

LIGHTING, CRIME PREVENTION AND COMMUNITY SAFETY

THE TOWER HAMLETS PROJECT

FIRST REPORT

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## SUMMARY OF AIMS, METHODS AND FINDINGS

### THE TOWER HAMLETS PROJECT

The project was a carefully controlled 'before' and 'after' monitoring exercise of the impact of improved street lighting on crime, harassment and community safety. The street chosen was in a badly lit, inner city area. (Tower Hamlets). The project adopted a multi-agency approach involving the local Metropolitan Police, Criminologists, Industry and the London Borough of Tower Hamlets. The project was designed to carefully identify, monitor and evaluate the effectiveness of lighting as a means of crime prevention. It was crime-specific, area specific and strategy specific.

- The specific street crimes focused upon were :-
  - violence against the person (robbery, theft from the person, physical and sexual assault).
  - theft of/from/and damage to motor vehicles.
  - racial and sexual harassment and threatening behaviour were also included. Though not necessarily 'criminal' in a legal sense, such incidents are very real problems in themselves, and they compound the effects of more serious crime and heighten peoples sense of insecurity, creating an unsafe and threatening environment, particularly at night.

#### Multi-agency Approach.

- The police identified several badly-lit sites and site visits were undertaken by the project team.
- Industry (Philips) funded the project and with the local authority undertook regular maintenance inspections throughout the experimental period.

### Choice of Site

The criteria for choice of site were that it :-

- was an essential pedestrian through-route
- was badly lit
- contained a railway station at one end and an underground car park at the other
- contained a public house
- i.e. there were sufficient inducements for pedestrians to use the street and the design of the environment offered opportunities for crime and harassment to occur.
- the street was not chosen because it was thought to be in a high crime area.

Sample size :-

248 street interviews were completed.  
143 were conducted in late January 1988 prior to relighting, and 143 were conducted mid-March 1988 after relighting

Almost 40% of pedestrians using the street were Asian or Afro-Caribbean.

### Results.

1. Reduction in crime and harassment 6 weeks before and after relighting.

A total of 18 incidents were reduced to 4 in a 6 week period.

	6 weeks before relighting	6 weeks after relighting
Threatening/insulting behaviour	11	3
Cars stolen/damaged	5	1
Physical assault/robbery	<u>2</u>	<u>0</u>
Total respondents victimised	<u>18</u>	<u>4</u>

In addition, interviewers witnessed a burglary and two incidents of drug dealing in the street and 2 physical assaults in a 9 day period prior to relighting.

2. Fear of crime - 6 weeks before and after relighting.

Improved street lighting had a dramatic effect in reducing fear of crime and increasing personal and community safety.

Before - 59% feared being physically attacked whilst using the road. Womens fear was much greater. 79% of women compared to 49% of men feared victimisation.

- 77% of women were afraid of being sexually assaulted or raped whilst walking along the road. Womens fear of physical attack is clearly associated with their fear of sexual violence.

After - There was a 45% reduction in fear of physical attack and a 22% reduction in womens fear of rape and sexual assault. There was no reduction in womens fear of harassment in the street though 86% of women thought that threatening/insulting behaviour had decreased after relighting.

3. Personal safety before and after relighting.

Before - 57% of all respondents (73% of women and 51% of men) felt unsafe in the road prior to relighting.

After - 69% of all respondents reported that their feelings of personal safety had increased. 94% believed fear of crime in the area had decreased.



4. Frequency of crime/harassment in previous 12 month period.

- 34% of pedestrians had experienced some form of crime or harassment - physical attack (4%); autocrime (10%); harassment (20%).
- 11% reported members of their household had been similarly victimised.
- Women had an equal chance of being threatened, insulted and pestered as men (20%).
- Drunks, vagrants, mentally ill regularly pestered and begged from those using the badly lit street.

5. Inter-racial crime and harassment.

- Though few in number, all physical attacks in previous 12 months in the road were against young black and Asian people.
- Ethnic minorities were twice as likely as white people to experience inter-personal crime and harassment on the street.
- Interviewers observed 2 physical assaults by white youths upon black youths in the street during the 9 day interview period.
- All incidents of crime and harassment recounted by black and Asian people were described by them as racially motivated.

6. Sexual harassment.

Verbal abuse and kerb crawling occurred regularly in the area. The two female interviewers experienced 6 incidents of sexual harassment in the study period prior to relighting.

7. Knowledge of crime.

Knowledge of other peoples victimisation is an important source of fear of crime in a community.

13% personally knew someone who had been robbed/attacked in the street.

10% personally knew someone who had been pestered, threatened or insulted.

17% personally knew someone who had had a vehicle stolen or damaged.

4% personally knew someone who had been sexually assaulted.

8. The impact of fear on the quality of life.

Because of the incidence and fear of crime:

- over a quarter of respondents avoided going out after dark.
- almost one half preferred to go out if accompanied by someone else.
- over a third avoided areas within a five minute walk of the interview point.

9. The impact of crime and fear on women.

The impact of fear on womens lifestyle is profound.

- 89% of women prefer to go out if accompanied by someone else.
- 52% avoid going out after dark.
- 61% avoided areas within a five minute walk.

Yet, over three quarters of men do not feel they have to take similar precautions.

10. Physical precautions.

- 36% of women take some form of physical precaution (compared to 11% of men) to protect themselves from victimisation. Articles carried included knives, sticks, keys, chilli powder, bleach, rape alarms and scissors.

Other precautionary strategies adopted by women :-

- rarely carrying a handbag or wearing jewellery.
- limiting the amount of money carried.
- running, rather than walking, through the street.
- walking in the middle of the road rather than on the pavement in case of attack.
- self-defence classes.

11. Lighting and Crime Prevention.

Police patrols (83%) and improved street lighting (72%) were regarded as the two measures which would reduce crime and increase the safety of women.

12. Lighting and community safety.

Before : Before relighting, the majority of respondents believed that street robbery, burglary, fear of crime, vandalism, and threatening behaviour had become worse in the area over the previous five years.

After : Improved street lighting dramatically affected public perceptions of crime, anti-social behaviour and the environment.

Impact on perceptions of the physical environment.

100% thought lighting was brighter.

100% thought lighting improved the look of the area.

95% thought lighting improved recognition.

95% thought the lighting was more attractive.

Impact on perceptions of social and anti-social behaviour.

Lighting was thought to have:

- increased the number of pedestrians using the street.
- reduced physical and sexual assault.
- reduced harassment and threatening behaviour.

Impact of lighting on women.

Improved street lighting has most impact on womens perceptions of crime and safety.

86% of women (67% men) thought threats/harassment decreased.

80% of women (60% men) thought physical assaults decreased.

75% of women (56% men) thought sexual assaults decreased.

80% of women (59% men) noticed lighting had changed.

Street lighting positively affected men and womens perception of community safety.

13. The scope for lighting as a crime prevention measure.

Improved street lighting is not a cure-all for crime and urban degeneration, but by increasing visibility at night, it:-

- encourages people to use the streets.
- is a deterrent to crime because it increases the possibility that potential offenders will be recognised by the victim/witnesses.
- increases the possibility of human intervention should crime occur.
- increases peoples' sense of personal security and safety.
- decreases fear of crime.
- can reduce the incidence of specific types of crime and disorder.

As an added bonus good street lighting :-

- aesthetically improves the environment.
- is a relatively low cost environmental improvement and crime prevention option.

CONCLUSION.

This is the second project to demonstrate how improvements in street lighting can improve the quality of urban life and enhance community safety. At night, good lighting provides a crucial indication that an area is cared for and controlled - just as broken lamps and dark, unkept walkways indicate that it is not.

## CHAPTER 1:

### 1. INTRODUCTION

#### 1.1 Project Aims and Background

The major concern of this exploratory project was to examine the extent to which improved lighting reduced the incidence and fear of crime and harassment. The focus was upon a badly lit street which offered opportunities for crime to occur. The specific crimes chosen for analysis were autocrime and violence against the person. General incivilities, racial and sexual harassment, threats and verbal abuse were also included. Although less serious in nature, such events compound the effects of more serious crime and heighten peoples sense of insecurity and vulnerability when walking alone at night.

The project originated as a response to four areas of concern in crime prevention:

- (1) A growing interest in the possibilities of reducing crime through changes in environmental design.
- (2) Increasing public concern and fear of violent crime.
- (3) A recognition of the need to develop a multi-agency approach to crime prevention.
- (4) A lack of research into the relationship between lighting and crime.

#### 1.2 Crime Prevention: Multi-Agency and Monitored

Although everyone stresses the importance of a multi-agency approach to crime prevention, in practice this is difficult to achieve; although everyone endorses the necessity of monitored research, such research is exceedingly rare. (Hope and Dowds, 1987).

### 1.2.1 Multi-Agencies in Action

The project was conceived and developed within a multi-agency framework. Tower Hamlets police identified suitable sites for the project; the local authority ensured the lighting was installed, maintained throughout the project and that no other public works or alterations were made to the environment during the study period. The entire research was funded by Philips Lighting Limited who also co-operated in the installation and monitoring of lighting levels. The design and implementation of the project was discussed at every stage with all parties and the success of the project is attributable to the enthusiastic co-operation of all the agencies and the dedication of the interview team.

### 1.2.2 A Controlled Setting

The project was stripped down to the bare essentials so that the effects of lighting upon crime and fear of crime could be carefully monitored. The project was:

- strategy specific (lighting)
- area specific (clearly demarcated street)
- crime specific (autocrime and violent crime)

This report describes why and how this research was carried out to test a much neglected strategy of crime prevention. Chapter 2 deals with conventional approaches to crime prevention and the case for and against lighting as a preventive strategy. Chapter 3 outlines and explains the methodology adopted and Chapter 4 gives a detailed account and discussion of the results obtained. The final Chapter summarises the findings and presents the conclusions.

## CHAPTER 2:

2. CRIME, PREVENTION, LIGHTING AND PUBLIC SAFETY
- 2.1 Conventional Approaches to Crime Prevention

There is an increased awareness that the most immediate and practical solutions to localised problems of crime and harassment, lie in measures directed at highly specific forms of crime which involve changes in the design and layout of those environmental settings which offer opportunities and incentives for crimes to occur. The methods adopted to reduce crime in this way vary from project to project but have been variously dubbed "defensive", "environmental", "physical", and more recently "situational" prevention.

The "situational" approach to crime prevention evolved throughout the late 1970's as exemplified in Home Office Circular 8/84. The approach is most successful where there is prior knowledge of the contexts or situations in which crime has occurred and is likely to recur. The particular situation is examined and the environment or design of the object in question is altered so that specific crimes can be controlled.

Throughout the Seventies and Eighties there has been a burgeoning interest in research which has shown the possibilities of reducing crime through changes in environmental design. The early work of Jacobs 1961 and Newman 1972, was instrumental in focusing attention upon the environment as a conditioner of offence behaviour. Briefly, their conceptual and empirical analysis emphasized the relationship between the physical characteristics of the environment (design, layout etc) within which offences occur, with the ways in which local space is informally controlled and observed. In essence, they contended that areas are more likely to be defended by informal social control if they are visible to potential witnesses, if design is such that a constant flow of possible witnesses is encouraged and if a community outlook is developed whereby residents and pedestrians are encouraged to protect neutral territory.



Though their endeavours have been variously criticised for being impressionistic, architecturally deterministic and ambiguous, they have inspired a number of micro level studies which have examined criminal behaviour in its environmental context. Research by the Brantinghams 1975, Mawby 1977, Hope 1982, Poyner 1986, and Painter 1988 have sought to assess the extent to which environmental opportunities for crime are offered and to consider changes in design which might diminish the vulnerability of particular structures and localities.

In various ways, visibility is considered an instrumental factor (affecting social control, propensity to offend, deterrence and prevention) throughout the accumulating literature on the "situational" or "physical" approach to crime prevention. This, combined with increasing public concern and fear of crime (Hough and Mayhew 1983, 1985), makes it surprising that the relationship between public lighting and crime has been neglected in the United Kingdom (Mayhew 1976; Fleming and Burrows 1985).

The case for the crime preventive effects of street lighting appears intuitively obvious. By increasing the possibility that potential offenders will be recognised by the victim or witnesses it may act as a deterrent and/or aid the police in detecting offenders; it encourages people (depending on their age/lifestyle etc.) to use public space at night. The argument is that logically an increase in pedestrian traffic flow will increase informal natural surveillance, increase individuals feelings of personal security, decrease fear of victimisation, improve the quality and participation in urban life, thereby impeding any decline in neighbourhood disintegration. As an added bonus, good street lighting aesthetically improves the environment and is a relatively low cost option.

## 2.2 National and Local Crime Surveys and Official Statistics

Fear of crime has thus become an important policy issue in its own right. The British Crime Survey carried out by the Home office Research and Planning Unit in 1983 and 1985 indicated that nationally fear of crime was becoming as much a problem as crime itself. These national surveys rightly pointed out that throughout the country crime was still a relatively rare occurrence and that the majority of peoples' fears were out of all proportion to risk. (Hough and Mayhew, 1983).

Crime, however is not equally distributed throughout the country. Localised crime surveys carried out in Merseyside, Islington, Broadwater Farm and Lansdowne Green, (Kinsey. 1985; Jones et al, 1986; SNU, 1987) have revealed that crime is concentrated in small geographical areas where its impact is compounded by general incivilities and harassment. Fear of crime appeared to be heightened at night with physically vulnerable groups such as women and the elderly living under a "self-imposed curfew". In these areas citizens' fears are a reflection of the actual risk of victimisation. Some may say city dwellers are overworried about crime but local surveys show they do have most to worry about.

Local crime surveys have drawn attention to the impact of fear upon individuals and communities. Fear of crime is primarily associated with individual anxiety about becoming a victim of violence from a stranger. It centres around concern for one's physical vulnerability and personal safety particularly whilst walking alone in the dark. In order to void victimisation individuals imprison themselves within their own home; streets and estates become deserted; communities begin or continue to fragment; those who can, move away; the public sphere is undermined.

The apparent lack of central government interest in the relationship between lighting and crime stands in the stark contrast to the concerns of ordinary people. Local surveys such as Hilldrop, Landsdowne Green and West Kensington estate surveys and Borough wide surveys in Islington, Hammersmith and Fulham have shown that residents consider bright, well maintained lighting of streets and dwellings, to be one of the most important measures in reducing crime and increasing public safety.

### 2.3 The Case against Lighting as a Crime Prevention Strategy

Notwithstanding the attraction of the proposition that good lighting prevents crime and stalls a decline in neighbourhood decay, empirical evidence is harder to come by. Research into the fear and crime reductive effects of lighting and crime has been undertaken in the United States. Attempts to summarise the results of the 103 projects have been disappointing (Tien et al 1979). This is unsurprising since comparison between the projects is fraught with difficulties. The projects undertaken varied in methodological rigour, types and levels of lighting, types of crime and spatial dimensions. In short, conclusive evidence for or against lighting as a crime prevention measure based on comparison betwixt and between the American projects cannot be had. The projects are so intrinsically variable in design and methods that it simply does not make sense to compare and conclude one way or the other as to the effectiveness of lighting as a means of crime prevention.

Faced with the challenge of methodologically unsound research and contradictory results, it becomes increasingly important to conduct systematic research that seeks to refine, improve, monitor and evaluate lighting as a preventive strategy. Unfortunately, failed or inconclusive research tends to be suppressed and ignored. Yet there is much to be learned from unsuccessful projects if one is to successfully develop new solutions to old problems.

The starting point for the design of our project was to thoroughly examine the weaknesses of previous research in order that basic deficiencies could be remedied. Difficulties in undertaking research in the area should not be underestimated and therefore it may be helpful to review the main criticisms that have been made of the American research on lighting and crime prevention.

1. Large area studies

When lighting is improved over wide geographical areas it is virtually impossible to isolate the impact of lighting as a variable from others which affect crime levels and fear of crime.

2. Small area studies

Even in high crime areas the incidents of crime which occur on the street are low. Consequently, it is difficult to empirically verify (in the manner required by positivist social science and the current managerial rationality approach to crime prevention policy) on the basis of recorded crime statistics whether the introduction of improved lighting in restricted geographical areas genuinely reduces the crime rate. The problem is particularly acute for small area projects which include violent crime. Not only are such crimes comparatively rare, according to official statistics, but many are not reported to the police and some which are reported are not recorded or are classified differently by different officers in different areas. (McClintock et al 1963). The same is true of car crime, vandalism and burglary.

3. Daylight robbery

Many crimes such as burglary and robbery take place in the best form of light - daylight. Thus, it is agreed that good lighting will not significantly affect an individual's predisposition to offend. Moreover, the installation of better lighting may have the unintended consequence of encouraging the commission of certain types of crime at night (e.g. vandalism).

4. Displacement

Better lighting simply displaces crime, therefore does not prevent it. However, as Cornish and Clark point out:

"Despite the frequency with which the displacement hypothesis is offered as a crucial objection to situational crime prevention approaches, little systematic evidence about the phenomenon exists. In consequence, judgements about its likely importance can at present be formed only on the basis of a rather unsatisfactory amalgam of disparate findings".

In short, displacement is an argument for doing nothing.

5. Short term solutions

Effects of improved lighting on crime diminish over time. This argument is fairly put, but, as has been argued, what is necessary is to rigorously determine short-term effects. Later long-term research will, of course, be of great value.

6. Types and Levels of Lighting

Previous research has failed to differentiate between different types and levels of lighting and their effects upon crime.

It is pertinent to note that virtually all the arguments levelled against lighting as a proven means of crime prevention can be levelled at every other preventive strategy, from increased police patrols through to target hardening, neighbourhood watch and publicity campaigns; the difference being that the latter strategies have been researched, funded and refined. In Britain, lighting as a crime preventive strategy has not. What is common to all crime prevention initiatives is that they are notoriously difficult to assess. Hence the importance of rigorous, preliminary fieldwork as to the selection of areas, types of crime for analysis and the construction of relevant indicators whereby particular strategies can be monitored and evaluated. The majority of research projects which have attempted to establish a relationship between lighting and crime have failed to meet these requirements for two reasons. Firstly, previous projects have operated within an imprecise definition of crime and secondly, there has been an over-emphasis on quantitative measurement rather than on the qualitative effects of improved lighting.

The term "crime" is an all embracing category, including many different types of offences, i.e. burglary, robbery, assault, vandalism, rape etc. Even within these separate categories, the nature of offence can be very different in terms of seriousness, location and impact. Clearly it is nonsensical to expect there to be a relationship between lighting and all types of crime in all circumstances. No one measure can be expected to succeed in all communities, for all types of crime or for all types of residents. For example, it is true to say that the majority of burglaries do take place in daylight but, equally the unit house at night provides a clear indication to a would-be offender that the target is unoccupied. Cues and stimuli within the environment which may trigger the propensity to offend differ at night. And in the instance quoted above, good lighting may well act as a deterrent.

### 2.3.1 Limitations of Crime Statistics

In previous studies conducted in the United States there has been an over-emphasis on the statistics of crimes known to the police as the indicator for measuring the effects of improved lighting. Important as these statistics are, they do not provide an accurate measure of crime. Both national and local crime surveys have shown that not all offences are reported to the police and some crimes which are reported are not necessarily recorded by the police. Moreover these surveys indicate that crime is focussed geographically in urban areas and socially upon particular groups - thus locally focussed crime surveys give a more informed picture of the distribution of crime within a particular locality.

Further, the police collate their statistics to fit in with Home Office categories. As has been pointed out this means that quite dissimilar crimes in type and nature are crudely lumped together under one heading. Robbery is a case in point. This one crime category includes offences such as armed robbery, street robbery, bag snatches and theft from the person.

A further drawback of national and divisional crime statistics is that they mask geographical concentrations of crime. For example, certain Metropolitan Police Divisions can chart fluctuations in crime on a 2-kilometre basis but not on a street or estate basis. Local victim surveys have shown crime varies enormously from one street and estate to another. In short, national and divisional crime statistics 'even out' crime across wide geographical areas. They tell us which crimes have occurred and roughly where they took place but at present, they can tell us little about prevention.

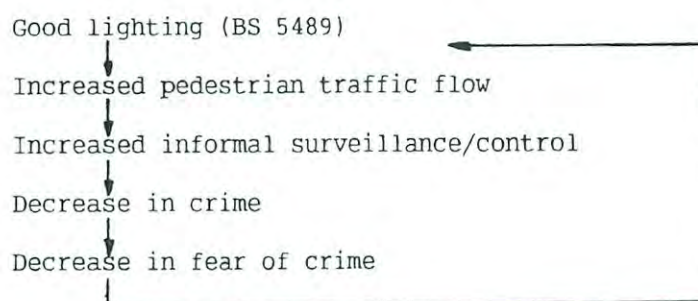
Police statistics of crime do not include the many forms of anti-social behaviour and harassment which compound the effects of more serious crime, and they do not, in any way, relate to fear of crime in the community which adversely affects the quality of urban living. (1) Yet all the indications are that improved lighting decreases fear of crime and has a significant effect on interpersonal crime and harassment. Consequently, the quantitative measurement of the qualitative effects of lighting formed an important part of our methodology.

2.3.2 The need for a conceptual approach to the relationship between lighting and crime

Precisely because lighting as a crime prevention strategy has been under-researched, the relationship between lighting and crime has been inadequately conceptualised.

The "dimmer switch" theory.

For those who assert the positive effects of lighting upon crime the equation is simple. Increase the lighting to an optimum level and crime will decrease in proportion. The sequence of events is unproblematic and self-evident. At its simplest the process can be presented diagrammatically, thus:



(1) It is now easier for the police to prosecute individuals who are abusive or engage in anti-social and disorderly behaviour. Section 4 of the 1986 Public Order Act means that a person can be guilty of an offence if she/he uses threatening, abusive or insulting words or behaviour with intent to cause that person to believe immediate violence will be used.



Whilst this sequence of events has some empirical evidence to support it in the United States and more recently in England (Painter 1988), there is no necessary or inevitable link between the stages as outlined. For example this model would not necessarily apply in social and physical settings such as a football ground or outside a public house where good lighting combined with increased public density and enhanced recognition of opposing individuals or groups could actually increase the incidence of assault, criminal damage and disorder. Moreover, there may be instances where particular spaces are well lit (e.g. a tunnel/subway) but are not uniformly lit so that pedestrians are plunged into darkness at the entrance and exit. In this example bright lighting can create a "goldfish bowl" effect, rendering potential victims more visible to offenders, and offenders less visible to victims.

#### Impossibilist theory.

This camp are equally as blurred in their conceptualisation of the relationship between lighting, crime and public safety. Marshalling in turn empiricist objections to dealing with "small numbers" of crime, displacement, short term effects and the increase in crime in relation to increased urban lighting in addition to daytime crime upon which lighting can have no effect, they are able to dismiss out of hand any relationship between lighting and crime.

Perhaps the most important lesson to be learned of the dated research carried out in the differing cultural and social settings within the United States is that the relationship between lighting and crime is complex and not easily measured. Displacement is a crucial issue but as Cornish and Clarke point out, there is little systematic evidence for its occurrence. It may be the case that any effects of improved lighting diminish over time but in the absence of any long term research such objections remain hypothetical. It is

also valid to point out that violent crime can occur in daylight in a random, unpredictable and largely unpreventable manner. Yet, it is necessary to differentiate this category of crime from crimes which are linked to the physical design of the environment. As was made clear in the Edmonton Project on lighting and crime prevention:

"It is important to be specific about the relationship between lighting and crime and delineate the types of crime, the location and the time at which lighting as a crime prevention measure will have most effect."  
(Painter 1988).

As has already been pointed out, the debate as to the effectiveness of lighting as a means of crime prevention, crime tends to be conceived as an all embracing, undifferentiated phenomenon. Conceptualised in this way there is a tendency to advocate a single solution to the problem. Crime remains one of the least understood social problems and just as there is no one crime problem so there is no single solution. Lighting is not a cure-all for 'crime' but its appeal as a situational crime preventive measure has been woefully neglected. What is necessary is to clearly conceptualise how street lighting as one facet of the physical environment interacts with the culture, lifestyle and social composition of particular localities and how or whether improved lighting affects the social usage and social perceptions of public space in ways which reduce or encourage the incidence of specific crimes, harassment and levels of fear.

#### The way forward.

There is a void of knowledge as to the relationship between lighting and crime in the United Kingdom. Over a decade ago, Mayhew concluded her literature review on lighting and crime, thus:

"...A necessarily somewhat incomplete review of existing literature suggests that while the crime preventive effects of street lighting are rather less firmly established than is usually claimed, it is difficult to ignore the fair amount of ....evidence that improved lighting can be beneficial."  
(Mayhew 1976).

More recently Fleming and Burrows (1985) put forward the case for lighting as a means of crime prevention and argued that there was a need to mount detailed research in this country and went on to suggest how this should be done:

"Any research aimed at monitoring changes in general standards of lighting must try to ensure that ..'other influences' remain unaltered (conditions that can only be achieved in a controlled 'before and after' experiment). This is indeed a tall order but unless it can be achieved the most likely outcome of any evaluation is that it may simply reflect changes in other factors affecting crime - such as the influence of different policing strategies - rather than the impact of lighting. Improvements in lighting at specific sites known to be vulnerable to crime - for example the dark alleyway leading from a tube station to housing estate - are more easily monitored."

These guidelines were adopted in the Edmonton Project which showed a significant reduction in specific crimes after relighting a badly lit street. The project, like this one, was a carefully controlled experiment which was able to isolate the impact of lighting from 'other influences' in the environment. This is an essential prerequisite of any future

research. It may be the case that lighting has most effect if combined with other preventive strategies (e.g. beat policing) and if installed over a wider geographical area. But, until the preliminary work is able to isolate lighting from other variables in differing settings, any other type of enquiry will, as Fleming and Burrows emphasise, be inconclusive.

The previous section reviewed the case for and against lighting as a crime prevention strategy and emphasised the need for a more conceptualized approach to the relationship between lighting and crime. Against this background, we set out to rigorously test the impact of improved street lighting upon crime and disorder in a deprived inner city, multi-racial area. The next chapter explains how we went about it.

## CHAPTER 3:

### 3. METHODOLOGY

This chapter explains the approach and methods employed to select the area and target crimes for detailed analysis.

#### 3.1 Research Aims

The project was designed with the aim of studying the crime harassment and fear reductive effects of street lighting. It sought to overcome some of the basic weaknesses of previous research in the area which had tended to take a purely quantitative approach over large geographical areas thus confounding the effects of one variable (lighting) with a multitude of other environmental and social factors.

#### 3.2 Small Scale Multi-Agency Approach

From the outset the project adopted a locally based multi-agency approach to crime prevention. It was designed to clearly identify, monitor and evaluate the worth of lighting as a means of crime prevention within a clearly defined area - a badly lit street and tunnel. It was a "stripped down" experiment which, as mentioned earlier, was crime specific, area specific and strategy specific. The advantages of such a small areas based approach involving local agencies (M.P., police, industry, polytechnic and local authority) are that:

1. It enabled resources to be focused on poorly lit sites most vulnerable to crime and fear of crime.
2. The selection of a clearly demarcated street facilitated the careful control, monitoring and evaluation of lighting as a means of reducing crime, disorder and fear of crime.
3. It allowed quantitative and qualitative methods to be employed.

4. It facilitated a total approach to the problem of crime prevention drawing the police, industry and local authority into closer co-operation.
5. The inter-agency approach fostered by a small scale project gave rise to systematic and objective procedures for the process of selecting target areas, crimes for analysis and types and levels of lighting, from the planning stage through to the implementation, monitoring and evaluation of the specific measure - lighting.

### 3.3 Methodology - Research Design

Meetings were held between the police, Philips Lighting, local authority and Middlesex Polytechnic. It was agreed that the local crime prevention officer would identify a number of sites which were badly lit. Site visits were undertaken by representatives from each agency, and a suitable area selected according to the following criteria.

#### 3.3.1 Geographical Location

The site was to be located in the inner-city where the design and layout of lighting within the environment rendered those using the area vulnerable to specific types of crime and forms of harassment. The site was to be clearly demarcated - i.e. a street or an alleyway. It also had to be an essential pedestrian through-route leading from a residential setting to commercial, transport and/or leisure facilities. The choice of a badly lit, well used area was essential, since it was envisaged that such a location would encompass relevant characteristics of social mix, changeability, mobility and transience, all of which lend themselves to opportunist offending.

The advantage of restricting the project to such a small geographical location for analysis (as opposed to an estate or neighbourhood) was that the relationship between lighting, crime and harassment and fear could be more efficiently managed, controlled and monitored.

Four sites were identified by the local police and visited at night. The one chosen fulfilled most of the criteria outlined above. Tower Hamlets was chosen for quite pragmatic reasons. The Borough Council had decided to relight the entire area and Philips, who had been contracted to do the work, wished to monitor the effects or improvements made to the lighting.

### 3.3.2 Types of Crime

Given the research aims, the focus was upon the types of crime which occur on the street - property crimes (autocrime, vandalism) and interpersonal crimes such as street robbery, theft from the person, physical and sexual assaults. (With hindsight, we should have included drug dealing in our list of crimes, as a number of respondents said this was a problem in the area.) General harassment was included since this is believed to contribute to personal insecurity and dissatisfaction within a neighbourhood. At the design stage there was no way of using statistics recorded by the police to target either areas or crimes, since crime records are not computerised on a street basis. Thus, the site was chosen on the basis of design and layout, not because it was thought to be a "high" crime area.

### 3.3.3 Types and Levels of Lighting

Resource constraints in time and money also meant that the site chosen should be able to be lit with relative ease and economy. For example within our time scale it would not have been feasible to lay new cables, columns etc. The relighting scheme was designed to meet BS5489 Part 3 which lists 3 categories of lighting level dependent upon crime risk. The highest category 3/1 was chosen, calling for an average illuminance of 10 lux and a minimum of 5 lux. The Code of Practice also states a preference for "white" light sources for category 3/1. Therefore high pressure sodium lamps were used. The original low pressure sodium (orange) lighting was found to provide levels below the lowest category (3/3), which calls for an average value of 3.5 lux and a minimum of 1 lux.

### 3.4 Research Methods

The project combined quantitative and qualitative methods.

- A street survey was considered to be the most appropriate, contextual method of collecting data of the incidence of "outside" crime and harassment, fears of crime and public perceptions of lighting.
  
- Some questions included on the survey were taken from previously tested victim surveys. This allowed some comparability on the incidence and fear of crime. The questionnaire had already been piloted on a previous project carried out in Edmonton. However, we included an additional question on racial motivation for crime/harassment as the local crime prevention officer informed us that a high proportion of the local community was made up of ethnic minorities.



### 3.4.1 Main Survey

- Interviews were conducted immediately before and 6 weeks after the installation of lighting which took place mid-February. The project took place during winter months for obvious reasons.
- People were asked about their experiences of crime and harassment over the previous 12 month period and more specifically about incidents which had occurred 6 weeks prior to the installation. Incidents during the latter period were contrasted with the six week period after installation. Incidents were recorded over the twelve month period to provide some background information on the frequency of crime and harassment in the locality.
- The unit of analysis was the individual rather than the household, but individuals were asked about the experiences of other household members to provide as much information as possible on the frequency of crime and harassment.
- The questionnaires in the "before" and "after" conditions were designed with thought as to the time and context of their administration (at night, in the cold, in poor lighting). The majority of questions were closed with multiple choice answers, most (not all) were pre-coded. (See Appendix B).
- Interviews took place after dark between 5.00 p.m. and 11.30 p.m. Some daytime interviews were also included in order that the experiences of people who seldom or never went out at night could be included.
- The questionnaire was partly comparable with other victim surveys and addressed the following issues:

1. Peoples use of public space day/night.
2. Fear of crime and precautionary behaviour.
3. Experience and knowledge of crime within a five minute walk of the interview point.
4. Views of the quality of lighting.
5. Views on crime prevention.

In the "after" condition some questions were omitted and others added on the effects of new lighting upon crime levels, public safety and the environment. Pre-installation interviews were conducted over a 9 day period, at the beginning of February 1988. The lighting was immediately installed and post monitoring interviews were conducted 6 weeks later over a 9 day period Mid-March 1988. Over 80% of the interviews were conducted after dark.

Other quantitative measures were also built into the project in order to compare the before and after effects of lighting.

#### 3.4.2 Pedestrian Traffic Flow

Pedestrian traffic flow sheets were completed in both conditions to monitor people using the street "before" and "after" the lighting was installed. The intention was to provide an objective indicator as to whether improved lighting had any effect on public use of space. This data proved very time consuming to analyse and because of resource constraints it is not included in the report. It will be analysed at a later date and included in a Final Report which will combine the data and findings from all three lighting and crime prevention projects in Edmonton, Tower Hamlets and Hammersmith and Fulham.

### 3.5 Qualitative Data

#### 3.5.1 Interviewer observation and experience

Interviewers were issued with two forms:-

##### (1) Interviewer fieldwork sheet

- to record any crime and harassment they observed in and around the street and any comments made to them by pedestrians over and above those included in the questionnaire.

##### (2) Interviewer harassment forms

- to record any threats, harassment, violence directed towards them. They were asked to record details of the nature of such incidents and the impact it had on them and/or other passers-by.

Both forms provided additional information on levels and impact of harassment within a well defined locality. (Appendix B).

### 3.6 Interviewers

A team of five researchers (2 females, 3 males) were used. It was decided only to use females to interview pedestrians. The area was very dark and it was thought that people would be less threatened if approached at night by a female rather than a male. One of the interviewers was Asian and spoke several languages.

### 3.7 Fieldwork Supervision

Interviewers were asked to phone the project manager on the hour throughout each evening so that the interviewers' personal safety and problems with the questionnaire could be carefully monitored. Notes of all telephone conversations were kept by the project manager.

### 3.8 Inter-Agency Co-operation and Environmental Control

Inter-agency co-operation was vital if the project was to be successful. In order to isolate the influence of lighting on crime and fear from other variables a strictly controlled environment was essential. Thus, the police kept their level of patrolling constant and the local authority ensured that no other environmental alterations occurred during the experimental period. After installation of lighting, the Borough engineers department checked the lighting each night during the six week period to monitor efficient maintenance of lights. Philips also carried out their own checks on lighting levels throughout the period. We were fortunate with the weather which remained dry, though very cold, during the time interviews were conducted.

### 3.9 Conclusion

In previous research the tendency to rely on "objective" quantitative data has obscured the non-quantifiable effects of lighting on community safety. The design of this project has built in quantitative and qualitative methods in an attempt to fully assess the effects of lighting on crime and disorder. Yet the limitations of the research should be made explicit.

Resource constraints meant that displacement of crime to other areas/targets could not be adequately monitored. Consequently, the evidence for displacement remains tentative and anecdotal, and requires further investigation in future research. This weakness however is replicated throughout much crime prevention research.

A second weakness in the design, also attributable to limited resources is that we were unable to monitor whether the crime and fear reductive effects of lighting could be sustained over a longer period.

A further weakness is one inherent in survey methods. It is almost impossible to count multiple instances of racial and sexual harassment. We hoped to remedy the deficiencies of purely quantitative data by using observational data collected by the interviewers. We still regard these methods as inadequate and the true extent and impact of such incivilities has, in all probability, been underestimated.

CHAPTER 4:

4. RESULTS OF STREET SURVEY

4.1 Demographic description of the sample

The opening section describes the age, race and gender of those using the demarcated route; how often they used it and why. All percentages have been rounded up or down to the nearest whole number.

Size of the Sample

286 people were interviewed, 143 were interviewed before relighting and 143 were interviewed after relighting.

Table 1.

Age of Respondents

N = 286		
16 - 24	50%	(144)
25 - 44	32%	( 92)
45 - 59	15%	( 43)
60 +	2%	( 5)
Not Specified	1%	( 2)
Total	100%	286

Table 2.

Race of Respondents

N = 286		
White	61%	(174)
Black	14%	( 40)
Asian	25%	( 72)
Total	100%	(286)

Table 3.

Gender of Respondents

N = 286	
Male	65% (187)
Female	35% ( 99)
Total	100% (286)

People using the street at night were asked whether they lived in the area (within a five minute walk of the street), how regularly they used the route and why they used it. If it became clear that the pedestrians using the street, did so on a irregular basis or lived outside the immediate locality, then it would not have been possible to link public perceptions of changes in the incidence and fear of crime in the street to changes in lighting levels.

82% of those interviewed used the route regularly (i.e. between 5-7 evenings per week) 75% lived within a five minute walk of the interview point and 65% had lived in the area between 6 and 21 years. Given that the road was badly lit people were asked why they used it.

Table 4.

Why do you use this particular route?	
N = 143	
It is the quickest way	75%
It is the only way	16%
It is the safest way	1%
Other	8%

Very few (1%) used the road because they thought it to be safe and 95% of respondents said they were always or sometimes alone when they used it. The main reason for using the route was that it led to and from a railway/tube station.

### Summary

The population using the route were ethnically diverse. 60% were white and 40% were from ethnic minority communities. The proportions of white to non-white were similar before and after relighting. Half of those using the route were under 25 years of age and very few elderly people (2%) used the road at night. Almost two thirds of respondents were men, though slightly more women (38%) were interviewed after relighting than before (31%).

The majority of people used the route regularly and had lived in the area for a considerable length of time. Consequently, their fear and experience of crime is based on well established knowledge of the locality.



4.2 Fear of Crime - Before and After Relighting

Fear of crime is generally associated with fear for ones personal safety from crime when outside, alone and in the dark. Consequently respondents were asked about their relative fear of specific crimes day and night.

Before Relighting

Table 5.

Fear of crime before relighting

Do you worry about the possibility of the following things happening to you during the day or night when walking through here.			
Total Respondents	(143) YES	(99) Men	(44) Women
Being attacked/night	59% (84)	49% (49)	79% (35)
Being attacked/day	7% (10)	4% (4)	14% (6)
Being pestered/insulted/night	32% (46)	22% (22)	55% (24)
Being pestered/insulted/day	6% (9)	1% (2)	5% (7)
<b>WOMEN ONLY</b>			
Being sexually assaulted/night			77% (34)
Being sexually assaulted/day			14% (6)
Being raped/night			77% (34)
Being raped/day			14% (6)

Womens fear of crime is consistently higher than that of men; 49% of men and 79% of women were worried about being physically attacked. Over half the women were afraid of being pestered and insulted and 77% were afraid of being sexually assaulted or raped whilst walking along the road at night. Womens fear of physical attack is clearly associated with their fear of sexual violence. Such fears almost dissipate in daylight; 86% of women said they were not afraid of these crimes occurring during the day. This may seem like a statement of the obvious but the figures do illustrate the importance of visibility in enhancing feelings of personal security.

Six weeks after the installation of lighting 143 people were interviewed and the same question was put to them. 71% (101) of these pedestrians had been interviewed **before** the lighting was installed.

After Relighting

Table 6.

Fear of crime after relighting

Do you worry about the possibility of the following things happening to you during the day or night when walking through here.			
Total Respondents	(143) YES	(88) Men	(55) Women
Being attacked/night	32% (46)	16% (14)	58% (32)
Being pestered/insulted/night	26% (37)	8% (7)	55% (30)
<b>WOMEN ONLY</b>			
Being sexually assaulted/night			60% (33)
Being raped/night			60% (33)

After relighting there was a 45% reduction in pedestrians' fear of physical attack in the road. Though less dramatic, there is also a 22% reduction in womens fear of rape and sexual assault. The significance of these figures must be put in the context of the aims and controlled focus of the project. These reductions in fear of crimes that most concern the public, have been achieved by relighting one street in an otherwise badly lit, deprived urban area, and it would not seem unreasonable to postulate that further reductions in fear of crime would be achieved if larger areas were relit to similar standards. However, it is also noteworthy that there is little reduction in fear of harassment at night. In fact an identical percentage of women continue to worry about the possibility of being pestered and insulted at night.

There were no differences between white or ethnic minority populations in relation to fear of crime. In line with other surveys Maxfield (1984), Painter (1988). The findings indicate the main determinant of high fear of crime is gender.

4.2.1 Fears for Personal Safety before and after relighting

Table 7.

Before relighting

Do you ever feel unsafe when walking along this road because of the possibility of crime against you?		
	YES	NO
Men (99)	51% (50)	49% (49)
Women (44)	73% (32)	27% (12)
Total	57% (82)	42% (61)

Before new lighting was installed 57% of respondents felt unsafe. Womens fear (73%) is far greater than mens. But it is also interesting that just over half the men interviewed expressed feeling unsafe at night whilst walking along the road.

Six weeks after the installation of new lighting people using the route were asked how safe they had felt during that period

Table 8.

During the past 6 weeks whilst walking in this road would you say that your own feelings of personal safety have increased, decreased or remained the same.			
	(143) ALL	(88) MEN	(55) WOMEN
Increased	69% (99)	80% (70)	53% (29)
Decreased	2% ( 3)	0	5% ( 3)
Remained the same	20% (28)	9% ( 8)	36% (20)

69% of those interviewed reported that their feelings of personal safety had increased. Over half the women and 80% of men said they felt safer. Given that fewer men reported feeling unsafe before relighting it is significant that more men were willing to report feeling safer after improvements in lighting were made. Good street lighting obviously increases mens' (already greater) confidence to use the street. Whereas, women recognize that their physical and social inequality continues to render them vulnerable to crime and sexual harassment from men.

Nevertheless, the increase in personal safety of men and women is to be welcomed.

Those people who had reported feeling safer were then asked an open ended question:

"Why do you feel safer in this road?"

30% of all respondents who felt safer attributed this to the lighting. 70% of those who felt safer, said they did not know why. These figures suggest that improved lighting has, a subliminal influence on feelings of public safety - i.e. specific improvements in street lighting may not be noted at a conscious level, but nevertheless have the effect on reducing fear of crime and improving personal feelings of security in public places.

In fact there are clear differences in the extent to which men and women are alert to changes in the environment and this in turn may be related to their unequal physical vulnerability. More women (80%) than men (59%) actually noticed that the lighting had changed and women were much more likely (72%) than men (13%) to give lighting as an unprompted response for any increase in their personal safety.

#### 4.2.2 The Impact of fear on the quality of life

To some extent we are all concerned about crime. Yet it is important to differentiate a general concern about the crime problem from a real fear of crime which seriously affects the quality of peoples' lives. Quality of life is a difficult concept to measure but some indication of the degenerative impact of crime and fear upon peoples' lifestyle is the extent to which they alter their behaviour to avoid, or protect themselves from, victimisation. Such precautionary behaviour includes strategies such as taking "physical precautions" (defensive measures), "social isolation" (never or seldom going out after dark), and "avoidance" of particular areas perceived to be prone to crime. The following sections cover the extent to

which respondents adopted such strategies before brighter lighting was installed.

#### 4.2.3 Physical Precautions

People were asked whether they ever took some form of physical precaution to protect themselves from crime.

Table 9.

Do you ever take precautions, such as carrying an object or personal alarm to protect yourself against the possibility of crime whilst walking through this area.			
	Yes	No	No Response
Men	11% (11)	86% (86)	2% (2)
Women	36% (16)	64% (28)	0
Total	19% (27)	80% (114)	1%

Over one third (36%) of women interviewed felt the need to carry some object as a protection against crime. The practise of carrying objects to defend oneself from crime was highlighted in the Edmonton Survey. The numbers of women out after dark is small in both surveys, but it does appear that a trend is beginning to emerge and warrants further investigation.

The precautionary strategies undertaken, range from carrying knives, scissors, sticks and personal alarms through to what is colloquially referred to as "street savvy" - carrying keys, umbrellas, pens, sprays, combs and chilli powder at the ready. Apart from carrying objects for protection, women also indicated other ways in which they altered their behaviour as protection from crime, - wearing flat shoes, carrying limited amounts of money, not wearing jewellery or a handbag and running rather than walking through the street, (a practise which made interviewing difficult!).

#### 4.2.4 Avoidance of public spaces

Table 10.

##### Avoidance behaviour - night and day

As a precaution against crime, do you ever:		
	Yes	No
Avoid going out after dark although you would like to?	27% (39)	73% (104)
Go out after dark with someone, other than by yourself?	48% (69)	52% ( 74)
Stay away from certain areas (within a five minute walk) after dark?	35% (50)	65% ( 93)
If YES:		
Do you take similar precautions during the day?	17% (25)	34% ( 49) * 48% (N/A)
* i.e. those who did not undertake any avoidance behaviour at night were not asked this question.		

It appears from Table 10 that the majority of respondents are not socially or geographically constrained in their use of public space because of fear of crime. However, when the same table is analysed by gender, significant differences in men and women's use of public space at night emerge.

Table 11.

Differences between men and women's avoidance behaviour.

As a precaution against crime, do you ever:			
	Yes	Men	Women
Avoid going out after dark although you would like to?	27%	16%	52%
Go out after dark with someone, other than by yourself?	48%	18%	89%
Stay away from certain areas (within a five minute walk) after dark?	35%	23%	61%
Do you take similar precautions during the day?	18%	11%	32%

The impact of fear of crime on womens lifestyle is profound. Just over half the women interviewed avoid going out after dark because they fear victimisation and 89% prefer to go out with someone in order to reduce that fear. In addition 61% of women who do go out at night avoid particular streets. Put another way 70% of men interviewed never feel the need to go out accompanied by someone else and 77% of men never feel the need to avoid particular areas and only 17% sometimes avoid going out after dark because of their fear of crime. So, whilst 50% of men say they are afraid of crime, that fear is not so great as to restrict their lives because of it.

It is likely that the survey has underestimated the impact of fear of crime on the quality of life of men and women, old and young, black and white in Tower Hamlets. We interviewed people who were prepared to go out at night but it is probable that many women, members of ethnic minorities and the elderly avoid going out after dark because they fear victimisation. There is also some indication that non-response (refusal to be interviewed) may have skewed the results. People were so afraid of using the area that they literally ran through the street. For example, on one

night, the pedestrian traffic flow forms indicated that 58 people used the street - but only twelve agreed to be interviewed - "too dangerous to stop round here" - "its a bad area" were reasons most often given for refusal.

Lest the criticism be voiced that the sample size in this survey is "small" then it should be noted that larger Borough wide surveys in Islington (Jones et al 1986) and Hammersmith and Fulham (Painter et al 1989) and numerous estate surveys (Lea et al 1987; Safe Neighbourhoods Unit 1987) have produced similar findings on avoidance behaviour. It seems that whether the criminological microscope focuses across the nation, within a borough or an estate, or upon specific streets in the inner and outer city, a similar pattern of fear of crime and its impact on the quality of city life is beginning to take shape. Whilst it is important not to exaggerate the problem of crime it is also vital that the degenerative impact of fear on lifestyle (particularly womens' lifestyle) is not underestimated.

4.3 Experience of crime and harassment in previous 12 months. (By race and gender).

Over the previous 12 month period 34% of respondents had been the victim of crime or harassment within a five minute walk of the interview point. In addition 11% reported that a member of their household had been similarly victimized.

Table 12.

Experience of crime by gender.

In the past 12 months have you?	Yes	Men	Women
Been threatened/pestered	20%	20%	20%
Had your car/motorbike stolen/damaged	10%	10%	5%
Been physically attacked/robbed in the street	4%	4%	0
Other members of your household been the victim of any of the above crimes/harassment	11%		



No women reported being attacked or robbed or sexually assaulted, though they had an equal chance of being threatened, insulted or pestered. 87% of incidents occurred at night.

Table 13

Crime and Ethnicity over 12 month period before relighting

	(89) White	(25) Black	(29) Asian
Threats/pestered (28)	15%	32%	24%
Car/motorbike stolen/ damaged (15)	12%	0	14%
Physical attack/ robbed in the street (5)	0	8%	10%

Though the numbers involved within each ethnic minority group are small, black and Asian people are twice as likely to experience threats and harassment than white people using the area. Violent crime is a rare occurrence and the numbers which take place within one street are bound to be small. Only 5 incidents of physical attack/street robbery were identified throughout the twelve month period but all of the victims were Afro-Caribbean or Asian men (each of whom described the attacks as racially motivated).

4.3.1 Knowledge of Crime

Table 14

Apart from any incident you have already mentioned, do you personally know anyone living in this area (within a 5 minute walk) who during the last twelve months has been:		
	YES	NO
Robbed/physically attacked	13% (19)	86% (123)
Threatened/pestered/insulted	10% (15)	90% (128)
Had their car/ Motorbike stolen/damaged	17% (25)	83% (118)
Been sexually assaulted	4% (6)	94% (137)

In addition to direct experience, peoples knowledge of victimisation suffered by others, is an important influence on their general perception of crime. Almost a quarter of respondents personally knew someone who had been robbed or physically attacked in the street within a five minute walk of the interview point. Given the low number of such incidents identified by the survey it may be that the same incidents become known and recounted by a much larger number of people who regularly use the area. The dissemination of information undoubtedly affects fear of crime within a locality. For example, the following incidents recounted to interviewers on one night, seriously undermined their own feelings of personal safety:-

"Young, white, male "yuppie" uses the street to get to his flat in Wapping. Always carries a knife - (shows it to interviewers, it's carried in a sheath) it's about 12" long. He carries it because his girl friend was shot in the back earlier this year as she went into a post office".

"We all feel unsafe down here. There seems to be less crime than in Edmonton, but when it occurs it is more violent. The young male I've just interviewed said he'd been "striped" (knifed across the face) as he came out of the station. He said the incident occurred about this time last year".

(Male interviewer)

4.4 Incidence of crime and harassment 6 weeks before and 6 weeks after relighting.

The pattern, incidence, knowledge and fear of crime and harassment over the previous 12 month period provides the context against which the crime and fear reducing impact of improved street lighting can be evaluated.

Prior to the installation of new lighting, respondents were asked whether any of the incidents they experienced had occurred within the 6 week period prior to the interview. More specifically they were asked for the exact location so that only those incidents which occurred along the badly lit street could be included. Subsequently these were compared with the incidence of crime and harassment along the route in the 6 week period after the installation of improved lighting. To avoid the possibility of double counting, the "before" and "after" figures refer to respondents only (excluding other household members). Where respondents said they had been threatened and attacked, these incidents were counted as attacks only. 7 of the 11 respondents said they had been threatened and pestered several times in this period in the street. If we had counted the number of incidents (rather than the number of respondents), this would have greatly increased our figures. As with the Edmonton survey on lighting and crime prevention, we erred on the side of caution and counted respondents only.

Table 15

Crime and harassment before and after relighting

	6 week period before relighting (N = 143)	6 week period after relighting (N = 143)
Threats/Pestered	11	3
Car stolen/damaged	5	1
Physical attack	2	0
<u>Total Respondents victimised</u>	<u>18</u>	<u>4</u>

The total number of people victimised in the road was reduced from 18 to 4 after the lighting was improved. Given the small number of physical attacks (5) recorded over the year it is not possible, on these figures, to state conclusively that improved street lighting was responsible for the fact that no physical attacks occurred in the six week period after installation.

However, there is a reduction in car crime and harassment. The incidents for interpersonal violence recorded in the 6 weeks before and after relighting the street are broken down by ethnic group, gender and age. All of the incidents occurred at night.

Table 16

Interpersonal violence and harassment by race, gender and age, 6 weeks before and after relighting

	Ethnicity	Gender	Age
<u>Before relighting</u>			
Threats/Pestered (11)	White	Man	16-25
	White	Man	16-25
	White	Man	16-25
	White	Man	16-25
	White	Woman	16-25
	White	Woman	25-45
	Asian	Man	16-25
	Asian	Man	16-25
	Afro-Caribbean	Woman	16-25
	Afro-Caribbean	Woman	16-25
	Afro-Caribbean	Man	16-25
Physical Attack (2)	Afro-Caribbean	Man	16-25
	Asian	Man	16-25
<u>After Relighting</u>			
Threats/Pestered (3)	Asian	Man	16-25
	Asian	Man	16-25
	Asian	Woman	16-25

With one exception, all the victims were young men and women. However, of the total number of incidents of interpersonal violence and harassment in the 6 weeks before and after relighting, over half were against Asian and Afro-Caribbean people. Members of ethnic minorities were twice as likely as white people to be victims of interpersonal abuse before relighting and though fewer incidents were recorded after relighting, all were against ethnic minorities.

4.4.1 Interviewers experience of crime and harassment.

In addition to the crimes recounted by pedestrians, interviewers were asked to keep notes of any instances of crime and harassment they observed. In the 9 day period prior to relighting, they witnessed two instances of drug dealing and a burglary of a shop at the end of the street. They also noticed a number of suspicious occurrences outside the public house at one end of the street. Most of the evenings they were interviewing, the doors of the public house were locked from 8.00 p.m. onwards and the curtains were drawn. The following extracts are taken from interviewers' fieldwork notes:

1. 8.30 p.m.

Suspect dealings going on outside the pub. As we came back from our break (7.30 p.m.) the pub door was locked behind us and all curtains drawn. 15 minutes later the 4 people from inside the pub (landlord and 3 others) jumped into a car and took off quickly. During the following hour, 3 independent taxis drew up and dropped one single person off. Each tried to get into the locked pub and then returned to cab and drove off again.

2. Last night we noticed that really expensive cars would pull up to the pub; passengers would be dropped off and collected about 30 minutes later. We decided to go in again because there is nowhere else nearby to get a drink. While we were drinking a man came in, gave us a hard stare and said, "What are they doing in here". He ordered a drink and turned and sat with his back to the bar and stared at us while he slowly drank his pint. He never took his eyes off us. We left without finishing our drinks. We all felt threatened. As we left, the door was locked behind us (8.30 p.m.). Later on the cars began to arrive, people were dropped off and collected later.

3. Tonight the barman from the pub came out and asked us what we were doing on the street. X said, "A crime survey for Middlesex Polytechnic!". He laughed and went back into the pub; the door was locked behind him as usual. Later (8.30 p.m.) a car drew up and a man got out carrying a thin object about 2 or 3 feet long, wrapped up in a plastic bin liner. The door was unlocked; the barman came out, looked up and down the street and allowed the guy to enter. Throughout the evening cars drew up and dropped people off. They all have to knock at the door to get in.

#### 4.4.2 General harassment and street disorder

Interviewers observed that pedestrians were constantly harassed by drunks, vagrants and groups of youths whilst walking along the road. A full description of these events is given in the last section of this chapter.

In reading their accounts of street life it was striking how limited quantitative techniques are in capturing the fear inducing effects of crime and disorder on individuals who had to use this street at night. If evaluative research into environmental improvements, such as street lighting, is to be undertaken, it clearly must be more imaginative than a reliance on officially produced crime statistics and household victim surveys. This is particularly true if the intention is to monitor the effects of lighting on general nuisance, harassment and disorder as the following extract from a female interviewers fieldwork notes makes clear.

"Tonight I observed a young, black girl leaving the station. The youths hanging around outside began shouting obscenities at her. She quickened her pace and crossed the road. She crossed back again as I approached her. I also crossed the road and she agreed to be interviewed. She is very afraid to walk through here but when I got to the question on "Have you been threatened, pestered, insulted whilst walking in this

road", she said, "NO". Yet she had just been subject to a barrage of verbal abuse which was racist and sexist. I did not record this on the schedule but at the end of the interview I put my observation to her. She said the shouting frightened her but if I was to count things like that then it happened all the time. "It's just part of life if you live round here. That sort of thing happens every day. It's just something you have to put up with".

#### 4.4.3 Inter-racial crime and harassment.

Observational data from fieldwork notes indicated a considerable degree of white prejudice against ethnic minorities in the locality. Overtly racist comments were recorded on 50 interview schedules (29% of the white sample - with three exceptions, all were young, white males). Details are not included in the report because of their offensive nature and possible distress they would cause to ethnic minorities.

The interviewers witnessed several instances of verbal abuse directed at ethnic minorities. They also witnessed two incidents of physical assault against black youths (aged approximately 9 - 11 years old) by groups of white youths (teenagers).

The long term effects of continual exposure to threats and verbal abuse are severe. It can be argued they are more serious than physical attacks because they occur more frequently and severely affect the quality of life for ethnic minorities. As the House of Commons, Home Affairs Committee put it:-

"While spitting or racial abuse in the street may be minor offences in relation to crime in general, their effect on those spat at or abused may be far from minor, particularly when they occur frequently or the victim is a child. One Bangaldeshi told us that the daily walk to and from work and school becomes a never ending nightmare."

(House of Commons 1986)

#### 4.4.4 Sexual Harassment.

Kerb crawling (particularly in one of the parallel streets), and verbal abuse shouted at women, was a frequent occurrence. In addition to noticing several instances throughout the week, the two female interviewers were followed and pestered by men on two occasions when they went to use the 'phone. One woman interviewer was also 'propositioned' twice by men respondents (as recompense for them giving her an interview).

#### 4.5 Crime Prevention

Prior to relighting the street, respondents were shown a number of strategies which are traditionally thought to reduce crime. They were asked to choose and prioritize in order of importance. The options were:-

- Increased police patrols
- Better locks on doors and windows
- Better lighting on estates/car parks
- More leisure facilities for young people
- Harsher sentences
- Better street lighting
- More neighbourhood watch schemes

Police patrols (83%), better street lighting (72%) and more leisure facilities for young people (45%) emerged as the measures which the public perceived would be most effective in reducing crime in the immediate locality.

A similar picture emerges when respondents were asked which two measures would do most to increase women's safety in the area. The options included in this section of the questionnaire were as follows:-

More neighbourhood watch schemes	9%
Better street lighting	52%
More police patrols	77%
Self defence courses for women	43%
Women staying indoors	15%



Again, police patrols and better street lighting were seen as the two measures which would do most to increase womens safety. Men and women, were equally likely to prioritize police patrols but a higher proportion of women (64%) than men (47%) prioritized improved street lighting as the measure which would do most to prevent crime against them. Public perceptions are quite realistic. Probably the most effective means of preventing crime and harassment in the street would be to combine improved lighting with an increase in beat policing.

The option of "women staying indoors" was included in our list in order to test the proposition put forward by some sections of the media, judiciary and the police that if women go out alone at night they are in some sense responsible for their own victimisation. Few of those who used the streets at night regarded this as an appropriate preventive measure. However 23% of Asian respondents, compared to 3% of white and Afro Caribbean populations, prioritized the option of women staying indoors as the measure which would do most to increase their safety.

#### 4.6 Council Services

Previous research carried out in several parts of the country by The Safe Neighbourhoods Unit has indicated that crime and fear of crime is closely related to the maintenance and investment in the fabric and facilities of a neighbourhood. Street lighting is one service provided by the local council and once installed efficient maintenance is essential. Prior to the installation of new lighting; respondents were asked how efficient the Council were at providing a number of essential services.

Table 17

Here is a list of the services the Council provides. How efficient do you think they are in this area, within a five minute walk at:-

	Efficient	Inefficient	Don't Know
Rubbish collection	29% (42)	59% ( 84)	12% (17)
Keeping streets clear	16% (23)	78% (111)	6% ( 9)
Maintenance of street lights	16% (23)	70% (100)	14% (20)
Council house repairs	3% ( 5)	80% (114)	17% (24)

The overwhelming majority regard the Council as inefficient in providing basic services. It was not within our brief to provide a comprehensive survey of council services. According to the 1981 Census, Tower Hamlets is one of the most deprived inner city areas in the country and central government cut backs have placed constraints on local authority budgets, severely limiting what can be done to improve community facilities. Nevertheless, analysis of crime, fear and crime prevention strategies cannot be isolated from the general urban structure. Whilst good lighting is not a cure-all for crime, badly maintained lighting, as one aspect of the physical environment, may provide a marker for the offence and fear, prone locality. Poor lighting in deprived, urban areas of the inner and outer city is merely one manifestation of the general social and economic problems which provides the wider frame of reference for any analysis of crime causation, fear of crime and prevention.

4.7 Public perceptions of crime problems in the area before relighting.

Prior to relighting, respondents were asked whether they thought a number of crimes and problems were more common in the area than five years ago - it is often argued that somehow public fear of crime is irrational - a mere product of media focus on crime. Table 18 gives a breakdown of public responses and it can be seen that people do discriminate between various problems. Street robbery, burglary, threatening behaviour, vandalism, delayed council repairs, dog mess and poor street lighting are all regarded as problems which have become more common in the last five years. Of most significance for those interested in creating safer cities is the very high figure (71%) given for people being afraid to go out at night.

Table 18

Public perceptions of crime and social problems prior to relighting

	More Common	Same	Less Common	Don't know
Street robbery	43%	31%	19%	7%
Threats/pestering	47%	29%	17%	7%
Burglary	54%	28%	8%	10%
Poor Street Lighting	56%	32%	6%	6%
Delayed council repairs	61%	15%	5%	19%
People afraid to go out at night	71%	22%	5%	2%
Vandalism	56%	27%	7%	10%
Dog mess/noise	43%	41%	7%	13%
Groups of youths hanging around	40%	44%	6%	10%
Noisy neighbours	28%	47%	6%	19%

There was a consensus between men and women on every issue except that of youths hanging around. 46% of men compared to 27% of women thought that this had become more of a problem. This could be an indication that men do feel vulnerable if they see a gang of young men on the street and interviewers noted that men and women would cross the road to avoid a group of youths on the street. There was also consensus between white, black and Asian people as to which problems had worsened.

So how rational are these public perceptions of levels of crime and anti-social behaviour? Police statistics cannot offer an objective or accurate picture of problems in the area. Not only are the statistics inaccurate (due to the dark figure of unrecorded crime) but they would not include the majority of the abusive, threatening and disorderly behaviour which occurs in the street. It is unlikely that citizens would report this type of incident since it may not be regarded by the police or the public as "criminal". Nevertheless, it is worth reiterating that over 65% of those interviewed had lived in the area (within a five minute walk of the interview point) between 6-21 years. This would suggest that respondents were reflecting rationally on their experience of crime and disorder rather than simply mirroring media sensationalism (though this does occur and may have a compounding effect).

#### Summary

People who used the streets at night in Tower Hamlets believed that most of the problems put to them had become more common over the previous five years. Perception of crime levels affects fear of crime and fear of crime stems as much from disorder and improper behaviour on the street as it does from crime itself. As the next section shows improved street lighting positively affected public perceptions of crime in the area and had an immediate impact on public safety.

#### 4.8 The impact of relighting upon public perceptions of crime and the environment.

Of those interviewed after the installation of lighting 67% (96) noticed the change. Reference was made earlier to the fact that more women (80%) than men (59%) noticed that the lighting had changed; only those who observed the difference in lighting were asked to elaborate on how they thought it had changed the immediate social and physical environment.

Table 19

Public perceptions of changes to the physical environment.

Lighting brighter	100%
Lighting better maintained	78%
Lighting improved the look of the area	100%
Lighting more attractive	95%
Lighting makes it easier to recognise people	95%
Lighting casts less shadows	63%

The impact of relighting on the peoples perception of the environment is dramatic. Virtually everyone who noticed that the lighting had changed thought it was brighter, more attractive and made it easier to recognize people and aesthetically improved the physical surroundings.

Respondents were then asked how they thought lighting had changed criminal, social and anti-social activities in the road.

Table 20

Do you think that the changes made to lighting in this road have had any of the following effects over the past 6 weeks.				
	Increased	Decreased	Same	Don't Know
The number of people walking along this road has increased, decreased or remained the same.	60%	0	29%	11%
People being threatened/pestered in this road at night.	0	76%	18%	6%
Physical assaults in this road at night.	0	69%	19%	12%
Sexual assaults in this road at night.	0	65%	20%	15%
Vandalism in this road at night.	0	56%	26%	18%
Noise levels in this road at night.	13%	10%	57%	20%
Gangs of youths hanging around this road at night.	6%	26%	44%	24%

It is striking how discerning people were in commenting on the social effect of lighting in the street. Overall, lighting was thought to have increased pedestrian traffic, reduced pestering and threatening behaviour and reduced physical and sexual assaults - i.e. reducing the crime and disorder which causes so much public concern. But lighting improvements have had greatest impact on womens perceptions of criminal and threatening behaviour along the road.

Table 21

	Women	Men
Threats/pestering decreased	86%	67%
Physical assaults decreased	80%	60%
Sexual assaults decreased	75%	56%

The overwhelming majority of women believed threats, physical and sexual assaults had decreased since the lighting had been improved and this clearly affected their feelings of personal safety and security.

Improved lighting does not seem to have such a marked impact on the public's perceptions of vandalism, noise levels and youth behaviour. Although no one thought vandalism had increased and 56% of respondents thought vandalism had decreased after relighting; 44% thought it had remained the same or could not express an opinion. One of the most strategically important lights (by the station exit into the road) was vandalised soon after installation. It was immediately repaired as were any lights which failed or were damaged. Before relighting interviewers noted that a number of lights which had previously been damaged were left unrepaired. This created uneven pools of light and shadows in the road, which were eliminated after relighting. Efficient maintenance of broken lamps is essential if the impact of lighting on public safety is to be sustained.

The youths continued to congregate outside the station exit and underground car park but those using the station were no longer pitched from bright neon lighting within the station building to the inky blackness of the tunnel. Prior to relighting the interior of the station was well lit but the road and tunnel exit were extremely dark and pedestrians harassed by youths or drunks at this point must have felt quite vulnerable because it was impossible to see clearly.

Noise levels do not seem to have been affected one way or the other. If, as respondents thought, more people were using the road after lighting improvements, then there is no logical reason why noise levels should reduce. Moreover, good lighting can improve an environment aesthetically but there is no reason why it should deal with the underlying social and economic problems which result in drunks and vagrants occupying the badly lit underground car park at one end of the street. Good quality, beat policing would have most effect on order-maintenance.

To borrow a phrase from a previous study on lighting and crime - it is important to be discriminating about the relationship between lighting and crime and specify the types of crime, the location and the time at which lighting as a crime prevention measure will have most effect. One might argue that if one wished to eliminate night time vandalism the easiest thing to do would be to turn all lights off. What the effect would be, on street robbery, assault and fear is quite another matter.

#### 4.9 Conclusion: Broken lamps and community safety.

The incidence of violent attack identified in the survey was low compared to a similar survey conducted in Edmonton. So why were people so afraid; why did they believe that crime had got so much worse in the area, why were women so fearful of physical and sexual attack?

Any attempt to answer these questions requires an understanding of exactly what it is that frightens people who use the streets at night. In concentrating on "crime" there is a tendency to disregard other forms of nuisance, which are a real source of fear. The fear engendered through being pestered, insulted and threatened by rowdy youths, vagrants, drunks, the mentally ill and kerb crawlers. Some of this behaviour involves little that is "criminal" in a legal sense but it undermines an individuals sense of personal safety, particularly in the dark.

It is also evident that quantitative victim surveys underestimate the amount of crime and harassment. The interviewers themselves witnessed a burglary, 2 incidents of drug dealing and 2 physical attacks in a nine day period in this one street. None of these were 'counted' in the survey.

The following account of the environment is based upon descriptions contained in fieldwork sheets which indicated that pedestrians were continually harassed and pestered by youths, drunks and vagrants prior to relighting.

The street and surrounding area are derelict and litter ridden. (Street lights are broken and left unrepaired). At one end of the street there is a small shopping centre with a car park underneath. Vagrants and drunks gather there; some it seems sleep there. Broken glass and sounds of fights and shouting pierce the air - the drunks stagger through the street begging for money and hurling abuse at anyone who refuses to stop. The street is rat infested. They scuttle down the street and scramble in the rubbish and discarded food cartons. A mentally disturbed man pushes a shopping trolley backwards and forwards, collecting bricks from the surrounding rubble and polishes them furiously. He approaches the interviewers and anyone who walks down the street. Men and women cross the road; walking quickly, eyes averted, some break into a run as soon as they leave the station.



At both ends of the street, a group of youths congregate and shout racist and sexual obscenities sometimes both, depending on the race and gender of passers by. The drunks and mentally ill, some of whom live in nearby hostels are pushed, insulted and constitute a general source of merriment for the gang.

The street is dark, the general atmosphere and environment, is unfriendly, uncontrolled and unkept. Street lights go out, or are put out by the youths throwing stones, a visible sign particularly at night, that no one cares. It is this type of disorder which gives rise to fear and such fear is not irrational nor exaggerated. The prospect of being hassled by a foul mouthed teenager, drunk or kerb crawler is as fear provoking as the possible confrontation with the stereotypical street robber, burglar or rapist.

The connection between incivility, disorder, crime and fear is easy to make. More serious crime is likely to occur in neighbourhoods where damaged property is left unrepaired and interpersonal abuse and incivility goes unchecked. Would-be offenders will soon gauge that any offence committed will not be interrupted by passers by, who are even less likely to call the police. The following account of the interviewees who witnessed a burglary taking place provides some illustration of this process:

"We were just about to leave (11.00 p.m.) when a van pulled up outside a furniture shop. In the gloom we could just make out a young white man. He broke into the yard at the back of the shop and proceeded to load furniture onto the van. We were standing about 30 yards away under one of the street lights. He knew we were watching him but it did not deter him."

The burglar knew his chances of being recognised, interrupted or caught were minimal in such a neighbourhood.

As an American criminologist put it:-

"Such an area is vulnerable to criminal invasion. Though it is not inevitable, it is more likely that here, rather than in places where people are confident. They can regulate public behaviour by informal controls, drugs will change hands, prostitutes will solicit and cars will be stripped. Drunks will be robbed by boys who do it as a lark, and the prostitutes' customers will be robbed by men who do it purposefully and perhaps violently. Muggings will occur".  
(Wilson 1985).

So when the pedestrians using the badly lit streets in the Tower Hamlets (and Edmonton) prioritized police foot patrols and better street lighting as the two measures which would do most to reduce crime, and increase the safety of women, they were voicing a rational concern. The concern to have a safe, orderly environment in which to live, and work, and walk. The uniformed officer and bright, well maintained lights indicate to those who use the streets, that the environment is being controlled and cared for - just as broken lamps and dark unkept walkways signal that it is not.

## CHAPTER 5:

### 5. MAIN FINDINGS AND CONCLUSIONS

#### 5.1 Crime/Harassment reduction before and after relighting.

Respondents were asked about their experience of crime and harassment in a badly lit road in Tower Hamlets, six weeks before and six weeks after the improved street lighting was installed. A total of 18 incidents of assault, car crime and threatening behaviour were reduced to 4 as a direct result of relighting. All other environmental/design factors were held constant throughout the experimental period.

#### 5.2 Fear of Crime before and after relighting.

Prior to relighting, 59% of pedestrians were afraid of being physically attacked whilst walking along the road. After relighting there was a 55% reduction in fear of physical attack. Before relighting 57% of pedestrians (73% of women and 51% of men) felt generally unsafe. After relighting 69% of all respondents reported that their feelings of personal safety had increased. 94% believed fear of crime in the immediate area had decreased.

##### 5.2.1 Womens' fear of crime and harassment.

Women were much more fearful than men. 79% of women (49% of men) feared victimisation of physical attack; 77% of women were afraid of being sexually assaulted or raped. Womens' fear of physical attack is clearly associated with fear of sexual violence; something men seldom, if ever, experience. No woman interviewed had been physically attacked, sexually assaulted or raped but 20% had been threatened, pestered and insulted whilst walking along the road and these experiences create a menacing environment within which it is difficult for women to feel safe on the

street. Sexual harassment, nuisance and street disorder undermines womens' feelings of personal safety and heightens their insecurity whilst walking in urban areas at night. Over half the women interviewed after relighting said their feelings of personal safety had increased.

5.3 The incidence of crime and harassment in the twelve month period before relighting.

In the previous twelve months 34% of respondents using the street had been victimised: 10% had a vehicle stolen or damaged; 20% had been threatened and pestered; 4% had been physically attacked or robbed within a five minute walk of the road. 11% reported that members of their households had been similarly victimised in the same area.

5.4 Inter-racial Crime and Harassment.

The number of physical attacks identified in the survey over 12 months was comparatively low (4%). Yet, all of the attacks (5 in all) were against black or Asian people and all were described by the victims as being racially motivated. Black and Asian people were twice as likely to be physically attacked, threatened and harassed than white people using the area. (No white people using the road reported that they had been assaulted). Interviewers observed two assaults against black youths, by white youths, on the street in a nine-day period. They also observed several instances of verbal abuse against black and Asian people and recorded 50 instances of racist comments by white respondents (i.e. 29% of white respondents volunteered these comments). These have not been included in the report because of their highly offensive nature. It does appear from the quantitative and qualitative data that ethnic minorities suffer more interpersonal violence (physical and non-physical) than the white population using the area. Though their risk of crime and harassment was greater, their fear was not.

#### 5.5 Knowledge of Crime.

In addition to direct experience of crime, knowledge of others' victimisation is an important contributory factor in understanding fear of crime in a community. 13% of respondents personally knew someone who had been robbed/attacked in the street: 10% knew someone who had been pestered or threatened; 17% knew someone who had a vehicle stolen/damaged and 4% personally knew someone who had been sexually assaulted. All of the incidents occurred within a five minute walk of the interview point.

#### 5.6 The Impact of Crime, Disorder and Fear upon Women.

Fear of crime must be differentiated from a general concern about crime. Fear of crime causes individuals to alter or restrict their behaviour in a number of ways to avoid victimisation. The survey indicated that men and women differ greatly in their response to crime, harassment and fear. The impact of fear on womens' lifestyle is profound.

##### 5.6.1 Avoidance Behaviour.

89% of women (compared to 18% of men) seldom go out after dark unless accompanied by someone else. 61% of women (compared to 23% of men) consistently avoided streets and areas within a five minute walk of the interview point, and over one half of the women interviewed avoided going out after dark on occasions, though they would like to have done so.

It is a sad reflection on the quality of urban life that whereas 80% of men feel confident and secure in their use of public space, women are afraid to walk the streets alone, (or at all) after dark. The survey will undoubtedly have underestimated the level and impact of fear upon women as the majority of our interviews were with women who were prepared to go out at night.

#### 5.6.2 Physical Precautions.

Over a third of women (36%) interviewed (compared to 11% of men) took some form of physical precaution to increase their personal safety at night. Articles carried included knives, scissors, whistles, personal alarms, deodorant sprays, keys and chilli powder. Other precautionary strategies adopted by women included self-defence, restricting the amount of money carried; seldom wearing jewellery or carrying a handbag when out at night and walking or running in the road, rather than on the pavement, to avoid attack.

When women can no longer take for granted a safe walk through their neighbourhood without experiencing fear or preparing for attack, then one has to seriously question the assumption that women live in a 'free' society.

#### 5.7 The Impact of Lighting on Fear and Public Perceptions of Crime.

Respondents regarded increased police foot patrols (83%) and improved lighting (72%) as the measures which would do most to prevent crime and disorder and ensure the safety of women using the area. As earlier sections indicated, lighting reduced the incidence of crime and harassment; reduced fear of crime and it also enhanced feelings of personal safety. But it also had an impact on public perceptions of the physical environment and on their perceptions of crime levels in the area.

##### 5.7.1 Impact of Lighting on the Built Environment.

Women were more likely (80%) than men (59%) to notice that improvements in lighting had been made. This indicates how observant and heedful women are to changes in the environment, probably because they keep a sharp lookout for safe and unsafe places to walk. Overall, 67% of respondents noticed the brighter street lighting. Of these: 100% thought the lighting was brighter and improved the look of the area; 95% thought it enhanced their ability to recognize people using the area and 95% thought the lighting was more attractive.

5.7.2 The Impact of Lighting on Public Perceptions of Local Crime Problems.

Brighter street lighting had a dramatic effect on respondents' assessment of crime problems in the immediate area. (65% of whom had lived within a five minute walk of the street between 6 - 21 years).

Prior to relighting, the majority of respondents thought that street robbery, burglary, vandalism, threatening behaviour and youths hanging around were more common in the area than 5 years previously. 71% thought people were more afraid to go out at night. After relighting, respondents believed that crime and anti-social behaviour in the road had decreased: 76% thought that threatening behaviour, physical assaults (69%), sexual assaults (65%) and vandalism (56%) had decreased and that the number of pedestrians using the road had increased (60%). They did not believe that lighting had any discernable impact on noise levels or gangs of youths hanging around. (Both of which might be better tackled by an increase in beat policing).

Improved lighting had most impact on womens' views of crime problems. 86% of women thought that threats and harassment had decreased; 80% thought that physical assaults and sexual assaults (75%) had also decreased.

So what of the criticism that all this means is that improved lighting is simply duping people into believing they are safer, when, in fact, there may have been little or no change in objective risks?

Firstly, subjective perceptions of crime problems have direct effects on the quality of life and community safety. If people believe crime is on the increase they will feel more insecure and afraid and are more likely to restrict or alter their lifestyle as a result. If they believe crime has decreased as a result of

improved lighting, then they will feel safer and may be encouraged to use the streets. Secondly, though there are difficulties in quantifying the incidence of crime and harassment, interviewers' fieldwork sheets and pedestrian traffic flow forms also indicated that there were more people using the sheets after relighting and that the drunks, vagrants and youths tended to congregate near the underground car park (which was badly lit) rather than the street. Consequently, less people were pestered or harassed.

5.8 Conclusion: Lighting, Crime Prevention and Community Safety.

Fear is the community's loss. Crime, harassment and disorder all contribute to high levels of fear which undermine the quality of urban life. Crime and nuisance in public places causes widespread public concern and rightly so. The safety of an individual's social and physical surroundings are as important to the average person as education, health and employment opportunities. If individuals cannot feel safe in the streets where they live and work and walk, then neighbourhoods gradually decline. Those who can, move away. Others retreat into the relative safety and privacy of the home. Women impose their own curfew. Where crime, disorder and fear flourish: communities fail.

Good street lighting alone cannot stop the process of urban degeneration, but as this project demonstrates, it has a vital role to play. Poor lighting and unrepaired broken lamps are immediate cues to those who use the streets, that the local environment is uncared for and increasingly uncontrolled. The case for good street lighting as a crime prevention measure is obvious. Localities are more likely to be protected by informal social control if they are clearly visible to potential witnesses. By improving the design and visibility of the environment, a constant flow of possible witnesses is encouraged and this contributes to a community outlook whereby residents and pedestrians are encouraged to intervene should criminal or



anti-social behaviour occur. The impact of lighting on crime will depend on the extent to which offences are linked to the environmental setting and the extent to which improved lighting can alter the social usage of a locality and render it less vulnerable to crime and disorder.

This project aimed to examine and monitor the effects of street lighting upon a number of specific crimes and incivilities in an inner city locality. It proceeded by directly asking those who used the streets at night what their experiences were and what they thought of improvements in lighting that had been made. The public had a clear view on the matter; a well informed knowledge of crime and nuisance in their neighbourhood and what should be done to remedy it. They opted for increased beat policing and improved street lighting as the two measures which would do most to prevent crime and increase the safety of women. Surveys can identify problems and suggest remedies but it is the responsibility of local and national politicians to link social policies designed to create safer cities to the instincts, knowledge and rational concerns of its citizens.

APPENDIX A

TECHNICAL LIGHTING REPORT



# PHILIPS

## Philips Lighting

City House, 420-430 London Road, Croydon CR9 3QR

### APPENDIX A

#### TECHNICAL LIGHTING REPORT

##### INTRODUCTION

This Appendix details the lighting installations that were present for the before and after surveys, carried out by the Middlesex Polytechnic Department of Criminology. The London Borough of Tower Hamlets was chosen because it was in the process of relighting the whole borough. This gave us the opportunity not only to upgrade the lanterns, but also change the spacing between columns, thus achieving an optimum solution. The survey site was chosen in conjunction with the local Metropolitan Police Crime Prevention Officer and the research team, and was in an area of the borough where relighting had not yet taken place.

##### Description of Site.

Watney Street is in the ward of St. Katherines and provides a link between a housing area and a local hospital.

It passes under a railway arch with an exit from the Docklands light railway. For travellers it provides a particular problem of moving from a brightly lit area to a dark covered one by night. The map shows the position of Watney Street, supplemented by photographs taken along its length.

##### Lighting Installations.

###### Before.

Before the survey, the installation consisted of old 35W SOX lanterns mounted at 5m height and positioned as shown on the map at an average spacing of 40m. There was no lighting under the bridge.

Philips Lighting Limited

- 1 -

A UK Philips Company  
Registered in England No. 143701  
Registered Office: Philips House 188 Tottenham Court Road London W1P 9LE

Telephone: 01-689 2166  
Telex: 946443  
923845/6  
Fax: 01-684 0136



## Philips Lighting

City House, 420-430 London Road, Croydon CR9 3QR

### After.

The new lighting was in line with the Borough's standard of providing an average level of 10 lux, with a minimum of 5 lux, in accordance with category 3/1 from the forthcoming Part 3 of BS5489. The installation consists of SGS203 SON/T lanterns which have been standardised for lighting throughout the Borough for all road categories. Watney Street used the 70W SON/T version mounted at 6m with a spacing of 25m. The road width was 7m and the lanterns projected over the curb by 0.75m. The exact location is shown on the plan. Lighting under the bridge was from 5 MI55 70W SON top entry lanterns under the arch.

### Lighting Measurements.

These were carried out under the same conditions as the surveys. Measurements were made along the centre of each of the pavements, and the centre of each traffic lane at 3m intervals. Measurements were also taken in the same position under the railway bridge. (High levels were recorded opposite the exits from the Docklands railway due to lighting of these exits. These have been excluded from the average results under the bridge).

The before and after, average and minimum results are summarized in the table.

### Conclusions.

From the table it can be clearly seen that the required lighting result is achieved over the whole road surface. Also, the absolute minimum is achieved at all points across the road. This would, of course, be expected when both the lantern and column position have been specifically placed to achieve these levels. For the "before" installation, although the average illuminance meets the requirements of category 3/2, the

Philips Lighting Limited

- 2 -

A UK Philips Company  
Registered in England No. 143701  
Registered Office: Philips House 188 Tottenham Court Road London W1P 9LE

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92384576  
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# PHILIPS

## Philips Lighting

City House, 420-430 London Road, Croydon CR9 3QR

minimum is too low, thus creating the impression of dark areas between lanterns.

The new lighting under the bridge considerably improves the visual conditions of a person leaving the brightly lit station and entering the road.

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- 3 -

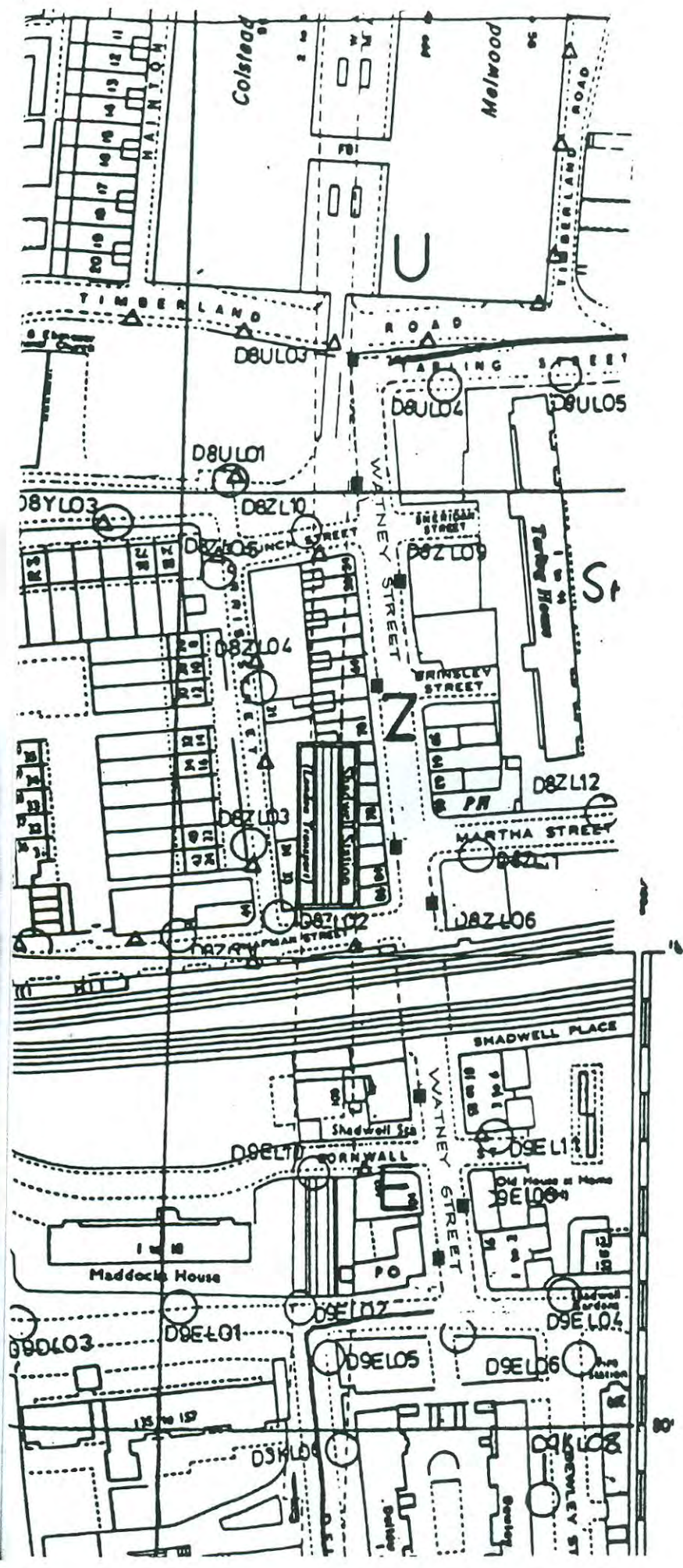
A UK Philips Company  
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Registered Office: Philips House 188 Tottenham Court Road London W1P 9LE

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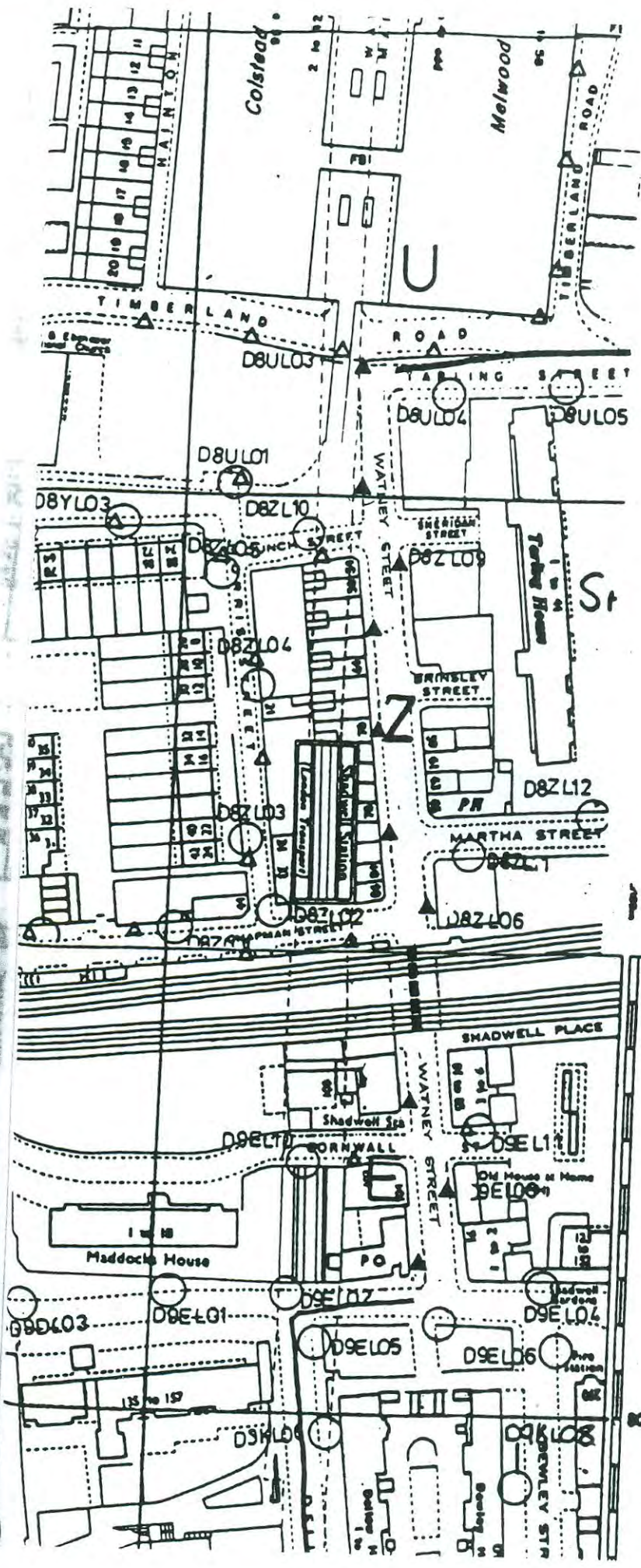
Table 1 Summary of Horizontal Illuminance Measurements Before and After Relighting

Section of Site	ILLUMINANCE IN LUX										Notes
	Overall		N/S Pavement		Centre of Rd		O/S Pavement				
	Before	After	Before	After	Before	After	Before	After	Before	After	
WAITNEY STREET	6	15	6	11	6	22	5	12			
	1	5	1	5	3	7	2	7			
WAITNEY STREET U/BRIDGE	0	26	0	22	0	33	0	24			
	0	18	0	19	0	18	0	18			NO BEFORE LIGHTING UNDERBRIDGE



KEY

■ 35 watt SOX at 5m



KEY

- ▲ SGS203/070T  
70Watt SON at 6m
- MI55 70Watt SON





Railway Bridge : Before



Railway Bridge : After



Views along Watney Street

APPENDIX B

- (1) Pre & Post Lighting Interview Schedules
- (2) Interviewer Fieldwork Sheet
- (3) Interviewer Incident Form

PRE-LIGHTING INTERVIEW SCHEDULE 1

INTRODUCTION AND FILTER QUESTION

This is a survey being carried out by Middlesex Polytechnic into the problems of crime and nuisance in this area. We are interviewing people who walk through here in order to find out about their experience of these problems over the last twelve months. The survey is completely anonymous and all information will be treated in the strictest confidence. The interview should take no more than 15 - 20 minutes.

However, as we are trying to interview everyone who walks through here, could I ask first of all whether you have already been interviewed?

IF YES, THANK THE RESPONDENT FOR THEIR COOPERATION

IF NO, ASK IF THEY ARE WILLING TO PARTICIPATE

---

	Col/Code
<u>BLOCK CAPITALS ONLY</u>	
Interview Number:	
Card No:	
<u>Interviewer Name</u> :.....	1 ..
	2
	3
	4
	5
Place of Interview:	

1.	Do you live within a five minute walk of here?		
	RING ANSWER	YES ASK Q2	1
		NO ASK Q3	2

2.	How long have you lived in this area (within a five minute walk)?		
	RING ANSWER	Less than one year	1
		1 - 5 years	2
		6 - 10 years	3
		11 - 20 years	4
		20 + years	5

3.	ASK ALL:		
	Can you remember and tell me how many evenings you walked through here last week?		
	RING ANSWER	None	1
		1	2
		2	3
		3	4
		4	5
		5	6
		6	7
		7	8

4.	Do you use this route regularly day and night?		
	RING ANSWER	Yes	1
		No	2
		Day only	3
		Night only	4

5.	Why do you use this particular route?		
	LISTEN TO ANSWER AND CODE AS APPROPRIATE		
		It is the quickest way	1
		It is the only way	2
		It is the safest way	3
		Other. WRITE IN	4

6.	When you use this route are you usually alone?		
	Always		1
	Sometimes		2
	Never		3
<hr/>			
7.	Do you ever feel unsafe when walking through here because of the possibility of crime against you?		
	Yes		1
	No		2
<hr/>			
8.	Do you worry about the possibility of the following things happening during the day or night when walking through here?		
	READ OUT ONE AT A TIME		
		Yes	No
	Being attacked at night	1	2
	Being attacked in daylight	1	2
	Being pestered or insulted by strangers at night	1	2
	Being pestered or insulted by strangers in daylight	1	2
	ASK WOMEN ONLY		
	Being sexually assaulted at night	1	2
	Being sexually assaulted in daylight	1	2
	Being raped at night	1	2
	Being raped in daylight	1	2
<hr/>			
9.	Do you ever take any precautions, such as carrying an object or personal alarm to protect yourself against the possibility of crime whilst walking through this area?		
	IF YES, ASK RESPONDENTS TO DESCRIBE THE OBJECT/WEAPON		
	Bottle		1
	Glass		2
	Scissors		3
	Knife		4
	Stick		5
	Club		6
	Iron Bar		7
	Personal Alarm		8
	Other		9
	N/A		10

10. <u>READ OUT AND CODE</u>		Yes	No	Sometimes
As a precaution against crime do you ever:				
a.	Avoid going out after dark though you would like to?	1	2	3
b.	Go out after dark with someone rather than by yourself?	1	2	3
c.	Stay away from certain areas (within a 5 minute walk) after dark?	1	2	3
IF NO, CODE 9 AND GO TO Q11 IF YES TO ANY OF ABOVE, ASK:				
d.	Do you take similar precautions during the day?	1	2	3
TAKE OUT MAP AND ASK:				
e.	Can you point to me on this map the areas you sometimes or always avoid?			
MARK THESE ON MAP AND ASK:				
f.	Would you avoid them during the day, only after dark or both?			
		Day		1
		Night		2
		Both		3

11. Now I would like to ask you some questions about things that have happened to you or a member of your household within the last 12 months.

READ OUT, DELETE CATEGORIES WITHIN SECTIONS (a) TO (d) AS NECESSARY AND TICK AS APPROPRIATE IN COLUMNS BELOW.

	Respondent		Other Household member	
	Yes	No	Yes	No
a) Have you or any member of your household been insulted/threatened/pestered in this area?	1	2	3	4
b) Have you or any member of your household had their car/van/motorbike/pushbike stolen or damaged in this area?	1	2	3	4
c) Have you or any member of your household been physically attacked in this area?	1	2	3	4

IF NO IS GIVEN FOR ALL ANSWERS GO TO Q13  
IF YES TO ANY CATEGORY, ASK:

d) Did the incident take place within the last 6 weeks, about this time last year, or sometime in between?

a,b,c etc.	Resp't Male Female (write in)	Other Male	H.M. Female	Last 4-6 weeks	This time last year	Other ASK MONTH

e) ASK:

Did the incident take place in daylight or after dark:

- Day 1
- Night 2
- Don't Know 3



TAKE OUT MAP AND ASK:

Can you show me on this map whereabouts the incident took place?

MARK CLEARLY ON THE MAP LETTER CORRESPONDING TO Q11 (a-c) ASK:

Did you contact the police about this incident(s)?

Yes 1  
No 2

f) Do you think the incident(s) was/were racially motivated?

Yes 1  
No 2  
D/K 3

IF YES, ASK:

g) Why do you think that?  
(WRITE IN)

-----  
-----  
-----  
-----

12a) Do you personally know anyone living in this area who during the last 12 months has been:

Yes No

Robbed/physically attacked in the street	1	2
Threatened/pestered/insulted	1	2
Had their car/van/motorbike damaged by vandals	1	2
Had their car/van/motorbike stolen	1	2
Been sexually assaulted	1	2
Been raped	1	2

b) IF YES, ASK:

Did the incident take place within the last 6 weeks, about this time last year or sometime in between?

a,b,c	Last 6 weeks (1)	This time last year (2)	Other ASK MONTH (3)	Dont's Know (4)
-----	-----	-----	-----	-----
-----	-----	-----	-----	-----
-----	-----	-----	-----	-----

ASK:		Col/Code
c) Did the incident take place in daylight or after dark?	Day	1
	Night	2
	Don't Know	3
-----		
d) Did the incident take place inside a building or in a public place?	Inside	1
	Outside	2
	Don't Know	3
-----		
e) Was the victim male or female?	Male	1
	Female	2
-----		



16. Rape, sexual assault and harassment such as kerb crawling are particular problems faced by women. Which 2 of the following measures do you think would do most for the safety of women in this area?

SHOW THE LIST

READ OUT AND MARK FIRST AND SECOND RESPONSE

- |    |                                  |              |   |
|----|----------------------------------|--------------|---|
| a) | More Neighbourhood Watch schemes | 1st response | b |
| b) | Better street lighting           | 2nd response | c |
| c) | More police patrols              |              |   |
| d) | Self defence courses for women   |              |   |
| e) | Women staying indoors after dark |              |   |

17. Here is a list of some of the services the council provides. How efficient do you think they are in this area at:

	Efficient	Inefficient	D/K
--	-----------	-------------	-----

- |    |                                |   |   |   |
|----|--------------------------------|---|---|---|
| a) | Rubbish collection             | 1 | 2 | 3 |
| b) | Keeping streets clean          | 1 | 2 | 3 |
| c) | Maintenance of street lighting | 1 | 2 | 3 |
| d) | Council house repairs          | 1 | 2 | 3 |

18. I would now like to ask you some questions about the lighting of public spaces in this area.

Do you think the lighting in this area is:

READ OUT AND CODE ANSWER.

MORE THAN ONE OPTION IS POSSIBLE.

- |                  |   |
|------------------|---|
| Too dull         | 1 |
| Too bright       | 2 |
| Unevenly spaced  | 3 |
| Well maintained  | 4 |
| Badly maintained | 5 |
| Satisfactory     | 6 |

19. If the lighting in this area was made brighter do you think this would have any of the following effects:

READ OUT ONE BY ONE AND CODE AS APPROPRIATE

	Incr- ease	Decr- ease	Same	D/K
--	---------------	---------------	------	-----

- |    |  |   |   |   |   |
|----|--|---|---|---|---|
| a) | The number of people walking through this area at night would be increased, decreased, or remain the same? | 1 | 2 | 3 | 4 |
| b) | The number of crimes committed would be increased, decreased or remain the same?                           | 1 | 2 | 3 | 4 |
| c) | Noise levels would be increased, decreased or remain the same?   | 1 | 2 | 3 | 4 |
| d) | People's fear of crime against them would be increased, decreased or remain the same?                      | 1 | 2 | 3 | 4 |

THANK YOU FOR YOUR TIME

INTERVIEWER: RECORD BY OBSERVATION FOR ALL

SEX OF RESPONDENT

Male  
Female

RACE OF RESPONDENT

White  
Black: African/West Indian  
Indian/Pakistani  
Other Non-White

APPROXIMATE AGE

Under 16  
16 - 25  
25 - 45  
45 - 60  
60 +

-----  
INTERVIEW TIME:

DAY:

WEATHER CONDITIONS:

INTERVIEW METHOD:

(a) Interviewer

Woman  
Woman  
Man  
Man

Respondent

Woman  
Man  
Man  
Woman

(b) Black

Black  
White  
White

Black: African/W.Indian/  
Indian/Pakistani/  
Other Non-White  
White  
White  
Black: African/W.Indian/  
Indian/Pakistani/  
Other Non-White

POST-LIGHTING INTERVIEW SCHEDULE 2

INTRODUCTION

This is a survey being carried out by Middlesex Polytechnic into the problems of crime and nuisance in and around this street. We are interviewing people to find out about their experiences over the past 6 weeks. The survey is completely anonymous and all information will be treated in the strictest confidence. The interview should take no more than 10 minutes of your time.

(ASK): "Are you willing to be interviewed?"

(IF THEY ANSWER EITHER YES OR NO, THANK THEM FOR THEIR COOPERATION IN STOPPING TO LISTEN TO YOU).

---

Col/Code
<u>BLOCK CAPITALS ONLY</u>
Interview Number:
Interviewer Name:.....
Place of Interview:

Q1. In February 1988 we interviewed a number of people who walked through here and asked them about their experiences of crime and nuisance over the previous 12 month period. Could I ask whether you were interviewed by us at that time?

(Tick box)	Yes	<input type="checkbox"/>	1
	No	<input type="checkbox"/>	2

Q2. Can you remember and tell me how many evenings you walked through here last week?

(Ring answer)	None	1
	1	2
	2	3
	3	4
	4	5
	5	6
	6	7
	7	8

Q3. Do you use this route regularly day and night?

(Tick box)	Yes	<input type="checkbox"/>	1
	No	<input type="checkbox"/>	2
	Day only	<input type="checkbox"/>	3
	Night only	<input type="checkbox"/>	4

Q4. During the past 6 weeks have you felt worried about the possibility of the following things happening during the day or night when walking in this street?

(Read out one at a time).

	Yes	No
Being attacked at night	1	2
Being attacked in daylight	1	2
Being pestered or insulted by strangers at night	1	2
Being pestered or insulted by strangers in daylight	1	2

ASK WOMEN ONLY:

Being sexually assaulted at night	1	2
Being sexually assaulted in daylight	1	2
Being raped at night	1	2
Being raped in daylight	1	2

Q5a. During the past 6 weeks, whilst walking through this street, would you say your own feelings of personal safety have increased, decreased or remained the same?

Increased	<input type="checkbox"/>	ASK Q.5(b)	1
Decreased	<input type="checkbox"/>	)	2
Remained Same	<input type="checkbox"/>	)GO TO Q.6	3
Don't Know	<input type="checkbox"/>	)	4

Q5b. Why do you now feel safer in this street?

WRITE IN .....

.....

.....

Q6 Now I would like to ask you some questions about things that have happened to you or a member of your household within the last 6 weeks in and around this street.

READ OUT, DELETE CATEGORIES WITHIN SECTIONS (a) TO (d) AS NECESSARY AND RING AS APPROPRIATE IN COLUMNS BELOW

	Respondent		Other Household member	
	Yes	No	Yes	No
a) Have you or any member of your household been insulted/threatened/pestered in and around this street?	1	2	3	4
b) Have you or any member of your household had their car/van/motorbike/pushbike stolen or damaged in and around this street	1	2	3	4
c) Have you or any member of your household been attacked physically in and around this street?	1	2	3	4

Q7a. Did the incident take place in daylight or after dark?

Day	1
Night	2
Don't Know	3





Q8. I would now like to ask you some questions about the lighting in this street.

Q9. First of all, could I ask you whether you have noticed any changes to the lighting in this road in the last 6 weeks?

Yes	<input type="checkbox"/>	Go to Q10	1
No	<input type="checkbox"/>	Go to Q12	2

Q10. Could you tell me more about the changes you have noticed. For example, would you say the light in this road, over the past 6 weeks has:

(READ OUT IN PAIRS AND TICK 1 BOX FOR EACH PAIR. IF RESPONDENT IS D/K, CODE 9.

Been Brighter	<input type="checkbox"/>			1
or				
Duller	<input type="checkbox"/>			2
<hr/>				
Been Better Maintained	<input type="checkbox"/>			1
or				
Worse Maintained	<input type="checkbox"/>			2
<hr/>				
Been Improved	<input type="checkbox"/>			1
or				
Worsened	<input type="checkbox"/>			2
<hr/>				
Looked more attractive	<input type="checkbox"/>			1
or				
Less attractive	<input type="checkbox"/>			2
<hr/>				
Made people easier to recognize, or	<input type="checkbox"/>			1
Harder to recognize	<input type="checkbox"/>			2
<hr/>				
Cast more shadows	<input type="checkbox"/>			1
or				
Less shadows	<input type="checkbox"/>			2
<hr/>				
Has improved the look of the area, or	<input type="checkbox"/>			1
Worsened the look of the area	<input type="checkbox"/>			2
<hr/>				
Any other changes (write in)				
.....				
.....				
.....				

Q10. Do you think that the changes made to the lighting of this street has had any of the following effects over the past 4-6 weeks?

(READ OUT AND CODE AS APPROPRIATE)

	Increase	Decrease	Same	Don't Know
The number of people walking through this street at night has increased, decreased or remained the same.	1	2	3	4
People being threatened or pestered in and around this street at night has increased, decreased or remained the same.	1	2	3	4
Physical assaults in and around this street at night have increased, decreased or remained the same.	1	2	3	4
Sexual assaults in and around this street at night have increased, decreased or remained the same.	1	2	3	4
Vandalism in and around this street at night has increased, decreased or remained the same.	1	2	3	4
Noise levels in and around this street at night have increased, decreased or remained the same.	1	2	3	4
That gangs of youths hanging around in this street at night have increased, decreased or remained the same.	1	2	3	4
People's fear of crime happening to them in this street at night has increased, decreased or remained the same.	1	2	3	4

Any other changes  
(write in)

.....  
 .....  
 .....  
 .....

Q12a. Finally, would you say you had any preference for the orange or white type of street lighting?

Prefer orange	<input type="checkbox"/>	) ASK
Prefer white	<input type="checkbox"/>	) 12b.
No preference	<input type="checkbox"/>	
Don't Know	<input type="checkbox"/>	

1  
2  
3  
4

Q12b. Why do you prefer orange/white (delete) lighting?

(Write in).....  
.....  
.....

THANK YOU FOR YOUR TIME.

INTERVIEWER: RECORD BY OBSERVATION FOR ALL

SEX OF RESPONDENT

Male  
Female

RACE OF RESPONDENT

White  
Black: African/West Indian  
Indian/Pakistani  
Other Non-White

APPROXIMATE AGE

Under 16  
16 - 25  
25 - 45  
45 - 60  
60 +

-----  
INTERVIEW TIME:

DATE:

WEATHER CONDITIONS:

INTERVIEW METHOD:

(a) Interviewer

Woman  
Woman  
Man  
Man

Respondent

Woman  
Man  
Man

Woman

(b) Black

Black  
White  
White

Black: African/W.Indian/  
Indian/Pakistani/  
Other Non-White

White  
White

Black: African/W.Indian/  
Indian/Pakistani/  
Other Non-White

INTERVIEWER FIELDWORK SHEET

RECORD HERE COMMENTS ON QUESTIONS/OMISSIONS/REMARKS ABOUT CRIME AND HARASSMENT OR ANY OBSERVATIONS YOU THINK RELEVANT.

-----

NAME:.....

DATE:.....

TIME:.....

(\* N.B. - This Sheet was attached to each questionnaire)

INTERVIEWER FIELDWORK SHEET

RECORD HERE ANY INCIDENTS YOU OBSERVE  
ANY INCIDENT/HARASSMENT DIRECTED AT YOU

- 
1. NAME
  2. DATE
  3. TIME
  - 
  4. BRIEFLY DESCRIBE THE INCIDENT
  - 
  5. WHERE DID IT TAKE PLACE?
  - 
  6. WHAT TIME DID IT TAKE PLACE?
  - 
  7. WHAT EFFECT(S)/IMPACT DID THE INCIDENT HAVE UPON YOU?
  - 
  8. INFORMATION ABOUT OFFENDER
    - Age
    - Sex
    - Race
    - Height (Approx.)
    - a. How many were there?
      - 1
      - 2
      - 3
      - 4 or more
    - b. Was the person/s who did it male or female?
      - Male
      - Female
      - People of both sexes
    - 8c. How old was the person/s who did it?
      - Child/children of school age
      - Young person/16-25
      - Old Person
      - People of mixed ages
    - 8d. Was the person/people who did it:
      - White
      - Black (African or W. Indian)
      - Asian (Indian or Pakistani)
      - Other (please specify)
    - 8e. Briefly describe the offender's behaviour, e.g. drunk/sober/anything else relevant.

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