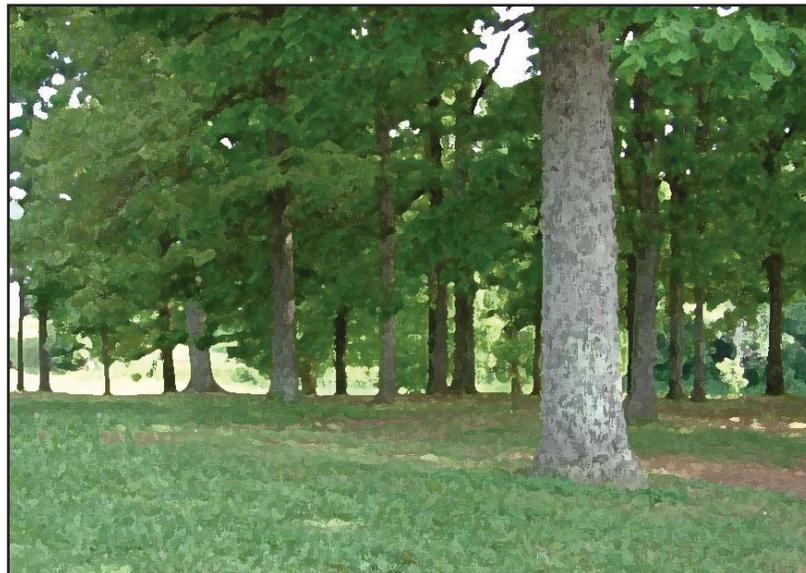


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# Lynchburg Three Parks Master Plan

Younger Park, College Park  
&  
Perrymont Park

Lynchburg, Virginia



*Prepared by:*

Land Planning and Design Associates

January 5, 2007

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# Younger Park

## Light Street

Dr. E. Franklin Younger formally donated Younger Park to the City of Lynchburg on October 16, 1952. A plaque noting the donation marks the park.

In an article in the *The News*, dated May 14, 1957, which details the dedication of the park on the previous day, Monday, May 13, 1957, an explanation for the naming of the park as “Younger Woods Park” is given by Mayor John L. Suttentfield. Mayor Suttentfield told the assemblage that the children of the neighborhood had named it “Younger Woods”. Also present at the ceremony were City Recreation Director, Floyd K. McKenna, City Manager Robert D. Morrison and Mrs. Morrison and Director James D. Wright of Lynchburg City Public Works. The property was evidently one of numerous holdings by Dr. E. Franklin Younger, who was a figure of, “...love and respect”, within the Fairview community of Lynchburg.

## Overall Goal

*Create a park setting for people to enjoy by improving the appearance, including a wide range of activities, and improving neighborhood access.*



# Younger Park



existing view of Younger Park

## Overview

Younger Woods Park sits tucked in among a neighborhood community, three blocks south of Campbell Avenue. Donated to the City of Lynchburg by Dr. Younger on October 16, 1952, the park is a hidden gem. It is a classic example of a neighborhood park which serves the citizens in the surrounding area.



Younger Park's Oak trees

## Current Condition

The 7.5 acre park is surrounded by neighborhood houses, many of which have back yards that abut the parkland. The site has public street access via Light Street off of which there is currently a small pull-off parking area. This is the “front door” to the park. Two other potential access points exist, one off of Nelson Street and one off of Gils Street. Both of these entrances are unopened right-of-ways that could be used as pedestrian access. The site is relatively flat by the Light Street entrance, becomes steeply sloped, then levels off to a sloping valley drainage. The steep slope is south facing. The site is a mix of open field and woods. A high quality stand of Oak exists on the site, central to the parcel. Scrub vegetation exists on the southeast and east side of the property.





analysis of the Younger Park site

Amenities existing on site currently include a basketball court and a small picnic area. The remains of a timber border and mulch area that was part of a playground exist half way down the slope in the center of the park. The playground has been recently removed because it had become unsafe. A stormwater drain line is located in the valley that probably serves the park and the neighborhood.

The basketball court is in fair condition but suffers from some drainage problems. The edge lines and free-throw lines are faded and barely visible. The picnic area, basically two tables and grill, is in a nice setting but there is some evidence that is a place for people to loiter. This is probably because it is separated from the major activity area. The feature of the highest quality on site is the Oak stand. Neighborhood connectivity is a problem for this park. Sidewalks do not exist and children walking to the

park currently would have to walk in the street. Furthermore, with only one entry point, residents as close as one block away from the south boundary (say Maryland Avenue) would have to walk entirely around the park to reach the current entry on Light Street.

**Public Input**

Neighborhood opinions of Younger Park were as we might expect for its type. The overall theme of the comments centered on the desire to create a nicer amenity for the neighborhood by improving access, appearance and amenities.



basketball court drainage problems

*“Bring back the playground”*

*“ One positive aspect of Younger Park is that it is on a dead end street, there is very little traffic for kids playing in the area.”*

*“Could be a great neighborhood park with some love.”*

*“Improve the basketball courts, children do use them.”*

*“Is there a better way to separate the neighbors from the park than chain link fence.”*



### Overall Improvements

The design of Younger Park centers the most active recreation on the upper area, which is easily accessible, close to the neighborhood, visible by police, and is developable, gently sloping land. Improvements shall be ADA accessible and park identification and rules signage should be added at entry points.

#### A The Upper Area

Most of the activities should be grouped in this area to offer the greatest access and to concentrate the development in one area. Add separate playgrounds for 5-12 year old children and 2-5 year old children, picnic areas, and a tricycle track. All play structures and site improvements shall be ADA accessible. The highly visible nature of this location will allow for easy police patrolling.

**B Create Off Street Parking**

Build a small parking lot entirely on park land to accommodate no more than 14 cars. Create accessible spaces and add lighting for night-time police patrols.

**C Create Access Points**

Open the right-of-way off of Nelson Street so that neighbors north of the park have a closer access point. The access should be a simple sidewalk with a fence on both sides to separate the neighbor's property from the park. Also look to create a connection off of Maryland Avenue if a vacant lot or easement exists. As a long-term recommendation, if possible, the city should study adding sidewalks to the neighborhood to provide safe access to the park.

**D Lawn Area**

Regrade the lower portion of the park to create a lawn for neighborhood kids to play on. This would be a great place to play pickup games of baseball or football. Overall area would be approximately 70 yards by 40 yards, but should be a natural shape so as not to create the appearance of an artificially graded athletic field.

**E Walking Trails**

Add asphalt walking trails to the park for use by the neighborhood residents. All walking trails shall be ADA accessible.

**F Better Define Parkland**

Add planting and trees so that the boundary between the park and the neighbors property is a more attractive edge. Remove the chain link fence and replace it with a more attractive board or decorative fence.

**G Orchard**

Add a demonstration orchard on the south-facing slope. This would compliment the oak woods and could provide another educational resource for the schools at little expense to the city. The local Master Gardeners or Tree Stewards may be a good partner to help in the planting upkeep of the orchard.

**H Preserve the Oak Woods**

The oak trees should be preserved and disturbance around them should be limited. Develop a management plan for the Oaks in the park to help their long term survival.



*existing park*



*proposed improvements*

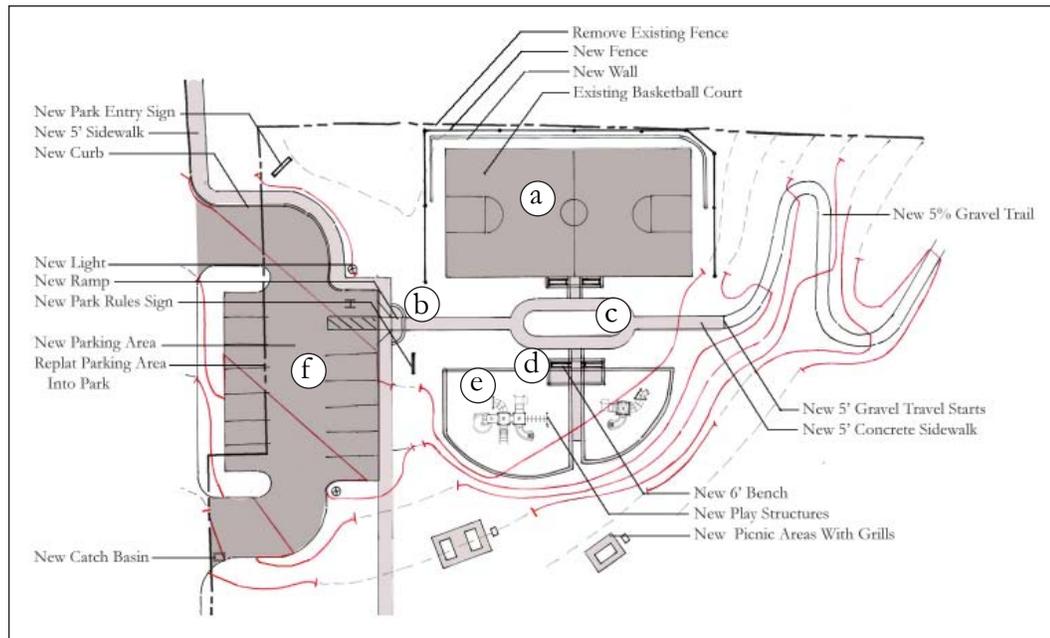
**Project Priorities**

Correct the drainage at the basketball court

Build the playground and upper area improvements

Add walking trails

Grade the field



### Upper Area Improvements

#### a Basketball Court

The drainage needs to be fixed around the courts. A french drain system should be installed to pick up water as it comes from upslope, on to the court. The courts should also be restriped. Long term, the court will need resurfacing.

#### b Landscaped Areas

Plant shrubs and perennials to add interest and improve the overall appearance of the park.

#### c Tricycle Track

As part of the entry, create a sidewalk loop for little children to ride tricycles, small bikes and other toys.

#### d Sitting Area

Incorporate seating into the central area so that mothers, fathers and grandparents can sit, and enjoy watching their children play.

#### e Playground

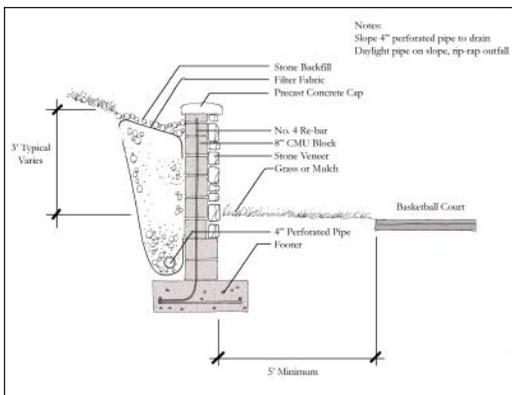
Put the playground back into the park's amenities, however, move its location from the slope to the upper area, making it more visible. This area does not need to be big; a play structure would only need to accommodate a small number of children here.

#### f Separate Parking

On site parking should be improved. There is no need to enlarge the size, however, if it were separated from the street, park boundaries would be better defined. Defining park property may help to eliminate the neighbor's use of the park as a personal parking area.

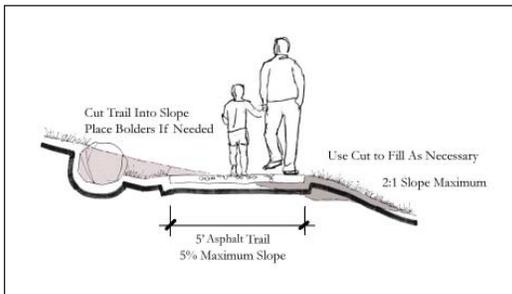


Upper Area Improvements



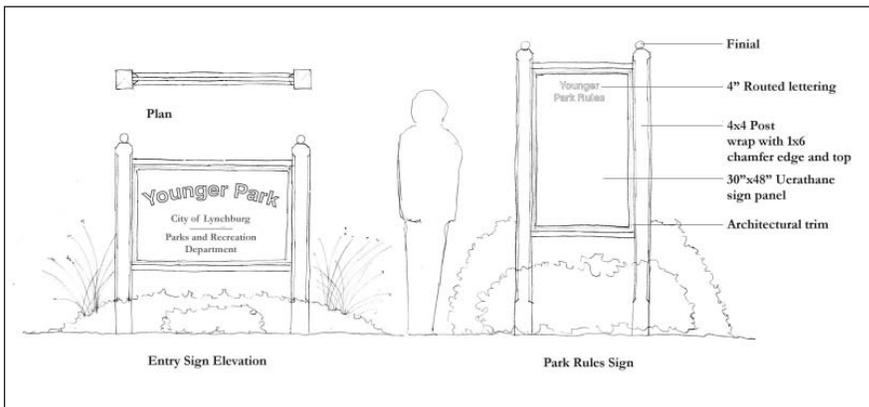
Wall Detail

Replace the existing timber wall with a more permanent system to help retain the slope and associated run-off from above the court. The wall needs a french drain wrapped in filter fabric under an adequate quantity of stone to catch water from above. Daylight the french drain on the slope and rip-rap the outfall.



Trail Improvements

Build the park's walking trail to meet ADA requirements. Where the trail descends steep slopes, create switch-backs by balancing cut and fill. Place small boulders on the downhill or uphill sides to act as a retaining wall.



Park Signage

Add an entry sign at the park's edge to notify the community that the space is a park. Also add a sign noting the park rules and regulations. Neighborhood park signs should match and be constructed of simple materials for ease of construction and maintenance.

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# College Park

## College Drive and Breckenbridge Street

The Board of Trustees of Lynchburg College sold College Park to the City of Lynchburg on February 16, 1962. The parcel of land, consisting of five (5) acres and located at College Drive and Breckenbridge Street was sold to the City for five dollars. Carl C. Gillespie, Chairman of the Board of Trustees at Lynchburg College presided over this sale. The resolution of the City Council reads,

A Resolution

Whereas, Lynchburg college, formerly

Virginia Christian College, has by deed dated Feb.6, 1962, conveyed to the city of Lynchburg the Parcel of land bounded by Richmond, Amelia and Breckenbridge Streets and College Drive; and

Whereas, while said deed does not contain Any condition, the college has advised Council That it was the intention of the College in Donating the property for \$5.00 and other valuable Considerations that the City should use the Property for park and playground purposes;  
NOW, THEREFORE, BE IT RESOLVED  
BY THE COUNCIL OF THE CITY OF LYNCHBURG:

That said deed from Lynchburg college To the city of Lynchburg, dated February 16, 1962, Be and the same is hereby accepted upon Condition that said parcel shall be used for Park and playground purposes by the city; and That the Clerk of Council cause a duly attested copy of this Resolution to be recorded in the Lynchburg clerk's Office Along with said deed.

Ow L. Bradford  
Clerk of Council

## Overall Goal

*Create a linear park space for neighbors to enjoy, while retaining, but renovating the existing storm water management areas into an active flowing natural system.*



# College Park



*panorama view of College Park*

### Overview

College Park suffers from a lack of identity. Several area citizens did not even realize that it is city park when asked about the area. The park's location, adjacent to Lynchburg College, is prominent, however, the park's long narrow rectangular shape limits development potential. Sometime in the late 1970's or early 1980's, a storm water detention component was added to the park. From a city-wide perspective, storm drainage is an important feature for the watershed and hydrologic system, however, from a neighborhood point of view, the current system causes problems.

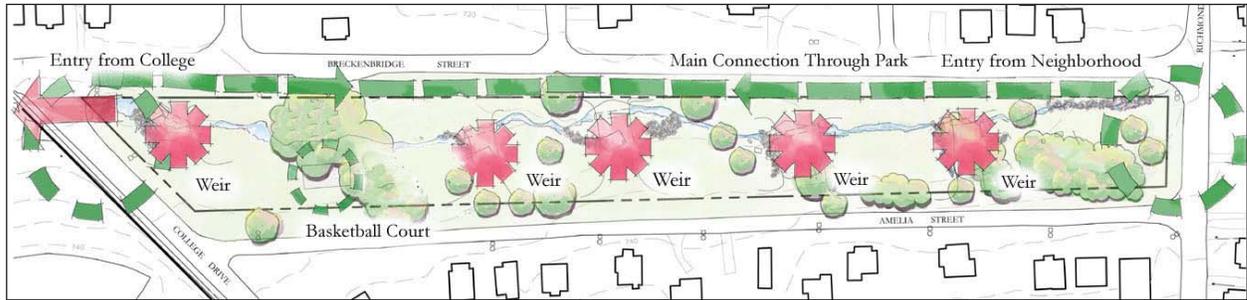


*spillway and detention area*

### Current Condition

College Park is a very long and narrow parcel that is approximately three acres in area. The park is bounded entirely by four streets, Breckenridge Street on the northeast, Amelia Street on the southwest, Richmond Street on the southeast and College Drive on the northwest. Baltimore, Cary and Macon Streets dead-end into the park at Breckenridge Street. A ravine running the length of the parcel is the major topographic feature and defining element in the park. The edges are generally steeply sloped, flattening out to a low drainage course in the middle.

The major built features of the park are the storm water spillways and detention areas. Storm water in urban environments is a major problem as water has fewer opportunities to enter into the ground, as it would in a farm field. Water runs off areas of hard surfaces, including roof tops, parking areas, and streets and concentrates in low areas. Increases in runoff burden urban streams



*analysis of the College Park site*

forced to carry more water. The increased volume causes erosion. Erosion increases silt discharge in larger watercourses and lakes. In addition to silt, urban drainage ways contain water that has higher levels of contaminants including, petroleum products, metals, and suspended solids. The use of the park as a storm water management area is a commendable goal. The improvements to date, however are an eyesore. A series of five earthen dams span the low flat areas. Concrete spillways bridge over the dams and convey water to rock-lined swales between the storage areas.

The structure and design of the stormwater management area causes some maintenance problems. The area is hard to mow or trim around because there are so many uneven edges. Steep slopes on the edge of the park are also hard to mow.

In addition some neighbors complain about mosquitoes in the summer time. The current storm system creates areas for water to stagnate and makes ideal mosquito breeding ground.

The recreational amenities in the park are limited to a basketball court.

There is a badminton net, put there most likely by neighbors, on a small flat area, but other opportunities for open field recreation simply do not exist.

Neighborhood connections in and around the park are also limited. There are no sidewalks on either side of the park property or the homes adjacent to the park making it hard for neighbors to reach the park via a safe route. In addition, once neighbors reach the park, there are no walkways in the park for people to use.

**Public Input**

The public input received at meetings focused on improving the appearance of the park and stormwater management system.



*view of rock drainage*

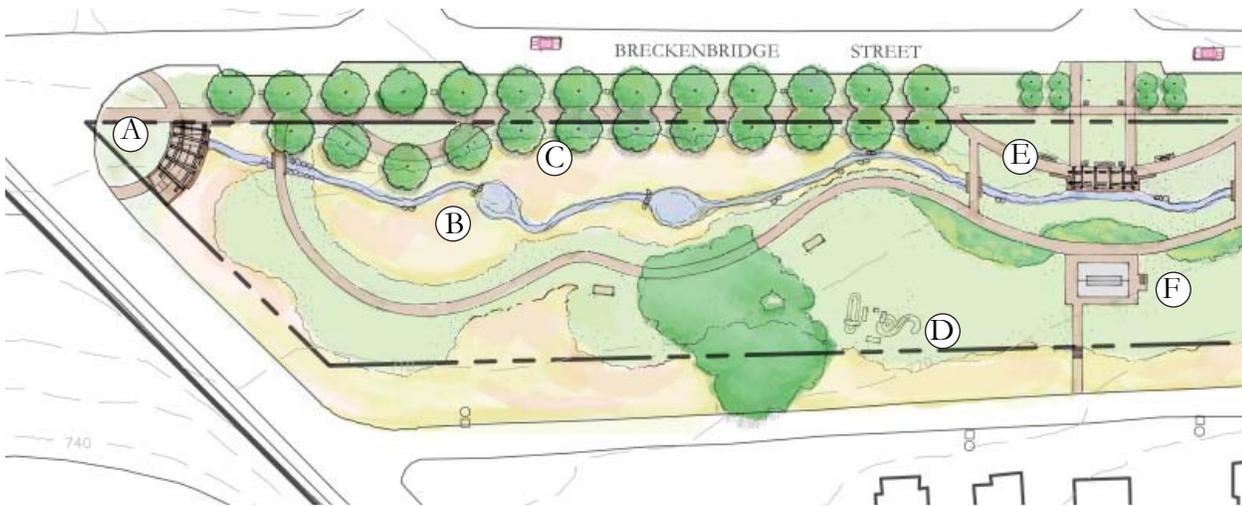
*“I never knew it was a park”*

*“The existing play equipment is very unsafe and too close to the water.”*

*“College Park has a curb appeal issue.”*

*“Improve the area so that people can use it more.”*

*“In the summer time, you cannot even sit on your porch because of the mosquitoes.”*



### Overall Improvements

The improvements to College Park center around the stream restoration, improved maintenance through native planting, and the promenade. Better neighborhood connections are also recommended. Improvements shall be ADA accessible and park identification and rules signage should be added at entry points.

#### A Entry

Improved entries on either side of the park will create a more welcoming feeling for pedestrians and vehicles alike. The major entry point, across from Lynchburg College could serve as a small plaza. A trellis structure would accentuate the edge and offer shade from hot summer exposure. Place a park sign at each entry. Place a park rules sign at the overlook.

#### B Stream Restoration

The stream's appearance needs improvement. The existing concrete weir system should be removed and an urban stream restored. The restored stream will have storm water management principles integrated into the design. Through more subtle grading, a more natural appearance could be restored to the area. The restoration will also allow for educational opportunities through signage and interpretation of urban run-off and ecology.

#### C Promenade

A strong pedestrian promenade will parallel Breckenridge Street. A tree-lined promenade would strengthen the edge and offer pedestrians a walking path across the park. As part of the promenade, add on street parking on Breckenridge Street. Define parking spaces with "curb bump-outs" which also are traffic calming measures.

#### D Creative Play Area

The creative play area is a space where children can use their imagination to create forts, castles, cities or limitless possibilities. Unlike structured play equipment, this play area would have fewer planned activities. The space could be rocks placed to look like ruins of a building or foundation, mounds of earth, or a sculptural piece for children to play on and around.



*an example of a creative playground in Los Angeles*



**E** Overlook Area

The overlook, aligned with Cary Street will become a major node of activity in the park design. Create a plaza area in which people can watch the revitalized stream and get close to the water safely. The overlook area should connect across the park to Amelia Street. Place a park rules sign in this area.

**F** Shelter

Construct a picnic shelter for use by neighborhood residents.



*an example of a craftsman style shelter*

**G** Garden

Plant a small perennial garden for the enjoyment of the neighborhood.

**H** Lawn Area/ Grass Vegetation

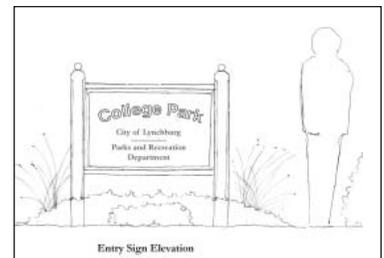
This park offers an excellent opportunity to try alternative maintenance techniques that focus efforts in areas that are easier and safer to maintain, and reduces it in areas that are difficult or dangerous. Traditional lawn areas should be limited to areas that are flat and alongside walking trails. Along the storm water areas and on steep slopes, native cool and warm season grasses should be planted. These grasses only need to be mowed twice a year, and will grow to 12” to 18” tall. This creates a distinct difference between the traditional lawn areas and the less formal (and problematic maintenance) areas. As part of these plantings, include interpretive signage to explain the maintenance.



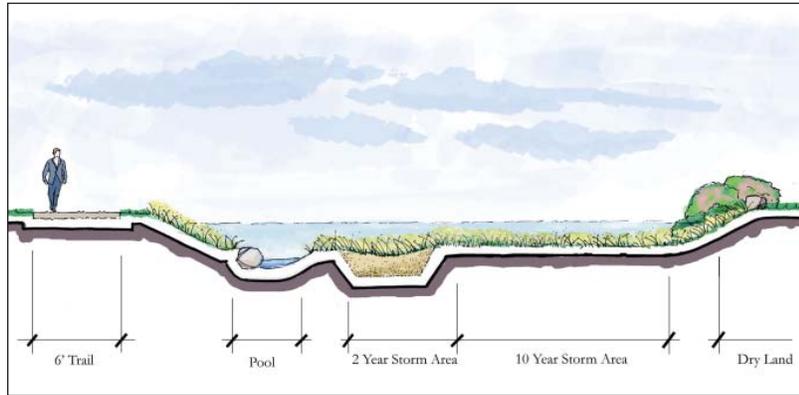
*sketch of garden*



*proposed bridge to cross stream*



*proposed entry sign*



## Stream Restoration

### Existing Stream Conditions

College Park is a linear park approximately 1200 feet long and 80 feet wide. It is bounded to the north by Breckenridge Street and to the south by Amelia Street. The site slopes steeply from south to north and gently from east to west down the stream valley. A stream flows from east to west through the park and has been channelized through all of the reach. The channel begins as a stormwater outfall from a 30" diameter pipe at Richmond Street.

Additionally, 5 areas in the park were constructed to detain storm flows. Berms with small diameter pipes carrying stream baseflow were constructed to back up water in shallow detention areas. Riprap and/or concrete spillways were constructed across the berms to pass high flows. This channelization and storm water management was likely installed to reduce peak flows to the Lynchburg College property immediately downstream of College Drive. There is no information regarding stream flow, design discharge or detention requirements for this system on record with the Lynchburg Department of Public Works.

The watershed draining to the culvert at Richmond Street is approximately 29 acres. Land cover is predominately small lot single family residential. The drainage area increases to approximately 35 acres at the stormwater outfall from Baltimore Street to the north. The drainage area for the stream leaving the park at College Drive is approximately 59 acres. Acreages are approximate because the actual routing of the stormwater system up-gradient is unknown without completion of a detailed drainage study.

### Design Parameters for Stream Restoration and Stormwater Management

The Rational Method was used to calculate the discharge for the 2, 10 and 100 year storms. The acreages noted above were used for the contributing watershed. The land cover condition was assumed to be residential; lots of 100,000sf (Source: VDOT)  $C=0.50$ . The time of concentration was calculated to be 5.2 minutes (using the formula for shallow concentrated flow in TR-55,  $T_t \text{ (hrs)} = L/3600V$  where  $L= 1200$  linear feet,  $V=3.8\text{fps}$  (watershed slope assumed to be 5.7%, unpaved; Figure 3.1; TR-55).

For the Rational Method, the time of concentration is equivalent to rainfall intensity on the Intensity-Duration-Frequency Curve for Lynchburg (VA state stormwater Manual). The discharge volume for the two watershed acreages is shown below for the design storms listed.

|      | 35 acres   | 59 acres   |
|------|------------|------------|
| Q2   | 96.25CFS   | 162.25 CFS |
| Q10  | 124.25 CFS | 209.45 CFS |
| Q100 | 168.88 CFS | 284.68 CFS |

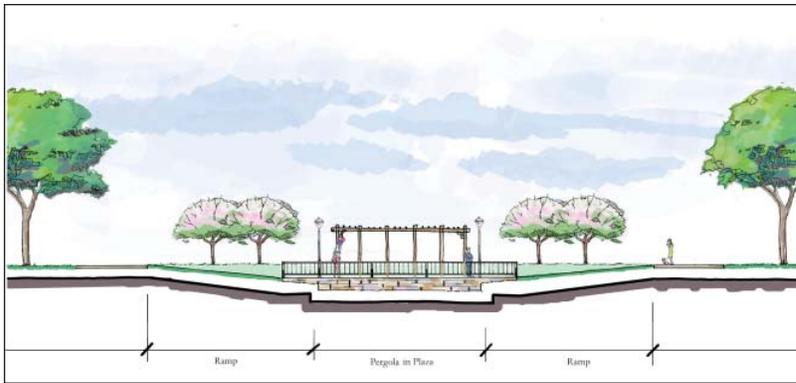
These discharges were used for the concept design. 35 acres seemed to be a logical breakpoint for an increase in channel cross section due to the small size of the contributing sub-watersheds downstream. Prior to detailed design of the channel or the stormwater features proposed with this concept, a more detailed hydrologic analysis will be required.

Conceptual Design

Construction of a natural channel, unimpeded by low flow pipes, berms, concrete and riprap would provide a significant amenity for College Park. Using sound principles of fluvial geomorphology developed by Leopold, Rosgen and others, a natural channel design is proposed. With a valley slope through the park, which exceeds 2.5%, a series of step/pools and riffle/runs is appropriate.

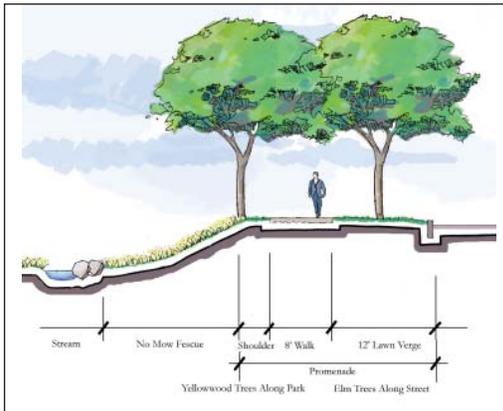
The step/pools are composed of boulders so they are very stable and aesthetically pleasing, functioning as plunge pools to slow down storm flows so they are not erosive. Over time small fish and amphibians will inhabit the pools. The riffle/runs are composed of cobbles and provide habitat for macro invertebrates.

Floodplain areas can be created to attenuate storm flows thus reducing the volume of water to the downstream area. Native plants attractive to wildlife can be planted in this riparian corridor to enhance the visitor’s experience in the park. The bioretention/pocket wetlands will filter the pollutants from the first flush of stormwater runoff. They can be planted with wild flowers and native shrubs resembling landscape planting beds, while functioning to uptake excess nutrients from the runoff.



**Overlook Elevation**

The overlook will be aligned with Cary Street in the center of the park. The plaza could be used for watching the stream and becomes a major node of activity in the park design. The shade trellis should be in a craftsman style to match the neighborhood housing. Place a park rules sign in this area.



**Promenade Section**

The promenade should deal with the grade change along the edge of the park while providing a safe and aesthetic walkway. Move the curb line on Breckenridge Street to allow more flat land for the promenade. Use traffic calming measures such as curb bump-outs to create designated on-street parking for the park.

**Project Priorities**

- Restore stream system
- Build the promenade, on street parking and overlook
- Add walking trails in the interior of the park
- Build shelter and garden
- Add a creative play space

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# Perrymont Park

409 Perrymont Avenue

Perrymont Park is located adjacent to Perrymont Elementary School on Perrymont Avenue. The park is sixteen (16) acres, and the property that now encompasses both the park and the school was sold to the City of Lynchburg on May 3, 1948, by Anne C. Glass, widow of Powell Glass, Sr., for \$25,000 dollars. The plat shows the area consisting of 36.13 acres, “more or less,” and is titled “Plat of Powell Glass, Orchard Tract, Lynchburg, Virginia”. The payment was made not to Anne C. Glass, but to Powell Glass, Jr., and Marianna Dupont Glass, his wife. The plat shows a residence on the property, presumably removed when the school, Perrymont Elementary, was built, in 1954.

## Overall Goal

*Create a neighborhood park that enhances the community and educational opportunities through a partnership with the Perrymont School.*



# Perrymont Park



*panorama view of Perrymont Park*

## Overview

Perrymont Park sits tucked back among the Perrymont neighborhood community and surrounding Perrymont Elementary School on two sides. The park's woods offer an interesting variation in city parkland. Considerable opportunities for educational programs exist in Perrymont Park as it is so close to the elementary school. Every effort should be taken to preserve and learn from the park's wonderful natural environment.



*trail through Perrymont Park woods*

## Current Condition

Perrymont Park is a 13.5-acre "L" shaped parcel of land that abuts Perrymont Elementary School. The park has little road frontage (190 feet) on Perrymont Avenue and is landlocked on all other sides. The majority of the site is a high quality oak woodland and has a small open lawn area next to Perrymont Avenue. Grades vary widely in the park. There is some very steep topography on the west, south and east sides of the park. The south side is the steepest and falls into a small ravine. This ravine is a small watershed draining from the school and street and is severely eroded. The central and northern part of the park gently slopes from a high point east, west and south.

There is a trail network existing on the site that is well maintained with



wood chips, circling the park. The trail is approximately 8’ wide in most places, which is more than adequate for two people to walk side by side. The trail generally stays on higher ground, however, in one part follows the above-mentioned ravine. This portion of trail has major erosion problems and is not pleasant to walk on in wet times of the year. Trails in drainage areas are a problem because they create increased compaction. The increased compaction creates a natural depression for water to follow. As soon as water begins to follow the compacted trail, there is an increase in erosion. This cycle of compaction and erosion compounds in a downward spiral. The only solution is to separate the two systems.

The only other improvement on site is two dilapidated tennis courts. The paving surface is unplayable and

the courts lack side and end lines. The courts’ location back against the woods and approximately 500’ from the road and sidewalk, make access difficult. They are remote and isolated.

Neighborhood connectivity to the park is difficult. There is no entry or walkways off of Perrymont Avenue. The sole entry is off of Meadow View Drive, where the street dead-ends. A small steel pipe gate blocks access of vehicles to the trail; pedestrian access bypasses the pipe gate around the sides. The trail crosses school property briefly for 75’ and then returns onto park property. No parking currently exists for this park.



*tennis courts at Perrymont Park*



*existing playground at school*



*existing parking at school*

### **Perrymont Elementary School**

The real opportunity for development of this property into a functioning park is a partnership with the school. Several citizens commented at the meetings that the park should be studied in conjunction with the school. This is an excellent idea. The concept of schools in parks is an idea that several area school districts have developed. It makes a lot of sense from a cost standpoint, as the facilities that schools use, are often the facilities that are in parks, like playgrounds, fields, courts, etc. If our schools serve the larger community, not just children and parents, but retired folks and single young adults too, the neighborhood feels a connection to the school.

The school site currently contains a sizable parking lot for approximately 55 cars, a group of playground equipment and two fenced play yards. Behind the school there is a baseball field. There is a small vegetable garden that is also close to the school on the west side.

Perrymont School's partnership with the Master Gardeners, who have planted the vegetable garden, creates several outdoor learning

opportunities for the school children. The garden is used for class projects by the children. The Master Gardeners have also just received a grant from the National Oceanographic and Atmospheric Center to create a demonstration wetland. The curriculum of environmental education could be expanded to include the park acreage and the woodlands on site.

An ad hoc partnership already exists between the Parks and Recreation Department and the school system. The Lynchburg Little League and Hill City Youth Football heavily use the existing ball fields in the summer and fall. The school's lot accommodates parking.

The idea of shared use is not without some problems. The police department, which has been included throughout the planning process, is concerned about access. They need to be able to differentiate between people who have legitimate business at the school and those who may be there to cause problems. Right now, unless a citizen has business at the school, the police could



### Public Input

arrest them for trespassing. This line is blurred when the school's grounds become a park, where all are welcome to visit. However, this issue seems to be one that can be worked out between the Parks and Recreation Department, Lynchburg City Schools, and the Lynchburg Police Department with new policies and good communication. Indeed all seem open to trying a partnership and at the time of this master plan, all parties are willing to entertain the idea of shared use.

Comments from the public meetings centered on three issues. Increasing access in, around, and to the park, via trails and walkways and increased parking was mentioned at several meetings. Participants stated the desire to combine the school parcel with the park for this master planning study. Lastly, the public thought that the natural resources on site were important to preserve.

*"Can the school property be included in this study as well?"*

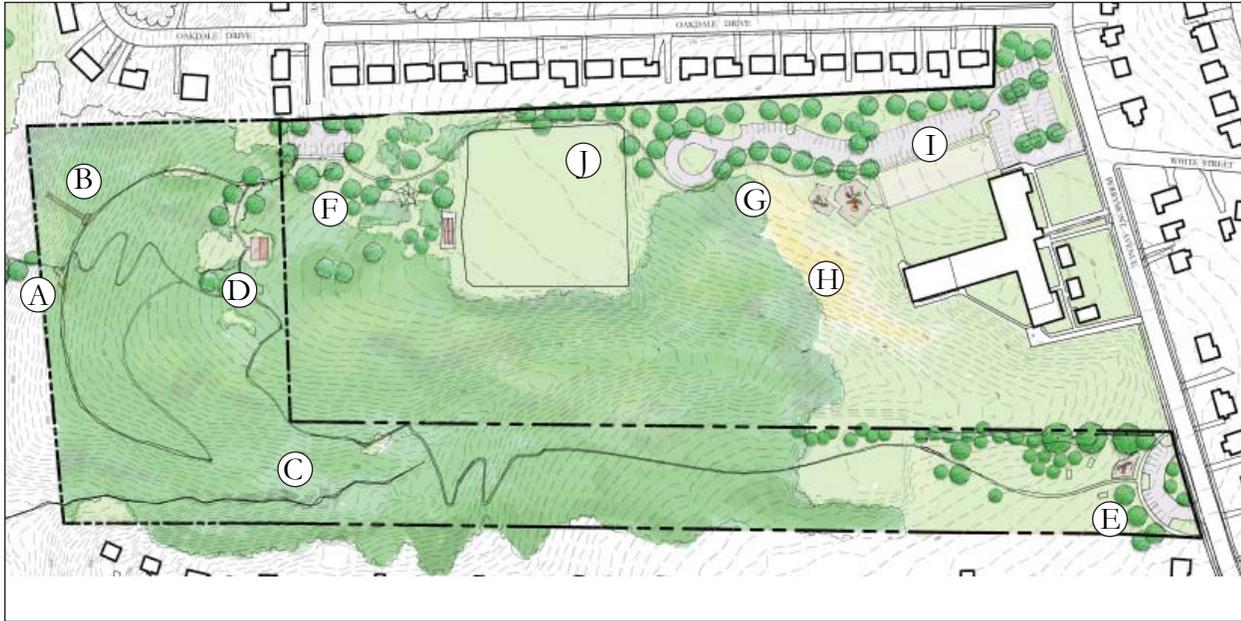
*"Put a walkway back to the ball fields."*

*"Improve the trail through the woods so more environmental education can be done here."*

*"Remove the tennis courts."*

*"Renovate the tennis courts."*

*"Can parking be added off of Meadow View Drive"*



### Overall Improvements Perrymont Park

Perrymont Park should be developed with a “natural” feeling and program that complements the site. It should feel as if it is a great Civilian Conservation Corps project of the 1930’s or a Virginia State Park within the city. Improvements shall be ADA accessible and park identification and rules signage should be added at entry points.

#### A Trail Connection

A trail connection should be added on the southwestern portion of the park that links to the Sandusky Park and James River Heritage Trail.

#### B Tree Canopy Walk

As part of the nature education component, a boardwalk should be constructed to reach the tree canopy that utilizes the existing slope. The level boardwalk will help to educate children on the wondrous creatures that live in trees. This component could be constructed of a simple deck/boardwalk system on the east-facing slope where the topography is steep.

#### C Remove Ravine Trail

The trail through the ravine should be removed from the low area to alleviate the constant erosion problems. If the trail is to be relocated, move it on top of the slope.

#### D Natural Shelter

A small natural shelter that accommodates up to 50 people should be constructed. This could be a place for after school activities with the Boy and Girl Scouts or similar groups. The construction of a shelter should disturb as few trees as possible.

**E Perrymont Avenue Access**

An access point to the park should be constructed that is part of the park trail system, that links to the sidewalk along Perrymont Avenue. Define the boundary between the park and school by adding fencing and a natural landscape hedge. This area should be the neighborhood component of the park. Place picnic tables, grills, and the like in this area. Consider a small play structure, also.

**School Property**

**F New Access**

A small parking area (8 to 10 cars) could be created off of Meadow View Drive. This small area would serve as handicap access to the shelters and offer the police a chance to view the area at nighttime to discourage illegal activities. Thin trees in this area to improve visual access to the park. Among the trees once the area is thinned, placed climbing type play structures.

**G Improve Parking and Circulation**

Reconfiguring the parking area and extending it would create a logical entry drive and shared parking facility with the school. The number of parking spaces could double.

**H Native Grassland Area**

Another constructed feature could be a planted native grass area. This area could reduce maintenance while providing another ecosystem to learn about. The slopes behind the school would be well suited for this element.

**I Separation Of Perrymont School**

If the new access drive is constructed, improvements should be made to further separate the school from the parking area using fencing and other Crime Prevention Through Environmental Design principles (CPTED).

**J Improve Fields**

The athletic fields should be improved and renovated. Portable rest rooms, bleachers and site amenities should be added for league use.

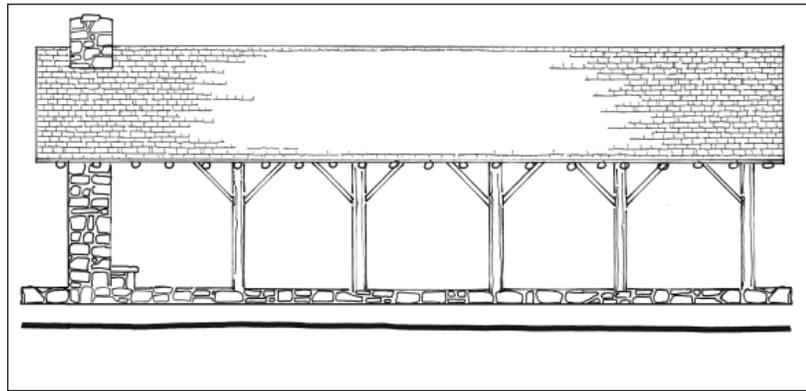
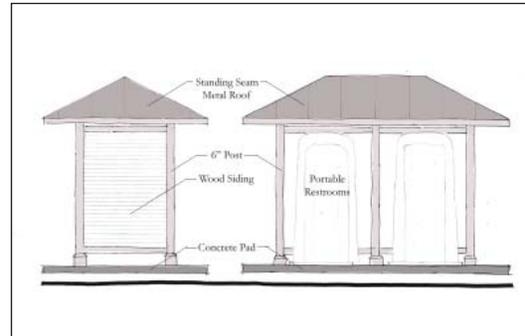


**Park Connections**

An opportunity exists to connect Perrymont Park with Sandusky Park to the northwest.

### Portable Restroom Screen

Add several portable rest rooms by the playfields. Place them on a concrete pad with wood screen walls as an aesthetic improvement. A roof will help protect them from the weather.



### Project Priorities

- Continue the relationship with the school
- Apply CPTED principles to define school property
- Remove the ravine trail
- Develop access and build shelter
- Build trail connection and parking on Perrymont Avenue

### Natural Pavillion

Place a medium or large shelter in the woods close to the new parking and entry. The shelter should be made of natural stone and wood. The design sketched above is based on a Virginia State Parks shelter built during the Civilian Conservation Corps era.

### Canopy Walk

Build a boardwalk into the tree canopy to offer a new view into the plants and animals that live in the tree canopy. Position the canopy walk to take advantage of the steep slope on the west side of the park.



CPTED Principles  
*for*  
Younger Park  
College Park  
Perrymont Park

## **Overview**

Crime prevention through environmental design (CPTED) considers how the design of a place and the way that it is used work together to create safe homes, schools, parks and neighborhoods. Note that design is just one-half of the equation. CPTED is not only about design because design does not cause good or bad behaviors. Rather, CPTED recognizes that design can provide opportunities for certain behaviors, but what ultimately happens is a function of who uses a place and what they do when they are there. Rules, regulations, policies and procedures, therefore, also play an important role in preventing crime.

The information contained in this report is based on interviews with Lynchburg Police. Each of the supervisors responsible for the park has been interviewed as well as the community policing officer.

The three focus points of CPTED principles have been utilized in the master plan in an attempt to curb some of the petty crime that is occurring currently in the neighborhood parks. These focus points and how they have been applied to the master plan are outlined below.

## **An Introduction to Crime Prevention Through Environmental Design**

Crime is an issue for many communities across the United States today. Crime rates have been on the decline for a decade or more and preliminary data for 2002 indicated a slight decrease in crime nationally. Even so, many people remain fearful, regardless of what the statistics may say.

Local law enforcement agencies are tasked with reducing both the number of crimes committed and the overall impact that crime and fear have on the quality of life for the communities they serve. They have employed a variety of strategies to this end: collaborating with local residents in community-oriented policing programs; adopting the analysis and evaluation techniques of problem oriented policing; or targeting patrol or other law enforcement resources to specific types of crime problems or crime locations. Crime prevention is often an essential component of their work.

### **What is crime prevention?**

Crime prevention is defined as “the anticipation, recognition and appraisal of a crime risk, and the initiation of some action to remove or reduce it.” A successful crime prevention project includes the following five steps:

1. Collect data about crime and the communities where crimes are taking place. This includes information on neighborhood demographics, land use, housing, transportation, business and employment, and public services.
2. Analyze the information to understand what physical, social, economic, or other conditions may be contributing to the crime problem.
3. Identify alternative strategies for addressing problems, and evaluate the technical, legal, and fiscal feasibility of implementing each strategy.
4. Put the most promising and feasible measure(s) into place. A combination of immediate/short-term improvements, and long-term investment may be required.
5. Monitor progress and decide if the process needs to be repeated.

Crime is a function of three things: motive, ability and opportunity. In most cases, we cannot change a person’s motivation, nor can we limit his/her ability to commit a crime. Therefore, crime prevention must focus on removing or reducing the opportunities for crime that are available to a motivated offender.

Research on crime and criminals has shown that the best crime opportunities are in places where no one can see what is going on and where no one is likely to report a problem – but where the offender benefits almost immediately from his/her actions. Most offenders find these places as a part of their daily activities and routines, and they tend to commit crimes in places they know well. These are places (1) near home, work, school, shopping or other locations they visit frequently; or (2) along streets, in parking lots, or around transit stops they use regularly. As regular users of these places, offenders gain an understanding of available targets as well as the potential risks of being seen, reported and apprehended.

So, to prevent crime, we need to increase the amount of effort required, increase the risk of being seen, identified, reported, and apprehended, and remove or reduce any rewards that might accrue to the offender.

### **What is crime prevention through environmental design?**

Crime prevention through environmental design, or CPTED (sep-ted), is a set of strategies that reduce the opportunities for crime that are available around neighborhood, on a site or in a building. “Traditional” crime prevention and security measures are directed at target hardening, i.e., denying access to a target using locks and bars, or using sensors and cameras to detect and identify an offender. Target hardening measures are frequently supported by private security.

## CPTED Principles

- 1 natural access control
- 2 natural surveillance
- 3 territorial reinforcement

Unlike target hardening, crime prevention through environmental design addresses those aspects of the physical environment that offer opportunities for crimes to be committed. CPTED evaluates the design and use of a place and whether they provide or contribute to: (1) natural access control, (2) natural surveillance or (3) territorial reinforcement.

Natural access control takes advantage of various elements in the design to direct and control movement and to define appropriate behaviors. The perception of access control is enhanced by installing walls, columns, or other elements that define the entry and/or the boundaries of the neighborhood; and using plants, lighting, signs and other landscape materials that establish a unique identity for the neighborhood.

Site and building design must ensure that users can see and be seen, which is referred to as natural surveillance. Opportunities for natural surveillance are enhanced by the proper selection and placement of landscaping, lighting and windows.

Territorial reinforcement means that design elements are used to help distinguish between public and private spaces. Territories can be defined a number of different ways.

Good territorial design needs to be complemented by the attitudes and behaviors of park users. The park should show signs of ownership like gardens, artwork or lawn furniture. Yards and homes around the park also need to be well maintained, clean and in working order, because this sends a message of arrival or welcome to people who belong. It says people around the park are active in the area. It also warns offenders that someone cares and someone is paying attention, and it deters unwanted entry or other problem behaviors. Examples of each principle are illustrated on following pages.

It is important to remember that while crime prevention through environmental design strives to remove or reduce opportunities for crime, the application of CPTED strategies is no guarantee that a place will become or remain crime-free. This is because crime is ultimately a function of human motivation and action, something that design can impact, but not control. Crime prevention through environmental design is simply a tool to help local residents protect and care for themselves, their families, their homes and their communities.

## Examples of NATURAL ACCESS CONTROL



Limiting the number of places to get in and out of the neighborhood doesn't prevent anyone from visiting, but it stops cut-through traffic.



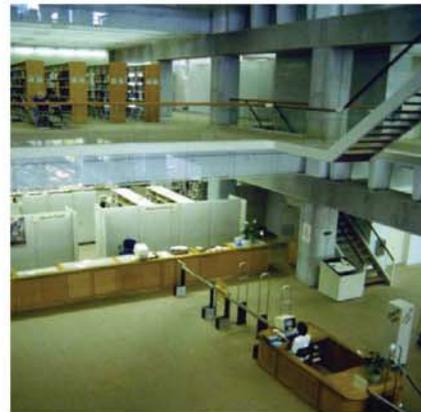
Fences, sidewalks, planter beds and gardens (including hedges and tree lines) define the boundary between public space and private yard – and help to keep people on the right path.



Walls and gates are more substantial, and are used when it must be clear where one property ends and another begins, or when it is essential to prevent access to property under any circumstances.



Signs help people to know where they are and who belongs in the neighborhood.



People who normally work in, live in, or use a place/space can provide access control by monitoring movement and observing activity – and reporting unwanted behaviors to the appropriate authorities.

## Examples of NATURAL SURVEILLANCE



When buildings face the street, residents can see activity along the street and the sidewalks, especially if the homes include front porches.



The right mix of flowers, shrubs, trees, and fences provides beauty, shade and privacy -- and still allows people to see around the yard and the neighborhood.



Windows are an important part of natural surveillance, and good lighting is critical in order for residents and pedestrians to be able to see after dark. Location, pole height, fixture style and lamp type are important to consider.

## Examples of TERRITORIAL REINFORCEMENT



Changes in elevation, like hills or steps, can be used to reinforce the transition from public street and sidewalk, to private yard, porch and home.

Clustering units around a courtyard or a parking lot sends a message that those areas belong to specific residents.



Different types of paving materials and surface treatments can be used to define different territories.



Planter boxes, awnings and other design elements can be used to assign territory to individual apartment units.

CPTED principles were applied to the Three Parks Master Plan throughout the design process. The police department played an important role by providing data and insight into the parks usage and crimes that are committed on park property. They also provided suggestions and ideas into park design. Specific examples of how the three Crime Prevention Through Environmental Design principles are applied in the master plan include:

### **Younger Park**

Natural Access Control:

- Added entry signage to designated entry points
- Separated parking making it a individual component of the park
- Added site lighting at entries to define the areas at night.
- Added designated neighborhood entry points

Natural Surveillance:

- Increased neighborhood access to park increasing community ownership.
- Located park amenities on the high point allowing surveillance from the neighborhood and street
- Improved the facilities to draw park users back to the park. Increased activity means more “eyes in the park” unknowingly acting as citizen patrols.

Territorial reinforcement:

- Changing park paving materials to designate to users that they have entered park areas

### **College Park**

Natural Access Control:

- Added entry points at the ends creating designated entry points

Natural Surveillance:

- Added the promenade walk improving pedestrian activity
- Improved the walking loops to draw park users back to the park. Increased activity means more “eyes in the park” unknowingly acting as citizen patrols.
- Removed the problem water impoundments

Territorial reinforcement:

- Changing park paving materials to designate to users that they have entered park areas
- Designed the park theme to reflect the neighborhood’s craftsman style creating an identity for the area.

### **Perrymont Park**

#### Natural Access Control:

- Added fences and landscaping at designated entry points
- Clarified entry points and added a new entry on Perrymont Avenue creating better access for the neighborhood.

#### Natural Surveillance:

- Added a small neighborhood parking lot that can be patrolled by police.
- Linked the park and school grounds to increase a sense of community ownership
- Created a connection to Sandusky Park to draw added park users.

#### Territorial reinforcement:

- Partner with the Perrymont school to create a unified sense of territory.
- Changing park paving materials to designate to users that they have entered park areas

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Opinions of Probable Cost  
*for*  
Younger Park  
College Park  
Perrymont Park

## Three Parks

Lynchburg, Virginia

### Master Plan Unit Costs

1/5/2007

Prepared By: Land Planning and Design Associates Inc. Charlottesville, VA

| <b>1</b> | <b><i>Early Site Work Costs</i></b>          | <b><i>UNIT</i></b> | <b><i>UNIT PRICE</i></b> |
|----------|--|--------------------|--------------------------|
|          | Mobilization, Bonds, Permits, etc.           | LS                 | 15% Total                |
|          | E&S  | AC                 | \$5,000                  |
|          | Tree Removal - 24" + stump                   | EA                 | \$700                    |
|          | Concrete Demolition - no rebar               | SF                 | \$2                      |
|          | Asphalt Removal                              | SY                 | \$5                      |
|          | Grading - cut and fill on site               | CY                 | \$5                      |
|          | Grading - hauling fill                       | CY                 | \$15                     |
|          |  |                    |                          |
| <b>2</b> | <b><i>Site Hardscape Improvements</i></b>    | <b><i>UNIT</i></b> | <b><i>UNIT PRICE</i></b> |
|          | Stone Walls                                  | SF                 | \$75                     |
|          | Ornamental Fence                             | LF                 | \$20                     |
|          | Protective Railing                           | LF                 | \$50                     |
|          | Unit Paving                                  | SF                 | \$20                     |
|          | Exposed Aggregate Concrete Paving            | SF                 | \$8                      |
|          | Concrete Paving                              | SF                 | \$5                      |
|          | Parking Area - paving, striping              | EA                 | \$1,500                  |
|          | Asphalt Paving                               | SY                 | \$20                     |
|          | Steps  | LF                 | \$150                    |
|          | Step Handrail                                | LF                 | \$50                     |
|          |  |                    |                          |
| <b>3</b> | <b><i>Site Amenities</i></b>                 | <b><i>UNIT</i></b> | <b><i>UNIT PRICE</i></b> |
|          | Multipurpose Building - no site work         | SF                 | \$125                    |
|          | Basketball Court                             | EA                 | \$60,000                 |
|          | Shelter - not prefabricated                  | EA                 | \$30,000                 |
|          | Trellis - 8' x 8' x 24'                      | EA                 | \$15,000                 |
|          | Shade Structure - 10'x10'                    | EA                 | \$10,000                 |
|          | Site Lighting - pedestrian scale, no conduit | EA                 | \$2,500                  |
|          | Entrance Sign Lighting                       | EA                 | \$1,000                  |
|          | Bench  | EA                 | \$2,000                  |
|          | Trash Receptacles                            | EA                 | \$1,500                  |
|          | Park Rules Sign                              | EA                 | \$1,500                  |
|          | Entry Sign                                   | EA                 | \$1,500                  |
|          |  |                    |                          |
| <b>4</b> | <b><i>Park Avenue Area</i></b>               | <b><i>UNIT</i></b> | <b><i>UNIT PRICE</i></b> |
|          | Shade Trees                                  | EA                 | \$450                    |
|          | Evergreen Trees                              | EA                 | \$350                    |
|          | Ornamental Trees                             | EA                 | \$250                    |
|          | Shrubs-Large                                 | EA                 | \$75                     |
|          | Shrubs-medium                                | EA                 | \$45                     |
|          | Perennial                                    | EA                 | \$15                     |
|          | Bed Prep                                     | CY                 | \$50                     |
|          | Mulch- 3" depth                              | CY                 | \$50                     |
|          |  |                    |                          |
| <b>5</b> | <b><i>Additional Items</i></b>               | <b><i>UNIT</i></b> | <b><i>UNIT PRICE</i></b> |
|          | Design Fees                                  | LS                 | 10%                      |
|          | Contingency - during planning                | LS                 | 15%                      |
|          | Contingency - during design                  | LS                 | 10%                      |

### Three Parks

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Lynchburg, Virginia

Preliminary Opinion of Probable Cost

1/5/2007

Prepared By: Land Planning and Design Associates Inc. Charlottesville, VA

|   |                |    |              |
|---|----------------|----|--------------|
| 1 | Younger Park   | \$ | 425,000.00   |
| 2 | College Park   | \$ | 1,035,000.00 |
| 3 | Perrymont Park | \$ | 615,000.00   |

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|   |                 |                     |
|---|-----------------|---------------------|
| <b>Total Opinion of Construction Cost</b> | <b>TOTAL \$</b> | <b>2,075,000.00</b> |
|---|-----------------|---------------------|

This opinion of probable cost is based upon Master Plans dated January 5, 2007

Work does not account for utility relocation, or unforeseen site conditions.

### Three Parks

Lynchburg, Virginia

Preliminary Opinion of Probable Cost

1/5/2007

Prepared By: Land Planning and Design Associates Inc. Charlottesville, VA

| <i>Younger Park</i>                          | <i>QTY.</i> | <i>UNIT</i> | <i>UNIT PRICE</i> | <i>TOTAL</i>         |
|--|-------------|-------------|-------------------|----------------------|
| <b>1 Early Site Work Costs</b>               |             |             |                   |                      |
| Mobilization, Bonds, Permits, etc.           | 1           | LS          | 15% of subtotal   | \$ 46,000.00         |
| E&S  | 2           | AC          | \$5,000           | \$ 10,000.00         |
| General Site Preparation                     | 1           | LS          | \$2,000           | \$ 2,000.00          |
| Asphalt Removal                              | 500         | SY          | \$5               | \$ 2,500.00          |
| Grading - cut and fill on site               | 500         | CY          | \$5               | \$ 2,500.00          |
|  |             |             |                   | \$ 63,000.00         |
| <b>2 Site Hardscape Improvements</b>         |             |             |                   |                      |
| Parking Area                                 | 13          | EA          | \$1,500           | \$ 19,500.00         |
| Resurface Basketball Court                   | 4000        | SF          | \$3               | \$ 12,000.00         |
| Stone Walls                                  | 340         | SF          | \$75              | \$ 25,500.00         |
| Entry Area                                   | 1           | EA          | \$5,000           | \$ 5,000.00          |
| Playground 5-12 year olds                    | 1           | EA          | \$40,000          | \$ 40,000.00         |
| Playground 2-5 year olds                     | 1           | EA          | \$30,000          | \$ 30,000.00         |
| Trail Paving                                 | 15000       | SF          | \$3               | \$ 45,000.00         |
| Asphalt Paving                               | 1100        | SY          | \$20              | \$ 22,000.00         |
| Open Field Area                              | 3600        | SF          | \$3               | \$ 10,800.00         |
|  |             |             |                   | \$ 209,800.00        |
| <b>3 Site Amenities</b>                      |             |             |                   |                      |
| Site Lighting - pedestrian scale, no conduit | 4           | EA          | \$2,500           | \$ 10,000.00         |
| Entrance Sign Lighting                       | 2           | EA          | \$1,000           | \$ 2,000.00          |
| Bench  | 4           | EA          | \$2,000           | \$ 8,000.00          |
| Trash Receptacles                            | 2           | EA          | \$1,500           | \$ 3,000.00          |
| Picnic Area                                  | 2           | EA          | \$4,000           | \$ 8,000.00          |
| Park Rules Sign                              | 1           | EA          | \$1,500           | \$ 1,500.00          |
| Entry Sign                                   | 1           | EA          | \$1,500           | \$ 1,500.00          |
|  |             |             |                   | \$ 34,000.00         |
| <b>4 Landscape</b>                           |             |             |                   |                      |
| Shade Trees                                  | 31          | EA          | \$450             | \$ 13,950.00         |
| Orchard Trees                                | 10          | EA          | \$250             | \$ 2,500.00          |
| Shrubs-Large                                 | 50          | EA          | \$75              | \$ 3,750.00          |
| Shrubs-medium                                | 50          | EA          | \$45              | \$ 2,250.00          |
| Perennial                                    | 100         | EA          | \$15              | \$ 1,500.00          |
| Bed Prep                                     | 100         | CY          | \$50              | \$ 5,000.00          |
| Mulch- 3" depth                              | 50          | CY          | \$50              | \$ 2,500.00          |
|  |             |             |                   | \$ 31,450.00         |
|  |             |             | <b>Subtotal</b>   | <b>\$ 338,250.00</b> |
| <b>5 Additional Items</b>                    |             |             |                   |                      |
| Design Fees                                  |             | LS          | 10%               | \$ 34,750.00         |
| Contingency - during planning                |             | LS          | 15%               | \$ 52,000.00         |
|  |             |             |                   | <b>\$ 425,000.00</b> |

This opinion of probable cost is based upon Master Plans dated January 5, 2007

Work does not account for utility relocation, or unforeseen site conditions.

All opinions are not valid after 6 months from issues date.

### Three Parks

Lynchburg, Virginia

Preliminary Opinion of Probable Cost

1/5/2007

Prepared By: Land Planning and Design Associates Inc. Charlottesville, VA

| <i>College Park</i>                          | <i>QTY.</i> | <i>UNIT</i> | <i>UNIT PRICE</i> | <i>TOTAL</i>           |
|--|-------------|-------------|-------------------|------------------------|
| <b>1 Early Site Work Costs</b>               |             |             |                   |                        |
| Mobilization, Bonds, Permits, etc.           | 1           | LS          | 15% of subtotal   | \$ 110,500.00          |
| E&S  | 1           | AC          | \$5,000           | \$ 5,000.00            |
| General Site Preparation                     | 1           | LS          | \$2,000           | \$ 2,000.00            |
| Concrete Removal                             | 2000        | SF          | \$1               | \$ 2,000.00            |
| Grading - cut and fill on site               | 500         | CY          | \$5               | \$ 2,500.00            |
|  |             |             |                   | \$ 122,000.00          |
| <b>2 Site Hardscape Improvements</b>         |             |             |                   |                        |
| On Street Parking Area                       | 39          | EA          | \$1,500           | \$ 58,500.00           |
| Main Entry Area                              | 1           | SF          | \$5,000           | \$ 5,000.00            |
| Entry Trellis                                | 1           | EA          | \$10,000          | \$ 10,000.00           |
| Pergola at Overlook                          | 1           | EA          | \$20,000          | \$ 20,000.00           |
| Overlook                                     | 2000        | SF          | \$15              | \$ 30,000.00           |
| Promenade                                    | 1100        | LF          | \$60              | \$ 66,000.00           |
| Creative Play Area                           | 1           | EA          | \$25,000          | \$ 25,000.00           |
| Steps  | 50          | LF          | \$200             | \$ 10,000.00           |
| Asphalt Paving                               | 850         | SY          | \$20              | \$ 17,000.00           |
| Stream Restoration                           | 1200        | LF          | \$250             | \$ 300,000.00          |
|  |             |             |                   | \$ 541,500.00          |
| <b>3 Site Amenities</b>                      |             |             |                   |                        |
| Site Lighting - pedestrian scale, no conduit | 14          | EA          | \$2,500           | \$ 35,000.00           |
| Entrance Sign Lighting                       | 4           | EA          | \$1,000           | \$ 4,000.00            |
| Bench  | 8           | EA          | \$2,000           | \$ 16,000.00           |
| Trash Receptacles                            | 4           | EA          | \$1,500           | \$ 6,000.00            |
| Picnic Area                                  | 4           | EA          | \$4,000           | \$ 16,000.00           |
| Park Rules Sign                              | 2           | EA          | \$1,500           | \$ 3,000.00            |
| Entry Sign                                   | 2           | EA          | \$1,500           | \$ 3,000.00            |
|  |             |             |                   | \$ 83,000.00           |
| <b>4 Landscape</b>                           |             |             |                   |                        |
| Shade Trees                                  | 80          | EA          | \$450             | \$ 36,000.00           |
| Ornamental Trees                             | 20          | EA          | \$250             | \$ 5,000.00            |
| Shrubs-Large                                 | 200         | EA          | \$75              | \$ 15,000.00           |
| Shrubs-medium                                | 200         | EA          | \$45              | \$ 9,000.00            |
| Perennial                                    | 400         | EA          | \$15              | \$ 6,000.00            |
| Bed Prep                                     | 100         | CY          | \$50              | \$ 5,000.00            |
| Mulch- 3" depth                              | 50          | CY          | \$50              | \$ 2,500.00            |
|  |             |             |                   | \$ 78,500.00           |
|  |             |             | <b>Subtotal</b>   | <b>\$ 825,000.00</b>   |
| <b>5 Additional Items</b>                    |             |             |                   |                        |
|  |             | <i>UNIT</i> | <i>UNIT PRICE</i> |                        |
| Design Fees                                  |             | LS          | 10%               | \$ 85,000.00           |
| Contingency - during planning                |             | LS          | 15%               | \$ 125,000.00          |
|  |             |             |                   | <b>\$ 1,035,000.00</b> |

This opinion of probable cost is based upon Master Plans dated January 5, 2007

Work does not account for utility relocation, or unforeseen site conditions.

All opinions are not valid after 6 months from issues date.

**Three Parks**

Lynchburg, Virginia

Preliminary Opinion of Probable Cost

1/5/2007

Prepared By: Land Planning and Design Associates Inc. Charlottesville, VA

| <b>Perrymont Park</b>                        |             |             |                   |               |
|--|-------------|-------------|-------------------|---------------|
|  | <i>QTY.</i> | <i>UNIT</i> | <i>UNIT PRICE</i> | <i>TOTAL</i>  |
| <b>1 Early Site Work Costs</b>               |             |             |                   |               |
| Mobilization, Bonds, Pemsits, etc.           | 1           | LS          | 15% of subtotal   | \$ 72,000.00  |
| E&S  | 4           | AC          | \$5,000           | \$ 20,000.00  |
| General Site Preparation                     | 1           | LS          | \$2,000           | \$ 2,000.00   |
| Tree Thinning                                | 1           | AC          | \$2,000           | \$ 2,000.00   |
| Grading - cut and fill on site               | 1000        | CY          | \$5               | \$ 5,000.00   |
|  |             |             |                   | \$ 101,000.00 |
| <b>2 Site Hardscape Improvements</b>         |             |             |                   |               |
| Neighborhood Parking Area                    | 9           | EA          | \$1,500           | \$ 13,500.00  |
| Perrymont Avenue Parking Area                | 14          | EA          | \$1,500           | \$ 21,000.00  |
| Perrmont Avenue Entry                        | 1           | LS          | \$5,000           | \$ 5,000.00   |
| Tree Canopy Walk                             | 800         | SF          | \$35              | \$ 28,000.00  |
| Shelter                                      | 1           | EA          | \$50,000          | \$ 50,000.00  |
| Picnic Areas                                 | 4           | EA          | \$4,000           | \$ 16,000.00  |
| Portable Restroom Screen                     | 1           | EA          | \$10,000          | \$ 10,000.00  |
| Playground 2-12 year olds                    | 1           | EA          | \$40,000          | \$ 40,000.00  |
| Climbing Structure                           | 1           | EA          | \$15,000          | \$ 15,000.00  |
| Trail Removal                                | 1500        | LF          | \$3               | \$ 4,500.00   |
| Trail Renovation                             | 1000        | LF          | \$5               | \$ 5,000.00   |
| Renovate Play Field                          | 90000       | SF          | \$1               | \$ 90,000.00  |
|  |             |             |                   | \$ 298,000.00 |
| <b>3 Site Amenities</b>                      |             |             |                   |               |
| Site Lighting - pedestrian scale, no conduit | 5           | EA          | \$2,500           | \$ 12,500.00  |
| Entrance Sign Lighting                       | 2           | EA          | \$1,000           | \$ 2,000.00   |
| Bench  | 4           | EA          | \$2,000           | \$ 8,000.00   |
| Trash Receptacles                            | 4           | EA          | \$1,500           | \$ 6,000.00   |
| Park Rules Sign                              | 2           | EA          | \$1,500           | \$ 3,000.00   |
| Entry Sign                                   | 2           | EA          | \$1,500           | \$ 3,000.00   |
|  |             |             |                   | \$ 34,500.00  |
| <b>4 Landscape</b>                           |             |             |                   |               |
| Shade Trees                                  | 70          | EA          | \$450             | \$ 31,500.00  |
| Ornamental Trees                             | 20          | EA          | \$250             | \$ 5,000.00   |
| Shrubs-Large                                 | 100         | EA          | \$75              | \$ 7,500.00   |
| Shrubs-medium                                | 100         | EA          | \$45              | \$ 4,500.00   |
| Perennial                                    | 250         | EA          | \$15              | \$ 3,750.00   |
| Bed Prep                                     | 100         | CY          | \$50              | \$ 5,000.00   |
| Mulch- 3" depth                              | 50          | CY          | \$50              | \$ 2,500.00   |
|  |             |             |                   | \$ 59,750.00  |
|  |             |             |                   | \$ 493,250.00 |
| <b>5 Additional Items</b>                    |             |             |                   |               |
|  |             | <i>UNIT</i> | <i>UNIT PRICE</i> |               |
| Design Fees                                  |             | LS          | 10%               | \$ 49,000.00  |
| Contingency - during planning                |             | LS          | 15%               | \$ 72,750.00  |
|  |             |             |                   | \$ 615,000.00 |

This opinion of probable cost is based upon Master Plans dated January 5, 2007

Work does not account for utility relocation, or unforeseen site conditions.

All opinions are not valid after 6 months from issues date.