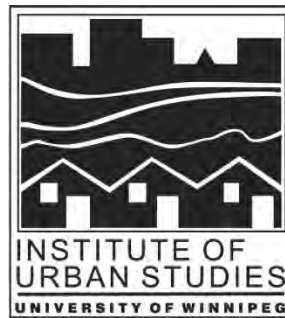


The Infill Housing Project: Phase II Report

**by Lloyd Axworthy, Bruce Proctor, Eric J. Barker, & N.J. O'Brien
1973**

The Institute of Urban Studies





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THE INFILL HOUSING PROJECT: PHASE II REPORT

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The Institute of Urban Studies is an independent research arm of the University of Winnipeg. Since 1969, the IUS has been both an academic and an applied research centre, committed to examining urban development issues in a broad, non-partisan manner. The Institute examines inner city, environmental, Aboriginal and community development issues. In addition to its ongoing involvement in research, IUS brings in visiting scholars, hosts workshops, seminars and conferences, and acts in partnership with other organizations in the community to effect positive change.

THE INFILL HOUSING PROJECT

PHASE II REPORT

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April 2, 1973

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A. INTRODUCTION

This interim report describes the second phase of an innovative housing project in an inner city residential neighbourhood of Winnipeg.

The project is the Mark VIII infill housing experiment - one in a series of experiments sponsored by the research committee of the Housing and Urban Development Association of Canada (HUDAC). Previous projects in this series dealt exclusively with innovation in materials, mechanics and structures. The Mark VIII project had sociological implications in its innovation not present in previous projects.

The process of innovation in housing - especially in urban housing - requires close scrutiny. A high degree of response from government, financial institutions, the community, designers and builders is required in order to grapple with and try to solve the problems of urban housing. To achieve such a process, new procedures, awareness and analysis must evolve, and co-ordination becomes increasingly difficult and therefore more crucial. Normal time schedules may be interrupted as government and financial institutions seek clearance for new or unusual procedures. Traditional community values may support or hinder proposed innovations. Builders and designers may face frustrations not ordinarily encountered in housing construction. In all of these areas, discussed in detail below, problems may arise which demand the input of a large variety and quantity of resources - mostly in terms of professional capabilities and time.

Throughout the process described here, the Institute of Urban Studies (IUS) has sought to serve a linkage function in this innovative process. Innovation

has been defined as "the successful introduction into an applied situation of means or ends that are new to that situation."¹ The practice of the linkage role has been described as the interposition of additional persons or groups between research groups and areas of practice. Research and practice are seen as separate social systems operating under different rules, values, and practices. Communications and interactions between them are, therefore, unreliable. This gives rise to the need for a specialized linkage function.²

In the Mark VIII project, the Institute filled this intermediary role. It was able to provide this function by virtue of its past experience in the target area, staff skills in political science, architecture, sociology, and behavioural design, as well as additional University of Winnipeg academic skills. Thus, new concepts related to housing design, neighbourhood redevelopment, and inner city regeneration developed in these disciplines could be translated by the Institute into practical proposals for innovation.

The practitioners were the Winnipeg House Builders. The practice of building homes in suburban areas is familiar to them. The implementation of this project, however, brought them into contact with an entirely new set of procedures and demands that called for new means to successfully achieve a novel end. The introduction of a specially designed unit, the goal of neighbourhood rehabilitation, the desire to involve local residents and the objective of building homes for low-income families, constituted a novel project which demanded new and innovative approaches.

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1. Lawrence Mohr, "Determinants of Innovation in Organizations", American Political Science Review, Vol. LXII, No. 1, p. 112.
 2. Ronald Havelock, Planning for Innovation, Institute for Social Research, University of Michigan, pp. 7 - 1.

While a final report will be prepared, this second phase report is presented in hopes that what has been learned during this period of the innovative process can be detailed for discussion and reaction. Problems are highlighted so that people working in this area can anticipate what they may encounter.

B. BACKGROUND AND THE CO-ORDINATION FUNCTION

The Mark VIII project was first proposed by the Winnipeg House Builders Association. The "Mark" series denotes an experimental housing project sanctioned and supported by the Housing and Urban Development Association of Canada (HUDAC). In June 1970, a meeting of local house builders initiated the idea for the project. In a subsequent meeting, Metro Winnipeg councillors and planning staff supported a proposal for a pilot project in Winnipeg. They suggested Urban Renewal Area Two^{*} as an appropriate district for a housing project, because a number of local residents were to be displaced by the proposed construction of an overpass. A committee, struck to study the idea's feasibility, proposed a project and applied to HUDAC in February 1971 for a "Mark" designation. The concept, as approved by HUDAC, called for eight to twelve housing units, preferably developed in two building, to be built in the core of Winnipeg for persons having an income under \$6,000 a year and being available for home ownership.³

Following this approval, in February 1971, the Winnipeg House Builders Association contacted the Institute of Urban Studies about the proposed Mark VIII project. An IUS staff member attended a meeting of the Mark VIII

* See appendix-map of Urban Renewal Area Two.

3. For a fuller account of the first phase, see Eric Barker. "Infill Housing Project", in The Citizen and Neighbourhood Renewal, published by the Institute of Urban Studies, September 1972.

committee, comprising local house builders, contractors, representatives for materials manufacturers, and government officials.

The purpose of the initial meeting of the Mark VIII committee was to chart the course of the project and to gain an understanding of the area. Committee members considered the primary purpose of the project to be a social one, with structural and material considerations being secondary. The IUS staff member briefly described the physical and social conditions in Urban Renewal Area Two.* Committee members knew little about land availability, cost, population characteristics and citizens groups in the area. They shared the general notion that the area had completely deteriorated.

The Mark VIII committee's original concept was to put 8 to 12 housing units in 2 buildings. The committee met with IUS staff to discuss land possibilities in Urban Renewal Area Two. The sites initially considered were the Somerset School site, and the St. Andrew's Church property at Elgin and Ellen, neither of which would have allowed all 12 units to be built together. IUS staff suggested building on the small vacant lots scattered throughout the area as both a way to utilize this waste land and develop a technique of fitting the new in between the old. Over the summer, studies were done on putting basic "row-house" units on double vacant lots running perpendicular to the street. This was discontinued in favour of utilizing only single vacant lots as more of an experimental approach in unit design and an approach which avoided the demolition of existing houses necessitating the relocation of residents and the eventual destruction of a community.

The House Builders Association then contacted the City of Winnipeg's Department of Housing and Urban Renewal to obtain some of the vacant land

* See appendix - characteristics of the area, assessed needs and limitations.

held by the city in Urban Renewal Area Two. Late in 1971, their request was rejected on the basis that there was no policy governing the development of city-owned land in Urban Renewal Area Two. City officials suggested that land already cleared in Urban Renewal Area One might be available. IUS staff recommended remaining in Urban Renewal Area Two because of its higher ownership ratio. The House Builders accepted this advice.

During the summer of 1971, attempts were made by IUS staff to bring the House Builders together with the community. Meetings were held with one local group and a display set up for local meetings on Area Planning. Both of these attempts to elicit reaction seemed to fail as neither seemed sure of what each had to offer. But, as information to the community of the impending project, it was valuable. It seems that without a concrete proposal and definite group committed to discussing it, general interest is minimal.

While the House Builders were waiting for city assistance, IUS staff began working with a group of local residents in Urban Renewal Area Two who were interested in securing new housing. The residents contacted in this way formed a new community organization - the Self Help Housing Group. It moved quickly toward developing its own project - separate from that conceived by the House Builders. This group, because of a number of reasons, were to act as the project's link to the community.

During the summer and fall months, IUS staff studied the problem of developing housing on small vacant lots, anticipating future development in this area. This design work culminated in a study on the feasibility of infill housing in Urban Renewal Area Two; an open-ended study of the alternate unit types and site layouts adaptable to the small vacant lots found in

Urban Renewal Area Two.⁴

From September to December 1971, the House Builders concentrated on trying to obtain city-owned property. The Self Help Housing Group worked with CMHC on its own proposal. IUS staff submitted their design and feasibility study to the House Builders for perusal, and assisted them in locating viable, vacant property owned by the city. Specific lots were selected and requested from the city. Unicity elections held in late September 1971 and the subsequent change in city government, suspended city involvement for 3 to 4 months as politicians and civil servants moved cautiously into their new roles.

In early December 1971, after their request for city-owned property had again been rejected, the House Builders decided to hire a private real estate firm to acquire property in the area.

At this stage, the Institute of Urban Studies prepared a written agreement, describing its role and services in any project with the House Builders Association. The agreement was submitted to the Mark VIII Committee. It was agreed that an IUS staff member would be sociological chairman, and would be a working member on the Mark VIII Committee. It was clear, however, that the power of decision-making on matters of strategy, economics, design, and procedures lay with the Mark VIII Committee, particularly the chairman and vice-chairman. Where there were disagreements, particularly on questions of design and amenities versus costs, the opinion of the House Builders normally prevailed. This was especially so during the construction phase of the project.

4. See Eric Barker, In-Fill Feasibility Study, September 1971, Institute of Urban Studies.

Initial discussions of land acquisition suggested that residents with IUS staff, would help a private real estate firm to approach resident owners of vacant property. Absentee owners would be approached by the realtor. The intent was to explain to local residents the nature of the project and to avoid the "rumour mill" distortion of the project. This approach was rejected in favour of the realtor approaching the owners on behalf of the House Builders, using a holding company to prevent speculation.

The realty firm was sensitive to the problem of acquiring land in the city core, and especially conscious of the problems to be encountered in an area that had "urban renewal" hanging over its head. A staff member of the firm, conversant in several languages, was selected to handle the acquisition. He suggested approaching the owner on behalf of the holding company and asking for an option of 60 to 90 days, by payment of \$100.00 cash to the resident owner which would be lost if the option was not exercised. The option would be conditional upon the builder obtaining a building permit. The options period proved to be too short in time and had to be renewed, and in some cases the property was bought with the hope the unit could be built. The short option was no problem but longer ones were more expensive and harder to secure. The realty firm worked with the legal counsel from the House Builders on acquiring property. In the short run at the outset, this team worked eagerly on land acquisition but became frustrated and lethargic as it appeared the process was complicated and slow.

Each possible lot was rated according to a set of evaluative criteria:

1. of both basic types - lane and no lane;*

* See appendix - characteristics of the area.

2. of differing sizes;
3. in different locations in the area;
4. adjacent to open land in some cases to allow for development.

These criteria were established so that the 10 to 12 units could be tested in a variety of situations. IUS staff informed the builders of projects in the area and land intended for future use by resident groups to avoid conflict. However, it soon became apparent that lots were not easy to obtain, and single vacant lots cost about \$3,000.

As land acquisition progressed, the preliminary designs developed by Institute staff, were refined with the Mark VIII design chairman. During this period it was decided to reject any design solutions which had condominium ownership; a situation possibly confusing to local residents. As a result, the house had to sit on a lot which the occupant would own. The decision was made to develop a basic unit which would adapt to either of the major lot types without having to change the design.*

As a result an "L" shaped, 2½ storey unit was designed and accepted by the Mark VIII committee and the Self-Help Group as a viable solution. Like an "L", it had a short wing and long wing. The unit would fit on a narrow, deep lot with the short wing across the site, and on a wide, shallow lot with the long wing parallel to the street. The unit would fit on these sites in a variety of ways to allow for personal selection by the consumer and avoid a repetitive pattern. The unit has 3 potential living levels as its basement is half out of grade with large windows offering natural light. The living areas occur in wings of the "L", and stairs and services are in the corner. The "L" shape allows the windows to face the inside of the "L" in order to maximize privacy and minimize visual interference.

* See appendix - Final design solution.

When the preliminary design stage had been attained, it was necessary to establish a relationship with local residents. The time limits imposed by 60 or 90 day options on property being acquired, meant the unit design and siting had to be resolved in order to submit for zoning variation. As this was a condition of the options, this whole process was anticipated to require two or three months, if not longer. If the land had not been optioned, time limitations would not have been nearly so severe, and a group of residents could have formed and worked with the committee through the programming and preliminary design stage. But, word of the pending development would have leaked out and it was believed that the prices of vacant land would have escalated. Ideally, a developer should be committed well in advance of land acquisition to allow a period of research and resident programming.

By January 1972, it had become evident that the Self Help Housing Group's proposal, which had been awaiting approval from CMHC, was not likely to gain quick approval. For this reason, IUS staff contacted the group and suggested it become the "client" for the House Builder's project with a view to having first option on the new units. After several meetings, the residents agreed to act in an advisory role with no commitment, but wished to continue to press the government for a decision on its own project. Eventually, as a result of a series of meetings with the Institute, the Self Help Housing Group decided to act as the "client" for the project in return for certain guarantees. The mediating role of the Institute in bringing the residents and the House Builders together represented another important co-ordinating function performed by the Institute. A more detailed description of the Self-Help Group's involvement in the project is included later in the report.

Institute staff requested research funds for the Mark VIII project when the committee applied for a research grant from CMHC. The research work would comprise: assembling background information on the area and the basis for design decisions made; recording the reaction of the resident group to the design and alterations made; and a user study of the new units when built and the reaction of the community to the project. The user reaction study would be conducted after construction to test design assumptions made earlier.

The role of IUS staff changed during the course of events described earlier. The staff became a liaison between the House Builders and the resident group, acting for both and being careful not to prejudice either: most of the staff's concern was with the integrity and rights of the resident group's involvement in the project.

To finance the extraordinary costs of the project over and above construction, the Mark VIII committee applied for and received a CMHC research grant of \$47,280.00. Unit construction would be 95 per cent financed by CMHC, under the assisted home ownership section of the NHA; the house purchaser would put up the 5 per cent equity. The requirement of this financing type is minimum income of \$4,800.00, interest rates and monthly P.I.T. which vary depending on income, number of children and price of unit. The mortgage would be held by CMHC.

The Mark VIII project, then, offered insights into a variety of technical and procedural matters in evolving new approaches to urban development. It learned about design problems of housing on scattered sites in an inner city area, land acquisition and siting problems. The committee learned how

to work with a new form of city government, residents, private interests and citizens, individually and collectively, of an inner city area.

The role of the Mark VIII committee was similar to that of a Board of Directors. It had overall operational control of the project, but no administrative or staff support. Members of the committee, therefore, had to volunteer considerable time to the project, especially during implementation, and were responsible only as far as a specific obligation was incurred. That this loose organization worked at all was probably due to the firm leadership exhibited by the chairman, and the large amount of time he and several other people devoted to the project.

The co-ordinating function of the Institute was also crucial. As has been described, the Institute worked to inform the committee of conditions within Urban Renewal Area Two, to develop an appropriate design for the units, to help select property, to assist with the CMHC grant submission, and to bring the Self Help Housing Group into the project. Institute work involving the community and helping to co-ordinate that response is discussed later in the report.

The Mark VIII committee performed best as a co-ordinating body during the fall of 1972 when the four units on Alexander Avenue were constructed. At this stage, most committee members were dealing with a familiar problem, the actual construction of homes.

It is doubtful how far the project could have progressed under the original terms of reference. The interposition of a co-ordinating and linking group with specialized knowledge of the area in question was crucial, as was the practical skills and know-how of the builders, the co-operation of

government agencies, and a receptivity on the part of the community. Each of these components was necessary in order for the innovation to succeed. However, the relationship between these different groups is often not an easy one, because each of these groups have different objectives, values, and attitudes, and this creates tension.

Thus, one observation arising from this phase of the project is that the process of innovation in housing and redevelopment must be analyzed to determine the different functions that must be performed and the availability of organizations with sufficient resources to perform these functions and overcome inevitable obstacles.⁵ Attempts at innovation too often occur by happenstance, without proper attention being given to the required elements to introduce and carry out a successful project.

C. EVOLUTION OF THE "INFILL UNIT" DESIGN

Self Help Housing Group

At initial meetings with the newly-formed Self Help Housing Group in September, 1971, housing concepts that Institute staff had developed over the summer were discussed with a view to helping stimulate the development of the group. As a result of these meetings it was evident that:

- their image of a "new house" was the single-family detached house on a suburban lot, a goal many of their friends, and indeed society share with them;
- because of this image, they questioned how house type units with two blank sidewalls and windows at either end, as well as units with only one window wall, would function.

5. See Lawrence Mohr, Op. Cit.

- they realized their financial predicament and seemed leery of buying heavily-subsidized housing, as they wanted to buy with their own money as far as possible. Because of this, they were willing to discuss and look at alternatives they might not have if they had the money to buy in the suburbs. In this sense, perhaps the very rich and very poor are the most willing to experiment;
- they were interested in a house which would provide extra and separated space as room for relatives or paying boarders;
- The concept of family units, one above the other, was not well received because of ownership and privacy problems.

After these initial meetings, it became evident that their primary concern at this stage was the lot and its location. Their first priority in this respect was whether it was in a "good" area. The indices of a "good" area seemed to be:

- live in an area of homeowners, families
- stable population and predictable
- within easy walking distance of both schools and shopping
- easy access to recreation facilities, i.e. community centre, organized sports for children
- adequate separation from busy, noisy streets
- easy access to city centre.

In Urban Renewal Area Two, the general area which seemed to provide most of these amenities was that west of Sherbrook.

The discussion of siting possibilities and negotiations with the Mark VIII committee concerning the nature of their relationship continued in February and March of 1972. Meetings regarding the unit design were not held until February and March of 1972 as the group was concerned about their own project,

whether they should work with the Mark VIII committee and the nature and availability of land. During this time, two designs were developed as alternate approaches to the problem of building "infill" units on vacant lots. At a meeting held in February, the group strongly preferred the revised (and final) preliminary design as opposed to the initial approach.

Their reasons were:

- large kitchen
- shape of unit enclosed part of yard and afforded privacy
- preferred variety of window location and orientation in revised design
- not just a "box", looked different
- side door access important as secondary entrance, informal
- preferred going in unit with kitchen/living room on the main floor and bedrooms upstairs.

Siting

In further detailed siting discussions, the group agreed on certain points but differed on others. Generally, their concern about yard space seemed to relate both to its size and its privacy. There was agreement about the importance of having a secondary entrance readily accessible for disposal of garbage and as a "mud" room for the children. Afternoon sun in the yard was a high priority. Lastly, the group preferred a situation which afforded the greatest privacy between units.

They disagreed on how this could best be attained. Some preferred a lot with a lane as they didn't want to look at cars in front of their house, or because they had better access and storage space off of a lane. Some felt the "back-to-back" unit afforded the best privacy situation but others

wanted to live on a separate unit sited to minimize privacy interference. (See appendix, Final Design Solution). Some preferred the front unit only, some the rear, and others didn't care.

Their priorities regarding siting seemed to be in rank order:

1. general lot location, where.
2. privacy of units and yard on site.
3. identity and individuality of unit.
4. maximum open, usable yard.
5. view - what they have to look at.
6. ease; nature of access.

As a result of the discussions held with the group on siting, the Alexander site was developed in the least optimal way as the group generally felt that they would not like to live in that area.

Unit Interior

Couple A: - 2 parents

- 2 girls

- 2 boys

- full bathroom in the basement adjacent to master bedroom
- other room used for storage
- washer/dryer in kitchen on the main floor
- the large bedroom wing designed with 2 bednooks and common area for two girls, and the other smaller bedroom for two boys.

Couple B: - 2 parents

- 2 children

- 1 mother

- small wing in basement used for bedroom for two children, large wing used for "rec" room where children would play and study,

washer/dryer in powder room, storage outside in separate garage.

- parents in large wing master bedroom with mother in smaller bedroom.

Couple C: - 2 parents

- 2 boys

- 2 girls

- basement left unfinished for future bedroom, "rec" room

- 2 separate bedrooms in large wing for boys and girls;

parents use smaller bedroom as master bedroom

Couple D: - 2 parents

- 2 boys

- 1 girl

- full bathroom and adjacent master bedroom in the basement. Washer/dryer in storage room in smaller wing.

- large wing upstairs used as one room for two boys and smaller bedroom for girl.

In response to these comments, the initial four units built had 3 different bedroom situations in the large wing upstairs.

1. single open room
2. two "bednooks" and common area
3. two separate rooms

One unit had the basement finished with an open family room in the large wing, a small bedroom in the other wing and a powder room/washer, dryer situation. Another unit had allowance for a washer/dryer in the kitchen.

Final Design Proposals for Specific Sites*

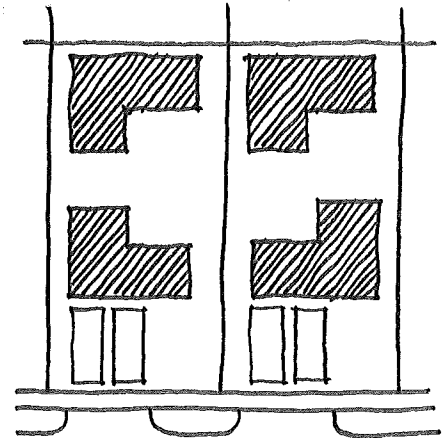
As a result of the discussions held with the Self Help Group and an assessment of available private property, specific lots and unit sitings were established. As mentioned earlier in the report, the intent was to try different unit sitings on the two basic lot types in various parts of the target area. These sites were as follows:

Site 1: 2 lots, 37' x 78', no lane.

adjacent to 448 Alexander.

Unit siting: 2 detached units on each lot, one unit at the front of the lot, one at the rear with a space between. Two variations on the "court" concept were used.

(4 units)

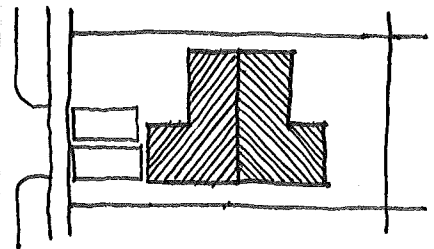


Site 2: 1 lot, 33' x 78', no lane.

Pacific Avenue

Unit siting: 2 semi-detached units placed back-to-back; one facing the street, one the rear of the lot.

(2 units)

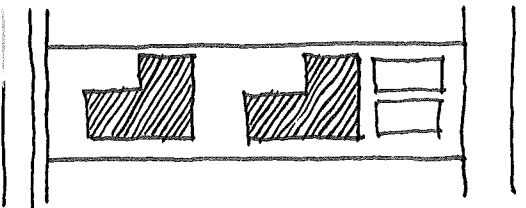


Site 3: 1 lot, 27' x 112', lane

Elgin Avenue

Unit siting: 2 detached units, one at the front of the site facing the street, one at the rear of the lot, facing the front unit.

(2 units)



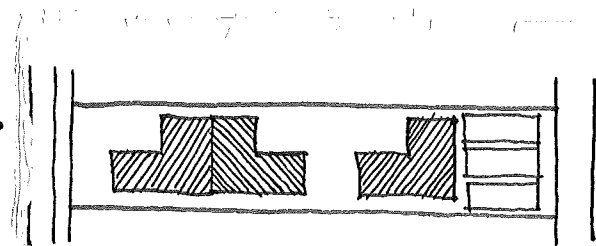
* See appendix - Map of Urban Renewal Area Two.

Site 4: 1 lot 25' x 132', lane

861 William Avenue

Unit siting: three units, one detached at the rear of the lot facing towards the street, and the other two semi-detached, back-to-back at the front of the site.

(3 units)



With these sitings, an adequate range of lot types, unit sitings and lot locations was achieved. An attempt was made in siting the units to accommodate, as far as possible, the preferences of the Self Help Group in order that they could move in to them in the future.

Site 1 was the least desirable location. Thus, the unit sitings which were least preferable to the Self Help Group were utilized on Site 1. Site 2 was in a more desirable location and was sited in a way most members of the group preferred. Members of the group also showed a high preference for the Elgin site(3). The unit siting on this lot type was the choice of members of the group over other sitings on other lots. Site 4 was also in a good location, but the three units on the lot were not acceptable to the group. Thus it was a case of testing a variety of unit sitings, both the optimal and the mediocre, rather than repeating unit sitings which seemed to be superior.

In the ensuing months after these sitings were established, Site 2 was lost as the owner decided against selling and Site 3 was overturned by resident protest to the project. The original concept of Site 4 was also challenged by residents and a compromise was reached to develop two semi-detached units, back-to-back on the site. On future sites, unit sitings originally proposed for sites 2 and 3, would be developed.

In developing site 1 in detail, and in addition to the siting variations it was decided to build one unit with a finished basement and leave the other three for owners to finish. Each unit was to have a different counter-work area layout in the kitchen and a different bedroom layout in the large upper wing. It was hoped these variations could be compared as a way of discovering an optimal situation. The size of the units varied slightly through lengthening the wings or enlarging the major bedroom wing by a two-foot overhang. Thus a range of family size was accommodated - from the smaller family to the very large family.

Construction Phase

The changes made to the basic design of the unit (See appendix, Final Design) concentrated in the a) roof, b) bedroom area, c) kitchen, and d) yard.

a) The Roof: The roof shape was originally designed as a "shed" roof for its simplicity and adaptability to various siting conditions. It was eliminated for its negative visual effect as it seemed to increase the apparent height of an already high building and didn't seem to fit into the surrounding neighbourhood houses. This was generally agreed as a positive change.

b) The Bedroom: The change in the bedroom area hinged mainly around the type of clothes storage in the master bedroom. It was agreed by all design staff that the movable wardrobe units developed could work well in the children's bedrooms as they didn't have many clothes and required flexibility of furniture arrangement. But, the Mark VIII design committee decided to provide one wardrobe unit as storage space in the master bedroom rather than a built-in closet. This caused problems.

1. the one wardrobe unit planned for the master bedroom was not enough.

2. the room was too small and square to have any more than one, logical arrangement.
3. a built-in closet between the bathroom and bedroom would have been cheaper, provided more space, afforded the possibility of an ample linen closet accessible from the bathroom and provided sound-proofing as well.

IUS design staff considered this a negative change.

c) Kitchen:

Diagram A: preliminary kitchen layouts proposed to provide maximum living area; work efficiency and space use.

Diagram B: final kitchen layouts - a number of variations were developed to compare their workability.

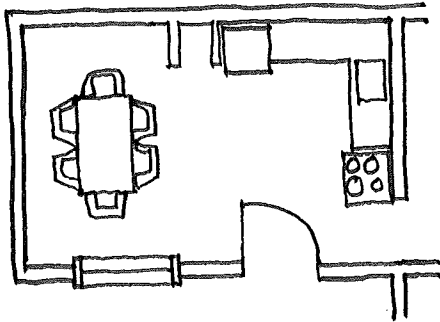


Diagram A

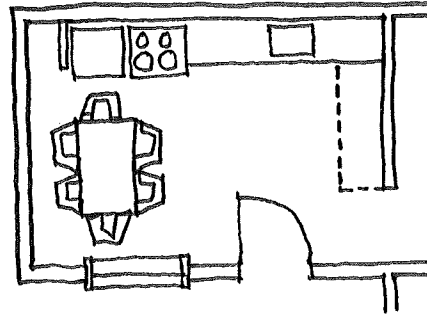


Diagram B

These final layouts created some difficulties:

1. interference with shrinking of living area by the location of the broom closet and appliances;
2. a lack of counter space adjacent to each appliance as they were placed side by side;

3. a less efficient working relationship between the sink, refrigerator and stove;
4. a generally less efficient use of space.

IUS design staff felt the kitchen shape and size provided an opportunity to develop an extremely satisfactory working and dining area. However, because of the arrangement of counter space, appliances and broom closet, a less satisfactory situation was realized.

d) Yard: Initially there was no door leading from the kitchen or unit interior directly to the private yard. The family would have to go out the front door and around the house to the yard to gain access which would have limited its use. It also didn't provide a secondary entrance for the children; a way for mothers with small children to keep an "eye" on them, and a garbage, grocery access if required. In assessing the problem, the Mark VIII design staff suggested inclusion of such a door and required steps. The committee questioned this addition on the basis of cost, but decided to include it on the advice of the design staff.

This was considered a positive design change.

The Mark VIII design staff also suggested the building of a raised wooden deck accessible from the steps leading to the kitchen door. The rationale behind this suggestion was to facilitate better and more efficient use of a small space to be used by both adults and children for a variety of activities. By developing a raised deck, with railing, it was thought that the dimension of possible use was increased with a separate, raised, hard surface area for sitting which could function with children using the other ground areas for play. In this way the activities would not overlap. The concept is much like a "back stoop" idea seen in older houses. Without this separation of area, the small yard tends to be an "either/or" situation

providing neither sitting nor grass area. The deck was eliminated by the project committee on the basis of cost and questions as to its utility.

This was considered a negative change.

There was extensive fencing planning at a low, 4'-0" height between the units. This was revised to higher, 5'-6" fences, but fewer of them as they would "cut the space" up far too much.

This was a positive change.

D. THE ADMINISTRATIVE PROCESS

Prior to 1972, contact with Metropolitan Corporation officials, regarding the Mark VIII project, was to explain the project and to gain support for it. The officials contacted included city councillors and officials in the Department of Housing and Urban Renewal. Attempts to acquire city-owned property through the latter department did not work, and in December 1971 the House Builders hired an agent to buy lots on the open market.

The city and municipal structure of government altered considerably at the close of 1971 with the enactment of the province's uni-city legislation. Political boundaries, number of councillors, city departments and governmental processes were all altered drastically. A period of confusion inactivity and caution understandably followed these changes. The Mark VIII project was caught in the midst of this change and the effects of it lasted through the development of Phase 1. This is mentioned to put some of the administrative bottlenecks in context.

In mid February 1972 the House Builders presented an information brief to the Centennial Community Committee in Urban Renewal Area II; the brief was accepted without discussion. In late February, prior to applying for zoning variation, a publicity and information meeting was held for councillors of the Centennial Community Committee and members of the City Environment Committee:

about half the members attended and their reaction was generally favourable.

In anticipation of the problems to be encountered with the city planning department regarding zoning variations and building by-laws on an experimental project, it was suggested that the normal procedures be waived for these 10 units only and that such a step be expedited through a motion in council. The city officials rejected this concept stating that the zoning variations would have to be handled in the standard manner. Specific changes to the building by-law, when approved as safe by the planning department and CMHC, were passed as a by-law in council for the Mark VIII units at locations indicated.

Another part of the administration process required in an innovative housing project is to gain funding from the appropriate agency to cover costs of project development, administration, and other expenses over and above the building cost. This funding is absolutely essential to any innovative demonstration project. But, it seems, that before this funding is forthcoming, there must be considerable time input by the proponents not only on development of the idea but on actual implementation of preliminary stages. This was the case in this project as this funding was not approved until after approximately two years had passed since its inception - after the goals had been established, people involved, a design developed, work in the community done, and in fact land purchased. The problem with getting innovative projects "off the ground" is highlighted by the fact that this organization was highly qualified. This is evident in that it:

- is part of a national body who have a "track record" of previous experimental projects;
- is part of a national body with access to association funds to carry it in the initial stages;

- through its association with the national body and IUS had the "ear" of senior government officials;
- was associated with an independent research body (IUS) who had a track record of its own in regard to "action-research" and funding with governments and which had developed initial proposals in working in the community in question - all of which helped legitimize the grant;
- had access to a wide range of expertise;
- was able to gain the "ear" of local officials.

The question is, if this organization had problems gaining a grant to innovate, what happens to those with fewer credentials. It is clear here that the Mark VIII committee had to go "out on a limb" to develop this project. The government body played it safe. In any innovative project the proponents certainly have to do considerable initial work before they can expect funding, but it is surely the responsibility of government to come half way in accepting the risk with the initiators.

To revise zoning through uni-city required detailed site plans, lot sub-divisions, elevations and sections of the proposed unit, to be submitted to the City Planning Department. This department prepared a report on the required zoning variations and submits it to the Environment Committee. In turn, the Environment Committee refers the application for zoning variations and the Planning Department's report to the Community Committee for public hearing. Signs are posted on the property and the hearing follows within two weeks. The public hearing on the requested variations allow the community committee councillors to hear all parties involved and vote on the issue. The application may be appealed to the Environment Committee. The entire zoning process may take as long as two to three months.

There was an early attempt to simplify administrative procedure regarding zoning variations whereby the sites for proposed development would be designated as experimental sites. In this way, an innovative project, on a small scale and of limited impact, is not burdened with public hearings - whose purpose often is to retain the status quo. This refers basically to the problem of developing an innovative project with a high degree of resident involvement. If there was a commitment, by the proponent to accommodate resident wishes as far as possible, it seems that this is a reasonable approach to experimentation. Because the project was subjected to high public scrutiny, problems developed.

In the meantime, this process complicated land acquisition. The House Builders had established the practice of choosing available lots that fit the design criteria and taking out an option to buy conditional on the receipt of the zoning variation. Such options would normally expire within 60-90 days depending on the length of option. If the zoning variation had not been granted before the option's expiration date, complications arose. In two instances, options expired before zoning variations were granted and the Committee decided to "go ahead and purchase the properties and take a chance on zoning". Unfortunately, in one case, the zoning variation was not granted, and this added to the cost of the project.

An interesting aspect of the project was the problem of how to give title of ownership to two or three parties living on the same lot with one unit at the front and one at the rear, and still guarantee access to the rear unit. In these cases, there are two parking places at the front of the lot, where there is no lane, and common access to both units along one side of the lot. One owner has title to the rear half of the lot and one parking place. The other has title to that part of the lot occupied by his house, yard, car

parking and sidewalk. He then gives the owner of the rear unit full easement and right of access over this sidewalk. In this way, both occupants own all of the lot between them, and the rear occupant has access. This solution was developed and approved by the Winnipeg Land Titles Office.

During construction of the units, problems arose in connection with sewers and electrical terminals. These problems were rather quickly resolved with city officials.

The projects relationship to government was good with CMHC, on both the local and national level, somewhat non-committal with the city and non-existent with the province. In early discussions held with the province, it was mutually agreed that the province would help when necessary but would play a secondary role. One of the problems in working with government is finding that "line" between meaningful assistance and inordinate control with the project being bound by political and traditional governmental restraints. It also has been found that innovative projects, which may be controversial, can be politically "hot" to handle.

CMHC, at both levels, were active in assisting the project. The city showed a willingness to help in some areas but was non-committal when it came to providing land for the project. This attitude, at this writing, has altered with the first units now built. The city seems willing to provide the project with land, at a reduced cost, to help subsidize the William Avenue property. One of the problems may have been that city officials were not involved in a concrete way initially and the city's proposal to develop north of the target area also ran counter to a city land-freeze policy. Once the city director of planning was involved with the Mark VIII committee the nature of the relationship changed positively.

Administrative Processes - Summary

The experience of guiding the project through governmental channels offered somewhat of an insight into both the myriad of departments the builder of a standard building must face and the unique problems an experimental project experiences.

The system set up to process the normal application for a building project is designed to ensure that it is safe, well-built, does not adversely affect neighbours or its future occupants and is legally responsible. The system is a complex of checks and re-checks often necessary. Often, for large project builders, this system is co-ordinated by a city official who disseminates proposed plans to the necessary departments for comment and summarizes all the comments in one letter to the developer. The smaller builder does not have this luxury and must deal separately with each. If variations or changes to the zoning by-law are necessary, all builders must face a two to three month delay while it is processed through several city committees, and a public hearing until it is law. This reflected the new city attitude towards resident participation in the planning process but leaves all builders accountable to politicians at several levels in the city structure.

Redundancy in a particular aspect of the system is evident when a large suburban house builder must submit 16 copies of legal descriptions, unit siteplans and floor plans to the planning department as well as 4 copies to CMHC with mortgage applications for each identical house in a subdivision. In addition there are mortgage assumptions and land title transfers which must be handled individually by a solicitor at a standard fee, again, for each house. There are also building permits, zoning memorandum, engineer's reports, special agreements for utility installations, and other documents. The sheer mass of paper work, copying cost, clerical work and legal costs goes

a long way to raising the cost of housing to the consumer.

In analyzing the governmental processes and its relationship to an experimental project, there appeared to be a number of areas which impeded the project's development.

The government should establish a policy whereby, after initial evaluation, a project would be given a small amount of "seed money". This would further the development of the project to a point where its real potential can be assessed and future, more comprehensive, funding considered. The experience with Mark VIII was that, other than verbal assurances of funding, it was not forthcoming until its successful implementation was clear. The method of funding is also important. It should be allocated in installments which allow the government an "out" if the project is failing and also make earlier decisions and funding easier. In conclusion, there should be a sector of the local office of the funding institution, whose responsibility is to assist experimental projects, evaluate their potential and whose recommendations will carry weight at the national level.

The second area of difficulty was the time that had to be spent by committee members keeping city politicians abreast of the project. In that the project did not conform to existing city zoning and building by-law regulations the project had to pass through the Executive Policy Committee, the Environment Committee, the Community Committee and City Council itself to gain approval. Different politicians sit on each committee and certainly all vote at City Council. Thus, the project was left open to the personal biases of many politicians and many hours were spent familiarizing councillors with the proposal. Certainly a project must be accountable to the elected representatives of the people but the question is to how many and what kind. An innovative project, which, by definition, is challenging the status quo should be assessed by a relatively small group who represent a range of opinions and are widely accountable.

Thirdly and lastly, there is the sheer number of governmental departments to be dealt with, at the federal, provincial and municipal level, and the communication between these departments and different levels of government. The following is a list of departments through which the project was processed.

1. CMHC
 - A. local branch
 - B. national branch
2. Province
 - A. City of Winnipeg Land Titles Office.
3. City of Winnipeg
 - A. City Planning Department
 - (i) Zoning
 - (ii) Building-By Law
 - B. City Council
 - C. Environment Committee
 - D. Executive-Policy Committee
 - E. Community Committee
 - F. Real Estate Department
 - G. Finance Committee
 - H. Works and Operations Committee
 - I. Legal Department
 - J. City or Manitoba Hydro.

With an innovative project, each department is approached separately, not having a full understanding of the total concept simply reporting on its non-conformities rather than suggesting how these might be overcome. The fact that the project had to be processed in the conventional manner required a myriad of meetings and explanations and was much like pushing a string uphill.

It would seem government's responsibility regarding innovative projects should be to:

1. ensure it be of a limited scale to minimize negative effect if

that happens to be the case.

2. ensure that one area is not laden with all the projects.
3. ensure the project is safe, healthy and well-built.

These criteria can be quantified and set up to evaluate projects.

If government is committed to innovative in the building industry as a way to build a better world, a special department should be established to evaluate innovative projects based on the above criteria and act as an "ombudsman" for these projects. Working through department heads, it would co-ordinate communication on the project. This "special projects" group would work with a selected group of representatives who would handle the qualitative judgements on the projects' worth. Thus this team would handle both the subjective and objective judgements to be made on a project of this kind.

E. COMMUNITY INVOLVEMENT

The community involvement aspect of the project had two stages to it, each with its own emphasis. The first stage was the formation and work done with the Self Help Housing Group, the second stage involved assessing reaction of those residents adjacent to or near sites proposed for development.

The intent of the first stage was to form a small group of families from the target area into a group who would act as potential consumers, work with the design staff on the housing unit, its position on the sites, and the location of the sites. By working with a small sample group we were able to discuss problems in some detail. At the same time the four "core" families offered a cross-section of opinion.

In retrospect this approach worked well although the group was not involved in the preliminary program and design development. Intense discussion took place over a three-month period. This was really not enough time. In the future this sort of involvement from the preliminary stages should take about 8 months. But, it was a question of integrating community involvement into an on-going design and development process.

From May to December 1972, the public processes of zoning variation and the actual work of construction, as well as the monitoring of that process, occurred. Despite previous community involvement in the planning process at the level of the Self Help Housing Group, the project had, until the summer of 1972, not involved any actual physical change in the community.

In the late spring of 1972, the House Builders had acquired options or title to four lots: two adjoining lots 37' x 78' adjacent to 440 Alexander with no lane - for which a cluster of four separate units was planned; a lot 28' x 114' at 743 Elgin with a lane on the side and back - for a planned two separate units; a lot 25' x 132' at 861 William - for three units, one separate, and two adjoining. These three locations represented a mix of lot types and communities which could maximize the possibilities of experimenting with different sitings and numbers of units on lots. (see map)

Applications for zoning variations were submitted, notices posted and public hearings scheduled. Prior to the public hearings, Institute staff sought to determine the degree of neighbourhood reaction to the proposed variations at 861 William and 743 Elgin.⁶ Neighbours on each side of these lots and across the street were queried in an open-ended and general way as to whether they were aware of the zoning notice signs posted, if they were interested or concerned and what development or redevelopment of the area they considered desirable.

6. See report, "Reaction of Neighbours to Posting of 861 William and 734 Elgin for Zoning Variation", Institute of Urban Studies.

Surrounding 861 William, none of the three neighbours interviewed had read or understood the zoning notice; the only one to express interest or concern thought a new building would be an asset to the neighbourhood.

The plans for the lot at 743 Elgin elicited interest and concern from the two neighbours on the west and the neighbour on the east. They were concerned about possible crowding, and feared low income tenants which two neighbours associated with loud parties and litter.

Plans for the lot were briefly interpreted and these people were referred to the notice of the time and place of the zoning meeting.

The public hearings on zoning variations were granted to the House Builders. In the case of 743 Elgin, however, representations were made against the application and Centennial Community Committee postponed consideration of the variation. At this point, Institute staff visited neighbours around the site and attempted to explain further the advantages to the community of the infill concept. Another inconclusive zoning meeting followed which, towards its conclusion, was characterized by emotional outbursts and recriminations.

A councillor suggested an open public meeting on June 29 at the Bergthaler Church. The Institute distributed an information flyer inviting residents to attend and discuss the proposed changes. By this point in time, the local residents had organized opposition, and circulated a petition. Approximately thirty residents, Institute staff, the House Builders, and the architect attended the June 29 meeting chaired by a councillor.

Residents were polite in listening to the explanations given for the project, but in the question period it soon became obvious that they had not changed their position of adamant opposition. Their objections were based upon a perception of how the project would adversely affect them, and for this reason

are highly pertinent to any assessment of the impact of the project on the community. Some of these perceptions follow:

- 1) an inability to "see" two units on a small city lot;
- 2) a fear of a crowded condition;
- 3) concern expressed about where children would play; that they might play in neighbours' yards or in the public lane which was considered dangerous;
- 4) concern about sufficient room for parking, and snow removal;
- 5) a generalized fear of Indian or other low-income residents that would lead to over-crowding, noise, litter and personal jeopardy.

This fear is hard to evaluate because it was expressed only in early encounters with residents. It was dropped as a protest theme as the situation developed, probably because it was not gaining them any sympathy with city officials. It is probable, however, that this consideration remained important in a submerged way.

6) The acceptability of a duplex as an alternative. This last perception was considered most interesting by those who were attempting to understand resident objections, for a duplex situation would not change the degree of overcrowding, or indeed, of any other objection. The explanation seemed to be that duplexes were a familiar building form, prevalent on the north side of Ross, and that the two unit solution at 743 Elgin was seen as two more houses in a situation where most residents already felt crowded. Concern was directed toward the future residents of these units; that is, if residents felt it would be crowded, then future residents should be spared this feeling. They were objecting on behalf of someone else.

The meeting resolved nothing.

At the next zoning meeting, an enlarged representation from Elgin Avenue was present to oppose the variation. The House Builders finally withdrew their application because they felt it was contrary to the objectives of the experiment to try to force the units upon the local neighbourhood. Indeed, achieving a mixed pattern of building forms without disrupting the existing community structure was a primary goal of the program.

The loss of this particular site to the project was felt acutely both by the House Builders and by the Self Help Housing Group - for the former because it meant a further delay in fulfilling the terms of the CMHC grant and unanticipated additional costs, and for the latter because it was seen as the most desirable of the lots and siting arrangements being considered. (see Design section).

An important element in the failure of the project to acquire the 743 Elgin site was the leadership demonstrated by a local resident in opposing the change. From the first zoning meeting, he organized people to come to meetings, and acted as their spokesman. He initiated and collected names for a petition. Local residents deferred to him in representations made before the community committee. His expansive and vociferous style considerably enlivened many a proceeding.

In September, sod turning ceremonies for the project were held at the two lots adjacent to 440 Alexander, and construction began shortly thereafter at this site and at 861 William. By the middle of the month, Institute staff again surveyed the immediate neighbours to gauge the reaction to and explain the building in process.

In the immediate neighbourhood of 440 Alexander, twenty residents were initially interviewed.⁷ Only one was opposed outright to the idea and the building activity. One resident felt the units would not sell, but was

7. See Report, "Survey of Attitudes On Infill Housing At 861 William and 440 Alexander".

not opposed. Eleven residents felt that the new building activity in the area was needed. The remainder had not noticed the activity, were not interested, or would not express an opinion. A wider survey, still in the neighbourhood but not in the immediate area, reinforced these observations.

While systematically organized opposition did not appear in the same way as around 743 Elgin, the one resident who was opposed to the redevelopment of the 440 Alexander site did attempt to stop it. His efforts at organizing were limited, and it appeared that he did not continue to pursue the opposition. There were questions raised about this individual's motives, as he had previously owned land that had been purchased, cleared, and redeveloped. It appeared therefore, that he opposed the renewal of the area on a lot by lot basis because he had the most to gain by a mass demolition and redevelopment approach. In addition, the character of the neighbourhood differed from that of the other two sites, and local residents perceived the changes as less disruptive of their area. For a more complete explanation on this point, see Phase II - G. Assessment.

At the same time, the same survey procedures were followed in the area immediately around 861 William. A total of fourteen residents were interviewed. Of the eight residents on either side of the site, six were opposed and two were indifferent.⁸ Across the street, the six residents interviewed were less hostile: two were opposed, three favourable, and one indifferent.

Objections were stated in the following ways:

- a) the front unit was too far forward on the lot;
- b) too many houses, too many people, too crowded;
- c) loss of privacy and sunlight to backyards;
- d) more noise, more traffic.

8. See untitled survey of reaction to building at 861 William Avenue, September 20, 1972.

In face of the opposition revealed around 861 William by Institute interviews, the House Builders suspended construction activity there. The President of the House Builders said in a letter to the Commissioner of Environment, "No attempt will be made to force the project on the community. However, every effort will be made to meet with the residents and the area Councillors, to maintain a good line of communication. Answers, where possible, to all questions will be provided. The full co-operation of the Institute of Urban Studies and the Winnipeg House Builders Association will be utilized to achieve this end".

Several days later, a petition from eight residents in the neighbourhood at 861 William was received by the Institute and city officials requesting a cessation of construction and a hearing with the community committee. In addition, some of the objections listed above were included as well as the statement, "We think the new house in the district is an excellent idea, but one house, or even a duplex on a 25 foot lot, not a house and a duplex on one 25 foot lot."

A letter from the Institute to the first person on the petition was mailed the next day. The Director of the Institute, said, "I notice from your petition that you might be prepared to accept a different arrangement of the housing units or the elimination of one of these units. I believe there is room for accommodation so that this program would be acceptable to you and would hope that we might meet together to discuss what kind of development would be acceptable to you and your neighbours". This letter was never answered.

The matter was thoroughly discussed at the House Builders weekly meeting, and it was decided that if the petitioners would not respond to our willingness to meet, then perhaps they would respond to the involvement of a third party. The Chairman of the Resident's Advisory Group (RAG) was

contacted and the situation explained. He took the initiative of placing the matter on the RAG agenda for October 3, 1972, and contacted the resident petitioners to invite them to the meeting.

At the RAG meeting, explanations were made, and complaints heard. The RAG moved to support the local residents in their opposition to the planned construction until such time when a solution acceptable to all parties had been achieved. Rather than taking the initiative in this regard, it was thus passed back to the interested parties. This position was somewhat modified at the Community Committee meeting of October 24, when it was moved to set up a conference between residents at 861 William and the House Builders.

Meanwhile, the House Builders took the initiative of planning a liaison meeting for October 20 to again explain the Mark VIII project to members of the Environment Committee, Executive Policy Committee, Community Committees, and Board of Commissioners. It was anticipated that such a meeting might be helpful in explaining the project as the variation of the Building By-law for 861 William was yet to be acted on by the Environment Committee, Executive Policy Committee, and Council.

Environment Committee recommended the By-Law for approval, and referred it to the Executive Policy Committee. They in turn sent it back to the Community Committee.

Following its motion of October 24, Clerk of Centennial Community Committee notified the House Builders that a meeting had been arranged for November 7 to include Councillors, members of the RAG, representatives of the petitioners, the Winnipeg House Builders, Planning Division, and the Institute. In preparation for the meeting, information was mailed to resident petitioners and members of the RAG: the architect prepared models of the proposed units at 861 William.

Much detailed information was exchanged at the November 7th meeting, and a staff member of the Institute made arrangements to meet with resident petitioners to work out a compromise arrangement. It should be added that the councillors explained to residents what the House Builders were proposing to build - they had the legal right to do. Zoning and building permits had been issued, and the appeal time on the zoning variation had expired. Thus, it was due entirely to the House Builders desire not to antagonize community opinion that they even considered a compromise. Several weeks of intensive effort produced a document which included a site plan with dimensions which indicated the location of a duplex on the 861 William site. It stated that the arrangement represented a compromise in the form of a duplex that the local residents would not oppose, and was signed by six of the seven original petitioners.

In detailed discussion with the resident objectors it was evident that their three major concerns related to:

1. too many houses on a small lot
2. loss of privacy and sun in adjacent backyards
3. houses too far forward on the lot

Suggestions about altering the positioning of the three units met with more resistance as the yard areas of the units now overlooked the adjacent yards. The residents wanted a "wall" between them and occupants of the new units. It took the form of the blank wall as opposed to the window wall. They were more willing to accept interference from a sidewalk than visual invasion of privacy.

The residents were willing to accept a semi-detached, back-to-back unit situation with private yards at opposite ends of the site. A suggestion that the units could be separated with one at the front facing the street and one at the rear facing forward again was opposed because the private yards would be adjacent. They accepted the former proposal because:

- they felt that something was going to be built, better it be two than three;
- two units together looked like a "big" house in a similar siting situation to their own units;
- the front set back some of their houses respected, was maintained.

There was also some economic discrimination at work as they felt the occupants of these houses were to be "poor people" receiving a handout, whereas they had worked hard for what they have.

Thus, the compromise was agreed to by the same individuals who originally opposed the building at 861 William. This necessitated a change in role for Institute staff. In the summer, staff were involved in monitoring community reaction. In the fall, this role changed to active involvement with residents in negotiating a compromise. The shift in roles throws into perspective a classic problem of role definition for university-based research organizations. While information may be an end in itself, its effective use in a real situation will usually change the information base. The question, on an academic level, is the proper mix of knowledge and action, and the boundaries and limitations of both. This dilemma is inherent in the concept. Since the linkage group is one attempt at communication between researchers and practitioners, this implies that the linkage group will resolve the problem of a proper mix of knowledge and action, and this is their function.

Any innovative housing experiment like "infill" may be expected to encounter opposition. It may take the form of local opposition or inflexibility on the part of administrative authorities. In addition, political opposition is always a possibility, and in the case of experimental projects, the risk is especially great. By definition, innovative projects do not operate within the existing boundaries of administrative or political control. They therefore

lack the "cover" of a program that takes place within traditional and well recognized structures.

Lacking such protection, they are vulnerable to opportunistic attack. Their goals and directions are easily distorted. Project sponsors may lack access to the media or, having gained it, may be misunderstood. An attack on such a project is, therefore, a rather secure political gambit, especially where leading political figures may be reluctant to debate larger and more controversial issues.

A form of political opposition to the in-fill project in general and the proposed changes at 861 William in particular was encountered. The mayor of Winnipeg, first aired such opposition on a "talk show" in the fall of 1972. This was followed by a letter to the Institute supporting the petitioners around 861 William. The mayor also sent a spokesman to the previously mentioned November 7 Centennial Community Committee meeting. He publicly questioned the leadership of the project in its community involvement at the opening ceremonies, discussed below, on December 7. The basis for his opposition to the project shifted with each occasion, but the one common element was an attack on the Institute and its leadership. The real cause for this probably lies in historical political antagonisms between the mayor and the director of the Institute which are outside the scope of this report.

The fact that the Institute, its work and leadership, were singled out for attack, that no derogatory mention was ever made of the involvement in the project of the city, CMHC, the House Builders and the Self-Help Housing Group, that the opposition was subsequently dropped, that the basis of the attack was always shifting, and that no reference was made to on-going attempts to reach a compromise settlement lead us to conclude that this opposition was essentially

political in nature. Simply stated, the mayor had found an issue with a traditional rival which he thought he could use to his advantage, and proceeded to do so. It should be added that the effect on the project of this opposition was minimal in the end, as it appears the mayor did not enlarge the basis of support for his opposition with the surrounding residents.

It is difficult to make concrete recommendations in an attempt to evolve a proper approach since the process is contextual and the means themselves will involve innovation. It is suggested, however, that any group seeking to perform a linkage role recognize that, flexibility of approach is always an asset, that it is in a unique position to perceive and anticipate obstacles and evolve alternative attacks.

Meanwhile, construction on the four units adjacent to 440 Alexander was nearing completion and final plans were being made for opening ceremonies on December 7. The opening was attended by representatives of the federal, provincial, and city governments, the House Builders, the Institute, City Councillors, and community groups including the Self Help Housing Group, a member of which opened the unit for viewing with the "people key", symbolizing the joint effort involved in bringing this phase of the project to a successful conclusion.

F. COST AND ECONOMICS

This section of the report will deal with two aspects of costs and economics in the Mark VIII project.

1. Building economics
2. Innovative project costs

In studying the problem of developing new housing in a lower-income inner city community, there are a number of negative incentives operating. The relatively high cost of vacant land and houses as a result of its income potential is a deterrant. The risk to the investor's dollar are greater, thus the money travels the road of "least resistance" to the virgin suburbs. There is often a majority of the population renting and the property is deteriorating which does not help the value of a new property over time. The potential for redevelopment and expropriation is ever present. Lastly the money lender is concerned about the properties' resaleability. These are but a few of the economic constraints to new development. The Mark VIII project chose first to attack the problem of high land costs.

1. Building Economics

One of the original intents of the Mark VIII project was to provide new housing in the inner city that low to middle income persons could afford. One of the critical factors that had to be dealt with was the high cost of land. The approach was to build two or three units on a single lot, thus sharing the land costs and taxes between the units and reducing supervision and over head costs. The following is an illustration, conceptually, of this approach.

Assume: land cost = \$3,500	total unit cost = \$14,800.00
building cost @ 900 sq. ft./unit = \$10,000.00	
building's profit and cost	= \$ 1,300.00
taxes	= \$ 30.00 per month
mortgage 7 7/8% over 40 years	
5% downpayment	

<u>Land cost</u>	<u>One Unit</u>	<u>Two Units</u>
	\$ 3,500.00	\$ 3,500.00
<u>Building cost</u>	\$10,000.00	\$20,000.00
<u>Profit and overhead</u>	\$ 1,300.00	\$ 2,600.00
total cost =	<u>\$14,800.00</u>	<u>\$26,100.00</u>
per unit cost =	\$14,800.00	<u>\$26,100.00</u> = \$13,050.00
<u>Downpayment:</u> 5% of \$14,800.00 =	<u>\$740.00</u>	5% of \$13,050 = <u>\$650.00</u>
<u>Mortgage amount required</u> \$14,800 - \$740 =	<u>\$14,060.00</u>	\$13,050 - \$650 = <u>\$12,400</u>
<u>Monthly P.I.</u>	<u>\$94.72</u>	<u>\$83.22</u>
<u>Monthly P.I.T.</u>	\$94.72 + \$30= <u>\$124.72</u>	\$83.22 + \$30= <u>\$113.22</u>
<u>Net Saving/Month</u> =	\$124.72 - \$113.22 = <u>\$11.50</u>	

Thus, by putting two houses on a lot rather than one, it would appear there is a net saving of \$11.50 every month which would likely increase with three units on a lot. Annually it is a saving of \$138.00 to persons with a lower income. On a tight budget; this is a significant saving. If the monthly P.I.T. can be held under \$140.00, it compares favourably with the cost of rental accommodation presently available.

PRELIMINARY ECONOMIC ASSESSMENT OF UNITS BUILT

The following is an average cost breakdown for the four units as built:

1. construction cost	\$10,924.00	
2. overhead	\$ 1,627.00	
3. completion of parking area	\$ 120.00	
4. land	\$ 1,550.00	
5. builder's profit	<u>\$ 700.00</u>	
	<u>\$14,921.00</u>	average unit selling price

A rough calculation of a monthly P.I.T. figure without using the sliding scale of the Assisted Home Ownership Program would be:

downpayment = 5% of \$14,921 = \$746.05

mortgage at 7 7/8% over 40
years P.I. amount = \$14,921 - \$746.05 = \$14,174.95

Monthly P.I. = \$95.00 (approx.)

Assuming monthly taxes = \$30.00

Monthly P.I.T. = \$125.80

Using this figure as an approximation of the average P.I.T. of the units built, it appears as if the project has kept the units at a price the residents can afford, although higher than expected.

The actual prices for the units were \$14,000.00, \$14,300.00, \$14,500.00 and \$15,600.00. The last unit priced had the basement finished.

The minimum income requirements and minimum corresponding P.I.T. under this program were as follows:

- | | |
|----------------|--------------------------------------|
| 1. \$14,000.00 | \$5,679.00 with a P.I.T. of \$118.32 |
| 2. \$14,300.00 | \$5,812.00 with a P.I.T. of \$121.08 |
| 3. \$14,500.00 | \$5,873.00 with a P.I.T. of \$122.36 |
| 4. \$15,600.00 | \$6,333.00 with a P.I.T. of \$131.93 |

For example, the final selling price of one unit was \$14,300.00. This was to be financed with a downpayment of \$715.00 and monthly payments of \$121.08 P.I.T. (P.I. = \$91.08, taxes = \$30.00) on a CMHC assisted home ownership mortgage @ 7 7/8% over 40 years. The net yearly income of the couple was between \$5,812 - \$5,863 from which the P.I.T. was determined on the sliding scale. If their net income (income minus \$300.00 for every child over 2 children) had been higher, their P.I.T. would have rose.

In earlier discussions held with the group it was decided by the Mark VIII committee to credit members of the Self Help Group with \$280.00 for their consultative time put in on the design and siting of the units. This computed to 110 hours @ \$2.50 per hour. To further lower their down payment, one couple had spent about 60 hours acting as night watchman on the units and 22 hours involved in cleaning the units. At \$2.50 per hour this was a credit of \$200.00. This left \$235.00 to be paid on the downpayment. After the housing units were completed, the couple agreed to work for an additional 85 hours, and were responsible for hostessing the display unit and ensuring that it was clean. Once this was completed, their downpayment was completely paid off, not by cash, but by 280 hours of work put in to the unit.

CMHC accepted this principle of "sweat equity" but still are leary of considering time as equity and feel that a purchaser should put cash into the unit. But as more people view the display unit, it is becoming obvious that the downpayment is their biggest problem. This problem will have to be attacked in some way. If the downpayment were halved to the neighbourhood of \$300 to \$400, this would equal the 5% (\$800 to \$1,000) commitment of someone of higher income. The question of the downpayment must be resolved if housing for ownership is going to be seriously considered by persons of lower income.

It was hoped to keep the P.I.T. as low as \$110.00 per month. Part of the cause for this failure was the fact that construction costs were, on the average \$850.00 over budget or approximately \$6.00 per month on the P.I.T. This was caused by omissions in the initial budgeting, changes and additions to the specifications while under construction, material costs increases, and high bids for some aspects of the work. Overruns in project expenses were also a contributing factor to the cost escalation. These amounts were assimilated into the profit and land cost areas.

It is unrealistic to think that the selling price to the consumer can be significantly lowered even in the later stages of the project, as any construction cost savings will be eaten up by price escalation in both construction and land costs. An equal area of concern for the low-income family is the downpayment. Many seem to be able to afford up to \$400.00. If the downpayment requirement could be lowered to 2½%, many more people might have access to these houses .

2. Innovative Project Costs

From the inception of the Mark VIII project, its object has been to solve the problem of housing for low to middle income families in inner city areas. With a degree of hyperbole, some proponents see it as the alternative to public housing. In any case, cost factors and the economics of urban housing have held a predominant importance in all aspects of the project.

As previously explained, the various innovations involved on the project necessitated an extraordinary input of professional effort. No builder could have afforded to go through the processes outlined **earlier and be able to sell** the units. If he had, unit prices would have doubled.

The approach adopted, then, was to charge against the cost of the unit a share of the purchase price of the land, legal fees associated with the transaction, the cost of materials and labour, and a 5% builders' profit. The research grant from CMHC covered most extraordinary costs, including \$12,000 for a publicity film, and \$6,500 for research.

For example, the CMHC research grant application **proposes** only "to apply to CMHC for a housing research grant to fund those portions of the Mark VIII

Experimental Project which are of a research nature but to charge to the construction of the project those costs which would normally apply to any ordinary housing project."

G. PHASE II - ASSESSMENT

The Mark VIII project made special efforts to involve the community in the planning and implementation of change. These efforts included the involvement of the Self Help Housing Group, public meetings, the distribution of information, surveys and the involvement of local residents and the resident advisory group. This involvement has been discussed in detail. The following is an assessment of that process, a description of what was learned by it, and recommendations.

When a site was selected and a site plan developed, neighbouring residents were approached and questioned about their feelings towards the new proposal. The approach was to determine resistance to proposed changes rather than to inform. In most cases, the proposed changes were not understood and therefore not resisted. But when development was imminent and the proposal more readily understood, resistance in two cases out of three, crystallized. This seemed to be a function of the nature of the neighbourhood, imminence of development, the ability to understand the proposal through actually seeing it built and the nature of informing the residents.

It is apparent that some people in this area of the city are not confident and articulate in dealing with other people and situations. They are also under pressures; they have "a lot on their mind". A verbal description or sketch doesn't communicate the nature of the project. It is also evident that communication becomes more difficult if the initial contacts are not

successful and an image is planted in the minds of the residents. Once this stage is reached, the project can not be discussed and resolved reasonably, certainly not in a large meeting.

Generally, in all zoning situations there should be a more adequate method of informing residents adjacent to a proposed development of upcoming zoning meetings. This could be in the form of a multi-lingual, simple registered letter. In the future, an alternate approach for an experimental project would be to select a site and before application is made for a zoning variation, to contact residents individually. A telephone call should be made to set up an appointment in their home and discussion should center on a model of the proposed development. With this personalized approach, there is a greater understanding of the project before barriers of fear and misinformation are raised.

If confrontation occurs at the level of a zoning variation and residents have access to and influence upon the outcome of the hearing, little is accomplished through public meetings designed to inform residents of the proposed changes. They understand that the battle will be won elsewhere. A situation of this kind also works against project objectives. It must be anticipated and avoided.

Based on the experience and research in this project, it appears that a number of variables modify the nature of the resident reaction to a proposed change.

The first is the type of neighbourhood. During the planning process, the assumption was made that the inner city residential neighbourhood was a separate and distinct entity. In fact, two generally different neighbourhoods were encountered among the three lots considered. They may be characterized as follows:

1) 440 Alexander:

- a) tenant occupied;
- b) relatively more deteriorated and older dwellings;
- c) multi-family dwellings comprising different building types;
- d) relatively higher density;
- e) relatively shorter tenancy.

2) 743 Elgin and 861 William:

- a) owner occupied;
- b) single family detached dwellings;
- c) relatively low density;
- d) relatively longer occupancy.

Second is the proximity to the change. People's reaction to physical change tends to vary directly with their proximity to the change. This reaction is expressed and facilitated by access to the decision-making process.

Third, the nature of the proposed change. In the case of infill housing, different lot types and arrangements of units on those lots can be considered a variable, but for the sake of clarity, the changes involved with infill will be considered of the same type. The nature of the change is therefore constant.

The nature of the proposed change, therefore, has to be weighed against the type of neighbourhood and resident proximity in order to anticipate reaction. In a neighbourhood such as that surrounding 440 Alexander, resident reaction to infill housing is normally positive as it seems to be one way of improving the neighbourhood, and offers an alternative to already crowded older dwellings. In a neighbourhood such as that surrounding 743 Elgin and 861 William, infill housing was perceived as an increase in housing density and was associated with a loss of such amenities as space, sun, privacy, and personal identity.

The owner occupied single family detached dwelling is the most prevalent housing form in Winnipeg and Canada. Government policy supports its proliferation; it is not surprising that the social status attached to home ownership is so high, nor that attempts to modify the stereotype encounter difficulties. The high status of a private home can work either for or against acceptance of change in a neighbourhood, depending on the type of neighbourhood.

The crucial questions in analyzing the neighbourhood reaction to proposed building form will therefore be the following:

- type of existing structures: single family
 multi-family
 row housing
 apartment blocks
 industry
 vacant land
- owner-tenant ratio
- length of resident tenance
- perception by residents of desirable development or redevelopment of the area

This analysis should cover a full block in any direction from the proposed site in inner city areas. Visual inspection may isolate a target area. Tentative sites can be selected within the area. A survey can then be conducted to verify the visual impression according to the criteria listed above. Only then would it be advisable to option the property and/or apply for a variation. An active program of information could follow this phase.

If the involvement of local residents is one objective of a building program, then resident reaction will vary according to the differences between the proposed building and existing structures, on the following hierarchial scale:

- single-family detached dwellings;
- multi-family detached dwellings;
- row housing;
- apartment blocks.

If the proposed structure is higher on the scale than existing dwellings, a favourable reaction can be anticipated. If it is lower on the scale, reaction will tend to be negative. Variations must be accounted for according to the condition of the dwellings in question, and their spacial relationship within a larger context.

Normally, builders are concerned about local resident reactions only in so far as they may hinder development plans. Since it is usually uneconomic to build a structure of lower density than what already exists in the area, the "block-busting" approach is attractive because it is lucrative. This is a process whereby an individual buying land in a low-density area, has it re-zoned for a higher density use thereby increasing the value of the land. The land or building built on it can then be sold at a high profit. Thus, the in-fill project represents an exceptional effort to involve the community, and many of the obstacles encountered are explained by the fact that it was perceived by some local residents as a means of making a "quick buck", on the part of developers.

In light of the above considerations, it is recommended that for future consideration of lots for infill housing, the above neighbourhood analysis be undertaken and **information** be made available to residents in the immediate area of the proposed change.

The hierarchial scale of dwelling types noted above are hypotheses and are based on the experience gained from this project, and other studies done at the Institute. One point is clear: housing is symbolically important, and what a change in housing form will mean to area residents is difficult to anticipate. Some guidelines have been outlined above, but the question is really one of personal perception.⁹

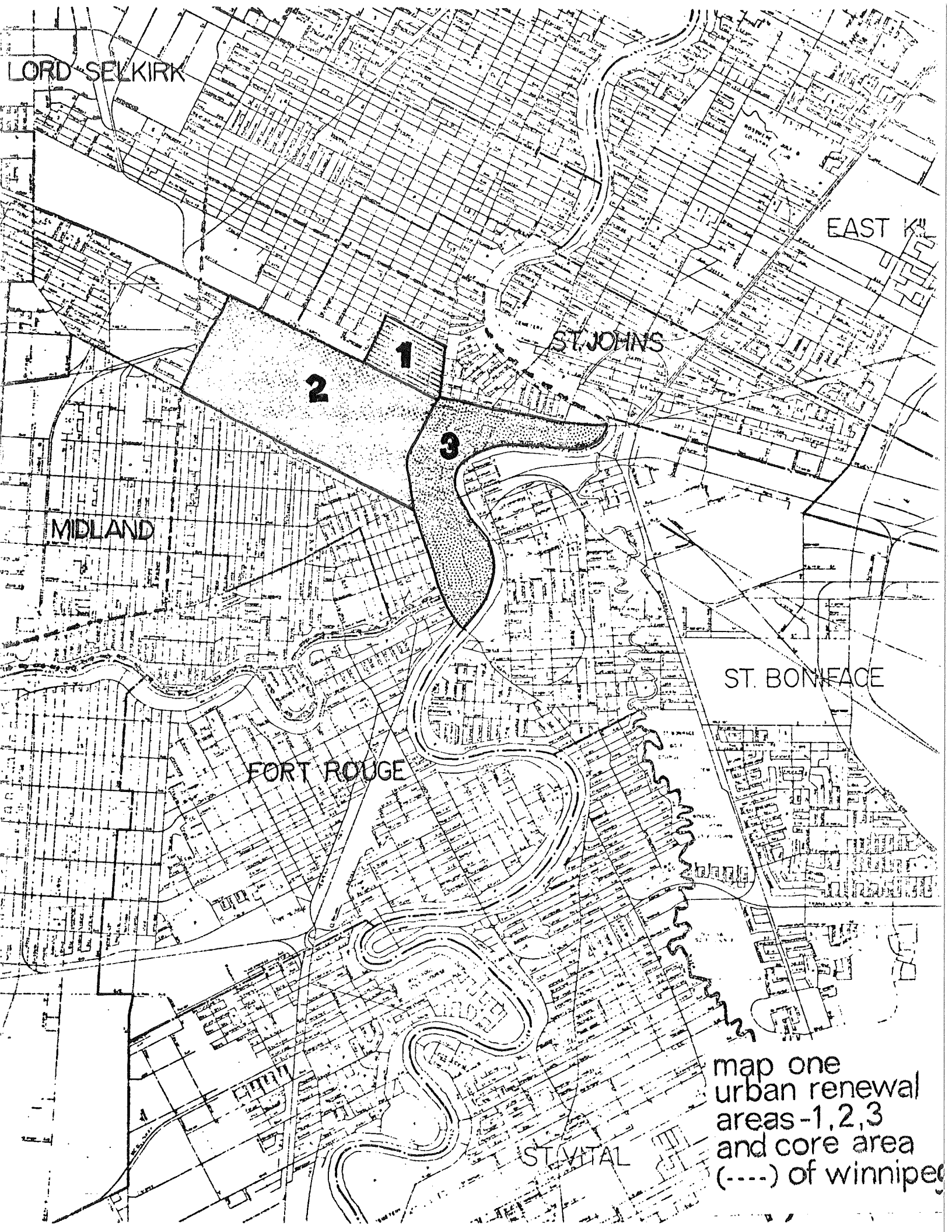
The disparate groups involved in the Mark VIII project learned about the legalities of housing, financing and the complexities of acquiring or attempting to acquire scattered parcels of land. Most important, however, was the experience of reconciling new design techniques with the already complex, even torturous, process of urban rehabilitation under existing regulations. If there is to be a further application of infill housing or any form of housing innovation in the downtown area, then there will have to be a simpler procedure on the government side. The time lag caused by existing procedures would defeat most efforts by individual developers. Thus, whatever other benefits will ultimately flow from this project, one lesson is already clear -- if there is to be innovation, then governments will have to eliminate many existing hurdles, and acquire a sense of experimentation themselves.

9. See Clare Cooper, "The House as Symbol", Design and Environment, Fall 1972, pp. 30-37.
and
Rappoport, A., House Form and Culture, Englewood Cliffs, N.J., Prentice Hall, 1969.

H. APPENDICES

1. Maps of inner-city core and urban renewal area two.
2. Characteristics of the target area, assessed needs and limitations.
3. Final Design Solution

Appendix 1 - following.



LORD SELKIRK

EAST K...

ST. JOHN'S

2 1

3


MIDLAND

ST. BONIFACE

FORT ROUGE

ST. VITAL

map one
urban renewal
areas-1,2,3
and core area
(----) of winnipeg



Appendix 2 - Characteristics of the target area.

DESIGN FEASIBILITY STUDY FOR INJECTING AN "INFILL" HOUSING SYSTEM INTO AN OLDER, RESIDENTIAL DISTRICT

Institute of Urban Studies Eric Barker, May 1972.

DEFINITION

"Infill" housing, by definition, is new housing built on small parcels of vacant land within an existing residential community. This concept of development is one which meshes the new housing with the neighbourhood fabric already there, not requiring the acquisition of large parcels of land. If one is to acquire large parcels of land in an existing neighbourhood, this means the uprooting of many families and the destruction of many houses.

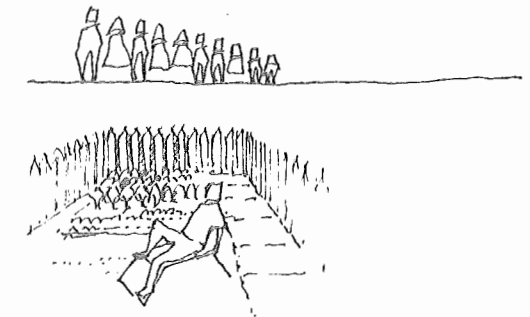
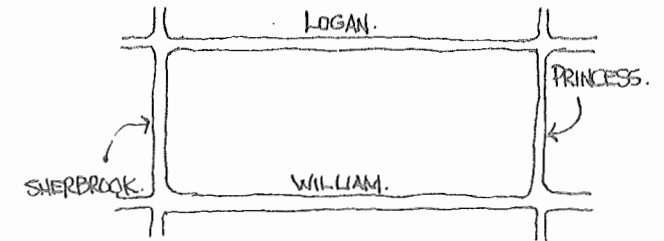
The intent of this study was to look at the problem of injecting "infill" housing into an older residential community in which the Institute of Urban Studies had been working for over a year. This community is just north of the downtown core, is between 75 and 100 years old and is populated by persons of lower income. The study is of an innovative nature and by definition will not accept as limitations those which appear to hinder the development of the project within realistic bounds.

THE EXISTING SITUATION AND LIMITATIONS

Study Area: area bounded on the north by Logan, on the west by Sherbrook, on the south by William and on the east by Princess.

General Information:

- 1/3 of the population own, 2/3 rent
- 1/4 of the households are single persons
- population tends to be older than average
- 1/4 of the households have over 5 persons
- large families live in the area because of lower rents & tolerance of landlords
- people enjoy private yards



- land is expensive and scarce
- 1/3 of the population is on some sort of financial assistance
- area attractive to immigrants from the "old" country
- higher proportion of native population/fluctuating family group
- older, residential area/60-100 years old
- residents in lower-income bracket
- area in a state of flux, some wish to stay, some wish to move
- cost of accommodation lower than city average
- heterogeneous population, no predominant ethnic group
- 3 times the number of households than dwellings
- families owning houses often rent to boarders to augment income
- district cross-routed by truck traffic and surrounded by major traffic arteries
- many people have building skills
- area of high risk and low return to private investor
- fewer people own cars than city average



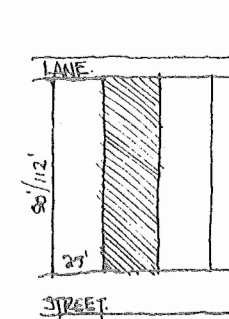
Physical Limitations

- typical house type is a 2-storey, frame building with a porch out front and a shed at the rear. There is little space between houses usually situated on narrow, deep lots. There is a small front yard with the house 10 feet to 20 feet from the sidewalk. Back yard usually used for garden and storage of materials.

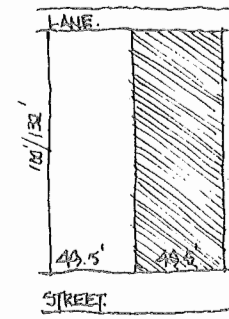
-- lot types:

- A) With a backlane:
 1. 25'/27' x 90'/112'
 2. 49.5' x 100'/132'
- B) No lane:
 1. 49.5' x 78'/100'
 2. 33' x 78'
 3. 66' x 99'/132'

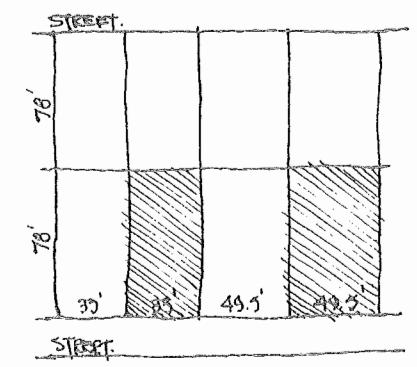
(NOTE: ownership found to generally correspond to lot sizes).



A.

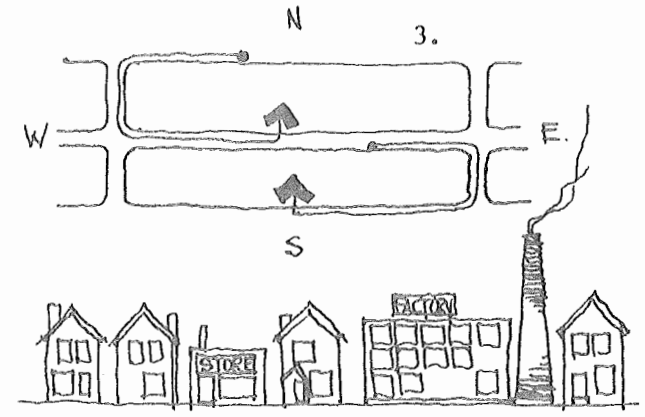


B.



C.

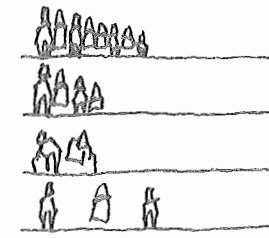
- long blocks running East and West impede effective North/South movement
- available vacant land in the form of single or double lots, scattered through the area
- services available under each street running East/West
- mixed land use in area - residential/industrial/commercial



Financial & Market: Money possibly available from CMHC at 7½% over 40 years for home ownership.

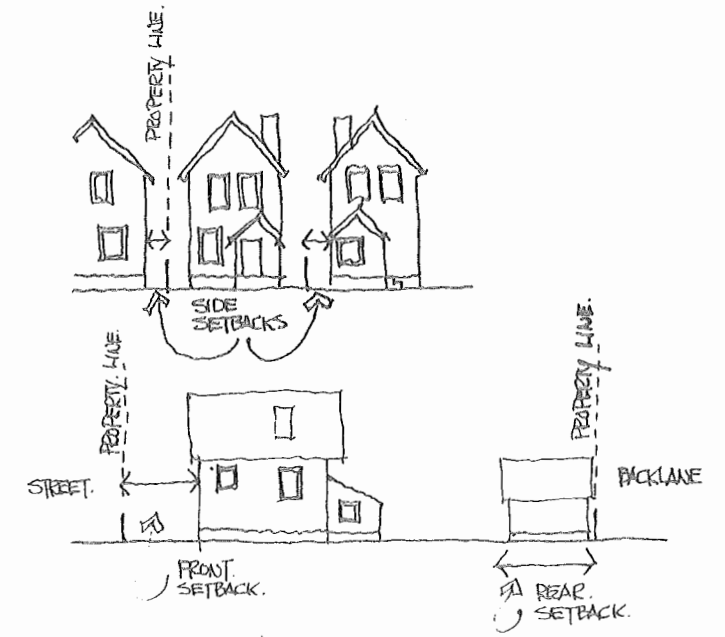
- | | |
|------------------------------------|------------------------------|
| - large families/ 6 persons & over | \$125.00 per month |
| - young families/ 3 to 4 persons | \$90/\$110.00 per month |
| - elderly couples | \$60/\$75.00 per month |
| - single boarders | \$35.00 to \$45.00 per month |

60% of households earn less than \$5,000.00.



Metro Government:

- 3' set backs with no windows on sidewalls
- 4' set backs with windows on main floor
- 50% of height of wall with windows on second floor to habitable rooms
- 25% of height of wall with windows on second floor to non-habitable rooms
- 25' from back of lot
- 20' from front of lot with windows on first floor only
- 30' from front of lot with windows on second floor only
- 75% parking required
- land requirements - 2,500 square feet for one unit
- 4,000 square feet for two units



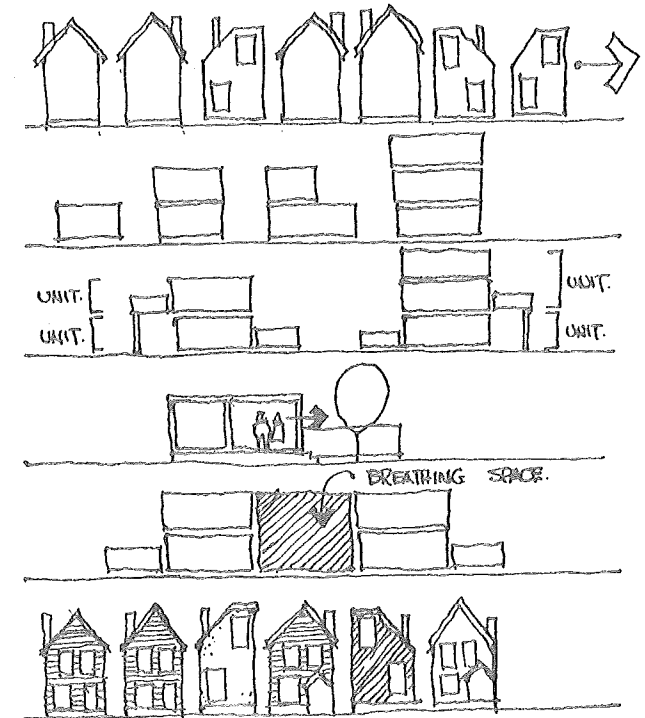
Housing Needs as Interpreted by Staff from Area Experience

- maximize use of available land - many are forced into area by economic circumstances, land is scarce and expensive/sq. ft., therefore must begin to create a medium density situation to afford the most people accommodation at payments they can afford
- units which can exist on small lots
- variety of types of accommodation
- units which offer possibility of renting space to boarders or families so as to augment owner's income and share cost of unit
- high degree of privacy
- private open area important
- size, scale and number of new housing units in sympathy with existing neighbourhood



Project Goals

- to develop a flexible system of housing which can exist on a single lot of any variation and can expand up to any number of lots
- to provide a range of alternative accommodation types within the system
- to develop units which have more than one self-contained living unit within it so as to share the cost of a unit to utilize cost saving in building 2 or 3 storeys. This creates a higher density of living units in the area.
- each unit shall be self-contained
- each family unit shall have a private open space directly adjacent to their unit
- there shall be public open space adjacent to the units for general use and to act as a sort of "breathing space"
- to maximize land usage as far as possible
- system shall be sympathetic to the existing neighbourhood but should form a new fabric within the old
- privacy of access, unit and open space is important
- units available for rental or ownership
- the system should be able to be built now.



Appendix 3 - Final Design Solution.

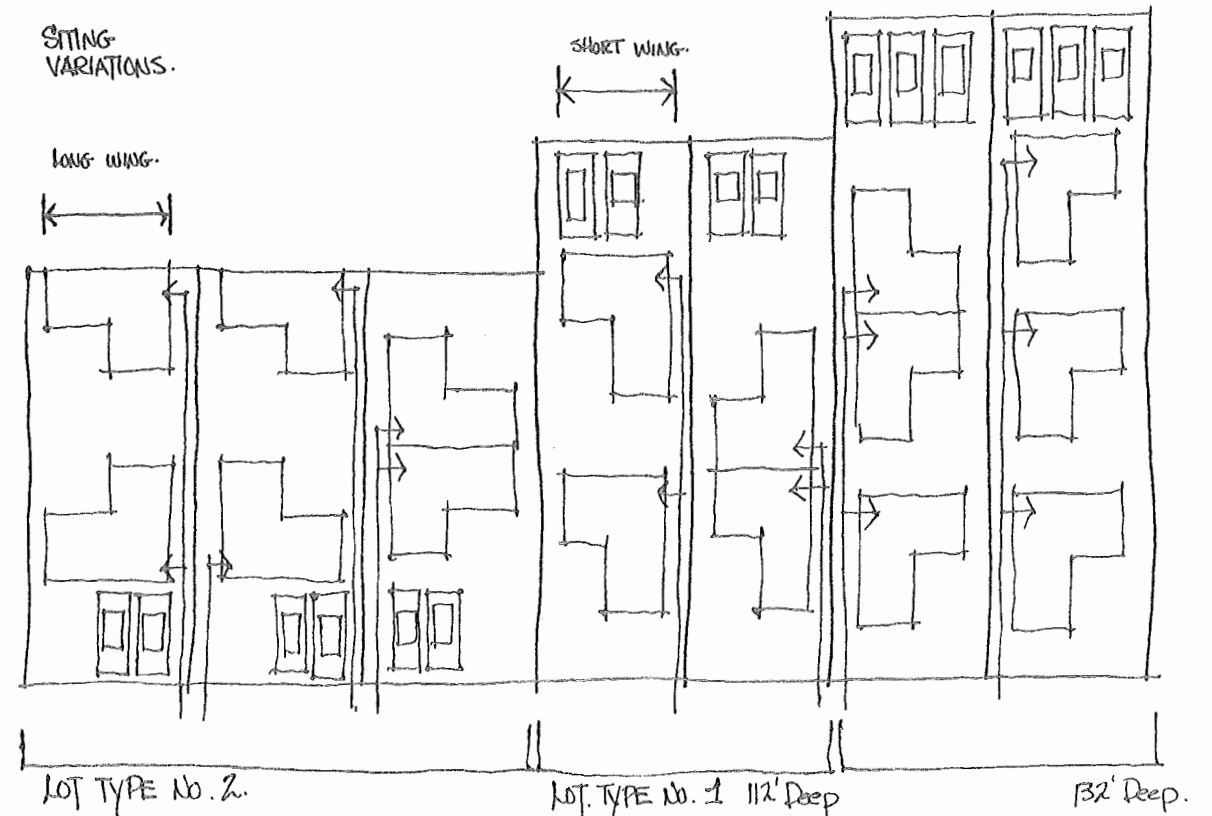
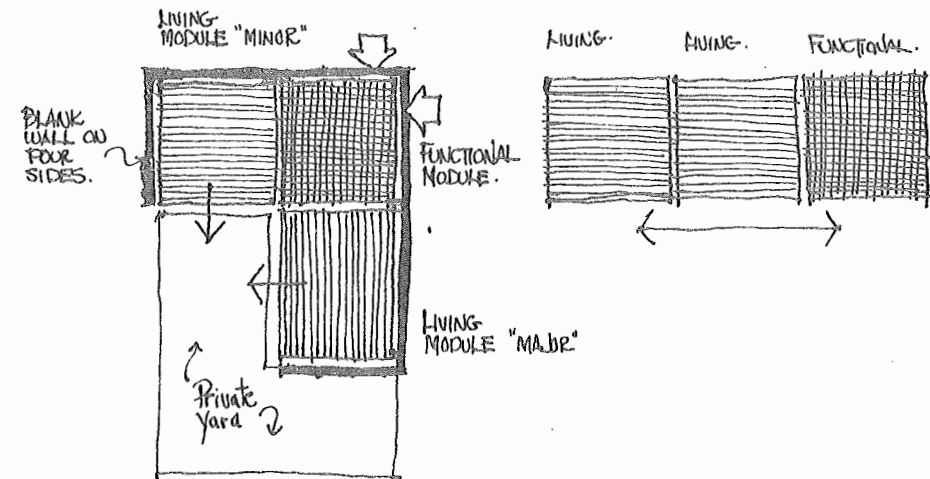
The space in the former rectangular unit has simply been shifted so instead of running across, the living areas attach themselves onto adjacent sides of the square in the corner which is the functional core. Both living areas look onto another square which the "L" embraces -- the private open area.

By moving this one "living module" in front of and facing perpendicular to the other, the basic living unit can put on a narrow or wide site. There is one minor "module" and one major "module". On the narrow site, the minor module and functional module are placed across the site. On the wide site, the functional module is placed beside the major module. One long wing -- one short wing. A basic, simple unit adaptable to both lot types.

The "L" shape of the unit provides privacy of yard and unit interior. Windows may be limited to the inside faces of the "L" leaving the four other walls blank. This allows the unit to be placed close to the street or other units without invading the unit's privacy. The windows of only one living module face the street or other units. As well, the shape of the unit embraces the open space making it more private. These factors are important on the small sites.

This basic, simple unit is not only adaptable to both lot types, but adaptable in a variety of ways. The shape of the unit lends itself to modulation. A unit can be placed with its wing to the front of the lot, to the left or right, or to the rear, to the left or right. The four blank walls, windows in the inside of the "L" and the entry at the heel of the "L" allow units to be placed back-to-back or separate a variety of ways. Thus the "ticky-tacky boxes", row on row syndrome can be effectively avoided, each site appearing unique from the others. (see siting variations).

The interior of the unit affords flexibility in a maximum of space with a minimum of waste. The living areas hinging around a common access/plumbing core limit the circulation space required. The entrance landing is wide enough to double as a clothes storage area in the same sense as the upper landing provides space for a linen closet. The only interior wall required (save those around the bathroom) is the plumbing wall framing the stair. On the main level the living area is the major module, the kitchen, the minor, both a



good size needing no interior partitions. The size of the kitchen is an important factor in this area as it serves as the family focus. A secondary access outside is gained from the kitchen into the private yard onto a 8'x8' wooden deck two feet above grade. The kitchen, in the basic unit, is large enough for the washer/dryer which minimizes travel for the mother in a 3 storey house and allows her to supervise the children outside. Upstairs, there are two bedroom wings, a smaller one functions as a single bedroom while the larger one can be planned a variety of ways. It can be used as one big room for a couple of children, as two narrow, separate bedrooms or divided into 2 sleeping "nooks" and a common area. Again, space is being maximized by creating a "dormitory" concept rather than two separate space "gobbling" rooms.

One of the important factors in a small house is to spread the utilization of space throughout the house -- not overcrowding one level and under-utilizing another. This problem became apparent when planning the basement which had to accommodate two living areas, a furnace/hot water heater, washer/dryer, bathroom, and storage room. To solve this problem the washer/dryer area was moved to the kitchen and the furnace/hot water heater was put on a landing 1/2 level up from the bedroom floor in the attic. In this way, the volume of the house was being more fully used freeing the basement to provide only living, bathroom and storage area. The bathroom and storage area is located in the corner with the stair, freeing the wings for extra bedrooms, a rentable bed-sitting unit or simply recreation space. The internal flexibility of the unit reflects itself on the exterior of the unit with a variety of window locations adding to the units visual variety.

The yard area outside the unit is made more usable by the development of the wooden deck. The deck would be about 8 to 10 feet square, about two feet off the ground. When the open space is limited, it provides a space easily used as a hard surface by adults for sitting or by children for playing. Grass is not enough. An elevated area, much like a porch, gives the open space another dimension of use.

BEDROOM VARIATIONS.

