

CPTED & Security Guidelines



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Purpose Statement

The purpose of the City of Pompano Beach Crime Prevention Through Environmental Design (CPTED) guidelines are to incorporate CPTED and security strengthening principles and practices in the design, construction, and operation of all development within the City. The City will provide guidance to help encourage the application of these principles and practices in local development. These guidelines are expected to yield short-term and long-term benefits including, but not limited to, cost savings to the City's taxpayers, safer environments to public and private establishments, and potential increases in revenue for businesses due to the reduction of criminal activity.



Source: Flickr

Background of CPTED and Security Guidelines

The term CPTED originated from the study of the relationship between the environment and human behavior. This study was further brought to light in 1961 when urban planner Jane Jacobs developed the *eyes-on-the-street* theory. Her book *The Death and Life of American Cities* brought awareness to early-stage CPTED strategies. In 1971, criminologist and sociologist C. Ray Jeffrey expanded on Jacobs' theory by coining the term in his book *Crime Prevention Through Environmental Design*. His studies brought awareness to *capable guardianship* and *crime opportunity* theories.

Awareness towards crime prevention has grown exponentially since 2001. Today, these preventative measures found in the CPTED principles can be implemented in the design and operation of buildings and sites to aid in the reduction of crime. Security strengthening physical, mechanical, and electronic measures use hardware and technology systems to protect targets. Natural measures utilize the environment by designing effective space for its users. Organizational measures teach individuals and groups to protect themselves and the spaces around them.

Many cities within the United States such as Fort Lauderdale, FL; Tampa, FL;

Portland, OR; Los Angeles, CA and Washington D.C. have conscientiously adapted CPTED Principles to their design and building requirements. There are many other cities that have also incorporated CPTED Principles without consciously acknowledging CPTED. CPTED is the only technique which incorporates criminology, architecture, environmentalism, behaviorism and urban planning into the prevention of crime through the built environment.

CPTED Principles can be adapted for any built environment. Parks/Recreational Areas, Retail Centers, Office Buildings, Multi-Family Dwellings, Schools and Residential Homes are a few of many built spaces which benefit from these principles. Within these spaces, users such as residents, shoppers, employees and tourists are among the many people who can benefit from the safety precautions outlined within CPTED. In Pompano Beach, areas such as the historic downtown district, the beach promenade at Atlantic Boulevard and A1A, the numerous thriving industrial zones and commercial properties along Federal Highway and throughout the city, the revitalized MLK corridor, and the gateway government centers such as City Hall, and the newly built libraries and parks throughout the city, should all be recognized as important subject sites for implementing and showcasing the positive results of applying CPTED guidelines.

How to use this manual

How to Use This Manual

Terms and Definitions

Guidelines by Use (Overview)

How This Manual is Organized

Benefits

CPTED vs. Crime Prevention Initiatives & Combinations

Example Security Check List

How to Use This Manual

This manual serves as a guide for the application of the CPTED principles as well as other safety strategies when designing the built environment. These implementation strategies employed by the City of Pompano Beach will lead the way to a safer city. The techniques listed are not all inclusive, but serve as proven examples of crime prevention strategies. Every development or redevelopment requires assessment on a case-by-case basis to identify what combination of guidelines and design decisions need to be made to provide the safest and most secure environment for its users

Terms and Definitions

Definitions and explanations of the terms and phrases used in this document can be found in Pompano Beach's Zoning Code (Chapter: 155 Article: 9). The Zoning Code is hosted by American Legal Publishing Corporation and can be found online at:

<http://www.amlegal.com/library/fl/pompanobeach.shtml>

Guidelines by Use (Overview)

Neighborhood Developments & HOAs

Gateway treatments, centrally located public spaces, and proper lighting and landscaping, promote safety through natural surveillance and territoriality by allowing visibility and a safer road network.

Single Family Homes

Providing friendly interaction zones on porches and sidewalks, while establishing defined territorial boundaries when combined with natural surveillance low shrubbery and security lighting, enhances interaction between residents and subsequently provides a sense of ownership responsibility in keeping the area safe.

Multi-Family Homes, Single Buildings and Complexes

Promoting territoriality through community involvement and providing well-lit, centrally located, and consistently maintained public areas and assigned parking, allows residents to establish a safe environment and sense of shared ownership of the property.

Institutions

Institutions that are designed with a point of entry that is well-defined, walls that include large windows on all sides situated to look over the entire property perimeter especially the parking lots, and a perimeter that is secure and properly monitored provides a safe

environment for patrons during all hours of operation.

Industrial

To ensure safety in industrial zones outside of the work conditions, closed-circuit monitoring, perimeter lighting, and restricted access will aid in preventing unwanted intrusion or other activities despite the relative isolation of industrial buildings and open spaces.

Commercial Drive-Throughs and ATMs

Equipping drive-throughs and ATMs with electronic surveillance, minimizing entrance points, obstructing cash register views (in drive-throughs), and locating the transaction points directly in the line-of-sight of the interior of the building and the street prevents these vulnerable points from becoming high crime spots.

Commercial Storefronts

Defined user zones and ease of observation inside stores provides protection against unauthorized access to sensitive areas while properly lit exteriors with large windows that look out to the parking area allows both employees and customers to keep an eye out for criminal activity outside the stores.

Shopping Centers & Malls

Because safety and security are a concern both inside and outside of

shopping centers and malls, equal importance should be placed on the electronic and human surveillance inside the mall and shops and the design and surveillance of the parking lot (water retention, delivery areas, signage, etc.).

Office Buildings

Aside from the usual techniques to suppress physical threats to buildings, office buildings require monitoring by both video surveillance and human presence to ensure those accessing the building are authorized to do so and that they stay within their clearly defined allowable areas.

Parking Garages/Structures

In order to overcome the two biggest obstacles faced in designing parking garages and other parking structures, diminished natural surveillance lighting and obstructive design features, the designer should provide ample lighting and light colored walls to enhance illumination, as well as maximize visibility by avoiding walls and other features that would inhibit a clear line-of-sight. Also, as the main CPTED principle of natural surveillance is limited and thus reduced in parking garages/ structures making them the most vulnerable locations for criminal incidents to occur, including electronic surveillance systems is essential to effective comprehensive security.

How This Manual is Organized

This manual is organized into five sections. The first section explains what Crime Prevention Through Environmental Design (CPTED) is, what other security measures exist, and how to use either one or a combination of both to design a safer development.

Secondly, the principles of CPTED are defined and listed. These principles are used in the following section to serve as guidelines that can be modified to fit specific uses depending on what type of design is being conceived.

The third section breaks down the crime prevention guidelines into categories based on their use (e.g. Single Family Home, Industrial, Commercial Storefronts, etc.). Different strategies work better depending on what is being built or improved.

Safety guidelines for landscaping and lighting follow in the fourth section, as both are included throughout the uses section, but can also be implemented on their own.

The final section is the implementation strategy that the City of Pompano Beach has created to make the city a safer place for the residents who live, work, and play within its borders. This implementation strategy can be used by private entities as well, using the examples that the city has completed as a basis for implementation of CPTED and other safety measures in the designs of buildings, structures, and landscape.



Source: Google

Benefits

The positive changes seen when applying CPTED guidelines and other safety measures to new design and redevelopment are substantial. According to the National Crime Prevention Council (NCPC), the benefits are seen by community residents, municipal leaders, law enforcement, business leaders, business owners, planners, and architects. These benefits, as seen on the NCPC's website, are detailed below:

Community residents will have:

- Opportunities to play meaningful roles in community crime prevention
- Improved sense of security and quality of life through reduced fear of crime
- Fewer crimes committed in neighborhoods, fewer victimizations of residents
- Increased interaction among residents and stronger neighborhood bonds
- New crime prevention and problem-solving skills and enhanced knowledge of city government agencies and other resources

Municipal leadership will see:

- Less crime in neighborhoods and business areas
- Improved perception of safety and livability in public areas and neighborhoods

- Enhanced consideration of public safety in planning, development, and redevelopment projects

Law enforcement will benefit from:

- Sustainable links with planning, development, code enforcement, and other local agencies
- Clarification and action on neighborhood priorities related to crime and quality of life
- Opportunities to play meaningful roles in community crime prevention
- New crime prevention and problem-solving initiatives

Business leaders/owners will gain:

- Safer locations that are more attractive to customers and employees
- Enhanced problem-solving partnerships with local government and community members

Planners/architects will gain:

- A greater role in designing the environment; CPTED is recognized as an acceptable component of LEED (Leadership in Energy and Environmental Design) or Green Building
- A holistic approach to the development and planning process

CPTED vs. Crime Prevention Initiatives & Combinations

While the majority of this manual discusses CPTED guidelines, it is

important to understand the relationship between CPTED and more traditional security measures. All measures must be considered before a plan of action is created. Including safety and security measures in the design of buildings and their surroundings has as much impact on the crime rate as crime prevention programs and safety initiatives.

Pompano Beach contracts its policing duties to the Broward County Sheriff's Office. Through this partnership, as well as other national, state, and local level partnerships, Pompano Beach is working to create and maintain a safe environment for the residents and visitors of the city.

The following is a list of crime prevention programs and initiatives that are currently in place in Pompano Beach or Broward County. This list is not all-inclusive, and efforts are being made at every level to educate the community on crime prevention and encourage them to participate in helping to make Pompano Beach a safer place.

Broward Sheriff's Office

- Crime Stoppers
- Vacation Home Check
- COP Program
- Senior Citizens Academy

- TRIAD
- Juvenile Firesetter Prevention and Intervention Program

Broward County Crime Commission

- Anti-Gang Initiatives
- Organized Retail Crime Initiative
- Public Security Guidelines

Urban League of Broward County

- Crime Prevention and Intervention

National Neighborhood Watch

- Seven neighborhood watches in Pompano Beach communities

US Department of Justice Southern District of Florida

- Project Safe Neighborhoods
Incorporating a reasonable measure of security other than just CPTED guidelines, when appropriate and necessary, allows the residents to feel safe, secure, and confident that their homes and businesses are adequately protected from criminals. CPTED strategies should always be utilized, however modern physical and electronic security access controls are often required to adequately protect against the serious criminal threats of today. CPTED practices are both encouraged and promoted, but each project should fully consider all measures to adequately meet inevitable threats.

Sample Security Checklist

Here are some things to look for when deciding what upgrades or new construction must be done to a site to increase the safety and security of the area. Remember that not all sites face the same threats, and therefore require some judgment on which of the questions applies to the specific site. These questions are to be used to get a general idea of what threats the site will potentially face.

1. General Impressions

- ☐ What is your reaction to the place?
- ☐ Do you feel safe or unsafe in this area?

2. Lighting

- ☐ Is the level of lighting good enough to let you identify a face at a distance of 50 feet?
- ☐ Can you see into the back seat of a parked car?
- ☐ How even is the lighting? Are there any pools of light and darkness?
- ☐ Are any lights out? If so how many?
- ☐ If lights are out, is it due to equipment failure or damage?
- ☐ Do you consider that the street lighting in the area is adequate?
- ☐ Are there any bushes and trees that interfere with street lighting?
- ☐ In waiting areas like bus stops, does lighting put you in the spotlight (i.e. can anyone outside the area see you easily while you cannot see anything outside?)?

3. Sightlines

- ☐ Is it difficult to see what's ahead because of sharp corners, walls, fences, grade changes, or bushes?
- ☐ As you walk through the public space, are there any places someone could be hiding without you knowing it?

- ☐ Would you be able to see better if transparent materials were used instead of solid materials? (For example, using lattice/Plexiglas for bus shelters instead of solid material that is not transparent.)
- ☐ If there are surveillance cameras, are they located in the best places?
- ☐ Are the surveillance cameras monitored?
- ☐ Who monitors them?
- ☐ What happens if the monitor sees someone being harassed or assaulted?
- ☐ Could corners of buildings be angled so it's easier to see around them?
- ☐ Should there be security mirrors to let you see around corners?

4. Isolation From Being Seen/Heard

- ☐ Are other people likely to be around during the day or late at night?
- ☐ How close is the nearest public telephone if you needed to call for help?
- ☐ Is it near enough?
- ☐ How often is the area patrolled by security guards or police?
- ☐ Would a scream for help be heard by a person, such as a valet or security guard?

5. Nearby Land Uses

- ☐ Is there graffiti, litter, or signs of vandalism which indicate no ownership of the area?
- ☐ Does the land seem owned and cared for, or is it a desolate or abandoned place where unlawful activity might go unnoticed?
- ☐ Is there more than one way out of an area for a person who feels threatened?

6. Movement Predictability

- ☐ Are there stairs, escalators, tunnels, lanes, or paths that enable a potential offender to predict where someone will be in a short time?
- ☐ What is at the end/bottom of tunnels, walkways, stairs, lanes, or paths and other facilities?
- ☐ Are there corners, recessed doors, or bushes where someone could hide and wait for you?

7. Signs

- ☐ Are there enough signs and maps so that people can easily find their way around? (Being confused about where to go makes a person feel more vulnerable to harassment or assault.)

8. Public Transit Stops

- ☐ Are public transit stops - and pedestrian routes taken to and from them – safe?

- ☐ Are these routes well enough lit to identify a human face at 50 feet?
- ☐ Are there signs to guide you to destinations?
- ☐ Is there more than one route to a stop?
- ☐ Is it possible to change routes during a journey if it becomes necessary?

9. Overall Design

- ☐ Is it easy to find your way around?
- ☐ Are public restrooms isolated?
- ☐ How easy is it for an intruder to go into the restrooms unnoticed?
- ☐ Would things like landscaping, fences, and better design make the place attract more people and be more user-friendly?

10. Maintenance

- ☐ Look for things including:
 - ☐ Broken Lighting
 - ☐ Litter
 - ☐ Broken Windows
 - ☐ Damage to Public Telephones
 - ☐ Graffiti
 - ☐ Other Aspects of Urban Decay

11. Improvements

- ☐ What improvements would you like to see?
- ☐ Do you have any specific recommendations?

Principles of CPTED & Security Guidelines

Principles of CPTED & Security Guidelines

Crime Prevention Through Environmental Design (CPTED) is based on five principles and practices of design, maintenance, and use of the built environment. The five principles discussed below include: *Natural Surveillance*, *Territoriality*, *Access Control*, *Activity Support*, and *Management & Maintenance*. These strategic methods are used to deter criminal behavior and activity through the built environment as well as the un-built environment – e.g., parks and other passive green spaces. As a result, there should be a reduction in fear, criminal incidences, and the opportunity for crime thereby, leading to an improved quality of life for the community.



Source: Flickr

Natural Surveillance: This design concept occurs through the placement of physical features, activities and people in a way that will maximize visibility and awareness of both public and private spaces. Natural Surveillance is generally achieved by the use of appropriate lighting, low or non-opaque fencing or hedges, removal of areas that provide concealment, and the placement of windows, doors, signage and walkways to ensure the opportunity for easy observation of surrounding areas by responsible users of the property.



Source: Google

Natural Access Control: This concept is directed primarily at criminal accessibility, especially those areas where a person with criminal intent would not easily be observed. Public and private space should be differentiated by selectively placing entrances, exits, barriers, and lighting. Buildings should have clear, identifiable street numbers to prevent unintended access and to assist with way-finding. Entrances should be easily identifiable by signage and various design features. Landscaping should be used as a barrier to prevent access or used as a guide to the main entrance. Security Systems and CCTV cameras should be used to determine who comes and goes into a property. Visible signage should be used

to attract visitors or to deter potential threats.



Source: Google

Territorial Reinforcement: Also known as “Territoriality” this design concept is used to establish a sense of ownership amongst users and help distinguish between public, private, and semi-private areas. The intention is to discourage the belief that illegal acts may be committed in the area without concern or consequence. Public and private areas can be properly distinguished using landscaping, sidewalks, low walls, and paving patterns as well as obviously defined entries, patios, balconies and terraces.



Source: Flickr

Maintenance: Proper maintenance of landscaping, lighting, and other features is a necessary requirement to ensuring

that CPTED elements serve their intended purpose. Landscaping should be well-kept and attended to on a regular basis. Users will generally respect a property that is maintained and criminals will feel uncomfortable and less likely to commit a crime such as theft or vandalism within such an area. Anti-graffiti paint or a clear coated paint is recommended for exterior walls and facades. Furniture or lighting in common areas should be anchored down and vandalism-resistant. The “broken window theory” should also be heeded. The theory states that one broken window can give the “all clear” for future vandals to break more windows. Landlords or business owners should make a conscious effort to repair or replace damaged items, regardless of cause.



Source: Flickr

Activity Support: This involves both passive and active efforts to promote the presence of responsible pedestrians in a given area; elevating the perceived community value of the area while discouraging actions by would-be offenders who desire anonymity. As the support for safe activities within the

built environment increases, the risk of criminal and undesirable activities will decrease. By placing signs which promote and encourage positive activity, the citizens in that area will become more involved and take ownership of their local community.

Key Note: It cannot be over emphasized that, for the five principles above to accomplish the mutual goals of enhancing livability and better natural safety, each must work in concert with the other. For example, activity support can be substantially undermined if a property is

stripped bare of landscape elements in the interest of natural surveillance alone. The intent is to use the combined balance of these principles to promote a safer, more livable environment for all.

Recognition of these underlying concepts may help guide owners, architects, planners, developers, and managers of property in designing and maintaining built environments that accomplish the goals of CPTED and this resolution.

Guidelines by Use

Neighborhood Developments & HOAs

Single Family Homes

Multi-Family Homes, Single Buildings and Complexes

Institutions

Industrial

Commercial Drive-Throughs and ATMs

Commercial Storefronts

Shopping Centers & Malls

Office Buildings

Parking Garages/Structures



Neighborhood Developments & HOAs

A neighborhood should be a safe place for its residents. Unfortunately, when not properly designed, neighborhoods can become crime zones. By using CPTED strategies in conjunction with other methods of ensuring safety and security, neighborhood developments will be built with the appropriate amount of security measures to deal with the inevitable threats that all communities must face. Building such features as gateway treatments, roundabouts, speed bumps, and other “traffic calming” devices discourages speeding and cut-through traffic. By keeping public areas observable, potential offenders will think twice before committing a crime. Criminals prefer low-risk situations, and public visibility increases the chance that a perpetrator will be caught. These measures are simple, inexpensive to implement, and will have a much more positive effect on residents than gates and bars.

Natural Surveillance

- Avoid landscaping that might create blind spots or hiding places.
- Centrally locate open green spaces and recreational areas, so that they are visible from nearby homes and streets.
- Use pedestrian scale street lighting in high volume pedestrian traffic areas to help people foresee potential threats at night.
- Design streets to discourage cut through or high-speed traffic.
- Install paving treatments, plantings, and architectural design features such as columned gateways to guide visitors to desired entrances and away from private areas.
- Install walkways in locations safe for pedestrians and keep them from being obscured.

Natural Access Control

- Limit access without completely disconnecting subdivision from adjacent subdivision.
- Design lots, streets, and homes to encourage interaction between neighbors.
- Accentuate perimeter entrances with the subdivision name, different

paving materials, changes in street elevation, and architectural and landscape design.

- Clearly identify homes with street address numbers that are a minimum of 3 inches high and reflective at night.
- Define property lines with post and pillar fencing, gates, and plantings to direct pedestrian traffic to only desired points of access.

Maintenance

- Maintain all common areas to very high standards including entrances, esplanades, and rights of way.
- Enforce deed restrictions and covenants in addition to all county codes.

Activity Support

- Provide playgrounds, game courts, open space in a central location promoting usage and visibility.
- Create opportunities for neighbors to meet.
- Provide desirable outdoor picnic areas
- Avoid locating incompatible activities next to each other.
- Place signs such as *Caution Children Playing* in streets and around playgrounds
- Advertise neighborhood events with signage at entrance points to the community

Other Considerations:

Electronic Surveillance

- Closed Circuit Television (CCTV) should be used to view areas without natural sight lines and in low or zero visibility areas without effective natural surveillance. The level of security systems should be based on the potential threat of crime occurring for any given location and the type of business conducted.
- Note: If cameras are installed, they should be monitored whenever possible. Monitors should be large enough to avoid cramming too many reduced size images onto one small screen, and they should also be located where they will have the most chance of being viewed by security personnel, select employees or the public as appropriate so that visitors are aware of the surveillance such as for example in reception or customer service areas where there is high traffic and more of a likelihood that ‘somebody’ will see something happening and report it immediately to security and law-enforcement.
- DVR (digital video recorders) should be maintained in a secure location, but be easily and quickly available for viewing and recording retrieval by authorized personnel and law-enforcement first responders and investigators.

- There should be CCTV coverage of the pedestrian entrances and exits. Medium security facilities should provide CCTV coverage of screening checkpoints, pedestrian and vehicle entrances, exits, loading docks, and lobbies.
- Intrusion detection systems (IDS) are devices or software applications which monitor and detect malicious or criminal activity and send a report back to a management station. IDS should be provided on the perimeter entry and exit doors and operable ground floor windows. Examples of IDS devices could include Access

Control Systems, Duress Alarms, Vibration Detectors and Building Communication Systems.

Windows & Signage

- Proper signage should be used to deter the potential threat of criminal activity from occurring. Signage used in a parking lot, alleyway or main entrance checkpoints that advises people that they are being videotaped, gives a potential offender the perception of being seen and identified.



Single Family Homes

Residential areas are the heart of a community. Our homes are the center of our lives, and the place where we should feel most safe. While we may have multiple choices when it comes to walking through a certain part of town or using public transportation, we have few choices when it comes to the streets where we live. The more familiar neighbors are with each other, the more a sense of ownership of the neighborhood is established. Streets and homes should be designed to encourage interaction between neighbors. Examples of friendly interaction zones include front porches, sidewalks, and property lines that are defined simply by low shrubbery rather than high fences. Although single family homes are not required to comply with CPTED guidelines, it is highly recommended. Below are suggested techniques which may be used in assessing crime awareness and tips towards crime prevention.

Natural Surveillance

- Fully illuminate all doorways that open to the outside.
- The front door should be at least partially visible from the street.
- Install windows on all sides of the house to provide for full visibility of the property.
- Provide appropriate illumination to sidewalks and all areas of the yard.
- The driveway should be visible from either the front or back door and at least one window.
- Select and install appropriate landscaping that will allow unobstructed views of vulnerable

doors and windows from the street and other properties.

Natural Access Control

- Use walkways and landscaping to direct visitors to the proper entrances and away from private areas.

Territorial Reinforcement

- Use front stoops or porches to create a transitional area between the street and the home.
- Define property lines and private areas with plantings, pavement treatments, or fences.

- Make the street address clearly visible from the street, (at least 3 inches high and reflective at night).
- Locate exterior furnishings in areas that are viewable from the home and do not encourage unwanted use.

Maintenance

- Keep trees and shrubs trimmed back from windows, doors and walkways. Keep shrubs trimmed to 3 feet and prune the lower branches of trees up to 7 feet to maintain clear visibility.
- Use exterior lighting at night and keep it in working order.
- Keep litter and trash picked up and the yard neat and free of items that might attract theft. The house, garage and storage buildings should be kept in good repair.

Activity Support

- Design outside areas (lawns, porches, etc.) that create opportunities for neighbors to meet.

Other Considerations:

Tips and Techniques

- Install double-cylinder dead bolt locks to interior doors that connect a garage to the interior living

quarters. Keep keys handy, but concealed, for emergencies.

- Locate door locks a minimum of 40 inches away from adjacent windows or glass if possible.
- Use single-cylinder dead-bolt locks with a minimum 1 inch screw on doors used as primary ground floor exits and install 3 inch screws into the strike plates.
- Replace any Jalousie (glass louvered) windows with more secure windows.
- Use two locking devices on all windows.
- Install glass sliding doors with the fixed position door on the outside and equip the interior sliding panel with a locking pin and one or two more locks.
- Equip all solid exterior doors with 180-degree door viewers.
- Periodically change the code to garage door openers and combination, or keyed, locking and alarm devices.
- Store ladders, scaffolds, and other climbable equipment when not in use.
- Use Intrusion Detection Systems which monitors and detects malicious or criminal activity.
- Use Closed Circuit Television (CCTV) that is monitored and positioned in a way that gives visitors the awareness of being watched.



Multi-Family Homes: Single Buildings and Complexes

Multi-family homes - duplexes, triplexes and apartment complexes - pose the same problems as single-family structures, although the number of dwellings and residents can compound these problems. Public areas - shared hallways, elevators, laundry rooms and parking areas - present opportunities for both crime and crime prevention. Multi-family buildings do not necessarily have multiple problems. In fact, large groups of people are less susceptible to victimization than individuals. Management programs may need to incorporate opportunities for neighbors to get to know one another. When neighbors take responsibility for each other, multifamily dwellings become safer places to live.

Natural Surveillance

- Design buildings so that the exterior doors are visible to the street or neighbors.
- Use good lighting at all doors that open to the outside.
- Install windows on all four facades of buildings to allow for good visibility.
- Assign parking spaces to residents. Locate the spaces next to the residents' units but do not mark with the specific unit number. This will make unauthorized parking easier to identify and less likely to happen.
- Designate visitor parking.
- Make parking areas visible from windows and doors.
- Adequately illuminate parking areas and pedestrian walkways.
- Position recreation areas - pools, tennis courts, club houses, and playgrounds - to be visible from many of the units' windows and doors.
- Screen or conceal dumpsters, but avoid creating blind spots and hiding places.
- Build elevators and stairwells in locations that are clearly visible from doors and windows.
- Allow shrubbery to be no more than 3 feet high for clear visibility in vulnerable areas.

- Locate buildings so that the windows and doors of one unit are visible from another.
- Construct elevators and stairwells to be open and well lit, not enclosed behind solid walls.
- Centrally locate playgrounds where they are clearly visible from units, but not directly next to parking lots or streets.

Natural Access Control

- Keep balcony railings and patio enclosures less than 42 inches high and avoid using opaque materials.
- Define entrances to the site and each parking lot with landscaping, architectural design, or symbolic gateways.
- Block off dead-end spaces with fences or gates.
- Discourage loitering by nonresidents and enforce occupancy provisions.
- Use devices that automatically lock upon closing on common building entrances.
- Provide good illumination in hallways.
- Allow no more than four apartments to share the same entrance (individual entrances are recommended).
- Centrally locate elevators and stairwells where many users may observe them.
- Limit access to the building to only one or two points.

Territorial Reinforcement

- Define property lines with low landscaping or decorative fencing.
- Accentuate building entrances with architectural elements, lighting and landscaping.
- Clearly identify all buildings and residential units using street numbers that are a minimum of 3 inches high and well-lighted at night.
- Where possible, locate individually locking mailboxes next to the appropriate units.
- Choose exterior furnishings that do not encourage unwanted loitering or gathering in hidden areas.

Maintenance

- Maintain all common areas to very high standards, including entrances, esplanades and rights of way.
- Prune trees and shrubs away from windows, doors, and walkways.
- Use and maintain exterior lighting.
- Strictly enforce rules regarding junk vehicles and inappropriate outdoor storage. Ignoring these issues will make a site appear uncared for and less secure.

Activity Support

- Provide playgrounds, game courts, open space in a central location promoting usage and visibility.
- Create opportunities for neighbors to meet.
- Provide desirable outdoor picnic areas
- Avoid locating incompatible activities next to each other.
- In parking garages and large lots that are less active, consider cooperative relationships with other businesses that will utilize the upper decks and bring more legitimate users to the facility.
- Place signs such as *Caution Children Playing* in streets and around playgrounds
- Advertise events with signage at entrance points to the complex

Other Considerations:

Electronic Surveillance

- Closed Circuit Television (CCTV) should be used to view areas without natural sight lines and in low or zero visibility areas without effective natural surveillance. The level of security systems should be based on the potential threat of crime occurring for any given location and the type of business conducted.
- Note: If cameras are installed, they should be monitored whenever possible. Monitors should be large

enough to avoid cramming too many reduced size images onto one small screen, and they should also be located where they will have the most chance of being viewed by security personnel, select employees or the public as appropriate so that visitors are aware of the surveillance such as for example in reception or customer service areas where there is high traffic and more of a likelihood that ‘somebody’ will see something happening and report it to security and law-enforcement.

- DVR (digital video recorders) should be maintained in a secure location, but be easily and quickly available for viewing and recording retrieval by authorized personnel and law-enforcement first responders and investigators.
- There should be CCTV coverage of the pedestrian entrances and exits. Medium security facilities should provide CCTV coverage of screening checkpoints, pedestrian and vehicle entrances, exits, loading docks, and lobbies.
- Intrusion detection systems (IDS) are devices or software applications which monitor and detect malicious or criminal activity and send a report back to a management station. IDS should be provided on the perimeter entry and exit doors and operable ground floor windows. Examples of IDS devices could include Access

Control Systems, Duress Alarms, Vibration Detectors and Building Communication Systems.

Tips and Techniques

- Install double-cylinder dead bolt locks to interior doors that connect a garage to the interior living quarters. Keep keys handy, but concealed, for emergencies.
- Locate door locks a minimum of 40 inches away from adjacent windows or glass if possible.
- Use single-cylinder dead-bolt locks with a minimum 1 inch screw on doors used as primary ground floor exits and install 3 inch screws into the strike plates.
- Replace any Jalousie (glass louvered) windows with more secure windows.
- Use two locking devices on all windows.
- Install glass sliding doors with the fixed position door on the outside and equip the interior sliding panel with a locking pin and one or two more locks.
- Equip all solid exterior doors with 180-degree door viewers.
- Periodically change the code to garage door openers and combination, keyed, locking and alarm devices.
- Store ladders, scaffolds, and other climbable equipment when not in use.



Institutions

Churches, libraries, schools, and other institutions present unique challenges to crime prevention. While safety at these locations is often a high priority within a community, few institutions desire installation of oppressive, high-security devices and programs. The varied hours and variety of patrons and activities make good design all the more important.

Natural Surveillance

- Avoid constructing large blank walls, which limit visibility and can serve as targets for graffiti. Use walls with windows, architectural details, or foliage instead.
- Do not cover the entrance windows with posters, announcements, or other signage that obstructs visibility.

Natural Access Control

- Highlight the main entrance in the design.
- Keep bus drop-off areas, employee parking, and visitor parking separate from each other and away from busy streets.

- Limit the number of entrances and exits, both to the building and parking lots.
- Require that visitors pass through a “checkpoint” attended by those in authority.

Territorial Reinforcement

- Include highly visible, architecturally appropriate signage in the design.
- Choose exterior furnishings that do not encourage unwanted loitering or gathering in hidden areas.

Maintenance

- Use landscape plants that mature within the available space and don’t obstruct light fixtures.
- Remove graffiti within 24 hours of its appearance.

Activity Support

- Provide playgrounds, game courts, open space in a central location promoting usage and visibility.
- Avoid locating incompatible activities next to each other.
- Avoid shifts and situations where only one employee is present.
- Locate self-serve uses in very visible areas of the site.
- Parking should be available close to the buildings for employees who work in the evening hours.
- Coordinate whenever possible operating hours to coincide with those of neighboring businesses.
- In parking garages and large lots that are less active, consider cooperative relationships with other businesses that will utilize the upper decks and bring more legitimate users to the facility.

Other Considerations:

Electronic Surveillance

- Closed Circuit Television (CCTV) should be used to view areas without natural sight lines and in low or zero visibility areas without effective natural surveillance. The level of security systems should be based on the potential threat of crime occurring for any given location and the type of business conducted.
- Note: If cameras are installed, they should be monitored whenever possible. Monitors should be large

enough to avoid cramming too many reduced size images onto one small screen, and they should also be located where they will have the most chance of being viewed by security personnel, select employees or the public as appropriate so that visitors are aware of the surveillance such as for example in reception or customer service areas where there is high traffic and more of a likelihood that ‘somebody’ will see something happening and report it to security and law-enforcement.

- DVR (digital video recorders) should be maintained in a secure location, but be easily and quickly available for viewing and recording retrieval by authorized personnel and law-enforcement first responders and investigators.
- There should be CCTV coverage of the pedestrian entrances and exits. Medium security facilities should provide CCTV coverage of screening checkpoints, pedestrian and vehicle entrances, exits, loading docks, and lobbies.
- Intrusion detection systems (IDS) are devices or software applications which monitor and detect malicious or criminal activity and send a report back to a management station. IDS should be provided on the perimeter entry and exit doors and operable ground floor windows. Examples of IDS devices could include Access

Control Systems, Duress Alarms, Vibration Detectors and Building Communication Systems.

Windows & Signage

- Window or door signage shall not block any safety/security natural or electronic surveillance line of sight to critical areas such as Point of Sale (POS) cash registers, restroom entrances, parking lots, and main entrances/exits.
- Item and supply stocking shall not block natural surveillance lines of sight to critical areas such as POS cash registers, parking lots, etc.
- Visible signage advising the public of active CCTV surveillance can and should be used to deter the potential threat of criminal activity from occurring.

Tips and Techniques

- Minimize entrances and position work-stations within view of the entrance.
- Lock up and identify with engravings, expensive musical instruments, and audio-visual and computer equipment. These are commonly targeted during burglaries.
- Illuminate all exterior grounds, particularly if nighttime activities are scheduled.
- Install magnetic sensors in library materials if theft is a problem.
- Use baffle-type restroom entrances – not doors, with motion sensor lights.
- In extreme or special situations metal detectors or trained dogs may be utilized.
- Use security cameras to monitor low or zero visibility areas without effective natural surveillance.



Industrial

In most industrial site designs, the most important issue is the safety of those who will be working or traveling to these sites. Unfortunately, safety regarding crime is often given little consideration. After work hours, industrial areas are, for the most part, badly illuminated, rarely under any type of surveillance, and virtually deserted. Add loading docks, service entrances, dark alleys and expansive parking areas to already defined dangerous industrial areas, and the potential for an extremely unsafe environment readily increases.

Natural Surveillance

- Illuminate and define all entrances so that they are visible to the public and patrol vehicles.
- Make parking areas visible to patrol cars, pedestrians, parking attendants, and building personnel.
- Position parking attendants for maximum visibility of property.
- Design the reception area to have a view of parking areas, especially visitor's parking.
- Use walls only where necessary and, if used, make sure that they are high enough to prevent circumvention.
- Avoid creating hiding places in alleys, storage yards, loading docks, etc.

Natural Access Control

- Avoid dead-end driveways and street designs to increase surveillance opportunities from passing traffic and patrols.
- Use easily securable site entrances. Install entrance controls to employee parking areas (fence, gate or attendant).
- Assign parking by shifts and provide late-night workers with close-in spaces.
- Restrict direct pedestrian and vehicular access to railroad tracks.
- Plan storage yards for vehicular or visual access by patrol cars.
- Restrict access to roofs by way of dumpsters, loading docks, stacked items, etc.

- Keep building entrances to a minimum and monitor them.
- Use a separate, well-marked, monitored entrance for deliveries.
- Locate the employee entrance close to employee parking and work stations.
- Keep nighttime parking separate from service areas.
- Restrict access between different areas internally and externally.
- Provide access to both the front and back of the site to ensure that the grounds are patrolled.
- Use separate docks for shipping and receiving.

Territorial Reinforcement

- Create a well-defined entrance or gateway with plantings, fences, gates, etc.
- Limit deliveries to daylight hours only, if possible.
- Define vehicle entrances with different paving materials and signage.
- Separate guest parking from employee parking and shipping and receiving areas.

Maintenance

- Schedule operating hours to coincide with those of neighboring businesses.

Activity Support

- Avoid locating incompatible activities next to each other.

- Avoid shifts and situations where only one employee is present.
- Locate ATMs and other self-serve uses in very visible areas of the site.
- Parking should be available close to the entrances for employees who work in the evening hours.
- Business associations should work together to promote business safety and the appearance of safety.
- Coordinate, whenever possible, operating hours to coincide with those of neighboring businesses.
- In parking garages and large lots that are less active, consider cooperative relationships with other businesses that will utilize the upper decks and bring more legitimate users to the facility.

Other Considerations:

Electronic Surveillance

- Closed Circuit Television (CCTV) should be used to view areas without natural sight lines and in low or zero visibility areas without effective natural surveillance. The level of security systems should be based on the potential threat of crime occurring for any given location and the type of business conducted.
- Note: If cameras are installed, they should be monitored whenever possible. Monitors should be large enough to avoid cramming too many

reduced size images onto one small screen, and they should also be located where they will have the most chance of being viewed by security personnel, select employees or the public as appropriate so that visitors are aware of the surveillance such as for example in reception or customer service areas where there is high traffic and more of a likelihood that 'somebody' will see something happening and report it to security and law-enforcement.

- DVR (digital video recorders) should be maintained in a secure location, but be easily and quickly available for viewing and recording retrieval by authorized personnel and law-enforcement first responders and investigators.
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- Intrusion detection systems (IDS) are devices or software applications which monitor and detect malicious or criminal activity and send a report back to a management station. IDS should be provided on the perimeter entry

and exit doors and operable ground floor windows. Examples of IDS devices could include Access Control Systems, Duress Alarms, Vibration Detectors and Building Communication Systems.

Windows & Signage

- Window or door signage shall not block any safety/security natural or electronic surveillance line of sight to critical areas such as Point of Sale (POS) cash registers, restroom entrances, parking lots, and main entrances/exits.
- Item and supply stocking shall not block natural surveillance lines of sight to critical areas such as POS cash registers, parking lots, etc.
- Visible signage advising the public of active CCTV surveillance can and should be used to deter the potential threat of criminal activity from occurring.

Tips and Techniques

- Change locks frequently and limit the number of keys available.
- Do not leave open padlocks hanging in gates. Thieves may have keys made or replace locks with similar locks for which they have keys.



Commercial Drive-Throughs and ATMs

Source: Google

Drive-through facilities, especially automatic teller machines, are usually located in an environment that is extremely vulnerable to criminal activity. They are often used at odd hours and are hidden from view. Those using them will almost certainly be carrying cash. Emphasis should be placed on visibility and adequate lighting when designing drive-throughs. All drive-throughs and ATMs must have electronic surveillance due to the disproportionate level of violent crime such as robberies that traditionally occur at these locations.

Natural Surveillance

- Locate ATMs to face main roads.
- Locate the ordering station for a restaurant within sight of the interior and street.
- Lighting should be especially good both at the window or ATM and the queuing lane.
- Avoid fencing, landscaping, and walls that might provide hiding places for criminals.
- Remove all exterior door hardware from doors not used for ingress.
- Limit the access around an ATM or a drive-through area.
- Locate bank ATM's in the first drive-through window to offer safety for the bank employee or on the outer-most part of a drive-through for safety to the patrons.

Territorial Reinforcement

- Use lighting that does not blind the customer but displays the ATM and property ownership.
- Create traffic lanes with multi-surface colors or materials.

Natural Access Control

- Reduce the number of public access points to those that are watched by guards, receptionists, nearby tenants or passing traffic.
- Require employees to wear ID badges.

Maintenance

- Keep buildings and walkways clean and repaired.

- Parking lots should be free of potholes and trash.
- Report graffiti to police as soon as it appears and remove immediately after police take the report.
- Replace signs, displays or posters if broken, torn or faded.
- Landscaping should be kept healthy and manicured.
- Maintain the lighting. Checks should be made periodically to make sure the lights are working.

Activity Support

- Promote use of the ATM by locating it in very visible areas.
- Place employee outdoor eating, smoking or break areas where observation of the ATM or drive-through is possible.
- Do not create areas where loitering can easily begin.

Other Considerations:

Electronic Surveillance

- Closed Circuit Television (CCTV) should be used to view areas without natural sight lines and in low or zero visibility areas without effective natural surveillance. The level of security systems should be based on the potential threat of crime occurring for any given location and the type of business conducted.
- Note: If cameras are installed, they should be monitored whenever possible. Monitors should be large enough to avoid cramming too many reduced size images onto one small screen, and they should also be located where they will have the most chance of being viewed by security personnel, select employees or the public as appropriate so that visitors are aware of the surveillance such as for example in reception or customer service areas where there is high traffic and more of a likelihood that 'somebody' will see something happening and report it to security and law-enforcement.
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Vibration Detectors and Building
Communication Systems.

- Electronic surveillance should be provided in open areas (kitchens, lobbies, dining rooms, etc.), near entrances and drive-through lanes (providing a clear picture of every

customer or visitor that enters and exits the building), near cash registers and in administrative offices (to help protect assets), and in outdoor areas (drive-through, parking lots, perimeter area, outdoor dining areas, play areas, etc.).



Commercial Storefronts

For a neighborhood to remain healthy its local businesses must flourish. For businesses to do well, they must be safe places to frequent. As land uses become less mixed and residents are less able to watch over commercial properties, it is essential that CPTED guidelines are followed when building or remodeling a commercial property. Safety is often cited as an important consideration in choosing one store over another. Strategies, such as keeping customers and employees in view of each other, can make customers feel safe and secure.

Natural Surveillance

- Install rear windows to face parking areas for increased visibility.
- Allow window signs to cover no more than 15 percent of window.
- Use interior shelving and displays no higher than 5 feet; even less in front of windows.
- Fully illuminate the exterior of the building and grounds at night.
- Design loading areas to avoid creating hiding places for people and merchandise.
- Maintain clear visibility from the store to the street, sidewalk, parking areas, and passing vehicles.
- Design water-retention areas to be visible from a building or street. They should be visual amenities

that are neither hedged nor fenced, which could conceal undesirable activities.

- Place all entrances under visual surveillance, monitored electronically if necessary.
- Place any pay telephones within clear view of employees.

Natural Access Control

- Locate check-out counters at the front of the store, clearly visible from the outside. When positioned near the main entrance, employees can better watch activities.
- Clearly mark public paths. Make private areas harder for non-employees to access.
- Use signs to direct patrons to parking and entrances.

- Prevent easy access to the roof or fire escape from the ground.
- Provide rear public access to shops if rear public parking is offered.
- Locate ATMs and other self-serve uses in very visible areas of the site.
- Parking should be available close to the stores for employees who work in the evening hours.

Territorial Reinforcement

- Mark property boundaries, where possible, with hedges, low fences, or gates.
- Make private areas distinguishable from public areas.
- Identify shops with wall signs for those parking in the rear.
- Install awnings above doors and windows.
- Position parking areas to be clearly visible from the building or street view with neatly marked spaces.
- Choose exterior furnishings that do not encourage unwanted loitering or gathering in hidden areas.

Maintenance

- Keep buildings and walkways clean and repaired.
- Maintain parking areas to a high standard without potholes or trash.
- Remove faded posters, broken signs, and worn displays.
- Keep plantings in good condition.
- Set operating hours to coincide with those of neighboring businesses.
- If public phones are available, use call-out types only.
- Fully illuminate interior spaces.

Activity Support

- Create opportunities for tenants to meet.
- Provide desirable outdoor dining areas
- Avoid locating incompatible activities next to each other.
- Avoid shifts and situations where only one employee is present.
- Business associations should work together to promote shopper and business safety and the appearance of safety.
- Encourage programs, like the morning walkers, to provide additional natural surveillance before and after store hours.
- Coordinate whenever possible operating hours to coincide with those of neighboring businesses.
- In parking garages and large lots that are less active, consider cooperative relationships with other businesses that will utilize the upper decks and bring more legitimate users to the facility.

Other Considerations:

Electronic Surveillance

- Closed Circuit Television (CCTV) should be used to view areas without natural sight lines and in low or zero visibility areas without effective natural surveillance. The level of security systems should be based on the potential threat of crime

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management station. IDS should be provided on the perimeter entry and exit doors and operable ground floor windows. Examples of IDS devices could include Access Control Systems, Duress Alarms, Vibration Detectors and Building Communication Systems.

- Electronic surveillance should be provided in open areas (kitchens, lobbies, hallways, dining rooms, etc.), near entrances, fire and drive-through lanes (providing a clear picture of every customer or visitor that enters and exits the building), near cash registers and in administrative offices (to help protect assets), and in outdoor areas (drive-through, parking lots, perimeter area, outdoor dining areas, play areas, etc.).

Windows & Signage

- Window or door signage shall not block any safety/security natural or electronic surveillance line of sight to critical areas such as Point of Sale (POS) cash registers, restroom entrances, parking lots, and main entrances/exits.
- Item and supply stocking shall not block natural surveillance lines of sight to critical areas such as POS cash registers, parking lots, etc.
- Visible signage advising the public of active CCTV surveillance can and should be used to deter the potential

threat of criminal activity from occurring.

Tips and Techniques

- Use cash drop safes during low traffic hours.
- Avoid having a single employee making after-hours bank deposits.
- Install and monitor video cameras, but hide or secure VCRs (supply a decoy).
- Provide employees with safety training (personal safety, robbery prevention, how to report a crime, etc.).
- Securely lock rear-door entrances.
- Put 180-degree door viewers in rear security doors.



Shopping Centers & Malls

Shopping centers and malls often provide much of the public space in suburban communities. These facilities perform the important function of town centers, serving as gathering places in the community, but they can also serve as an attractive location for criminal activity. While shopping malls continually grow in size and popularity, they also become a haven for undesirable users and contribute to a growing number of parking-lot crimes. It is increasingly important that remodelers and designers implement CPTED principles.

Natural Surveillance

- Position restroom entrances to be visible from main pedestrian areas, but away from outside exits and pay telephones.
- Brightly illuminate parking areas at night.
- Avoid creating dead-end alleys or blind spots in loading areas.
- Design parking garages so that all levels, including staircases, are visible from the street or ground floor.
- Equip garages with high-quality lighting and bright paint.
- Use perpendicular parking in front of stores, rather than parallel, to allow greater visibility between cars.
- Place water-retention areas in locations visible from the building or

street. They should be visual amenities, not hedged or fenced if possible.

- Avoid exterior walls devoid of windows.
- Use baffle-type restroom entrances – not doors to hinder surveillance. They should be well lighted.

Natural Access Control

- Clearly mark public entrances with landscaping, architecture, and signs.
- Designate sidewalks and public areas with special paving or landscaping.
- Use landscaping to divide the parking areas into smaller lots.
- Separate loading zones with designated delivery hours from public parking areas.

- Allow no unsecured access to roof tops from within or from adjacent structures, such as parking garages.
- Parking should be available close to the stores for employees who work in the evening hours.
- Business associations should work together to promote shopper and business safety and the appearance of safety.

Territorial Reinforcement

- Define property perimeters with landscaping, decorative fencing, gates, and signs.
- Use signs that clearly identify the interior businesses and place signs marking public entry points.
- Provide awnings for territorial reinforcement as well as protection from weather.
- Choose exterior furnishings that do not encourage unwanted loitering or gathering in hidden areas.

Maintenance

- Maintain high visual quality by using appropriate landscaping to control maintenance costs.
- Keep buildings and walkways clean and repaired.
- Maintain parking areas to a high standard with no potholes, trash, or graffiti.
- Install attractive displays in windows of vacant stores to avoid creating an “abandoned” image.

- Keep lines of sight open. Prune trees and shrubs to allow visual access to all parts of the site.
- Close-in parking should be available to nighttime employees.
- Business associations should work together to promote shopper and business safety and the appearance of safety.
- Morning walkers provide additional natural surveillance before shops open.

Activity Support

- Create opportunities for tenants to meet.
- Avoid locating incompatible activities next to each other.
- Avoid shifts and situations where only one employee is present.
- Locate ATMs and other self-serve uses in very visible areas of the site.
- Encourage programs, like the morning walkers, to provide additional natural surveillance before and after store hours.

Other Considerations:

Electronic Surveillance

- Closed Circuit Television (CCTV) should be used to view areas without natural sight lines and in low or zero visibility areas without effective natural surveillance. The level of security systems should be based on the potential threat of crime

occurring for any given location and the type of business conducted.

- Note: If cameras are installed, they should be monitored whenever possible. Monitors should be large enough to avoid cramming too many reduced size images onto one small screen, and they should also be located where they will have the most chance of being viewed by security personnel, select employees or the public as appropriate so that visitors are aware of the surveillance such as for example in reception or customer service areas where there is high traffic and more of a likelihood that 'somebody' will see something happening and report it to security and law-enforcement.
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management station. IDS should be provided on the perimeter entry and exit doors and operable ground floor windows. Examples of IDS devices could include Access Control Systems, Duress Alarms, Vibration Detectors and Building Communication Systems.

- Electronic surveillance should be provided in open areas (lobbies, hallways, food courts, etc.), near entrances, fire and drive-through lanes (providing a clear picture of every customer or visitor that enters and exits the building), near cash registers and in administrative offices (to help protect assets), and in outdoor areas (drive-through, parking lots, perimeter area, outdoor dining areas, play areas, etc.).

Windows & Signage

- Window or door signage shall not block any safety/security natural or electronic surveillance line of sight to critical areas such as Point of Sale (POS) cash registers, restroom entrances, parking lots, and main entrances/exits.
- Item and supply stocking shall not block natural surveillance lines of sight to critical areas such as POS cash registers, parking lots, etc.
- Visible signage advising the public of active CCTV surveillance can and should be used to deter the potential

threat of criminal activity from occurring.

Tips and Techniques

- Install monitored video cameras.
- Provide 24 hour security patrol.



Office Buildings

As office buildings grow in size and pedestrian and vehicle traffic increase, safety becomes an extremely important issue. No matter the size of the building, certain design elements can and should be implemented to create an environment that protects the people inside the building, the people outside the building, and the other physical assets in the building. Examples of safety practices are requiring all tenants to show photo identification upon entering, covering mail slots with metal grills with letter-sized slits, and securing garages and loading areas with steel, anti-ram barricades.

Natural Surveillance

- Position restroom entrances to be observable from nearby offices.
- Install and use effective lighting at all exterior doors, common areas and hallways.
- Keep dumpsters visible and avoid creating blind spots or hiding places, or place them in secured corrals or garages.
- Design windows and exterior doors so that they are visible from the street or by neighboring buildings.
- Install windows into all facades.
- Place parking to be visible from windows.
- Keep shrubbery under 3 feet in height for visibility.
- Prune lower branches of trees to at least 7 feet off the ground.

- Do not obstruct views from windows.
- Design interior windows and doors to provide visibility into hallways.

Natural Access Control

- Clearly define public entrances with architectural elements, lighting, landscaping, paving, and signage.
- Reduce the number of public access points to those that are watched by guards, receptionists, nearby tenants, or passing traffic.
- Parking should be available close to the stores for employees who work in the evening hours.
- Business associations should work together to promote business safety and the appearance of safety.

Territorial Reinforcement

- Define perimeters with landscaping or fencing.
- Design fences to maintain visibility from the street.
- Differentiate exterior private areas from public areas.
- Position security or reception areas at the main entrance, if not at all entrances.
- Choose exterior furnishings that do not encourage unwanted loitering or gathering in hidden areas.

Maintenance

- Keep all exterior areas neat and clean.
- Maintain all plantings.

Activity Support

- Create opportunities for tenants to meet.
- Provide desirable outdoor break areas
- Avoid shifts and situations where only one employee is present.
- Encourage programs, like the morning walkers, to provide additional natural surveillance before and after store hours.
- Coordinate whenever possible operating hours to coincide with those of neighboring businesses.
- In parking garages and large lots that are less active, consider cooperative relationships with other businesses that will utilize the upper decks and

bring more legitimate users to the facility.

Other Considerations:

Electronic Surveillance

- Closed Circuit Television (CCTV) should be used to view areas without natural sight lines and in low or zero visibility areas without effective natural surveillance. The level of security systems should be based on the potential threat of crime occurring for any given location and the type of business conducted.
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- Visible signage advising the public of active CCTV surveillance can and should be used to deter the potential threat of criminal activity from occurring.

Tips and Techniques

- Have security personnel vary patrol schedules and routes.
- Take measures to keep unmonitored exits from being propped open.



Parking Garages/Structures

Studies show that in both urban and suburban environments, parking structures provide the most safety concerns. These structures isolate people. Though many parking structures and garages have been poorly designed, CPTED guidelines can do much in the way of improving structure safety without tremendous cost. With the simple addition of high-intensity lighting, for example, a parking garage or structure can quickly become a much safer area. Eliminating blind spots and hiding areas and requiring a high standard of maintenance for the structure protect the vehicles and those that park there.

Natural Surveillance

- Monitor all elevators with cameras and microphones, or use see-through materials for the car walls.
- Replace solid barrier walls with stretched cable railings for maximum visibility.
- Fully illuminate all parking areas and driving lanes. Metal Halide lamps provide the best color rendition.
- Place elevators close to main entrances, with the entire interiors in view when the elevator doors are open.
- Do not install permanent stop buttons in elevators.
- Limit access to no more than two designated and monitored entrances.

Natural Access Control

- Use attendants or cameras and sound monitors. Indicate their presence with signs.
- Position all pedestrian entrances next to vehicle entrances.
- Construct stairwells to be visible, without solid walls.
- Keep all surfaces clean and light-colored to reflect light. Use white paint, if necessary, particularly if underground.
- Carefully maintain all lighting and surveillance equipment.
- Allow no unmonitored access to adjacent buildings without direct visual contact.

Maintenance

- Differentiate between public and private parking spaces.
- Set hours of use to reflect those of local businesses, with secure closing during non-use hours.

Activity Support

- Locate ATMs and other self-serve uses in very visible areas of the site.
- Parking should be available close to the stores for employees who work in the evening hours.
- Consider cooperative relationships with other businesses that will utilize the upper decks and bring more legitimate users to the facility.

Other Considerations:

Electronic Surveillance

- Closed Circuit Television (CCTV) should be used to view areas without natural sight lines and in low or zero visibility areas without effective natural surveillance. The level of security systems should be based on the potential threat of crime occurring for any given location and the type of business conducted.
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- DVR (digital video recorders) should be maintained in a secure location, but be easily and quickly available for viewing and recording retrieval by authorized personnel and law-enforcement first responders and investigators.
- There should be CCTV coverage of the pedestrian entrances and exits. Medium security facilities should provide CCTV coverage of screening checkpoints, pedestrian and vehicle entrances, exits, loading docks, and lobbies.
- Intrusion detection systems (IDS) are devices or software applications which monitor and detect malicious or criminal activity and send a report back to a management station. IDS should be provided on the perimeter entry and exit doors and operable ground floor windows. Examples of IDS devices could include Access Control Systems, Duress Alarms, Vibration Detectors and Building Communication Systems.
- Proper signage should be used to deter the potential threat of criminal

activity from occurring. Signage used in a parking lot, garage, alleyway, or main entrance advising people that they are being videotaped gives a potential offender the perception of being identified.

Tips and Techniques

- Provide emergency telephones with lights that flash upon activation on each level.
- Use bright colors and large numbers to identify levels to reduce user disorientation and confusion.
- Use flashing lights to identify courtesy patrols.

Landscaping & Lighting

Landscaping

Lighting



Landscaping

The area that surrounds buildings provides the first layer of defense and the first opportunity to include safety measures into the design. Landscape - whether it includes trees, fences, shrubs, open spaces, or a combination thereof – plays an integral part in allowing users of a space to be aware of the threats around them. Providing perimeter landscaping gives identity to a property, but the elements of landscaping should be placed and maintained in such a way that each user has a clear line of sight and a well-lit path. Greenery and fencing should be used for aesthetics and to define space, not to provide dangerous hiding places for criminals.

Landscaping Considerations

- Planting and selection of landscape materials should be such that sight lines remain open and clear and places of concealment are not fostered.
- Keep shrubs trimmed to 3 feet.
- Prune the lower branches of trees to at least 7 feet off the ground.
- If graffiti is a known problem in the area, specify thorny landscape plants as a natural barrier to deter unwanted entry.
- Specify vines or planted wall coverings to deter graffiti. Avoid blank spaces, which may be an invitation to graffiti vandals.
- Provide landscape and fencing that does not create hiding places for criminals.
- Provide attractive and durable (masonry) fencing whenever possible. Consider creative solutions to fencing schemes that work aesthetically, as well as functionally.
- Use lighting in the landscaping, both for security and aesthetics.
- Shrubs and trees should not interfere with security lighting or common natural surveillance observation from public streets or any buildings, including public right of ways.



Lighting

Lighting is an important element in any site design. Whether designing a single house or an industrial complex, appropriate lighting techniques should be used. Proper lighting will allow people to feel more comfortable in their surroundings. It should provide clear paths for movement and highlight entryways without creating harsh effects or shadowy hiding places.

Lighting Considerations

- Provide lighting systems which can make pedestrians more visible to motorists and can illuminate other vehicles and objects that should be avoided.
- Design lighting systems for homes and businesses located along walkways to protect pedestrians from experiencing risky situations involved with walking at night.
- Provide lighting systems that will enhance the ability to observe surroundings.
- Provide lighting systems that minimize glare, shadow, light pollution, and light trespass. At least 2.0 foot candle minimum maintained lighting level is recommended, while 3-5 foot candle minimum maintained level is preferred. Uniformity among light sources is critical. These levels should apply to all parking and pedestrian areas. The use of cut off fixtures with diffusers to focus the lighting where needed to minimize or eliminate light trespass is also recommended. Street lighting should meet a 0.5 foot candle minimum maintained lighting level. The lighting levels can be reduced after business hours/closing to 0.5 foot candles minimum maintained for burglary and vandalism resistance, if the property does not have an existing problem with criminal incidents and the owner deems it appropriate.
- Shrubs and trees should not interfere with security lighting or common natural surveillance observation from public streets or any buildings, including public right of ways.

Action Plan

CPTED Reviewer

City's Commitment

CPTED and Security Measures Requirement

CPTED & Security Guideline Manual

Revised Zoning Code

Staff Training

Security Inspections Prior to Issuing a Certificate of Occupancy

What has been done?

The City of Pompano Beach has worked closely with Broward County Sheriff's Office to modify the way techniques that enhance safety and security are applied to the design and construction of new and existing developments.

CPTED Reviewer

The City of Pompano Beach has appointed a CPTED Reviewer for all new development in the city. It is the job of the reviewer to determine the level of security measures that are needed on a case-by-case basis. The reviewer then reviews the plans to ensure that adequate CPTED and other safety and security measures have been included in the design. If the design lacks sufficient CPTED strategies, the reviewer would then work with the designer to incorporate appropriate design elements.

City's Commitment

The City has also committed to championing the use of the CPTED guidelines by requiring its inclusion in all new city projects. By taking on this initiative, Pompano Beach is leading by example. The hope is that through the City's projects, developers and designers can see that integrating CPTED guidelines in the design of landscapes and structures not only increases the safety and security of that development, but also allows the design to be more aesthetically pleasing and affordable than designs with retrofitted security systems.

CPTED and Security Measures Requirement

CPTED has officially been adopted as criteria for approval by the Design Review Committee (DRC). Through a partnership with the Broward Sheriff's Office (BSO), Pompano Beach has made it a requirement that all design proposals be inspected by a representative of the Sheriff's office before being approved. Currently, the CPTED Reviewer is a BSO Deputy and serves as the voice of law enforcement in planning related matters.

CPTED & Security Guidelines Manual

In order to provide a user-friendly guide of CPTED guidelines to designers and developers, the City has created the *CPTED & Security Guidelines* manual. This manual identifies the principles of CPTED and security design and explains how the techniques of both can be implemented to make all development safer and more secure. It also provides information on the background of CPTED and why it is important to use CPTED in all designs. There is even an example of a security checklist that can be used by the designer and/or developer in order to identify any potential security

shortcomings or areas that are more susceptible to criminal activity.

Revised Zoning Code

With the addition of these design guidelines came a revision of the zoning code. Wording has been inserted in review guidelines for site plans, building design, and landscaping. Each section, in addition to the traditional guidelines, includes a guideline that says that all proposed designs should include the core components of CPTED and security principles. By adding this guideline to all three sections, the City of Pompano Beach is ensuring that every plan that gets approved will promote a safe and

secure atmosphere and have a positive impact on the city's form.

Staff Training

All members of the staff in the Planning and Zoning division will be trained to identify dangerous design and opportunities for CPTED and security strategies to be used to make a design safer. The city promotes national CPTED guidelines, and there will be at least one Certified CPTED Specialist on staff. The staff also works closely with Broward Sheriff's Office to review plans, audit sites, and confirm that all appropriate security measures have been applied.

REFERENCES:

NEW ZEALAND WEBSITE FOR IMPLEMENTATION REFERENCE:

<http://www.justice.govt.nz/publications/global-publications/n/national-guidelines-for-crime-prevention-through-environmental-design-in-new-zealand-part-2-implementation-guide/ways-to-implement-cpted>

OSHKOSK POLICE DEPARTMENT CRIME PREVENTION UNIT

CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED)

http://www.oshkoshpd.com/assets/pdf/CRIME_PREVENTION_THROUGH_ENVIRONMENTAL_DESIGN_HANDBOOK.pdf

INDIANA AND MARION COUNTY

CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED)

<http://www.indy.gov/eGov/City/DMD/Planning/Docs/Documents/CPTED-flyer8x11-3pgs.pdf>

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Trespass Program

Broward Sheriff's Office Trespass Program

Dear Business/Residence Owner or Operator,

In the interest of providing a safe street environment, the Broward Sheriff's Office has a crime prevention initiative to assist you. Florida State law allows law enforcement officers to serve as authorized representatives of local businesses and residences and to act on their behalf in their absence. When a business or residence owner/operator completes an affidavit or letter of authorization, deputy sheriffs can legally enforce the provisions of the trespassing law (F.S.S. 810). Areas appropriate for this initiative are all locations where the public is invited or would normally visit. The enclosed information package contains instructions, an affidavit and a sample poster. Once all Trespass Program paperwork is completed; authorized BSO Trespass signs may be purchased at the following locations:

A Sign on Time 5270 N. SR 7 Suite B Fort Lauderdale, FL 33319 954-739-2720	First Sign Corporation 2085 N. Powerline Road Suite 1 Pompano Beach, FL 33069-1228 954-972-7222	Pine Signs 100 S. Federal Highway Pompano Beach, FL 33062 954-545-1441	Sign-a-Rama 4324 N. Federal Highway Fort Lauderdale, FL 33308 954-776-2289
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The entire business community in Broward County deserves a safe location with a positive atmosphere where consumers and employees feel confident to frequent and conduct commerce. If you wish to enroll in this program, complete the following documents and forward to your local district office. If you know of other business owners/ operators that might be interested in this initiative, please have them call any district office for further information.

Thank you for your interest and support to keep Broward County a safe and prosperous community.

Major John Hale
Department of Law Enforcement
Patrol Region North

BROWARD SHERIFF'S OFFICE

TRESPASS AFFIDAVIT

Sworn deputies of the Broward Sheriff's Office are authorized representatives to enforce FS 810.08 and/or 810.09 (Trespass) and warn/direct any person to leave the premise of (Legal Business Name) _____,

D.B.A. _____,

Address/Telephone: _____,

Broward County, Florida. Authority is granted by (Name) _____
_____ in the position of (Manager/Owner) _____.

I hereby request and authorize sworn deputies of the Broward Sheriff's Office to act as my agent to enforce FS 810.08 and/or 810.09 (Trespass) on property and surrounding curtilage (including parking areas) of the above business.

I also acknowledge I will assist with the prosecution of persons arrested by authorized agents of the above business.

Authorized Signature/Title

Date

STATE OF FLORIDA

COUNTY OF BROWARD

The foregoing instrument was acknowledged before me this _____ day of _____, 20____ by _____, who is personally known to me or who has produced

as identification.

NOTARY PUBLIC

Print, Type, or Stamp Commissioned Name of Notary Public
BSO RP-87 (Revised 6/04)

