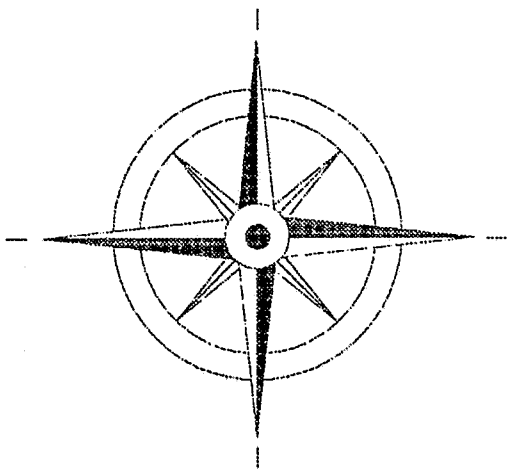
COMPASS

A Drug Market Analysis Program



Final Report

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SUMMARY:
This project will inform law enforcement and policymakers about the effectiveness of particular strategies in controlling street-level drug trafficking in metroplitan areas; and it will provide police with a computerized information system that will allow for the use of baseline data to determine the nature and extent of drug trafficking in cities. Project findings will be useful to the Bureau of Justice Assistance, the Administration, other drug market analysis sites, law enforcement, and researchers.

INDEX TERMS:
Connecticut. Hartford. Crime analysis. Drug law enforcement. Information systems.

PROPOSED PRODUCTS RESULTS:

Assessment of strategies in controlling street-level drug trafficking.
Computerized information system to facilitate determining the nature and extent of drug trafficking in cities.

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Preface

In 1990 the City of Hartford launched the Cartographic Oriented Management Program for the Abatement of Street Sales (COMPASS) program. Partially funded by the National Institute of Justice (NIJ) Drug Market Analysis Program (DMAP), COMPASS represented a new approach by the City in its attempts to improve the quality of life in areas in the City hard hit by crime and drugs. A basic premise of the program is that street-level drug sales are a key factor in the declining quality of life in urban neighborhoods, and that the best approach to reversing this decay are the combined efforts of the police, the community, and city agencies. More specifically, COMPASS employed a *reclamation* and *stabilization* approach. Thus, the police reclaimed a target area, first by performing a drug market analysis (which could include the use of a computer-based mapping tool) and then by employing a variety of high visibility and anti-drug tactics over a several month period. Once an area is reclaimed, the stabilization phase of the COMPASS program attempts to maintain the area in its reclaimed state over the long term through a partnership involving the community, the City, and the police.

The COMPASS program was implemented in four different target areas from 1990 to 1992, and, like most anti-drug programs, has met with qualified success. By documenting the program, its conduct, and its impact in this report, it is hoped that other cities can benefit from Hartford's experience. Moreover, this report is quite timely in light of the increasing popularity of the "weed and seed" model for improving neighborhoods -- which is actually synonymous with the reclamation and stabilization approach.

Acknowledgements

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We would also like to express our appreciation to the Hartford Police Department, which has been totally supportive of our efforts over the past three years. Special thanks go to Chief Ronald Loranger, Assistant Chief Jesse Campbell, Assistant Chief James Meehan, Captain Joseph Ward, Lieutenants Thomas O'Connor and Timothy Hogan, Ms. Valentine Merriman, and members of the Crime Suppression Unit, the Community Service Officer Program, and the Systems Services Division. Also, we would like to recognize the contributions of Dr. Jonathan Caulkins of Carnegie Mellon University and Ms. Sandy Evoy of McEvoy Associates. Finally, we would like to acknowledge the efforts of Lt. Frank Fallon, former commander of the Community Response Division, who shared with us his wealth of knowledge on street-level narcotics enforcement.

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Executive Summary

In 1990 the City of Hartford launched the Cartographic Oriented Management Program for the Abatement of Street Sales (COMPASS) program. Partially funded by the National Institute of Justice (NIJ) Drug Market Analysis Program (DMAP), COMPASS represented a new approach by the City in its attempts to improve the quality of life in areas in the City hard hit by crime and drugs. A basic premise of the program is that street-level drug sales are a key factor in the declining quality of life in urban neighborhoods, and that the best approach to reversing this decay are the combined efforts of the police, the community, and city agencies. More specifically, COMPASS employed a *reclamation* and *stabilization* approach. Thus, the police reclaimed a target area, first by performing a drug market analysis (which could include the use of a computer-based mapping tool) and then by employing a variety of high visibility and anti-drug tactics over a several month period. Once an area is reclaimed, the stabilization phase of the COMPASS program attempts to maintain the area in its reclaimed state over the long term through a partnership involving the community, the City, and the police.

The COMPASS program was implemented in four different target areas from 1990 to 1992, and, like most anti-drug programs, has met with qualified success. By documenting the program, its conduct, and its impact in this report, it is hoped that other cities can benefit from Hartford's experience. Moreover, this report is quite timely in light of the increasing popularity of the "weed and seed" model for improving neighborhoods -- which is actually synonymous with the reclamation and stabilization approach.

The remainder of this Executive Summary discusses the COMPASS approach, implementation, and findings.

COMPASS Approach

In 1989, when the City was anxious to explore alternative anti-drug strategies, two funding opportunities appeared -- the State of Connecticut's Drug Enforcement Program (DEP) and the NIJ's Drug Market Analysis Program (DMAP). The HPD, together with Queues Enforth Development (Q.E.D.), Inc., responded to the DMAP solicitation. The resultant COMPASS proposal contained three broad objectives: (1) to implement a reclamation and stabilization program in selected target areas in the City of Hartford; (2) to develop computer-based mapping tools that could support the reclamation activities; and (3) to evaluate the effectiveness of both the reclamation and stabilization program and the mapping tools. In the end, five cities -- Hartford, Jersey City, Kansas City, Pittsburgh, and San Diego -- were awarded Phase I and Phase II grants under the DMAP program. While all five sites shared a common goal of assessing the effectiveness of mapping tools on drug enforcement efforts, Hartford was the only site employing a reclamation and stabilization approach.

Actually, the ideas of reclamation and stabilization were not new to Hartford. In the mid-1970s Hartford was one of the first cities to implement an NIJ-funded Crime Prevention Through Environmental Design (CPTED) project. (In fact, this project was implemented in the Asylum Hill neighborhood, one of the four COMPASS target areas.) CPTED focuses on the interaction between human behavior and the (physically) built environment. It is hypothesized that the proper design and effective use of the built environment can lead to a reduction in crime and fear and concomitantly, to an improvement in the quality of urban life. Operationally, CPTED adopted the neighborhood-oriented reclamation and stabilization approach; that is, reclaiming the neighborhood from crime and violence, and then stabilizing it against a return to crime and violence. Central to CPTED is the existence of viable neighborhoods that can be reclaimed and stabilized. In turn, a necessary condition for neighborhood viability is the presence of a strong community infrastructure (e.g., community organizations, churches, blockwatch groups, etc.). Natural or man-made physical boundaries also enhance the definition, identity, and viability of a neighborhood. On the other hand, an area with boarded up

houses and businesses and which streets have been taken over by drug traffickers and prostitutes is obviously somewhat abandoned and probably represents a non-viable neighborhood from a reclamation and stabilization perspective.

The HPD's reclamation approach for COMPASS involved a number of steps. Once a target area was selected, reclamation began with an undercover operation, wherein undercover officers attempted to obtain arrest warrants on persons involved in the drug trade in the target area. Execution of these warrants coincided with a press conference announcing the COMPASS program in the target area. At this point, the visible phase of the reclamation effort began with the deployment of the HPD's Crime Suppression Unit (CSU). The CSU performed a variety of tactics in the target areas, including high visibility tactics such as roving patrol, foot patrol, and vehicle safety checks, and undercover tactics such as reverse sting operations and buy-busts. Importantly, these officers were not dispatched to routine calls for service, and thus were able to devote all their time to the reclamation efforts.

The COMPASS stabilization activities were to involve a variety of groups in the target area, including target area residents, community groups, institutions, businesses, and city agencies, including, of course, the HPD. Stabilization was to revolve around the HPD Community Service Officer (CSO) assigned to the target area. In general, it was hoped that the CSO would assist target area residents, businesses, institutions, and organizations in their stabilization activities and facilitate communication between the Police Department and city agencies on the one hand and the target area residents, businesses, institutions, and organizations on the other hand.

Also critical to area stabilization are the non-police city agencies, which could provide needed services to the COMPASS target areas. By the end of 1989, following news that the NIJ would fund the COMPASS program, the City of Hartford became actively involved in the program. The City government saw COMPASS as an opportunity to try a new approach to improving the quality of life in Hartford's neighborhoods. By January 1990, three months before reclamation efforts began in the first two target areas,

the City had formed a Reclamation Steering Committee to oversee and coordinate the program. At that time, the Hartford City Manager, who had been hired in December 1989 on a six-month interim basis, was vocal in his support of the program.

Concurrent with the reclamation and stabilization activities, a computer-based mapping tool -- called the DMAP tool -- was developed. A key underlying hypothesis of the NIJ's DMAP program is that computerized street maps showing the location of drug arrests, drug-related citizen complaints, and other criminal activity could assist Police Departments in their street-level drug enforcement efforts. Thus, in Hartford, it was hoped that the DMAP tool could assist the CSU in planning, executing, and evaluating their reclamation tactics.

The DMAP tool is built around the MapInfo desktop mapping software by the Mapping Information Systems Corporation of Troy, New York. The tool allows users to map a number of different types of police records, including the locations of drug arrests, citizen complaints regarding drug activity (TipLine complaints), drug overdoses, Part 1 crime incidents, and calls for service. Drug arrest data would be viewed primarily as historical data; a record of where reclamation efforts have been targeted. The other events could be considered to be predictive in nature and an indicator of where the CSU commander might want to deploy his officers. Importantly, Q.E.D. created a "shell" around the MapInfo software that insulates users from the details of the MapInfo system. Users need only specify a date range and a list of event types to map. The Q.E.D. shell then translates this information into a sequence of MapInfo commands that produce the desired map. As a result, the DMAP tool requires little or no training to use.

The DMAP tool was completed near the end of the program, and thus was only implemented in a pilot test mode. During this pilot test period, the CSU commander trained many of the CSU officers in the use of the DMAP tool, and demonstrated the tool to commanders of other HPD divisions. Patrol Division commanders in particular felt that the DMAP tool could be used effectively in their Division. In addition, the DMAP tool has been extensively used in the evaluation effort to analyze various

statistics over both time and space. As reflected throughout this report, the DMAP tool has played an essential role in the conduct of this study.

COMPASS Implementation

From March 1990 to June 1992, COMPASS was implemented in four target areas -- Charter Oak Terrace, Milner, Frog Hollow, and Asylum Hill:

- Charter Oak Terrace is a small (0.11 square miles) area of Hartford consisting almost exclusively of public housing buildings. Its residents are among the poorest in Hartford. The area is geographically isolated, bounded by an industrial section of the town of West Hartford, a river, a railroad, and Interstate 84. This relative isolation, combined with the fact that everyone lives in the same housing project, created the sense of a well-defined community.

- The Milner target area is a sixteen block area carved out of a large street grid in the north central part of Hartford. A major east-west highway bisects Milner. The area is centered around the Milner elementary school, but the school does not give the area an identity: if one asked individuals living in the Milner target area where they lived, one would get a variety of answers. Residential housing in the area is a mix of multi-family apartment buildings and houses.

- Frog Hollow, an area in the City's south end, is the largest of the four target areas with 11.2 percent of the City's population. Geographically, Frog Hollow is six times larger than Charter Oak Terrace and three times larger than Milner. Frog Hollow contained what many in the HPD believed were some of the City's largest drug markets, particularly those surrounding Park St., a narrow, heavily congested commercial street with a carnival-like atmosphere.

- Asylum Hill, which has the same geographic area as Frog Hollow but has one-third less residents, is one of Hartford's most diverse neighborhoods. Several important cultural institutions and some of the largest insurance companies in the country are in the Asylum Hill area. Compared to the other COMPASS target areas, the neighborhood has a more middle class quality to it and yet one in five families live below the poverty line.

Reclamation activities began in Charter Oak Terrace and Milner in February 1990, in Frog Hollow in March 1991, and in Asylum Hill in

December 1991. The vast majority of the reclamation activities, as noted above, involved the CSU. The level of CSU presence in the target areas varied, as the number of officers assigned to the CSU and the availability of DEP-supported overtime funds changed. For example, in the spring of 1990, 21 officers were assigned to the CSU, and the Unit was able to establish a six day a week, 16 hour a day presence. By the summer of 1991, however, the CSU had 16 officers, who were deployed only eight hours a day, five days a week. Overall, about 75 percent of the CSU's time was devoted to roving patrol and foot patrol. Vehicle safety checks, reverse sting operations, and buy-busts were used infrequently, but were nevertheless extremely effective.

Unfortunately, aside from the activities of the CSOs, the stabilization efforts were largely not implemented. By June 1990, the City and its Reclamation Steering Committee acknowledged that the stabilization timetable had become completely divorced from the reclamation timetable. Even worse, that same month the City Manager came under investigation for corruption involving the Public Works Department. He resigned shortly thereafter. A new City Manager was appointed in September 1990 and, perhaps not wanting to be associated with a program championed by the ex-City Manager, largely ignored the COMPASS program until February 1991, when he appointed an assistant to oversee the City's role in the program. Thus, by mid-1990, COMPASS largely became a "police-only strategy", something that the COMPASS planners desperately wanted to avoid. Whether this would have happened if the original City Manager had not resigned amid scandal is impossible to say, but the resignation of the City Manager clearly marked a turning point for COMPASS. Through mid-1992, COMPASS remained largely a "police-only strategy", in large part because of continuing changes in key leadership positions in the City -- in November 1991, eight of the nine members of the City Council were replaced, and new City Managers were appointed in December 1991 and June 1992.

COMPASS Findings

In assessing the impact of COMPASS on the four target areas, a variety of impressionistic and quantitative data were examined. The data

includes police records (i.e., drug arrests, calls for service, and crime data), survey data (i.e., CSU surveys and community attitudinal surveys), and qualitative data obtained through interviews with program participants and on-site monitoring. In reviewing these findings, it should be remembered that each target area is different, particularly in terms of geographic, demographic, and drug market characteristics. In addition, the length of time that COMPASS was active in each of these areas, the intensity of the police presence, the mix of tactics used, the time of year during which the reclamation occurred, and a number of other factors make it difficult to evaluate precisely the effect of COMPASS as a whole.

COMPASS's impact in each of the four target areas can be summarized as follows:

- In Charter Oak Terrace, CSU and community surveys suggest that COMPASS had a significant impact in terms of reducing drug activity and improving the quality of life in the area. The number of drug arrests the CSU made in the area also dropped dramatically after the first month of the reclamation efforts. Indeed, all parties involved in the reclamation efforts were surprised at how quickly drug activity decreased in the area. In August 1990, Hartford's major newspaper described the events in Charter Oak Terrace as a "revolution."

  The small geographic area, the well defined geographic boundaries, the isolation of the area, and the fact that there are few legitimate reasons to be in the area made this neighborhood ideal for high visibility police tactics such as vehicle safety checks and intensive patrol. As one CSU officer put it, "this area was made for a crackdown." Early reclamation successes in turn appeared to spawn extensive support from Charter Oak Terrace residents, who, along with the area's Community Service Officer, made extensive contributions to the reclamation and stabilization efforts. Despite the lack of involvement of the other City agencies in the stabilization efforts, Charter Oak Terrace today remains significantly better off than it was prior to COMPASS.

- In Milner, a community survey indicated that a minority of residents felt there were fewer people selling drugs in the area and that there was less violent crime. CSU officers were pessimistic about the impact of their presence on the drug market in Milner. The rate of drug arrests throughout the reclamation period remained fairly constant. On the other hand, there was a moderate decrease in the level of serious

crime and drug-related citizen calls for service during the COMPASS period. For example, gun calls for service were down by over a third when COMPASS was in Milner. In addition, there were noticeable decreases in the rates of robberies, burglaries and larcenies during the same time period. Still, Milner is thought to be no better off today than it was prior to COMPASS.

- In Frog Hollow, crime statistics and drug-related citizen calls for service suggest reclamation had a moderate impact. In particular, the number of gun calls for service decreased during the COMPASS period, as did the monthly rate of all Part I incidents, most dramatically burglaries and auto thefts. The rate of drug arrests during reclamation increased significantly then dropped to less than the initial rate. However, before and after surveys of neighborhood residents indicated mixed results. In particular, while their perceptions of crime and neighborhood deterioration did not improve significantly as a result of COMPASS, their level of comfort with the safety of the neighborhood did. The CSU felt that when they migrated to Asylum Hill in January 1992 that drug activity would quickly return to the way it was prior to COMPASS. Indeed, by the Spring of 1992, most HPD officials believed that Frog Hollow was in no better condition than before COMPASS. The CSU returned to this area in late June 1992, in hopes of reversing this decline.

- In Asylum Hill, there is no "after" period for assessing the longer-term impact of COMPASS, inasmuch as data are only available through May 1992,. While the CSU was in the area the number of drug arrests increased during COMPASS, which can be attributed to intensive enforcement. Crime statistics suggest that reclamation had a moderate impact on levels of crime, particularly the rates of assault, burglary, larceny and auto theft. However, surveys of neighborhood residents taken before and immediately after COMPASS indicate a significant impact. The percent of residents who responded that they felt "very safe" walking in their neighborhood at night increased from 5 percent to 59 percent. The number of residents who reported being aware of drug activity also declined substantially. These perceptions are consistent with those of the CSU officers, a majority of whom indicated that they believed that most buyers and sellers of drugs had, in fact, left Asylum Hill. Whether these improvements remain over the long-term in the area remains to be seen.

Based on the experiences in the four COMPASS target areas, several general conclusions can be reached regarding COMPASS:

- Measuring drug activity is difficult. Indeed, it is difficult to assess displacement, the effectiveness of specific tactics, and drug enforcement programs in general. Various indirect measures of drug activity, such as drug arrests and citizen complaints, are subject to a number of external factors and therefore have limited reliability and validity. Impressionistic data are highly subjective and unobtrusive measurement methods, while potentially offering direct measures of drug activity, are costly to implement and also have limited reliability and validity.

- In spite of the problems in measuring drug activity, mapping (indirect) indicators of drug activity appears to be a highly effective and informative exercise. In particular, the DMAP tool has great potential to impact planning and analysis in police departments. Even though the DMAP tool was not implemented as originally proposed and only used in a pilot test mode, Hartford police officials see the DMAP tool as a new and exciting analysis tool.

- The COMPASS program generated extensive positive publicity for the City, at least initially, and particularly for the HPD. Drugs are viewed as a serious threat to the community, and the public saw COMPASS as a new and innovative attempt to control drugs and improve neighborhoods. While the publicity fostered community support in the target areas for COMPASS, knowing where the CSU was and was not no doubt helped drug sellers and customers adapt their behavior and in the end may have lessened the effectiveness of reclamation tactics.

- COMPASS created two notable institutional problems within the HPD. The program relied heavily on State overtime monies to increase visibility in the target areas, and directing these funds to the CSU raised concerns regarding equity. In addition, COMPASS meant that the HPD had, in effect, two narcotics units, the CSU and the Vice and Narcotics Division; the two units became more competitive.

- Geography can significantly increase the effectiveness of reclamation tactics. Well-defined boundaries help "define" the target area and a limited number of roads in to and out of the target area helps the police control access to the area. Also, the police can obviously achieve higher visibility in smaller target areas.

- Reclamation success spawns community support and participation in the stabilization efforts. Visible and active community involvement, in turn, increases the effectiveness of reclamation tactics, and is critical for longer-term success in stabilization.

- The stabilization component of COMPASS was largely not implemented, primarily because of turmoil in city government and a budget climate that made funding for new "seeding" programs difficult. COMPASS therefore became largely a "police-only" program.

- In spite of the lack of an effective stabilization program, COMPASS has shown that an intensive and coordinated police effort can positively impact some of the poorest areas of the country. Nevertheless, without an effective criminal justice system and "seeding" programs that offer alternatives to persons involved in the drug trade, it is difficult to affect long-term improvements to an area.

In sum, the COMPASS experience suggests that the neighborhood-oriented anti-drug approach may be effective, provided that a viable neighborhood -- especially one with obvious geographic boundaries -- does indeed exist. One policy consequence of this statement is clear -- that jurisdictions should consider neighborhood viability and geography in the selection of anti-drug target areas. This is not to say that areas with no community support or geographic barriers should never be selected as target areas. Indeed, it may be possible to build community support and to create geographic barriers or geographic isolation.

While it is useful to assess the impact of a program, evaluations are primarily useful if they impact future programs. In the case of COMPASS, it is hoped that this report can be useful to jurisdictions implementing "weed and seed" programs. Based on Hartford's experience, a number of suggestions are offered to these jurisdictions:

- The city -- meaning the executive leaders in the city -- must coordinate program planning and implementation, so that the program remains a "city" program, and not just a "police" program.

- The police department must commit resources for a several month period. These resources should not be tied to the 911 system, so that they can focus exclusively on the reclamation efforts.

- The heads of the pertinent non-police City agencies must pledge their commitment to the program and promise to give priority to problems identified in selected target areas.

- Police officers involved in the stabilization efforts -- such as community service officers -- must be empowered so that problems identified by them can be given immediate attention.

- The city must develop specific criteria for selecting target areas. These criteria should include degree of commitment from organizations, businesses, and residents in the area, the "sense of community" within the area, and the degree of geographic isolation of the area. Whether geographic barriers or isolation can be created in the area is also a consideration.

- Detailed program plans, and in particular stabilization or "seeding" plans, must be developed prior to the start of the reclamation or "weeding" efforts. Community organizations and city agencies must know in advance what their specific roles and objectives are with respect to both the weeding and seeding phases of the effort.

Regarding issues that deserve further study, six possible research areas are suggested below, each of which builds on and extends the findings contained in this report.

- DMAP tool extension and application. Aside from drug enforcement operations, the DMAP tool could support planning and analysis in the patrol division and the crime analysis unit. In addition, maps produced by the tool could be used by police officials making presentations to community groups and city officials. Also, the DMAP tool capabilities could be extended by adding an animation component to it.

- A macro approach to drug market analysis. COMPASS has shown that different drug markets react differently to police enforcement efforts. A macro analysis of drug markets could attempt to quantify changes in drug markets in response to enforcement efforts and to identify area characteristics that could predict the level of effort required. COMPASS has shown that geography is one such characteristic but has not addressed the importance of the myriad of drug market characteristics, including seller profiles, customer profiles, and transaction methods. Such an effort could lead to more efficient allocation of drug enforcement resources and lend insight into what structural changes should be made to an area to make enforcement more effective.

- A micro approach to drug market analysis. A micro analysis of drug markets could focus on how individual drug sellers and customers react to enforcement efforts, such as when a seller or customer decides to move temporarily or permanently

to another area. Again, such an effort could lead to improved resource allocation.

- Synthesize results of other relevant studies. In addition to the federally-funded weed and seed initiative, the Justice Department's Bureau of Justice Assistance is funding an eight-urban city and four-rural city innovative neighborhood-oriented policing (INOP) program. The COMPASS, weed and seed, and INOP results should be reviewed and synthesized.

- Making stabilization more effective. Like COMPASS, we expect that many of the weed and seed and INOP efforts will show that reclamation, or weeding, can be more easily implemented and is more effective than stabilization, or seeding. Thus, an important question is why this is so and what it would take to make the stabilization efforts as effective as the reclamation efforts.

- Implement and evaluate a "true COMPASS program." This report has shown how difficult it is to implement a true reclamation and stabilization program. As such, the "COMPASS approach" actually has not yet been validly tested; an experimental design was not implemented along with the COMPASS program. If a jurisdiction were to implement a program embodying the key COMPASS elements, together with appropriate experimental controls, it certainly would be worth evaluating.

Finally, it is worth noting some important developments that have transpired since the end of the formal evaluation period in June 1992. By September of 1992 the Office of City Manager had embarked on a new neighborhood revitalization program utilizing many of the same programmatic tenets as the COMPASS initiative. Central to this program, like COMPASS, was focused, clearly delineated interventions. The City Manager chose four neighborhoods: Frog Hollow, Asylum Hill, Upper Albany (which includes Milner), and Stowe Village. Although no timetable was assigned to these efforts, one Assistant City Manager was assigned as the direct liaison from the City to each of the first three neighborhoods. The City Manager chose to personally work with the Stowe Village housing project. The most active neighborhood program emerged in the Frog Hollow neighborhood and paralleled the redeployment of the Crime Suppression Unit back to that neighborhood. Unlike the prior efforts in 1991, the Assistant City Manager assigned to Frog Hollow was aggressive and determined to use all of the municipal resources at his disposal for

neighborhood reclamation. This included the Public Works Department, Parks and Recreation, Fire, Licenses and Inspections, and the Social Services departments in addition to the police. Bi-weekly meetings were held with the neighborhood organization (i.e., HART) and the heads of the affected Departments were required to attend. This level of support was supplemented by the extensive institutional support from institutions in the Frog Hollow area. Also attending and committed was the State's Attorney for Hartford County. In short, this group represented the broadest commitment to a focused neighborhood reclamation since the inception of COMPASS in Charter Oak Terrace three years earlier.

In addition, this new effort was marked by increased participation and support from neighborhood organizations and residents. Of interest is the fact that the neighborhood organization was manually maintaining a substantial amount of data on each building in the target area (e.g, housing code violations, broken windows, and abandoned vehicles). While the quality of some of this data was poor in that the source information was incomplete, it was interesting to note that the community group itself saw the value of maintaining such records for supporting actions in pursuit of remedies to these problems.

Although the reclamation effort continues, real progress beyond organizational improvements has occurred. First, the number one priority of the community was reduction in the effects of high levels of street prostitution. As a result of a community driven initiative, the Office of State's Attorney and the Police Department developed an enforcement procedure in which a fraction of the vehicles used by "johns" were seized as a part of the arrest process. Unlike a simple impoundment, the vehicles have been held as evidence and civil proceedings initiated to take permanent possession of the cars. The net effect of this action is a dramatic reduction in the number of "johns" in the area and a commensurate reduction in the number of streetwalkers. One informed neighborhood resident indicated that the problem was virtually eliminated while another indicated that the problem was reduced by at least 95 percent.

Second, the physical attributes of two of the streets in the target area were modified to improve the lighting conditions considerably and to

improve the trash management. This effort was coupled with a community cleanup in which over one hundred volunteers participated. Favorably, the appearance of the area has not reverted to its former condition in the sixty days which have passed since the initial effort. Perhaps more important, however, is the psychological boost these two initiatives have given the residents and institutions of the neighborhood. The organizer for the community group HART indicated that the neighborhood went from an "organizing mode to a problem solving mode." He further indicated that the visual impact on the neighborhood has been astonishing. Nonetheless, the drug problem has not been eradicated. While the visibility of the drug market has been reduced substantially and the transactions are off-street and far more covert, there is a tacit recognition that the market still exists.

This latest neighborhood centered community reclamation effort continues to offer the potential for genuine progress in reversing urban decay. While the city has developed a number of strategies directed toward neighborhood revitalization over three decades, the concept of steering highly focused and concentrated municipal resources together with residents and institutional representatives of the affected area is a newer development.

To support the City Manager's expanded role, modifications to the DMAP tool have been proposed. Importantly, the scope of the tool is proposed to be broadened to include facilities that can assist residents and service providers in identifying problems and cataloguing actions. In its broadest sense, an application tool of this genre could, at the conceptual level, be used to manage the entire process of neighborhood reclamation by providing both prescriptive direction as well as descriptive analysis. For the expanded Hartford effort, the proposed application development is less aggressive. It modestly seeks to test the utility of the application within the overall context of the management of one reclamation pilot.

The initial development effort will concentrate on nine areas of data collection and analysis, including the underlying mapset, crime data, arrest data, service requests, impressionistic data from residents, building inspections, housing code violations, fire incidents, and tax delinquencies. While much of this data is available in an automated fashion, some will

have to be collected manually. Conceptually, second levels of data will exist so that users of the tool can select and map several different crime types as well as arrest activity. Similarly, housing code violations might be grouped into subcategories that depict the priority of the problem and the expected duration of time for correction.

Although future development costs are obviously involved in this broadened use of the DMAP tool, the value of data analysis within the reclamation process continues to be a high priority.

1 Introduction

This report documents the Cartographic Oriented Management Program for the Abatement of Street Sales (COMPASS) effort, which was carried out in four different areas within the City of Hartford from 1990 to 1992. COMPASS used a *reclamation* and *stabilization* approach to disrupt street-level drug sales and improve the quality of life in Hartford's neighborhoods. Like most anti-drug programs, COMPASS has had qualified success. By documenting the program, its conduct, and its impact, it is hoped that other cities can benefit from Hartford's experience. Furthermore and in light of the increasing popularity of the "weed and seed" model for improving neighborhoods -- which is synonymous with the reclamation and stabilization approach -- this report is quite timely.

The remainder of this section discusses important background issues regarding the COMPASS program and the City of Hartford. In particular, Section 1.1 offers an historical perspective, explaining how and why Hartford decided to try the reclamation and stabilization approach. Section 1.2 discusses various background characteristics of Hartford, while Section 1.3 outlines the remainder of this report.

1.1 Program Background

In the 1970s, the Hartford Police Department (HPD) had a traditional approach to drug enforcement -- arrest people and let the courts and the prison system take care of them. The focus of drug enforcement efforts at that time was heroin. This approach worked because "the long arm of the law had an effect." In the mid-1980s a massive increase in cocaine use and the appearance for the first time of blatant, open-air drug markets completely changed the drug picture in Hartford. The HPD, continuing the arrest-oriented approach to drug enforcement, responded by making increasing numbers of drug arrests. In 1987, the Department made 2,638 drug arrests.

The City leadership at that time viewed drugs as perhaps the most serious threat to the City and directed that the suppression of drug activity be of paramount importance. The Police Department responded to this directive by making greater numbers of drug arrests: 4,483 were made in 1988 and 5,112 were made in 1989. Despite the increasing number of arrests, the drug problem worsened. Moreover, the criminal justice system became overwhelmed, and the "arrest, prosecute, and adjudicate" enforcement model became ineffective.

By the late 1980s, there was general agreement that a new approach to drug enforcement had to be tried. One approach attempted in Hartford was the sweep. These involved major undercover operations aimed at identifying key drug sellers in an area. Once identified, arrest and search warrants were obtained and then executed in a one-day sweep. The HPD conducted sweeps in 1988 (Operation Cobalt) and in 1989 (Operation Pointed Eagle) that resulted in large numbers of arrests and seizures of drugs, weapons, and cash. Other major cities, including New York City and Washington, D.C., attempted longer-term crackdowns, wherein a large uniformed force "occupied" a target area for an extended, often several month period (see, for example, Zimmer [1987] and Massing [1990]).

But Hartford, as well as the Federal government and other jurisdictions across the country, realized that such "police-only" sweeps and crackdowns, while offering hope for *reclaiming* an area in the short term, are, by themselves, largely ineffective in *stabilizing* a reclaimed area over the long term. With the criminal justice system largely unable to keep arrested drug sellers off the streets for significant periods of time, the police-only strategy typically succeeds in only temporarily displacing drug customers and dealers. Once the police leave the area, the drug market often returns to the condition it was in prior to the crackdown. In the vernacular of the current Federally-funded Weed and Seed program, unless an area is properly seeded, the weeds will grow back.

However, if in conjunction with the police long-term crackdown, some of the conditions that attract drug activity to a neighborhood could be removed -- if, for example, "broken windows" were fixed; if blockwatches were organized; if economic and educational opportunities for children and adults

were created; if economic alternatives to drug dealing were made more attractive; if appropriate uses and economic revitalization of the neighborhood were encouraged and supported; if drug treatment were available to help reduce the number of drug addicts; and if a sense of ownership of the neighborhood by the residents were fostered -- then long-term *stabilization* of an area is possible. Strategies that combine police, citizen, economic development, and non-police city resources are seen as the best hope for long-term positive change in neighborhoods, as evidenced by the increasing popularity of community-oriented policing. This sense of partnership of the police, the community, and the city is viewed as the critical underpinning of the COMPASS program, one that would determine whether the program succeeds or fails.

Actually, the ideas of reclamation and stabilization were not new to Hartford. In the mid-1970s Hartford was one of the first cities to implement an NIJ-funded Crime Prevention Through Environmental Design (CPTED) project. (In fact, this project was implemented in the Asylum Hill neighborhood, one of the four COMPASS target areas.) As advanced by Tien and Reppetto [1975], CPTED focuses on the interaction between human behavior and the (physically) built environment. It is hypothesized that the proper design and effective use of the built environment can lead to a reduction in crime and fear and concomitantly, to an improvement in the quality of urban life. Operationally, CPTED adopted the neighborhood-oriented reclamation and stabilization approach; that is, reclaiming the neighborhood from crime and violence, and then stabilizing it against a return to crime and violence. Central to CPTED is the existence of viable neighborhoods that can be reclaimed and stabilized. In turn, a necessary condition for neighborhood viability is the presence of a strong community infrastructure (e.g., community organizations, churches, blockwatch groups, etc.). Natural or man-made physical boundaries also enhance the definition, identity, and viability of a neighborhood. On the other hand, an area with boarded up houses and businesses and which streets have been taken over by drug traffickers and prostitutes is obviously somewhat abandoned and probably represents a non-viable neighborhood from a reclamation and stabilization perspective.

Funding Opportunities

In 1989, when the City was anxious to move beyond "police-only" anti-drug strategies, two funding opportunities appeared -- the State of Connecticut's Drug Enforcement Program (DEP) and the NIJ's Drug Market Analysis Program (DMAP). The DEP grant program provided State funds to Connecticut cities for drug enforcement, drug education, and crime prevention. Over one half of the DEP funds were allocated to the HPD, which in turn allowed the Department to support the Drug Abuse Reduction Education (DARE) program and to fund police overtime for narcotics enforcement.

The NIJ's DMAP program, building on an earlier study involving computerized mapping of crime [Maltz et al, 1989], hypothesized that mapping tools could assist police departments in their efforts to combat street-level drug sales. The DMAP solicitation invited teams of police departments and researchers to submit proposals for developing sophisticated computerized drug information and mapping systems that could assist police departments in their efforts to eradicate street-level drug trafficking. The research was to be conducted in two phases. The systems would be developed in Phase I, and their use in support of drug enforcement efforts would be in Phase II. The NIJ hoped that DMAP would: (1) define the nature and extent of street-level drug trafficking activity, (2) provide current, online information to law enforcement about drug trafficking activity, (3) measure law enforcement activity against street-level drug trafficking, (4) minimize barriers caused by geographic, administrative, and political boundaries, and (5) analyze information about the success of law enforcement activities [Uchida, 1990].

COMPASS Proposal

The HPD, together with Queues Enforth Development (Q.E.D.), Inc., responded to the DMAP solicitation. The resultant COMPASS proposal contained three broad objectives:

- to implement a reclamation and stabilization program in selected target areas in the City of Hartford;

- to develop computer-based mapping tools that could support the reclamation activities; and

- to evaluate the effectiveness of both the reclamation and stabilization program and the mapping tools.

It was proposed that NIJ funds be used to support the mapping tool development and the overall evaluation, while DEP funds and in-kind contributions from the HPD and the City of Hartford be used to support the reclamation and stabilization activities.

In addition to the general DMAP hypothesis that computer-based mapping tools can improve planning and execution of street-level narcotics enforcement, COMPASS was predicated on three other hypotheses. First, that massive police intervention is required to reclaim an area. It was therefore proposed that the HPD's Crime Suppression Unit (CSU) be dedicated to the COMPASS reclamation efforts, and that DEP funds be used to fund CSU overtime hours. Second, that long-term stabilization of a target area requires both community and non-police governmental support. Thus, in preparing the COMPASS proposal, letters of support were obtained from a number of City, State, and Federal agencies which, it was hoped, would actively participate in the reclamation and stabilization activities. And third, that once an area is reclaimed, a much lower level of police presence is needed during the stabilization phase to maintain the area in the reclaimed condition, assuming that community and non-police supports are in place. Assuming this latter hypothesis to be true, then after reclaiming a neighborhood most of the CSU officers could migrate to a new target area, leaving behind perhaps one or two officers to help stabilize the reclaimed area. Thus, multiple target areas could be the focus of a COMPASS reclamation and stabilization effort. Obviously, the COMPASS program -- in particular the stabilization component -- had very ambitious goals, especially given the social and economic conditions in Hartford (see Section 1.2). It is of course unrealistic to expect that one program can completely turn around neighborhoods, as true neighborhood stabilization and revitalization is a long-term, multi-year process. Nevertheless, at a minimum it was hoped that reclamation alone would improve the area and perhaps would spur stabilization.

From a more general research and evaluation perspective, it was hoped that an assessment of the COMPASS program would shed light on a number of issues, including: whether neighborhood reclamation and stabilization works; whether neighborhood reclamation and stabilization is an effective anti-drug strategy; why some reclamation and stabilization efforts succeed and others fail; what level of dosage is necessary to achieve success; and what characteristics of a target area are good predictors of whether reclamation and stabilization succeeds.

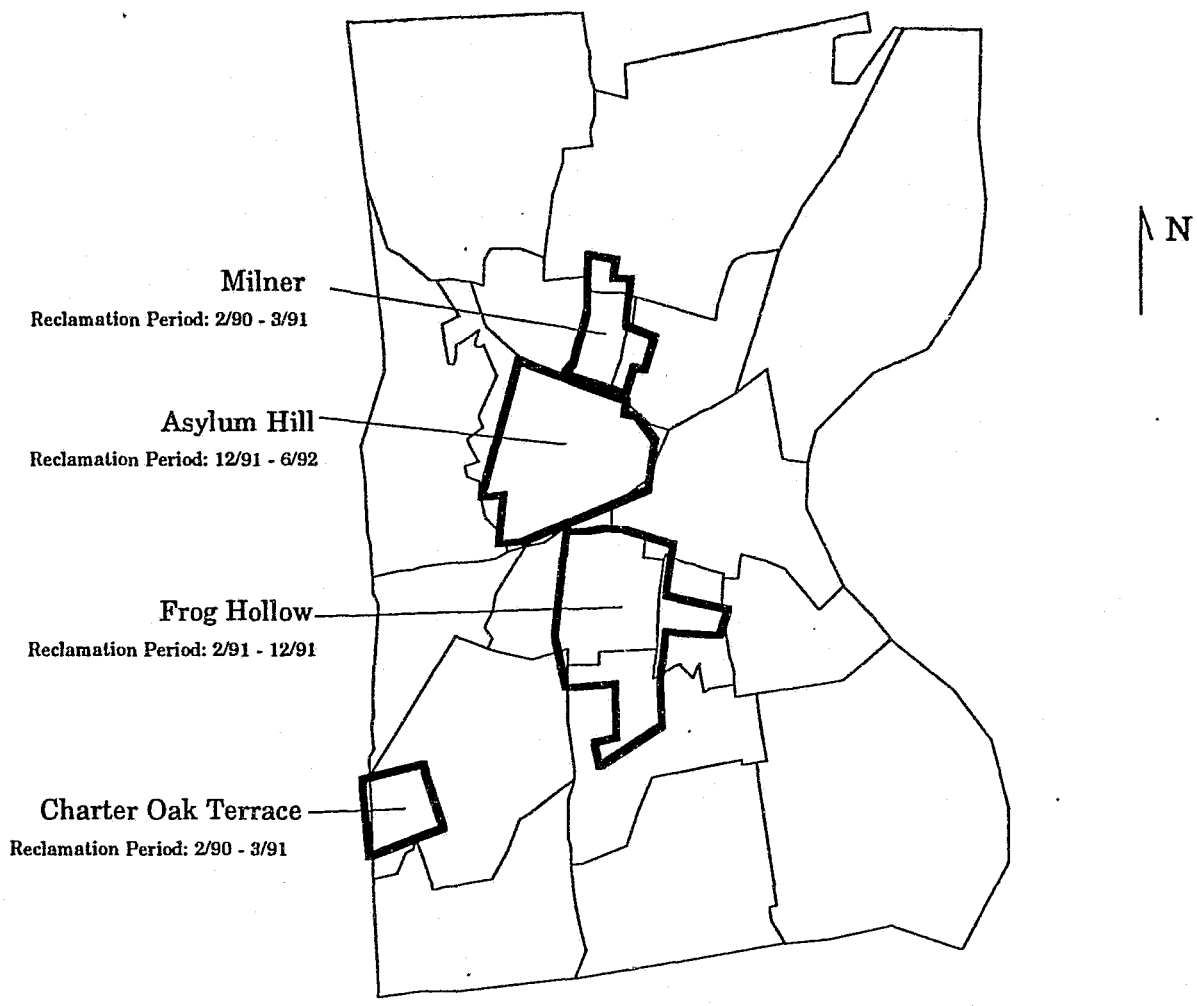
In the end, five cities -- Hartford, Jersey City, Kansas City, Pittsburgh, and San Diego -- were awarded Phase I and Phase II grants under the DMAP program. While all five sites shared a common goal of assessing the effectiveness of mapping tools on drug enforcement efforts, Hartford was the only site employing a reclamation and stabilization approach.

1.2 Hartford Background

Some background information on Hartford can provide perspective on the COMPASS program. The City of Hartford, located midway between New York and Boston, is the urban hub of Connecticut's Capital Region. The City covers only 18.2 square miles, making it one of the country's smallest urban areas. As shown in Exhibit 1.1, Hartford is divided into 17 neighborhoods, which were defined over twenty years ago as part of the U.S. Department of Housing and Urban Development's Community Development Grant Program. (Superimposed on the neighborhood map, for later reference, are the four COMPASS target areas.) The neighborhoods are widely known and recognized -- the HPD, for example, reports crime statistics by neighborhood.

As the hub of the 28 town region, Hartford serves as the region's major employment, service, government, and cultural center. Hartford contains the majority of the region's hospitals and institutions of higher learning. It is estimated that an additional 250,000 to 300,000 people, or roughly twice the population of Hartford, enter the City for some portion of the day for employment, entertainment, or other reasons.

Exhibit 1.1
Hartford Background: Neighborhoods



Although Hartford serves as the heart of the region, the City contrasts sharply with the surrounding towns. While these towns are primarily suburban communities with middle to upper income populations, Hartford is home to high concentrations of residents with special needs such as those living in poverty, the unemployed, the aged, and the single parent families. While Connecticut has the country's highest per capita income, Hartford has for a number of years been one of the nation's poorest cities, in terms of the percentage of residents living below the poverty line. According to the Bureau of the Census [1983][1], 22.5 percent of Hartford families live below the poverty line, compared to just 2.3 percent in the surrounding region.

The combination of a small geographic area, a large influx of daytime population from the suburbs, and the disparity of income between Hartford and the surrounding towns are but three factors explaining Hartford's high crime rate. In 1979, Hartford had the highest crime rate among cities over 100,000 in population. In 1991, Hartford had 15,405.9 crimes per 100,000 persons, a crime rate nearly three times the rate in the State and the nation as a whole [FBI, 1991].

HPD officials believe that over half of Hartford's crime is either directly or indirectly related to drugs. Most troubling is the violence associated with the drug trade. In 1988 and 1989, the two years prior to the start of the COMPASS program, there were a number of violent gangs operating in several different parts of Hartford.[2] Many of these gangs were well-organized, with a lookout system and armed "enforcers". Often violence -- typically in the form of drive-by shootings -- erupted when one gang attempted to operate in an area controlled by another gang, or when one of the gang leaders is sent to jail or prison, leading to a power struggle among the remaining gang leaders. Some police officials believe that driving to another gang's turf and shooting at a member of the gang became almost a fad in Hartford. Suppression of these drive-by shootings became a key objective of the COMPASS program.

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[1]Corresponding socio-economic figures based on the 1990 census are not available as of this writing.

[2]Some HPD officials believe that Hartford did not at that time have any formal "gangs" in the traditional sense of the word (i.e., Crips and Bloods). Rather, Hartford had "several neighborhood associations attempting to profit from the drug trade." Nevertheless, for clarity, they are referred to herein as "gangs".

What fraction of drug activity is due to these gangs is not known. Exhibit 1.2 does show, however, that drug arrests in 1989, the year prior to the start of the COMPASS program, were concentrated in a few areas of Hartford, often in areas where gangs were known to be operating. (Exhibit 1.2 also shows the locations of the four COMPASS target areas first identified in Exhibit 1.1.) Of the 896 blocks in Hartford, 20, or 2.2 percent of the blocks, accounted for 29.2 percent of the 5,112 drug arrests in 1989. On the other hand, 54.5 percent of the blocks experienced no drug arrests during the year. As noted in Section 2.5, the COMPASS target areas are all located in areas which had large numbers of drug arrests in 1989.

Not surprisingly, the fear of drugs and crime run high among Hartford residents, according to a random telephone survey of 345 Hartford residents taken at the start of the COMPASS program. As shown in Exhibit 1.3, nearly two-thirds of the respondents reported they avoided walking on certain streets or in certain areas because of drug activity and, in general, were very concerned about the level of drug activity in their neighborhood. Fear and concern about drugs no doubt was a major contributor to overall pessimism about the future, as fewer than one in five respondents thought that the quality of life in their neighborhood would improve over the next six months. It was in this atmosphere that the COMPASS program began.

1.3 Scope of Report

This report is comprised of six major sections and an appendix. This first section has provided background information on the COMPASS program and the City of Hartford. Section 2 details the program's approach to reclamation (Section 2.1), stabilization (Section 2.2), and evaluation (Section 2.3). In addition, Section 2.4 provides an overview of the program's implementation time frame, and Section 2.5 discusses some characteristics of the four COMPASS target areas. Section 3 describes the DMAP tool in terms of design considerations (Section 3.1), approach (Section 3.2), and pilot implementation (Section 3.3).

Exhibit 1.2
Hartford Background: 1989 Drug Arrests by Block

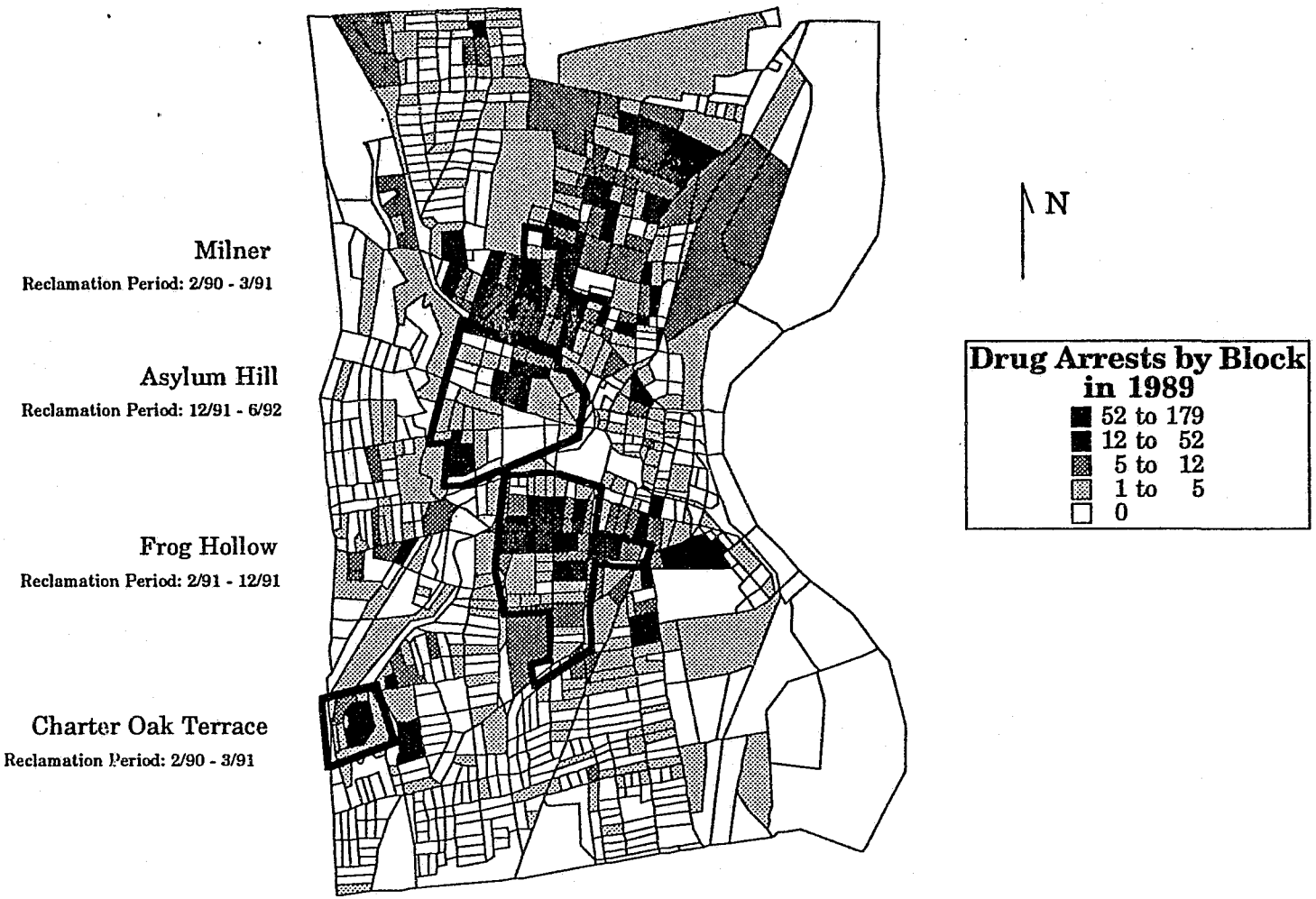


Exhibit 1.3
Hartford Background:
Baseline Attitudinal Data

Statement	Percent Agreeing with Statement*
"I have seen drug sales, or what appeared to be drug sales, take place in my neighborhood."	35.4%
"I have seen people using drugs in my neighborhood."	30.0%
"I avoid walking on certain streets or in certain areas because of drug-related activity."	64.8%
"I am very concerned about the level of illegal drug activity in my neighborhood."	67.1%
"I think the quality of life in my neighborhood will improve over the next six months."	18.5%

* Based on April 1990 random telephone survey of 345 Hartford residents

Section 4 documents the impact of the COMPASS program, from a drug activity (Section 4.1), crime (Section 4.2), and attitudinal (Section 4.3) perspective. Section 5 attempts to summarize the overall findings, including differences in impact in the four target areas.

Section 6 offers some concluding remarks, suggests areas for future research, and discusses COMPASS-related events that have transpired since the end of the formal evaluation period. Finally, a glossary of abbreviations and terms are contained in the back of the report, followed by a list of references and an appendix containing the major data collection and survey instruments used in this study and the DMAP tool reference manual.

2 Program Approach

Before describing the impact COMPASS had in the four target areas (the subject of Sections 4 and 5), it is important to describe the overall program approach. In particular, reclamation, stabilization, and evaluation are discussed in Sections 2.1, 2.2, and 2.3, respectively. Section 2.4 describes the key COMPASS program activities in terms of a 30-month time line, and Section 2.5 provides background information on the four COMPASS target areas.

2.1 Reclamation Approach

The overall objective of the reclamation phase of the COMPASS program is to reduce or eliminate drug activity in the designated COMPASS target areas, thus making long-term stabilization of these areas possible. The Hartford Police Department (HPD) believed this was achievable by undertaking the following four activities in the target areas: (1) increasing police presence, (2) increasing police-citizen interaction, (3) arresting key persons in the drug trade, and (4) aggressively enforcing loitering, motor vehicle, order maintenance, and other statutes. The HPD's ability to successfully carry out successfully these four activities depended on the resources available for COMPASS and the specific tactics that could be executed, as well as the particular target areas selected.

Resources

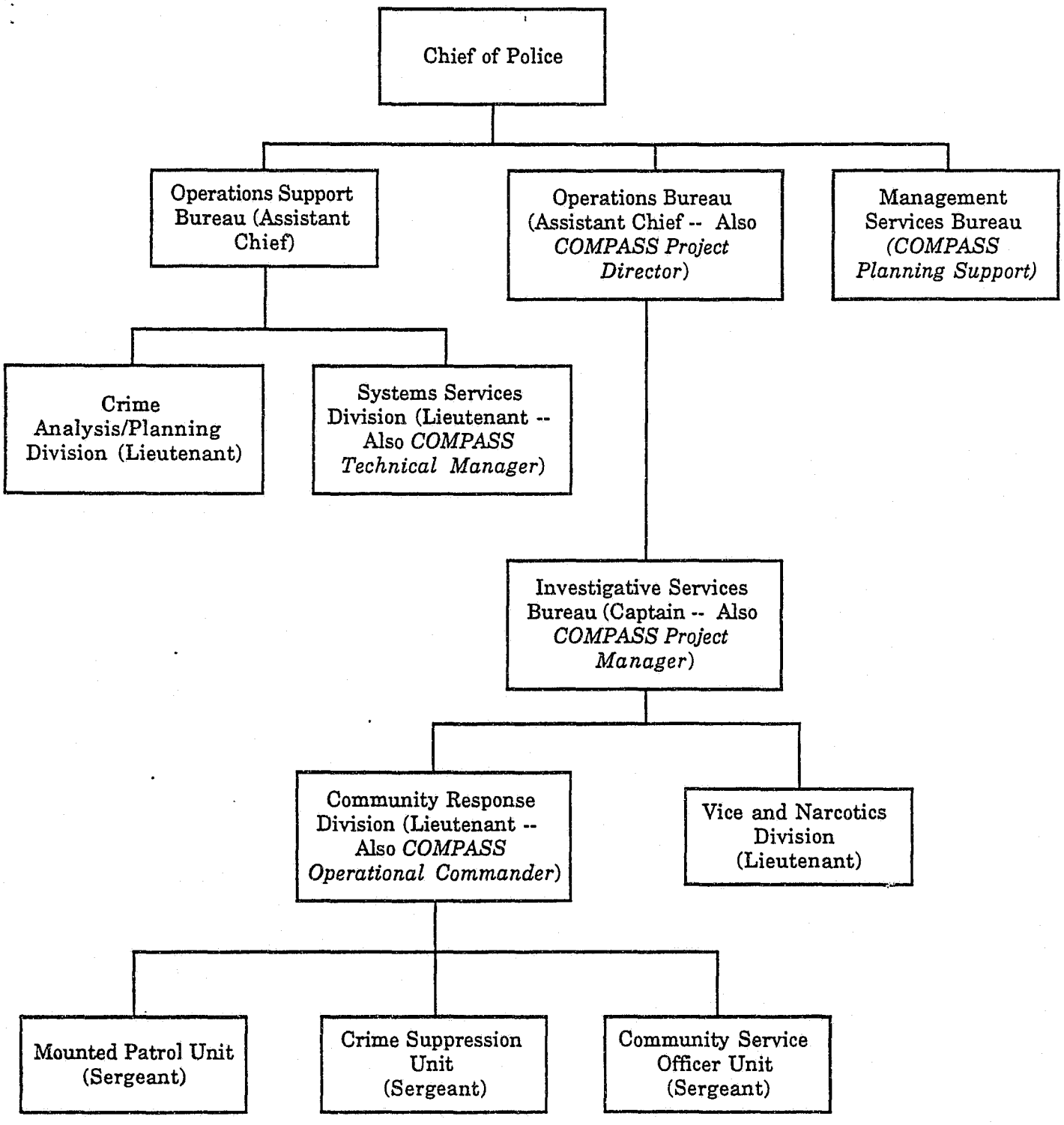
The HPD is commanded by a Chief of Police who reports directly to the Hartford City Manager. The Department is organized into three bureaus -- an Operations Bureau and an Operations Support Bureau both commanded by Assistant Chiefs of Police and a Management Services Bureau managed by a civilian director. In 1989, the HPD had 503 sworn positions, 171 full time civilian positions, and 83 part-time civilian positions. At that time, the HPD operated in a centralized patrol command system, but, with the initiation of

the Community Service Officer Program (see Section 2.2), they began a gradual shift to community-oriented policing. By 1992, the HPD had planned a move to a decentralized command system, dividing the City into three Police Service Areas, each commanded by a Captain.

The HPD command structure and its relationship to COMPASS is depicted in Exhibit 2.1. The Assistant Chief commanding the Operations Bureau served as COMPASS Project Director, with overall responsibility for program planning and conduct. The Captain commanding the Investigative Services Bureau served as COMPASS Project Manager and reported directly to the COMPASS Project Director. The Lieutenant commanding the Systems Services Division served as COMPASS technical manager with responsibility for development of the COMPASS technologies and overall program support. Finally, the Lieutenant commanding the Community Response Division (CRD) served as COMPASS Operational Commander with responsibility for day-to-day planning and execution of reclamation tactics. As shown in Exhibit 2.1, the CRD is comprised of the Mounted Patrol Unit, the Crime Suppression Unit (CSU), and the Community Service Officer (CSO) Unit, each of which is headed by a Sergeant. It should be noted that the CSO program was begun in 1989, as an initial step toward community-oriented policing. The fact that the COMPASS program has been explicitly integrated into the HPD command structure bespeaks to the administrative support provided to the program.

In planning the COMPASS program, it was decided to devote the CSU full-time to the reclamation task. The CSU had been employed in the Police Department since the mid-1980s to attack specific crime-related problems, such as a burglary problem on a given street. The CSU at that time consisted of about six to eight officers and worked closely with the Patrol commanders and the crime analysis unit in determining appropriate assignments. Typically, the CSU would be in an area working on a problem for two to three weeks. By the end of the 1980s, the CSU became more oriented toward narcotic enforcement, first by focusing on gangs and associated drive-by shootings, and then, of course, by becoming the key police resource in the COMPASS program.

Exhibit 2.1
COMPASS Approach: Police Command Structure



At the beginning of the COMPASS program (i.e., the spring of 1990), the CSU consisted of 16 officers and two Sergeants. At that time, five troopers from the Connecticut State Police who were on temporary assignment to the HPD were also assigned to the CSU. The reclamation activities were at times also assisted by up to four officers from the Mounted Patrol Unit (although this unit's primary function, particularly in the summer months, was patrolling Hartford's many city parks). Finally, the CSO assigned to the target area, although primarily involved in COMPASS stabilization activities, also supported the CSU's reclamation tactics. Thus, in total, at the beginning of the COMPASS program, up to 26 officers were assigned to COMPASS reclamation activities, representing a very substantial force given that each COMPASS target area was less than one square mile. (However, it should be noted, as discussed later in Section 5, this staffing level decreased significantly over the next two years.) Moreover, these officers were not to be tied to the 911 system, as the COMPASS Project Director decided *not* to have the CSU officers dispatched to calls for service.

Two additional comments should be made regarding police resources directed at the reclamation efforts. First, even though there were patrol officers whose patrol beats overlapped with COMPASS target areas, these officers were not directly involved with the COMPASS effort. In fact, as discussed later in Section 5, the issue of overtime monies being directed toward the CSU led to tension between the Patrol Division and the CSU. Second, detectives in the Vice and Narcotics Division participated in certain phases of the reclamation effort, specifically the initial, undercover phase (as discussed below).

Tactics

Police tactics that were used in the COMPASS reclamation efforts are listed in Exhibit 2.2. Most of theses tactics are self-explanatory and include a variety of standard patrol and anti-drug tactics. A few comments should be made regarding the safety check and eviction tactics. When executing a vehicle safety check, all vehicles passing a given location are stopped by CSU officers, who ask drivers for their driver's license, registration, and insurance papers. At the same time, the vehicle is checked against State and local stolen vehicle files, and the driver is checked against State and local warrant

Exhibit 2.2
COMPASS Approach: Reclamation Tactics

Tactic	Definition	Primary Objectives of Tactic				
		Increased Police Presence	Increased Police-Citizen Interaction	Arrest of Drug Customers and/or Sellers	Aggressive Enforcement of Loitering, Motor Vehicle, and Other Statutes	Deter Drug Activity
Roving Patrol	Officers in vehicle patrolling target area	X			X	X
Static Patrol	Officers assigned to a specific location in target area				X	X
Horse Patrol	Officers on horseback patrolling target area	X	X			X
Foot Patrol	Officers on foot patrolling target area		X		X	X
Park and Walk	Officers alternating between roving and foot patrolling in target area	X	X			X
Reverse Sting	Plainclothes officer selling drugs to customer, who is subsequently arrested by another officer			X		X
Buy-Bust	Plainclothes officer buying drug from a dealer, who is subsequently arrested by another officer			X		X
Surveillance Bust	Officers observing drug transaction from a surveillance van and then making arrest of dealer and/or customer			X		X
Safety Check	All vehicles passing a given location in target area are stopped by officers	X	X		X	X
Informant Buy	Officers arresting a drug dealer based on tip from informant			X		X
Serve Warrants	Officers serving arrest or search warrants in target area			X		X
Eviction	Evicting tenants involved in drug trade				X	X

files. Officers explain to each driver the purpose of the safety check, that it is part of the COMPASS program, and hand to the driver a 3 x 5 card explaining the COMPASS program along with the telephone number of the HPD drug TipLine. As discussed later in this report, safety checks were seen as one of the most effective reclamation tactics.

The eviction tactic is notable because it is the only tactic listed in Exhibit 2.2 that is not carried out by the HPD, although they can facilitate the eviction process. (In the case of public housing, the Hartford Housing Authority can, under certain circumstances, evict tenants.) For the purposes of this report, eviction is listed as a reclamation tactic, rather than a stabilization tactic, because it tries to accomplish the same end result as the arrest-oriented tactics -- i.e., removal of a drug seller from the target area.

Exhibit 2.2 also indicates the primary objectives of each tactic. Roving patrol, for example, obviously increases police presence, but in addition, CSU officers were specifically instructed to aggressively enforce loitering, motor vehicle, order maintenance, and other statutes. Vehicle safety checks increase police presence and provide for aggressive enforcement of motor vehicle laws, but in addition provide an opportunity to interact with target area residents and inform them about the COMPASS program. Other tactics, such as reverse stings and buy-busts, are strictly arrest-oriented. On the other hand, all tactics are obviously designed to deter drug activity.

The issue of when and where to execute a particular tactic is clearly an important one. (It is important to note that research considerations or experimental designs did not influence the COMPASS Operational Commander's tactical decisions -- the goal of the evaluation was to assess the overall reclamation strategy, not to assess the effectiveness of specific tactics.) Over the two-year COMPASS program period, the tactics themselves evolved and the "tactic selection process" improved. Nevertheless, in the beginning, there were some basic working hypotheses regarding each tactic. For example, it was felt that buy-busts would be more effective in drug markets where drug sellers were more easily identified than drug customers. Conversely, reverse sting operations were felt to be more effective when drug customers were more easily identified that drug sellers. Vehicle safety checks were thought to be effective in drug markets where customers

"drive-up" to the seller, but less effective in "walk-up" markets. High visibility tactics -- roving patrol, horse patrol, park and walk -- were thought to be more effective in open-air drug markets, while surveillance busts and informant buys were expected to be more effective in "indoor" drug markets. Finally, it was clear that eviction could be an effective tactic in public housing projects, where there is "a single landlord" and laws allow for the eviction of persons arrested on drug charges.

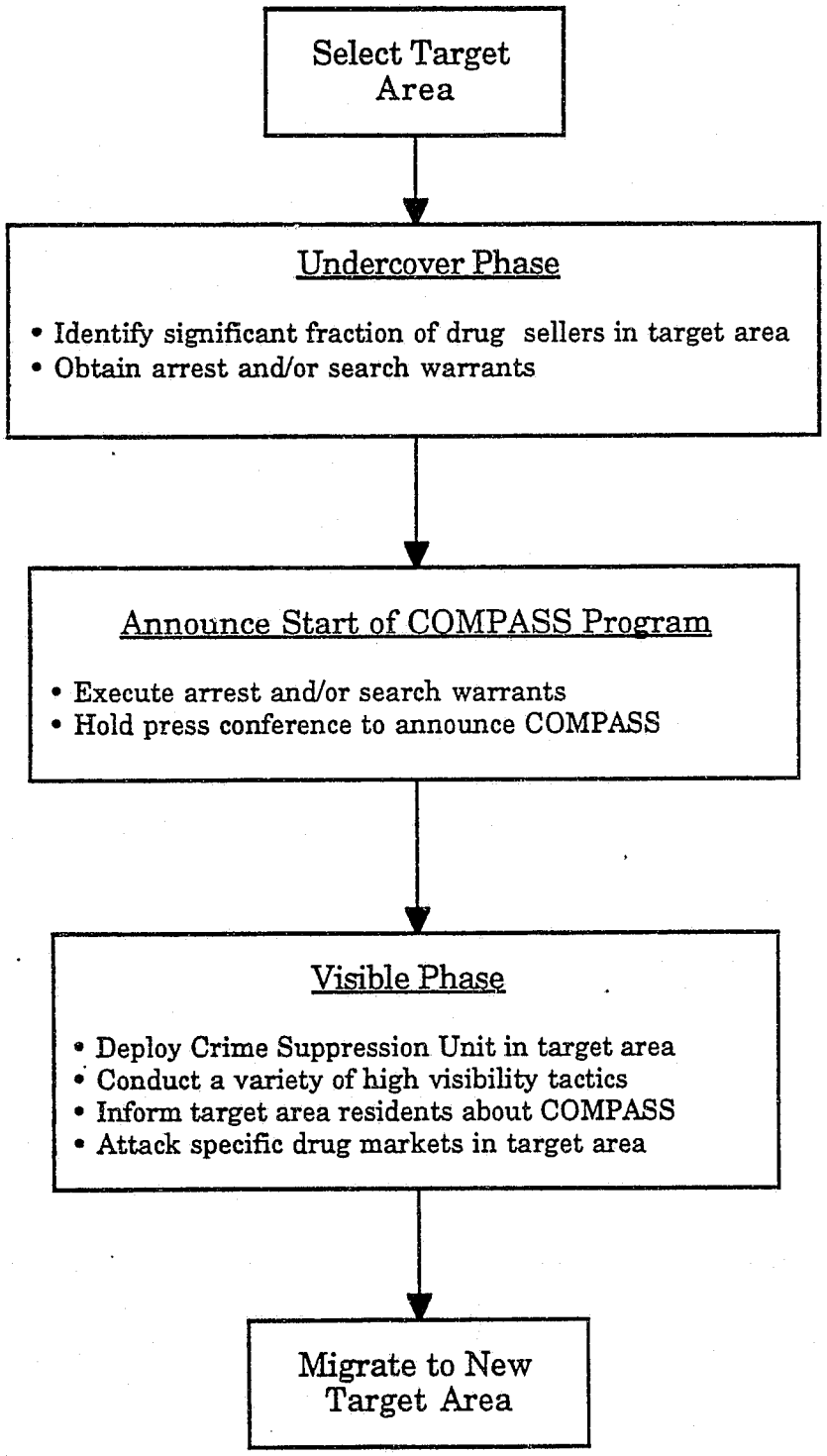
Even though the selection of tactics evolved over the two-year period, basic guidelines were established when COMPASS was initially planned. At that time, a five-step reclamation approach was devised (see Exhibit 2.3). After a target area had been selected, reclamation was to begin with an undercover phase. In this phase, through standard undercover tactics (e.g., surveillance, undercover buys), warrants were obtained on persons involved in the drug trade in the target area. The stated goal of the undercover operation was to identify 80 percent of the drug sellers in the target area. As is noted throughout this report, it is exceedingly difficult to measure the extent of drug activity, and thus it is of course not possible to know exactly when the 80 percent mark is reached. One indicator which the police used was when repeat buys were made from the same dealer. The expiration date of the arrest and search warrants was also an indication as to when the undercover phase ended.

The execution of all the arrest and search warrants obtained during the undercover phase coincided with a press conference announcing the COMPASS program in the target area. Most importantly, the State's Attorney announced at the press conference that high bonds were being set for all the arrestees, thus helping to ensure that dealers could not make bail immediately and return to the target area. At this point, the visible phase of the reclamation effort began with the deployment of the CSU in the target area.

Target Area Selection

Like the choice of tactics to use, the process of selecting target areas also evolved over the program period, as it became clear that certain area characteristics were more important than others in determining COMPASS's

Exhibit 2.3
COMPASS Approach: Reclamation Elements



success or failure. In the beginning, however, there were three basic criteria used in selecting the COMPASS target areas. First, the area had to have a serious drug problem, one that involved open-air drug sales. Second, the area had to have a CSO assigned to the area, inasmuch as the stabilization efforts would revolve around this officer, as noted in Section 2.2. And third, the area had to have a viable community organization that could also be active in the stabilization efforts. (It is important to note that randomization or other elements of experimental design was not involved in the target area selection process -- given the large commitment of resources involved in COMPASS, Hartford strongly believed that areas should be selected based on which areas needed and could benefit from COMPASS.)

Finally, a key design issue was when to migrate to a new target area. At the start of the COMPASS program, some police officials wanted to spend at most 45 to 60 days in a target area; others wanted to spend up to a year or whatever time was necessary to "reclaim" the area. In the end, no set time limit was established and the decision to migrate to a new area was made on a case-by-case basis.

2.2 Stabilization Approach

Recognizing that the CSU could not remain in a target area forever (if for no other reason than for equity), the stabilization phase of the COMPASS program sought to keep the area in its "reclaimed" state over the long term. Obviously, stabilization could not be successful if reclamation was not successful. At the same time, it was hoped that a successful reclamation effort would encourage residents, organizations, and non-police governmental agencies to actively participate in the stabilization efforts. These efforts were to focus on increasing citizen participation in activities which could improve the quality of life in the target area, improve the physical condition of the target area, and increase the delivery of services to the target area. Resources devoted to these efforts and the tactics used to accomplish these goals are discussed below.

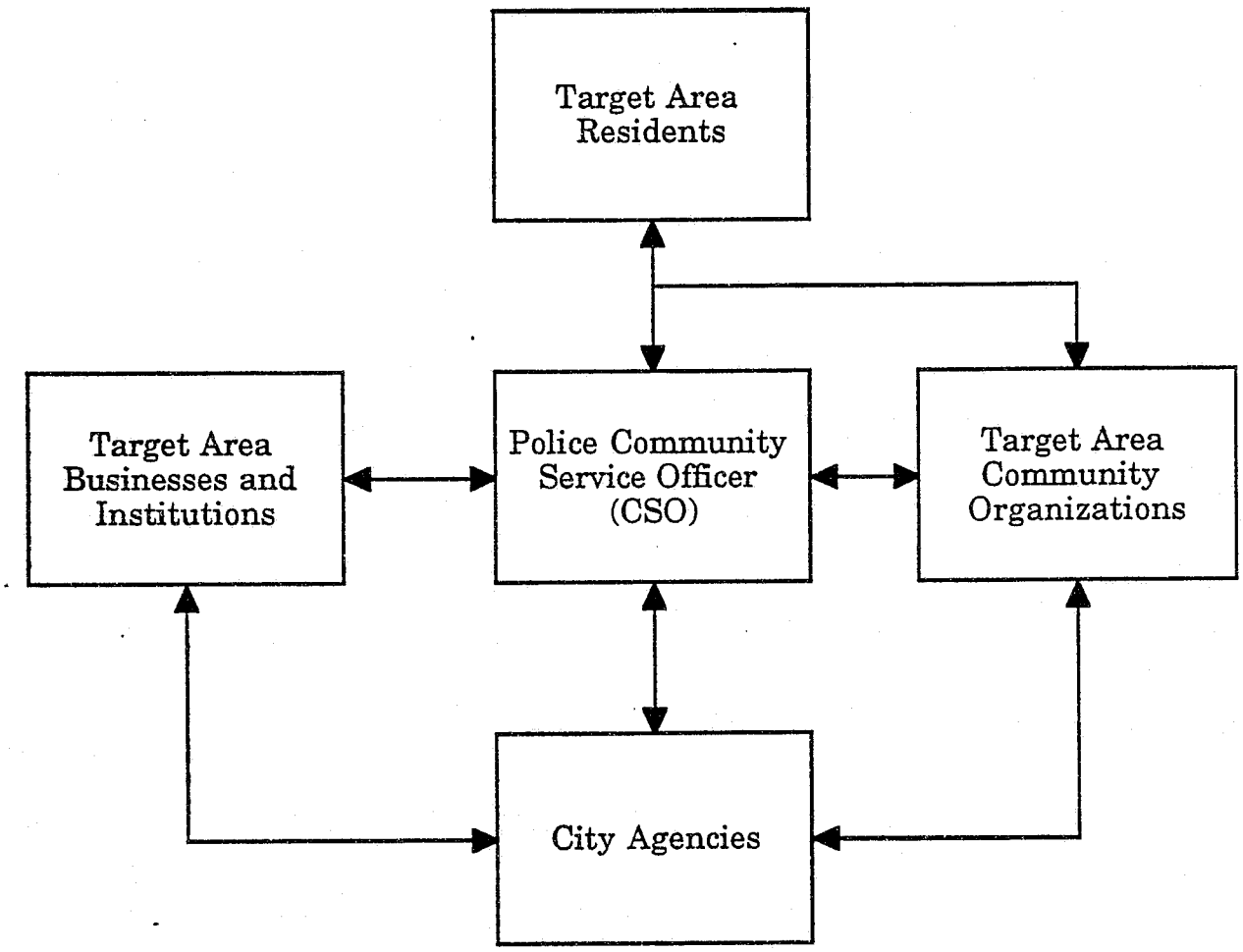
Resources

Unlike the reclamation activities, for which only the HPD -- and, more specifically, the CSU -- was responsible, the COMPASS stabilization activities were to involve a variety of groups in the target area, involving target area residents, community groups, institutions, businesses, and city agencies, including, of course, the HPD. The importance of each of these groups varied from target area to target area, depending on the specific needs of the target area.

As depicted in Exhibit 2.4, stabilization was to revolve around the Police Community Service Officer (CSO) assigned to the target area. In general, it was hoped that the CSO would assist target area residents, businesses, institutions, and organizations in their stabilization activities and facilitate communication between the Police Department and city agencies on the one hand and the target area residents, businesses, institutions, and organizations on the other hand. It should be noted that the COMPASS-specific objectives for the CSO were consistent with the stated objectives of the CSO program, which included:

- meeting regularly with residents and business persons within the area to find out about the crime and order maintenance problems of greatest concern to the community;
- working with existing blockwatch associations and other citizen groups in the neighborhood on the development of neighborhood crime prevention programs;
- organizing citizen groups and working with interested citizens in the creation of such groups and the development of crime prevention programs;
- conducting public education programs on crime prevention geared to the needs of the target area;
- attending meetings of blockwatch associations and other civic groups within the neighborhood as a representative of the HPD;

Exhibit 2.4
COMPASS Approach: Stabilization Elements



- coordinating activities with those of the CSU officers and patrol units and developing strategies to deal with the crime and order maintenance problems within the neighborhood; and

- patrolling the target area in a manner which strengthens the lines of communication among the area residents.

To facilitate communication between the CSO and the community residents and organizations, each CSO had a satellite office in his/her assigned area, and could tailor his/her working hours, as appropriate.

Community organizations also represented crucial resources in the stabilization efforts. It was hoped that these organizations would actively disseminate pertinent information throughout the COMPASS target area, including informing the residents about the goals of the COMPASS program, what services can be provided, who to contact for more information, who to contact for services, and how to get more involved in the reclamation efforts. These organizations could gather information for the HPD and serve as additional "eyes and ears" for the COMPASS program. As an example, target area residents who might be afraid to contact the police are typically much less hesitant to report drug activity to their neighborhood organization, who in turn can forward the information to the police. Perhaps most importantly, it was hoped that organizations would arrange and conduct neighborhood meetings to enlist support from residents for the stabilization efforts.

Also critical to area stabilization are the non-police city agencies, who could provide needed services to the COMPASS target areas. By the end of 1989, following news that the NIJ would fund the COMPASS program, the City of Hartford became actively involved in the program. The City government saw COMPASS as an opportunity to try a new approach to improving the quality of life in Hartford's neighborhoods. By January 1990, the City had formed a "Reclamation Steering Committee" to oversee and coordinate what the City was calling the "Community Reclamation Project." The Committee included representatives from the City Manager's office, the

Office of Human Services, the Mayor's Crime Commission, the HPD, the Connecticut Office of Adult Probation, the Hartford Institute for Criminal and Social Justice, the City's Employment Resources Development Agency, and a community group called Hartford Areas Rally Together (HART). The Committee decided that the Office of Human Services was to assume the role of project coordinator.

The Committee saw four main goals for the Community Reclamation Project: (1) reduce the incidence of drug-related crime, (2) empower the residents to take control of the neighborhood, make decisions, and set priorities, (3) increase the ability of the residents to become economically self-sufficient, and (4) enable service providers and residents to collaborate and negotiate services and strategies. The Committee felt these goals could be accomplished through work in a number of areas. First, the HPD needed to arrest persons involved in the drug trade in the target areas. These persons had to be effectively dealt with after their arrest, through a combination of drug treatment, community service projects, and intensive probation. Drug treatment, in particular, was seen as a priority need. An extensive community organizing effort would be needed, so that community groups in each COMPASS neighborhood could provide leadership in the neighborhood, set agendas, and work closely with City service providers. Efforts would be made to seek additional funding from the State to provide additional services to COMPASS areas.

It is important to note that the Steering Committee very much wanted a "bottom up", rather than a "top down", approach to stabilization. That is, "the community", rather than "the City" had to define the needs and set the priorities. This was in keeping with the Committee's belief that long term improvements (i.e., stabilization) could only occur through "empowerment" -- residents needed to feel that they "owned" the neighborhood; that they could set the priorities; that they have a voice; and that the City is responsive to that voice. Of course, it was recognized at the outset how ambitious these goals were. What was needed was an overhaul of city government: just as police departments were moving to a community-oriented mode, city government also needed to become more community-oriented. Moreover, this approach required that the target areas *had* to have active and well-

organized community groups to facilitate defining the needs and setting the priorities.

The COMPASS program (or, as the City referred to it, the Community Reclamation Project) did, however, have a critical supporter. The Hartford City Manager, who had been hired in December 1989 on a six-month interim basis, was vocal in his support of the program. And a top priority for the City Manager in turn became a top priority for the heads of the City agencies. Which agencies would be most important to the stabilization efforts depended on the specific needs of the target areas. For example, the Licensing and Inspections Department may have been needed to enforce the housing code creatively and aggressively in the target areas. Thus, if there were problems with lack of security in a building -- resulting in people using drugs in the stairwell or lobby -- Licensing and Inspections needed to force the landlord to secure the building, and, if necessary, evict tenants involved in the drug trade. The Public Works Department may have been needed to improve the physical condition of the target area by making sure that streets were swept, vacant lots were cleaned up, and garbage was collected. The Parks and Recreation Department may have been needed to improve the condition of target area playgrounds (e.g., repairing or replacing existing swings, building new playground equipment, and removing trash and broken glass from the area) and to expand after-school recreational programs. The Department of Health, the Department of Social Services, and the Employment Resources Development Agency may have been needed to provide required services in the target areas, particularly job training, day care facilities, and drug treatment. Finally, active involvement and cooperation of the Hartford Housing Authority would have been needed in those target areas that have public housing projects. The Housing Authority has their own maintenance staff, performs their own garbage pickup, and, importantly, has the authority to evict tenants convicted on drug charges.

Tactics

Many of the stabilization tactics were alluded to above. For convenience, they are summarized in Exhibit 2.5. As noted in the exhibit, some tactics are primarily designed to increase citizen participation in the stabilization efforts, others are designed to improve the physical condition of

Exhibit 2.5
COMPASS Approach: Stabilization Tactics

Tactic	Primary Objectives of Tactic			
	Increase Target Area Citizen Participation	Improve Physical Condition of Target Area	Increase Delivery of City Services to Target Area	Deter Drug Activity
Organize blockwatches in target area	X			X
Forge alliances between target area residents and institutions	X			X
Conduct community organizing forums	X			X
Improve physical condition of private or public property		X		X
Enforce housing and public health regulations in target area		X	X	X
Expand youth programs, human services, and education programs in target area			X	X
Implement crime prevention programs	X			X
Pressure city agencies to deliver services	X	X	X	X
Conduct neighborhood clean-ups	X	X		X
Conduct citizen rallies	X			X

the target area, while others are intended to increase the delivery of services to the target area. All the tactics, of course, are designed to either implicitly or explicitly deter drug activity. Given the large number of groups that could potentially participate in the stabilization efforts and the fact that the needs of each target area are different, it is not surprising that there is no pre-determined order in which tactics were to be executed, as there was in the reclamation efforts (see Exhibit 2.3).

2.3 Evaluation Approach

The evaluation component of the COMPASS program had six basic objectives: (1) describe the police intervention in the target area, (2) describe the community and non-police agency intervention in the target area, (3) describe the use and impact of the DMAP tool, (4) assess changes in the level of drug activity in the target areas, (5) assess changes in the quality of life in the target areas, and (6) assess changes in the level of criminal activity in the target areas. It should be noted that the evaluation has focused more on reclamation efforts than on stabilization efforts. As noted earlier in this section, reclamation basically involved one agency (i.e., the HPD), whereas stabilization could have involved many groups and individuals. Given time and budget constraints, a detailed assessment of the activities of all the parties involved in the stabilization effort was not possible.

Given these objectives, a case study evaluation approach has been taken. This approach is appropriate for a number of reasons. First, time and resource constraints precluded a more careful multi-year evaluation that could have included randomization. Second, even if resources permitted randomization in the design, the HPD viewed randomly selecting target areas as unacceptable. Finally, COMPASS represented a new approach to improving the quality of life in Hartford's neighborhoods; in many ways, it was a learning experience for all participants -- and a case study approach could capture this experience.

Given the case study approach, Exhibit 2.6 summarizes the COMPASS evaluation measures. The exhibit identifies four measurement methods --

Exhibit 2.6
COMPASS Evaluation Approach

Evaluation Measures	Measurement Methods			
	Structured Interviews	On-Site Monitoring	Surveys	Records Analyses
Input				
Police Resources	X	X		X
DMAP Tool	X	X	X	
Target Area Resources	X	X		
Process				
Police Intervention-Related	X	X		X
Community Group-Related	X	X		
City Agency-Related	X	X		
Outcome				
Attitudinal (Citizen, Police)	X		X	
Behavioral (Citizen)	X		X	
Crime-Related				X
Systemic				
Organizational	X			
Longitudinal Issues	X	X	X	X
Programmatic	X			
Perspective	X			

structured interviews, on-site monitoring, surveys, and records analysis -- and, as proposed by Tien [1979; 1990], four sets of evaluation measures. Although the first three sets -- input, process, and outcome -- have been proposed and discussed at length in the evaluation literature, the literature is not consistent regarding their respective definitions. In general, the input and process measures serve to "explain" the resultant outcome measures. Input measures alone are of limited usefulness since they only indicate a project's *potential* -- not actual -- performance. The process measures, on the other hand, identify the project's performance. The third set of measures, the outcome measures, are the most meaningful observations since they reflect the ultimate results of the project. Finally, the fourth set of measures, the systemic measures, can also be regarded as impact measures but have been overlooked to a large extent in the evaluation literature. The systemic measures allow the project's impact to be viewed from a total systems perspective.

For the COMPASS evaluation, input measures focused on police resources, the DMAP tool, and, to a lesser extent, the target area resources. A CSU Daily Activity Report was implemented to record CSU hours by target area and tactic (see Exhibit A.2 in Appendix A). Each team of CSU officers completed this form at the end of each shift; the CSU Sergeant subsequently aggregated the individual reports and completed a report for the entire CSU for the day (see Exhibit A.4). Evaluation of the DMAP tool focused on interviews with tool users, observation of the use of the tool, and a DMAP tool feedback form. Assessment of target area resources used in the COMPASS efforts, including those of community groups, businesses, institutions, and non-police agencies, were obtained primarily through interviews with these groups; data collection instruments were not employed due to the large number of these groups.

Process measures also focused on the activities of the CSU. The above mentioned Daily Activity Reports recorded a number of process measures, including the number of criminal arrests, drug arrests, motor vehicle arrests, motor vehicle violations, and warrants served. A Drug Arrest Report form (see Exhibit A.3) implemented during the Asylum Hill intervention also recorded a number of different data elements on each drug arrest, most

importantly the tactic used when making the arrest. Drug arrests made city-wide -- by both the CSU and all other police units -- were also analyzed. As was the case with input measures, formal data collection instruments were not used to collect process-related data from community groups, businesses, institutions, and non-police agencies. Information on specific accomplishments of these groups -- meetings conducted, neighborhood clean-ups held, programs implemented -- were obtained via interviews with the groups.

Outcome measures include those relating to attitude, behavior, and crime, since the ultimate aim of any criminal justice-related program is to affect a change in one or more of these three groups of outcome measures [Maltz, 1975]. The two key measurement methods for these outcome measures are surveys and records analyses. Citizen surveys were conducted both prior to and after the deployment of the Crime Suppression Unit in the target areas (except for Charter Oak Terrace and Milner, where the intervention began prior to the commencement of the evaluation activities). These surveys focused on the level of drug activity in the area, the quality of life in the area, and the level of criminal activity in the area. The CSU was also surveyed at the end of the reclamation phase for each COMPASS target area to assess their perceptions of the conduct and impact of COMPASS in the target area. The CSU surveys focused on the effectiveness of strategies undertaken in the target areas (i.e., drug customer response, drug dealer response, resident reaction, officer reaction, and overall impact), changes in extent and nature of drug and criminal activity in the target area, and reasons for perceived success or failure of the program.

Crime-related outcome measures included the overall number of calls for service, specific drug-related calls for service (i.e., loitering, gun-related, and moral terpitude), TipLine complaints, drive-by shootings, and Part I crimes. For each data type, temporal, spatial, and displacement analyses were conducted. Some of these analyses are straightforward, others are not -- and have only been undertaken to a limited extent. For example, while Reppetto [1976] identifies five possible crime displacements (i.e., temporal, tactical, target, territorial, and functional), it is obvious that even temporal and territorial displacements are difficult to assess. In some cases, anecdotal

information on displacement from CSU members provides further insights. However, a comprehensive displacement analysis would require extensive interviewing or monitoring of active criminals, drug sellers, and drug customers, irrespective of whether they have been arrested or not. These activities were obviously not attempted.

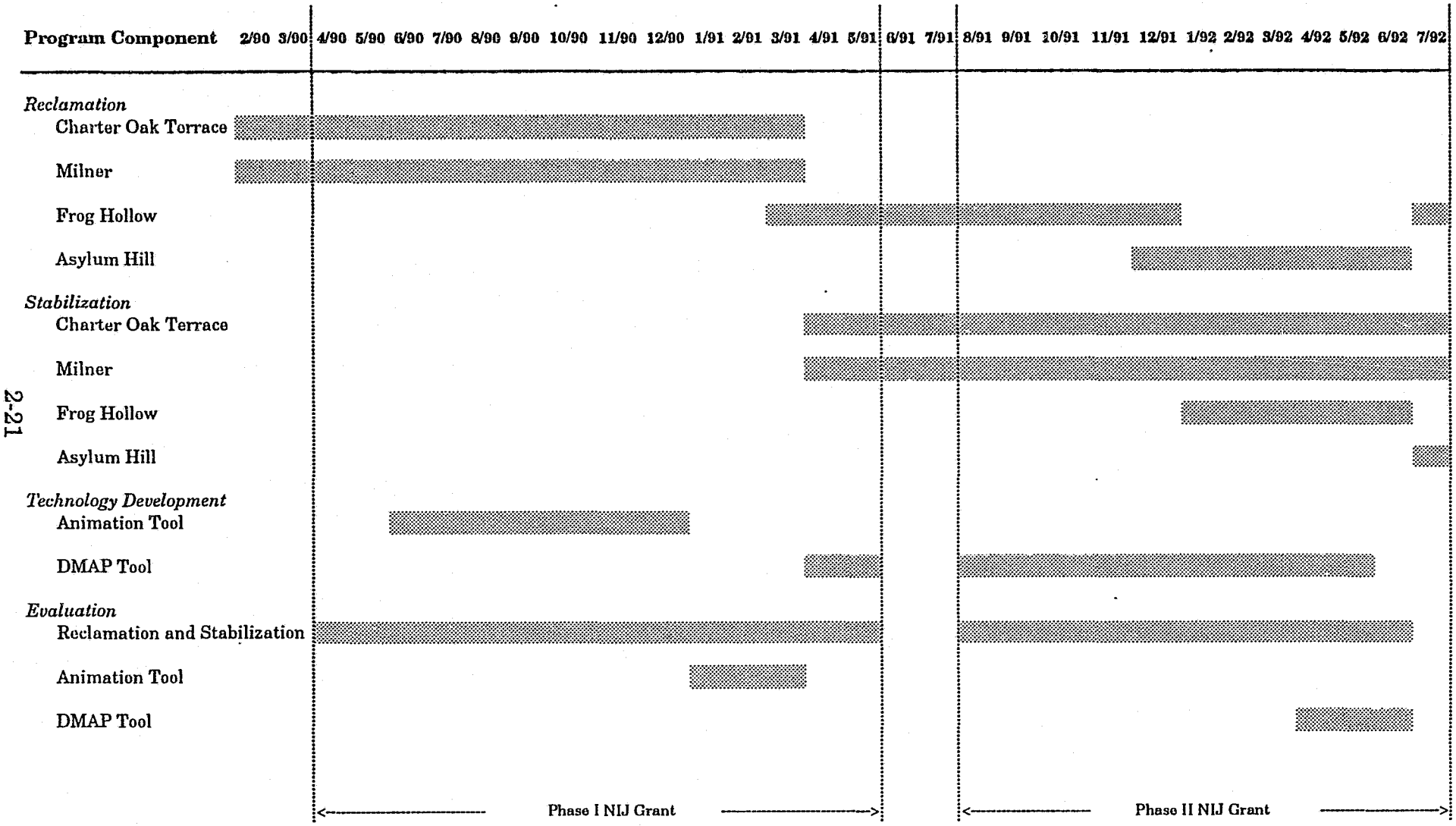
Finally, four sets of systemic measures were considered. First, the project was viewed in terms of the organizational context within which it was implemented. Second, input, process, and outcome measures, whenever possible, were viewed over time from a longitudinal perspective. This perspective is particularly important for reclamation and stabilization programs, since reclaiming a neighborhood is often easier than stabilizing the neighborhood in the reclaimed condition over the long term. Third, in an overall programmatic context, we have attempted to compare the program results with findings of other similar programs, assess the potential of transferring the program to other locales or jurisdictions, and determine the extent to which the program results can be generalized. Fourth, COMPASS has been assessed from a broader policy-oriented perspective.

2.4 Program Implementation

Exhibit 2.7 identifies the COMPASS program schedule in terms of the reclamation, stabilization, technology development, and evaluation tasks over the 30-month time period from the beginning of reclamation activities in Charter Oak Terrace and Milner to the end of the Phase II NIJ grant. The locations of the four target areas within the City of Hartford are noted in Exhibit 1.2 -- the target areas are outlined on top of the map showing the number of drug arrests by block in 1989. Exhibit 1.2 also indicates the reclamation periods for each target area. The relationship between the COMPASS target areas and Hartford's 17 neighborhoods is shown in Exhibit 1.1.

A number of comments should be made regarding the schedule shown in Exhibit 2.7. First, the exhibit highlights the reclamation and stabilization periods for each of the four COMPASS target areas. Reclamation activities

Exhibit 2.7
COMPASS Program Schedule



began in Charter Oak Terrace and Milner in February 1990, in Frog Hollow in March 1991, and in Asylum Hill in December 1991. The schedule shows a one-month overlap between the end of reclamation in one area and the beginning of reclamation in another area. For example, in December 1991, the CSU was winding down its reclamation activities in Frog Hollow at the same time as the HPD's Vice and Narcotics Division was conducting the undercover operation in Asylum Hill.

Second, the stabilization phase is defined to take place from the end of reclamation to the end of the Phase II NIJ grant period. Thus, the stabilization period in Charter Oak Terrace and Milner was from April 1991 to July 1992. It is important to note that this in no way reflects the intensity of stabilization work -- or whether any stabilization work was being performed -- during that time period.

Third, it should be emphasized that even though the Phase II NIJ grant has expired and work on the technology development and evaluation tasks has ceased, the reclamation and stabilization aspects of COMPASS are on-going, inasmuch as they are being supported through the State of Connecticut DEP grant and in-kind contributions from the HPD. In fact, as shown in Exhibit 2.7, reclamation activities re-started in Frog Hollow at the end of June 1992, as the HPD decided to have the CSU migrate from Asylum Hill to Frog Hollow at that time.

Fourth, Exhibit 2.7 highlights problems encountered with coordinating the reclamation and stabilization periods with the evaluation schedule. In particular, because of delays in awarding the grants, the evaluation task was not able to begin until the undercover phase of the reclamation task in Charter Oak Terrace and Milner were nearing completion. There was also a two-month gap in the Phase I and Phase II NIJ grants; thus, no evaluation work was performed during that time.

Finally, as noted in Section 1.1, the original intent of the DMAP program was that technologies would be developed during the Phase I NIJ grant period, and then implemented during the Phase II grant period. As pointed out in Section 3 and highlighted in Exhibit 2.7, much of our Phase I grant period was spent developing and evaluating the animation tool, which

was eventually abandoned. It was not until near the end of the Phase I NIJ grant period that development work on the DMAP tool began, and this development work continued through most of the Phase II NIJ grant period. As a result, the tool was only used in a pilot test mode and was not used at all in actually planning reclamation tactics.

2.5 Target Area Characteristics

Selection of the first two COMPASS target areas was formally made in early 1990, as the HPD selected the Charter Oak Terrace housing project in the City's south end and an area surrounding the Milner School in the City's north end. Summary geographic and demographic data for these two, as well as the two subsequent COMPASS target areas, are shown in Exhibit 2.8.

Charter Oak Terrace and Milner

Charter Oak Terrace has a population of roughly 4,000 persons living in 900 housing units, which are spread among 170 two-story buildings. Other than these buildings, the area has only one commercial establishment (a small grocery store in the northeast corner of the area), a community center, offices of the Hartford Housing Authority, and a chapter of the YMCA. The area is only 0.11 square miles and geographically isolated. As shown in Exhibit 2.9[1], the area is bounded on one side by an industrial area of West Hartford, on two sides by the Park River, and on the remaining side by the Penn Central railroad and Interstate 84. (Another section of the Charter Oak Terrace housing project, area "D", is located across the Park River, but was not included in the COMPASS target area.) The area has a somewhat stable population, with several second generation Charter Oak Terrace families. Many had lived there over 20 years and remembered when they could leave their cars, windows, and front doors unlocked. According to one resident, "until 1980, this was a nice place to live." As shown in Exhibit 2.8, the population is young (over half the population is under 18 years), largely Hispanic, and poorly educated (one in five adults having graduated from high

[1]All maps showing the locations of drug arrests and other criminal events were made with the DMAP Tool.

Exhibit 2.8
Target Area Demographic Data

Statistic	City of Hartford	Milner	Charter Oak Terrace	Frog Hollow	Asylum Hill
A. Total Population	136,392	5,997	3,936	15,313	10,324
B. Area (Square Miles)	18.20	0.24	0.11	0.67	0.67
C. Population Density (A/B)	7,494	24,987	35,781	22,855	15,409
D. Age Distribution					
≤ 18 Years	28.9 %	35.8 %	51.3 %	27.4 %	16.0 %
18-64 Years	59.7	58.1	44.5	61.0	69.1
≥64 years	11.4	6.1	4.2	11.5	15.8
	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
E. Percent of families headed by females	39.5 %	54.4 %	63.4 %	36.9 %	36.7 %
F. Race					
White	50.3 %	18.0 %	21.1 %	70.0 %	50.4 %
Black	33.9	71.3	36.5	10.5	37.4
Other	15.8	10.7	42.4	25.5	12.1
	100.0 %	100.0 %	100.0 %	100.0 %	100.0 %
G. Percent of population of Spanish origin	20.5 %	17.2 %	56.4 %	34.9 %	13.4 %
H. Percent of persons over 25 who are high school graduates	50.8 %	46.5 %	20.2 %	40.3 %	68.1 %
I. Mean household income	$14,425.00	$11,488.00	$7,931.00	$12,553.00	$12,364.00
J. Percent of families below the poverty line	22.5 %	31.1 %	67.8 %	27.4 %	23.7 %

Source: Bureau of the Census [1983]

school). The relative isolation of the area and the fact that everyone lived in the same housing project and "had the same landlord" created the sense of a well-defined community, albeit one with serious crime, drug, and economic problems. In sum, because of the well defined location of Charter Oak Terrace, its residents are quite aware of where they live.

By contrast, if you asked individuals living in the Milner target area where they lived, you would get a variety of answers. As shown in Exhibit 2.10, the area, although bounded on the south by the Penn Central railroad (on the other side of the railroad is the Asylum Hill target area) and on the northwest by Keney Park, is literally carved out of a large street grid in the north central part of Hartford. The target area contains blocks from three of the seventeen Hartford neighborhoods -- Upper Albany, Clay Arsenal, and Northeast. It is not clear if these neighborhoods have a strong identity; many residents see themselves simply living in Hartford's north end (as opposed to the south end). The area is, as shown in Exhibit 2.10, geographically centered around the Milner elementary school, but the school does not give the area an identity. The target area is referred to as the Milner area because it was hoped that the stabilization efforts would evolve around the school.

The Milner area differs from Charter Oak Terrace in a number of other ways. The population of the Milner target area is much more transient: as one resident put it, "you live here until you can move somewhere else." The population is roughly three-quarters African-American, in contrast to the primarily Hispanic population in Charter Oak Terrace. A major commercial street (Albany Avenue) bisects the target area (see Exhibit 2.10). Albany Avenue, being U.S. Highway 44, is also one of Hartford's main east-west thruways. Residential housing in the Milner area is a mix of three-story six- and nine-family apartment buildings and two- and three-family houses, most of which are owned by non-Hartford residents.

Both target areas were considered to be among Hartford's largest drug markets. The maps in Exhibits 2.9 and 2.10 show the locations of where drug arrests were made in the three months prior to the start of the COMPASS program in Charter Oak Terrace and Milner, respectively. A number of comments should be made regarding these maps. First, it is not clear how

Exhibit 2.9
Charter Oak Terrace: Locations of Drug Arrests During Three Months Prior to COMPASS

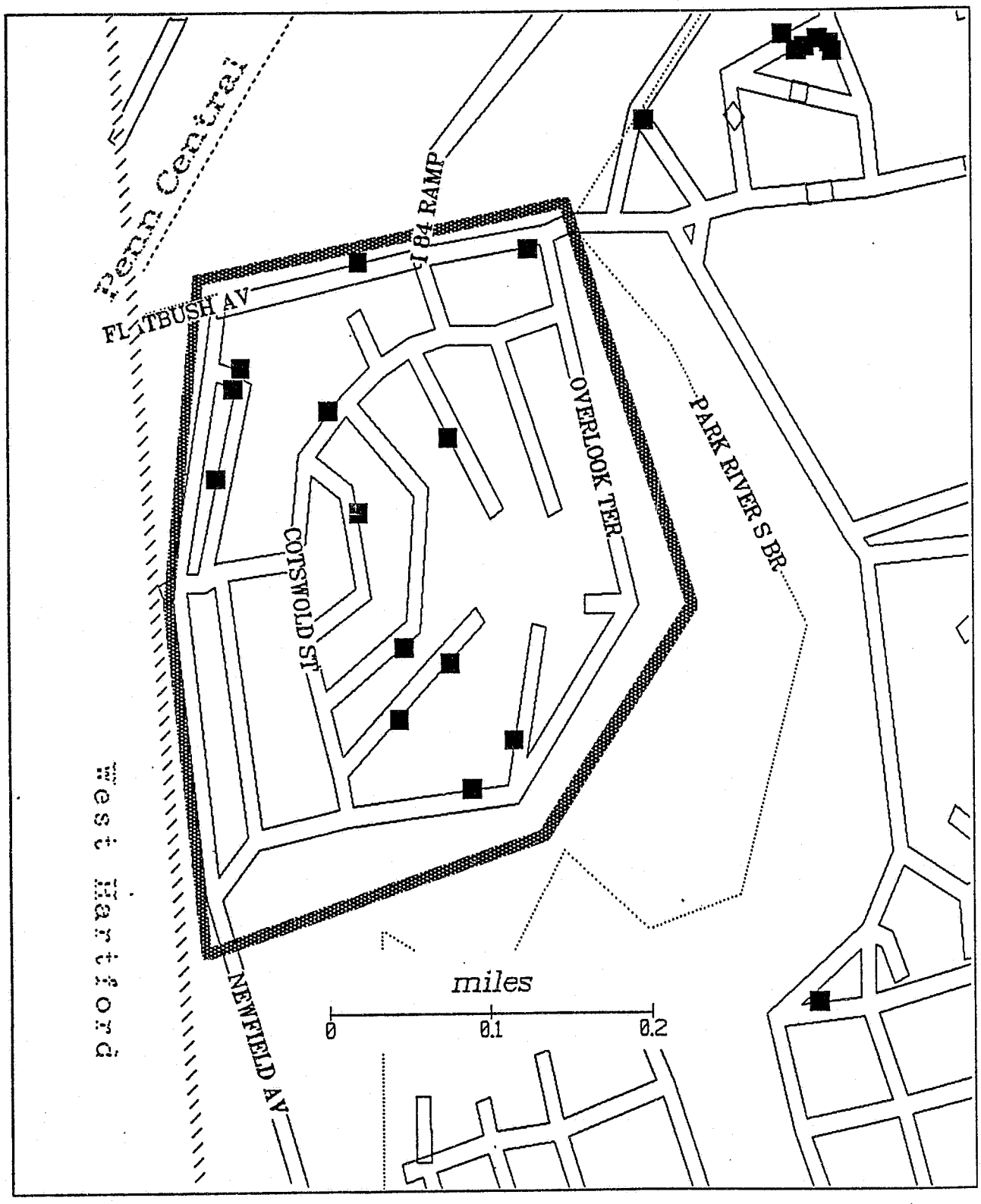
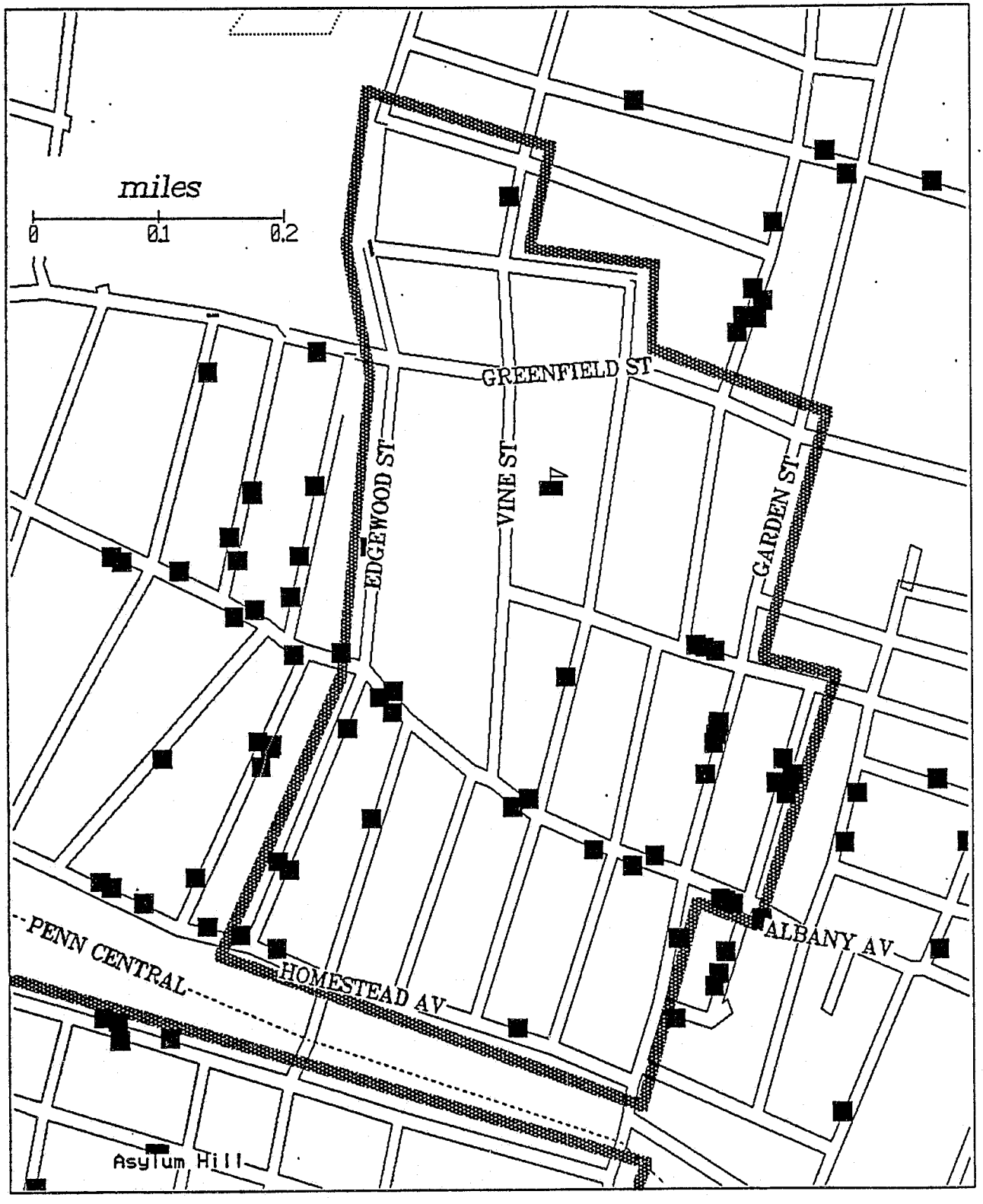


Exhibit 2.10
Milner: Locations of Drug Arrests During Three Months Prior to COMPASS



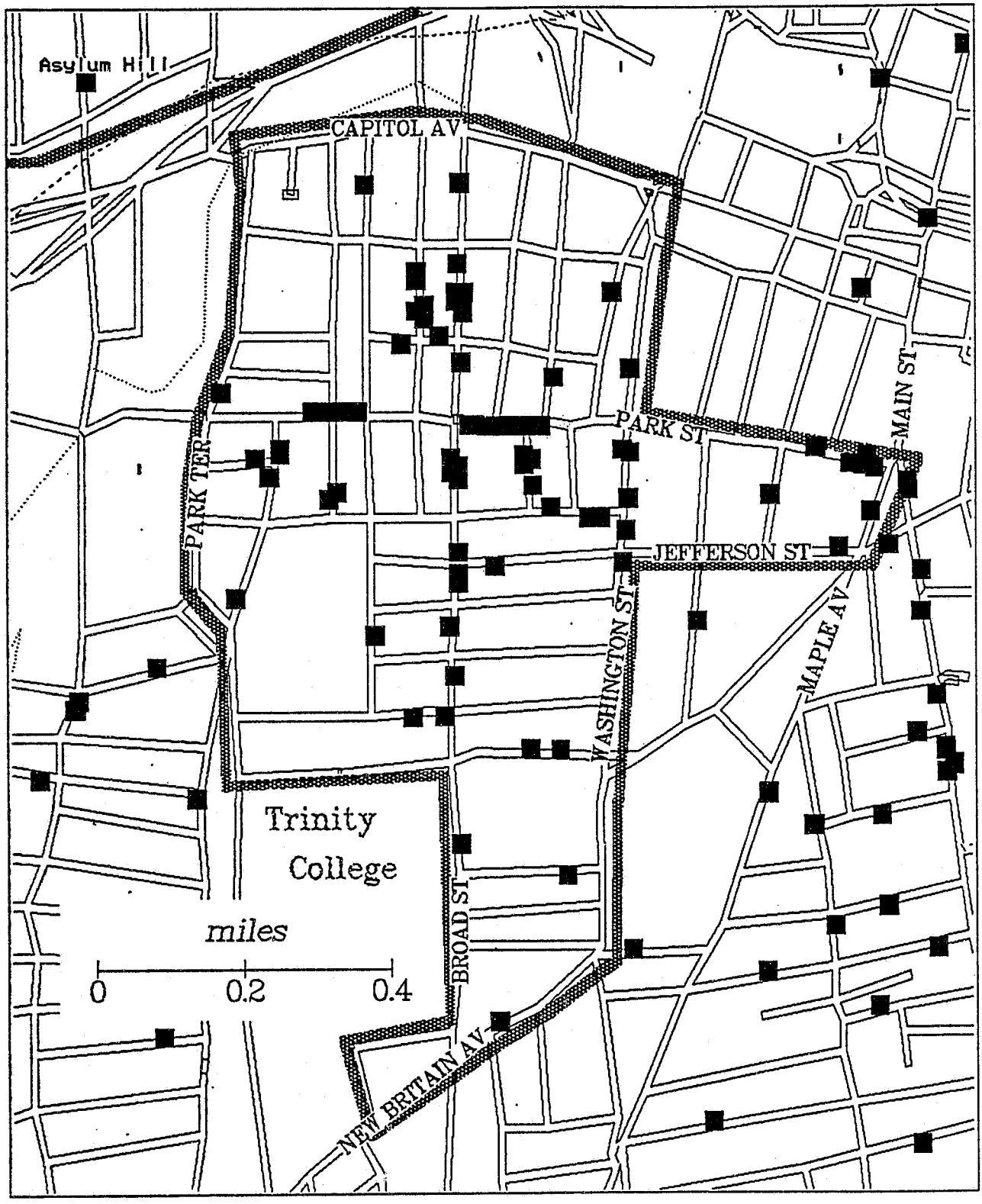
closely these locations correlate with actual "active" drug markets at the start of COMPASS in these target areas. These locations were obviously active atsome point, but they no doubt represent only a subset of all drug market locations in the areas. Second, the maps do not show how often arrests were made at each location. Referring back to the map of drug arrests by block in 1989 in Exhibit 1.2, it should be noted that one block in Charter Oak Terrace experienced 179 drug arrests during the year. Third, the maps point out that there were active drug markets located just outside the target areas. In the case of Charter Oak Terrace, three or four blocks from the northeast corner of the target area is a street within the Rice Heights housing project that had several drug arrests in the three months prior to COMPASS. In Milner, there were numerous active addresses surrounding the target area.

But there was no general agreement among police officials as to which area had the larger drug market. Generally, the CSU officers thought that Charter Oak Terrace had the larger market, while many police supervisors felt that Milner had the larger market, and the Vice and Narcotics detectives generally believed that the total number of dealers was about the same but that the density of dealers was higher in Charter Oak Terrace. In both areas, cocaine was the most common drug sold. There was little if any crack sold in the area. (In fact, crack has to date never been a problem anywhere in the City.) One Charter Oak Terrace characteristic, however, is worth noting. This area had the reputation as "the safe place for white, suburban residents" to buy drugs. No doubt this was due partially to the area's easy on-off access to Interstate 84 -- as shown in Exhibit 2.9, an exit ramp leads directly to Charter Oak Terrace -- and to the fact that the area is located at the edge of Hartford.

Frog Hollow

The CRD commander had the responsibility of determining the precise boundaries of the Frog Hollow target area. In general, the area contained what many in the HPD believed were some of the City's largest drug markets. Exhibit 2.11 shows the locations of drug arrests made during the three months prior to the start of the COMPASS program in Frog Hollow. Many of the most active markets, and locations where numerous drug arrests were made, are located on Park St. (the key east-west street) and Broad St.

Exhibit 2.11
Frog Hollow: Locations of Drug Arrests During Three Months Prior to COMPASS



(the key north-south street). Park St. is a narrow, heavily congested commercial street with several vacant lots. CSU officers described the streetas having a "carnival atmosphere" with several open-air drug markets. Regarding the type of drugs sold, the street was divided in two -- with cocaine primarily sold on the western half and heroin primarily sold on the eastern half. Many of Hartford's heroin addict population bought their daily fix at locations on Park St.

Park St. houses the majority of the commercial establishments in Frog Hollow. Police officials felt that the area had a drug-based economy, with one officer estimating that 80 percent of the people benefited either directly or indirectly from the drug trade. As such, many store owners were suspected of cooperating with drug sellers -- allowing the sellers to hide from the police in their store or slip out the back way.

The areas north and south of Park St. are primarily residential, with a housing stock similar to that of the Milner area -- a mix of multi-unit apartment buildings and multi-family houses. At the start of the COMPASS program, many of the blocks off Park St. and on Broad St. had abandoned buildings.

Given these and other characteristics of the selected COMPASS area, the CRD commander set about to determine the precise boundaries of the target area. In this process, he was heavily influenced by the importance of geographic boundaries, which he believed was a critical factor in the reclamation success in Charter Oak Terrace. While not geographically isolated like Charter Oak Terrace (indeed, Frog Hollow is in the center of Hartford), some geographic barriers were available. Exhibit 2.11 shows the boundaries of the target area. The area is bounded by Trinity College and large parks on the west, the area surrounding the State capitol and other government buildings on the north, a large hospital and a private mental health center on the east, and a middle class neighborhood on the south. Of particular note is the middle class area to the south. While not a physical barrier, the CRD commander felt that drug activity would not move into that area, as drug sellers and customers would attract considerable attention and residents of that relatively cohesive area would be more likely to identify them and report them to the police. The CRD commander felt that these

boundaries would prevent the type of street-to-street displacement that had happened in the Milner area.

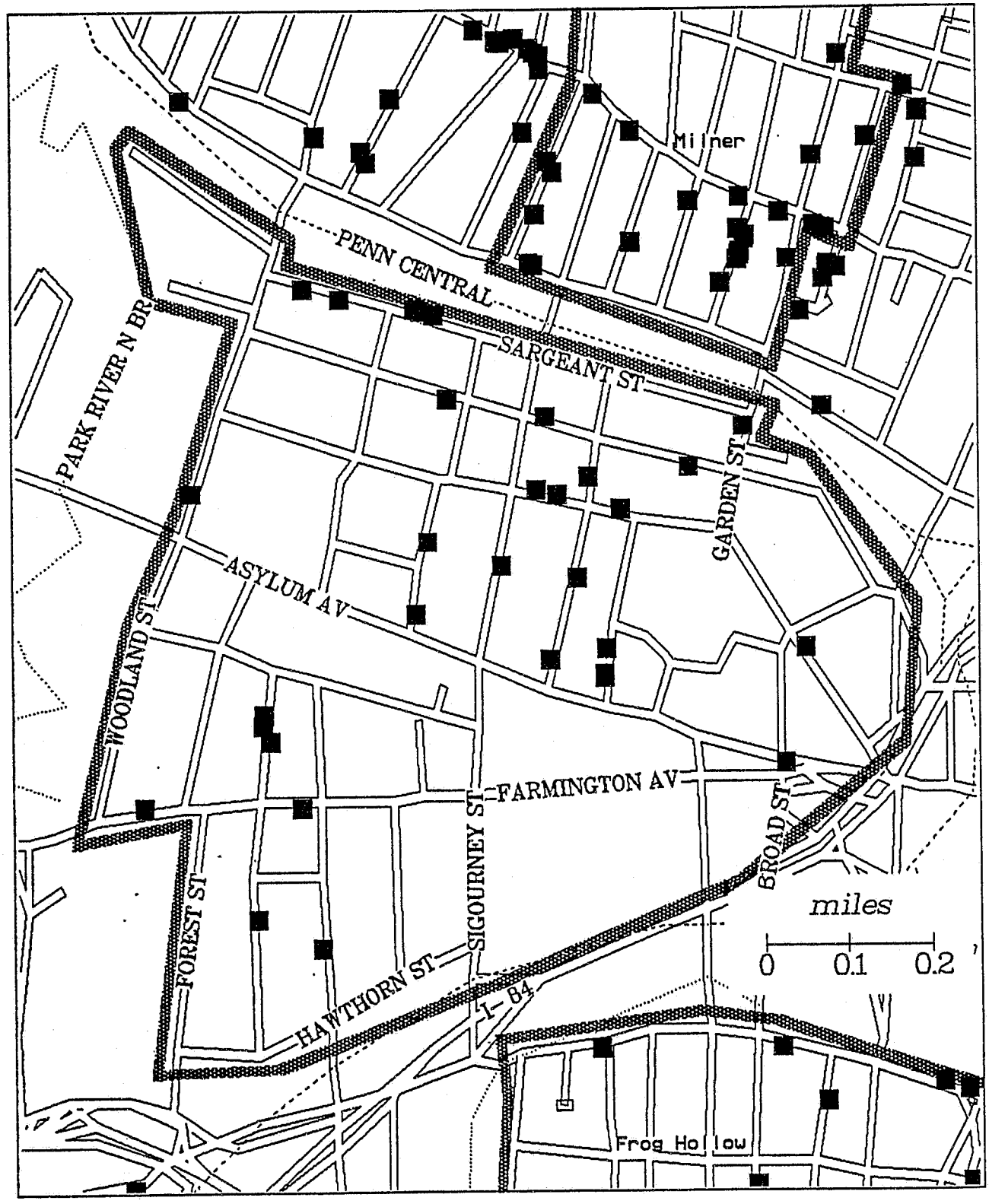
The resultant area is roughly two-thirds of a square mile -- six times larger than Charter Oak Terrace and nearly three times larger than the Milner area. The target area actually encompasses the entire Frog Hollow "neighborhood" and parts of the South Green and Barry Square neighborhoods. Also, Interstate 84 separates the area from the Asylum Hill target area.

Asylum Hill

Asylum Hill is one of Hartford's most diverse neighborhoods. It is the headquarters of some of the largest insurance companies in the United States, including Aetna and Travelers. There are notable cultural attractions in the area, including the Mark Twain House and the Harriet Beecher Stowe House. Compared to the other COMPASS target areas, the neighborhood has a more middle class quality to it and yet, as noted in Exhibit 2.8, one in five families live below the poverty line. The area has many active community organizations (which, of course, was the main reason the area was selected as a COMPASS target area), the two most important of which are the Asylum Hill Organizing Project (AHOP) and Asylum Hill, Inc. (AHI). These two organizations represent vastly different factions in the neighborhood. AHOP is a grassroots community organization that provides family support, youth and senior citizen service programs. AHI, on the other hand, represents Asylum Hill's institutions -- the insurance companies and the educational and cultural institutions.

Geographically, the Asylum Hill target area basically coincides with the Asylum Hill neighborhood (see Exhibit 1.1). The target area is the same size as the Frog Hollow target area (i.e., two-thirds of a square mile), but has one-third less residents. As shown in Exhibit 2.12, Asylum Hill is bounded by the Penn Central Railroad on the north (as noted earlier, the railroad separates Asylum Hill from the Milner area), Interstate 84 on the east and south (I-84 separates Asylum Hill from Frog Hollow), and the Park River on the west. The area contains two major east-west highways -- Asylum St. and Farmington Ave. -- which are often congested with commuters working at the

Exhibit 2.12
Asylum Hill: Locations of Drug Arrests During Three Months Prior to COMPASS



insurance companies or in the nearby downtown area. As noted in Section 1.1, Asylum Hill was also a site of an NIJ-funded CPTED experiment; as a result, it has many one-way streets, dead end streets, and streets that narrow considerably at the intersections. The housing stock in the area is a mix of multi-family houses and large, four- to five-story apartment buildings.

Police officials believed that Asylum Hill's drug problem was much less serious than Frog Hollow's. As one officer put it, "nobody comes to Asylum Hill to deal [drugs], the volume just isn't there." Still, there were pockets of drug activity concentrated on ten or so street segments spread throughout the area. Exhibit 2.12 shows the locations of drug arrests made during the three months before the start of the COMPASS program in the area. The fact that drug activity was spread out, rather than concentrated in one small area was perhaps the key reason why the entire Asylum Hill neighborhood was included as a COMPASS target area.

3 DMAP Tool

In planning the Drug Market Analysis Program (DMAP), the National Institute of Justice (NIJ) envisioned teams of researchers and police departments creating centralized, timely, and widely accessible computer-based sources of information on drug markets. These systems were to be map-based, a sensible requirement given that much of the drug market information is location-specific. As explained in Section 1.1, the NIJ's key hypothesis -- and a key hypothesis of the COMPASS program -- was that such geographic-based drug information systems could assist Police Departments in their street-level drug enforcement efforts. More specifically, they felt DMAP systems would provide timely and accurate information about drug markets, assist police supervisors in developing anti-drug tactics and assigning resources to carry out those tactics, and facilitate assessing the impact of those tactics.

In many ways, the HPD was an ideal police department in which to develop a DMAP system. First, the HPD was conducting intensive street-level anti-drug enforcement (i.e., the COMPASS program) that could provide an excellent testing ground for the DMAP system. The Department is also technologically advanced -- it developed its own sophisticated computer-assisted dispatch and records management system and is in the forefront of implementing new technologies (e.g., radio communications, portable computers, and patrol deployment software). Not surprisingly, the Department's commanders were very receptive to the DMAP concepts and to mapping tools in general. In October 1991, for example, the HPD held a two-day workshop on community-oriented policing, with about forty of the top officials of the Department in attendance. A key goal of the workshop was to determine what information tools would best aid the Department in its transition to community-oriented policing. All attendees were polled on what information tools they would like developed, and a map-based information system received the most number of votes.

The remainder of this section describes the DMAP tool in terms of design considerations (Section 3.1), design approach (Section 3.2), and pilot implementation (Section 3.3).

3.1 Design Considerations

Two important design considerations for the DMAP tool are the various methods of measuring and mapping drug activity.

Measuring Drug Activity

In order to map drug activity, the level of drug activity must be measured over time and space. Unfortunately, one of the main problems with measuring drug activity -- and in evaluating the COMPASS program in particular -- is the difficulty of measuring drug activity. To begin with, there is no accepted definition of "drug activity". It could refer to the number of drug transactions, the dollar amount of these transactions, the number of drug sellers, the number of drug customers in an area over a given period of time, or a network of drug dealers. Even if "drug activity" were precisely defined, there is the additional problem of obtaining valid measurements of any of these or other measures of drug activity.

Recognizing such problems, researchers and police officials typically rely on "indirect" measures of drug activity, such as the number of drug arrests made or the quantity of drugs seized in an area. Exhibit 3.1 lists a number of possible indirect or proxy measures of drug activity. The measures are divided into three categories: police records, impressionistic data, and unobtrusive measures. The key advantage of using police records to measure drug activity is that they are readily available; in the case of Hartford, these data are routinely entered in the HPD records system. More importantly, the data are timely: call for service records are entered in the HPD's computer-assisted dispatch system immediately upon receipt; incident records are computerized within eight hours of their occurrence; arrest records are computerized when the arrestee is booked; and TipLine records are computerized within 24 hours of receipt of the call (the TipLine Reporting Form is shown in Exhibit A.1 of Appendix A).

Exhibit 3.1
DMAP Tool Considerations: Measuring Drug Activity

Measure	Advantages	Disadvantages
Police Records		
• Drug Arrests	• Available in HPD Records System • Location of arrest indicative of location of drug activity	• Number of arrests depends on level of enforcement
• Citizen Drug Complaints (TipLine)	• Available in HPD Records System • Citizens often knowledgeable about drug activity	• Tips vary in reliability • Number of complaints is poor indicator of extent of drug activity
• Drug-related Calls for Service	• Available in HPD Records System	• May or may not be drug- related
• Drugs Seized	• Available from Crime Suppression Unit records	• Amount seized depends on level of enforcement
• Drug Overdoses	• Available in HPD Records System (if ambulance responded)	• Location of overdose often unrelated to location of sale
Impressionistic Data		
• Police Officer Perceptions	• Police Officers often know who the primary drug dealers are • Police Officers see suspected locations everyday	• Difficult to accurately quantify perceptions • Difficult to explain differences in perceptions from officer to officer
• Citizen Perceptions	• Citizens often knowledgeable about drug activity	• Difficult to accurately quantify perceptions • Expensive to obtain frequent measurements of perception
• Arrestee Perceptions	• Persons arrested for sale or possession of drugs know where drugs are sold	• Difficult to obtain valid and reliable data
Unobtrusive Measures		
• Number of persons perceived to be drug sellers or customers	• A direct measure of drug activity	• Difficult to remain unobtrusive • Observer has limited knowledge of market
• Vehicular Traffic	• In certain drug markets, customers "drive up and buy"	• Questionable reliability
• Number of children and elderly persons outside	• Indicative of level of fear	• Questionable reliability
• Monitoring specific drug sellers	• Can measure displacement on individual basis	• Requires undercover officers • Safety concerns

On the other hand, each police records measure is at best a surrogate measure. The number of drug arrests and the amount of drugs seized, for example, are highly dependent on the level of enforcement in the area. As one would expect, the number of drug arrests made in the COMPASS target areas during the first few weeks of the visible reclamation activities was significantly higher than that prior to COMPASS in those same areas. In such a case, the number of drug arrests in no way reflects the level of drug activity. On the other hand and as discussed later in this report, it is reasonable to suggest that changes in the number of drug arrests made while the CSU is deployed in the target areas is indicative of the level of drug activity.

Perceptions of police officers, citizens, arrestees, drug users, and other knowledgeable persons about the level of drug activity in an area are useful measures for evaluating the impact of the COMPASS program. In particular, a comprehensive citizen survey, especially one supplemented with TipLine data, drug arrest data, and police perceptions of drug activity, can provide a useful multi-measurement *snapshot* of the extent and nature of drug activity. In the absence of intense police enforcement, these locations may not change significantly in the short term. COMPASS, on the other hand, caused major disruptions in the target area drug markets, and thus any map of drug activity based on a one-time snapshot of impressionistic data during the COMPASS reclamation phase was very soon out of date. Of course, citizen and police impressionistic data could be collected on an on-going basis, but this is time-consuming and expensive.

Finally, Exhibit 3.1 lists a few unobtrusive measures for assessing the nature and extent of drug activity. Again, each of these measures is difficult to collect on an on-going basis and is of questionable reliability. Monitoring, or tracking, specific drug sellers, on the other hand, offers a reasonably reliable method of measuring displacement. This measurement method was attempted for a very short time during the COMPASS program, as two officers who participated in the reclamation's undercover phase remained undercover during the first few weeks after the CSU was deployed in the target area. During this time, the undercover officers attempted to continue to make undercover buys from the sellers they had identified during the

earlier undercover phase. Attempts to have the undercover officers track individual sellers were abandoned, partially for safety concerns and partially for practical reasons (i.e., there were too many sellers to keep track of). Nevertheless, this approach may be worth exploring further, particularly in small drug markets.

Mapping Drug Activity

Once the decision has been made on *what* to map, the question is *how* this data should be mapped. Exhibit 3.2 highlights six important decisions in this regard, including system-related and display-related decisions. Two options are offered for each decision and the advantages and disadvantages of each are noted.

In designing the Hartford DMAP tool, perhaps the most important decision was the level of data aggregation -- whether the data would be mapped at the address level or aggregated at the block level. Mapping events at the address level, such as all drug arrests in a specific time period, involves having the mapping software draw a symbol at the address of an event. Of course, to be meaningful the symbols themselves must be overlaid on a computerized street map. Another basic function of mapping software is the thematic point map, in which the symbols representing the events are color-coded on the map based on some variable. Drug arrests, for example, could be color-coded based on the type of drug involved in the arrest. The key advantage of mapping at the address level is that the maps are easy to understand and to relate to -- there is no "behind the scenes" manipulation of the data. On the other hand, if a significant number of events have occurred at the same address, then the map may simply show a big "blob" at that address -- indeed, many arrests can be made at drug "hot spots" over an extended period of time.

The most important disadvantage of mapping at the address level -- one that any jurisdiction considering computerized mapping of drug activity or any other police-related events must be aware of -- is the need for accurate street names and addresses. The primary source of computerized street maps in the U.S. are TIGER files, which are available from the Census Bureau. TIGER files contain the latitude and longitude of every street in the U.S.,

Exhibit 3.2
DMAP Tool Considerations: Mapping Drug Activity

Mapping Issues and Options	Advantages	Disadvantages	DMAP Tool Approach	
			Initial	Final
System-Related				
Mapping Software				
• Desktop mapping software	• Inexpensive (packages available for < $1,000)	• Limited capabilities compared to more expensive GIS systems	X	X
• Minicomputer-based geographic information system (GIS)	• Extensive array of capabilities and features • Can also be used for general police records system	• Expensive (> $10,000 for GIS software)		
Relationship to Primary Records System				
• Standalone system	• Practical option for police departments with existing records system	• Data must be stored in two physical locations	X	X
• Integrated system	• Data kept in single physical location	• Difficult and expensive to integrate mapping system with existing records system		
Customization				
• No customization	• No development costs	• Extensive user training required		
• Tailored to user's needs	• Can insulate users from details not relevant to specific user needs • Little training required to use system	• Significant development costs • Not all mapping software allow for customization	X	X
Display-Related				
Level of Data Aggregation				
• Address level	• Easy to relate to; no "behind the scenes" data manipulations	• Need accurate underlying computerized street map • Map can become cluttered if many events are plotted in small area		X
• Block level or higher	• Provides overview of data • No need for accurate underlying computerized street map	• Limited usefulness to operational commanders • Cannot display multiple layers	X	
Temporal Characteristic				
• Static	• Easy to understand	• Difficult to discern temporal changes in data		X
• Dynamic (Animation)	• Useful in assessing displacement	• Difficult to interpret • Requires considerable development	X	
Layering				
• Single layer	• Easy to understand and see drug hot spots based on single variable	• Cannot easily explore relationship between variables	X	
• Multiple layers	• Can explore spatial relationship between two or more variables	• Map can become too cluttered • Cannot use if data is aggregated		X

which can be used by mapping software packages use to construct a computerized street map. TIGER files also contain address ranges for streets; unfortunately, the address range data are incomplete and inaccurate. For urban areas, the address ranges are typically 80 to 90 percent accurate; for rural areas and other areas outside metropolitan areas, typically only 10 to 20 percent of the streets even have address ranges listed in the files. Thus, if one tries to map a drug arrest that occurred at 125 Elm St., the computerized street map may not be able map it because it thinks Elm street ranges only from 1 to 100. Even worse, Elm street may not even be in the street map files. The solution to the problem of inaccurate street maps is to edit the TIGER files and make sure they are "in-synch" with the police department's geobase. In Hartford, this process took several weeks. "Enhanced" TIGER files of major urban areas are available from several vendors; while they offer more complete street and address data, they still require careful verification by the end user.

An alternative to address-level mapping is to aggregate the data at the block, precinct, or neighborhood level. Rather than having to edit the TIGER street files, the only start-up cost with this approach is to draw on top of the computerized street map the boundaries of the blocks, precincts, neighborhoods, or whatever level of aggregation one is using. Drawing the boundaries of the 892 Hartford city blocks took about four hours. Once the boundaries are drawn, you can use another basic function of mapping software packages -- thematic boundary mapping -- to shade each boundary area based on some variable. (Exhibit 1.2, for example, shades each block according to the number of drug arrests.)

3.2 Design Approach

As noted earlier in Section 2.4, two different approaches to mapping drug activity were undertaken during the COMPASS program. Characteristics of both the animation tool (i.e., the initial design) and the DMAP tool (i.e., the final design) are discussed in this section. Summary characteristics of the both designs are also noted in Exhibit 3.2.

Initial Design

In the HPD and QED's response to the DMAP solicitation it was proposed to build an "animation tool" for viewing drug activity. To envision such a system, imagine holding 30 copies of a map of Hartford. Each copy displays the narcotic complaints by location for a particular day. Areas with the most activity are shaded bright red, areas with the least activity are shaded bright green, and areas in the middle are shaded yellow. Other areas are shaded in colors along the green-yellow-red spectrum depending on the level of drug activity. The proposed system could store these 30 copies and allow users to "play forward" the thirty days of drug activity in a near-animation, or time-lapsed, fashion by automatically "flipping" through the 30 "frames." By doing this, users may see the "red areas" (i.e., the areas with the most narcotics complaints) move out in all directions from the two target areas, indicating that the intense police presence has displaced drug activity to neighboring areas. Or, the red areas may simply disappear in later frames, suggesting that the police presence collapsed the drug markets. In addition, users could "stop the animation" and study any particular frame in more detail and then "flip" to other frames as desired. In general, using the animation tool would be similar to watching a film on a video cassette recorder, which allows you to run the film backwards and forwards at different speeds, and allows you to freeze individual frames.

As noted in Section 2.4, a significant amount of time was spent on the development of the animation tool. The beta-version of the system, however, revealed a number of disadvantages of the system that led to abandoning the system. While aggregating data at the block level can provide an excellent overview or summary to high level planners, a map of drug arrests by block over a given time period is of limited value to operational commanders and of even less value to officers on the street. Another problem of aggregating the data, as noted in Exhibit 3.2, is that displaying multiple layers is not practical. Whereas an address-level pin map can show different event types in different symbols, adding information on another event type, such as drug-related calls for service, to a block level map -- such as that shown in Exhibit 1.2 -- would make the map very difficult to interpret.

Final Design

Thus, one year into the COMPASS program, development of a new mapping system -- the DMAP tool-- began. Building on the shortcomings of the animation tool, the needs of the key users of the system (i.e., the Community Response Division [CRD] commander and the CSU officers) were very carefully considered. Based on extensive discussions with the CRD commander during the DMAP design phase, it was evident that address-specific maps displaying "drug activity" in the COMPASS target area could be beneficial to the reclamation effort. More specifically, the CRD commander hoped that a DMAP system would improve their selection of strategies and tactics for the COMPASS target area, as they had been selected based primarily on perceptions and experience. With the DMAP system, the CRD commander saw an opportunity to supplement observations and experience with information from other units within the Police Department. The CRD commander was primarily interested in having maps produced each day that displayed drug activity in the target area. By comparing maps from successive weeks, he hoped to gain insight into areas where drug activity was increasing and areas where drug activity was decreasing.

For the CSU officers, the thought was that the DMAP system could produce daily maps displaying the location of "drug activity" in that part of the target area in which they were assigned to on a particular day. Importantly, the CRD commander felt that officers should be able to use the DMAP system and produce their own maps, rather than relying on one or two trained police personnel to produce maps for them. In other words, officers would be able to walk up to the DMAP system, bring up on the screen the particular section of the target area they were assigned to that day, and display the location of drug activity in that area for, say, the past week or two.

Based on these discussions, a number of requirements of the system became clear. First, the DMAP tool had to be customized, so that it would be accessible to CSU officers with little or no training. In addition, as noted in Exhibit 3.2, the data would be mapped at the address level and the tool would be capable of mapping several layers simultaneously. The desktop mapping software selected for the DMAP tool was MapInfo (Mapping Information

Systems Corporation, Troy, New York) running on the DOS platform. It was compatible with the PC-based local area network at HPD headquarters, which includes terminals in the CSU headquarters and in other units which would eventually become users of the DMAP tool, particularly the Crime Analysis Unit and the Patrol Division. Fortunately, MapInfo has an accompanying programming language, called MapCode, that has allowed QED to customize MapInfo applications. As discussed in Section 3.3, QED used MapCode to create a "shell" around MapInfo that insulates users from the details of the MapInfo system. Users need only specify a date range and a list of event types to map. The QED shell then translates this information into a sequence of MapInfo commands that produce the desired map.

A final key issue for the DMAP tool was what data should be displayed with the DMAP tool. Time and resource constraints dictated that only data available on the HPD records system should be displayed. The question then became what type of data would be most useful to the Crime Suppression Unit, the key user of the DMAP system. The CRD commander felt that the following six types of records would be most helpful in describing drug activity in the COMPASS target areas:

- Drug arrests
- TipLine complaints
- Drug overdoses
- Loitering calls for service
- Gun calls for service
- Moral terpitude calls for service

Drug arrest data would be viewed primarily as historical data; a record of where enforcement efforts have been targeted. The other five event types could be considered to be predictive in nature and an indicator of where the CRD commander might want to deploy his officers.

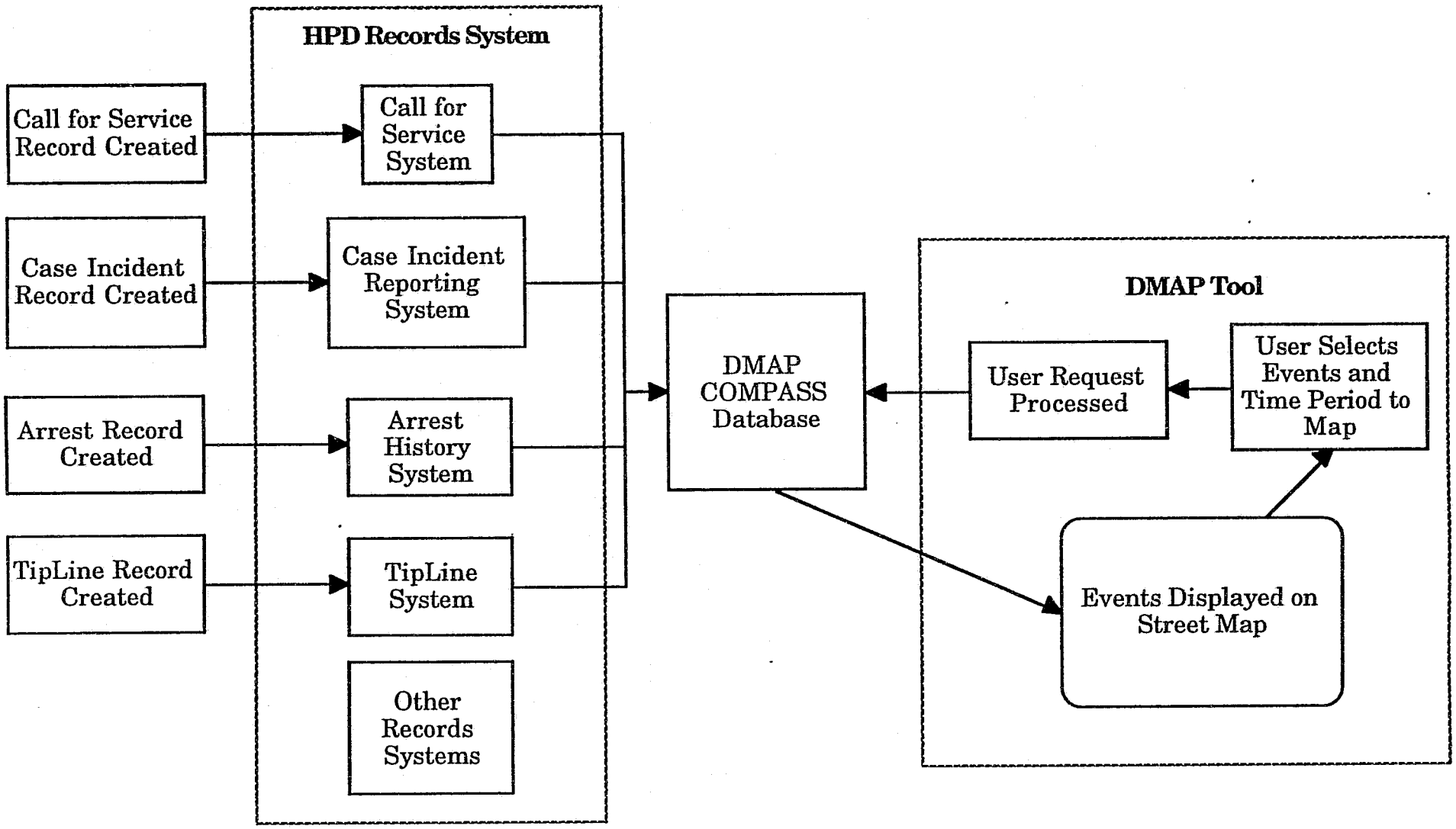
3.3 Pilot Implementation

Exhibit 3.3 provides an overview of the DMAP tool and how it relates to the HPD records system. In particular, the date, time, address, and case incident number of drug arrests, TipLine complaints, loitering calls for service, gun calls for service, moral terpitude calls for service, and Part I crimes are automatically extracted from the HPD records system and copied to a DMAP COMPASS database located on the PC network file server. (The records had to be copied to this database because the DMAP tool could not efficiently access the HPD record system files directly, since they reside on an IBM AS/400 mid-range processor.) The DMAP tool allows users to select which events in the DMAP COMPASS database they wish to map.

When a user starts up the DMAP tool, a street map of the entire City of Hartford is displayed on the screen. With the "View" command, the user can "zoom in" to any particular part of the City, such as a COMPASS target area. The DMAP tool has a variety of commands for changing the section of the Hartford street map shown on the screen, including centering the map at a specified location, magnifying a specified section of the map, setting the distance shown across the map, and shifting the displayed section of the map to the north, south, east, or west. There are also commands for displaying just one of the COMPASS target areas.

Once the desired area of Hartford is shown on the map, the DMAP Tool Event Selection Screen can be displayed (see Exhibit 3.4). This screen represents the heart of the DMAP tool, and allows a user to select which events he/she wants to map. As shown in Exhibit 3.4, there are a number of menu choices on the left side of the screen. The "Date Range" menu choice allows users to select the start and end date of the events to map -- the selected date range shown in the Exhibit 3.4 example is the entire month of March 1992. Underneath the "Date Range" menu choice are six other menu choices, one for each of the six main types of data that can be mapped. When one of these choices is selected, the selected event group is added to the "Selected Events" list located to the right of the six menu choices. In the case of Part I Crimes, the user can select any set of Part I Crimes by designating a range of Uniform Crime Report (UCR) numbers; thus, the user could select all Part I Crimes (i.e., UCR codes 100 to 763), just burglaries (i.e., UCR codes

Exhibit 3.3
DMAP Tool Implementation: Overview



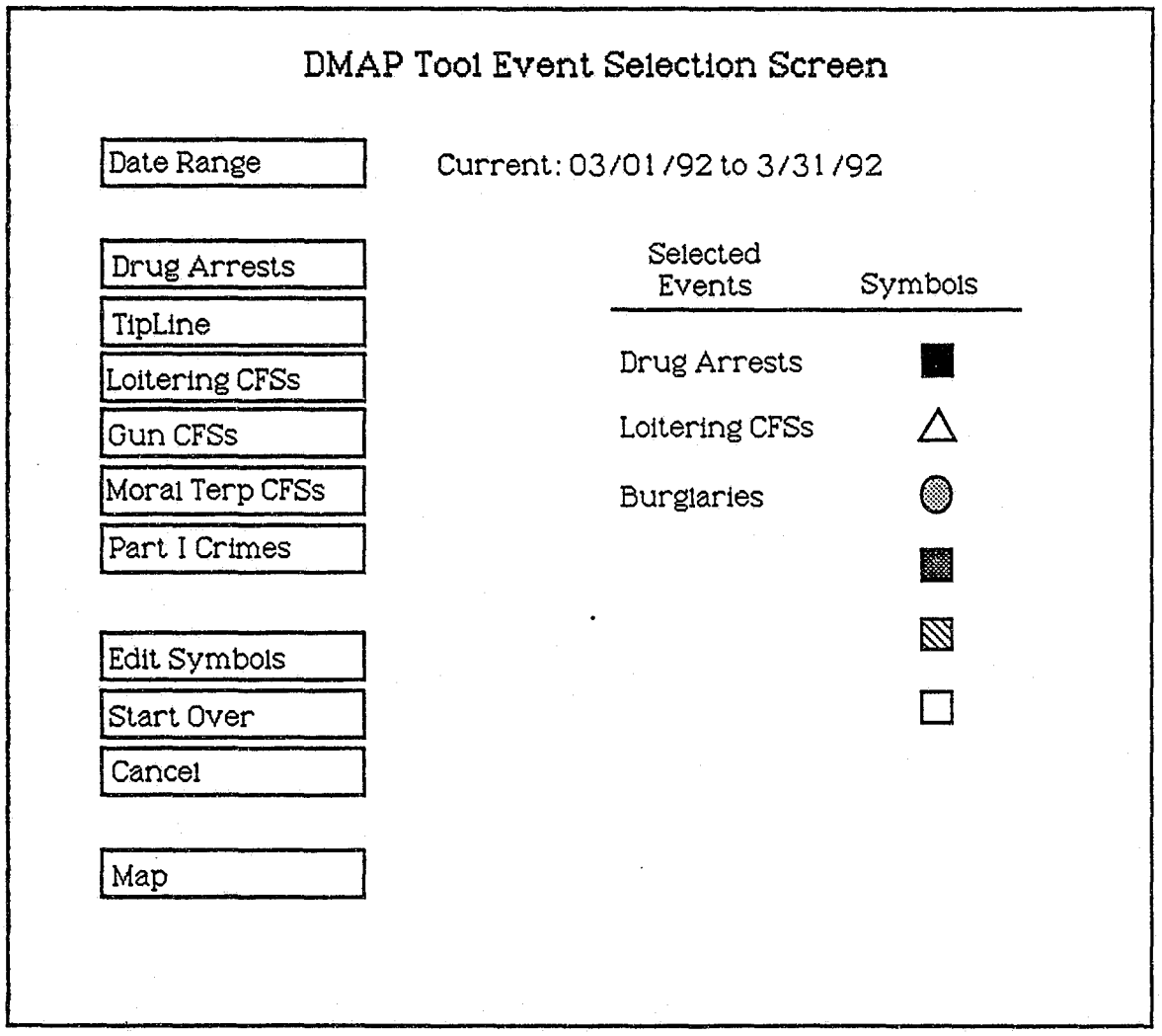
500 to 599), or just residential nighttime burglaries (i.e., UCR code 501). In the Exhibit 3.4 example, drug arrests, loitering CFSs, and burglaries are selected. The symbol shown next to each of these three event groups indicates how each event group would appear when they are mapped: drug arrests would be denoted by black squares, loitering CFSs by white triangles, and burglaries by shaded circles. The three symbols shown below the shaded circle would be used if additional event selections are made. Default symbols are built into the DMAP tool, but they may be easily changed with the "Edit Symbols" menu choice. Up to six different event groups can be selected at a time -- that is, the DMAP tool is capable of mapping up to six layers simultaneously.

Once a date range and one or more event groups have been selected, the "Map" menu choice can be selected to actually display the selected event groups on the map. Once the events are mapped, the user can return to the DMAP Tool Event Selection Screen and either add another event group to the event groups already selected, or remove the selected events from the list with the "Start Over" menu choice. In practice, layers are usually added one at a time. That is, one might, say, start out by mapping drug arrests, then add TipLine calls to the map, and then add burglaries to the map.

The DMAP tool can display information about the mapped events, including each event's date of occurrence, time of occurrence, address, and case incident number. By displaying the address or case incident number, users can then use an HPD records terminal to query the records system to obtain additional information about the event. The CRD commander envisioned using the DMAP tool and the HPD records system in a "side-by-side" mode -- discerning overall patterns with the DMAP tool and then using the HPD records workstation to obtain details (e.g., investigative reports) regarding the mapped events.

As noted in Section 2.4, the DMAP tool was developed during the Phase II NIJ grant period, and therefore was not used extensively to assist in planning CSU tactics. An initial version of the tool was completed in February 1992, and for the next three months the CRD commander worked closely with QED in fine-tuning the initial version, by adding new features and refining existing features. During this pilot test period, the CRD

Exhibit 3.4
DMAP Tool Implementation: Event Selection Screen

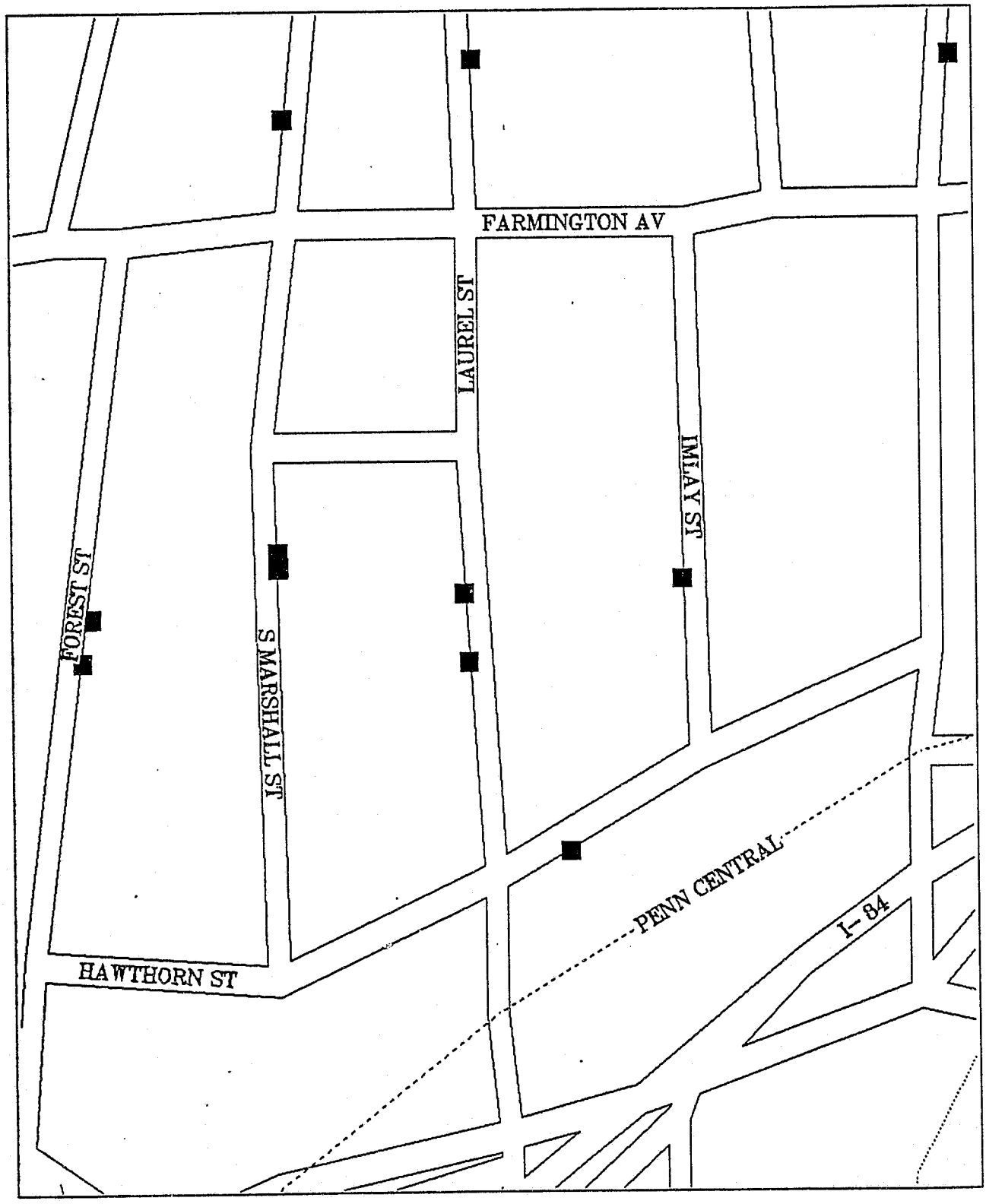


commander trained many of the CSU officers in the use of the DMAP tool, and demonstrated the tool to commanders of other HPD divisions. Patrol Division commanders in particular felt that the DMAP tool could be used effectively in their Division. Maps on Part I crimes were also taken by the HPD to COMPASS community meetings in Asylum Hill to illustrate crime patterns.

During this pilot test period, one DMAP tool session illustrated the type of analysis -- and results -- possible with the DMAP tool. The CRD commander had displayed on the map all burglaries occurring in one section of Asylum Hill during the month of March 1992, as shown in Exhibit 3.5. The CRD commander observed an interesting pattern from the burglary map. He noticed (see Exhibit 3.5) that a total of nine burglaries had occurred on the right sides (i.e., east side) of Forest St. and S. Marshall St. and the left sides (i.e., west side) of Laurel St. and Imlay St. The CRD commander hypothesized that a person who lived on either the right side of S. Marshall St. or the left side of Laurel St. was committing these burglaries, and that he didn't want to cross any more streets than necessary, so as to avoid being seen by the police or other area residents. If, say, the burglar lived on the right side of S. Marshall St., he would not have to cross any streets to enter a house on the left side of Laurel St. (i.e., he could simply cut through the backyards) and cross only one street to enter houses on the right side of Forest St. and the left side of Imlay St. The CRD commander showed this map to the Crimes Against Persons commander and explained his hypothesis. One week later, the burglar was arrested on the roof of a building on the right side of S. Marshall St. And it turns out that he also lived on the right side of S. Marshall St. Although the DMAP tool was, of course, originally intended to be used to assist in the planning of street-level drug enforcement, it can obviously also be used as a crime analysis tool, as this story illustrates.

Two additional points should be made regarding the developed DMAP tool. First, it has been extensively used in the evaluation effort to analyze various statistics over both time and space. As reflected throughout this report, the DMAP tool has played an essential role in the conduct of this study. Second, now that the DMAP tool has been developed, one obvious extension would be to add an animation component to it. Clearly,

Exhibit 3.5
Burglaries in March 1992 in One Section of Asylum Hill



development of the more aggregated animation tool in Phase I of the NIJ grant was not appropriate; it should follow the development of the address-specific DMAP tool.

4 COMPASS Statistics

The purpose of this section is to present the quantitative data that describes the background, conduct and aftermath of COMPASS as applied to the four target areas. In addition to providing a basis for evaluating the success or failure of the reclamation and stabilization tactics employed during the COMPASS program, the presentation of these quantitative data serve to examine the nature and content of data available to planners and evaluators of programs of this type. Findings and conclusions regarding the COMPASS program, which are presented in Sections 5 and 6, are based partially on the quantitative measures presented in this section.

As outlined in the discussion of the evaluation approach in Section 2.3, police records and attitudinal surveys are the two key sources of quantitative data. In regard to HPD data, the records analyzed herein include:

- Call for service (CFS) records. Given that the HPD receives roughly 350,000 CFS each year, the analysis of CFS data has been limited in two respects. First, inasmuch as CFS data are being used to assess citizen perceptions of crime and drug activity, only citizen-initiated, and not officer-initiated, CFSs are considered. Second, only specific CFS types considered to be indicators of drug activity are analyzed, including the three CFS types available for analysis with the DMAP tool -- loitering, gun, and moral terpitude. It should be noted that the CFS type used is the "final" radio signal verified by the responding officer, rather than the "initial" radio signal entered by the HPD call taker.

- Case Incident Reports. When HPD officers respond to a CFS, a case incident report is typically completed and then subsequently forwarded to the HPD Records Division and entered in the Case Incident Reporting System. To limit the

scope of the quantitative analysis, only incident reports classified as being either one of the seven Part I crime types (i.e., homicide, rape, robbery, assault, burglary, larceny, and auto theft) or a drive-by shooting are considered.

- Arrest records. If HPD officers make an arrest, arrestees are booked and pertinent information is entered in the HPD's on-line booking system. Again, to limit the analysis, only arrests involving drug charges (e.g., possession of a controlled substance or possession of a controlled substance with intent to sell) are considered.

It should be noted that HPD TipLine records, which contain information reported by Hartford residents on the HPD's confidential telephone line (see Exhibit A.1), are not included in this section because of the small number of calls received. As noted in Section 2, the TipLine was instituted as part of the COMPASS program in the Fall of 1990. As a result of extensive advertising on the radio and on billboards, the TipLine was felt initially to be quite successful. During the first five months of 1991, an average of 102 calls were received per month. However, the number of calls soon dropped considerably and during the first five months of 1992 an average of only 14 calls were received per month, which is less than one per neighborhood.

The CFS, incident, and drug arrest data were analyzed in three different ways:

- Total number by target area. Clearly, the periods of time relative to COMPASS involvement in each of the four target areas are different. While COMPASS was active simultaneously in Charter Oak Terrace and Milner , the other two target areas were treated independently and sequentially after the first two. Thus, if we compare the value of a statistic for the "during" period between, for example, Frog Hollow and Milner, it should be noted that these two numbers represent different periods of time, different seasons and, in fact, different lengths of time. In particular, the statistical results should be compared with care.

- Average number of events per month. The second mode of presentation corrects for the different lengths of the time periods by dividing the number of events by the length, in months, of the period, resulting in the number of events per month.

- Percent of City total. The third mode of presentation shows for each area and each period the fraction of events for the City of Hartford, as a whole, that occurred in each of the target areas. This corrects for trend and seasonality, as seasonal factors which would tend to encourage or discourage activity in one part of the city are not likely to be significantly different than in other parts of the city.

For each of the analyses, calculations are made for the "before", "during" and "after" periods. Inasmuch as the data sets examined included records starting on January 1, 1989, the "before" period is defined to begin at that time. The "during" period is defined from the citizen's perspective; that is, it only includes the "visible" reclamation efforts (i.e., not the undercover phase). The "after" period for each area ends on May 31, 1992.

In addition to HPD records, attitudinal data were collected and analyzed. The main sources for these data were surveys administered to both officers in the HPD' Crime Suppression Unit (CSU) and community residents in each target area. These two types of surveys provide distinct perspectives on the conduct and results of the COMPASS program. While the CSU officers offer a unique perspective on these issues, their observations are limited to the period of COMPASS deployment in each target area. On the other hand, while the reactions of neighborhood residents to the effects of COMPASS are based only on their perceptions, the attitudes of residents toward their neighborhood must be taken extremely seriously. The citizen surveys demonstrate the extent to which COMPASS has been able to alter the perceptions of residents regarding crime and drugs in their neighborhoods.

As the analyses of these data are discussed below, the caveats on the validity and reliability of the underlying data must be noted. As discussed at length in Section 3.1, all these data are at best proxy measures for drug

activities. Thus, the quantitative data must be examined in concert with observations made during the on-site monitoring of the COMPASS program and with the more focused interviews with HPD officials, community representatives, and target area residents. Results of this combined approach are reported later in Section 5.

4.1 Drug Activities

Drug arrest, drug-related CFSs, and drive-by shooting data are considered in this section.

Drug Arrests

Exhibit 4.1 shows the number of drug arrest in each of the four target areas in the three ways discussed above. As can be seen from Exhibits 4.1(b) and 4.1(c) there was a significant drop-off in the number of drug arrests in Charter Oak Terrace both between the before period and during period and between the during period and the after period. The month-by-month count of drug arrests in the during period in Charter Oak Terrace is shown in Exhibit 4.2(a). It should be noted that the largest number of arrests (more than twice as many as any other month) occurred during the first month of COMPASS. That the number of drug arrests falls off so rapidly in the during period in Charter Oak Terrace is strong quantitative evidence that drug activities in that area actually decreased.

In Milner, the numbers are less dramatic. The raw numbers of arrests per month declines steadily through the three periods. When converted to percent of city total, the percentage declines from the before to the during period, then increases slightly afterwards. As shown in Exhibit 4.2(b), the number of drug arrests remains fairly steady throughout the during period, particularly compared to Charter Oak Terrace.

Drug arrests in Frog Hollow remain nearly constant from the before to the during period and decline somewhat afterwards. From a percentage perspective, the fraction of the City's drug arrests in Frog Hollow increases during the COMPASS period and declines somewhat afterwards. Drug

Exhibit 4.1
Drug Arrests: By Target Area and Period

a) Total Number of Arrests

	Before		*During*		*After*	
Target	*Period*	*Number*	*Period*	*Number*	*Period*	*Number*
Charter Oak	1/89 - 3/90	291	4/90 - 3/91	67	4/91-5/92	23
Milner	1/89 - 3/90	443	4/90 - 3/91	226	4/91-5/92	223
Frog Hollow	1/89 - 12/91	1947	4/91 - 12/91	640	1/92 - 5/92	218
Asylum Hill	1/89 - 3/91	750	1/92 - 5/92	168		

b) Number of Arrests per Month

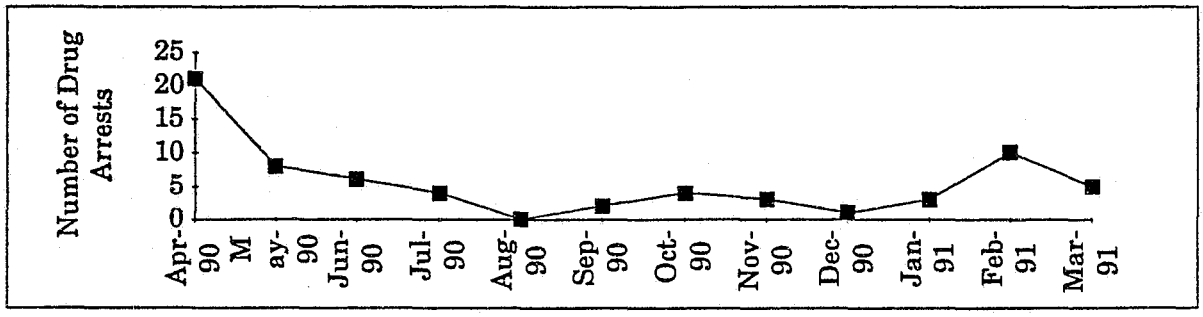
	Before		*During*		*After*	
Target	*Period*	*Number*	*Period*	*Number*	*Period*	*Number*
Charter Oak	1/89 - 3/90	19.4	4/90 - 3/91	5.6	4/91-5/92	1.6
Milner	1/89 - 3/90	29.5	4/90 - 3/91	18.8	4/91-5/92	15.9
Frog Hollow	1/89 - 12/91	72.1	4/91 - 12/91	71.1	1/92 - 5/92	43.6
Asylum Hill	1/89 - 3/91	20.8	1/92 - 5/92	33.6		

c) Percent of City Total

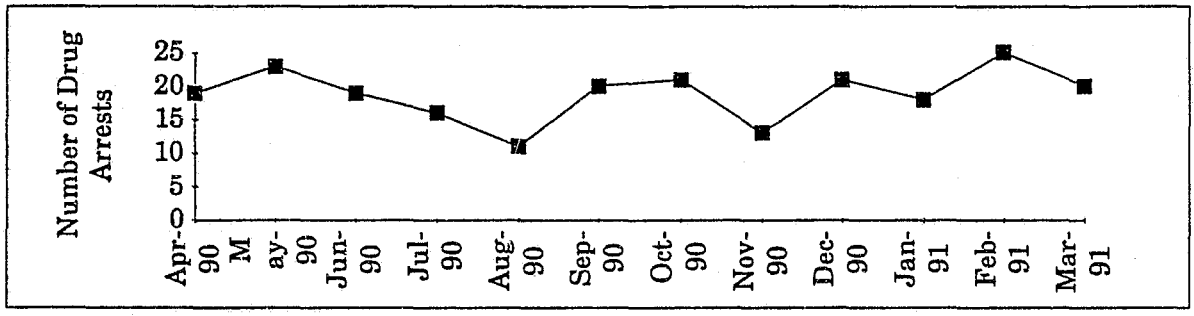
	Before		*During*		*After*	
Target	*Period*	*Percent*	*Period*	*Percent*	*Period*	*Percent*
Charter Oak	1/89 - 3/90	4.6%	4/90 - 3/91	1.7%	4/91-5/92	0.6%
Milner	1/89 - 3/90	7.0%	4/90 - 3/91	5.7%	4/91-5/92	5.9%
Frog Hollow	1/89 - 12/91	18.9%	4/91 - 12/91	27.5%	1/92 - 5/92	14.9%
Asylum Hill	1/89 - 3/91	5.9%	1/92 - 5/92	11.5%		

Exhibit 4.2
Drug Arrests: By Month During Reclamation Period

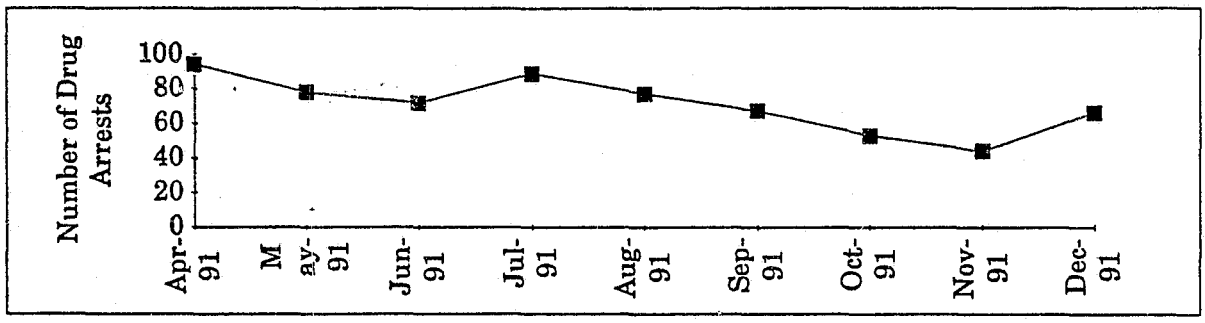
a) Charter Oak Terrace



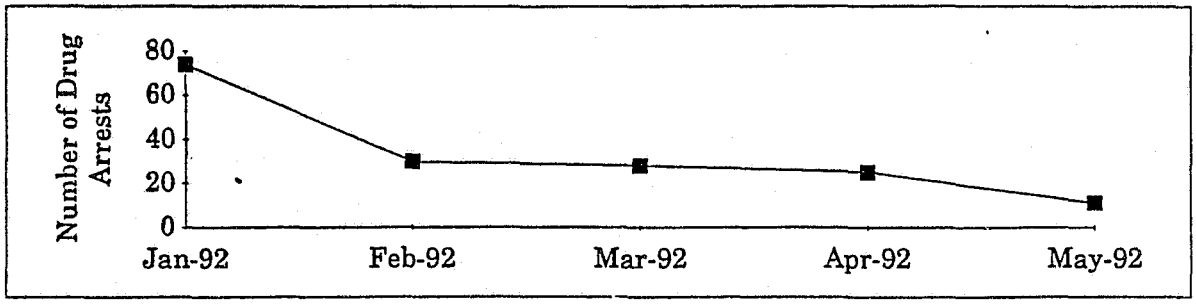
b) Milner



c) Frog Hollow



d) Asylum Hill



arrests in the during period decline fairly steadily (except for the last month) from 94 in April 1991 to 44 in November 1991, as shown in Exhibit 4.2(c).

In Asylum Hill, both the number and percent of drug arrests increase from the before period to the during period. In the during period, however, the number of drug arrests decreases dramatically after the first month of the visible reclamation efforts, in much the same manner they did in Charter Oak Terrace (see Exhibit 4.2(d)). Since reclamation efforts have only recently ended in Asylum Hill, there is no after period.

Drug-Related Calls for Service

As we examine Exhibit 4.3, we see that the general pattern in moral turpitude CFSs is similar to that for drug arrests but with smaller variations from period to period. The most significant difference appears to occur in the Milner area where, if we examine Exhibit 4.3(c) we see a steady decline in the percentage of CFSs over the three periods. The same pattern occurs, though less distinctly, in the Frog Hollow area.

Exhibit 4.4, which presents the number of loitering CFSs, show a similar pattern of decline in the Milner area. However, in Frog Hollow, the pattern appears to be just the opposite, with a steady *increase* in the percent of loitering calls generated.

Another proxy measure for drug activity is the number of gun-related CFSs. The level of correlation between this measure and drug activities is also uncertain, but is considered significant. Examining Exhibit 4.5, we see that in each of the target areas there is a decrease in the relative number of gun related CFSs over the three periods. While it may not reflect directly on the level of drug activity, clearly this is at least a welcome side effect of COMPASS.

Drive-By Shootings

One type of incident that is strongly associated with the drug trade is the drive-by shooting. Prior to October, 1990, which was six months into the Charter Oak Terrace and Milner reclamation period, the HPD did not have a drive-by shooting incident code. As a result, for these two areas, there are

Exhibit 4.3
Moral Terpitude Calls for Service: By Target Area and Period

a) Total Number of Calls

	Before		*During*		*After*	
Target	*Period*	*Number*	*Period*	*Number*	*Period*	*Number*
Charter Oak	1/89 - 3/90	19	4/90 - 3/91	16	4/91-5/92	29
Milner	1/89 - 3/90	106	4/90 - 3/91	55	4/91-5/92	64
Frog Hollow	1/89 - 12/91	369	4/91 - 12/91	136	1/92 - 5/92	53
Asylum Hill	1/89 - 3/91	184	1/92 - 5/92	24		

b) Number of Calls per Month

	Before		*During*		*After*	
Target	*Period*	*Number*	*Period*	*Number*	*Period*	*Number*
Charter Oak	1/89 - 3/90	1.3	4/90 - 3/91	1.3	4/91-5/92	5.8
Milner	1/89 - 3/90	7.1	4/90 - 3/91	4.6	4/91-5/92	12.8
Frog Hollow	1/89 - 12/91	13.7	4/91 - 12/91	15.1	1/92 - 5/92	10.6
Asylum Hill	1/89 - 3/91	5.1	1/92 - 5/92	4.8		

c) Percent of City Total

	Before		*During*		*After*	
Target	*Period*	*Percent*	*Period*	*Percent*	*Period*	*Percent*
Charter Oak	1/89 - 3/90	1.6%	4/90 - 3/91	1.8%	4/91-5/92	2.4%
Milner	1/89 - 3/90	8.9%	4/90 - 3/91	6.2%	4/91-5/92	5.3%
Frog Hollow	1/89 - 12/91	17.7%	4/91 - 12/91	16.1%	1/92 - 5/92	14.9%
Asylum Hill	1/89 - 3/91	6.3%	1/92 - 5/92	6.8%		

Exhibit 4.4
Loitering Calls for Service: By Target Area and Period

a) Total Number of Calls

	Before		*During*		*After*	
Target	*Period*	*Number*	*Period*	*Number*	*Period*	*Number*
Charter Oak	1/89 - 3/90	3	4/90 - 3/91	6	4/91-5/92	11
Milner	1/89 - 3/90	102	4/90 - 3/91	65	4/91-5/92	110
Frog Hollow	1/89 - 12/91	312	4/91 - 12/91	210	1/92 - 5/92	135
Asylum Hill	1/89 - 3/91	375	1/92 - 5/92	75		

b) Number of Calls per Month

	Before		*During*		*After*	
Target	*Period*	*Number*	*Period*	*Number*	*Period*	*Number*
Charter Oak	1/89 - 3/90	0.2	4/90 - 3/91	0.5	4/91-5/92	0.8
Milner	1/89 - 3/90	9.5	4/90 - 3/91	14.1	4/91-5/92	24.6
Frog Hollow	1/89 - 12/91	11.6	4/91 - 12/91	23.3	1/92 - 5/92	27
Asylum Hill	1/89 - 3/91	10.4	1/92 - 5/92	15.0		

c) Percent of City Total

	Before		*During*		*After*	
Target	*Period*	*Percent*	*Period*	*Percent*	*Period*	*Percent*
Charter Oak	1/89 - 3/90	0.3%	4/90 - 3/91	0.6%	4/91-5/92	0.7%
Milner	1/89 - 3/90	10.3%	4/90 - 3/91	6.5%	4/91-5/92	6.7%
Frog Hollow	1/89 - 12/91	15.7%	4/91 - 12/91	18.7%	1/92 - 5/92	25.7%
Asylum Hill	1/89 - 3/91	12.0%	1/92 - 5/92	14.3%		

Exhibit 4.5
Gun Calls for Service: By Target Area and Period

a) Total Number of Calls

	Before		*During*		*After*	
Target	*Period*	*Number*	*Period*	*Number*	*Period*	*Number*
Charter Oak	1/89 - 3/90	87	4/90 - 3/91	28	4/91-5/92	50
Milner	1/89 - 3/90	239	4/90 - 3/91	120	4/91-5/92	115
Frog Hollow	1/89 - 12/91	458	4/91 - 12/91	114	1/92 - 5/92	62
Asylum Hill	1/89 - 3/91	566	1/92 - 5/92	41		

b) Number of Calls per Month

	Before		*During*		*After*	
Target	*Period*	*Number*	*Period*	*Number*	*Period*	*Number*
Charter Oak	1/89 - 3/90	5.8	4/90 - 3/91	2.3	4/91-5/92	3.6
Milner	1/89 - 3/90	15.9	4/90 - 3/91	10.0	4/91-5/92	8.2
Frog Hollow	1/89 - 12/91	17.0	4/91 - 12/91	12.7	1/92 - 5/92	12.4
Asylum Hill	1/89 - 3/91	15.7	1/92 - 5/92	8.2		

c) Percent of City Total

	Before		*During*		*After*	
Target	*Period*	*Percent*	*Period*	*Percent*	*Period*	*Percent*
Charter Oak	1/89 - 3/90	3.1%	4/90 - 3/91	1.5%	4/91-5/92	2.8%
Milner	1/89 - 3/90	8.6%	4/90 - 3/91	6.4%	4/91-5/92	6.3%
Frog Hollow	1/89 - 12/91	9.8%	4/91 - 12/91	8.9%	1/92 - 5/92	11.6%
Asylum Hill	1/89 - 3/91	9.5%	1/92 - 5/92	7.6%		

only (incomplete) during and after periods. The statistics for this incident code are shown in Exhibit 4.6. While the raw numbers for Charter Oak Terrace appear to increase dramatically between the during and after periods, it should be remembered that these data represent only six months of the during period as opposed to fourteen months in the after period. Exhibit 4.6(b) represents the number of incidents per month for each of the periods (corrected to consider the length of data available). Exhibit 4.6(c), the percent of the city total for each of the target areas is the most informative. In Charter Oak Terrace and Milner, the percent of incidents occurring in each of those areas increases between the during and after periods. In Frog Hollow, the only area in which data from all three periods are available, a significant drop occurs (from 16.5 to 5.1 percent of the city total) between the before and during periods, and a moderate increase (from 5.1 to 7.5 percent) between the during and after periods. At the same time, the number of reported drive-by shootings per month in Frog Hollow drops from 3.0 in the before period to 1.1 in the during period and 1.0 in the after period. Finally, in Asylum Hill, the number of reported drive-by shootings per month in Asylum Hill drops from 2.1 in the before period to 0.8 in the during period.

4.2 Crime Incidence

While the direct focus of COMPASS is on the reduction of street drug sales, the task of neighborhood reclamation and stabilization is incomplete if it does not impact the overall level of crime in an area. Increased police visibility and improved police-community relations have the potential to affect the level of crime in an area. As a way of examining the impact of COMPASS on reported criminal activity in the four target areas, the incident statistics for Part I crimes are analyzed below. As with the data presented in Section 4.1, it is difficult to attribute direct cause and effect relations between these measures and COMPASS, though when consistent results can be seen across several target areas, the possibility of connection is established.

Exhibit 4.6
Drive-By Shootings: By Target Area and Period

a) Total Number of Incidents

	Before		*During*		*After*	
Target	*Period*	*Number*	*Period*	*Number*	*Period*	*Number*
Charter Oak	1/89 - 3/90	--*	4/90 - 3/91	1	4/91-5/92	9
Milner	1/89 - 3/90	--*	4/90 - 3/91	5	4/91-5/92	15
Frog Hollow	1/89 - 12/91	18	4/91 - 12/91	10	1/92 - 5/92	5
Asylum Hill	1/89 - 3/91	31	1/92 - 5/92	4		

b) Number of Incidents per Month

	Before		*During*		*After*	
Target	*Period*	*Number*	*Period*	*Number*	*Period*	*Number*
Charter Oak	1/89 - 3/90	--*	4/90 - 3/91	0.2	4/91-5/92	0.6
Milner	1/89 - 3/90	--*	4/90 - 3/91	0.8	4/91-5/92	1.1
Frog Hollow	1/89 - 12/91	3.0	4/91 - 12/91	1.1	1/92 - 5/92	1.0
Asylum Hill	1/89 - 3/91	2.1	1/92 - 5/92	0.8		

c) Percent of City Total

	Before		*During*		*After*	
Target	*Period*	*Percent*	*Period*	*Percent*	*Period*	*Percent*
Charter Oak	1/89 - 3/90	--*	4/90 - 3/91	0.9%	4/91-5/92	3.4%
Milner	1/89 - 3/90	--*	4/90 - 3/91	4.6%	4/91-5/92	5.7%
Frog Hollow	1/89 - 12/91	16.5%	4/91 - 12/91	5.1%	1/92 - 5/92	7.5%
Asylum Hill	1/89 - 3/91	10.1%	1/92 - 5/92	6.0%		

* Prior to the COMPASS program, the HPD did not have an incident code for drive-by shootings

Charter Oak Terrace

The Part I crime statistics for the Charter Oak Terrace target area are presented in Exhibit 4.7. Exhibit 4.7(b) shows that there is actually an increase in the total number of incidents per month between the during and after periods. The bulk of this increase can be attributed to significant increases in larceny and auto theft. Exhibit 4.7(c), which shows these numbers as percentage of the city total, shows a slight increase in the overall incidence of Part I offenses between the during and after periods, with the largest increases showing up in the auto theft and assault categories. While these categories represent serious offenses, the overall numbers of incidents in this area are too small to indicate any significant trends in either direction.

Milner

Exhibit 4.8 presents similar data for the Milner area. As this is a larger area than Charter Oak Terrace, it is not surprising that the number of incidents is approximately three times as large (2,377 as opposed to 861). Exhibit 4.8(b) shows that in Milner, as in Charter Oak Terrace, the number of auto thefts per month increased between the during and after periods. Similarly, larceny was up significantly and assault up slightly. There was a small decline in the rate of robberies, and the other categories remained constant. Of particular note is that there were no homicides in the during period.

Exhibit 4.8(c) shows that the relative rate of assault, robbery, burglary and larceny all declined during the COMPASS period, and all increased after COMPASS activities were terminated. Auto theft remained relatively constant. The result of this is that the total fraction of Part I incidents attributable to Milner was 3.4 percent of the city total before COMPASS, 2.9 percent during COMPASS, and up again to 3.2 percent afterward.

Frog Hollow

Exhibit 4.9 presents the analogous data for Frog Hollow. Once again, the total number of incidents increases by nearly a factor of three (7,845 for Frog Hollow, 2,377 for Milner). Looking first at Exhibit 4.9(b) it is seen that there is a downward trend in the fraction of Part I incidents that can be

Exhibit 4.7
Charter Oak Terrace:
Part I Incidents by Type and Period

a) Total Number of Incidents

Type	*Before* 1/89 - 3/90	*During* 4/90 - 3/91	*After* 4/91 - 5/92
Homicide	0	0	0
Rape	5	3	3
Assault	7	20	40
Robbery	87	53	65
Burglary	62	49	54
Larceny	82	69	99
Auto Theft	43	23	67
All Types	286	217	328

b) Number of Incidents per Month

Type	*Before* 1/89 - 3/90	*During* 4/90 - 3/91	*After* 4/91 - 5/92
Homicide	0.0	0.0	0.0
Rape	0.3	0.3	0.3
Assault	0.5	1.7	4.4
Robbery	5.8	4.4	7.2
Burglary	4.1	4.1	6.0
Larceny	5.5	5.8	11.0
Auto Theft	2.9	1.9	7.4
All Types	19.1	18.1	36.4

c) Percent of City Total

Type	*Before* 1/89 - 3/90	*During* 4/90 - 3/91	*After* 4/91 - 5/92
Homicide	0.0%	0.0%	0.0%
Rape	2.3%	1.8%	1.4%
Assault	0.3%	1.2%	2.3%
Robbery	3.5%	2.7%	3.2%
Burglary	1.0%	1.0%	1.0%
Larceny	0.7%	0.7%	0.9%
Auto Theft	1.0%	0.7%	1.4%
All Types	1.1%	1.0%	1.3%

Exhibit 4.8
Milner:
Part I Incidents by Type and Period

a) Total Number of Incidents

Type	*Before* 1/89 - 3/90	*During* 4/90 - 3/91	*After* 4/91 - 5/92
Homicide	3	0	1
Rape	2	8	7
Assault	78	63	84
Robbery	211	129	147
Burglary	239	116	147
Larceny	233	155	302
Auto Theft	98	73	126
All Types	864	544	814

b) Number of Incidents per Month

Type	*Before* 1/89 - 3/90	*During* 4/90 - 3/91	*After* 4/91 - 5/92
Homicide	0.2	0.0	0.1
Rape	0.1	0.7	0.5
Assault	5.2	5.3	6.0
Robbery	14.1	10.8	10.5
Burglary	15.9	9.7	10.5
Larceny	15.5	12.9	21.6
Auto Theft	6.5	6.1	9.0
All Types	57.6	45.3	58.1

c) Percent of City Total

Type	*Before* 1/89 - 3/90	*During* 4/90 - 3/91	*After* 4/91 - 5/92
Homicide	8.8%	0.0%	5.3%
Rape	0.9%	4.9%	3.4%
Assault	3.9%	3.8%	4.7%
Robbery	8.6%	6.5%	7.1%
Burglary	3.8%	2.4%	2.7%
Larceny	2.0%	1.7%	2.6%
Auto Theft	2.3%	2.3%	2.5%
All Types	3.2%	2.6%	3.1%

Exhibit 4.9
Frog Hollow:
Part I Incidents by Type and Period

a) Total Number of Incidents

Type	*Before* 1/89 - 3/91	*During* 4/91 - 12/91	*After* 1/92 - 5/92
Homicide	5	0	2
Rape	44	10	12
Assault	419	65	148
Robbery	479	78	169
Burglary	1599	255	393
Larceny	2000	334	724
Auto Theft	769	107	233
All Types	5315	849	1681

b) Number of Incidents per Month

Type	*Before* 1/89 - 3/91	*During* 4/91 - 12/91	*After* 1/92 - 5/92
Homicide	0.2	0.0	0.4
Rape	1.6	1.1	2.4
Assault	15.5	7.2	29.6
Robbery	17.7	8.7	33.8
Burglary	59.2	28.3	78.6
Larceny	74.1	37.1	144.8
Auto Theft	28.5	11.9	46.6
All Types	196.9	94.3	336.2

c) Percent of City Total

Type	*Before* 1/89 - 3/91	*During* 4/91 - 12/91	*After* 1/92 - 5/92
Homicide	9.6%	11.8%	0.0%
Rape	11.5%	8.6%	14.9%
Assault	11.5%	12.2%	11.6%
Robbery	10.8%	11.9%	12.1%
Burglary	14.4%	10.6%	14.0%
Larceny	9.6%	9.6%	8.5%
Auto Theft	10.3%	7.6%	5.6%
All Types	11.1%	9.8%	9.5%

attributed to the Frog Hollow target area. This shows up most significantly in auto theft and to a lesser extent in larceny. Burglaries are relatively reduced during COMPASS, but then increase to near their original percentage. But perhaps most significant is the fact that while there were five homicides in the before period, there were no homicides in Frog Hollow during the during period.

Asylum Hill

For Asylum Hill, only before and during data are available. It should also be noted that as the during period is the shortest for any of the areas, there was the least opportunity for the effects of COMPASS tactics to take effect. The statistical results are presented in Exhibit 4.10. Both in terms of incidents per month and percent of city total, there is a decline in Part I incidents between the two periods. None of the categories showed significant difference in regard to either of these two measures. By raw number of incidents per month, the most significant reduction is in burglaries, down from 43.8 to 31.6 per month. As far as percent of city total, this represents a reduction from 10.7 to 8.6 percent.

Combined Analysis

Exhibit 4.11 presents a summary of the number of Part I incidents in each of the four target areas. The numbers are annualized and normalized to represent incidents per year per thousand population. The rightmost column shows the annualized average rate over the entire data collection period (41 months) and can be compared to the average for the entire City of Hartford. As noted in this exhibit, the average number of Part I crimes decreased slightly in all four target areas from the before to the during period.

Additional analyses were performed on just the burglary incidents, inasmuch as burglaries, more so than some of the other categories of Part I crimes, are considered an indicator of the level of drug activity in an area. In Exhibit 4.12, we show the number of burglaries in each of the four target areas by whether the time of occurrence was in the daytime or the nighttime. In each of the target areas other than Charter Oak Terrace, the decrease in the monthly average number of daytime burglaries greatly exceeds the

Exhibit 4.10
Asylum Hill:
Part I Incidents by Type and Period

a) Total Number of Incidents

Type	*Before* 1/89 - 12/91	*During* 1/92 - 5/92
Homicide	9	1
Rape	68	10
Assault	605	58
Robbery	536	77
Burglary	1578	158
Larceny	2593	339
Auto Theft	1026	149
All Types	6415	792

b) Number of Incidents per Month

Type	*Before* 1/89 - 12/91	*During* 1/92 - 5/92
Homicide	0.3	0.2
Rape	1.9	2.0
Assault	16.8	11.6
Robbery	14.9	15.4
Burglary	43.8	31.6
Larceny	72.0	67.8
Auto Theft	28.5	29.8
All Types	178.2	158.4

c) Percent of City Total

Type	*Before* 1/89 - 12/91	*During* 1/92 - 5/92
Homicide	13.0%	50.0%
Rape	13.0%	14.9%
Assault	12.4%	10.3%
Robbery	9.1%	12.0%
Burglary	10.7%	8.6%
Larceny	9.1%	8.6%
Auto Theft	9.7%	7.9%
All Types	9.9%	8.9%

Exhibit 4.11
Part I Incidents: By Period and Area

	*Annualized Number of Incidents per Thousand Residents**						
	Before		***During***		***After***		***Average***
Target	*Period*	*Number*	*Period*	*Number*	*Period*	*Number*	*Number*
Charter Oak	1/89 - 3/90	55.2	4/90 - 3/91	54.3	4/91-5/92	70.3	63.1
Milner	1/89 - 3/90	115.3	4/90 - 3/91	90.7	4/91-5/92	116.3	108.4
Frog Hollow	1/89 - 12/91	154.3	4/91 - 12/91	146.4	1/92 - 5/92	133.1	149.9
Asylum Hill	1/89 - 3/91	207.1	1/92 - 5/92	184.1			204.3

**Annualized number of incidents per 1000 population for the entire City of Hartford averaged over all three periods = 159.7*

Exhibit 4.12
Burglaries: Per Month By Time of Day and Period*

a) Charter Oak Terrace

Time of Occurrence	***Before*** 1/89 - 3/90	***During*** 4/90 - 3/91	***After*** 4/91 - 5/92
Daytime	1.3	1.2	1.4
Nighttime	2.8	2.9	2.5
Total	4.1	4.1	3.9

b) Milner Area

Time of Occurrence	***Before*** 1/89 - 3/90	***During*** 4/90 - 3/91	***After*** 4/91 - 5/92
Daytime	9.5	4.6	5.1
Nighttime	6.5	5.1	5.4
Total	15.9	9.7	10.5

c) Frog Hollow

Time of Occurrence	***Before*** 1/89 - 3/91	***During*** 4/91 - 12/91	***After*** 1/92 - 5/92
Daytime	34.3	23.2	27.6
Nighttime	24.9	20.4	23.4
Total	59.2	43.7	51.0

d) Asylum Hill

Time of Occurrence	***Before*** 1/89 - 12/91	***During*** 1/92 - 5/92
Daytime	22.7	14.6
Nighttime	21.2	17.0
Total	43.8	31.6

* Daytime and Nighttime distinctions based on reported incident code

corresponding decrease in the number of night burglaries. In Charter Oak Terrace, where the number of incidents is fairly small, there is a decrease in the number of daytime burglaries and an increase in the number of nighttime burglaries. In Milner and Frog Hollow (the two areas other than Charter Oak Terrace for which there are "after" data), the monthly average number of burglaries increases during both daytime and nighttime. In the two areas, the increase is relatively larger for daytime burglaries. In sum, as the rate of daytime burglaries seems to be more sensitive to the presence of COMPASS in these areas than nighttime burglaries, there is an indication that the increased police presence and visibility in these target areas especially during daylight hours is reflected in the number of burglaries occurring.

Finally, Hartford's crime incidence should be viewed in the context of other, similar Connecticut cities. Three large Connecticut cities (i.e., Hartford, New Haven, and Bridgeport) with similar populations, racial and ethnic characteristics, and common problems, had similar homicide rates for 1990 and 1991. Although Hartford had the largest crime rate, its homicide incidence for 1992 is only a third of New Haven's and a fifth of Bridgeport's. The Hartford level of drug enforcement, at least as measured by arrests, is more than double that of the other two cities for the same three year period. In Hartford, the COMPASS effort has been assigned a principal causative role, correctly or not, for the reduction in drive-by shootings and reduced violence. While it is difficult to attribute violence reduction to any one program, the dramatic reduction in homicides in Hartford gives reason for hope that interventions of this type are effective.

4.3 Attitudinal Surveys

In this section, the results of two types of surveys are discussed -- the CSU surveys and the community attitudinal surveys. The CSU surveys are interesting as they provide a means for the CSU officers, the actual day-to-day participants in the COMPASS implementation, to evaluate the effects of their efforts. Their evaluations, while subjective, draw both on their experience in the target areas as well as their accumulated experience as law enforcement officers. The surveys were administered at the end of the

reclamation period in each target area. Community surveys were administered before and after the reclamation efforts in Frog Hollow and Asylum Hill. As noted in Section 2, only after community surveys were conducted in Charter Oak Terrace and Milner. These data are also quite subjective. However, in one sense, these subjective impressions by neighborhood residents are among the most important data available.

CSU Officer Survey

The results of the CSU officer surveys are summarized in Exhibit 4.13. The percentages indicated as responses to the questions represent the percent of responding officers who chose a given answer to the question. The primary value of this survey is in comparing the subjective effects of COMPASS from area to area. Small differences in percentages should not be taken to indicate true differences.

One question officers were asked was "What was the most common drug dealer response to the increased police presence in the target area during COMPASS?" As shown in Exhibit 4.13(a), there were some significant area to area differences. As one might expect, in very few cases did officers believe that the most common response was to stop selling drugs altogether. The most dramatic difference shows up in the second alternative response, "continued to sell drugs in the area", which was cited as the most common response in Frog Hollow by 72 percent of the officers, in Milner by 61 percent of the officers, while by only 19 percent and 6 percent of the officers in Charter Oak Terrace and Asylum Hill, respectively. These differences speak to the short-term success of increased police presence in these target areas in driving drug dealers off the streets. In the case of Charter Oak Terrace, one third of officers answered that the most common response was to move outside of Hartford to sell drugs. Since Charter Oak Terrace is on the edge of the City of Hartford, with a significant percentage of the drug buying clientele coming in from outside the city, there is reason to believe that dealers might move to nearby areas outside the city limits. Most CSU officers believe that drug dealers in Asylum Hill moved to other neighborhoods within the city.

Exhibit 4.13
Crime Suppression Unit Survey Summary

Note: For Milner and Charter Oak Terrace, N = 18; for Frog Hollow, N= 17; for Asylum Hill, N = 15

a) What was the most common drug dealer response to the increased police presence in the target area during COMPASS?

Response	Milner	Charter Oak Terrace	Frog Hollow	Asylum Hill
Stopped selling drugs altogether	5.6%	5.6%	0.0%	6.3%
Continued to sell drugs in the target area	61.1	5.6	72.2	18.8
Moved to another neighborhood to sell drugs	33.3	55.6	27.8	75.0
Moved outside of Harford to sell drugs	0.0	33.3	0.0	0.0
Total	100.0%	100.0%	100.0%	100.0%

b) What was the most common drug customer response to the increased police presence in the target area during COMPASS?

Response	Milner	Charter Oak Terrace	Frog Hollow	Asylum Hill
Stopped purchasing drugs altogether	5.6%	5.6%	0.0%	6.7%
Continued to purchase drugs in the target area	50.0	0.0	17.6	6.7
Purchased drugs in other Hartford neighborhoods	44.4	50.0	82.4	80.0
Purchased drugs ouside of Hartford	0.0	44.4	0.0	6.7
Total	100.0%	100.0%	100.0%	100.0%

c) The physical condition of the the target area area improved during COMPASS.

Response	Milner	Charter Oak Terrace	Frog Hollow	Asylum Hill
Stongly Agree	5.9%	38.9%	5.6%	50.0%
Agree	23.5	44.4	61.1	31.3
Disagree	41.2	11.1	27.8	18.8
Strongly Disagree	17.6	0.0	5.6	0.0
Don't Know	11.8	5.6	0.0	0.0
Total	100.0%	100.0%	100.0%	100.0%

Exhibit 4.13
(Page 2 of 2)

d) There is significantly less open-air drug dealing in the target area now compared to when COMPASS started in the target area.

Response	Milner	Charter Oak Terrace	Frog Hollow	Asylum Hill
Stongly Agree	22.2%	77.8%	27.8%	43.8%
Agree	44.4	22.2	55.6	56.3
Disagree	27.8	0.0	11.1	0.0
Strongly Disagree	5.6	0.0	5.6	0.0
Don't Know	0.0	0.0	0.0	0.0
Total	100.0%	100.0%	100.0%	100.0%

e) The target area residents were less afraid to be outside because of COMPASS.

Response	Milner	Charter Oak Terrace	Frog Hollow	Asylum Hill
Stongly Agree	5.6%	72.2%	27.8%	50.0%
Agree	50.0	22.2	22.2	42.9
Disagree	33.3	0.0	5.6	0.0
Strongly Disagree	0.0	0.0	5.6	0.0
Don't Know	11.1	5.6	38.9	7.1
Total	100.0%	100.0%	100.0%	100.0%

f) The target area residents were pleased with the results of the COMPASS program.

Response	Milner	Charter Oak Terrace	Frog Hollow	Asylum Hill
Stongly Agree	5.9%	50.0%	16.7%	43.8%
Agree	11.8	33.3	44.4	43.8
Disagree	41.2	5.6	16.7	0.0
Strongly Disagree	11.8	0.0	0.0	0.0
Don't Know	29.4	11.1	22.2	12.5
Total	100.0%	100.0%	100.0%	100.0%

Exhibit 4.13(b) raises the same issues, but for customers rather than dealers. The pattern of responses is quite similar. Few officers believed that the most common response was to give up purchasing drugs. In Frog Hollow and Asylum Hill, most officers believed that drug customers were driven to other areas of Hartford. In Charter Oak Terrace, most officers believed that customers were moved either to other areas of Hartford or out of the city. Only in Milner did a significant percentage of officers believe that most customers remained in the neighborhood. This is consistent with their responses in Exhibit 4.13(a), which indicated the belief that most drug dealers continued to sell drugs in the Milner area.

Exhibit 4.13(c) summarizes impressions regarding whether the physical condition of the target area improved during the COMPASS program. A majority of CSU officers believed that this did occur in each of the areas other than Milner.

Officers were also asked whether there was significantly less open-air drug dealing in the target area at the end of the reclamation period as opposed to the start of the reclamation period. As shown in Exhibit 4.13(d), in Charter Oak Terrace and Asylum Hill all officers either agreed or strongly agreed with the statement; in Frog Hollow, 84 percent of the respondents chose one of those two alternatives, while in Milner only 66 percent agreed.

As shown in Exhibit 4.13(e), the majority of officers felt that residents were less afraid to be outside in all four areas, particularly Asylum Hill and Charter Oak Terrace. Finally, officers were asked whether "The target area residents were pleased with the results of the COMPASS program." As shown in Exhibit 4.13(f), "strongly agree" or "agree" were selected by 88 percent of the CSU officers for Asylum Hill, 83 percent for Charter Oak, 61 percent for Frog Hollow, but only 18 percent for Milner. Clearly, if there is not a feeling of less open-air drug dealing in an area, there would be little reason for residents to be pleased with the program.

Charter Oak Terrace and Milner Community Surveys

Tabulated results of the Charter Oak Terrace and Milner community surveys are shown in Exhibits A.5 and A.6 in Appendix A. These two surveys were both administered in October 1990, roughly nine months into the

reclamation efforts. Both were administered "door-to-door" at addresses throughout the target areas. These surveys were answered by 185 residents in Charter Oak Terrace and by 194 residents in the Milner area. Comparing the two surveys reveals a few major differences, particularly regarding the perceived level of crime and drug activities in these areas. In general, the typical comment from Milner residents was "yes, things did improve during the past few months, but not nearly as much as we expected and hoped for." Charter Oak Terrace residents, on the other hand, were overwhelming positive about COMPASS and how it had significantly improved their neighborhood. In Charter Oak Terrace, nearly 84 percent of residents thought there was less violent crime and 85 percent felt that there were fewer people selling drugs, as opposed to 39 percent and 32 percent, respectively, for Milner. Similarly, while 51 percent of respondents in Charter Oak Terrace felt that quality of life had improved over the last six months, only 28 percent in Milner responded that way. Nearly 50 percent of the respondents in Milner said they saw people selling drugs on the street every day, while only 18 percent responded that way in Charter Oak Terrace.

These responses are quite consistent with the results of the CSU surveys. In Charter Oak Terrace, both citizens and police feel that drug activity and associated criminal activity have been greatly reduced in their neighborhood. As a result of this, relations between the police and the community have improved and residents feel safer and more comfortable in their neighborhood. The decline in drug arrests after the first month of COMPASS confirms the effectiveness of the intensive police presence.

In Milner, on the other hand, the citizen and CSU surveys are also consistent, but far less optimistic. In both sets of responses, there is little confidence that COMPASS has had a major impact on the level of drug sales and associated criminal activity. Residents do not feel better about the condition and safety of their neighborhood. There are some modest gains in the relative rates of drug-related CFSs and serious crimes in Milner. The fact that this is not reflected in the attitudinal data may indicate that these decreases are not large enough to have a positive effect on residents' attitudes.

Frog Hollow Community Surveys

In the Frog Hollow target area, two very similar surveys were administered to neighborhood residents. The first of these was administered in March of 1991 just before the initiation of COMPASS activity in Frog Hollow. The after survey was administered in June of 1992, over five months after the termination of COMPASS in the area. Both surveys were administered "door-to-door" at addresses throughout the target areas. The complete results of these surveys are presented in Exhibits A.7 and A.8, respectively.

In question 1 in each survey, residents were asked about a number of potential problems on "your block". It is interesting to note that between the before and after periods, the fraction of residents responding affirmatively increased for virtually every one of the thirteen potential problems. In the June 1992 after survey, 58.2 percent of residents responded that their neighborhood had become worse in the preceding six months. Due to the timing of this survey, this six month time period represents the time from the end of COMPASS to the survey period.

Despite this, when asked about how safe they felt walking alone at night, the fraction responding "very safe" increased significantly, while the fraction who responded that they "Don't walk around at night" declined from 47.0 to 8.4 percent. While it is true that this latter distinction may be a result of the seasonal difference between the two surveys, the difference is substantial. Similarly, the fraction of individuals who have seen drugs being sold on their block as well as the frequency of those observations increases between the two surveys.

The reported concern with the level of crime decreased between the two surveys with 81.1 percent of the respondents to the first survey answering that they were "Very concerned" with the level of crime in their neighborhood, but only 47.3 percent giving that response in the second survey. Residents' perception of the direction of the drug problem was not significantly changed between the two surveys with approximately twice as many respondents indicating that things were getting worse as opposed to getting better in each of these two surveys.

It is difficult to draw any clear conclusions from contrasting these two surveys. The increase in the perception of neighborhood problems could be attributed either to residual effects of the intense police presence during COMPASS, or it could simply be a result of the fact that people tend to spend more time outdoors in their neighborhoods in the summer months. One cannot draw any conclusions that indicate that six months after the end of the COMPASS period in Frog Hollow, residents perceptions of the level of drug activity in the neighborhood have been reduced.

As the residents' survey was done well into the after period, one should note that by this time, some of the CFSs and crime rate indicators that had decreased while COMPASS was on site had increased to near or above pre-COMPASS levels, in particular loitering CFSs were well above pre-COMPASS rates as were burglaries.

Asylum Hill Community Surveys

As in Frog Hollow, citizen surveys were administered before and after COMPASS in the Asylum Hill target area. The first survey was administered in December 1991 shortly before the initiation of COMPASS in Asylum Hill. The second survey was administered in June 1992, shortly after the end of COMPASS. Thus, in Asylum Hill, unlike Frog Hollow, the second survey was done with the effects of COMPASS fresh on the minds of the neighborhood residents. Both Asylum Hill surveys were telephone surveys to residents in the target area. Tabulated results of the two surveys are shown in Exhibits A.9 and A.10.

Comparing the two Asylum Hill surveys, we see that when questioned about potential problems on their block, the only two of the thirteen problems that was cited by a larger fraction in the second survey than in the first were litter and abandoned homes. When asked whether their neighborhood had become a better or worse place to live in the last six months in the second survey almost 31.0 percent responded "better" as opposed to 19.0 percent who responded "worse". In the first survey 11.4 percent responded "better" and 26.4 percent "worse". A dramatic difference occurred in the responses to the question regarding the feeling of safety when walking alone at night. In the first survey only 5.1 percent indicated that they felt "very safe". This

increased to 59.0 percent by the after survey. Similarly the percentage of respondents who had seen drugs being sold on the streets "during the past few weeks" declined from 33.5 percent to 26.6 percent.

One point to note is that, like the Frog Hollow surveys, these Asylum Hill surveys were undertaken in different seasons, with the after survey, in each case, being done in June. If the differences in perceived problems were attributable to seasonal factors, we would expect to see increases in perceived problems in Asylum Hill, as in Frog Hollow. This, in fact did not occur. Finally, another interesting point to note is that in Asylum Hill, the CFS and crime rates do not drop dramatically during the COMPASS period, yet both police and residents feel that the streets are safer and that drug activities have been reduced.

5 COMPASS Findings

Section 4 examined the impact of COMPASS in the four target areas in terms of drug activities, crime incidence, and attitudinal surveys. The purpose of this section is to merge this quantitative data with qualitative data obtained through on-site monitoring of the COMPASS program and through more focused interviews with COMPASS participants, and then attempt to explain the differences in impact in the four target areas by describing and interpreting events that transpired during the program.

Particular attention is given in this section to explaining the relative effectiveness of tactics in the target areas. However, it should be noted that assessing the effectiveness of specific tactics is difficult for several reasons. First, there are definitional problems, since there are many ways to define "effectiveness." In the case of a vehicle safety check, for example, some possible measures of effectiveness include the number of arrests made per hour; the number of citations issued per hour; the quantity of drugs, guns, or cash seized per hour; the number of vehicles passing through the checkpoint per hour; the fraction of vehicles traveling in the area that went through the checkpoint; and the number of people who *saw* or *observed* the safety check (and who therefore might feel safer or might have more confidence in the police as a result). Patrol-oriented effectiveness could be measured by the number of arrests made; the level of visibility attained; or the amount of interaction with target area residents.

Another problem is that the effectiveness of a tactic depends on a variety of factors. Effectiveness obviously depends on the skill with which tactics are carried out, particularly in the case of undercover tactics and the more community-oriented policing tactics. When and where tactics are executed is also critical. Further, success with reclamation tactics can spawn community support and involvement and therefore increase the effectiveness of stabilization tactics. At the same time, increased community involvement and support can increase the effectiveness of reclamation tactics. The nature and extent of the drug markets are also critical, as tactics are thought to have

more deterrent effects on occasional drug users than addicts, on a person with no arrests than a person with twenty arrests, and a seller using proceeds from drug sales for sneakers than on rent for the family apartment. Finally, underlying geographic characteristics of the target area can impact tactic effectiveness, as noted below. For these reasons only general comments on factors contributing to tactic effectiveness can be made at this time.

The remainder of this section is organized chronologically. Inasmuch as COMPASS was implemented concurrently in Charter Oak Terrace and Milner, findings related to these two areas are discussed together in Section 5.1. Findings related to Frog Hollow and Asylum Hill follow in Sections 5.2 and 5.3, respectively. It should be noted that background information on the four target areas are discussed in Section 2.5.

5.1 Charter Oak Terrace and Milner

Section 4 highlighted the differences in impact COMPASS has had in the Charter Oak Terrace and Milner target areas. Differences in the number of drug arrests during the reclamation phase (Exhibit 4.2(a) and (b)), perceptions of the Crime Suppression Unit (CSU) officers (Exhibit 4.13), and perceptions of the target area residents (Section 4.3) all provide strong evidence of the much greater degree of success of COMPASS in Charter Oak Terrace as compared to Milner. Hartford's largest newspaper concurred, as it referred to the events in Charter Oak Terrace as a "revolution." In an unsolicited August 1990 editorial, the Hartford Courant [1990] noted:

> "On one sweltering summer day recently, Charter Oak Terrace in Hartford was at peace. No corner drug dealing. No gang warfare. In fact, some youths were painting rusted dumpsters sky blue and earning money for it. Only one car was abandoned there overnight. Police received but two serious calls: one involving a family feud and another about a child who was left alone for too long. Compared with the federal housing project's notorious past, it was a slow day."

Nearly two years after this editorial, long after the CSU migrated from the area, Charter Oak Terrace is still seen as a success. According to police

officials and residents, while the neighborhood has slipped some since the CSU migrated from the area, the vast majority of drug dealing in the area occurs indoors and there is still little or no open-air drug dealing. The Milner area, on the other hand, is thought to be no better off now than it was prior to COMPASS.

Given that COMPASS was implemented concurrently in these two areas, it is interesting to ask why one area experienced greater success than the other. Toward this goal, the discussion below focuses on reviewing the reclamation and stabilization efforts in each area and asking why certain tactics were so much more effective in Charter Oak Terrace than in Milner.

Reclamation Efforts

In early 1990, when the City formed its Reclamation Steering Committee (see Section 2.2) and became more involved in planning for the stabilization phase of the COMPASS program, pressure began to build to start the reclamation phase in Charter Oak Terrace and Milner. From a research perspective, it would have been advantageous to begin the reclamation phase when (1) the DMAP tool was developed, (2) a detailed evaluation design had been formulated, and (3) extensive baseline data had been collected in the two target areas. Nevertheless, in February 1990, the reclamation's undercover phase began. On April 19th, 55 arrest warrants for persons selling drugs in the two target areas were executed. This sweep coincided with a symposium on drug enforcement efforts held in Hartford and attended by leading officials from the City, the State, and the NIJ. Extensive, and very positive, publicity regarding COMPASS appeared on local television, radio, and print media.

On April 22, 1990, the visible phase of reclamation began, as the Crime Suppression Unit (CSU) was deployed in both target areas. The first few days of reclamation efforts were marked by a series of high visibility tactics and a constant switching of the 21 CSU officers (i.e., 16 HPD officers and 5 State Troopers) from one target area to the other, in an effort to create the illusion of a much larger police presence. The CRD commander called this approach "smoke and mirrors." For example, during their first week in the two areas, the CSU conducted vehicle safety checks on Tuesday morning,

Thursday morning, and Friday afternoon in Charter Oak Terrace and Wednesday morning, Thursday afternoon, and Friday morning in Milner. Reverse sting operations were conducted Wednesday afternoon in Charter Oak Terrace and Friday afternoon in Milner. The Mounted Patrol Unit was deployed in Milner on Tuesday, Thursday, and Saturday and in Charter Oak Terrace on Wednesday, Thursday, and Friday. Overall, the most common tactic during the first week was foot patrol.

With help from the DEP overtime funding, the CSU was initially able to establish a six day a week, 16 hour a day (8 AM to midnight) presence, with individual officers typically working twelve hour shifts, four of which were overtime hours. Visibility decreased as of July 1990, when the five State Troopers assigned to the CSU were returned to the State Police and the four officers in the Mounted Patrol Unit were reassigned to the City's parks for the reminder of the summer. The average number of CSU officer-hours per day spent in the target areas is shown in Exhibit 5.1. Overall, roughly 20,000 CSU officer-hours were spent in each target area during the reclamation period, as shown in Exhibit 5.2(a). In fact, it is somewhat remarkable that the number of officer-hours spent in the two areas differed by only 52 hours during the one-year reclamation period. Of course, it must be remembered that Milner has more than twice the area of Charter Oak Terrace, so police visibility -- measured by officers per square mile -- was much greater in Charter Oak Terrace than in Milner, as shown in Exhibit 5.2(b).

When reclamation efforts shifted to Frog Hollow in April 1990, the CSU attempted not to totally abandon Charter Oak Terrace and Milner. However, it was felt that because of the size of the Frog Hollow area and the extent of drug activity, the vast majority of CSU resources had to be deployed in Frog Hollow, and therefore typically only two officers were assigned to either Charter Oak Terrace or Milner. And given the desire to maintain the gains in Charter Oak Terrace, these two officers were usually assigned to Charter Oak Terrace rather than Milner. As shown in Exhibit 5.2(a), the CSU spent 980 hours in Charter Oak Terrace after the CSU migrated to Frog Hollow, compared to only 281 hours in Milner. This practice continued until early June; thereafter, as shown in Exhibit 5.1, CSU officers were rarely

Exhibit 5.1
Crime Suppression Unit Hours: By Week and Target Area

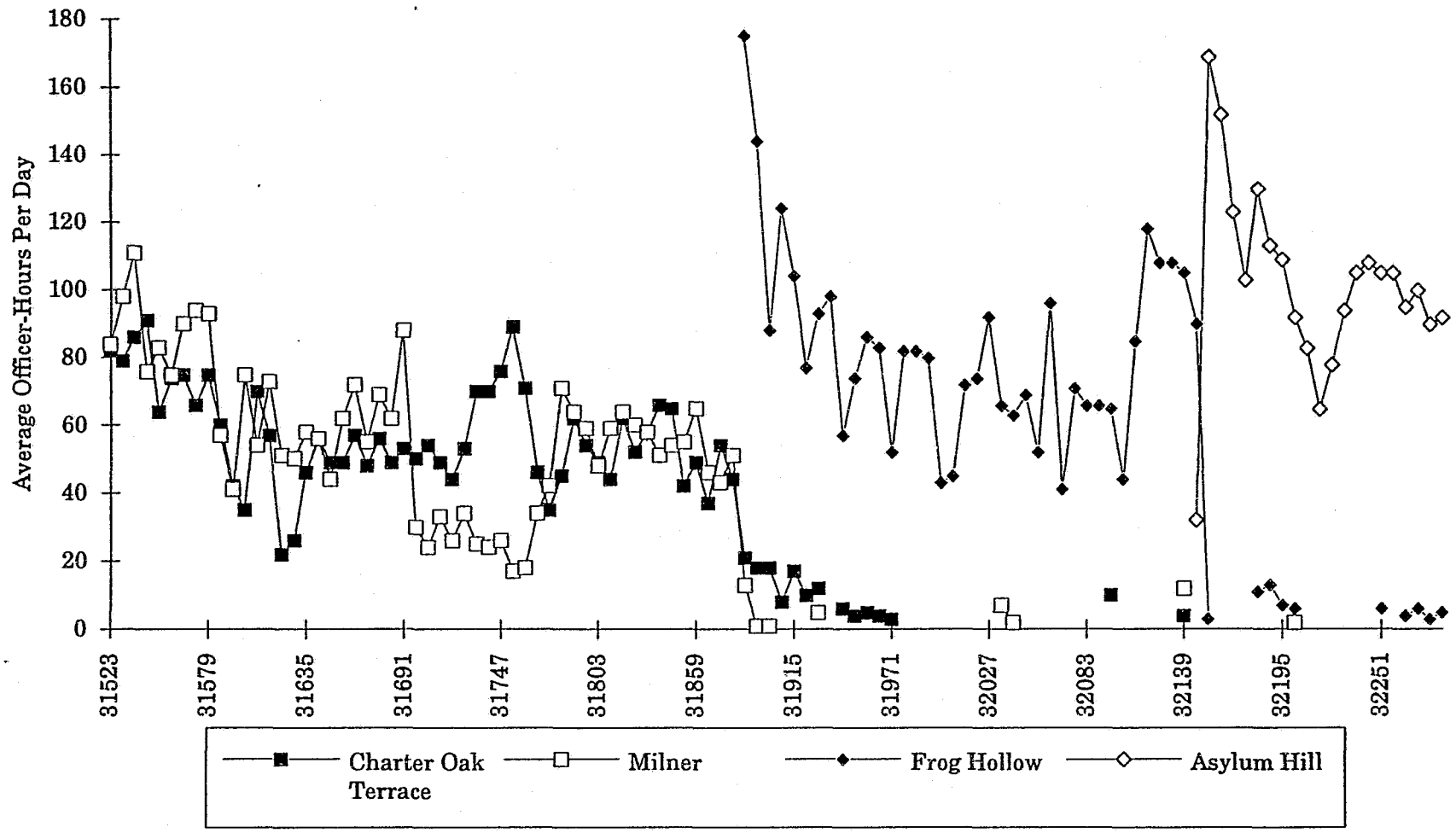


Exhibit 5.2
Police Presence During COMPASS

a) Crime Suppression Unit Officer Hours

	Reclamation		Stabilization	
Target Area	Time Period	Officer-Hours	Time Period	Officer-Hours
Charter Oak Terrace	2/90 - 3/91	20,492	4/91 - 6/92	980
Milner	2/90 - 3/91	20,448	4/91 - 6/92	281
Frog Hollow	3/91 - 12/91	22,081	1/92 - 6/92	344
Asylum Hill	12/91 - 6/92	17,407	--	--

b) Officers Per Square Mile

	Without COMPASS		With COMPASS		
Target Area	# Officers*	Officers Per Square Mile	# Officers**	Officers Per Square Mile	Percent Increase
Charter Oak Terrace	0.5	4.5	8.5	77.3	1700%
Milner	1.5	6.3	9.5	39.6	633%
Frog Hollow	3.0	4.5	19.0	28.4	633%
Asylum Hill	3.0	4.5	19.0	28.4	633%

* Includes only HPD patrol officers whose beats overlap COMPASS target area

** Includes only HPD patrol officers and CSU officers. Assumes 8 CSU officers in Charter Oak Terrace, 8 in Milner, 16 in Frog Hollow, and 16 in Asylum Hill.

deployed in either of the former target areas. It should be noted, however, that a Community Service Officer (CSO) was still assigned to each area, in addition to regular patrol officers.

Exhibit 5.3 shows that the tactics used by the CSU in Charter Oak Terrace and Milner differed only slightly. (The reclamation tactics are defined in Exhibit 2.3.) In both areas, park and walk was the most common tactic, accounting for roughly 50 percent of the officer-hours in Charter Oak Terrace and 40 percent of the officer-hours in Milner. Overall, patrol-oriented tactics (i.e., roving patrol, static patrol, horse patrol, foot patrol, and park and walk) accounted for 85.7 and 77.4 percent of officer-hours in Charter Oak Terrace and Milner, respectively.

In terms of the immediate impact of these tactics, Exhibit 5.4 shows the average number of criminal and motor vehicle arrests made per day in the two target areas. (The number of criminal arrests obviously includes drug arrests, which are tallied in Exhibit 4.2.) The large number of motor vehicle arrests during the first week of reclamation efforts is largely due to the numerous vehicle safety checks conducted.

Finally, Exhibits 5.5 and 5.6 show the locations of where drug arrests were made during the three months immediately prior to the visible reclamation efforts and the first three months of the visible reclamation efforts in Charter Oak Terrace and Milner, respectively. (The locations of the pre-COMPASS drug arrests in the two areas are also shown in Exhibits 2.9 and 2.10.) As expected, certain addresses experienced drug arrests in the three months prior to the visible reclamation efforts, but not in the first three months of the visible reclamation efforts. Other addresses experienced drug arrests in the first three months of the visible reclamation efforts, but not in the three months prior to the visible reclamation efforts. Finally, still other addresses experienced drug arrests in both time periods (i.e., the three months prior to the visible reclamation efforts and the first three months of the visible reclamation efforts).

Exhibits 5.5 and 5.6 raise the broader question of the "life cycle" of drug markets (i.e., the period of time in which drugs are bought and sold at specific addresses). One could hypothesize that persons selling drugs at

Exhibit 5.3
Tactics By Target Area

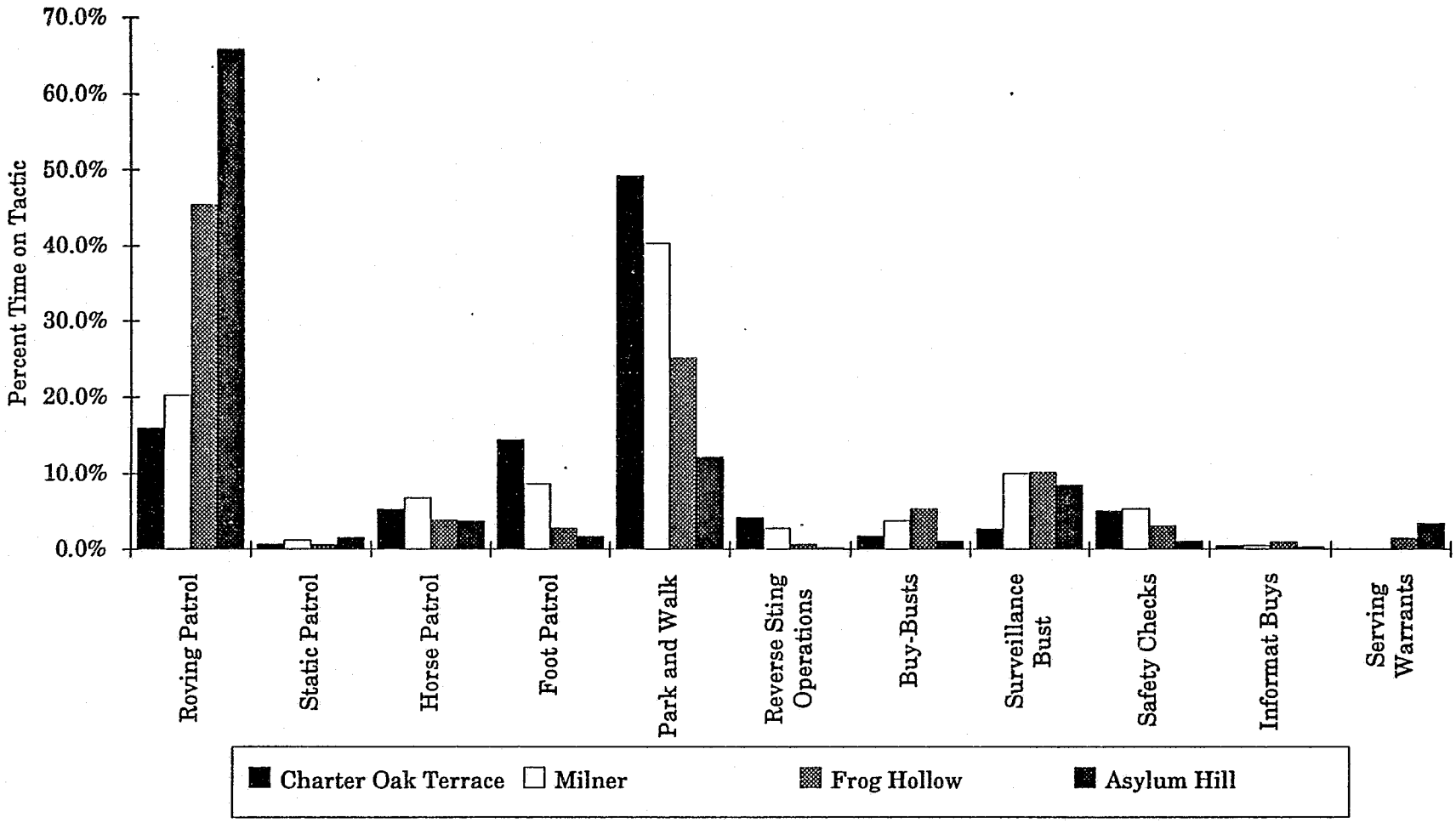


Exhibit 5.4
Crime Suppression Unit Arrests: By Week

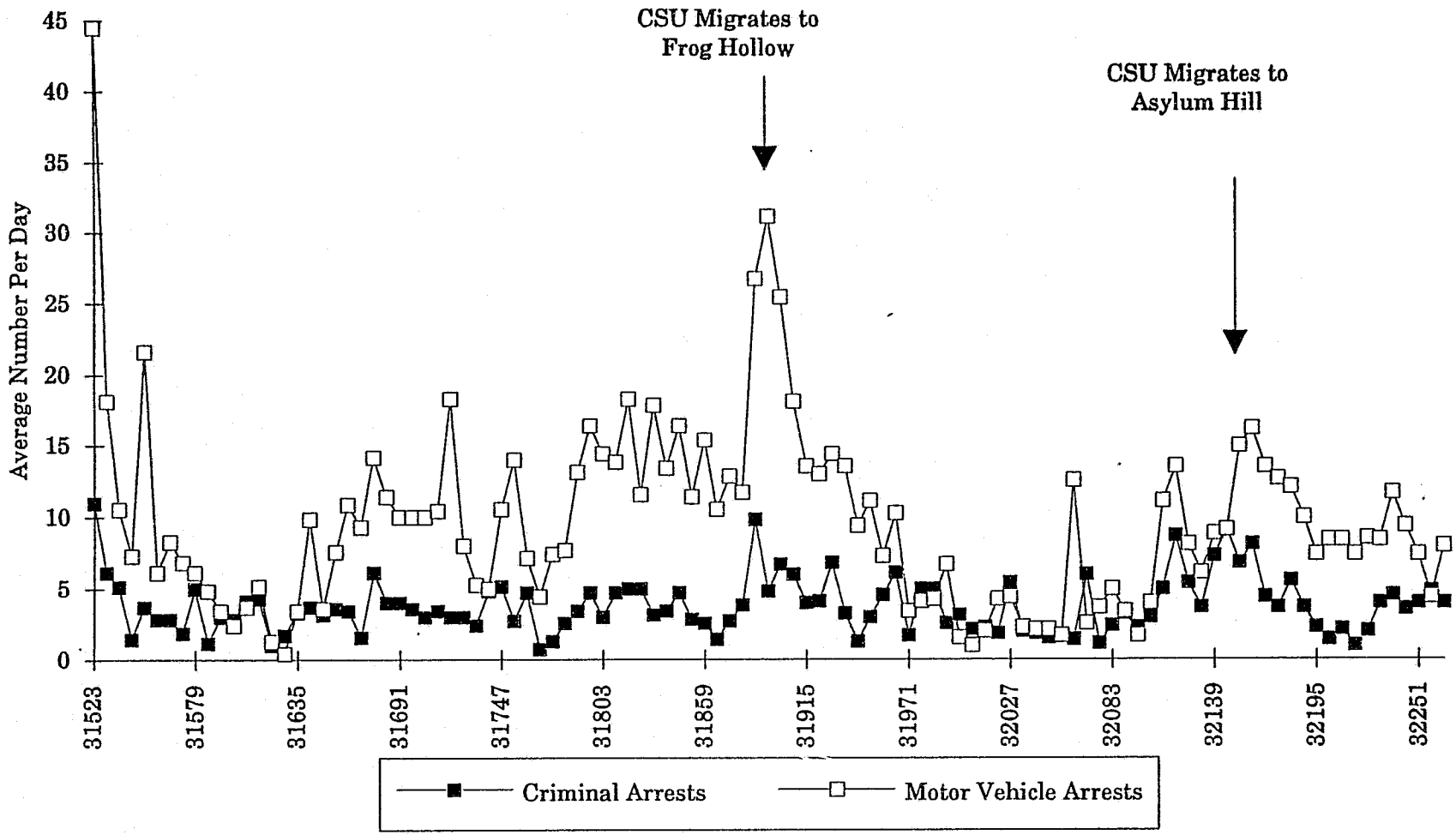


Exhibit 5.5
Crime Suppression Unit Drug Arrests: Charter Oak Terrace

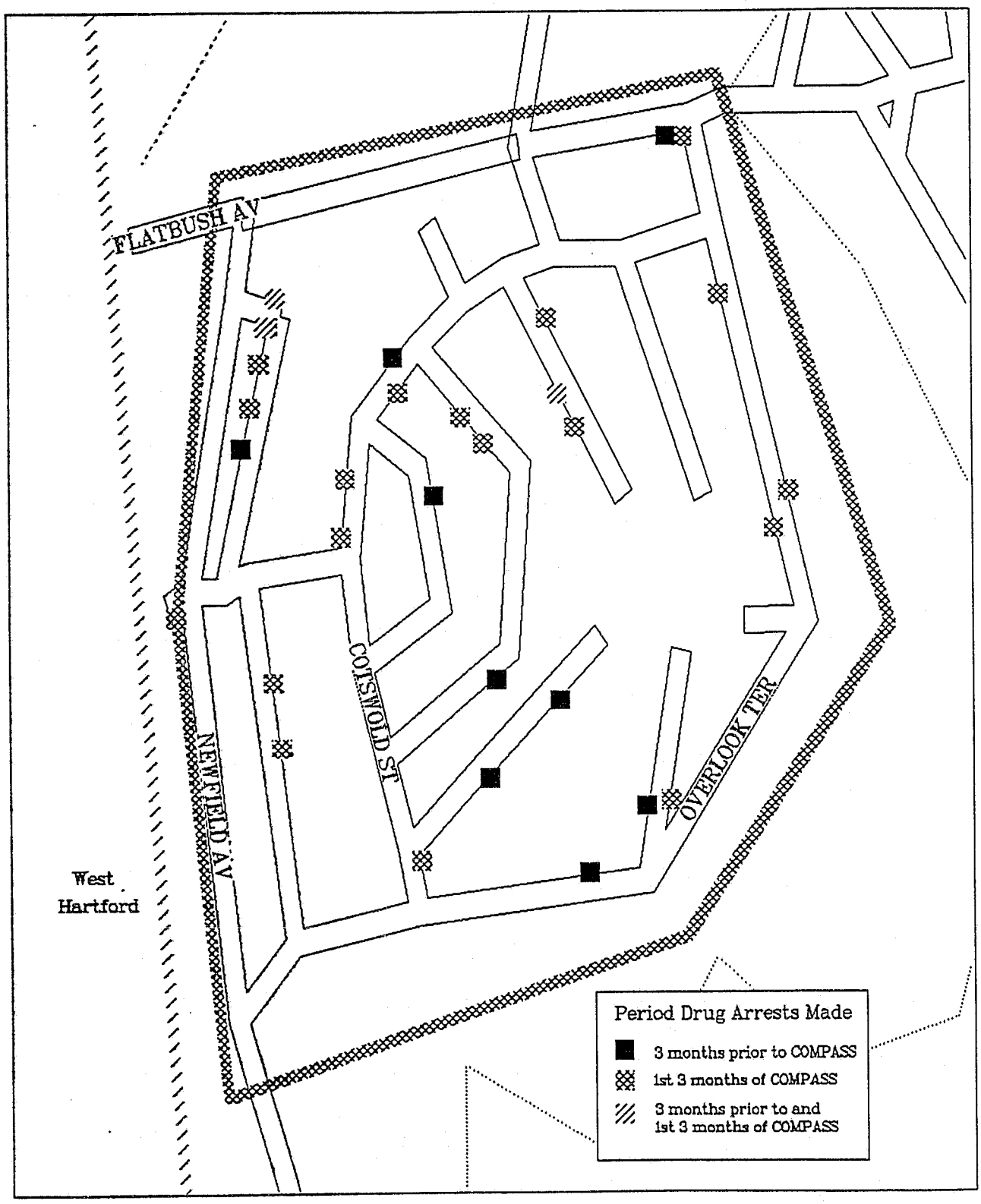
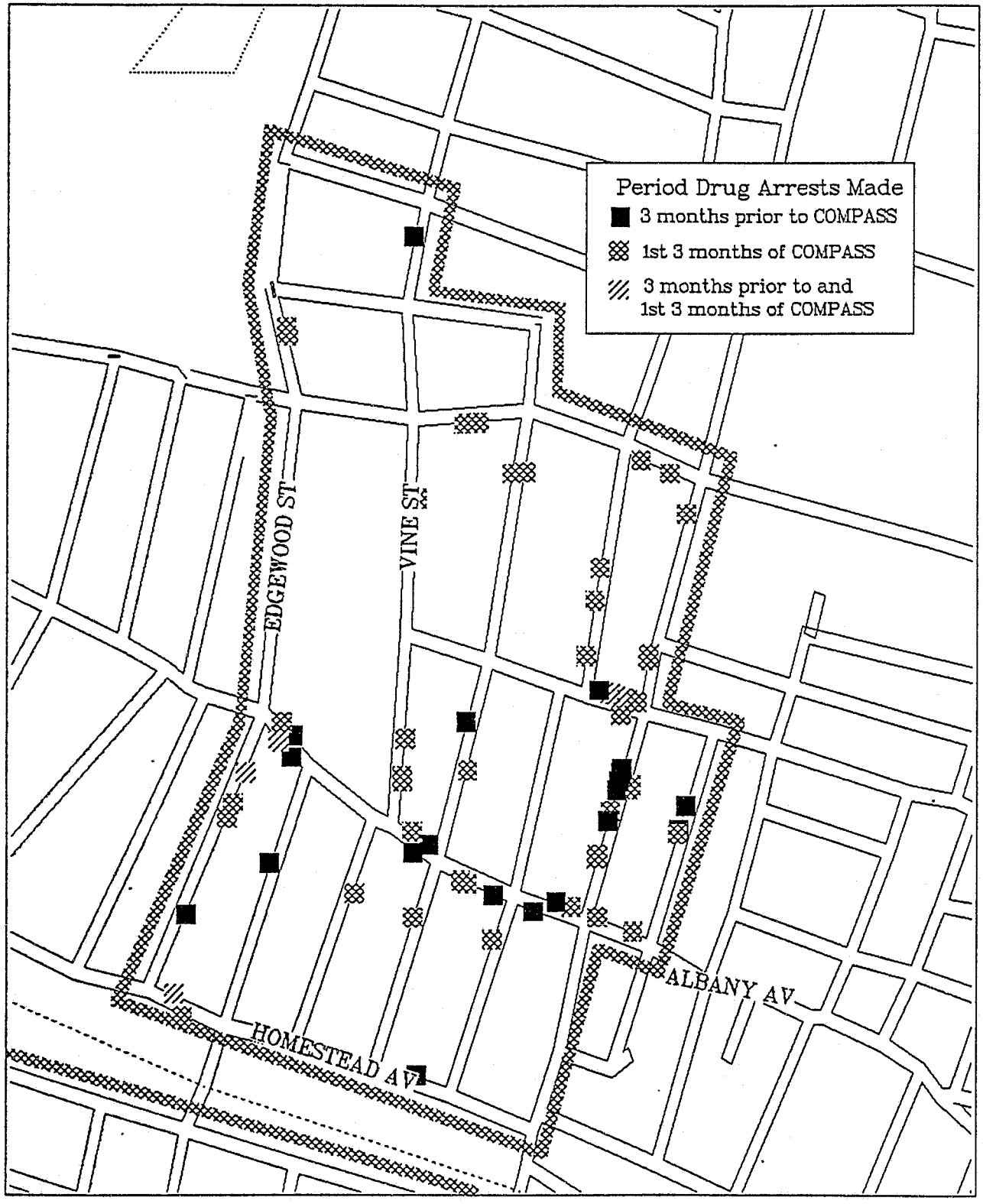


Exhibit 5.6
Crime Suppression Unit Drug Arrests: Milner



addresses hit before, but not during COMPASS ceased drug activity at that address, perhaps because they moved to another address or because they were imprisoned. Similarly, persons selling drugs at addresses hit both before and during COMPASS could be locations that remained active in spite of the increased police presence. However, given that drug arrests are but one indicator of drug activity and one that is highly correlated to the level of enforcement, it is not known how many drug markets active in the before period remained active, or became inactive, in the during period.

Stabilization Efforts

While the CSU was performing reclamation tactics in Charter Oak Terrace and Milner, a number of other stabilization-related activities were being carried out. In addition to the CSU's dramatic successes in reducing drug activity in Charter Oak Terrace, a number of other improvements were made to that area. The CSO assigned to Charter Oak Terrace spearheaded an effort to rid the area of stray dogs and abandoned cars, which had been serious problems in the area. Eighty Charter Oak Terrace residents participated in an areawide clean up in May 1990. Lawns and gardens became better maintained. The Connecticut Probation Department set up an office in Charter Oak Terrace for their probation officers to meet with area residents on probation. A reduced caseload for the probation officers meant that they could meet weekly, rather than monthly, with their clients. The local YMCA was also rehabilitated.

The early reclamation successes in Charter Oak Terrace led to very positive feedback from target area residents. The CSU received many letters from residents, which in turn created high morale among the officers. In contrast to the basically warm reception the CSU received in Charter Oak Terrace, CSU officers faced some hostility from a few of Milner residents. Some residents complained that "they [the CSU] didn't understand the area or the people or their problems" and that "they were just going through the motions to get their paycheck." This is not to say that residents of Charter Oak Terrace liked the police and residents of Milner did not. Indeed, many officers in the CSU felt that there was more support for the police from Milner area residents than Charter Oak Terrace residents before the COMPASS program began. Support for the police in Charter Oak Terrace

was no doubt largely due to the initial success in reducing drug activity. Milner residents did not see significant early successes. This fact, coupled with the residents' high expectations for the program brought about by the extensive publicity of the program, may explain a lack of support for the police in Milner.

Another systemic problem appeared early in the COMPASS efforts, a problem perhaps best symbolized by the CSO's efforts to improve Charter Oak Terrace's playground. At the start of COMPASS, this playground had one slippery slide and a basketball court with no nets on the hoops. There were no swings, and the court was covered with broken glass. Given the large number of children in Charter Oak Terrace, fixing up this playground became a priority for the CSO, and he formed a committee of target area adults and youths to formulate ideas on how to improve the playground. Yet the CSO ran into delay after delay in working with the responsible City agencies. No doubt the CSO was viewed as "just another police officer", rather than the key point person in a priority reclamation and stabilization program. Having promised a new playground to the residents, the delays damaged the CSO's credibility and fostered renewed cynicism among residents that the City could not deliver on their promises. Two years later, the playground is still in its dilapidated state.

Indeed, the City and its Reclamation Steering Committee acknowledged that the service delivery piece of the stabilization efforts "was still getting organized" -- establishing lines of communication and defining and prioritizing needs. In addition, other elements of the Steering Committee's program were stalled. State and city budget crises prevented funding of major stabilization initiatives, such as a residential drug treatment center for Milner.

The lack of community organization in Milner compounded the problems with the stabilization efforts. In that area, the key community organization and the Milner School -- around which the stabilization efforts were hoped to revolve -- were undergoing reorganization. The Milner School was looking for a new principal, and its Parent Teachers Association had only five active members. Given the city's emphasis on empowerment and its

"bottom up" approach, having the community groups in disarray obviously stalled this aspect of stabilization.

Even if the community groups in Milner had been organized, the larger question is whether the community as a whole could become involved in the stabilization efforts. One incident that occurred early in the reclamation efforts illustrated the scope of problems in Milner and how difficult community organizing would be in this area. One afternoon the CRD commander and a half dozen CSU officers were in the hallway of a six unit apartment building in Milner setting up for a reverse sting operation. Not wanting to frighten the residents, the CRD commander knocked on the doors of the apartments and told the residents what they were doing. One of the residents, an elderly woman, was obviously alarmed at the sight of all the police officers and quickly shut the door after speaking to the CRD commander. A few seconds later she opened the door again and, wanting to take advantage of this situation, asked, "While you are here, do you mind if I come out and sweep the hallway?"

Delays, organization problems, and lack of understanding of roles in the stabilization process led the City to acknowledge in June of 1990 that the community would not be ready to take over the stabilization efforts once the CSU migrated to a new target area and that the stabilization timetable had become completely divorced from the reclamation timetable. To make matters worse, the key accomplishment of the stabilization efforts -- having the City Manager make the COMPASS program a top priority -- dissolved, as in June of 1990 the City Manager resigned. Although not directly implicated, the target of the corruption investigation was the City's Public Works Department, which was formerly led by the City Manager. A new City Manager was appointed in September 1990 and, perhaps not wanting to be associated with a program championed by the ex-City Manager, largely ignored the COMPASS program until February 1991, when he appointed an assistant to oversee the City's role in the program. Thus, by mid-1990, COMPASS largely became a "police-only strategy", something that the COMPASS planners desperately wanted to avoid. Whether this would have happened if the original City Manager had not resigned amid scandal is

impossible to say, but the resignation of the City Manager clearly marked a turning point for COMPASS.

Tactic Effectiveness

As shown in Exhibits 5.2(a) and 5.3, Charter Oak Terrace and Milner received basically the same reclamation "treatment" in terms of officer-hours and tactics, and yet the success in reducing the extent of drug activity differed dramatically. The key question is why certain tactics were more effective in Charter Oak Terrace than in Milner.

In Charter Oak Terrace, the CRD commander and most CSU officers felt that vehicle safety checks, although used sparingly (see Exhibit 5.3), were probably their most effective tactic. There are a number of reasons why safety checks could reduce drug activity more in Charter Oak Terrace than in Milner. Safety checks clearly have more impact if:

- Drug sellers or customers living outside the target area drive, as opposed to walk, into the target area. The fraction of persons involved in the drug trade in the two areas but living outside the area is not known, but nevertheless it is reasonable to assume that a higher percentage of such persons drive, rather than walk, into Charter Oak Terrace as compared to Milner. This is because of Charter Oak Terrace's isolation and proximity to other residential areas: the closest residential areas to Charter Oak Terrace are several blocks away, while in Milner residential areas are literally just across the street on all sides of the target area. In addition, as noted earlier, Charter Oak Terrace has easy on-off access to Interstate 84, making the area appealing to suburban residents who want to buy drugs.

- Drug sellers or customers actually drive through the safety check. The higher the fraction of vehicles in the area that must pass through the safety check, the more effective the safety check could be. As shown in Exhibit 5.4, there are basically only two or three streets leading into Charter Oak Terrace and therefore most vehicles had to pass through the checks. A

safety check set up at any one of these entrances would "capture" a significant fraction of the vehicular traffic. By contrast, as shown in Exhibit 5.5, there are more than a dozen roads leading into and out of the target area. Moreover, it is not possible to set up a safety check on Albany Avenue, the area's main street, because of the high volume of traffic. (In conducting safety checks, officers are by law required to stop every vehicle.) The CSU was therefore forced to conduct safety checks on one of the side streets off Albany Avenue, where only a small fraction of the area's total traffic volume would pass.

- Drug sellers or customers driving into the target area are deterred by the safety check. While assessing whether safety checks deterred drug sellers or customers from driving into the area is obviously difficult and imprecise, it is reasonable nevertheless to claim that the safety checks had a larger deterrent value in Charter Oak Terrace than in Milner. This is due in part to the psychological impact of driving into Charter Oak Terrace, where there are few legitimate reasons to drive, unless you live in the area or are visiting someone who lives in area. One doesn't drive through Charter Oak Terrace to get somewhere else. By contrast, Albany Avenue, as noted in Section 2.5, is one of Hartford's main east-west streets, and there are plenty of commercial establishments in Milner.

Interestingly, one behavioral impact the safety checks had in Charter Oak Terrace was demonstrated by changes in driving habits of the Charter Oak Terrace residents. At first the officers could give tickets almost at will for violations ranging from cracked windshields to driving without a license. Soon, however, the CSU officers noted that drivers entering Charter Oak Terrace were not only obeying these laws, they were also almost all complying with the mandatory seat belt statute.

The ability to control access to a drug market area was cited by Kennedy [1990] as a key factor in the success of anti-drug operations in Houston's Link Valley neighborhood. Link Valley is an isolated section of Houston where relatively affluent people arriving in cars once came to

purchase drugs. Most of them arrived by a single route, a nearby highway exit. There the drug market collapsed even before the enforcement operation began because the program had been advertised ahead of time, and drug customers could see how they would easily be caught in a vehicle safety check.

It should be noted, however, that well-defined geographic boundaries alone probably did not ensure the success of the vehicle safety checks or the reclamation efforts as a whole in Charter Oak Terrace. Equally important is the fact that Charter Oak Terrace is geographically very small, only 0.11 square miles. That is, it is equally important to not only control access to the area, but also to control the area itself (i.e., inside the geographic boundaries). In all likelihood, if an area is large geographically, then well-defined boundaries would not impact the effectiveness of vehicle safety checks and other reclamation tactics.

However, as noted in Exhibit 5.3, the CSU spent the vast majority of time on patrol-oriented tactics. Are there reasons to believe that these tactics were more effective in Charter Oak Terrace than Milner? The relative size of the two areas -- Milner is roughly two and one half times as large -- suggests that police visibility was much higher in Charter Oak Terrace than Milner. The calculations shown in Exhibit 5.2(b) show the magnitude of the difference in police visibility before and during COMPASS for the indicated staffing levels. If half of the CSU were deployed in each of the two areas at a given time, police visibility would be 17 times greater compared to before COMPASS in Charter Oak Terrace, but only roughly six times greater in Milner. Again, it could be argued that the deterrent value of this visibility was higher in Charter Oak Terrace than in Milner because drug sellers and customers, as one CSU officer put it, "didn't have any excuse to hang out" in Charter Oak Terrace, because there are few legitimate reasons to be in the area. The CRD commander felt this was especially true once the CSU drove out of the area all commercial street vendors.

Finally, a few comments can be made regarding other reclamation tactics. The CRD commander believed that reverse sting operations were effective in "scaring away" drug customers, particularly white, suburban customers. Eviction was also very effective in Charter Oak Terrace, as the

Hartford Housing Authority, with the help of the CSO, began aggressive enforcement of the eviction law. By early June 1990, 15 persons had already been evicted and 30 more were in the process of being evicted.

Soon CSU officers began hearing from arrested drug sellers that dealers were leaving Charter Oak Terrace "because they can't make any more money." The statistics presented in Section 4, particularly drug arrests by month during the reclamation efforts (Exhibit 4.2(a) and the CSU survey results (Exhibit 4.13(a) and (d)), support this observation. By contrast, initial reclamation efforts in Milner were described by CSU officers as "a street-by-street struggle." Indeed, the CSU and citizen surveys suggest that the *extent* of drug activity may have changed very little in Milner. On other hand, it can be stated that the reclamation efforts changed the *nature* of drug activity in Milner, as the behavior of drug sellers and customers noticeably changed. For example, the CSU very quickly noticed that drug sellers arrested were no longer carrying on their person twenty or thirty bags of cocaine, but instead were carrying only one or two bags. Additionally, whereas before COMPASS the drug sellers would have carried the bags in their hands or in their pockets, they instead hid the bags under a car, in their body cavities, or simply kept the bags indoors. In addition, at least two forms of displacement were evident in Milner. First, there was temporal displacement, as many residents reported that dealers once active in the early afternoon or evening were now active after midnight, when the CSU was not typically deployed. Second, there was significant street to street displacement. Drug sellers often simply walked over a few blocks when officers were present on a particular street, and then moved back after they had left. This type of geographically localized displacement was not very possible in Charter Oak Terrace because it is geographically isolated and small in size. At least some of this displacement was to areas adjacent to the Milner target area, as the CRD commander reported receiving numerous complaints of increased drug activity at community meetings from residents living immediately west of the target area and in neighboring Asylum Hill.

Perhaps an obvious, yet important, conclusion based on the results in the Charter Oak Terrace and Milner areas is that the impact on drug activity was not directly related to the dosage, or number of officer-hours, applied in

these target areas. All parties involved in the COMPASS program were surprised at how quickly drug activity decreased in Charter Oak Terrace. Some police officials felt that the CSU's several month commitment to the area convinced some drug sellers to permanently leave the area. These same sellers may have "tolerated" an occasional arrest prior to COMPASS because the enforcement effort was more sporadic under a city-wide "hit and miss" enforcement strategy. On the other hand, in Milner there are some locations, particularly vacant lots at intersections along the area's main thruway, that seem immune to enforcement efforts. As one CSU officer put it, "it doesn't matter what we do, there's always somebody selling at certain locations."

Finally, it should be stated that the above discussion should not be interpreted that an area's characteristics, particularly geographic characteristics, solely determined the effectiveness of the reclamation tactics. Indeed, the Hartford Courant [1990] stressed the importance of the CSO in Charter Oak Terrace, whom they noted "has arranged for the removal of abandoned cars and rat-infested dumpsters. He has mediated family feuds, dealt with troublesome youths and helped organize a youth basketball team." And, he has "visited almost every one of the project's 900 households. The personal touch has paid off more than once." In addition, the residents of Charter Oak Terrace were clearly more aware of and behind the reclamation efforts than Milner residents.

5.2 Frog Hollow

By the Fall of 1990, the HPD began to feel they had reached the point of diminishing returns in Charter Oak Terrace and Milner. The CSU felt there was basically nothing left to do in Charter Oak Terrace. Fewer and fewer arrests were being made. And boredom among the CSU officers began to set in. In Milner, many police officials felt that "we should cut our losses and move on." At this time, about half of the CSU officers migrated to a new target area -- the Blue Hills Avenue area in northwest Hartford -- but this turned out to be a very temporary stay of about 45 days, as it was discovered that the drug problems was not as serious as was first believed.

Following this brief foray into the Blue Hills area, discussions began on selecting the next major COMPASS target area. In this regard, two key lessons of Charter Oak Terrace and Milner impacted the selection of the next target areas. First, the experience in Milner underscored the importance of an *existing* strong community group that can facilitate stabilization efforts. The second key factor was the need for a well-defined target area, in terms of geographic boundaries and a general "sense of neighborhood" -- two characteristics present in Charter Oak Terrace but absent in Milner. Actually, the first factor -- strong community organizations -- was the most important factor in selecting the Frog Hollow and Asylum Hill target areas. In these two areas are two of Hartford's most vocal and well-organized community groups -- Hartford Areas Rally Together (HART) in Frog Hollow and the Asylum Hill Organizing Project (AHOP) in Asylum Hill. Both areas were promised that COMPASS would come to their areas sometime in 1991. The HPD had planned to go to Frog Hollow first.

Reclamation Efforts

Reclamation efforts began in the Frog Hollow target area in March 1991, when the HPD's Vice and Narcotics Division started the undercover phase of the reclamation efforts; undercover officers began making hand-to-hand buys of narcotics in their efforts to identify drug sellers in the area. Just prior to the April 22nd press conference announcing the start of the visible phase of the COMPASS program, the 77 warrants obtained during the undercover phase were executed. This figure reflects the extent of drug activity in Frog Hollow as compared to both Charter Oak Terrace and Milner, where only 55 warrants were obtained in the two areas combined.

The larger geographic size of the Frog Hollow target area -- the area is six times larger than Charter Oak Terrace and nearly three times larger than Milner -- required a different reclamation strategy. If resources were deployed uniformly over the area, then the CRD commander felt that the result would be the type of street-to-street displacement that occurred in Milner and the CSU would simply be "chasing the drug problem" around the Frog Hollow area. Thus, the CRD commander planned what might be called the "wagon wheel" approach: reclamation would begin at a central location within the target area and then the CSU would move outward in all

directions to the other parts of the target area. In theory, this would "push" drug activity out in all directions, leaving a reclaimed, and hopefully stabilized, central core area.

The starting point, or center of the wagon wheel, was the intersection of Broad St. and Madison St., three blocks below Park St. (see Exhibit 2.11) and the site of significant open-air drug dealing. On April 22nd, therefore, all 16 CSU officers were assigned to foot patrol in the immediate vicinity of Broad and Madison. Several vehicle safety checks were also performed in that area during the first two weeks of the visible reclamation efforts. (The large number of motor vehicle arrests shown in Exhibit 5.4 were in large part due to this tactic.)

Beginning the reclamation efforts with two to three weeks of high visibility tactics in fact became the standard approach that carried over to the Asylum Hill target area. The goal of the first two weeks was to ensure that both target area residents and persons involved in the drug trade knew that the CSU was in the area. In addition, during these first few weeks, the CSU would become familiar with the target area and its drug hot spots. After this initial "saturate the area" period, the CRD commander changed tactics from high visibility ones to less visible tactics, such as buy-busts, reverse sting operations, and surveillance busts designed to disrupt specific drug hot spots within the target area.

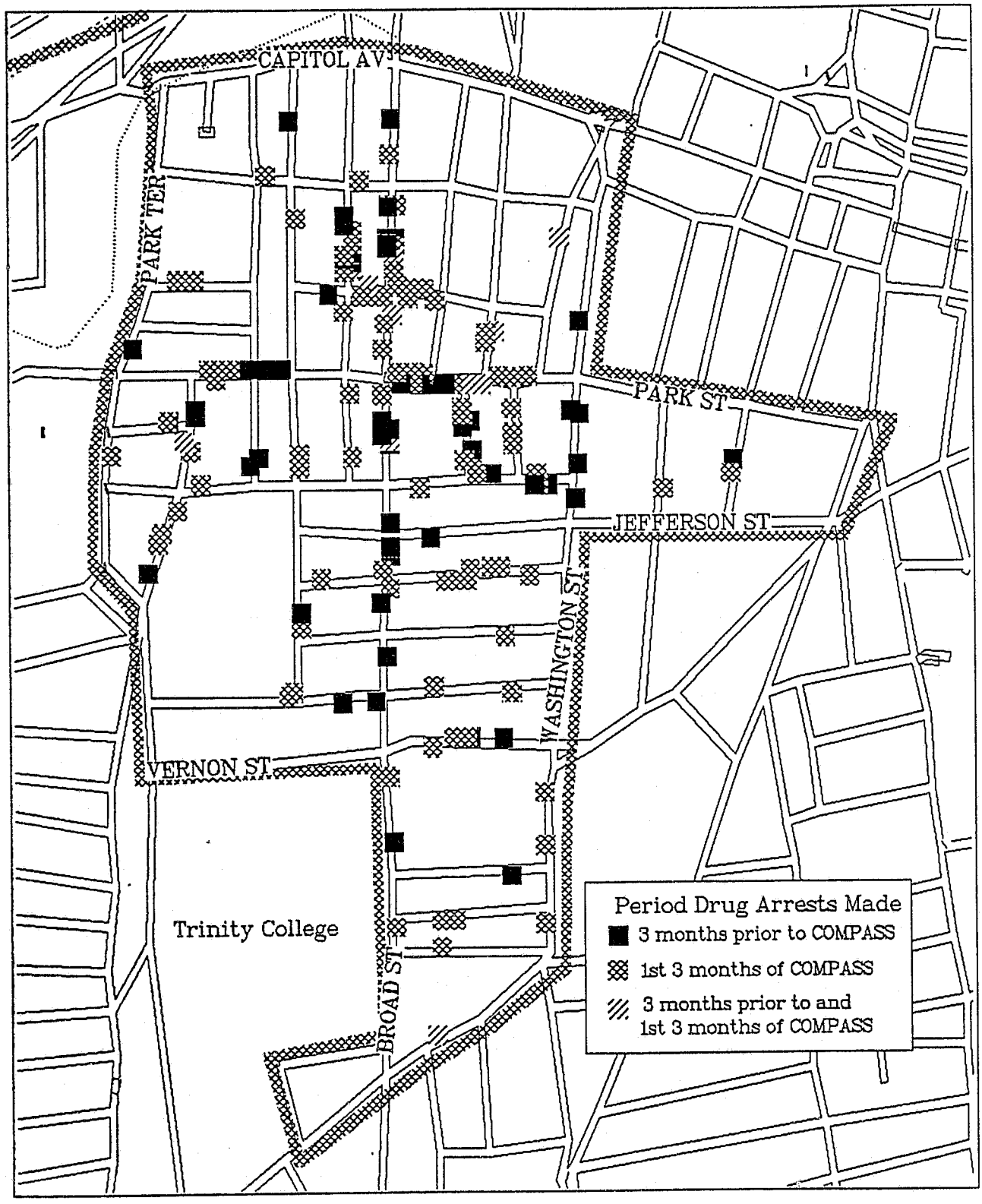
Initial reclamation results were extremely positive. Two weeks after the start of the visible reclamation phase, the CRD commander received a standing ovation at a community meeting. CSU officers felt that drug sellers and customers were in a state of shock over the high police visibility and the aggressiveness of the CSU officers. No doubt the drug sellers were accustomed to patrol officers, who were too busy responding to calls for service to notice them, and not to police officers who were freed from the 911 system and had the time to aggressively enforce laws. In this atmosphere, drug sellers became very cautious and there was a general feeling among the CSU that drug sellers and customers had suspended their activity or had moved to other parts of Hartford.

Unfortunately, as the CSU began to expand its coverage in the target area to Park St. and north of Park St., the DEP overtime grant funds began to run out, and the CSU gradually began to cut back on overtime hours. By June 1990, these funds were depleted, and delays in the State's announcement of the follow-up grant program meant that no overtime funds would be available for the CSU until October. The impact on police visibility was significant. Whereas at the start of the visible reclamation phase, the CSU was deployed on average twelve hours a day, Monday through Friday, and eight hours a day, Saturday and Sunday, by July the CSU was deployed only eight hours a day Monday through Friday. This decrease in the number of officer-hours is depicted graphically in Exhibit 5.1.

The reclamation tactics used in Frog Hollow are listed in Exhibit 5.3. Compared to Charter Oak Terrace and Milner, a higher percentage of time in Frog Hollow was spent on roving patrol -- 45.5 percent in Frog Hollow, compared to 20.3 percent in Milner and 16.0 percent in Charter Oak Terrace. The opposite is true for the park and walk tactic, with the CSU spending 25.2 percent of its time on park and walk in Frog Hollow, compared to 40.4 percent in Milner and 49.2 percent in Charter Oak Terrace. No doubt the increased use of roving patrol is due to the larger geographic size of Frog Hollow compared to the other two areas.

In terms of the immediate impact of these tactics, Exhibit 5.4 shows the average number of criminal and motor vehicle arrests made per day by the CSU. Exhibit 5.7 shows where in the target area the drug arrests were made during the first three months of the visible reclamation efforts. The number of both types of arrests -- as well as the number of criminal arrests involving drug charges (see Exhibit 4.2(c)) -- declined throughout the reclamation period. While it is tempting to argue that this reflects a similar pattern in Charter Oak Terrace, where it was argued that the decline in the number of drug arrests reflected an actual decrease in the level of drug activity, results of the CSU and citizen surveys discussed in Section 4 suggest that this may be only partially true in Frog Hollow. Indeed, the decrease in arrests may be due more to the reduced number of officer-hours in the area.

Exhibit 5.7
Crime Suppression Unit Drug Arrests: Frog Hollow



Stabilization Dosage

In Frog Hollow, COMPASS continued to be largely a "police-only" effort, as problems continued in trying to get the city involved with the stabilization efforts. An attempt was made to have housing and health inspectors and workers from other key city agencies assigned to the COMPASS target area and to have them work closely with the police. The hope was that the problems could then be addressed in a timely manner. In the end, however, there was a great reluctance on the part of many city agencies to work too closely with the HPD. The agencies were afraid that citizens would view them as agents of the police.

Inaction on the part of the non-police city agencies resulted in an increasing number of complaints from Frog Hollow residents and in particular the HART organization. Finally, in October 1991, the city responded to these complaints by creating the Quality Neighborhood Task Force (QNTF). The goals of the QNTF were basically the same as the then-disbanded Reclamation Steering Committee: (1) improve the physical environment in the neighborhood through partnerships with the neighborhood organizations; (2) empower the neighborhood, through education and responsive service delivery, to improve their quality of life; (3) instill a sense of pride and confidence in city government among neighborhood residents; and (4) reduce or eliminate drug dealing and related criminal activity in the targeted neighborhood. The city emphasized that the QNTF was not a part of the COMPASS program, but was intended to support COMPASS. Early efforts of the QNTF focused on identifying streets that needed paving, sidewalks that needed repairing, street lights that needed fixing, and vacant lots that needed cleaning. Still, months later, HART officials complained that the QNTF was "just rhetoric", and nothing concrete had been accomplished.

By the end of 1991, two other events occurred that created further turmoil in city government. In November 1991, eight of the nine members of the City Council were replaced. And in December 1991, the City Manager resigned. The appointed Interim City Manager thus became the third City Manager in the COMPASS program period.

Tactic Effectiveness

In assessing the effectiveness of the various reclamation tactics, Frog Hollow is more like Milner than Charter Oak Terrace in the sense that it is difficult to pinpoint the most effective tactic. The CRD commander noted that buy-busts were particularly effective in Frog Hollow, especially along the main drug markets on Park St. Here, "effective" meant probability of arrest -- it was easy for plainclothes CSU officers to make buys from any of a number of drug sellers operating in the area. Buy-busts can also be called effective in terms of obtaining a conviction in court. On the other hand, whether buy-busts were effective in reducing the level of drug activity in the Park St. area is unclear. As a side note, it is interesting to note that arrest-oriented tactics focused on the drug seller in Frog Hollow (i.e., buy-busts), whereas arrest-oriented tactics focused on the drug customer in Charter Oak Terrace (i.e., reverse sting operations). This is because the CSU felt it was easier to identify the drug customer in Charter Oak Terrace, but easier to identify the drug seller in Frog Hollow.

Vehicle safety checks were probably as effective in Frog Hollow as they had been in Milner -- that is, nowhere near as effective as in Charter Oak Terrace. As in Milner, it was not practical to conduct a safety check on Frog Hollow's main thruway (i.e., Park St.) because of the high vehicular volume, so the safety checks were conducted on side streets off Broad St. (i.e., the main north-south road in the target area). While these safety checks were effective in terms of motor vehicle arrests made, as the high number of such arrests made during the first few weeks suggests (see Exhibit 5.4), the safety checks clearly "caught" a very small fraction of the total vehicular traffic in the entire target area.

The effectiveness of the patrol-oriented tactics, on which the CSU spent the majority of their time, was clearly limited; due to, as noted above, loss of overtime funds and, compared to Charter Oak Terrace and Milner, the larger geographic size of Frog Hollow. Additionally, the reduced coverage and visibility came during the summer months, when the level of drug activity is believed to peak. Over the summer months, CSU officers complained that "there were just too many people in the drug trade" in the

area, and "taking out a hundred sellers barely makes a dent in the drug trade, since another hundred just take their place."

What about the role of geographic boundaries in the Frog Hollow reclamation efforts? As noted in Section 2.5, the Frog Hollow target area was constructed with geographic boundaries in mind. As previously noted, the area is bounded by Trinity College and large parks on the west, the area surrounding the State capitol and other government buildings on the north, a large hospital and a mental health center on the east, and a middle class neighborhood on the south. Nevertheless, it seems that these boundaries had a minimal impact on the reclamation efforts because of Frog Hollow's large geographic area. Recall that Frog Hollow is six times larger than Charter Oak Terrace and three times larger than Milner.

Inasmuch as Frog Hollow was the third COMPASS target area and the program was already one-year old when the CSU migrated to Frog Hollow, it is important to ask whether the "one year of experience" impacted tactic effectiveness. On the one hand, police officials felt that the planning and execution of tactics had improved over the year. However, the one year of experience may have hurt tactic effectiveness because of the drug seller's and the customer's greater awareness of the program. As when COMPASS started in Charter Oak Terrace and Milner, the press conference announcing the start of COMPASS in Frog Hollow generated a lot of publicity in local newspapers, radio stations, and television stations. Drug sellers and customers no doubt knew that the CSU was therefore in Frog Hollow and, importantly, *not* in any other area. Based on the Charter Oak Terrace and Milner experience, they knew the CSU would be in Frog Hollow for several months. Moreover, many knew when the CSU was and was not deployed in Frog Hollow by the identity of the marked patrol cars in the area -- since the CSU used patrol cars with numbers 50 through 59 on the side, drug sellers and customers could tell when "the 50s" were in the area. The extent to which drug sellers and customers exploited this knowledge and either moved to other parts of Hartford or conducted business in hours when the "50s" weren't in the area is not known. Nevertheless, this phenomenon highlights the fact that publicity was a double-edged sword for COMPASS: publicity

generated public support of and involvement in COMPASS, but also informed drug sellers and customers of the HPD's presence.

COMPASS also began to have an organizational impact on the HPD. For months, the awarding of DEP overtime monies to the CSU had caused friction with the patrolman's union, who felt it wasn't fair that a small group of officers received all the overtime. To resolve this problem, it was decided that officers would begin rotating in and out of the CSU -- six of the eighteen CSU officers would be transferred to other divisions every three months and replaced with other officers. Officers would therefore be assigned to the CSU for only nine months. From a purely operational perspective, the rotational policy clearly hurt the reclamation efforts, as the officers in the CSU had worked together as a team for two to three years and had extensive experience in anti-drug tactics. New officers coming into the CSU were primarily from the Patrol Division and were naturally less-oriented toward drug enforcement and the team approach of the CSU.

Internal HPD conflicts also arose with the Vice and Narcotics Unit. By the time the CSU was in Frog Hollow, it was clear that the HPD basically had two narcotics units. While in theory the Vice and Narcotics Unit focused on middle- and upper-level drug dealers and the CSU focused on street-level drug dealers, the two units inevitably "stepped on each other's toes" and became competitive, rather than cooperative.

Meanwhile, in December 1991, the HPD fulfilled its promise to Asylum Hill by beginning COMPASS undercover operations in that area. Had the CSU achieved its objectives in Frog Hollow by that time? As discussed in Section 4, the level of both drug-related calls for service and reports of serious crimes declined during the reclamation period in Frog Hollow. In particular, the number of gun-related calls for service decreased, as did the monthly rate of all Part I crimes, most dramatically burglaries and auto thefts. In terms of overall success, HPD officials viewed the reclamation efforts in Frog Hollow as somewhere between Milner and Charter Oak Terrace -- clearly the level of success that had been achieved in Charter Oak Terrace did not happen in Frog Hollow, but at the same time, HPD officials did not have the "cut our losses and leave" attitude they had toward Milner. There was more

a sense that a major drug market was somewhat under control, with drug activity primarily being indoors than outdoors.

Nevertheless, as the CSU prepared to migrate to Asylum Hill in January 1992, they had a strong sense that drug activity in Frog Hollow would quickly return to the way it was prior to COMPASS. As one CSU officer put it, drug sellers and customers "were just waiting for us to leave." If that was the case, then the television, radio, and newspaper coverage of COMPASS's move to Asylum Hill in January let the Frog Hollow drug sellers and customers know that they could resume their old ways. By the Spring of 1992, most HPD officials believed that Frog Hollow was in no better condition than before COMPASS. In addition, results of the citizen survey in June 1992 (discussed in Section 4.3) suggest that the residents' perception of crime and neighborhood deterioration did not improve significantly as a result of COMPASS, although, interestingly, their level of comfort with the safety of the area did. In late June 1992, the CSU returned to Frog Hollow. It remains to be seen what impact they can have on the area's significant drug trade.

5.3 Asylum Hill

In contrast to Frog Hollow, reclamation in Asylum Hill is viewed as a success by the HPD, community activists, and target area residents. As noted in Section 4.3, the before and after community surveys indicated that residents felt safer in the area and that drug activity had decreased. The majority of CSU officers stated that most drug sellers and customers left Asylum Hill. In addition, most statistical indicators of drug-related activity declined, as discussed in Section 4. In particular, the number of gun-related calls for service declined, as did the rate of assault, burglary, larceny, and auto theft. Of course, it remains to be seen if the stabilization phase of COMPASS is also successful and whether long-term improvements to the area can be attained.

The dramatic impact of the reclamation efforts over the whole target area is perhaps best illustrated by an event that took place in Asylum Hill in

May 1992. Every year the Asylum Hill Organizing Project (AHOP), the key community organization in Asylum Hill, holds a convention to celebrate the previous year's accomplishments and to set priorities for the coming year. In the past, the conventions were always held in the afternoon, because of the fear of crime and drugs. As one AHOP organizer noted, "no one would show up if we held it in the evening." But this year, sensing a renewed confidence in the neighborhood, AHOP held the convention in the evening for the first time. And a record number of over 300 people attended the convention.

In an attempt to explain the successes in Asylum Hill, the reclamation and stabilization efforts are discussed below.

Reclamation Efforts

In December 1991, the HPD's Vice and Narcotics Division began the COMPASS undercover operation in Asylum Hill. As a result of this operation, 44 warrants were obtained. (As noted in Section 5.2, 77 had been obtained in the Frog Hollow undercover operation.) These warrants were executed immediately before the January 10th press conference announcing the arrival of COMPASS in the Asylum Hill area. Also at that time, 63 prostitution arrests were made in the area.

At the kickoff press conference, the State Attorney again announced that high bonds had been set for these persons. In addition, the president of AHOP spoke on behalf of that organization, noting the tremendous "psychological difference" that the knowledge that COMPASS was coming had made on Asylum Hill residents. She also praised the HPD for fulfilling their promise to bring COMPASS to Asylum Hill by the end of 1991. Importantly, she and other community organizers appeared to understand that COMPASS's success depended on them, as well as the HPD. Community leaders agreed that "we need to get organized."

As before, the CSU began a series of high visibility tactics in the days immediately following the press conference, including vehicle safety checks and park and walks in the various pockets of drug activity in the target area. As noted earlier in Section 2.5, the drug markets in Asylum Hill at this time were spread out, with five or six hot spots distributed throughout the area.

There was no "Park St." in Asylum Hill where open-air drug activity occurred in a several block contiguous area. By the end of January and early February, the CSU continued to focus their efforts on these hot spots, but through undercover-type rather than high visibility tactics. In particular, a series of buy-bust and surveillance bust operations were run in these hot spots.

Overall, the percentage of time devoted to each tactic over the six month reclamation period is shown in Exhibit 5.3. This exhibit shows that a much higher percentage of time was spent on roving patrol in Asylum Hill than in any of the other COMPASS target areas, as 65.9 percent of the CSU officer-hours was spent on roving patrol in Asylum Hill, compared to 45.5 percent in Frog Hollow, 20.3 percent in Milner, and 16.0 percent in Charter Oak Terrace. Together, the patrol-oriented tactics (i.e., roving patrol, static patrol, horse patrol, foot patrol, and park and walk) accounted for 85.2 percent of the CSU officer-hours in Asylum Hill.

During the park and walks, the CSU also started a new tactic, namely serving warrants on persons living within the walking beats. Each morning the CSU would receive printouts from the HPD Crime Analysis Unit on persons with outstanding warrants living on different streets in the target area. Each team of CSU officers would be given warrant lists for one or two streets; then they went out "knocking on doors" in an attempt to locate these persons. The CSU reported about a 40 percent success rate in serving the warrants. In addition, to assist in their aggressive enforcement of loitering laws, the CSU began making use of "standing complaints" signed by landlords in the target area, which allowed the police to arrest persons loitering in the immediate vicinity of a location. The CSO obtained standing complaints in the course of his meetings with target area property owners. If building owners complained of drug dealing and loitering on their property, the CSO encouraged them to sign standing complaint forms. The CSO then turned these forms over to the CSU.

The average number of CSU officer-hours per day spent in Asylum Hill is depicted in Exhibit 5.1. Having access to the DEP overtime times throughout the reclamation period meant that the CSU could maintain coverage twelve hours a day, Monday through Friday, and eight hours a day

on weekends. The immediate impact of these hours in terms of criminal and motor vehicle arrests is shown in Exhibit 5.4. Drug arrests, which constituted a significant fraction of these criminal arrests, are aggregated by month in Exhibit 4.2(d). Finally, Exhibit 5.8 shows the locations of drug arrests in the three month period immediately prior to and the first three months of the visible reclamation efforts.

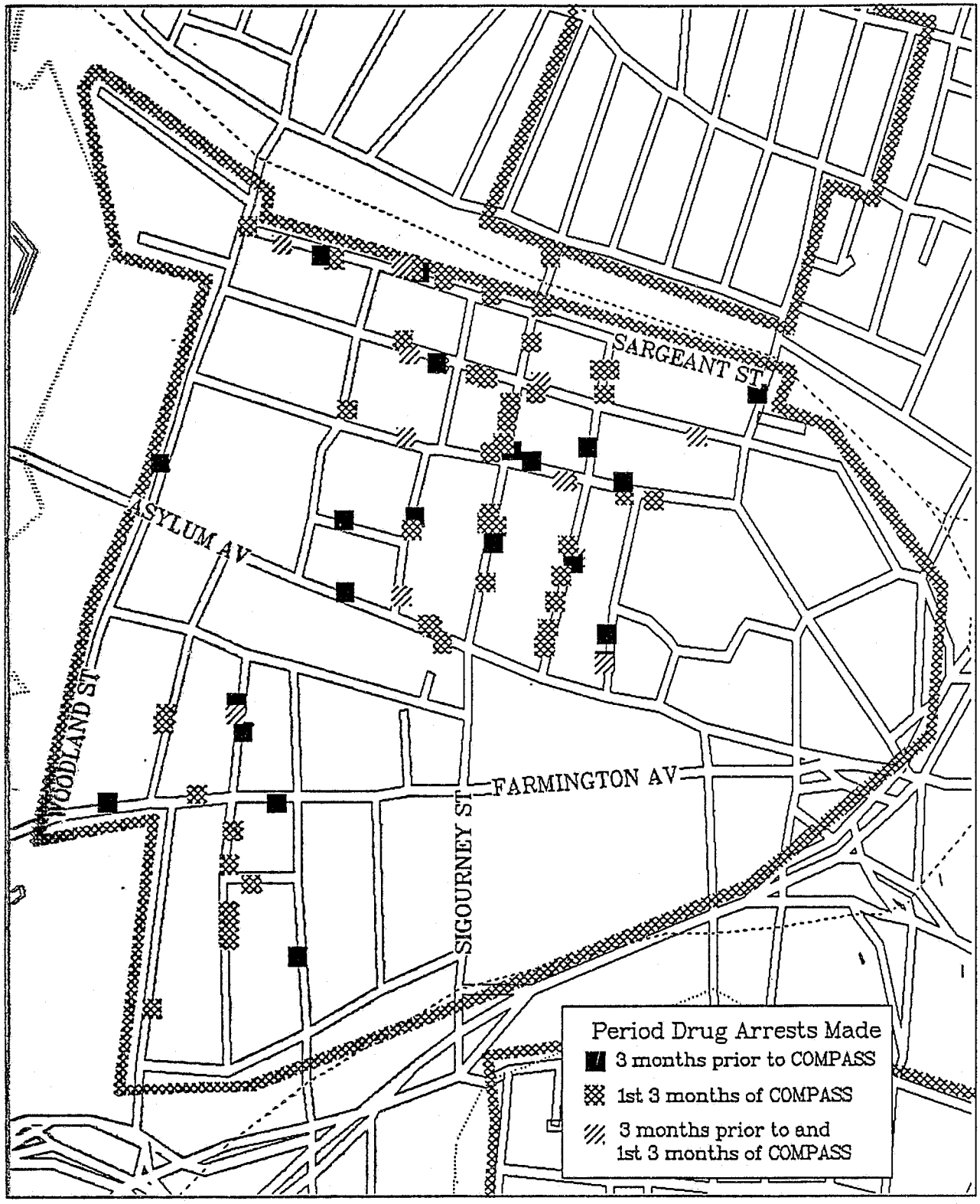
Stabilization Efforts

HPD officials were more optimistic regarding the potential for stabilization success in Asylum Hill than in any of the other target areas. As noted in Section 2.5, this area contained some very powerful institutions, which have a stake in improving the neighborhood. Asylum Hill, Inc. (AHI) had been organized by these institutions for this express purpose. Moreover, AHOP had enthusiastically embraced COMPASS and had given it rave reviews in the January press conference.

Interestingly, AHI and AHOP exhibited two very different approaches to the stabilization efforts. On the one hand, AHI took a "seize the moment" attitude -- "COMPASS is here and let's take advantage of it." This organization's efforts focused on creating a neighborhood-wide blockwatch linking the various institutions and organizations in the area. Surplus HPD two-way radios were used to report suspicious activities to the "base station", which would in turn alert other members of the network. AHI also invited the Citizen's Committee of New York City, a group that has successfully led grass roots efforts to fight drug sales in that city, to Asylum Hill to lend their expertise to the stabilization efforts. On the other hand, AHOP viewed stabilization and neighborhood revitalization as a long-term effort that must be taken "one step at a time." The two groups were clearly skeptical of the other group's approach and style, which is perhaps symptomatic of the perceived overall split between the area's large institutions and neighborhood residents.

Interestingly, neither organization had a plan in place prior to the start of the reclamation efforts. As noted above, the head of AHOP noted at the kick-off press conference that "we need to get organized." In addition, a leader of AHI felt that the HPD should postpone bringing COMPASS to

Exhibit 5.8
Crime Suppression Unit Drug Arrests: Asylum Hill



Asylum Hill because there were no plans in place. Thus, instead of using the reclamation period to implement their stabilization plan, and thus "really be ready when the CSU leaves the area", more time was spent formulating rather than implementing stabilization tactics.

Asylum Hill residents also played a key role in the stabilization efforts, particularly on South Marshall St., which was one of the area's key drug hot spots. Spurred on by the changes brought on by the CSU's efforts, residents on that street and the Asylum Hill CSO organized a neighborhood clean up at the end of February. Despite temperatures in the 20s, about 50 residents picked up trash and broken glass, raked yards, and removed fallen branches in the area. As one resident put it, "I wanted to help the community be a better place. The street looks nicer, it's cleaner, and it's finally safe" [Stansbury, 1992]. Landlords of apartment buildings on the street further assisted in the stabilization efforts by attaching floodlights to the tops of the buildings to discourage drug dealing at night.

Asylum Hill residents and community organizations and the HPD, however, continued to express frustration with the city's lack of commitment to the COMPASS program. In June 1992, another City Manager -- the fourth since the beginning of the COMPASS program -- was appointed. It remains to be seen whether this shift in leadership changes the city's commitment to COMPASS.

Tactic Effectiveness

As noted in the introduction to Section 5, there are many measures of tactic effectiveness. A new data collection instrument implemented prior to the Asylum Hill reclamation period (see Exhibit A.3) captured one aspect of tactic effectiveness by recording the tactic used when making a drug arrest. Exhibit 5.9 shows the percentage of CSU drug arrests made with each tactic alongside the percentage of officer-hours spent on each tactic. Thus, 65.9 percent of the CSU hours were spent on roving patrol and this tactic was used in making 43.6 percent of the CSU drug arrests. As shown in the exhibit, the probability of making a drug arrest -- which could be estimated by dividing the number of drug arrests made with a tactic divided by the number of hours spent on a tactic -- is the highest with the arrest-oriented

Exhibit 5.9
Asylum Hill Drug Arrests: By Reclamation Tactic

Reclamation Tactic	Percent of CSU Hours Spent on Tactic (N=17,407)	Percent of CSU Drug Arrests Made With Tactic (N=78)
Roving Patrol	65.9 %	43.6 %
Park and Walk	12.3	1.3
Surveillance Bust	8.6	23.1
Horse Patrol	3.7	0.0
Serving Warrants	3.4	19.2
Foot Patrol	1.7	1.3
Static Patrol	1.6	0.0
Buy-Busts	1.2	10.3
Safety Checks	1.0	0.0
Informant Buys	0.4	1.3
Reverse Sting Operations	0.3	0.0
TOTAL	100.0 %	100.0 %

tactics. For example, the surveillance bust tactic was used 8.6 percent of the time, but generated 23.1 percent of the drug arrests; buy-busts were used 1.2 percent of the time but generated 10.3 percent of the drug arrests. Interestingly, the effectiveness, or probability of making an arrest, of the surveillance bust and buy-bust tactics were much higher in the first few weeks of the visible reclamation efforts as compared to later in the efforts. In fact, sixteen drug arrests were made using 163 "surveillance bust-hours" in January, while only one drug arrest was made using 685 "surveillance bust-hours" in February. Similarly, all buy-bust drug arrests were made in January. That these tactics became less effective after only about a month of visible reclamation efforts is evidence of the decline in drug activity.

Buy-busts and surveillance busts were particularly effective on South Marshall St., one of the area's key drug hot spots. At the start of COMPASS, drug transactions were typically made in the following manner. Sellers would make the initial contact with the customer on the street, where the customer would ask for, say, a bag of cocaine and hand the seller twenty dollars. The seller would then tell the customer to walk three houses down the street. Meanwhile, the seller would go inside an apartment building, get the bag of cocaine, go out the back door of the building, walk behind the neighborhood buildings, and meet the customer on the street. As police pressure continued to increase, however, the entire transaction was made indoors. In these instances, an intermediary for the seller would make contact with the customer on the street. The intermediary then brought the customer to an apartment (inside a building where the seller is located), where the transaction is made. Faced with this type of market, undercover CSU officers made as many buys as possible on the street, hoping that intermediaries would lead them to the apartments where the sellers were located. Once these apartment numbers were determined, search warrants would be obtained to seize the contraband and arrest the occupants. This tactic, combined with high visibility park and walks and citizen-initiated activities described above led to a complete turnaround of this formerly drug-ridden street. While the CSU made 14 drug arrests on this street in January and February 1992, the unit made only two in March and April. Residents on this street noticed that for the first time in a long time, they were able to

safely walk and park their cars on the street, since drug customers were not taking up all the spaces.

CSU officers also felt that vehicle safety checks were effective in deterring drug activity in the areas where the safety checks were implemented, such as on South Marshall St. As in Frog Hollow, however, vehicle safety checks probably had less impact on drug activity over the whole area, again because of the large geographic area and the many roads leading in and out of the area. Further, as noted in Section 2.5, even though Asylum Hill is geographically bounded, these boundaries probably had a minimal role in the reclamation success, other than to "define" the target area as the Asylum Hill area. Like Frog Hollow, Asylum Hill is too large to have geographic boundaries which could have a significant impact on tactic effectiveness. Thus, geographic boundaries probably were a key factor only in Charter Oak Terrace, where of course they were an extremely important factor.

Because the Asylum Hill drug markets were isolated throughout the target area, and each market typically was limited to a single street segment, the CSU was able to focus on these hot spots and greatly reduce the level of drug activity. Some CSU officers, however, felt that the publicity of COMPASS alone -- news of the press conference and the initial sweep was carried by all local television stations -- drove many drug sellers out of the target area. As noted in Section 5.1, this phenomenon also occurred in the Link Valley anti-drug operation [Kennedy, 1990]. There is some statistical evidence of this when one examines the home address of persons arrested in Asylum Hill on drug charges. Of twenty one persons arrested on drug charges by the Vice and Narcotics Division during the Asylum Hill undercover operation, 76.2 percent lived in Asylum Hill. Thereafter, the fraction of persons arrested on drug charges in Asylum Hill who lived in Asylum Hill steadily declined -- in January, of the 38 persons the CSU arrested on drug charges, 55.3 percent lived in Asylum Hill, while in April of the 12 persons the CSU arrested on drug charges, only 25.0 percent lived in Asylum Hill.

The downside of the success in reducing drug activity in the target area was keeping the CSU officers motivated. Many CSU officers "hated"

going Asylum Hill because, they complained, "there was nothing to do." Other officers expressed frustration that "we are only going after the lowly street dealer, and not Mr. Big," whom, they felt, was at the heart of the drug problem. It should be noted that the CSU is designed to be a high visibility unit, and is not oriented toward the long-term undercover investigations that would be needed to arrest "Mr. Big".

By May 1992, the CSU was recommending that they return to Frog Hollow, which they felt had deteriorated significantly since they migrated to Asylum Hill. In fact, in late June 1992 the CSU did return to Frog Hollow. In the meantime, budget cuts in the city -- including the HPD -- had led to a reduction in the number of officers in the CSU from 18 to 13. It remains to be seen what can be accomplished with this reduced CSU force in Frog Hollow and future target areas.

6 Conclusions

A summary of the major COMPASS results, thoughts on the COMPASS approach, suggestions for future research, and a brief discussion of events that have transpired since the end of the formal evaluation period are contained in Sections 6.1 through 6.4, respectively.

6.1 Impact Summary

This report documents the City of Hartford's COMPASS program, which was implemented in four target areas within the city from 1990 through 1992. COMPASS is based on the premise that the best approach to reversing neighborhood decay brought on by street-level drug sales are the combined efforts of the police, the community, and other city agencies. COMPASS therefore employed a reclamation and stabilization approach, wherein the police first reclaims an area, which is then stabilized through a partnership involving the community, the city, and the police. In light of the increasing popularity of the "weed and seed" model for improving neighborhoods -- which is synonymous with the reclamation and stabilization model -- this report is quite timely.

In assessing the impact of COMPASS on the four target areas, Sections 4 and 5 of this report examined a variety of impressionistic and quantitative data. The data includes police records (i.e., drug arrests, calls for service, and crime data), survey data (i.e., Crime Suppression Unit (CSU) surveys and community attitudinal surveys), and qualitative data obtained through interviews with program participants and on-site monitoring. In reviewing these findings, it should be remembered that each target area is different, particularly in terms of geographic, demographic, and drug market characteristics. In addition, the length of time that COMPASS was active in each of these areas, the intensity of the police presence, the mix of tactics

used, the time of year during which the reclamation occurred, and a number of other factors make it difficult to evaluate precisely the effect of COMPASS as a whole.

The discussion below and Exhibit 6.1 summarize key characteristics and overall impact in each of the four target areas. Some overall conclusions regarding the COMPASS approach are discussed later in Section 6.2.

Charter Oak Terrace

Of the four target areas, Charter Oak Terrace is the most atypical. The area is almost exclusively public housing; there is no commercial "strip", and there are few legitimate reasons to be in the area unless a person lived there or were visiting a resident. The area is also significantly smaller than any of the other target areas, both in land area and population, and is geographically isolated from other neighborhoods by a highway and a river. It also lies on the boundary between the City of Hartford and the town of West Hartford, and is conveniently accessible to Interstate 84.

Reclamation began in Charter Oak Terrace in February 1990 and continued in the area until April 1991, when the CSU migrated to Frog Hollow. The CSU and community surveys suggest that COMPASS had a significant impact in Charter Oak Terrace, in terms of reducing drug activity and improving the quality of life in the area. The number of drug arrests the CSU made in the area also dropped dramatically after the first month of the reclamation efforts. Indeed, all parties involved in the reclamation efforts were surprised at how quickly drug activity decreased in the area. More specifically, the small geographic area, the well defined geographic boundaries, the isolation of the area, and the fact that there are few legitimate reasons to be in the area made this neighborhood ideal for high visibility police tactics such as vehicle safety checks and intensive patrol. As one CSU officer put it, "this area was made for a crackdown." Early reclamation successes in turn appeared to spawn extensive support from Charter Oak Terrace residents, who, along with the area's Community Service Officer, made extensive contributions to the reclamation and stabilization efforts. Despite the lack of involvement of the other City

Exhibit 6.1
COMPASS: Overall Assessment

	Charter Oak Terrace	Milner	Frog Hollow	Asylum Hill
Characteristics				
Area (Square Miles)	0.11	0.24	0.67	0.67
Geographic boundaries	Yes	No	Yes	Yes
Importance of geographic boundaries in reclamation impact	Significant	Minimal	Minimal	Minimal
Community support	Significant	Minimal	Significant	Significant
Non-police City agency support	Minimal	Minimal	Minimal	Minimal
Reclamation Impact, Based On ...				
Crime statistics	Minimal	Moderate	Moderate	Moderate
Drug-related calls for service	Minimal	Moderate	Minimal	Minimal
Community surveys	Significant	Moderate	Moderate	Significant
CSU surveys	Significant	Minimal	Moderate	Significant
Longer-Term Impact To Date (i.e., June 1992)	Moderate	Minimal	Minimal	Not Assessed

agencies in the stabilization efforts, Charter Oak Terrace today remains significantly better off than it was prior to COMPASS.

Milner

COMPASS was implemented in Milner at the same time as in Charter Oak Terrace. Like Charter Oak Terrace, Milner had a significant drug market, and there was no general agreement as to which area had the larger market. Unlike Charter Oak Terrace, the Milner target area is not a clearly defined neighborhood. If you asked individuals living in the Milner target area where they lived, you would get a variety of answers. Milner is also larger and more diverse than Charter Oak Terrace; it has a major commercial area and a major east-west highway, and is not geographically isolated from the areas surrounding the target area it. Also, Milner had no active and well-organized community organizations.

Taken together, these characteristics clearly hurt the reclamation efforts. A community survey taken in the area indicated that a minority of residents felt there were fewer people selling drugs in the area and that there was less violent crime. CSU officers were pessimistic about the impact of their presence on the drug market in Milner. The rate of drug arrests throughout the reclamation period remained fairly constant. On the other hand, there was a moderate decrease in the level of serious crime and drug-related citizen calls for service during the COMPASS period. For example, gun calls for service were down by over a third when COMPASS was in Milner. In addition, there were noticeable decreases in the rates of robberies, burglaries and larcenies during the same time period. Still, Milner is thought to be no better off today than it was prior to COMPASS.

Frog Hollow

The CSU migrated from Charter Oak Terrace and Milner to the Frog Hollow area in April 1991, and remained in the area until January 1992, when they moved on to Asylum Hill. Frog Hollow is the largest of the four COMPASS target areas with 11.2 percent of the City's population. The area contained what many in the HPD believed were some of the City's largest drug markets, particularly those surrounding Park St., a narrow, heavily

congested commercial street with a carnival-like atmosphere. Geographically, Frog Hollow is six times larger than Charter Oak Terrace and three times larger than Milner. The larger area, combined with the unavailability of overtime monies during the majority of time the CSU was in Frog Hollow, meant that the CSU could not achieve the visibility and coverage they had attained in Charter Oak Terrace or Milner.

Crime statistics and drug-related citizen calls for service suggest reclamation had a moderate impact in the Frog Hollow area. In particular, the number of gun calls for service decreased during the COMPASS period, as did the monthly rate of all Part I incidents, most dramatically burglaries and auto thefts. The rate of drug arrests during reclamation increased significantly then dropped to less than the initial rate. However, before and after surveys of neighborhood residents indicated showed mixed results. In particular, while their perceptions of crime and neighborhood deterioration did not improve significantly as a result of COMPASS, their level of comfort with the safety of the neighborhood did. The CSU felt that when they migrated to Asylum Hill in January 1992 that drug activity would quickly return to the way it was prior to COMPASS. Indeed, by the Spring of 1992, most HPD officials believed that Frog Hollow was in no better condition than before COMPASS. The CSU returned to this area in late June 1992, in hopes of reversing this decline.

Asylum Hill

The CSU was deployed in Asylum Hill from January through June 1992. The area is one of Hartford's most diverse neighborhoods, with several large businesses and cultural institutions in the area; it had, prior to COMPASS, several pockets of drug activity spread throughout the area. Geographically, the Asylum Hill target area coincides with the Asylum Hill neighborhood.

Inasmuch as data are only available through May 1992, there is no "after" period for assessing the longer-term impact of COMPASS in Asylum Hill. While the CSU was in the area the number of drug arrests increased during COMPASS, which can be attributed to intensive enforcement. Crime statistics suggest that reclamation had a moderate impact on levels of crime,

particularly the rates of assault, burglary, larceny and auto theft. However, surveys of neighborhood residents taken before and immediately after COMPASS indicate a significant impact. The percent of residents who responded that they felt "very safe" walking in their neighborhood at night increased from 5 percent to 59 percent. The number of residents who reported being aware of drug activity also declined substantially. These perceptions are consistent with those of the CSU officers, a majority of whom indicated that they believed that most buyers and sellers of drugs had, in fact, left Asylum Hill. Whether these improvements remain over the long-term in the area remains to be seen.

6.2 COMPASS In Perspective

Based on the experiences in the four COMPASS target areas, several general conclusions can be reached regarding COMPASS:

- Measuring drug activity is difficult. Indeed, it is difficult to assess displacement, the effectiveness of specific tactics, and drug enforcement programs in general. Various indirect measures of drug activity, such as drug arrests and citizen complaints, are subject to a number of external factors and therefore have limited reliability and validity. Impressionistic data are highly subjective and unobtrusive measurement methods, while potentially offering direct measures of drug activity, are costly to implement and also have limited reliability and validity. Exhibit 6.1 highlights the fact that different measures suggested COMPASS had widely differing impacts.

- In spite of the problems in measuring drug activity, mapping (indirect) indicators of drug activity appears to be a highly effective and informative exercise. In particular, the DMAP tool has great potential to impact planning and analysis in police departments. Even though the DMAP tool was not implemented as originally proposed and only used in a pilot test

mode, Hartford police officials see the DMAP tool as a new and exciting analysis tool.

- The COMPASS program generated extensive positive publicity for the City, at least initially, and particularly for the HPD. Drugs are viewed as a serious threat to the community, and the public saw COMPASS as a new and innovative attempt to control drugs and improve neighborhoods. While the publicity fostered community support in the target areas for COMPASS, knowing where the CSU was and was not no doubt helped drug sellers and customers adapt their behavior and in the end may have lessened the effectiveness of reclamation tactics.

- COMPASS created two notable institutional problems within the HPD. The program relied heavily on State overtime monies to increase visibility in the target areas, and directing these funds to the CSU raised concerns regarding equity. In addition, COMPASS meant that the HPD had, in effect, two narcotics units, the CSU and the Vice and Narcotics Division; the two units became more competitive.

- Geography can significantly increase the effectiveness of reclamation tactics. Well-defined boundaries help "define" the target area and a limited number of roads in to and out of the target area helps the police control access to the area. Also, the police can obviously achieve higher visibility in smaller target areas.

- Reclamation success spawns community support and participation in the stabilization efforts. Visible and active community involvement, in turn, increases the effectiveness of reclamation tactics, and is critical for longer-term success in stabilization.

- The stabilization component of COMPASS was largely not implemented, primarily because of turmoil in city government and a budget climate that made funding for new "seeding"

programs difficult. COMPASS therefore became largely a "police-only" program.

- In spite of the lack of an effective stabilization program, COMPASS has shown that an intensive and coordinated police effort can positively impact some of the poorest areas of the country. Nevertheless, without an effective criminal justice system and "seeding" programs that offer alternatives to persons involved in the drug trade, it is difficult to affect long-term improvements to an area.

In sum, the COMPASS experience suggests that the neighborhood-oriented anti-drug approach may be effective, provided that a viable neighborhood -- especially one with obvious geographic boundaries -- does indeed exist. One policy consequence of this statement is clear -- that jurisdictions should consider neighborhood viability and geography in the selection of anti-drug target areas. This is not to say that areas with no community support or geographic barriers should never be selected as target areas. Indeed, using CPTED techniques (see Section 1.1), it may be possible to build community support and to create geographic barriers or geographic isolation.

While it is useful to assess the impact of a program, evaluations are primarily useful if they impact future programs. In the case of COMPASS, it is hoped that this report can be useful to jurisdictions implementing "weed and seed" programs. Based on Hartford's experience, a number of suggestions are offered to these jurisdictions:

- The city -- meaning the executive leaders in the city -- must coordinate program planning and implementation, so that the program remains a "city" program, and not just a "police" program.

- The police department must commit resources for a several month period. These resources should not be tied to the 911 system, so that they can focus exclusively on the reclamation efforts.

- The heads of the pertinent non-police City agencies must pledge their commitment to the program and promise to give priority to problems identified in selected target areas.

- Police officers involved in the stabilization efforts -- such as community service officers -- must be empowered so that problems identified by them can be given immediate attention.

- The city must develop specific criteria for selecting target areas. These criteria should include degree of commitment from organizations, businesses, and residents in the area, the "sense of community" within the area, and the degree of geographic isolation of the area. Whether geographic barriers or isolation can be created in the area is also a consideration.

- Detailed program plans, and in particular stabilization or "seeding" plans, must be developed prior to the start of the reclamation or "weeding" efforts. Community organizations and city agencies must know in advance what their specific roles and objectives are with respect to both the weeding and seeding phases of the effort.

6.3 Future Efforts

This report has raised a number of important issues that deserve further study. Six possible research areas are suggested below, each of which builds on and extends the findings contained in this report.

- DMAP tool extension and application. Aside from drug enforcement operations, the DMAP tool could support planning and analysis in the patrol division and the crime analysis unit. In addition, maps produced by the tool could be used by police officials making presentations to community groups and city officials. Also, the DMAP tool capabilities could be extended by adding an animation component to it.

- A macro approach to drug market analysis. COMPASS has shown that different drug markets react differently to police enforcement efforts. A macro analysis of drug markets could attempt to quantify changes in drug markets in response to enforcement efforts and to identify area characteristics that could predict the level of effort required. COMPASS has shown that geography is one such characteristic but has not addressed the importance of the myriad of drug market characteristics, including seller profiles, customer profiles, and transaction methods. Such an effort could lead to more efficient allocation of drug enforcement resources and lend insight into what structural changes should be made to an area to make enforcement more effective.

- A micro approach to drug market analysis. A micro analysis of drug markets could focus on how individual drug sellers and customers react to enforcement efforts, such as when a seller or customer decides to move temporarily or permanently to another area. Again, such an effort could lead to improved resource allocation.

- Synthesize results of other relevant studies. In addition to the federally-funded weed and seed initiative, the Justice Department's Bureau of Justice Assistance is funding an eight-urban city and four-rural city innovative neighborhood-oriented policing (INOP) program. The COMPASS, weed and seed, and INOP results should be reviewed and synthesized.

- Making stabilization more effective. Like COMPASS, we expect that many of the weed and seed and INOP efforts will show that reclamation, or weeding, can be more easily implemented and is more effective than stabilization, or seeding. Thus, an important question is why this is so and what it would take to make the stabilization efforts as effective as the reclamation efforts.

- Implement and evaluate a "true COMPASS program." This report has shown how difficult it is to implement a true reclamation and stabilization program. As such, the "COMPASS approach" actually has not yet been validly tested; an experimental design was not implemented along with the COMPASS program. If a jurisdiction were to implement a program embodying the key COMPASS elements, together with appropriate experimental controls, it certainly would be worth evaluating.

6.4 Afterword

As noted in Section 2.4, the formal evaluation period ended in June 1992. Recognizing that several months have passed since then, a few comments describing events that have transpired since June 1992 are offered below. The comments focus on the reclamation and stabilization efforts and the DMAP tool.

Reclamation and Stabilization Efforts

By September of 1992 the Office of City Manager had embarked on a new neighborhood revitalization program utilizing many of the same programmatic tenets as the COMPASS initiative. Central to this program, like COMPASS, was focused, clearly delineated interventions. The City Manager chose four neighborhoods: Frog Hollow, Asylum Hill, Upper Albany (which includes Milner), and Stowe Village. Although no timetable was assigned to these efforts, one Assistant City Manager was assigned as the direct liaison from the City to each of the first three neighborhoods. The City Manager chose to personally work with the Stowe Village housing project. The most active neighborhood program emerged in the Frog Hollow neighborhood and paralleled the redeployment of the Crime Suppression Unit back to that neighborhood. Unlike the prior efforts in 1991, the Assistant City Manager assigned to Frog Hollow was aggressive and determined to use all of the municipal resources at his disposal for neighborhood reclamation. This included the Public Works Department, Parks and Recreation, Fire,

Licenses and Inspections, and the Social Services departments in addition to the police. Bi-weekly meetings were held with the neighborhood organization (i.e., HART) and the heads of the affected Departments were required to attend. This level of support was supplemented by the extensive institutional support in the community from the President of Trinity College, the Executive Director of Hartford Hospital, and the Director of the Institute for Living, a private mental health facility in the neighborhood. Also attending and committed was the State's Attorney for Hartford County. In short, this group represented the broadest commitment to a focused neighborhood reclamation since the inception of COMPASS in Charter Oak Terrace three years earlier.

Just as with the COMPASS experiment, the geographic boundaries of the focused intervention did not extend to, or even match neighborhood boundaries. Instead, the area of concentration represented a consensus set of city blocks with the most serious effect on neighborhood stability. Of interest is the fact that the neighborhood organization was manually maintaining a substantial amount of data on each building in the target area. These data included:

- quantity and types of arrests
- suspected drug dealing
- broken windows and lot litter
- major housing code violations
- abandoned vehicles
- miscellaneous negative information

While the quality of some of this data was poor in that the source information was incomplete, it was interesting to note that the community group itself saw the value of maintaining such records for supporting actions in pursuit of remedies to these problems.

When the data was first summarized and presented informally to the Police Department to indicate the sincerity of the neighborhood in addressing

these problems on a long term basis, the data was graphed by building and blockface. While this was done manually, it demonstrated two ways in which the neighborhood found the data to be useful in prioritizing targets and in communicating concerns to the city.

Although the reclamation effort continues, real progress beyond organizational improvements has occurred. First, the number one priority of the community was reduction in the effects of high levels of street prostitution. As a result of a community driven initiative, the Office of State's Attorney and the Police Department developed an enforcement procedure in which a fraction of the vehicles used by "johns" were seized as a part of the arrest process. Unlike a simple impoundment, the vehicles have been held as evidence and civil proceedings initiated to take permanent possession of the cars. The net effect of this action is a dramatic reduction in the number of "johns" in the area and a commensurate reduction in the number of streetwalkers. One informed neighborhood resident indicated that the problem was virtually eliminated while another indicated that the problem was reduced by at least 95 percent.

Second, the physical attributes of two of the streets in the target area were modified to improve the lighting conditions considerably and to improve the trash management. This effort was coupled with a community cleanup in which over one hundred volunteers participated. Favorably, the appearance of the area has not reverted to its former condition in the sixty days which have passed since the initial effort. Perhaps more important, however, is the psychological boost these two initiatives have given the residents and institutions of the neighborhood. The organizer for the community group HART indicated that the neighborhood went from an "organizing mode to a problem solving mode." He further indicated that the visual impact on the neighborhood has been astonishing. Nonetheless, the drug problem has not been eradicated. While the visibility of the drug market has been reduced substantially and the transactions are off-street and far more covert, there is a tacit recognition that the market still exists.

This latest neighborhood centered community reclamation effort continues to offer the potential for genuine progress in reversing urban decay. While the city has developed a number of strategies directed toward

neighborhood revitalization over three decades, the concept of steering highly focused and concentrated municipal resources together with residents and institutional representatives of the affected area is a newer development.

DMAP Tool

As noted above, the Office of the City Manager has taken on a more direct intervention role in the reclamation and stabilization activities. To support this new role, modifications to the DMAP tool have been proposed. Importantly, the scope of the tool is proposed to be broadened to include facilities that can assist residents and service providers in identifying problems and cataloguing actions.

In reviewing the prior neighborhood reclamation efforts three principal DMAP tool requirements emerge:

1. The application must contain and depict data not only about the neighborhood target itself but about the actions and proposals of the intervention as well as their effects.

2. The data base for the system must be timely. Typically, the tool must be capable of analyzing data of recent vintage. While "real time" data are not a requirement, data which are less than five to ten days old are far more useable.

3. The application and its data base must be based on a personal computer platform which is fairly simple to operate and is geographically centered. The product need not meet cartographic or geographic information technology standards; it simply needs to accurately depict the geographic area, already known to the residents and institutions in significant detail.

In its broadest sense, an application tool of this genre could, at the conceptual level, be used to manage the entire process of neighborhood reclamation by providing both prescriptive direction as well as descriptive analysis. For the expanded Hartford effort, the proposed application development is less aggressive. It modestly seeks to test the utility of the

application within the overall context of the management of one reclamation pilot.

The initial development effort should concentrate on nine areas of data collection and analysis:

- Mapset
- Crime
- Arrests
- Service requests
- Impressionistic data from residents
- Building inspections
- Housing code violations
- Fire incidents
- Tax delinquencies

While much of this data is available in an automated fashion, some will have to be collected manually. Conceptually, second levels of data will exist so that users of the tool can select and map several different crime types as well as arrest activity. Similarly, housing code violations might be grouped into subcategories that depict the priority of the problem and the expected duration of time for correction.

In order to satisfy the variable demands of users it may be useful, though not critical, to sketch the building base onto to the mapset. While this is a painstaking process it may be possible to use residents, particularly senior citizens or college students to assist in this effort. Although the mapset created by the Police Department is believed to be accurate, it has not been formally validated. Since this project addresses only a small portion of the city, a complete validation can occur.

In order to develop the tool, two different approaches are under consideration:

1. The development can build from the existing DMAP tool created during the COMPASS project. This will include using MapCode, a C type language available the MapInfo for DOS product, as the primary means of development.

2. The existing mapset can be used and the current MapInfo licenses can be upgraded to a Windows based version. This product is clearly easier to use but the existing DMAP tool must be re-written in MapBasic, the application development language MapInfo provides for its Windows product.

While there are cost sensitive issues that are operative within either of these approaches, the value of data analysis within the reclamation process continues to be a high priority.

Glossary

AHI	Asylum Hill, Inc.; an important organization in the Asylum Hill COMPASS target area that represents the major institutions in the area.
AHOP	Asylum Hill Organization Project; an important grassroots community organization in the Asylum Hill COMPASS target area.
Asylum Hill	One of the four COMPASS target areas.
CFS	Call for service. A communication to police originating from a citizen, an alarm system, a police officer, or other detector, reporting the need for police assistance.
Charter Oak Terrace	One of the four COMPASS target areas.
COMPASS	Cartographic Oriented Management Program for the Abatement of Streets Sales; the name of Hartford's program for reclaiming and stabilizing target areas.
CRD	Community Response Division; this division of the HPD is comprised of the Crime Suppression Unit, the Mounted Patrol Unit, and the Community Service Officer Unit.
CSO	Community Service Officer; police officers assigned to the Community Service Officer program who work directly with the community to solve problems.
CSU	Crime Suppression Unit; the key police resource used in the COMPASS reclamation efforts.
DEP	Drug Enforcement Program; a State of Connecticut grant program for funding local drug enforcement, drug education, and crime prevention programs.
DMAP	Drug Market Analysis Program; the NIJ's program for developing computerized drug information and mapping systems to assist street-level narcotics enforcement.

DMAP Tool	A mapping system developed during the COMPASS program whose primary objective is to assist the CSU in planning reclamation tactics.
Frog Hollow	One of the four COMPASS target areas.
HART	Hartford Areas Rally Together; an important Hartford community-based organization located in the Frog Hollow COMPASS target area.
HPD	Hartford Police Department.
MapCode	The programming language developed by MapInfo Corp. that allows customization of the MapInfo for DOS software package.
MapInfo	Mapping Information Systems Corporation (Troy, New York); the name of the desktop mapping software on which the DMAP tool is based.
Milner	One of the four COMPASS target areas.
NIJ	National Institute of Justice; the Federal agency which has partially funded COMPASS.
Reclamation	The first of two phases of the COMPASS program; designed to rid the target area of drug sellers and customers through high visibility policing and other anti-drug tactics.
Seed	The second of two phases of an approach to revitalizing neighborhoods; in this report, synonymous with stabilization.
Stabilization	The second of two phases of the COMPASS program; designed to maintain a reclaimed target area and prevent the return of drug activity.
Target Area	An area within the City of Hartford where the COMPASS program has been operating.
TipLine	The Hartford Police Department's confidential drug activity reporting hotline.
Weed	The first of two phases of an approach to revitalizing neighborhoods; in this report, synonymous with reclamation.

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Appendix A
Data Collection and Survey Instruments

The following data collection and survey instruments used during the COMPASS program are contained in this appendix:

- Exhibit A.1 -- TipLine Reporting Form
- Exhibit A.2 -- COMPASS Officers Daily Activity Report (completed by each Crime Suppression Unit officer at the end of each shift)
- Exhibit A.3 -- COMPASS Drug Arrest Report (completed for each drug arrest made by a Crime Suppression Unit officer)
- Exhibit A.4 -- COMPASS Daily Activity Report (completed by the Crime Suppression Unit supervisor at the end of each day)
- Exhibit A.5 -- Charter Oak Terrace "after" community survey instrument
- Exhibit A.6 -- Milner "after" community survey instrument
- Exhibit A.7 -- Frog Hollow "before" community survey instrument
- Exhibit A.8 -- Frog Hollow "after" community survey instrument
- Exhibit A.9 -- Asylum Hill "before" community survey instrument
- Exhibit A.10 -- Asylum Hill "after" community survey instrument

Exhibit A.1
TipLine Reporting Form

HARTFORD POLICE DEPARTMENT

DRUG TIP LINE

DATE: __/__/__ (MM DD YY) TIME: _____ (HH/MM) RECORDED BY: _____ (ARREST CODE)

TYPE OF ACTIVITY: _____ (SALE/USE/POSSESSION)

TYPE OF DRUGS: [] HEROIN [] COCAINE [] MARIJUANA [] SYNTHETIC DRUGS
[] CRACK

LOCATION: _____ (ST#) _____ (STREET NAME) _____ (APT/FLR)

_____ (INTERSECTING STREET)

LOCATION DESCRIPTION: _____

NAME OF PERSON
REPORTING TIP: [] _____ PHONE #: _____
Check box if refused/anonymous

HAVE YOU PREVIOUSLY REPORTED THIS?: [] Y or [] N

HOW LONG AGO?: _____ HOW MANY TIMES: _____

WHAT DAYS OF THE WEEK DOES THIS OCCUR?: _____

AT WHAT TIME DOES THIS OCCUR? START: _____ END: _____

HOW LONG HAS THIS ACTIVITY BEEN OCCURRING?: _____

NARRATIVE/DETAILS: (Include SUSPECT NAME, DESCRIPTION, VEHICLES, M.O.)

_____

_____

_____

_____

_____

_____

_____

_____

Distribution: [] Hold in V&N [] Assigned to V&N
[] Patrol [] Crime Suppression

Reviewed by:_____Return by_____
Drug Line Tip #_____

HPD FORM 168

Exhibit A.2
COMPASS Officers Daily Activity Report

Date: **Car #:**

Officer Name: **Unit #:**

Hours:

Hours Spent on Each Tactic	Asylum Hill	Frog Hollow	Milner	Charter Oak
Roving Patrol				
Static Patrol				
Horse Patrol				
Foot Patrol				
Park and Walk				
Reverse Sting Operations				
Buy-Busts				
Surveillance Bust				
Safety Checks				
Informant Buys				
Serving Warrants				
Total Number of Hours (Reg + OT)				
Total Number of OT Hours				

Statistical Measures	Asylum Hill	Frog Hollow	Milner	Charter Oak
# Criminal Arrests				
# Criminal Arrests with Drug Charges				
# Motor Vehicle Arrests				
# Motor Vehicle Violations				
# Warrants Served				
# Guns Recovered				
$ of Cash Seized				
# Stolen Vehicles Recovered				
# Bags Heroin Seized				
# Grams Heroin Seized				
# Bags Cocaine Seized				
# Grams Cocaine Seized				
# Bags Marijuana Seized				
# Ounces Marijuana Seized				
Other Drugs Seized _____				
Other Drugs Seized _____				
# Abandoned Vehicles Towed				
# Citizen Contacts				

Exhibit A.3
COMPASS Drug Arrest Report

I. Arrest Event Information

1. Case Number:

2. Arresting Officer Name(s):

3. Arresting Officer Unit
   - ___ Crime Suppression
   - ___ Vice and Narcotics
   - ___ Other _____

4. Date of Arrest:

5. Time of Arrest:

6. Tactic Used When Making Arrest:
   - ___ Served an Arrest Warrant
   - ___ Served a Search Warrant
   - ___ Roving Patrol
   - ___ Static Patrol
   - ___ Horse Patrol
   - ___ Foot Patrol
   - ___ Park and Walk
   - ___ Reverse Sting Operation
   - ___ Buy-Bust
   - ___ Surveillance Bust
   - ___ Safety Check
   - ___ Informant Buy
   - ___ Other _____

6a. If Tactic was 'Serve a Warrant', Indicate How Obtained:
   - ___ Hand-to-Hand Buy
   - ___ Informant Buy
   - ___ Reverse Sting
   - ___ Other _____

7. Address Where Arrest Made:

8. COMPASS Target Area:
   - ___ Charter Oak
   - ___ Milner
   - ___ Frog Hollow
   - ___ Asylum Hill

9. Drug Charges (Check all that apply):
   - ___ Possession
   - ___ Possession With Intent to Sell
   - ___ Other _____

10. Drug Type (Check all that apply):
   - ___ Heroin
   - ___ Cocaine
   - ___ Marjiuana
   - ___ Pills
   - ___ Crack
   - ___ LSD
   - ___ PCP
   - ___ Other _____

11. Packing Material:
   - ___ Glassine
   - ___ Tin Foil
   - ___ Plastic
   - ___ Vial
   - ___ Other _____

12. Stamp Type (Heroin cases only):

13. Amount Seized:
   - ___ # $10 Bags Heroin
   - ___ # $20 Bags Heroin
   - ___ # Grams Heroin
   - ___ # $10 Bags Cocaine
   - ___ # $20 Bags Cocaine
   - ___ # Grams Cocaine
   - ___ # Ounces Cocaine
   - ___ # Bags Marijuana
   - ___ # Ounces Marijuana
   - ___ Other _____
   - ___ Other _____

II. Arrestee Information

14. Racial/Ethnic Background:
   - ___ White
   - ___ Black
   - ___ Hispanic

15. Arrestee's Home Address:

16. Is Arrestee's Home Address
   - ___ in Charter Oak
   - ___ in Milner
   - ___ in Frog Hollow
   - ___ in Asylum Hill
   - ___ other Hartford area
   - ___ outside Hartford

17. Is the Arrestee
   - ___ a 'full time' drug dealer'
   - ___ a 'part time' drug dealer
   - ___ not a drug dealer
   - ___ not sure

18. Is the Arrestee
   - ___ a junkie
   - ___ an occasional user
   - ___ not a user
   - ___ not sure

19. Arrestee's typical transaction location
   - ___ on the street
   - ___ outside, off the street
   - ___ inside a private residence
   - ___ inside a public building
   - ___ not sure

20. Arrestee's typical transaction method
   - ___ drive up and buy
   - ___ walk up and buy
   - ___ use a third person
   - ___ beeper
   - ___ not sure

Exhibit A.4
COMPASS Daily Activity Report

Date:

Overall Strategy/Objective and Location:

Comments on Strategy Effectiveness:

Hours Spent on Each Tactic	Asylum Hill	Frog Hollow	Milner	Charter Oak
Roving Patrol				
Static Patrol				
Horse Patrol				
Foot Patrol				
Park and Walk				
Reverse Sting Operations				
Buy-Busts				
Surveillance Bust				
Safety Checks				
Informant Buys				
Serving Warrants				
Total Number of Hours (Reg + OT)				
Total Number of OT Hours				

Statistical Measures	Asylum Hill	Frog Hollow	Milner	Charter Oak
# Criminal Arrests				
# Criminal Arrests with Drug Charges				
# Motor Vehicle Arrests				
# Motor Vehicle Violations				
# Warrants Served				
# Guns Recovered				
$ of Cash Seized				
# Stolen Vehicles Recovered				
# Bags Heroin Seized				
# Grams Heroin Seized				
# Bags Cocaine Seized				
# Grams Cocaine Seized				
# Bags Marijuana Seized				
# Ounces Marijuana Seized				
Other Drugs Seized _____				
Other Drugs Seized _____				
# Abandoned Vehicles Towed				
# Citizen Contacts				

Exhibit A.5
Charter Oak Terrace "After" Community Survey

1. Have you seen an unusually large number of police officers in your neighborhood during the past three months? *(N=185)*

   91.4% Yes
   8.6 No

   If yes,

   were you glad to have the extra police officers in your neighborhood?*(N=166)*

   98.8% Yes
   1.2 No

2. Would you like to have more police officers patrolling your neighborhood? *(N=185)*

   96.8% Yes
   3.2 No

   If yes,

   when are additional officers needed most? *(N=161)*

   0.0% 8 AM to 4 PM
   80.1 4 PM to midnight
   19.9 Midnight to 8 AM

3. Do you think there is there less violent crime in your neighborhood than there was three months ago? *(N=184)*

   83.7% Yes
   15.8 No, there has not been any change in violent crime
   0.5 No, there is more violent crime than there was three months ago

4. Do you think there are fewer people selling drugs in your neighborhood than there were three months ago? *(N=183)*

   84.7% Yes
   13.7 No, there has not been any change
   1.6 No, there are more people selling drugs than there were three months ago

5. Has the overall quality of life in your neighborhood improved or gotten worse during the past three months? *(N=180)*

   51.1% Improved
   46.7 Remained about the same
   2.2 Gotten worse

6. Currently, about how often do you see people selling drugs in your neighborhood? *(N=183)*

   18.0% Everyday
   34.4 Every other day
   14.8 Once or twice a week
   7.1 Less than once a week
   25.5 Never

7. How satisfied are you with the overall quality of life in your neighborhood? *(N=177)*

   44.6% Very satisfied
   44.6 Satisfied
   6.2 Dissatisfied
   4.5 Very dissatisfied

Sex: *(N=185)* *40.2%* Male *59.8* Female

Age Group: *(N=185)* *12.9%* Under 20 *55.2* 20-40 *25.0* 41-60 *6.9* Over 60

Exhibit A.6
Milner "After" Community Survey

1. Have you seen an unusually large number of police officers in your neighborhood during the past three months? *(N=197)*

   72.6% Yes
   27.4 No

   If yes,

   were you glad to have the extra police officers in your neighborhood?*(N=140)*

   86.4% Yes
   13.6 No

2. Would you like to have more police officers patrolling your neighborhood?*(N=196)*

   75.0% Yes
   25.0 No

   If yes,

   when are additional officers needed most?*(N=113)*

   5.3 % 8 AM to 4 PM
   79.6 4 PM to midnight
   15.0 Midnight to 8 AM

3. Do you think there is there less violent crime in your neighborhood than there was three months ago?*(N=195)*

   38.5% Yes
   46.2 No, there has not been any change in violent crime
   15.4 No, there is more violent crime than there was three months ago

4. Do you think there are fewer people selling drugs in your neighborhood than there were three months ago?*(N=197)*

   31.5% Yes
   44.2 No, there has not been any change
   24.4 No, there are more people selling drugs than there were three months ago

5. Has the overall quality of life in your neighborhood improved or gotten worse during the past three months?*(N=197)*

   28.4% Improved
   42.1 Remained about the same
   29.4 Gotten worse

6. Currently, about how often do you see people selling drugs in your neighborhood?*(N=197)*

   49.7% Everyday
   11.2 Every other day
   11.2 Once or twice a week
   9.6 Less than once a week
   18.3 Never

7. How satisfied are you with the overall quality of life in your neighborhood?*(N=196)*

   1.5% Very satisfied
   36.2 Satisfied
   43.4 Dissatisfied
   18.9 Very dissatisfied

Sex:*(N=192)* 47.4% Male 52.6 Female
Age Group : *(N=194)* 16.0% Under 20 54.6 20-40 25.8 41-60 3.6 Over 60

Exhibit A.7
Frog Hollow "Before" Community Survey

The first few questions concern "your block". I am using the term "your block" to mean your street from one corner to the next.

1. I would like to ask you some questions about different sorts of problems on "your block". Please respond yes or no whether you think any of these things are a problem on your block:

	Yes	No	
a. Disorderly groups	56.0%	44.0	(N=268)
b. Drinking in public	51.1%	48.9	(N=268)
c. Abandoned cars	33.0%	67.0	(N=267)
d. Speeding cars	61.7%	38.3	(N=266)
e. People selling drugs	54.3%	45.7	(N=247)
f. People using drugs	46.7%	53.3	(N=240)
g. Vandalism	48.5%	51.5	(N=264)
h. People breaking into homes	45.5%	54.5	(N=257)
i. Stray cats and dogs	38.9%	61.1	(N=265)
j. Litter	52.6%	47.4	(N=266)
k. Excessive noise	54.1%	45.9	(N=266)
l. Abandoned homes	14.7%	85.3	(N=265)
m. Prostitution	44.1%	55.9	(N=263)

2. How safe do you feel walking alone, during the day, on "your block"? *(N=269)*
   - 19.3% Very safe
   - 43.5 Reasonably safe
   - 25.7 Somewhat safe
   - 11.5 Very unsafe

3. How safe do you feel walking alone, at night, on "your block"? *(N=267)*
   - 3.4% Very safe
   - 9.4 Reasonably safe
   - 11.6 Somewhat safe
   - 28.5 Very unsafe
   - 47.2 Don't walk around at night

4. Over the past few weeks have you seen anybody selling drugs on "your block"? *(N=263)*
   - 28.1% Yes --> Go to question 5.
   - 71.9 No --> Go to question 7.

5. About how often do you see people selling drugs on "your block"? *(N=74)*
   - 77.0% Everyday
   - 20.3 Once or twice a week
   - 2.7 Less than once a week

Exhibit A.7
(Page 2 of 4)

6. Does this drug dealing interfere with your day to day activities? *(N=74)*

55.6%	No, it does not
44.4	Yes, it does

The next few questions concern the entire Frog Hollow neighborhood.

7. How concerned are you about crime in your neighborhood? *(N=265)*

81.1%	Very concerned
18.1	Somewhat concerned
0.8	Not concerned at all

8. How satisfied are you with the quality of police service you receive in your neighborhood? *(N=266)*

15.4%	Very satisfied
58.6	Satisfied
19.9	Dissatisfied
3.0	Very dissatisfied

9. Do you think the drug problem is improving, staying about the same, or getting worse in your neighborhood? *(N=249)*

17.7%	Improving
48.2	Staying about the same
34.1	Getting worse

10. Please indicate whether you think the following anti-drug strategies would be very effective, somewhat effective, or not very effective in reducing the drug problem in your neighborhood.

	Very Effective	Somewhat Effective	Not Very Effective	
a. More police officers in the area	86.4%	11.7	1.9	*(N=264)*
b. More recreation programs for youths	84.6%	11.7	3.8	*(N=266)*
c. More job opportunities for youths	93.2%	6.0	0.8	*(N=266)*
d. More treatment programs for addicts	73.7%	18.7	7.6	*(N=262)*
e. Better drug education in school	89.0%	10.2	0.8	*(N=266)*
f. Citizens reporting drug activity to the police	68.7%	27.2	4.2	*(N=265)*
g. Building stronger relationships between the police, community groups, and other city agencies	67.7%	27.4	4.9	*(N=266)*
h. Holding community meetings, marches and rallies	57.4%	30.2	12.5	*(N=265)*
i. Organizing neighborhood block watch groups	69.8%	26.8	3.4	*(N=265)*

Exhibit A.7
(Page 3 of 4)

Finally, I'd like to ask you some background questions.

11. Do you own or rent your home? *(N=268)*
    - *20.9%* Own
    - *79.1* Rent

12. What year were you born in? *(N=258)*
    mean = 1950

13. What was the highest grade or year of school you completed? *(N=266)*
    - *2.6%* None
    - *22.6* Elementary School
    - *49.6* High School
    - *12.4* Some College
    - *10.2* College Graduate
    - *0.8* Some Graduate School
    - *1.9* Graduate Degree

14. What is your current employment status? *(N=268)*
    - *37.7%* Work full-time
    - *7.1* Work part-time
    - *55.2* Unemployed

15. How likely is it that you will move out of your neighborhood in the next two years? *(N=267)*
    - *15.7%* Definitely move
    - *28.5* Probably move
    - *40.4* Probably not move
    - *15.4* Definitely not move

Thank you for your cooperation with this survey. As we continue on this research may someone from HART contact you again at some future time?

If yes, Name:_____
Phone Number:_____
Address:_____

****

Interviewer to Note:

Gender: *(N=269)*
- *44.9%* Male
- *55.1* Female

Exhibit A.7
(Page 4 of 4)

Respondent's Street

_____St. between _____ and _____

Interviewer's Name: _____

Interviewer's Comment About the Interview: _____

_____

_____

Exhibit A.8
Frog Hollow "After" Community Survey

1. I would like to ask you some questions about different sorts of problems on your block. Please respond yes or no whether you think any of these things are a problem on your block:

	Yes	No	Don't Know	
a. Disorderly groups	69.7%	28.0%	2.3%	(N=264)
b. Drinking in public	75.4%	23.9%	0.8%	(N=264)
c. Abandoned cars	56.8%	41.3%	1.9%	(N=264)
d. Speeding cars	83.7%	13.6%	2.7%	(N=264)
e. People selling drugs	60.6%	19.7%	19.7%	(N=264)
f. People using drugs	60.5%	18.3%	21.3%	(N=263)
g. Vandalism	65.0%	28.9%	6.1%	(N=263)
h. People breaking into homes	51.1%	35.2%	13.6%	(N=264)
i. Stray cats and dogs	67.8%	30.3%	1.9%	(N=261)
j. Litter	69.2%	30.4%	0.4%	(N=263)
k. Excessive noise	67.7%	31.9%	0.4%	(N=263)
l. Abandoned homes	45.0%	48.1%	6.9%	(N=262)
m. Prostitution	38.0%	37.3%	24.7%	(N=260)

2. In general, in the last six months, would you say your neighborhood has become a better place to live, gotten worse, or stayed about the same? *(N=261)*

23.4%	Better
58.2%	Worse
18.4%	About the same

3. All things considered, what do you think your neighborhood will be like a year from now? Will it be a better place to live, have gotten worse, or stayed about the same? *(N=262)*

19.5%	Better
47.3%	Worse
33.2%	About the same

4. On the whole, how do you feel about this neighborhood as a place to live? Are you ... *(N=260)*

18.8%	Very satisfied
26.2%	Satisfied
35.4%	Dissatisfied
19.6%	Very dissatisfied

5. How safe do you feel walking alone, during the day, on your block? *(N=255)*

53.3%	Very safe
15.7%	Reasonably safe
14.5%	Somewhat safe
16.5%	Very unsafe

6. How safe do you feel walking alone, at night, on your block? *(N=262)*

13.7% Very safe
17.6% Reasonably safe
18.3% Somewhat safe
42.0% Very unsafe
8.4% Don't walk around at night

7. Do you think the drug problem in your neighborhood is improving, staying about the same, or getting worse in your neighborhood? *(N=257)*

21.4% Improving
32.2% Staying about the same
46.3% Getting worse

8. Over the past few weeks have you seen anybody selling drugs on your block? *(N=264)*

67.0% Yes --> Go to question 9.
33.0% No --> Go to question 11.

9. About how often do you see people selling drugs on your block? *(N=174)*

59.8% Everyday
19.0% Once or twice a week
21.3% Less than once a week

10. Does this drug dealing interfere with your day to day activities? *(N=172)*

48.8% No, it does not
51.2% Yes, it does

11. How concerned are you about crime in your neighborhood? *(N=262)*

47.3% Very concerned
24.4% Somewhat concerned
28.2% Not concerned at all

12. How often does worry about crime prevent you from doing things you would like to do in your neighborhood? *(N=258)*

26.7% Very often
16.3% Somewhat often
23.3% Rarely
33.7% Never

Exhibit A.8
(Page 3 of 4)

13. How satisfied are you with the quality of police service you receive in your neighborhood? (N=257)

11.7%	Very satisfied
40.9%	Satisfied
28.8%	Dissatisfied
18.7%	Very dissatisfied

Finally, I'd like to ask you some background questions.

14. Do you own or rent your home? *(N=261)*

11.9%	Own
88.1%	Rent

15. What year were you born in? *(N=242)*

Average Age = 35.7 yrs (1956)
Std. Dev. = 11.0 yrs.

16. What was the highest grade or year of school you completed? *(N=257)*

2.3%	None
23.3%	Elementary School
52.9%	High School
15.6%	Some College
3.9%	College Graduate
1.2%	Some Graduate School
0.8%	Graduate Degree

17. What is your current employment status?

14.0%	Work full-time
16.0%	Work part-time
70.0%	Unemployed

18. How likely is it that you will move out of your neighborhood in the next two years? *(N=258)*

35.7%	Definitely move
24.4%	Probably move
15.1%	Probably not move
24.8%	Definitely not move

Exhibit A.8
(Page 4 of 4)

Thank you for your cooperation with this survey. As we continue on this research may someone from HART contact you again at some future time?

If yes, Name:_____
Phone Number:_____
Address:_____

****

Interviewer to Note: *(N=264)*

Gender: *54.2%* Male
45.8% Female

Interviewer's Name: _____

Interviewer's Comment About the Interview: _____

_____

_____

Exhibit A.9
Asylum Hill "Before" Community Survey

1. I would like to ask you some questions about different sorts of problems on your block. Please respond yes or no whether you think any of these things are a problem on your block:

	Yes	No	Don't Know	
a. Disorderly groups	46.2%	47.8	6.1	(N=247)
b. Drinking in public	51.0%	44.2	4.8	(N=249)
c. Abandoned cars	40.9%	56.3	2.8	(N=247)
d. Speeding cars	70.1%	26.6	3.3	(N=244)
e. People selling drugs	53.6%	25.8	20.6	(N=248)
f. People using drugs	40.7%	28.8	30.5	(N=243)
g. Vandalism	52.5%	38.8	8.7	(N=242)
h. People breaking into homes	53.3%	37.0	9.8	(N=246)
i. Stray cats and dogs	45.5%	48.8	5.7	(N=246)
j. Litter	52.5%	45.4	2.1	(N=240)
k. Excessive noise	48.2%	51.4	0.4	(N=244)
l. Abandoned homes	26.9%	68.6	4.5	(N=245)
m. Prostitution	43.3%	49.4	7.3	(N=245)

2. The next few questions concern your feelings about your neighborhood. In general, in the last six months, would you say your neighborhood has become a better place to live, gotten worse, or stayed about the same? *(N=246)*

11.4%	Better
26.4	Worse
60.6	About the same
1.6	Don't know

3. All things considered, what do you think your neighborhood will be like a year from now? Will it be a better place to live, have gotten worse, or stayed about the same? *(N=235)*

36.2%	Better
28.9	Worse
29.4	About the same
5.5	Don't know

4. Do you really feel a part of your neighborhood, or do you think of it more as just a place to live? *(N=243)*

50.2%	Feel a part of neighborhood
47.7	Just a place to live
2.1	Don't know

5. In some neighborhoods people do things together and help each other. In other neighborhoods people mostly go their own way. In general, what kind of neighborhood would you say this is? Is it mostly one where people help each other or one where people go their own way? *(N=242)*

30.2%	Help each other
62.0	Go their own way
7.9	Don't know

6. On the whole, how do you feel about this neighborhood as a place to live? Are you ... *(N=243)*

11.5%	Very satisfied
49.4	Somewhat satisfied
25.1	Somewhat dissatisfied
13.2	Very dissatisfied
0.8	Don't know

7. During the past six months, have you attended any community meetings in this neighborhood that have focused on local problems and concerns? *(N=244)*

39.3%	Yes --> Go to question 9
58.2	No --> Go to question 8
2.5	Don't know --> Go to question 9

8. What was the primary reason you didn't attend the meetings. Was it because .... *(N=154)*

41.6%	You didn't hear about the meetings
6.5	You were afraid to go out at night to attend the meetings
5.8	You weren't that concerned about neighborhood problems
46.1	Other _____

9. During the past six months, have there been any social get-togethers, like block parties, or other large social events in this neighborhood? *(N=221)*

18.6%	Yes --> Go to question 10.
77.8	No --> Go to question 11.
3.6	Don't know --> Go to question 11.

10. Have you attended any of these events? *(N=60)*

56.7%	Yes
43.3	No

Exhibit A.9
(Page 3 of 5)

11. How concerned are you about crime in your neighborhood? *(N=238)*

81.1%	Very concerned
14.7	Somewhat concerned
2.5	Not concerned at all
1.7	Don't know

12. How often does worry about crime prevent you from doing things you would like to do in your neighborhood? *(N=235)*

16.2%	Very often
34.0	Somewhat often
30.6	Rarely
15.3	Never at all
3.8	Don't know

13. How safe do you feel walking alone, during the day, on your block? *(N=242)*

24.4%	Very safe
41.3	Reasonably safe
23.6	Somewhat safe
10.3	Very unsafe
0.4	Don't know

14. How safe do you feel walking alone, at night, on your block? *(N=236)*

5.1%	Very safe
8.1	Reasonably safe
8.1	Somewhat safe
30.5	Very unsafe
47.0	Don't walk around at night
1.3	Don't know

15. How satisfied are you with the quality of police service you receive in your neighborhood? *(N=242)*

14.9%	Very satisfied
42.1	Satisfied
25.6	Dissatisfied
8.3	Very dissatisfied
9.1	Don't know

16. Over the past few weeks have you seen anybody selling drugs on your block? *(N=236)*

33.5%	Yes --> Go to question 17.
63.6	No --> Go to question 19.
3.0	Don't know --> Go to question 19.

17. About how often do you see people selling drugs on your block? *(N=96)*

49.0%	Everyday
16.7	Once or twice a week
9.4	Less than once a week
16.7	Hardly ever
8.3	Don't know

18. Does this drug dealing interfere with your day to day activities? *(N=95)*

61.1%	No, it does not
31.6	Yes, it does
7.4	Don't know

19. Do you think the drug problem is improving, staying about the same, or getting worse in your neighborhood? *(N=235)*

9.8%	Improving
23.4	Staying about the same
40.9	Getting worse
26.0	Don't know

Finally, I'd like to ask you some background questions.

20. Do you own or rent your home? *(N=237)*

16.5%	Own
83.5	Rent

21. What year were you born in? *(N=204)*
Average = 1949

22. What was the highest grade or year of school you completed? *(N=235)*

0.4%	None
3.8	Elementary School
40.4	High School
31.9	Some College
15.7	College Graduate
2.6	Some Graduate School
5.1	Graduate Degree

23. What is your current employment status? *(N=235)*

61.7%	Work full-time
9.4	Work part-time
28.9	Unemployed

24. How many years have you lived in this neighborhood? *(N=229)*

Average = 6.9 (# years)

25. How likely is it that you will move out of your neighborhood in the next two years? *(N=237)*

24.5%	Definitely move
21.5	Probably move
40.5	Probably not move
13.5	Definitely not move

Thank you for your cooperation with this survey. As we continue on this research may we contact you again at some future time?

If yes, Name:_____
Phone Number:_____
Address:_____

****

Interviewer to Note:

Gender:	*41.7%*	Male
(N=163)	*58.3*	Female

Respondent's Address:

_____St.

Interviewer's Name:_____

Exhibit A.10
Asylum Hill "After" Community Survey

1. I would like to ask you some questions about different sorts of problems on your block. Please respond yes or no whether you think any of these things are a problem on your block:

	Yes	No	Don't Know	
a. Disorderly groups	43.5%	53.2%	2.2%	(N=216)
b. Drinking in public	46.3%	50.9%	2.8%	(N=216)
c. Abandoned cars	31.9%	66.7%	1.4%	(N=216)
d. Speeding cars	63.4%	36.1%	0.5%	(N=216)
e. People selling drugs	49.1%	40.3%	10.6%	(N=216)
f. People using drugs	41.9%	46.5%	11.6%	(N=215)
g. Vandalism	45.4%	52.8%	1.8%	(N=216)
h. People breaking into homes	41.2%	55.6%	3.2%	(N=216)
i. Stray cats and dogs	36.1%	63.4%	0.5%	(N=216)
j. Litter	56.7%	42.4%	0.9%	(N=210)
k. Excessive noise	47.9%	51.6%	0.5%	(N=215)
l. Abandoned homes	27.9%	70.2%	1.9%	(N=215)
m. Prostitution	40.5%	55.3%	4.2%	(N=215)

2. The next few questions concern your feelings about your neighborhood. In general, in the last six months, would you say your neighborhood has become a better place to live, gotten worse, or stayed about the same? (N=216)

30.6% Better
19.0% Worse
49.1% About the same
1.4% Don't know

3. All things considered, what do you think your neighborhood will be like a year from now? Will it be a better place to live, have gotten worse, or stayed about the same? (N=215)

31.9% Better
31.0% Worse
31.9% About the same
5.1% Don't know

4. Do you really feel a part of your neighborhood, or do you think of it more as just a place to live? (N=215)

58.1% Feel a part of neighborhood
39/1% Just a place to live
2.8% Don't know

Exhibit A.10
(Page 2 of 5)

5. In some neighborhoods people do things together and help each other. In other neighborhoods people mostly go their own way. In general, what kind of neighborhood would you say this is? Is it mostly one where people help each other or one where people go their own way? (N=215)

46.0%	Help each other
49.8%	Go their own way
4.2%	Don't know

6. On the whole, how do you feel about this neighborhood as a place to live? Are you ... (N=215)

27.4%	Very satisfied
40.5%	Somewhat satisfied
18.1%	Somewhat dissatisfied
13.5%	Very dissatisfied
0.5%	Don't know

7. During the past six months, have you attended any community meetings in this neighborhood that have focused on local problems and concerns? (N=215)

39.6%	Yes --> Go to question 9
59.5%	No --> Go to question 8
0.5%	Don't know --> Go to question 9

8. What was the primary reason you didn't attend the meetings. Was it because .... (N=101)

65.3%	You didn't hear about the meetings
9.9%	You were afraid to go out at night to attend the meetings
8.9%	You weren't that concerned about neighborhood problems
5.8%	Other _____

9. During the past six months, have there been any social get-togethers, like block parties, or other large social events in this neighborhood? (N=211)

24.2%	Yes --> Go to question 10.
72.0%	No --> Go to question 11.
3.8%	Don't know --> Go to question 11.

10. Have you attended any of these events? (N=76)

43.4%	Yes
56.6%	No

Exhibit A.10
(Page 3 of 5)

11. How concerned are you about crime in your neighborhood? (N=215)

75.3%	Very concerned
14.0%	Somewhat concerned
8.4%	Not concerned at all
2.3%	Don't know

12. How often does worry about crime prevent you from doing things you would like to do in your neighborhood? (N=215)

31.6%	Very often
14.0%	Somewhat often
25.1%	Rarely
27.9%	Never at all
1.4%	Don't know

13. How safe do you feel walking alone, during the day, on your block? (N=215)

59.1%	Very safe
14.9%	Reasonably safe
12.1%	Somewhat safe
13.0%	Very unsafe
0.9%	Don't know

14. How safe do you feel walking alone, at night, on your block? (N=215)

19.1%	Very safe
8.4%	Reasonably safe
9.8%	Somewhat safe
28.8%	Very unsafe
33.5%	Don't walk around at night
0.5%	Don't know

15. How satisfied are you with the quality of police service you receive in your neighborhood? (N=215)

24.2%	Very satisfied
33.0%	Satisfied
21.4%	Dissatisfied
13.5%	Very dissatisfied
7.9%	Don't know

16. Over the past few weeks have you seen anybody selling drugs on your block? (N=214)

26.6%	Yes --> Go to question 17.
70.1%	No --> Go to question 19.
3.3%	Don't know --> Go to question 19.

Exhibit A.10
(Page 4 of 5)

17. About how often do you see people selling drugs on your block? (N=66)

59.1%	Everyday
19.7%	Once or twice a week
6.1%	Less than once a week
10.6%	Hardly ever
4.5%	Don't know

18. Does this drug dealing interfere with your day to day activities? (N=66)

63.6%	No, it does not
31.8%	Yes, it does
4.5%	Don't know

19. Do you think the drug problem is improving, staying about the same, or getting worse in your neighborhood? (N=215)

21.4%	Improving
34.0%	Staying about the same
33.5%	Getting worse
11.2%	Don't know

Finally, I'd like to ask you some background questions.

20. Do you own or rent your home? (N=214)

22.4%	Own
77.6%	Rent

21. What year were you born in? (N=197)
Mean is 1949

22. What was the highest grade or year of school you completed? (N=213)

0.5%	None
8.9%	Elementary School
39.0%	High School
23.5%	Some College
19.7%	College Graduate
2.8%	Some Graduate School
5.6%	Graduate Degree

Exhibit A.10
(Page 5 of 5)

23. What is your current employment status? (N=215)

49.8%	Work full-time
11.2%	Work part-time
39.1%	Unemployed

24. How many years have you lived in this neighborhood? (N=215)

9.7 (mean) (# years)

25. How likely is it that you will move out of your neighborhood in the next two years? (N=213)

25.8%	Definitely move
22.1%	Probably move
30.0%	Probably not move
22.1%	Definitely not move

26. And finally, we conducted a similar telephone survey of Asylum Hill residents five months ago. Did you respond to that earlier survey? (N=215)

21.4%	Yes
71.2%	No
7.4%	Don't know

Thank you for your cooperation with this survey. As we continue on this research may we contact you again at some future time?

If yes, Name:_____
Phone Number:_____
Address:_____

****

Interviewer to Note: (N=213)

Gender:

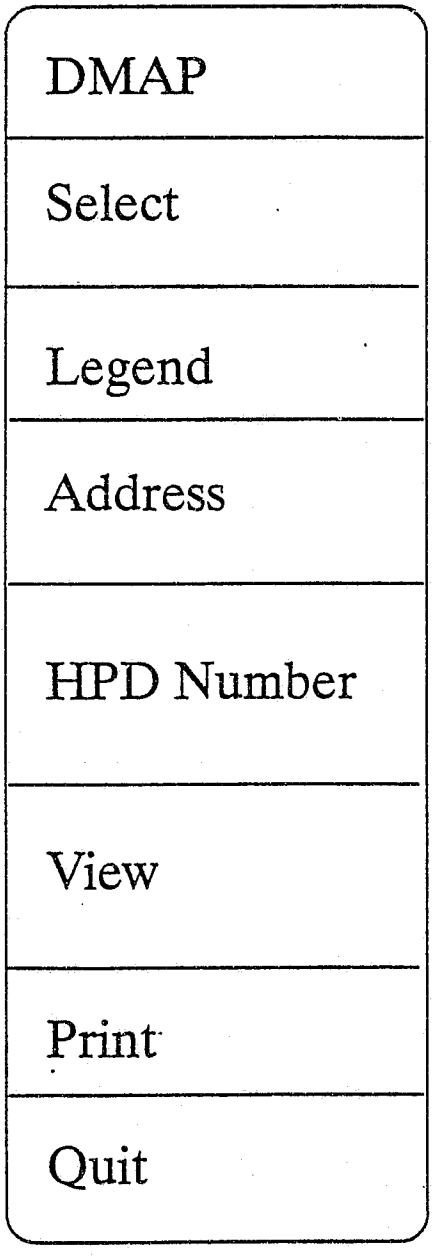
34.7%	Male
62.3%	Female

Interviewer's Name: _____

Appendix B
DMAP Tool Reference Guide

Exhibit B.1 contains a reference guide that the HPD developed for the DMAP tool. A more general overview of how the tool is used is contained in Section 3.3.

Exhibit B.1
DMAP Tool Reference Guide



See **page 2** for instructions on the use of the inquiry facility

(NOTE - LEGEND/ADDRESS & HPD Number are used only after Select.)

Position the crosshairs to identify the area in which you want the the legend to be displayed on your map

Causes the map to be labeled with the street addresses where activity has been found that matches your selection criteria.

Causes the map to be labelled with case/arrest(etc.) number of the activity requested within your slection criteria.

(Note - Your map can be labelled with either HPD numbers or addresses but not both)

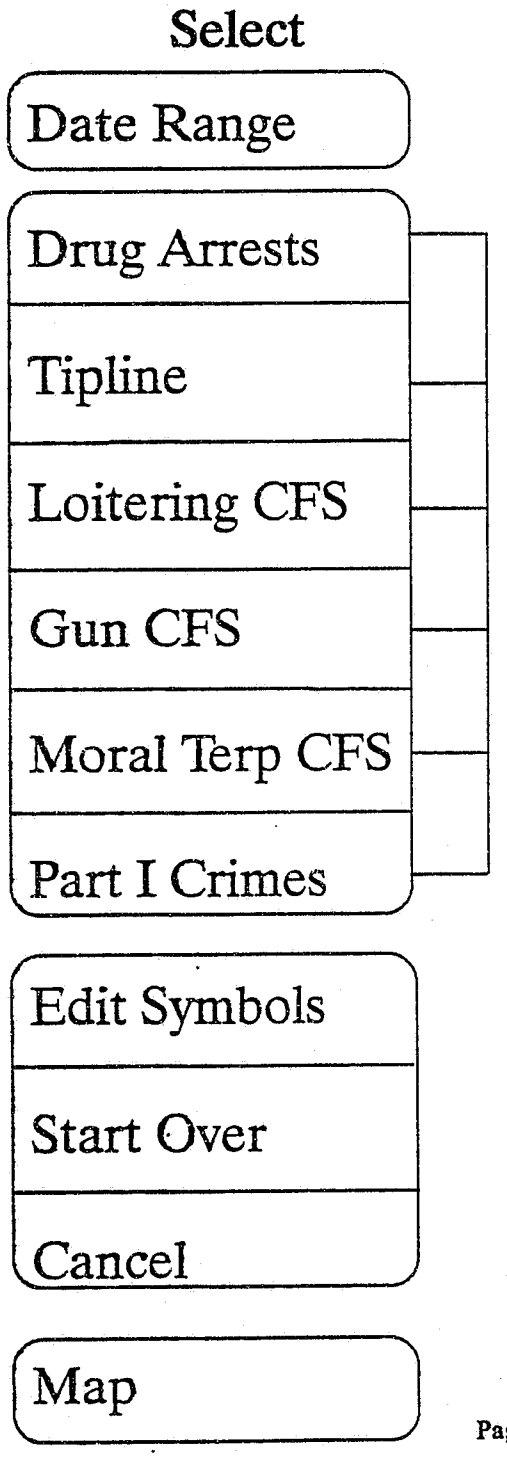
See **page 6** for an explanation of how you can change the size/center/area (etc) of your map. Use ZOOM or MAGNIFY from this menu if you are not seeing enough information on your map.

Prints a map the same as the one currently displayed on your screen

Exit MAPINFO

Page 1

Exhibit B.1
(Page 2 of 6)



Current: MM/DD/YY to MM/DD/YY
(you may either search using the displayed dates or select Date Range an change the dates.) See page 4 for instructions.

Selected Events Symbols

Selecting any or all of these crimes/ calls/ arrests will cause it to be added to the list/ search.

See page 5 for instructions.

See page 6 for instructions.

Use this selection to erase all the selected events and "Start Over"

This selection returns you to the main menu.

Displays a map showing all the occuences of the selected eve

Exhibit B.1
(Page 3 of 6)

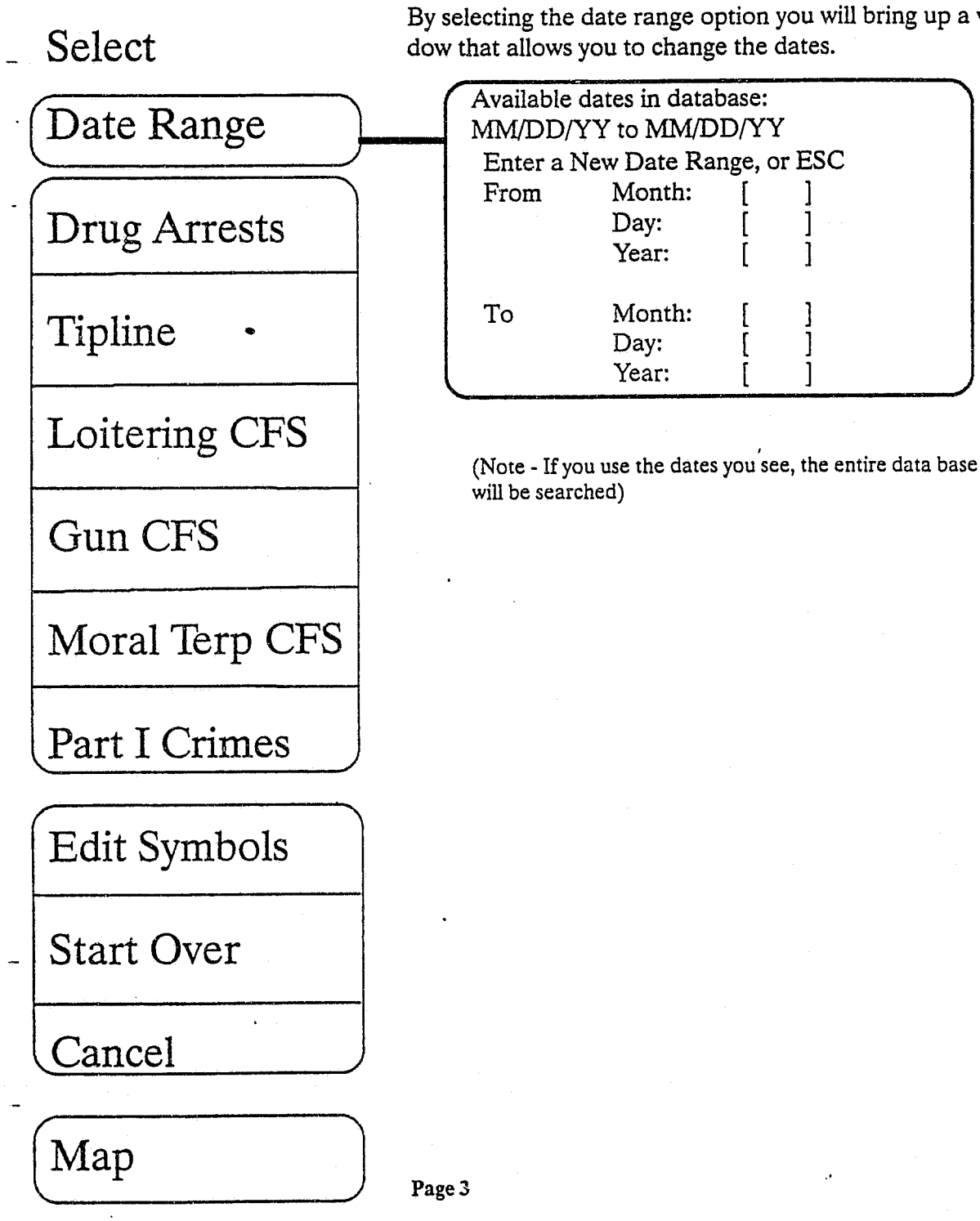


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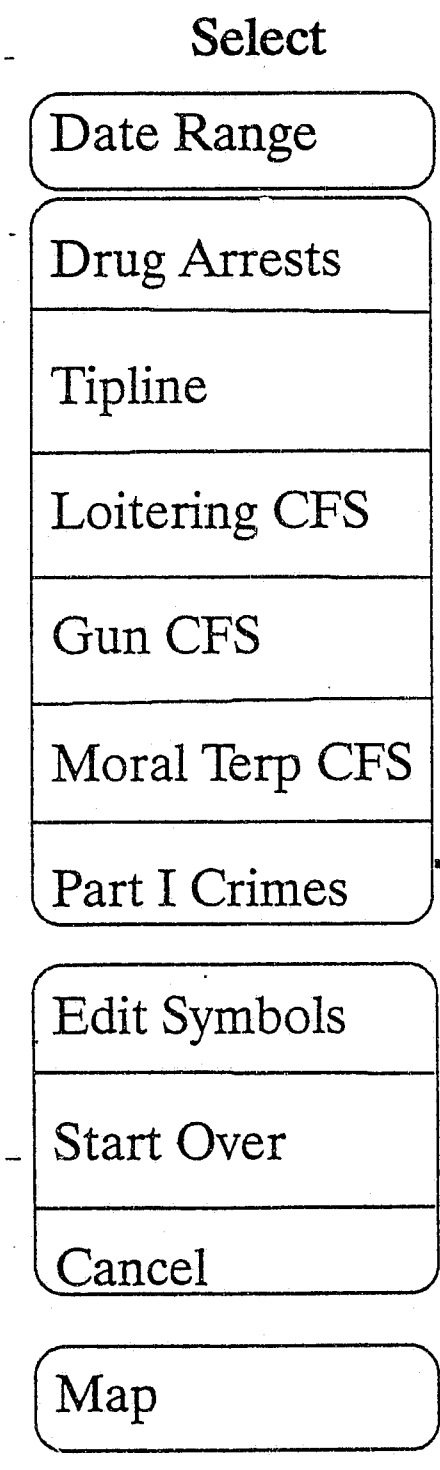
Exhibit B.1
(Page 4 of 6)

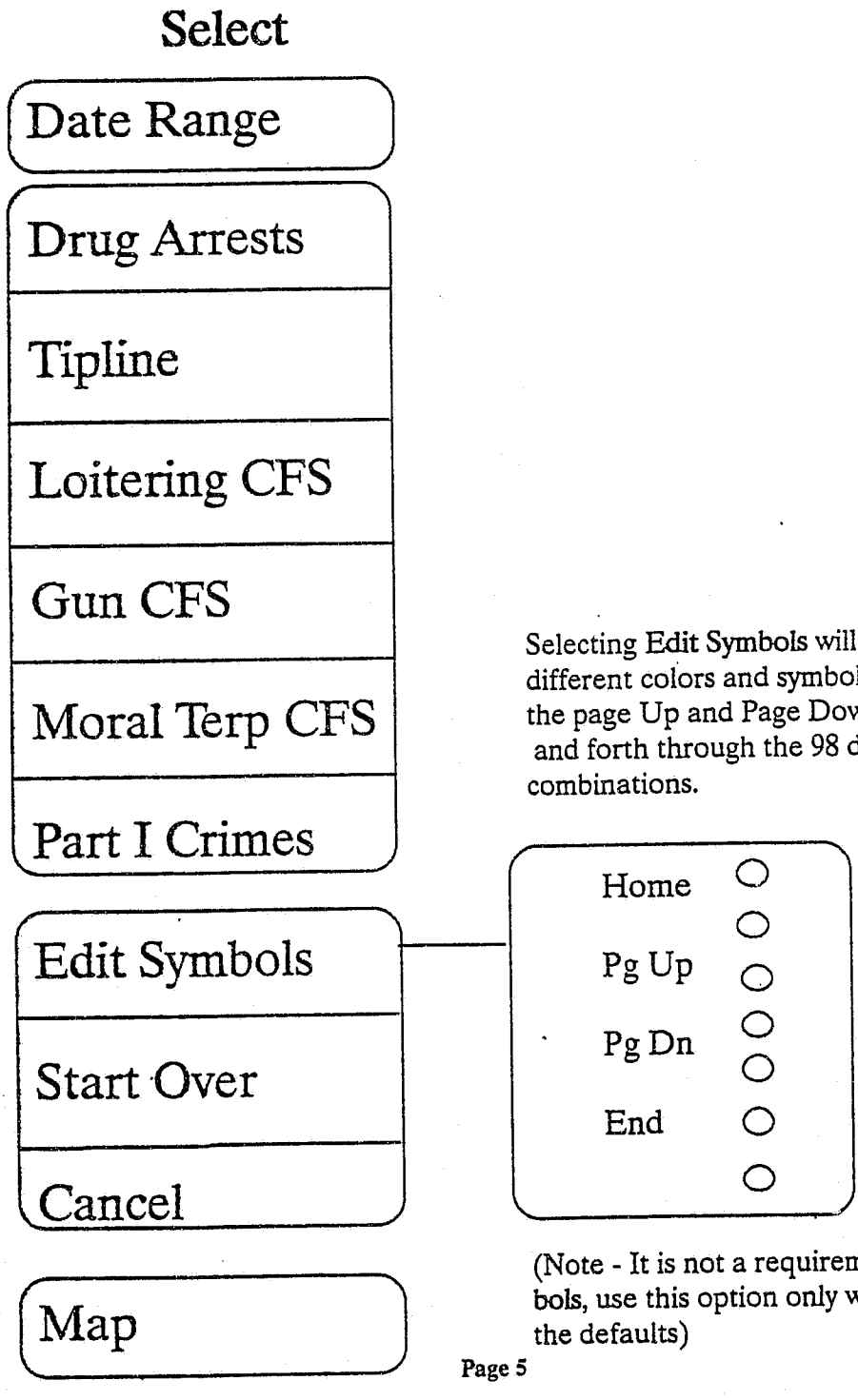


Choosing **Part I Crimes** will bring up a window that will allow you to select specific crime codes or rangess. Enter your selection between the [ ]. You may use one UCR number or any range, the list of codes is offered as information only.

Enter low UCR #:	[ ]
Enter high UCR #:	[ ]
Homicide:	100-199
Rape:	200-299
Robbery:	300-399
Agg Assault:	400-499
Burglary:	500-599
Larceny:	600-699
Auto Theft:	700-799

Page 4

Exhibit B.1
(Page 5 of 6)



Selecting Edit Symbols will allow you to use different colors and symbols on your map. Use the page Up and Page Down keys to move back and forth through the 98 different color/symbol combinations.

(Note - It is not a requirement that you Edit Symbols, use this option only when you wish to change the defaults)

Page 5

View

Hartford	Displays a map of the entire city
Asylum Hill	Displays a map of the Asylum Hill area.
Center	Use the crosshairs to select a point around which your map will center
Magnify	Use the crosshairs to selct the top left corner of the segment of the city you wish to magnify, then use the crosshairs to select the bottom right cornerthis map will then fill the screen.
Zoom	Pick a distance that you wish your map to encompass, i.e. >5 will give you a map 1/2 mi wide and 1/2 mi long
North	Moves the current map one half screen north
South	Moves the map one half screen south
East	Moves the screen display one half screen east
West	Moves the screen display one half screen west
Previous	Returns you to the map displayed before the last command executed.
sTr names	Turns street name display off or on
Return	Go back to the first screen

Page 6