

**C.P.T.E.D.**  
***CRIME PREVENTION***  
***THROUGH***  
***ENVIRONMENTAL***  
***DESIGN***



***GUIDELINES***

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# Crime Prevention through Environmental Design

Crime Prevention through Environmental Design, also known as “CPTED”, is an idea that the proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime, and an improvement in the quality of life. In other words, a well-designed site lessens the likelihood of it being targeted for a crime.

Crime Prevention is defined as the anticipation, recognition and appraisal of crime risk and the initiation of some action to remove or reduce this risk. CPTED takes crime prevention one step further by studying site design and working with the development community and public development agencies to create safer designs in new and existing developments. The best time to apply this approach is in the design phase, before a building or neighborhood is built. You can also successfully apply it later, by retrofitting an existing development.

The following guidelines were prepared by the City of Fontana Police Department and Community Development Department for use as a tool for planners and design professionals to build a “Quality Physical Environment” with the idea of reducing opportunities for crime to occur.

## Purpose of CPTED Guidelines:

- To inform developers, design professionals and the public of CPTED principles during the initial planning stages of a development.
- To promote active crime prevention strategy for new and existing development.
- To make members of the Development Community and City Staff aware of Crime Prevention through Environmental Design (CPTED) standards and implement creative design solutions whenever possible.

Effective implementation of CPTED guidelines depends on understanding the design and planning process. This process includes the sequence of planning procedures and the timing of various decisions, the decision making body, and how to incorporate CPTED principles into the development process. In addition, the ability to make use of CPTED principles depends also on the information available.

**Disclaimer:**

**The application of CPTED concepts and strategies is site specific.**

# CPTED STRATEGIES:

CPTED is based on four basic interrelated principles:

- Natural Surveillance
- Natural Access Control
- Territorial Reinforcement
- Maintenance and Management

These principles work together to create safe environments. In these guidelines, the principles have been identified separately for convenience and clarity of understanding. Each principle in turn generates a list or group of specific design criteria that can be incorporated when designing project plans.

When designing or redesigning a project the following should be considered when applying the four principles.

**Context:** All projects must be viewed in relation to where the project is built and how both the built and natural environment are used. Project space should be designed in a manner that addresses the way the legitimate users will use the space, and what legitimate users bring to the space. Example: Projects built on hillsides may be able to utilize the natural landscape in the site layout to incorporate Natural Surveillance principles. Conversely, projects built in dense urban areas may have to design Natural Surveillance principles into the building design and floor plan.

**Design Conflict:** Two incompatible activities located next to one another and are forced to compete for the same space cause conflict. Example: Locating a tot lot for toddlers next to a skate board park designed for teenage users can provide opportunity for older kids to loiter around younger children. This may cause the younger children, and their parents, to feel intimidated or unsafe, even though no direct threat is intended.

**Unassigned Space:** When a site is built with spaces that have no assigned purpose and no one to exercise control over them, an opportunity exists for nefarious activity to occur. Such space lacks the physical and social cues that suggest how the space is to be used or who should control it, and subsequently can become attractive to criminal activity. Example: Trash enclosures set away from building or perimeter walls create remote areas where undesirable activity can occur away from public view.

Other issues that should be addressed when designing a site or use in an area include:

- **Designation:** What is the intended use of the area? What behavior is allowed?
- **Definition:** Are there physical limitations to the area or site? Are borders between the area and public spaces defined? Is it clear which activities are allowed where?

- **Design:** Does the physical environment safely and efficiently support the intended use?

Early consideration of CPTED principles and incorporating them into a project's design enhances the quality, usefulness, and safety of the built environment beyond just designing for the most efficient layout. A properly designed project can ensure that it will be used safely for its intended purpose.

### **Natural Surveillance:**

Natural surveillance is a CPTED principle directed at keeping legitimate users and potential intruders under passive observation. It utilizes design features to increase the visibility of a property or building by human activity.

For example, the proper placement and design of windows, lighting, and landscaping increases the ability to allow for maximum visibility. This provides the opportunity to challenge inappropriate behavior or report it to the police or the property owner when observed. When natural surveillance is used to its greatest advantage, it maximizes the potential to deter crime by making the offender's behavior more easily noticeable to a passing individual, casual observer, or police patrol car.

Natural surveillance provides a good visual connection between residential and/or commercial units and public environments such as streets, common areas, parks, sidewalks, parking areas and alleys.

### **Natural Access Control:**

Natural access control is a CPTED principle used to decrease the opportunity for criminal activity by creating physical elements and cues in the design to keep unauthorized persons out of a particular place if they do not have a legitimate reason for being there. Natural Access Control can be accomplished by the placement of entrances, exits, fencing, landscaping and lighting to provide a physical guidance to people coming and going from one space to another.

Natural access control provides clear boundaries between public, semi-public, and private areas. These boundaries are needed at entrances to office buildings, residential buildings, shops, parking lots and garages to define the areas appropriate for legitimate users and inappropriate for unauthorized person. Boundaries can be established by signs, walls, fences, landscaping, and pavement treatments.

### **Territorial Reinforcement:**

People naturally protect a territory that they feel is their own, and have a certain respect for the territory of others; clear boundaries between public and private areas achieved by using physical elements to "personalize" a space. Such elements as fences,

pavement treatment, art, signs, gardens, proper maintenance, and landscaping are ways to express ownership. The concept of territorial reinforcement suggests that physical design can create or extend a sphere of private or semi-private space. Potential offenders perceive that territorial influence. For example: Low walls, landscaping and paving patterns clearly defining the space around a private unit's entry belongs to (and is the responsibility of) the residents of the unit.

“Defensible Space” is another way of describing this strategy, which involves creating recognizable public, semi-private and private zones. These zones can be defined as:

- **Public zones** are generally open to anyone and best-suited to natural surveillance approaches to create a safe environment.
- **Semi-private zones** create a buffer between public and private zones and may serve as common use spaces, such as common interior courtyards. Although accessible to the public, separation is provided by using design features, such as landscaping, that establish definite transitional boundaries between public and semi-private zones and private zones.
- **Private zones** are areas of restricted entry. Access is controlled and limited to specific individuals or groups. A private residence is a clear example of a private zone.

## **Maintenance and Management:**

Lastly, care and maintenance allows for the continued use of a space for its intended purpose. Deterioration and blight indicate less concern and control by the intended users of a site and indicate a greater tolerance of disorder. The more dilapidated an area, the more likely it is to attract unwanted activities. Proper maintenance protects the public health, safety and welfare in all existing structures and premises either residential or nonresidential, by establishing minimum requirements and acceptable standards.

Maintenance and management need to be considered at the design stage, as the selection of materials and finishes will impact the types of maintenance treatment that can be sustained over time.

# Glossary of Terms:

**Activity Generators-** features that tend to create (generate) activity. Activity generators include everything from recreational facilities in a park, to educational and cultural facilities, and everyday amenities such as retail outlets.

**Barrier Plant-**also known as hostile landscaping: a plant or landscaping that consists of dense structure and foliage that is thorny or has needles.

**CPTED:** means Crime Prevention through Environmental Design.

**Balcony.-**An outdoor platform construction that projects from the wall of a building and is surrounded by a railing; the balcony shall be functional and usable and shall not be substituted with a Juliet Balcony.

**Bench window seat** -A bench or similar seat built into a window recess as in the recess of a bay window.

**Common Area – (Commercial)-**The area within a shopping center or business park which is not designed for rental to tenants and which is available for common use by all tenants or groups of tenants and their invitees. Examples: parking and its appurtenances, sidewalks, landscaped areas, public toilets, and service facilities.

**Common Area – (Residential)-** Area within a residential development which is not designed as a residential building site, which is owned in common by homeowners/residents/tenants in the development, and which is available for common use or enjoyment by all property owners/residents/tenants in the development and their invitees. Examples: recreation areas, clubhouses, landscaped areas, open space areas, and natural areas.

**Dead Spaces** – Spaces that are usually concealed from view that can be used as hiding places or for concealing criminal acts; areas that are empty with no apparent use.

**Dual Walls-** also known as “double walls”

**Dual Wall Gap-** the space created between dual walls (double walls)

**Fence-** An artificially constructed barrier, such as wooden posts, concrete, iron, etc., used as a boundary, means of protection, privacy screening or confinement. This does not include natural barriers such as hedges, shrubs, trees, or other natural growth.

**Foot-candle-** A unit of measure of the intensity of light falling on a surface equal to one lumen per square foot.

**Habitable Area-**The interior area of a dwelling unit which may be occupied for living purposes by humans. Habitable area does not include a garage or any accessory structure.

**Habitable Room-** any room usable for living purposes, which includes working, eating, cooking or recreation, or a combination thereof. A room designed and used only for storage purposes is not a "habitable room".

**Juliet Balcony-** A **balconet** (or **balconette**) used as a decorative architectural feature only and does not substitute as a usable balcony as required for surveillance purposes.

**Neighborhood Dwelling Cluster-**Attached or detached dwelling units are grouped relatively close together, leaving open spaces as common areas. The space between clusters usually is allocated to pedestrian circulation and cooperative recreational use. This pattern normally results in a higher density of land use than that of a conventional subdivision layout.

**Open View Fencing-**also known as view fencing. Where fencing is proposed along public frontages of nonresidential and multifamily projects, such fencing shall be open view unless otherwise required to be solid for noise attenuation, fuel modification areas for fire hazards, or other mitigating measures as deemed suitable. Open view fencing shall also be recommended when located adjacent to open space areas.

**Paseo-** A connecting walkway that links streets and parking areas, open plazas, courtyards, and residential and business uses within an urban center.

**Perimeter fencing-**A perimeter fence is a structure that circles the perimeter of an area to prevent access.

**Privacy fencing** is the use of fences to protect privacy, usually by preventing outsiders from seeing onto a property.

**Setback-**A minimum horizontal distance between the building line and the lot line; or when abutting a street, the minimum horizontal distance between the building line and the ultimate right-of-way line.

**Shopping Center or Commercial Center-**A commercial development or group of commercial establishments, primarily of a retail nature, planned, developed, managed and maintained as a unit, with common landscaping, amenities, and off street parking provided to serve all uses on the property.

**Widows Walk-**A small, railed observation platform built out from the roof.

**Zero Lot Line-**The location of a building on a lot in such a manner that one or more of the building's sides rest directly on a side lot line.

## Residential Design Standards:

All elements of Crime Prevention through Environmental Design shall be incorporated into the site design. These elements include natural surveillance, access control and territorial reinforcement and shall be further explained during the Development Advisory Board process. The following CPTED design standards are required, where appropriate, of any proposed **Single Family Residential** development. All plans are evaluated on the totality of the design and an evaluation of risk factors in the community surrounding the proposed project at the Development Advisory Board (DAB) meeting. Additional mitigating measures not stated below may be required as deemed appropriate by the Police Department and Director of Community Development if needed these will be further expounded upon during the Development Advisory Board process.

### Natural Surveillance:

1. All dwelling structures shall be visible from the street. Flag lots, or semi-flag lots, wherein the dwelling structure is not visible from the street, may not in all instances be supported by the Police Department as it may cause confusion and delay for emergency response vehicles.
2. Any proposed detention/infiltration/retention basin shall be visible from the street on at least one side. View fencing shall be utilized for enhanced natural surveillance into the basin area.
3. All parks, trails and/or paseos shall maintain a high level of natural surveillance, and shall be well lit. Trails and/or paseos which are secluded, hidden or proposed behind any dwelling unit are prohibited. Trails or paseos shall be a minimum of twenty (20) feet wide excluding any landscape setback requirement.
4. In any proposed development utilizing an alley-loaded, rear-loaded style dwelling units, or any dwelling unit product type which requires the use of a rear, alley-style street, a minimum of one balcony, second-floor deck, bench-seat style, or large protruding window, shall be required for every third unit. This allows for enhanced natural surveillance within the alley-drive area, where otherwise there would not be any. This type of development encourages crime to occur due to the lack of natural surveillance in the alley-drive area.

### **Territorial Reinforcement:**

5. Cul-de-sacs shall be designed as to not abut against walls with a roadway on the opposite side. This street design promotes various issues with long-term recreational vehicle parking, subjects jumping the wall during police pursuits, and other aspects of criminal activity.

### **Maintenance and Management:**

6. Adhere to the Fontana Zoning and Development Code section 30-316 and 30-317 reference street frontage for vehicle parking.
7. “Double-walls” shall not be encouraged. Double-walls promote the collection of debris, are a public health and safety concern, and invite criminal activity. Adhere to the City of Fontana standard reference maximum wall height.

## **Multi-Family Design Standards:**

All elements of Crime Prevention through Environmental Design shall be incorporated into the site design. These elements include natural surveillance, access control and territorial reinforcement and shall be further explained during the Development Advisory Board process. The following CPTED design standards are required, where appropriate, of any proposed **Multi-Family Residential** development. All plans are evaluated on the totality of the design and an evaluation of risk factors in the community surrounding the proposed project at the Development Advisory Board (DAB) meeting. Additional mitigating measures not stated below may be required as deemed appropriate by the Police Department and Director of Community Development. If needed these will be further expounded upon during the Development Advisory Board process.

### **NATURAL SURVEILLANCE**

1. Design buildings so that entry doors and exterior doors are visible from the street or by neighbors. Whenever possible, buildings shall be configured around courtyards, gathering areas, and open spaces.
2. Install full-sized windows on all four facades of buildings to allow optimum surveillance. Locate windows so that surveillance of open spaces, footpaths, and secluded drive aisles is possible from frequently used rooms (habitable rooms) (i.e., living room, family room or kitchen only), without permitting close views from those areas.
3. Adhere to the City of Fontana’s light standard of one foot candle for all common and/or activity areas, parking lots, walkways, entrances, exits,

- perimeter fence-lines, and outdoor storage areas, for safety and security. All light fixtures (wall-mounted, pole lights and way-finding) shall be shown on the site plan. All exterior lighting shall be illuminated from dusk until dawn. All luminaries utilized shall have vandal resistant light fixtures. Metal halide or white L.E.D. type lighting shall be utilized for all pedestrian pathways for enhanced security and excellent color rendition. Low-level way-finding lighting, such as bollard lighting, is not required to utilize metal halide or white L.E.D. lighting.
4. In a development utilizing alley-loaded, rear-loaded or motor-court designed dwelling units (where garages are located on an alleyway or in a motor-court), a minimum of one usable balcony overlooking the alleyway or motor-court, is required for every three units for enhanced natural surveillance.
  5. Dwelling units proposed with secluded, hidden and/or interior corridors do not offer any natural surveillance. This design style is strongly discouraged by the Police Department. If proposed, this design style shall require enhanced mitigating measures as directed by the Police Department during the Development Advisory Board review process.
  6. Assign parking spaces to residents. Whenever possible, locate the spaces in sight of the resident's unit; however, the parking space numbering system shall not identify the dwelling unit that is assigned to the space.
  7. Visitor parking should be clearly identified and distributed throughout the development and visible from nearby residences for good natural surveillance.
  8. Site buildings so that the windows and doors of one unit are visible from another (although not directly opposite).
  9. Each dwelling unit's entry door shall be visible and unobstructed. Hidden or secluded entry doors shall be prohibited.
  10. Make parking areas visible from commonly used windows (i.e., living room, family room, kitchen, dining room) and doors.
  11. All units should be equipped with individual laundry areas.
  12. If common laundry facilities are present on-site, they shall be placed in highly visible, common areas, have large windows without coverings on as many sides as possible, be well illuminated both inside and outside, use coinless laundry systems, and be locked each night at 10:00 pm to avoid vandalism and disturbing nearby tenants. If tenant access is gained to the room via a key or card access system, a window shall be located on the entrance door to allow a view of the interior before entering. A clear line of sight (diagonal) from one interior corner to another is required.
  13. Position recreation areas to be visible from many of the dwelling unit's windows (i.e., living room, family room, dining room, and kitchen) and doors and in central areas.

14. Mailboxes shall be located in highly visible, heavily used areas, such as adjacent to the management office or community facilities to minimize the possibility of vandalism and theft. Mailbox kiosks shall not create any dead spaces or hinder natural surveillance. Mailbox facilities (including mail rooms, pedestrian pathways leading to, and areas behind kiosks) shall be well-lit with metal halide or white L.E.D. lighting, from dusk to dawn.
15. A building's stairwell shall be centrally located to the units served and should be open and visible from as many units or common spaces as possible. When necessary, enclosed stairways shall contain numerous windows or be designed with glass walls, so users (and potential trespassers) can be seen on the stairway from outside, and maintain good surveillance.
16. Place elevators close to main entrances with the entire elevator interior in view when the elevator doors open. The interior back wall shall be mirrored, and each elevator shall be equipped with a panic button. The elevator shall **not** have a "Permanent Stop" button installed. Glass backed elevators are strongly recommended for the safety and security of the users.
17. In developments with subterranean parking garages, a glass-backed elevator shall be a requirement.
18. Place playgrounds/tot lots in central, interior areas where they are clearly visible from unit frequently used windows (i.e., living room, family room, kitchen windows). Playgrounds/tot lots that require perimeter fencing shall utilize see-through, or view fencing and border vegetation should be designed and maintained so as not to block visibility into the area. Where younger children play areas are located adjacent to pools, or other areas requiring safety protection it should be fenced with auto closures that require adult operation.
19. Property should not contain areas which are not clearly visible from natural surveillance points that are frequently occupied (i.e., dead spaces between buildings or dead end areas in parking lots).
20. The distance between units facing each other across a common landscaped open space should be sufficient for outdoor use and gatherings, but should not compromise the privacy of individual dwelling units.

## **NATURAL ACCESS CONTROL**

1. Perimeter fencing shall be decorative tubular steel (with or without pilasters), unless otherwise required by the Development Code or applicable Specific Plan.
2. The method of access control (gated and fenced) or the use of other design features should be based on an assessment of neighborhood risk factors.
3. The Police Department requires access into a gated complex. Installation of the Fontana Police Department's R.E.A.C.T. system (Rapid Emergency Access Control Transmitter) at all vehicle entry points is required.
4. When locking gates are required, use devices which automatically lock upon closing on common building entrances.

5. Locate business office at or near main entrance area.
6. In mixed use projects, there should be a clear delineation between residential areas and areas set aside for other usage. Residential areas shall be secured by perimeter fencing and gating.
7. To ensure children's safety, separate parking and drive aisles from play areas by a physical barrier (low-level fencing and/or landscape) or the dwellings themselves.
8. Combination walls defined as tubular steel atop cement block is prohibited. Acceptable exceptions include:
  - a. Tubular steel atop a minimum six (6) foot cement block wall.
  - b. A minimum of six (6) feet tubular steel atop a subterranean cement block retaining wall.
9. For pedestrian gate access points along the perimeter fence-line, incorporate a celebrated entry point. A celebrated entry point is obvious and inviting. It would include items such as an oversized entry gate, decorative paving, increased lighting, increased landscape and other decorative features making it stand out from the basic fence-line.
10. Where practical, activity generators can also include workshops, and both indoor and outdoor recreation facilities, such as ball courts. These should be carefully positioned so that natural surveillance is provided from nearby units and completely separated from the tot lots.

## **TERRITORIAL REINFORCEMENT**

1. Each dwelling unit entry shall incorporate a semi-private, delineated patio, and/or sufficient space for the resident to add personal items for his/her defensible space.
2. Community address numbers and complex numbers should be visible. Building numbers should be at least 12" in height and posted so they are readily visible from all approaching walkways and from the parking lot. Each unit shall have a number posted so it is readily visible from the walkway. Each breezeway should be posted with unit numbers or letters. All posted numbers shall be of a color that contrasts with the background and are visible during both the day and nighttime hours.
3. A locator map or directory should be posted at the site entrances. The directory should be located on the site so as to be easily and quickly identified and free from visual obstruction. The map should clearly indicate the dwelling numbering system, location of visitor parking, major community facilities and the management office. The directory should be internally illuminated, and should be illuminated from dusk until dawn. The directory should have vandal resistant glazing to minimize criminal damage and the structure should be weather resistant.
4. Where dwelling units must share a common entry path, no more than six units should share a single entry point. An example would be a three-story building where a pedestrian path leads to an entry point for two units on each floor.

5. The use of individual lockable garages instead of carports is preferred for tenant parking. Whenever practical, garages should be attached to the unit and have a connecting door into the unit. If carports are built, the interior of the carport should be visible from regularly used windows (such as a living room, family room, or kitchen) or other observation points (semi-private patio, balcony or amenity area).
6. If perimeter fencing is required for a specific project, tubular steel (a visually penetrable and physically strong material) shall be used. The fencing should be aesthetically designed, and painted to match the housing styles.
7. Boundaries between private and communal outdoor space should be clearly defined with physical barriers such as low-level fencing and/or landscape.
8. In any multi-family complex consisting of over 50 units, the design should incorporate a neighborhood dwelling cluster concept. Each "neighborhood cluster" should be architecturally distinctive, provide a variety of age-appropriate, separate amenities and be grouped around communal landscaped space. Larger clusters of up to 100 dwelling units may be acceptable if the neighborhood cluster contains significant amenities and has its own designated management personnel for each cluster. This concept would increase the chance that residents and managers would recognize each other and be able to identify persons that did not belong in the area.
9. The development should relate directly to the adjacent, existing neighborhood and should acknowledge the development's role as an integral part of the community.
10. Social meeting areas should be placed near building lobbies or along well traveled pathways. Avoid placing these rooms in out-of-the-way areas, or basement areas, where they will be ignored and poorly used.
11. Dwellings, walkways, and common areas should be arranged so that it's possible for neighbors to meet one another through the natural and daily use of the development (the placement of the mailbox kiosk for example).
12. Since low community tenure rate is an identified risk factor for increased crime, the police department strongly recommends significant amenities to increase the likelihood of a high tenure in the complex. Separate, age-appropriate activities to avoid territorial conflict, activity areas, barbeque and picnic areas that are well-maintained will increase the tenure rate for the site.
13. There should be opportunities for positive casual use of outdoors on the site. For example, provide well-designed, outdoor sitting areas or walking paths with exercise stations throughout the complex that are inviting to residents and encourage socializing.
14. Activity generators should be provided on site to encourage social events, and community festivities. These activities should not be deterred by the design, such as vehicle access roadways and parking that obstructs or detracts from an uninterrupted network of safe landscaped spaces for children and adults.
15. Provide opportunities for residents to add their own personal touches to their immediate environment; an example is articulated facades on the door entranceways so that they can add flower pots, and other items to beautify

their space. Avoid flat fronted, row house designs, or motel corridor type designs which offer no semi-private areas.

### **MAINTENANCE AND MANAGEMENT**

1. The Police Department requires on-sight management personnel to ensure proper maintenance and upkeep of property.
2. All owners, managers, and on-site staff shall be trained and the property shall be certified through the Fontana Police Department's Crime Free Multi-housing Program, and shall remain certified for the life of the development.
3. A cared-for environment can reduce the fear of crime. Areas that are run down and the subject of graffiti and vandalism are generally more intimidating than areas that do not display such characteristics.

## **Commercial and Industrial Design Standards:**

All elements of Crime Prevention through Environmental Design shall be incorporated into the site design. These elements include natural surveillance, access control and territorial reinforcement and shall be further explained during the Development Advisory Board process. The following CPTED design standards are required, where appropriate, of any proposed **Commercial or Industrial** development. All plans are evaluated on the totality of the design and an evaluation of risk factors in the community surrounding the proposed project at the Development Advisory Board (DAB) meeting. Additional mitigating measures not stated below may be required as deemed appropriate by the Police Department and Director of Community Development. If needed these will be further expounded upon during the Development Advisory Board process.

### **NATURAL SURVEILLANCE**

1. Every area of the development shall be visible either from the street or from a window within a structure. Unavoidable dead spaces, required setback areas, hidden/secluded areas, or uses which create intentional dead spaces, shall require additional mitigation measures which may include but are not limited to increased lighting, hostile landscape, security surveillance cameras, perimeter fencing and/or security gates, on-site security guards or other measures deemed appropriate by the Police Department.
2. When allowed by the Development and Zoning Code, and if appropriate for the proposed development, structures shall be placed on the property line to eliminate the dead space behind a structure typically caused by a required setback area.

3. Adhere to the City of Fontana's light standard of one foot candle for all common and/or activity areas, parking lots, walkways, entrances, exits, perimeter fence-lines, and outdoor storage areas, for safety and security. All light fixtures (wall-mounted, pole lights and way-finding) shall be shown on the site plan. All exterior lighting shall be illuminated from dusk until dawn. All luminaries utilized shall have vandal resistant light fixtures. Metal halide or white L.E.D. type lighting shall be utilized for all pedestrian pathways for enhanced security and excellent color rendition. Low-level way-finding lighting, such as bollard lighting, is not required to utilize metal halide or white L.E.D. lighting.
4. Secluded or hidden, interior corridors, either interior or exterior, shall not be permitted. An exception shall be made for uses which utilize said secluded corridors, (for example, a storage facility building) and mitigation measures shall be required and may include but are not limited to, increased lighting, security surveillance cameras, controlled access, on-site security guards or other mitigating measures deemed appropriate by the Police Department.
5. Trash enclosures shall be placed so the location does not create a dead space behind or next to the structure. Acceptable examples of proper placement of a trash enclosure are directly on a property line or attached to another structure.
6. The placement of utility equipment and trash enclosures shall not obstruct natural surveillance of common space areas.
7. Combination walls defined as tubular steel atop cement block shall not be permitted. Acceptable exceptions include:
  - a. Tubular steel atop a minimum six (6) foot cement block wall.
  - b. A minimum of six (6) feet tubular steel atop a subterranean cement block retaining wall.
8. Landscape shall not obstruct natural surveillance of entrances, exits, pedestrian paths, parking lots, windows, or common space areas. Trees should be trimmed at least 8 feet above the ground. Bushes should be trimmed to less than 3 feet in height, or where higher plants would not block any views, light, or provide hiding places.

## **MAINTENANCE AND MANAGEMENT**

1. Protection against graffiti can be obtained by planting vines and thorny bushes next to the sides of buildings, walls, and other design elements that could be vandalized.
2. Graffiti-resistant paint or anti-graffiti coatings should be used on the sides of the building, walls, and any other design elements that could be vandalized. Murals on buildings, walls, and other design elements promote neighborhood pride and identity. They also help to deter graffiti.
3. Also, various protective films are available that can be installed on the outside of windows to prevent window damage from graffiti, knife gouging or scratching, and acid etching.

## **Conclusion:**

The strategies in Crime Prevention through Environmental Design can go a long way in making the community safer.

While it is not considered possible to make a building or area completely crime-proof, the recommendations included in these guidelines should, however, reduce the probability of crime if the CPTED strategies and concepts are properly applied and maintained.

