## **URBAN PLANNING & ENVIRONMENT SYMPOSIUM**

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## **Symposium Vision:**

"A better environment for future generations"

## Title of 3<sup>rd</sup> Symposium:

"Environmental quality and development needs: Planning opportunity or threat."

# Title of Paper: SERIOUS ABOUT SAFETY

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Based on work done by the Division of Building Technology, CSIR

#### Abstract:

This paper addresses the built environment, the opportunities it presents for crime and the role city planners and urban designers have to play in the design of safer cities and towns. City planners and urban designers can play a role in the creation of safer environments, by being aware of and employing the principles of crime prevention through environmental design. These principles and the entire approach, can be incorporated in Community Safety Plans, as part of the broader community development process, i.e. the IDP/ LDO processes, etc. Using their particular professional skills within the built environment, in terms of coordination, design and management, planners and designers can contribute to crime prevention in a pro-active and creative way. This will not only assist in addressing crime and the opportunities for it, but also in reducing the fear of crime in our cities and towns.

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### 1. INTRODUCTION

Crime is an every day reality in South Africa. An opinion poll conducted by the SABC, Idasa and Markinor has found that concern about crime and security has risen by nearly 50 percent in all provinces in this country<sup>1</sup>. In another recent public survey done by the HSRC, crime prevention topped the list of priorities, even before "job creation"<sup>2</sup>. In addition, the fear of crime is an integral part of the lives of many South Africans. Less that 30% percent of the population regularly report feeling safe<sup>3</sup>. The fear of crime changes lifestyles and influences use patterns. But, what is being done about this expressed priority and what are planners and urban designers doing to prevent crime?

Given that crime prevention is one of the major priorities in South Africa, most South Africans believe that "fighting crime" should be the leading priority set for government during the next 10 years<sup>4</sup>. So, while the need for crime prevention is growing, a large proportion of the population assumes that only the police, criminologists, legal practitioners and politicians can address the problem. This, however, is not the case. Crime prevention and community safety do not only involve law enforcement measures and social development programs. It is also concerned with the built environment and more specifically with the opportunities that the built environment presents for crime. In this regard city planners and urban designers also have a role to play in terms of crime prevention and the establishment of safer cities for future generations.

The question that comes to mind then, revolves around three issues: who is responsible for crime prevention, how should they go about it and given the focus of the paper, what is the role that city planners and urban designers should play? This paper therefore focuses on city planning and crime prevention.

The paper is structured in the following way. The scene is set by an overview of the current crime problem in South Africa with a specific reference to crime and its link to the built environment (section 2). The next section (section 3) identifies particular international approaches known concerned with crime prevention in the built environment. Section four proceeds to discuss the function of city planners and urban designers within this context. The paper then concludes (section 5) with a brief summary and a way forward.

#### 2. CRIME AND PLACE

Understanding crime, and the places where it is committed, is crucial to its prevention. Whether or not a crime occurs, depends on the interaction off three main elements. These elements include the physical and social environment within which the crime, the offender and the target or victim (see figure 1). The form of the built environment as the local setting, impacts on these elements – thus certain design features and structures have the ability to hinder or enhance opportunities for crime to occur.



Figure 1: The elements of a crime

This is also true of South Africa. Cities and towns in this country reflect a sad picture; an inherited footprint from the past. Urban environments are characterized by fragmentation and spatial dislocation, separation and mono-functional zoning, and by low-density suburban sprawl.

The result is a city of inequity, experiencing rapid changes in user patterns, and in many cases an environment of fear.

In order to address the problems that these spatial characteristics cause and ensure an improved and more crime free environment for future generations, the following spatial aspects should be addressed:

- The spatial dislocation of the poor on the peripheries of the cities and the ever increasing low density suburban sprawl, both of which result in long and costly commuting patterns.
- The separation of communities through rapid transport routes, large buffer-strips and undeveloped open land.
- The rigid mono-functional zoning of land with often inappropriate, enforced land-uses that leave some areas deserted during the day or night.
- The degraded and poorly developed built environments experienced by many in the South African city.
- The effective exclusion of many city residents from the amenities and economic opportunities offered by the city due to the location or absence of these facilities.

These spatial characteristics create numerous opportunities for crime. Large-scale commuting, exposes travelers to more opportunities for crime on trains, at railway stations and taxi ranks (see figure 2). This is especially true if these people are forced to travel in the dark or twilight periods. It also exposes them to crime opportunities when walking to and from these places early in the mornings and late at night. People travelling on rapid transport routes and using desolated, intersections with no surveillance, are also exposed to hijackings. Pedestrians who are forced to cross vacant and undeveloped land are more susceptible to rape, mugging and assault from potential offenders hiding in bushes and due to a lack of surveillance in these areas (see figure 3).



Figure 2: Undeveloped and poorly designed taxi ranks enhance the opportunities for crime at these places.



Figure 3:
Pedestrians who are forced to cross undeveloped and vacant land are very vulnerable to potential criminals hiding in the dense bushes.

Mono-functional zoning and land-use forces people to travel long distances to employment opportunities, leaving their properties, children and the elderly exposed to criminal activities in dormitory areas (figure 4). Undeveloped public open spaces and a lack of maintenance and upgrading in degraded built environments, can establish a bad image, contributing to urban decay and open these areas up to criminal activities (figure 5). A development pattern focussing on well developed suburban areas and Central Business Areas, serves to strengthen the pattern of exclusion, leaving many residents of poorly developed areas with no access to recreation and other necessary facilities (figure 6). The result is further increased commuting patterns to more developed areas, more regular visits to local shebeens or participation in gangster activities, etc., which in turn may exacerbate the opportunities for crime.



Figure 4:
Dormitory
township areas,
left deserted
during the day due
to a lack of
economic and
other opportunity,
enhance the
opportunity for
crime during the
day.



Figure 5:
Undeveloped
public open
spaces can
establish a bad
image, thereby
contributing to
urban decay and
opening these
areas up to
criminal activities.

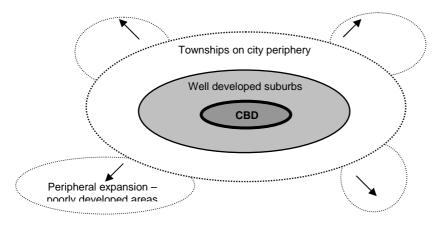


Figure 6: A
development
pattern focussing
on well developed
suburban & CBD
areas, serve to
strengthen the
pattern of
exclusion, leaving
residents of poorly
developed areas
with no access to
recreation and
other facilities.

The location of crime is important and it is clear that there is a definite link between crime and the built environment. Crime prevention should therefore, not only be concerned with law enforcement and social development, but also with the nature of the built environment and the opportunities it presents for crime.

### 3. INTERNATIONAL APPROACHES

This issue has been researched internationally and several approaches have been developed in order to address crime and the fear of crime in the built environment. Some of these approaches include Crime Prevention through Environmental Design, Place-Specific Crime Prevention and Situational Crime Prevention.

**Crime Prevention through Environmental Design** (CPTED) is aimed at reducing the causes of, and the opportunities for, criminal events, as well as addressing the fear of crime, through the application of sound design and management principles to the built environment<sup>5</sup>. The term Place-Specific Crime Prevention refers to coordinated programs of change (specifically physical design, security and property management changes) that are targeted to a particular place and its problems<sup>6</sup>. Situational Crime Prevention comprises opportunity-reducing measures that (1) are directed at highly specific forms of crime, (2) involve the management, design or manipulation of the immediate environment in as systematic and permanent way as possible, (3) make crime more difficult and risky, or less rewarding and excusable as judged by a wide range of offenders<sup>7</sup>.

In essence, these three concepts have more or less the same aim in mind, namely to change the physical environment, as well as to address the management, maintenance, use patterns of particular areas and daily activities of people, to reduce the opportunities for crime. All three approaches advocate an environmental design approach combined with management measures to address crime in particular areas. Their main contribution lies in the fact that they show that positive design interventions can make a difference in terms of crime prevention and that these design interventions should involve more than just target-hardening. They also emphasize the notion that all crime prevention aspects must be place-specific, since every crime situation is unique, and should therefore include tailor-made strategies for specific places and specific crime situations.

In South Africa, research has been carried out by the CSIR on this concept of environmental design to prevent crime. In their book, *Environmental Design for Safer Communities*<sup>8</sup>, five basic principles are identified as fundamental in designing to reduce crime. These principles have been formulated as a result of extensive research into international literature, and although they are universal in the design of safer environments, they have been adapted to suit the characteristics and dynamics of South African cities. Bearing this in mind, a thorough understanding of the principles is necessary to establish a foundation for future planning and design intervention to prevent crime, as well as for strategy formulation.

These five basic principles of CPTED, aimed at crime prevention in the built environment and specifically relevant to city planners and urban designers are:

#### • Surveillance and Visibility

Passive Surveillance is the casual observance of public and private areas by residents in the course of their normal activities. Active surveillance refers to surveillance by the police or other agents whose express function is to patrol an area. Good visibility improves surveillance.

#### Territoriality and Defensible Space

Territoriality is a sense of ownership of one's living or working environments. Places can be designed and managed in ways that encourage users to take responsibility for them through concepts such as 'defensible space'. Spaces are defensible if people are able to exercise control over them.

## Access and Escape Routes

Access and escape routes are available to both offender and victim. The sites of certain kinds of criminal events, like hijacking, are often deliberately chosen by the offender, before the act, for access to escape routes.

### • Image and Aesthetics

The image that is projected by buildings or public spaces in the city has been linked to levels of crime and particularly the fear of crime. Urban decay and the resultant degradation make people using these areas feel unsafe.

#### Target Hardening

Target hardening is the physical strengthening of building facades or boundary walls to reduce the attractiveness or vulnerability of potential targets. Walls around houses and burglar bars on windows are the most common examples<sup>9</sup>.

It is important to bear in mind that in any given situation these principles need to work together to contribute to an effective crime prevention strategy. At the same time, they need to work alongside other planning principles for well-performing settlements. South African cities offer a unique challenge to all planners and urban designers to transform their cities in creative ways and reverse the negative structure of the past. Crime prevention through planning and design can play a vital role in the transformation of South African cities, as well as in the process of designing new areas with the added benefit of safer environments.

It is however, unrealistic to expect to be able to prevent all types of crime using the same methods. A sound understanding of crime patterns in a particular place is essential, in that particular types of crime can be addressed through particular design responses. These principles can therefore be seen as a way to focus the attention of relevant role-players on the possibilities of preventing crime through urban planning and design.

However, while international researchers and protagonists agree that there is a link between crime and the built environment, and that city planners and designers have a role to play in terms of crime prevention, South Africans are still hesitant and in many cases unaware of these issues. Many role-players, including planners and designers, remain oblivious of crime's link to the built environment and continue to maintain that law enforcement and community development/social crime prevention are the only ways to address or prevent crime. However, both the National Crime Prevention Strategy (NCPS) and the White Paper on Safety and Security (1998) address this issue. Pillar Two of the NCPS seeks to promote crime prevention through environmental design. The White Paper on Safety and Security promotes Situational Crime Prevention, and environmental design (CPTED), as part of it.

Given that this link between crime and the nature of the built environment exists, the following are necessary in terms of crime prevention in South Africa:

- That all role-players should realize and understand the link between crime and the built environment.
- That intervention in the built environment is necessary in order to address crime prevention
  and to reduce the opportunities presented for crime, and that the relevant role-players
  should accept their responsibilities in this respect.

Given that appropriate intervention in the built environment is necessary, it then becomes the onus of those specialists concerned with the built environment, namely city planners and urban designers, to be involved in these interventions. This does not suggest that these players should be the only role-players, but rather emphasizes that these proffesionals have an important function in terms of crime prevention in the built environment.

# 4. URBAN PLANNING AND CRIME PREVENTION: THE ROLE OF CITY PLANNERS AND URBAN DESIGNERS IN TERMS OF CRIME PREVENTION.

Broadly speaking, the role of city planners and urban designers is to utilize these approaches and principles in their projects and to ensure that these are part of broader crime prevention strategies at local level. But, how should they do it? It is necessary to keep three aspects in mind when planning for safer environments and these can be classified as the 3 P's of Crime Prevention through Planning and Design:

- Place
- Process
- Partnerships

# PLACE – to ensure context-specific design and management of the built environment to prevent crime

The crime and environmental problems found in one neighbourhood are quite different from other such neighbourhoods and therefore each particular place will require different planning strategies and design solutions to address the specific place and crime situation.

The planners' knowledge of the spatial characteristics of a specific place can prove to be highly valuable in this regard, not only to assist with spatial analysis of the area, but also in terms of the implementation of crime prevention through design principles. The crime situation is, however, not only influenced by the nature of the physical environment, but also by the use patterns and the daily routine activities of people using the physical environment. It must be remembered that each community is unique. Crime in a particular environment will be influenced by the specific physical, social, economic and political characteristics of that environment. Therefore, all programmes to prevent crime prevention must be treated on its own merits. This should include the prioritization of specific projects in order to respond to the specific needs of a particular community and environment. It also implies that while the principles of the above-mentioned approaches to address crime prevention in the built environment, are universal, the application should be place-specific and tailor-made for the particular crime situation in that place.

### Example:

The city of Toronto, Canada has compiled its own place-specific design guidelines to assist planners and other role-players in planning for a safer city. The *Toronto Safer City Guidelines* (1997) is the third edition of a project that started as *A Working Guide for Planning and Designing Safer Urban Environments* (1992). The manual focuses on the following aspects: the legislative framework for Toronto's Planning guidelines, the process of designing safer environments, factors that enhance safety and security in public places and problematic places.

PROCESS – to contribute to and ensure the development, implementation and management of local crime prevention strategies, planning and design guidelines and pilot/future projects.

### a) Policy Framework

Government realises that crime prevention can be more effectively addressed at the local level and consequently the White Paper on Safety and Security identifies Local Authority as one of the key agents. Local Government is thus mandated to design and implement programs targeted at specific crime problems. The potential of such programmes is broad and encompasses environmental design initiatives, diversion programmes for young offenders, etc. Such problems need not fall within the traditional core functions of local line functions or provincial departments<sup>10</sup>. These programs do however play an important role as part of a local crime prevention partnership to address crime in a specific area.

Crime and the fear of crime have been prioritised as a major issue through the LDO/IDP processes of many Local Authorities. However, few Local Authorities have a clear idea of how to take this process further. In this regard, the National Crime Prevention Strategy (NCPS) has commissioned the CSIR to compile a manual on how to design a community crime prevention strategy. This covers the identification of local crime problems in a specific environment, the prioritisation of specific crime prevention focus areas for the particular environment, the management of identified projects and their monitoring and evaluation.

The role of the planner and urban designer should revolve around facilitation, cooperation and coordination in the development of such a community safety strategy. This will include:

• Facilitation (as part of the project team) of focus groups, workshops, etc. to gather information during the analysis and identification of the crime problems in a local area.

- Cooperation in terms of the analysis of the physical and social environment from an environmental design perspective, including the crime patterns in a specific location, use patterns and the nature of the physical environment.
- Coordination in terms of the formulation of a focus area/thrust to address crime prevention through planning and design.

#### b) Implementation

Community Crime Prevention Strategies should emphasize more effective and efficient use of existing resources through the prioritization of specific focus areas and crime prevention projects to address local crime problems. One of these areas can focus on environmental design or situational crime prevention and this is where planners and urban designers can contribute to crime prevention in an effective way.

The role of the planner and urban designer will revolve around the development and implementation of environmental design/ situational crime prevention strategies, planning and design guidelines and pilot projects. This will include:

- Encouragement of local, context-specific environmental design crime prevention efforts
- Assisting with the development of environmental design/ situational crime prevention strategies
- Incorporating environmental design and situational crime prevention approaches and principles in future design and planning projects
- Applying these principles when designing new or upgraded areas
- Applying these principles and understanding their implications on the zoning and recommended land-use of areas, as well as in terms of land-allocation for necessary facilities (for example community centers, recreational and sports facilities, etc.).
- Formulating and establishing by-laws pertaining to the physical environment and crime prevention
- Implementing pilot projects to act as an example of how planning and design intervention can address crime prevention and to learn from practical examples.
- Ensuring community awareness and participation when implementing a project to ensure support and ownership of the project.

#### c) Management

The success of a Community Safety Plan and the implementation of resulting projects will largely depend on the degree and level of management involved. Without management continuity no strategy or project can be successful in the long run. It is therefore necessary to appoint a responsible body or person to manage the strategy and to coordinate the crime prevention projects at local level. This will also imply the involvement and coordination of all relevant role-players involved in the various projects.

The role of the planner and urban designer will revolve around the management, coordination/cooperation, as well as monitoring and evaluation of crime prevention projects concerned with planning and design. This will include:

- The management of their particular crime prevention projects
- Coordination and cooperation with other relevant role-players and crime prevention projects
- Assisting with the monitoring and evaluation of crime prevention projects concerned with planning and design.
- Reviewing the feedback from the community and other stakeholders and adapting the crime prevention through design / situational crime prevention approaches if necessary.

#### Example:

The Khayalami Metropolitan Council (KMC) has embarked upon an intensive program to assist the SAPS and to improve the Public Safety Situation within the Khayalami Metropolitan Area (KMA), as well as neighbouring areas. The first phase of the program consisted of deriving a Public Safety Strategy Plan for the KMC. The plan was finalized in October 1996 and comprises eight major thrusts focusing on improving the performance of the overall Public Safety System within the boundaries of the KMA. Thrust No 5 focuses on *Urban Redesign for Public Safety* and entails the systematic assessment and determination of environmental design factors that enable the enhancement and/or detriment of safety and security in the KMA. The KMC has recently commissioned the CSIR to develop a strategy for Urban Redesign for Public Safety.

PARTNERSHIPS – to assist the Local Authority to initiate the development of local crime prevention partnerships, especially those concerned with environmental design, and incorporate relevant role-players in the process.

Given the fact, that crime prevention is not only about law enforcement and community development/social prevention, but also about situational crime prevention, this should involve a wide range of role-players. The Local Authority needs to exercise its position and take the lead in the development of local crime prevention partnerships.

There are many role-players involved that need to be part of crime prevention partnerships. These include councilors and officials of the local authority, community based organisations, local and organized business, NGO's, taxi-organizations, etc. (also see figure 7). The partnerships should aim to pull together all relevant role-players for the specific crime prevention project. Together these actors can prioritise the most serious crimes in their area, plan how to reduce them and ensure appropriate and ongoing management of crime prevention projects. Such partnerships benefit from shared skills, resources, knowledge of the area and commitment to action. These local crime prevention partnerships can take on different forms ranging from partnerships directed at specific projects to partnerships approaching crime on a specific neighbourhood or area level (see examples).

The role of the planner and urban designer in these partnerships should revolve around coordination, cooperation and specialized input. This should include:

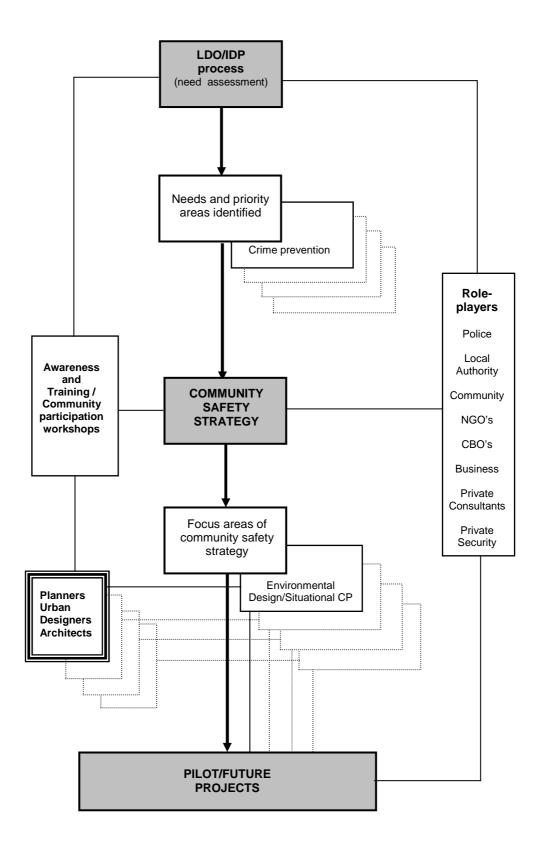
- Formulation of relevant partnerships concerned with planning and design for safety.
- Coordination of these partnerships.
- Cooperation in other relevant crime prevention partnerships where specialized input from a planning and design perspective can add value.

### Example:

*Safer Cities: Greater Johannesburg* has established several partnerships to assist the process of crime prevention in Johannesburg. These include:

- As part of the Safer Cities Project, a creative and dynamic partnership was established, involving a broad range of local role-players to design, develop and implement local projects. At the initial stage of the project the primary focus of the partnership was at a strategic level, engaging a wide range of actors in developing key focus areas for the project.
- Specific project intervention partnerships were also established at a later stage, for example a
   car guard program, which engaged the Police, traffic department, corporate and small
   business, provincial government, marketing and tourism, community police fora, Business
   Against Crime and other NGO's.
- Partnerships approaching crime on a specific neighbourhood or area level have also been
  developed. The integrated crime prevention pilot project planned for the *Joubert Park Precinct*,
  has created a primary partnership between local government and the local communities and
  will subsequently be developed through the inclusion of other actors as well, including planners
  and urban designers. The *Inner City Partnership* is another example of the development of a
  geographic focused partnership, also involving planners and urban designers.

Figure 7: Process and relationships of crime prevention at local level with specific reference to crime prevention in the built environment



# 4. CONCLUSION: TOWARDS COMMUNITY SAFETY THROUGH RESPONSIBLE URBAN PLANNING

The location and environment where crime occurs is important and empirical evidence proves the link between crime and the built environment. Therefore, crime prevention should not only be concerned with law enforcement and social development, but also with the nature of the built environment.

International crime prevention through planning and design approaches provide a basis for South African practitioners to build upon. The implementation of these approaches will not only add to the overall repertoire of available crime prevention initiatives in South Africa, but will also address some of the more pressing needs our country is confronting today. In addition, it extends the playing field of crime prevention agents and gives an opportunity to others, traditionally not involved with crime prevention, like planners and designers, to contribute to crime prevention in South Africa. Crime prevention is not only concerned with the nature of offenders or possible offenders, but also with the built environment and the opportunities it presents for crime. In this regard, the table is laid for fruitful intervention to reduce the opportunities for crime in the built environment and along with it, the fear of crime as well.

Planning and Design to prevent crime, does therefore, offer a great **opportunity** for all city planners and urban designers to:

- Address crime and the fear of crime in the built environment;
- Contribute to crime prevention in a proactive and creative way;
- Assist traditional crime prevention agents, for example the police, etc. with local crime prevention
- Be part of local crime prevention partnerships
- Contribute to better and safer environments for future generations

In order to address this opportunity, they need to **focus** on the following **three aspects**:

- Be aware of the built environment's link with crime and of the characteristics within the built environment which contributes to opportunities for crime;
- Be aware and understand the crime prevention approaches addressing crime in the built environment
- Incorporate these approaches and principles in planning and design projects, and to ensure that these are part of broader crime prevention strategies at the local level.

Design and planning alone, is not the ultimate answer. It needs to be combined with other crime prevention efforts and management principles to ensure the maximum effect in the long run. Design and planning to prevent crime, needs therefore, to be part of a holistic approach to address the current state of our cities and the crime within it. It needs to be context-specific and therefore the local authority is in the best position to initiate this holistic approach to crime prevention and identify the responsibilities of all the other role-players.

City planners and urban designers can contribute to community safety through responsible urban planning. The incorporation, of planning and design principles for safer environments, does not necessitate a complete alternative approach, if the design of well-performing and vibrant cities is the aim. However, when analysing the city precincts in South Africa, it becomes evident that in many cases these principles have been ignored to the detriment of the cities' residents. What seems necessary then, is an awareness that cities and neighbourhoods can be planned and designed to be safer.

The built environment is the set where our everyday life activities take place; it is the stage where the play of life is performed. It is also the stage where criminal activities take place. Crime happens in particular places and is dependent on specific opportunities presented by these places.

The challenge then, for planners and urban designers, is to get serious about safety and to take up their role in building better environment for future generations.

<sup>&</sup>lt;sup>1</sup> News Bulletin. http://www.sabc.co.za/radio/news/news.htm

<sup>&</sup>lt;sup>2</sup> Loock, S. "Crime fight must be No 1". *Citizen*, 1 March 1999.

<sup>&</sup>lt;sup>3</sup> Ibid.

<sup>&</sup>lt;sup>4</sup> Ibid.

<sup>&</sup>lt;sup>5</sup> Napier, et.al. *Environmental Design for Safer Communities*. Pretoria, CSIR Publication, 1998.

<sup>&</sup>lt;sup>6</sup> Feins et.al. Solving Crime problems in residential neighbourhoods: Comprehensive changes in design, management and use. US Department of Justice, Office of Justice Programs, National Institute of Justice. 1997, p 74-75.

<sup>&</sup>lt;sup>7</sup> Clarke, R.V. (ed.) *Situational Crime Prevention: Successful Case Studies*. Second edition. New York, harrow and Heston, 1997, p 2.

<sup>&</sup>lt;sup>8</sup> Napier, et.al. *Environmental Design for Safer Communities*. Pretoria, CSIR Publication, 1998.
<sup>9</sup> Ibid.

<sup>&</sup>lt;sup>10</sup> Robertshaw, R, S Singh and G Reid. 1998. "The challenges of local crime prevention in Johannesburg. Safer Cities, Johannesburg". Paper delivered at the *International Conference for Crime Prevention Partnerships to build community safety*, Johannesburg, October 1998.