

CHAPTER 5: CONSOLIDATION - 3.1.1. SOCIO-ECONOMIC INTRODUCTION

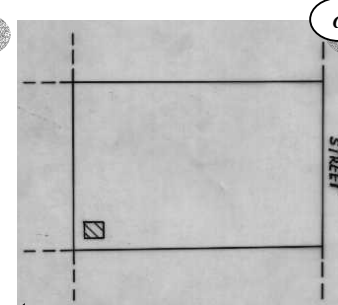
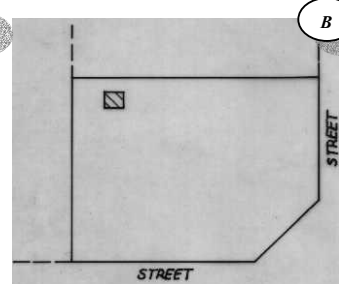
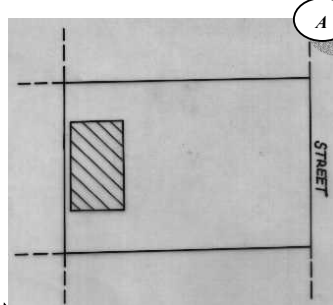
EXT. 6: TYPOLOGY 1

THE HOUSEHOLD	A	B	C
HOUSEHOLD PROFILE	<p>Family type: <i>Single nuclear family</i> Family size: 4</p> <p>Tenants: <i>No</i> No. of tenants: <i>NA</i> Household size: 3 (<i>one child lives elsewhere</i>)</p>	<p>Family type: <i>Single nuclear family</i> Family size: 4 (<i>one child resides elsewhere</i>)</p> <p>Tenants: <i>Yes</i> No. of tenants: 1 Household size: 4</p>	<p>Family type: <i>Single nuclear family</i> Family size: 6</p> <p>Tenants: <i>No</i> No. of tenants: <i>NA</i> Household size: 6</p>
EMPLOYMENT AND INCOME	<p>No. of sources of income: 1 Sources of income: <i>Father</i> Employment: <i>Full time</i> Location: <i>SAPS at Koedoespoort.</i></p>	<p>No. of sources of income: 2 Sources of income: <i>Father and tenant.</i> Employment: <i>Both part time.</i> Location: <i>Construction in Hardebeespoort and spaza shop in Mamelodi.</i></p>	<p>No. of sources of income: 1 Sources of income: <i>Mother</i> Employment: <i>Full time</i> Location: <i>PUTCO in Soshanguve.</i></p>
EXPENDITURE	<p>The expense that is indicated as 'other' refers to other expenses not covered by the expenditure items listed below. All households pay taxes, sanitation, and waste removal as well as for food and education. Water and electricity are also a common expense.</p>		
WATER	X	X	X
ELECTRICITY	X	X	X
TRANSPORT	X	X	X
TELEPHONE			X
EDUCATION	X	X	X
FOOD	X	X	X
CLOTHING	X		X
ACCOUNTS	X		X
SAVINGS	X		
TAXES	X	X	X
SANITATION	X	X	X
WASTE REMOVAL	X	X	X
OTHER			X

CHAPTER 5: CONSOLIDATION - 3.1.2. PHYSICAL CHANGES

EXT. 6: TYPOLOGY 1

INITIAL  
STRUCTURE

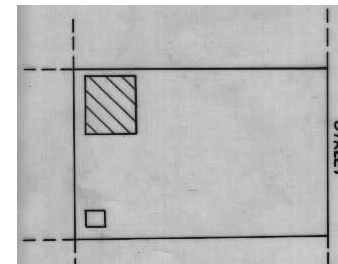
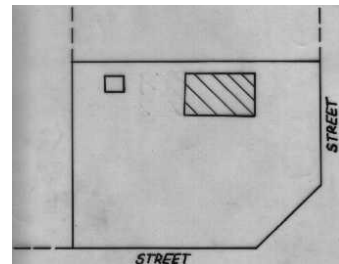
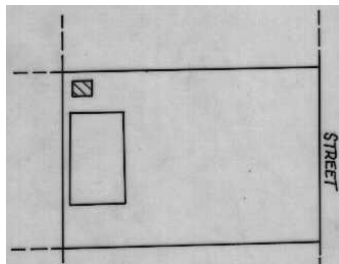


**Description:** Temporary structure  
**Materials used:** Corrugated iron and metal sheets  
**Material supplier:** Phase 1  
**Cost:** R1 300  
**Funding:** Savings  
**Builder:** Supplier. Owner constructed roof  
**Date of Constr.:** 2001  
**Problems:** Were without a toilet and water for 8 months.

**Description:** Water Closet  
**Materials used:** Precast concrete  
**Material supplier:** Government  
**Cost:** Subsidy  
**Funding:** Government  
**Builder:** Government  
**Date of Constr.:** Unknown  
**Problems:** None

**Description:** Water Closet  
**Materials used:** Precast concrete  
**Material supplier:** Government  
**Cost:** Subsidy  
**Funding:** Government  
**Builder:** Government  
**Date of Constr.:** Unknown  
**Problems:** None

ADDITION  
1



**Description:** Water Closet  
**Materials used:** Precast concrete  
**Material supplier:** Government  
**Cost:** Subsidy  
**Funding:** Government  
**Builder:** Government  
**Date of Constr.:** 2001  
**Problems:** None

**Description:** Temporary structure  
**Materials used:** Corrugated iron and wooden planks (temporary materials)  
**Material supplier:** Unknown  
**Cost:** Unknown  
**Funding:** Unknown  
**Builder:** Unknown  
**Date of Constr.:** 1997  
**Problems:** None

**Description:** Temporary structure  
**Materials used:** Corrugated iron and precast slabs (temporary materials)  
**Material supplier:** Unknown  
**Cost:** Unknown  
**Funding:** Unknown  
**Builder:** Private contractor  
**Date of Constr.:** 1998  
**Problems:** None

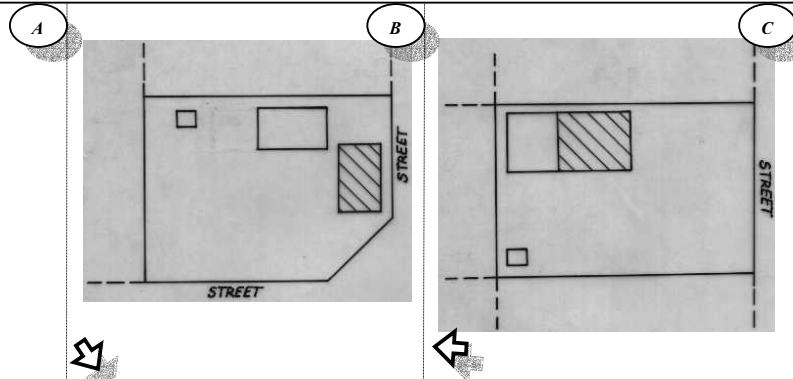
\*NOTE

1. Information about the structures is limited, e.g. costs, date of construction, etc. Respondents were reluctant to provide all the information either because of a lack of trust or poor memories.

CHAPTER 5: CONSOLIDATION - 3.1.2. PHYSICAL CHANGES

EXT. 6: TYPOLOGY 1

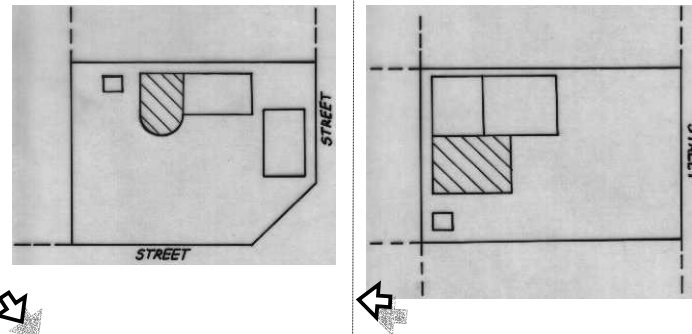
ADDITION  
2



**Description:** Temporary structure  
**Materials used:** Corrugated iron and wooden boards (temporary materials)  
**Material supplier:** Unknown  
**Cost:** Unknown  
**Funding:** Unknown  
**Builder:** Unknown  
**Date of Constr.:** Unknown  
**Problems:** None

**Description:** Temporary structure  
**Materials used:** Corrugated iron and precast slabs (temporary materials)  
**Material supplier:** Unknown  
**Cost:** Unknown  
**Funding:** Unknown  
**Builder:** Private contractor  
**Date of Constr.:** 1999  
**Problems:** None

ADDITION  
3



**Description:** One bedroom  
**Materials used:** Bricks (permanent materials)  
**Material supplier:** Waltloo  
**Cost:** R450 in addition to home made bricks  
**Funding:** Savings  
**Builder:** Owner  
**Date of Constr.:** 2001  
**Problems:** None

**Description:** Temporary structure  
**Materials used:** Corrugated iron and precast slabs (temporary materials)  
**Material supplier:** Unknown  
**Cost:** Unknown  
**Funding:** Unknown  
**Builder:** Private contractor  
**Date of Constr.:** 1999  
**Problems:** None

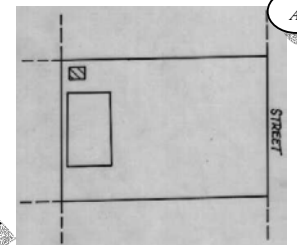
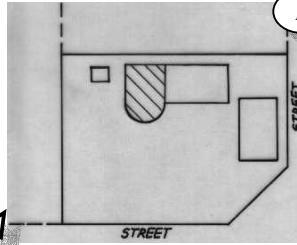
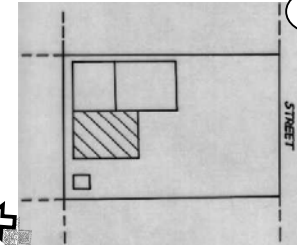
\*NOTE

1. Information about the structures is limited, e.g. costs, date of construction, etc. Respondents were reluctant to provide all the information either because of a lack of trust or poor memories.

CHAPTER 5: CONSOLIDATION - 3.1.2. PHYSICAL CHANGES

EXT. 6: TYPOLOGY 1

HOW HAS THE UNIT CHANGED OVER TIME IN TERMS OF:

		
<p><b>NUMBER OF EXTENSIONS AND THE TREND IN USE OF MATERIALS</b> One extension has been made. It was a shack that was made of temporary materials.</p> <p><b>SIZE</b> The size of the extension one is approximately 20m<sup>2</sup>.</p> <p>Erf size: 180m<sup>2</sup> Total area: 20m<sup>2</sup> Coverage: 11% Occupational density: 7m<sup>2</sup>/person</p> <p><b>SHAPE AND CONFIGURATION</b> The shack is rectangle in shape with dimensions of 3.5m x 5.9m.</p>	<p><b>NUMBER OF EXTENSIONS AND THE TREND IN USE OF MATERIALS</b> Three extensions have been made. Temporary materials were used for the first two (shacks) and the third was a single room constructed from bricks.</p> <p><b>SIZE</b> The first and second extensions were approximately 13m<sup>2</sup> and 12m<sup>2</sup>, respectively, with the last estimated to be 8.5m<sup>2</sup>.</p> <p>Erf size: 186m<sup>2</sup> Total area: 33.5m<sup>2</sup> Coverage: 18% Occupational density: 8m<sup>2</sup>/person</p> <p><b>SHAPE AND CONFIGURATION</b> The first two shacks had a rectangular shape and measured 2.8m x 4.6m and 2.7m x 4.5m respectively. The single bedroom built had dimensions of square (2.8m x 2.8m) and a semi-circle (radius 5m).</p>	<p><b>NUMBER OF EXTENSIONS AND THE TREND IN USE OF MATERIALS</b> Three extensions were constructed to date. The construction of shacks made use of temporary materials.</p> <p><b>SIZE</b> The size of the first shack is approximately 12m<sup>2</sup>. The second extension has an area of 17m<sup>2</sup> and the third 18m<sup>2</sup>.</p> <p>Erf size: 173m<sup>2</sup> Total area: 47m<sup>2</sup> Coverage: 27% Occupational density: 8m<sup>2</sup>/person</p> <p><b>SHAPE AND CONFIGURATION</b> All structures appear as rectangles but the dimensions of each differ: extension 1 (3.2m x 3.8m), extension 2 (4.6m x 3.8m), and extension 3 (3.6m x 5m).</p>

**\*NOTE**

- The toilet, roof structure and room under the roof structure have fixed values in terms of area, dimensions and shape. Instead of repeating these values throughout the document, it will be noted here. *Toilet - area (1.2m<sup>2</sup>), dimensions (1m x 1.2m) and shape (rectangle).*
- Also important to note, when reference is made to extensions, it refers to those made by the dwellers and not by government. This excludes the water closets and roof structures.
- The measurements given are **approximated** from the diagrams representing the situation of the erven and aerial photographs as a cross check. A measuring exercise was not carried out during the interviewing sessions. The measurements are therefore not true representations.
- Information about the structures is limited, e.g. costs, date of construction, etc. Respondents were reluctant to provide all the information either because of a lack of trust or poor memories. As a result, issues of cost and date of construction of extensions have been omitted from this analysis. However, assumptions based on available information have been made.
- All calculations within this section include enclosed structures only, e.g. incomplete roof structures that have been added to the calculation are those that are enclosed but lack internal divisions.
- When discussing privacy, there are two categories, i.e. from the public on the street and from neighbours. In this section, it refers to privacy from the public.
- Reasons for the placing of structures by respondents are mentioned only where reasons were given.

**PLACING OF BUILDINGS:** With the size of the erven being approximately 176m<sup>2</sup> and gross and nett densities estimated at 219p/ha and 364p/ha respectively, space is limited. The amount of space available should, therefore, be optimised for living space of the occupants. As such privacy also becomes an issue for the households.

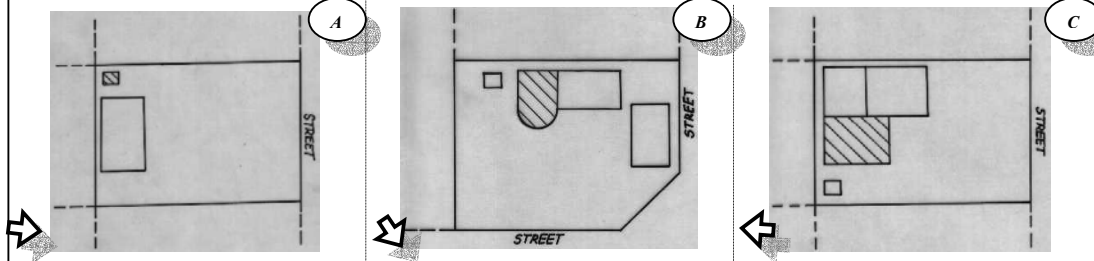
**PLACING OF BUILDINGS**  
The structure has been placed at the back of the property along the southern boundary line and the toilet on the southwestern corner.  
The use of the space on the erven has been maximised. There is a large open space in front of the temporary structure. Space has been used efficiently.  
The temporary structure has been placed in such a manner to allow for the construction of their future home in the ideally situated area (centre of the erf) as expressed by the owner. The placing of the shack was therefore deliberate.

**PLACING OF BUILDINGS**  
The toilet was placed in a southerly position on the erf. The first extension was placed very close toward the southern border in a central position, with the second shack placed along the western boundary line. The third extension was an addition to the first and now the two structures appear as a single unit.  
A generous amount of space has been created in front of the structures built, which allows for flexibility when deciding on its use. The small pocket of space created between the structures has been used for vegetable gardening. The structures protect the garden from onlookers and potential thieves. Space has been optimally

**PLACING OF BUILDINGS**  
Extension one was placed at a northeasterly position at the corner of the erf. The second is placed south of the first extension and the third is placed west of the first extension. In combination, all these shacks take an 'L' shape. The toilet was placed toward the northern end of the erf.  
The placing of the structures along the back and side boundary lines enable the optimum use of the rest of the space on the erf. The space created occurs in one large pocket. This assists for flexibility of usage as opposed to small pockets created by the interruption of other structures.  
The family wanted to ensure that there was

CHAPTER 5: CONSOLIDATION - 3.1.2. PHYSICAL CHANGES

EXT. 6: TYPOLOGY 1



used on this erven.

space for the future development of their house and indicated that the centre of the erf would be suitable.

HOW HAS THE UNIT CHANGED OVER TIME IN TERMS OF:

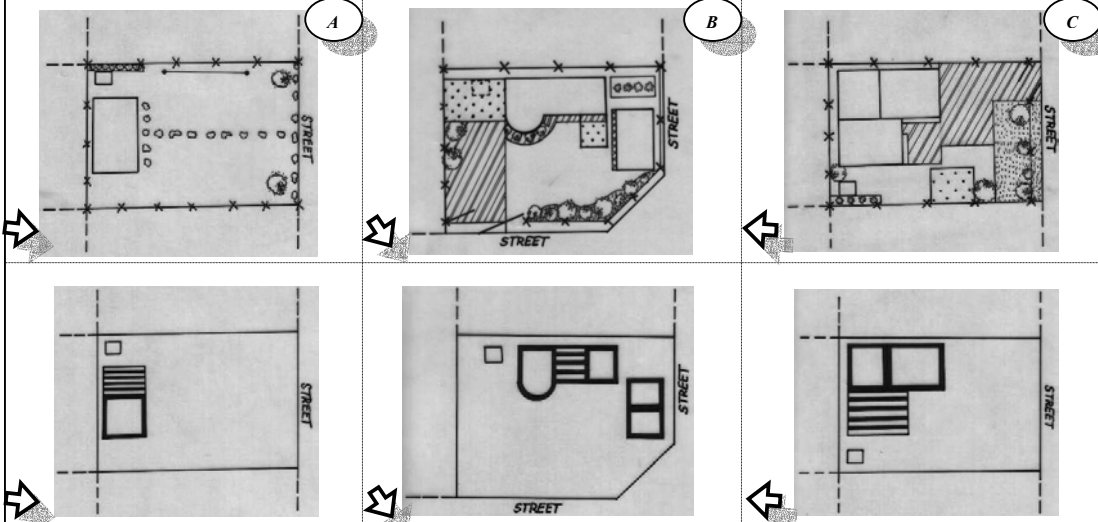
\*NOTE

1. The toilet, roof structure and room under the roof structure have fixed values in terms of area, dimensions and shape. Instead of repeating these values throughout the document, it will be noted here. *Toilet - area (1.2m<sup>2</sup>), dimensions (1m x1.2m) and shape (rectangle).*
2. Also important to note, when reference is made to extensions, it refers to those made by the dwellers and not by government. This excludes the water closets and roof structures.
3. The measurements given are **approximated** from the diagrams representing the situation of the erven and aerial photographs as a cross check. A measuring exercise was not carried out during the interviewing sessions. The measurements are therefore not true representations.
4. Information about the structures is limited, e.g. costs, date of construction, etc. Respondents were reluctant to provide all the information either because of a lack of trust or poor memories. As a result, issues of cost and date of construction of extensions have been omitted from this analysis. However, assumptions based on available information have been made.
5. All calculations within this section include enclosed structures only, e.g. incomplete roof structures that have been added to the calculation are those that are enclosed but lack internal divisions.
6. When discussing privacy, there are two categories, i.e. from the public on the street and from neighbours. In this section, it refers to privacy from the public.
7. Reasons for the placing of structures by respondents are mentioned only where reasons were given.

CHAPTER 5: CONSOLIDATION - 3.1.3. LAND USE AND THE USE OF SPACE

EXT. 6: *TPOLOGY 1*

HOW IS THE SPACE WITHIN THE HOME BEING USED?



BEDROOMS

- One bedroom.
- Occupied by the owner - two bedrooms.
- Tenants - two bedrooms.
- Total = four
- Two bedrooms.

KITCHEN

- Part of the informal structure is used as a kitchen. It shares space with the bedroom.
- One kitchen.
- One kitchen.

DINING ROOM

LOUNGE

TOILET

- One toilet - government provision
- One toilet - government provision
- One toilet - government provision

BATHROOM

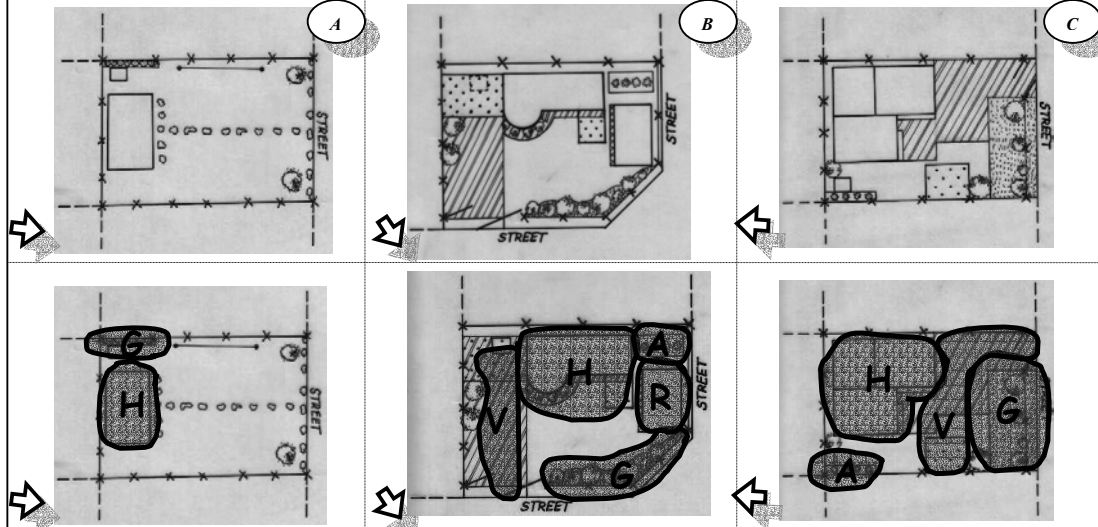
WHY IS IT USED IN THIS WAY?

\*NOTE  
1. No reasons for the use of space within the structures could be obtained.

CHAPTER 5: CONSOLIDATION - 3.1.3. LAND USE AND THE USE OF SPACE

EXT. 6: TYPOLOGY 1

HOW IS THE PROPERTY BEING USED IN TERMS OF:



**GARDENING**

A little garden is present at the back of the property along the right hand side boundary line.

The garden exists along the street boundary.

The garden is found at the street boundary.

**RENTAL HSG**

The unit along the street boundary is rented out.

**COMMERCIAL**

**SERVICE**

**AGRICULTURE**

A little vegetable garden is planted at the back of the erf between the two housing structures.

A vegetable garden exists next to the toilet along the left hand side boundary.

**PARKING**

Parking for vehicles takes place on the left hand side of the erf, next to the house.

Vehicles are parked under a carport on the left hand side of the erf.

**OTHER**

A clothesline has been placed on the western side of the erf.

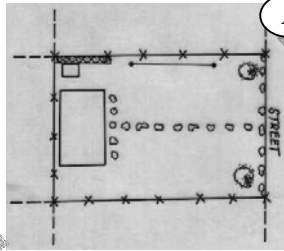
A tent was erected in front of the entrance to the kitchen. This serves as a veranda.

The erected tent serves as a carport.

CHAPTER 5: CONSOLIDATION - 3.1.4. PUBLIC / PRIVATE INTERFACE

EXT. 6: TYPOLOGY 1

PUBLIC/  
PRIVATE  
INTERFACE



RELATION TO THE STREET:

**Street Boundary Definition**

There is no fence in front of the erf, but stones have been placed to define the boundary line. This effort prevents the definition of private space and facilitates interaction with the street.

PRIVACY:

**Side and Back Boundaries**

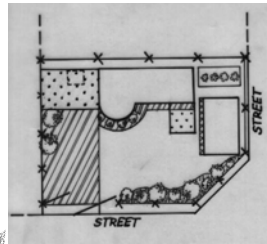
The other three sides of the erf is defined with low (approximately a meter) wire fencing. The intrusion of neighbours clearly prevents the creation of private space.

**Placing of units**

The unit is placed at the back of the erf. Private space is not defined. It allows for the intrusion of the public space from the street onto the erf.

**Placing of the front door**

The door faces the road and the open space created in front by the positioning of the unit at the back, thereby creating interaction with the street and the open space.



RELATION TO THE STREET:

**Street Boundary Definition**

Both street frontages are fenced off with a tall wire fence (1.5m). It is transparent, but strategically placed trees and structures help to block out intrusion from the street. There is a gate at front to restrict entry.

PRIVACY:

**Side and Back Boundaries**

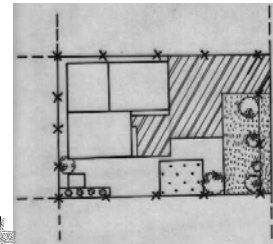
The remaining sides of the erf are also fenced, making use of the same fencing. Its transparent nature prevents the creation of privacy.

**Placing of units**

The original owners unit has been placed at the back of the erf and the tenants structures along the other street frontage to create some privacy from strangers on the street. Together these structures form an 'L' shape, which creates a central socialising space.

**Placing of the front door**

There are many doors all of which seem to face this central space created.



RELATION TO THE STREET:

**Street Boundary Definition**

There is a tall wire fence at the front of the erf (2m). Its transparent nature is strengthened by the strategic placing of trees, which prevents privacy from being created, nevertheless, but facilitates some degree of interaction with the street. There is a gate at the entrance of the erf.

PRIVACY:

**Side and Back Boundaries**

The same type of fencing is used around the remaining three sides of the erf. They do not assist in the creation of privacy.

**Placing of units**

Units have also been paced at the back of the erf in an 'L' shape along the boundaries. This shape defines space in front of it (socialising space).

**Placing of the front door**

The door opens out into the socialising space and a sense of security is evident, i.e. the entrance to the erf is on the southeast corner with a fence (bordered by trees) that prevents any other entrance. The second addition to the home acts as a further barrier by extending a bit in front of the entrance to the structure. The neighbour to the east is blocked out in this way.



1. SOCIO-ECONOMIC STATUS	<ul style="list-style-type: none"> <li>All single nuclear families reside here.</li> <li>Average family size is 4.5, ranging between 4 and 6.</li> <li>One household has one tenant.</li> <li>Average household size is 4, ranging from 3 to 6.</li> <li>The average source of income is one.</li> <li>Types of employment reflect an equal distribution between part-time and full-time employment.</li> <li>On average the number of expense amount to 10.</li> <li>Household A is the only one able to save.</li> </ul>
2. ADDITIONS	<ul style="list-style-type: none"> <li>Initial structures were two thirds of the time a toilet that was placed at the back of the erven in either corner.</li> <li>Seven additions have been made.</li> <li>Of the seven additions, six were temporary structures and one was a formal structure.</li> <li>Household A made one addition whilst households B and C made three.</li> <li>All temporary structures were made of temporary materials and formal structures out of permanent materials.</li> <li>Where information was available, the following was noted: <ul style="list-style-type: none"> <li>Materials were sourced from within and outside Mamelodi.</li> <li>Materials that were sourced from within Mamelodi were for the construction of shacks (temporary structures). The construction of permanent structures required the acquisition of materials from outside Mamelodi.</li> <li>Costs range between R450 - R1300 with an average of R875.</li> <li>Savings was used in most cases to fund the additions.</li> <li>The use of private contractors and owner's skills in the construction of additions appear equally distributed between permanent and informal structures.</li> <li>The time lapse between additions appears to be between one and two years.</li> </ul> </li> </ul>
3. HOW HAS THE UNIT CHANGED OVER TIME?	<p><b>NUMBER OF EXTENSIONS AND THE TREND IN USE OF MATERIALS</b></p> <ul style="list-style-type: none"> <li>An average of two extensions was made.</li> <li>All shacks were constructed from temporary materials and formal structures from permanent materials.</li> </ul> <p><b>SIZE</b></p> <ul style="list-style-type: none"> <li>Average erf size: 180m<sup>2</sup></li> <li>Average extension size: 14m<sup>2</sup></li> <li>Average area : 34m<sup>2</sup></li> <li>Average coverage: 19% (ranged between 11% and 27%)</li> <li>Average occupational density: 8m<sup>2</sup>/person</li> </ul> <p><b>SHAPE AND CONFIGURATION</b></p> <ul style="list-style-type: none"> <li>Shape: majority have a rectangular shape.</li> <li>Average dimensions: 3.2m x 4.5m</li> </ul> <p><b>SHAPE AND CONFIGURATION*</b></p> <ul style="list-style-type: none"> <li>Shape: majority have a rectangular shape.</li> <li>Average dimensions: 3.2m x 4.5m</li> </ul> <p><b>PLACING OF BUILDINGS</b></p> <ul style="list-style-type: none"> <li>All extensions have been placed at the back end of the erf, next to the wet core.</li> <li>In two cases 'L' shapes are formed.</li> <li>All structures built have been placed at the back of the erven and creates large open spaces at the front used for socialising space and gardens for now until the permanent structures are built.</li> </ul> <ul style="list-style-type: none"> <li>Most reason that the units were placed in such a manner in order to keep place for the actual house to be built.</li> </ul>
*NOTE	<ol style="list-style-type: none"> <li>The toilet, roof structure and room under the roof structure have fixed values in terms of area, dimensions and shape. Instead of repeating these values throughout the document, it will be noted here. <i>Toilet - area (1.2m<sup>2</sup>), dimensions (1m x1.2m) and shape (rectangle).</i></li> <li>Also important to note, when reference is made to extensions, it refers to those made by the dwellers and not by government. This excludes the water closets and roof structures.</li> <li>The measurements given are <b>approximated</b> from the diagrams representing the situation of the erven and aerial photographs as a cross check. A measuring exercise was not carried out during the interviewing sessions. The measurements are therefore not true representations.</li> <li>Information about the structures is limited, e.g. costs, date of construction, etc. Respondents were reluctant to provide all the information either because of a lack of trust or poor memories. As a result, issues of cost and date of construction of extensions have been omitted from this analysis. However, assumptions based on available information have been made.</li> <li>All calculations within this section include enclosed structures only, e.g. incomplete roof structures that have been added to the calculation are those that are enclosed but lack internal divisions.</li> <li>When discussing privacy, there are two categories, i.e. from the public on the street and from neighbours. In this section, it refers to privacy from the public.</li> <li>Reasons for the placing of structures by respondents are mentioned only where reasons were given.</li> <li>No reasons for the use of space within the structures could be obtained.</li> </ol>

4. HOW IS SPACE WITHIN THE HOME BEING USED?	<ul style="list-style-type: none"> <li>• On average, there are two bedrooms per household.</li> <li>• Everyone has a kitchen.</li> <li>• Only the outside toilet is available to all households.</li> <li>• People require the essentials.</li> </ul>
5. HOW IS THE PROPERTY BEING USED?	<ul style="list-style-type: none"> <li>• All households have gardens. Two have them in front and the other on the side.</li> <li>• Two households have vegetable gardens, both at the back of the erven.</li> <li>• Vehicular parking is facilitated in the front of the erven of two households.</li> <li>• Tents have been erected on two erven as carports (B and C). Household B also erected another tent attached to the informal structure that adds to the social space.</li> <li>• Household A has a clothesline on the erf.</li> </ul>
6. PUBLIC/PRIVATE INTERFACE	<p><b>RELATION TO THE STREET:</b> <i>Street Boundary Definition</i></p> <ul style="list-style-type: none"> <li>• An attempt is made by all households to cordon off their properties from the street with the use of fences (transparent), gardens/trees and stones (landscaping). Two households have made more of an effort to define these boundaries (B and C).</li> </ul> <p><b>PRIVACY:</b> <i>Side and Back Boundaries</i></p> <ul style="list-style-type: none"> <li>• Transparent fencing has been used in all households. This doesn't enable the creation of privacy.</li> </ul> <p><b>RELATION TO THE STREET:</b> <i>Placing of units</i></p> <ul style="list-style-type: none"> <li>• The units have been arranged in a manner that allows for some level of privacy and safety, except for the first household.</li> <li>• All units have been placed at the back of the erven along the boundaries.</li> <li>• <i>Household A:</i> The lack of complexity in the use of space causes a lack of a positive interaction between the street and the erf. Poor fencing and placing of the unit prevents the creation of private space.</li> <li>• <i>Household B:</i> A little complexity has played in the favour of this erf. The strategic planting of trees and the placing of the structures has also played a big role in the creation of diverse usage of space. The presence of two street frontages has influenced that placing of the structures.</li> <li>• <i>Household C:</i> There is a little complexity inherent on this erf but sufficient to create a little semi-public space.</li> </ul> <p><i>Placing of the front door</i></p> <ul style="list-style-type: none"> <li>• All households have their doors facing the central space created by the placing of the structures. This is used in most cases as a socialising area. This compensates for the lack of space within the structures for lounges and other socialising spaces.</li> </ul>
*NOTE	<ol style="list-style-type: none"> <li>1. The toilet, roof structure and room under the roof structure have fixed values in terms of area, dimensions and shape. Instead of repeating these values throughout the document, it will be noted here. <i>Toilet - area (1.2m<sup>2</sup>), dimensions (1m x1.2m) and shape (rectangle).</i></li> <li>2. Also important to note, when reference is made to extensions, it refers to those made by the dwellers and not by government. This excludes the water closets and roof structures.</li> <li>3. The measurements given are <b>approximated</b> from the diagrams representing the situation of the erven and aerial photographs as a cross check. A measuring exercise was not carried out during the interviewing sessions. The measurements are therefore not true representations.</li> <li>4. Information about the structures is limited, e.g. costs, date of construction, etc. Respondents were reluctant to provide all the information either because of a lack of trust or poor memories. As a result, issues of cost and date of construction of extensions have been omitted from this analysis. However, assumptions based on available information have been made.</li> <li>5. All calculations within this section include enclosed structures only, e.g. incomplete roof structures that have been added to the calculation are those that are enclosed but lack internal divisions.</li> <li>6. When discussing privacy, there are two categories, i.e. from the public on the street and from neighbours. In this section, it refers to privacy from the public.</li> <li>7. Reasons for the placing of structures by respondents are mentioned only where reasons were given.</li> <li>8. No reasons for the use of space within the structures could be obtained.</li> </ol>

**AFFORDABILITY**

- **Family structure:** All families are single and nuclear.
- **Family sizes:** range between 4 and 6.
- **Sources of income:** All families are supported by one source of income (either part-time employment or full-time), except for household B that has another source of income acquired from the tenant. The ability of these families to save and make additions is therefore limited to a certain degree considering that this one income source has to support the families.
- **Expenses:** Although household B receives two incomes, the expenditure made, accounts for less in comparison to the other two families. This would enable this family to either save or spend on building additions.
- **Savings:** Households A and C have numerous expenses to account for but household A is the only one that is able to make savings.

**Conclusion**

In this case, household B appears to be in a better position, in terms of affordability, to be able to make additions due to fewer expenses, more income sources and a family size of 4. Household C would seem to be less able to make additions due to the larger family size and many more expenses coupled with one source of income.

**PRODUCT**

- **Number of additions:** In total seven additions had been made. Households B and C had made three and Household A, one.
- **Time:** With reference to the affordability of the households, household A should have been able to make more than one extension since this is the only household that has the ability to save but seems to be having difficulties in extending. This can be accounted for by the dates of occupancy of each household. Households B and C arrived in this extension in 1997 and 1998 respectively and household A in 2001. This would have given households B and C the advantage, i.e. these households had more time to consolidate.
- **Type of structures:** Household B should also be in a much better position to make more additions, because of the two sources of income and few expenses, but seems to be in line with household C, i.e. three additions each. In this case, although the numbers of extensions are the same, the type of extensions differs. Household B managed to build a permanent structure amongst the other two temporary structures, but household C had built only temporary structures. Household B is therefore still ahead of the other two households in terms of the level/quality of consolidation.
- **Level of formalisation:** The affordability levels of the households become quite evident when one looks at the type of additions that have been made apart from the number of additions. Six temporary structures (made of temporary materials) and one formal structure (permanent materials) have been constructed. These households could not afford to build permanent structures.
- **Size of additions:** Additions have been progressively made with an average size of 14m<sup>2</sup> and ranging from 8.5m<sup>2</sup> to 20m<sup>2</sup>. In most cases, such a space would have to be divided into different uses, i.e. kitchen and bedroom. The affordability levels of these households have influenced the small size of the extensions made. Household A has made the largest additions and household B the smallest. In comparison to the large family sizes, the size of the additions made is insufficient.
- **Configuration:** The average dimensions of structures prevalent here is 3.2m x 4.5m.
- **Area of additions:** On average the amount of space occupied by the dwellers is also insufficient (34m<sup>2</sup> - average area of all additions combined) ranging from 20m<sup>2</sup> to 47m<sup>2</sup> considering the number of people that actually occupy that space.
- **Occupational density:** This leaves an average occupational density of 8m<sup>2</sup> per person (ranging from 7 m<sup>2</sup> to 8 m<sup>2</sup> per person) within this typology.
- **Coverage:** The additions cover an average of 19% of the erven and range from 11% to 27%. It appears that a small amount of the erven is occupied by structures. This leaves a lot of the area around the structures open for activities or for future construction.
- **Shape:** Characteristic of additions here is a rectangular shape.
- **Arrangement of structures:** However, the arrangement of the additions generally takes on an 'L' shape along the back and side boundaries. It appears to be an indication of the desire to restrict the use of the central area of the erf in expectation of the construction of the house. This space is used as socialising space at present. Space has been efficiently used in anticipation of the construction of the future permanent houses.
- **Type of employment:** The type of employment seems to have no affect on the additions made, i.e. even though household B had two sources of income from part-time employment, the level of formalisation is a degree higher than the other two households that had one source of income from a full-time employment source.

**Conclusion**

Household B seems to have been the successful household to build a permanent structure. Factors that have played a role here in comparison to the other households is the low expenditure levels, more income sources, fewer family members, and having more

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2. Also important to note, when reference is made to extensions, it refers to those made by the dwellers and not by government. This excludes the water closets and roof structures.
3. The measurements given are **approximated** from the diagrams representing the situation of the erven and aerial photographs as a cross check. A measuring exercise was not carried out during the interviewing sessions. The measurements are therefore not true representations.
4. Information about the structures is limited, e.g. costs, date of construction, etc. Respondents were reluctant to provide all the information either because of a lack of trust or poor memories. As a result, issues of cost and date of construction of extensions have been omitted from this analysis. However, assumptions based on available information have been made.
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time to consolidate.

*Household C* also had more time to consolidate than household A, but had more family members, one income source, and many expenses inhibiting consolidation.

*Household A* had one addition but was the largest one across all the households. Although household A had the same family size as household B, it was inhibited from consolidating by arriving later than the other two households, one source of income, and numerous expenses.

Thus, the factors that affected consolidation in this case are the number of income sources, expenses, family sizes and time. These factors have acted positively (less expenses, smaller family sizes, more time, etc.) to assist with consolidation. The negative side to these factors have inhibited consolidation (less time, larger family sizes, more expenses, etc.). However each factors cannot be isolated, i.e. the interplay between the factors create the suitable or unsuitable situations for consolidation.

### PROCESS

- **Sourcing of materials:** Quite interestingly to note is the sourcing of materials. In relation to temporary materials, these were sourced within Mamelodi and permanent materials were sourced outside. The poor financial state also lead to one household making their own bricks.
- **Cost:** Costs of these additions are low. Each addition cost between R450 to R1300 averaging R875. Not much more could be afforded.
- **Funding:** Access to credit was not an option in these households since all had used savings.
- **Builders:** There was an equal usage of private contractors and owners skills in the construction of additions. In light of the affordability levels being affected by so many inhibiting factors, private contractors are still made use of in addition to the building skills within this typology.
- **Time:** The time between each addition is quite small, indicating that people save up a little over a small period and then build small additions.

### USE OF SPACE

#### *Within structures*

- The uses within the additions are the essentials, i.e. kitchens and bedrooms. On average, each household has two bedrooms, one kitchen and makes use of the toilet provided by government. The number of bedrooms is insufficient for the family sizes prevalent (4 to 6). It appears that these households are surviving on the essentials based on their poor financial situation and the family members to support.

#### *Within erven*

- **Gardens:** The uses on the erven itself indicate some level of diversity. In general, the flower gardens are placed at the front and vegetable gardens at the back of the erven. It seems that flower gardens are decorative and are placed at the front for passers by to admire. Vegetable gardens can also be admired, but its purpose differs slightly. Not only is it decorative but it also provides the owners with food. The placing of such gardens at the back is for the protection of this investment and potential guarantee of food, if taken care off. The presence of vegetable gardens can be seen as a survival strategy. It provides a saving of money.
- **Parking:** Parking for vehicles is accommodated at the front of the erven. This use was probably not planned for initially and hence takes such a position. Both households have fenced off their homes that help protect their cars. The cars parked in these properties belong to friends and are not luxuries of these households.
- **Tenants:** Household B has a renter in the structure placed against the boundary along the street (10% of the property is used for rental purposes).
- **Other:** Tents have also been erected here to serve as the carports and a social space. A clothesline appears in household A.

### PUBLIC/PRIVATE INTERFACE

- **Street boundary:** All households have attempted to cordon off their properties with either fencing or the use of stones. Two households are much more defined in their attempts than household A. The use of stones in household A creates a decoration but does not succeed in preventing people from invading their space, i.e. public space from the street invades the erven thereby creating interaction, increasing security risks and preventing the creation of privacy. Besides the use of fencing in the other two households, trees and plants are used to create a secure environment within the erven.
- **Side and back boundaries:** Although the fencing is continuous throughout all boundaries on all erven, this fencing does not serve the purpose of creating privacy because of its transparent nature. Rather, the placing of the additions in the 'L' shape

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- along the boundaries and the placing of the gardens facilitate the desire for privacy and satisfy that need to a certain degree. Private space is therefore created in household B.
- **Placing of units:** All structures have been placed along the side and back boundaries, leaving a large central space open in front of the structures. It has been used mainly for socialising.
- **Placing of the front door:** All doors in all households face this central socialising space created.

*Pattern:* All structures have been placed at the back of the erven leaving maximum space open in front. Gardens and trees exist at the entrance with vegetable gardens at the back.

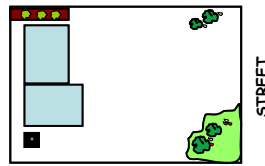


FIGURE 45: Pattern 1

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