

ENVIRONMENTAL SECURITY PLANNING:
AN APPLICATION TO THE LONGWOOD MEDICAL AREA

by

MIRIAM GAIL GARMAISE

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF
THE DEGREES OF

BACHELOR OF SCIENCE
IN URBAN STUDIES AND PLANNING

and

MASTER OF CITY PLANNING

and

MASTER OF SCIENCE IN ARCHITECTURE STUDIES

at the

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

February 1982

© Miriam Gail Garmaise

The author hereby grants to M.I.T. permission to reproduce
and distribute copies of this thesis document in whole or
in part.

Signature of Author _____

~~Department of Urban Studies and Planning~~
Department of Architecture, February 1982

Certified by _____

Q I

Gary A. Hack
Thesis Supervisor

Accepted by _____

N. John Habraken
Chairman, Departmental Committee
Rotch on Graduate Students

MASSACHUSETTS INSTITUTE
OF TECHNOLOGY

JUN 2 1982

LIBRARIES

Environmental Security Planning:
An Application to the Longwood Medical Area
by

Miriam Gail Garmaise

Submitted to the Department of Urban Studies and Planning and the Department of Architecture on February 8, 1982, in partial fulfillment of the requirements for the degrees of Bachelor of Science in Urban Studies and Planning, Master of City Planning, and Master of Architecture Studies.

ABSTRACT

The thesis is a study of the security problems due to street crime in the Longwood Medical Area of Boston. The first part of the thesis defines the theories and practices of environmental security planning, the urban design synoptic approach to crime prevention. The environment is examined in its totality -- the physical, social, economic, and psychological characteristics, all of which are considered. The synoptic approach incorporates some of the traditional forms of crime prevention: the punitive (minimally), corrective and mechanical approaches with emphasis on the spatial perspective and the utilization of physical design strategies to deter crime. A "crime analysis model" is developed which focuses on five components: the offender, the journey to crime, the target, natural surveillance and organized surveillance.

The second part is the case study of the Longwood Medical Area (LMA) for which the crime analysis model forms the structure. The currently practised monolithic approach to crime prevention which primarily restricts itself to the utilization of organized surveillance (private security guards) and limits itself to the defined geographical boundaries of the LMA is examined. This monolithic approach is aggravated by the lack of inter-institutional-community tensions all of which result in an unsatisfactory security planning strategy.

The main recommendation of the thesis focuses on a basic conceptual change to a synoptic approach in the security planning of the Longwood Medical Area. A number of recommendations applying to specific situations are given.

Thesis Supervisor: Gary Hack
Title: Associate Professor of Urban Studies and Planning

Acknowledgments

Special thanks to my advisor, Gary Hack, for his sound advice and guidance throughout my tenure at M.I.T. and during the thesis process, and to my readers -- John Connelly and Langley Keyes for their insights and constructive criticisms. Their friendship and good humour made working with them not only an educational, but also an enjoyable experience.

A special note of appreciation goes to Wayne Welke of Arrowstreet, Inc., who supported and encouraged my initial investigations of the security difficulties facing the Longwood Medical Area.

My thanks to all those who gave of their time and expertise, particularly the security directors and administrators of the Longwood Medical Area institutions and the Medical Area Services Corporation.

Finally, my deepest gratitude to the Canada Mortgage and Housing Corporation whose generous support for four years has enabled me to enjoy a challenging and unconstrained educational program at M.I.T.

TABLE OF CONTENTS

Abstract.....	ii
Acknowledgements.....	iii
Table of Contents.....	iv
Introduction.....	1
Section A: Environmental Security Planning.....	6
I. Environmental Security Planning: Theory.....	7
A. Overview.....	7
B. Crime Prevention.....	10
C. Conclusion.....	20
II. Environmental Security Planning: Crime Analysis and Implementation.....	22
A. Crime Analysis.....	22
B. Crime Analysis Model.....	23
C. Planning and Implementation.....	28
Section B: Longwood Medical Area.....	30
I. Crime Analysis.....	31
A. Neighborhood Context.....	31
B. Street Crime in the LMA.....	34
C. Application of the Crime Analysis Model to the Longwood Medical Area.....	39
D. Security Planning in the LMA: Management..	63
E. Crime Analysis Summary.....	70
II. Environmental Security Planning in the Longwood Medical Area: Recommendations.....	71
A. General Recommendations.....	74
B. Exhibits of Specific Recommendations.....	76

Footnotes to Exhibits.....	82
III. Conclusion.....	83
Appendix.....	85
1. Tabular Review of Surveys Measuring Avoidance Behavior.....	86
2. Case Studies of Institutional- Community Security Efforts.....	87
Johns Hopkins.....	89
Detroit Medical Center.....	92
Temple University.....	94
Montefiore Hospital.....	96
Interviews.....	98
Bibliography/Articles.....	100

Introduction

Ensuring the security of our cities is no longer a task relegated to the department of criminal justice or the law enforcement agencies. The tremendous increase of street crime over the past few decades are indicators of the incapability of the traditional law enforcement establishment to contain the problem. Violent personal assaults -- murders, rapes, and robberies -- have more than quadrupled in the last twenty years.¹ Crimes against property -- larceny, car theft, and vandalism -- have tripled, resulting in billions of dollars of losses.

The fear of crime is as crippling to the quality of American urban life as the actual risk of victimization. Large percentages of the population do not venture out alone at night,² entire districts are avoided,³ and a

¹In 1980, 23,000 people died at the hands of murderers, up from 9,000 two decades earlier. In 1980, 82,000 women were raped, up from 17,000 reported in 1960; more than half a million people were robbed, up from 108,000; and 650,000 were assaulted, up from 154,000. "Our Losing Battle Against Crime," U.S. News and World Report, October 12, 1981, pp. 39-43.

²A 1972 poll showed that at least 50% of persons with the following demographic characteristics were afraid to walk the street alone at night: females, people with grade school education, income less than \$3,000, and residents of cities with at least one million inhabitants. U.S. Department of Justice, 1975:9.

³Savitz et al. found that 31% of the black adults surveyed reported trying to transfer their children to safer schools, while 70% reported trying not to work in "bad" areas.

migration of urban residents to rural areas seeking "peacefulness, tranquility and freedom from the fear of serious crime"⁴ is a growing phenomenon.

The outcome is an informal decentralization of law enforcement activities: vigilante groups such as the Guardian Angels ride the subways and patrol the streets of 35 cities across the nation; neighborhood block associations and community crime prevention groups are growing in number; institutions are enlarging their security systems. In the past twenty years national expenditures on private security have increased tenfold -- from \$900 million in 1960 to an estimated \$10 billion in 1981.⁵

There are also new professionals who have entered the crime prevention field: urban designers. Environmental security planning, the urban design approach to crime prevention, attempts to reduce both the opportunities and the motivations for street crime through physical and socio-economic planning. The approach is synoptic in that it

(3 cont'd) Savits, L.D. et al., City Life and Delinquency-Victimization, Fear of Crime and Gang Membership, National Institute for Juvenile Justice and Delinquency, Office of Juvenile Justice and Crime Prevention, LEAA, 1977.

⁴Peterson, I., "Rural Michigan Booming as Many Flee Urban Ills," New York Times, July 8, 1981.

⁵"Violence Creates a New Growth Industry," Chicago Tribune, April 5, 1981.

draws on the contribution of all related professionals and members of the community for the planning process and its implementation.

This thesis is an environmental security planning study of the Longwood Medical Area of Boston, a world renowned medical and educational center covering an area of 154 acres. The Longwood Medical Area (LMA) attributes the street crime difficulties it faces to its location "in an undesirable neighborhood." This problem is one shared by major institutions across the country which are often located in low income communities plagued with high crime rates. The LMA administrators have recognized, along with many of the administrators of institutions across the nation, that "security is an issue for which the institutions must plan."⁶

Background for the Study

In December 1981, Arrowstreet, Inc., architects and planners, were retained by the Medical Area Services Corporation (MASCO), a shared service organization for thirteen

⁶Dr. Mitch Rabkin, Director, Beth Israel Hospital, Longwood Medical Area, Boston.

of the major institutions in the LMA,⁷ to conduct an urban design master program for the area.⁸ The primary area-wide issues of concern were traffic and parking, security and physical plant development. This thesis is an outgrowth of my involvement with the LMA master program as an urban design team member.

⁷The MASCO member institutions are: Beth Israel Hospital (BI), Brigham and Women's Hospital (B&W), Children's Hospital Medical Center (CHMC), Joslin Diabetes Foundation, Sidney Farber Cancer Institute, Harvard Medical School (HMS), Harvard School of Dental Medicine, Harvard School of Public Health, Massachusetts College of Pharmacy and Allied Health Sciences (MCP), Simmons College and Winsor School. (Exhibit 7, pp. 32)

⁸The following definition of Master Programming is excerpted from the MASCO Project Plan, 1980, pp. 1.
"Master programming' is fundamentally different from traditional master planning. Master programming refers to environmental planning in a broad sense to include social, institutional and non-land use environmental factors as well as those traditionally associated with physical planning. Whereas master planning usually implies working from a larger framing idea or plan, master programming is meant to imply an action-centered approach in which framing ideas or plans are drawn to improve the fit of actions with others taken or planned."

Thesis Format

An overview of environmental security planning and related crime prevention approaches provides the background for the crime-analysis model, a model of the conditions and their inter-relationships which contribute to the commission of a street crime. The crime-analysis model provides a structure for examination of the Longwood Medical Area and for the conditions which contribute to the vulnerability and desirability of the LMA as a target for street crime.

A critique of the security planning strategies currently in force in the LMA is followed by a set of recommendations for future planning efforts.

The thesis concludes with a reflection on the importance of the synoptic approach to environmental security planning and recommendations for further research.

SECTION A

Environmental Security Planning

"...All of these things (physical crime control measures and law enforcement) are symptomatic treatment of the fundamental problems of dealing with crime in an urban society. We need to look at a more deep seated structural change in society if we are able to have any major impact in a reasonable time span on the causes and problems of crime."

Joseph P. Cootes
Seminar on Urban Design
and Crime, 1972.

I. Environmental Security Planning: Theory

A. Overview

Criminologists view the committing of street crime as a rational decision by an individual who possesses both the motivation and the opportunity to commit the crime.⁹

Accordingly, traditional crime prevention approaches focus either on reducing the offender's motivation for criminal behavior or on reducing his opportunities for criminal behavior. A synoptic approach to crime prevention attempts to both reduce the motivations as well as the opportunities for crime, in a comprehensive manner.

Environmental security planning is the urban design approach to crime prevention. Urban design, as defined by Kulski, is not merely the physical design of cities, but rather a "synoptic" approach to city planning and urban development.

⁹Criminogenesis, the study of why individuals adopt a life of crime has produced varying theories, some of which are mutually exclusive. Genetic and biological theories of crime, for example, which argue that individuals are "born criminals" are not dealt with in this thesis.

...Design is an expression of a way of life; of political, social, and legal institutions; and of peoples....it is not possible to have physical design distinct from other social components. Design must include all factors that make up a city. 10

Environmental security planning is, therefore by definition, a synoptic approach to crime prevention.¹¹ Environmental security planning considers the environment in its totality -- the social, economic, physical, legal, cultural and psychological characteristics which contribute to the occurrence of street crime. The unique contribution of the urban designer, however, is the spatial perspective in the study of crime and the manipulation of physical design to deter crime.

¹⁰ Kulski, Land of Urban Promise, University of Notre Dame Press, 1967. Note: this definition is consistent with that of "master programming," see p. 4.

¹¹ The term "environmental security planning" is adopted from Richard Gardiner's Design for Safe Neighborhoods: The Environmental Security Planning Process. Gardiner advocates a comprehensive approach to crime prevention including physical, social, economic and law enforcement measures. It is not clear from Gardiner's manual whether his definition of comprehensivity includes the reduction of the motivations for crime in addition to the reduction of the opportunities for crime. I have taken the liberty to include criminal motivation and its mitigation as an integral part of the environmental security planning process.

Gardiner, R., Design for Safe Neighborhoods: The Environmental Security Planning Process, U.S. Department of Criminal Justice, LEAA, Washington, D.C., 1978.

Security planning strategies incorporated in a synoptic approach extend beyond the usual parameters of the urban design profession. An environmental security planning process, therefore, requires the establishment of a centralized planning body to coordinate the activities of the various professionals (architects, criminologists, economists, health care specialists, geographers, planners, sociologists, psychologists), policy makers (public and private), law enforcement agencies, community groups and government officials whose cooperation determine the fiscal, political and administrative support for the planning process and the feasibility of its realization. The integration of professional and non-professional actors in planning for crime prevention is espoused by William Clifford:

It may be trite to say that human nature and social relations cannot be divided between those who are paid to deal with crime and those who aren't. However, crime, no matter how it is defined, is concerned with behavior, and criminal behavior knows no sectoral boundaries... Its (crime's) intrusion into the routine work of education, health, welfare, industry, forestry, agriculture and government itself attract too little attention. Thinking of planning crime prevention intersectorally or cross-sectorally, however, involves us in a consideration of these wider perspective.

¹²Clifford, W., Planning Crime Prevention, Australian Institute of Criminology, Lexington Books, Mass, 1976, p. 23.

B. Crime Prevention

Environmental security planning draws on the three traditional forms of crime prevention: the punitive and corrective approaches aimed at reducing the motivations for crime and the mechanical approach aimed at reducing the opportunities for crime.

1. Reducing the Motivations for Crime

The punitive approach. The punitive approach deals with the punishment an offender will receive if apprehended and convicted. The criminal justice system is based upon the premise that severe penalties will deter crime. Empirical evidence, however, suggests that it is the certainty and not the severity of the punishment which engenders the greatest deterrent effect. Given the high proportion of criminals who are not apprehended,¹³ let alone convicted, the efficacy of the punitive approach is seriously limited.

Though the realm of the environmental security planning activities does not enter that of the criminal justice system, the effectiveness of the crime prevention measures

¹³ Arrests are made in only 19% of the serious crimes reported to the police.
"Our Losing Battle Against Crime," U.S. News and World Report, October 12, 1981, p. 39.

recommended to increase the actual and perceived risk of apprehension of the offender is affected by the ability of the punitive system to serve as a crime deterrent. Most experts agree that one reason for the steady rise in law-breaking is "the brutal fact: (that) criminals today run only a slight risk of being punished for any particular crime and they know it."¹⁴

The corrective approach. There are numerous theories of criminogenesis, the study of why individuals adopt a life of crime. These include psychodynamic, genetic, and sociological theories of criminal behavior. The most widely accepted modern approaches to understanding crime, however, have arisen out of the sociological perspective which maintains that "man's behavior is largely a product of social forces and societal interactions and the roles one chooses or becomes labeled with by society."¹⁵

The corrective approach from a sociological perspective attempts to modify the motivations for criminal behavior by dissipating the crime inducive influences in society which indirectly contribute to crime. Research

¹⁴"Our Losing Battle Against Crime," U.S. News and World Report, October 29, 1981, p. 39.

¹⁵Carter, R.I., et al., The Criminal's Image of the City, Pergamon Press, New York, 1979, p.2.

has shown that crime is correlated with characteristics such as substandard housing, high percentage of rental units in a neighborhood, unemployment and low family income.¹⁶ See exhibit 1.

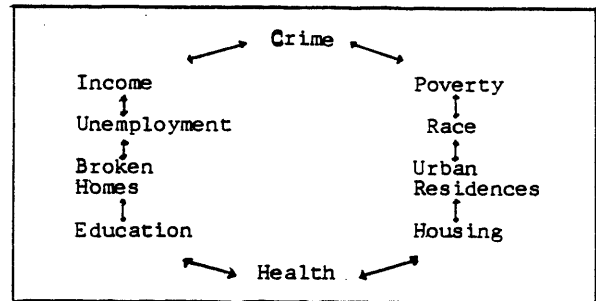


Exhibit 1.
Correlates of Crime

Opportunity policy measures (programs such as Headstart, OEO, manpower training, mobilization for youth) and environmental policy measures (such as the development of low rent public housing, urban renewal, municipal sanitation, and municipal leisure time programs) attempt to provide greater equity for low income groups and minorities within the opportunity structure of American society.

Studies evaluating these programs have reported significant crime reduction resulting from environmental policy measures. On the other hand, opportunity policy measures

¹⁶ Cordrey, J.B., Crime and Community - Crime Prevention Policies, U.S. Department of Justice, LEAA, 1973.

¹⁷ Jeffrey, C.R., Crime Prevention Through Environmental Design, Sage Publications, 1971, p. 197.

have shown little evidence of contributing to crime diminution. Critics of the corrective approach contend that social programs, while of merit unto themselves, have minimal, if any, effect on crime rate reduction since the relationship between crime and the demographic characteristics is not causal but only correlative. However, proponents of the opportunity policy programs argue that the programs are conceptually sound and politically progressive and that their failure is to be attributed to the lack of sufficient funding. The programs reached a stage of virtual abandonment in the late 1960's.¹⁸

2. Reducing the Opportunities for Crime

In a study of burglar crime patterns, Phelan et al. concluded that,

...the major deterrent for the burglar
(and these authors assume for other types
of crime also) is fear of surveillance:
of being seen or heard by residents,
passersby, or patrol personnel. 19

¹⁸ Cho, Y.N., Public Policy and Urban Crime, University of Akron, Ballinger Publishing Co., p. 202.

¹⁹ Phelan, G.F., Testing Architecturally Defensible Design: How Burglars Perceive Cues of Residential Vulnerability. Paper presented at the meeting of the American Society of Criminology, Atlanta, Georgia, 1977, p. 15.

Crime prevention measures to reduce the opportunities for crime concentrate on increasing the risk of apprehension by intensifying the surveillance of the area.

The mechanical approach. The mechanical approach utilizes "target hardening" techniques which place impediments to crime via access control -- gates, locks, and other hardware -- and increases the risk of apprehension through "organized surveillance" -- the stationing of security guards and police patrols.

The environmental design approach to crime prevention evolved from the mechanical approach. This approach utilizes physical design measures to increase the risk of apprehension through "natural surveillance" -- the surveillance of the exterior grounds by the general public and residents of the area.

Jane Jacobs, one of the early proponents of natural surveillance as a crime preventative measure, maintains that multi-use urban environments are secure for they generate street activity throughout the day and night. The natural surveillance by the public, which she terms "eyes on the street",²⁰ increases the perceived risk of appre-

²⁰Jacobs, J., The Death and Life of Great American Cities, Random House, New York, 1961.

hension to offenders, as well as the actual risk if on-lookers are willing to intervene in times of crisis.

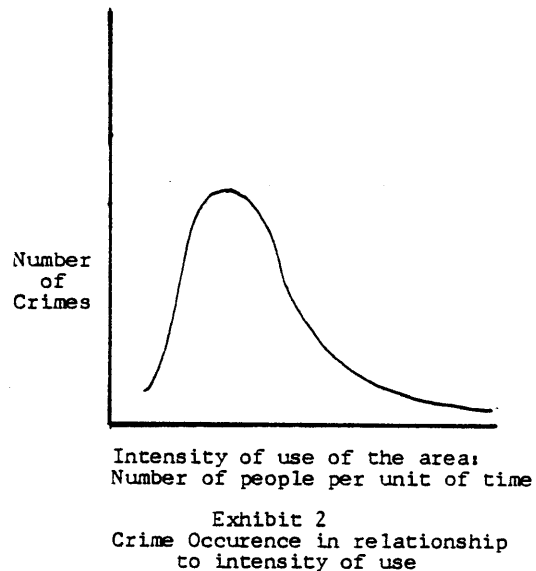
Jacobs contends that,

The sidewalk and street peace of cities is not kept primarily by the police... it is kept by an intricate, almost unconscious network of voluntary controls and standards among the people themselves, ²¹ enforced by the people.

The degree of natural surveillance in an area affects the offender's anticipated risk, and consequently, the desirability of a given environment as a target for crime. Angel suggests that crimes occur in areas which he deems "critical intensity zones". The intensity of use of these areas is sufficient to warrant the attention of offenders, while the degree of natural surveillance is low and the risk of apprehension minimal. Areas which fall below the critical intensity level do not supply enough potential victims to attract offenders to the area. Areas which lie above the critical intensity level benefit from a sufficient degree of natural surveillance to deter crime. Exhibit 2 portrays

²¹Jacobs, J., "Sidewalk, Crime and Community," Liberation, 19:8-9 (Spring), 1976, pp. 56-60.

the hypothesized relationship.²²



The intensity of use of an environment and the degree of security are mutually reinforcing variables. An area perceived to be secure will be used more readily by pedestrians. As a result, the natural surveillance is increased, the perceived risk to the offenders is amplified and thus, the environment becomes more secure. Exhibit 3 illustrates

²²Angel, S., Discouraging Crime Through City Planning, working paper no. 75, University of California: Berkeley, 1968, p. 16.

the security and perception of security dynamic.²³

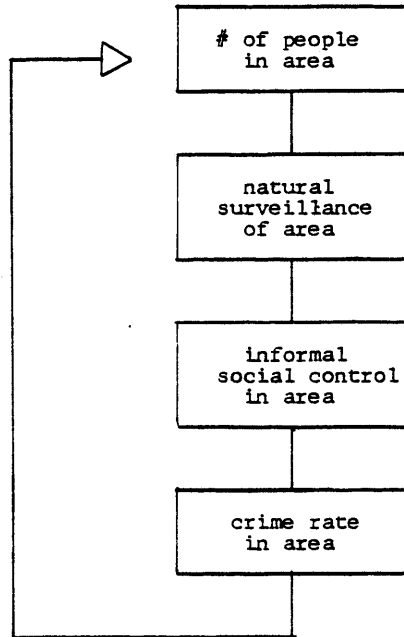


Exhibit 3.
Security / Perception of Security Dynamic

The environmental design approach utilizes physical planning and design to "symbolically" harden the environment through (a) land use allocation which generates street activity thereby intensifying the degree of natural surveillance, (b) architectural design measures which increase the degree of surveillability from within the structure to the exterior grounds, (c) well maintained physical environ-

²³ Conklin, J.F., CPTED in the Urban Shopping District, Westinghouse Electric Corp., Washington, D.C., 1977.

ments which portray an image of social control and law enforcement, and (d) street design which reduces undesirable vehicular and pedestrian traffic through the area. These measures are designed to promote the sense of community cohesion and responsibility for "communal turf" and to impede the access of offenders by increasing their perception of the risk of detection and apprehension.²⁴

The drawbacks of environmental design strategies are (a) the high cost of construction, (b) the delays of construction, (c) the dislocation of individuals and businesses, or at least the significant alteration in their life patterns, (d) the difficulty of rectifying physical alterations if they prove to be ineffective or detrimental, and (e) the long term nature of the strategies.

Nonetheless, environmental security planning projects utilizing physical design improvements have met with success in their efforts to improve security conditions. Evaluatory studies of the Hartford Experiment, an environmental security planning project in Hartford, Connecticut, which incorporated physical design improvements, social planning, and law enforcement measures, concluded that "environmental changes in a neighborhood can lead to an increase in the extent to which residents control a neighborhood."

²⁴Newman, O., Defensible Space, Collier, New York, 1973.

Neighborhood residents perceived a reduction in crime and expressed renewed confidence in the area.²⁵

Furthermore, the appeal of mechanical and environmental design approaches is the relative control of the planner over the elements which contribute to the opportunities for crime, which is not the case when dealing with personal desires and motivations for crime. Target hardening tactics, though they create the undesirable image of a fortified environment as well as being costly, do provide readily evident and relatively immediate effective results.

²⁵Center for Survey Research, Evaluation of a Neighborhood Crime Control Experiment, North Asylum Hill, Hartford, Connecticut. A Preliminary Study, Joint Center for Urban Studies of M.I.T. and Harvard University, University of Massachusetts, Boston, abstract, June 1980.

C. Conclusion

The various crime prevention measures contribute to crime reduction in different ways: either by reducing the motivations or the opportunities for crime. It is recognized, however, that none of these approaches is "the" solution for crime prevention as each area has its advantages and drawbacks.

A disadvantage common to all the crime prevention approaches mentioned is the major capital investment required. The criminal justice system alone expended a total of 20 billion dollars in 1981, half of which was allocated to law enforcement agencies. The decision to fund crime prevention programs welfare economists argue, is "determined by whether the cost of the program is less than the benefit as measured by the public willingness to pay."²⁶

An additional drawback is the possibility that the employment of crime prevention measures in a given environment rather than prevent crime may simply cause various forms of crime displacement: (a) temporal displacement -- a contribution of the same criminal pattern but at a different time, (b) tactical displacement -- a change in tactics used in criminal activity, ususally precipitated by some change in the accessibility of the target, (c) target

²⁶ Sedgewick, L.J., Detering Criminals: Policy Making and the American Tradition, American Enterprise Institute for Public Policy Research, Washington, D.C., 1980.

displacement -- a shift to another target occurring when the original target appears relatively impervious to any criminal tactic, and (d) functional displacement -- a shift from one crime type to another.²⁷

For this reason, the National Swedish Council on Crime Prevention advocates the necessity for synoptic planning.

Ever expanding crime prevention efforts could probably deter the criminal who can readily find legitimate ways to survive in the face of the increasing difficulty and risks of a criminal career. However, criminals who perceive that they have no survival alternative to criminality may adopt ever more desperate and dangerous methods for obtaining their criminal goals. It is unlikely, therefore, that anything short of an extensive and successful crime prevention effort throughout the community 28 will reduce crime.

²⁷ CPTED Manual, Westinghouse Electric Corporation, vol. 3, 1977.

²⁸ Knutson, J., et al., "Crime Prevention Activity of the Police - A Theoretical Analysis," in Police and Social Order, National Swedish Council for Crime Prevention, 1979.

II. Environmental Security Planning: Crime Analysis and Implementation

A. Crime Analysis

Environmental security planning projects focus on the reduction of crime in a spatially defined target area. The project analysis may range from an entire city to a district, a neighborhood, or a city block, depending upon the security problem involved. The crime analysis of a security planning problem attempts to determine what particular characteristics contribute to the desirability of a given environment as a target area.

The forms of data required for the analysis are:

- (1) city crime rates over several years,
- (2) local crime rates over several years, specifying location and time of crime occurrence,
- (3) victimization studies,
- (4) known or suspected offender residency to detect offender movement patterns in the target area,
- (5) relevant neighborhood demographic characteristics, e.g., racial and ethnic characteristics, percentage of homeownership, rental and unoccupied units, percentage of adolescents, welfare recipients and single parent families, and unemployment levels in the neighborhood.

B. Crime Analysis Model

Criminologists depict the committing of a street crime as a cost-benefit decision by an individual who has both the motivation and the opportunity to commit the crime. A potential offender assesses the desirability of an opportunity by weighing the anticipated payoff (monetary, release of aggression) against the effort required to commit the crime and the risk of apprehension involved.

Environments which are conducive to criminal behavior, therefore, are those where a supply of targets with desirable payoffs can be anticipated, and where the effort required to commit the crime and the risk of apprehension are low. Effort may be a function of the ease of access to a target due to a lack of target hardening measures, or of the journey to crime from the offender's home base to the target area. Risk of apprehension is a function of the degree of surveillance afforded by natural surveillance and/or organized surveillance.

Thus the offender seeks targets (persons or property) with anticipated payoff located in environments to which the journey to crime is relatively effortless and where the risk of apprehension via natural surveillance and/or organized surveillance is low.

The conditions which contribute to an act of crime are summarized in the following "crime analysis model." (Exhibit 4)

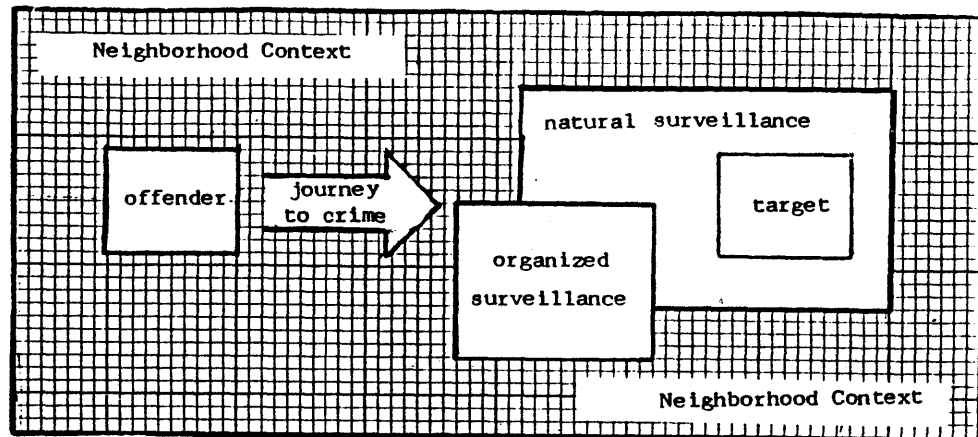


Exhibit 4.
Crime Analysis Model

For the most part, the components of the model have been discussed in the section on crime prevention approaches. Those aspects of the model which have not been dealt with previously will be developed here.

The Offender

The offender's perception of a given environment is individual specific as attitudes are affected by personal needs, values, goals, aspirations, and previous life experiences. Thus, an environment which provides opportunities for crime to one individual may be an undesirable target for another.

The Journey to Crime

The journey to crime is measured by the distance of the offender's home base to the target area. Criminologists researching the spatial patterns of crime occurrence have reported finding a distance-decay relationship in the journey

to crime -- the number of offenses declining with the increasing distance from the residence of the offender.

"This distance-decay pattern results from the friction of distance the cost in money, time, or energy of overcoming distance."²⁹ The journey to crime varies according to the age group and the ethnicity of the offender and the type of crime committed. The mean journey to crime for street crime robberies, for example, is 2.1 miles. Teenagers tend to commit crimes in familiar areas close to home, while maintaining sufficient distance to avoid recognition.³⁰

Targets/Payoffs

The presence or absence of targets in a given environment is a function of the land use which determines the nature and the extent of activity in the area and in turn, the degree of security afforded by the natural and organized surveillance. Suttles,³¹ for example, speaks of "impersonal domains" in large cities -- non-residential areas which experience periodic 'anomie." In the daytime, these environments are congested with local businessmen, employees, customers, and police officers. At night, however, they become deserted, and the lone individual, a target.

²⁹ Philips, D.P., "The Journey to Crime," in Crime: A Spatial Perspective, K.D. Harries et al. (eds.), Columbia University, New York, 1980.

³⁰ Ibid.

³¹ Suttles, G.D., The Social Order of the Slum: Ethnicity and Territory in the Inner City, University of Chicago Press, 1968.

The degree of anticipated payoff is linked with the land use of the area as well. Affluent environments generally provide desirable targets. The assessment of payoff however, is individual specific, as the payoff lucrative to one offender may be trivial to another.

Where individuals are concerned, their desirability as victims generally is a function of the street crime involved and of the socio-demographic characteristics of the individual such as sex, age, race, and income. For example, the most consistent finding in victimization surveys is that males have higher rates of victimization than females for almost all crime categories other than sexual assault. Young people have higher rates of victimization for personal crimes and thefts. However, in a few crime categories, such as robbery with injury and larceny with contact, the elderly have been found to have high or higher victimization rates than other age groups.³²

³²When race and sex are combined, black males have the highest victimization rates for violent crimes followed by white males, black females, and white females. For personal crimes of violence, income and victimization rates are inversely related. The incidence of violent crime is highest among lower income families for both whites and blacks (U.S., NCJITS, 1976). For personal crimes of theft, victimization rates increase with family income. Thus, members of families with incomes over \$25,000 have the highest rate of victimization for personal larceny, both with contact purse snatching and pickpocketing and without contact. Dodge, R., et al., "Crime in the United States: A Report on the National Crime Survey," in Wesley G. Skogan (ed.) Sample Surveys of the Victims of Crime, Ballinger, Cambridge, 1976, pp. 1-26.

The evidence of the potential victim's fear of crime can also contribute to the perceived vulnerability of the victim by the offender. Fear of crime, however, appears to be less related to substantial factors such as victimization rates than it is to personal characteristics.³³ Women and the elderly are fearful due to their self-image as vulnerable targets.³⁴

Natural/Organized Surveillance

The effectiveness of natural and organized surveillance as crime deterrents has been discussed in the mechanical and environmental design approaches to crime prevention. The degree of natural surveillance in a given environment is a function of the following design determinants:³⁵

- (1) land use allocation which determines the nature and extent of activity in an area,

³³Fowler, Floyd, et al., Reducing Crime and Fear in an Urban Residential Area. The Planning and Evaluation of an Integrated Approach to Opportunity Reduction, Survey Research Program, University of Massachusetts, 1978.

³⁴Stinchcombe, A.L., et al., Crime and Punishment in Public Opinion: 1948-1974, National Opinion Research Center, Chicago, Illinois, 1977.

³⁵For detailed discussion of the use of physical design in crime prevention planning, see Bell, L.S., et al., Crime Prevention Through Environmental Design Technical Guide 7, Planning Public Outdoor Areas, Westinghouse Electric Corporation, 1978.

- (2) site planning of buildings and public amenities which define the pedestrian and vehicular flows through the area,
- (3) architectural features of the buildings in the area which determine the extent of visibility of the exterior grounds from within the structures, e.g., windows, balconies,
- (4) landscaping, lighting and built form elements which determine the degree of unobstructed view of the environment at ground level.

C. Planning and Implementation

The crime analysis required of an environmental security planning project should be ongoing and not relegated merely to the initial stages of the planning process. Two forms of analysis are required: correlational analysis and experimental analysis.

The initial crime-analysis is correlational -- one which examines the degree of relationship among two or more variables as they naturally occur. Once security planning strategies are set in motion, experimental analyses are required to investigate the effects of the deliberate actions taken and to define future planning strategies accordingly. A comprehensive crime data base is required to conduct the various forms of analysis.

Security planning strategies derived from the various approaches to crime prevention (mechanical/environmental design, corrective and punitive) are implemented to counter the conditions determined by the crime-analysis as contributing to the opportunities and motivation for crime. The strategies emphasized, however, are those directed at the opportunities for crime, for results are readily evident within a relatively short time frame while strategies directed at the motivations for criminal behavior are long term.

The environmental security planning synoptic approach to crime prevention is applied to the crime analysis model in exhibit 5.

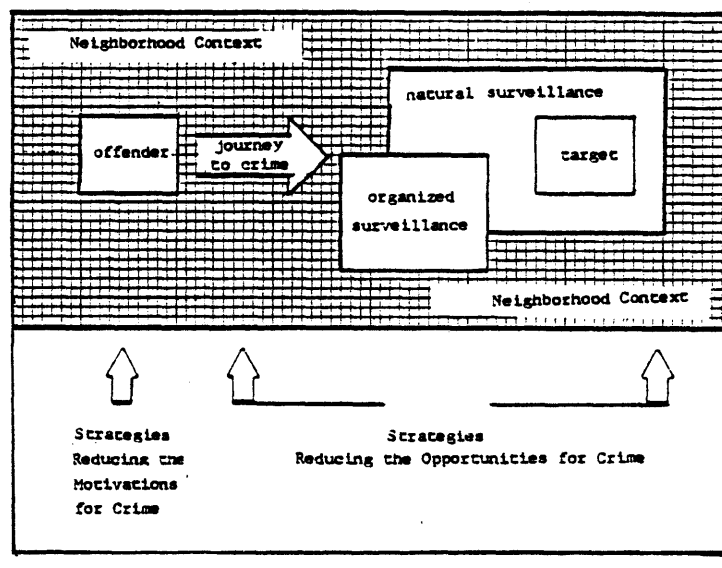


Exhibit 5.
Crime Analysis Model /
Environmental Security Planning Strategies

SECTION B

The Longwood Medical Area

"Why is there so much
crime here? Because
we're an easy mark,
that's why."

Harvard Medical
School Administrator

I. Crime Analysis

A. Neighborhood Context³⁵

The Longwood Medical Area (otherwise referred to as the Harvard Medical Centre) is located in the neighborhood of Roxbury, approximately two and one half miles from the central business district of Boston (exhibit 6).

The 154 acre area is composed of fourteen medical institutions, five colleges, three

public schools, a temple, limited housing and local retail shops (exhibit 7).

The area is demarcated by natural and man-made borders. The Muddy River and Fenway Parkland form the Northern border of the LMA, with Brookline, an affluent and stable community

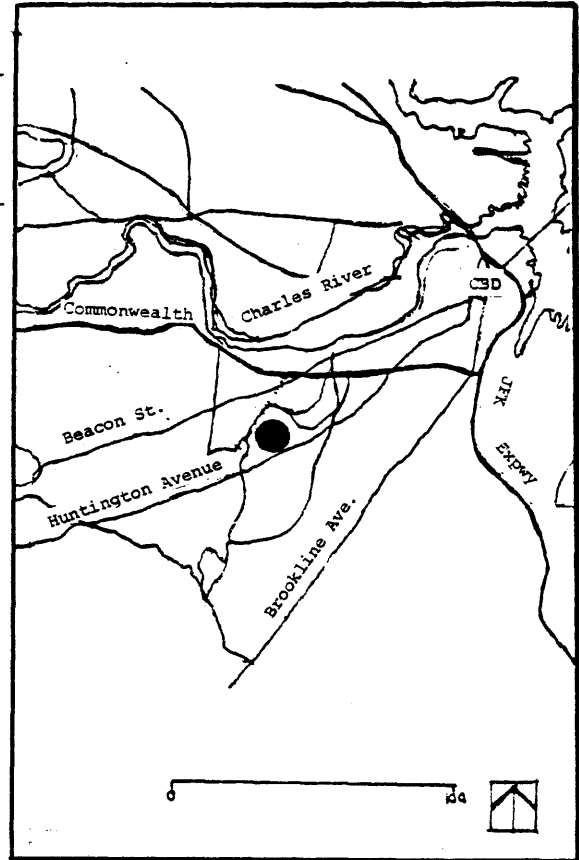
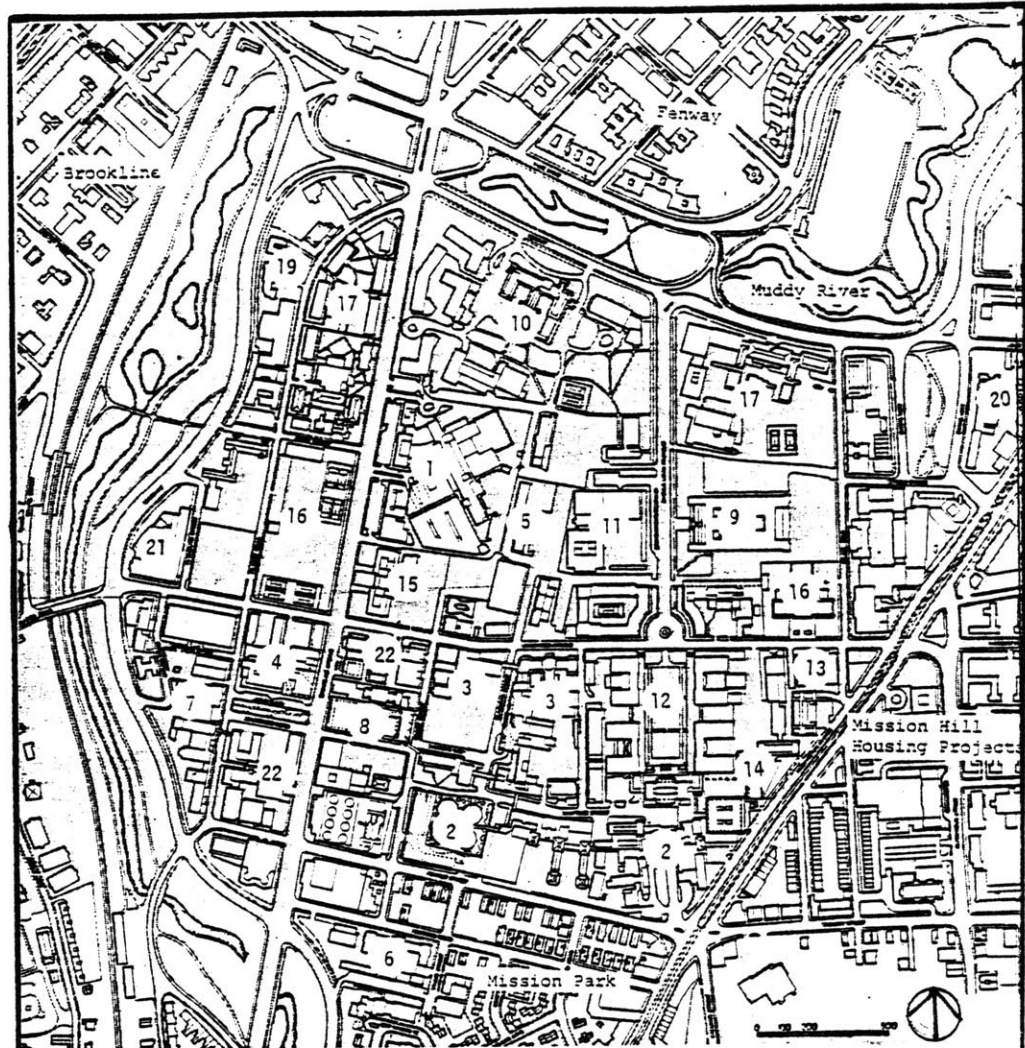


Exhibit 6.
City Context

³⁵ Given the scope of this thesis, the analysis of the neighborhood surroundings is qualitative rather than a thorough statistical documentation, as recommended on p. 22.



Medical Institutions

1. Beth Israel (BI)
2. Brigham & Women (B&W)
3. Children's Hospital
Medical Centre (CHMC)
4. Joslin Diabetes
Foundation
5. Judge Baker Guidance
Center
6. Massachusetts Mental
Hospital
7. New England Deaconess
Hospital (NEDH)
8. Sidney Farber Cancer
Institute

Educational Institutions

9. Boston Latin High School
10. Emmanuel College
11. English High School
12. Harvard Medical School
13. Harvard School of Dental
Medicine
14. Harvard School of Public
Health
15. Mass. College of Art
16. Mass. College of Pharmacy
17. Simmons College
18. Winsor School
19. Wheelock College

Other

20. Gardiner Museum
21. Temple
22. Retail

Exhibit 7.
The Longwood Medical Area

to the northwest, and the Fenway, a low income community to the northeast. To the south, Huntington Avenue separates the LMA from the communities of Mission Hill and the neighborhoods of Roxbury, communities which contain the highest concentration of low income and minority groups in the region. Tensions between the medical area and the surrounding communities run high.³⁶ Community opposition to institutional expansion led to the signing of an agreement between the LMA and the southwestern communities in 1977, stipulating community consent to any future institutional development beyond Huntington Avenue. A more recent bone of contention has been the Medical Area Total Energy Plant (MATEP) constructed by Harvard University within the LMA. The communities, fearing heightened pollution levels, furiously opposed the construction and operation of the plant for over ten years. "This is guerilla warfare," exclaimed one board member of the Mission Hill Planning Commission. Harvard, however, has emerged the victor.³⁷

³⁶For a more detailed account of the Longwood Medical Area/community conflict, see William Worthy's The Rape of Our Neighborhoods.

³⁷Bethell, J.T., "How Does It Feel to Have a 73-Megawatt Headache?" Harvard Magazine, July-August 1980.

B. Street Crime in the LMA

1. Data Base

The data pertaining to street crime in the LMA is based primarily upon interviews with the MASCO member institutions' security directors and administrators. There is a deficiency of readily available statistical data regarding crime rates and crime trends in the LMA. Although Boston police records are obtainable, these have not been collected by the LMA institutions as of yet. The security directors, skeptical of the usefulness of city police reporting prefer to rely upon their own data base. Unfortunately, the primary source of LMA compiled crime reports, the Longwood Medical Area Committee on Security monthly reports, provide only a general review of the crime occurrences at the various institutions (specifying category of crime but not location) and thus are not of great use for the purposes of this thesis. The two sources which have been referred to are the MASCO External Patrol Reports, and the Harvard University Police Department reports. These reports, which date back to September 1980, provide a detailed account of street crimes in the LMA -- time, location, and crime type.

2. Street Crimes in the LMA

(a) Categories

Street crimes in the medical area are typically

(i) crimes against persons -- assaults, rapes, robberies,

and purse snatchings; and, (ii) crimes against property -- auto thefts and larceny. Armed robberies have been a frequent occurrence of the last few years.

(b) Time

Approximately 60% of the crimes occur at night.

(c) Location

The majority of crimes within the LMA occur in areas adjacent to the southern border. These zones typically are darkened parking lots (e.g., Harvard Medical School Parking lot, Beth Israel parking lot) and side streets (e.g., Palace Road, Pilgrim Road). The majority of violent crimes, however, occur in the peripheral areas of the LMA -- Huntington Avenue, Fenwood Road, the Riverway, the Fenway. Avenue Louis Pasteur, though bordered by six institutions, is a "no man's land" zone and therefore is regarded qualitatively as a "peripheral" area.

Most of the personal assaults reported by the Harvard University Police Department occur off the campus grounds, across Huntington Avenue (e.g., St. Alphonsus Street, Wigglesworth Road) (exhibit 8).³⁸

³⁸The map in exhibit 8 is a representation of the spatial distribution of crime intensity and not a full account of the number of offenses which occurred in the LMA during the period of January-September 1981. Statistics gathered by the Longwood Medical Area Committee on Security indicate that approximately twice as many offenses were committed during that period. Statistical distribution of crimes in the peripheral areas are not provided, though these zones are highlighted on the map.

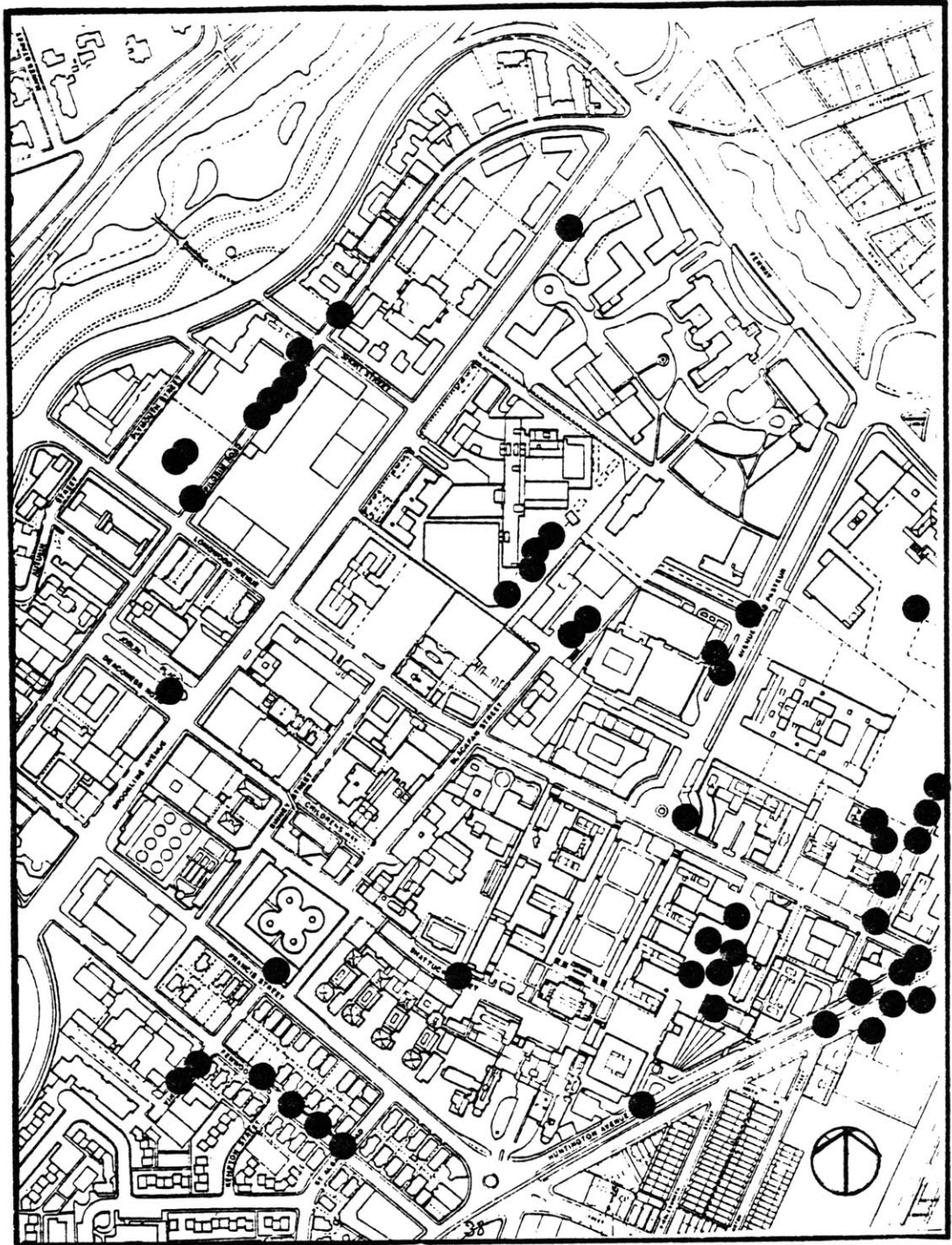


Exhibit 8.
Crimes in the LMA. January - September, 1981.

Source: MASCO External Patrol Reports
Harvard University Police Department Reports

Legend:

● street crime

3. Crime Rates

(a) Neighborhood Context

The LMA is located in District 2, the Roxbury-Dorchester-Mattapan precinct of the Boston Police Department. District 2 is reported to have the highest crime rate in New England.³⁹

(b) The LMA

Due to the lack of available statistical data, it is difficult to determine the severity of crime in the LMA independent of and in comparison to other neighborhoods of metropolitan Boston. The assessment of the severity of the crime problem in the Longwood Medical Area is based upon the individual perceptions of the security directors and administrators. This perception varies from institution to institution. There is a direct correlation between the degree to which an institution suffers from street crime and the perception of the severity of the problem. Thus, administrators of the Harvard Medical School, which is located along the southern border of the LMA, maintain that their security problem "is an urgent one." On the other hand, the security personnel of the Massachusetts College of

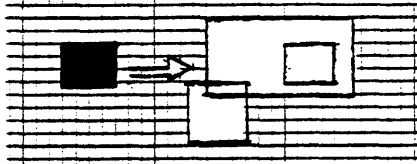
³⁹ Welch, J.O., "Mission Hill Project No. 1 for New England Crime," Boston Herald, October 27, 1981.

Art, situated on the corner of Longwood and Brookline Avenues and closer to the northeastern border, do not consider the security problem to be significant. "The security problem is minimal compared to other parts of the city."

Hubert D. Sycamore, NEDH assistant director and previous chairman of the Longwood Medical Area Committee on Security, contends that "there is a direct correlation between the extent of effort, thinking and management an institution invests in the problem solving of the security problem and the perception of the severity of the problem".

C. Application of the Crime Analysis Model to the Longwood Medical Area

1. Offenders



There are some commonly held perceptions in the LMA as to who the offenders are and where they come from.⁴⁰

- (a) The majority of street crime offenders are teenagers (13-18 years old) and young adults (18-25 years old). They are of both white and black ethnicity.
- (b) It is estimated that 50-70% of the offenders emanate from the immediate area, with the remainder travelling from other parts of the city.
- (c) The local sources of offenders most commonly singled out are the Mission Hill Housing Projects located across Huntington Avenue from the LMA, and English High School situated on Avenue Louis Pasteur in the center of the medical area (see exhibit 7, p. 32).

The security directors recognize that the offenders seemingly emanating from the projects may in fact be youths

⁴⁰ Crime data has not been gathered to substantiate these perceptions of the security directors and the administrators of the institutions.

residing in other parts of the city who use the public housing area as a haven for refuge. State Representative Kevin Fitzgerald of Mission Hill asserts that the projects,

...are used as a jump-off point. These punks, who come from other neighborhoods too, make a hit on St. Alphonsus Street (the continuation of Longwood Avenue, across Huntington Avenue) and run back in. I grew up in Mission Hill project. It's a maze. Anyone would think twice⁴¹ before chasing someone into it.

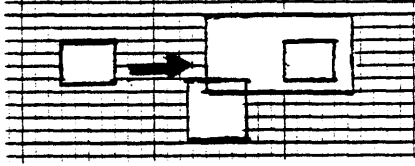
The maze-like quality of the projects coupled with its reputation as "assassination row" deters the pursuit of offenders by the security forces of the LMA and thus enhances the desirability of the projects as a haven for refuge.

Joe Barton, Neighborhood Development Agency planner for Mission Hill and the Medical Area maintains that the percentage of resident offenders in the projects is low. The offenders who do live in the projects, however, are a serious security threat to the project residents and the surrounding communities.

Similarly, a portion of the offenses attributed to the students of English High School may in fact be the actions of youths of high-school age from other parts of the city posing as students of English High.

⁴¹Welch, J.O., "Mission Hill Project No. 1 for New England Crime," Boston Herald, October 27, 1981.

2. Journey to Crime



(a) Neighborhood Context

If the perception that the majority of offenders in the LMA emanate from the local communities is correct, then the journey to crime theory would be a major factor in the desirability of the medical area as a target.

(b) The LMA

The journey to crime theory is consistent with the spatial distribution of crime patterns within the LMA itself. Crime rates are highest in the zones near the perceived sources of offenders -- the high school, the southern edge of the LMA -- those areas which require the least effort in the journey to crime.⁴² For example, the New England Deaconess Hospital attributes its relatively secure situation to its distance from the sources of offenders. Brook-

⁴²The journey to crime of the high school students is measured from their "homebase" in the area -- the high school -- as opposing to their residences in other parts of the city.

line Avenue which separates NEDH from the rest of the medical area serves as a "Berlin Wall" -- a physical and psychological obstacle to potential offenders.

The journey to crime is facilitated by the ease of access to private and semi-private zones in the medical area, designed to facilitate inter-institutional exchange of staff, patients and equipment. For example the rear gate of Beth Israel Hospital is left open to facilitate the BI-CHMC-B&W inter-institutional flow along Blackfan Street. This allows for easy infiltration of English High School students (exhibit 9).

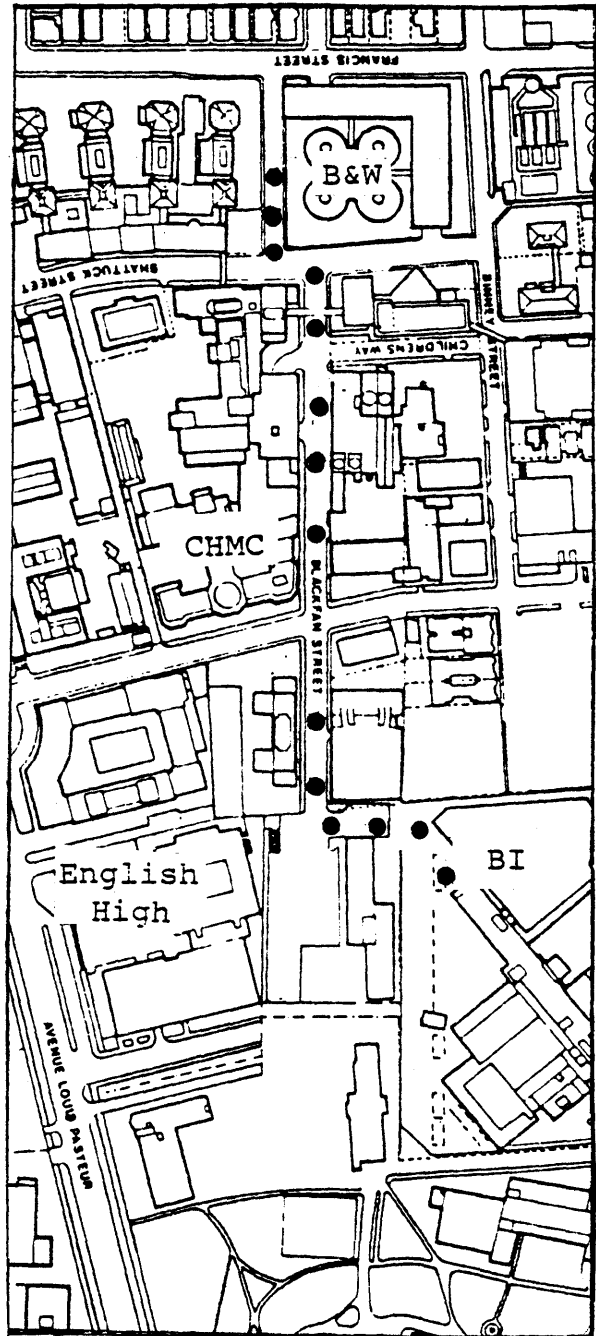
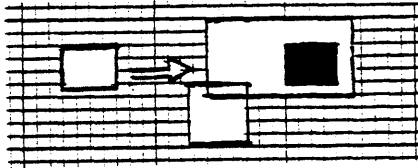


Exhibit 9.
BI - CHMC - B&W
inter-institutional flow

3. Targets



There are two primary street crime targets in the LMA: persons and property (automobiles). Activity characteristics and land use conditions contribute to the victimization of members of the medical community in the following ways:

- (a) Medical community persons are desirable targets as the anticipated payoff to be gained from the mugging of a doctor, nurse, or visitor is relatively high. Money, perhaps pharmaceuticals, may be acquired. For example, the murder of Dr. Wood, a resident surgeon at the Columbia-Presbyterian Hospital, New York City, evoked the following response from neighborhood youths: "It's wrong they killed the guy, but you know, doctors have money."⁴³
- (b) The 24 hour activity at medical institutions necessitate routine shifts of staff throughout the day and night -- usually at 3 p.m., 11 p.m., and 7 a.m. The streets of

⁴³ Basler, B., "Surgeon's Slaying Stuns Upper West Side," New York Times, November 4, 1981, p B1.

the LMA are relatively deserted from the evening hours through the early hours of the morning rendering the individuals coming to and from the premises vulnerable targets.

- (c) Neighborhood Context. Three of the major transportation depots are located on the outskirts of the medical area grounds and do not benefit from the natural and organized surveillance afforded by the LMA.⁴⁴ The institutions offer escort services to points of departure (public or private transportation) and patrol the various subway and bus stops (Huntington/Longwood Avenue, Brigham Circle, the Longwood T stop) (see exhibit 10). The escort services, however, do not assist those persons arriving to the medical area nor do the security guards remain with the escorted individuals at the point of departure. The person awaiting the arrival at the Longwood T stop (which is located in a gully) or at the Longwood/Huntington Avenue subway station (adjacent to the Mission Hill housing projects) is not spared the risk of victimization and certainly not the fear of assault. The same problem holds true for persons parked

⁴⁴ Many institutions station guards at key outdoor locations during nighttime shifts (e.g., garage areas, peripheral zones).

on side streets both within the LMA and outside of it (e.g., Pilgrim Road and Palace Road on the LMA, Wigglesworth Street and St. Alphonsus Road outside the LMA). These streets are generally poorly lit, suffer from a lack of natural and organized surveillance and are the scene of the majority of car thefts, larceny, and assaults upon car owners. On-street parking is a necessity for those who cannot find space in the overcrowded parking facilities of the LMA or for those who do not wish to pay the monthly charge.⁴⁵

- (d) The particular disposition of persons involved with health care concerns may enhance their vulnerability as desirable targets. Patients and visitors preoccupied with concerns of illness and matters of life and death, may not adopt the crime prevention measures necessary to protect themselves. "The last thing a mother of a sick child is going to think about is whether she's locked her car door, or is holding onto her bag tightly enough."⁴⁶

⁴⁵MASCO is attempting to remedy the parking problem by organizing car pools, and providing off-site parking facilities with shuttle bussing to the LMA.

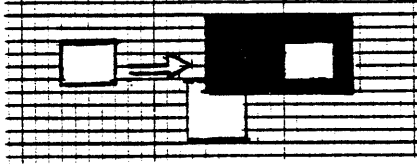
⁴⁶Kristien Vineburg, Director of Security, Brigham and Women's Hospital.

According to one security director, nurses are particularly trusting people, who don't have their guard up.⁴⁷ Doctors and nurses, according to another, are so pre-occupied with their work that they are unaware of the goings on around them. For this reason, he maintains, the environment should be the design equivalent of a "foolproof nursery" which protects the staff despite their own lack of awareness and caution.⁴⁸

⁴⁷ Jim Daniels, Security Director, Children's Hospital Medical Center.

⁴⁸ Kristien Vineburg, Security Director, Brigham and Women's Hospital.

4. Natural Surveillance



The varying degrees of natural surveillance throughout the medical area are determined by the following conditions.

- (a) Land use activity. Scheduling of activity hours in the medical area varies from institution to institution. The medical institutions operate twenty-four hours a day; the universities end classes in the early evenings but the libraries remain open till approximately eleven o'clock; the public schools terminate classes at approximately 3 p.m. Commercial activities in the LMA, apart from two twenty-four hour facilities, close between 6 and 8 p.m. The result is an uneven spatial and temporal distribution of activity. For example, Pilgrim Road and Avenue Louis Pasteur, the respective locations of Winsor School and English High, become relatively deserted in the late hours of the afternoon. As a result, street crime on these streets is prevalent. The institutions have responded by warning the medical community to avoid

these areas when walking without an escort. In order to safeguard its students, Massachusetts College of Pharmacy has curtailed its evening activities. This defensive response of avoidance has augmented the lack of natural surveillance in these areas, thus increasing the security danger.

There are, however, examples of land use activities in the LMA which as a result of the natural surveillance they afford, increase the security in the areas around them. For example, a twenty-four hour street vendor recently installed on the corner of Shattuck and Blackfan Streets generates a flow of patrons throughout the night and provides a deterrent on this otherwise deserted street. NEDH security director John Connelly maintains that this has resulted in a marked security improvement.

- (b) Site Planning. Pedestrian flows in the LMA are largely determined by the interrelationship between primary building entries, public and private transportation depots and other services.

The entries to the majority of the institutions lie along the Longwood and Brookline Avenue axis. These arteries benefit from maximum pedestrian and vehicular flow resulting in natural surveillance (exhibits 10 & 11).

In instances where buildings have not been sited to maximize pedestrian flow cohesiveness and clustering,

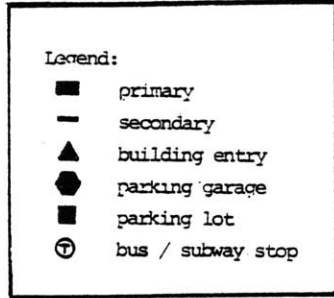


Exhibit 10.
Pedestrian Flows through the LMA

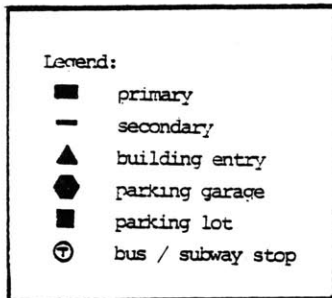


Exhibit 11.
Vehicular Flows through the LMA

the benefits of natural surveillance have been diffused. For example, the newly constructed Brigham and Women's Hospital faces Francis Street turning its back to the activity generated along Longwood Avenue and the inter-institutional flow along Blackfan Street.

- (c) Architectural features. The ability to survey the street from within the institutions coupled with the level of internal activity enhances the natural surveillance of the exterior grounds. The absence of natural surveillance intensifies the fear of crime and the risk of victimization. For example, parking lots are typically poorly surveilled areas. The parking lot to the rear of the Massachusetts College of Art, however, benefits not only from the general surveillance of its surroundings (located on the corner of Longwood and Brookline Avenues and within close proximity of the Children's Inn on Longwood Avenue, a hotel maintained by Children's Hospital Medical Center), but also from the surveillance provided by the presence of the glass blowing facility located at this end of the building. According to the security personnel, the twenty-four hour activity on this facility affords the parking lot with additional natural surveillance and increases the security of the area.

Many of the institutions are built in the mode of the "urban fortress" prototype. Surrounded by gates and walls, protecting inner courtyards with few points of entry, the complexes are self-contained and do not lend themselves to interaction with the street.⁴⁹ For example, the Harvard Medical School buildings form a wall which runs the length of Huntington Avenue (between Francis Street and Longwood Avenue). There is one point of public entry, ususally monitered; one entire facade of the School of Public Health facing Huntington Avenue is windowless; Countway Library is set back from the street safeguarded by a "moat" (in which there is no water) and is further protected by landscaping and metal gating.

This architectural form of institutional self-protection results in a lack of interaction with Huntington Avenue and generates pedestrian fear along this unsurveilled edge of the campus.

⁴⁹For security reasons, most institutions prefer to lock the majority of the facility entries. For example, NEDH, in the last ten years, has reduced the number of functioning entries from 30 to 10, with only 2 remaining open at night.

(d) Unobstructed view of exterior grounds:

Built Form elements and landscaping provide hiding opportunities for offenders by creating "blind spots."

Example (1): The wooden fence encompassing the property of Winsor School prevents potential victims from detecting offenders lurking around the corner (exhibit 12).

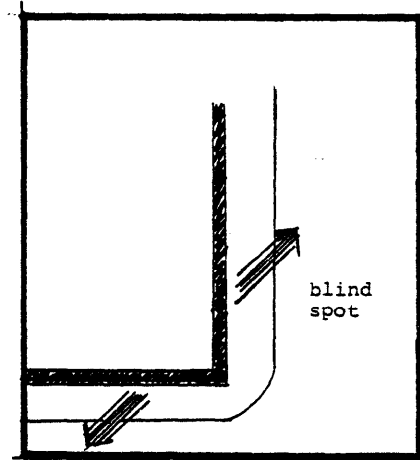


Exhibit 12.
Winsor School Fence

Example (2): Two students were assaulted by an offender hidden behind an evergreen tree on the heavily landscaped Emmanuel Campus. Emerging from his hiding spot, he relieved the women of several thousands of dollars worth of jewelry.

Lighting. Lighting levels are poor throughout the majority of the LMA, apart from the major arteries. Overgrown trees along Avenue Louis Pasteur block the light of this otherwise well lit street.⁵⁰

The compilation of these various conditions results in the following naturally surveilled and unsurveilled territories (exhibit 13).

⁵⁰ MASCO, recognizing the problem of deficient lighting, has recently conducted an LMA lighting survey.

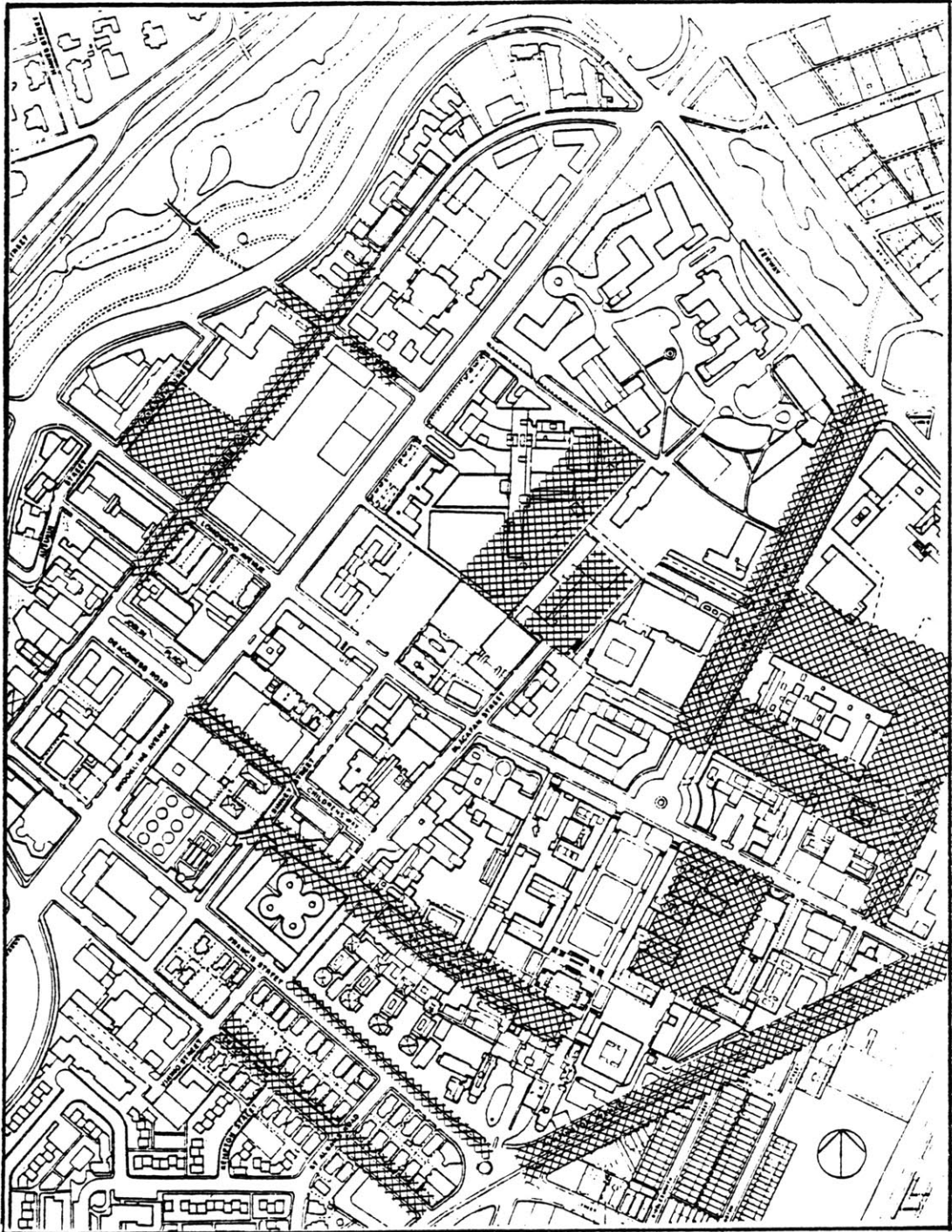


Exhibit 13.
Natural Surveillance in the LMA.

Legend:
Zones of poor natural surveillance after 3 pm.

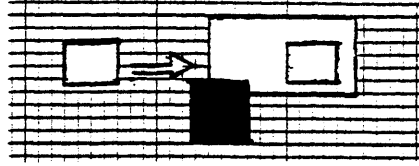
In contrast to the usual benefits of natural surveillance, there are certain conditions in which certain street activity can promote opportunities for crime.

- (1) Purse snatching and pickpocketing are common in areas such as bus stops and street vendor lines where the crowding and congestion distract the victims from the commission of offenses and afford the offender the ability to escape into a crowd undetected.
- (2) Public amenities legitimize the presence of offenders. Thus, retail facilities, bus stops and the like provide offenders with an alibi to loiter in the area without raising suspicion. This phenomenon has evoked one security planning theory that commercial activities should not be used as a security device -- for they will merely invite offenders to the area.⁵¹ This is contrary, of course, to the premise of natural surveillance which attempts to increase the multi-use nature and activity level of an area.
- (3) Unenclosed properties, while affording maximum natural surveillance simultaneously provide escape route opportunities for offenders. For example, the escape route from

⁵¹ Private Security Advisory Council, Potential Secondary Impacts of the Crime Prevention Through Environmental Design Concept, Law Enforcement Administration, U.S. Department of Justice, 1976.

Avenue Louis Pasteur to the housing projects is unobstructed due to the porosity of the gating encompassing Boston Latin High School (situated on Avenue Louis Pasteur across from English High School).

5. Organized Surveillance



Organized surveillance is the major form of crime prevention in the LMA. Although local and state patrols are heavily supplemented by private institutional security systems, organized surveillance in the LMA is weak and as a result, the medical area remains an easy mark.

(a) Neighborhood Context

(1) The Police Forces. The Longwood Medical Area is located at the juncture of properties which fall under the jurisdiction of different municipal governments and state agencies and their respective police forces. The Fenway parkland is property of the Metropolitan District Commission; the LMA, the Fenway and the southwestern communities are located in Boston; to the northwest lies the City of Brookline. The security patrol of the juncture points near the LMA are weak as each police department defers to the other's turf, and attention is focused on central areas rather than peripheral zones.

(2) Institutional Private Security Forces. The patrol of the institutional security forces is limited to the area

defined by the boundaries of the LMA. The institutions have cautioned the medical community to refrain from crossing the Huntington Avenue border. This policy of avoidance, however, does not assist those persons living in neighborhoods to the south of the LMA nor those requiring public transportation on Huntington Avenue (see Targets (c), p. 44).⁵²

(b) The LMA

(1) The Police Forces. According to the institutions' security directors, the activities of the Boston City Police in the LMA are limited. The reasons cited are: (i) the already overburdened police system faced with recent budget cutbacks;⁵³ (ii) the fact that the LMA is at a municipal-political disadvantage since it neither contributes to the city tax base (the institutions are non-profit) nor does it generate votes (a large portion of the medical staff lives outside of Boston); (iii) crime rates in the LMA are not as

⁵² Marie Cone, a medical clerk at the LMA and a resident of the Back Bay Manor on St. Alphonsus Street across from the medical area, reports: "I've lived here for 11 years. Only in the last year has it gotten too bad to live here. I don't know if I will continue to go to work." "Mission Hill Project No. 1 for Crime," Boston Herald, October 27, 1981.

⁵³ Powers, John, "The Boston Police White Budget, Proposition 2 1/2 are Nibbling Away at Morale," Boston Sunday Globe, July 26, 1981, p. A23.

severe as other areas and the Boston police are relying on the local private security forces to handle the situation.

Another complaint of the LMA security directors against the city police is the long response time, an average delay of 35 to 40 minutes. The retail storeowners in the area maintain that this lack of servicing is not due to the budget cutbacks as the response time of the city police has always been a problem. The storeowners release apprehended shoplifters since "there is no point waiting if the police won't show up in a reasonable amount of time."

(2) Institutional Private Security Forces. The ability of the security guards to deter crime in the LMA is hampered by inadequate training and a lack of inter-institutional coordination.

(i) Contract Services versus In-House Security Groups. The institutions utilize the services of a contract security group. Though advantageous economically, the employment of these guards (versus the maintenance of an in-house group) poses some serious drawbacks. Contract security guards are generally poorly trained, and of a low caliber. Their commitment to a poorly rewarded position is low and the turnover rate is extremely high. The security guards are respected neither by the staff nor by the offenders, and therefore, their effectiveness as a deterrent is severely impaired. For example, the pros and cons of contract servicing versus

in-house security forces can be demonstrated through the experience of CHMC which, during the years 1975-1977 maintained an in-house security force.⁵⁴ The in-house group was disbanded as the result of a budget overrun, and replaced by a contract security group in 1978. The costs of operation were reduced by 50%. On the other hand, training of in-house police officers which had averaged 80 hours of orientation plus an additional 208 hours per year per officer dropped to 16 hours of orientation with an additional 5 hours per year per officer. Job turnover increased from 7.5% per year to 400% per year. Crime rates more than doubled between the years of 1978 to 1980 (exhibit 14).⁵⁵

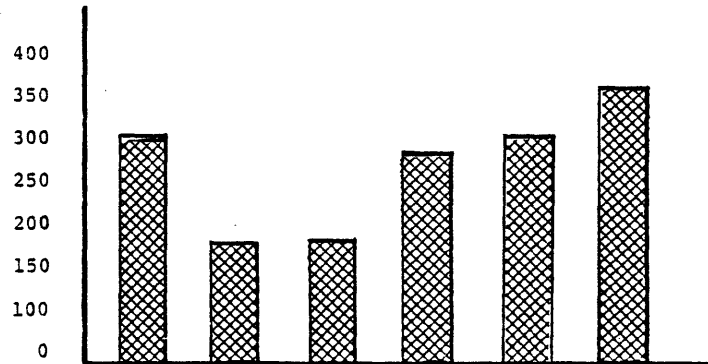


Exhibit 14.
Criminal Incidents Reported to Security:
1975 - 1980

⁵⁴The CHMC-MASCO in-house police force served CHMC, Boston Hospital for Women (Lying in and Parking division), Judge Baker Guidance Center Health Incorporated, CHMC residential properties merged by Meredith and Grew, Mission Park and MASCO property.

⁵⁵Connelly, J.T., and S.E. Cain, An Analysis of The Children's Hospital Medical Center's Security Program, Hospital Security Department, Children's Hospital Medical Center, Boston, 1980.

The majority of security directors prefer a combination of an in-house security force and a contract security group. Harvard University's police department is structured along these lines, the only security department which differs in its organization from the rest of the institutions. The Harvard University Police Department (HUPD) maintains an in-house security force composed of officers deputized in the counties of Suffolk and Middlesex, supplemented by a contract security group.⁵⁶ The officers engage in law enforcement activities (apprehension and arrests) while the security guards provide a more massive crime prevention presence deterrent.

(ii) Weapons. Apart from the Harvard University police officers, the medical area security guards do not carry arms. The administrators are reluctant to arm their guards for fear of turning the LMA into an "armed camp." Armed robberies however, are a growing occurrence in the medical area and the security directors fear for the safety of both their personnel and the general community. "They're (the institutions) just going through the motions," complained one security director, "They say they want security but they're not

⁵⁶ The HUPD in the medical area are further backed by the HUPD in Cambridge. A Boston policeman has been retained to guard the medical school dormitory, Vanderbilt Hall, which is adjacent to English High School on Avenue Louis Pasteur.

willing to pay for it. A secretary is given a thousand dollar word processor and an underpaid security guard a flashlight." A MASCO administrator further criticized the no-arms policy. "It's going to take a major disaster before they (the institutions) turn around and properly train and arm these guys. A murder. Perhaps several rapes." For example, the murder of a medical student at John Hopkins Medical Institute 3 years ago was the impetus for a total restructuring of the JHMI security department. Salaries were raised to attract a higher caliber security guard, the forces were armed and deliberate policies to employ minorities and residents of the community were formulated.⁵⁷

(iii) The lack of inter-institutional coordination in external patrols results in inefficient use of manpower and resources. For example, shared borderline properties patrolled by neighboring institutions experience cycles of security-overload -- periods when two or more security forces may patrol an area at the same time -- followed by periods of desertion.

The institutions call upon one another for assistance in law enforcement activities. However, the absence of a central dispatch system severely impairs their ability to

⁵⁷See appendix, pp. 90-91.

apprehend offenders in hot pursuit.⁵⁸

(iv) The lack of inter-institutional security planning results in the displacement of crime in the LMA rather than the prevention of crime. For example, the stationing of a Boston policeman to guard the Harvard Medical School dormitory on Avenue Louis Pasteur, displaced the security difficulties it faced to the adjacent property of CHMC. Following suit, CHMC heightened their security patrol, thereby further displacing the offenders down Longwood Avenue to Christie's Market (territorial and tactical displacement).

(v) The MASCO external patrol, formed by the Longwood Medical Area Committee on Security is composed of two vans which circulate the LMA between the hours of 4 p.m. and 7 a.m. Though the patrol is recognized as an effective crime prevention unit, the degree of its deterrence ability is hampered by the small scale of operation.⁵⁹

⁵⁸ The central dispatch currently in use communicates to the various institutional central dispatch systems. The system discussed above is one which can call upon the various security forces directly.

⁵⁹ The lack of available statistical data precludes the possibility of conducting an experimental analysis regarding the patrol's effectiveness.

D. Security Planning in the LMA: Management

1. Institutional Security Planning

(a) The LMA institutions primarily plan for their security needs independantly of one another. Security strategies focus on organized surveillance, patrol and escort, with limited attempts at providing crime prevention education seminars to the medical staff. In total, the MASCO member institutions expend approximately \$4 1/2 million per annum. The large proportion, approximately 70%, of security expenditures focus on internal security.

(b) The support of security planning strategies is weighed against other fiscal, political, administrative, functional, and convenience considerations. The security directors cite examples of proposed recommended security strategies which were disqualified due to those considerations.

Example (1): The CHMC emergency ward is used by the staff during the winter months as a waiting area for the bus which stops at the corner of Longwood Avenue and Blackfan Streets. This convenience, however, is equally appealing to the high school students, some of whom create disturbances and occasional security problems once they are within the waiting area. In the summer, the bus stop is a prime location for pickpocketing due to the congestion created by the

flow to and from the emergency ward. The request that the bus depot be moved down the block was refused by the administrators who were unwilling to inconvenience their staff.

Example (2): The Beth Israel parking gate is left ajar to facilitate the BI-CHMC-B&W inter-institutional flow along Blackfan Street (see exhibit 9). An alternative to closing the gate is to install an alarmed gate along the edge of English High School, thereby impeding the ease of access to the property. BI and CHMC, the hospitals most affected by this adjacency, have chosen not to invest in this strategy, the cost of which would amount to approximately twenty to thirty thousand dollars.

(c) Security planning often assumes the form of "crisis planning." In reaction to a specific event, extreme precautionary measures are rapidly initiated. As there is little time to test their functional compatibility with the other requirements of servicing in the institutions, the measures are often relaxed or abandoned as the sense of urgency subsides.

(d) There is a lack of joint-professional consultation in the planning and development of the LMA. This, inevitably, affects the security of the area. Security directors, for example, were not consulted prior to the recent construction of the Brigham and Women's Hospital. The siting of the

B&W entry way towards Francis Avenue facing away from the activity generated on Longwood Avenue and Blackfan Street and the failure to install a rear exit security system have resulted in a diffusion of pedestrian circulation along the Blackfan Street axis and thus in a weakened external security system, and in the unnecessary expenditures contingent on installing the system after construction.

2. Joint Institutional Security Planning

(a) Joint institutional security planning consists of the Longwood Medical Area Committee on Security, composed of MASCO member institution security directors, who convene on a monthly basis to share information and security experiences. The primary complaint against the committee is that it is not action oriented. The MASCO external patrol which was created by the committee is the exception to the rule. MASCO's most recent attempt at joint-institutional planning occurred during the course of the master programming process. An ad hoc security committee composed of selected members of the Longwood Medical Area Committee on Security and several MASCO administrators was formed. Recommendations of the ad hoc security committee for future security planning efforts on the LMA included joint-institutional patrols, crime data collection and improved lighting conditions. Results of these recommendations are not yet apparent.

(b) Joint institutional security planning is hampered by the reluctance of the institutions to relinquish any part of their individual autonomy and authority. This unfortunately is typical of most of the joint-institutional planning efforts and not merely in the area of security planning. For example, it is generally recognized that a merger of patrol forces would enhance the external security within the LMA. However, the institutions concern for their autonomy and their unwillingness to expend the sums which such a venture would require have hindered such cooperation.⁶⁰

(c) Though all the institutions agree that security is an issue of concern, the perception as to the severity of the problem is not uniform. This results in a variance in the willingness to expend additional funds for joint security planning efforts.

(d) One of the motivations for enhancing the security of the LMA and the public's perception of the area's safety, is to maintain the LMA as a desirable environment to work and visit. In the course of the master programming process, the administrators voiced the concern that if the traffic

⁶⁰The MASCO-CHMC-BLI in-house security force expenditures were approximately \$1.4 million per annum. See footnote 54.

and security problems increased, the institutions would invariably "drive the doctors to the suburbs." At this time, the security problem is not so acute as to outweigh the prestige imparted to medical staff working at the Harvard Medical School and affiliated hospitals. To clerical staff and nurses, however, this may not be sufficient inducement and it is they who could pose the immediate personnel difficulties if security conditions were to worsen. Meanwhile, however, the equilibrium between a poor security image and the operation of the hospitals is being maintained and therefore, there is no great incentive to invest in security at this time by the administrators who lean towards "crisis planning."

(e) Neighborhood Context: Joint institutional-community efforts. The administrations of the LMA institutions hold varying attitudes towards the neighborhoods in which they are lodged and for whom the security problem is at least as serious if not more severe than that experienced within the LMA itself.

(i) MASCO administrators have contemplated joint institutional-community security efforts as a means for relieving the conflicts between the institutions and the community. The mistrust of the community, the responsibility to be undertaken and the capital investment which might be required in joint institutional-community planning

discourage the development of such planning endeavors.

(ii) Joint institutional-community security planning efforts are constrained by the political tensions between the institutions and the communities which pervade all attempts at institutional-community planning and not merely that of security planning. There is minimal dialogue between MASCO and the communities. Huntington Avenue serves as the medial area's "Berlin Wall" separating it from the problems of the communities next door. There appears to be a relatively vague understanding on the part of the LMA institutions as to the needs and predicament of their neighbors. This is not unique to the LMA. A survey of universities across the country examining university-community tension and urban campus form found that tensions between the neighborhood and the university were lowest in communities where the percentage of poor and/or black families resided. The perceptions of the university administrators, however, were just the opposite. It was their belief that the higher the percentage of poor and/or black families in the neighborhood, the greater the tensions and the conflicts. The authors of the research project conclude that,

this may well be the most remarkable findings of the research. It should cause university administrators and planners to change some of their con- 61
ceptions.

⁶¹Carroll, R.L. et al., University-Community Tension and Urban Campus Form, Depts. of Sociology and Community Planning, University of Cincinnati, 1972, p. 11.

(iii) The attitudes towards the offenders perceived as residing in the neighboring communities varies. One common opinion as expressed by one security director is: "There is nothing you can do about the national, social-economic problems. The only thing you can do is put up the barbed wire fence and bring out the dogs to protect yourself." Though such extremes have not been taken, security planning strategies in the LMA focus on the urban fortress mode of operation. Harvard Medical School administrators have expressed the desire to upgrade the neighborhood in the attempt to improve the LMA security and image. The form that such an "upgrading" would adopt is not clear.

E. Crime Analysis Summary

Street crimes in the Longwood Medical Area are prevalent in areas classified as critical intensity zones -- areas where targets are available and the risk of apprehension via natural and/or organized surveillance is low. Furthermore, the distribution of crimes correlates with the journey to crime theory -- areas which are closest to the perceived sources of offenders and require the least effort in the journey to crime suffer from high crime rates.

The security planning strategies in the LMA are limited in that they focus on organized surveillance tactics rather than utilizing strategies from the entire spectrum of the crime analysis model. Furthermore, they are confined to the boundaries of the medical area as opposed to considering the LMA in the context of its surrounding neighborhoods. The lack of coordinated security efforts among the LMA institutions and between the institutions and the surrounding communities result in (a) the displacement rather than the prevention of crime within the LMA, and (b) the perpetuation of deteriorated physical and security conditions of the neighboring communities which provide a haven for resident offenders and offenders from other parts of the city. The proximity to these neighborhoods increases the imminent security danger to the medical area as well as substantiating the LMA's undesirable reputation of being located in a bad neighborhood.

II. Environmental Security Planning in the Longwood Medical Area: Recommendations

The following list of environmental security planning strategies provides a conceptual framework for future security planning in the Longwood Medical Area. The crime analysis model applied to the LMA case study forms the backbone of the security planning process proposed. Once hypothesized theories of crime patterns and their causes are tested and determined (correlational analysis), appropriate security planning strategies can be directed to circumvent the conditions which contribute to the opportunities and motivations for crime. As stressed throughout the study, the security problems of the LMA are to be examined and prescribed for in the context of its surroundings. For this reason, the strategies suggested are divided into two categories:

(a) within the LMA, and (b) outside the LMA. The strategies are directed at each of the crime analysis components: targets, offenders, journey to crime, natural surveillance, and organized surveillance.

It is recommended that a sequence of short, intermediate, and long term strategies derived from the various crime prevention approaches (mechanical/environmental design, punitive and corrective) be applied accordingly. Organized surveillance measures are effective short term strategies which placate the severity of the security problem in a

given area while setting the stage for the results of intermediate and long term strategies. The objective is to create an environment where law enforcement is self-imposed through natural surveillance and organized surveillance is merely a supplementary crime prevention device. Strategies aimed at reducing offender motivation, although they form an integral part of the synoptic planning effort, are not emphasized because of the complexity of the many factors involved, the uncertainty of positive results and the long term nature of the expected benefits.

All the security planning strategies do not necessarily entail additional outlays of capital. The intent of an environmental security plan is to coordinate security planning considerations with concurrent, yet independent, physical, and economic planning and development as well as social and political policy decisions. The master programming effort, for example, is an opportunity to enhance the security of the LMA by incorporating security planning strategies into the physical planning and development of the area and by serving as a catalyst for the revitalization of the surrounding communities.

The concept of the linkage between insitutional security and neighborhood revitalization, although uncommon is not novel. Throughout the country, there are precedents for institutional involvement in community development as a

means of enhancing the institution's security. Institutions have come to realize that "they are not isolated islands," and that their destiny may be wrapped up in the destiny of the community in which they are situated.

"The hospital is a community institution and the services it renders to patients are not delivered in a vacuum but in an economic, political, social context. How hospitals understand and relate to this context may well determine their success⁶² or failure during the 1980's.

Community stability and the quality of institutional relations can be a direct determinant of the security of the institution. According to Mr. M. Miller, security director of Columbia University, New York, "a law enforcement program is only as good as the local relations of the area it serves ...police departments which do not involve themselves with community affairs have no basis of contact."

This institutional enlightened self-interest has promoted institutional involvement with community economic development programs, opportunity policy measures, provision of free community medical services, joint institutional/community security efforts, and the use of institutional facilities by community groups. The investment in community welfare does not necessitate major capital outlays. The institutions generally prefer to assist community groups

⁶²Rondel, J.S., "Hospital is Catalyst for Revitalization," Hospitals, July 16, 1980, p. 83.

through political support and the provision of the free consulting services of their planners and architects.⁶³

A. General Recommendations

(1) A centralized security planning body should be established to coordinate the inter-institutional and institutional-community security planning. The expertise and cooperation of officials and individuals involved in the security planning process is required. These include: the institutional administrators -- management and policy makers and their respective security directors, planners and architects, the high school administrators, city agencies (planners and police), as well as members of the local community groups and the medical community.⁶⁴

(2) Active participation of high level administrators is necessary to establish the institution's commitment to improved institutional-community relations. Institutional dealings with the community must be sincere and straight-

⁶³For a detailed account of institutional/community security involvement, see appendix 2, pp. 87-97.

⁶⁴The response of a CHMC nurse to the question of whether IMA security services were adequate was, "Security? What security?" This demonstrates the need for a dialogue between members of the medical community and those in charge of security planning.

forward, or they will fail and turn counterproductive.⁶⁵

For example, the Detroit Medical Center has made a strong commitment to high level official representation in community affairs. The director of Operations sits on the Community Organization Boards, and is the current vice chairman of two of the committees. Dr. Heisell, Director of John Hopkins Medical Institute, has personally cultivated working relationships with the surrounding black communities and its political leaders.⁶⁶

Specific recommendations are provided for in Exhibits 15-19.

⁶⁵Meyers, E.M. and I.S. Fink, Universities and Communities: Can They Plan Together?, University of California, Berkeley 1974.

⁶⁶See appendix, p. 89.

B. Exhibits of Specific Recommendations

Exhibit 15


OFFENDERS		
	Strategy (Approach, Time Frame)	Example/Reference
Within the LMA	<p>Reducing frequency of crime committed by offenders from English High by:</p> <ol style="list-style-type: none"> 1. educational reform - to be administered by the high school educators and counselors. (corrective, long-term) 2. punitive measures - to be applied by high school administration; to be applied, in the last resort, by arrest and conviction. <p>Reduce the opportunities for crime: see following strategies (see exhibits 16-19).</p>	<p>Conrad, in "Educational Intervention as a Preventative Measure," recommends that changing the attitude and behavior of delinquency prone children requires specific intervention which should occur in the school setting. 67</p> <p>criminal justice experts recommend that juveniles be kept out of the criminal justice system as much as possible, in order to prevent recidivism. This is based on the assumption that "the further an offender penetrates into the criminal justice system, the more difficult it becomes to divert him from a criminal career. 68</p>
	<p>Reduce the motivations for crime of offenders and potential offenders residing in the surrounding neighborhoods via:</p> <ol style="list-style-type: none"> 1. indirect corrective aspects of neighborhood revitalization efforts. (corrective/environmental design, long-term) 2. indirect corrective aspects of employment programs within the LMA institutions (corrective, long-term) 	<p>environmental and opportunity policy measures via community economic development, housing rehab., employment programs created by joint institutional-community efforts. 69</p> <p>employment programs for neighborhood residents -- programs for public housing residents to be supplemented by training in the English language. 70</p> <p>recreation programs for neighborhood youth. 71</p>
Outside the LMA		

Exhibit 16


JOURNEY TO CRIME		
Within the IMA	Strategy (Approach, Time Frame)	Example/Reference
Within the IMA	<p>Increase the journey to crime by:</p> <ol style="list-style-type: none"> 1. tightening access control to semi-private and private zones (mechanical, short-term) 	<p>e.g., target hardening measures, pass system, blocking of escaper routes. To be applied to areas such as Beth Israel parking lot and Boston Latin High School.</p>
Outside the IMA	<p>Increase the journey to crime by:</p> <ol style="list-style-type: none"> 1. upgrading the neighborhood via community improvement programs. (environmental design, intermediate) 	<p>as a result, the neighborhoods no longer serve as a haven for resident offenders from other parts of the city.</p>

Exhibit 17


TARGETS		
	Strategy (Approach, Time Frame)	Example/Reference
Inside the LMA	Reduce the vulnerability of targets by:	
	<ol style="list-style-type: none"> 1. modifying victim behavior through crime prevention education. (corrective, short-term) 2. modification of institutional policies which contribute to the vulnerability of potential victims. (mechanical, short-term) 	seminars on self-protection; classes in self-defense; newsletter distributing pertinent LMA security information. 72 free nighttime parking in institutional facilities. 73
Outside the LMA	<ol style="list-style-type: none"> 1. support of community crime prevention education programs. (mechanical, short term) 	LMA political support to rally city police assistance; 74 otherwise, lecturing by LMA security personnel.

Exhibit 18



NATURAL SURVEILLANCE		
	Strategy (Approach, Time Frame)	Example/Reference
Within the LMA	<p>Enhancement of the natural surveillance in the LMA via:</p> <ol style="list-style-type: none"> 1. alteration of current impediments to natural surveillance. (environmental design, short-term) 2. the application of security planning considerations to future physical design and development. (environmental design, intermediate) 3. generation of street activity via outdoor activity programming. (environmental design, short-term) 	<p>Winsor School fence (pp.); landscaping - Emmanuel campus; low lighting levels - Avenue Louis Pasteur, other parts of the LMA.</p> <p>development of the Winsor/Temple lot on Pilgrim Road; Shattuck Street; - to be applied throughout the medical area physical planning.</p> <p>e.g., street vendors, outdoor recreation programs.</p>
Outside the LMA	<p>Enhance the natural surveillance of the neighborhood via neighborhood revitalization programs. (environmental design, intermediate)</p>	<p>throughout the communities adjacent to the LMA, particularly along the Huntington edge, Brigham Circle.</p> <p>Note: neighborhood confidence in institutional commitment to assist the community currently residing in the area to rehabilitate their community and maintain their residency in the area is a crucial factor in determining community cooperation.</p> <p style="text-align: right;">75</p>

Exhibit 19

ORGANIZED SURVEILLANCE		
	Strategy (Approach, Time Frame)	Example/Reference
Within the IMA	Increase the crime prevention (deterrence) and law enforcement (apprehension) abilities of the institutional private security forces. (mechanical, short-term)	upgrading the caliber and training of organized security forces; increased inter-institutional coordination and cooperation -- coordinated external patrols, central dispatch system, central LMA security department.
	Improve relations and cooperation with local and state police. (mechanical, short/intermediate)	in efforts to upgrade security at other institutions, an emphasis was placed on maintaining close ties with local police departments. 76
Outside the IMA	Increased organized surveillance via: 1. political support to increase city police protection. (mechanical, short-term)	The Boston Fenway Program assisted the Fenway Community in organizing a city team policing unit in the neighborhood. The community/police monthly meetings are subsidized by the Boston Fenway Program. 77
	2. joint institutional - community security efforts. (mechanical, short-term)	support of community crime prevention programs -- fiscal, technical, allotting the community office space to utilize as a headquarters; joint patrols. 78

Footnotes to Exhibits 15-19

- ⁶⁷ Powell, W.C., "Educational Intervention as a Preventative Measure," Criminal Justice and Behavior, vol. 2, no.4, pp. 397-407.
- ⁶⁸ National Advisory Commission on Criminal Justice, A National Strategy to Reduce Crime, U.S. Department of Justice, Law Enforcement Agency Administration, 1973, p. 34.
- ⁶⁹ See appendix, p. 89, JHMI: activities - #3.
 p. 89, " " - #9.
 p. 92, DMC : " - #1.
 p. 97, Montefiore: " - #2.
- ⁷⁰ See appendix, p. 90, JHMI: " - #4.
 p. 97, Montefiore: " - #3.
- ⁷¹ See appendix, p. 89, JHMI: " - #9.
 p. 93, DMC : " - #4.
 p. 95, Temple: Public Relations.
- ⁷² See appendix, p. 91, JHMI: Public Relations.
- ⁷³ See appendix, p. 93, DMC : Security Measures.
- ⁷⁴ See footnote 7.
- ⁷⁵ Kohn, I.R., Citizen Involvement in Crime Prevention Through Environmental Design, draft, Westinghouse Electric Corporation, 1974.
- ⁷⁶ See appendix, p. 90, JHMI: Structure of the New Security Force, #2.
 p. 93, DMC : Structure of the Security Force, #3.
- ⁷⁷ The Boston Fenway Program is a planning body formed by 11 major institutions in the Fenway Area, Boston, to improve the security of the Fenway area, and plan for institutional development and neighborhood revitalization. As a result of their security planning efforts, crime rose only 3.6% in the BFP target area as compared with an average of 7.6% for all of Boston. The Boston Fenway Program, Inc., Report to the Annual Meeting, 1980.

III. Conclusion

A significant result of this thesis is the substantiation, through the examination of the security in the Longwood Medical Area and its surroundings, of the theories of the still developing discipline of environmental security planning. This includes the theories of natural and organized surveillance as crime deterrents, critical intensity zones, and the journey to crime.

The study of the LMA indicates that its poor security image is balanced by the current security measures and the prestige of the institutions. However, the marketability of the LMA as a desirable workplace and healing center could be jeopardized if measures are not taken to improve existing conditions.

Current security planning strategies adopt a monolithic approach to crime prevention -- the utilization of target hardening techniques and organized surveillance limited to the defined boundaries of the LMA.

The case study demonstrates the need for a synoptic approach to crime prevention, one which plans for the security of the complex in the context of its surroundings and which utilizes strategies directed at the various crime-analysis components contributing to the opportunities and motivations for crime.

The inter-institutional and joint-institutional community planning required to implement the environmental security planning programs, however, are constrained by fiscal, administrative, functional, and political concerns. Some of the constraints can be overcome by institutional community programs which are not necessarily costly and may be some of the most fruitful methods to promote institutional security. This interaction could also be furthered by the establishment of a nation-wide networks between institutions regarding institutional-community security planning efforts. Such widespread institutional cooperation would be a valuable extension of the synoptic approach.

Appendix

1. Tabular Review of Surveys

Measuring Avoidance Behavior

Dubow, F. et al., Reactions to Crime, U.S. Department of Justice.

<i>Survey Responses on Places Avoided</i>			
Percentage Reporting Avoidance	Question Wording	Type of Population Surveyed	Reference
77	make more effort to avoid subways than before	black adults in household of 17 year old boys in Philadelphia	Savitz <i>et al.</i> , 1977
67	avoided some parts of the city b/c of fear of victimization	15 police beats in Kansas City	Kelling <i>et al.</i> , 1974
66	there were some places they would not go because of crime	state-wide Michigan	MOR, 1977
52	avoid going downtown	Detroit Metropolitan Area	ISR, 1975
44	avoid certain neighborhood streets	residents of Bedford-Stuyvesant, New York	Kleinman and David., 1973
42	avoid certain locations in the neighborhood	elderly residents of central city low rent public housing	Lawton <i>et al.</i> , 1976
36	won't go certain places in the metropolitan area at night	8 LEAA high impact cities victimization surveys	Garofalo, 1977c
20	won't go places in the metropolitan area in the daytime	8 LEAA high impact cities victimization surveys	Garofalo, 1977c
15	didn't go somewhere wanted to b/c it was unsafe	national victimization survey	Ennis, 1967
15	avoid some parts of their neighborhood and/or the city—open-ended	state-wide survey, Maryland	Nehnevajsa and Karelitz 1977
8	stay out of parts of city—open-ended	target area and general survey of Cincinnati	Schwartz and Clarren, 1978
4	avoid certain areas of town—open-ended	4 areas of Portland	Yaden <i>et al.</i> , 1973

2. Case Studies of Institutional-

Community Security Efforts:

John Hopkins Medical Center, Baltimore
Detroit Medical Center, Detroit
Temple University, Philadelphia
Montefiore Hospital, Bronx, New York

The following case studies⁷⁸ summarize the security efforts and community interface activities of four medical and educational institutional complexes, selected for their relevance as analogous experiences to the situation the Longwood Medical Area faces. They are presented as models for MASCO personnel and members to learn and benefit from. The cases include:

John Hopkins Medical Institute
Detroit Medical Center
Temple University
Montefiore Hospital

Certain commonalities of outlook and experience among them can be outlined as follows:

- Institutional action on community welfare is a matter of enlightened self interest, promoted by a fear of growing community violence and unrest, often triggered by a major confrontation with the community.
- Institutional dealings with the community must be sincere and straightforward, or they will fail and turn counter-productive.
- The progress of community relations should be expected to be very slow.
- Initiatives for community interaction must come from the top administrative level of the institutions.
- Security expenditures, if spent for quality personnel, have produced significant reductions in are crime.

⁷⁸The case studies are excerpted from the Arrowstreet Master-programming Proposal Manual. The research of the studies was instigated and conducted by the author.

JOHNS HOPKINS MEDICAL INSTITUTE (JHMI)

Context

The Institution: Johns Hopkins Medical Institute, located in East Baltimore, is composed of the School of Medicine, The Johns Hopkins Hospital, and the School of Public Health.

The Neighborhood: The institute is surrounded by two distinct neighborhoods and serves as a buffer zone between them. To the north lies a very poor black slum, the recipient of urban renewal program efforts of the city. To the southwest, resides a mixed white and ethnic lower-middle and lower-income population. This area is undergoing rehabilitation efforts.

Institutional/Community Interface

Background: The riots of the late sixties which focused around the Johns Hopkins area were the impetus for a concerted effort by the medical center to improve its relationships with the surrounding communities and to resolve the deep-seated mistrust and hostility toward the institutions.

Informal and Formal Interface: Dr. Heisell, Director of the Institute, has cultivated working relationships with the black community and political leaders. A sub-committee of 4 trustees selected from the joint board of trustees of the Hopkins' Institutes (each institute is a separate corporation) has been formed to actively pursue community development opportunities. A Hopkins' representative is a member of the South East Community Housing Board.

Activities: JHMI has been involved in the following community-oriented efforts:

1. Establishment of the East Baltimore Medical Center, a community-run HMO, subsidized and staffed by the Medical Center. JHMI has maintained a low profile to encourage a sense of community ownership and responsibility for survival of the clinic.
2. Provision of free medical care to the poor of the surrounding communities via a \$10 million annual write-off: \$7 million in bad debts, \$3 million in free work.
3. Rehabilitation of deteriorating housing stock. Development of mixed-income, partially-subsidized housing, to be sold primarily to JHMI staff. The project is coordinated with the South East Community Organization, the city, and private developers.

4. Conscientious efforts to employ staff from the neighboring communities.
5. Involvement with community and city-wide employment programs.
6. Community involvement and consultation prior to all JHMI projects which impact the surrounds (e.g., consultation prior to reorganization of security forces.)
7. Cooperative programming and provision of assistance to local high school specializing in health care profession training.
8. Creation of adolescent pregnancy clinic.
9. Neighborhood sports program run by medical students.
10. Community functions conducted on medical center grounds.

Security

Background: The murder of a Johns Hopkins medical student three years ago led to the complete restructuring of the JHMI security force. JHMI's strong commitment to security has yielded successful results: In 1980, crime rates rose 43% throughout the city of Baltimore, but only 9% in the medical area.

Structure of the Old Security Force: A contract security service, with guards paid a minimum wage (\$3.50 approx.), and with a management overhead fee paid to the company. The guards had minimum skills, and turnover rate was high (50 out of 250 per month). The quality of supervision varied with supervision at the bottom being the poorest of all.

Structure of the New Security Force: A second contract service was chosen over an in-house staff since all hospital staff is unionized, and the cost was considered prohibitive. JHMI worked closely with the new contractor to develop the desired security operation.

The annual security budget was doubled (to \$3million dollars). The wage rate of a guard was raised to \$5.75/hour. The guards are well trained and responsible; many are ex-policemen. Loyalties are to JHMI and not to the contract service. There is virtually no turnover (only a weeding out process of 8/200 men/month). Nine of the twelve supervisors are retired policemen. The Head Superviosr was the Lieutenant of Police of the City of Baltimore. As a result, the relations with the city police are excellent. An additional

service of police patrolling has been contracted. Policemen on foot patrol the area from 6 a.m. - 12 p.m. Their wage is \$6.75/hour. There is a waiting list of policemen for these positions.

Security Measures: The central communications office monitors the closed circuit TV installed at key points of exit and entry (screens are triggered by movement on the premises thus minimizing visual-monitoring fatigue), answers the phones and radios. When the additional policemen (who are armed; JHMI security force is not) work in the area, they tie into the centralized communications system.

An escort service van circulates on a designed route. Employees can signal it on the road with an I.D. The van waits till an employee is in her/his car if car is parked on the street. Individual escorts are available upon request.

Employees and visitors are encouraged at night to use the parking garages, which are free of charge after 5 p.m., as opposed to parking on city streets. The garages are connected to the buildings via second-level walkways, and are heavily monitored during shift changes.

Passes are issued to visitors to the Institute by a security guard.

Public Relations and Community Concerns: A committee composed of administrators, doctors, nurses, and staff persons convene monthly to review the security issues affecting the Medical Center Community and make recommendations for future services. They are also in charge of public relations efforts, and publish security news in the medical center newsletter.

DETROIT MEDICAL CENTER

Context

The Institutions: The Detroit Medical Center located in Downtown Detroit includes the following institutions: Wayne State University Medical School, United Hospital of Detroit, Children's Hospital of Michigan, The Rehabilitation Institute, and Detroit General.

The Neighborhood: The medical center is surrounded by a predominantly black, very poor community. A public housing project is located on one of its borders.

Institutional/Community Interface

Background: Detroit Medical Center's efforts in community involvement date back to 1955, when the Citizens Committee was formed and a comprehensive master plan for the medical area developed. Coupled with the urban renewal plan slated for the surrounding communities, this has formed the baseline for redevelopment in the area over the years. Today, the Committee, now known as the Detroit Medical Center Corporation, continues its comprehensive planning efforts with the community. It has taken many long years of effort and good will to partially mitigate the deep-rooted anger and mistrust the community has felt toward the medical center, and to build a viable working relationship.

Formal Interface: DMC has made a strong commitment to high level official representation in community affairs. The Director of Operations sits on Community Organization Boards, and is the current vice chairman of two of the committees.

Activities

1. Provision of free professional consulting services to the communities. The DMC architect/planner has rendered services to community groups throughout the years, at the cost of the medical center. Although communities may be organized, they often require assistance in defining their needs and setting a course of programmatic actions to follow. Although DMC does not, as a rule, contribute funding to the community programs, it helped bring a subsidized housing project to fruition by assisting in loan and land purchase negotiation.
2. Access to facilities of the medical center, such as use of office space for meetings, use of printing facilities of the graphic arts department at no cost, etc.

3. Employment of neighborhood youth during summer months.
4. Work with police on youth programs.
- 5.. Coordination with local vocational high school specializing in laboratory services.

Security

Structure of the Security Force: Though each institution maintains its own in-house security force, there is close coordination between the units, particularly with regard to outdoor patrols. A central communication system is in operation.

The majority of guards are retired policemen, who exhibit their experience and professionalism. When hiring younger guards, DMC selects those with police academy training. The guards are full-time employees receiving relatively high wages (approximately \$6-\$7 an hour), with full benefits. DMC is strongly against contract services, which were found to provide poorly trained, unreliable guards, with high turnover.

The security force is armed. Wayne State University's security force is deputized and has the power of arrest and the right to ticket. There are also close ties with the Detroit city police. The City Police Precinct Commander sits on the DMC security committee which meets quarterly. A special city police car has been assigned to the area to patrol daily between 3 and 11 p.m., and ties into the central communication system.

TEMPLE UNIVERSITY

Context

The Institution: Temple University in Philadelphia, is composed of five campuses with a student enrollment of 34,000. Temple University Hospital serves both as a leading referral center for the Delaware Valley as well as a provider of medical care for the North Philadelphia Community. Temple is the largest employer in North Philadelphia, with 9,840 employed at the University and its Health Science Center.

The Neighborhood: Pressure from the neighboring black community in the late 60's led to major adjustments in the campus development process, and resulted in a commitment to increased neighborliness and the return of 12 acres of land originally slated for university development. These agreements were formalized in the Community-Temple Agreement of 1970, signed also by the Governor of Pennsylvania, the Mayor of Philadelphia, and other public officials. The Agreement outlines the extent of community involvement in the planning process preceding any capital improvement decisions contemplated by the university.

Formal Interface: The Director of the Office of Community Relations has met with community members on a regular basis since 1972.

Activities: The Office of Community Relations is the administrator and innovator of numerous university-community service programs. There are approximately 60 ongoing programs including educational, health and social service, recreational, and special enrichment programs. Examples include:

1. Department of Entrepreneurial Programs works with small businesses in the area.
2. The Center for Social Change and Community Development assists community groups in packaging development programs.
3. 20% of the university work/study financial aid funding is funnelled through the Office of Community Relations. Thus, students are able to earn their tuition, while contributing to community programs such as day care centers, tutorials and urban planning projects.
4. A variety of medical services are offered to the community via the Temple University Hospital and the School of Medicine.

5. Facilities such as conference centers, lecture halls and recreational facilities may be scheduled for public and community group use when not occupied by Temple programs.
6. Temple has assisted in the packaging of a community subsidized housing project by providing seed money and leverage to obtain loans.

Security

Structure of Security Force: The various university institutions maintain their own security forces, some of which are armed. They coordinate with the city police as Temple security does not have jurisdiction beyond its borders.

Innovative Programming: The Office of Community Relations has recently won a grant from the Partnership Center in Washington to develop a security network system between the university, the city police and the housing authority. The goal is mutual assistance through cooperative crime prevention programming. The Office of Community Relations is contemplating a "town watch" whereby an organized crime prevention patrol of the public housing project might be linked up to the university communication system.

Public Relations: The Office of Community Relations attempts to utilize every possible potential for furthering its work in assisting the surrounding communities: (1) Political ties with the city are carefully cultivated. Temple officials meet with the mayor on a bi-annual basis. (2) They attract project funding from the public affairs departments of major corporations such as Gulf Oil, Bell Telephone, the utilities, prominent banks, etc. (3) Publications are distributed to a range of city organizations, and involvements maintained with organizations such as the United Way, UMCA, Boy Scouts, etc.

MONTEFIORE HOSPITAL

Context

The Institution: Montefiore is located in the Bronx, New York City. It is affiliated with the Hospital of Albert Einstein College of Medicine.

The Neighborhood: The surrounding neighborhood is undergoing transition: Previously a white, primarily Jewish and Irish populace, the community is now largely black and Hispanic. The attitude of the community towards the hospital is mixed: on the one hand there is an affinity for the hospital as a provider of medical care; on the other hand, it evokes anger as a large, expansionist enterprise, polluting the environment with smoke from its chimneys, and delivering "inadequate" service.

Institutional/Community Interface

Formal Interface: A community advisory board to the hospital is composed of 22 members, including representation from the HSAs (Health Systems Agencies) for the Bronx. Four members of the committee sit on the central advisory board of the hospital.

Issues such as the hospital budget or plans for future development are discussed with the community advisory board. Montefiore has found that this policy of open discussion and disclosure of information has created a significant attitudinal change on the part of the community towards the hospital and that in fact there have not been major controversies regarding development plans since the formation of the board. This process has been ongoing for 3 to 4 years, but it took approximated 18 months before one could begin to perceive any results.

Montefiore representatives participate in all community public meetings with planning boards, religious groups, etc. This involvement does not usually lead to concerted action but allows for a high degree of visibility and the display of the hospital's concern for the community's well-being. However, if the institution is not sincere in its dealings, the real motives are picked up immediately and this leads to disastrous results.

Activities

1. The hospital contributes to the funding of small-scale community projects, such as the recent contribution of \$1000 to the community safety patrol for the purchase

of a patrol vehicle. As a rule, it prefers to offer expertise and cooperative efforts as opposed to funding.

2. Neighborhood revitalization efforts. One of the districts adjacent to Montefiore suffers from a dilapidated housing stock. Three rehabilitation strategies have been adopted: (1) the provision of technical advice to local landlords in acquiring second mortgages; (2) provision of technical assistance to residents wishing to form cooperatives; (3) as a last resort, acquisition of deteriorated property and renovation with the original tenants in place.
3. The hospital encourages people from the community to apply for employment within the hospital. While they are not given additional preference, neighborhood residents are made aware of all available job openings.

Security

The guards of the hospital are not armed, as Montefiore does not wish to "turn the hospital into an armed camp." There is coordination with city police, whose responsibility it is, they believe, to handle the problems of New York City.

When dealing with the community groups on security matters, the emphasis is on providing assistance while maintaining a clear posture that the institution is not responsible for security, nor does it intend to dictate to the community what needs to be done.

Interviews

1. Anderson, T. - Director of Public Affairs and Community Relations. Temple University, Philadelphia.
2. Barton, J. - planner, Neighborhood Development Agency, City of Boston.
3. Barrow, K. - Security Coordinator, MASCO (LMA).
4. Beattie, D. - Security Director, Beth Israel Hospital (LMA).
5. Connelly, J. - Security Director, New England Deaconess Hospital (LMA).
6. Conti, J. - Security Director, Simmons College.
7. Cotton, C. - Director, Boston Fenway Program.
8. Craig, G. - planner, architect, Detroit Medical Center.
9. Dais, L. - Director, Office of Public Affairs, Columbia University, New York City.
10. Daniels, J. - Security Director, Children's Hospital Medical Center.
11. Fowler, F. - Center for Survey Research, University of Massachusetts, Boston.
12. Gaitner, R. - Director of Community Relations and Public Affairs, Johns Hopkins Medical Institute, Baltimore.
13. Hartman, F. - Director, Hartford Institute of Criminal Justice, Connecticut.
14. Jenks, P. - President, Co-Generation Management Company, Inc. (LMA).
15. Katz, M. - Senior Deputy Director, Montefiore Hospital, Bronx, New York City.
16. Major, G. - Administrator, Central Support Services Harvard Medical School, West Quad Administration (LMA).

17. Mickles, J. - Dean of Administration, Massachusetts College of Pharmacy (LMA).
18. Miller, M. - Security Director, Columbia University, New York City.
19. Nichols, R. - Director of Area Services and Development, MASCO (LMA).
20. Norton, T. - Metropolitan District Manager, First Security.
21. Parks, T. - Acting Administrator, Roxbury Tenants of Harvard, Boston.
22. Speese, R. - Director, Office of Community Relations, Detroit Medical Center.
23. Sharrat, J. - Principal, John Sharrat and Associates, Architects and Planners.
24. Sycamore, H. - Assistant Director, New England Deaconess Hospital (LMA).
25. Wall, P. - Manager of Plant Services, MASCO (LMA).

Bibliography

Angel, S., Discouraging Crime Through City Planning, Working paper no. 75, University of California, Berkeley, 1968, p. 16.

Ash, M., et al., Architecture, Planning and Urban Crime - Proceedings of a Day Conference Held on Friday, 6 December, 1979, National Association for the Care of Offenders, London, 1979.

Baldwin, J., et al., The Urban Criminal, Tavistock Publications Ltd., London, 1976.

Balkan, S., et al., Crime and Deviance in America: A Critical Approach, Wadsworth Publishing Co., California, 1970.

Bell, L.S., et al., Crime Prevention Through Environmental Design Technical Guideline 7, Planning Public Outdoor Areas Westinghouse Electric Corp., 1978.

Blumin, D., Victims: A Study of Crime in a Boston Housing Project, Mayors Safe Streets Act Advisory Committee; City of Boston, 1973.

Boston-Fenway Program, Report to the Annual Meeting, 1980 (unpublished).

Boston Police Department, District Four. A Report to the Commissioner. Neighborhood Responsive Policing Program. An Analysis, Boston, 1980.

Boston Redevelopment Authority, Mission Hill - Medical Center Area. District Profile and Proposed 1979-1980 Neighborhood Improvement Program, 1979.

Brantingham, P.J., "Theoretical Model of Crime Site Selection," Law and Sanctions - Theoretical Perspectives, Marvin Krohn et al. (eds.), Sage Publications, California, 1978.

Brown, J., Cranfield Papers - Cranfield Conference on the Prevention of Crime in Europe, 1978, Peel Press, London, 1978.

Burns Security Institute, National Survey on Hospital Security, (published by author), New York, 1972.

Carroll, R.L., et al., University-Community Tension and Urban Campus Form, Dept. of Sociology and Community Planning, University of Cincinnati, 1972.

Carter, R.L. et al., The Criminal's Image of the City, Pergamon Press, Inc., New York, 1979.

Chamberlain, , Private and Public Planning, U.S., McGraw Hill, Inc., 1965.

Cho, Y.N., Public Policy and Urban Crime, University of Akron, Ballinger Publishing Co.

Clifford, W., Planning Crime Prevention, Australian Institute of Criminology, Lexington Books, Mass, 1976.

Colling, R.L., Hospital Security - Complete Protection for Health Care Facility.

Conklin, J.F., "CPTED in the Urban Shopping District," in A.R. Coffey, Prevention of Crime and Delinquency, Prentice Hall, Englewood Cliffs, N.J., 1975.

Connelly, J. et al., An Analysis of the Children's Hospital Medical Center's Security Program (unpublished), Boston, 1980.

Cox Commission Report, Crisis at Columbia, Vintage Books, Random House, 1968.

Dueren, S.E., "Crime Prevention - An Eclectic Approach," in Introduction to Criminal Justice, Dae H. Chang (ed.) Kendall Hunt Publications, 1979.

Dunigan, J.V., Hospital Employee Safety and Security Program, published by the author, New York, 1977.

Evans, D.J., Geographical Perspectives on Juvenile Delinquency, Grower Publishing Co., Ltd., England, 1980.

Gold, R. et al., Urban Violence and the Design and Form of the Urban Environment, National Commission of the Causes and Prevention of Violence, Washington, D.C., 1967.

Gray, C.M., The Costs of Crime, Sage Publications, U.S., 1979.

Greenbank, A., Survival in the City, Harper and Row, New York, 1974.

Haskel, R.J., "Security Engineering Design in Commercial and Institutional Settings," CPTED Technical Guideline 9, Westinghouse Electric Corp., June 1978.

- Healy, R.J., Design for Security, New York.
- Hilgenhurst, C.G. and Assoc., Design and Development Options for the Longwood Medical Area, study conducted for the Medical Area Services Corporation, November 1975.
- Inciardi, J. et al., Crime: Emerging Issues, Prager Publishers, New York, 1977.
- Jacksonville Office of the Sheriff, Crime Prevention via Recreation, published by the author, Jacksonville, 1978.
- Jacobs, J., "Sidewalk Crime and Community," Liberation 19: 8-9 (Spring), 1976.
- Jacobs, J., The Death and Life of Great American Cities, Random House, New York, 1961.
- Jeffrey, D.R., Crime Prevention Through Environmental Design, Sage Publications, 1971.
- Knutson, J. et al. "Crime Prevention Activity of the Police - A Theoretical Analysis," in Police and Social Order, National Swedish Council for Crime Prevention.
- Kulski, Land of Urban Promise, University of Notre Dame Press, 1967.
- Liechenstein, M., Designing for Security, paper presented for the AIAA Urban Technology Conference, New York, May 24-26, 1971.
- McCagley, H., Crime in American Society, Macmillan Publishing Co., New York, 1980.
- Medical Area Service Corporation, Annual Meeting. Report Fiscal Year, 1979, (unpublished).
- Medical Area Services Corporation, Master Programming. MASCO Project Plan, 1980 (unpublished), Boston, 1980.
- Meyers, E.M. et al., Universities and Communities: Can They Plan Together, University of California, Berkeley, 1974.
- Normandeau, A., Review of Methods for Active Crime Prevention, University of Montreal, 1979.
- Newman, O., Defensible Space, Collier, New York, 1973.
- Pepinsky, H.E., Crime Control Strategies, Oxford University Press, U.S., 1980.

Phelan, G.F., Testing Architecturally Defensible Design: How Burglars Perceive Cues of Residential Vulnerability, paper presented at the meeting of the American Society of Criminology, Atlanta, GA, 1977.

Philips, P.D., "Characteristics and Typology of the Journey to Crime," in Georges-Abeyie et al., Crime: A Spatial Perspective, Columbia University Press, New York, 1980.

Porter, D. et al., Academic Medical Center Study, School of Architecture, Rice University, 1976.

Powell, C., "Educational Intervention as a Preventative Measure," Criminal Justice and Behavior, vol. 2, no. 4: 397-407, December 1975.

Repetto, T.A., Residential Crime, Ballinger Publishing Co., Cambridge, Mass., 1974.

Rosenfield, I. et al., Hospital Architecture, Van Nostrand Reinhold Co., New York, 1971.

Rubinstein, J., City Police, Farrar, Straus and Giroux, New York, 1973.

Ruth, H.S., Research Priorities for Crime Reduction Efforts, The Urban Institute, Washington, D.C., 1977.

Ryan, W., Blaming the Victim, Vintage Books, Random House, New York, 1976.

Sedgewick, L.J., Deterring Criminals: Policy Making and the American Tradition, American Enterprise Institute for Public Policy Research, Washington, D.C., 1980.

Sharrat, J. and Assoc., Inc., Alternatives for a Community-Institutional Area Plan. Mission Hill-Medical Center Area (unpublished), 1972.

Sorrentino, A., Organizing Against Crime. Redeveloping the Neighborhood, Human Sciences Press, New York, 1977.

Spergel, I.A., Community Problem Solving: The Delinquency Example, University of Chicago Press, 1977.

Stinchcombe, A.L. et al., Crime and Punishment in Public Opinion: 1948-1974, National Opinion Research Center, Chicago, Ill., 1977.

Silberman, S.E., Criminal Violence Criminal Justice, Vintage Books, New York, 1980.

Survey Research Program, Reducing Crime and Fear in an Urban Residential Area. The Planning and Evaluation of an Integrated Approach to Opportunity Reduction, University of Massachusetts, 1978.

Survey Research Program, Evaluation of a Neighborhood Crime Control Experiment, North Asylum Hill, Hartford, Connecticut, A Preliminary Study, Joint Center for Urban Studies of M.I.T. and Harvard University, University of Massachusetts, Boston, June 1980.

Suttles, G.D., The Social Order of the Slum: Ethnicity and Territory in the Inner City, University of Chicago Press, 1968.

University Circle, Inc., Annual Report 1980, Cleveland, Ohio.

University Circle Police Department. Annual Report 1979, Cleveland, Ohio.

U.S. Department of Housing and Urban Development, Crime in Public Housing, by W.V. Rouse, Washington, D.C., 1978, vol. 1, 2.

U.S. Department of Justice, Law Enforcement Assistance Agency, National Advisory Commission on Criminal Justice, A National Strategy to Reduce Crime, 1973.

U.S. Department of Justice, LEAA, Architectural Design for Crime Prevention, by O. Newman, Washington, D.C., 1973.

U.S. Department of Justice, LEAA, Citizen Involvement in Crime Prevention through Environmental Design, by I.R. Kohn, Westinghouse Electric Corp., 1974.

U.S. Department of Justice, LEAA, City Life and Delinquency Victimization, Fear of Crime and Gang Membership, National Institute for Juvenile Justice, Office of Juvenile Justice and Crime Prevention, 1977.

U.S. Department of Justice, LEAA Community Crime Prevention, a selected bibliography, Washington, D.C., 1977.

U.S. Department of Justice, LEAA, Crime Prevention Through Environmental Design - Process Case Studies Report, by A.M. Kaplan, Washington, D.C., 1977.

U.S. Department of Justice, LEAA, Crime Prevention Through Environmental Design - V 2 - CPTED Strategies and Directives Manual, by L.B. Moncure, Westinghouse Electric Corp., Washington, D.C., 1977.

U.S. Department of Justice, LEAA, Crime Prevention Through Environmental Design - V 3 - Analytic Methods Handbook, by I.R. Kohn, Westinghouse Electric Corp., Washington, D.C., 1977.

U.S. Department of Justice, LEAA, Crime Prevention Through Environmental Design. Program Manual vol. 1, by W.A. Wiles, Washington, D.C., 1978.

U.S. Department of Justice, LEAA, Crime Trends and Crime Prevention. United States Discussion Paper for the Sixth United Nations Congress on the Prevention of Crime and the Treatment of Offenders, Washington, D.C.

U.S. Department of Criminal Justice, LEAA Design for Safe Neighborhoods: The Environmental Security Planning Process, by R. Gardiner, Washington, D.C., 1978.

U.S. Department of Justice, LEAA, Designing Safe Environments, by M.K. Gwaltney et al., Washington, D.C., 1979.

U.S. Department of Justice, LEAA, Factors Influencing Crime and Instability in Urban Housing Developments, by O. Newman et al., Washington, D.C., 1980.

U.S. Department of Justice, LEAA, Impact of Street Lighting on Crime, by R. Wright et al., Washington, D.C., 1974.

U.S. Department of Justice, LEAA, Organized Neighborhood, Crime Prevention and the Criminal Justice System, by T.F. Christian, Washington, D.C., 1973.

U.S. Department of Justice, LEAA Potential Secondary Impact of the Crime Through Environmental Design Concept (CPTED), Washington, D.C., 1976.

U.S. Department of Justice, Reactions to Crime. A Critical Review of the Literature, by F. Dubow et al., Washington, D.C., 1979.

Ward, C., Vandalism, Architectural Press, London, 1973

Worthy, W., The Rape of Our Neighborhoods, Morrow, New York, 1976.

Articles

Barzelon, F.D., "You Don't Eliminate Injustice by Ignoring It," Human Rights, v. 7, no. 2, 1978, pp. 18-21.

Bethell, J.T., "How Does It Feel to Have a 73 Megawatt Headache?" Harvard Magazine, July-August 1980.

Bottoms, A.E., "A Review of Defensible Space by Oscar Newman." British Journal of Criminology, 14:203-206.

Cohn, E.S., "Crime Prevention Vs. Victimization Prevention - The Psychology of Two Different Reactions," in Victimology, v. 3, no 3/4 special issue, 1978, pp. 285-296.

Cooley, J.W., "Social Aspects of Crime Prevention," Canadian Police College Journal, v. 2, no. 4, 1978, pp. 382-389.

Downey, G.W., "Best Protection is Good Men, Well Trained," Modern Hospital, July 1973.

Duncan, G., "Expected and Actual Residential Moves," American Institute of Planners, journal 42 (April), pp. 174-186.

Field, H., "Medical Center Planning and Design within the Total Urban Setting," World Hospitals, v. 6, Pergamon Press, Great Britain, 1970, pp. 80-89.

Fowler, G., "Police Say New Plastic Shields for Tellers Cut Bank Holdups," The New York Times, July 19, 1981.

Gardner, R.A., "Crime Prevention Through Environmental Design," Security Management, pp. 37-42.

Goldberg, M.S., "To Arm or Not to Arm," Security Management, v. 24, May 1980, pp. 84-87.

Johnson, D., "Clean Err. MATEP Power Plant An Albatross for Harvard," Brookline Tab, February 25, 1981, p. 1.

Khiss, P., "Study Discerns Desegregation Benefit," The New York Times, September 16, 1981, p. A 16.

Lewis, A., "A Desolate Prospect," The New York Times, July 19, 1981.

Maccalil, E., "Crime in the City - It's Not Just the Victims Who Pay," Planning, February 1975, pp. 10-13.

Mohanan, J., "Toward the Safe Society - Police Agencies and Environmental Planning," Journal of Criminal Justice, v. 4, no. 1 (Spring), 1976, pp. 1-7.

Nix, E.M. "University Response to the Challenge of Crime Prevention," Campus Law Enforcement Journal, v. 8, no. 6, November-December, 1978, pp. 19-23.

-----"Our Losing Battle Against Crime," U.S. News and World Report, October 12, 1981, pp. 39-43.

Peterson, I., "Rural Michigan Booming as Many Flee Urban Ills," The New York Times, July 8, 1981.

Powers J., "The Boston Police, White Budget, Proposition 2 1/2 are Nibbling Away at Morale," Boston Sunday Globe, July 26, 1981, p. A23.

Rondel, J.S., "Hospital is Catalyst for Revitalization," Hospitals, July 16, 1980, p. 83.

Smolowe, J., "Guardian Angels Plan Hub Patrols," The Boston Sunday Globe, March 18, 1981, p. 1.

-----"Troubled Teenagers," U.S. News and World Report, December 14, 1981.

-----"Violence Creates a New Growth Industry," Chicago Tribune, April 5, 1981, p. 1.

Welch, J.O., "Mission Hill No. 1 Project for New England Crime," Boston Herald, October 27, 1981.

Young, P., "The City's Safest Neighborhoods," New York, October 19, 1981, pp. 30-35.