

# Crime Prevention Through Environmental Design in Designing Safe Paths, Trails, and Greenways

by

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## Goals

- Increased demand for pedestrian and bicycle facilities
- Increased demand for parks, open spaces, and greenways
- Encouraging pedestrian, bike and mass transportation
- Encouraging preservation of neighborhoods, cultural, historic and natural resources
- Enhancing the visual quality

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## Destinations

- Research has indicated that in Greenways 2-10 miles long, users on average prefer 3.5 destinations per trail.
- Destinations should have features and activities
- Destinations should be named
- Destinations should be merged with adjacent resources
- Destinations can be plazas, amenities like bike racks, fountains.

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## Destinations

- Parking lots are frequently the first destination encountered.
- Parking lots or trail heads are the 1st opportunity to socialize users.
- Parking lots used as trail destinations are social and gathering settings, and need CPTED features such as lighting, visible emergency phones, good sight lines, etc.

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## Destinations

- Trailheads are the main hot spots associated with Greenways and require extensive CPTED.
- The combination of unattended vehicles, joggers leaving behind valuables while running, lack of natural surveillance, low levels of activity, make trailheads very appealing to criminals.

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## Fear of Crime



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## Consequences

- Attractive nuisances
- Attractive magnets of illegal behavior
- Men behaving badly behavior
- Premises Security Negligence

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## Designing Safe Trails and Greenways

- Crime Prevention Thru Environmental Design
  - Creative Design solutions that may be implemented to increase public safety along paths and trails.
  - These design techniques include creating high visibility spaces that clearly define the private and public realm.
  - Based upon 6 design strategies

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## CPTED for Safe Trails and Greenways

- Design Strategies
  - Natural Surveillance
  - Natural Access Control
  - Territoriality Boundary Definition
  - Management and maintenance
  - Legitimate Activity Support

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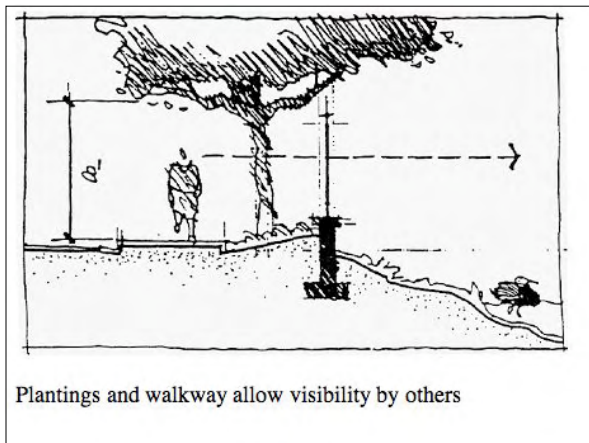
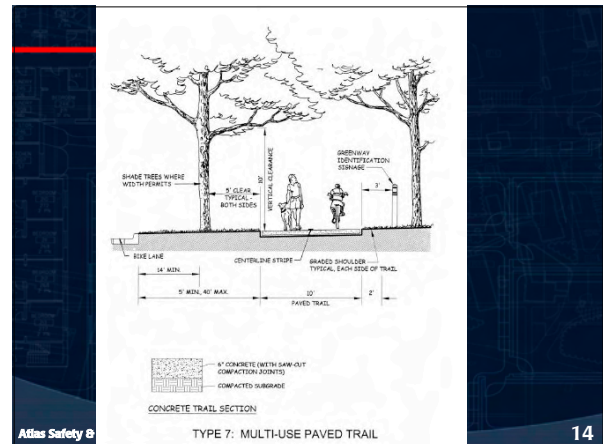
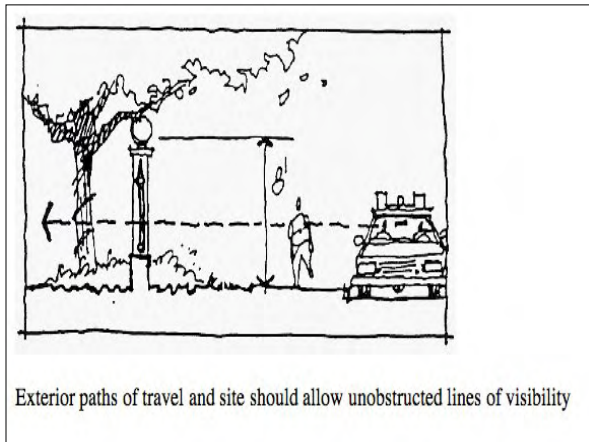
## Natural Surveillance

- Keeping the environment maintained so that people can be easily seen by other users, staff, and anyone who may pass the park, trail or playground.

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### Natural Access Control

- It is desired to have ingress and egress controlled by some means, naturally mechanically or organized. A hedge or path will direct people on legitimate paths of travel. Signage directing people where to walk and not.

### Define, Direct and Limit Access

#### Internal routes and pathways

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## **Territoriality and boundary definition**

- Territorial reinforcement is used to distinguish public from private spaces. This can be accomplished by natural or mechanical methods that include signage, flower beds, hedges, fencing.
- The idea is to show that someone owns and cares about this space.
- Use it or lose it to illegal and unwanted activities.

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## **Management and maintenance**

- Parks and Greenways should only build what they can maintain.
- Without maintenance, a public area is inviting criminal behavior.

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## **Maintenance**

- Free of litter
- Trim vegetation
  - maintain a 5' clearance under canopy trees
  - trim bushes up or down to 3'
- Good condition
- Quickly repair or replace.



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## **Legitimate activity support**

- It is important to get a variety of groups in the community to take ownership of the greenway.
- Groups could include joggers, bird clubs, garden clubs, cyclists.
- With Multiple groups there is a risk of conflicts of uses and users.
- Bird club may want dense or wild vegetation; cyclists want clear line of vision for obstacles and pedestrians on the Greenway. Both must have ADA acceptance and compliance.

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## **Design for accessibility**



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## Skateboarding



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## Designing Safe Trails and Greenways

- Who are users and uses
  - Legitimate
  - Illegitimate
  - Observers
  - Capable Guardians

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### Separate and Define Use

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### Buffer Disruptive Elements

- Environmental elements:
  - Heat/Cold
  - Glare
  - Wind
  - Noise
- Reduces stress and increases comfort

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## Landscaping Objectives

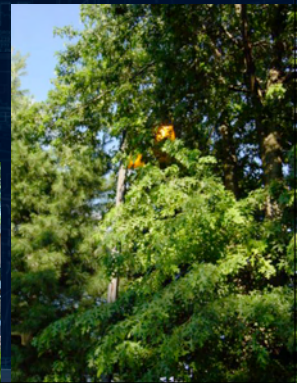
1. Define, direct and limit access
2. Separate and define space
3. Buffer disruptive elements
4. Calm Behaviors



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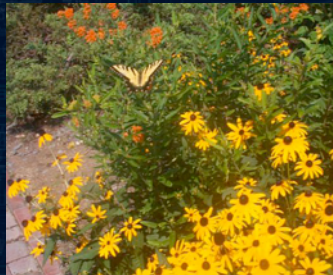
## Selection and Planting

- Avoid
  - conflicts with lighting
  - access to the roof
  - creating hiding places



## Selection

- Appropriate
- Low maintenance
- Favor native plants



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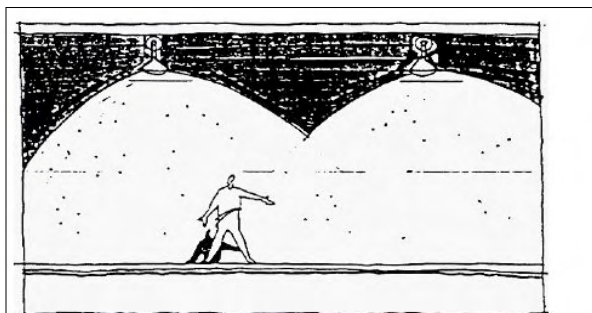
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## Lighting Safe Trails and Greenways

- Lighting
  - Paths
  - Trails
  - Facial recognition
  - Perceptions of safety

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Lighting should be uniform without shadows or dark areas.

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## CPTED Lighting

- Enhance lighting to improve natural surveillance and make legitimate users feel safe.
- The more people on the path the safer it becomes.
- Place lighting where it is needed, avoid light pollution.

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## Designing Safe Trails and Greenways

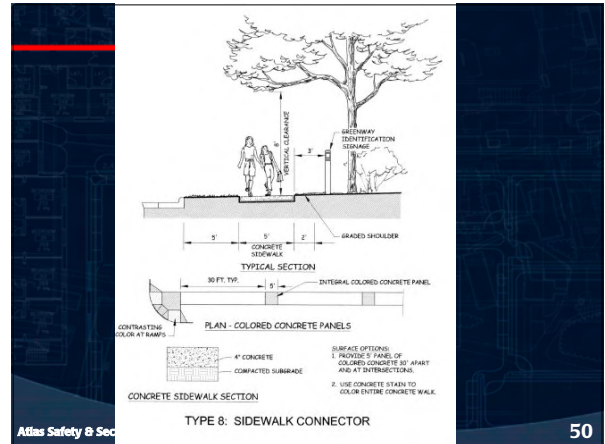
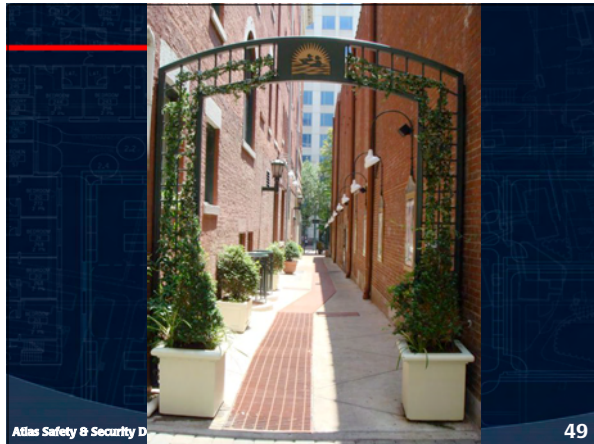
- Signage and Wayfinding
  - Paths
  - Trails
  - Recognition
  - Sense of direction
  - Destination

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## Designing Safe Trails and Greenways

- Recommendations
  - Risk Assessments
  - CPTED reviews
  - Police monitor crime stats
  - Look for changing patterns

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## Implementation

- Include CPTED as an important criteria in Greenway Guidelines
- CPTED policies may guide the location, siting, and design and development.
- For more info contact Randy Atlas PhD AIA @ 305-756-5027

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