



Pleasant Ridge Park Master Plan

for the

Collinsville Area Recreation District

December 2007

Table of Contents

1.0 - Introduction.....	Page 2
1.1 - Recreation Goals of CARD	Page 2
1.2 - Master Plan Document	Page 2
2.0 - Existing Conditions	
2.1 - Park Location.....	Page 3
2.2 - Description of Site	Page 3
2.2.1 - Description of Buildings.....	Page 4
2.3 - Existing Site Survey	Page 4
2.3.1 - Site Analysis Description	Page 5
3.0 - Site Analysis.....	Page 6
4.0 - Program	Page 7
5.0 – Master Plan Design Narrative.....	Page 8
5.1 - Overall Design Philosophy.....	Page 8
5.2 - Sustainable Design Approach	Page 8
5.2.1 - USGBC LEED Principles.....	Page 8
5.2.2 - Sustainable Products.....	Page 8
5.2.3 - Environmental Education Potential.....	Page 8
5.3 - Master Plan Drawing.....	Page 9
5.3.1 - Recommendations for Site Improvements.....	Page 10
5.3.2 - Recommendations for Building Improvements	Page 11
6.0 - Priority Plan	Page 12
7.0 – Budget Cost Estimate	Page 13
Appendix A - Acknowledgements	Page 14
Appendix B – Sustainable Product Examples	Page 15

TOC

1.0 - Introduction

In March 2007, the Collinsville Area Recreation District (CARD) acquired 50 acres of property located in Maryville, Illinois. The property was purchased to be developed as a new park within the district. CARD was organized by a public referendum in 1990 and oversees about 350 acres of park land. The inventory of park sites include Splash City Family Waterpark, Woodland Park, Jaycee Sports Complex, Glidden Park, Schnuck Memorial Park, Morris Hills Park, Maryville School Park, Willoughby Heritage Farm & Conservation Reserve and Arlington Greens Golf Course. CARD employs 15 full-time, 20 part-time and 150 seasonal (summer) employees. CARD is governed by a five member Board of Commissioners who are elected at-large and serve without compensation.

1.1 Recreation Goals of CARD

- Provide wholesome recreation for the entire family of all races and creeds.
 - Keep the cost of programs within a reasonable price range, in order that all income levels of the District are able to afford programs.
 - Provide a noncompetitive atmosphere where everyone has an equal chance to participate.
 - Provide an even flow of activities year round.
 - Serve all age groups.
 - Provide comparable and appropriate opportunities for members of both sexes.
- Provide a reasonable balance between indoor and outdoor activities.
 - Recognize varying levels of skill and ability, with emphasis on providing basic skills.
 - Keep open lines of communication and good rapport with the School District and other nonprofit organizations that provide recreation services.
 - Provide recreational programs and interests for all age groups and special populations, including the disabled and Senior Citizens.
 - Offer participants a role in the planning and implementation of activities.
 - Provide an effective means for people to indicate their recreation needs and interests, and to submit suggestions regarding programs.
 - Be sensitive to changing conditions, interests, and needs of the people as evidenced by program changes from year to year

1.2 Master Plan Document

The Pleasant Ridge Park master plan report has been organized into the following six sections: Existing Conditions, Site Analysis, Program, Master Plan Design Narrative, Priority Plan and Budget Cost Estimate.

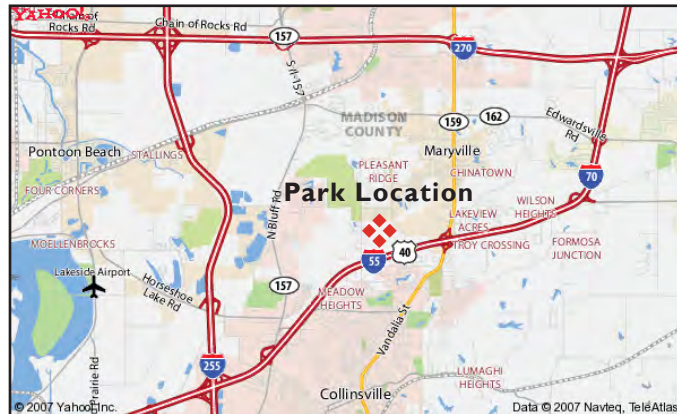
The Existing Conditions section is a review of the current conditions of the site and will include a discussion of the location of the park, existing features and topographic survey information. The Site Analysis section builds upon the Existing Conditions discussion with an analysis of the site gained through site visits and interviews with CARD staff. Specific elements focused in on during the analysis included site elements such as vegetation, buildings and ancillary structures, circulation, access points, adjacent development, water features, environmental issues, wetlands, views, topography, opportunities and constraints and site capacity for development.

With input from CARD staff and the public, a list of program elements was developed and is reproduced in the Program section of the document. The remaining sections of the Master Plan report describe and illustrate the design concepts for the park plan. The Master Plan Design Narrative includes a vision statement for the park and a review of the LEED principles that can be applied to the project. The Priority plan illustrates the priorities for development and the Budget Cost Estimate is a planning level estimate of the probable cost to develop the park per the master plan.

2.0 - Existing Conditions

2.1 - Park Location

Pleasant Ridge Park is located off of Pleasant Ridge Road north of Highway 55/70 in Maryville, Illinois.



2.2 - Description of Site

Access to the site is obtained from Pleasant Ridge Road, a two lane oil and chip, residential scale road that provides approx. 873 feet of frontage along the east side of the property. Adjacent to the south side of the property is Highway 55/70 and a highway weigh station. A considerable amount of highway vehicle noise is generated 24 hours a day from this highway which negatively impacts the site. The west side of the site is dominated by wooded areas typical of an oak-hickory forest, however there are some areas of the woods that include invasive species such as poison ivy and grape vines that diminish the quality. Also along the western side of the property is a MCT bike trail. The trail called Schoolhouse is a rails-to-trails project which runs 15.9 miles in Madison County from Troy to Madison, Ill. The Schoolhouse Branch creek runs along the western boundary parallel to the bike trail. The north side of the site includes an portion of the Schoolhouse Branch creek.

Within the 50 acre property there is a variety of existing conditions of the land including, lawn areas, wooded areas, rolling topography, hay fields, steep slopes, streams and low areas with poor

drainage. The site also includes several structures that are described in more detail on Page 4.



EXISTING

2.2.1 - Description of Buildings

The existing residence is a 1 ½ story two-bedroom residence in relatively good condition. The first floor is comprised of a kitchen, living room, small dining room, and ½ bath. The second floor is comprised of two bedrooms and a full bathroom. There is a carport extension off of the north side of the residence. The building is a simple frame structure with a brick wainscot and siding. The brick is in good shape, but the siding needs replacing. The windows are old and showing wear. They will need updating. The existing pitched roof has asphalt shingles that shows some wear and will need replacing. The carport is mostly in good condition. The interior of the carport is covered in hardyboard that will need to be replaced. The interior of the residence will need updating in spots. The walls will need painting and in the areas where there will be carpeting will need to be replaced. All necessary plumbing and electrical updates will need to be completed as well.

The existing shed building is in poor condition. It is a wood frame structure covered in corrugated metal siding. The interior floor of the structure is compacted earth and gravel. Abandoned household goods and chemicals are located throughout the shed and should be checked for the presence of hazardous materials. If hazardous materials are discovered then they should be removed according to Federal regulations.



Front view of Existing Residence



View of Maintenance Shed



Interior View of Living Room



Side view of Existing Residence



Carport View at Residence



View of Existing Patio at South Side of Residence

2.3 - Existing Site Survey

Refer to the following image of topographic survey completed in September 2007.

EXISTING



1 View west towards northern portion of park



2 View towards wooded area adjacent to Schoolhouse Bike Trail

2.3.1 – Site Analysis Description

The overall visual character of the site is comprised of mostly natural features. Rolling fields and wooded areas dominate the views into the landscape. A majority of the site contains slopes over 10% thereby limiting the potential development to those passive recreational activities that will have a low impact on the site.



EXISTING



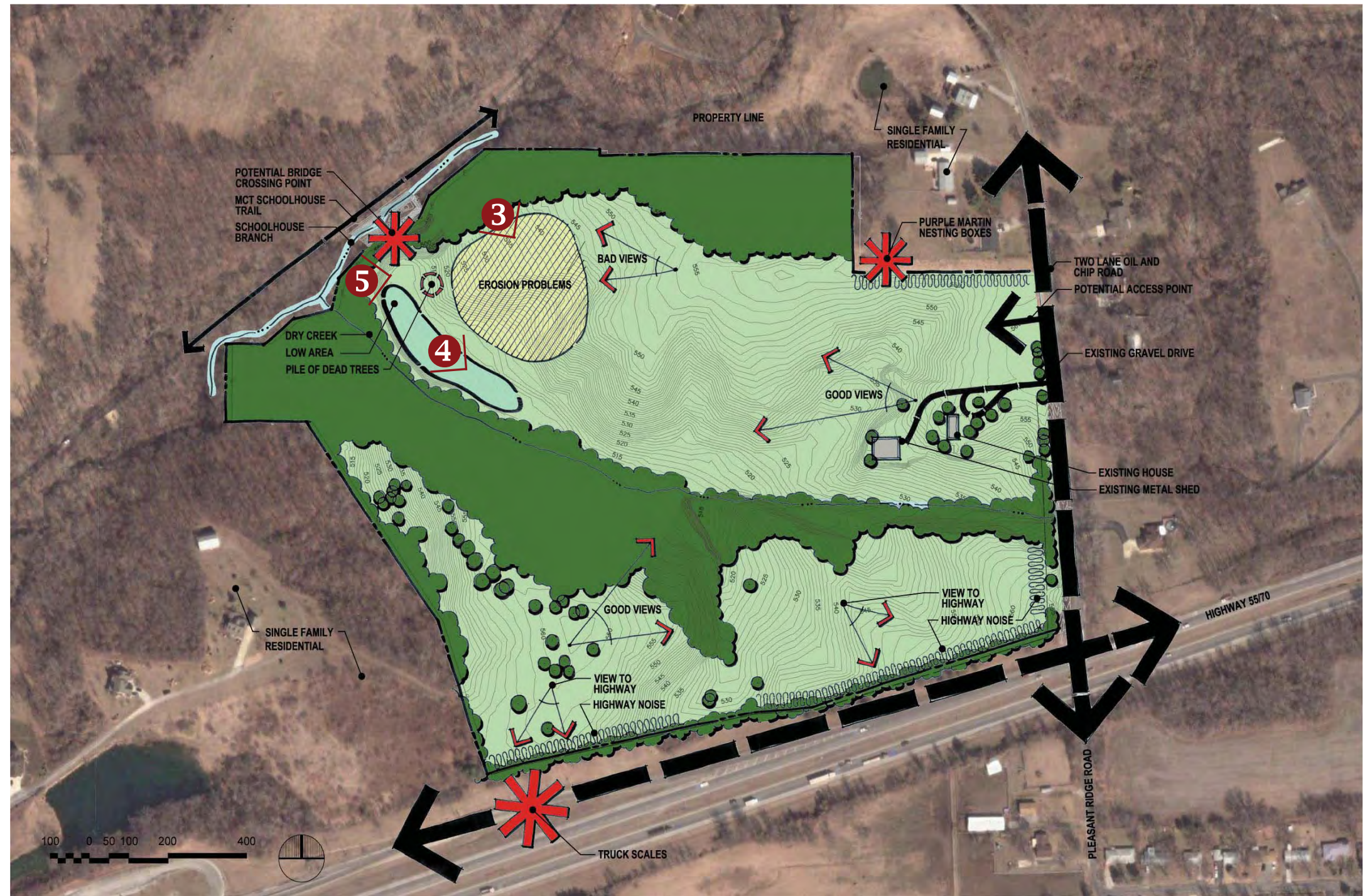
3 View towards eroded area



4 View towards low area



5 View towards pile of dead trees



ANALYSIS

4.0 - Program

Program List

- Maintenance Shed - 50' x 80'
- Access to Bike Trail
- Trails
- Dirt, Paved, Boardwalk, Through Woods
- Water Feature
- Picnic Facilities
- Parking
- Informal Recreation Fields
- Frisbee Golf Course
- Restroom Facilities – Composting
- Play Equipment
- Park Road
- Separate Maintenance Area Road
- Site Sign
- Passive Recreation
- Preserve Natural Areas
- Fitness Trail

PROGRAM

5.0 – Master Plan Design Narrative

5.1 - Overall Design Philosophy

The development of the master plan concepts was guided by the following Vision Statement:

Pleasant Ridge Park will be.....

A place that respects its natural surroundings

A place that brings people together

A place to experience nature

A place for families to gather

A place for environmental education

A place to relax and reflect

A place for animal habitat

A place that provides reduced maintenance and operational costs

A place that supports physical activities including walking, hiking, running, biking, informal field sports

5.2 - Sustainable Design Approach

The overall goal for the park project is develop the property with low impact and sustainable principles. Several methods to accomplish this is to limit the site disturbance impact from utilities and by utilizing natural and adaptive species of vegetation.

The maintenance facility proposed for the site for the site can be constructed to LEED standards to help meet the sustainable goal for the project. This requires that construction materials and methods are chosen with the environment as a primary consideration.

5.2.1 - USGBC LEED Principles

The goal of USGBC's LEED program is to create a framework within which individual facilities can be measured against a baseline in order to provide goals to strive for in environmental efficiency and stewardship. This framework is broken up into five categories for measurement; Sustainable Sites, Water Efficiency, Energy & Atmosphere, Materials & Resources, and Indoor Environmental Quality. Some of the strategies that have been instituted for individual facilities can also be incorporated at the level of a community park.

At the site development level measures can be taken to limit the effects of construction activity within the park such as choosing native vegetation utilizing permeable pavements and utilizing light colored materials or 'green' roof surfaces to reduce heat build-up in buildings.

The LEED program also focuses on the goal of reducing water consumption. Typically, water is used for in parks for drinking water, sewage conveyance and site irrigation. When dealing with water efficiency in this park, one of the main goals is to eliminate the need for sewage conveyance. On-site treatment of sanitary waste can be accomplished through the use of composting toilets. Graywater from wash basins in the restrooms can be accommodated through a septic leach field or used for irrigation.

Construction materials used in the park can be recycled, salvaged, or regionally produced products to meet the LEED standards. To help educate the public regarding the importance of recycling stations can be set up within the park for collection. This effort can be used as an interpretive opportunity regarding the environmental value of diverting waste from landfills.

The energy needs for the park should be minimal. To achieve low energy use, the composting toilet can be fitted with solar panels to generate its power requirements. Lighting for the pavilions can also be generated with solar power.

5.2.2 Sustainable Products

(See Appendix B for images of the typical products listed below)

- Composting Toilets
- Playgrounds with Recycled content
- Recycled Mulch/Wood Chips
- Porous Paving
- Porous Concrete
- Windmills
- Trash Bins made of recycled content
- Light colored paving or concrete
- Solar Site Lighting
- Pavilions made from salvaged wood or recycled materials
- Benches made from recycled materials
- Signage with recycled or salvaged content

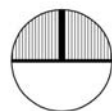
5.2.3 - Environmental Education Potential

Signage and educational programs are effective methods for revealing the environmentally friendly development approach used for the Pleasant Ridge Park. Several examples follow of how signs can be utilized:

- At the composting toilets, signs can be placed explaining the composting process and the benefits of using this type of system.
- Signs can be placed along pathways that identify native vegetation.
- Signs can be placed identifying recycled materials.
- Signs can be placed at recycling stations demonstrating the importance of recycling.

DESIGN

5.3 Master Plan



DESIGN

5.3.1 – Recommendations for Site Improvements

Based upon the site analysis and the capacity of the park for development it was determined that the park improvements should be consistent with a low impact design philosophy. Therefore, the site recommendations include passive activities such as picnicking, walking, hiking, nature enjoyment, bird watching, photography, bicycling and non-organized field sports. Other site improvements will include sustainable features such as recycled plastic play equipment, composting toilets, permeable pavements, bio-swales and solar panels. The park will also function as the CARD maintenance facility and will include features such as a maintenance shed, maintenance vehicle parking and staff parking. The maintenance related features are concentrated in an area of the park that has already been disturbed by previous development and will be screened from the rest of the property with fencing and vegetation.



Detail view of the park maintenance area

Park Road

The park road is laid out to follow the contours of the land and will be accessed off of Pleasant Ridge Road on the north east side of the property. The entry to the park will include identification signage and a gate to limit vehicular access to the site when the park is closed. The park road will be approximately 4500 feet long with a total of 151 parking spaces adjacent to the six pavilions. Two main loops in the park road will be one way circulation. A vehicular bridge of approximately 80 feet will be required to cross from the north side of the property to the south side over the dry creek. A separate road off of Pleasant Ridge Road is included to provide access to the maintenance shed and employee parking area.

Trails

A variety of trails totaling 5900 feet long are shown on throughout the property. The eight feet wide trails connect the various park features to the Schoolhouse Bike trail at the west side of the property. An approximately 100 feet long pedestrian bridge will be necessary to get access across the Schoolhouse Branch creek for bicyclists. Trail surfaces will vary from asphalt to gravel and will meander through wooded areas as well as open fields. A pedestrian bridge of approximately 70 feet is included to provide access across the dry creek bed at the south west side of the property.

Pavilions

Six pavilions are included in the park design ranging in size from 20' x 20' to 60' x 60'. The largest pavilion is located in the south side of the property. A drinking fountain, electric and a horseshoe pit is associated with each pavilion.



Detail view of trailhead and pedestrian bridge connection to the Schoolhouse Bike Trail

Restrooms

A total of five composting toilet restrooms are included in the master plan near the pavilions.

Play Areas

Three playground areas are included in the park master plan. One large area of approximately 10,000 square feet and one of approximately 5,000 square feet is located in the north side of the property. Two sand volleyball courts and a half-court basketball court are included in a level area on the north west side of the park. Several informal fields are included in the south side of the park.



Detail of pavilion and play area



Detail of south pavilion area showing a landscape buffer adjacent to highway 55/70

Landscape and Screening

Proposed planting in the master plan is comprised of evergreen and deciduous native vegetation to the extent possible. Landscape screening is included in several areas in the park. On the north side of the property adjacent to a residence, the landscape screen includes low evergreen shrubs with a mature height not over eight feet. The low evergreen shrubs are required due to purple martin nesting boxes in the area. A screen fence will also be included. Several areas on the south side of the park include a vegetative buffer to help reduce roadway noise from highway 55/70.

5.3.2 - Recommendations for Building Improvements

Maintenance Shed:

- ❑ Existing pole building is to be demolished and removed from the site.
- ❑ New 50' x 80' Maintenance Building to be constructed near existing residential structure. New building is to be one large open space with overhead door access.
- ❑ New Maintenance Building shall be constructed to compliment the renovated residential structure.

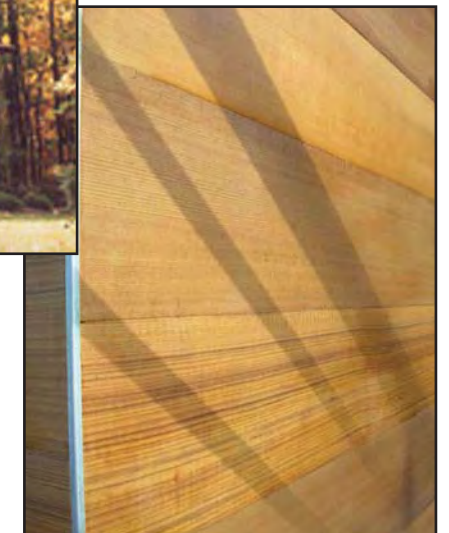
Existing Residence:

Interior

- ❑ The existing interior is to be renovated to accommodate park Administration Offices.
- ❑ Existing interior walls are to remain.
- ❑ Convert (2) existing upstairs bedrooms into an Office Area.
- ❑ Convert the main floor, including the Living Room, Kitchen and Dining Room, into Meeting Space.
- ❑ Renovated lower level to contain a Break Room, Training Room and Toilet with shower and changing area.
- ❑ Miscellaneous interior finishes shall be replaced, as required, to accommodate the renovation.

Exterior

- ❑ Existing residence shall be converted into a 'bungalow' style structure utilizing more natural colors and materials to blend with the environment.
- ❑ Existing siding shall be replaced with a naturally stained cedar siding.
- ❑ Existing wrought iron columns, brick wainscot and brick fireplace shall be converted to have a natural stone look.
- ❑ Existing shingle roof shall be replaced with architectural shingles or cedar shakes to compliment the bungalow style.
- ❑ Existing windows shall be replaced with new windows to compliment the bungalow style.
- ❑ Existing doors shall be replaced to compliment the bungalow style.



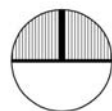
DESIGN

6.0 Priority Plan



- Priority I
- Priority II
- Priority III
- Priority IV

100 0 50 100 200 400



Priorities

7.0 – Budget Cost Estimate

Cost Estimate 2008 Dollars				
QTY	DESCRIPTION	UNIT	UNIT PRICE	TOTAL PRICE
Site Preparation and Soil Erosion Control				
20	Site Clearing	ACRE	\$5,000.00	\$100,000
1	Demolition - Buildings	LS	\$20,000.00	\$20,000
1	Erosion Control	LS	\$75,000.00	\$75,000
Subtotal Site Preparation and Soil Erosion Control:				\$195,000
Earthwork & Utilities				
25,000	Earthwork	CY	\$3.50	\$87,500
5	Gray Water Septic System	EA	\$6,000.00	\$30,000
3,500	Electric Service	LF	\$12.00	\$42,000
1	Retaining Walls	LS	\$75,000.00	\$75,000
3	Fire Hydrant	EA	\$1,500.00	\$4,500
1,000	6" Fire Water Line w/ Excavation	LF	\$45.00	\$45,000
3,500	Domestic Water Line 2" w/Excavation	LF	\$30.00	\$105,000
6	Drinking Fountain	EA	\$3,000.00	\$18,000
1	Fittings, Bends	LS	\$4,000.00	\$4,000
Subtotal Earthwork:				\$411,000
Paving and Surfacing				
11,550	Pervious Asphalt Vehicular Pavement - Standard Duty	SY	\$25.00	\$288,750
1,840	Service Road	SY	\$25.00	\$46,000
4,700	Grass Pavers - Parking	SY	\$20.00	\$94,000
50	5" Concrete Walk Pavement	SY	\$46.50	\$2,325
1,100	Pervious Asphalt - Walk/Trail	SY	\$25.00	\$27,500
170	Precast Concrete Wheelstop	EA	\$100.00	\$17,000
4,200	Gravel Walk/Trail	LF	\$13.00	\$54,600
6,000	Trailhead Area - Pavers	SF	\$8.00	\$48,000
1	Trailhead Area - Public Art	LS	\$15,000.00	\$15,000
Subtotal Paving and Surfacing:				\$593,175
Shelters and Buildings				
1	Existing Residence Improvements	EA	\$120,000.00	\$120,000
1	Maintenance Shed 50' x 80'	EA	\$100,000.00	\$100,000
2	40' x 60' Pavilion	EA	\$50,000.00	\$100,000
2	45' x 45' Pavilion	EA	\$35,000.00	\$70,000
1	20' x 20' Pavilion	EA	\$15,000.00	\$15,000
1	60' x 60' Large Pavilion	EA	\$70,000.00	\$70,000
5	Restroom	EA	\$50,000.00	\$250,000
1,425	5" Shelter Conc. Slab	SY	\$45.00	\$64,125
3	Kiosk	EA	\$6,000.00	\$18,000
Subtotal Shelters and Buildings:				\$807,125
Play Features				
5	Horseshoe Pits	EA	\$1,000.00	\$5,000
2	Sand Volleyball	EA	\$12,000.00	\$24,000
1	Half-Court Basketball	EA	\$10,000.00	\$10,000
1	Large Play Equipment	LS	\$100,000.00	\$100,000
2	Small Play Equipment	LS	\$60,000.00	\$120,000
20,000	Safety Surfacing - Recycled Rubber Poured-in-Place on	SF	\$18.00	\$360,000
1	Disc Golf 9 Holes	LS	\$10,000.00	\$10,000
Subtotal Play Features:				\$629,000

Site Improvements				
800	6' ht. Vinyl Screen Fence	LF	\$60.00	\$48,000
1	Park Entry Gate	EA	\$8,000.00	\$8,000
2	Access Control for Maintenance Area	EA	\$5,000.00	\$10,000
1	Main Park Signage	EA	\$5,000.00	\$5,000
3	Directional Park Signs	EA	\$850.00	\$2,550
20	Trail Marker Signs	EA	\$350.00	\$7,000
10	Park Traffic Signs	EA	\$200.00	\$2,000
1	Dumpster Enclosure	EA	\$5,000.00	\$5,000
47	Picnic Table	EA	\$1,000.00	\$47,000
5	Handicapped Picnic Table	EA	\$1,200.00	\$6,000
30	Bench	EA	\$950.00	\$28,500
12	Trash Receptacles w/ Dome Lid	EA	\$450.00	\$5,400
1	Creek Enhancement	LS	\$30,000.00	\$30,000
1	Vehicular Bridge 80' span 30' width	EA	\$100,000.00	\$100,000
1	Pedestrian Bridge 70' span 8' width	EA	\$50,000.00	\$50,000
1	Bike trail Connector Bridge 100' span 10' width	LS	\$120,000.00	\$120,000
Subtotal Site Improvements:				\$474,450
Lawns and Landscape				
5	Native Grass Seeding	ACRE	\$1,200.00	\$6,000
1	Wetland Seeding	ACRE	\$1,500.00	\$1,500
3	Wildflower Seeding	ACRE	\$1,800.00	\$5,400
75	Deciduous Shrubs	EA	\$35.00	\$2,625
150	Evergreen Shrubs	EA	\$55.00	\$8,250
285	Deciduous Trees 2 1/2" cal.	EA	\$350.00	\$99,750
65	Ornamental Trees	EA	\$250.00	\$16,250
125	Evergreen Tree 6' ht.	EA	\$300.00	\$37,500
100	Evergreen Tree 8' ht.	EA	\$350.00	\$35,000
250,000	Seeded Lawn	SF	\$0.12	\$30,000
Subtotal Lawns and Landscape:				\$242,275
				\$3,352,025
Contingency 0.15 %				\$502,804
TOTAL BASE BID:				\$3,854,829

COSTS

Acknowledgements

The following persons were instrumental in the development of the Master Plan for Pleasant Ridge Park:

Steering Committee Members

Mark Badasch, Executive Director, Collinsville Area Recreation District
Kevin Brown, Superintendent of Parks, Collinsville Area Recreation District
Rick Robbins, Superintendent of Recreation, Collinsville Area Recreation District
Carol Frerker, Education Outreach Coordinator, Collinsville Area Recreation District
Mark Bryant, Resident, Collinsville Township
Cliff & Joan Karvine, Resident, Collinsville Township
Chris Cahnovsky, Resident, Collinsville Township
Todd Bell, Trustee, Village of Maryville
Diana Hedrick, Resident, Collinsville Township
Roger Shoup, Resident, Village of Maryville
Nancy Thomas, Resident, Village of Maryville
Mike Vallino, Resident, Village of Maryville

Design Team

Scott Emmelkamp, ASLA, Project Manager/Landscape Architect, Woolpert, Inc.
Katie Chapman, Landscape Architect, Woolpert Inc.
Barb Anderson, Architect, AAIC, Inc.
Jon Bruenning, AAIC, Inc.

Public

Special thanks to residents within the Collinsville Area Recreation District who gave their time and opinions to make the master plan possible.

Appendix B - Sustainable Product Examples

