

Zoning Out Crime and Improving Community Health in Sarasota, Florida: "Crime Prevention Through Environmental Design"

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Sarasota, Fla, used Crime Prevention Through Environmental Design (CPTED) principles to guide revitalization efforts in its crime-ridden North Trail area. A team of city planners, police officers, and architects examined land use and crime data and sought input from local businesses, residents, and community leaders.

Beginning in 1990, interventions included increased police patrols to reduce prostitution and the creation of a new zoning district to encourage area redevelopment based on CPTED principles. Compared with the rest of Sarasota, from 1990 to 1998 the North Trail Corridor experienced decreases in calls for police service ($P < .005$), crimes against persons and property ($P = \text{not significant}$), and prostitution ($P < .05$).

These results suggest that community design may be a useful tool for decreasing crime and improving community health.

CRIME IN THE UNITED STATES

has significant impacts on the health of the public. While most responsibility for addressing crime has been given to the police and the criminal justice system, the public health community has become interested in crime prevention as a means of preventing the physical injuries and mental distress experienced by crime victims.¹ Reducing crime through better design of the physical environment is an approach that holds promise.² Known as Crime Prevention Through Environmental Design (CPTED), its key principles include facilitating the visibility of people's activities ("eyes on the street"), natural access control to manage ingress and egress, territorial reinforcement to distinguish public and private spaces,

and ongoing maintenance to sustain the other principles.³⁻⁶

In 1990, the City of Sarasota, Fla, sought to incorporate CPTED strategies to revitalize its North Trail area, where aging buildings, restrictive zoning codes, and the presence of prostitutes along the major thoroughfare (US 41) discouraged economic investment and lowered the quality of life. The focus of the study was US 41, referred to as the North Trail Corridor.

TEAMWORK

Leadership came from a city administrative CPTED task team of planners and law enforcement officers who collaborated closely with architects, landscape architects, educational leaders, business owners, and local residents. Workshops held for community input and surveys of local businesses and residents revealed concerns about crime, particularly prostitution and drugs, as well as about poor property maintenance, land use, and zoning code enforcement. A review of crime data revealed that most prostitution violations occurred in the North Trail area, where there is an abundance of small "mom & pop" motels. Examination of land use data found that many North Trail motels and

businesses were unable to renovate because of zoning barriers. Restrictive street setback requirements and parking and drainage requirements prevented or greatly increased the costs of renovating old businesses or building new ones.

POLICE INITIATIVES

In 1990, the city police department began high-visibility patrols to discourage prostitutes and their customers, undercover work to arrest prostitutes and drug dealers, and collaboration with hotel and motel owners to identify and arrest pimps and drug dealers. From 1990 through 1993, these efforts helped build public confidence in the city's ability to revitalize the area, which raised expectations for improvement and decreased citizens' tolerance of criminal behavior. Routine law enforcement efforts continued in subsequent years.

LONG-TERM PLANNING ACTION

In 1992, the city planners, working closely with community leaders, created a new zoning district (NT District) to "promote development and redevelopment in a manner that creates a safe

and attractive environment.”^{7(p3)} The ordinance required that all new developments in the NT District be reviewed for concordance with CPTED principles and that comments from such reviews be considered recommendations rather than requirements (Table 1). Most property owners willingly complied.

The rules required that outside lighting be installed and maintained for building entrances, walkways, and parking lots, and that landscaping with ground cover and canopy trees be designed to allow visibility, demonstrate ownership, and enhance the pedestrian environment. The new district encouraged architects to design buildings with porches, balconies, and residential space above street-level retail space, and parking that could be shared by residential and business users. These CPTED requirements discourage illegal behavior and make the environment more comfortable for legitimate behavior. Additionally, the new district allowed for a wider variety of land uses. Within months, several motels

changed to antique shops, furniture stores, or other commercial or educational uses.

RESULTS

For 1990 through 1998, police data were available for the North Trail Corridor and for the rest of the city of Sarasota (excluding the North Trail Corridor) to evaluate changes in 4 measures of crime: calls for police service, crimes against persons or property, narcotic crimes, and prostitution (Table 2). Crimes against persons or property include murder, rape, robbery, aggravated assault, burglary, larceny, motor vehicle theft, and arson. The trends in the North Trail Corridor and in the rest of the city for each of the 4 measures were assessed through linear regression; we compared the slopes of these trends by use of a *t* test.

From 1990 through 1998, calls for service decreased in the North Trail Corridor and increased in the rest of the city; the slopes of the corresponding regression lines were significantly different ($P < .005$) (Table 2). The

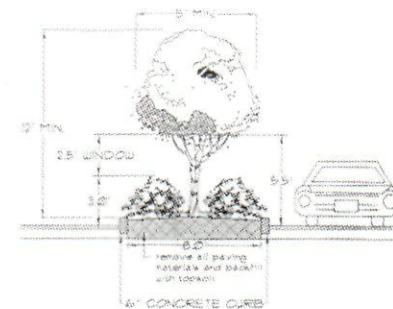
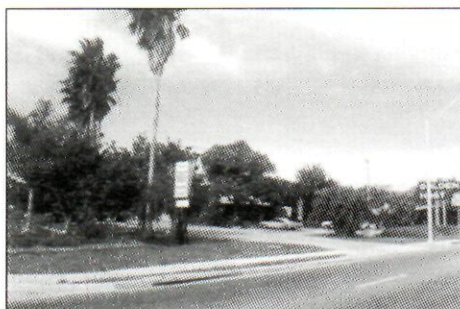
number of police reports of crimes against persons or property decreased in both the North Trail Corridor and the rest of the city; the slopes of these decreases were not significantly different. While the number of police reports of narcotics crimes increased in both the North Trail Corridor and the rest of the city, the slope of the increase in the North Trail Corridor was significantly less than that for the rest of the city ($P < .005$). Finally, the number of police reports of prostitution decreased in the North Trail Corridor and increased in the rest of the city; the slopes of these changes were significantly different ($P < .05$).

DISCUSSION

The observed improvements in several measures of crime suggest that community interventions in the North Trail area, including CPTED-related zoning changes and enhanced law enforcement activities, contributed to making the area safer over time. The planning process itself improved the social capital of the

KEY FINDINGS

- Planners and police officers, working closely with the community, can identify problems and initiate a combination of interventions that can bring about long-term reductions in criminal behavior.
- Focused police initiatives are a valuable first step in creating a safer environment.
- Crime Prevention Through Environmental Design principles incorporated into land use regulations provide a basis for developing and redeveloping a safe and attractive built environment over time, thereby having a long-term positive impact upon community health.
- Citizen involvement is critical to long-term success.
- Community crime prevention requires a comprehensive approach.



Left: Before creation of the NT (North Trail) District: the Best Western Hotel was hidden from the road by landscaping, had a poorly defined entryway, and lacked sight lines from the interior to the exterior.

Center: After creation of the NT District: the front of the Best Western Hotel was expanded and windows were added to provide visibility for the sidewalk, driveway, and parking areas; at night, lights from the hotel combine with the public lighting to create a safe and attractive environment.

Right: The NT District's landscaping requirement of canopy trees and ground cover provides a 2.5-foot window of visibility 3 feet from the ground for pedestrians and drivers.

PROFILE OF THE NORTH TRAIL AREA

- 18% of city area (2.2 square miles)
- 19% of permanent population (9807 persons)
- Sarasota/Bradenton Airport
- 3 colleges and performing arts center
- 38 hotels and motels (76% built in the 1940s and 1950s)
- Average of 34 000 vehicles daily on US 41
- 24% of citywide criminal incidents
- 81% of citywide prostitution incidents
- Gateway 2000 (active community organization)

Source. City of Sarasota Planning Department Files, "North Trail Sector Study," 1990.

TABLE 1—Crime Prevention Through Environmental Design (CPTED) Principles Used in the Effort to Revitalize the North Trail Corridor, Sarasota, Fla

Provision for natural surveillance

- The placement and design of physical features to maximize visibility. This will include building orientation, windows, entrances and exits, parking lots, walkways, guard gates, landscape trees and shrubs, fences or walls, signage, and any other physical obstructions.
- The placement of persons and activities to maximize surveillance possibilities.
- Lighting that provides for nighttime illumination of parking lots, walkways, entrances and exits.

Provision for natural access control

- The use of sidewalks, pavement, lighting, and landscaping to clearly guide the public to and from entrances and exits.
- The use of fences, walls, or landscaping to prevent and to discourage public access to or from dark and unmonitored areas.

Provision of territorial reinforcement

- The use of pavement treatments, landscaping, art, signage, screening, and fences to define and outline ownership of property.

Maintenance

- The use of low-maintenance landscaping and lighting treatment to facilitate the CPTED principles of natural surveillance, natural access control, and territorial reinforcement.

Source. City of Sarasota Ordinance 92-3562, Section 8-323, 1992. Available at: <http://www.cpted.net/ordinance.html>. Accessed August 7, 2003.

community by engaging local businesses, residents, and government in reviewing the issues and proposing solutions.⁸⁻¹¹ During the process, business owners started a merchants association and made physical improvements prior to code changes. Increases in the number of calls for police service in 1992 and 1993 indi-

cate a higher level of citizen intolerance for crime. Together, the physical changes and raised social expectations created an environment less tolerant of criminal behavior.

Several limitations should be considered in interpreting the study results. While informal comments from local residents

suggest substantial community improvements,¹² formal surveys to document changes in public perception were not conducted. Such surveys would be key for future studies. It is not possible to determine the impact of individual components of the interventions used, such as the increased police patrols. Other unmeasured

TABLE 2—Trends in Police Crime Data for the North Trail Corridor^a and the Rest of the City of Sarasota, Fla, by year: 1990-1998

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Calls for police service									
North Trail Corridor	8 843	8 653	9 804	9 525	8 865	9 414	8 853	7 701	6 777
Rest of city	63 758	64 527	65 354	64 570	66 629	69 615	73 377	75 447	68 310
Crimes against persons or property									
North Trail Corridor	1 395	1 379	1 638	1 378	996	1 054	827	750	730
Rest of city	7 833	8 140	8 096	7 586	7 088	7 448	7 599	7 467	6 449
Narcotic crimes									
North Trail Corridor	62	67	114	98	106	128	115	121	99
Rest of city	687	543	495	531	735	822	1 194	1 399	1 044
Prostitution									
North Trail Corridor	121	89	140	76	55	27	86	63	81
Rest of city	63	57	10	51	44	31	69	68	183

Note. Comparison of slopes of trend lines by linear regression and 2-tailed t test with 14 degrees of freedom is as follows: calls for police service: $t = -3.905$, $P < .005$; crimes against persons or property: $t = 0.722$ (not significant); narcotic crimes: $t = -3.454$, $P < .005$; prostitution: $t = -2.486$, $P < .05$.

Source. Sarasota Police Department Advanced Information Management Reports 30-02 and 30-04.

^aWithin the North Trail area, the North Trail Corridor is the primary commercial portion that lies along the North Tamiami Trail (US 41).

events such as private property improvements, social expectations, nearby downtown redevelopment efforts, or some combination of efforts and changes could have influenced the study results.

The experience in Sarasota highlights the impact of the built environment on crime and the importance of a comprehensive approach for designing, implementing, and evaluating interventions that may improve the health of a community. ■

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Contributors

S.P. Carter conceived and managed the North Trail Sector study for the City of Sarasota, wrote the ordinance with the CPTED requirements, and provided the original manuscript, final edits, and photographs for the submittal. S.L. Carter provided leadership for the law enforcement effort for the project and compiled crime data for the statistical analysis. A.L. Dannenberg provided the public health perspective, completed the statistical analysis, and contributed substantially to revisions.

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