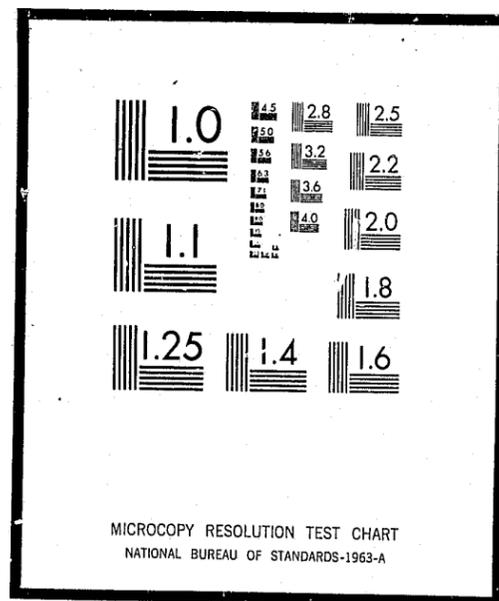


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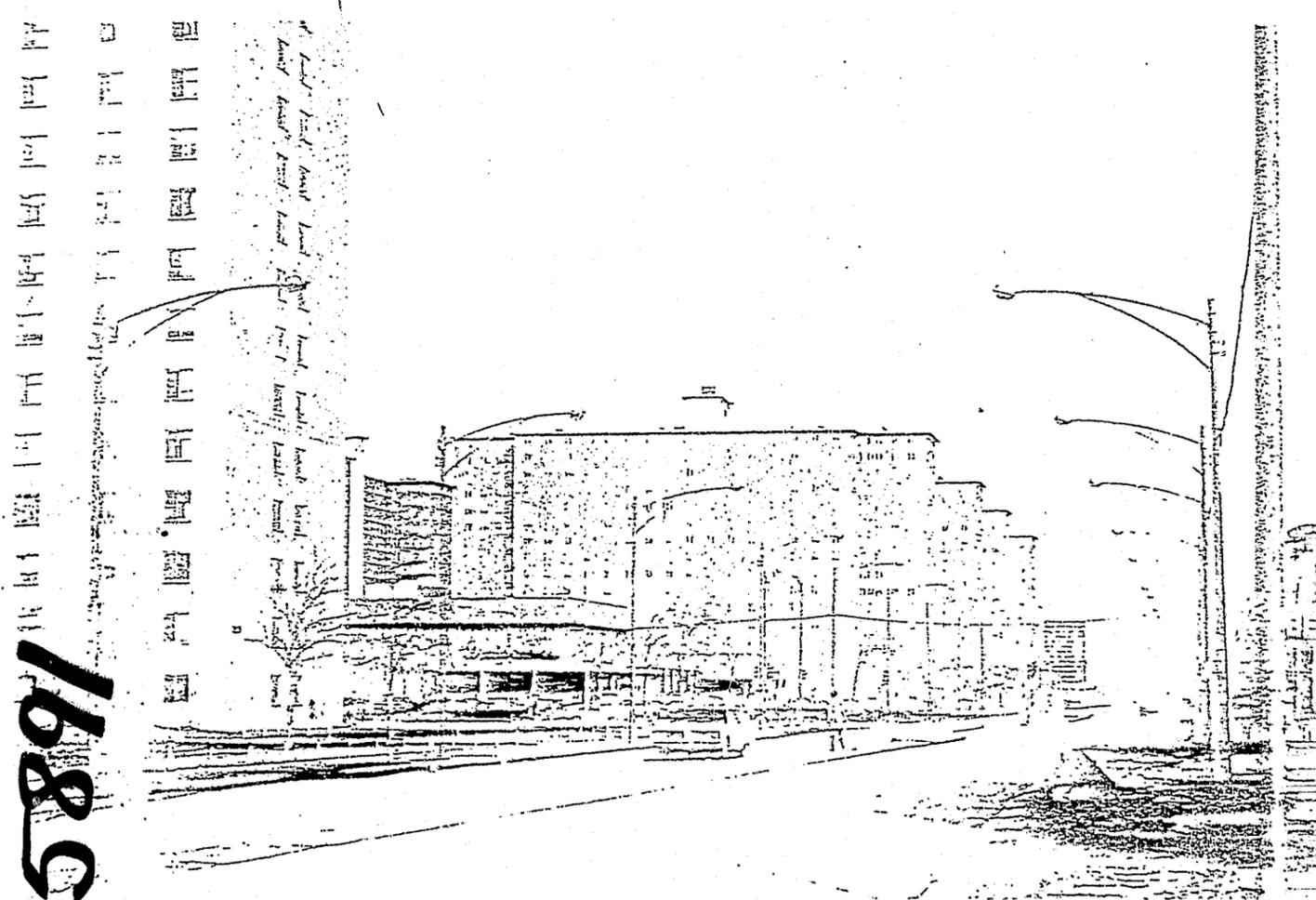
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Fifty-first and State -

# 51<sup>ST</sup> & STATE

## A PILOT SECURITY PLAN FOR INNER CITY COMMERCIAL CENTERS



CITY OF CHICAGO  
PLANNING COMMITTEE FOR ECONOMIC AND CULTURAL DEVELOPMENT  
under a grant from  
ILLINOIS LAW ENFORCEMENT COMMISSION  
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## CONSIDERATIONS FOR FUTURE CENTERS

In the course of developing this plan and analyzing the pattern of problems and security requirements at the 51st Street medical center-shopping complex, many alternative approaches and solutions were considered. Some were discarded for the purposes of this program as being too expensive or otherwise infeasible for this particular situation. In the context of a new development situation, however, their feasibility (administratively, economically, and technically) may be substantially different. For this reason we present this brief recapitulation of points that have been more fully elaborated elsewhere in this report and several new thoughts that may have some degree of transferability and implication for different development situations.

In retrospect, several basic attitudes and erroneous assumptions that underlay the development of this center must be reconsidered in future ventures of this kind.

The erroneous assumptions that typical design concepts and merchandising approaches workable in other neighborhood centers would also be appropriate for this inner city center was at the root of many of the security problems and difficulties experienced to date.

Needless to say, the applicability of the "suburban model" to this location has not proven to be the case. In the future, a more acute awareness and sensitivity to community needs and attitudes must be an integral part of planning and managing centers for inner city locations. The developers and managers of future commercial centers must have and maintain a high degree of flexibility in their thoughts and views. The functional norms for successful development, management,

and operation may have to be reconsidered and even subordinated in some facets to overriding requirements to establish and sustain a secure environment.

For example, typically businessmen welcome maximum frontage exposure and out-front parking as an attraction to customers, particularly the impulse buyer, and because of the advertising functions large display windows can serve. In certain inner city neighborhood centers, however, such practices are not necessary or may even prove to be dysfunctional. Customers from a limited service area know who, what, and where the store is and are attracted as much by convenience as by the considerations of cost, quality, and quantity of available goods and services. The majority of customers walk to the center since, typically, many people do not have access to cars or the family car is not available for daytime shopping use. The conventional site layout and design then does not serve its intended functions in these circumstances, and as was the case at the 51st and State center, it may even encourage acts of vandalism and other offenses. In all probability, the focus on visibility and automobile convenience are not necessarily primary considerations at an inner city location, and in all likelihood attract few additional customers to offset their negative implications and consequences.

In sum, many of the problems at the 51st and State center stem from it being a "conventional" commercial center layout placed in the middle of public housing high-rises with a highly disruptive potential. The layout and architecture, although appropriate for other locations, make the center in this context highly vulnerable to criminal activity.

Attention to security design must be given a high priority in these situations. The solutions to establish a secure environment at a center may in some cases require a willingness to spend additional money at the outset to eliminate future costly and possibly destructive problems.

The common inexpensive scheme of fronting shops on a parking lot strung out between two "magnet" stores (e.g., the drug store and the food store at 51st and State) may have to be reconsidered or altered.

Also among the particularly acute trouble areas in commercial centers that will require careful study and possible departure from the norm, dependent upon exact site and location, are the following:

Parking Lots. Contrary to the usual practice of providing as many automobile entrances into a property as local codes permit in order to "invite the customers in," curb cuts should be reduced to the minimum number. This reduces the possible routes an escape vehicle can take and also reduces the number of exits police cars must cover. It also makes the task of electronic surveillance after hours much easier.

Layout is another factor that requires careful analysis. Generally, a diagonal parking arrangement probably is preferred. Its one-way traffic patterns are easier to secure, and the number of different escape routes and possible directions for escape are reduced. Also, the diagonal parking pattern usually is more efficient and economical than right-angle parking since it allows more cars to be parked in the same area.

Enclosed employee parking should be considered to protect the all-day parked car and the employee going between office or his car. This solution would have been highly appropriate at the 51st and State center where it could have been built in the little-used north and south lots of the center, wrapping around the service area joining the two lots. The high walls and roof (14 feet high, for truck clearance) of such an enclosed area would be the most positive method of securing the sides and rear of the center building. The roof could also have pressure-sensitive devices emplaced to alert security personnel in case anyone climbs on top of it. At 51st and State, the enclosed parking garage for employees is impractical for now because of its high cost (\$250,000). As part of the original design and construction, however, providing secure employee parking may be more economically considered in terms of its benefits.

Service Areas. Truck service areas need special attention. In terms of dollars lost per incident, the more serious direct losses have occurred in the loading area at 51st and State.

Service areas should be as compact as possible for easier electronic and personnel surveillance. It is extremely important to eliminate all pedestrian and vehicular movement in the loading area except for legitimate delivery trucks and personnel. This can be accomplished by a combination of physical barriers such as walls and gates, CCTV surveillance, audio-feedback systems, and if the number of deliveries warrant, a full-time security patrolman assigned to this function.

The ultimate in security (and most expensive) for this function would be an enclosed structure with roof covering the service area. No one could then get in except via monitored entrance gates. Again, the roof could be secured by pressure-sensitive devices that would alert the security patrol if anyone ever reached the roof. The structure would of course have to be equipped with sprinklers and otherwise meet building code requirements.

In future centers, the usual placement of loading areas in the rear in order to hide their unpleasant features from the public may be reconsidered. Public view of the service area may sometimes be a desirable deterrent for reducing criminal activities in that area in lieu of the alternative security approaches, which may not be possible because of site limitations or because they are too costly to justify their use.

Pedestrian Movement. The ability to restrict or control routes or patterns of pedestrian movement at such centers is desirable. Similar to vehicular exit restrictions, the number of pedestrian exits should be minimized to reduce the number of control and monitoring points necessary. The number of random escape routes available to the offender is thereby reduced, enhancing the chance of capture, and thereby decreasing the frequency of possible occurrences.

Pedestrian routes should be direct and heavily trafficked to reduce opportunities for purse-snatching and other thefts. Covered walks should be avoided unless they can be secured by walls or other means such as CCTV or direct observation. Unless carefully designed, canopies can obscure viewing by security system CCTV cameras, which must then be mounted high to reduce likelihood of vandalism to the cameras.

Malls and Courts. Enclosed malls or courts, which can be closed and sealed off after closing hours, are far superior to the open covered walk or arcade such as that used at 51st and State, which allows access to stores at any time. During the open hours of a center, the enclosed mall provides better security by providing a means to control pedestrian movement and exits thereby making success of hostile acts less likely and making escape more difficult.

Depending on site restrictions, a mall formed by shops on both sides would be an ideal security solution. Small shops that require infrequent or minimum servicing could be located at one side. The 51st and State center could have had such

a layout, with the result that the mall would have been half the length of the existing arcade. The length could be halved because it would be "double loaded," meaning shops would have been on each side. The magnet stores would have enclosed the ends where the exits would have been located. The shorter length of such a mall would allow easier surveillance by security personnel and CCTV and at the same time maximized protection after hours. Vandalism to glass store fronts could be virtually eliminated. The mall could be roofed over for additional security.

Inward looking or "introverted" mall or court schemes are preferable for security reasons over "extroverted" plans such as at 51st and State. Such a court plan could have been adopted at the 51st and State center. The medical offices could have faced an open court (accomplished by putting the offices above the small shops for the scheme described previously), thereby eliminating all glass breakage due to vandalism and reducing most exposures to sniper fire from nearly high-rises. Such a scheme would be like a doughnut with a hole in the middle with a ring of offices and an outer ring formed by the corridor. The efficiency of such a plan is somewhat decreased due to the fact that the required corridor area is greater than in a conventional plan and there is more exterior wall perimeter to the building. Construction costs therefore would be proportionately higher.

Another extremely important level of consideration in deciding on an optimum size of development relates not only to direct physical security considerations but also to important aspects of economic feasibility. Size of development in the future must be considered not only from the viewpoint of standard market and financial feasibility criteria, but also from the perspective of providing an adequate base for amortizing special security costs. In the extreme, there may be a minimum size or "floor" below which it is not reasonable to consider inner city commercial center development because the necessary security related costs which must be reflected in the rents cannot be structured at competitive levels.

Windows. Windows in shops are desirable for aesthetic reasons, as display cases, for letting in natural light, and also for security reasons -- in order to allow the security patrol to look casually or discriminatingly inside the shop.

However, at the same time, windows can become targets for vandalism or provide an easy way to gain entry to a shop through breaking in. Although wire mesh screens or gratings

placed in front of the windows reduce these problems they still do not provide foolproof security and at the same time are extremely ugly and psychologically insulting and depressing.

Windows in offices are desirable for aesthetic reasons, as fire access panels, to provide natural light and natural ventilation. Again, these windows can be a means of gaining illegal entry, and targets of costly vandalism unless careful consideration and attention is given in the initial design stage to window material and window fenestration.

Initial considerations may evolve from plans such as the mall scheme described above which inherently provide window security. Other means of window protection include the use of new special glazing materials such as sheet polycarbonite (trade name: Lexan) or plastic laminated plate glass. Both methods will be employed for vandal-proofing the desirable "glass" appearance and functions in two new Chicago high schools, Orr and Tuley, as designed by the Office of Mies van der Rohe. The sheet polycarbonite should be employed on the ground floor where the most severe chances for break-ins occur and the laminated plate glass (which is comprised of an outer 1/4" thick plate glass and an inner 1/8" thick plate glass sheet laminated to a .015" plastic sheet sandwiched between) should be utilized elsewhere. Both glazing systems are considerably more expensive than conventional glazing methods with the polycarbonite being the more expensive of the two. However, over the long term, savings would appear to offset this initially higher cost.

Other obvious solutions would be to minimize the number and size of windows. This is particularly desirable where sniping may be a problem. In such situations, horizontal ribbon windows should be avoided. Narrow vertical "slot" windows widely spaced are ideal where sniper's fire may be a problem. Such windows do not permit a sniper to follow or "track" his target about the room because the vertical obstruction between windows interrupts the snipers field of fire and focus. Such narrow windows also allow little, if any view of the occupants to be seen from the outside during daylight hours. Therefore, such fenestration provides desirable window functions while at the same time establishing a shielding effect, in many ways similar to the slot windows used in medieval fortresses. Hoods or louver-like sun control devices are other possibilities which may be considered to screen the windows from the direction of sniper fire.

Rooftop. The problem of sniping may create another difficulty with a conventional center design as it has at 51st and State. The common practice of placing mechanical equipment on the roof makes such equipment and repairmen highly visible targets for snipers. Alternate locations of the mechanical equipment should be considered. In lieu of an alternate location, screening rooftop equipment is recommended to reduce its vulnerability to attack.

The rooftop at 51st and State has also had special attraction for burglars who have cut holes through the roofing and metal roof deck to get into shops. In place of a light metal roof deck, a concrete roof slab would prevent or make it extremely difficult to cut holes, assuming that other effective means for monitoring and controlling roof access are employed. Also, structural barriers such as walls set away from the building can effectively prohibit roof access as can a fence or cant around the roof parapet.

Landscaping. Landscaping should be avoided unless it can be protected and secured in a compound formed by a mall or court as described above. Unless landscaping can be secured it will inevitably be vandalized. Also, care must be taken in open site landscaping to avoid interruptions to CCTV or security personnel field of vision and lines of sight. Special care must also be taken in the selection and placement of landscape materials to avoid creating dark shadow areas at night which would be counterproductive to the impact of bright lighting.

Lighting. Bright lighting is desirable primarily as a psychological deterrent to offenses. Building walls and other areas where an offender could hide among the shadows should be illuminated. Light fixtures should be encased in heavy-duty housings, and louver or grating covers placed over the fixture openings to protect the light from being vandalized.

Electronic Devices. A host of electronic devices should be used immediately upon opening a commercial center. Among the basic necessities are two-way radios for security personnel, and tenant "alert" transmitters to summon help. Other electronic devices including CCTV, a two-way speaker system, automatic gate controls, pressure-sensitive devices on the roof or on top of surrounding walls, and burglar alarms should be considered and installed immediately if severe criminal activity is anticipated in order to reduce costs and prevent disruptive or counterfunctional patterns from becoming established.

Judicious use of electronic devices such as CCTV which would identify anyone approaching the building can be a vital ingredient in achieving a secure environment. Energy barriers

or pressure-sensitive devices, which would alert the security patrol if anyone entered restricted areas, would be another technique to be used in conjunction with design elements. The rapidly expanding state of electronic technology and the growing inventory of versatile devices will allow increasingly creative future approaches to achieving an economic total security system. However, it should be noted that such devices cannot be a final, or ultimate deterrent or prevention. They cannot alone provide a secure environment if the original structural design and layout has not provided the basis for their optimal deployment.

Supplementary or augmented security at the outset of the opening of a new center is very desirable. Patterns and stereotypes are rapidly formed, and the desired "security image" the center wishes to establish in the community must be evident immediately.

Security Personnel. The presence of security personnel from the date of opening of a center is also an extremely important consideration. The image of an "easy mark" should be avoided. The best method to prevent this initially is to employ qualified security personnel who convey a visible and positive deterrent image.

The caliber of security personnel utilized must be above that of the usual security guard who too often is ill-equipped by training and experience to cope with the special communications and human relations that such centers have. These positions are extremely important and only sensitive, people-oriented, well trained personnel attracted by a higher salary can do a truly effective job.

The above discussion is not intended to be a detailed, all-inclusive catalog of security planning concepts and techniques. Rather its purpose is to highlight some of the key considerations, and their interrelationships inherent in the development of this plan and future plans.

In sum, this should be considered a backdrop or prelude to the evaluation and input phases which are part of the planning and development process for future inner city centers. At all times, however, it is important to keep in mind that security strategies are not fixed and unchangeable. The final goal must be to design and employ the most sensitive, versatile, cost-effective mix of security elements available at the time, proportionate to the needs of the center and the character of the community in which it is located.