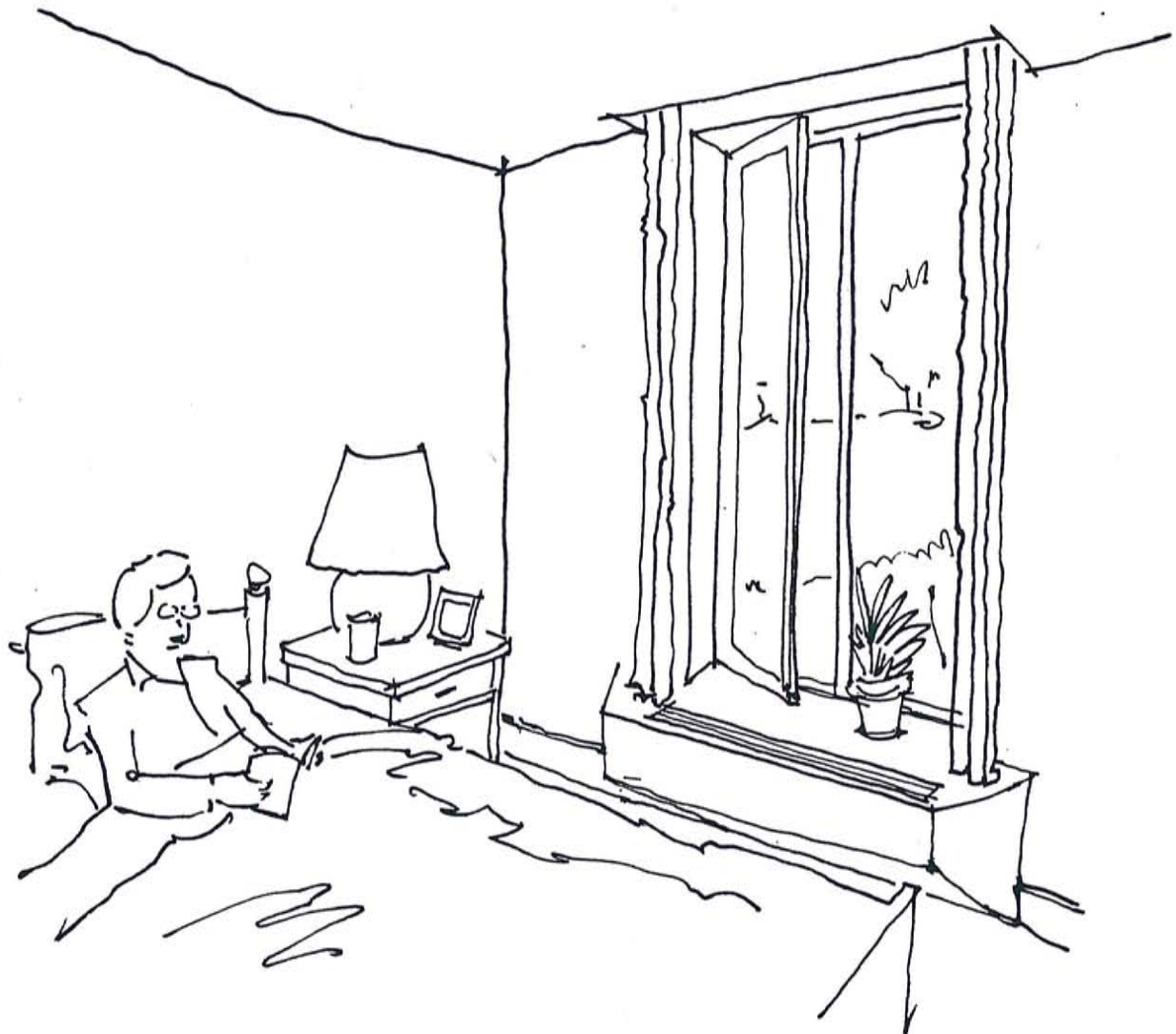
Provides best-fast resident with
view of entry area / corridor.

IMPROVED RESIDENT SUITE

4



RESIDENT BATHROOM - ACCESSIBLE



Low window sill for view.
Deep sill for plants. / Double track drapes.
Opening window for fresh air. - easy to open
w/ security opening limits.

RESIDENT ROOM VIEW.

LEGAL DATA
7

7. **LEGAL AND POLITICAL DATA**

Introduction:

Nursing care facilities are significantly influenced by Housing and Health care programs, regulations and economics. Thus, the viability of any new project is dependent upon the satisfactory resolution of these constraints.

The following sections investigate the basic concepts of these issues and suggests changes to accommodate this new project.

It is not intended to be an in depth analysis of the health care or funding systems, but merely a starting point to illustrate their influence on the architectural environments and the need to change.

7a **HEALTH CARE**

i. **The System**

Special Care or Nursing homes in Saskatchewan are governed by license and regulations designed to set minimum quality standards of the personal and health care service environment. Such factors as demonstration of need, community resources and populations, and system of bed allotments and utilization are considerations when approving license. After license approval the Nursing Home becomes entitled to receive grants and reimbursement for medical/nursing care services.

However, this rigid system which regulates the provision of special facilities with specific ranges of nursing care needs to change. It must allow flexibility to adapt to full range of facilities from retirement apartments to nursing homes. Also the system must allow adjustments in the care component levels to meet the changing demands and designed to allow an integrated mix of residents with the full spectrum of care levels. Such changes need to be designed to accommodate the aged persons need for permanent residence in choice of accommodation and choice of care without segregation.

ii. **The Problem**

The problem with the current system is evident from the present shortages of Level 3 & 4 bed accommodations, caused by the rapid expansion in the aging old-old populations. In previous years accommodations with Levels I & II care satisfied the demands but now face

difficulties to respond to the Level III and IV challenges. The proposed new care system which provides flexibility to accommodate the full range of care offers better potential to adjust to demand fluctuations.

Also, the regulations need revision to respond to such issues as loss of privacy, loss of freedom, social aspects, low behavior and normalities in life style, all of which result in detrimental effects on elderly patient.

iii. **Health Care Criteria**

The Department of Health and Welfare have established a document which defines the various levels of care provided in Saskatoon and is currently used for purposes of planning, development and research.

This "criteria" for levels of care for the province of Saskatchewan describes the characteristics of aged, care services and staffing required for the various four levels of care.

Level I- Limited Personal care with minimal supervision.

Level II - Personal care with daily nursing care.

Level II - Extended Care with considerable nursing care and daily medical supervision

Level IV - Special care for long term rehabilitation

This categorizing of care provides useful definition, however it is generally recognized that an individual may require different levels of care at various times.

However, this current system of rigid levels of care classification together with the 'care bed designation system, results in fixed programs of health care of the individual and regimented services. But the health state of the elderly rapidly changes back and forth to a gradual decline and the elderly cannot be expected to move back and forth between classifications of care or between the different facilities which provide the different levels of care. As a consequence many elderly may receive levels of care which they do not require.

Therefore, the health care regulations require changing to a more flexible system which allows the 'elderly' to choose their own degree of care or health service assistance. A user

responsive system rather than classification responsive is proposed. A "provide as needed" system for these health and care services allows elderly to make decisions, is flexible to changing conditions and with proper management is cost effective.

The financial burden on society for 'health care of aged is becoming an increasing concern and trends are now favourable towards innovative methods which replace the dependency on nursing systems and care level classifications. The 'enriched housing' with support services, relieves the level I care burdens, from nursing homes, however the demands on the Level II, III and IV facilities continue to be a critical and increasing problem.

The health care system and the care facilities have adapted over time towards multi-levels of care, however the rigid classification remains as the final obstacle to be resolved.

iv. **The Solution**

This research report proposes that the nursing and health care system is changed to allow flexibility in the type and degree of care required by the individual. The classification system is abolished and the level of care is changeable, adaptable and dispensed on an as needed basis as an extension of the Saskatchewan Medical Care program. The personal care services are retained as needed by the elderly on a daily, monthly, casual, intermittent, intensive or full time basis.

Conclusions:

Changing these regulations to allow choice and flexibility is crucial to allow development of new concepts in housing for the aged.

The existing regimented programs influence the building forms, with their hospital format of nursing units, their compromises of privacy and reduced individual choice. However, the proposed new care system eliminates all these constraints and allows adaptation to the increasing demand for higher care during the residents aging process. The aging resident desires permanency of residence in one facility which is accommodated by this new care system and its flexibility responds to the elderly's preference to maintain degrees of independence.

The new system must be flexible and innovative in its functioning to ensure the elderly care needs are being met effectively and efficiently, with emphasis on client oriented assessment rather than system management.

The current trends towards the concepts of 'Day Care for Elderly' can be expanded and offer particular benefits if integrated with a nursing home where in-out patient services are available. Allowing community seniors access to 24 hours nursing care services on a casual basis as temporary needs required, benefits both the facility and community. Presumably, efficiencies are realized to maintain full occupancy by management of care services and use of temporary respite beds, which to adapt to fluctuating demands within the facility and balanced by community needs. If demand for the "respite beds" is consistently exceeded then the facility may expand with additional accommodation.

In conclusion, new housing and long term care concepts are only effectively possible if current regulations and departments which manage the system are revised to accommodate the emerging trends. For example, the Department of Health have control over the Special Care Homes and Saskatchewan Housing Corporation controls the 'housing' component where no health care provisions. However, the integration of both these departments is required to meet the demands for new 'comprehensive housing' which integrates health care services. There are no longer clear distinctions of Facility Types with rigid demarcations and controlling authorities need to so recognize.

7b **REGULATIONS**

i. **Standards**

Aged populations cover the entire spectrum of disabilities, with some individuals having a combination of impairments such as visual problems, wheel chair bound or hearing loss, and yet a single environment must respond to these needs. The challenge is significant but attainable.

Demographics changes shown elderly are better educated with greater expectations and higher standards, thus the need for environments to meet these needs shall be come an increasing demand.

Society viewpoints are changing but the standards are slow to react. Minimum area standards, operations for staff efficiency and number of beds per nurse are often viewed as ideal standards for nursing homes. Privacy aspects are often ignored because disabled and mentally infirm are often viewed as incapable of appreciating such subtle qualities in life.

Thus, these standards require re-evaluation in terms of quality of life and not in terms of operation efficiency or costs. Standards need to respond to the user needs.

ii. **Regulations Review**

There are numerous health codes, government regulations, standards and controls which effect the design of environments for the aged populations.

However, it must be recognized that many of these standards have evolved over a time period and may pose conflicts with each other or fail to meet the current and changing needs of aging population.

Much current research into geriatrics and gerontology should eventually impact on these regulations, however in the interim the standards need careful evaluation to ensure sensitivity to the characteristics of the aged.

For example, recognize that the "accessibility standards of the N.B.C. 1985" attempts to cover the entire spectrum of disabled populations regardless of age group. But, the needs of an aged person with same debilities as a young person may require different sensitivities in the environments accommodation.

Also, the life safety and fire code regulations present conflicts with accessibility requirements, and some co-ordination is required.

Also, recognize that the accessibility standards for one population group such as the blind, may conflict or differ from the wheel chair group.

iii. **Current Regulations**

The following various standards, codes and regulations have been referenced in the preparation of this report and where appropriate the regulations may require revision to meet these new demands. (See Bibliography for entire listing)

1. National Building Code 1985.
2. Accessibility Standards 1985.
(Saskatchewan Human Rights Commission)
3. Uniform Federal Accessibility Standards 1984
(U.S.A.)
4. Fire Code N.B.C. 1985
5. Fire Prevention Act
(Sask. 1966 Act)
6. Fire Safety in homes for Elderly. N.R.C.I.
7. Life Safety Code N.F.P.A. 101.
8. Conformance to Barrier Free Design Criteria.
N.R.C.
9. Accessibility Standards for Visually Impaired.
N.C.I.B.
10. Housing & Special Care Homes Acts.
(Provincial Legislation)
11. Housing & Special Care Home Regulations.
(Department of Social Services, Saskatchewan)
12. Health & Social Services Department Saskatchewan
Policy on Financing/Licensing Care Component.
13. Saskatchewan Housing Corporation/Canada
Mortgage & Housing policies on Financing Shelter
Component
14. CMHC Funding for Nursing Homes: Policy and
Programs Issues. . Streich. September 1983 Report.
15. Canada Mortgage & Housing Guidelines
 - Housing Disabled Persons
 - Housing for the Elderly
 - Safety in the Home
 - Nursing Homes with Care Services for Elderly
16. Zoning Bylaws. City of Saskatoon.

iv. **Code Requirements For Project**

a. **Regulatory Authorities**

The following Saskatchewan authorities have jurisdiction over various aspects of the project.

Refer to separate report on the authorities, provincial and local regulations, Health laws and codes which govern.

This project is designed to meet these regulations except where changes are recommended.

Saskatchewan Continuing Care:

The approval of the building plan is required by this Department since they provide grants for construction of these facilities. They are significantly involved during the design phase and influence the extent of care provisions.

Saskatchewan Housing Corporation:

The Saskatchewan Housing Corporation provide funding as a mortgage for the project at favourable rates of interest.

City of Saskatoon:

The City of Saskatoon issue Building Permits and as such will submit the project plans to Zoning, Building regulations and Health Departments for review.

Saskatchewan Provincial Fire Commissioner:

The Fire Commissioner reviews the plans to check they are in conformance with the National Building Code and the Special Care Homes Act as it related to the fire and life safety.

vi. **Code Analysis**

National Building Code 1985

1. Classification - Group B Division 2
(Institutional occupancy)
- Height/Area - Any height, any area
- Sprinklered - Mandatory (in Saskatchewan)
3. Fire Rated assembly
 - 2 hr floors
 - 1 hr mezzanine
 - 1 hr roof
 - 2 hr load brg walls

- 4. Fire Compartments
- 5. Spacial Separations
- 6. Safety Requirements
 - .1 Public Corridors - 1 hr.
 - .2 Suites - 1 hr.
 - .3 Corridors
 - Emergency lighting
 - Finishes with flame spread limits
 - No dead ends.
 - .4 Suite doors
 - Acceptable hold open with smoke detector release (special type to suit aged)
 - Requirement may be waived if supervised by 1 staff per 15 residents.
 - .5 Corridor
 - width - 2400mm minimum
 - doors - 1100mm wide
 - pairs swing in direction of travel
 - .6 Floor Zones- minimum 1650mm exit stair width.
 - .7 Exit
 - Capacities - 30 persons per unit
 - 1100mm width minimum

7c. **FINANCIAL DATA**

i. **Trends**

The Saskatchewan Government which funds the nursing care services recognizes the potential for bankruptcy if our society continues with the increasing and difficult task of providing for the elderly via a system of traditional special care facilities.

The recent proposal calls for 'Innovative housing for elderly' indicates a willingness by the government to explore new concepts and meet this challenge and also accommodate the changing needs of our aging populations.

The new "enriched housing" schemes help to reduce the burden on the level I care facilities and future developments are anticipated towards the higher care facilities.

Such policies aimed at facilitating the 'independent life style aspirations of the elderly also benefits society.

This project "Winter Gardens" is forward looking to meet this inevitable demand.

However, innovative concepts require innovative funding, where financial policies and standards must accommodate the new priorities and view points, proposed in this report.

ii. **Revised Funding**

The 'Resources Management Study' identifies problems with the current utilization of existing long term care beds, and suggest changes to meet the emerging demands. It recommends a revised Funding System which is not governed by the current system of approved level of care designation and recommends elimination of the bed designation system. The current distribution of specific long term beds is not representative of current and future needs of the elderly as evident by the shortage of level III and IV beds, and many of the designated beds are occupied by elderly who do not need the level of intensive care.

A proposal that Funding be provided on the basis of the actual care level needs of the elderly resident and flexible to accommodate changes and choice of care required by the elderly, is cost effective and reinforces the viability of the user responsive programs proposed for this project.

A program which allows the residents to purchase their own 'personal care services' as required and flexible to their needs offers choice and opportunities not previously available.

Also, recognize that the more elderly affluent can afford higher standards of life styles, accommodations or care services and have higher expectations of the choices available. The choices are not currently available and therefore innovations such as proposed herein innovations are urgently required to meet this demand.

7d. **PROJECT COST CONTROL**

i. **Capital Costs**

These costs relate to the provision of the built environment and the total costs are dependent upon a combination of the following factors. The intentions for this project are appropriately indicated to support financial viability.

a. **Site**

Land Cost

Land size - adequate for project size and expansion allowance.

Services - Presently existing.

Accessibility - Easy access available, thus no special requirements.

b. **Building Construction**

i. **Standards of Construction** - Quality, durable, energy conservation construction is provided for long life performance and reduced maintenance benefits.

ii. **Standards of Care** - A complete spectrum of high quality care services shall be available on a 'choice' and as needed basis, which is managed on a cost effective basis. The supportive environment shall reduce the care needs actually required.

iii. **Space Requirements** - Liberal Space requirements based on need and not minimum standards of today which become obsolete tomorrow. Long term useful performance is the goal and avoids the costly premature obsolescence.

iv. **Complexity of Design** - Simplicity in design, layout and construction benefits the user and the budget.

v. **Special Design Elements** - Many special features are required to meet needs of elderly, in terms of a supportive, barrier free and a need responsive environment. The costs for these features are rationalized on the basis that the supportive environment shall reduce the "care component" cost and society demands equal opportunities for the aged.

vi. **Gross area per resident** - This project results in higher gross area per resident than typical

standards, however recognize that the day care and communal areas also serve the community.

- vii. **Accessory Space** - Adequate accessory spaces such as resident storage, maintenance shop, counselling rooms etc. since these rooms are always in much demand during the facilities operations.
- viii. **Extent of Service Spaces** - Kitchen and laundry areas are provided since on site services are considered better quality and more cost effective than using off site services.
- ix. **Extent of Health Care Elements** - Adequate Therapy areas, aqua pool, nursing areas are provided to meet residents needs and day care centre.
- x. **Extent of Activity Elements** - Adequate recreation and activities areas are required to meet the social objective of facility and essential to its long term viability.
- xi. **Feature Space** - The central atrium 'winter gardens' are considered essential to meet the life enhancement objective and aspiration for a strong new image for the project. There is potential for sponsors funding and cost sharing by community day care.
- xii. **Project Size** - The project size limited to serve approximately 100 aged residents is deliberate to ensure the individuality of resident does not become dominated by excessive numbers.

c. **Site Development**

The full site development and landscaping are considered essential to realize the life style intentions of the project for the residents. The barrier free site shall be safe and easy to use and maintain.

The costs for these developments are significant but ensure best use and accommodation of activities which otherwise may be under utilized. Full use of site to best potential is cost beneficial in the long term.

d. **Furnishings**

The facility shall include adequate furnishings and equipment for the communal areas, health care areas and services. The resident suites shall be provided with the bed and drapes, however the remaining furnishings shall be supplied by resident. Some selected suites shall be fully furnished. Wheel chairs and mobility aids shall be provided for residents.

e. **Market Conditions**

Construction tendering conditions are presently favorable for good value.

Financing rates shall be subsidized to favorable levels by government programs.

The more affluent and wealthy elders could be shareholders or developers of such a project, with prospects of future residency and an assured 'choice' of quality life style.

Conclusion

Capital Costs of a special care home are a small factor in comparison to operating costs, thus the initial 'built environment' should maximize the opportunity to maintain the independence of the individual which reflects in less dependency care and reduce operating costs.

ii. **OPERATING COSTS**

These costs relate to the provision of the care services, meal services, laundry, administration and maintenance operations of building. The following factors are considered.

i. **Staff Composition**

A permanent core staff is selected to meet the initial demands with fluctuations accommodated by use of temporary staff.

This requires special consideration since the project offers the resident a 'choice' in the extent of the services which affects the staffing demands. However, proper management should attain a cost effective system.

ii. **Staff/Resident Ratio**

The project intends a total staff ratio of 1 staff member per 3 residents and 1 nurse care staff per 6 residents. It is anticipated that the 'supportive environment' which assists independence should reduce the resident's demand

- for service assistances.
- iii. **Levels of Care**

All levels of care service are provided, however some management of the resident mix is required to maintain a desired balance of care services and avoid concentrations of high care only.

Medical & Health Care services are funded by the government health program.

Personal care services shall be paid by the resident as needed.
- iv. **Volunteers**

The use of volunteers and community resources is highly beneficial and opportunities have been provided in the facility to maximize their involvement.
- v. **Location**

The project location is easily accessible to community support services, volunteers.
- vi. **Construction Quality**

The high quality construction shall reflect in reduced maintenance and housekeeping costs over the long term.
- vii. **Project Size**

Project size and resident populations to be evaluated.
- viii. **Heating & Lighting**

Energy efficient construction techniques for building and mechanical electrical systems shall reflect in reduced utility costs.

Maintenance:	Low maintenance desirable for long term benefit, but requires increased construction and design quality.
Medication:	Determine type and system of dispensing.
Care Costs:	The flexible system allows for better 'bed' utilization.
Food Service:	Central kitchen provides daily meals.
Housekeeping & Laundry:	Central services for daily service.
Effective Use of Space:	Good design shall maximize use of space subject to the priorities of user needs.
Insurance:	Quality construction and fire safety and protection shall provide lower rates.
- iii. **Comments**

Compact designs, low resident gross areas and limited services may keep costs down but restrict the provision of

adequate needs for the aged, with questionable cost benefits.

This project attains a balance of all considerations to obtain optimum solutions in terms of the cost benefit.

Cost benefit

The capital and operating costs should take into account the social cost benefits of a facility which is adaptable to the changing demands and needs of an aging population.

The long term cost benefits to society are significant. The long term benefit of a facility which maintains its useful life is significant.

Thus, the established standards of formula to determine the cost viability of a project, need re-evaluation in terms of these other conditions and life cycle financing.

Viability

The cost viability of this project requires the developers, the sponsors, the government, the community resources and the residents to recognize the significant long term benefit of such new innovations and contribute to the philosophy of enhanced life styles available for our aging populations.

CONCLUSIONS

7e

infinite mutations and wide range of concepts we find a place for 'Winter Gardens', which incorporates all the aspects of enriched housing, residential care and nursing care.

It accommodates the aged need for permanent residence, where as previously they were required to change location from housing to health facilities and sacrifice life style in exchange for care. The successful amalgamation of housing and health care is the attained goal.

We focus on the frail aged and the nursing home since this problem area has yet to be successfully challenged and resolved. But, the need is real and identified as a growing concern.

We show how the architectural "institutional" form is influenced by the nursing care programs and how the proposed new programs with emphasis on 'life style needs' respond with concepts of more "residential" form. The viability of these programs which meet the needs of the aged are explored and supported by further examination of the nursing home background and current receptive trends. The issue of Health care services integrated into a housing environment is a difficult task, however the report demonstrates its possibilities and suggest it to be an eventuality.

Scandanavian countries are ahead of Saskatchewan in terms of their philosophies towards the older people having access to environments which allow continued normal life styles during the aging years. However, although they have identified the lack of this opportunity with their long term health care facilities they have not found a solution. Winter Gardens offers this solution.

The section on the Aging Process explores that aging is not a set of static conditions and confirms the significance of incorporating environment adaptability to accommodate the dynamics of aging. It defines the very essence of the problems faced by older people in their struggle with the unsatisfactory built environment with purpose to resolve in this facility.

Our detailed description of the users, the Old-Old and middle-old focuses on their aging characteristics as changing individuals rather than criteria for fixed stereotyped groups,

which have been too often used in existing programs. Our environment must respond to the real needs of the individuals who use them and not pre-conceptions. The importance of fully understanding the characteristics of the aged is significant when our society is only just beginning to explore this phenomenon.

We relate how the environment may respond to accommodate the needs of the elderly and how these needs relate to their disabilities. Physical Psychological and Social considerations are discussed and translated into architectural terms for incorporation into the program. Of particular importance to the Elderly are the issues of privacy, independence and choice which have been limited or compromised in many existing facilities. We discuss in detail all aspects and relate the degrees of accommodation which are so critical to the aged. Winter Gardens incorporates these needs and promotes the concept of integration and not isolation. Demographic statistics clearly show the dramatic changes in our aging society, increased longevity and increased expectations all of which support the new environment concepts.

The concepts of responsive design is developed to consider all requirements of environment accessibility in particular terms of the aged. This shows considerations of all aspects of a barrier free environment for the disabled, the visual impaired, the deaf plus the implications of social and psychological needs. We propose the environment to be supportive of the frailties of aging in order to make it more useable with less assistance and thus helps attain the older persons need for privacy, independence and self esteem.

Our goal to provide an environment responsive to the user needs is attainable and the influences on its form are illustrated.

The residents suite or room is the older persons 'home' and thus deserves special emphasis. Our exploration of the various possibilities, the needs of the user and how they are accommodated, demonstrates how easily these life style requirements can be resolved.

The critical issue in the suite design is to consider the user needs now and the needs later when health declines required different accommodations. For example, a full size apartment unit may no longer be a suitable accommodation for the mobile

resident when later bedridden and isolated. Thus, compromises are required but within a limited range of choices, and all provided in a single facility with purpose to allow permanent residency. We show how all these needs can be attained, in our 'comprehensive long term care housing for elderly'.

Our current rigid health care philosophies in Saskatchewan need to change to a more flexible system in order to accommodate the new priorities and needs of our aging population.

Our report identifies the current problem with care classification, relates its influences and constraints on the building and demonstrates the need for change.

"Winter Gardens" promotes a new health care system and shows how it can be accommodated. The goal to integrate health care into a housing environment is attainable when both are sufficiently flexible in program.

Regulations and Standards have impact on the building form and we discuss to illustrate their constraints on the needs of the aged and suggest changes to accommodate the objectives of our new environment.

Funding and Financial aspects of both the building and the health care system have influences on architecture and its program. We suggest new concepts for funding and promote a new approach to project cost viability. We suggest that economics need to consider new value judgements and priorities together with cost benefit over long term, rather than accept current standards of cost per bed as a value of quality.

Societies' priority for acceptable long term acceptable care housing for elderly, the willness of residents to pay more for the appropriate environments, transfer of care cost savings to building program and considerations of Day Care benefits all need to be evaluated. The conclusions suggest a new viable approach to financing this project and illustrate the philosophy of cost control objectives.

The intensive research identifies the issues, explores the details and defines the problems sufficiently to illustrate the need and translate into objectives to be accommodated into the design brief which follows in the next section.

'Winter Gardens' is pioneering a new approach to health care housing and the research report clearly demonstrates its need by Society.

site 8

8. **SITE DATA**
8a **SITE SELECTION**

Site

The site is currently owned by the Canadian National Institute of the Blind.

The existing building is old and no longer adequate for function.

The C.N.I.B. propose to move into a new building at another location.

The site is adjacent to a small undeveloped park area which is owned by the City of Saskatoon. Options are available to annex this property or develop into a useable landscaped park.

b. **SITE ANALYSIS**

Site location is ideally suited to this special care home project based upon evaluations of the following site selection criteria and analysis.

i. **City Plan**

The site is located in the Nutana Suburban Centre which is an established area of the city. This area and surrounding area includes a varied range of residential houses, apartments, housing for elderly, retirement homes, recreation facilities, shops and schools.

The area has good potential for continued growth and the population profile is typical of an established neighbourhood with maturing families and a trend towards a concentration of seniors in this area.

ii. **Neighbourhood Context**

Close to the site we have a variety of elderly housing apartments and senior retirement homes. Four senior apartment highrises, Cosmo court a seniors village, Stensrud Lodge, Saskatoon Veterans Home, Legion Manor, Salvation Army Everglades Home, etc. Such compatible neighbours should encourage continued visiting of friends, interaction with the community and avoid isolation of the residents.

iii. **Accessibility to Market**

The significant and full range of senior citizens in this neighbourhood provides support for a day care centre to be incorporated into the project, and supports a long term demand for this special care facility. The range of population in this area and adjoining neighbourhoods should provide adequate source for volunteers and some staff for the facility.

iv. **Suitability of Location**

The site location on the corners of Adelaide St. and McEown Avenue faces onto a park to the east and open parking area to the south. The west side is flanked with a lane and existing three storey retirement home. The north side views onto an open park area.

The site has abundant opportunities. Easy interaction with the community, advantage of busy street activities or quiet views over the park which are desirable settings for this facility. (Seniors desire high level of visual and physical exchange with community.)

The corner site offers opportunities for best advantage of sun and views and access. Also, the site is a highly visible location which is desirable for this project.

v. **Amenities**

The park across the road offers opportunity for the more capable resident the wheel chair assisted residents to take walks or sit outdoors.

The nearby Lions Arena serves as a focal point for community activities with potential for involvement by the residents. The large shopping mall across the front road is easily accessible and perhaps a protected crosswalk may be provided to the home.

The shopping mall is an intense activity area and perhaps the seniors, volunteers and friends may visit their 'relative' in the home after their shopping is completed.

The noisy milieu and traffic needs consideration in the building design to avoid its detrimental effects. Churches are available within a few blocks.

vi. **General Character of Area**

The area is a mixture of apartment buildings, schools, seniors retirement home complexes, recreational facilities, parks and commercial facilities. All building are in relative good condition and modern. The site is flanked on one side by a new two storey brick building and the remaining sides open to park areas/parking area. The site has a feeling of openness.

vii. **Transport and Access**

Bus routes along Adelaide Street pass the front of the site and bus stops are available on both corner streets. Provision of a covered shelter at bus stops may be recommended to the City.

Adelaide Street is busy with vehicular traffic to the mall rear parking area, however it is only a connecting street and not a main road. Most of the mall parking is accessed from Preston Avenue and Louise Street. The other flanking McEown Avenue has less traffic and is a quieter street.

Pedestrian Traffic patterns along the streets are similar character, and school children use McEown Avenue and the west lane.

The two flanking streets and lane offer excellent opportunities for pedestrian and vehicular access to the site.

vii. **Topographic**

The site is relatively flat with some slope down towards Adelaide Street and no problem is evident with land drainage. The open site is well grassed covered with hedges and trees flanking the property lines. The north and east sides provides good wind protection. Existing trees and shrubs shall be retained where possible.

ix. **Land Size**

The property is adequate for the project including the intended site development and allowance for future expansion.

However, it is intended to develop the small park area to the north as a contribution from the City. This area will be landscaped for use by the home residents and the day care seniors or other social functions planned by the home or community seniors.

x. **Zoning**

The property is zoned as M-3 which is compatible with the adjacent properties zoned similar. Building restrictions on height, open space, yard sizes are minimal and offer few constraints to architectural planning. The zoning analysis is identified further in the report.

xi. **Orientation**

Desireable views are available to the east for parks/recreation and south for busy street and shopping mall activities.

xii. **Site Utilities**

Water, sewer, power and telephone available to site already. Fire truck access is available from three sides of site.

xiii. **Noise and Odours**

Vehicular traffic on street and mall parking needs consideration in terms of noise and fumes when planning building, entrances, acoustics, and safe access.

xiv **Image**

The developed building and site shall enhance the vista of this location.

xv. **Environmental Impact**

Impact of environment on the building does not warrant any special design considerations beyond normal.

Impact of building on site is minimal and impact on neighbourhood is minimal.

xvi. **Climate**

Saskatchewan's climate is a major consideration when developing the site in terms of comfort for people and appropriate for landscaping.

xvii. **Future Development of Area**

The parks on the north and east side are dedicated open spaces. Views in this direction are relatively assured. The Shopping Mall has recently completed major expansion and the open parking area on east side is required to meet city zoning, thus future building is remote and south views are assured.

xviii **Sub-Soil Conditions**

A geotechnical investigation is required to determine the exact sub-grade conditions to optimize foundation and basement design. No problem conditions are anticipated based upon the existing building and adjacent building information.

ixx **Security**

The adjacent populations of elderly offer a suitable context, especially for night time.

Exterior lighting along the street and parking area is

adequate, however supplementary lighting is desireable around the building and site.

8b. **ZONING BYLAW REQUIREMENTS**

City of Saskatoon 1983 Issue

District - M-3

Permitted Uses	- Special Care Homes, Lodges, Housing for Elderly, Day Care Centres, Multiple Unit Dwellings.
Site Frontage	- 30m minimum
Site Area	- 555m ²
Front Yard	- 6m depth
Side Yard	- 3m depth + 0.3m for each storey over 3
Rear yard	- 7.5m average (4.5m minimum)
Open Space	- 9.2m ² per dwelling unit (excluding parking and front yard)
Height	- No restrictions
Floor Ratio	- 5
Signs	- on front building - 1 free standing (size limit) - 1 per 4 residents plus 1 per 4 employees
Loading Space	- N/A
Location of Parking	- Side and Rear yards only. - no closer than 1.5m to habitable window.
Canopies	- projection into yards permitted to within 1.5m property line.

SITE ANALYSIS

Project Type

Special Care Home
Housing for Elderly
Day Care Centre

Building Data

Main Floor Area	- 2860m ² ±
Gross Floor Area	- 8874m ² ±

Site Data

Site Frontage	- 86m
Site Area	- 11,000 m ² ±
Front Yard	- 6m
Side yard	- 3m
Rear yard	- 7.5m

Open Space

123 x 9.2 - 1131m² required

thus

Site Area - 11,000

less main floor 2,860

less front yard 510

less parking 1,400

- 4700m² available

Floor Ratio

11,000 x 5 = 55,000m² maximum building area

Proposes building area = 8874m²

Floor ratio is less than 1.

Parking

Residents - 123 - 4 = 31

Employees - 40 - 4 = 10

Future expansion allowance 25% = 10

- c. **CONTEXT**
RELATIONSHIP TO SURROUNDING BUILDINGS AND VIEWS
- i. **West**
Salvation Army Everglades.
Relatively new three storey red brick building.
Functions as a retirement home for seniors.
Located along the north-south lane.
Effectively blocks any view.
- ii. **South**
Market Mall complex.
Large one storey building, precast walls, flat roof.
Shopping centre.
The building is located towards the west and does not block the frontage of the site.
Views are available across the opening parking area and down McEown Avenue.
- iii. **South East**
High rise apartments of six and eight storey height are located across the street, diagonal from the site corner.
The buildings are precast concrete finish and set in a landscaped development.

The residents are predominantly mature citizens, older couples or senior citizens.

The buildings are sufficiently distanced from the site but do restrict the view in this direction.
- iv. **East**
Open Park Area.
Predominantly a grass park area with some trees.
Designated as Nutana Kiwanis Park.
Some tennis courts, recreation area and Lions Arena in the distant.

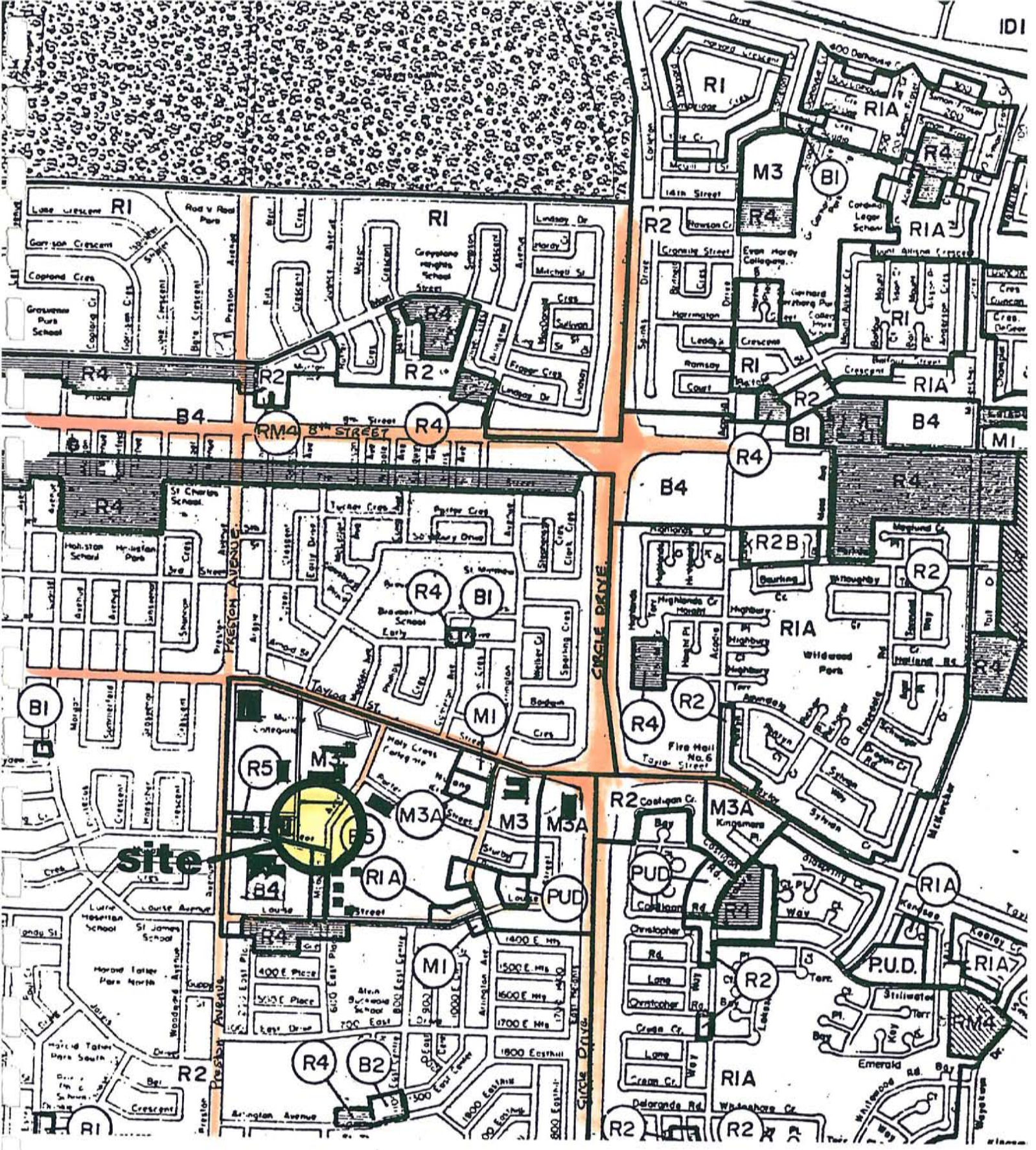
View is unobstructed and desirable.
- v. **North**
Dan Worden Park.
Open park area, mostly grass with some trees.
Beyond the park is Stensrud Lodge.
Two storey stucco building, for senior citizen housing.

Saskatoon Veterans Park Estate is located to the North East.
Legion Manor is a three storey seniors housing apartment,
stucco finished building.
The North East view is accessible.

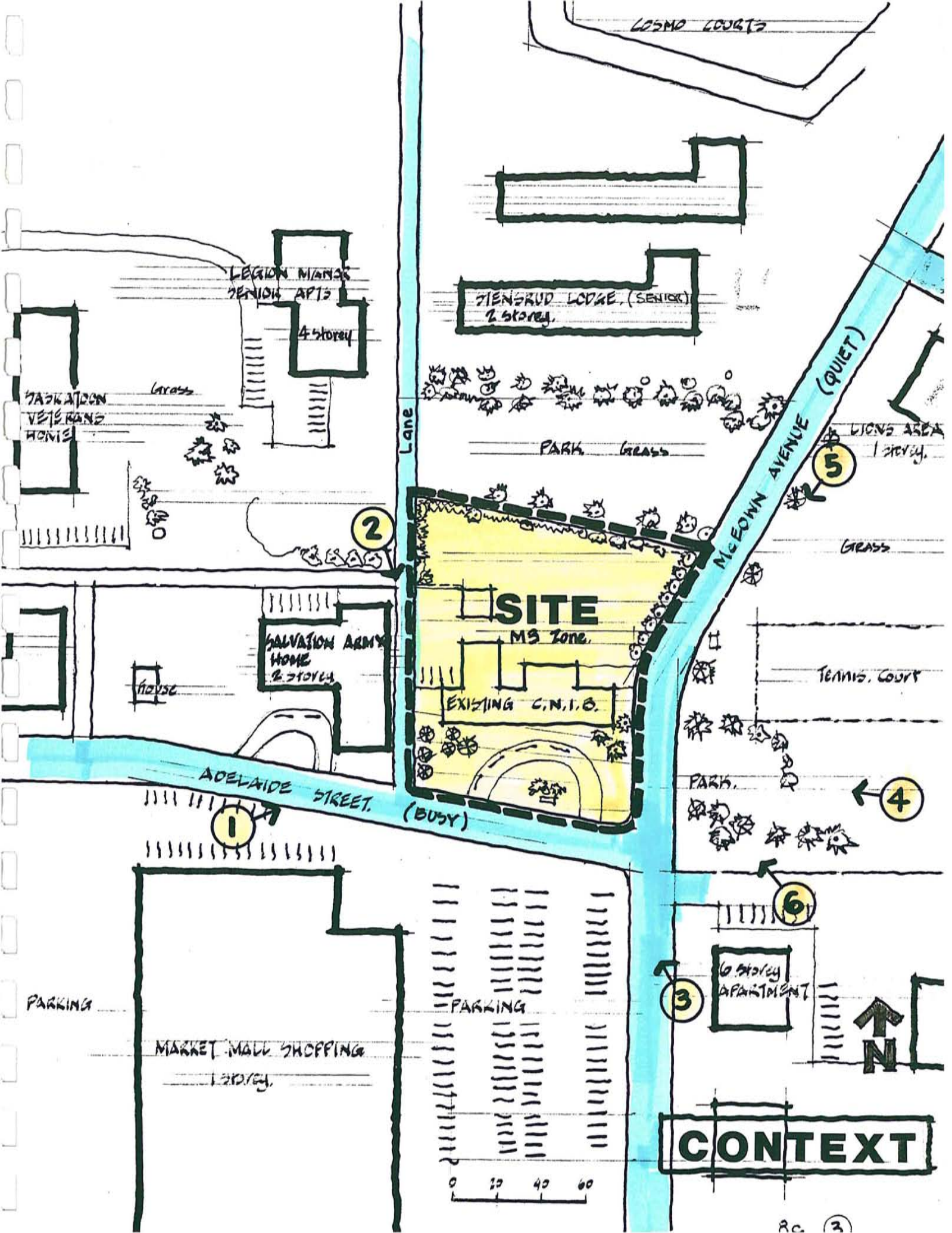


saskatoon

CITY



NEIGHBOURHOOD



LOSMO COURTS

LESION MANSION
SENIOR APTS

4 storey

TIENSKUD LODGE (SENIOR)
2 storey

WASKATON
VETERANS
HOME

Grass

PARK Grass

LIONS AREA
1 storey

Grass

SALVATION ARMY
HOME
2 storey

house

TENNIS COURT

ADELAIDE STREET (BUSY)

PARK

6 storey
APARTMENT

PARKING

PARKING

MARKET MALL SHOPPING

1 storey

CONTEXT

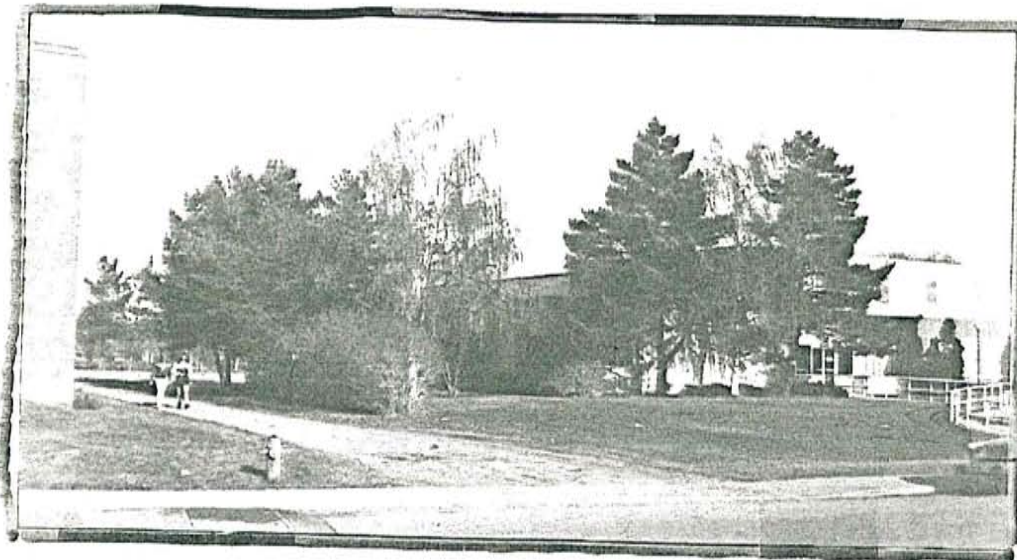
0 20 40 60



SHADE TREES

FRONT GARDEN

BUFFER LANDSCAPE



LANE ACCESS

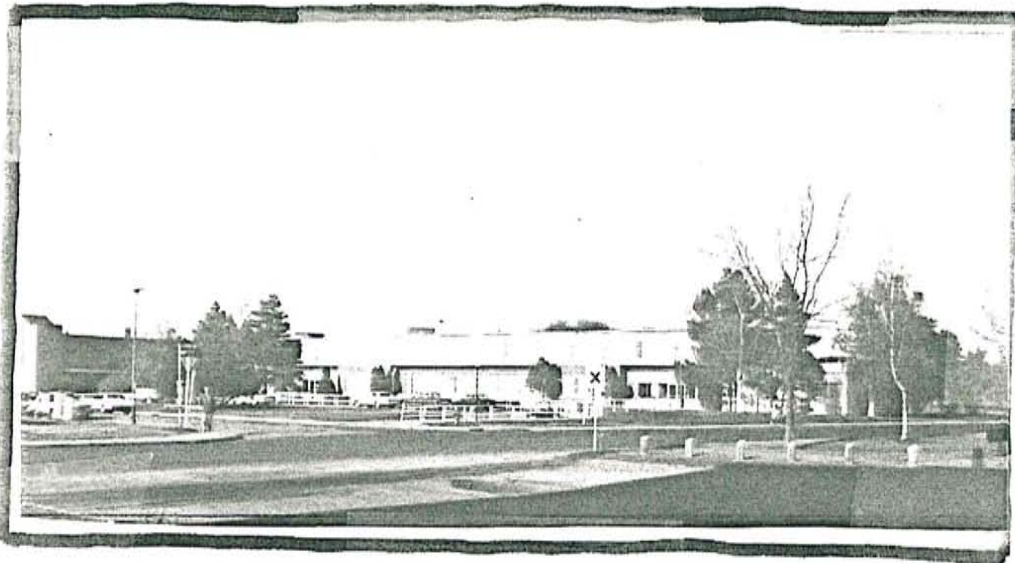
1



2 storey brick bldg.

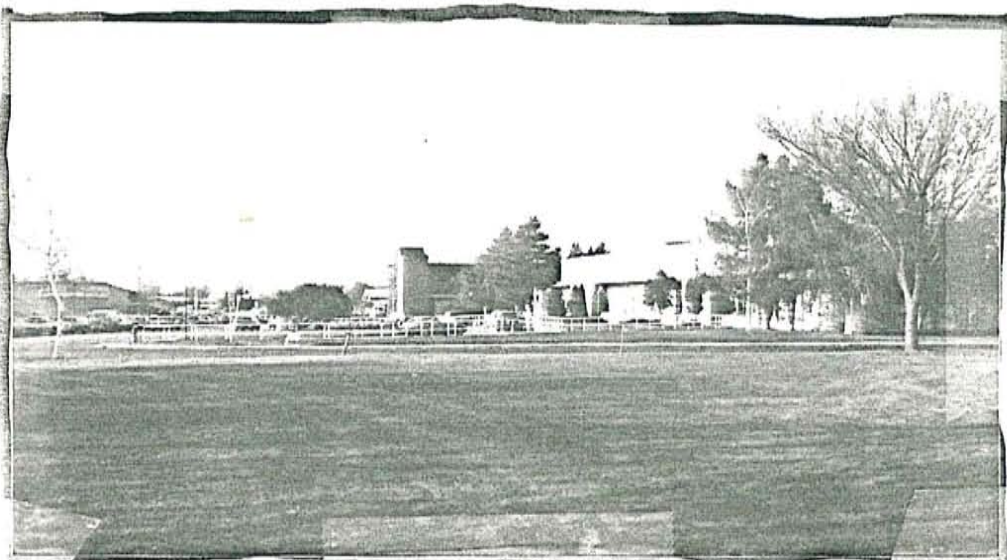
LANE VIEW

2



CORNER VIEW

3



PARK VIEW.

4

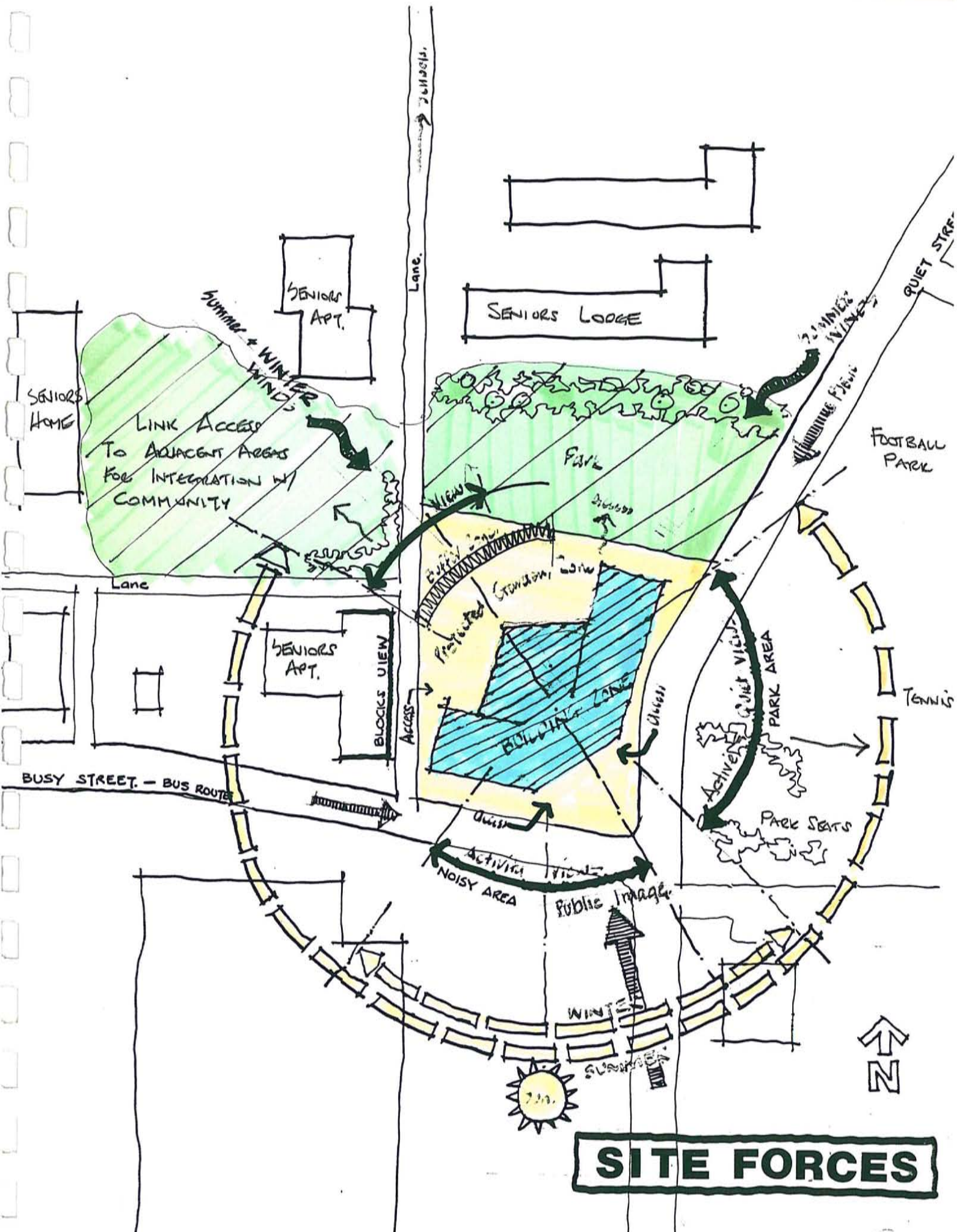


QUIET STREET.

5



6



SITE FORCES

8d. **SITE DEVELOPMENT**

An appropriate fully developed site offers opportunities to extend the life style promoted in the building concepts into the surrounding site. However the site requirements discussed below require special design solutions to meet the needs of the aged residents.

i. **Access**

Elderly have difficulty finding their way into site entry, building or navigating the complex, thus views onto site and visual readability of building need consideration.

- Entrance to site to be clearly defined.
- Building entry visible from access road.
- Easily identified entry.

ii. **Barrier Free Site**

An important consideration for the aged resident is a barrier free site which is safe and easy to use.

- Eliminating steps, curbs, steep slopes, uneven pavement and slippery surfaces will improve safety aspects.
- Incorporation of "way-finding" cues and supportive handrails will assist navigation and use.
- Visual impaired residents require no obstruction hazards, designs to accommodate way detection such as benches with solid ends to floor, walkway edges or changes in direction cued with small lip, rounded to allow wheel chair travel.

iii. **Outdoor Spaces**

- Provide a variety of outdoor spaces, some located in sun and shade, sheltered from rain, winds and noise.
- Vary activity areas from quiet to active use.
- Community activity space for integrated use with Day Care.
- Spaces to attract people for socialization and recreation.
- Sitting areas located with a view of circulation routes and activities.
- Paved terraces for moveable seating.
- Differentiate private residents areas from group areas.
- Wind protection barriers and acoustic barriers.
- Patios for barbeques, picnics and other outdoor

activities. Locate next to lounge for convenient access for outdoor setting.

- Games area to be clearly defined and in an active used areas.
- Provide sheltered outdoor areas.
- Garden spaces for use by residents.

iv **Landscape**

- Design for strolling and visual exploration
- Design for accessibility by wheel chair residents and visually impaired residents.
- Mobile seating allows arrangements to suit uses.
- Planned to encourage variety of outdoor activities, group or individual.
- Ensure all areas are fully accessible to main areas of building.
- Plantings, trees, pools, seats, etc. organized to suit elderly.
- Ensure visual diversity of landscaping for all seasons.
- Create casual seating areas protected from climate. Locate secluded areas and areas with a view of community and main entrance.
- Incorporate games, barbeques, picnic areas etc. to encourage activity.
- Recreational aids built into exterior areas.
- Provide protection of outdoor areas from intrusion and assist privacy and security.
- Ensure adequate lighting of evening use areas. (exterior) This also enhances view from building at night.

v. **Walkways**

- major walkways 1800m wide
- minor walkways 900m wide with passing areas
- non-slip finish and textured cues for orientation. (But allows wheel chair and mobility aids)
- good lighting for evening use.
- provide walkways for variety of stimuli along activity areas to encourage social encounters.
- avoid areas subject to icing and snow drifting.
- provide supportive handrails and rest areas.

vi **Solar Orientation**

- building oriented to maximize areas receiving sunlight and maximize solar exposure for patios, balconies, etc. and reducing snow accumulation on walks at entrances.
- provide solar controls at windows and adequate HVAC to control any heat gains.

vii. Parking

- Provide easy circulation and minimum confusion.
- Provide good lighting and minimize concealment for intruders.
- Parking quantities - 40 stalls (20 residents, 20 staff/visitors, 1 loading)
- Clearly identify drop-off areas and make them visible from building.
- Provide direct view of loading area from main entry/work area.
- Locate some parking near sheltered entrance.
- Locate residents parking convenient to

viii Vehicular Traffic includes

- Staff cars and visitor cars
- Resident parking
- Deliveries, garbage
- Buses or vans, handicapped vehicles
- Firetruck, taxis
- Snowclearing

Allow adequate access roads for passing and turning circles.

Allow for snow dumping area.

Good drainage to avoid standing water and freezing.

xi. Pedestrian Access

Pedestrian access on to the site and to the building must be separated from vehicular access. Recognize that many elderly with visual impairments and slow mobility require safe access.

x. Site Security

The entire site must be safe and secure. The rear site shall be fenced against intruders with specific entrance gates for use by residents. A secure site allows confused residents full use of safe grounds, without concerns over wandering away.

xi. **Fire Truck Access**

Consider the site access for the Fire Department Protection of building.

**PROJECT
OBJECTIVES 9**

9. **PROJECT OBJECTIVES**

9A. **PURPOSE AND OBJECTIVES OF "WINTER GARDENS"**

1. **Objectives of facility**

1. The facility shall be a unique retirement care home for the ill and frail aged, providing a new and forward looking supportive environment which provides a setting for a normal living experience by its residents.
2. The facility shall primarily function as a 'home' where aging residents can enjoy their lives to fullest, immersed in an atmosphere of well being and companionship, all in a delightful and supportive environment.
The Nursing and Medical roles whilst important for the physical well being and health care of the resident, are to be integrated as a secondary function, less visible, less dominant but equally effective.
3. The Facility shall integrate with the neighbourhood and encourage participation of the community, which is essential to avoid isolation of the residents.
4. The Facility shall maximize opportunities for independence and privacy needs of its residents and yet shall encourage social interaction and group support of a family atmosphere.
5. The primary objective shall be the satisfaction of the residents.
6. The facility shall provide opportunities for residents choice in life styles and choice of personal care or health care services available on a flexible basis and only when needed by resident.
7. This facility promotes the continuum of care concept, providing the full spectrum of health and supportive care services. Provide access to these services by elderly in the community.
8. It shall represent the unique quality of Saskatchewan with the "Winter Garden" symbolism.
9. 'Winter Gardens' is more than a traditional nursing home for care giving and provides opportunity for Aged to experience normal life styles during theose last retirement years. It shall help them to cope with agonies of disabilities and aging disease impairments.

2. **Design Development Objectives**

The environment shall meet the following design objectives:

- The environment and the support services shall accommodate the needs of the elderly, from the chronic

- disabled individual who requires intensive care to the semi-mobile individual who requires only minimal care.
- Accommodate the changing needs of the elderly through the declines of the aging process via the concept of adaptability.
- Assist the elderly to maintain the maximum independence of which they are capable as individuals, via the concept of responsive design.
- Accommodate the weakness in the elderly and help to reduce their personal care services requirements.
- Provide assurance of continued residency during aging process.

3. **New Image Goals**

- a. The project shall meet the following goals:
 - It shall impart a new dynamic and positive image of this "Comprehensive Care Housing for the elderly".
 - It shall eradicate any negative stigma associated with current Nursing Care Facilities where elderly are perceived as 'patients' with little control over life.
 - The physical environment and psychological atmosphere shall enhance the image of the elderly resident as an 'individual' with rights of self direction and life style.
- b. The Environment design shall explore the domain of symbol, and of meaning and of experience through the structure of space, devices of form and light, in order to respond to user needs and fully develop the concept of responsive design.
It shall cue behavior and signal expectations of its users with purpose to communicate a new image of self-dependency.

9B. **THE USER**

1. **Residents**

A Frail aged person who can no longer live independently due to the functional impairments of aging or health decline. Typically, this person shall be from the middle income group and from a cross section of the two groups characterized as the "slow-go's" and "no-go's" who vary in health status from active to bed fast.

This person finds that the home care services and the supportive living environments provided by the enriched housings are no longer adequate to meet needs, and desires the personal or nursing care services typically provided in the special care institutions.

However, this person requires more.

This person desires to maintain the quality of living to which he has been accustomed and he has planned for the retirement years.

He desires permanent residence and requires the continuum of care services available to accommodate his decline in health. The residents life styles may vary from those who live relatively independent with varying levels of supportive care services to those who are fully dependent and require intensive levels of care services.

The concepts of the building and the care service programs are to serve towards minimizing the dependency on care services requirements.

.2 Resident Requirements And Accommodations

- a. Based upon these needs of the users, we select three types of apartments to offer choice and relate to the user groups. However, we do not suggest categorization or limit user group to a particular choice.
 - i. Slow-go's
Mobile via mechanical aids, wheel chairs or assistance and independent according to abilities, and with a supportive environment they are able to live without full time personal care. Health conditions may vary from Level II to Level III classifications of current system.
 - ii. No go's
Residents who are dependent or bed fast with severe illness or disabilities and require full time assistance with mobility and function or health care but mental alert. General state of health at Level III or Level IV care categories but do not need intensive medical care.

Permanent residence is desired thus residents may remain in any suite Type A, B or C of their choice, during their health declines. Type 'D' suites are respite units for short term use.

However, a resident may choose to relocate as expectations change when a smaller suite is more appropriate.

3. Resident Composition

Project design and services shall be on the basis of accommodating 100 residents of the following composition.

- 60% residents group (a) - "slow go's"
- 40% residents group (b) - "no go's"
- Average length of tenature is 10 years.

Residences and services are designed to accommodate fluctuations in the above compositions, but it is generally desired to maintain the original concepts and resident mix. It is important to retain the environment atmosphere as characterized by the variety of residents.

... The well and mobile residents impart a dynamic quality otherwise overshadowed by a too intensive health care orientation of bed-fast residents.

It is assumed that management shall retain this composition.

- Support programs prolong useful functionings of group (a)
- Death rates of older group (b) are higher than group (a) due to deteriorated health, thus vacated occupancies are balanced by group (a) resident aging deteriorations.
- New residents are generally the younger group (a) types who move in from an active community.
- Normal fluctuations should balance out or are short term only.

Studies show a 35% turn over in current care homes, however a reduced annual turn over is anticipated in this "new home" since elderly are not forced to move to another care level facility.

9C. **CARE SERVICES FOR "WINTER GARDENS"**

a. **Philosophy**

A comprehensive scope of care services shall be provided with purpose to ensure that a resident does not have to transfer to another level of care facility.

Services provided shall include Residential Services, Personal Care, Health Care covering Levels II, III and IV, Psychological and Social Care with the programs designed to accommodate the changing health patterns of the elderly.

The resident shall have a choice in the range, frequency and composition of the care services to suit individual needs. Emphasis shall be placed on the provisions of the minimum care needed to maintain well being and encourage self sufficiency to levels attainable by the resident.

Limitations

Reference is made to the traditional classifications of levels of care for definition purposes only and not intended to suggest that residents must accept or qualify for specific levels of care. Choice remains a major factor.

b. **Personal Care**

Personal care services are dispensed from the central facilities on each floor.

The built environment shall be designed on the basis of "supportive concepts" to maximize the residents self-sufficiency potential, in order to minimize the need for assistance.

c. **Residential Care**

Residential care include housekeeping services for daily living assistance and 24 hour supervision monitoring. This is a basic service provided on a programmed schedule for all residents, with some flexibility to meet residents varying needs.

d. **Health Care**

The health care programs encompass the ranges of

services from intensive nursing to casual supportive care, and, based on the new flexible system. The services are dispensed from central core areas and the health spas.

A General increase in demand is anticipated as the user population ages and health deteriorated.

e. **Psychological and Social Care**

Rehabilitative programs are designed to encourage participation and create a 'social' rather than a medical atmosphere. Interior and exterior activity recreation programs are to be easily visible and accessible to encourage participation.

f. **Operations of Programs**

Residents select the range and type of services.

Health care services are available on casual basis or intensive basis as needed, and provided on out-patient basis or visits to suites. This arrangement allows a resident to remain in own suite and not relocate to another facility.

For short periods of health lapse, residents may receive 'intensive care treatment' via use of the 'Respite bed recovery apartments' located adjacent to the Nursing unit or receive treatment in own residence if possible. This feature helps to delay relocation of resident to Intensive Care Areas.

Intensive Nursing and Health Care on a 24 hour basis is available. Nursing methods and operations require a central area location with the extremely frail and ill elderly residents accommodated.

Services are available to the Day Care Centre users on a limited basis.

g. **Service Fees**

i. Services will be selected and paid by a Resident on a 'need' basis.

- Health Care Services are covered under a 'medical program' to allow flexibility in use.

- Personal Care Services are charged at a fixed or hourly rate depending on the task. Some tasks are weekly or monthly

- rates and flexible.
 - Meals are charged on monthly Fee or per meal.
 - Programs are not mandatory and residents have choice of participation, with fees where appropriate only, depending on type of program.
- ii. Monthly Fees required on some services available to entire building whether or not used by each resident on a regular basis.
 - iii. Monthly Fees will be separate from Apartment rent, to allow flexibility in options of ownership, sharehold or lease rent of the apartment.

architectural program 10

architectural program

10A. PROJECT DESCRIPTION

Winter Gardens is a three storey, 100 unit long term care housing project. The reasons for this configuration are fully described in the section on building form.

A brief description of the various major areas in the facility are provided as follows:

1. Main Entrance and Circulation

The **main entrance** is readily identifiable and provides inviting, residential image to the facility.

The **lobby area** provides a friendly reception to visitors and friends and provides the information source for the entire facility. The orientation of the building, location of the various spaces and residences and a way-finding system shall be easily communicated. The lobby area leads naturally into the circulation system.

The **corridors** shall resemble a 'street concept' where orientation and directions are easily understood. Resting places at the various 'nodes' and views to the outside shall impart a friendly and inviting activity atmosphere.

2. Winter Garden

This area is an "atrium garden" and the focal point of the facility, which invites residents' participation with enthusiasm. This feature shall be visible from the exterior, visible from the entrance lobby and central to all the major circulation systems. Access is provided from the main floor and viewing galleries at the upper floor levels.

3. Residential Areas

Eight **residential apartments** are grouped into small "pods" with their own central dining, lounge and snack kitchen. The small grouping imparts a residential, family orientated atmosphere and allows some flexibilities in the mix of residents who require particular needs.

These communal dining-lounge areas are located in visible locations like sidewalk cafes with a view to exterior, and designed to entice the resident out of the apartment or to visit each others 'pods'.

All apartments are **individual** with its own entry, full bathroom (toilet, shower, sink) and liberal living/bedroom area. Two major types of apartments are provided. The deluxe model has a larger living area and a snack kitchen, for the more active resident. The standard apartment is more compact in size and more suited to the less active or bedfast resident. Some apartments are provided with direct access to outdoor gardens, and balconies.

Each apartment is designed to be responsive to the needs of the aged and incorporates features to accommodate the changing needs of the resident.

A total of 12 residential pods are provided and consist of a suitable mix of apartment types, with various orientations to suit the different residents needs. In each 'pod' the mix of apartments attempts to integrate all residents and minimize segregation. For example, in a typical 'pod' active, inactive and bedfast residents may be accommodated. It is presumed that the more chronic disabled residents shall have choice of apartment location closer to the nursing services. The pods are 'orientated' in different ways with some accessible to the street or contained within the site and with varying degrees of remoteness from the 'core services'. This arrangement responds to the varying needs of the aging resident population where some residents require close supervision and others come and go at will.

A small residents laundry room shall be provided on each floor, to allow use by residents who wish to launder their own personal items.

4. Nursing Dispensaries

The Nursing dispensaries consist of a nurses station, office, medication and housekeeping supply rooms.

The nursing care and personal care services to 34 residents are dispensed from this location. It is centrally located for easy access and monitoring but not a dominant controlling feature. Residents may come and go without feeling unduly observed. All nurse call, emergency monitoring and supervision systems are controlled from these locations.

The central bathing room provides the choice of an occasional soak in the tub, with the option of using a hydro.

5. **Health Care Areas**

The Health Care Areas are portrayed as a 'health spa' where residents go to rejuvenate and maintain their health or functioning. It is not a medical oriented place for treatment of the sick and decrepid.

The area contains an Aqua Therapy Pool for body relaxation, a Physical Therapy Room where therapists help residents cope with disabilities, a treatment room, a doctor's office and a counselling services office.

These health care areas will be centrally located and highly visible to encourage use by the residents.

6. **Activity Areas**

The aging residents are provided with areas to continue their hobbies and interests, for meaningful activities and for socializing. These areas shall entice the residents out of their apartments into the 'neighbourhood' and become involved in the resident community.

A **crafts room**, workshop, and ceramics room accomodates the pursuit of hobbies. These activities helps the aging residents to maintain their eye, hand and mind functioning.

Adequate storage rooms are provided for materials and projects storage. An activity officer organizes the programs.

A **large multipurpose room** provides a place for regular bingo games, performance shows and special social occasions where all residents may gather together or interact with the community. This area is divisible with partitions to provide for several simultaneous functions and flexible to suit different uses. A stage is provided for musical performance and serves as a chapel area. The provision of a pastors office provides a place for visiting clergy to meet privately with residents.

A lounge area with a library section shall be provided where residents may relax, read, listen to music or socialize in a 'downtown' atmosphere. This area shall be near the central garden atrium.

A tuck shop shall offer sale of convenience items or crafts and beverages.

A barber shop and beauty salon are provided as convenience stores to complete the 'downtown' services. Public washrooms are readily available.

7. Day Care Centre

The day care centre provides a needed service to the senior citizens in the neighbourhood and its incorporation into this complex, provides the desired interaction between residents and community. Many of the seniors shall become potential residents and thus some continuity of familiar surroundings and friends is maintained.

A separate room is provided for these day care seniors which serves as a base for their activities and a day care office is provided where programs and activities are managed.

These seniors shall have access to the health care areas, activity areas, winter gardens and grounds, however some controls are required to maintain the priorities for residents and their territorial requirements.

The 'seniors' involvement in the facility shall be flexible and changable to meet demands. It is a variable source which may be used at times to attain a balanced, efficient use of all areas of the facility. For example, the extent of "respite apartments" may be increased or decreased depending upon the variable demands. Increased out-patient care services may balance a reduced and changing demand from the permanent residents.

The Day Care Centre is part of the 'downtown' milieu, easily accessible and visible as a thriving activity.

8. Food Preparation

A large central kitchen is provided to prepare all meals. It is anticipated that all residents shall take a minimum of

two meals per day in their various dining rooms. This area is operated similar to a commercial kitchen, however the menu's are set to a program and meal times at the various dining rooms may be staggered.

A significant space is provided for the preparation of food trays and for the hot food carts used for transportation.

A **dietician** office is provided to manage and organize the food system to meet residents needs.

The **garbage room** is to be accessible from kitchen and exterior pick up.

9. **Housekeeping**

Housekeeping dispensaries are provided near the resident apartments for easy servicing. One housekeeping supply room, soiled linen and clean linen room is located on each floor zone. Cleaning residents rooms, bed making and clothes laundry are the services provided.

A central laundry is provided in basement area to receive soiled linens and clothing, and to wash, dry, repair, sort and return the clean items in an organized system. Residents personal clothing are collected and returned using identification bags/racks. Special consideration to the separation of soiled and clean linens is accommodated to avoid contamination.

A separate secure residents' storage area is provided for **storage** of bulky off season clothes and furniture items or seasonal items which cannot be stored in the apartment.

A large **general storage** area is provided for the spare beds, wheel chairs and other equipment used by the facility.

A **maintenance** shop is provided to facilitate the ongoing maintenance and repairs of the building and grounds.

10. **Administration**

A **reception booth** is located at main entrance to provide information and direction assistance and provides some security control but is low key and does not inhibit free access.

A **mail** alcove provides a place where mail may be collected by the residents or letters may be posted.

The **administration offices** consist of the general office,

business managers office and director's office, which provide for the management and operations of the facility.

A conference room is provided to accommodate meetings with the board members, community organizations and staff.

11. **Staff Areas**

The assembly and retention of a caring and efficient staff is beneficial to the facility and welfare of the residents.

Adequate and pleasant support areas for the staff and volunteers are provided to assist this goal and help to enhance staff moral.

A **Staff** dining and lounge area provides a place for staff to relax between assignments and to socialize. A locker area is provided for their change of clothes and safekeeping of personal belongings, plus access to a shower is provided.

A small lounge is provided for the significant involvement of volunteer assistance with the residents and the related programs.

12. **Service Rooms**

A **central mechanical** room is provided in the basement, which houses the boilers, fan equipment and air conditioning. The major system of heating is via hot water radiation, with the public spaces air conditioned and mechanically ventilated.

The mechanical room is split into zones in order to provide adequate servicing of the large building.

A **separate mechanical** room is provided for the special ventilation and humidity control needs of the winter garden.

A central electrical room is provided with zoned electrical closets throughout the facility.

An **emergency generator** room is provided and is considered essential to maintain the critical systems at all times, since we recognize the difficulties of aged residents to adapt to power failure conditions.

The entire building is fully fire sprinkler protected and a central fire pump room is provided to accommodate the fire protection equipment and monitoring systems.

A **separate telephone** room is provided to house all the central and elaborate communication systems equipment.

Telephone, nurse call, emergency monitoring, intercom, security, supervision, public address and computer communication systems are incorporated.

Vertical circulation between floors is accommodated with two elevators which are fully accessible and prominently located.

1.3 **Site Development**

Parking

The City of Saskatoon Zoning regulations require provision of 40 parking stalls which is entirely adequate for building needs. The majority of residents shall no longer drive, however parking stalls are provided for the residents who are active. The remaining parking stalls shall provide for visitors, staff and a loading zone.

Site Landscaping

The entire site is fully landscaped and designed to encourage full use by the residents. Special attention to the needs of the aged have been considered and incorporated in the design of walkways, sheltered sitting areas and activity spaces. Sun, wind, rain and views have been considered for best advantage.

Variety is provided to suit moods and usage, with street front gardens for view of park and busy activities, quiet courtyards, activity patios, places to be alone or in a group and interesting walks in the rear garden. Some residents have their own patio/garden. The entire site is safe and secure.

Direct access is provided to the adjacent public park just north of the site.

14. **Flexibility**

It is anticipated that the inevitable decline in health of the aging residents shall require some increase to the nursing care services which is accommodated in the design of resident suites and nursing dispensaries. However it is desirable that some

careful management of the resident mix shall maintain the flavour of a varied aged population and not become a single level intensive care facility.

The Flexibility of the Facility is its variety of apartments, its concepts of responsive design and service choices to serve a variety of aged population needs.

The provision of a facility to accommodate a variety of the aged population spectrum is the goal and programs must be supportive of this needs, until society otherwise decides.

15. Future Expansion

The project size for 100 residents is considered optimum since it is desired that the facility is not so large as to dominate the neighbourhood and lose individuality of its residents. Thus no expansion in resident apartments anticipated.

16. Security & Safety

i. Safety and Security

The building and the site are designed to be safe for the elderly and to minimize the hazards of the built environment and sensitive to the needs of the aged.

The building entries are security monitored against intruders but allow the residents to come and go.

Special precautions may be implemented where there is a problem with disoriented and mental unstable residents.

The entire perimeter of site is fenced with access gates at designated locations.

ii. Supervision

The nursing dispensaries located on each floor provide the required supervision care of the residents. Visual observation of all resident apartments is not required since the provision of adequate communication, emergency call and monitoring systems accomplishes this task.

Nurses shall provide regular daily checking of residents and provide the desired human contact. Frequency of checking shall be dependent upon the residents needs and condition of health.

Residents who require more intensive monitoring or health care may be located in apartments close to the nursing station.

The small 'family pod residences' should promote residents helping and monitoring each other.

iii. **Isolation & Integration**

The project design attempts to promote integration and participation of residents and avoid isolation of individuals or groups.

The varied mix of residential unit types throughout the facility attempts to promote integration of all aged residents and avoid segregating into active, non-active or other grouping according to health conditions. Aging is a normal and changing process.

The provisions of various central activity facilities on all floor levels attempts to provide equal communal integration opportunities for all and avoids isolating sections of the residential areas from the action.

The small 'family pod' grouping of the residential units, promotes integration of residents and the regular group dining activity avoids resident isolation.

The non-active residents, confined to bed may select residency in an apartment close to the action areas where viewing windows offer opportunity to observe and hear the activities.

iv. **Fire Safety**

The building shall be fully protected with a sprinkler system, smoke detection devices and alarm systems to provide maximum protection for safety of its occupants.

The design of these systems shall recognize the difficulties of evacuation of the residents, especially the bedridden and wheel chair bound.

Design to be responsive to the debilities of aging with both visual and audible alarms, calibrated with sensitivity to the hearing and visual impairments and direction orientation.

Fire door barriers shall be controlled to close with devices that give warning, close gradual and with easy opening characteristics to suit the older person capabilities. This is especially critical on the doors to residents rooms in order to avoid entrapment.

The building materials are to be selected with due consideration of safe non-combustible products.

3. ARCHITECTURAL PROGRAM SUMMARY

The project development is unique and the program is refined as the design development suggested improvement to suit needs of the residents.

For example, further evaluations of criteria, suggested underground parking for residents and increased balconies as viable improvements.

The preliminary designs developed herein comply with the architectural program summary and appropriate remarks have been noted with reasons where changes have been accommodated.

The detailed design criteria for each space is fully outlined in the next section of report.

ARCHITECTURAL PROGRAM SUMMARY

	1. Circulation Spaces		
	Main Entrance Vestibule	-10m ²	
	Main Lobby - Lounge	-50m ²	
	Reception	-8m ²	
	Mail	-5m ²	
	Rear Entrances/Exits		
	Corridors	-(35% over net)	
	Elevators	-2 required	
	Stairs	-public & residential	73m ²
Atrium reduced to allow balcony lounges	2. Winter Garden		
	* Central Atrium Garden	-180m ²	180m ²
wall areas based on actual furniture & user needs	3. Resident Areas		
	* Total 99 resident suites (33 per floor)		
	Resident Suite 'A'	-36m ² x 42	1512m ²
	Resident Suite 'B'	-55m ² x 6	330m ²
	Resident Suite 'C'	-28m ² x 48	1344m ²
	Respite Rooms 'D'	-20m ² x 3	60m ²

		Family Lounge	-20m ² x 12	240m ²
		Family Dining	-20m ² x 12	240m ²
		Snack Kitchen	-8m ² x 12	96m ²
				<u>3846</u>
Increased	*	Residential Balconies	-30 required	
to allow		Residential Patios	-24 required	
more residents				
choice of outdoors				
	4.	Nursing Dispensaries		
		1 nurse dispensary 33 residents		
		Nurse Desk	-15 x 3	45m ²
		Nurse Office	-10 x 3	30m ²
		Medication Room	-6 x 3	18m ²
		Washroom (Staff)	- 3 x 6	18m ²
		Clean Linen Room	-10 x 3	30m ²
		Clean Utility Room	-10 x 3	30m ²
		Soiled Utility Room	-13 x 3	39m ²
combined	*	General Storage	-10 x 3	30m ²
	*	Wheel chair storage	- 5 x 3	15m ²
		Janitor	- 5 x 3	15m ²
		Resident Laundry	- 5 x 3	15m ²
		Central Bathroom	-25 x 3	75m ²
				<u>365m²</u>
	5.	Health Care		
		Physical Therapy	-50m ²	
		Therapist Office	-10m ²	
		Storage	- 8m ²	
		Aqua Therapy Pool	-40m ²	
		Treatment Room	-12m ²	
		Doctor's Office	-10m ²	
		Medical Supplies	- 6m ²	
		Personal Care Worker	-10m ²	
		Social Worker	-10m ²	
			<u>156m²</u>	156m ²

6. Recreation & Activities			
i.	Multipurpose Room	-190m ²	
	Chair Storage	-15m ²	
	Stage	-15m ²	
	Pastor's Office	-10m ²	
	Lounge/Library	-30m ²	
	Servery	-12m ²	272m ²
ii.	Occupational Therapy Areas		
	Crafts Room	-40m ²	
	Workshop	-35m ²	
	Ceramics	-10m ²	
	Storage	-20m ²	
	Activity Co-ordinator	-10m ²	205m ²
iii.*	Public Washrooms	-14m ² x 3	42m ²
iv.	Special Areas		
	Tuck Shop	-20m ²	
	Barber Shop	-15m ²	
	Beauty Salon		35m ²
7. Day Care Centre			
	Day Care Room	-90m ²	
	Day Care Office	-10m ²	100m ²
8. Food Service			
	Kitchen		
	Cooking	-50m ²	
	Preparation	-50m ²	
	Wash Up	-40m ²	
	Storage	-40m ²	
	Dietician Office	-10m ²	
	Garbage Room	-20m ²	
	Receiving Area	-20m ²	
			<hr/> 230m ²

9.	Housekeeping		
	Laundry	-50m ²	
	Soiled Linen (receiving)	-10m ²	
	Clean Linen Storage	-10m ²	
	Clothes repair	-15m ²	
	Resident clothes storage	-20m ²	
	Housekeeping Storage	-10m ²	
	Housekeeping Office	-10m ²	
			<hr/> 125m ²
	Storage		
	General Storage	-10m ²	
	Residents Storage	-30m ²	
	Janitor Storage	-23m ²	
	Maintenance		
	Maintenance Shop	-40m ²	
			<hr/> 138m ²
10.	Administration Areas		
	General Office	-20m ²	
	Directors Office	-13m ²	
	Managers Office	-10m ²	
	Nursing Director	-10m ²	
	Conference	-20m ²	
	Office Supplies	- 7m ²	
			<hr/> 80m ²
11.	Staff AREas		
	Staff Lockers	-20m ²	
	Staff Showers	- 6m ² x 2	
	Staff Dining	- 40m ²	
	Volunteer Lounges	- 30m ²	
			<hr/>
	NET	102m ²	
12.	Service Rooms		
	Mechanical Room	-80m ²	
	Fan Room	-40m ²	
	Equipment Room	-15m ²	

Electrical Room	-10m ²
Telephone Room	-10m ²
Elevator Machine	-10m ²
Emergency Generator	-20m ²
	<hr/>
	185m ²

13. **Site Development**

Parking

* Residents/U.G.	-18 (underground)
Staff	-16
Visitors	-10
Loading	- 1

Landscaping

Outdoors Recreation Areas
Private Patios
Public Areas

AREA SUMMARY ANALYSIS

1.	Residential Areas	-3846m ²
2.	Nursing Dispensaries	-365m ²
3.	Health Care	- 156m ²
4.	Activities & Day Care	- 804m ²
5.	Food Service, Housekeeping	- 355m ²
6.	Storage	- 138m ²
7.	Administration & Staff	- 152m ²
8.	Service Rooms	- 185m ²
9.	Winter Gardens	- 180m ²
10.	Main Entrance	- 73m ²

TOTAL NET AREA 6254m²

11.	Circulation Allowance 40%	-2500m ²
12.	Wall Allowance 10%	- 620m ²

TOTAL GROSS AREA 9374m²
PLUS UNDERGROUND PARKING 1200m²

Main Floor	-3000m ²
2nd Floor	-2850m ²
3rd Floor	-2650m ²
Basement	-2050m ²

DATA ANALYSIS

1.	Total Residential Areas	-3846m ²
	Thus, Area per resident suite	-38.8m ²
2.	Total Common Areas (excludes corridor, mechanical rooms, Day Care)	-2023m ²
	Thus, Area per resident	- 20m ²
3.	Total Gross Area (exclude parking)	-9374m ²
	Thus, Area per resident	- 94m ²
4.	Net Area Ratio/Gross	- 67%
5.	Ratio Resident Area/Net	- 61%

10 ARCHITECTURAL PROGRAM **diagrams**

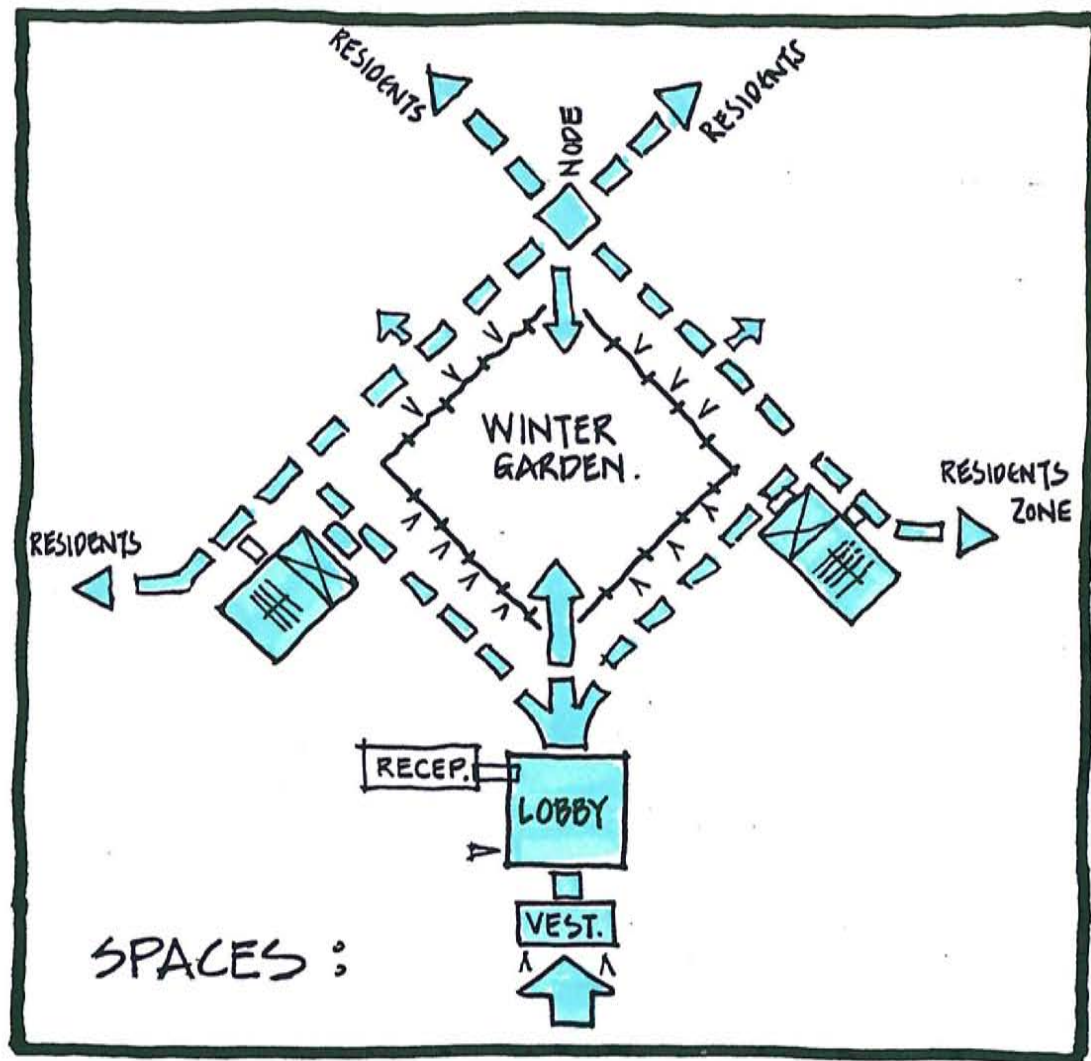
Concepts

The following program diagrams illustrate new concepts of responsive design to meet the needs of the aging population. Therefore, the program requirements are based upon the investigation of function needs rather than rigid compliance with known standards.

Program space sizes are determined from an evaluation of current standards published by C.M.H.C., Accessibility Standards, etc. as referenced in the Thesis, together with consideration of the proposed concepts of responsive desing and defined needs.

For example, the suite sizes are based upon space needs to maneuver wheel chair, assistant help and furniture arrangement explorations. The maximum room sizes for living needs are balanced against due considerations of need for a compact space in event of the resident's bedfast status and desire for non-isolation.

The major thrust has been the creation of a truly "residential suite" suitable for nursing care needs and compromises between the current "service housing apartments" and "nursing home bedroom".



DESIGN :

- Strong Entry.
- Identified circulation
- Organized movement
- Orientation
- Street image.

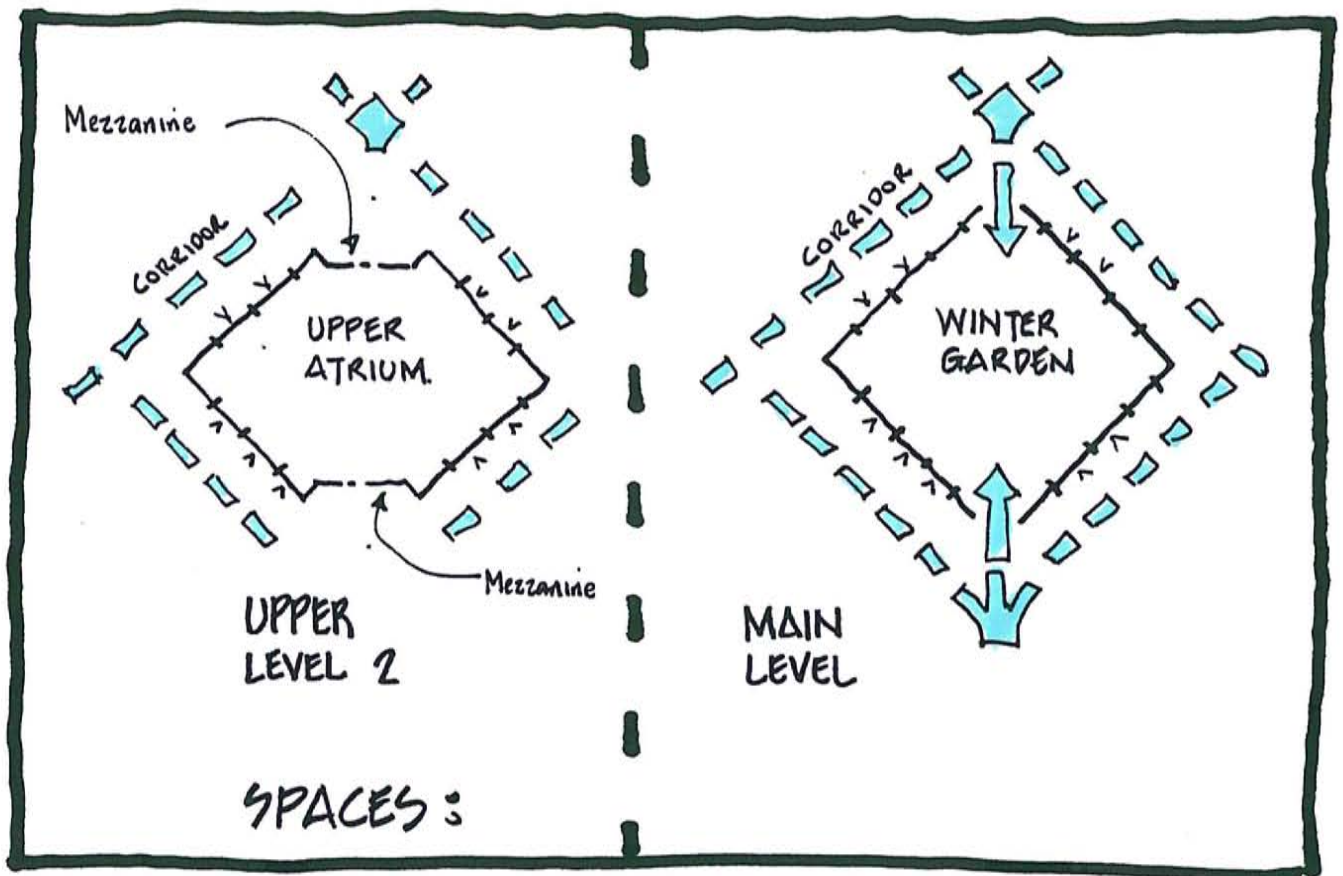
CONCEPT

- Central 'hub'

USER • Resident, public staff.

ZONE • Main Floor
Centre core.

ENTRANCE / CIRCULATION



DESIGN :

- Highly visible
- Strong image
- Focal point
- Refreshing, soothing
- Variety
- Upper viewing galleries.
- Sunlight opportunities

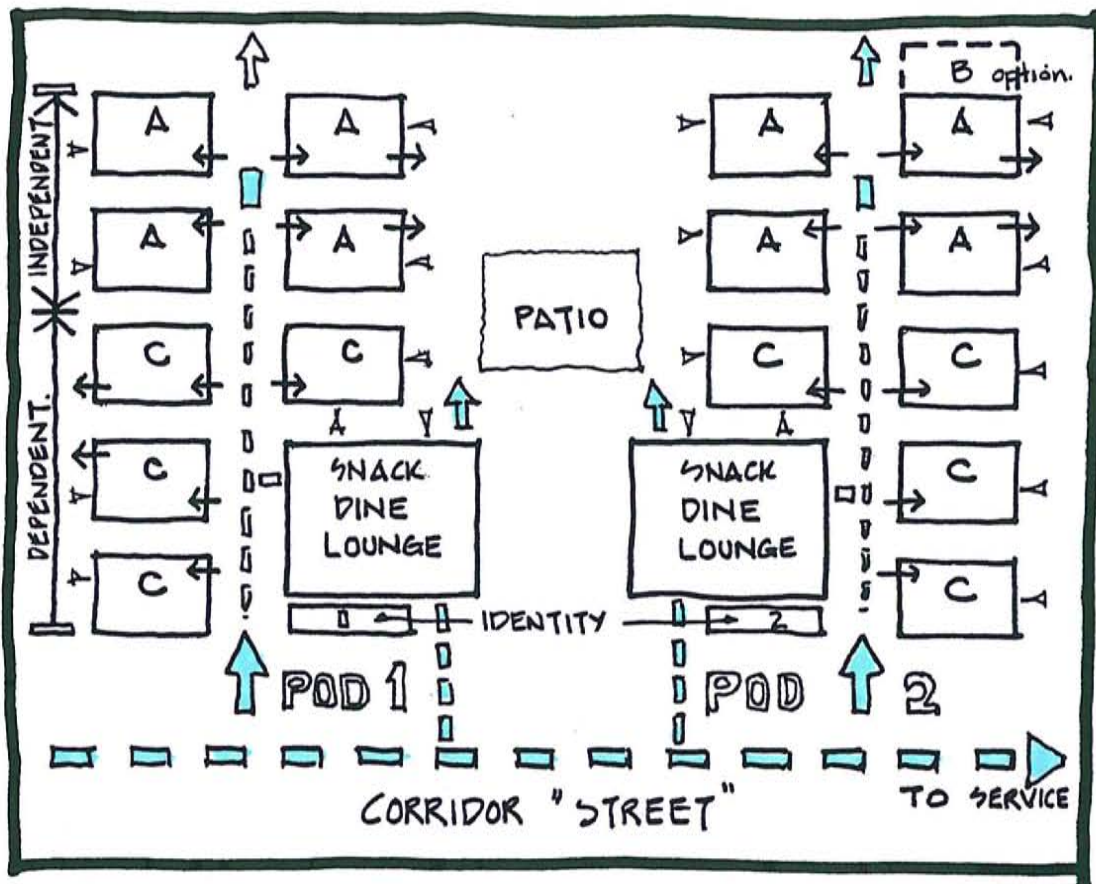
CONCEPT :

- Centre Theme
- Hub of 'streets'

USER • Residents, seniors,

ZONE • Main Floor centre.

WINTER GARDENS.



FAMILY PODS = 8 suites per pod. = 12 pods total.

DESIGN :

- Identity
- Residential
- Not isolated
- Variety of mix. (residents)
- Private territory
- Vary independent - dependent
- Permanent.
-

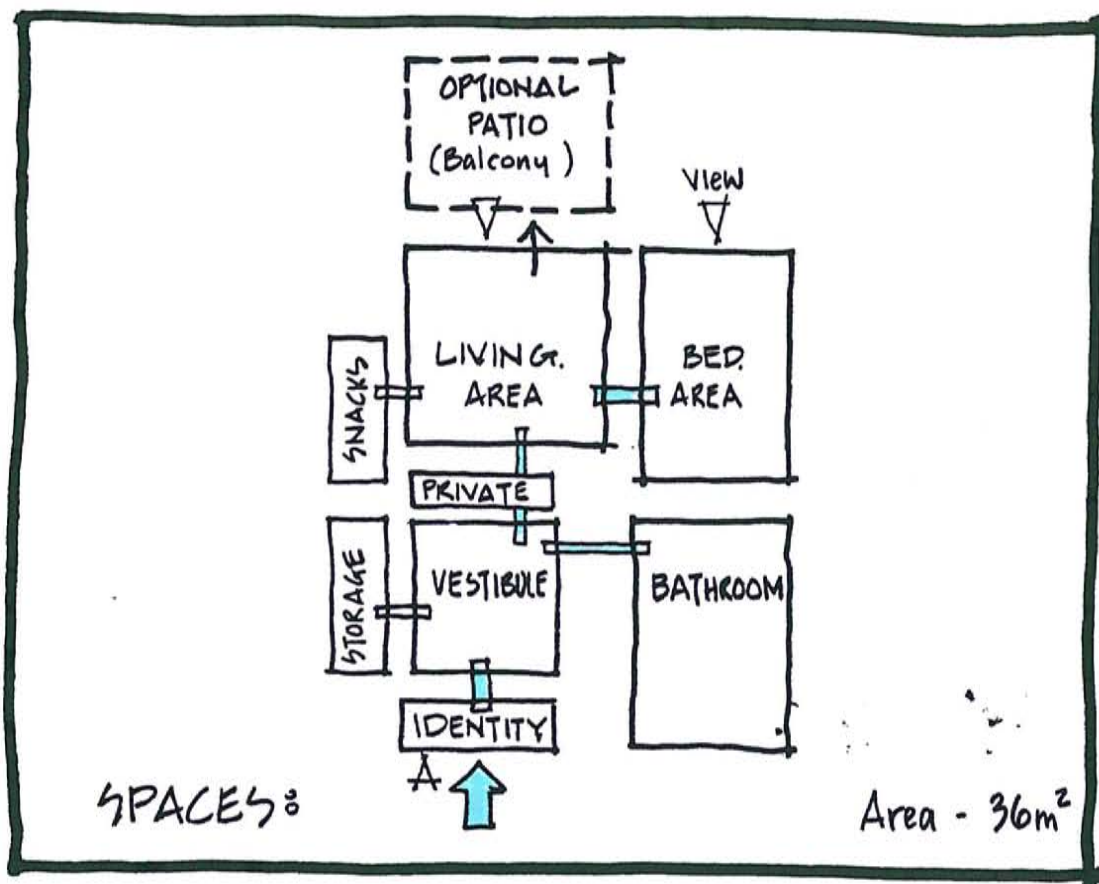
CONCEPT :

- Family 'Pod'
- Residential 'home'
- Secure & comfortable

USER : Residents.

ZONE : All Floors.

RESIDENTIAL



DESIGN:

- Accessible & supportive
- Adaptable
- Private & individual
- Not isolated
- Cheerful & stimulating
- Acoustic
- Control.
- Safe
- Care service access.
- Choice.

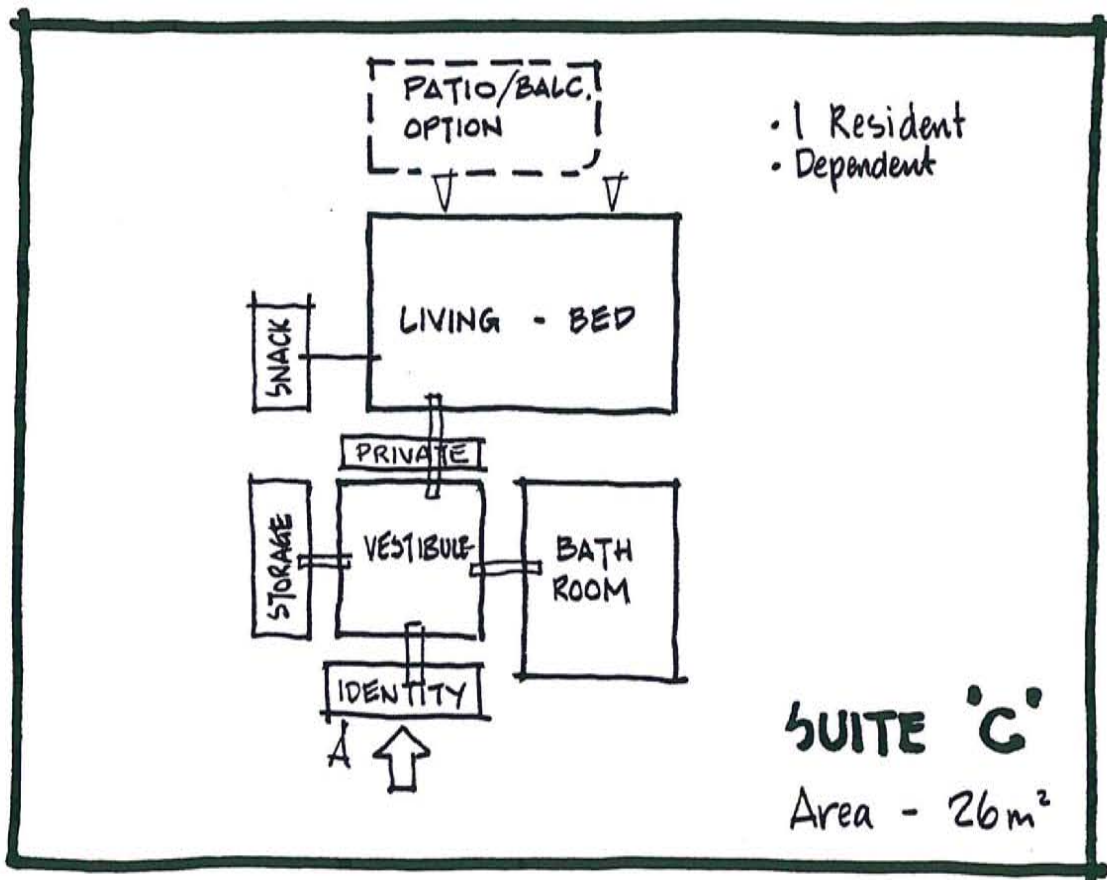
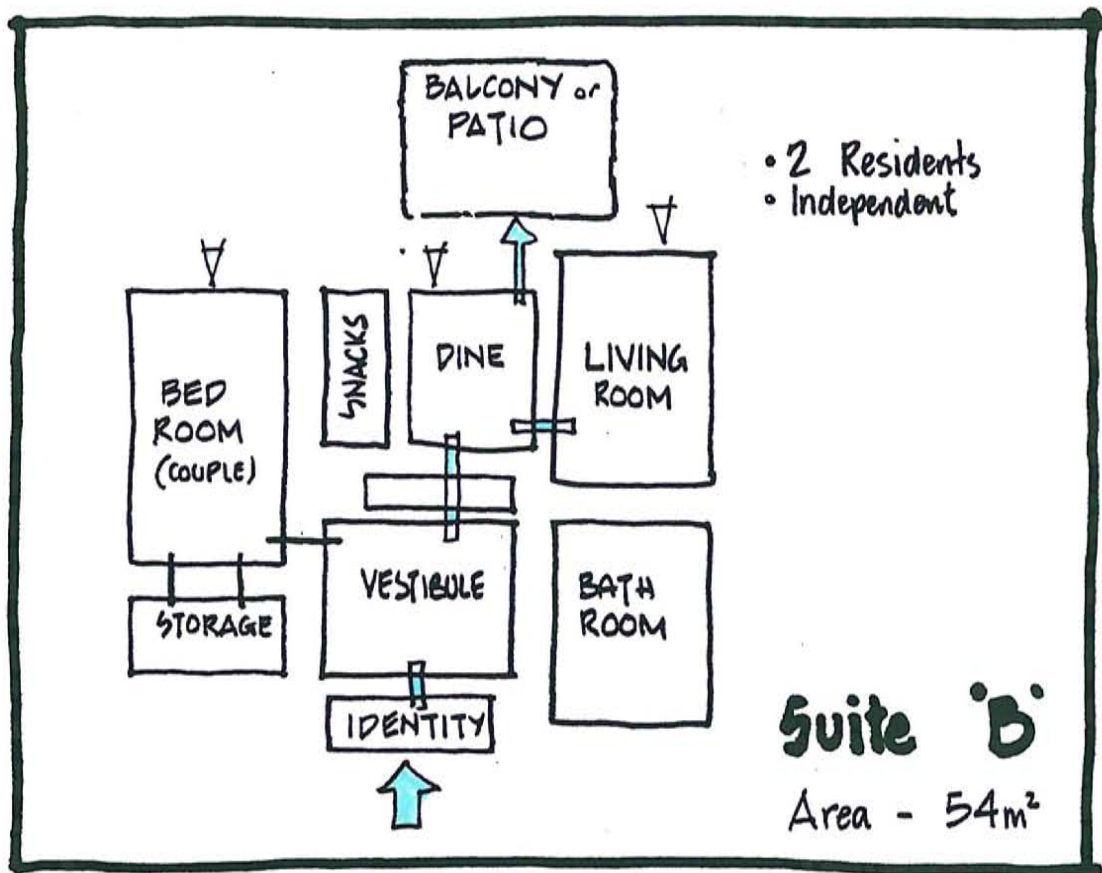
CONCEPT:

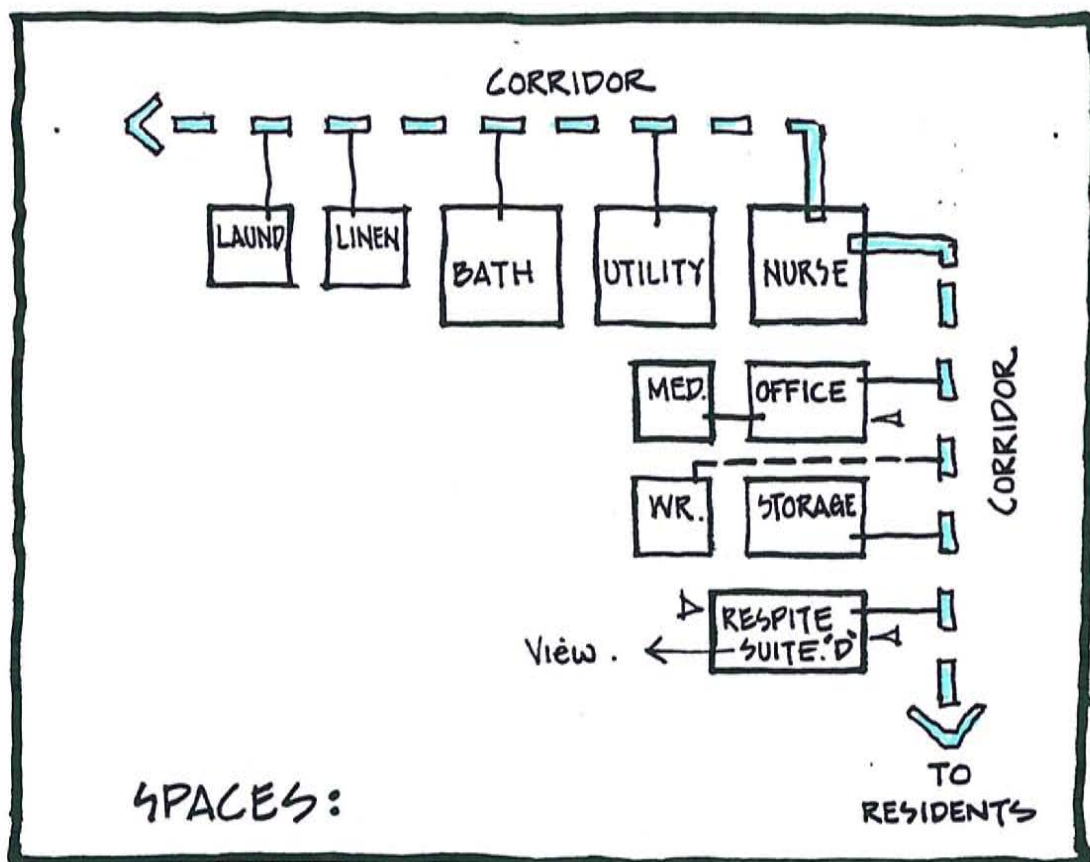
- Semi-dependent living
- Home
- Residential.

USER: One resident.

ZONE: Residential.

Suite 'A'.





DESIGN.:

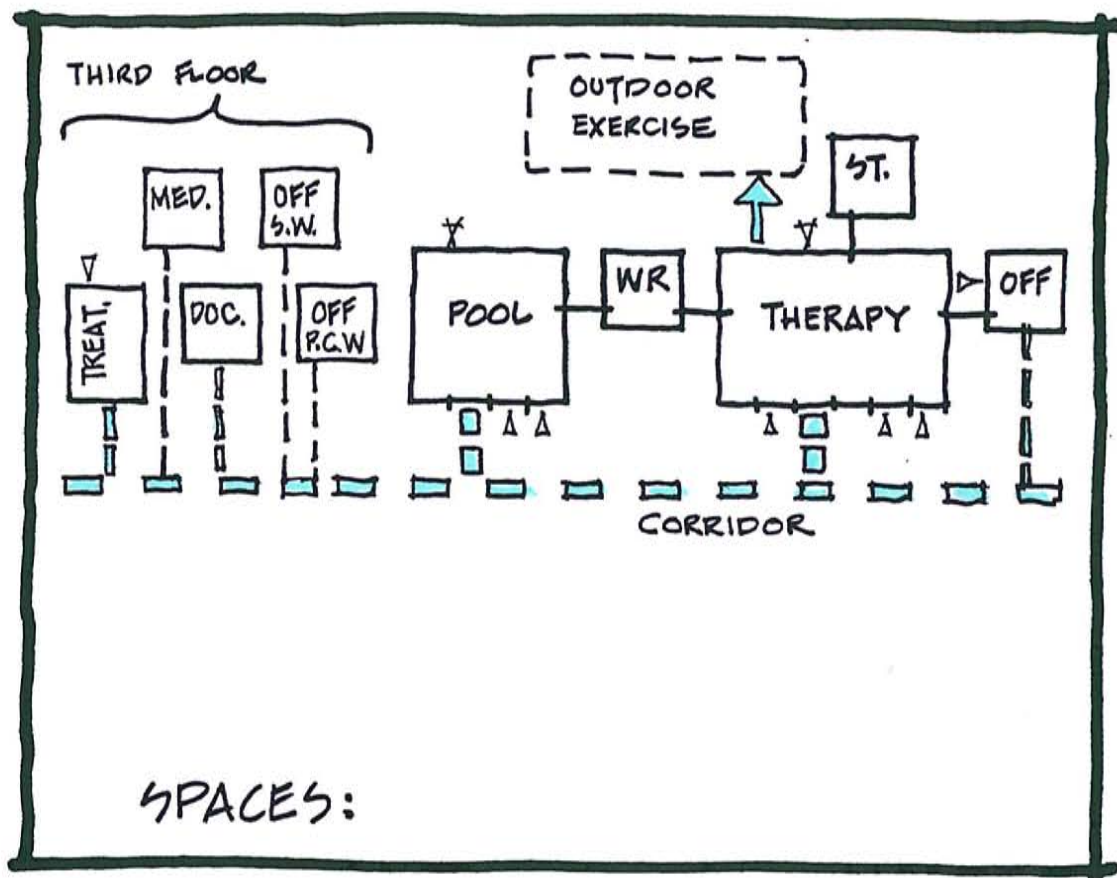
- Activity centre for services
- Busy & interesting.
- Residential
- Safe & secure.
- Close to residents area.
- Near to 'node' rest area.

CONCEPT:

- Inobtrusive dispensary for service as needed.

- USER • Staff, Residents.
- ZONE • One per floor:
serves 33 residents

NURSE DISPENSARY



DESIGN :

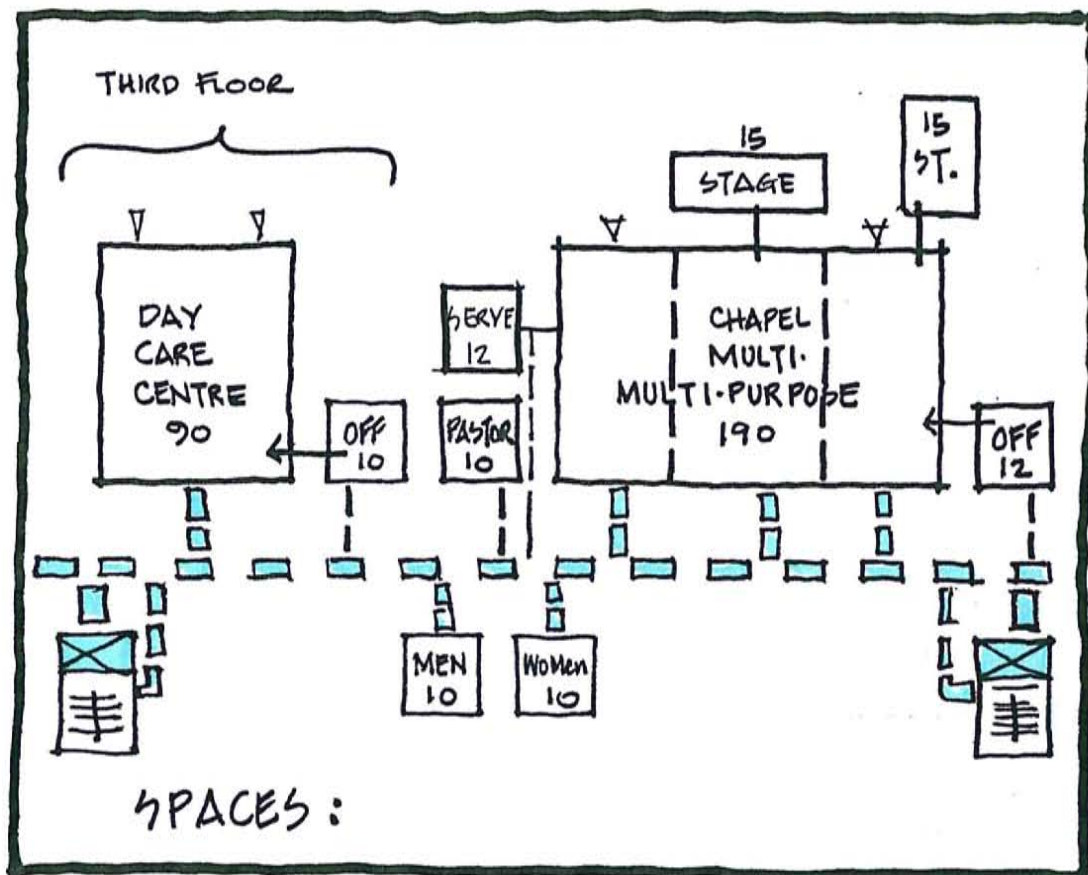
- Stimulating, healthy.
- Inviting.
- Visible.
- Tactile space definition
- Clean, fresh, bright.
- Sunlight opportunities.
- Near Winter Garden.

CONCEPT :

- Health spa Image

- USER • Residents, Seniors, Staff.
- ZONE • Main Floor

HEALTH CARE AREAS.



DESIGN:

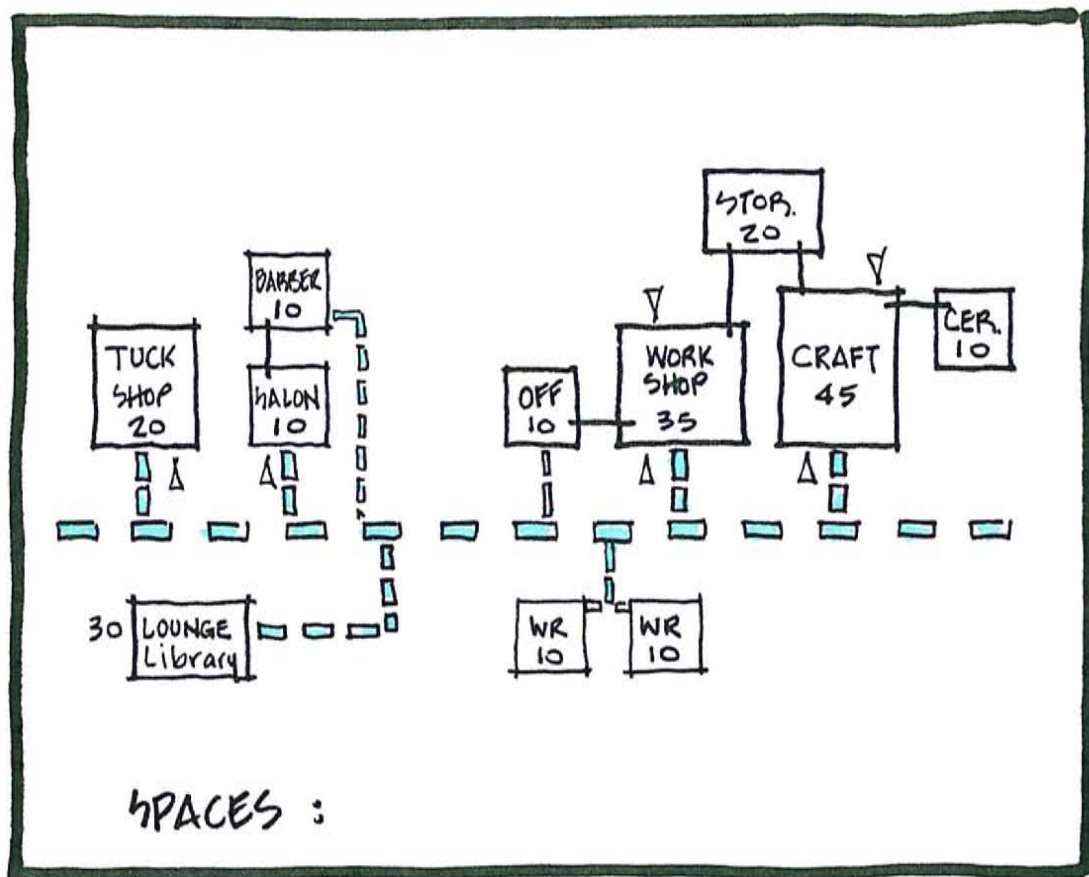
- Tactile, Auditory space
- Variety light (day-night)
- Ventilate.
- Stimulate.
- Flexible use.
- Acoustics

CONCEPT:

- Social Place
- Community, Integration.

USER • Residents, Volunteers
Seniors, Staff.
ZONE • Second Floor.
Easy access

RECREATION &
DAY CARE



DESIGN :

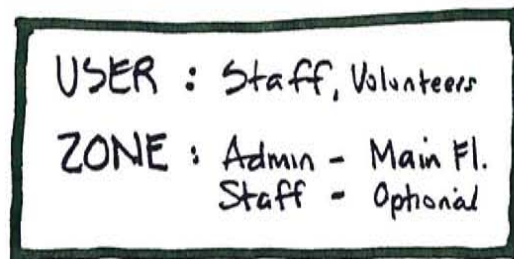
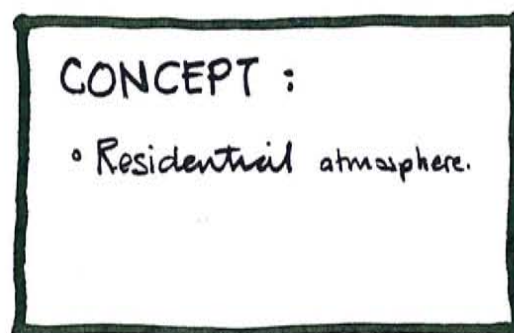
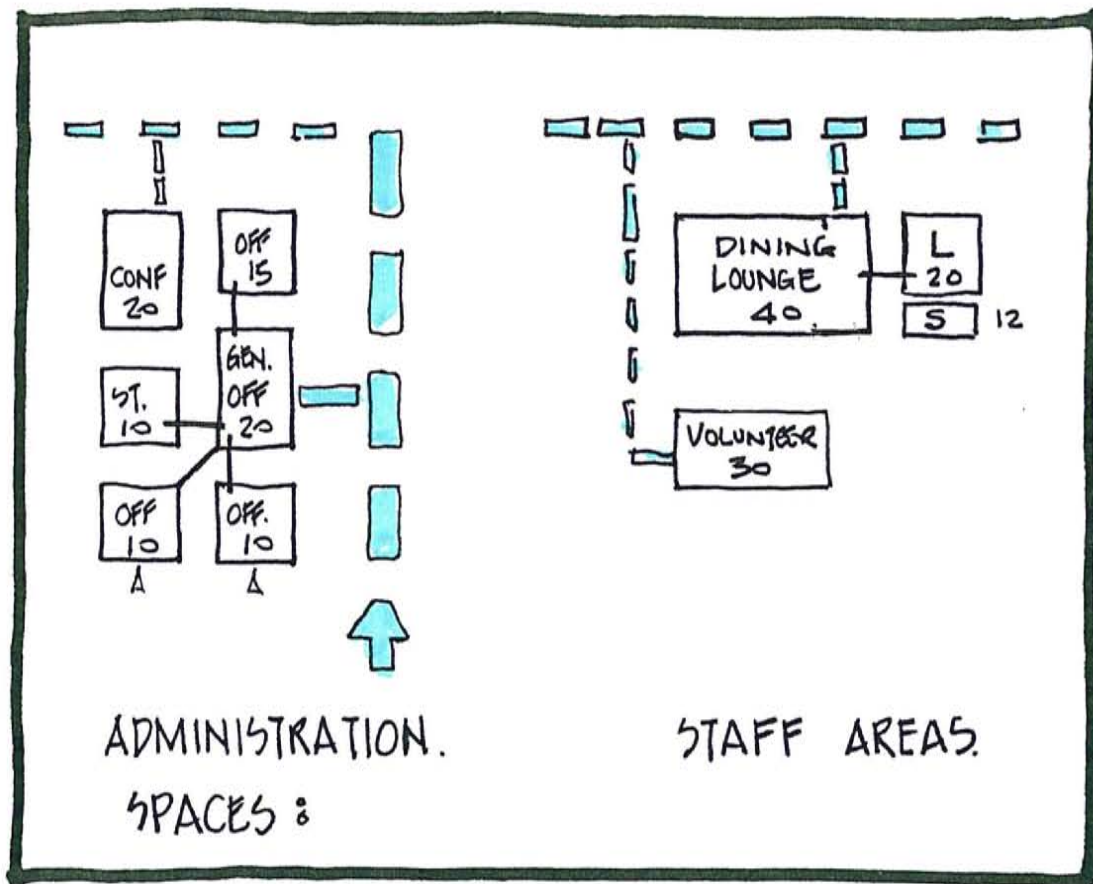
- Variety
- Visible
- Stimulating.

CONCEPT :

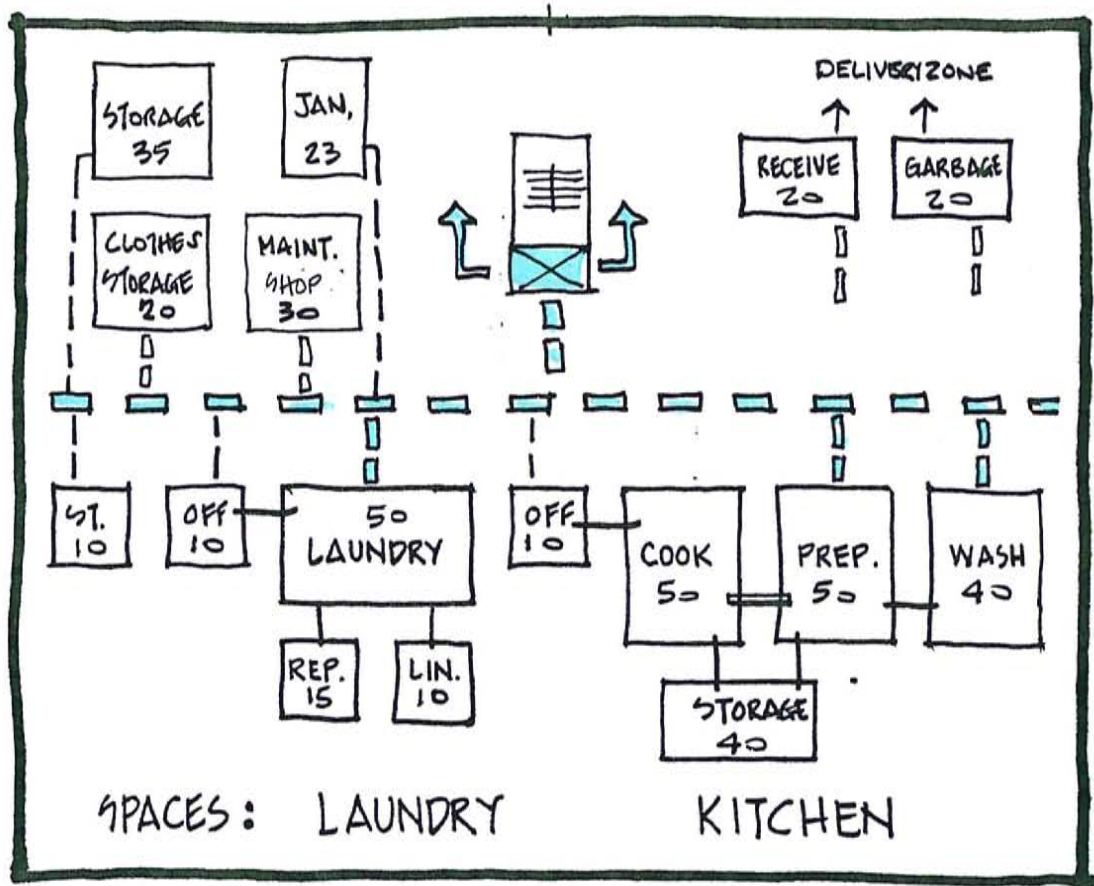
- Downtown activities
- Social places.

USER : Residents, Staff
Seniors,
ZONE : Second Floor.

ACTIVITY AREAS.



ADMINISTRATION
& STAFF AREAS



DESIGN •

- Durable, washable.
- Ventilation. adequate.
- Pleasant atmosphere

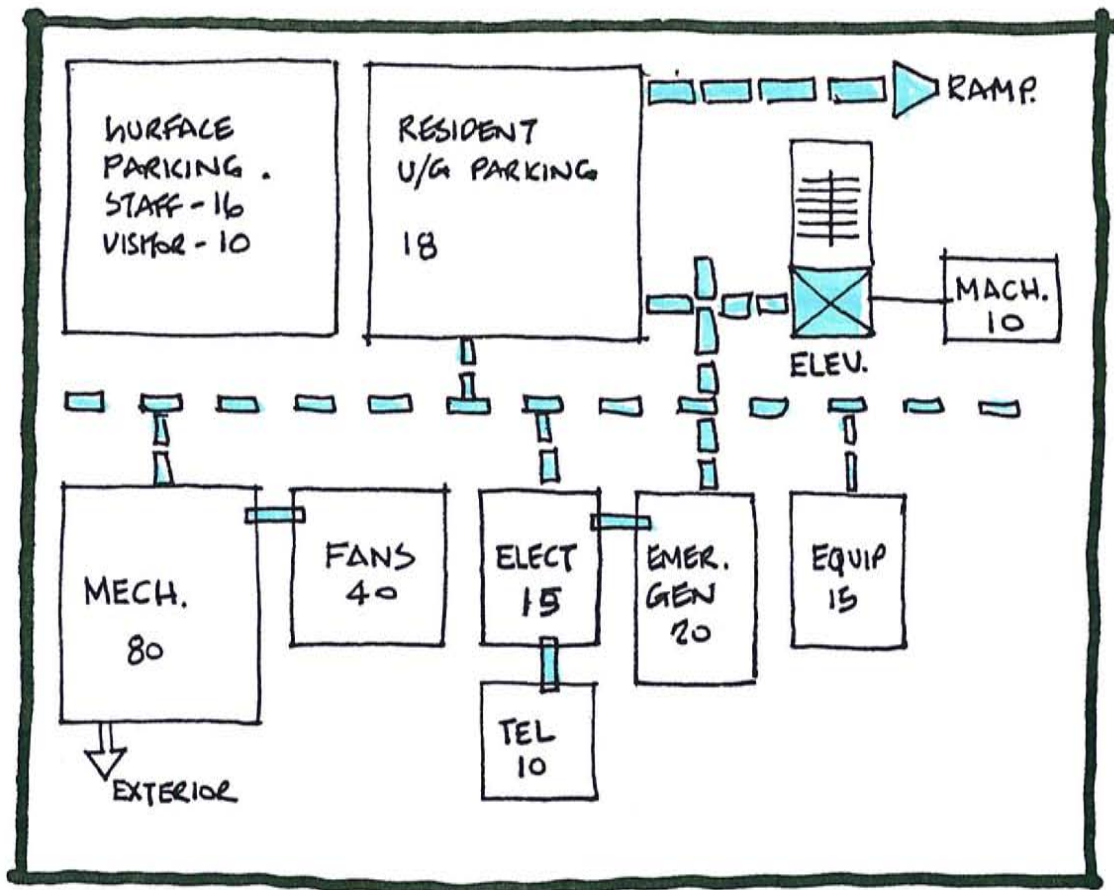
CONCEPT •

- Efficient & Commercial.

USER • Staff

ZONE • Basement.

FOOD SERVICE &
HOUSE KEEPING



DESIGN

- Durable
- Safe.
- Adequate ventilation
- Acoustic isolation.
- Identified
- Safe Parking.
- Accessible.

CONCEPT

- Efficient & organized.

USER. • Staff.
ZONE • Maintenance.
• Basement.

SERVICE AREAS.

detailed design criteria

ARCHITECTURAL PROGRAM

11. DETAIL DESIGN REQUIREMENTS

The size of spaces are determined from evaluation of current standards with consideration to concept of responsive design and the needs of the elderly residents.

1. CIRCULATION SPACES

a. Main Entrance - 8m² Area

Concept:

This entrance is the major entrance to the building and must be easily identified and accessible.

User:

Residents
Visitors
Day Care Seniors
Staff

Activities:

The coming and going of residents and visitors are observed.
Security control.

Adjacency:

Convenient for vehicle pick up.
Orientation for easy monitoring by receptionist.
Parking and sidewalks.

Spaces:

1. Protected entrance roof canopy.
Size ... 3000mm x 6000mm approximately.
2. Vestibule for draft control
Size - 2500mm depth
3000mm width

Atmosphere/Image

Residential
Inviting
Positive image

Responsive Design:

1. Entry doors easily accessible to frail elderly and wheel chair elderly.
2. Signage legible to handicapped.
3. Provide supportive aids such as handrails, textured devices for orientation.

4. Non slip flooring, inside vestibule and at exterior.
5. Sitting area in vestibule for removal of boots.
6. Support rail on all side walls.
7. Accessible entrance with no step.
8. Safe approach via sidewalk or safe pedestrian approach without having to cross parking lot.

Features:

1. Provide night time access for residents, using a security system.
2. Automatic opening entrance doors with side rail guides.
3. Safety glazing windows to exterior and into lobby.

Context:

1. Climate protection.
Ensure problems such as snow drifts blocking access, winds affect on doors and icing sidewalks are considered.

Design to minimize the negative aspects of weather at entrance area, using suitable orientation, wind baffles etc, textured or heated entrance walks.

2. Lighting: Adequate but not glare.
2. Security
Night time security control is required. Entrance doors are night locked with access controlled at reception desk and a security system where residents have suitable access cards.

Nurse station personnel or night security personnel may be retained to manage the reception desk. Design so as to allow final selections based upon building operations.

b. **MAIN ENTRANCE LOBBY** - 55m² Area

Concept:

Serves as the main entrance lobby for residents, visitors, families, employees, volunteers, etc.

Provides an information area for greeting visitors, security control and waiting lounge.

User:

Accommodate approximately 12 people at one time.

Size: 55m²

ceiling height - 2600mm

minimum width - 4000mm

Adjacency

Near administration, public washrooms

Near winter garden

Near elevators

Atmosphere

Welcoming, comfortable, residential.

Ensure positive 'new image' of this facility is evident. A first impression.

Responsive Design

Provide wall handrails for support and guidance of resident.

Provide textured flooring differences to guide blind.
(Use consistent flooring detection system)

Fitments

Information desk

Public Telephone (well illuminated and push button controls)

Directional Signage (circulation)

Building Directory (Tenants)

Bulletin Boards

Furnishings

Lounge Chairs (arranged in groupings)

Coffee Tables

Plants

Clock & Calendar

Display cabinet

Furniture in colour and texture to be readily identified by visual impaired.

Context:

Lighting: Include special lighting for displays.
Dimmer controls for night time.

Climate: Well ventilated for occupant load and traffic.

Acoustic: Acoustic treatment for this busy area.

Finishes: Floor - Carpet at lounge spaces
Ceramic tile for access area (textured)
Wall - Textured finish
Ceiling - Acoustic with varied height features for accent.

Incorporate "way-finding" cues for visual impaired.

c. **Secondard Entrances m²**

1. **Resident Entry/Exit**

Provided for the active resident who prefers to come and go without surveillance and desires another convenient entrance. Also, serves as required fire exits.

User:

Residents

Adjacency:

Locate near the resident units.
Convenient to grounds garden.

Features:

Security control system required. Easily useable by residents with managment override feature.

Context & Finishes:

Similar to main entrance.

d. **CORRIDORS**

Concept/Purpose

- Corridors provide the circulation system which links the family pods, the nursing dispensaries and public spaces.
- Develop "streets" to create the neighbourhood atmosphere and encourage residents to go for a stroll. (as in real life)
- Corridors must respond to the resident's need for ease of mobility, accessiblity, orientation and safety. The design of corridors must help to compensate for the debilities of the aged resident and assist their access to all areas.

Users/Occupants

Primary - Residents and Staff Members

Secondary - Visitors, Volunteers

Daytime is peak activity. Night is minimal sttaff.

Activities:

- Walking either independently or assisted.
- Wheel chair users by self or assisted.
- Moving beds (moving bedfast residents to activity areas)
- Observing the activities
- Chance social meetings by residents.

Adjacency/Relationship

- Access to resident room groups.
- Frequent views to exterior and interior gardens.
- Simple layout with landmark 'nodes' to help orientation.
- Access to Gardens Atrium.

Space Configuration/Size

- 2400mm **height** in residential corridors with height variations at "nodes".
- 3000mm **width** to allow passage of wheel chairs and beds and strollers.
- Incorporate alcoves as resting places with seating to encourage social interaction.
- Provide diversity of area and spacial arrangement.
- Avoid excessively long corridors without relief.
- Recess doorways at resident units.

Atmosphere/Image

- Pleasant and residential scale.
- Design orientation devices and direction signage and supportive devices to be residential (ie wood carving rather than institutional plastic)
- Walls and floor colours to be contrasting for easy identification.
- Bright colours for visually impaired.

Supportive Design

- Assist orientation in facility by differentiating one corridor from another in terms of location and function. Identify using distinguishable features, colour, graphics, texture, lighting or ceilings change, plant features or windows.
- Signs to be legible to visually impaired and easy to understand.
- Emphasize direction change using special 'nodes' in design.
- "Nodes" serve as landmarks in the building to assist orientation by the residents. For example; corridor intersections, nurse station and resident room entrances are specially identified.
- Colour coding must be clear to assist orientation.
- All spaces, corridors and rooms to have name signage.
- Minimize protrusions to avoid obstacles to blind, or ensure colour contrasted.

Features

- Handrails on both sides of corridor for residents assistance.
- Wall rail to protect from wheelchair damage.
- Corner guards on walls.
- Wall moulding for hanging displays.
- Signage and graphics designed to meet needs of aged ... visual impaired, easily understood.
Handrails designed easily graspable with 40mm round rail, spaced with minimum 40mm wall clearance.

Furniture & Equipment

- Artwork
- Planters
- Chairs in sitting alcoves
- Signage (names of residential 'pod'; activity spaces; name of "street", dining rooms.
- Directional signs (Floor markings, wall graphics, textured indicators, etc. special designed for aged impairments)
- Public address system for announcements.
Ensure no intrusion into private areas of public systems noise.
- Provide emergency call devices along corridor.
- Provide indicator 'nurse call' lights outside each room.
- Fire Alarm, Smoke Detector, Sprinkler Systems.

Context

Daylight & Views

- Provide daylighting to encourage sense of outside awareness.
- Windows allow view to activity areas and help orientation.
- Consider skylights with diffused lighting to provide sunlite nodes and enhance street atmosphere.
- Avoid end corridor windows due to glare problem, use side windows.

Lighting

- Provide well illuminated corridors with variety from one area to another to suit function and assist identification.
- Provide for reducing light levels at night time with no spill over into residents rooms.
- Use indirect lighting or design to avoid floor reflections, avoid glare and avoid strong contrasts.
- Use feature lighting for special displays, 'node' landmarks, handrail illumination
- Careful orientation of light sources helps visually impaired find

way.

Climate

- Air conditioning
- Fresh air input
- Ventilate with minimum 4 air changes per hour (removes stale air, odour)
- Slight pressurization only

Acoustics

- Acoustic treat walls and ceilings to control noises from traffic and avoid disturbing residents or staff.

Finishes

- Flooring:
- durable, non-slip and resilient and glare-free
 - allow easy passage of wheelchair, mobile assisted elderly and cart traffic.
 - incorporate identification cues such as texture changes and color contrasts to assist visually impaired.
 - avoid tripping hazards
 - surface sufficiently hard to 'sound' for visually impaired walking cane and different texture from remaining areas to help navigation of blind person.
 - cove base, easy maintenance

- Walls:
- contrast colour with floor and special obstacles
 - protect from wheelchair damage

- Ceiling:
- acoustic treatment desired

All finishes to be durable and easily maintained and cleaned

Special

- Control of residents with behaviour difficulties and wandering tendencies need special consideration in this context of free movement and fire exits.
- Design spaces to assist the control and monitoring but not restrict.
- Use of buzzers on exits and visual control is the final safeguard.

Safety

- Provide rounded edges and corners to minimize injury if resident falls.

- Use signage special designed as responsive to reduced senses of the visual impaired
- Use audible signals to identify exit doors, stairs, elevators.

e. **elevators**

Two elevators are provided for communal use for access to all floor levels. One elevator primarily for resident's use.

User: Resident
Staff
Visitors

Capacity for 15 occupants

Activity: Primary mode of vertical transportation/ circulation between floor areas.

Frequency of use _____

Peak periods 8:00 a.m. to 7:00 p.m.

Adjacency: Near central activity areas.
Near resident wing areas.
Near nursing dispensary.
Near central kitchen.

Atmosphere: Residential decor
Bright & cheerful

Size: Width ... 1700 mm
Depth ... 2500 mm
Height .. 2400 mm and 3000 mm
Door width ... 900 mm and 1100 mm
Accommodate bed, stretcher, wheelchair with attendant.

Responsive Design

- Controls, emergency call system accessible and usable and visible by aged, whether standing or seating
- Textured, illuminated and audible signals for floor identification both inside cab and at landing.
- Door closing time adjustable to allow slow passage of residents. Door closing forces to be minimal and protected with photo cell device.
- Provide fold down seats for resident support or parcel shelf
- Provide smooth elevator operation and level stop @ floors.

- Use audible devices for blind.

Fitments

- Handrails on all sides
- Nurse call & communication intercom
- Controls and signs all at convenient mounting height, visible and useable by wheelchair person and standing aged person

Context

Lighting: Illuminate same level as corridors. Non-glare.

Climate: Adequate ventilation.

Acoustics: No special needs.

Finishes: Flooring resilient, durable, non-slip. Allow easy passage for walking aids, wheelchairs, carts, etc with no threshold. -
Walls are no glare.

Safety

- Fire protection vestibule provides isolation and safe smoke free zone for residents access to elevator in emergency. Consider its incorporation.
- Disabled aged residents, some in wheelchairs find exit via stairs difficult, thus safe elevator access essential.
- Emergency power assures uninterrupted use.
- Smoke evacuation/pressurization fan systems keep elevator zone smoke free.
- Elevator controls programmed to accommodate safe fire exit.

Special

- Provide seating area at elevator vestibules for waiting residents.

f. stairs

Exit stairs are required at ends of corridors in residential wings and at public areas and staff areas.

(i) Residential Stairs

User: Primary user are residents
Secondary user are staff who may assist residents

Activities: Primary function is fire exit.
Secondary use for 'rear access' by active residents.

Adjacency:	Fire protected vestibule Direct access from residents wing corridors
Space:	Width of stair is 1650 mm. Landing width is 1650 mm. Configuration to accommodate wheelchair or bed. Provide 1100 mm clear access space between door and landing or stair nosing, when door swings open. Treads 285 mm with 35 mm nosings.
Atmosphere:	Pleasant
Responsive Design:	Rounded treads and risers to minimize tripping. Non-slip treads. Texture indicators. Doors with window panels to aid orientation. Exterior windows to aid orientation. Door hardware useable by aged lever handles, delayed easy open closer. Design approaches to cue the visual impaired with adequate landing depth and textured cue at stair edge.

Fitments

- Continuous handrails both sides, extended minimum 300 mm. Design rail for poor gripping abilities and cues for blind.
- Signage or graphics at each landing indicates floor level and room area use.

Context

Lighting:	Overhead lights, non-glare.
Climate:	Adequately heated and ventilated
Acoustics:	Provide some acoustic control
Finishes:	Floors - non-slip Walls - Non-reflective Ceiling - Textured finish Use contrasting colours to help identification by visual impaired
Special:	Emergency call devices

iii. **Public Stairs**

Central area stairs required for communal access to activity areas and exit requirements.

User:	Residents Staff Visitors
Activities:	Access Exit
Adjacency:	Fire protected vestibule Near winter garden Access to main activity areas
Space:	Width of stair 1650 min. Landing 1650 min. Height 2400 min. Vestibule size 2000mm x 2500mm min. sufficient to accommodate wheel chair or bed passage.
Atmosphere:	Pleasant and residential
Repsonsive Design:	Incorporate features similar to residential stairs. Location easily identified.
Fitments:	Continuous handrail with cues. Signage for floor level and area.
Lighting:	None glare.
Climate:	Adequate heat and ventilation.
Finishes:	Floors: Non slip, durable Walls: Non reflective, durable Ceilings: Textured
Special:	Emergency call devices

iv. **Staff Stairs**

Some Stairs are used for staff access or exit. Stairs to kitchen areas, stairs to basement and boiler rooms.

User:	Primarily staff
Activity:	Alternate access to use of elevator.
Adjacency:	Service areas.
Space:	Width 1200mm clear Landing 1200mm
Atmosphere:	Pleasant
Fitments:	Handrails both sides Signage on floor level and adjacent spaces Delayed operation door hardware to allow passage with equipment. Door with window panels.
Light:	Adequate.
Climate:	Adequate
Finishes:	Non slip surfaces Non reflective Durable

2. WINTER GARDEN

- 180m²

Concept

Provides an indoor garden area with plants and trees, sitting areas and walks, for the use and enjoyment of the elderly during the long cold Saskatchewan winters.

Design to encourage use by residents and offer opportunities for the variety of activities.

User: Residents
Community Seniors
Volunteers
Available for access anytime. Daytime & Evenings peak activities.

Activities: Walking
Sitting
Watching
Socializing

Provide sections where residents grow and maintain plants.

Space: Size approximately 14m x 14m.
Provide highly visible and central location.

Full height of building, with viewing opportunities at all floor levels.

Minimum width - 10m approximately

Height - 10m approximately

Adjacency: Locate near day care area, resident living spaces and elevators.
Orient windows to provide a South or Southeast exposure for best sun.
Easy accessible from main entrance lobby.

Atmosphere/Image: Healthy, stimulating atmosphere.
Integrate as a major feature.
An indoor garden which encourages participation.

Responsive Design:

Walk rails to assist frail elderly mobility and cues for visual impaired.

Walkways textured for identification/direction cues and non-tripping.

Provide rounded corners and edges to features and fittings to reduce injury in a fall.

Provide orientation devices for the visually impaired. Provide a barrier free environment to promote maximum use but do not dominate or detract from the atmosphere.

Features:

Provide a variety of plants and trees, ponds and walks.

No particular landscaping program is defined, but adequate size trees and landscaping are recommended to suit the intended purposes and respond to the environment, constraints.

Selection of plants to suit natural lighting available.

Provide variety in walkways and sitting areas and vistas.

Provide opportunities for curiosity and delight. Some benches for resting to be fixed. Allow for sitting alone or in groups with quiet and active areas.

Furniture:

Provide suitable seating and benches sufficiently sturdy to remain in position and support when elderly user transferring from wheel chair.

Allow for movability in different arrangements.

Daylight:

Provide natural light for plant growth and enjoyment of residents.

Direct sunlight desirable but provide some control of annoying glare. Diffuse light.

Lighting:

Provide lighting levels and type suitable

	<p>for healthy plant growth.</p> <p>Incorporate variety of lighting and controls to allow changing 'moods' from day time to evening atmosphere.</p> <p>Provide feature spot lighting and landscape lamp posts.</p>
Climate:	<p>Provide heating and humidity systems for plants environment.</p> <p>Provide adequate ventilation and air changes.</p> <p>Incorporate upper relief vents, operable windows or skylights to provide fresh air ventilation.</p> <p>Plants improve the quality of air.</p>
Acoustic/Isolation:	<p>Provide noise control if space volume requires to attain acoustics in harmony with indoor garden.</p> <p>Provide sound isolation from noisy activity areas.</p>
Finishes:	<p>Durable, moisture resistant.</p>
Floor:	<p>Concrete floor with paving stones, quarry tile and wood finishes. Non slip and accessible.</p> <p>Use concrete brick pavers for walkways, quarry tile patio areas with wood block pavers for special areas.</p> <p>Incorporate in a variety of ways, using differing textures to assist orientation.</p> <p>Floor drains.</p>
Walls:	<p>Guard rails on upper floors.</p>
Ceiling:	<p>Glazing using suitable thermal type systems.</p>

3. RESIDENTIAL AREA

A. Introduction

i. Concept Overview

Reinforce the residential and traditional family home concept.

Ensure no intrusion of the nursing component.

The resident shall maintain individuality, privacy and self determination, yet be part of a family group which substitutes for the lost family and provides source of supportive help.

The resident has choice of being alone or company or visit in family pods. The choice is progressively available.

ii. Organization

Family Pods

Groups of Eight residents will form a small close group called a family pod. This size is considered a suitable number for development of a 'family', where residents help, know and relate to each other.

This small grouping allows for choice of a compatible resident mix and apartment type mix.

Each resident has own suite complete with bathroom in suite. A choice of suites are available, with options of snack kitchen, balcony or patio.

A family dining and living room is adjacent to the resident rooms, where residents may relax together during day and enjoy meals together.

Neighbourhood

Four family pods form a "neighbourhood" of 32 residents and share communal facilities.

Central Bath

Nursing Dispensary

Resident Laundry

Housekeeping

Access to activity areas

Resident Suite Mix

Provide varied grouping of the resident suite types.

For example

Family pod 1 - 8 Type 'A' suites

Family pod 2 - 8 Type 'C' suites
Family pod 3 - 4 type A & 4 type C suites

This variety aids flexibility in resident integration and service care accommodations. Avoids stereo type sectioning on residents.

B. RESIDENT SUITES

1. Concept

This domain is of great importance to the resident and the following needs must be incorporated.

- .1 The choice of privacy, company and social interaction.
- .2 Sense of personalized control over territory and expression of ownership.
- .3 Choice of living alone or shared accommodation. (suite size 1 or 2 bed)
- .4 Choice of furniture and arrangement. (large enough suites)
- .5 Control over heat, light.
- .6 Choice in size and type of resident suites, to suit lifestyle needs.

The residents require some personal care and health care services but wish to maintain independences and ability to function in their own rooms with minimum assistance. They desire to live as normal as possible and nursing criteria must not dominate.

2. The User

Residents
Single and Double occupancy
Slow-go and no-go status.
Nurse staff
Social Workers
Visitors
Housekeeping Staff
Therapist

3. Activities

Basic living functions of resting, sleeping, sex, eating,

reading, hobbies, visiting, socializing, self maintenance and exercise.

Personal care assistance.

Health Care maintenance.

Considerations

Ensure area for hobbies and display space.

Ensure adequate space for wheel chair rotation.

Residents spend majority of their time in apartments.

Bedfast residents are very confined except for assisted excursions, meals or visitor/volunteer programs.

4. SPACES FOR ALL SUITES

a. Entries

- Recess Area 1.2m²
- This is the area at residents door to public space.
- Provide alcove space to allow for personalization with plants, ornament, etc. to make territory belong to resident. Adds variety to suite entries.
- Size: 1500mm wide x 800mm recess.
- Use wide 1100mm door for bed/wheel chair accessibility.
- Use door hardware useable by resident. Option of lacking.
- Consider orientation at some suites to allow bed fast residents to view into public areas. (Use doors with glass panel or sidelites; with suitable blinds for viewing.)
- Door bell, name sign.

b. Vestibule - 3 m²

Functions as transition space between private resident room and public areas. Staff or visitors enter and recognized before penetrating private area, after ringing bell.

Size minimum - 1500mm wide x 1500mm depth wheel chair access. Door jamb clearance of 600mm in latch side.

Access area to bathroom and storage closets. Allow area for wheel chair or mobility aid storage.

Consider a sliding door for privacy at access into the bedroom space. Lockable door with emergency access.

Orient space to allow easy access for moving bed into public area.

c. Bedrooms/Living Rooms

Functions as the 'dwelling' space for resident.

Choices are provided for living alone or with a companion.

Choices are provided for the bed-sit bachelor type suite arrangement or separate bedroom for couples.

The following **criteria** is typical to all space arrangements:

- Ensure room dimensions and configuration allow flexible and alternate furniture arrangements to personal choice.
- For example, the cul-de-sac living area offers more space for furniture and avoids circulation waste.
- Consider orientation to offer window view or T.V. view from bed or chair.
- Allow circulation clearance of 1500mm for wheel chair use.

d. Bathrooms - 6m²

Full bathrooms with shower, toilet and sink are desired for all suites.

Bathroom size approximately 2400 x 2500mm.

A detailed analysis of the bathroom accommodation is included in the following section.

e. Storage Areas

Provide for coat and clothes closet.

Storage cupboard for personal possessions. Lockable section.

Include slide out shelves, drawers and door pockets for easy use.

Avoid stacked storage and arrangements which require reaching or stooping for access.

Allow utility storage closet for larger items, wheel chair etc., hobbies.

f. **Snack Kitchennette**

Option available in the deluxe A & B suites to allow residents to prepare own morning coffee or toast. Helps resident to maintain sense of independence and self reliance.

Incorporate into an alcove or closet space with folding door or shutter.
Provide adjustable height counter with small sink.
Provide small counter refrigerator.
Provide for easy removal when not required.

5. **RESIDENT SUITE TYPES**

Suite Type 'A' - 36m²
Deluxe unit, single occupancy

- Living Area - Approximate size 2400 x 3200 (8m²)
suitable for one chair and couch, T.V. and side tables. Relaxing and socializing.
- Bed Area - Approximate size 2800 x 2500 (7m²) bed and night table.
- Snack Area - Approximate size 2000 x 2000 (4m²) suitable for small table with two chairs.
- Storage - Approximate size 1000mm storage cabinet x 600 deep (0.6m²)
- Approximate size 1000mm coat closet x 600 (0.6m²)
- Kitchen Alcove - Approximate size 1500mm snack kitchen x 600 deep (0.9)
- Bathroom - Size 2500 x 2400. (6m²)
- Vestibule - Size 1500 deep x 2000 wide approximately (3m²)
- Balcony - Size 2000 x 2500

Suite Type 'B' - 54m²
Deluxe unit, Double occupancy

- Living Area - similar to Type 'A' suite
- Dining Area - Size 2000 x 3200
suitable for table and two chairs

Snack Kitchen	-	and buffet cabinet. Approximately 2000 length, sink, hot plate and counter fridge.
	-	Approximately 1000 length x 600 deep storage cabinet.
Storage	-	Approximately 3000mm length clothes and storage closet.
Bedroom	-	Size 3000 x 6000 Suitable for two beds, two side tables, chair and dresser.
Bathroom	-	size 2500 x 2400
Vestibule	-	Size 1500 x 2000
Balcony	-	Size 2000 x 2500

Suite Type 'C' - 28m²

Standard Unit, Single Occupancy

Living/Bed sit area - size 3600 x 4200 (14m²)
Suitable for bed, side table, chair
lounge, T.V., writing desk, buffet
cabinet.

Vestibule - size 1500 x 2000

Storage - 1000mm storage cabinets

- 1000mm storage

Bathroom - Size 2500 x 2400

Locations of some Type C' units with close access to the
Nursing Services for use by 'Intensive Care' residents or
severely ill/impaired.

Some 'C' units located for accommodation of "isolation
requirements" when problem oriented residents.

Type 'D' Suite

Similar to Type 'C' suites for use as 'Respite' suites.

Respite Suites:

Incorporate a few respite suites for the resident who requires
temporary short term intensive care. For example, the resident
is accommodated during recovery and then returns to own
apartment.

Locate under control of the Nursing Stations.

Operate in cooperation with the Day Care Centre.
Residents from the Community allowed 'access' to the Respite beds under Elderly Home Care Programs. Occupancy on temporary and short terms only, for health lapses or assessment under hospital programs.

Such practice allows some management by Nursing Unit to maintain a stabilized and consistent occupancy.

6. **ATMOSPHERE/IMAGE**

Residential quality
Cheerful
Personal

7. **RESPONSIVE DESIGN**

The larger size rooms allow sufficient space for wheel chair access or help from attendants or bed transfer. Also, choices of more or less furniture shall be option of resident since space available. (ie. resident may have a cluttered space with personal possessions or more open spaces for socializing).

Walls shall be reinforced for mounting of future support bars.

Ensure no spaces are inflexible and cannot accommodate changes in user ability or need changes.

Fittings and fixtures useable by residents at all disability levels.

8. **BUILT-IN FEATURES**

Clothes Closet
Storage cupboards
Nurse call signal device (emergency) in living and bathroom (located to allow variety furniture arrangements)
Alarm monitoring for supervision.
Telephone, T.V. outlet and plugs. Locate to allow furniture arrangement.
Door names and number.
Entrance bell, mail box and light (like house exterior image)
Display shelving (adjustable) for ornaments and plants.
Wall moulding for hangings.

Tackboard for display of photos.

Double track drapes to accommodate personal drape choice but retain consistent outer drape.

9. EQUIPMENT, FIXTURE

Bed

Allow choice of types for residents needs and to suit the different care requirements. Hospital type adjustable beds with side rails available only when needed.

Allow personalization with residents top coverings.

Furniture character

Residential appearance, with rounded and soft corners to minimize injuries.

Chairs (bed side)

Lounge chair

Dresser

Desk (hobby or writing table)

Wardrobe

Bedside tables

Television

Full mirror

Plants

10. CONTEXT

Windows (exterior)

Locate windows with low 450mm sill to allow good view from bed, or seated.

Window is to provide adequate natural light into room to create a cheerful atmosphere.

Minimize daylight glare with light wall colours, window blinds and drapes and orientation.

Provide operable window for natural ventilation and located to avoid drafts. Use easy operate hardware and within reach of resident.

Window designed for safety of resident and security from exterior.

Wide window sills to accommodate plants (300mm wide)

Protect windows from direct summer sun where possible.

Acoustics

Provide sound isolation between rooms and at entrance door.

Provide inside room with sound attenuation for lower frequencies and reflective surfaces for higher frequencies.
Accommodates hearing impairments.
Acoustic treat areas where 'noisy' tenants reside.

Lighting

Adequate light levels for detail work and reading.
Control glare and reflection.
Allow choice of night lighting and task lighting.
Light over bed.

Climate

Elderly are vulnerable to drafts and temperature variations.
Allow for residents to regulate own thermostats.
Elderly generally prefer warmer temperatures of 75-80°F and RH. 30-40%.
Mechanical ventilation.

Finishes:

Floors:

Durable, resilient and non-slip moisture proof
Easily maintained and cleaned.
Allow residents accent carpets.

Walls:

Durable Finish.

Ceilings:

Textured or patterned for visual stimulation of resident in bed.

Balconies

Provide option for some private outdoor balconies to approximately 40 suites.
Access from living space via swing door with galss lite.
Size approximately - Depth 2000mm x width 2500mm
Accommodate 2 chairs, space for plants etc.
Design to look and feel safe, using narrow rails to avoid blocking view.
Design to allow closing in of balcony using screens or glass for future considerations.

Patio

Provide option for some private outdoor patios to some ground floor suites.

Size - Depth 2500 x 3500 wide.

Using paving stone patio, with low screening or hedge to define spaces.

C. RESIDENTS BATHROOM (In Suite)

Philosophy/Concept: Design to accommodate wide range of Aging Frailites and disabilities wheelchair, partial blind, feeble dexterity.

Provide to maximize independence of resident but allow choice of assistance.

Private space with support features to assist independent use.

1. **User**
 - Resident independent
 - Resident with assistance from Nurse
 - Housekeeper to clean.
2. **Activity**
 - Normal grooming, personal hygiene, showering, washing, toileting.
 - Allow for in-continent.
 - Allow for independent use or with assistance as needed.
3. **Space**
 - Size 2400 x 2500 wide.
 - Allow for wheel chair.
 - Allow for assistant helping.
4. **Adjacency**
 - Resident Room
 - (Part of residents suite)
5. **Access**
 - Doors to be 1000mm wide opening for wheel chair/assistant.
 - Swing doors out for emergency access or sliding doors.
6. **Responsive Design Accessibility**
 - Fixtures to be wheel chair accessible.

- Barrier Free to all aged regardless of disability or impairment.
- Flexibility
 - Accommodates change to suit individual special needs.
 - Future "Focus equipment" developments should be accommodated.
- Acceptable
 - Adjustable heights of sinks.
 - Adjustable heights of shower controls.
 - Adjustable mirrors.
 - Provide reinforcing in walls for future supportive equipment.
 - Grab bars adjustable to needs.
 - Fixtures enhance "independent" useage.

Provide adaptability and support required as resident experiences age related disabilities but does not intrude when not needed.

- Privacy
 - Locate room so door open does not give direct view from entry/living spaces.

7. Elements

- i. Shower
 - Full size shower 900 x 1800
 - Accommodate wheel chair (roll in access)
 - Support seat and grab bars.
 - Controls accessible from inside/outside (resident or assistant use)
 - Shower height adjustable with flex-wand head.
 - Scald free valve/water intensity control
 - Consider option to insert a tub for occasional use.

- ii. Water Closet - Standard 15" height for general use.
Allow for change to special high units if needed.
 - Grab bars for assistance.
 - Toilet seat cover provides seat for resting or grooming task.
 - iii. Vanity Sink- Adjustable height to suit individual.
 - Mirror full width, adjustable height.
 - Option to tilt mirror for wheel chair.
 - Vanity with shelf for grooming needs.
 - Faucets with lever and color coded to suit from elderly in wheel chair/color code.
(side locate to avoid reaching; lever handles, simple operation, auto shut off) easy identify.
 - iv Storage Cabinet - Towels, toiletry, grooming aids and medicines.
 - 8. Atmosphere Image
Image/Atmosphere
 - Warm colours
 - Residential and cheerful
 - 9. Fitments
Grab Bars
 - avoid institutional appearance
 - Locate to suit 'user' entry and support for shower, toilet.
 - Accessories
 - Mirror opposite toilet permits shaving while seated.
 - Mirror over sink often too distance for some elderly, locate where closer approach possible.

- Towel bars located where easy reach but anchor firmly so not dislodged in emergency use as grab bars.
Coordinate with emergency call switches to avoid false alarms when towels grabbed.
- Wall hooks for clothes.
- Shelf for personal articles.

- Exhaust fan to adequately remove steam and odours. Controlled by resident with management override.
- Quiet fan.
- Adequate ventilation.
- Warm room temperature (75 to 80°F) Consider heat lamp.

- High illumination to suit poor visions
- Choice of night light/bed light.
- Controls accessible to resident.

- Noise control treatment to walls and door to minimize transmittance.
- Acoustic treat surfaces to avoid large room echo.

- Easy maintain floor and walls.
- Non slip durable floor with cove base.
- Wash down type floor with drain (incontinent accidents)

- Safe, convenient, free of sharp edges and slippery surfaces.
- Plan fixtures so excess bending not required. Suit frail... no reaching across counter.

- Electrical plugs ground fault, adjacent to vanity.
- Temperature control on water (115° max)
- Ensure hot pipes isolated/insulated against knee burn.

Emergency Communications

- Emergency call system designed for older users.
- Call switch with optional rod extending to floor. Mount 900mm high and easy reach of toilet/shower. Locate in all areas.
- Provide 24 hour alarm monitoring adjustable to any time frame to allow for "sentry monitoring of the minimum supervised resident.

D. FAMILY LOUNGE (LIVING ROOM) - 20m²

- Concept:** - The re-creation of the traditional family living room is the intention.
-It is a lounge area where residents may relax together visit, socialize or have morning coffee with friends.
- User:** - 8 Residents from the family pod.
Wheel chair bound, bed fast and mobile residents.
Staff
Visitors
Used similar to normal home activities for day and evening use.
- Activities:** - Sit, socialize, relax.
- Visitors entertainment
- Reading
- Television (with earphone choice)
- Programmed activities
- Waiting area for dining room
- Watching traffic and activities
- Coffee snacks
- Games
- Adjacency:** - Directly accessible from resident rooms.
- Adjacent to family dining room
- Near Nursing dispensary (visible)
- Visible from 'corridor streets'
- Near 'outdoor' access.
- Space:** - Size sufficient for 8 residents, with allowance for wheel chairs and bed fast residents.
- Size** - 20m² (2.5m² per resident)
- Height** - 3000 maximum
Allow easy negotiated passage for bed fast residents.
- Width** - 3000mm minimum.
- Atmosphere/Image** - Individual identities
- Residential and cheerful

- Stimulating
- Private

Provide a 'variety' of character to each 'family lounge' to enhance individualism. Offers stimulation where residents visit other family pods.

Features

- Identity 'node'
- Fireplace
- Handrails.
- Book shelves.

Furniture & Equipment

- T.V.
- Lounge chairs and tables.
- Notice board (reality orientation)
- Clock and calendar
- Plants
- Fish tank or Bird Cage
- Nurse call and emergency system
- Library cart

Context Daylight

- Provide natural light with pleasant view outdoors and some sunlight.

Lighting

- Variety of light level control for day and night use. Residential.

Climate

- Good ventilation and odour control
- Warm room temperatures
- Fresh air.

Acoustics

- Control background noise.

Finishes

Floor

- Resilient and durable.
- Consider carpet for atmosphere

Wall

- Durable

Ceiling

- Textured

Special

- Outdoor sitting area for ground floor locations.
- Size 4000 x 6000mm

E. FAMILY DINING ROOM	- 20m ²
Concept:	<ul style="list-style-type: none"> - Provide family dining atmosphere. - Table service. - Food cart delivery from kitchen central. - Salad bar choice, beverage choice from snack kitchen. - Evening after hours service from snack kitchen. <p>Residents encouraged to use dining facilities, but have choice of eating in own rooms.</p>
User:	<ul style="list-style-type: none"> - 8 Residents (one family pod) Allow for full occupancy. - Dietary assistants. - Guests
Activity:	<ul style="list-style-type: none"> - Eating - Socializing - Special programs - Day and evening use.
Adjacency:	
Near to:	<ul style="list-style-type: none"> - Family lounge (waiting area) - Toilets - Corridor - Snack Kitchen
Space:	
Size:	<ul style="list-style-type: none"> - 2.5m per user. Accommodate wheel chair users - 20m²
Ceiling:	<ul style="list-style-type: none"> - 3000mm height (feature) <p>Consider alcove for food carts from central kitchen.</p> <p>Accommodate a variety of table arrangements from regular meals to special occasion festivities.</p>
Atmosphere/Image	<ul style="list-style-type: none"> - Residential, home like, pleasant. - Provide 'creative' dining atmosphere to enhance social event.

	-	Each 'neighbour' different theme or character (allows other neighbours to change of venue occasional)
Responsive Design	-	Accessible to residents with mobility problems
	-	Wall rails
	-	Expand use into Lounge area for special occasions.
Features	-	Provide ceiling configuration to help define room scale such that smaller or larger group feel comfortable.
Furniture	-	Tables for groups of 2 to 4 or individual.
	-	Chairs
	-	Plants
	-	Divider screens for privacy of messy residents
	-	Clock
	-	Artwork/Paintings
Context Lighting	-	Residential
	-	Provide hanging fixtures, chandeliers to give dining (restaurant) atmosphere.
	-	Variety of lighting to suit diversity of meal services, special occasions, evening suppers, etc.
	-	No glare, no high contrast.
Acoustics	-	Control internal noise and noise transfer to adjacent spaces.
Climate	-	Adequate ventilation for comfort but no drafts.
	-	Comfortable whether full or empty.
Finishes:		
Floor:	-	Durable, non-slip, resilient, comfortable.

- No glare, visual appeal, acoustic value.
- Acoustic value, visual appeal.
- Acoustic treatment
- Character
- Provide access to outdoor patio area for barbeque or afternoon snacks. (Ground floor)

Wall:

Ceiling:

Outdoor

H. SNACK KITCHEN

- 8m²

User:

- Space for staff or residents to obtain snacks. Also, serves as a servery for coffee and snacks to the adjacent dining room.
- Day, evening and night use.

Size:

- Width 2000mm minimum
Height 2400mm

Features:

- Servery with rolling shutter.
- Work counters with storage cupboards.
- Double sink.
- Tray storage

Equipment:

- Refrigerator
- Coffee pot/kettle/tea pot
- Toaster/Oven
- Microwave

Atmosphere:

- Residential

Responsive Design

- Accessible to residents
Section counter adjustable height (750mm to 900)
- Roll out shelves in base cabinets.
- Rounded edges and corners.
- Plugs and controls

Special

Storage alcove for hot foot cart from main kitchen.

4. **NURSING DISPENSARIES**

4a. **NURSING AND HOUSEKEEPING STAFF AREAS:**

Concept

Nursing dispensaries provide the care services and support to the residents.

This is the area used by nurse staff to monitor the resident call and alarm systems and update records.

This area shall be designed to allow the flexibility in staffing to meet service demands now and future. It is anticipated that the care service demands shall increase as resident population ages.

Resident composition/Staff composition:

The resident mix is varied in each "neighbourhood", with purpose to maintain a certain level of nursing and personal care service demand.

A core permanent staff shall be provided with temporary staff retained as needed to accommodate fluctuation in resident needs.

Daytime - 6 staff. Night time - 2 staff. Accommodate maximum of 9.

User:

Nurses, Housekeepers, Staff, Residents
35 residents are serviced from the nursing dispensary. Resident composition varies from intensive care to casual care.

Nursing personnel

6 Nursing Staff daytime
2 Nursing Staff at night

Others:

Volunteers, Visitors, Social Workers, Housekeepers.

Provides 24 hour service. Daytime is the peak period of demand. Only skeleton staff during night time.

Activity:

Provide health services and personal care to residents.
Bathing, feeding, transporting.

	Monitoring the nurse call system. Communication. Medical and personal records. Medication dispensing. Reality orientation.
SPACES:	The following various spaces are required.
i. Nursing Desk	
Function:	Used by nurse staff to monitor the call and alarm systems, update records. Information centre for residents.
Users:	Two nurses working at desk.
Atmosphere:	Cheerful, stimulating, active, residential Create a 'reception' desk type character. Orientation 'node' image.
Size:	minimum width - 2400mm height - 2400mm Arrangement to provide defined spaces for different functions and privacy.
Features:	Work counters to suit typing and writing. Computer section. Communications equipment Private chart/records section Reception section
Equipment:	Telephone, pay phone Nurse call Monitoring or supervision system Security Intercom Drinking Fountain Mail Clock, Calendar Notice Boards Plants Fire Alarm Resident charts and racks

Design area to allow privacy to nurse for working and records but allow interaction with residents. Use one low section of counter as information booth.

Adjacency:	Street (corridor)
Near to:	Resident room groups (12m maximum) Nurse Areas (medication and treatment) visible to lounges (residents watch action) visible to dining (nurses monitor)
Close to:	Activity rooms Treatment rooms Elevators Toilets.
Atmosphere/Image:	Residential Friendly information booth Inviting Special Character
Responsive Design:	Adaptable to changing demands on staffing.
Finishes:	Floor: resilient Wall: durable Ceiling: acoustic
Lighting:	Task lighting for work areas. General lighting soft and indirect. Allow for night time dimming.
Climate:	Normal considerations.
Acoustics:	Acoustic control noise of telephone, typing, communications, etc.
ii. Medication Room	- 6m ²
Function:	Storage, preparation and dispensing by nursing staff.
Size:	minimum width 2000 height 2400

Features: Work counter, sink and storage cabinets for medicines/equipment. Locked Small refrigerator. Cart
Adjacency: Near nurse station
User: Nurse only with restricted access.
Context: General & Task Lighting Exhaust Fan
Finishes: Durable & Hygienic.

iii. **Clean Utility Room**

Used for storage and distribution of clean and sterile supply materials by nurse staff and housekeepers.

Adjacency: Near nurse dispensary.
Size: Width - 2500mm min.
 Height - 2400mm
Fitments: Work counter with base cabinets and sink.
 Upper storage shelving.
 Space for cart.
Finishes Durable and Sanitary

iv. **Soiled Utility Room**

Area - 13m²

Used for disassembly of soiled equipment, disposal of waste items.

Used by 1 or 2 nurse staff and housekeepers.
 Adjacent to nurse dispensary.

Size: Width - 2500mm (allows for carts & user)
 Height - 2400mm
Fitments: Work counter and base cabinets
 2 compartment sink.
 Sanitizer
 Soil carts/Waste bins

- Finish: Durable, moisture resistant, sanitary
- Climate: Exhaust air.
- v. **Linen Storage** - 10m²
 Clean linen storage for beds, bathrooms,
 Clean clothes for residents.
- Size: Width 2400mm minimum
 Height 2400mm
 Shelving: for bed linens
 Clothes racks: for resident laundry
 Space for mobile cart:
 Locate adjacent to Nursing station.
- vi. **Storage** - 14m²
 Storage of equipment needs for nursing care or residents
 personal care. Bulk storage of medical supplies.
- Mobility aids.
 Personal aids.
 Inhalators.
 Stretchers, over bed tables.
 Medical supplies
 Size - Width minimum of 2000mm.
- vii. **Wheel Chair Storage** 5m²
 Space for storage of frequent used wheel chairs.
- Size: 5m²
 Easily accessible, near nurse dispensary.
- viii. **Nurse Office** 10m²
 Small office for use by nursing staff for private record work on
 residents, care planning and administration activities.
- Normal office desk, chair, credenza with two chairs for others.
- Two file cabinets
- Provide view window to observe activities at nurse desk.
- 4b. **RESIDENT USE AREAS** - 25m² Area
 i. **Central Bathroom**

Concept

Most Residents have own shower rooms, however provide choice of occasional soak in tub.

Also, some residents require bathing in special tubs.

Most residents may need some form of assistance.

User:	Residents Nurse assisted where required.
Activities	Bathing Dressing
Adjacency Near:	Nurse dispensary Residents
Space	Size for equipment with adequate room for wheel chairs and attendants. Privacy for dressing and undressing. Space for sitting when dressing.
Atmosphere/Image	Residential atmosphere
Responsive Design	Accommodate privacy for residents when bathing and dressing. Provide suitable enclosures around tubs and screen from corridor. Grab bars and other assistant devices to help resident independent use. Transfer seats, retractable rails. 1100mm wide door with emergency access.
Features	All sinks, hardware, and controls to be accessible. 2 tubs equipped for handicapped use. Access two sides. (use latest Focus Society innovations). 1 Sink 1 Bathtub equipped with hydraulic lifting 1 Toilet Privacy curtains

Place to hang clothes, bathing items
 Towels
 Mirror mounted accessible to
 wheelchairs
 Nurse call system (emergency)

Floor drain.

Context:

Lighting:

Adequate light levels
 Control glare and reflections

Acoustics:

Sound control

Climate:

Warm 80°F
 Provide infrared heaters in drying areas.
 Exhaust air (removes steam and odours)
 Avoid drafts and chills.

Finishes:

Floors:

Durable, non-slip, moisture proof.
 (non-slip wet or dry)

Walls:

Moisture proof
 Rounded corners
 Contrast colour to floor

Ceiling:

Moisture proof, acoustic panels.

ii. **Resident Laundry**

- 6m²

Concept

Small laundry for domestic use by residents to Launder a few personal clothes.

- Locate for shared use by residents.
- Encourage use by residents.
- Offers opportunity for social interaction.
- Near seating space, view outdoors or activity areas.
- Include storage for ironing board, detergents, etc.
- Front load washer/dryer for accessibility.
- View window to corridor.

5. HEALTH CARE AREAS

Concept

Health care programs focus mainly on health maintenance which involves helping residents to function as independently as possible and teach them how to deal with their disabilities.

It is anticipated that most residents experience some physical or mental impairment but they do not generally require acute care.

Program to stimulate regeneration of body systems and the prevention or treatment of ailments are the goals.

i. PHYSICAL THERAPY

Area - 50m²

Concept

Exercise and therapy room.

Locate and design to encourage use by residents and Day Care Centre.

Promote activity, social involvement and integrate as part of the 'well being' life style. Extend activities into street as normal fitness program.

User:

Approximately six residents
1 Therapist
Day Care Seniors

Activities:

Exercise
Ambulation
Training in use of aids
Massage
Hot and Cold Therapy
Hydrotherapy

Adjacency:

Near to:

Toilets
Day Care Area
Locate off corridor street with pre-viewing opportunities. Locate near hydrotherapy, showers.
Outdoor access.

Spaces:

Size:

Minimum width 6000mm
Minimum height 3000mm

	Incorporate storage area for equipment. Size - 8m ² approximately. Incorporate a rest area.
Atmosphere:	Recreational and stimulating atmosphere. Social Health Spa Image. Residential.
Features:	Wall rails for support.
Responsive Design:	Barrier Free design principals Supportive of Frailties to help self-activities.
Equipment/Furniture	Mirrors Walking aids Exercise mats Restorator Orientation aids Music (for exercise) Intercom
Context:	
Lighting:	High illumination with flexibility of dimmer control and lighting use.
Climate:	Adequate ventilation with exhaust.
Acoustics:	Sound isolate from adjacent spaces.
Finishes:	
Flooring:	Carpet to soften impact and noise Hard surface floor area. Non-slip.
Walls:	Durable.
Ceilings:	Acoustic.
ii. Therapists Office	
	Private small office for physical therapist.
Size:	10m ²
Fitments:	Desk 3 chairs File cabinet

Tackboard
Telephone

Adjacent to Exercise Room with view window desired.

- iii. **Aqua Therapy** - 45m²
- Concept
Provide indoor whirlpool for warm water therapy and relaxation. Provide washroom
- User: Residents 6 to 8
Assistants
- Activity: Relaxation, Socializing
Therapy, Bathing
- Space: Whirlpool size approximately 3500mm x 3500mm x 1200mm depth.
Room width minimum 4000mm, height 2600mm.
Washroom size approximately 2400 x 2400mm.
- Atmosphere/Image Stimulating
Health Spa
- Adjacency Near Resident Rooms
Near Health Areas
- Responsive Design Barrier Free and Accessible
- Fitments Whirlpool with seat ledge and stair access.
Handrails.
Chair lift
Washroom complete with toilet and sink.
- Context:
Daylight: Desired
Lighting: Adequate
Climate: Warm, Well Ventilated, for bathing
Acoustics Isolate room, Acoustic noise control of equipment.
- Finishes: Floor - non slip, moisture resistant, none

glare
 Wall - Durable, moisture resistant, none
 glare
 Ceiling - Moisture resistant.

iv. **Treatment Room** - 12m²

Concept

Used for routine examination of residents by visiting doctor or specialist.

Provides for minor treatment.

User: Resident
 Doctor
 Nurse

Activity: General Medical
 Ear, Nose, Throat.

Adjacency:

Near: Waiting Area
 Toilets
 Medical Supply
 Respite Beds

Space:

Size: Minimum width 2600mm
 height 2400mm

Atmosphere/Image Cheerful, relaxed, healthy.

Fitments:

Examination Bed
 Storage cabinets (small)
 Sink unit
 Notice Board
 Rack for information booklets

Context:

Lighting: General lighting and localized task
 lighting.
 Correct color.

Acoustic:

Sound isolate.

v. **Doctor's Office** 10m²

Small office for visiting doctor or other health specialist.

Normal office furniture.

vi. **Social Worker Office** 10m²

Office for Social Worker duties.
Provides counselling of residents, their families and staff.
Monitors the progress of residents.
Normal office furniture.

- vii. **Personal Care Worker** 10m²
Provides office for personal care worker to organize the care programs.

- viii **Medical Supplies** 8m²
Small central storage room for medical supplies.
Provide a variety of shelving to accommodate the different sizes of medical products and small equipment.
Provide flexible units to allow adjustment to suit needs.
Maximize use of wall space for shelving.

6. RECREATION AND ACTIVITY AREAS

Concept

A variety of recreation and activity spaces are provided, to encourage community and social interaction amongst residents.

Many residents with severe disabilities may be mostly confined to the site and building, thus significant and stimulating activity areas must be available to compensate for lost opportunities.

Residents are the major users.

A. MULTIPURPOSE AREAS

- 200m²

Concept

This area is a large auditorium space which accommodates the entire resident population for group functions and a variety of activities.

Use by Day Care Centre seniors shall be encouraged, with promotion of joint activities with residents.

Residents shall have the major use priorities.

Flexibility of use to maximize its viability is a major consideration.

User:

Residents
(Accommodate all 100 residents)
Community Seniors
Volunteers
Staff Workers
Daytime and Evening use by residents
Optimal uses by Day Care and
Community Activities on controlled
basis.

Activities:

Musical Activities
Games (such as bingo)
Community entertainers
Religious activities
Indoor physical activities
Christmas parties, festivities
Banquets

Spaces/Sizes:

Include the following:

- i. Large Space - 200m²

height: - 4000mm minimum
 sized to accommodate all residents, allowing
 approximately 2m² per person. Wheel chair and bed fast
 residents plus need for tables require liberal sizing.
 Space to be divisible to allow simultaneous use by two or
 three groups. One section to serve as a chapel. Separate
 accesses.

ii. **Stage** 15m² approximately
 Provide raised platform.

iii. **Storage Room** 20m² approximately
 Chair and table storage for use by Multipurpose Room.

Width Arrange to allow maximum use of space
 for storage with adequate access.

Responsive Design use and accessibility by resident
 to be accommodated.

Adjacency: Close to washrooms and coat area.
 Locate near lounge or waiting area.
 Accessible to kitchen services.

Atmosphere: Active and stimulating.

Responsive Design: Wall rails for support
 Barrier free
 Divider partitions useable by residents

Fitments: Moveable acoustic partitions
 Storage cabinets
 Sound system
 Movie Screen
 Kitchennette Equipment
 Sink
 Notice Boards
 Stage

Furnishings: Tables and chairs
 Audio visual equipment

Context:
 Daylight: Some natural light desirable.

Lighting: Versatile and flexible lighting systems with control, to suit uses.
High light levels for detailed activities.
Low, soft lighting for social or evening events.

Special lighting for performances and Stage lighting
Consider black out blinds for movies.

Climate: Provide fresh air ventilation
Exhaust air.
Adequate air changes.
Flexible system to accommodate varied occupant load.

Acoustics: Isolate noise transmission to adjacent areas.
Acoustic treatment recommended inside space.
Partitions sound rated.

Finishes:

Floor: Resilient, non slip, durable

Wall: Durable

Ceiling: Acoustic

iv. **Chapel**

Multi-denominational chapel provides place for regular worship and socializing events.

User: Accommodate approximately 50 residents

Space: Size approximately 100m²
Incorporate as part of the Multipurpose area using suitable divider partitions.

Use **stage area** as the raised platform with access to residents. Normal stage features such as front drapes, spot light with dimmer, acoustic treatment.

Adjacency: Near Washrooms

Atmosphere:	Restful, relaxing and spiritual
Fitments:	Use movable chairs from multipurpose room storage. Storage cabinet for religious items. Wall mouldings. Convertible to regular room use.
Responsive Design:	Ramp access to stage platform Handrails at perimeter walls.
Finishes:	
Floor:	Resilient
Wall:	Textured
Ceiling:	Acoustic
Context:	
Lighting:	Type to suit religious spirit and with dimmer controls.
Climate:	Adequate
Acoustic:	Provide acoustical treatment to screen out external noises.

- v. **Chapel Office** 10m²
 Small Office visiting pastor to conduct resident counselling.

6B. **OCCUPATIONAL THERAPY AREAS**

Concept

These areas include such communal use spaces as arts/crafts room, workshop, ceramics, etc.

A variety of activities shall be organized including hobbies, crafts and training in skills.

Design and locate to encourage use.

a. **CRAFTS ROOM**

- 50m²

Activities: Weaving, sewing and similar crafts.
Help to maintain the hand/eye functional skills.

Socialize

Allow for working alone or in small groups.

Space:

Allow for dividers

Width - minimum 4000mm

Height - minimum 2400mm

Atmosphere:

Stimulating and active.

Adjacency:

Near washrooms.

Access to outdoors.

Responsive Design:

Wall rails for support.

Fitments:

Sewing machine

Looms

Reality orientation boards

Activity cart

Tables and chairs

Counter and sink

Storage cabinets

Work counters

Adequate electrical plugs at counter height.

Context:

Daylight:

Desired with sun control.

Lighting:

High levels and adjustable to suit specific tasks.

Climate:

fresh air.

Adequate ventilation with option for

Finishes:

Floors:

Resilient, non-slip, non glare

- Walls: Display area for residents work
 Ceiling: Acoustic
- b. **Workshop** Area - 40m²
Activities: Wood working and hobby crafts.
Space: 40m²
 Width - 3000mm
 Height - 2400mm minimum
Fitments: Benches for carpentry work
 Storage cabinets for supplies and tools
 Equipment
 Provide adequate electrical outlets.
- c. **Ceramics** Area 10m²
Activities: Pottery type activities, clay modeling.
Space: Width: 2400mm min.
 Include small kiln with safety barrier
Fixtures: Exhaust Fan
 Display shelving
 Clay bins and potters wheel equipment
- d. **Storage (Crafts)** 20m²
 Provides for storage of the finished projects and supplies of the
 crafts and workshop activities.
Size: 20m²
Fitments: Storage shelving and cabinets.
- e. **Activity Director's Office** - 10m²
Purpose: Planning of programs
 Observing and interviewing residents
 Record keeping and ordering materials.
Users: Activity director and assistant or
 volunteers.
 Accommodate two persons.
- Adjacency:**
 Near to Day Care and Recreation Areas.

Size:

Width 2400mm minimum
Height 2400mm minimum

Special:

View windows for observation of residents.

6C. **SPECIAL AREAS**

The special areas of Tuck Shop, Chapel, barber, beauty salon and library are incorporated to meet the socio-psychological needs of the residents.

The facilities help to maintain the normal activities of going out to "downtown" and shall be especially beneficial to the more debilitated residents who rarely leave the premises.

a. **Tuck Shop** - 20m²

Provides a 'convenience store' where resident may purchase grooming aids, magazines, sundries, etc.

Also, some residents may create 'arts and crafts' items that are saleable to visitors.

Shop may be managed by volunteers or residents on a part time basis.

Activities: Display and sale of merchandize
Socializing

Adjacency: Locate in a 'downtown' area of the facility
Near washrooms

Space: 20m² Display area:
Incorporate storage space for merchandize
Width - 2400mm minimum
Height - 2400mm minimum

Atmosphere: Resemble a commerical novelty store with unique character.
(Similar to mall booth)

Fitments: Cabinets and counter
Adjustable shelving
Display windows
Merchandize racks
Mirrors
Clock
Cash register

Responsive Design

Counters, display shelving and aisle spaces designed to accommodate wheel chair maneuvering.

Provide area for sitting and socializing in nearby alcove space.

A place to enjoy a soft drink.

- b. **Beauty/Barber Shop** 20m²
Provides for good grooming opportunities and socializing area for residents.

Provides a pleasant space and encourages use.

Activity: Washing hair
Styling hair
Socializing

User: Allow for three or four persons.
Residents and hairdresser.
Day time use to schedules to meet demand.

Space: 20m²
Include area for waiting, two
hairdressing chairs and wash.
Width - 2400mm minimum
Height - 2400mm minimum

Atmosphere: Inviting and cheerful.

Adjacency: Near toilets
Central cove area.

Responsive Design: Accommodate wheel chair access.

Fitments: Beauty Salong sink and cabinet
Chairs (3)
Hairdryer
Mirrors
Plants

Context:

Lighting: Daylight type suitable for use.

Climate: Exhaust air

Acoustic: Some internal acoustics.

Feature: View windows to corridor or activity
area.
Consider view window to exterior.

- iv. **Library** 15m²
 Provide a reading area with supply of books, tapes and records, suitable for the disabilities of aged. Public library shall service this space.
- Size: 15m²
 Accommodate use by approximately 8 residents.
- Atmosphere: Passive, calm, relaxed, quiet.
- Responsive Design: Accessible
 Sound isolated
 Supportive
- Fitments: Book & Record Shelves
 Table with chairs (4)
 Audio equipment with earphones
 Reading aides (magnifier, book light)
- v. **Lounge** - 15m²
 Lounge for sitting and relaxing while waiting for program activities.
- Also, a communal gathering area to socialize.
- User: Socialize
 Reading
 T.V. (earphone)
 Coffee snacks
- Adjacency: Near activity areas
 Next to library
 Washrooms close by
- Space: Width - 3000mm minimum
 Height - 2400mm minimum
 Accommodate wheel chair passage
- Atmosphere: Residential
 Stimulating
- Features: View windows into 'corridor'
 Responsive design support feature

		Fireplace
		Normal lounge furniture, chairs, tables, clock, bulletin board, call system
Daylight:		Provide some daylight if possible
Lighting:		Residential
Context:		Good ventilation and odour control
Acoustics		Control background noise
Finishes		Durable carpet floor Textured ceiling
vi.	Kitchenette	10m ²
	User:	Use by residents and staff to prepare snacks or coffee for group functions during evening or night when main kitchen closed.
	Adjacency:	Multipurpose Room Day Room
	Size:	Width 2400mm Height 2400mm
	Features:	Serving Counter with shutter - 1200mm
	i. wide. Sink	- double compartment - Adjustable in height to suit counter - Cabinet design to allow knee space under sink
	ii Shelving	- upper - 300mm deep minimum and not too high above counters. - 400mm clearance min. above counters. - 400mm maximum width of cabinet doors. - Round edges and corners - Add shallow shelf over counter (convenience item)
	ii. Base Counter and cabinets - 3000mm length	

- adjustable counter height from 750 to 900
- counter range adjustable height
- Separate wall oven with bottom 700mm height
- Front controls with contrasting numerals etc.

iii Refrigerator

- Lighting** Good overhead lighting, with task lighting at sink or work areas.
Provide lens to fixtures under cabinets (glare to short person)
- Daylight desirable.
- Ventilation**
- Provide natural and mechanical ventilation including exhaust to exterior.

iv. Public Washrooms

- Provide adequate public washrooms male and female.
- User:** Residents
Public
Staff
- Adjacency:** Provide one washroom per floor level
Total of three locations (Male and female)
Locate near activity areas.
- Space:** Approximately area per washroom -12m²
- Male washrooms
 - 1 toilet with compartment
 - 1 urinal
 - 1 vanity sink
 - Female washroom
 - 2 toilets
 - 1 vanity with sink
- Atmosphere:** Cheerful and Hygienic
- Responsive Design:** Accessibility features

Fitments:	Normal washroom accessories mirror
Context	Indicate lighting Exhaust and ventilate Acoustic consideration
Finishes	Durable and water resistant.

8. **FOOD SERVICE**

Concept

All residents desire the full meal service, with some choice of menu, arranged by advanced programs.

Meals shall be served in the resident family dining rooms, using the prepared tray system. Hot food carts provide transportation.

Room service shall be provided to residents who are ill or bedfast.

Breakfast shall be provided to residents rooms on selected program basis.

Special diet menus prepared under directions of dietician, for selected residents.

Residents have the choice of preparing own breakfast or snacks in residential kitchens, or eating out etc. as desired. Suitable organization shall accommodate these programs.

Food shall be prepared in a central kitchen and dispensed to the various dining areas in building, via hot food carts. Snack kitchens provide serving facilities to each family dining room.

Snack kitchens shall be stocked with snack type food and drinks only.

Dishes and waste foods are stored in carts and returned to central kitchen.

i. **Kitchen**

Area 180m²

User:

Cooks and dietician.

Activities:

Cooking and baking
Food preparation and tray assembly
Wash up.

Adjacency:

Food storage
Delivery zone
Dietician Office
Staff Washrooms
Elevator

Staff locker rooms

Space:
Size: 180m²
Ceiling: 3m

Provide following spaced with approximate areas only.

Cooking section - 50m²
Food preparation area - 50m²
Hot food cart storage - 10m²
Dish wash up area - 40m²
Food storage pantry - 20m²
Walkin Freezer - 10m²
Walkin Refrigerator - 10m²

Fitments: Cook Table and Equipment
Bake Table and Equipment
Beverage counter
Stoves
Ovens
Refrigerator
Freezer
Soil dish table
Dish wash unit
Clean dish table
Tray preparation table

Equipment: Hot Food Carts
Tray Trucks

Context:

Lighting:

Climate: Exhaust air
Adequate ventilation

Acoustic: Control internal noise
Isolate noise.

ii. **Dietician Office** 10m²
Small office adjacent to kitchen for dietician.

Activities: Menu planning
Food Ordering

- Diet evaluation
Supervision of kitchen
- Size: 10m²
- Acoustical privacy is required.
- iii. **Receiving Area** 20m²
Size: 20m²
Locate near outside for delivery and accessible to kitchen and maintenance.
Provides for receiving of product and supplies.
- iv. **Garbage Room** 20m²
Well insulated room, maintained at cool temperature.
- Size: 20m²
Locate near outside for garbage pick up and accessible to kitchen.
- Provides for storage of kitchen garbage in special cart containers. Three containers. Pick up twice weekly.
- Fitments: Wall rail protectors.
Overhead door for container access.
- Climate: Exhaust fan and vented to outside (well ventilated but not air recirculated)
Seal room and avoid odours migrating.

9. **HOUSEKEEPING**

Concept

Full housekeeping and laundry services are provided for all residents.

Housekeeping includes room cleaning, bed making, bathroom service and collection of laundry.

Generally service on a daily basis, however residents have input into schedule and frequency.

Personal laundry bags shall be provided for residents clothes and personal items.

Laundry shall be collected from each room, by housekeeper. Soiled linens shall be placed in airtight container on cart, separated from other items. (controls odor and spread of infection). Isolation of soiled and clean linens is critical. Personal clothing of residents kept separate and identified.

The soiled utility room on each floor is service area for soiled linen, carts and organizing the system. Soiled linens suitably bagged and tabbed are transported to central laundry via linen chute.

The clean linen room on each floor is service area for receiving the new laundry items and organizing delivery to residents. Resident personal clothing are received in suitable bags as racked for dispensing.

Bed linens are received on special carts prepared at central laundry for dispensing to rooms. It is anticipated that one set of bed linens shall be stored in resident room as spare, one set in the linen storage room as back up and a third set in circulation.

a. **Laundry Areas**

105m²

A central laundry room is provided. Laundering, ironing, drying, sorting, folding, receiving, dispensing, repairing and storing functions are required.

Spaces:

Soiled linen receiving room	- 10m ²
Laundry Room	- 50m ²
Clean Linen Storage Room	- 10m ²
Clothes repair room	- 15m ²
Resident clothes storage	- 20m ²

Fitments:	Two commercial washer/extractors Two commercial dryers Double sink Laundry carts Linen carts Clothes racks Tables for clothes sorting/folding Shelving for residents clothes Racks for resident clothes bags
Atmosphere:	Cool and pleasant
Adjacency:	Near receiving area Linen chutes Elevator Staff areas
Context:	
Climate:	Adequate ventilation required and some cooling necessary due to heat of dryers. Vent dryers to exterior. Provide make up relief air.
Acoustics:	Isolate noise from adjacent areas. Provide vibration isolators for equipment. Acoustic screens at noisy equipment.
Finishes:	Durable, non-slip, easily maintained.
Special:	Locate the clean linen and clothes repair area in a separate adjacent room to main laundry area.
Clothes Repair Room:	Provides space for ironing, sorting and repairing residents clothes.
Clean Linen Room:	Provides space for storing extra linen and stocking the clean linen carts.
Residents Clothes Storage	Provides space for sorting out the residents clothes and preparing for delivery.

Also, off season clothes stored.
Security required.

- ii. **Housekeeper Office** 10m²
Provides supervision of the housekeeping and laundry activities, ordering and receiving supplies and employee selections.

Size: 10m²
Provide view windows to monitor operations.
- iii. **General Housekeeping Storage** 10m²
Central storage room for cleaning supplies
toiletries
laundry chemicals
towels

Size: 10m²
Security control essential.
- iv. **General Storage** 50m²
Room for storage of spare beds, furniture, wheel chairs, etc.
Include a lockable area for storage of any bulky personal items of residents.
- v. **Maintenance Room** 30m²
Maintenance department provides the minor repairs to building fitments - carpentry work, plumbing, electrical, painting.

Space:
Size: 30m²
Include a workshop area for tool storage and parts storage, space for work bench, shelving and service cart.

Adjacency: Near mechanical room and receiving entrance.
- vi. **Janitor Storage (Central)** 23m²
Size: 23m²
Storage of cleaning machines and equipment.
Floor scrubbers
Buffers

Mops, buckets, carts
 Maid carts
 Carpet cleaning machines

- vii. **Janitor's Closet**
 Several located throughout facility, near resident rooms and activity areas.

Size:

Locations: 3

Fitments: Floor sink
 Storage shelving
 Space for maid cart

10. **ADMINISTRATION**

Concept

The administration staff are responsible for the management and co-ordination of facility services, visitor reception, resident interviews and family counselling.

i. **Reception Area** Provide an information booth which faces onto the lobby space.

User: Receptionist

Activity: Information, clerical duties,
 direction/assistance for visitors, control
 and security monitoring.

Adjacency: Lobby space
 General office

Atmosphere: Welcoming, Residential, Safe

Fitment: Counter height convenient for disabled
 and ambulatory residents.
 Intercom, door control.

Mail Box 2m²
 Provide mail box for delivery of residents mail and mail drops.

ii. **General Office** 20m²

User:	Secretarial Personnel/Administrators/ Housekeepers
Activity:	Secretarial work Book keeping and Filing Resident
Adjacency:	Adjacent Reception Area and Administration Office. Close to washrooms Undesireable to residents area/service area
Atmosphere:	Quiet, cheerful
Size:	
Fitments:	Communication systems/telephone Telephone
Equipment:	Desks for two staff File Cabinets (4) Typewriters
Finishes:	Resilient and durable
Lighting:	General and task lighting
Climate:	Normal
Acoustic:	Sound absorptive finishes to reduce internal noise.
iii. Office Storage & Supplies	10m ²
User:	1 or 2 office staff
Activity:	Storing and retrieving inactive files. Storage of office supplies. Office Machines
Adjacency:	Near General Office.
Size:	Width minimum 2400mm to allow storage both walls.

Fitments:	Full wall shelving. Flexible and adjustable. 6 File Cabinets Copy machine Work Counter Adequate electrical outlets
Finishes:	Durable
Lighting:	Fluorescent
Climate:	Normal
Acoustic:	Adjacent areas to be protected from machine noise.

- iv. **Director's Office** Area 10m²
 Director is chief executive of facility.
Activity includes interviewing residents or families, staff, authority liason and general management.

Occupancy:	Accommodate 3 or 4 people
Adjacency:	Near general office and reception Access to main entrance, conference;
Atmosphere:	Cheerful, Quiet, Relaxed
Size:	Width 2400 min.
Finishes:	Floor - Carpet (executive) Wall - vinyl Ceiling - acoustical and textured
Fitments:	Telephone and Communication System
Furnishings:	Desk Chairs (3 or 4) Credenza Book Case File (lockable)
Lighting	General and task lighting
Climate	Normal

	Acoustics	Acoustic privacy	
	Special	Monitor system to control or supervise entrances.	
v.	Manager's Office		10m ²
	Manager is assistant to Director and performs the daily tasks to supervise the activities of all operations.		
	Occupancy:	1 or 2 assistant	
	Adjacency:	Near Director's Office	
	Size:	Desk, chair and credenza	
	Finishes:	Normal, Carpet Floor, Vinyl walls, acoustic ceiling.	
	Lighting:	Normal	
	Climate:	Normal	
	Acoustics:	Acoustical privacy.	
vi.	Conference		20m ²
	User:	Administrator and Board, or Residents. 4 to 12 people	
	Activity:	Resident counselling or group meetings Staff meetings Interviewing residents and families.	
	Size:	Width minimum 4m ² Ceiling minimum 2.4m ²	
	Adjacency:	Near reception area and washrooms Accessible to Lobby Undesireable to resident area/kitchen	
	Atmosphere:	Relaxed, Quiet.	
	Fitments:	Communication System Slide chalkboard	

	Bulletin Board	
	Screen	
	Clock	
Furniture:	Conference Table and Chairs (8 to 12)	
	Coat rack	
Finishes:	Floor: Resilient	
	Wall: Feature finishes	
	Ceiling: Acoustic and textured	
	Light: General and accent lighting with dimmer control	
	Climate: Well ventilated and exhaust fan	
	Acoustic: Acoustic privacy.	
vii. Washrooms		9m ²
User:	Staff primary users.	
	Provide small separate washroom for men and women.	
	Barrier Free and accessible to handicapped, with supportive aids.	
Space		
Men:	1 toilet, vanity sink and urinal	
Ladies:	1 toilet and vanity sink	
	Seat for resting	
Fitment:	Mirror over vanity	
	Normal washroom accessories.	

11. **STAFF AREAS**

The staff to operate this facility

Nursing Department	10
Supportive Care	6
Housekeeping	5
Laundry	4
Food	6
Maintenance	1
Administration	5

Total 37

- i. **Staff Locker Room** 20m²
Area for staff to hang coats, store personal belongings and change into work clothes where required.

Size/Space

Female Locker Room: 20m²
Provide 30 lockers
Provide change area

Toilet and Shower Room 6m²

Male Locker Room: 8m²
Provide 4 lockers
Toilet and Shower 6m²

Atmosphere: Provide pleasant, relaxed atmosphere to encourage use by all staff.

Adjacency: Locate near kitchen, housekeeping areas.
Locate convenient to building access for staff.

Design areas to 'accessibility' standards.

- ii. **Staff Dining** - 40m²
Provide a separate dining lounge area for use by staff.

Size: 40m²

Locate adjacent to staff lockers and near to kitchen.

Provide vending machines for evening use.

- iii. **Staff Lounges**
Provide small lounge for use by nursing staff as a rest area.
- iv. **Staffing & Operations**
Nursing and Personal Care
Nursing Care services are available 24 hours per day thus day, evening and night shifts are required.

However, the majority of services are required during daytime.

Each of the three Nursing dispensary shall have a nurse with two assistants. Additional assistants may be provided on a temporary/part time basis as resident demand requires.

One male orderly shall be provided for entire facility.

All nursing staff under supervision of Director of Nursing
Total Staff = 9

This is the permanent core staffing. Part time staff may be retained as demands for more intensive care increase during aging of residents or changing conditions.

It is anticipated that the 'supportive environment designs' shall minimize the dependency on service.

Also, additional support staff:
Therapist
Social Worker
Activity Officer
Day Care Officer

Housekeeping

Services provided during daytime, with emergency service available during evening and night time.

Each resident room section of 40 requires one housekeeper.

One Janitor shall provide cleaning of public areas.

One Housekeeper supervisor.

Total Staff = 5

Laundry

Four staff required.

Food Service

One cook and three assistants.

Dietary Supervisor

Part time assistants may be retained for peak demands.

Maintenance

One maintenance man is required.

Administration

Receptionist

General Office Secretary

Director of Facility

Business Manager

12. SERVICE ROOMS

i. Mechanical Room

80m²

User: Maintenance Staff
Inspectors

Activity: Houses the boiler and mechanical equipment.

Adjacency: Central basement with exterior exit.
Isolated from residents.

Size: Height 3000mm
Adequate for equipment and servicing.
Allow for future expansion.

Fitments: Building heating, H.W.H. equipment
Concrete bases for machines

Light: Fluorescent

Climate: Ventilated to maintain comfortable temperature.
Fresh Air inlet.

Acoustics: Isolate equipment noise
Acoustic baffle and
Sound proofing walls/doors

Finishes: Concrete floor, walls, ceiling.
Durable finishes.

Safety: Fire rating.
Alarm monitoring to central control panel
Direct exit access to exterior
Locked with exit hardware on door

Fan Room

40m²

Similar to mechanical room except provided for housing main ventilation fans, air conditioning equipment. Access to exit corridor.

- ii. **Equipment Room** 16m²
 User: Maintenance
 Activity: House the special mechanical equipment for aqua pool, winter garden humidity control etc.
 Similar context to mechanical room.
- iii. **Electrical Room** 10m²
 House the major switchgear and electrical distribution equipment, transformers, etc.
- iv. **Telephone Room** 10m²
 House the telephone and communications systems equipment and distribution equipment.
 Adjacency:
 Size: Width - 2400 minimum
 Fitments: Wall surfaces for easy fastening of circuit wiring.
 Lighting: Adequate illumination to read small circuiting.
 Climate: Comfortable, well ventilated, clean.
 Acoustic:
 Finishes: Durable
- v. **Emergency Generator Room** 20m²
 Room to house the emergency generator.
 Adjacency: Near exterior wall
 Size:
 Fitments: Under ground diesel fuel tank
 Diesel generator
 Emergency panels
 Equip bases
 Light: Adequate for normal maintenance

Climate: Ventilated, heated, fresh air inlet.
Exchange pipe to exterior.

Acoustics: Isolate noisy equipment
Acoustic walls/door/ceiling.

Finishes: Durable

vi. **Elevator Machine Room** 10m²

User: Maintenance and elevator service

Activity: Separate room for housing elevator
machines and control equipment.

Adjacency: Near Elevators

Size: Width 2400mm min/Ceiling 2400mm
height

Fitments: Elevator transformers, controllers,
panels.

13. OUTDOOR RECREATION

Concept:

Physical, emotional and psychological benefits to the residents are derived from excursions outside the building confines.

A fully developed and landscaped site with outdoor recreation facilities shall encourage residents to move outside.

Outdoor Recreation items refers to the specific activity spaces to be incorporated into the Landscape development as referenced in the Site Data Section.

User:

Residents
Staff Assistance
Seniors from Day Care
Visitors and Family

Day and Evening use.

Mostly summer season.

Activities:

Walking
Sitting (in small groups or by one self)
Socializing
Observing activities (passing parade, community activities or others)
Playing checkers
Reading

Adjacency:

Resident private patios
Provide easy access from building activity areas.
Access from Residents Lounge/Dining to patio.
Access from Health/Exercise areas to outdoor patio.

Spaces:

Provide a variety of outdoor activity areas for small groups and large groups, and for the different activity uses.

Sheltered and Sunny Vistas
Open Areas (group)
Sheltered patios (group)

Private patios
Quiet and Activity vistas
Front Street patio
Garden Seclusion

Responsive Design: Design to barrier free and accessible principles.

Features:

Screened Shelter

Provides a screened and safe shelter for the less active and debilitated resident.

Functions as an outdoor sun room where residents may pursue hobbies, games or other activities in outside atmosphere.

Barbeque Area

Provide area suitable for outdoor barbeque activity.
Use portable equipment.

Outdoor Shelters

Provides a shelter from sun and rain.

Storage for garden furniture. (Chairs, tables, etc)

Benches

Provide fixed seating in a variety of grouping.

Games

Provide shuffleboard and checker patios with bench seating.

Walks

Wide walkways, easily negotiated and non-slip.

Provide handrails for guidance of visual impaired and supportive for mobility impaired residents.

Provide many rest stop areas with benches.

Lighting

Incorporate lighting to encourage evening use and provide stimulating night vistas.

- Spot lights and orientation pole lights.

14. **COMMUNICATION SYSTEMS**

1. **Alarm Systems**

Specially designed to warn elderly of emergencies.

Communicate information and stimulate response is the key with consideration of action intended to initiate. (Many elderly risk greater injury evacuating than seeking refuge, however typical response is to leave the building.)

Provide signals visual and audible with different signals for different responses (ie. alarm for critical evacuation vs less urgent alarm for close door and wait response)

2. **Nurse Call System**

Provides means for elderly to call for Nurse Assistance if sickness, accident, etc.

Various Types:

- Flags or light indicator (indicate one is up and about), toilet flushing per day
- Radio transmitters to carry on self.
- Sophisticated nurse call and medical monitoring

Call system sounds alarm in central nurse desk and activate hall light at suite.

Telephone call systems (programmed to ring if a special button is pressed).

Fixed station calls - one in bathroom and bedroom of each suite.

- located in public spaces
(Such as stairs, corridors, activity spaces)

1. **Emergency Alarms/Exits**

Ensure alarm signals sufficiently loud and intermittent to help sound locating and orientation.

Locate alarms over exit doors, corridor junctions etc. to help direction orientation.

Use flashing lights with colour differentiating from other systems for helping deaf impaired. The consistent tactile clues and symbols to identify exit doors and exit routes.

Use suitable warning devices at stairs to indicate step hazard.

CONCLUSIONS

CONCLUSIONS

Project

This is a new model of Nursing Care Home created to serve the needs of the more affluent aged person who desires a better retirement home than the traditional special care homes in Saskatchewan.

The concept departs from the traditional Nursing Unit form generator with care service priorities and focuses on the user need for a 'home' with care services taking a secondary role.

Social Aim

Winter Gardens responds to the needs of the Old-Old Aged, provides a supportive environment to enhance their well being and serves to bring new meaning of independence and self determination to the aged.

Cultural Aim

'Winter Gardens' symbolizes the aspirations of society to provide a better retirement home for the frail and disabled aged populations. It provides a new image to replace the stigma of 'institutional homes'. It responds to society's desire to encourage self dependency of the aged with purpose to reduce the health care burden.

"Winter Gardens" responds to Saskatchewan.

Context

The severe Saskatchewan climate, the site location and the site development are sensitively considered with regard to the particular needs of the aged population who are less mobile and less adaptable to environment.

Philosophical Aim

'Winter Garden' environment captures the essence of life and creates an atmosphere of well being. It inspires delight and independence and confidence in the Aging population.

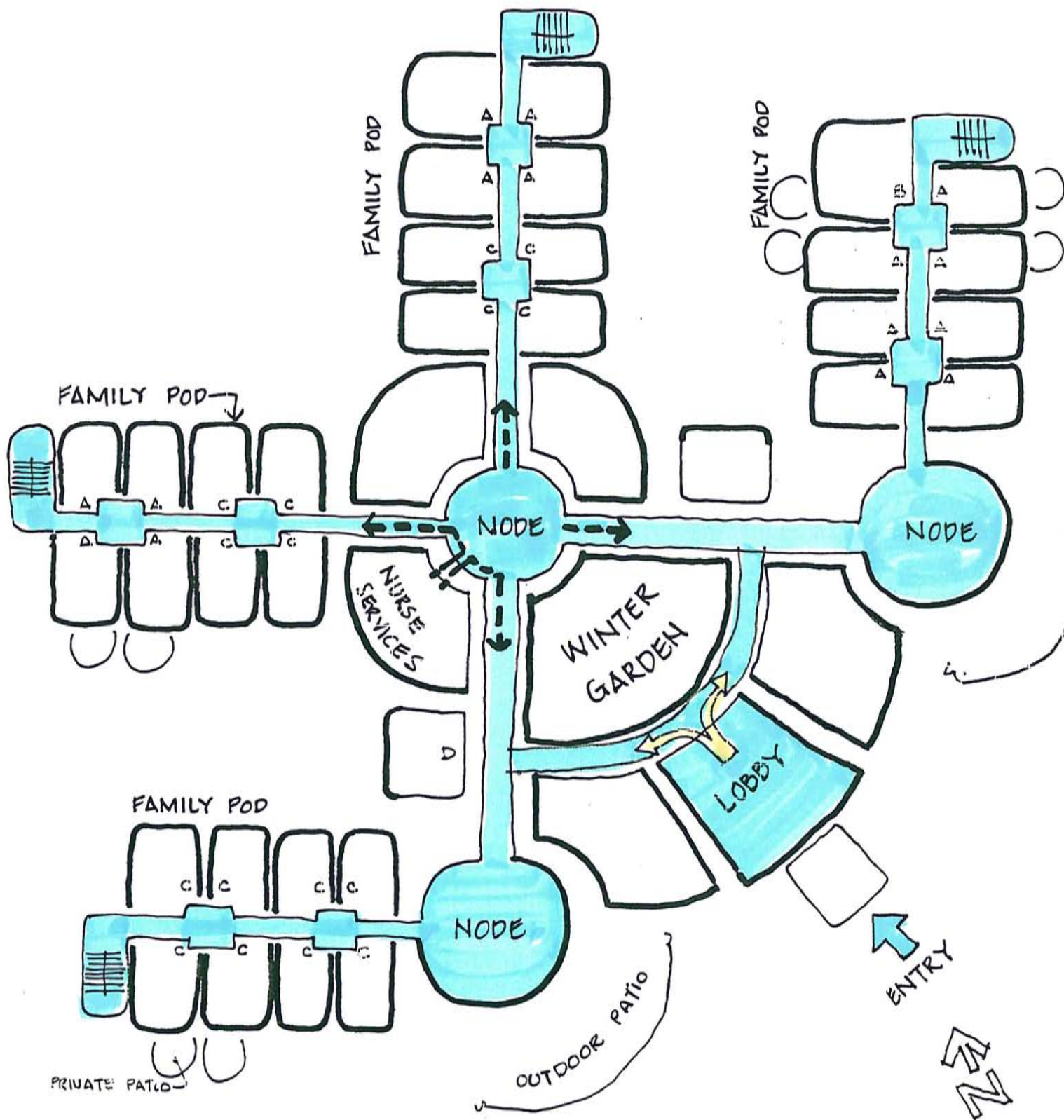
Programmatic Aim

The needs of the aged user are investigated and clearly defined. Providing a 'Supportive environment for the Old-Old age group is a relatively new objective and their needs are only just being researched.

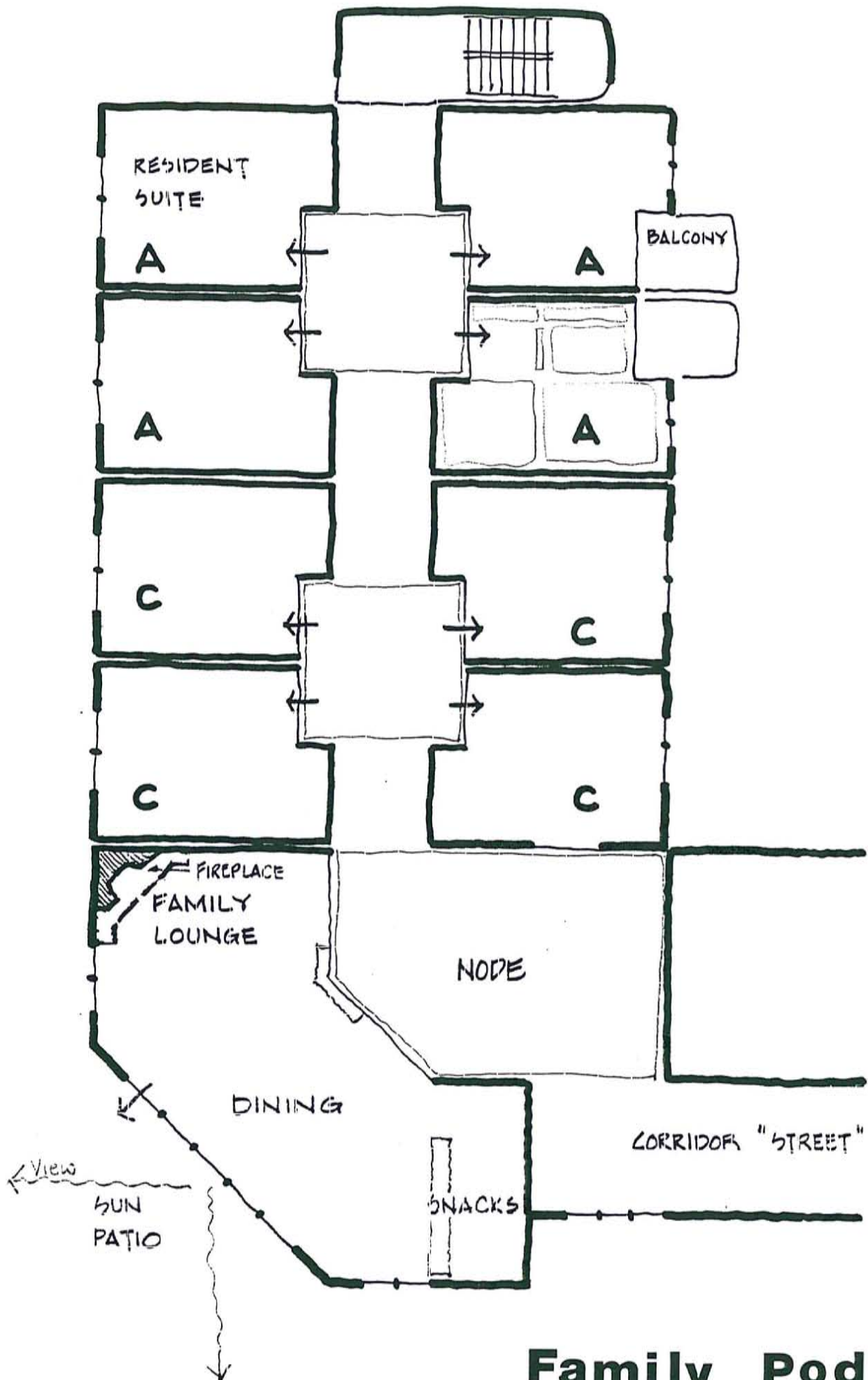
The objectives and functional requirements to meet these needs are translated into the architectural program and serves basis for building design.

concept plans

12

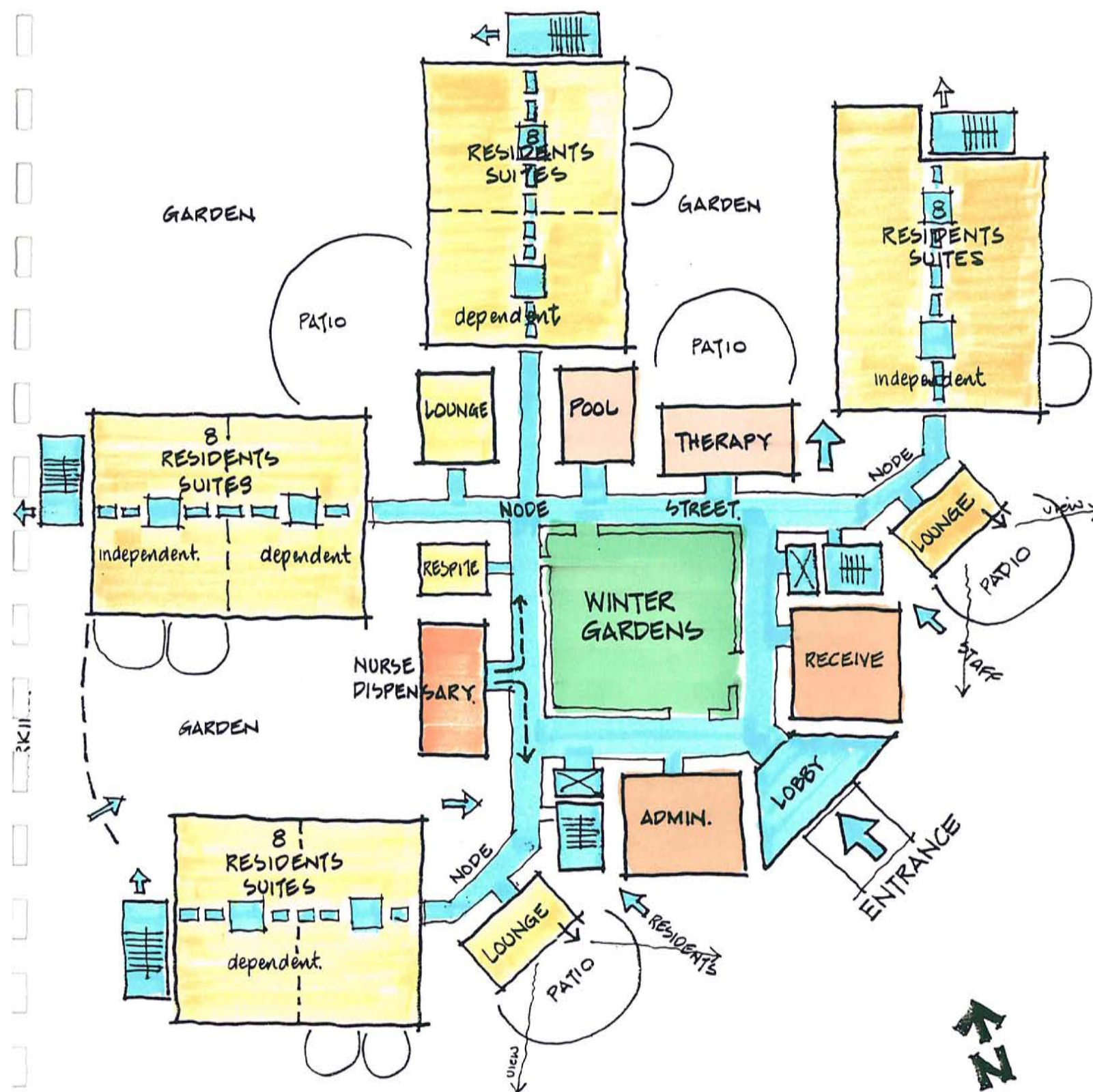


Concept Plan



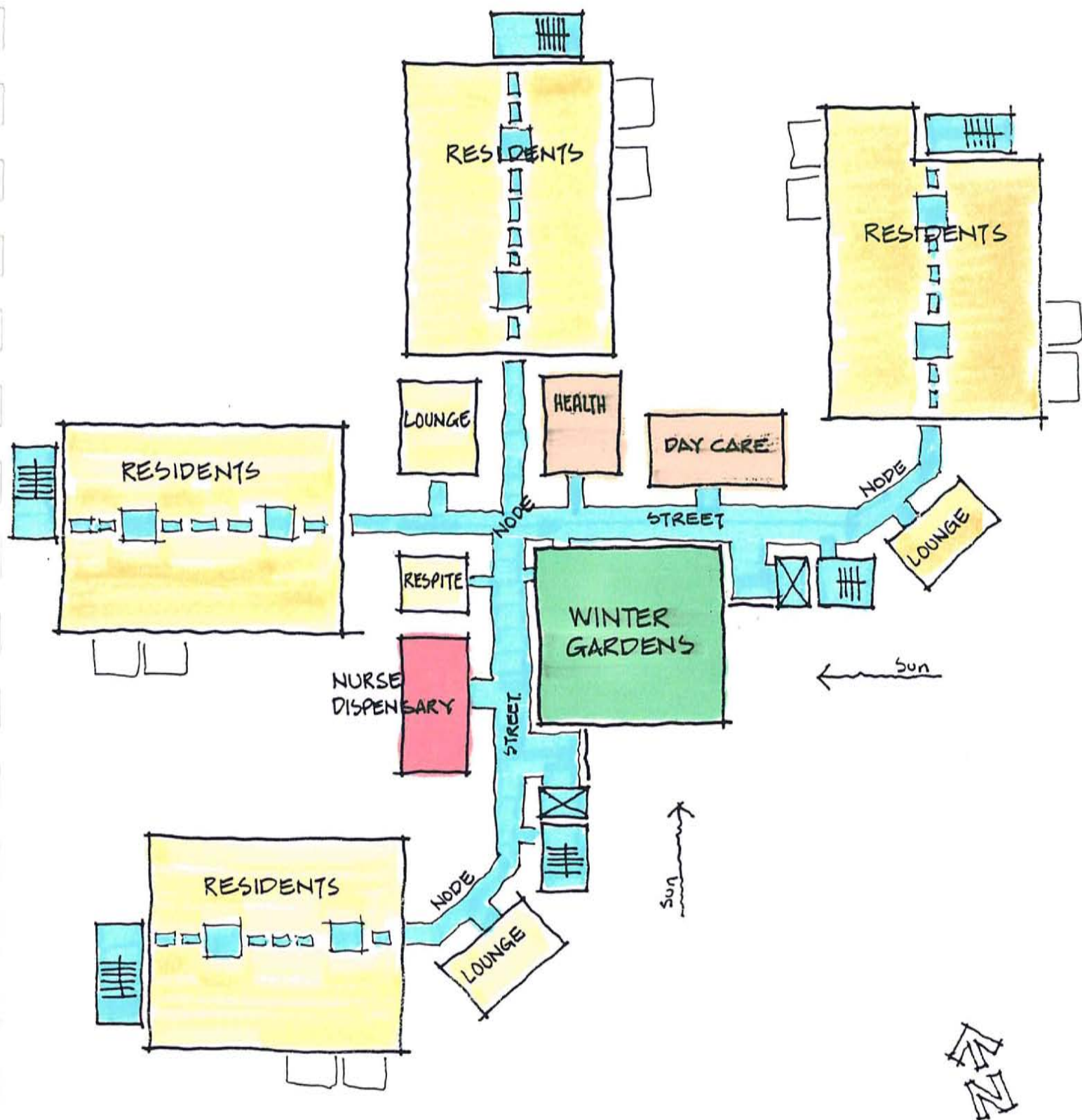
Family Pod

PARKING

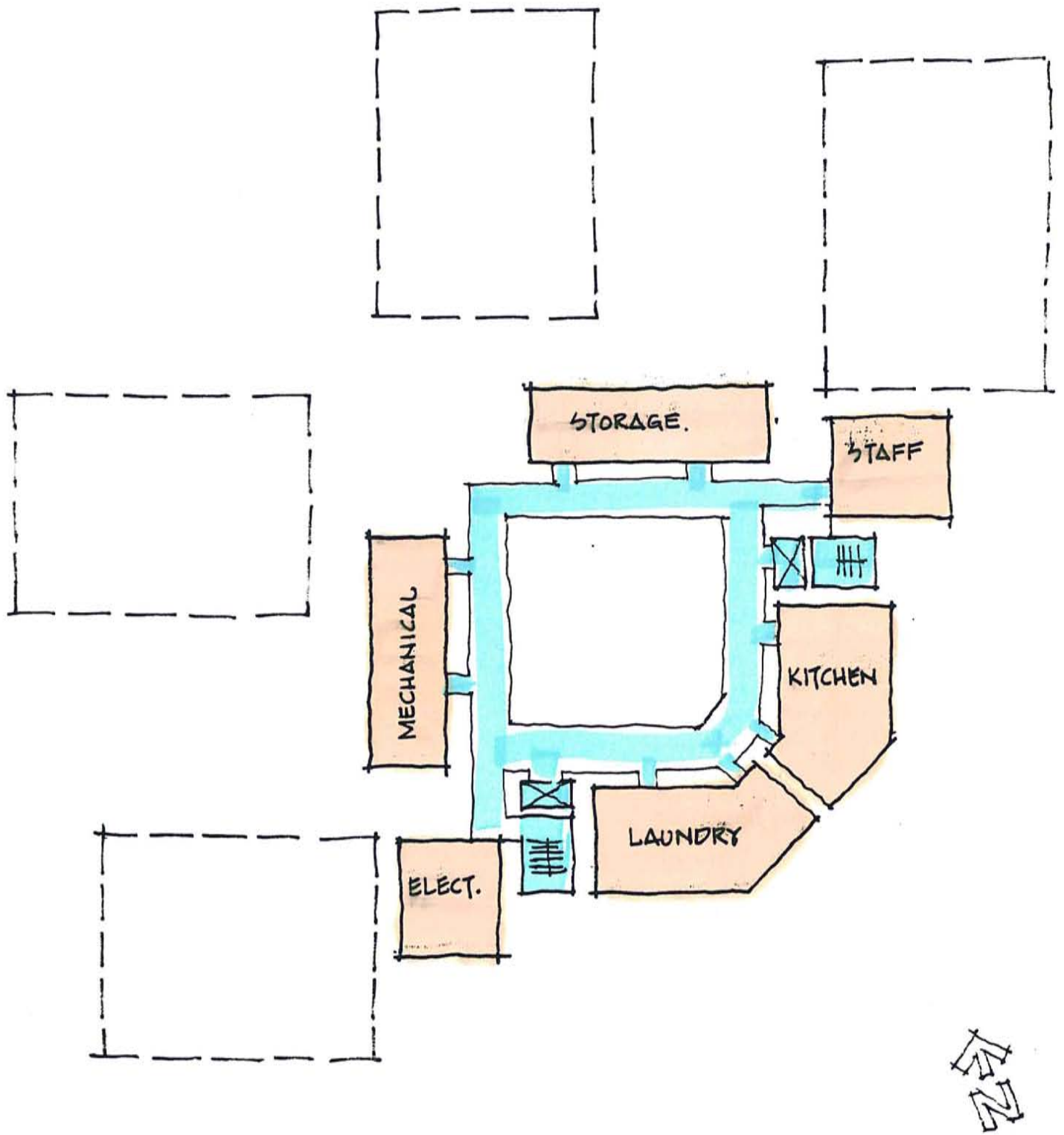


Main floor

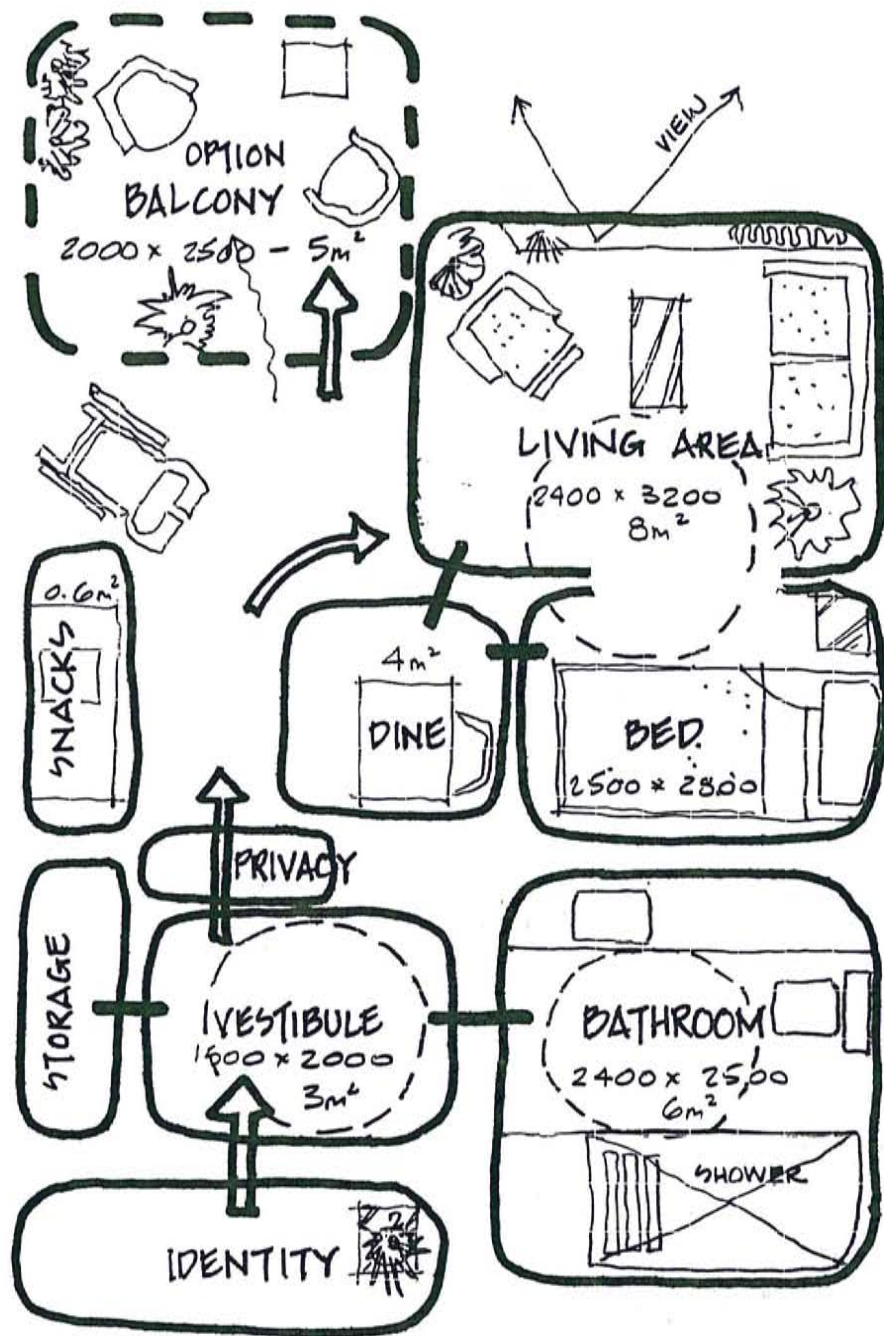
d-1



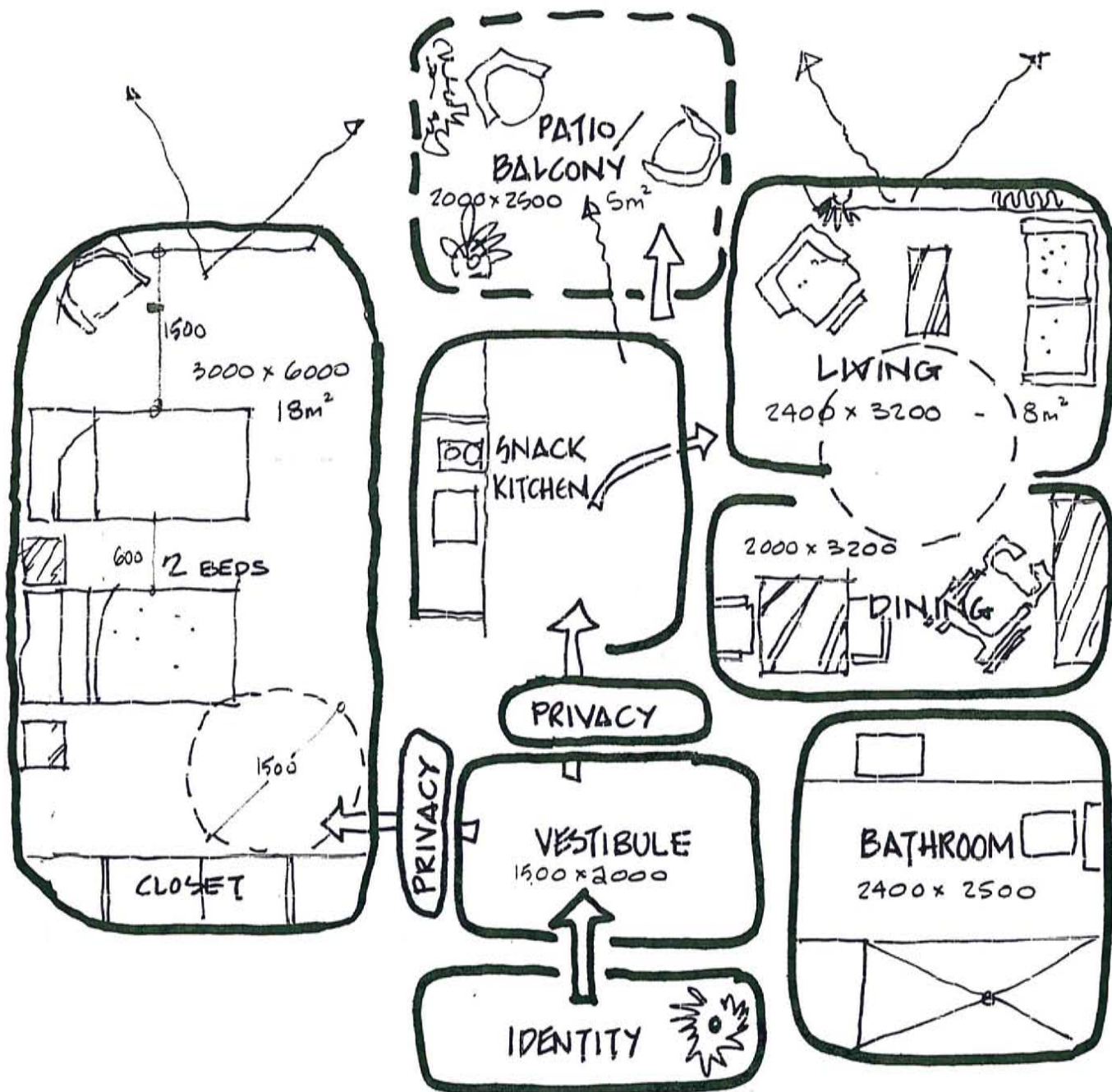
Third



Basement

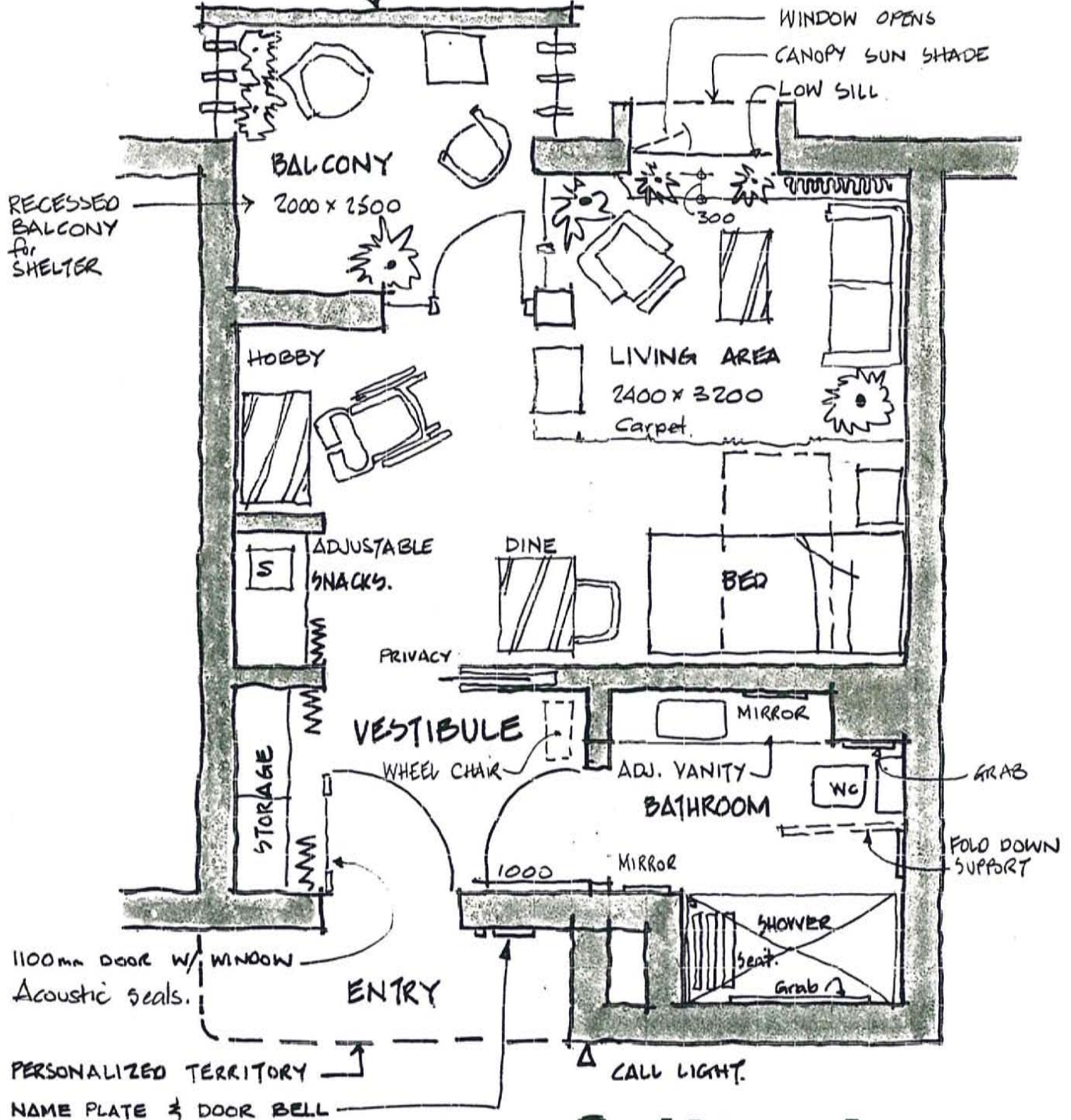


Suite A



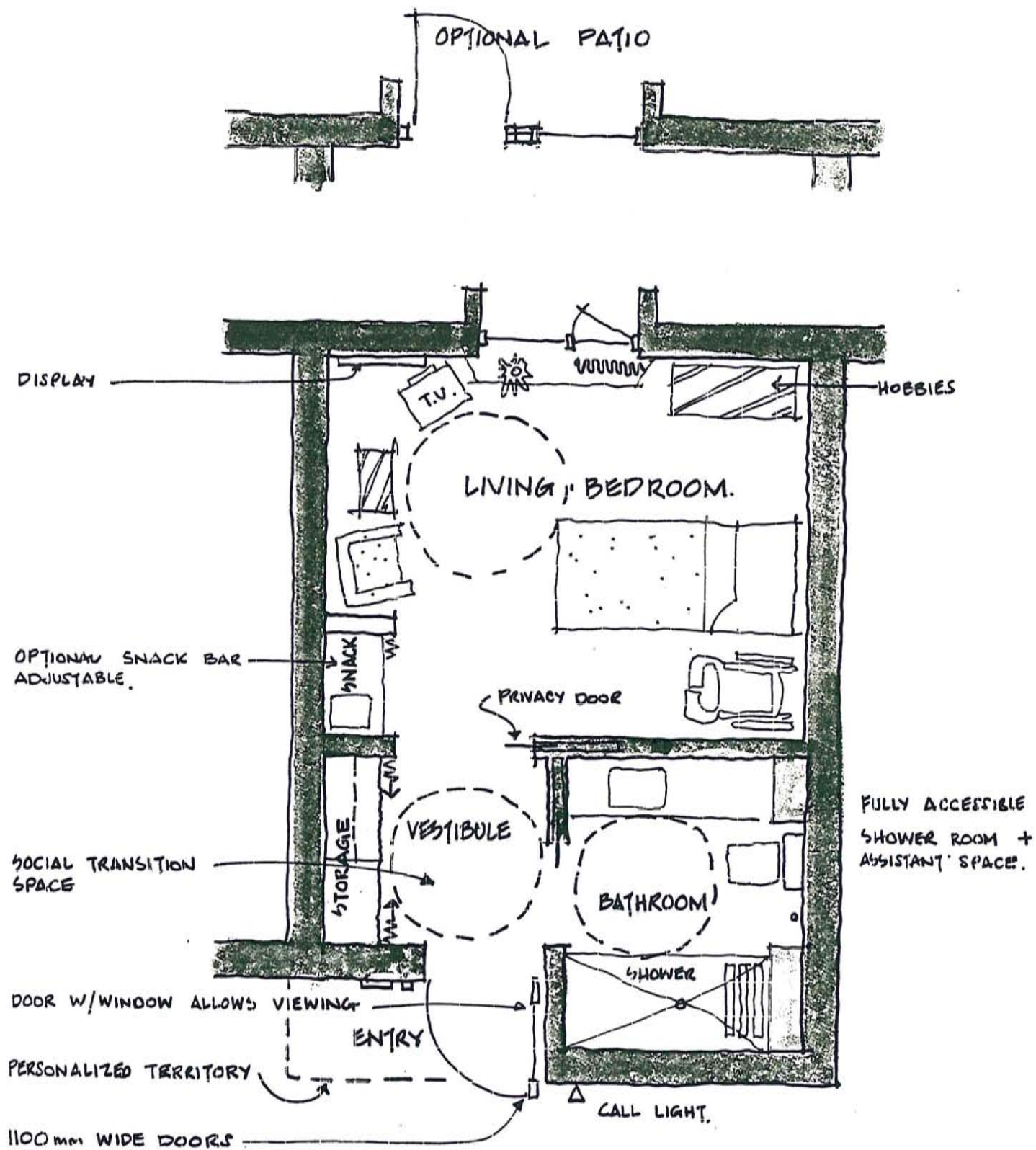
Suite B

BALCONY OR PATIO OPTION.

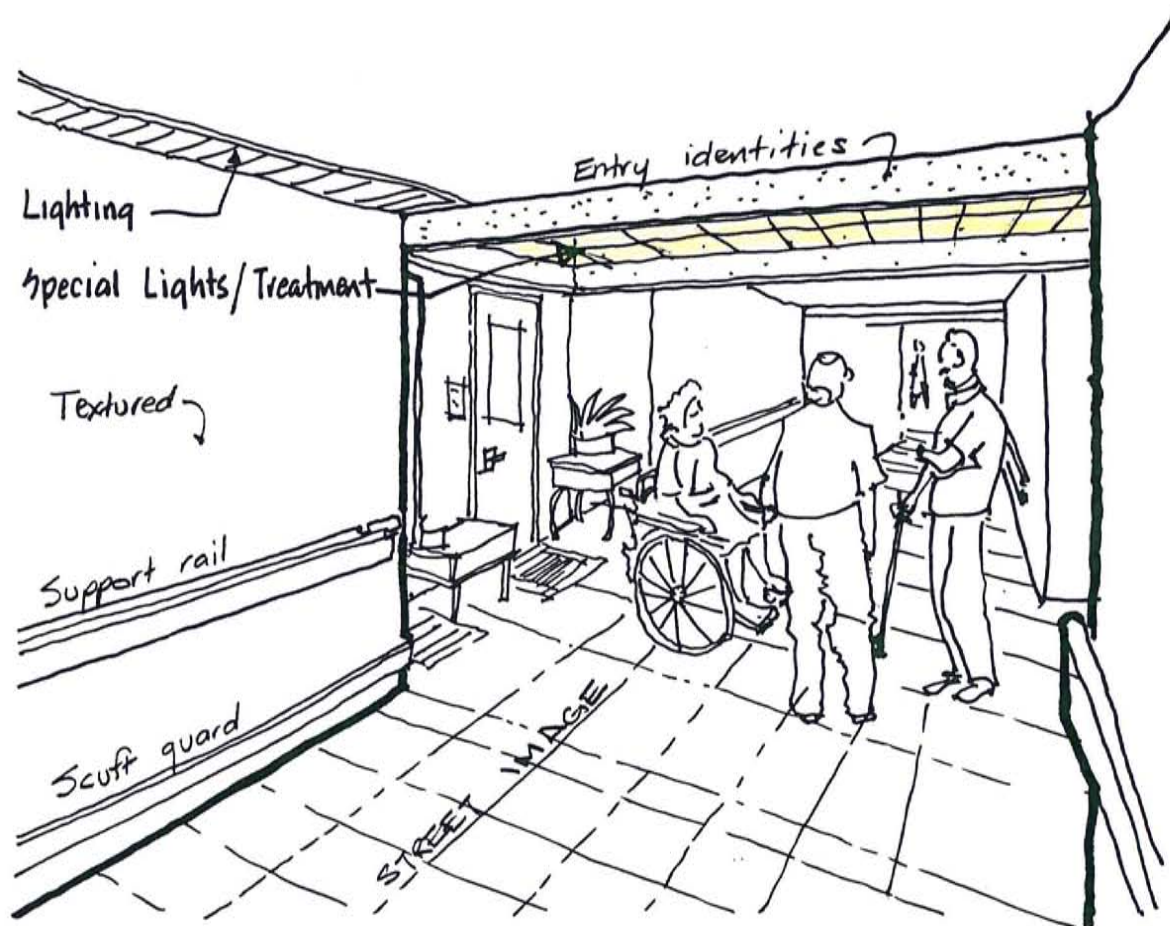


Suite A

SINGLE OCCUPANCY.



Suite C



Suite Entry

design concept report

13. DESIGN CONCEPTS

a. SITE ORGANIZATION

Placement of the building, parking & landscaping areas on the site achieves the following program objectives.

1. It creates a single main entrance which is protected, visible with strong image identity and creates an inviting building access on the warm south exposure.
2. Access into the site is clearly defined, easily visible yet controlled and the parking area is visible from the entrance.
3. Building location is oriented towards the corner streets in order to attain maximum visual opportunities for most resident suites and obtain best advantages of south sun and high public visibility.
4. The building is located some distance back from the busier Adelaide Street in order to allow space for landscape acoustic screening and privacy zones.
5. The landscape development closely relates to the residential units with private gardens and communal sitting areas, all arranged to encourage use and take advantage of the available front view towards activity areas and passive parks.
6. The front street parking arrangement and ramp access to underground parking meets the need for safety, security and easy orientation.

Pedestrian traffic access to the building is provided by protected walkways with guide rails and "wayfinding" cues. The main entrance is well identified along Adelaide Street for access by resident and public.

The second access along McEown Avenue serves as the residents' access to adjacent park. The rear walkways link the site to the north public park and adjacent residential housing for elderly, which helps this facility to integrate into community activities.

Vehicular traffic access is controlled from a single entry along the busy Adelaide Street. Visitors and delivery vehicles follow the driveway direct to the main entrance canopy and parking area and the residents follow the access route to the underground parking ramp.

This traffic access and circulation provides a simple and secure

arrangement. The parking area nestles into the front corner of site, easily visible but adequately screened.

The building orientation takes advantages of the visual aspects towards the busy street where there are shopping mall activities and traffic. The eastern facade faces the playing fields and park, the view north to the park and view to the west are passive. The building is predominately viewed from the south direction along Adelaide or McEown Avenue. The building massing across the corner, imparts best impact and image from this direction, and takes advantage of this highly visible location.

The building massing provides visual interest when viewed from all directions, with deliberate intent to provide equal building value to all residents and yet provide some delight as the entire building perimeter is explored.

The Landscaping is developed to invite maximum use by the residents and respond to their particular needs. Walkways are fully accessible with "way-finding" cues, lighting, support rails and rest areas with shrubs providing a wind screening.

Trees are located along the north and east perimeter to shelter the site from prevailing winds. Shrubs and trees are located to slow winds and trap drifting snow at entrances, walks and parking areas. Trees for sun shading are suitably located at the private and public sitting areas.

The climate influences have been accommodated by the building form. The south entrance and residential wing provides protection for residents from the cold north west winds and products a desired micro climate where the much needed sunlight reflects off the southern facade and extends the outdoor comfort for the resident in spring and fall.

The sheltered courtyards created between the residential wings creates similar protected areas and the variety in orientation allows choice of shelter from hot summer sun on north side or warmth of the east morning sun.

The site topography gently slopes upwards towards the North and final gradings provide good drainage to all areas with no slopes difficult for elderly access.

Some berming will be provided to enhance screening of the parking area and creates a wind shelter to sitting areas. Some grading modifications are required to accommodate the building floor level difference between the residential wings and the central core. The creation of a sunken sheltered exercise patio and sitting area provides delightful variety.

b. **BUILDING ORGANIZATION CONCEPTS**

1. **RESIDENTIAL SUITES**

The suite is the elderly resident's permanent **home** and it is more than the traditional small hospital room.

It has been designed to allow maximum opportunity for the resident to lead a **normal life** within the limitations of declining health.

The traditional residential amenities of a living area, bedroom, snack kitchen, hobby corner, vestibule, storage, full bathroom and outdoor area have been provided, and the institutional qualities of traditional nursing home are minimized.

The **concept of a compact bachelor suite** accommodates the fluctuating needs of a resident from semi-independent living to the confines of a bedfast condition.

The suite is designed to accommodate the furniture with ample clearance for wheel chair access or assistance for bed fast residents.

Three Types of suites are provided to allow some individual choice.

Type 'C' - 28m² area - is the smallest unit suited for the least mobile resident.

Type 'A' - 36m² area - is the deluxe unit suited for semi-independent living of a single resident. Size allows for use by two companions if so desired.

Type 'B' - 55m² area - incorporates a separate bedroom for the elderly couple or companions.

(The above suite sizes are very spacious when compared to the current standard for nursing home rooms of approximately 20m² area.)

The individual identity and residential quality is attained using the recessed suite entry area with plants, feature lighting and architectural articulation of ceiling, walls and floor. Space is available for personalization of territory, sitting or socializing. The name plate, door bell and night light reinforce the desired residential atmosphere.

The **wide doors** with glass and operable sidelights allow residents to observe visitors or view into the corridor street without need for open doors and blinds allow for privacy. Such visual contact helps to reduce a resident's feeling of isolation.

The vestibule area is a transition zone between public and private spaces and it allows a degree of privacy to welcome visitors or acknowledge the nurses.

Adequate space is provided to maneuver a wheel chair or bed with room for parking a walking aid and convenient parcel shelf.

The bathroom is a full size unit with ample space for wheel chair and assistance from nurses. The design incorporates features to help the residents independent use of this room. The shower is a roll-in type with a seat and support rails. The vanity is adjustable height. The walls are fully reinforced to allow individual placement of grab bars. The room finishes, lighting and acoustics are designed specially to suit the needs of residents.

The snack kitchen incorporates a small sink and refrigerator to allow for tea making and snacks. (The residents' meals are taken in the group family dining room or with room service.) Adjustable counter heights and accessible cupboard features which are easy to operate, help to accommodate individual needs. The entire units may be easily removed and converted for storage use if the resident needs so desire.

Living - Bedroom area is sufficiently large to allow desired flexibility in furniture arrangement, and personalization of the room with a resident's own furniture and drapes. A hobby corner with display shelving, room for socializing and ample bed space is provided. A textured ceiling with variation in height and upper wall treatment provides some visual relief for the bedfast resident. Varied lighting allows for mood changes,

flexibility and adequate for task work.

Storage is provided with built in cabinets and closet space especially designed for convenient access. A section is included for a resident's personal laundry collection bag.

An **outdoor patio** is provided to many ground floor suites, since Wheel chair residents and bedfast residents may enjoy this private space, which is suitably sheltered with plants and shrubs.

A large balcony with space for plants and semi-recessed for shade is provided to many of the upper level deluxe suites.

The suite windows are large with a low sill to allow adequate viewing outdoors by a bedfast resident. The deep sill allows for plants and display articles and the operable window is safe and useable by resident. The exterior canopy provides desired sun control.

The technical aspects of design incorporates adequate suite sound proofing and an emergency call system is provided in the shower room, adjacent to the bed, living area and balcony. This twenty-four-hour monitoring system may be tailored to suit individual needs.

A complete spectrum of medical, health care and personal care services are provided as needed by the resident to suit their changing status of health and dependency. These services provide from minimum to intensive care levels for the residents with purpose to allow their continued residence.

The housekeeping services are provided on a daily basis similar to hotel accommodations, where the resident has choice of doing own personal laundry in the resident's laundry facility.

The suite design with its supportive features allows the choice of permanent residence and the personal and health care services are provided on a flexible basis from intense to casual as required by the resident.

Relocation to another suite within the facility shall only be required in extreme cases of health deterioration where close full time supervision is required.

A **'respite' suite** is provided directly adjacent to the nurse dispensary to accommodate the short term acute nursing requirements and the resident returns to own suite after recovery. This unit allows casual use by community day care centre where elderly may recover from a short illness.

The **arrangement** of the Type A, B & C suites in each residential wing is with purpose. The Type 'A' & 'B' suites, suited to the more independent elderly, are located at the far end of each wing. The Type 'C' suites, suited to the less mobile resident, are grouped at the end closest to the nursing services.

The mix of all types of suites in each wing, allows for individual choice without segregation of residents into 'levels of care' groups.

The **orientation** of the residential wings to the nurse dispensary allows similar flexibility to accommodate the different needs of residents, for intensive care, casual care, or behavior care. The zoning of three floor levels allows similar flexibility which is a significant consideration defined in the programs.

2. **RESIDENTIAL "FAMILY" PODS**

The **residential wing** is formed from a group of eight suites to form the family 'pod'. (re-creates the lost family atmosphere for mutual companionship and support.)

The entrance to each wing has its own identity which reinforces the aspects of personal territory and assist residents identification and orientation.

The suites are arranged along their private corridor **street** with end exit/access stair and a view window to exterior helps residents orientation and allows sun penetration.

An **entry node** is formed by grouping four suites which assists identification, orientation and provides variety and visual relief along the corridor and reinforce the residential atmosphere.

Special lighting, plants, textural floor cues and architectural articulation define this space. Skylights allow sunlight

penetration on the top floor level.

The family group lounge and dining room is located at the entry to each residential wing and it is purposefully located at the intersection of the public corridors with a view of the central atrium gardens.

This area is intended as a semi-private space, highly visible to public areas to encourage social interaction between each resident groups. Direct outdoor access to patio is provided for ground floor units.

The lounge area serves as a normal living room with cosy fireplace, television, aquarium, books, plants and resident displays.

The dining section forms part of this space and is generous in area to provide space for a wheel chair, acoustic screens for privacy and an occasional guest visitor.

Each of these areas shall be provided with a raised ceiling section, feature lighting and architectural character to create a delightful room. Flexible lighting and suitable decor shall encourage intimate night time dining or cocktail hour scenarios. Separate identities with different mood character shall be provided to each family lounge to offer variety and encourage residents to visit other 'pods'.

3. SERVICE AREA

The Nursing dispensary provides the necessary personal and health care services for the residents. It includes all the work areas required by nursing staff and housekeepers plus support areas, bathing facilities and storage for equipment and monitoring systems. The work spaces shall accommodate flexibility in staffing demands which varies to suit changes in resident care needs. The supportive design features of the facility help to reduce the hands-on care required.

One nursing dispensary serves 33 resident suites (35 or 36 residents) which the program evaluates to be a manageable size, in terms of nursing care requirements and travel distance considerations.

The nursing station is located to allow its close proximity to some resident wings where more intensive care response is readily provided. The more independent residents may locate in the more remote suites, where privacy of actions take priority over visual monitoring.

The residential character and unobtrusive design are intended to minimize the dominance of this medical area.

4. **ATRIUM GARDENS**

The project name "Winter Gardens" is derived from the metaphor which compares the end of our lives with the year end season and the central atrium symbolizes the winter garden haven which is a Saskatchewan climate response.

The **central atrium** gardens offer delightful relief to the many residents confined to the interiors during the winter months. The garden is a haven during winter seasons but may be enjoyed all year or for passive viewing from the upper balconies or gallery.

The atrium extends full height of the building and provides visual contact between the floor levels. Natural sunlight filters through the roof skylights and provides a bright and inviting atrium in the centre of the building interior.

The Atrium gardens are fully landscaped with seating areas, walks and mood lighting to provide setting as a social gathering place. The adjacent 'tuck shop' offers occasional tea.

5. **SUPPORT AREAS**

The **administration areas** are located at the main entrance to service as a highly visible information centre and security control for residents and visitors.

It oversees the parking area and the garden atrium. The adjacent residents lounge with outdoor patio is located where residents may observe the community activities.

The **Health Care areas** are designed as a 'Spa' with whirlpool for

relaxation and an exercise area. The supportive features are blended into an inviting residential atmosphere to encourage resident's participation. Glazed screens provide high visibility to corridor streets and an abundance of plants reinforce the garden-like atmosphere.

The Crafts areas on the second floor follow a similar concept, with the architectural design providing a visual relief and an inspiring atmosphere for residents.

The **Multipurpose Room** is centrally located on the second floor for use by all residents for community involvement.

The rooms are divisible with easy operated mobile partitions for flexible use and a variety of functions from bingo games, special dinners, groups and chapel.

The glazed screens encourage visual interaction between participants and passive residents. It provides a source of interest and reinforces the central "downtown" activity zone for residents.

A convenient sitting area for waiting patrons and adjacent lounge encourage resident loitering and involvement in their community life.

The adjacent servery has a convenient elevator access to a basement kitchen.

The **Day Care Centre** provides a base for involvement of the community seniors in the facility. It is located on the upper floor purposely to ensure penetration into the building environment, by community seniors who become exposed to the residents. Interaction between residents and community is encouraged, especially for the bedfast residents where opportunities for normal social interaction becomes difficult. Many of these day care seniors may use the building support services including the "respite suite". These Day Care seniors may eventually become residents of this building with which they have become familiar.

The **Kitchen & Laundry areas** are basement located, with convenient access to elevator for dispensing food and housekeeping carts to the residential areas. The staff support

and rest areas are close by. The mechanical rooms are centrally located to assist the task of distributino.

The **underground parking** areas are intended for residents, with protected walkways, crosswalks, rest areas and adequate lighting to create a lively and safe passage to the elevator. Individual resident storage closets are provided at each parking area, which is in addition to the ample general storage rooms.

6. CIRCULATION

The public corridors are designed as **streets** which link the residential sections to the activity areas and central atrium gardens. The streets are designed sufficiently wide to allow passage of wheel chairs or mobile beds and to accommodate residents strolling and socializing. Plants, rest areas, support rails and orientation devices abound.

'**Nodes**' or landmark spaces are formed where corridors intersect around the central atrium at entrances to the residential wings.

High ceilings, special lighting and architectural features define this space which is a place for sitting and socializing, and offers a view to the interior garden. It incorporates "way-finding" cues and each node is designed differently to reinforce orientation and identification.

The **circulation system** follows a simple layout to allow easy orientation and "way-finding" for the occupants. The residential 'nodes' and elevators are readily visible and all major spaces are arranged around the central atrium. The design architecture of the nodes, visual relief spaces, landmark identifications, lighting and relationships to atrium achieve this goal. The articulation of residential suite, plants and influx of natural lighting create the desired restful atmosphere.

Textured floor cues, identification lighting, finishes, wall support rails, emergency devices and other 'barrier free' features are designed to blend in with the residential character.

Two central elevators useable by residents and the public provide the vertical circulation. One elevator serves the

kitchen/laundry/delivery areas and the second elevator allows access directly to residents' underground parking. Support rails and a folding seat are provided both within the elevator and the adjacent waiting area. Elevator and vestibule sizes are designed to allow bed transport.

The generous stairways are designed to allow use by residents and are not simply fire exists the vestibules offer easy outdoor access.

c. FUNCTIONAL RELATIONSHIPS

Each **residential wing** is composed of a group of eight individual resident suites. This small grouping allows for a suitable mix of compatible residents with varying needs. This area is residential and private territory.

The **group** or family **dining lounge** provides the initial interface with the central public spaces. It is accessible and visible and design in a special character such as a sidewalk cafe. It is located here to encourage social interaction with community and not isolate the residents.

The four residential wings comprising of total of 32 suites are oriented around a central atrium and activity area. The support services, nursing dispensary, recreation areas and public amenities are located here for easy access from the residential sections. Travel distances are short.

This arrangement was structured to allow each resident wing equal access to viewing into the atrium gardens and close access to communal service areas.

This structuring of private individual residential spaces, to group use areas and to central public areas meets the desire for progressive levels of private or public social interaction.

Each floor level is patterned on this concept and is relatively self contained. Each floor has a portion of the communal activity spaces to meet the desire for social interaction amongst the entire resident population. Equal opportunity must be available to all and segregated or isolated residential sections are not desired.

This layering of activity facilities assures public and community involvement on all floor levels. For example, the Therapy Spa and Gardens are on main floor, Multipurpose Room, Craft areas on the second floor and Day Care Centre and clinic on the third floor.

The garden atrium extends the full height of the building with balconies and viewing galleries which visually link the floor levels.

d. BUILDING FORM

The program limits the physical size of the complex to an optimum of 100 residential suites with purpose to ensure the project integrates into a residential neighbourhood scale and does not dominate the area.

This complex is easily assimilated into the selected mature neighbourhood and open site, however it is desired that this thesis project may serve as a model for development on other sites.

The three storey low rise building, in a residential massing, is conceived in response to the following program influences.

1. A compact scheme with desire to minimize corridor travel distances. Vertical elevator travel is better than long horizontal circulation.
2. Concept of central garden atrium visually accessible to each residential "pod".
3. Size of site limits sprawling of building area.
4. Program requirements for space relationships and functions. The provision of four family residential wings, nurse dispensary relationship and support facilities, conveniently creates a 'zone' equal to a floor level. Three zone are required.
5. Provision of several floor levels provides desirable flexibility in choice of ground floor or upper level suite.
6. Residential scale is required.

The three storey scheme creates a desirable functional and building massing relationship of the residential wings around the central atrium which visually links each floor. This massing arrangement helps to minimize the apparent physical size of the project.

The orientation of the building entrance massing, which progresses to the central roof glazing of the atrium, provides a strong focal point and identity.

The building articulation places emphasis on the qualities of residential and individual identity. The sloped roof with dormers reinforces the individual and human scale relationship. The suite window canopies provide sun protection similar to typical houses and helps the small scale identity of the exterior

facade.

The penetrations of the suite balconies provide sun shading and provide some relief to the building massing.

The massing of the resident wings creates desirable sheltered landscape courtyards.

The building massing and arrangement is oriented to the south for best sun exposure and best site exposure for this new project.

design report

14

14. . DESIGN DEVELOPMENT REPORT

1a. INTRODUCTION

This report together with design drawings P-1 to P-8 constitutes the design submission for the Thesis 'Winter Gardens', a Comprehensive Long Term Care Housing for the Elderly.

The design submitted is based upon the Thesis Research and Architectural program report in the previous section.

This project is pioneering a new alternative approach to Nursing Homes development in Saskatchewan and the program needs and goals are accepted as basis for design. However, the original program is not considered fixed and rigid in order to accommodate the continued refinements during the design development.

The project name "Winter Gardens" is derived from the metaphor which compares the end of our lives with the year end season and the central atrium symbolizes the winter garden haven which is a Saskatchewan Climate response.

1b. BACKGROUND

Current Saskatchewan nursing care homes continue to offer single bedroom type accommodations designed on the basis of the hospital model. However, such institutions are not acceptable for all our seniors who require a residence with long term care services. This situation is not unique to Saskatchewan since many countries are now facing this problem to integrate suitable residential life style choices into such health care institutions.

This design illustrates in an architectural form, a new approach to Health Care Housing.

1c. **COMPREHENSIVE LONG TERM CARE HOUSING FOR ELDERLY**

This project integrates a residential environment with long term health care services to suit the needs of the frail elderly user.

This concept is a departure from the traditional hospital model where health care services dominate and the nurse station needs are the form generator. However, the needs of the elderly resident takes priority over the nursing service requirements and all spaces are designed truly responsive to these needs as their final place of residence.

The project offers continued normal life style opportunities to the elderly who so desire, with emphasis on accommodating such needs as individuality, privacy, choice, independence, home life and promotes residents' involvement rather than isolation.

The personal and medical care services are provided as dispensary services when needed in varying degrees.

The project design attains the above goals and objectives.

1. The project is a unique health care facility incorporated into a residential setting.
2. The resident's suites are individual homes with a delightful and supportive environment. Normal home amenities, with degrees of privacy and outdoor spaces reinforce the residents choice of life style.
3. The family pod grouping of eight suites recreates the lost family and neighbours for mutual support.
4. The design, planning and concepts place emphasis on the satisfaction of resident needs and ensures that the medical and health care components do not dominate.
5. The corridors provide a street like atmosphere with the intersection forming "identity nodes" to recreate the residential neighbourhood. It is a place for strolling, socializing and jogging, where the wheel chair patrons, bedfast residents and ambulant mingle in relaxed atmosphere.
6. The design offers opportunity for progressive degrees of resident privacy or independence and yet it's planning

- encourages social interaction and group support.
7. The Health Spas and activity spaces are very accessible, visible and equally arranged on all floor levels to encourage use and opportunities to all residents.
 8. The central atrium gardens forms the indoor social park and provides a strong focal point for the interface between residents and community.
 9. The concept of continuum of health care for permanency of residence is accommodated by the arrangement and mix of suites, nurse dispensary position and support areas.

The residential 'pods' range from intensive care to casual care with a flexibility to vary the mix to reflect the full range of the aged and its process.

10. The image of the project is residential with a new unique image to identify this type of building and help to eradicate the stigma of dependence nursing care facilities.

1d. AGING PROCESS

The design incorporates the environmental needs to assist the aged to cope with their debilities.

- i. Mobility limitations are accommodated using floor and wall "way-finding" cues, textural contrast and support rails.
- ii. Reduced stamina is accommodated by short travel distance planning, frequent rest stops and efficient circulation planning.
- iii. Visual limitations are accommodated using light level contrasts, no glare, colour contrast, texture signage cues and window orientation (warmth). The simple circulation and landmarks nodes help identification and "way-finding".
- iv. Hearing difficulties are assisted using visual and audible alarms, improved background acoustics and room volume distinctions to help orientation.
- v. Memory losses are assisted using Landmark 'node' spaces, variety in design of all areas and avoidance of repeating the same decor on all floor levels. Each residential pod, has a separate identity.
- vi. Psychological and Social needs are accommodated where planning allows pre-viewing of social spaces and

accommodates varying levels of competence by the residents. Spaces are designed as supportive and yet allows choice of challenge in order to avoid over dependency.

1e. **RESPONSIVE DESIGN**

The concept of responsive design has been incorporated as a significant objective in the project, in order to provide maximum assistance to the residents to retain their self dependence.

Barrier free design in the planning, spaces and details is blended into the residential fabric.

Sensitive tailoring of accessibility standards to meet the special needs of aging process and compromises between the various debilities are incorporated.

Suite designs to allow residents maximum self dependence, space for heirarchy for privacy and social needs all contribute to sense of control for residents.

The adaptability of environment to meet changing needs is accommodated with the adequate suite sizes, larger bathrooms, flexibility in resident suite mix and locations of the support spaces for flexible use. Details such as the adjustable kitchen counter and cabinet heights, flexible storage units and choice in degree of support features allows for individual response.

1f. **GOALS**

The program goals are summarized below for reference and the program brief describes that the design meets these objectives.

- | | |
|----------------------------|---------------------------|
| • Long Term Care | • Innovative |
| • Residential atmosphere | • Health Care integration |
| • Permanence | • Community involvement |
| • Privacy & Independence | • Social activity |
| • Individual identity | • Security |
| • Resident needs priority | • Flexible & adaptable |
| • Choice design/supportive | • Image |

Specifications

Cost

2. OUTLINE SPECIFICATION

Foundations

Concrete foundations and piling system based upon soils investigation.

The central core area will be a concrete basement with underground parking.

The residential wings to be constructed over crawlspace.

Structural System

The Central core section will be reinforced concrete structure with concrete slab and beam system.

The residential wings will be concrete column and masonry bearing walls with precast concrete floor slabs.

The pitched roof over the residential sections will be steel roof trusses, and metal decking.

The central core section will be flat roof joists and the central atrium will have large steel girders to clear span and form the roof skylights.

Concrete stairs and elevator shafts.

Roof

The sloped roofs over the residential sections will be clay tile shingles, with dormer sections to create a residential appearance.

The central links will be a protected membrane flat roof system.

The atrium roof shall be sloped skylight glazing with shaded glass and ventilators.

Exterior

The building will be clad in a buff face brick with accent brick articulation which is a small scale residential material. Exterior walls shall be insulated, masonry cavity wall type

construction.

Window canopies shall be textured precast concrete profiles or stucco in a warm tone cement as an accent material.

Wood windows in all residential suites will be operable vertical casement type with triple glazing and accessible hardware. Frames shall be metal clad.

The dining lounges which link the residential wings to the central atrium will be clad with curtain wall bronze tinted windows and insulated spandrel panels.

Interior

Partitions shall be steel studs and gypsum board, acoustic rated.

Doors and hardware shall be heavy duty and selected to suit responsive design criteria and residential character.

Sound proofing and noise control features will be fully incorporated. Glazed screens will be aluminum frames with wood trim and safety glass.

Finishes

The detailed criteria section of the volume one report defines the various finishes in each area, however the basic concepts are residential character, variety and identity.

Each residential wing will have a different decor to assist identification and a sense of ownership by the residents.

The dining lounges will be finished in different character in order to provide a variety of enjoyable spaces.

The finish textures and colours shall be selected to respond to the visual impairments of many elderly residents.

Casework

Residential quality, heavy duty type casework will be provided with special accessible design, adjustable features and removeable.

Equipment

Kitchen equipment shall be residential quality in servery and

snack kitchens.

Commercial kitchen equipment and laundry equipment will be provided in the central facilities.

Elevators

Two elevators will be provided with size to accommodate wheel chairs and stretchers.

Each elevator floor shall be separately identified.

Mechanical

Central mechanical systems will provide an energy efficient heating, cooling and ventilation to the entire building.

Adequate exhaust will be provided to designated spaces. Individual bathroom exhaust will be provided to each suite.

Perimeter hot water radiation will provide heating and mechanical air systems shall provide ventilation and cooling.

Each resident room will have individual temperature control and will receive both ventilation and air conditioning.

Air conditioning shall be provided to all common areas with an adequate re-circulation system to remove odors.

Plumbing fixtures and hardware to be residential character with accessible features to suit elderly residents.

Electrical

Electrical systems shall include a complete spectrum of emergency alarm, call and monitoring systems to assist the health care component and residents' safety.

Visual and audible alarms shall be designed to suit needs of aged.

Lighting in residential suite shall be varied to suit the residents' tasks and moods.

Corridor lighting shall be varied to suit functions and create a street like atmosphere.

3. PROJECT COST ESTIMATE

PROJECT: "WINTER GARDENS"
A Comprehensive Long Term Care Home for the Elderly

STATISTICS: Total Gross Floor Area = 10,574m²
Residential Units = 100
Storeys = 3

Volume	-	36,000m ²	BFGA	=	2050m ²
Ext. Wall	-	3,500	MFGA	=	3000
Roof	-	3,000	SFGA	=	2850
Window	-	9,000	TFGA	=	2650

COSTS

Construction Element	Total Cost	Cost/m ²	%
1. <u>Excavation</u>	\$50,000	5	0.5%
Excavation			
2. <u>Substructure</u>			
Piling	130,000	12	
Foundations	100,000	9	
Damproofing	10,000	1	
Sub-Total	240,000	22.70m ²	2.5%
3. <u>Superstructure</u>			
Concrete slabs	150,000	14	
Concrete structure	300,000	28	
Precast concrete	600,000	57	
Conc. stairs/elev.	150,000		
Structural Steel	300,000	28	
Metal Deck	80,000.00	8	
Special roof frame	100,000	9	
Misc. Metal	20,000	2	
Sub-Total	1,700,000	\$160.00	18%

Construction Element	Total Cost	Cost/m ²	%
4. Exterior Walls			
Masonry	600,000	57	
Insulation	52,000	5	
Windows	200,000	19	
Stucco Canopies	90,000	8	
Curtain Wall	100,000	9	
Ext. doors & entrance	48,000	4.5	
Carpentry	20,000	2	
Sealants	10,000	1	
GWB & studs	50,000	4.5	
Balcony rails	10,000	1	
Sub-Total	1,180,000	111.50m ²	12%
5. Weatherproofing			
Tile roof & RWL	250,000	24	
Insulation	30,000	3	
B.U flat roofing	80,000	7.6	
Skylights	80,000	7.6	
Canopies & glazing	60,000	5.6	
Sub-Total	500,000	47.00m ²	5.3%
6. Interior Walls & Doors			
Masonry	80,000	7.6	
Fireproofing	60,000	5.7	
Doors & Frames	95,000	8	
Glazed screens	100,000	9	
Rails	25,000	2.3	
GWB Partitions	250,000	2.3	
Folding Partitions	50,000	4.5	
Finishing Hardware	80,000	7.6	
Carpentry	50,000	4.5	
Finish Carpentry	60,000	5.6	
Acoustics	30,000	2.8	
Other	40,000	3.8	
Sub-Total	920,000	\$85.60	9.8%

Construction Element	Total Cost	Cost/m ²	%
7. Interior Finishes			
GWB Ceilings	100,000	9	
Acoustic Tile	80,000	7.6	
Special Ceiling	30,000	2.8	
Resilient Flooring	120,000	11.2	
Carpet	100,000	9	
Special Flooring	50,000	4.5	
Wall finishes	150,000	14	
Special wall finish	40,000	3.8	
Bathrooms finish	40,000	3.8	
Sealants	30,000	2.8	
Painting	100,000	9	
Sub-Total	870,000	\$82.00m ²	9.2%
8. Vertical Movement			
Elevators	100,000	9	1%
Stair rails	25,000	2.3	
9. Fitments			
Casework	250,000	23	
Finish Carpentry	100,000	9	
Rough Carpentry	10,000	1	
Special supports	60,000	5.6	
Accessories	90,000	8.5	
Sub-Total	510,000	48.00m ²	5.4%
10. Kitchen & Laundry			
Health care	250,000	23	
Specialties	150,000	14	
Furnishings	150,000	14	
Drapes	20,000	2	
Atrium furnishings	10,000	1	
Sub-Total	50,000	4.5	
Sub-Total	630,000	59.60m ²	6.7%

Construction Element	Total Cost	Cost/m ²	%
11. Mechanical			
Fire Protection	100,000	9	
Plumbing	450,000	42	
Heating	350,000	33	
Ventilation & A.C.	250,000	23	
Specials	50,000	4.5	
Sub-Total	1,200,000	113.50m ²	12.8%
12. Electrical			
Distribution	280,000	26.5	
Lighting	170,000	16	
Communications	100,000	9	
Specials	50,000	4.5	
Fire Protection	50,000	4.5	
Sub-Total	650,000	61.50m ²	6.9%
13. General Conditions			
Startup	60,000	5	
General on-going	240,000	23	
O/H & Profit	360,000	34	
14. Site Development			
Paving	20,000	2	
Walks & Curbs	20,000	2	
Landscaping	50,000	4.5	
Irrigation	10,000	1	
Brick paving	10,000	1	
Special Features	40,000	3.9	
Fencing	10,000		
Exterior lighting	10,000	1	
Shelters/benches	20,000	2	
Sub-Total	190,000	18.00m ²	2%

TOTAL BUILDING COST = \$9,365,000.00

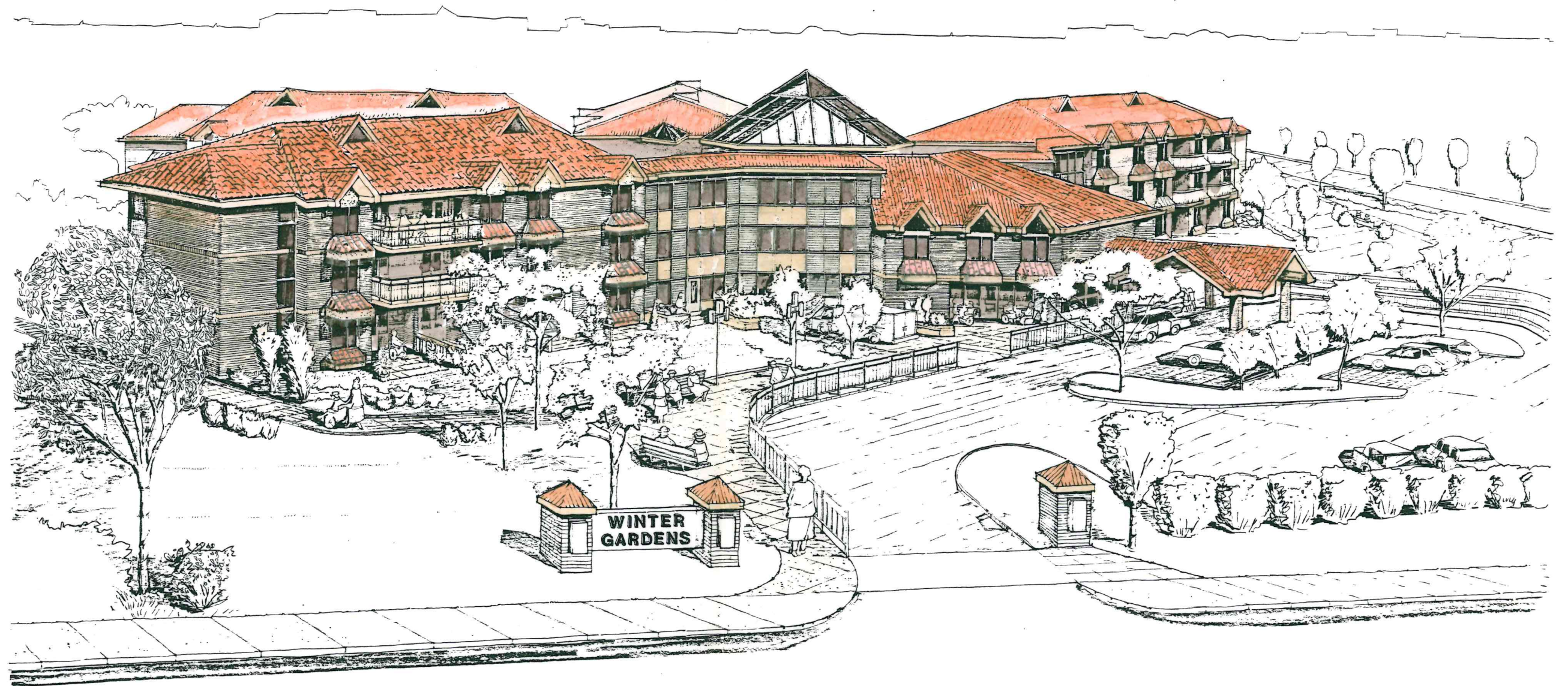
Cost Per M² = \$885.00/m²

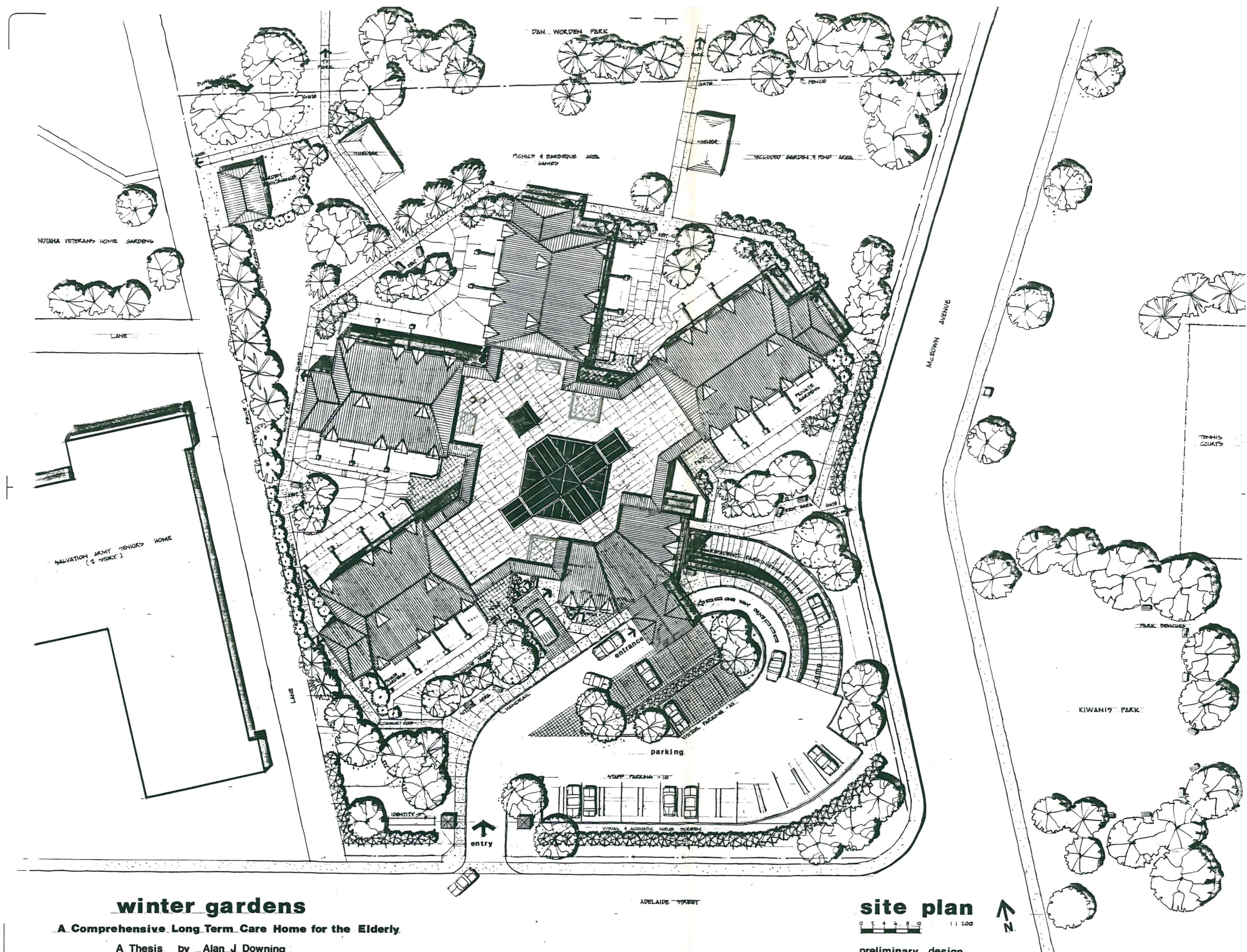
Cost Per Apartment = \$93,650.00/unit

Cost Per Volume = \$250.00/m³

drawings

15





winter gardens

A Comprehensive Long Term Care Home for the Elderly

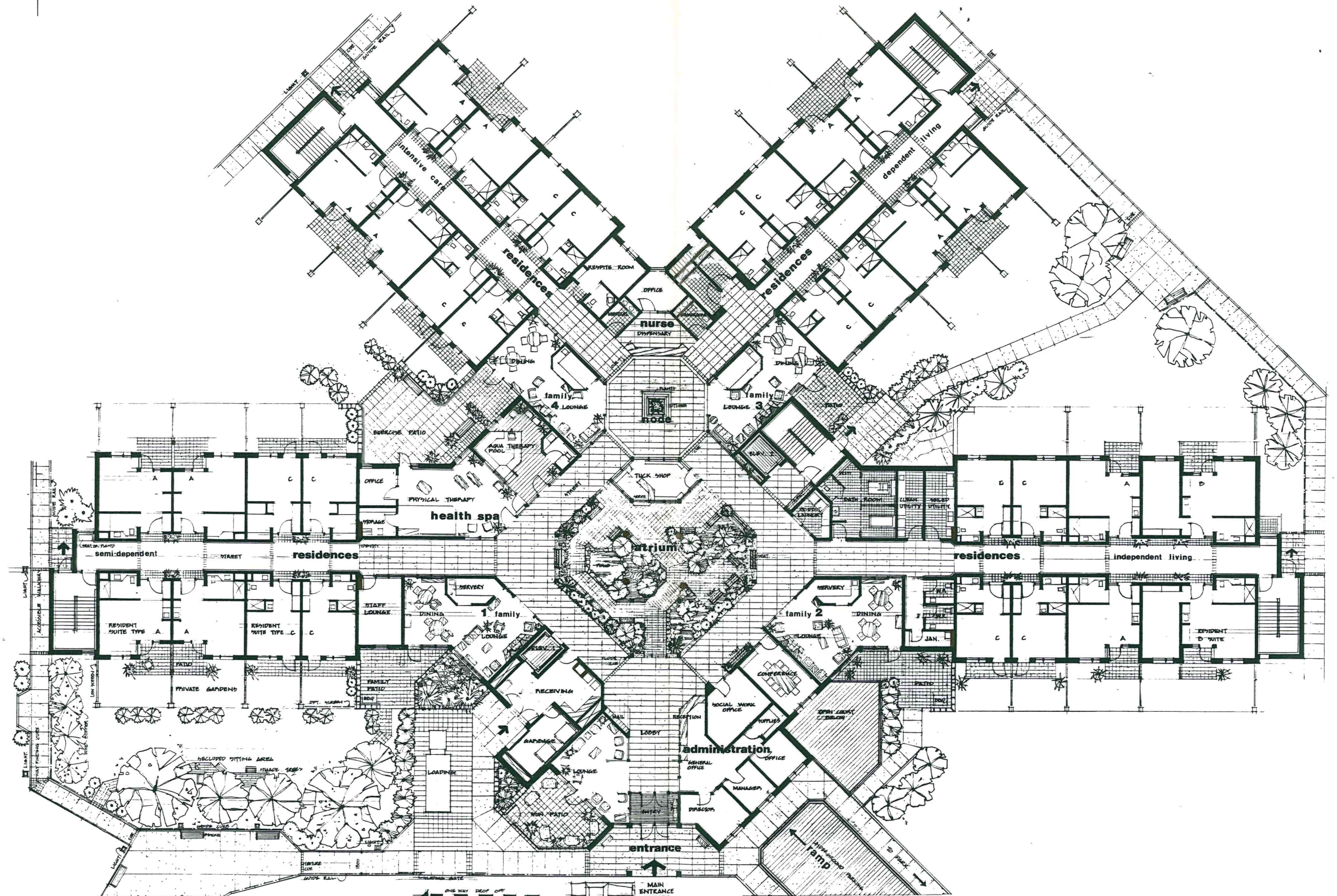
A Thesis by Alan J. Downing

site plan

0 2 4 6 8 10 1:200

preliminary design



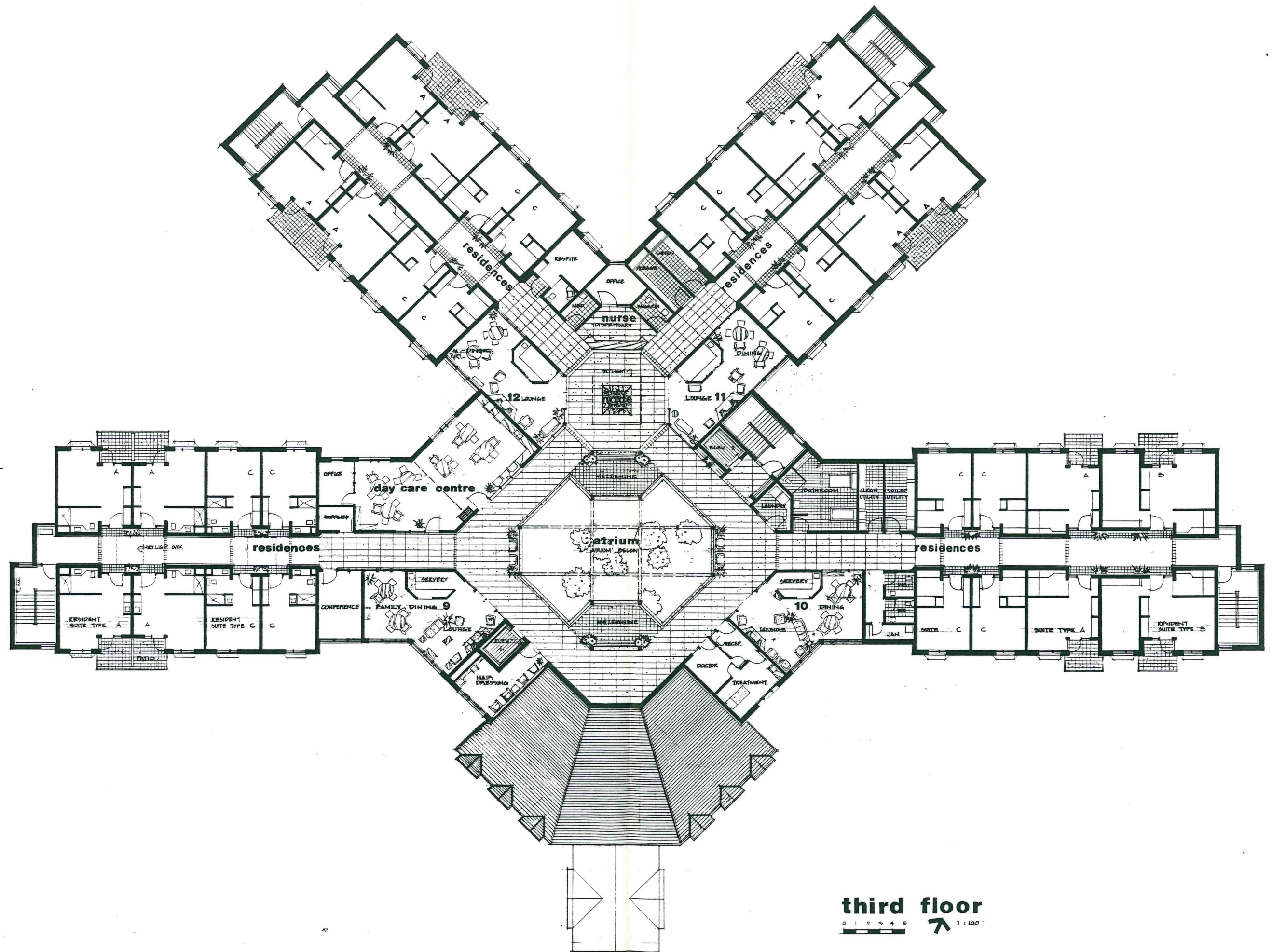


winter gardens

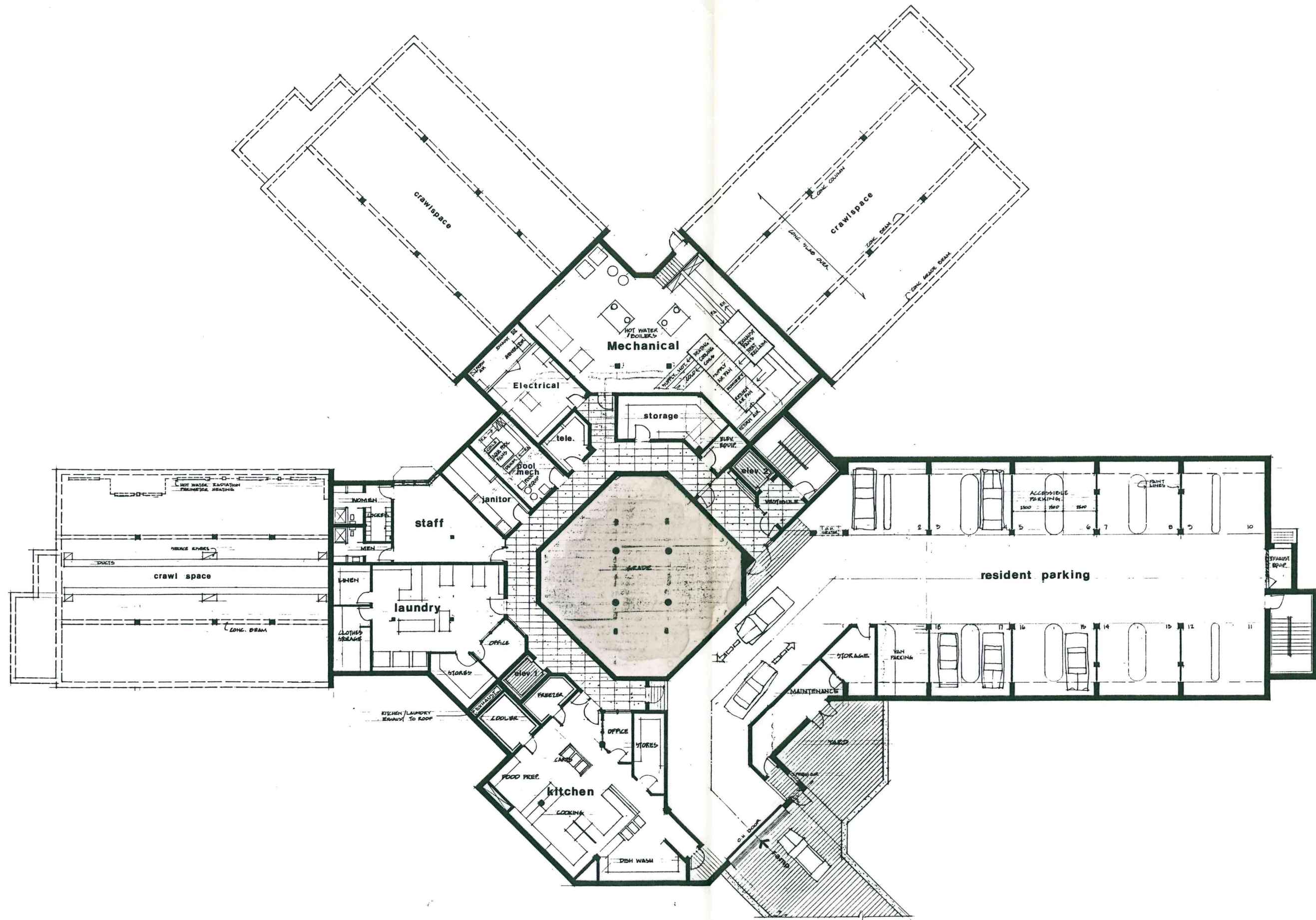
A Comprehensive Long Term Care Home for the Elderly

main floor plan

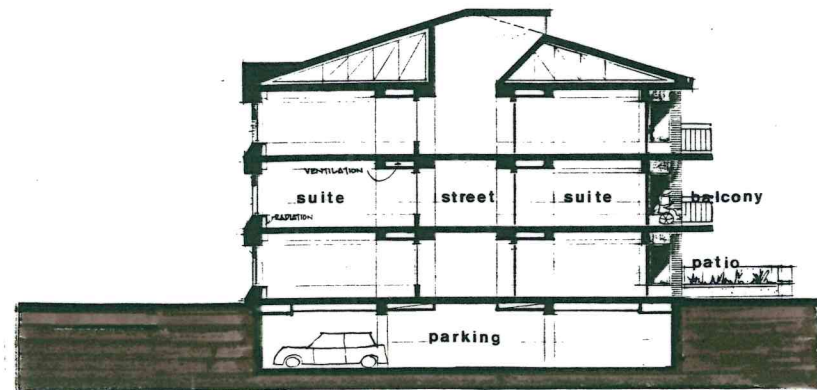
0 1 2 3 4 5
1:100



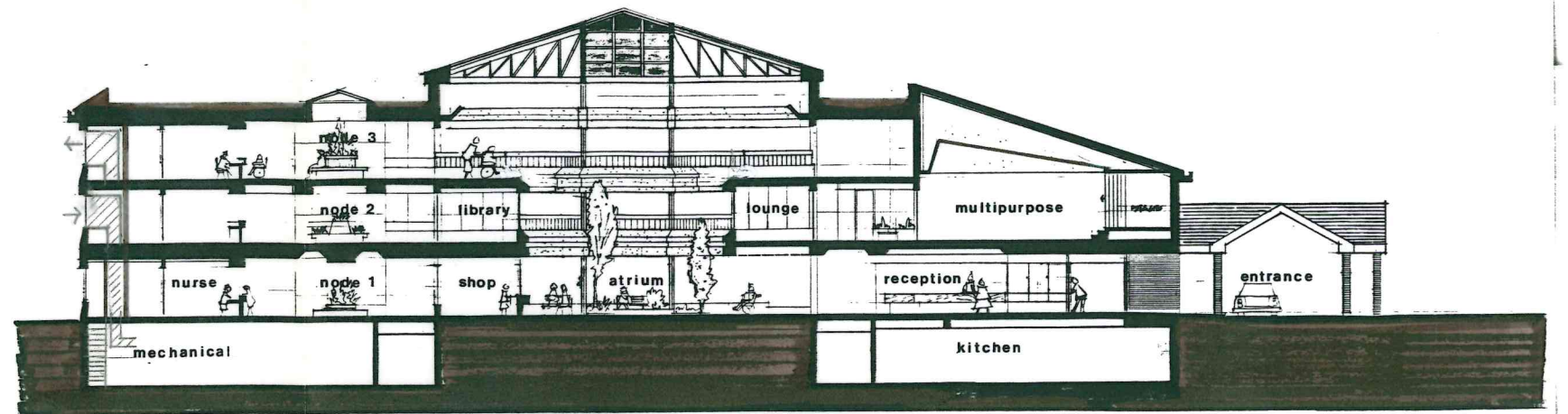
third floor
0 1 2 3 4 5 1:100



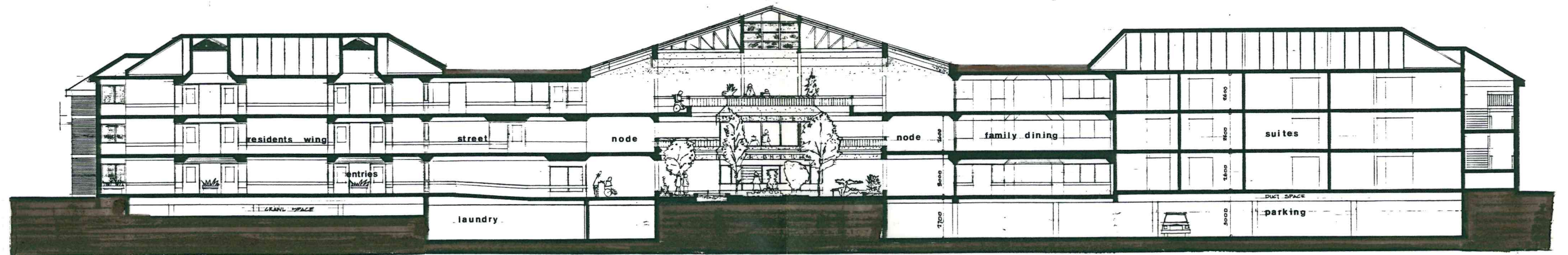
basement
0 1 2 3 4 5



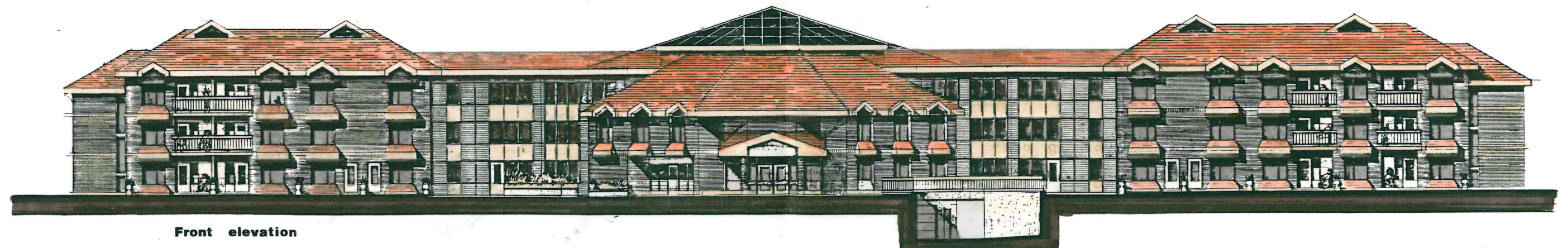
Residence section



Central section



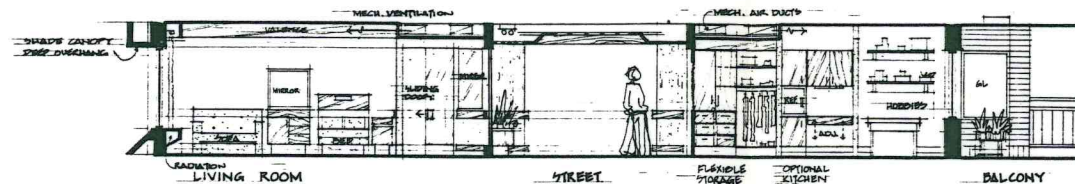
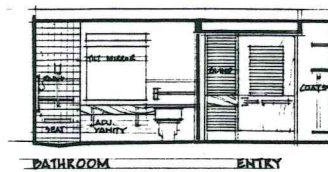
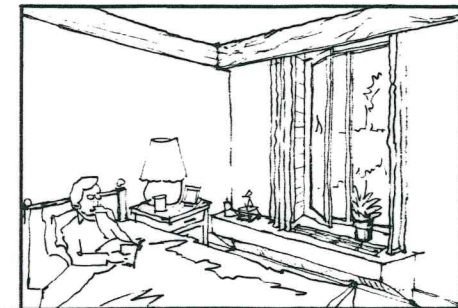
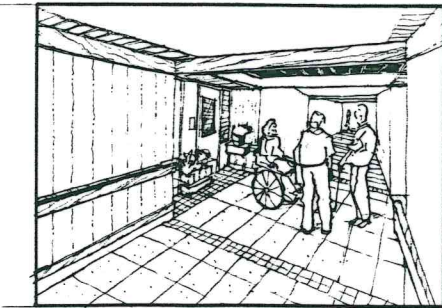
Cross section



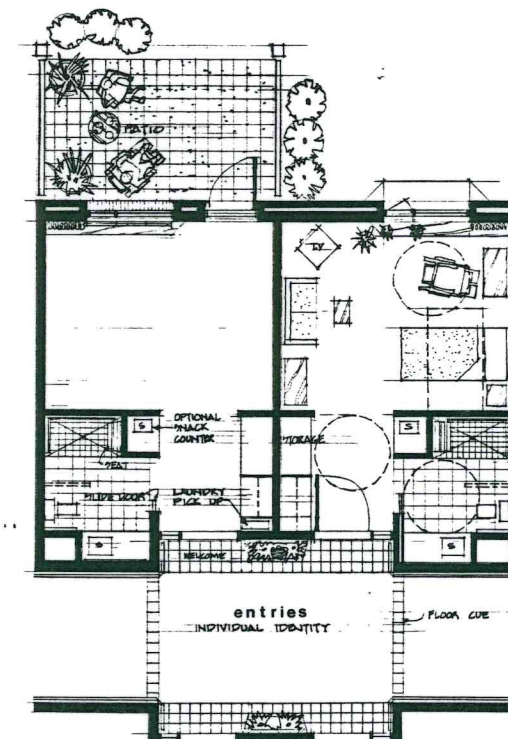
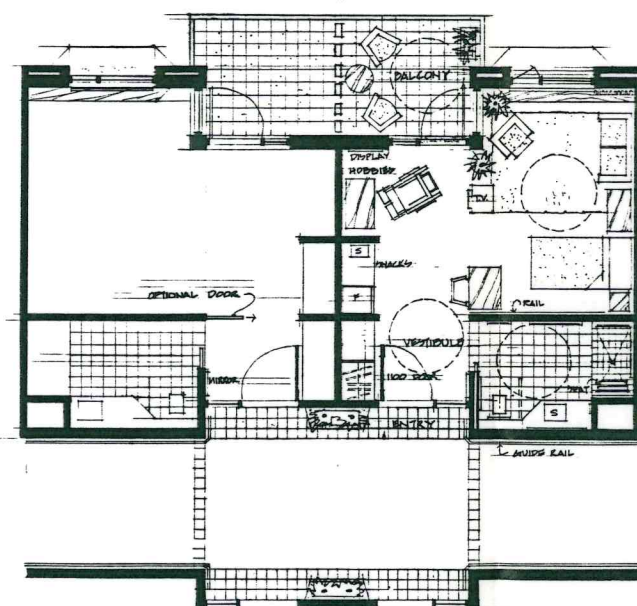
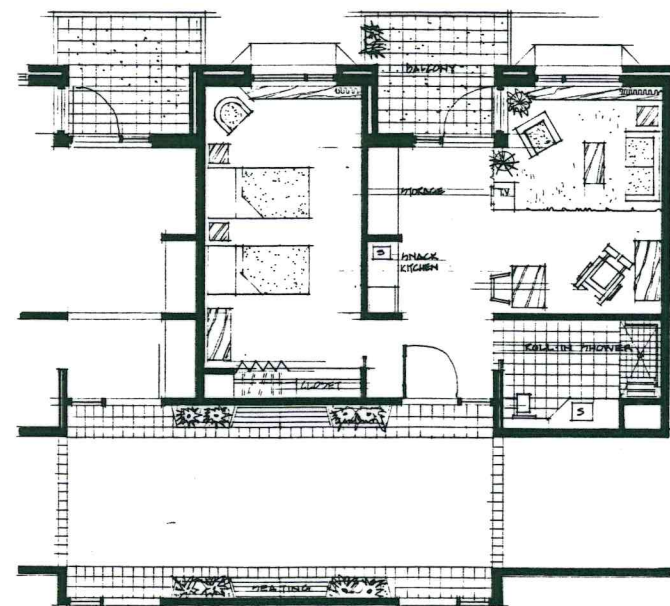
Front elevation

elevation and sections





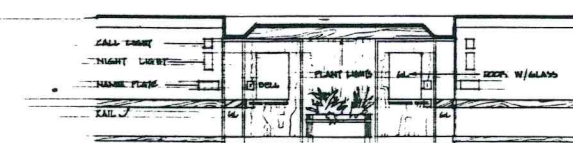
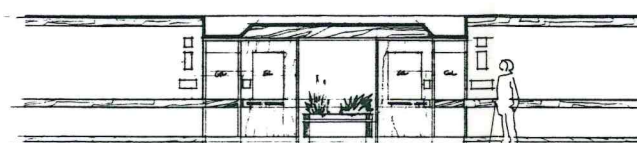
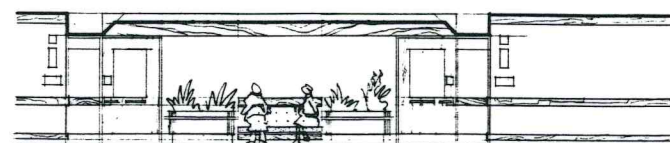
Suite Interiors



Suite B independent living

Suite A semi-dependent living

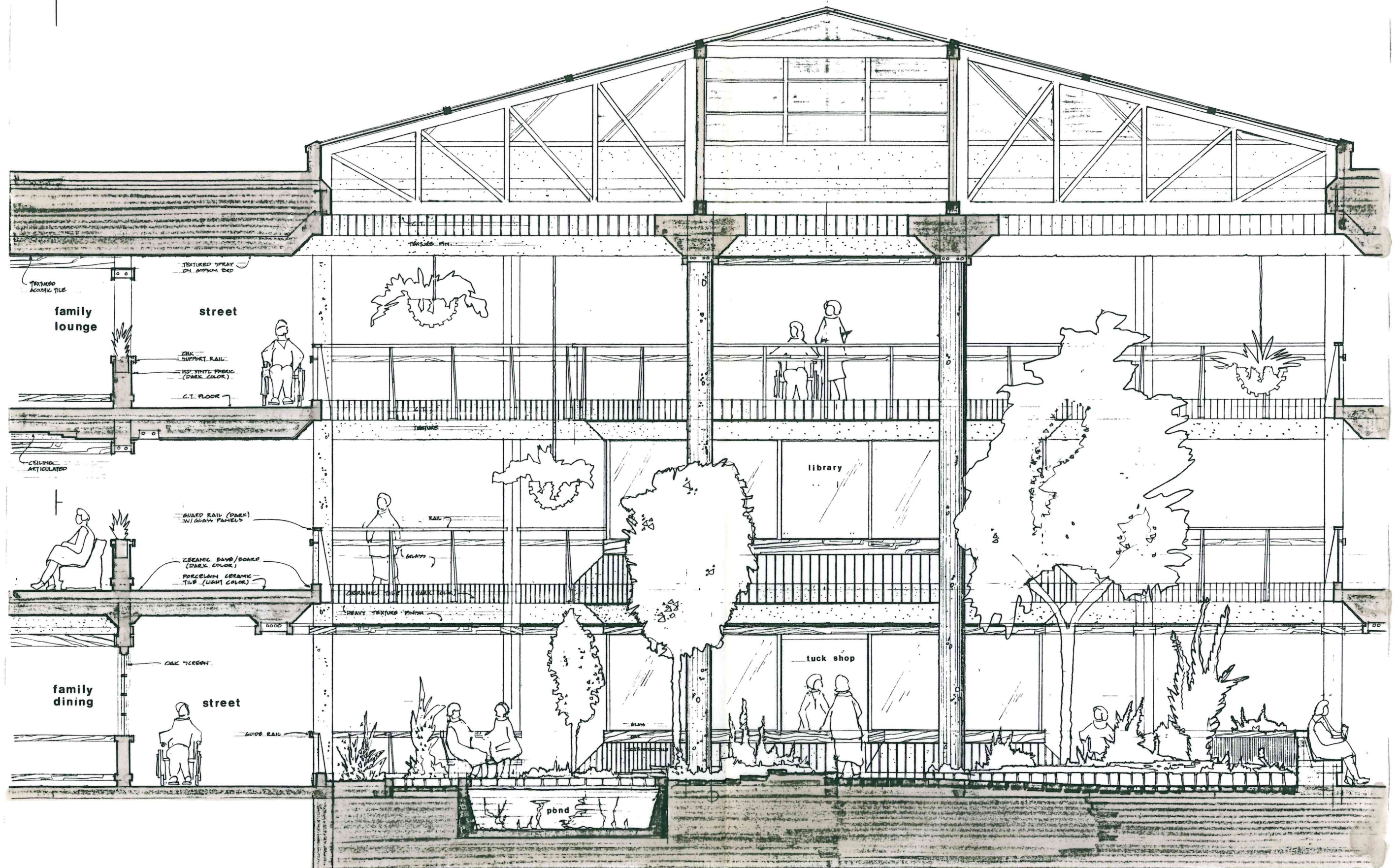
Suite C dependent living



Suite Entries

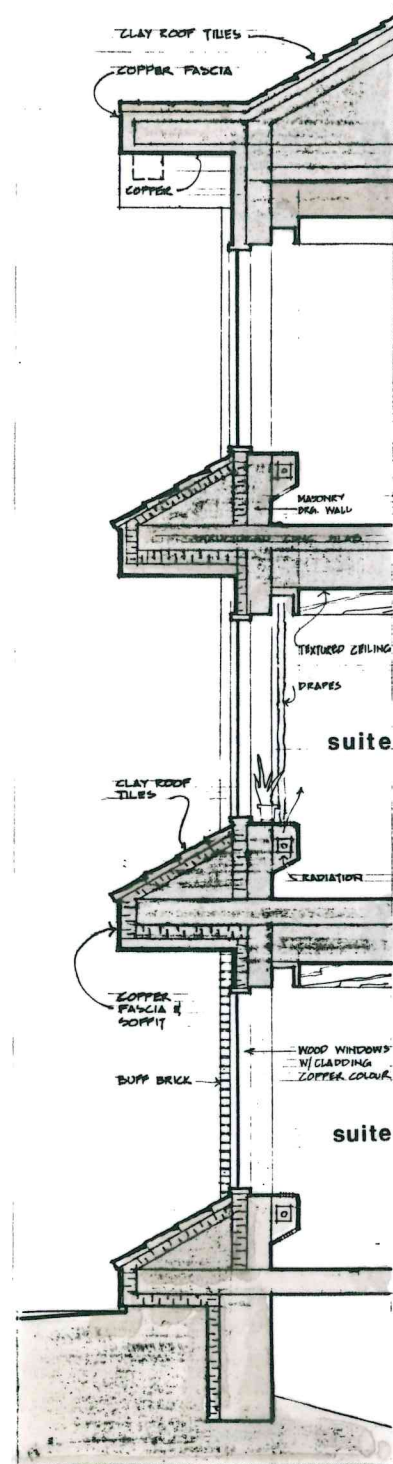
typical suites



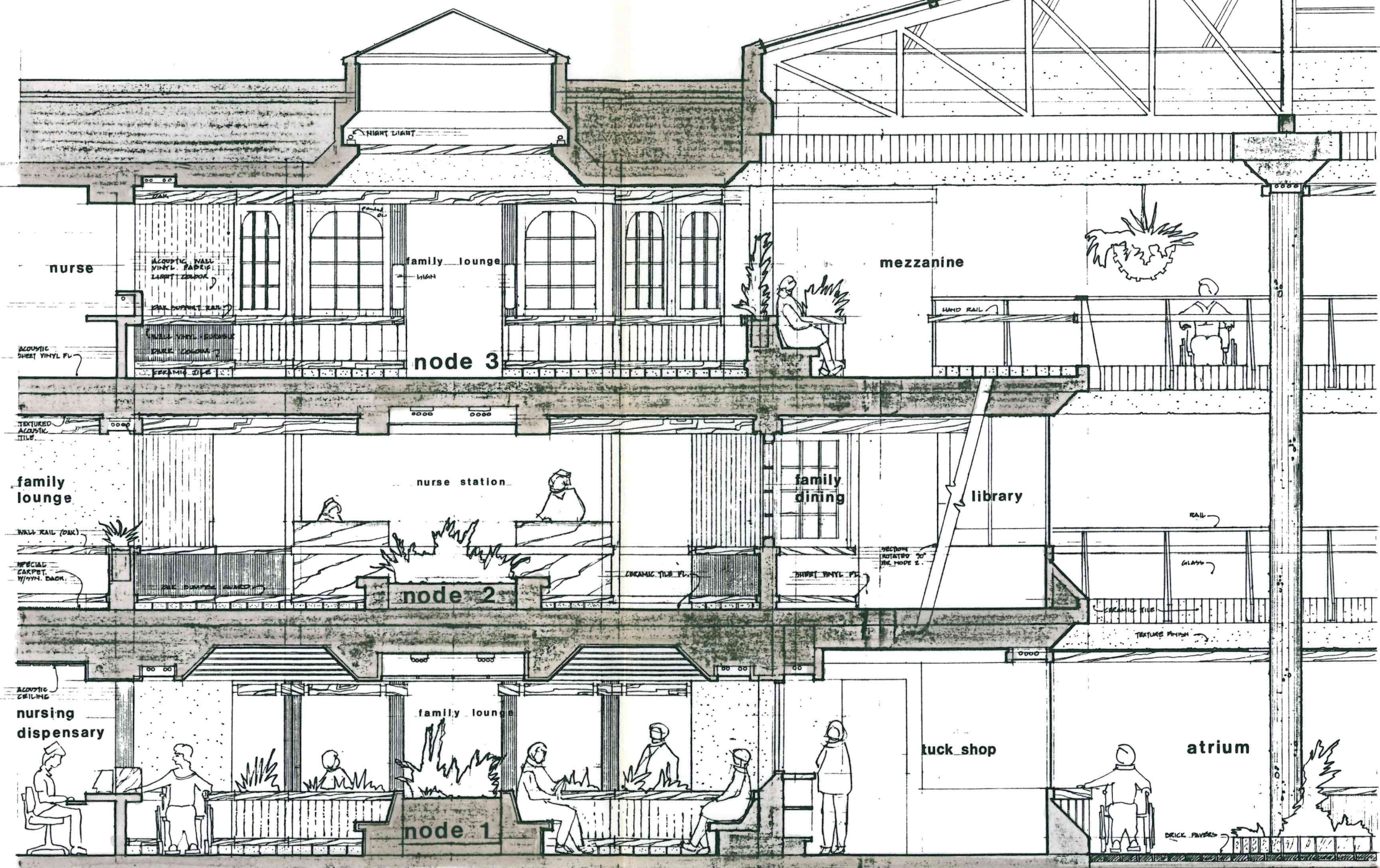


winter gardens

atrium

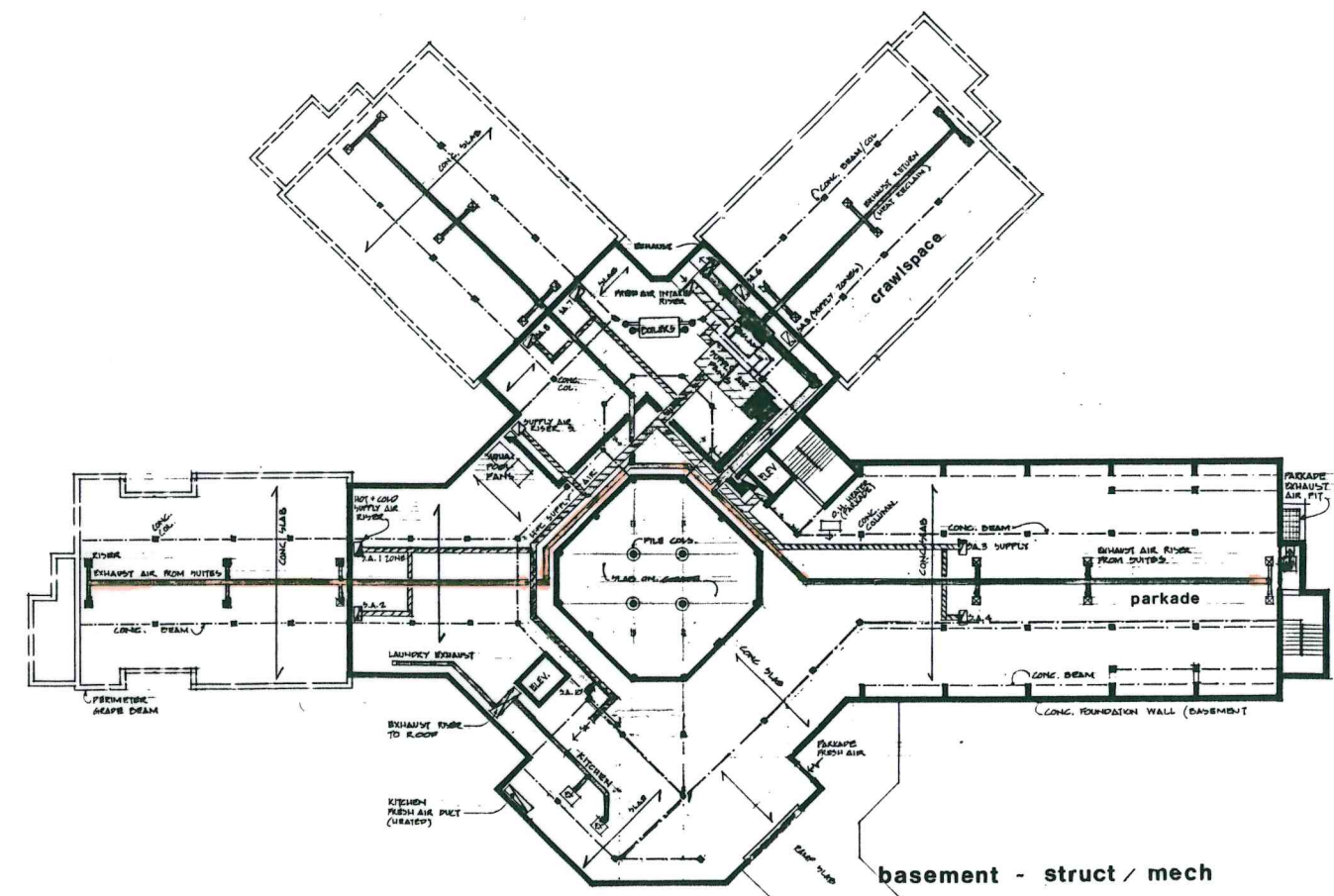
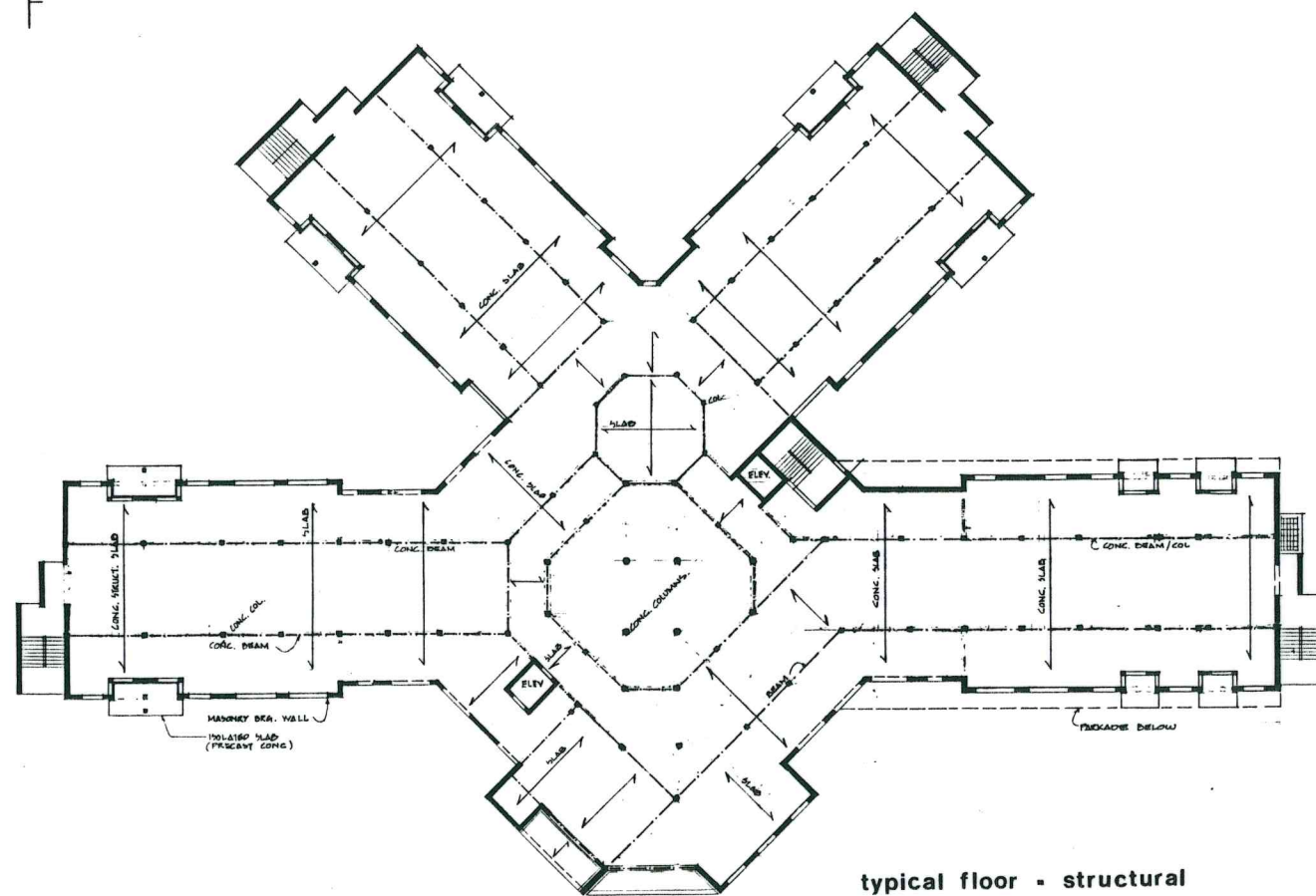
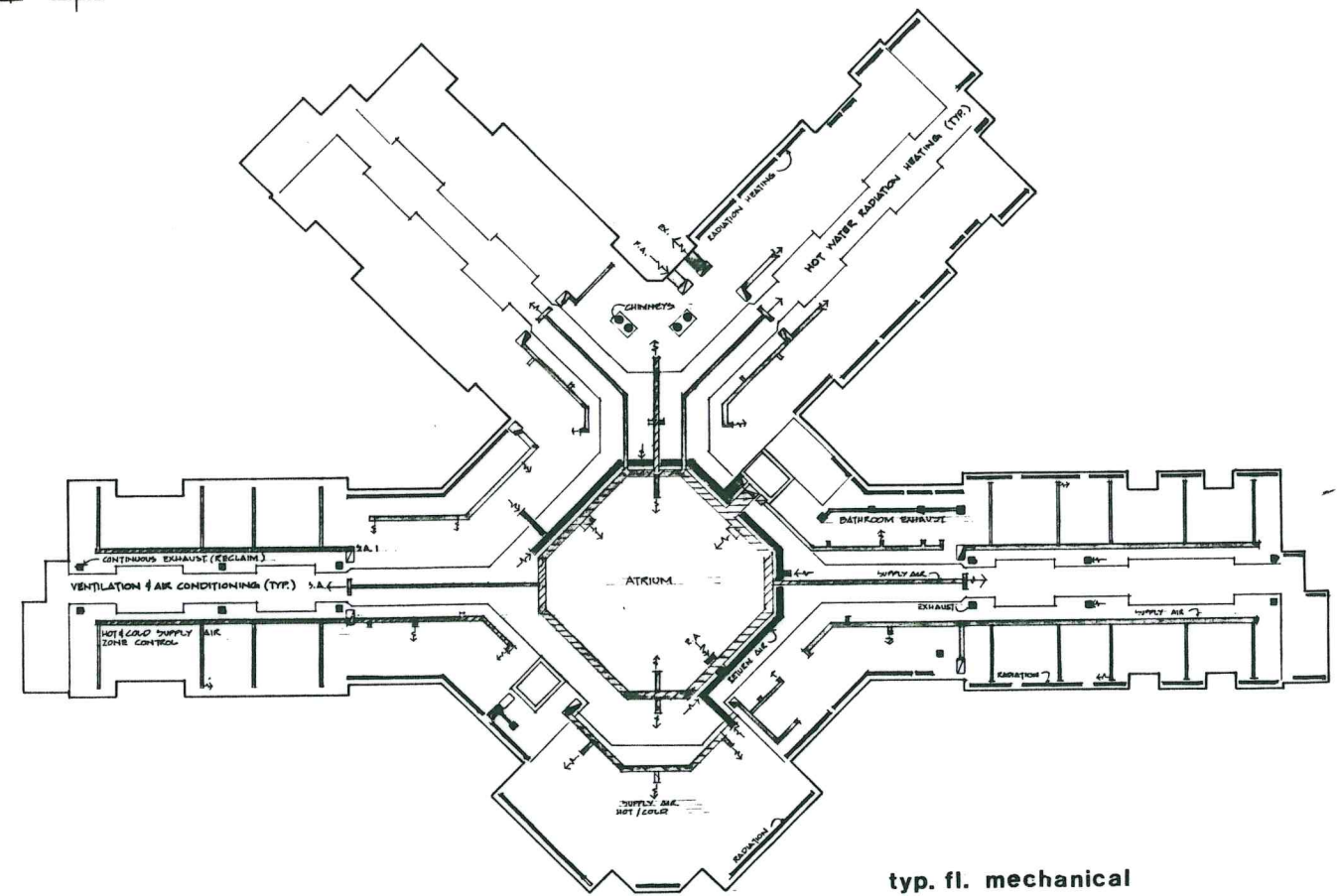
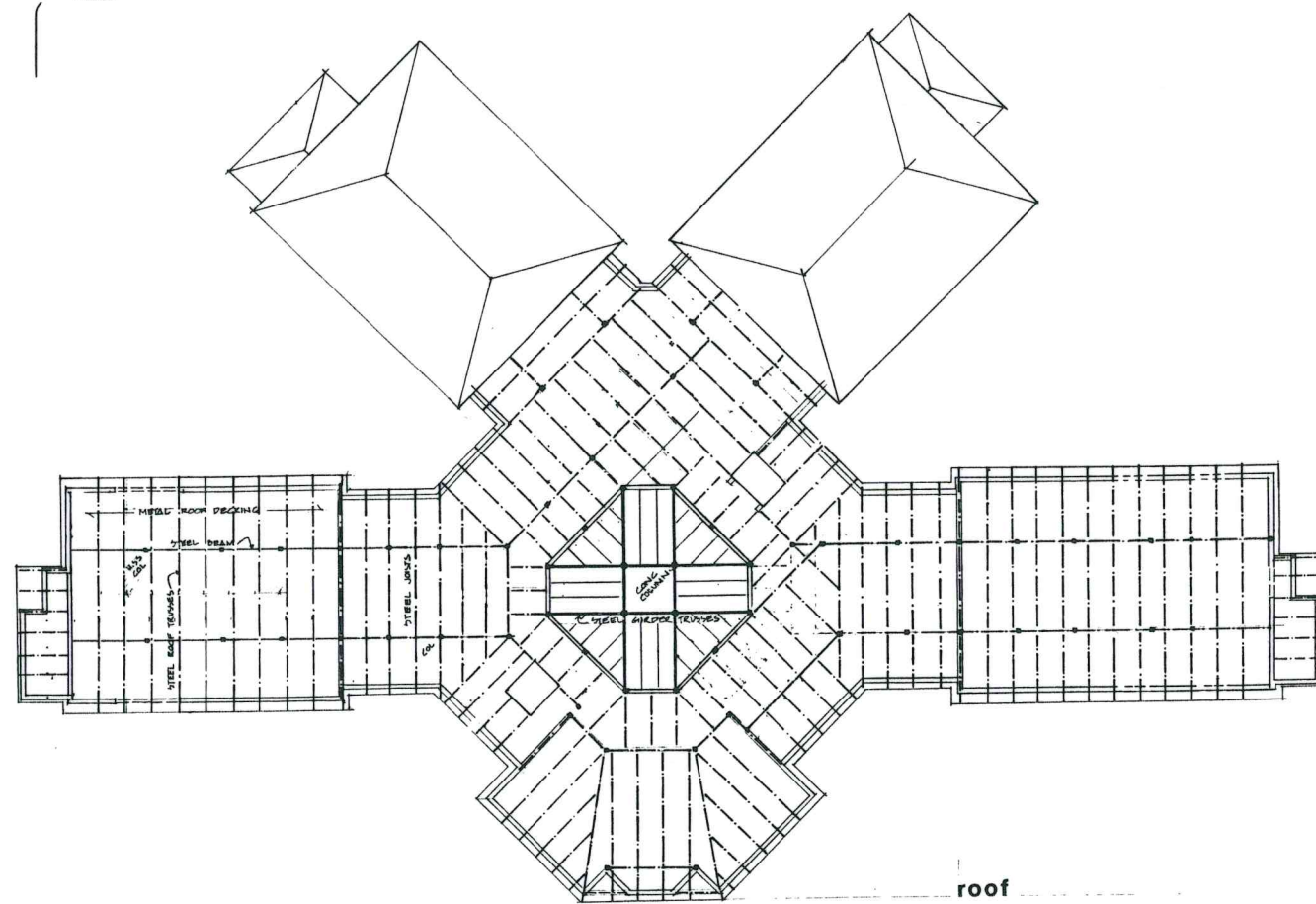


wall (exterior)



central nodes

atrium



structural & mechanical



winter gardens

bibliography

BIBLIOGRAPHY

A. Books

1. Laszlo Aramji & Larry Goldman Design of Long Term Care Facilities N.York. Van Nostrand 1980
2. J. David Hoglund Housing for the Elderly Privacy & Independence in Environments for the Aging New York. Van Nostrand 1985
3. American Institute of Architects Desing for Aging: An Architects Guide Washrington A.I.A. Press 1985
4. Dechiara, Koppleman. Urban Planning & Design Criteria New York Van Nostrand 1982.
5. J. DeChiara & J.H. Callender Time Saver Standards for Building Types 2nd Edition New York McGraw-Hill 1980
6. J. DeChiara Time Saver Standards for Residential Development New York McGraw-Hill 1984
7. V. Olgyay, Design with Climate New Jersey, Princeton University Press
8. J. Heumann & D. Boldy Housing for the Elderly
9. Chells/Seagle Congregate Housing for Older People
10. Carlin/Mansberg If I Live To Be 100
11. E. Neufelt Architects Data 2nd Edition New York J. Wiley & Sons 1980
12. M.P. Lawton Environment and Aging
13. L. Nesmith Designing for Elderly
14. J.D. Weiss Better Builders for Aged
15. R.A.I.C. Energy Conseration Design Resource Handbook Canada, Carswell Printing 1979
16. Norberg -Schultz - Intentions in Architecture Massachutetes M.I.T. Press
17. G.H. Baker An Analysis Of Form Hong Kong Van Nostrand 1984

B. **Publications**

1. Resources Management Consultant (Alberta) Ltd.
Long Term Care Study for Northern Housing Department' May 1985.
2. Saskatchewan Housing Corporation
Task Force on Senior Citizen Housing 1985
3. P. Streich. CMHC Fund for Nursing Homes: Policy & Programs Issues - A Background Report CMHC 1983 Sept.
4. National Advisory Council on Aging 'Expression'
5. Nation Design Council 'Options in Housing'
6. Architectural Record
Charles Hoyt 'Housing the Aging' 1977
Lynn Nesmith 'Designing for Special Populations' 1987
Kerm Green 'Designing for Aging' 1985
What are Concerned Architects doing about aging problems 1977.
7. Canada Mortgage and Housing Publications
 - Housing the Elderly 197
 - Nursing Homes and Hostels with Care Services for the Elderly Design Guidelines 1979
 - Housing the Disabled Persons 1982
 - Security and Privacy
 - Barrier Free Design
 - Fire Safety in Homes for Elderly
8. U.S.A. - Uniform Federal Accessibility Standards. 1984

c. RESEARCH REPORTS

1. Housing Needs Assessment of Elderly in Saskatoon 1981 - W. Young.
2. Relationship Between Services And Perceived Well Being in Elderly housing 1985 - Y. Gold Manitoba
3. Residential & Life Satisfaction of Elderly Institutions - G. Gutman 1979
4. Design Guidelines For Rest Homes in Ontario 1983 - K. Becker
5. Process of Developing Sponsored Elderly Housing 1983 -K. Orr.
6. Housing Elderly in Canada 1984 - S. Brink
7. Long Term impact of Multi-Level/Service Accommodation for Elderly 1983 - G. Gutman
8. Elderly confronting Institutional Living 1984 - B. Wilson
9. Individual differences in Dwelling Satisfaction of Elderly - Social Journal
10. Senior Citizens Satisfaction with high rise buildings (Dept. Psychology U of S)
11. Lifespan of Housing Environments for aging - P. Lawton/Greenbaum
12. Congretage Housing lessens high % of Elderly needing Nursing Home Care - P. Blomkvist
13. Changing Service Needs of Older Tenants in Planned Housing - P. Lawton/M. Moss
14. Living Arrangements of Canada's Elderly - G. Priest

d. **RESEARCH SOURCES**

Existing Care Facilities, Saskatoon

1. Circle Drive Care Home
Nursing Care
2. Lutheran Sunset Home
Continuum Care Complex. Elderly Housing to Intensive
Care.
3. Oliver Lodge
Comprehensive Complex. Elderly housing to Nursing
Care.
4. Parkridge Centre
Special Intensive Care
5. Sherbrooke Community Centre
Nursing and Personal Care
6. Frank Eliason Centre
Intensive Care Nursing
7. Saskatoon Convalescent Home