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## STATE OF MINNESOTA

DEPARTMENT OF PUBLIC SAFETY

SAINT PAUL 55155

### BLUE RIBBON COMMISSION ON PARKING RAMP SAFETY

#### FINAL REPORT

July 29, 1988

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## PARKING RAMP SAFETY

The recent and tragic series of crimes in buildings and parking ramps have caused deep public concern in the Twin Cities area. While some types of crime committed off the street affect both sexes, women have particular fear and concern about their vulnerability to personal assault, rape and homicide in unprotected and hidden spaces such as parking ramps.

On June 22, Governor Rudy Perpich, along with business and government leaders from Minneapolis and St. Paul, called for a Blue Ribbon Commission to look into parking ramp safety. The commission was charged with examining the physical and operational aspects of parking ramps in the metropolitan area to determine what has and is being done to improve security, and what can be done to better assure safety in the future.

While parking ramp safety is not a new problem, it is a growing one. Since the advent of parking ramps in the 1950's and 60's, there have been concerns over the security of persons and property. The problem has grown with the metropolitan area. The Twin Cities are no longer "small" towns; they face problems of other large urban centers. Concerns for personal safety extend beyond downtown ramps to areas of high parking density such as the university, the airport, shopping malls and hospitals and to other areas such as bus stops.

Parking ramp owners and operators have responded in various ways to provide a safer environment for customers, including: architectural design to minimize dark and hidden areas; use of technology such as closed circuit television and alarm systems; provision of escort services; and efforts to limit access by intruders. The current concerns in the community raise the issue of what steps should be taken to assure acceptable levels of security in parking ramps, now and for the future.

The perception and fear of crime is as important as the reality of it. When brutal crimes occur and receive media attention, as in recent events, public concern is understandably heightened. Efforts must be made to ease public fears and reduce the likelihood of a repeat of such tragedies.

During deliberations of the commission, some raised concerns over the criminal justice system and sentencing guidelines. Such questions go beyond the scope of this report. While admittedly only a piece of the problem, the commission focused solely on parking ramps. The Attorney General's Task Force on Violence Against Women will be looking into broader issues.

The Blue Ribbon Commission's process resulted in the sharing of ideas and information between metropolitan communities on improving parking ramp safety; the report does not purport to be an exhaustive treatment of the issue. The recommendations put forward range from promoting personal safety education and public awareness of ramp safety to municipal review of the safety features of existing and planned parking ramps.

## RESEARCH ISSUES ON PARKING RAMP CRIME

The commission process raised questions that could not be answered either because of lack of data or insufficient time to conduct the necessary research. Potential research topics are listed below.

Basic Data Collection On a metropolitan basis, collect and aggregate data on parking related crimes for both ramps and surface lots. Currently, even on the city level, crime data is not collected in this manner. Participants in the ramp safety working group noted that the attention has been focused on the downtown areas, but parking related crimes also occur in the suburbs.

Impact on Business and Employee Morale The recent assaults have resulted in additional costs to business both in terms of additional security measures and increased concern of employees over their safety. There may be additional costs to downtown merchants in terms of business lost to other shopping areas which are perceived as "safer".

Impact of Mass Transit System on Personal Safety Twin Cities residents rely heavily on individual transportation and therefore need parking spaces. Development of a mass transit system would lessen the concern over safe parking and raise a new set of personal safety concerns.

Purpose and Effect of Safety Measures There is a twofold purpose in providing security at parking ramps: 1) to make those using the ramps feel more secure; and, 2) to deter criminals. Little is known about what security efforts in fact make people, especially women, feel safer and more willing to use such facilities. Further, little is known about what security efforts create the most effective deterrents to crime. The effectiveness of security measures will likely differ depending if the criminal is an opportunist (a thief who steals car radios) or a predator. Behavioral science research is needed in this area.

## PARKING SPACES

### Minneapolis Public Parking

	Ramps	Surface Lots	Meters	Total
Center Core	9,288	1,758	143	11,189
Outer Core	7,723	5,796	666	14,185
Frame	4,749	6,488	1,993	12,430
Riverfront	<u>1,430</u>	<u>2,707</u>	<u>323</u>	<u>4,460</u>
Total	23,190	16,749	3,125	43,064

### St. Paul Downtown Parking: Public and Employee

	Ramps	Surface Lots	Meters	Total
St. Paul	13,795	11,000	1,891	26,686

### State Employee Parking in the Capitol Complex

The state operates two employee ramps, the Centennial Ramp and the Administration Ramp, with a total of 1,393 slots. The state also has 17 surface lots with a total of 1,480 slots. Two additional ramps are in the planning stages, one for the new Judicial Building and one for the State Office Building.

### University of Minnesota

The University of Minnesota has a total of 14,601 parking slots between ramps, garages and surface lots. The University Hospital parking ramp has an additional 580 slots.

### Analysis

Minneapolis data, the most detailed, indicates that if you plan to park your car downtown, the majority of parking spaces available are in parking ramps. In downtown Minneapolis (center and outer core figures listed above) there are 25,374 total parking slots; 16,011 (or 63%) of those slots are in ramps.

Data received from Tom Duffee of the Minneapolis Downtown Council; Paul LaPointe, St. Paul Department of Planning and Economic Development; Captain R. C. Smith, Capitol Security; and Sergeant Jim Verbrugge, University of Minnesota Police.

## PARKING RELATED CRIME -- ST. PAUL

The police department for the city of St. Paul researched the incidence of serious sexual assault in parking settings between January of 1981 and January of 1988. They found 42 reports. The sites of these attacks were as follows.

Parking Ramps	4
Surface Lots	
housing (apartments/dorms)	15
bars and liquor stores	7
park and recreational	6
shopping centers	5
medical facilities	2
churches	2
business lots	<u>1</u>
Total	38

(According to the Bureau of Criminal Apprehension, there were a total of 1,540 reported rapes in the city of St. Paul during the same period of time.)

## CURRENT EFFORTS TO IMPROVE RAMP SAFETY

### Minneapolis Police The department has:

- o improved communications with parking ramp operators. They will begin a newsletter to parking ramp owners to provide information on ramp crime patterns (see attachment).
- o conducted 79 personal safety workshops for businesses, apartment complexes and hotels. Group size averaged between 50 and 100 people.
- o distributed nearly 200,000 personal safety brochures to parking ramps and most surface lots in the downtown area.

### Minneapolis City Council

- o The Council has begun discussions to establish a parking ramp safety advisory committee with public and private members.

### St. Paul Police The department has:

- o begun a dialogue with city ramp owners on police patrols for parking ramps.
- o produced a 12 minute video tape on personal safety and distributed it to businesses and to parking lot/surface lot owners to help train their employees.
- o distributed over 30,000 personal safety brochures on cars parked in ramps.
- o conducted 25-30 presentations on personal safety to a total of 2,000 to 3,000 people. They have requests for additional presentations through July and into August.

### City of Bloomington

- o For a number of years, the city has had a fire and life safety committee to review plans for parking ramps (see page 12).

### State of Minnesota

- o The Dept. of Administration and the Dept. of Public Safety are coordinating efforts to improve safety in state parking ramps. The state is promoting escort services through Capitol Security, increasing visibility of security officers in ramps (through walking instead of driving patrols), improving lighting, and holding a sexual assault seminar for state agency employees.

- o Attorney General Humphrey has appointed a task force on the broader issue of violent crime against women.

#### Newspapers

- o Extensive newspaper coverage of the parking ramp murders has included articles on improving personal safety.

#### Major Employers

- o Major employers are reassessing their employee parking ramp security. Responses differ from site to site, but include the provision of additional guards and escort services.

#### Crime Prevention Officers Association

- o The Association has prepared course outlines for community presentations on personal safety and prepared a training course to certify crime prevention officers. The Association also plans to conduct a symposium on violent Crime in Minnesota. (A letter from the Association to the Task Force on Ramp Safety is attached.)

## ISSUES CONCERNING RAMP SAFETY

### Ramp Design, Regulations and Standards

- o Crime prevention is not the sole concern in parking ramp design. The need for multiple exits in the case of a fire, for instance, conflicts with the crime prevention concern of limiting access to the ramp. The use of high berms to hide parked cars for aesthetic reasons also conflicts with crime prevention. Design review will necessitate compromise.
- o Appropriate ramp safety standards may differ between high crime and low crime neighborhoods. Reaching a consensus on standards for a parking ramp safety ordinance may be difficult.
- o While better designs can be applied to new ramps, retrofitting old ramps is expensive.

### Active Security

- o Providing additional surveillance technologies and/or escort services involves additional costs.
- o Sharing of certain police information with ramp owners violates confidentiality laws. (Police, for instance, cannot share the name of a suspect unless a warrant has been issued for their arrest.)
- o Ramp attendants are also the victims of attacks.
- o Opportunities exist for better cooperation between police, ramp attendants and ramp security. Further, individual ramps or ramp associations may choose to share information on criminal activity.
- o Currently, no standards or licensing exists for hiring security guards. Because of the importance of their job, requirements such as passing a physical exam and a background check may be appropriate.

### Public Education in Personal Safety

- o Though individuals need to take responsibility for their own safety, crime victims should not be "blamed" for being victims. They have a right to be in the ramp.



- o Public awareness -- and the current media attention -- of the need for parking ramp safety will wane in the future. Public education on the need for parking ramp safety should be an ongoing effort.
- o Crime in the downtown area is publicized in the newspapers but problems exist in shopping centers as well. Public education is needed throughout the metropolitan area.
- o Public attention is focused on parking ramps, but it is not clear that surface parking lots are necessarily safer.
- o Different personal safety strategies are needed for different kinds of ramps. Strategies for employee ramps -- where the same individuals use the ramp every day and enter and leave at predictable times -- will differ from strategies for consumer ramps. Unique strategies are needed for places such as hospitals where a high percentage of the employees are women and where many work odd hours.

## RECOMMENDATIONS FOR PARKING RAMP SAFETY

While it is impossible to guarantee a perfectly safe parking ramp, improved ramp design and security measures, better communications among ramp owners and between ramp owners and police, and public education on personal safety can make parking ramps safer to use.

The commission recommends the following.

- 1) Parking ramps should provide adequate lighting. The Pittsburgh ordinance provides one standard, the Handbook of the Illuminating Engineering Society (attached) another.
- 2) Ramps should be periodically patrolled, either by private security, attendants or police.
- 3) Public education of personal safety measures should be an ongoing process, not a short-term response to a tragedy.
  - a) One way to keep the issue in the public eye would be for the Twin Cities to hold an annual Ramp Safety Awareness Week.
  - b) The state has a role in producing and coordinating materials on parking ramp safety for distribution to other communities.
  - c) Cities and employers should endorse and publicize crime prevention programs. Ramp owners may do something as simple as printing safety messages on the back of parking stubs.
- 4) Establish a review process for ramp design. This review process should include not only crime prevention, but also fire safety, handicap accessibility and aesthetic concerns. (The checklist used in the Bloomington review process is attached.)
- 5) Police and ramp employees should work together to improve ramp safety. Police departments should:
  - a) facilitate the sharing of information on crime patterns and crime suspects with ramp owners and ramp security. The police should begin to collect ramp specific crime data. Ramp owners should also share information on their own; they are not bound by the same confidentiality requirements as the police.

b) provide training to ramp attendants in such areas as monitoring short-term parkers (who may drive in just long enough to commit a crime), listening for "meaningful noises" and checking the back seats of cars as they leave the ramp.

6) Municipalities should consider:

a) Passage of a parking ramp ordinance. (Few examples exist around the country. They are summarized in attached documents.)

b) Providing periodic inspections of parking ramps for the purposes of recommending crime prevention improvements.

The Commission found no need for changes in the state building code as it relates to parking ramp design.

Other recommendations include the following.

- o Ramp employees should have written procedures to follow for crime prevention and response to criminal activity.
- o Ramp owners should encourage communications between attendants and ramp security, particularly with respect to information about suspicious behavior. Ramps should conduct security drills to assure that their employees can respond to an emergency, and attendants should be consulted about changes to improve surveillance. Monitors which change rapidly from camera to camera, for instance, can cause eye strain. The end result may be that attendants simply fail to monitor the screens.
- o Ramps should be well maintained, have clear signs and be painted with light colored paint to improve visibility. Security personnel should check and maintain surveillance equipment. Maintenance equipment should not be stored on parking levels as it can provide a convenient place to hide. Signs should clearly indicate floor level, exits and available telephones and fire alarms. Signs should also indicate the ramp is under continual surveillance and trespassers will be prosecuted.
- o Ramps should provide a hotline for consumer complaints and concerns. Consumers should be encouraged to complain so that potential problems are addressed quickly.
- o Parking spaces should be reserved for women and employees with irregular working hours, where appropriate, that will provide them with easier and safer access to their cars. Similar consideration should be given to the provision of escort services for these employees.

## ORDINANCES ON PARKING RAMP SAFETY

### Buffalo, New York

The Buffalo ordinance requires:

- o signs indicating hours of operation. Signs must be visible from the street and "measure at least three by four feet."
- o attendants at each lot. Exceptions are made for lots serving weekly or monthly customers and for lots with mechanically controlled entrances. Attendant should be "honest, courteous and competent."
- o sufficient lighting to protect customers while the lot is open.
- o reports to police on vehicles left for over 48 hours.

### Euclid, Ohio

The Euclid ordinance addresses the need for security guards at apartment complex parking lots. Any complex over 400 units must have one 24 hour/day security guard for the building and parking lot. Complexes over 700 units require two such guards. The Director of Public Safety may -- after holding a public hearing -- require a security guard for complexes under 400 units.

### Pittsburgh, Pennsylvania

Pittsburgh passed a parking garage ordinance after nine reported rapes in parking garages during a six month period in 1984. As of July, 1987, only two additional attacks had occurred in Pittsburgh garages. The ordinance requires:

- o uniformed security officers, at a minimum, to patrol each area of the parking garage every 30 minutes. No one responsible for collecting money can conduct the patrol. The ordinance requires that patrol records be kept.
- o strategically located emergency phones or panic alarms on every parking level, "zoned to a central station which is staffed at all times. Directional arrows must indicate exits and elevators.
- o minimum lighting of five foot candles at a height of five feet.
- o parking garages of three or more floors to provide escort services to those customers that request it.

Sources: The Parking Lot and Garage Security Handbook, Norman R. Bottom, Hanrow Press, Columbia, MD, 1988, pages 114-116; and the Business Licensing code for Pittsburgh, 1988 amendments, 763.04 page 30B.

CONDITIONS OF THE FIRE AND LIFE SAFETY COMMITTEE

- \_\_\_\_\_ 1) building(s) be totally sprinklered as approved by the Fire Marshal;
- \_\_\_\_\_ 2) exterior lighting and building security plans be approved by the Crime Prevention Officer, Bloomington Police Department;
- \_\_\_\_\_ 3) fire lanes be posted as approved by the Fire Marshal;
- \_\_\_\_\_ 4) handicapped parking be provided with standard handicapped signs as approved by the Director of Planning;
- \_\_\_\_\_ 5) handicapped access be provided to the building(s);
- \_\_\_\_\_ 6) utility plan with existing and proposed water mains and fire hydrants be at locations as approved by the Fire Marshal and Utilities Engineer;
- \_\_\_\_\_ 7) traffic, circulation and parking plans be approved by the Traffic Engineer;
- \_\_\_\_\_ 8) enclosed trash facility(s) be provided in a designated area as approved by the Fire Marshal;
- \_\_\_\_\_ 9) any standby fuel provisions be as approved by the Fire Marshal;
- \_\_\_\_\_ 10) street names be in conformance with the standard street naming policy;
- \_\_\_\_\_ 11) temporary street signs and home addresses be provided during construction;
- \_\_\_\_\_ 12) food service be as approved by the Environmental Service Section, Building and Inspection Division;
- \_\_\_\_\_ 13) handicapped toilet facilities be provided;
- \_\_\_\_\_ 14) parking structures be built in conformance with open parking garage standards;
- \_\_\_\_\_ 15) further review by the FLSC prior to final site plans and building plans consideration;

\_\_\_\_\_ 16) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Fig. 14-27. Recommended Maintained Horizontal Illuminances for Parking Facilities

(a) Open Parking Facilities

Level of Activity	General Parking and Pedestrian Area			Vehicle Use Area (only)		
	Lux (Minimum on Pavement)	Footcandles (Minimum on Pavement)	Uniformity Ratio (Average:Minimum)	Lux (Average on Pavement)	Footcandles (Average on Pavement)	Uniformity Ratio (Average:Minimum)
High	10	0.9	4:1	22	2	3:1
Medium	6	0.6	4:1	11	1	3:1
Low*	2	0.2	4:1	5	0.5	4:1

(b) Covered Parking Facilities

Areas	Day		Night		Uniformity Ratio (Average:Minimum)
	Lux (Average on Pavement)†	Footcandles (Average on Pavement)†	Lux (Average on Pavement)	Footcandles (Average on Pavement)	
General parking and Pedestrian areas	54	5	54	5	4:1
Ramps and corners	110	10	54	5	4:1
Entrance areas	540	50	54	5	4:1

	Range of Illuminances	
	Lux	Footcandles
Stairways‡	100-150-200	10-15-20

\* This recommendation is based on the requirement to maintain security at any time in areas where there is a low level of nighttime activity.

† Sum of electric lighting and daylight.

‡ See Fig. 2-1.

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Illuminating Engineers Society Handbook, 1987

TOTAL P.03

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