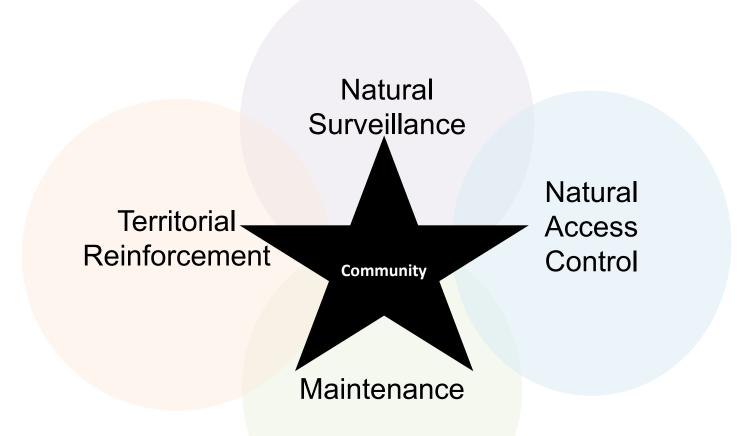




# **CPTED & Maintenance:**Why They Go Hand in Hand

Jamie Rae Walker, PhD

#### **CPTED**





The goal of CPTED is to reduce opportunities for crime that may be inherent in the design of structures or in the design of parks, trails, and community open spaces.









Let's look at the way parks are designed, built, used, and, maintained and discuss how we make them less inherent for crime and illicit behavior.

Spaces feel safe to the user & like a risk to someone participating in illicit behavior.



# **CPTED** can be:

Quick	Affordable	Subtle
Easy	Partnership	Engaging



# CPTED is based on a community approach to these key overlapping concepts:

Natural access control
Natural surveillance
Territorial reinforcement
Maintenance

#### Natural Surveillance

Increase visibility & increase observation of behaviors making it riskier for inappropriate activities to occur. And, making it easier for users to feel observed and safe.



Keeping local 'eyes' on your public spaces

"No where to hide!"



#### Natural Surveillance



**Clear views , reduce obstructions** 

**Lighting and windows** 

**Reduce glare and shadows** 

**Limit entrapment areas** 



#### Natural Access Control

Control movement. Design and maintain elements so that users can transverse though parks and open spaces with ease.



Evidence-based planning ... research-based solutions

#### Natural Access Control

**Strong visibility at entrances** 

Clear access points and entrances to sites

**Gateways and celebrated entry** areas

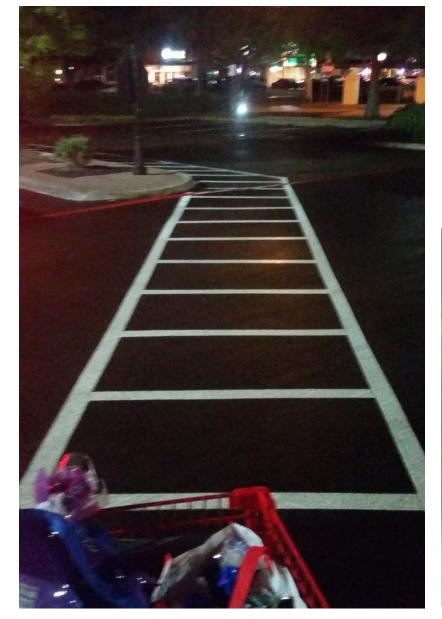
**Strong wayfinding and clear paths** 







#### Territorial Reinforcement



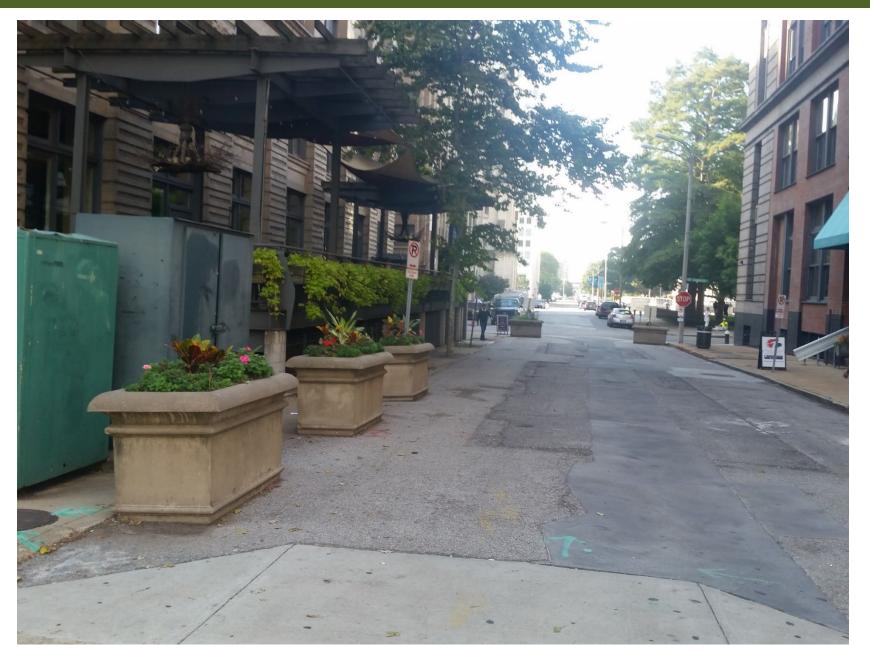
An overarching concept in which there is a sense of ownership. All concepts overlap to help create a sense of territory and what is meaningful, valuable at the park and surrounding neighborhood.







#### Territorial Reinforcement



Fencing
Pavement
treatments
Signage
Landscaping

#### Maintenance

Well maintained places are usable places.

Overlaps with territorial reinforcement showing a sense of pride and a human presence.









#### Maintenance

**Working lighting** 

**Graffiti abatement** 

Well maintained

No trash or dumping















GATEWAYS/WAYFINDING

SITE MAPS /PLAN

APPLIANCES (BENCHES, TRASH CANS)

COLOR/ PUBLIC ART

SIGNAGE/ RULES



LIGHTING

BARRIERS (FENCES, BOLLARDS, EDGING, LANDSCAPING)

NEIGHBORHOOD/ CONTEXT



GRAFFITI ABATEMENT

TRAFFIC CALMING

**ACTIVITY GENERATORS** 

COMFORT STATIONS

POLICIES/ GUIDELINES

COMMUNITY ENGAGEMENT/ PARTNERSHIPS









**Case Study** 







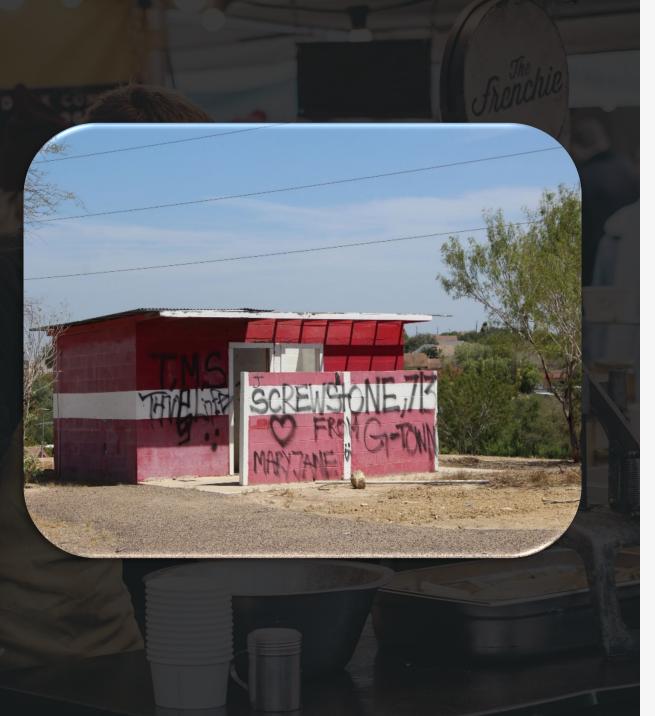








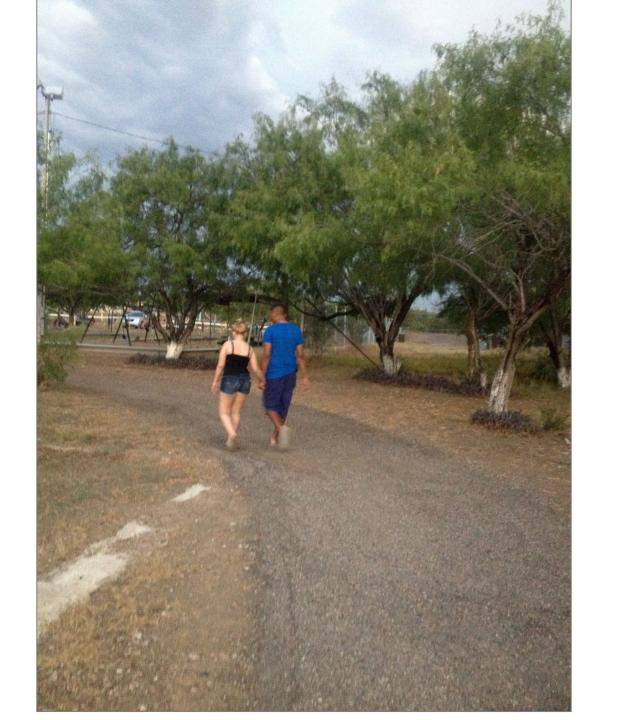


















# Maintenance Planning



#### Why we are here



Perception (citizens and leaders)

Practice (budgets, time, resources)



Communication
Proactive vs. Reactive

Systematic
Small & big wins



## Perceptions...





What we know about maintenance & perceptions...

Poor maintenance → nonuse

Higher use → higher expectations

Why new  $\leftarrow *** \rightarrow$  fix what we have

Specific requests ← \*\*\*→ uneducated



Impact perceptions

Communication

Education

**Proactive instead of reactive** 

## Perceptions...









#### Communication





Public Notice: The following trails and parks are closed due to flooding:

Anderson Bonner Park

AT&T Trail

Buckeye Trail

California Crossing Park

Cottonwood Trail

Fair Oaks Park

Great Trinity Forest Trails

Great Trinity Forest Park @ I-20

Harry S Moss Park

Hillcrest Park

Lawnview Park

Peary Park

Santa Fe Trestle Trail

Trammell Crow Park

Trinity Strand Trail

Valley View Park

White Rock Creek Trail (Hillcrest Park to WRL)

We will open them back up just as soon as weather permits. Stay safe and dry out there!

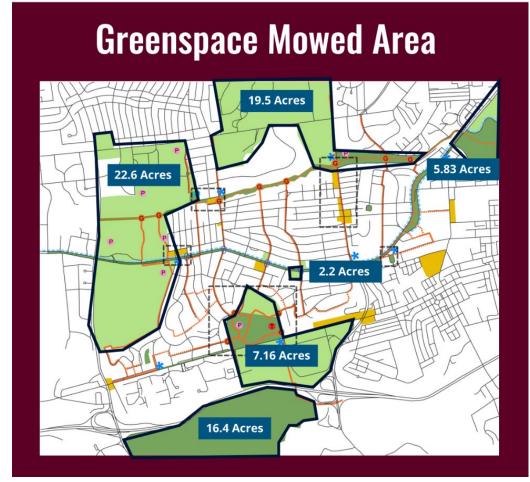




Practice safety during rainy conditions, watch for high water on roads. Don't go around barricades.









## Proactive instead of Reactive





### Proactive instead of Reactive



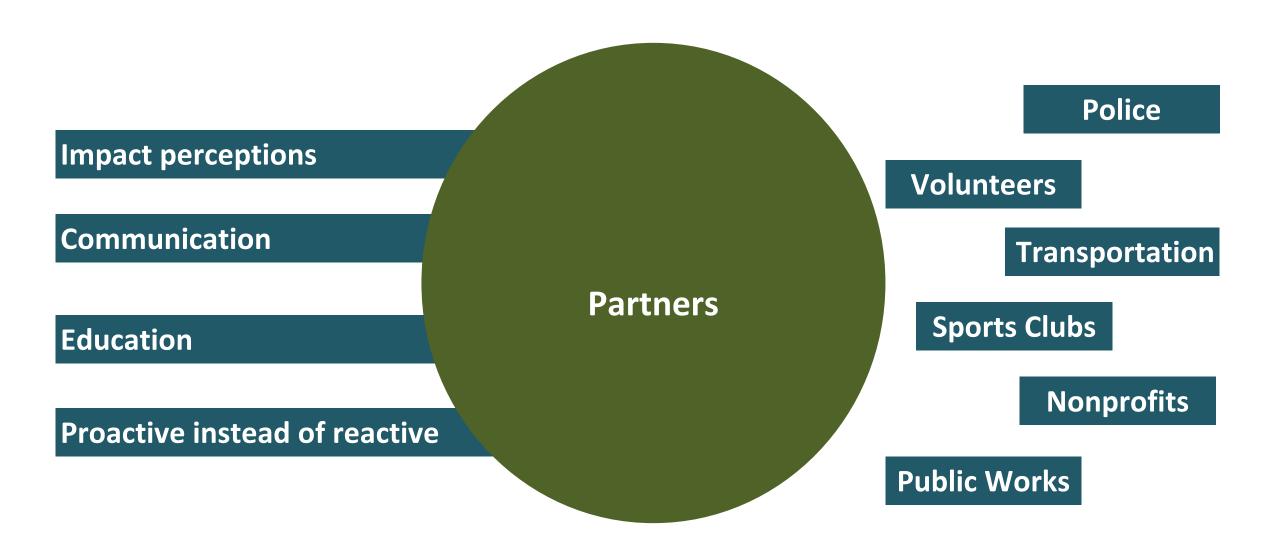
- Consistency
- Staff training/onboarding
- Safety
- Costs
- Deferred maintenance
- Sustainability
- Funders
- Big Picture
- Parks as lifecycle --not project or picture on map

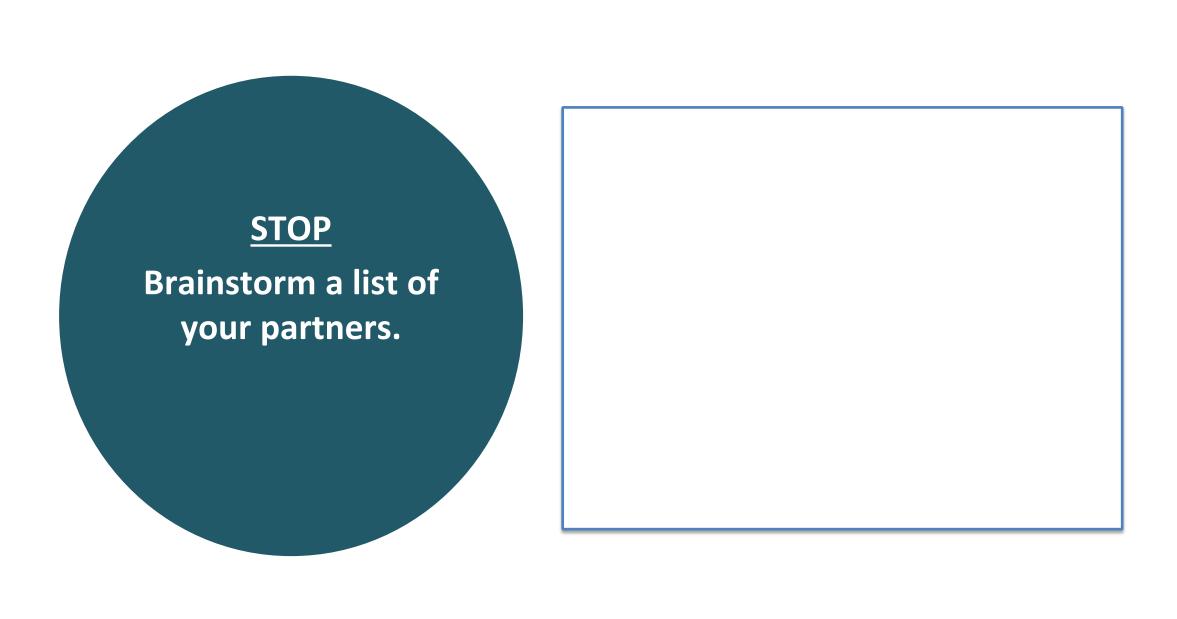
#### Proactive instead of reactive

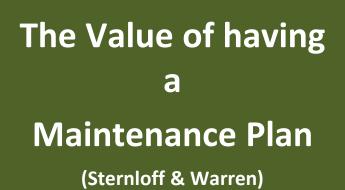
Maintenance Inspection Checklist					
Athletic Fields-Game and Practice Field Playing Surfaces					
Field:					
Date:					
	12-				
Inspected					
irrigation	1? Circle One: In-Ground Manual Micro-Rain Unit None  PLACE AN "X" NEXT TO THE ONE STATEMENT THAT BEST MATCHES YOUR OBSERVATION. MARK SECTIONS "N/A" THAT ARE NOT APPLICABLE.				
	A. Turf Density				
н	Field has a dense stand of grass and no bare areas are present.  Field has a dense stand of grass but thinning is evident in goal mouths, outfield player positions, and commonly expected wear areas.				
н	Field has good grass cover on most of the field but bare areas are evident in good mouths, outfield player positions, coach's bases, or like.				
н	Turf is thin or sparse on the majority of the field and bare areas are evident in goal mouths, outfield player positions, coach's boxes, or like.				
_	B. Turf Uniformity				
	Turf has a uniform dark green color and different turf species are blended evenly so the field is visually consistent.				
Н	Turf has a uniform dark green color but some patches of different turf species are noticeable.				
П	Turf has a medium green color with many patches of different species evident throughout the stand.				
	Turf is light green and many different grass species are unevenly blended to create a patchwork of grass cover.				
	Turf appearance was not judged because un-irrigated fields are dormant and off color.				
	C. Turf Weeds				
	Broadleaf weeds or annual grassy weeds are evident in less than 1% of stand.				
	Broadleaf weeds or annual grassy weeds are evident in less than 10% of the stand.				
	Turf shows significant populations of broadleaf weeds and annual grassy weeds covering 25% or more of the area.				
	D. Mowing and Trim				
	Turf is cut at an appropriate height for use and all trim in the playing area is no more than 30% higher than the mowed grass.				
ш	Turf is too high or low for the intended use and all trim in the playing area is no more than 30% higher than the mowed grass.				
$\Box$	Turf is too high or low for the intended use and all trim in the playing area is more than 50% higher than the mowed grass.				
_	E. Field Contour (Turf Areas Only)				
ш	Field is level and sloped or crowned to provide surface drainage of water away from the playing area.				
ш	Field is mostly level with some uneven high or low spots that will impede surface drainage.				
ш	Field is somewhat level but has multiple high or low spots that will impede surface drainage or drop offs that may be tripping hazards.				
ш	Field has many high and low areas that will impede surface drainage and drop offs that may be tripping hazards.				
	F. Field Contour (Baseball/Softball Infields Only)				
ш	Infield mix is level and slopes or is crowned to provide surface drainage of water away from the skin.				
н	Infield mix is mostly level but has some high and low spots around bases, pitching area, and homeplate.				
ш	Infield mix has significant high and low areas especially around bases, pitching area, and homepfate.				
	G. Pitching Mound (Baseball/Softball Fields Only)				
_	is the mound covered or is a cover evident in the vicinity? Circle one: YES NO				
ш	Mound is in good repair. Table around pitching rubber is intact. Landing area slope is correct.				
ш	Mound is in average state of repair and is shaped correctly. The table and slope show minor wear at the pitching rubber and landing area less than 3" deep.				
ш	Mound is badly worn and correct shape has degraded. There are wear areas at the pitching rubber and landing area 3" or deeper.				
	H. Field Transitions or "Lips" (Baseball/ Softball Fields Only)				
Н	The infield mix makes a smooth transition to the turf areas.				
Н	The infield mix to turf transition has a lip in some locations but does not exceed 3" high.				
ш	The infield mix to turf transition has a lip in many areas and some locations are at least 6" high.				
	CRANBERRY TOWNSHIP <b>built for you</b> .				



#	Question	0	1-3	4-6	7-9	10+	Responses,Total Responses
1	Foundation(s)	57.78%	38.52%	1.48%	1.48%	0.74%	135
2	Friend's Group(s)	55.00%	37.14%	5.00%	0.00%	2.86%	140
3	Sports Association(s)	20.99%	36.42%	31.48%	3.70%	7.41%	> 77% 162
4	Public Partnership(s) with schools	31.17%	55.84%	7.14%	1.30%	4.55%	> 67% 154
5	Public Partnership(s) with other public entities	42.95%	47.65%	4.70%	2.01%	2.68%	> 53% 149
6	Private Partnership(s)	61.43%	27.14%	5.71%	1.43%	4.29%	140
7	Formal Volunteer Organizations	37.82%	46.79%	8.33%	3.21%	3.85%	> 60% 156
8	Other	86.30%	8.22%	0.00%	0.00%	5.48%	73







Systematic Approach

**Guide and Justify Budget** 

Communication

#### **Components of a Plan**



Inventory

Task Identification

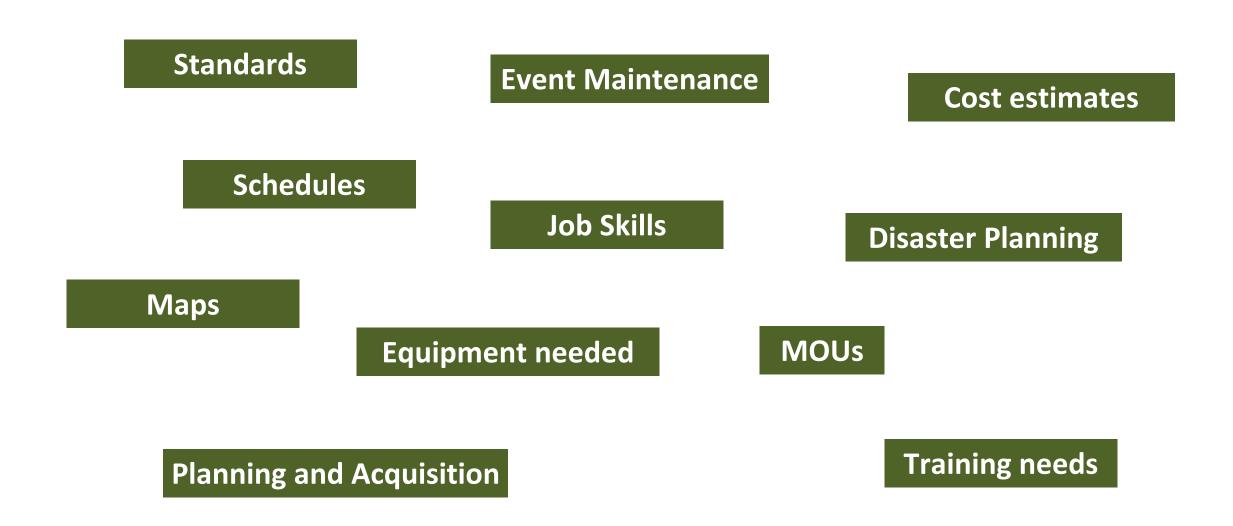
**Maintenance Instructions** 

Non routine maintenance

Assign Responsibility(ies)

(Sternloff & Warren)

#### **Additional Components**



#### **Additional Components- Modes/ Level of Service**



Well-Manicured Areas

Natural Areas

## Conceptual Continuum

Mode 1

Mode 2

Mode 3

Mode 4

Mode 5

Mode 6

**Examples of Modes** 

(NRPA)

#### **Additional Components**

"We have established a color system (Green, Yellow, Red) that ranks our parks based on maintenance needs, amenities and current condition. We also use the color index to rate the condition of those amenities that are within the parks."

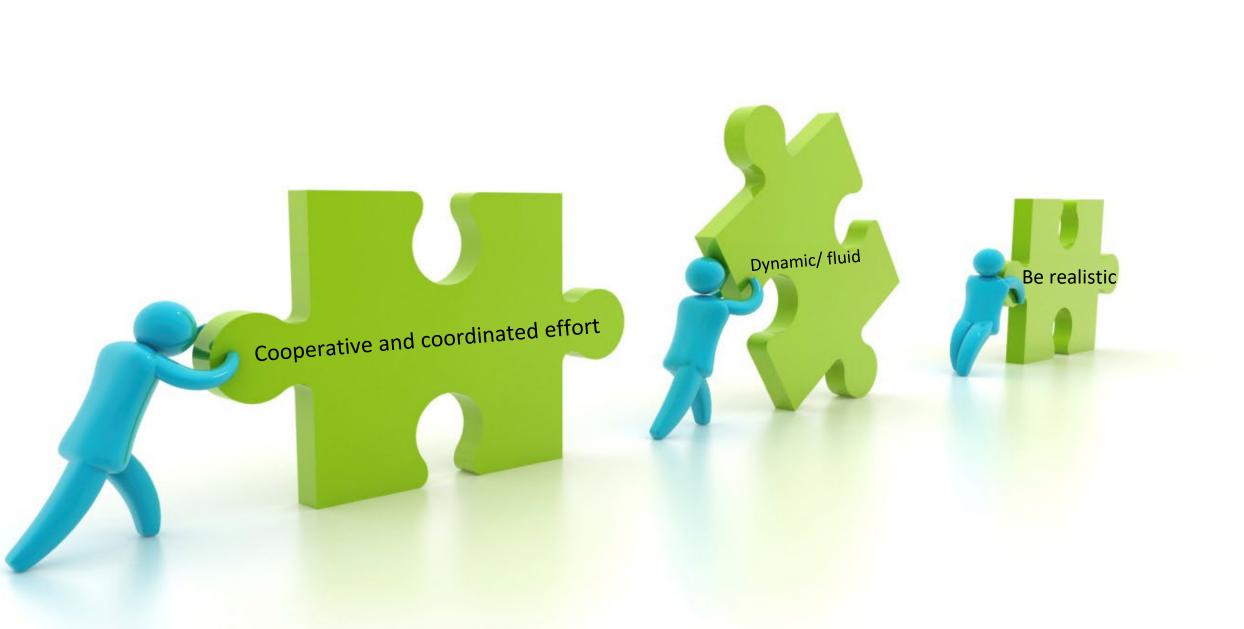
Our standards Green indicates that a particular park facility is at our highest level of care and the amenities are in good to new condition. Yellow indicates the park may be in need of some aesthetic repairs on various items, however they are at an acceptable level and could be maintained at that level based on age and appearance of amenities and the level of care provided. It would require new amenities and an increase in the level of care by adding human and capital resources to move the park to a GREEN designation and maintain it at that level. Repairs are done as necessary and/or when resources are available. All urgent items are addressed immediately.

(City of Rowlett)

#### **Maintenance Categories**

	Maintenance Inspection Ch	
	Athletic Fields-Game and Practice Fi	
d:		THE RESERVE OF THE PARTY OF THE
e:		Total
ect	ed By:	Turf
atio	on? Circle One: In-Ground Manual Micro-Rain Unit None PLACE AN "X" NEXT TO THE ONE STATEMENT THAT BEST MATCHES YOUR OBSERVAT	
	A. Turf Density	82 Acres Maintained
٦	Field has a dense stand of grass and no bare areas are present.	
╗	Field has a dense stand of grass but thinning is evident in goal mouths, outfield player position	35 Acres of Athletic Fields
┨	Field has good grass cover on most of the field but bare areas are evident in goal mouths, out	
_	Turf is thin or sparse on the majority of the held and bare areas are evident in goal mouths, of  B. Turf Uniformity	5 Levels of Maintenance
٦	Turf has a uniform dark green color and different turf species are blended evenly so the field is	
╗	Turf has a uniform dark green color but some patches of different turf species are noticeable.	
4	Turf has a medium green color with many patches of different species evident throughout the	
Н	Turf is light green and many different grass species are unevenly blended to create a patchwol  Turf appearance was not judged because un-irrigated fields are dormant and off color.	
_	C. Turf Weeds	Infield
┒	Broadleaf weeds or annual grassy weeds are evident in less than 1% of stand.	IIIIIGIU
4	Broadleaf weeds or annual grassy weeds are evident in less than 10% of the stand.	ZJ-L)
_	Turf shows significant populations of broadleaf weeds and annual grassy weeds covering 25%.  D. Mowing and Trim	5.4 Acres
٦	Turf is cut at an appropriate height for use and all trim in the playing area is no more than 30%	18 Fields
1	Turf is too high or low for the intended use and all trim in the playing area is no more than 30	18 Fields
J	Turf is too high or low for the intended use and all trim in the playing area is more than 50% h	
-	E. Field Contour (Turf Areas Only)	
Н	Field is rever and stoped or crowned to provide surface drainage of water away from the plays.  Field is mostly level with some uneven high or low soots that will impede surface drainage.	
╛	Field is somewhat level but has multiple high or low spots that will impede surface drainage or	
J	Field has many high and low areas that will impede surface drainage and drop offs that may be	
7	F. Field Contour (Baseball/Softball Inflields Only)  Infletd mix is level and slopes or is crowned to provide surface drainage of water away from the	Landson J O Turns
٦	Infield mix is rever and slopes or is crowned to provide surface dramage of water away from the infield mix is mostly level but has some high and low spots around bases, pitching area, and his	Landscaped & Trees
┚	infield mix has significant high and low areas especially around bases, pitching area, and home	
	G. Pitching Mound (Baseball/Softball Fields Only)	12 Acres Maintained
_	Is the mound covered or is a cover evident in the vicinity? Circle one: YES NO	
Н	Mound is in good repair. Table around pitching rubber is intact. Landing area slope is correct.  Mound is in average state of repair and is shaped correctly. The table and slope show minor s	Rev Road, Kyle Fields, Aggie Islands
╛	Mound is badly worn and correct shape has degraded. There are wear areas at the pitching ru	Tree Management
Ξ	H. Field Transitions or "Lips" (Baseball/ Softball Fields Only)	Tree Management
4	The infield mix makes a smooth transition to the turf areas.	
Н	The infield mix to turf transition has a lip in some locations but does not exceed 3" high.  The infield mix to turf transition has a lip in many areas and some locations are at least 6" high.	COLUMN TO THE PARTY OF THE PART
_		
	CRANBERRY TOWNSHIP b	
		Walldan Tuella
		Walking Trails
_		
		40.25 401 -
		19.25 Miles Total
		A STATE OF THE PARTY OF THE PAR
		Facilities & Amenities
		Facilities & Alliellities
		Playgrounds Lighting
		Restroom Buildings Parking Lots
		Dog Parks Sidewalks
		Picnic Shelters Fences
		Garbage & Recycling Benches
		darbage & receyening Deficites

City of Miami	City of Mi	ami Parks and Recreation D				
City of Miami		Park Safety	Appendix/Form y and Maintenance Checkli			
				_		
ARK SAFETY AND MAINTENANCE CHECKLIST						
ARR SAFETT AND MAINTENANCE CHECKEST						
ARK NAME:	LOCA	TION:				
ISPECTOR:	DATE	C	imple			
			IIIIbie			
Item to be Checked	oĸ	Deficiency N	•			
(Use the following page to record a brief description of the necessary repairs)	+			-		
A. Parking	+	<u> </u>		┥		
Even concrete/asphalt surface.     Adequate lighting (if park opens in the evenings).	+					
	+	<del> </del>				
Signage     Park name identification sign.	+		V 0 + 0 10			
Park hours of operation/rules posted clearly.	+		ysten			
Park nours of operation/rules posted cleany.     Walkways	+		7000			
Even walking surface, clear of debris.	+	1		7		
Ground level flushes with walking surface.	_	<b>+</b>		┥		
D. Fencing	+			┨		
Good condition, no openings.	$\top$			┪		
Top/Bottom of fence has no protruding, sharp edge	s.					
<ol><li>Playground separated from traffic lane by fencing.</li></ol>		$\Box$				
E. Restrooms	$\neg$	— P	artne	איני		
<ol> <li>Faucets/Dispensers in good condition.</li> </ol>	$\neg$		ai tiit			
<ol><li>Floors dry/free of debris.</li></ol>						
<ol><li>Door latch hardware in good condition.</li></ol>						
F. Playground						
<ol> <li>Placement of Equipment in accordance with CPSC standards.</li> </ol>						
<ol><li>Age-appropriate signage present.</li></ol>					to a contract to the contract	
Ground cover well maintained.		If this category continue to mo	an sta	arı	t small and creative	
4. Equipment in good condition, well as let also	+	If this category checke				
<ol> <li>Equipment in good condition, well-maintained.</li> </ol>	- 1	continue to more speci	cific			
	- 1	inspection document.		1		
<ol><li>Entrapment hazards on equipment.</li></ol>	$\neg$	If this category checke		7		
		continue to more speci inspection doc	ofic			
G. Other Park Features	-		CC			
<ol> <li>Picnic tables in good condition; no splinters or broke hardware.</li> </ol>	en	E	tticie	nt	& effective onboarding	
Water fountains in good condition; no broken	-					
hardware.	$\perp$					
<ol><li>Trash receptacles placed throughout park.</li></ol>						
<ol> <li>Barbecue grills in good condition.</li> </ol>				$\Box$		
<ol><li>Landscaping well maintained.</li></ol>				$\Box$		
<ol><li>Sprinkler system in good condition.</li></ol>				┙		
1. OTHER CONCERNS: (List them in a separate sheet of paper and attach it to this list.)						
38						



**Group Discussion** 

What are some easy ways you could incorporate CPTED into your park operations?

# Plan your work, and work you plan!

Other Planning Resources and Templates:

Parks-Maintenance-Guide (cranberrytownship.org)

Microsoft Word - 3B JS Park Maintenance Plan - attachment 1 (rowlett.tx.us)

Model of Efficiency | Operations | Parks and Recreation Magazine | NRPA

2021-agency-performance-review\_final.pdf (nrpa.org)