



# BILL YECK PARK TRAIL MASTER PLAN

## *EXECUTIVE SUMMARY*

MAY 8, 2019

CONSULTANT TEAM:



PREPARED FOR:





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# **BILL YECK PARK TRAIL MASTER PLAN**

## ***EXECUTIVE SUMMARY***

### ***PROJECT OVERVIEW***

The Centerville-Washington Park District initiated the trail master plan as a priority from the 2016-2019 Strategic Plan. The goal of the project was to analyze the environmental, ecological and experiential aspects of Bill Yeck Park's trail system and develop recommendations for how it should evolve in future years. A consultant team of landscape architects, ecological scientists and trail builders conducted various site visits throughout 2018 and facilitated a public engagement strategy to develop a baseline understanding of the park and its users. At the conclusion of the planning effort, the Bill Yeck Park Trail Master Plan was written to summarize the site observations and public feedback and propose recommendations for the future of the park's trail system, which are briefly summarized below.

A series of maps were also created and are included at the end of this document. The maps include the Current Park Map, created by the park district and showing the existing trails; Proposed Trail Modifications, showing how the existing trail system should be modified; Proposed Trail Master Plan, showing a revised trail network after the recommendations are implemented; and the Proposed Trail Wayfinding, showing locations for a hierarchy of sign types introduced in the Wayfinding Recommendations section.

### **MASTER PLAN SUMMARY**

#### ***1 - PUBLIC INPUT***

To understand how the public uses and perceives their experiences on the trails, the consultant and client team conducted a two-part public input process using a combination of an online survey and open house meetings as described below:

1. A 22-question, web-based survey asked residents about their use habits, frequency of visits to the park, and both concerns and positive impressions of the trail system. At the conclusion of the survey, which was open from July to December 2018, over 250 residents from the greater Dayton area participated in the survey. The following themes summarize the most consistently reported reactions from the public input process:
  - Respondents enjoy the unprogrammed, natural setting of the park and view it as a major asset to the community. Most respondents like the park as it is and only want to see specific improvements rather than wholesale modifications.
  - Improving wayfinding and signage to navigate the park was one of the most frequently cited requests for improvement.
  - Reducing the frequency of muddy trails and the presence of invasive vegetation were often noted.
  - Respondents were divided on their view of existing stone stream crossings. Some people preferred them unchanged while others wanted to see them rebuilt.
2. Two open house meetings were held at the Smith House on November 15 and 17, 2018. Representatives from the consultant team and park district were available to discuss the objectives of the planning process and collect feedback from participants. Graphic presentation boards displayed observations of the trails made by the consultant team and summarized the results of the current online survey. Participants were asked to complete comment cards and those who had not taken the online survey were given the opportunity to complete it using handheld electronic tablets.



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## 2 - ECOLOGICAL SITE ASSESSMENT

MAD Scientist Associates conducted site visits to develop a General Site Characterization of the park to serve as an informational baseline about the composition of plants and wildlife in the park. The site characterization involved approximate mapping of wetlands and streams, a general evaluation of the quality of observed water features, identification of plant and wildlife species, and mapping of miscellaneous points of interest or concern (e.g., threatened and endangered species habitat, trails, stream erosion, invasive species concentrations, trash/debris piles, etc.). During their site visits, the teams made the following general observations:

- Bank erosion/failure: Bank erosion issues were observed along Sugar Creek and are exacerbated by stormwater runoff from surrounding residential development. Since the streams are already well-buffered in the park, coordinating with nearby landowners to redirect stormwater through methods such as pretreatment wetlands may be the next best scenario for reducing further erosion. A regime of earthwork, adding plantings along the banks and possibly considering structures like retaining and gabion walls should be used to stabilize areas of existing bank erosion.
- Ash tree removal: Dead and dying ash trees are common throughout the park, and while they offer valuable wildlife habitat, they should be removed from areas close to trails for safety and liability reasons.
- Invasive species management: Amur honeysuckle is pervasive across the park, and a varied year-round approach using both physical and mechanical methods should be implemented to reduce honeysuckle populations.
- Prairie maintenance: Implementing a fire-management regimen in the meadows to limit invasive species and improve biodiversity of prairies should be considered.

## 3 - SITE OBSERVATIONS

The current trail system is comprised of seven color-designated trails and many additional unnamed trails. After several site visits, the consultant team made the following observations about the trails:

- A need for simplification: In addition to the color-named trails there are also many other unnamed trails leading to surrounding neighborhoods, trails crisscrossing through meadows and desire paths worn by users throughout the park. Without adequate signage, the layout of the existing trails can be confusing and the trail system should be simplified.
- Muddy trails: Mud and standing water on the trails were frequent throughout the park. Existing puncheons, or boardwalks, were insufficient. Methods like extending puncheons in certain locations and elevating trail treads needs to be implemented.
- Inadequate wayfinding: Signage, trail markers and park maps were inadequate along the trails. A more robust signage system should be implemented.
- Hazardous structures: Stairs, stream crossings and other structures throughout the trails pose a mobility challenge to some park visitors. While these features provide notable and interesting moments in the park, they should be enhanced or eliminated in some locations to improve the experiences of more park users.
- Stream erosion: As noted in the ecological assessment, stream bank erosion undercut segments of trails and concrete stairs leading to the stream. Methods for bank stabilization need to be implemented to ensure the stability of trails near the stream.



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## 4 - RECOMMENDATIONS

### General Trail Recommendations

In response to the feedback from the public, the ecological assessment and observations from site visits, the following list of recommendations was developed for the park's trails:

- Improve wayfinding: Develop a new signage system to improve trail navigability.
- Reclassify trails: Trails should be developed according to the current USDA guidelines for *Trail Fundamentals and Trail Management Objectives*.
- Rebuild trails: Rebuild trails with elevated treads and construct puncheons boardwalks as required to alleviate consistently wet areas.
- Simplify trails: Reduce or eliminate trail intersections when possible to avoid confusion
- Remove structures: Phase-out deteriorated structures like steps and regrade or reroute trails in place of these wood structures as much as possible.
- Decommission trails: Eliminate portions of trails to improve user experience as necessary.
- Improve stream crossings: Remove or rebuild existing stream crossings.
- Develop a maintenance plan: Create a follow-up comprehensive trail maintenance plan.
- Stabilize stream bank erosion: Reduce stream bank erosion in certain locations by prioritizing areas that directly impact trails.

### Trail System Layout Recommendations

After an analysis of the existing trail system, the following points are recommendations to simplify the existing trail network through a series of named loop trails designated by graphic symbol or icon in addition to color:

- Smith Meadow Loop Trail: Combines the former paved Purple Trail with the northern loop of the former Orange Trail
- Fossil Gulch Loop Trail: A double-loop along Fossil Gulch to the north and much of the former Yellow Trail to the south
- Forest Field Loop Trail: A double-loop network created by combining the existing Green Trail around the perimeter of the Forest Field with the Time Trail to the east
- McGuffey Meadow Loop Trail: Follows the existing alignment of the Yellow Trail through the McGuffey Meadow
- Western Loop Trail: A modification of the existing Brown Trail creating a loop through a currently undeveloped section of the park
- Rooks Mill Trail: A gently-sloped 6-8' wide paved access path from the east side of Rooks Mill Ln. to the observation area at Sugar Creek
- Perimeter Loop Trail: Creates one continuous path around the perimeter of the park by utilizing both portions of the previously described trails with other trail segments

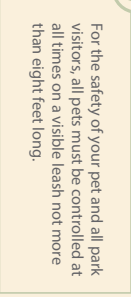
### Wayfinding Recommendations

Inadequate signage was one of the most consistent topics communicated by the public. Some of the problems include too few signs and maps, unidentified trails and an inability to gauge distances on the trails. A model for wayfinding was developed using a hierarchy of sign types summarized as follows:

- Trail node sign: Placed at specific named-nodes in the park and includes the trail name, a symbol and color to uniquely identify each trail, a map and directional arrows to nearby landmarks
- Trailhead marker: Placed at intersecting trails and includes the same information as trail node signs
- Landmark identifier: Used to highlight significant landmarks and create consistent names for them
- Neighborhood marker: Identifies nearby street names at trails leading out of the park
- Park boundary sign: Used to identify the park's property limits
- Interpretive signs: Informational signs placed at unique historical and ecological points of interest






CENTERVILLE-WASHINGTON PARK DISTRICT

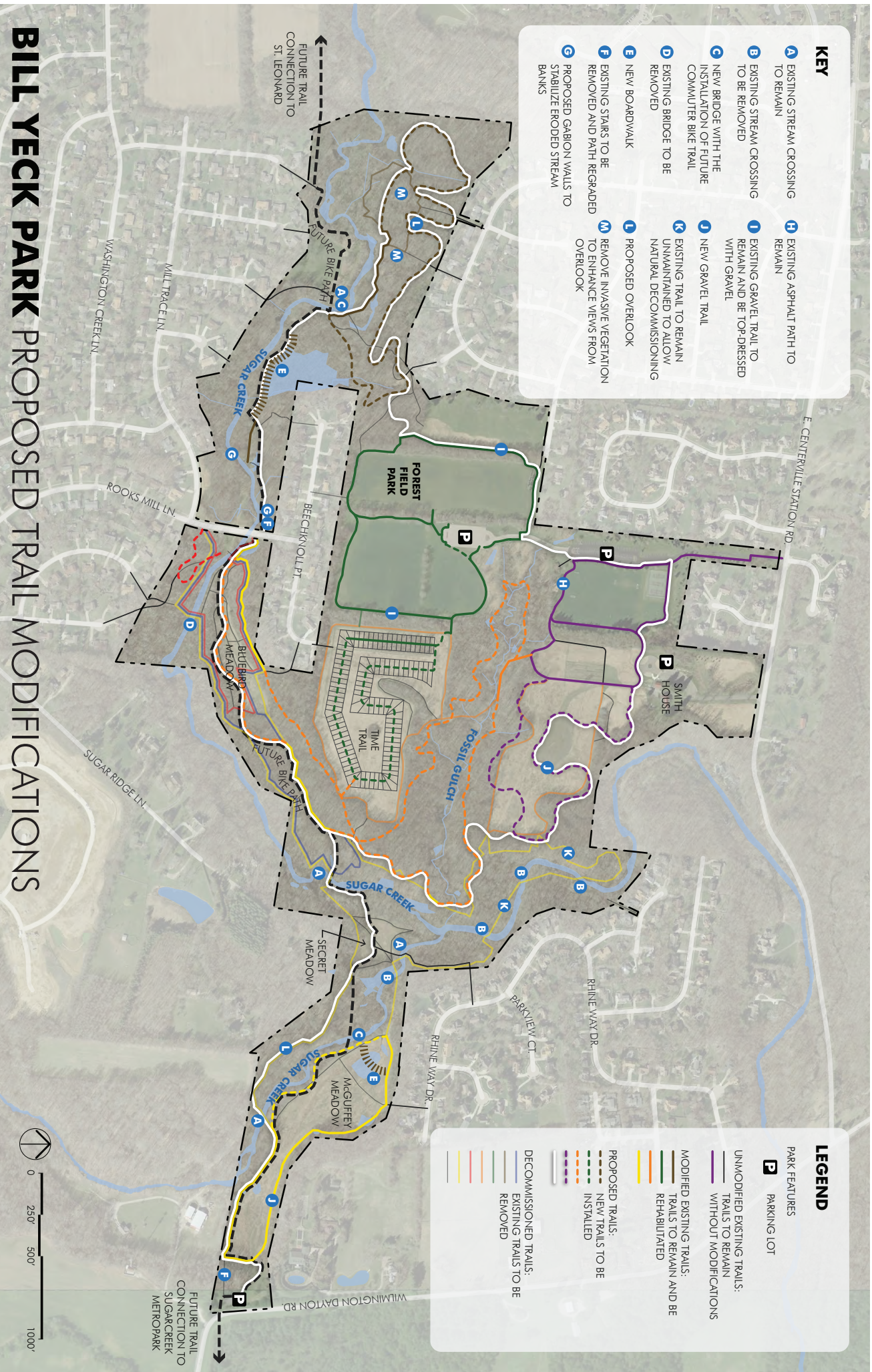


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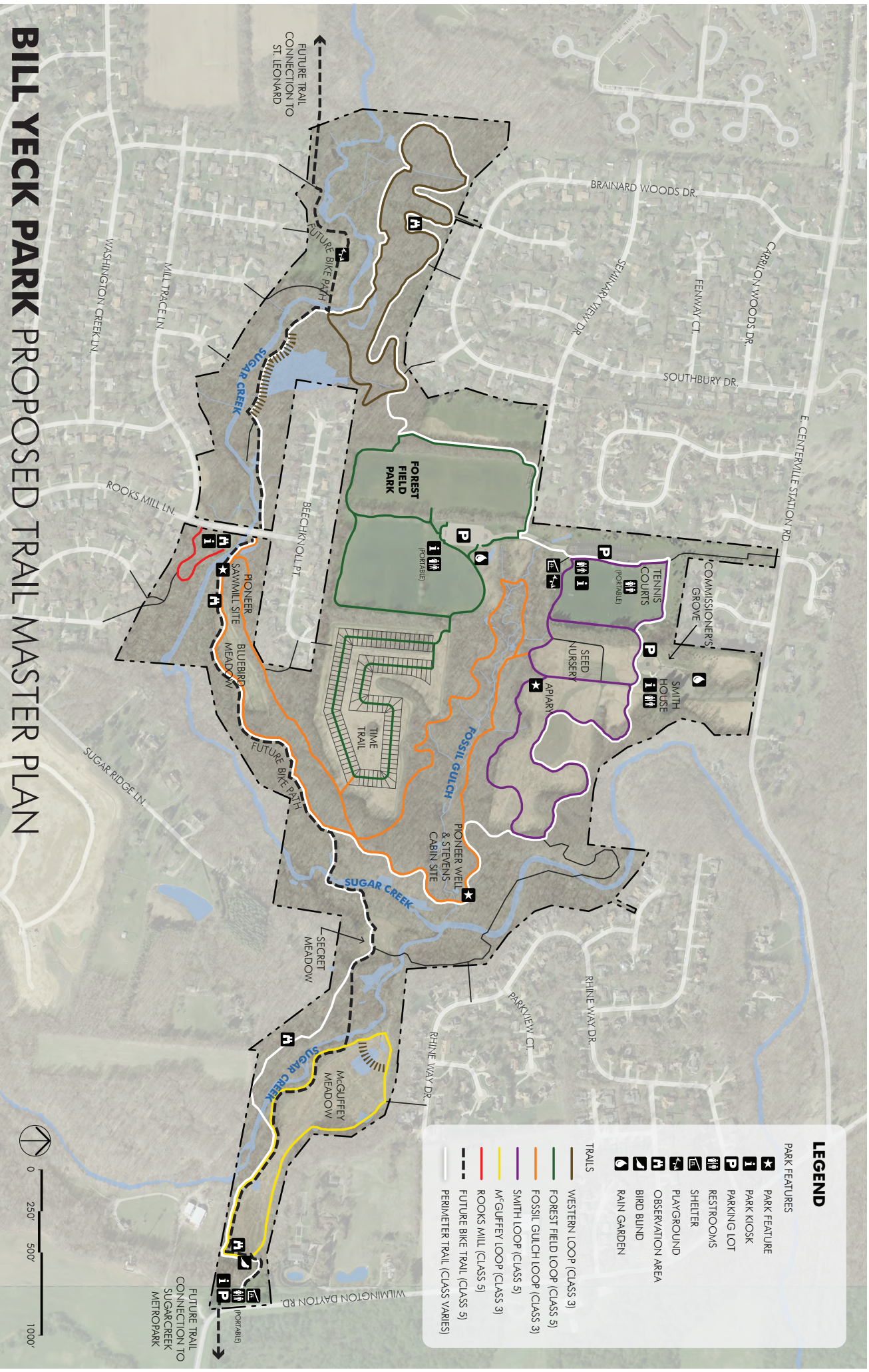
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- ## LEGEND
-  "You Are Here" Sign
  -  AED
  -  Park Entrance
  -  Park Feature
  -  Park Kiosks
  -  Parking Lot
  -  Restrooms
  -  Shelter
  -  Playground
  -  Observation Deck
  -  Bird Blind
  -  Open Area
  -  Wooded Area
  -  Meadow
  -  Marsh
  -  Bill Yeck Park Boundary
  -  Forest Field Park Boundary
  -  Red Trail – .5 Mile
  -  Blue Trail – 1 Mile  
(Overlander's Tree Trail)
  -  Brown Trail – 1.2 Miles
  -  Yellow Trail – 2.7 Miles
  -  Orange Trail – 1.6 Miles
  -  Purple Trail – 1 Mile
  -  Green Trail – .85 Miles
  -  Trail
  -  Walkway



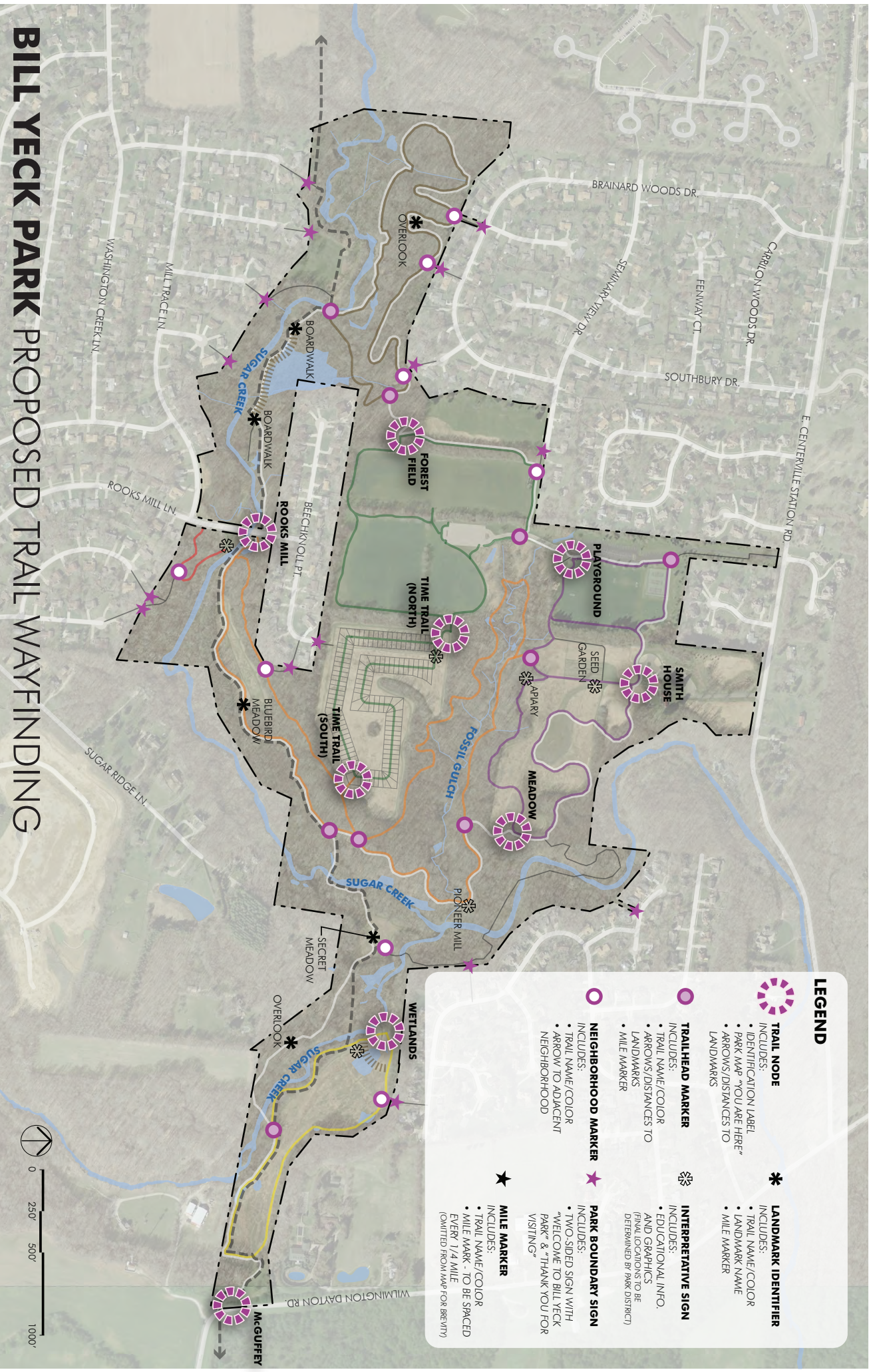






This graphic shows a revised trail system after the recommendations are implemented.





This graphic shows the placement of a hierarchy of sign types described in the Wayfinding Recommendations section.