

# Master Plan for Berkeley Mills Park

Prepared for:  
The City of Hendersonville, NC



Master Plan Prepared by:  
**Wirth & Associates, Inc.**  
LANDSCAPE ARCHITECTS AND LAND PLANNERS  
1230 West Morehead Street, Suite 212  
Charlotte, NC  
704-375-1588

April 4, 2013

# TRANSMITTAL

April 4, 2013

Ms. Susan Anderson  
Planning Director  
City of Hendersonville, NC  
145 5<sup>th</sup> Avenue East  
Hendersonville, NC 28792

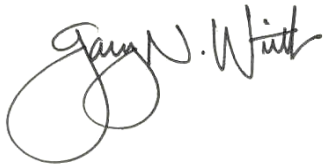
Dear Sue:

On behalf of the staff members of the project team, I am pleased to submit to you the Master Plan Report for Berkeley Mills Park. This report represents the culmination of a collaborative effort to develop a guide for the development of the park for years to come. We believe that it is innovative and fresh, yet totally responsive to the site and its capabilities as well as to the programs the public desires the City to provide. It is an exciting and ambitious plan and yet is based on sound practical planning and has the inherent flexibility necessary to build over time.

We would like to thank the City planning staff, town manger, public works and, of course, City Council for all of their input. As your consultant, we can sincerely say the plan has benefited greatly from all of their input.

It has been a pleasure for us to have been a part of this planning process. We continue to be enthusiastic about this project and eagerly look forward to the day when the physical presence of the new park facilities will speak to the care that was taken in this master planning process.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Gary N. Wirth". The signature is fluid and cursive, with a large loop at the beginning.

Gary N. Wirth, PLA, ASLA  
Principal  
Wirth & Associates, Inc.  
1230 West Morehead Street, Suite 212  
Charlotte, NC 28208

# ACKNOWLEDGEMENTS

## **Mayor**

Barbara Volk

## **City Council**

Steve Caraker

Jeff Collis

Jerry Smith

Ron Stephens

## **Berkeley Mills Park Master Plan Steering Committee**

Jeff Collis, Mayor Pro Tem

Jerry Smith, Councilman

Emily Cowan

Gary Eblen

Chris Wiener

Barrett Armstrong, Clemson University

## **Interim City Manager**

Lee Galloway

## **City Planning Staff**

Susan Anderson, Planning Director

## **City Public Works Staff**

Tom Wooten, Public Works Director

## **Consultant**

Wirth & Associates, Inc.

Charlotte, NC

## **Background**

On June 6, 2008, the Kimberly-Clark Corporation donated 59.59 acres to the City of Hendersonville. The donation consists of two parcels across from each other on Balfour Road just to the north of the Kimberly-Clark Corporation Berkeley Mills plant. One parcel is a small hill with walking trails and a water filled quarry. The other parcel has a baseball field, walking trails, two picnic pavilions and restrooms. Originally, the parcel with the baseball field was developed as part of a mill village for Balfour Mill workers.

The Berkeley Mills Park Master Plan is the result of a year-long effort by the City of Hendersonville to develop a master plan for these parcels. In January of 2012, Hendersonville City Council appointed a 5 member steering committee to provide input and oversee the development of a master plan for Berkeley Mills Park. The steering committee worked with a Clemson University student and staff to review existing facilities located at the park and recommend upgrades and new park facilities.

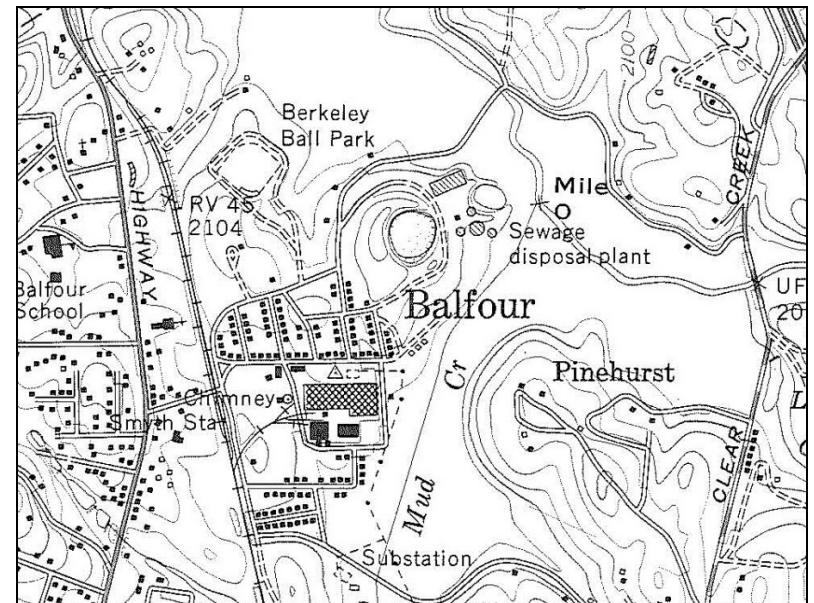
In September 2012, City Council awarded a contract to Wirth & Associates, Inc., of Charlotte to complete the master plan process.

## **Berkeley Mills Park History**

In 1892, William Balfour Troy purchased properties in this area and operated what was to become the largest granite quarry in Western North Carolina. Between 1894 and 1897, he furnished nearly all the granite used at the Biltmore Estate in Asheville. In 1924, Capt. Ellison Adger Smyth, a pioneer in the development of the southern textile industry, built Balfour Mills at this location.<sup>1</sup> Balfour Mills began with 10,000 spindles and a mill

village of 76 new five and seven room cottages and five existing structures that were remodeled. The following year, 25 new cottages were added.<sup>2</sup> Members of the Smyth Family continued to run Balfour Mills until 1946 when the Kimberly-Clark Corporation purchased the 189 acre plant site and facilities for three million dollars.<sup>3</sup>

The baseball field was first used for the mill baseball team named the Berkeley Spinners. The Berkeley Spinners were renamed the Berkeley Mills in 1947. This ball team played in the semi-pro Western NC Industrial League until 1962 when the league disbanded. The baseball park built for the Spinners is still active today and is used by the Babe Ruth League.



1962 USGS Map

<sup>2</sup> Ray, Lenior, Postmarks. The Reprint Company, Publishers, 2007, page 351

<sup>3</sup> Edney, Kermit, Kermit Edney Remember. Hendersonville, NC:

WorldComm Publishing, 1979, page 170.

<sup>1</sup> Fitzsimons, Frank. From the Banks of the Oklawaha, Volume 1.

Hendersonville, NC: Golden Glow Publishing Company, 1976, pages 149-151.



## **Existing Features Inventory**

This site consists of 59.59 acres on the east and west sides of Balfour Road. This property was donated to the City of Hendersonville from the adjacent Kimberly Clark textile plant and is identified by tax ID #: 9660502582. The following is a brief synopsis of the environmental assessment of the site derived from both on site reconnaissance and available on-line site data.

Existing site features include a baseball field of historic significance to the community as well as an abandoned quarry site that is filled with water.

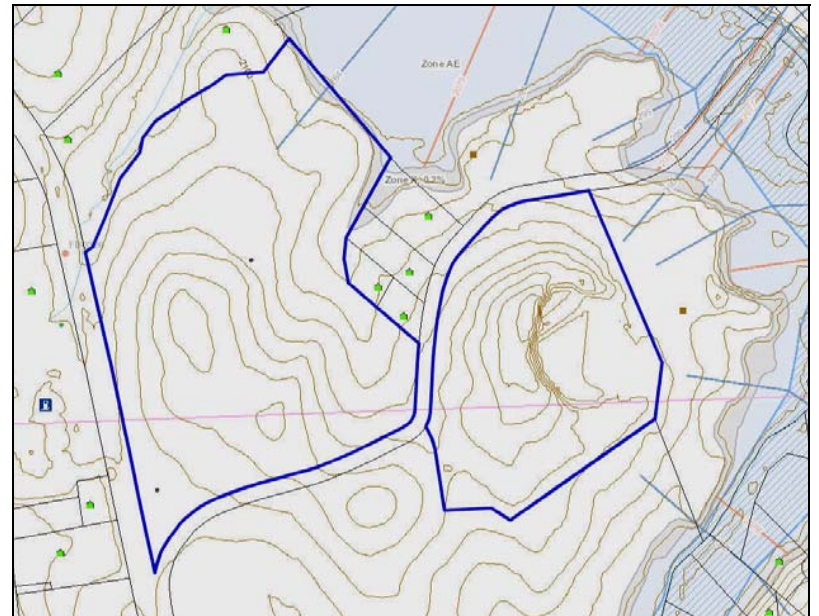
To the northeast of the ball field area, and to the north of the existing sewer treatment plant, is a large area of existing wetlands that are deemed to be jurisdictional from the standpoint of the US Army Corps of Engineers. This jurisdictional area just barely encroaches on the park site itself as illustrated on the floodplain map shown to the right.



Existing wetlands to the northeast of the existing ball field.



Aerial of site.



10' Contours and Floodplains.

## Existing Features Inventory (cont.)

### Slope Inventory:

The map to the right shows the slope inventory for the site. The steepest slopes are mostly located on the eastern tract and are associated with the existing quarry excavation. These areas should be left in their more natural state with minimal disturbance to avoid excessive grading and construction costs.

The more gentle slopes are on the western tract with the existing ball field. These areas will be easier to grade for future park development and avoid excessive earthwork and associated costs.

### Soils Inventory:

The two major soil groups on the site BaB, Brandon gravelly loam, and HyB/HyC, Hayesville loam. The Brandon series, located mostly to the north and east of the existing baseball field, is somewhat limited for roads, buildings and shallow excavations. The Hayesville series is more adaptable to building foundations, shallow excavations and roadway development. A major constraint is the existing slopes and the B classification is flatter and more adaptable than the steeper C classification.

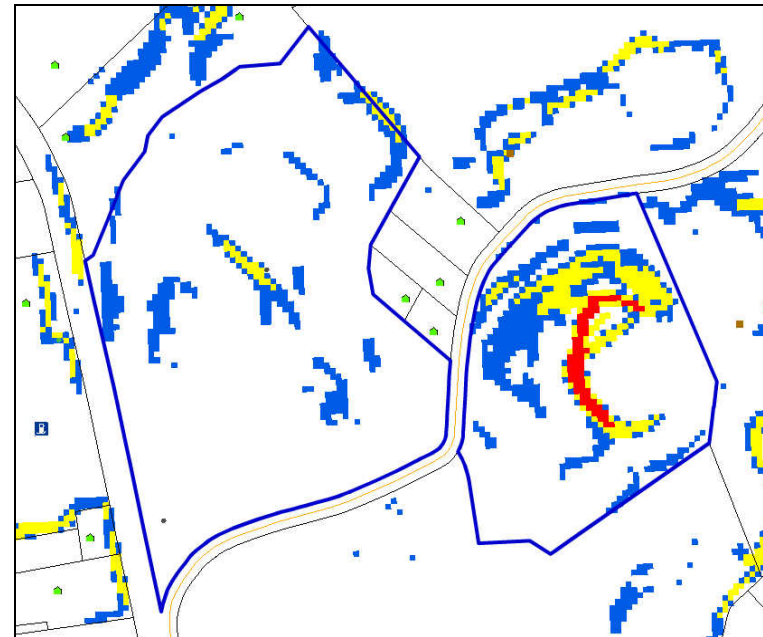
Craig Wyant, soils and wetlands specialist, accompanied Wirth & Associates on a site visit to verify wetlands and soil conditions. He found that the large wetland area to the northeast of the baseball field exhibited only sub-soils and thought that the area may have stripped of topsoil in the past. He also verified the wetlands identifying many wetland species of plants.



Existing quarry site viewed from the top.



Existing ball field grandstand.



Slope inventory. White=0-16% slopes; Blue =16-25% slopes; Yellow=25-60% slopes and Red=>60% slopes.



Soils Inventory.



## Previous Master Plan and Project Programming:

In January of 2012, the City of Hendersonville began a park master plan process for the 60 acres of land that was donated to the City by Kimberly-Clark Corporation in 2008. This tract became known as Berkeley Mills Park and offers opportunities for active and passive recreation.

Previous planning efforts by the City on this park site included some design work by a 5<sup>th</sup> year landscape architecture student from a nearby university. Public input received during this initial process resulted in a meaningful and reliable representation of what the city would like to include in the final built-out park. The City of Hendersonville was concerned that resultant student master plan could result in missed opportunities, challenging implementation and a failure to achieve the full potential of the park.

Wirth & Associates, Inc. of Charlotte was selected by the City to re-evaluate the student plan and build upon that work and the public process that resulted in the programming of the park. Our initial thoughts included:

- **Maximize** the site’s recreational opportunities **while preserving the historical context of the site’s history** with the mill and village.
- **Topographic conditions and existing soils** should dictate the final layout of the desired facilities to be built at the park.
- **Circulation Issues:** Our initial thoughts are that there are too many entrances to the park facilities and that roads and parking are too stretched out across the site. This will also increase the development costs.
- We like the trail systems laid out in the master plan but would try to **minimize the amount of boardwalk** shown to be implemented.

Costs of implementing the student plan would constrain the City’s resources.

In addition, Wirth & Associates researched the Park & Greenspace Master Plan for the park for additional programming information.



Student provided master plan.

| <b>Berkeley Mills Park</b>              |  |                                    |                           |
|---|--|------------------------------------|---------------------------|
| <b>Existing Amenities</b>               | <b>Task Force Recommendations</b>          | <b>Mayor &amp; Council Ranking</b> | <b>Task Force Ranking</b> |
| Baseball Field                          | Trail Improvements/Expansion               | #1 (Tie)                           | #1 (Tie)                  |
| Concession Stand                        | ADA Accessible Playground                  | #1 (Tie)                           | #1 (Tie)                  |
| On-Site                                 | Park Signage Improvements & Visibility     | #1 (Tie)                           | #7 (Tie)                  |
| Parking Picnic Pavilion (1,680 sq. ft.) | Natural Amphitheater                       | #2                                 | #1 (Tie)                  |
| Picnic Pavilion (744 sq. ft.)           | Develop a Park Master Plan                 | #3 (Tie)                           | #2 (Tie)                  |
| ADA Accessible Restrooms                | Off Leash Dog Park (Western Portion)       | #3 (Tie)                           | #5 (Tie)                  |
| Walking/Nature Trails                   | Parking Improvements                       | #3 (Tie)                           | #7 (Tie)                  |
|   | Mountain Bike Trail (Quarry Area)          | #3 (Tie)                           | #2 (Tie)                  |
|   | Stadium Rehabilitation                     | #3 (Tie)                           | #3                        |
|   | Safe Pedestrian Access Across Balfour Road | #4 (Tie)                           | #4                        |
|   | Lighting for Collegiate Baseball Games     | #4 (Tie)                           | #5 (Tie)                  |
|   | Trail Markers                              | No Votes                           | #6 (Tie)                  |
|   | Trail Distance Markers                     | No Votes                           | #6 (Tie)                  |
|   | Trail Map                                  | No Votes                           | #7 (Tie)                  |

The survey included a question regarding what amenities the respondent would like to see at Berkeley Park. Following are the most common requests:

|                  |                     |
|------------------|---------------------|
| ❖ Walking Trails | ❖ Swings            |
| ❖ Soccer Fields  | ❖ Tennis Courts     |
| ❖ Playground     | ❖ Baseball Field    |
| ❖ Dog Park       | ❖ Basketball Courts |
| ❖ Bike Paths     | ❖ Pool              |
| ❖ Picnic Areas   |                     |

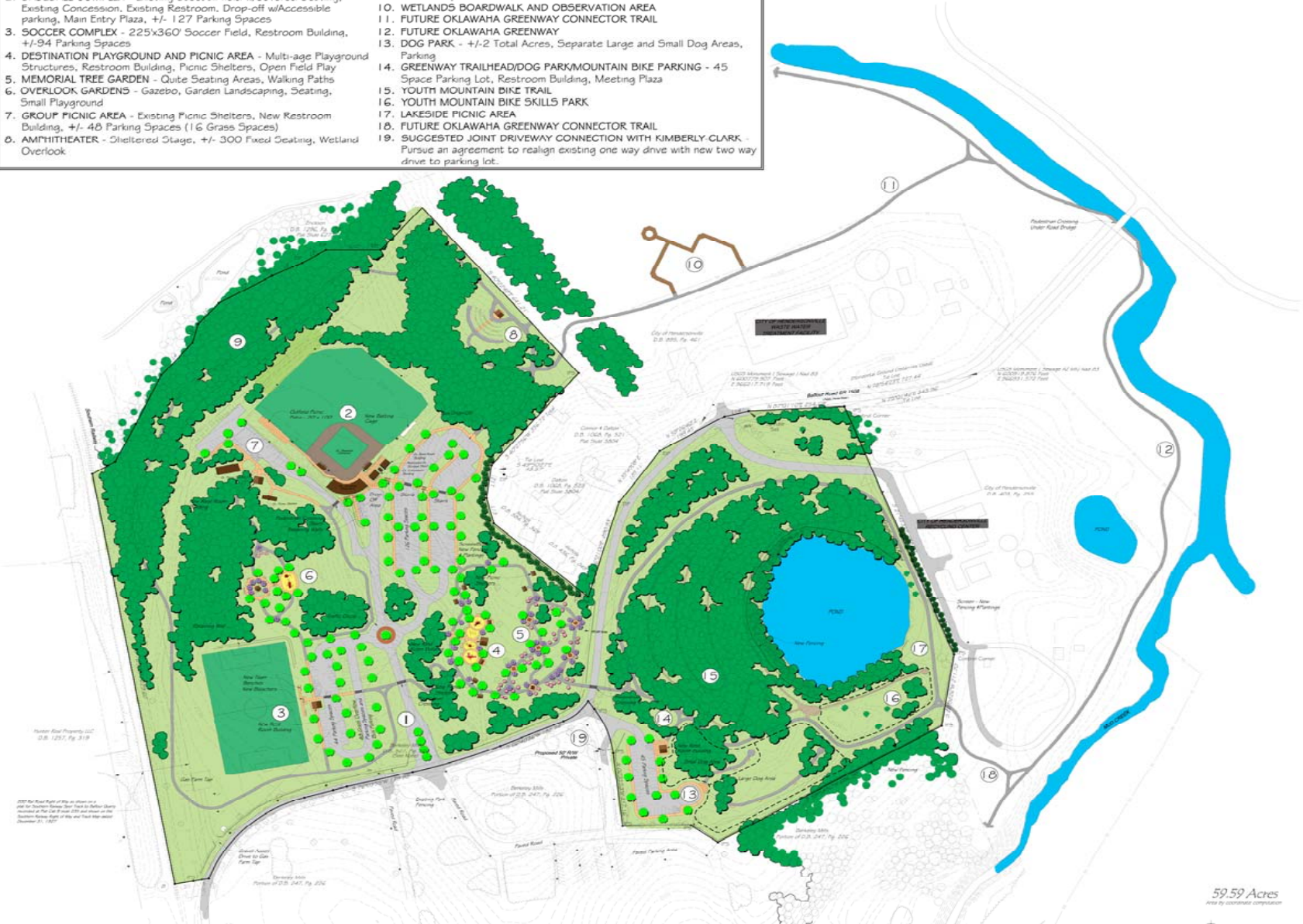
Task Force’s specific recommendations for the park from the City’s Parks Master Plan.

# Master Plan:

Below is the master plan for Berkeley Mills Park developed by Wirth & Associates. Preliminary Master Plans were presented to the City Council and the plans were modified to acknowledge their input. The pages following this Master Plan page are detailed enlargements of several specific project areas.

## MASTER PLAN LEGEND

- |  |  |
|--|--|
| 1. MAIN ENTRANCE - Divided Entry/Exit, Park Identification Sign  | 9. PERIMETER TRAIL - Inner Loop +/- 0.9 Miles, Pond Loop +/- 0.5 Miles, Outer Loop +/- 1.6 Miles   |
| 2. BASEBALL COMPLEX - Existing Baseball field w/Covered Seating, Existing Concession, Existing Restroom, Drop-off w/Accessible parking, Main Entry Plaza, +/- 127 Parking Spaces | 10. WETLANDS BOARDWALK AND OBSERVATION AREA  |
| 3. SOCCER COMPLEX - 225x360' Soccer Field, Restroom Building, +/-94 Parking Spaces   | 11. FUTURE OKLAHAWA GREENWAY CONNECTOR TRAIL   |
| 4. DESTINATION PLAYGROUND AND PICNIC AREA - Multi-age Playground Structures, Restroom Building, Picnic Shelters, Open Field Play   | 12. FUTURE OKLAHAWA GREENWAY   |
| 5. MEMORIAL TREE GARDEN - Quiet Seating Areas, Walking Paths   | 13. DOG PARK - +/-2 Total Acres, Separate Large and Small Dog Areas, Parking   |
| 6. OVERLOOK GARDENS - Gazebo, Garden Landscaping, Seating, Small Playground  | 14. GREENWAY TRAILHEAD/DOG PARK/MOUNTAIN BIKE PARKING - 45 Space Parking Lot, Restroom Building, Meeting Plaza   |
| 7. GROUP PICNIC AREA - Existing Picnic Shelters, New Restroom Building, +/- 48 Parking Spaces (16 Grass Spaces)  | 15. YOUTH MOUNTAIN BIKE TRAIL  |
| 8. AMPHITHEATER - Sheltered Stage, +/- 300 Fixed Seating, Wetland Overlook   | 16. YOUTH MOUNTAIN BIKE SKILLS PARK  |
|  | 17. LAKESIDE PICNIC AREA   |
|  | 18. FUTURE OKLAHAWA GREENWAY CONNECTOR TRAIL   |
|  | 19. SUGGESTED JOINT DRIVEWAY CONNECTION WITH KIMBERLY-CLARK - Pursue an agreement to realign existing one way drive with new two way drive to parking lot. |

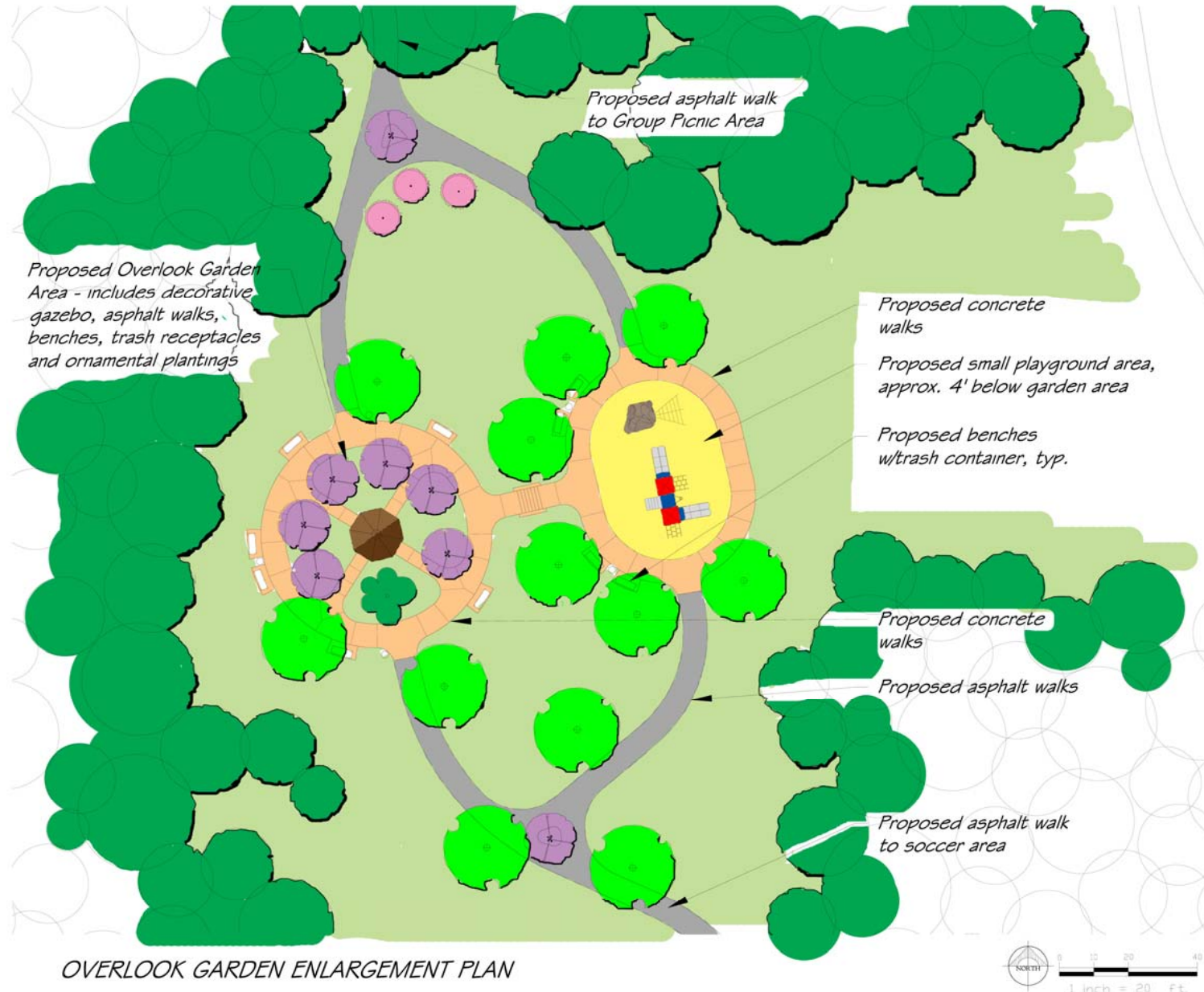


59.59 Acres  
Area by coordinate comparison



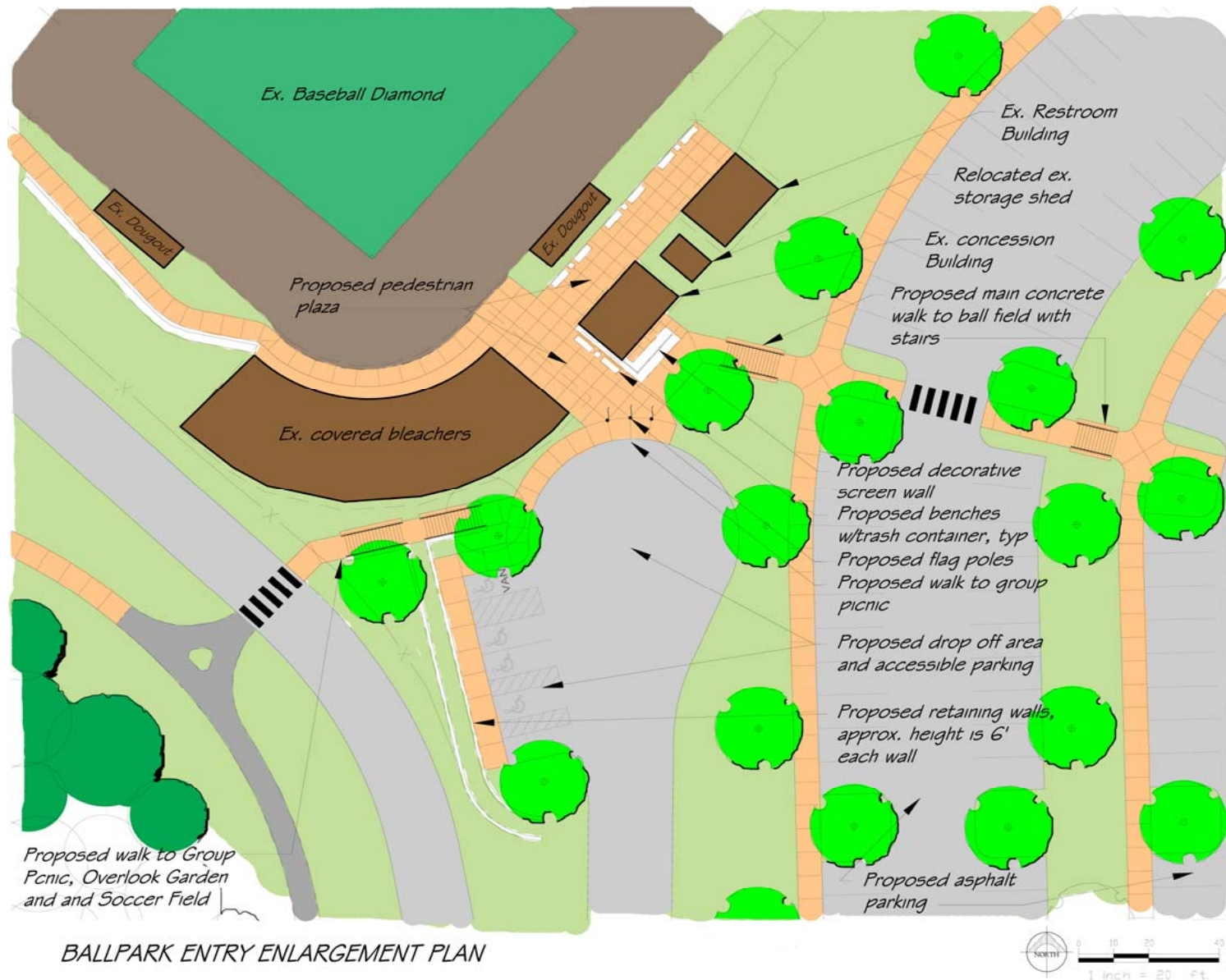
## Master Plan (cont.):

The enlargement below of the Overlook Garden Area (#6) is sited on a high point of the site and will offer a scenic overview of the rest of the park. It proposes a decorative gazebo with seating and landscaping and a small playground area and will serve park users from the ball field, picnic areas and the proposed soccer field.



## Master Plan (cont.):

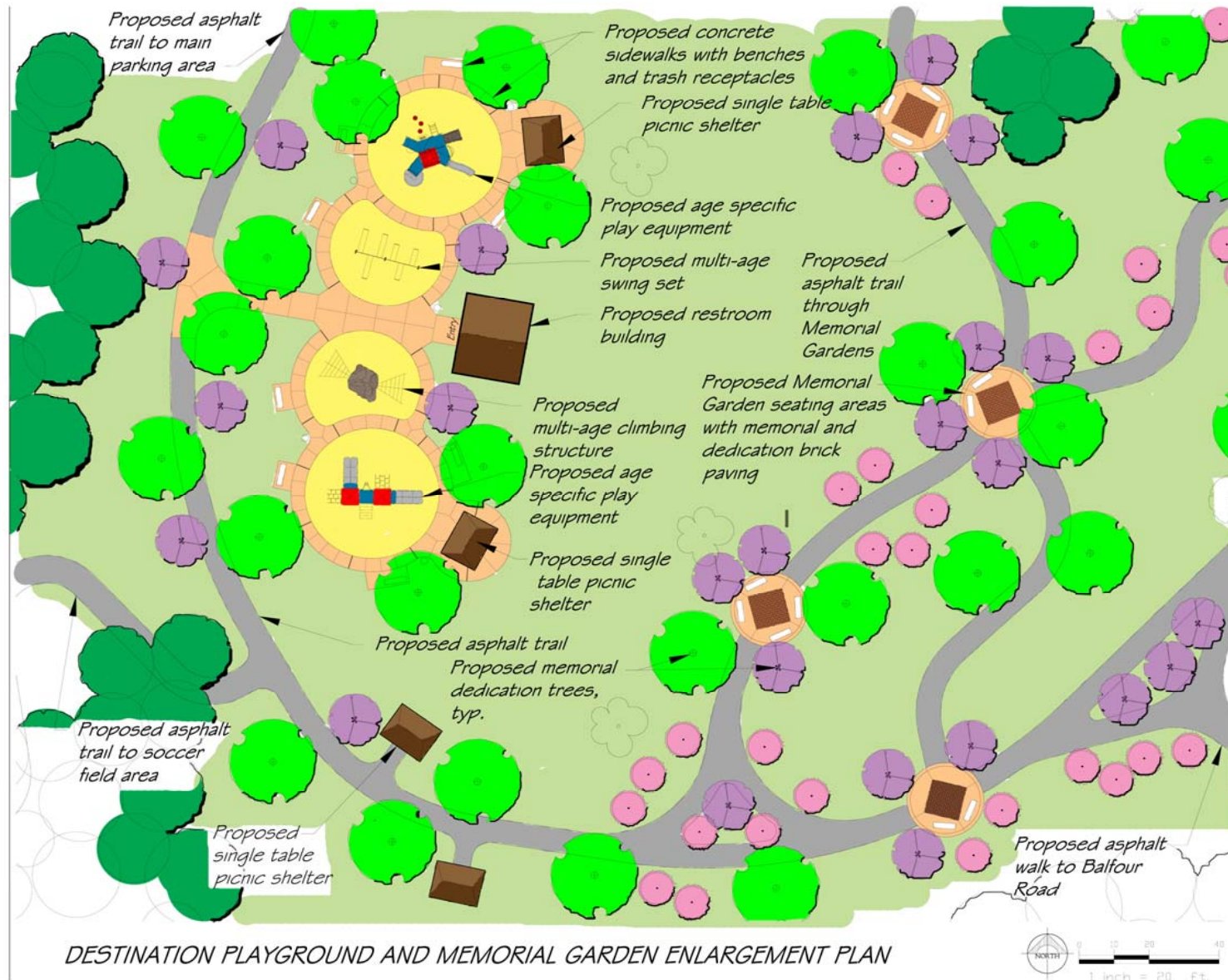
The enlargement below illustrates the new entry area to the existing historic ball park (#2). It addresses accessible parking and connections to the new parking lot that will serve the ball park. It includes a new pedestrian plaza area, benches for drop-off and pick-up, and larger circulation areas around the existing concession and restroom buildings.





## **Master Plan (cont.):**

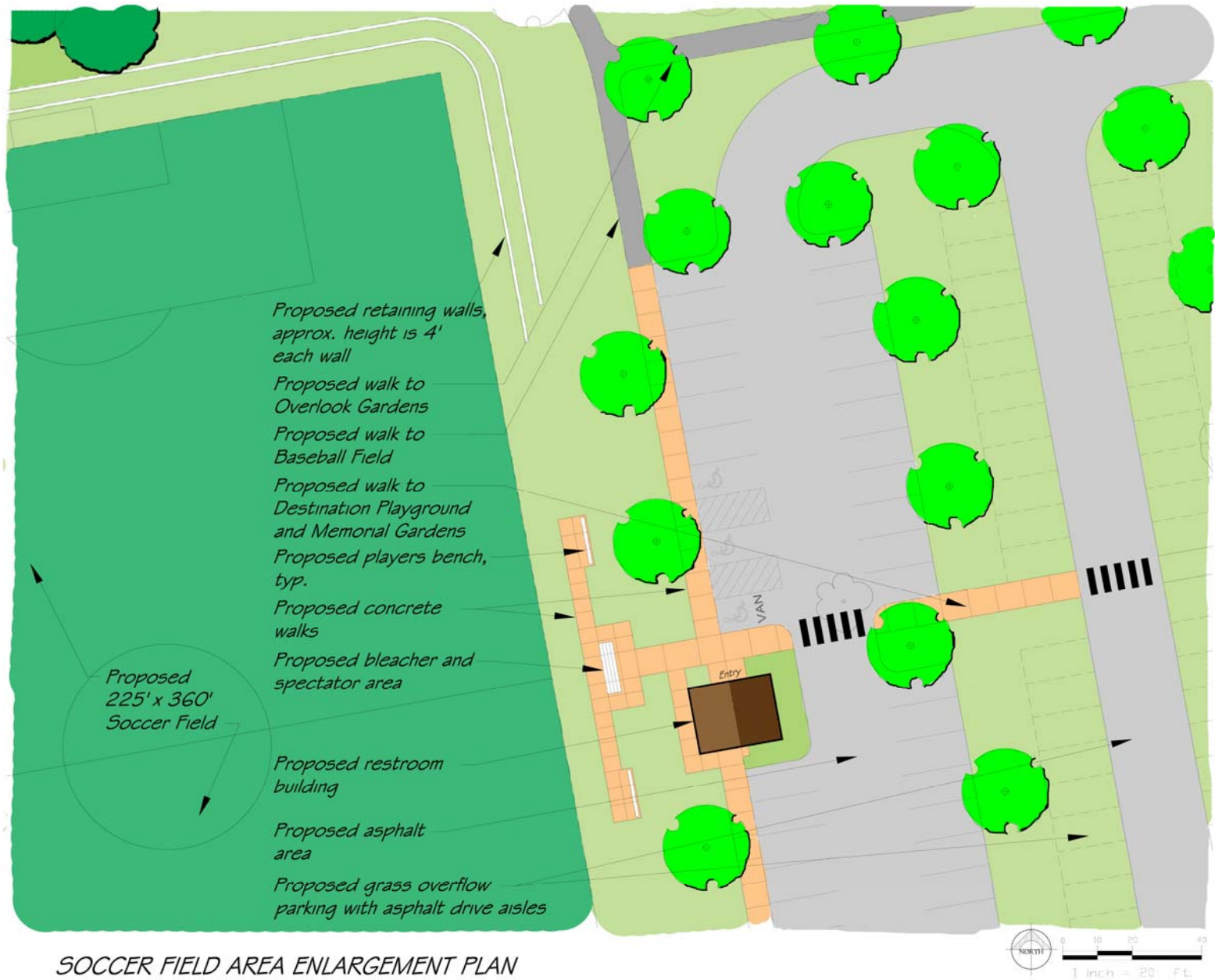
The Destination Playground (#4) and Memorial Garden (#5) enlargement below illustrates two new components of the proposed park master plan. The destination playground will offer four distinct play area experiences for children from ages 2-12 years old. A new restroom building and several small picnic shelters will be available for the public's use. The memorial garden walk will feature opportunities for the public to plant trees in memorial for loved ones and offer several resting areas with benches and decorative paving for contemplation.





## Master Plan (cont.):

The soccer field (#3) enlargement below shows the artificial turf soccer field and the amenities at the entrance. Amenities include a new restroom building, team benches and spectator bleachers.



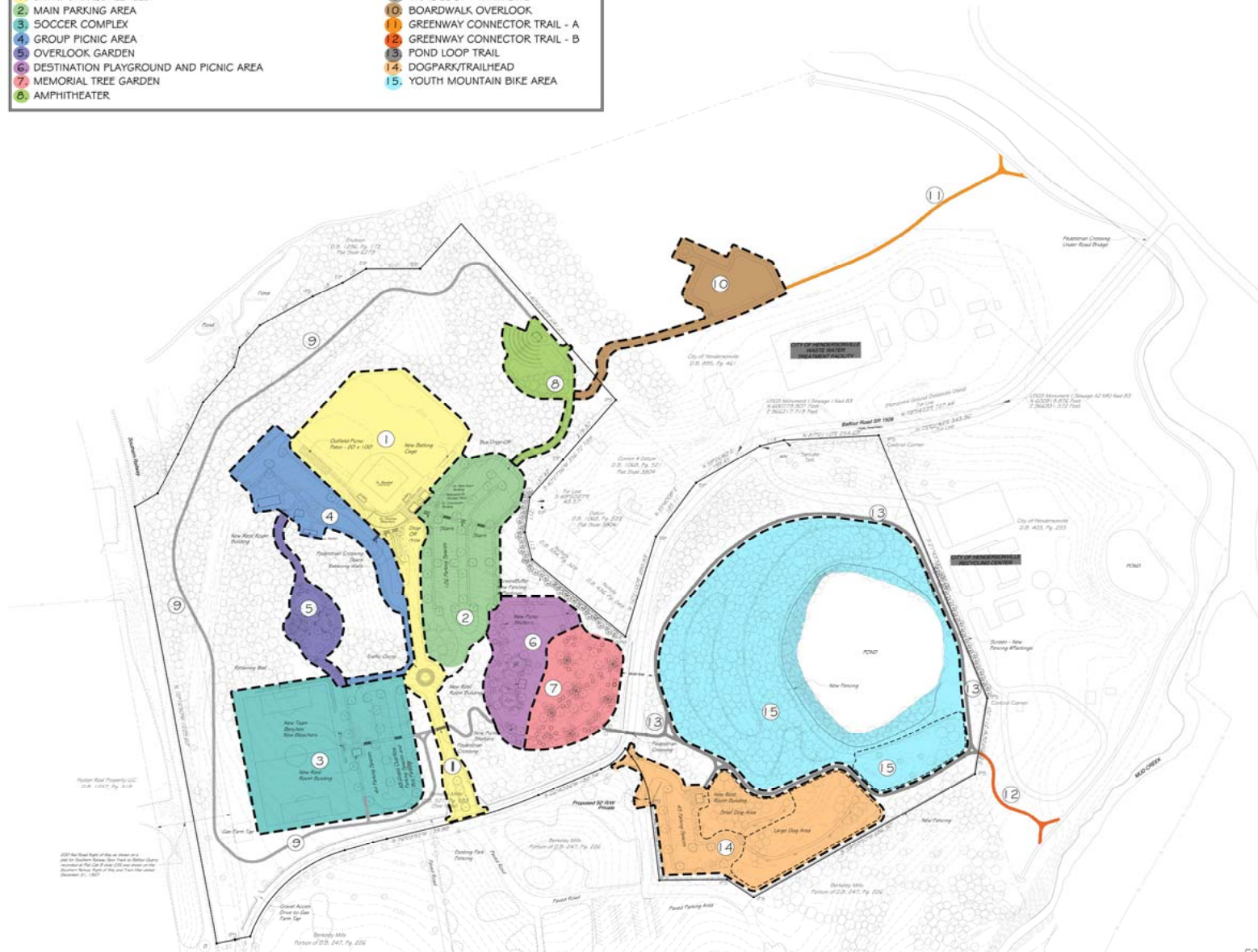
*SOCCKER FIELD AREA ENLARGEMENT PLAN*

# Phasing Plan:

The Phasing Plan below illustrates an optional phasing sequence for the park's development. More importantly, it designates the specific areas of development that correlate to the development cost estimate that follows. It is certainly an option by City Council to develop this park in a different sequence as monies and demand for certain amenities may change in future years. The following estimate allows for the City to consider future development of this park as individual areas to be considered for future Capital Improvement Project budgeting.

## MASTER PLAN PHASING LEGEND

|   |                                  |
|---|----------------------------------|
| 1. ENTRY DRIVE/BALLFIELD                  | 9. TRAIL LOOP - MAIN SITE        |
| 2. MAIN PARKING AREA                      | 10. BOARDWALK OVERLOOK           |
| 3. SOCCER COMPLEX                         | 11. GREENWAY CONNECTOR TRAIL - A |
| 4. GROUP PICNIC AREA                      | 12. GREENWAY CONNECTOR TRAIL - B |
| 5. OVERLOOK GARDEN                        | 13. POND LOOP TRAIL              |
| 6. DESTINATION PLAYGROUND AND PICNIC AREA | 14. DOGPARK/TRAILHEAD            |
| 7. MEMORIAL TREE GARDEN                   | 15. YOUTH MOUNTAIN BIKE AREA     |
| 8. AMPHITHEATER                           |                                  |



## Master Plan Cost Estimate:

Note: This estimate is based on the Berkeley Mills Park Master Plan, dated January 23, 2013 adding City Council comment from February 7, 2013. This estimate reflects our current understanding of construction costs and is the result of prices included in recent bids and with discussions with contractors. Prices may vary somewhat from this estimate at the time the bids are to be let due to material availability, contractor workload, site conditions and economic climate. Soft costs, such as surveying and permitting fees, are not included. Design Fees are included at the end of the estimate.

### Area #1: Entry Drive/Ball Field

|  |      |       |                   |                     |
|--|------|-------|-------------------|---------------------|
| Asphalt Drive                              | 3563 | SY    | \$38.00           | \$135,394.00        |
| Concrete Pavement - 4" thick               | 740  | SY    | \$35.00           | \$25,900.00         |
| Concrete Pavement - 6" thick               | 137  | SY    | \$40.00           | \$5,480.00          |
| Concrete Steps - 34 Risers w/ Railings     | 34   | RISER | \$135.00          | \$4,590.00          |
| Site Grading (import soil)                 | 800  | CY    | \$20.00           | \$16,000.00         |
| Site Retaining Wall (segmental walls)      | 1380 | SFF   | \$22.00           | \$30,360.00         |
| Grandstand Improvements                    | 1    | LS    | \$50,000.00       | \$50,000.00         |
| Concession Building Improvements           | 1    | LS    | \$15,000.00       | \$15,000.00         |
| Dugout Renovations                         | 2    | EA    | \$6,000.00        | \$12,000.00         |
| Soil Preparation/Infield Amendments        | 1    | LS    | \$20,000.00       | \$20,000.00         |
| Irrigation                                 | 1    | LS    | \$15,000.00       | \$15,000.00         |
| Misc. Repairs & Upgrades                   | 1    | LS    | \$15,000.00       | \$15,000.00         |
| Planting                                   | 1    | LS    | \$3,000.00        | \$3,000.00          |
| Signage                                    | 1    | LS    | \$7,500.00        | \$7,500.00          |
| Lighting                                   | 1    | LS    | \$16,500.00       | \$16,500.00         |
| Utilities Upgrade - Water, Sewer, Electric | 1    | LS    | \$20,000.00       | \$20,000.00         |
| Earthwork/Erosion Control                  | 1    | LS    | \$25,000.00       | <u>\$25,000.00</u>  |
|  |      |       | <b>Sub Total:</b> | <b>\$416,724.00</b> |



## Master Plan Cost Estimate (cont.):

### Area #2: Main Parking Area

|  |      |       |                   |                     |
|--|------|-------|-------------------|---------------------|
| Asphalt Drive                          | 3317 | SY    | \$38.00           | \$126,046.00        |
| Asphalt Parking                        | 2959 | SY    | \$30.00           | \$88,770.00         |
| Concrete Pavement - 4" thick           | 1216 | SY    | \$35.00           | \$42,560.00         |
| Concrete Steps - 26 Risers w/ Railings | 26   | RISER | \$135.00          | \$3,510.00          |
| Site Retaining Wall (segmental walls)  | 365  | SFF   | \$35.00           | \$12,775.00         |
| Planting (including screening)         | 1    | LS    | \$32,000.00       | \$32,000.00         |
| Signage                                | 1    | LS    | \$2,500.00        | \$2,500.00          |
| Lighting                               | 1    | LS    | \$27,500.00       | \$27,500.00         |
| Earthwork/Erosion Control              | 1    | LS    | \$30,000.00       | \$30,000.00         |
| Fencing for Screening                  | 550  | LF    | \$24.00           | <u>\$13,200.00</u>  |
|  |      |       | <b>Sub Total:</b> | <b>\$378,861.00</b> |

### Area #3: Soccer Complex

|   |       |     |                   |                       |
|---|-------|-----|-------------------|-----------------------|
| Asphalt Drive                                 | 2213  | SY  | \$38.00           | \$84,094.00           |
| Asphalt Parking                               | 1014  | SY  | \$30.00           | \$30,420.00           |
| Concrete Pavement - 4" thick                  | 3835  | SY  | \$35.00           | \$134,225.00          |
| Site Retaining Wall (segmental walls)         | 3941  | SFF | \$35.00           | \$137,935.00          |
| Restroom Building                             | 1     | LS  | \$115,000.00      | \$115,000.00          |
| Site Furnishings (benches, bleachers & trash) | 1     | LS  | \$10,000.00       | \$10,000.00           |
| Earthwork/Erosion Control                     | 1     | LS  | \$25,000.00       | \$25,000.00           |
| Planting                                      | 1     | LS  | \$4,000.00        | \$4,000.00            |
| Grassing (including soil amendments)          | 86950 | SF  | \$0.50            | \$43,475.00           |
| Soil Preparation/Field Amendments             | 1     | LS  | \$25,000.00       | \$25,000.00           |
| Irrigation                                    | 1     | LS  | \$35,000.00       | \$35,000.00           |
| Signage                                       | 1     | LS  | \$2,500.00        | \$2,500.00            |
| Lighting (Parking Lot-Security)               | 1     | LS  | \$17,500.00       | \$17,500.00           |
| Lighting (Sports-Field)                       | 1     | LS  | \$50,000.00       | \$50,000.00           |
| Utilities - Water, Sewer, Power               | 1     | LS  | \$50,000.00       | \$50,000.00           |
| Artificial Turf Option - Add                  | 1     | LS  | \$500,000.00      | <u>\$500,000.00</u>   |
|   |       |     | <b>Sub Total:</b> | <b>\$1,264,149.00</b> |

## Master Plan Cost Estimate (cont.):

### Area #4: Group Picnic Area

|   |      |    |                   |                     |
|---|------|----|-------------------|---------------------|
| Asphalt Drive                                     | 1882 | SY | \$38.00           | \$71,516.00         |
| Asphalt Parking                                   | 635  | SY | \$30.00           | \$19,050.00         |
| Asphalt Walk 7' Wide                              | 600  | LF | \$35.00           | \$21,000.00         |
| Concrete Pavement - 4" thick                      | 438  | SY | \$35.00           | \$15,330.00         |
| Restroom Building                                 | 1    | LS | \$115,000.00      | \$115,000.00        |
| Refurbish Existing Picnic Shelters                | 1    | LS | \$40,000.00       | \$40,000.00         |
| Site Furnishings (benches, picnic tables & trash) | 1    | LS | \$15,000.00       | \$15,000.00         |
| Earthwork/Erosion Control                         | 1    | LS | \$5,000.00        | \$5,000.00          |
| Planting  | 1    | LS | \$7,500.00        | \$7,500.00          |
| Signage   | 1    | LS | \$2,500.00        | \$2,500.00          |
| Lighting (Parking Lot-Security)                   | 1    | LS | \$20,000.00       | \$20,000.00         |
| Utilities - Water, Sewer, Power                   | 1    | LS | \$50,000.00       | <u>\$50,000.00</u>  |
|   |      |    | <b>Sub Total:</b> | <b>\$381,896.00</b> |

### Area #5: Overlook Garden

|                                       |      |       |                   |                     |
|---------------------------------------|------|-------|-------------------|---------------------|
| Asphalt Walk 7' Wide                  | 1183 | LF    | \$50.00           | \$59,150.00         |
| Gazebo                                | 1    | LS    | \$15,000.00       | \$15,000.00         |
| Playground                            | 1    | LS    | \$25,000.00       | \$25,000.00         |
| Concrete Steps - 7 Risers w/ Railings | 7    | RISER | \$135.00          | \$945.00            |
| Site Furnishings (benches & trash)    | 1    | LS    | \$10,000.00       | \$10,000.00         |
| Earthwork/Erosion Control             | 1    | LS    | \$5,000.00        | \$5,000.00          |
| Planting                              | 1    | LS    | \$3,500.00        | \$3,500.00          |
| Signage                               | 1    | LS    | \$1,750.00        | <u>\$1,750.00</u>   |
|                                       |      |       | <b>Sub Total:</b> | <b>\$120,345.00</b> |

## Master Plan Cost Estimate (cont.):

### Area #6: Destination Playground and Picnic Area

|                                    |     |    |                   |                     |
|------------------------------------|-----|----|-------------------|---------------------|
| Playground - Multiage              | 1   | LS | \$150,000.00      | \$150,000.00        |
| Restroom Building                  | 1   | LS | \$115,000.00      | \$115,000.00        |
| Picnic Shelters                    | 8   | EA | \$20,000.00       | \$160,000.00        |
| Asphalt Walks 7' Wide              | 738 | LF | \$35.00           | \$25,830.00         |
| Concrete Pavement - 4" thick       | 186 | SY | \$35.00           | \$6,510.00          |
| Site Furnishings (benches & trash) | 1   | LS | \$16,000.00       | \$16,000.00         |
| Earthwork/Erosion Control          | 1   | LS | \$15,000.00       | \$15,000.00         |
| Planting                           | 1   | LS | \$4,000.00        | \$4,000.00          |
| Signage                            | 1   | LS | \$2,500.00        | \$2,500.00          |
| Utilities - Water, Sewer, Power    | 1   | LS | \$50,000.00       | <u>\$50,000.00</u>  |
|                                    |     |    | <b>Sub Total:</b> | <b>\$544,840.00</b> |

### Area #7: Memorial Tree Garden

|                                    |      |    |                   |                    |
|------------------------------------|------|----|-------------------|--------------------|
| Asphalt Walks 7' Wide              | 1041 | LF | \$35.00           | \$36,435.00        |
| Special Pavement at Seating Areas  | 1884 | SF | \$7.50            | \$14,130.00        |
| Site Furnishings (benches & trash) | 1    | LS | \$19,800.00       | \$19,800.00        |
| Earthwork/Erosion Control          | 1    | LS | \$10,000.00       | \$10,000.00        |
| Planting                           | 1    | LS | \$12,000.00       | \$12,000.00        |
| Signage                            | 1    | LS | \$2,500.00        | \$2,500.00         |
|                                    |      |    | <b>Sub Total:</b> | <b>\$94,865.00</b> |

### Area #8: Amphitheater

|  |      |       |                   |                     |
|--|------|-------|-------------------|---------------------|
| Asphalt Walks 7' Wide                  | 840  | LF    | \$35.00           | \$29,400.00         |
| Concrete Pavement - 4" thick           | 396  | SY    | \$35.00           | \$13,860.00         |
| Amphitheater Seat Walls                | 1080 | LF    | \$55.00           | \$59,400.00         |
| Concrete Steps - 10 Risers w/ Railings | 10   | RISER | \$135.00          | \$1,350.00          |
| Band Shell Complete - Structure Only   | 1    | LS    | \$50,000.00       | \$50,000.00         |
| Site Furnishings (benches & trash)     | 1    | LS    | \$5,000.00        | \$5,000.00          |
| Earthwork/Erosion Control              | 1    | LS    | \$15,000.00       | \$15,000.00         |
| Lighting (Parking Lot-Security)        | 1    | LS    | \$37,000.00       | \$37,000.00         |
| Planting                               | 1    | LS    | \$2,500.00        | \$2,500.00          |
| Signage                                | 1    | LS    | \$500.00          | <u>\$500.00</u>     |
|  |      |       | <b>Sub Total:</b> | <b>\$214,010.00</b> |



## Master Plan Cost Estimate (cont.):

### Area #9: Trail Loop - Main Site

|  |      |    |         |                     |
|--|------|----|---------|---------------------|
| Asphalt Walks 7' Wide (w/grading & drainage) | 3460 | LF | \$50.00 | <b>\$173,000.00</b> |
|--|------|----|---------|---------------------|

### Area #10: Boardwalk Overlook

|  |     |    |         |             |
|--|-----|----|---------|-------------|
| Asphalt Walks 7' Wide (trail to boardwalk) | 683 | LF | \$50.00 | \$34,150.00 |
|--|-----|----|---------|-------------|

|                      |     |    |          |              |
|----------------------|-----|----|----------|--------------|
| Boardwalk - 10' wide | 638 | LF | \$250.00 | \$159,500.00 |
|----------------------|-----|----|----------|--------------|

|                                    |   |    |            |                   |
|------------------------------------|---|----|------------|-------------------|
| Site Furnishings (benches & trash) | 1 | LS | \$5,000.00 | <u>\$5,000.00</u> |
|------------------------------------|---|----|------------|-------------------|

|                   |  |  |  |                     |
|-------------------|--|--|--|---------------------|
| <b>Sub Total:</b> |  |  |  | <b>\$198,650.00</b> |
|-------------------|--|--|--|---------------------|

### Area #11: Greenway Connector Trail - A

|  |     |    |         |                    |
|--|-----|----|---------|--------------------|
| Asphalt Walks 7' Wide- from Boardwalk to | 810 | LF | \$50.00 | <b>\$40,500.00</b> |
|--|-----|----|---------|--------------------|

Future Oklawaha Greenway

### Area #12: Greenway Connector Trail - B

|   |     |    |         |                    |
|---|-----|----|---------|--------------------|
| Asphalt Walks 7' Wide- from Pond Loop Trail | 558 | LF | \$50.00 | <b>\$27,900.00</b> |
|---|-----|----|---------|--------------------|

to Future Oklawaha Greenway

### Area #13: Pond Loop Trail

|  |      |    |         |              |
|--|------|----|---------|--------------|
| Asphalt Walks 7' Wide (trail to boardwalk) | 2869 | LF | \$50.00 | \$143,450.00 |
|--|------|----|---------|--------------|

|  |   |    |            |            |
|--|---|----|------------|------------|
| Site Furnishings (picnic tables & trash) | 1 | LS | \$5,000.00 | \$5,000.00 |
|--|---|----|------------|------------|

|         |      |    |         |             |
|---------|------|----|---------|-------------|
| Fencing | 1230 | LF | \$24.00 | \$29,520.00 |
|---------|------|----|---------|-------------|

|                   |   |    |            |                   |
|-------------------|---|----|------------|-------------------|
| Planting - Buffer | 1 | LS | \$7,500.00 | <u>\$7,500.00</u> |
|-------------------|---|----|------------|-------------------|

|                   |  |  |  |                     |
|-------------------|--|--|--|---------------------|
| <b>Sub Total:</b> |  |  |  | <b>\$185,470.00</b> |
|-------------------|--|--|--|---------------------|

## Master Plan Cost Estimate (cont.):

### Area #14: Dogpark/Trailhead

|   |      |    |                   |                     |
|---|------|----|-------------------|---------------------|
| Asphalt Drive                                     | 1419 | SY | \$38.00           | \$53,922.00         |
| Asphalt Parking                                   | 1451 | SY | \$30.00           | \$43,530.00         |
| Concrete Pavement - 4" thick                      | 711  | SY | \$35.00           | \$24,885.00         |
| Restroom Building                                 | 1    | LS | \$115,000.00      | \$115,000.00        |
| Asphalt Walks 7' Wide (trail to boardwalk)        | 572  | LF | \$35.00           | \$20,020.00         |
| Site Furnishings (benches, picnic tables & trash) | 1    | LS | \$15,000.00       | \$15,000.00         |
| Fencing   | 2115 | LF | \$24.00           | \$50,760.00         |
| Earthwork/Erosion Control                         | 1    | LS | \$25,000.00       | \$25,000.00         |
| Planting  | 1    | LS | \$7,500.00        | \$7,500.00          |
| Signage   | 1    | LS | \$2,500.00        | \$2,500.00          |
| Lighting (Parking Lot-Security)                   | 1    | LS | \$15,000.00       | \$15,000.00         |
| Utilities - Water, Sewer, Power                   | 1    | LS | \$50,000.00       | <u>\$50,000.00</u>  |
|   |      |    | <b>Sub Total:</b> | <b>\$423,117.00</b> |

### Area #15: Youth Mountain Bike Area

|   |      |    |                   |                     |
|---|------|----|-------------------|---------------------|
| Bike Trails - Pit Gravel                    | 3104 | LF | \$15.00           | \$46,560.00         |
| Skills Park                                 | 1    | LS | \$35,000.00       | \$35,000.00         |
| Site Furnishings (benches, signage & trash) | 1    | LS | \$5,000.00        | \$5,000.00          |
| Fencing                                     | 1267 | LF | \$24.00           | <u>\$30,408.00</u>  |
|   |      |    | <b>Sub Total:</b> | <b>\$116,968.00</b> |

|                           |                            |
|---------------------------|----------------------------|
| <b>Total:</b>             | <b>\$4,581,295.00</b>      |
| <b>Contingency @ 10%:</b> | <b>\$458,129.50</b>        |
| <b>Design Fees @ 10%:</b> | <b><u>\$458,129.50</u></b> |
| <b>Grand Total:</b>       | <b>\$5,497,554.00</b>      |

## Berkeley Mills Park Master Plan Maintenance and Management Plan (MMP):

The chart below estimates the required operations and maintenance requirements for the elements proposed for the park. It is broken out by the areas delineated on the Phasing Plan. Basic maintenance is completed on a regular basis and inspections are done periodically. Responsibility for maintenance of City Parks is under the Public Works department. The chart below will aid the department in estimating the costs of operating and maintaining each of the park's proposed elements.

|                                       | Acres/Linear Feet        | Lawn Care (Seasonal) | Fertilization | Irrigation/Watering | Sanitation/Litter Control (Spring, Summer & Fall) | Sanitation/Litter Control (Winter) | Floral/Planting Maint. | Tree Plantings | Pruning | Lighting | Paved Surfaces | Safety Inspection | Restrooms(Spring, Summer & Fall) | Restrooms(Winter) |
|---------------------------------------|--------------------------|----------------------|---------------|---------------------|---|------------------------------------|------------------------|----------------|---------|----------|----------------|-------------------|----------------------------------|-------------------|
| 1. Entry Drive/Ballfield              | 4.5 AC                   | 2 x/ WK              | 2 x/ YR       | 2 x/ WK             | 3 x/ WK   | 1 x/ WK                            | 2 x/ WK                | 2 x/ MO        | 1 x/ MO | 1 x/ MO  | 1 x/ WK        | 1 x/ WK           | 3 x/ WK                          | 1 x/ WK           |
| 2. Main Parking Area                  | 2.7 AC                   | 1 x/ WK              | 2 x/ YR       | 1 x/ WK             | 3 x/ WK   | 1 x/ WK                            | 1 x/ WK                | 2 x/ MO        | 1 x/ MO | 1 x/ MO  | 1 x/ WK        | 2 x/ MO           | N/A                              | N/A               |
| 3. Soccer Complex                     | 4.1 AC                   | 2 x/ WK              | 2 x/ YR       | 2 x/ WK             | 3 x/ WK   | 1 x/ WK                            | 2 x/ WK                | 2 x/ MO        | 1 x/ MO | 1 x/ MO  | 1 x/ WK        | 1 x/ WK           | 3 x/ WK                          | 1 x/ WK           |
| 4. Group Picnic Area                  | 1.7 AC                   | 1 x/ WK              | 2 x/ YR       | 1 x/ WK             | 3 x/ WK   | 1 x/ WK                            | 2 x/ WK                | 2 x/ MO        | 1 x/ MO | 1 x/ MO  | 1 x/ WK        | 1 x/ WK           | 3 x/ WK                          | 1 x/ WK           |
| 5. Overlook Garden                    | 0.7 AC                   | 1 x/ WK              | 2 x/ YR       | 2 x/ WK             | 3 x/ WK   | 1 x/ WK                            | 2 x/ WK                | 2 x/ MO        | 1 x/ MO | 1 x/ MO  | 1 x/ WK        | 1 x/ WK           | N/A                              | N/A               |
| 6. Destination Playground/Picnic Area | 1.5 AC                   | 1 x/ WK              | 2 x/ YR       | 2 x/ WK             | 3 x/ WK   | 1 x/ WK                            | 2 x/ WK                | 2 x/ MO        | 1 x/ MO | 1 x/ MO  | 1 x/ WK        | 1 x/ WK           | 3 x/ WK                          | 1 x/ WK           |
| 7. Memorial Tree Garden               | 1.5 AC                   | 1 x/ WK              | 2 x/ YR       | 2 x/ WK             | 3 x/ WK   | 1 x/ WK                            | 2 x/ WK                | 2 x/ MO        | 1 x/ MO | 1 x/ MO  | 1 x/ WK        | 2 x/ MO           | N/A                              | N/A               |
| 8. Amphitheater                       | 0.9 AC                   | 1 x/ WK              | 2 x/ YR       | N/A                 | 1 x/ WK   | 1 x/ WK                            | 1 x/ WK                | N/A            | 1 x/ MO | 1 x/ MO  | 1 x/ WK        | 2 x/ MO           | N/A                              | N/A               |
| 9. Trail Loop – Main Site             | 3640 LF                  | 1 x/ WK              | 2 x/ YR       | N/A                 | 1 x/ WK   | 1 x/ WK                            | 1 x/ WK                | N/A            | 2 x/ YR | N/A      | 2 x/ MO        | 2 x/ MO           | N/A                              | N/A               |
| 10. Boardwalk Overlook                | 1320 LF                  | 1 x/ WK              | N/A           | N/A                 | N/A   | N/A                                | N/A                    | N/A            | N/A     | N/A      | 1 x/ WK        | 1 x/ MO           | N/A                              | N/A               |
| 11. Greenway Connector – Trail A      | 810 LF                   | 1 x/ WK              | 2 x/ YR       | N/A                 | 1 x/ WK   | 1 x/ WK                            | N/A                    | N/A            | 2 x/ YR | N/A      | 2 x/ MO        | 2 x/ MO           | N/A                              | N/A               |
| 12. Greenway Connector – Trail B      | 558 LF                   | 1 x/ WK              | 2 x/ YR       | N/A                 | 1 x/ WK   | 1 x/ WK                            | N/A                    | N/A            | 2 x/ YR | N/A      | 2 x/ MO        | 2 x/ MO           | N/A                              | N/A               |
| 13. Pond Loop Trail                   | 2869 LF                  | 1 x/ WK              | 2 x/ YR       | N/A                 | 1 x/ WK   | 1 x/ WK                            | N/A                    | N/A            | 2 x/ YR | N/A      | 2 x/ MO        | 2 x/ MO           | N/A                              | N/A               |
| 14. Dogpark/Trailhead                 | 3.4 AC                   | 1 x/ WK              | 2 x/ YR       | 1 x/ WK             | 3 x/ WK   | 1 x/ WK                            | 1 x/ WK                | 2 x/ MO        | 1 x/ MO | 1 x/ MO  | 1 x/ WK        | 2 x/ WK           | 3 x/ WK                          | 1 x/ WK           |
| 15. Youth Mountain Bike Area          | 3104 LF                  | 1 x/ WK              | 2 x/ YR       | N/A                 | 1 x/ WK   | 1 x/ WK                            | 1 x/ WK                | 2 x/ MO        | 1 x/ MO | N/A      | 1 x/ WK        | 1 x/ WK           | N/A                              | N/A               |
| Remainder of Park/Natural Areas       | 33.1 AC<br>(± 5 AC Lawn) | 1 x/ WK              | 2 x/ YR       | N/A                 | N/A   | N/A                                | N/A                    | N/A            | 2 x/ YR | N/A      | N/A            | N/A               | N/A                              | N/A               |