

CHAPTER 5: CONSOLIDATION - 3.2.1. SOCIO-ECONOMIC INTRODUCTION

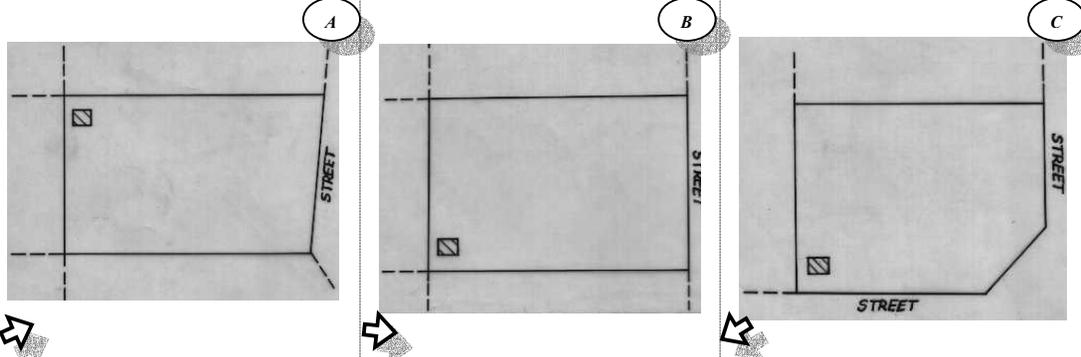
EXT. 6: TYPOLOGY 2

THE HOUSEHOLD	A	B	C
HOUSEHOLD PROFILE	Family type: <i>Single nuclear family</i> Family size: 4 Tenants: <i>Yes</i> No. of tenants: 3 Household size: 7	Family type: <i>Single nuclear family</i> Family size: 4 Tenants: <i>No</i> No. of tenants: <i>NA</i> Household size: 4	Family type: <i>Single nuclear family + extended</i> Family size: 7 Tenants: <i>Yes</i> No. of tenants: 5 Household size: 12
EMPLOYMENT AND INCOME	No. of sources of income: 5 Sources of income: <i>Father, two tenants and two grants.</i> Employment: <i>All full time.</i> Location: <i>Transnet in Koedoespoort and Heatherly dumping site.</i>	No. of sources of income: 1 Sources of income: <i>Father</i> Employment: <i>Contract</i> Location: <i>AVIS in the CSIR.</i>	No. of sources of income: 8 Sources of income: <i>Father, son, 5 tenants, and 1 pension.</i> Employment: <i>Entrepreneurial/informal, 2 x full time, 4 x part time.</i> Location: <i>Spaza shop from home, construction in Rustenburg, chemical field, Shoprite (Queenswood), Pretaria central, and as a taxi driver (Mamelodi) and a shop attendant.</i>
EXPENDITURE	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 common expenses.		
WATER	X	X	X
ELECTRICITY	X	X	X
TRANSPORT	X	X	X
TELEPHONE	X	X	X
EDUCATION	X	X	
FOOD	X	X	X
CLOTHING	X	X	X
ACCOUNTS	X	X	X
SAVINGS			X
TAXES	X	X	X
SANITATION	X	X	X
WASTE REMOVAL	X	X	X
OTHER		X	

CHAPTER 5: CONSOLIDATION - 3.2.2. PHYSICAL CHANGES

EXT. 6: TYPOLOGY 2

INITIAL
STRUCTURE

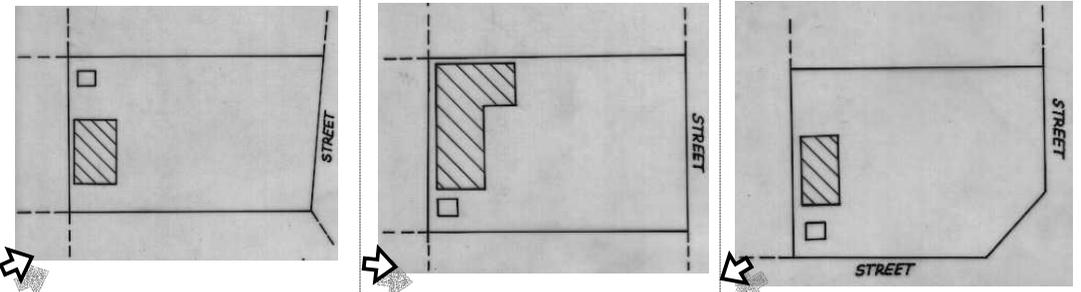


Description: Water Closet
Materials used: Precast concrete
Material supplier: Government
Cost: Subsidy
Funding: Government
Builder: Government
Date of Constr.: Unknown
Problems: None

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

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: Temporary structure
Materials used: Corrugated iron and metal sheets (temporary materials)
Material supplier: Unknown
Cost: Unknown
Funding: Unknown
Builder: Owner
Date of Constr.: 1997
Problems: Leakages

888
Description: Temporary structure
Materials used: Corrugated iron and metal sheets (temporary materials)
Material supplier: Phase 5
Cost: R3 000 (mater), R300 (constr)
Funding: Credit with supplier
Builder: Private contractor (Mamelodi West)
Date of Constr.: 1997
Problems: Rain destroyed the property

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

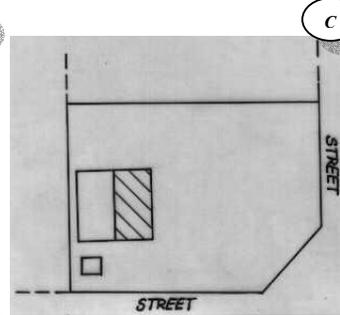
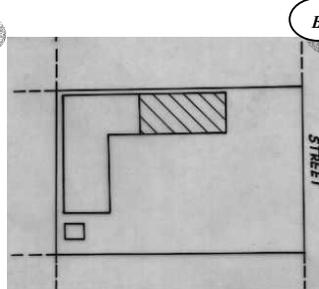
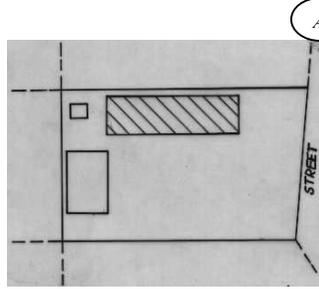
*NOTE

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 - 3.2.2. PHYSICAL CHANGES

EXT. 6: TYPOLOGY 2

ADDITION 2

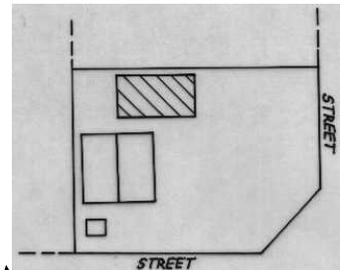
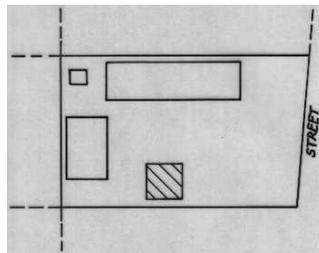


Description: Temporary structure
Materials used: Corrugated iron and metal sheets (temporary materials)
Material supplier: Unknown
Cost: R1 700
Funding: Unknown
Builder: Owner was assisted
Date of Constr.: 1997
Problems: Leakages

Description: Temporary structure
Materials used: Corrugated iron and metal sheets (temporary materials)
Material supplier: Phase 6
Cost: R570 (mater), R300 (constr.)
Funding: Credit with supplier
Builder: Private contractor (Mamelodi West)
Date of Constr.: 2000
Problems: None

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

ADDITION 3



Description: Temporary structure

- Materials:** All initial structures were toilets situated at the back of the erven on either left or right corners.
- A total of 11 additions have been made
- All additions were shacks constructed of temporary materials.

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

*NOTE

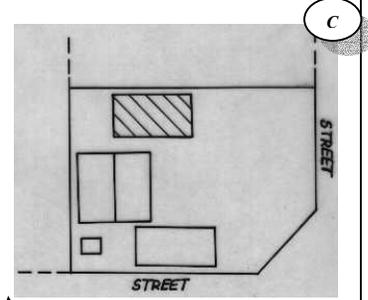
1. Information about the structures is limited, e.g. costs, date of construction, etc. Respondents were reluctant to provide all the information either because of a lack of trust or poor memories.

CHAPTER 5: CONSOLIDATION - 3.2.2. PHYSICAL CHANGES

EXT. 6: TYPOLOGY 2

ADDITION
4

A

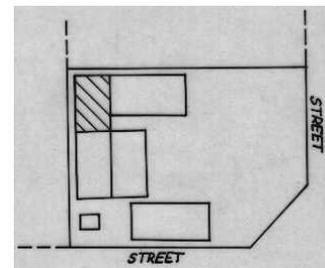


C



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

ADDITION
5



Description: Temporary structure
Materials used: Corrugated iron and wooden boards (temporary materials).
Material supplier: Unknown
Cost: Unknown
Funding: Unknown
Builder: Unknown
Date of Constr.: July 2002
Problems: None

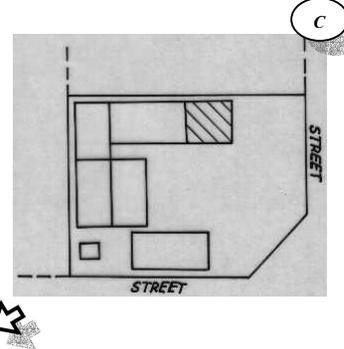
*NOTE

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 - 3.2.2. PHYSICAL CHANGES

EXT. 6: *TYPOLGY 2*

ADDITION
6



Description: Temporary structure
Materials used: Corrugated iron and metal sheets (temporary materials)
Material supplier: Unknown
Cost: Unknown
Funding: Unknown
Builder: Unknown
Date of Constr.: August 2002
Problems: None

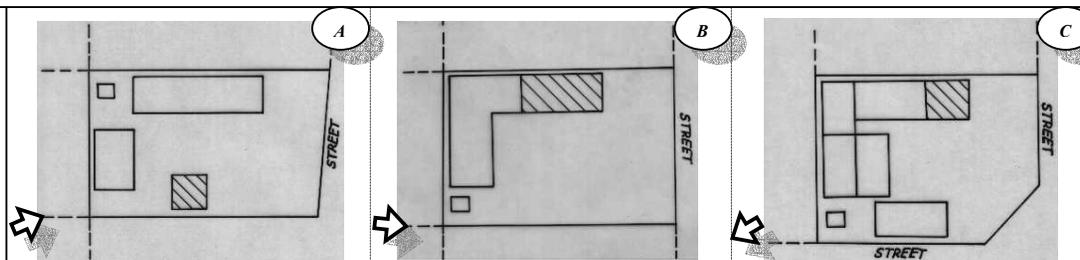
***NOTE**

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 - 3.2.2. PHYSICAL CHANGES

EXT. 6: TYPOLOGY 2

HOW HAS THE UNIT CHANGED OVER TIME IN TERMS OF:



NUMBER OF EXTENSIONS AND THE TREND IN USE OF MATERIALS

Temporary materials were used in the construction of these three shacks, but not the toilet (provided by government).

SIZE

The size of the first extension is approximately 13m², the second 25m² and the third is estimated at 7m².

Erf size: 180m²
 Total area: 45m²
 Coverage: 25%
 Occupational density: 6m²/person

SHAPE AND CONFIGURATION

All shacks take the form of a rectangle with dimensions of 4.5m x 3m (ext. 1), 9.4m x 2.7m (ext. 2), and 2.6m x 2.6m (ext. 3).

NUMBER OF EXTENSIONS AND THE TREND IN USE OF MATERIALS

In total, two extensions have been made, i.e. two shacks. The two shacks have been constructed from temporary materials.

SIZE

Roughly, the first shack totals 28m² and the second extension is 14m².

Erf size: 175m²
 Total area: 42m²
 Coverage: 24%
 Occupational density: 11m²/person

SHAPE AND CONFIGURATION

The shacks are attached to one another to form an 'L' shape. The first has dimensions of two rectangles, i.e. 'L' shaped 5.1m x 2.6m and 5m x 3m. The second is 5.6m x 2.6m.

NUMBER OF EXTENSIONS AND THE TREND IN USE OF MATERIALS

To date, six shacks have been constructed. All have been built from temporary materials.

SIZE

Shack 1 - area of approximately 9m². Shack 2 - 9m². Shack 3 - 12m². Shack 4 - 12m². Shack five - 8m². Shack 6 - 8m².

Erf size: 166m²
 Total area: 58m²
 Coverage: 35%
 Occupational density: 5m²/person

SHAPE AND CONFIGURATION

All shacks have a rectangular shape but when they are arranged all together they appear as an incomplete 'U' shape. The configurations are as follows: extension 1 (4.3m x 2.2m), extension 2 (2.2m x 4.3m), extension 3 (2.6m x 4.8m), extension 4 (4.8m x 2.4m), extension 5 (3.6m x 2.2m), and extension 6 (3m x 2.6m).

***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 (1.2m²), dimensions (1m x 1.2m) 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.

PLACING OF BUILDINGS: With the size of the erven being approximately 208m² 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 first structure appears almost against the southern boundary line in a central position. The second and third shacks are built along the western and eastern boundaries respectively. The toilet appears in a southwesterly position. Space has been optimised by the placing of the structures against the boundaries. A large central space is created and used for socialising.

The family wanted to ensure that there was space for the future development of their house. The central area was therefore kept open.

PLACING OF BUILDINGS

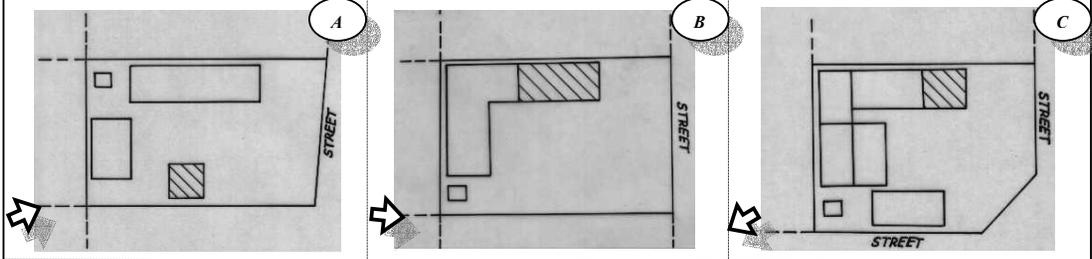
The toilet is placed in the southeastern corner. The initial shack is placed at the back of the erf at the southwestern corner. The second extension was attached north of extension one. A large open space is created in the centre and front of the erf. The placing of the structures has facilitated leaving a maximum amount of functional space available for the construction of their house. Space has been used efficiently.

PLACING OF BUILDINGS

The toilet is placed in the northwestern corner. The first extension is placed in a northerly position (close to the boundary line) with the second attached to its southern facing side. Extension three appears in an eastern position along the boundary line and extension four on the opposite side (western boundary line). The fifth one is attached to the east of extension one and extension six is attached to the southern end of extension three. The central and front areas of the erven have not been occupied. This space has been created deliberately for socialising (refer below). Space has been used efficiently.

CHAPTER 5: CONSOLIDATION - 3.2.2. PHYSICAL CHANGES

EXT. 6: TYPOLOGY 2



HOW HAS THE UNIT CHANGED OVER TIME IN TERMS OF:

The spaza shop was the central feature that required the positioning of the other structures in such a fashion. It required some space where people could socialise and easily see the spaza shop when entering the erf.

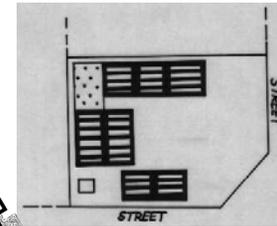
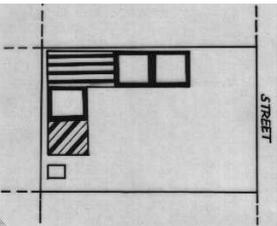
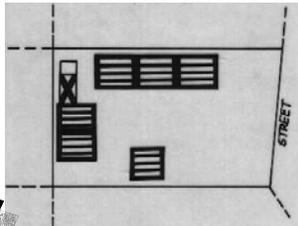
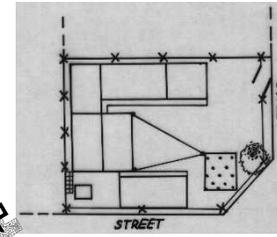
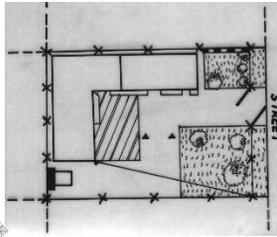
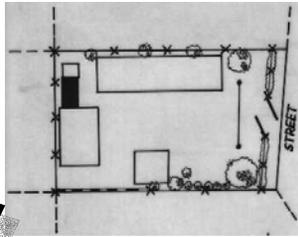
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4. Information about the structures is limited, e.g. costs, date of construction, etc. Respondents were reluctant to provide all the information either because of a lack of trust or poor memories. As a result, issues of cost and date of construction of extensions have been omitted from this analysis. However, assumptions based on available information have been made.
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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 - 3.2.3. LAND USE AND THE USE OF SPACE

EXT. 6: TYPOLOGY 2

HOW IS THE SPACE WITHIN THE HOME BEING USED?



BEDROOMS

- Total of six bedrooms:
 - Owners - two
 - Tenants - four

- Three bedrooms.

- All structures are divided into bedrooms and kitchens. Seven bedrooms in total.

KITCHEN

- For every bedroom there is a kitchen, i.e. five.

- One kitchen.

- Seven kitchens.

DINING ROOM

LOUNGE

- One lounge.

TOILET

- One toilet - government provision.

- One toilet - government provision.

- One toilet - government provision.

SPAZA SHOP

- One structure is used as a spaza shop.

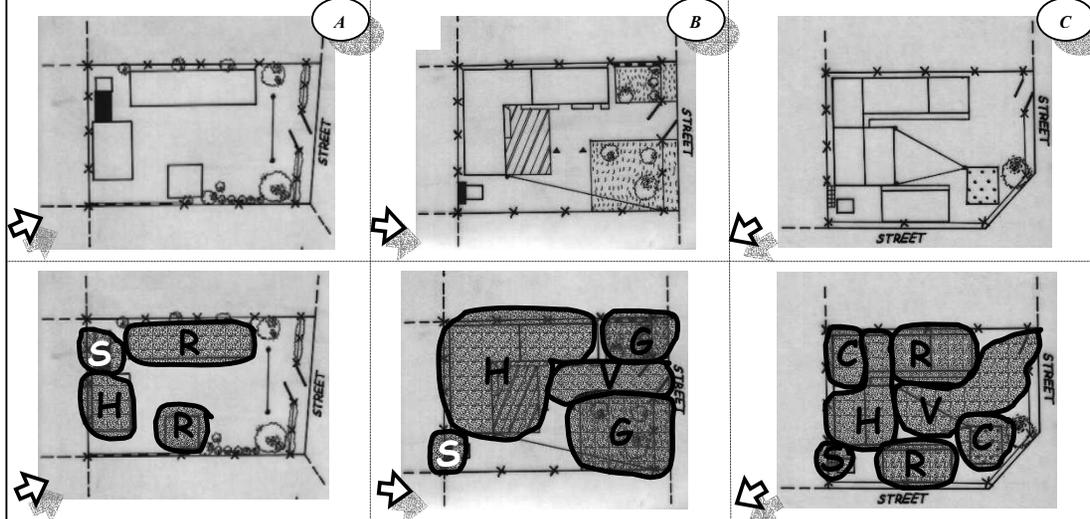
WHY IS IT USED IN THIS WAY?

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

CHAPTER 5: CONSOLIDATION - 3.2.3. LAND USE AND THE USE OF SPACE

EXT. 6: *TPOLOGY 2*

HOW IS THE PROPERTY BEING USED IN TERMS OF:



GARDENING

The front of the erf has a garden on either side of the gate.

RENTAL HSG

Two structures on the side boundaries of the erf are rented out.

The structures bordering the side boundaries are rented out.

COMMERCIAL

A spaza shop exists at the back of the erf - eastern corner. Associated with this is the rest area in the opposite corner.

SERVICE

AGRICULTURE

PARKING

Cars are parked in front of the house structure.

Cars are parked in the central space.

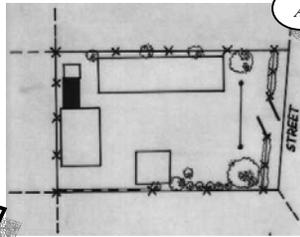
OTHER

A storage facility exists between the toilet and the main structure. A clothesline cuts across the entrance to the erf.

A storage facility exists behind the toilet. A clothesline cuts across from a corner of the structure to the front fence.

Building materials are stored at the back of the erf and clotheslines are attached from the tented area to one structure. The tented area serves as a place for customers of the tuck shop to relax or converse with others.

**PUBLIC/
PRIVATE
INTERFACE**



RELATION TO THE STREET:

Street Boundary Definition

A tall (1.5m) wire fence has been erected in front of the house with gates. It is semi-transparent because of the creepers and trees growing over it. It successfully keeps the public space out of the erf and creates some semi-public space.

PRIVACY:

Side and Back Boundaries

The other sides of the erf are also fenced with wire fencing of the same height. On the eastern boundary the fence is re-enforced by a brick wall and some weeds that have been allowed to grow tall. This is to prevent intrusion from the neighbour. The western boundary is also re-enforced by the placing of trees. Some degree of privacy is created.

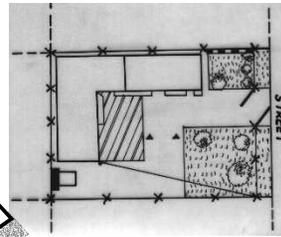
Placing of the units

The structures have been placed in a 'U' formation along the boundaries at the back and sides. This creates socialising space in the centre. The placing of the structures in this way also prevents intrusions from outsiders by blocking their views into the erf.

The structures have been placed in such a manner to facilitate the construction of the actual formal structure (house).

Placing of the front door

All doors of the shacks face the centre of the erf (socialising space).



RELATION TO THE STREET:

Street Boundary Definition

The transparent nature of the one and a half meter tall wire fence and gate in front of the yard facilitates interaction with the street. Trees planted along the fence aid in keeping out the public but are not successful at creating privacy.

PRIVACY:

Side and Back Boundaries

The other sides of the erf are fenced off with the same type of wire fencing used in front. It does not succeed in creating privacy. A short wall exists at the front of the erven on the west side.

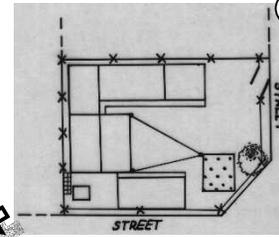
Placing of the units

The structures have been placed in an 'L' shape that borders two boundaries and creates an open area in the centre of the erf. The structures prevent intrusion from outsiders along the two boundaries and together with the short wall, it blocks out the neighbour on the west side totally.

The structures have been placed in such a manner to facilitate the construction of the actual formal structure (house).

Placing of the front door

All shacks have their doors facing the centre of the erf. This appears to be the area for socialising.



RELATION TO THE STREET:

Street Boundary Definition

There are two street frontages with one defined entrance to the erf: The presence of a short weak transparent fence in front lacks the necessary requirements to create privacy. A gate is present at the entrance. The other street frontage is blocked off by the positioning of a structure.

PRIVACY:

Side and Back Boundaries

The remaining sides of the erf are fenced off making use of the same type of fencing. It demonstrates boundary definition and lacks the ability to create private space.

Placing of the units

The structures form a 'U' shape that surrounds an open space. The intention was to create interaction between the spaza shop located on the erf and the passers by as well as those that purchase goods from there. The arrangement of structures is, therefore, to create a social space.

Placing of the front door

All doors face the centre of the erf, which is the focal point of the erf.

1. SOCIO-ECONOMIC STATUS	<ul style="list-style-type: none"> The Family Types are divided between two single nuclear families and one single nuclear family with extended family members. The average family size is 5, ranging from 4 to 7. Households A and C have tenants. Total number of tenants is 8. The average household size is 8 ranging from 4 to 12. Average number of sources of income is 5, ranging from 1 to 8. The type of employment is characterised mainly by full-time and part-time employment with one entrepreneurial/informal activity. The average number of expenses is 11. Only one household managed to save.
2. ADDITIONS	<ul style="list-style-type: none"> All initial structures were toilets situated at the back of the erven on either left or right corners. A total of 11 additions have been made All additions were shacks constructed of temporary materials. Household A made three additions, household B made two and household C made six additions. Where information was available, the following was noted: <ul style="list-style-type: none"> Materials were sourced from within Mamelodi. Costs range between R870 and R3300 with an average of R2085. Credit was used as funding. In most cases, private contractors were used. Owners used either their skills or had been assisted in two cases. The time lapse between additions ranged from a few months to three years.
3. HOW HAS THE UNIT CHANGED OVER TIME?	<p>NUMBER OF EXTENSIONS AND THE TREND IN USE OF MATERIALS</p> <ul style="list-style-type: none"> An average of approximately 3.6 shacks had been constructed. They range between two and six. All shacks had been constructed of temporary materials. <p>SIZE</p> <ul style="list-style-type: none"> Average erf size: 174m² Average extension size: 14.5m² Average area: 48m² Average coverage: 28% (ranging between 24% and 35%) Average occupational density: 7m²/person <p>SHAPE AND CONFIGURATION</p> <ul style="list-style-type: none"> Shape: Majority take a rectangular shape, except one (square). Average dimensions: 2.6m x 4.75m <p>PLACING OF BUILDINGS</p> <ul style="list-style-type: none"> All shacks occupy the space at the back and sides of the erven. Two of them have placed shacks along the east boundary. All have placed shacks along the west boundary. Two households have shacks that have been arranged to form 'U' shapes, whilst the other take an 'L' shape. The placing of the structures along the boundaries have assisted in creating functional space in the centre and front of the erven. Space has been used efficiently. <ul style="list-style-type: none"> Two households reason that space was reserved for the construction of the house. In household C space was kept for socialising and easy entrance to the spaza shop.

***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 (1.2m²), dimensions (1m x1.2m) and shape (rectangle).*
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- 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.
- No reasons for the use of space within the structures could be obtained.

4. HOW IS SPACE WITHIN THE HOME BEING USED?	<ul style="list-style-type: none"> • There are 16 bedrooms in total, an average of five bedrooms per household. • There are 13 kitchens, an average of 4 kitchens per household • There is a lounge in only one household • Toilets provided by government are used in each household • One household has a spaza shop • The use of space is dictated by the essential needs of the residents.
5. HOW IS THE PROPERTY BEING USED?	<ul style="list-style-type: none"> • Just one household has a garden. • Households A and C have renters on the properties. In both cases, the renters have been placed on the side boundaries of the erven. • Space for vehicular entry and parking is facilitated by household B and C in the centre of the erf. • All households have storage spaces for building materials and have clotheslines. • Household C has a tent erected for the relaxation of the customers of the spaza shop.
6. PUBLIC/PRIVATE INTERFACE	<p>RELATION TO THE STREET: <i>Street Boundary Definition</i></p> <ul style="list-style-type: none"> • In all households, fences were erected but the purpose of these fences differs. The first two households erected fences in order to define some private space and boundaries. The last household wanted interaction with the public in order to attract business. The attempt for privacy is much more evident in the first household where an attempt is made to cut the public off from the erf. <p>PRIVACY: <i>Side and Back Boundaries</i></p> <ul style="list-style-type: none"> • All boundaries have been made with the use of wire fencing that is transparent in nature. In some cases walls have been erected to create privacy, which were successful to a degree. • The boundaries (both sides and back) are however enforced by the arrangement of the structures and trees. <p><i>Placing of units</i></p> <ul style="list-style-type: none"> • The placing of the units has been done in a manner that facilitates the creation of social space as well as reinforcing the definition of the boundaries. • The placing of the structures also facilitates the construction of the future houses by keeping space for the structure. <p><i>Placing of the front door</i></p> <ul style="list-style-type: none"> • All doors face inward toward the central space created. This facilitates security and a socialising space.

***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 (1.2m²), 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.
8. No reasons for the use of space within the structures could be obtained.

AFFORDABILITY

- **Family structure:** All families are single and nuclear except for household C. This family has extended family members as well (single, nuclear + extended).
- **Family size:** Family sizes within this typology range between 4 and 7, however two households have tenants which results in the household sizes ranging between 4 and 12. Family sizes appear regular except for the household with 7 family members. This particular household has extended family members, apart from the tenants, that accounts for such a large family size.
- **Sources of income:** Household B has only one source, whilst household C has eight sources of income to support its family of seven. Household A is supported with five sources of income.
- **Savings:** In terms of saving only household C is able to.
- **Expenses:** Every household has numerous expenses but household B seems to have the most amounts of expenses. Combined with the limited income sources, this would reduce the ability of this household to extend.

Conclusion

The affordability levels of households A and C seem to be higher than household B due to the numerous sources of income in relation to household and family sizes. In general, though the affordability levels prevalent within this typology is low when considering the large family sizes and numerous expenses.

PRODUCT

- **Number of additions:** A sum of eleven additions had been made between the three households, which would give an average of 3.6 per household. A comparison between the households reveal how the numbers of extensions are representative of the income levels and family sizes, i.e. as mentioned before, it appeared that household B would not be able to make many additions and has managed two additions. Household A, although supplied by many sources of income, has managed to construct three additions in comparison to household C that constructed six additions. Households A and C have therefore been quite successful in making many additions. This can be accredited to the fact of many sources of income and the need for space in terms of family size - evident in household C.
- **Time:** The initial structures on the erven were a toilet, which implies that the households had arrived after the provision of housing had taken place. In this case, the households had settled here a few months after provision in 1997, i.e. all households had arrived in the same year. The time of arrival on the erven is therefore not a factor that has affected the number and type of extensions produced.
- **Type of structures:** All extensions were shacks constructed of temporary materials.
- **Level of formalisation:** Considering that all structures were made of temporary materials, the level of formalisation is not advanced. None have progressed to building permanent structures.
- **Size of additions:** On average extension sizes were 14.5m², ranging from 7m² to 28m². Household A had made the smallest extension and household B the largest. Low affordability levels have characterised the size of additions made, which are unsuitable for the large household sizes indicated.
- **Configuration:** Average dimensions of these rectangular shape additions appear to be approximately 2.6m x 4.75m.
- **Area of additions:** On average the areas of additions were 48m², ranging between 42m² and 58m². These areas are small in comparison to the number of people that have to live in these structures.
- **Occupational density:** Each person living on these erven has approximately 7m² to him/herself (ranging from 5m² to 11m² per person).
- **Coverage:** On average the extensions on the erven cover 28% of the erven (erven sizes ranging from 166m² to 179 m²). Coverage sizes range between 24% and 35%. Considering that erven sizes are small, coverage is still small and allows for more additions to be in future with the large spaces created.
- **Shape:** All additions appear rectangular.
- **Arrangement of structures:** All shacks constructed seem to have been placed at the back or side of the erven in formations of 'U' and 'L' shapes. Households A and B explained that this arrangement of the shacks was for the reservation of space for the construction of the future houses. Household C arranged the shacks in this manner in order to create a socialising space for the customers of the spaza shop in one of the structures. The use of space of the erven has been efficiently done. Two households have deliberately placed the structures to create these spaces for the future construction of the permanent structures, whilst household C has created the space for socialising (an extension to the spaza shop).
- **Type of employment:** The type of employment does not seem to have an effect on the level of formalisation or the number of additions produced.

***NOTE**

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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.
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.
8. No reasons for the use of space within the structures could be obtained.

Conclusion

Household C seems to be the most successful in terms of the number of extensions produced. The factors that have facilitated its success are the numerous income sources and the ability to save. Inhibiting factor was the number of family members and numerous expenses.

Household A is also quite successful considering the number of additions produced in comparison to household B. The beneficial factor here is also the number of income sources available. The factors that inhibited growth were the number of family members and the expenses.

Household B had numerous expenses to contend with as well as just one source of income. However, this household managed to produce the largest structure of the three households.

It seems that from the analysis the factors inhibiting consolidation were many expenses and large family sizes. Factors that assisted in the consolidation process were the number of income sources and the ability of households to save. The interplay of these factors contribute toward influencing consolidation, i.e. the factors cannot be isolated.

PROCESS

- **Sourcing of materials:** All materials were sourced within Mamelodi (all structures produced were temporary).
- **Cost:** Costs range between R870 to R3300 with an average of R2 085.
- **Funding:** In most cases credit was the main source of funding, which re-emphasises the low affordability levels and poor savings abilities inherent in this typology.
- **Builders:** The use of private contractors also became quite apparent. Only in two additions did the owners use their own building skills. Although affordability was an issue, private contractors were used in abundance compared to using their own skills.
- **Time:** The period between extensions seem quite small (between a few months to three years). Household B took three years between extensions, which seems to be related to the limited income sources. Although lots of time was taken, household B was able to build the largest addition. The other two households managed to build up quite quickly and smaller additions were made.

USE OF SPACE*Within structures*

- In terms of the use of space within the additions, they appear to be the basic needs, i.e. bedrooms and kitchens. One household (B) does however have the *luxury* of a lounge. All households make use of the toilet provided by government.
- In total there are 15 bedrooms which average out to five bedrooms per household. The number of bedrooms is related to the number of people residing between these three households.
- The number of kitchens can be explained in much the same manner, i.e. there are 13 kitchens in total with 4 per household as the average. The number of people occupying the households explains the large number of kitchens and bedrooms.

Within erven

- **Gardens:** Within the erven, the uses extend from gardens to the use of tents. Only one household has a garden in front of the house. **Parking:** Space for the parking of vehicles is made in the centre of the erf. Household B and C do possess cars (*luxury*) of which one is in working condition (household C).
- **Tenants:** Renters exist in the other two households (A and C) along the side boundaries (15% of the erven).
- **Commercial:** In household C the *survival strategy* employed is that of a spaza shop (25% of the property) that occupies one temporary structure at the back of the erf.
- **Other:** Other uses include storage spaces for building materials which is generally kept at the back of the erven. All households have storage facilities or spaces. Clotheslines are also erected between extensions or on the side of the erven. In household C a tent is erected for the relaxation of its customers.

PUBLIC/PRIVATE INTERFACE

- **Street boundary:** The attempt at definition of private space within households A and B are quite evident with the use of fencing in the front and the planting of trees and creepers. However household C attempted to create interaction with the street in order to attract people to the spaza shop. The street definition of each household is therefore different for the different intentions pursued.
- **Side and back boundaries:** All side and back boundaries appear to be made of transparent wire fencing. Some side boundaries are re-enforced with walls and trees. This helps to facilitate the definition of semi-private space, which seems to be successful in household A.

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8. No reasons for the use of space within the structures could be obtained.

- **Placing of units:** The placing of the units on all erven is done in such a manner that a central socialising area is created. The units also re-enforce the boundaries that were attempted to be defined by the fencing. The placing of the units therefore plays two roles, i.e. creation of socialising space and boundary definition.
- **Placing of the front door:** All doors face the central space created (socialising space).

Pattern: All structures have been placed along the side and back boundaries either in 'L' or 'U' shapes creating a central space for socialising, presently. The entire erf is fenced with a garden or trees planted at the entrance. All structures focus on the central area.

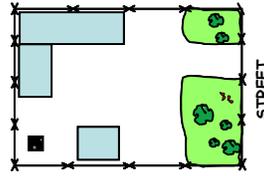


FIGURE 46: Pattern 1

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