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Designing Crime Free Environments:
Broadening the Crime Prevention Repertoire

A Report to the National Institute of Justice

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ORIGINAL

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RESEARCH SUMMARY

Over the past two decades, immediate action to reduce crime opportunity has steadily grown as an area of research and policy. These efforts include Crime Prevention Through Environmental Design (CPTED), which seeks to design microenvironments to be inhospitable for crime. In addition, numerous experiments and quasi-experiments in "situational crime prevention" have gotten even more specific in thwarting criminal opportunities. These efforts do not seek merely to help one set of victims to shift their risk to others. Additional knowledge about crime displacement gives us reason to believe that crime prevention efforts can decrease overall crime rates significantly. Moreover, there is increasing reason to believe that crime can be prevented at remarkably little cost in money, complexity, or controversy.

This project, "Designing Crime-Free Environments," draws upon the growing crime prevention tradition. The project objectives were:

1. To interview a large number of people from diverse walks of life about their experience in crime prevention.
2. To compile from these sources a large number of crime prevention ideas, old and new, especially those which are inexpensive and uncomplicated.

3. To sift and organize these ideas into a broader repertoire of crime prevention options.

4. To draw from these options in suggesting future strategies for crime prevention.

In particular, we have sought to demonstrate that crime prevention goes beyond such simple advice as "put in more lights," "set up cameras," or "hire more guards." In general, we have increasing confidence that it is not necessary to wait for a crime to happen and then try to apprehend the offender.

Methods

This study is based upon interviews with a variety of people in a variety of jobs and industries with some expertise in security or crime prevention. The study does not seek to gain a representative sample or to describe the general state of the crime prevention repertoire. Rather, we seek to gather the best practices, particularly the simplest, the least costly, the most novel or most interesting ideas. Moreover, we sought to "bias" the sample towards those with a greater breadth and length of experience and more ideas about crime prevention.

To find such a sample, we needed to go beyond listings and to include more persons than security directors alone. We began by gathering initial contact names and phone numbers from a number of published sources, such as the

National Business Directory, National Association of Parks and Recreation Service Officials, Shopping Center and Mall Directory, National Association of Retail Merchants, and the American Institute of Architects. Within these directories, we selected out a subset of potential organizational sources who were most likely to have to deal with crime and security problems. For example, we selected organizations which deal with the public and are at high risk of crime victimization. Thus, various types of retail stores, hospitals, warehouses, parks, and public recreation areas, were listed. We began with approximately 200 miscellaneous listings. Through initial calling, we eliminated several of these which turned out not to fit the profile.

Since directories were lacking in details, we asked the initial contacts for the name of the person in their organization responsible for security and crime prevention or for the chair of the committee dealing with security or crime prevention. When each interview was completed, we asked for names of other persons who would have additional crime prevention knowledge, using these contacts to build the sample further. A few organizations provided names and addresses of members likely to be helpful, or even provided an endorsement letter, and we sent questionnaires out or made additional calls. Moreover, each interviewee was asked to provide additional contacts. Thus our 200 initial contacts were supplemented with several more, including 76

from the food related industry, 46 from housing associations, 99 from the health care field, 129 from public parks at different levels, 45 from physical plant, 116 from fire chief and fire marshal associations, and approximately 300 architects. Due to the lower return rates for mailed questionnaires, most of our completed interviews were carried out by telephone.

A total of 544 individuals completed questionnaires or phone interviews. To give an idea of the variety of persons interviewed, store planners and designers, managers, and facility managers, as well as security specialists within various retail industries were questioned. The interviewees were gathered from many types of retail, including: hardware, coin laundry, resale and thrift, vending machines, shopping malls, convenience stores, grocery stores and chains, bookstores, music stores, liquor stores, sporting goods, clothing stores, shoe stores, linen stores, department stores, auto service stations, and antique stores. Also interviewed were:

- officials from the restaurant and hotel industries
- airline officials
- furniture manufacturers
- warehouse and food distribution specialists
- managers, planners, security executives, and facility managers having to do with:
 - skyscrapers
 - public transportation
 - public buildings
 - low income private housing
 - public housing
 - apartment buildings
 - schools and universities.

Contacts were made with:

- urban and neighborhood associations
- downtown associations
- police
- fire marshals and inspectors
- building, zoning and planning officials
- city building managers
- planners at the city, county, regional, state and federal levels.

Architects included landscape architects; general architects; architects with railroads, developers, hospitals, government, schools, universities, medical school, and hotels; and parking consultants or designers. School administrators, security specialists, and facility planners were supplemented with their university counterparts, including university housing directors. We interviewed parks and recreation officials at several levels. Additional interviews included management consultants, plant protection specialists, drug prevention specialists, theater managers, air transport and aviation crime prevention specialists, insurance security specialists, and professors with special expertise in crime prevention. Due to strong cooperation from professional societies, we supplemented our samples of architects and hospital security personnel, as well as park officials.

Results.

These persons provided a total of 4,258 crime prevention methods. Many of the respondents repeated what others had said. Many suggestions were outside the purview

of this study (e.g. "better education," "more arrests.") We also decided to eliminate from this report standard suggestions about lighting and cameras, which we believe to offer nothing new or interesting. We shall not get into the details of electronic controls in stores or other settings, since our goal is to emphasize the less costly crime prevention techniques.

We have arrived at 380 basic crime prevention suggestions. These are summed up in 15 tables. The first six of these tables organize 46 suggestions to prevent crime in parking areas. These include suggestions for making parking areas more secure, relating them better to the larger environment, increasing visibility, routing traffic more effectively within the parking areas, selecting the right fences, and bringing parking areas into contact with people. For example, visibility can be increased by painting walls white (#22), and bringing parking areas into more contact with people can be accomplished by installing picnic tables for employee lunches facing the parking area (#38).

Tables 7 and 8 offer 68 suggestions for crime prevention in retail trade (#47 through #114). Table 7 includes suggestions for better handling and managing of goods and money. For example, it suggests ways to display goods so that they are not worth stealing. Removing motors from power tools or CD players (#69) still allows customers to see and touch the product but makes it no longer worth

stealing. Table 8 emphasizes improvements in store design and physical management. For example, a department store improves security by placing least stolen items (e.g., linens, blankets and towels) on the first floor, while putting jewelry and silver on the second floor (#112).

Tables 9 and 10 present 71 suggestions for managing goods and equipment, applying to multiple industries. Table 9 offers ideas about securing docks, warehouses, and storage areas. For example, clear separation of shipping and receiving of merchandise (#125) helps stop massive thefts by making it more difficult for someone making a delivery to load up illegally with other merchandise on the way out. Leaving the company name off warehouses (#130) gives less assistance to thieves. Buildings can also be made more obscure by turning out the lights at night (#131). Security of equipment and supplies can be enhanced in several ways, including better inventory control (#144), and purchasing equipment less attractive to thieves; thus pickup trucks with governors cannot go very fast and are less likely to be stolen (#153).

Graffiti prevention (Table 11) is the topic of suggestions #159-#185. They include the use of swirling designs on benches to make graffiti less noticeable (#166), and of rough bricks which produce a weaker painted image (#185).

Table 12 offers 24 suggestions for reducing hotel crime. For example, hotels can purchase special remote controls which work only on their television sets and are not worth stealing (#200) and pure white towels which are usually not stolen (#201).

Some 80 suggestions for reducing crime in public parks and recreation facilities were collected (Table 13). For example, to reduce the theft of park signs, they can be coated with grease (#224). Trails can be placed carefully and made easy to follow in order to keep people out of areas which are unsafe (#243). Long-term hikers can be provided parking in less remote areas (#270). Indeed, several suggestions for more secure parking areas are offered by and for park personnel.

For hospitals, 35 suggestions are presented in Table 14. For example, parents and hospital personnel are very concerned about infant kidnapping. Suggestion #324 is to use a special color for the uniforms of personnel dealing with infants or young children. Thus admission to these areas can be more effectively limited.

Table 15 offers 56 suggestions for property management, including public housing. It includes suggestions about closing off unused spaces (#325, #345) and encouraging rent to be paid by check or money order rather than cash (#368).

Of these 380 suggestions, the majority have been tried by at least some people. In most cases, they report at least

some success, and they often report that a serious crime problem disappeared after the measures had been implemented.

Most respondents made relatively few unique suggestions. Though some of the respondents were rich sources of experience and ideas, far more appeared to have offered rather few crime prevention suggestions, despite being asked several rather pointed questions with follow-up probing. Although some very clever practices were turned up by our research, many others were quite mundane. Often the more expensive practices (such as buying equipment) won out over the simpler ones. As a result, we cannot readily conclude that the state of crime prevention practice is nearly as rich as the repertoire itself.

Recommendation.

We believe that the very people responsible for administering crime prevention need to share among themselves many more prevention ideas. A critical core of knowledge has already been amassed by situational prevention experimenters and reports from practitioners. Now is the time for sharing information within and across industries, and among universities, government agencies, and those with the everyday management responsibilities connected with crime prevention.

The important step at this juncture is to set up something akin to the agricultural extension service. A

crime prevention extension service could link government, universities, and crime prevention practitioners, and provide a means for communicating specific low-cost suggestions on crime prevention. Such suggestions need to be tailored to particular needs, especially for small businesses, nonprofit organizations, neighborhood associations, local governments, and others dealing with crime problems who are unable to pay expensive consultants. Some of this is already happening via the National Institute of Justice and Bureau of Justice Assistance. However, we need to explore new and localized avenues through which the crime prevention repertoire can be broadened and shared with those who ought to know it.

Table 1. Enact Rules to Make Parking Areas More Secure.

1. Give night workers parking spots near building doors, but not so close to doors as to block view of parking area from building.
2. Permit only residents to park in lots. Give police officers in the area lists of which cars belong where. Ticket any other cars.
3. Instead of one big unassigned lot, assign parking stalls to specific tenants; limit each to one or two vehicles, and require visitors to have special passes. Post signs stating rules and tow vehicles which do not comply.
4. Do not let teens loiter in the parking lot. Put up "absolutely no loitering" signs and enforce them.
5. Offer tenants approved gathering places away from parking lots.
6. Establish a municipal building code for parking structures requiring security measures, including the use of lighting and mirrors, removing blind spots, locating phones and stairways.
7. Encourage people to park in a lot adjacent to a busier street for visibility.
8. Differentiate often-used from seldom-used parking areas. Fill the former first and close off the latter except when needed.
9. Require log-ins for access to parking spaces. Or set up access to parking lots via security stand or receptionist.

Table 2. Construct and Design Better Parking Areas and Better Relationships to the Larger Environment.

10. Design parking structures to eliminate places where a criminal can hide.
11. Build larger store doors with more glass to see parking areas. Replace 2nd-floor walls of offices with glass overlooking entire complex.
12. Build parking garages on slopes so those walking can see into all levels.
13. Attach parking garages to buildings.
14. Avoid angular parking design in lot. Arrange so people driving by can see into the aisles between cars.
15. Have one ground-level parking area in front of the store, with customers and employees using the same parking.
16. Give stairwells in parking structures glass walls for visibility.
17. Put security shack into parking lot and mark it as such.
18. Design electronic card access control to parking area.
19. Arrange parking structures with one way traffic in and out. Place security gates at entries so visitors are announced before they even drive onto the property. Give visitors access only to a small area.
20. Build buildings to face parking.
21. Avoid subterranean parking; when present, emphasize access control.

Table 3. Increase Visibility in Parking Areas.

22. Paint parking structure's walls white.
23. Design parking structures with clear lines of sight. Be careful not to block the sight lines for people getting out of their cars. People should see and be seen in parking areas.
24. Trim landscaping between parking lots and buildings. Landscape with high-branch trees or low hedges.
25. Arrange gas pumps at gas station to permit clear line of sight into parking area.
26. Place strong lighting in parking areas, but do not blind observation with too strong a glare. Point lights carefully.
27. Establish open, lighted space between parking facilities, roadways and buildings. Use day lighting in parking garages.
28. Maintain visibility from store into parking area. Keep entry of store close to parking lot.

Table 4. Route Traffic More Effectively Within Parking Areas.

29. Channel walkways between buildings to oversee parking areas.
30. Only lobby doors should be open for entering parking structure.
31. Route all incoming pedestrian and vehicular traffic via a manned booth.
32. Post proper signs to guide customers through parking areas. Organize flow of traffic so people won't get lost.
33. Place parking lot entries in well-traveled areas.

Table 5. Select the Right Fences for Safer Parking Areas.

34. Build iron fences around parking lots, since they are more difficult to remove, break through, or climb over. Or use other see-through perimeter fencing to cut down on escape routes without blocking visibility.
35. Close off staff parking with fences during the day.
36. Fence off dumpsters and back parking lots so nobody can hide there.
37. Close off unused driveways with gates.

Table 6. Bring Parking Areas into Contact with People.

38. Get employees to take their breaks looking onto parking area. Install picnic tables or employee lunch area to face parking area.
39. Monitor the ramps.
40. Have an employee talk to everyone who enters the parking area.
41. Pay special security attention to parking lots behind the store.
42. Have security patrols check the parking lot more frequently.
43. Arrange for security guards to patrol parking areas on foot, on carts, on bikes, or even on horses (for downtown areas).
44. Use elevated guard booths to help guards see and be seen. Paint "security" sign on guard structures.
45. Establish radio or intercom communication among guards or employees in large parking areas.
46. Do not cover windows overlooking parking areas with signs.

Table 7. Manage Goods and Money to Reduce Store Vulnerabilities.

47. Use computers to speed up inventory and make it more accurate.
48. Beware of cutting back on sales staff on the floor.
49. Keep employees within sight of customers, giving them high-profile uniforms.
50. Ship money directly to bank, with no storage on premises.
51. Empty cash registers two to three times per day.
52. Make bank deposits at unpredictable times.
53. Remove high value bills from register more often.
54. For accountability, set up continuous auditing programs on point-of-sale terminals to track shortages by register, time, day, employee at register.
55. Do not make it too easy to put unaudited voids into the cash register.
56. Program the cash register to shut down when it gets too much money inside.
57. Put large bills under cash drawer to impair cash-and-run thieves.
58. Keep computerized cash registers up to date on markdowns and price changes, to prevent thefts on that basis.
59. Constantly audit yourselves.
60. Make managers sign for refunds; do not permit unsupervised or unaudited refunds or exchanges.
61. Quickly remove tickets from travel agencies that go out of business.
62. Change some procedures every six months.
63. Each individual collecting money (e.g. cashier, clerk, waitress) should have a personal till to count and report.
64. Transfer coins in coffee cans so it is not obvious money is in transit.
65. Play a shell game with thieves. Put several decoy boxes around the box with the high priced merchandise.
66. Over-package high ticket items to thwart insertion under clothing and removal of merchandise within store.
67. Put CD package or Video package on display, but require customer to retrieve the item itself from behind the desk.
68. Put high-ticket items behind case or in department with the most staff.
69. Remove motors from power tools, CD players, and other items on display, so display items are no longer worth stealing but the customer gets to see and touch the merchandise.
70. Use merchandise that is somewhat damaged for display.
71. Use cardboard cutouts instead of real item for display.
72. In low sales volume stores or part of stores, organize merchandise very carefully and fill all slots, so it is immediately obvious that a customer has removed an item.

73. Put expensive leather coats on hangers hooking first one way, then another way. That way thieves who grab a bunch of coats find them locking into place.
74. Put high-ticket supermarket items out as individual units, leaving no cases. That way it is too difficult to steal a large number at once.
75. Display coin boxes in laundromats within view of outside windows uncovered at night.
76. Use cigarette display cases which only let out one pack at a time at the bottom and make a noise if more are removed.
77. Place chained carts as a barrier in front of cigarettes to discourage thieves.
78. Put large items by the door, since they are hard to steal and block avoidance of the cash register.
79. Make sure cash register displays of money paid in and out are visible to customers.
80. Make sure employees have clear rules of paying for merchandise and carry receipts with them at all times, even when eating food from the store.
81. Require employee purchases to go through the manager for better control.
82. Let employees remove goods they have purchased only at the end of the shift, but not during the shift.
83. Place cigarettes on wheeled display cases. Roll them to different aisles at night so burglars have to take too long looking for them.
84. Keep cash register drawers empty and open at night, situated to be seen from windows.
85. Establish clear and consistent key control, not letting everyone have keys everywhere.
86. Show videos to new employees, showing them all the ways to steal and that management, too, has figured it out.
87. Consider giving employees some merchandise free or at minimal cost to create good will and make employee theft less tempting.
88. Locate motion detectors to produce slightly more light when a customer enters a given section. That way the staff knows somebody has entered there.
89. Limit shelf quantities of items especially attractive to professional shoplifters.
90. Count, inventory, and keep records of merchandise tags.
91. In shoe store, only display one shoe from each pair, keeping the mates in the back room.

Table 8. Improve Store Design and Physical Management

92. Keep easily stolen high-ticket items away from the exit.
93. Display high-theft items close to clerk and within line of vision.
94. Use big display of items no one wants to steal (e.g. toilet paper) to guide customers away from restricted areas.
95. Sink mirrors in dressing rooms into walls so the shoplifter has no place to stuff removed tags.
96. When small stores are vulnerable to grab-and-run thefts, put those items in the back of the store and uneven aisles to the door.
97. Generally, arrange straight aisles and even lines of sight between employees and merchandise.
98. Use patterns in carpeting or tile to guide customers where to move within the store, eventually toward the cash register.
99. Put gift wrapping area next to fitting rooms in back of the store to stop shoplifting.
100. Reduce the nooks and crannies.
101. Do not set up tall displays, behind which shoplifters can stash merchandise under their clothes.
102. Only allow one way in and out.
103. Place no fixture over 4'6" tall and 42" wide, thus keeping lines of sight clear throughout the store.
104. Make sure exits are narrow enough in width, but of greater length, so exiting with stolen goods is uncomfortable.
105. For warehouse stores, install drive-up windows where customer picks up only that merchandise which was purchased.
106. Elevate cash counters.
107. Place vase or plants between customers and expensive, breakable items. That way the customer can see the merchandise but not easily run with it.
108. Do not put bathrooms in remote locations.
109. Do not put pay phones by the women's bathroom; they make it too easy to lurk without being noticed.
110. Try to open every other check-out stand, so anybody trying to slip out with merchandise through a closed stand would be seen.
111. Design store with funnel effect, with the cash registers the apex of the funnel.
112. In a department store, put sheets, blankets and towels on the first floor and jewelry on the second floor.
113. Use turnstiles with a button, making a noise as a person enters and resisting entry in the wrong direction.
114. Use double doors to the outside.

Table 9. Secure Docks, Warehouses and Storage Areas

115. Insert cardboard piece in boxes so it is more difficult to split and remove merchandise.
116. Be very careful about signing merchandise over from one person to another, so responsibility carries with it.
117. Lock storage areas when entry not needed. Lock that back door -- it is the greatest point of vulnerability.
118. Set up clear system for all transfers of merchandise and train employees to follow it.
119. Have special handling system for high-ticket goods.
120. Never sign carbons or other copies.
121. Check all delivery logs.
122. Establish procedures for getting keys.
123. Keep an eye on the dumpster outside, where items are stashed by thieves, to be picked up later.
124. Monitor when employees exit with "trash."
125. Physically separate shipping and receiving of merchandise. When both are carried out in the same building, use different doors and clear partitions.
126. Assign security personnel especially at transfer times and places.
127. Avoid labels on valuable merchandise so that potential thieves do not know which boxes contain it.
128. Use sealed trailers to move merchandise.
129. Always have a specialized, secluded stock area with locks and limited access.
130. Leave company name off warehouses.
131. For obscure buildings, turn the lights off at night.
132. Fog the windows of trucks carrying cash.
133. Lock cash trucks inside building.
134. When sending goods from point A to point B, fax the list of goods in advance, so they can check what arrives.
135. Put plastic wrap around certain large boxes and check to see if the seal has been broken.
136. Schedule delivery trucks carefully and only let visitors in at their assigned time. Do not let drivers wander the docks.
137. Provide visitors or drivers who arrive early with a caged area, their own coffee machine and bathroom, so they have no reason to wander about.
138. Use different colored uniforms or coats to make clear who has a right to be in warehouse area.
139. Make physically sure people cannot hide merchandise under ceiling tiles for later retrieval.
140. Permit no deliveries during lunch breaks, when too many people are going in and out to keep track of merchandise.
141. At night, locate the high-ticket items where they cannot be seen from outside.
142. Use double doors with four feet between them to discourage kicking in.

143. Use glass instead of walls inside buildings, for better visibility.

Table 10. Improve Equipment Security.

144. Establish strict inventory control of all equipment.
145. Bolt or glue computers, TVs, and VCRs into desks or tables holding them.
146. Computers can be incorporated into the construction of the table itself.
147. Check all equipment out and in, always assigned to a specific individual.
148. Leave empty trucks open at night so people don't do damage in discovering there's nothing to steal.
149. Park trucks carrying merchandise directly against the wall or each other, so the doors will not open even if the locks are defeated.
150. During work breaks, require employees to put their tools back into the truck rather than letting them lay around. Get them to lock the truck.
151. Have employees check out only the small tools they are using for a particular job and return them before checking out new tools.
152. Paint company equipment or vans odd colors, such as bright yellow or orange, not suitable for home usage.
153. Purchase pickup trucks with governors to prevent their going over 55, thus unattractive to thieves.
154. Use car radios and CD players with disabling devices, so they cannot be used when stolen.
155. Design businesses to face each other for better security.
156. Put tools inside buildings.
157. For airplane equipment or other specialized equipment, update weight and balance sheet for all items, with serial numbers, for identification.
158. Deliver supplies just before they are to be used.

Table 11. Prevent Graffiti.

159. Use graffiti resistant paint.
160. Use peel-off films on signs to remove graffiti quickly.
161. Quickly remove any graffiti from any surface to remove reward to graffiti taggers.
162. Spoil any graffiti immediately with your own spray can, so the taggers get no satisfaction for their efforts. Get to full cleanup later when you get the time.
163. Keep several colors of paint on hand corresponding to the walls you wish to protect. Use rollers to cover graffiti quickly and square up what you have covered. You can cover faster than graffiti can be reintroduced.
164. Use rough surfaces or very polished surfaces that are difficult to paint with graffiti.
165. Use multicolored surfaces which are too difficult to deface with one color.
166. Use swirling design on benches to make graffiti less noticeable and to discourage those painting it.
167. Put plants in front of a wall so graffiti would not be seen and wall is less accessible.
168. Line elevators with mirrors to discourage graffiti.
169. Cover elevator walls with carpet.
170. Put rails or barriers along walls to impair illegal painting.
171. Use tile or ceramics on walls.
172. Install boards for visitors to write or carve on with little harm done.
173. Use hardwood picnic tables and tops, which are difficult to carve.
174. Install scratch-proof bathroom partitions, which also sand very easily.
175. Use aluminum picnic tables.
176. Mix sand in restroom wall paint.
177. Put signs high in the air and beside a sharp drop in terrain.
178. Limit public access to charcoal piles or other materials useful as drawing tools.
179. Lock up spray cans in store cases to prevent shoplifting by taggers.
180. Prohibit sales of spray cans to minors.
181. Embed signs in fiberglass or porcelain.
182. Locate paths and access points away from ideal graffiti spots.
183. Cover bulletin boards with cheap plastic.
184. Make walls of broken rocks.
185. Use carved rather than smooth bricks.

Table 12. Reduce Hotel Crime.

186. Design your hotel atrium to be more open, thus improving visibility and increasing safety.
187. Use the computer for perpetual inventory control to reduce thefts.
188. Keep hotel warehouse off-site, with limited employee access.
189. Keep the public out of hotel service areas.
190. Keep liquor and cash caged with extra access rules.
191. Maintain very detailed inventory of red meat by price, type, and whether locked.
192. Set up food delivery at back kitchen door; lock that door at other times to prevent goods from exiting.
193. Use safe deposit boxes in each room for security.
194. Make safe deposit box available at front desk, with one key issued to the guest only, who must pay for drilling it out if key is lost.
195. Separate jobs of posting in money and accessing accounts.
196. Use drop safes in all high cash areas, and pneumatic tubes when appropriate.
197. Mark items with ID numbers and give each room an inventory list for more expensive items.
198. Hot-glue all valuable items in lobby to floor or table, including expensive decorations or artifacts.
199. Attach pictures in rooms to walls and remote control for TV to table.
200. Purchase remote control that works for hotel TV but not elsewhere.
201. Assign pure white towels to rooms, since these are usually not stolen.
202. Use low doors on public male toilets to discourage any inappropriate activity.
203. Place front desk in line of sight with elevators.
204. Give guests tips on crime prevention.
205. Give employees training in crime prevention.
206. Require those entering hotel premises, especially at night, to show a key first.
207. Have security call hotel guests to verify their visitors before letting them on premises.
208. Give out neither room numbers for names nor names for room numbers.
209. Use ornamental brass railings to protect cashier.

Table 13. Secure Public Parks and Recreation Facilities.

210. Require park maintenance workers to check equipment in and out.
211. Check out all equipment to visitors in exchange for photo ID.
212. Make sure audiovisual equipment is bolted to carts.
213. Move the front desk in visitor centers close to the door.
214. Keep items attractive for theft out of the lobby.
215. Arrange displays to eliminate fast exit for thieves.
216. Encourage people to leave valuable personal items at home.
217. Install permanent toilets rather than temporary chemical toilets to reduce vandalism.
218. Use wildlife photographs to get visitors to leave the worst urban behaviors behind.
219. Use soft or natural colors to reduce rowdiness and increase crowd control.
220. Do not hide security; make it very visible.
221. Remove trees and bushes from around windows and doors.
222. Limit access routes to the park itself.
223. In washrooms, use stainless steel mirrors, not glass, to discourage breakage.
224. Coat back of park signs with grease so they are unattractive to steal.
225. Encourage concessionaires to place a mobile home residence behind their stores.
226. Put signs mentioning poison ivy, snakes, etc., to discourage wandering off the trails.
227. Encourage different groups and ages to participate together to avoid turf problems among youths.
228. Space buildings so movements are noticed.
229. Attract visitors to all areas, rather than making some sections hidden or low-volume.
230. Move money handling to secure area of building.
231. At restricted road, build in a trough to discourage cars from entering, and support with sign and hard-to-remove gate.
232. Use computerized inventory of goods.
233. Store equipment in metal shipping containers with strong locks.
234. Plant bayonet palms next to walls to prevent climbing.
235. Concentrate flows of late night visits near restrooms by closing all other buildings.
236. Design unisex shower buildings to protect women from isolation.
237. Prohibit camping outside designated areas, and make these much more accessible and hospitable than illegal camping.
238. Make historic structures and small artifacts visible from doorway or roped off area.
239. Lay carpet in historic houses to guide visitors away from touching objects.

240. In historic buildings, keep numbers small for each tour group.
241. Use conducted tours of historic structures to avoid thefts or vandalism of irreplaceable items.
242. Lower speed limits to discourage commuters from using park roads.
243. Design trails which are easy to follow.
244. To correct excessive alcohol consumption in a campground, eliminate its auto access and make it a "walk in."
245. Require an adult for each tent in group tenting area.
246. Ask campers to keep soft drink coolers in tent to reduce thefts.
247. Limit campground traffic to campers only.
248. On out-buildings, construct bottom foot or two of roof from metal, letting the rest be shingle. This prevents vandalism.
249. Design bathhouses without changing stalls. Benches with hooks above provide more supervision.
250. In overnight areas, provide some harmless logs for people to chop, or they will go after green young trees.
251. Use minimal fees to discourage entry by those with no interest in proper use of the park.
252. Place benches at parts of trail where clusterings can be observed.
253. Place computer rooms on upper floors and away from doors.
254. Use heavy concrete picnic tables which are not easy to carry off.
255. Leave fee station curtains open after hours to discourage break-ins.
256. Use one-way traffic flow to discourage cruising.
257. Make several cash pickups per day from concessions.
258. Use right-sided hinges to doors with non-removable pins, to discourage burglars.
259. Make sure there are on-site residents in park to discourage nighttime offenders. Locate their rooms with good lines of sight.
260. Bolt motors to motorboats.
261. Weld in air conditioners.
262. Lug nut the car and truck batteries.
263. Buy used equipment that are less tempting to steal.
264. Make sure vehicles and equipment are heavily marked and decal.
265. Locate parking lots close to building.
266. Limit overnight parking.
267. Do not allow teens to loiter in the parking area at night. They must come in or out.
268. Let road shoulder grass grow several inches to reduce roadside parking and channel visitors into lots.
269. Do not put parking areas in concealed places that facilitate thefts or attacks.
270. Have long-term hikers park in office-housing area.

271. Reduce time limits for high-use parking areas. As vehicle owners return more quickly, theft should decline.
272. Avoid wide shoulders on park roads, so it is not easy to park in unauthorized areas.
273. Do not make remote areas accessible to vehicles; instead, have visible parking lots with foot trails to scenic spots.
274. Make it difficult to park just outside the park or its buildings after closure.
275. Remove doors from restroom areas so disruption can be detected.
276. Replace second floor walls of office with glass so staff can oversee the larger complex.
277. Avoid hallways in buildings.
278. Use lots of internal and external windows.
279. Limit scheduling of park activities after dark.
280. Paint parking garages white for nighttime visibility.
281. Make sure people exit through skate rental areas so they cannot easily steal skates.
282. Plan benches, views, overlooks, and sequence of arrival and departure to reduce crime problems.
283. Keep public away from back areas.
284. Install park benches that are easier to see through and harder to hide behind.
285. Cut away vegetation to increase visibility; let vegetation grow over to conceal some facilities.
286. Relocate rock piles, lest rocks be thrown at displays.
287. Manage timing and pattern of automated lawn sprinkling to channel foot traffic.
288. Use bus transportation to channel visitors.
289. Provide basketball courts and sports areas to keep youths distracted and occupied.

Table 14. Make Hospitals More Secure.

290. Inventory drugs daily before securing them.
291. Use ID tags or decals on all equipment.
292. Use linen markers.
293. Bolt down patient TV-sets.
294. Anchor pad computers and big ticket items.
295. Cable down microscopes and computers.
296. Design lockable storage areas within each department.
297. Regulate disposal of outdated hospital property.
298. Plan carefully where equipment is assigned.
299. Build equipment service areas for control.
300. Use specialized locks on closets and cabinets, so ordinary key types don't open them.
301. Make each department responsible for its own equipment.
302. Provide usable systems to secure bedside valuables and to limit access to patient rooms.
303. Establish clear logistical control on receipt and transmission of equipment and other property.
304. Lock down facilities during off hours.
305. Eliminate excessive transport, handling, and storage of money.
306. Place security in every employee's job description and evaluation.
307. Enforce parking regulations for general control of premises.
308. Limit number of entries and exits.
309. Move entries away from busiest streets and sidewalks.
310. Require staff to wear IDs.
311. Provide visitor passes to non-employees entering hospital.
312. Layout lobby to funnel visitors by the reception desk.
313. Create a neighborhood watch program within the hospital.
314. Challenge those without ID badge.
315. Establish and enforce a strong visitation policy, with clear hours.
316. Provide security escorts for patients, visitors and staff to reinforce visitor policy.
317. Verify late visitors by phone call to rooms.
318. Redesign Emergency Room for more visibility.
319. Isolate the Emergency Room from access to the rest of the hospital, especially at night.
320. Minimize number entering the Emergency Room treatment area.
321. Locate vending machines in less remote places.
322. Locate pharmacies and nurses residences away from main entrances.
323. Put wrist IDs on newborns and on Alzheimer's patients to sound alarms when leaving the room or entering where they should not be.
324. Use special uniforms for nursery, maternity and child-care areas to prevent kidnapping of infants.

Table 15. Manage Properties, including Public Housing, for Greater Security.

325. Padlock or close off unused garages or other spaces to reduce prostitution and drug abuse inside.
326. Tow away uninsured, unregistered, or abandoned cars to discourage illegal activity.
327. Privatize space to keep drug dealers and other offenders from using it.
328. Modify street design in drug sale areas with one-way, traffic islands, grass strips, cul-de-sacs, etc.
329. Set up maintenance sheds to separate equipment from residents and visitors.
330. When possible, store equipment off the premises and bring it in when needed.
331. Set up ID system for access to multi-family housing.
332. Provide access only to residents, unless signed in by a tenant.
333. Funnel entry through control points.
334. Prevent keys from being stolen from manager's office. Either hide key boxes, or build them into the wall. Put up fake key boxes.
335. In common areas, put plants in heavy cement pots that cannot be moved, and use large plants that are difficult to dig up.
336. Encourage off-duty police to live at the projects.
337. Bolt down trash cans and street furniture.
338. Encase the hinges on doors.
339. Use double cylinder lock so the thief cannot leave through a door after breaking in a window.
340. Use small or narrow windows so larger TVs and stereos do not fit easily on the way out.
341. Use glass blocks or two layers of glass with six inches between the layers, making illegal entry and exit inconvenient.
342. Remove all barriers from windows so a burglar will be seen inside.
343. Minimize apartment windows at street level.
344. Reconstruct entries for higher visibility.
345. Block off vacant floors so they are not accessible via stairs or elevators.
346. Place plants so they do not block visibility or light.
347. Tighten up on how long guests can stay. Guests must be registered to make sure that only those with the name on the lease are allowed to live there.
348. Establish a policy for where guests can go and what keys they get.
349. Set up apartment keys to work in residential common areas, making those areas off-limits to outsiders.
350. Split three-story apartment complexes into three-story town houses, each with its own entry. Turning them from horizontal layers to individual vertical units and eliminating the internal common areas provides each with greater security.

351. Set up electronic keys, which can be turned off when lost and cannot be copied for inappropriate use.
352. When a female property manager shows an apartment to a male, have him leave photo ID at the office.
353. Produce keys with no room numbers, so someone finding them will not know where they go.
354. Ask residents to use duplicated car keys lacking any imprint of the auto manufacturer.
355. Encourage neighbors to turn on porch lights.
356. Encourage neighbors to meet one another.
357. Discourage holding doors, thereby allowing strangers to enter.
358. Use thornbushes or cactus to block entry to certain areas.
359. Use low-cut shrubs to avoid giving burglars camouflage for illegal entry.
360. Cut off lower limbs of trees to avoid assisting burglars.
361. Avoid evergreen trees with thick lower limbs.
362. Install inexpensive motion detectors in front and rear of stores, whose sudden lighting discourages nighttime burglars.
363. Ask apartment tenants and neighbors to leave their shades open when at home to discourage offenders.
364. Use one-way mirrors on windows so strangers cannot tell whether someone is watching.
365. Use chain link fences or others that one can see through. Do not use solid walls to give burglars cover.
366. Replace old external fire escapes with internal fire exits. This eliminates both easy entry and easy exit for burglars.
367. Lock stairwells so there is no movement between floors; one has to go to the ground floor to exit.
368. Encourage rent to be paid by check or money order, and keep no cash in the public housing complex.
369. Bolt down furniture and public housing authority property.
370. Use glass stairwells and elevators, even glass for garages.
371. Place stairwells outside of buildings.
372. Divide up public housing projects internally by fences, so that offenders do not have free reign.
373. Put common rooms and common areas (e.g. laundry rooms) in highly visible areas.
374. Use glass blocks or glass walls for laundry rooms.
375. Beware of snow piled up by windows.
376. Clear barriers and gates to prevent winter freezing.
377. Program elevators to limit floors of access. Use input codes to put into practice.
378. Avoid long hallways, and try to break up those constructed in an earlier era.
379. Control and privatize parking areas for safety of the building and its residents.
380. Eliminate nooks and crannies.