



# Randolph Woods Nature Preserve

## MASTER SITE PLAN

**Public Meeting # 3 – June 24<sup>th</sup>, 2020**

# Meeting Agenda

- **Introductions**
- **Public Input**
  - **Public Meeting #1 – January 22, 2020**
  - **Opinion Survey**
  - **Public Meeting # 2 - May 6<sup>th</sup>, 2020**
- **Draft Forestry & Ecology Reports**
- **Draft Master Site Plan**
- **Implementation**
- **Discussion**

This presentation does not contain all of the information that is in the draft report. The draft report will be available on the Borough Web site on July 1 for a 30+ day public review and comment period.



## MASTER PLAN VISION STATEMENT

**“The Randolph Woods Nature Preserve aspires to be a vital part of Malvern’s park system, provide nature based passive recreation and community activity, while promoting natural resource conservation, land stewardship, and related education.”**

# Project Team

## Simone Collins Landscape Architecture

- **Peter Simone, RLA, FASLA**
- **Sarah Leeper, RLA, ASLA**
- **Joe Wallace, ASLA**

## Comprehensive Land Services

- **Patrick Fasano, Forester**

## Applied Ecological Services

- **Michael McGraw, Wildlife Biologist**



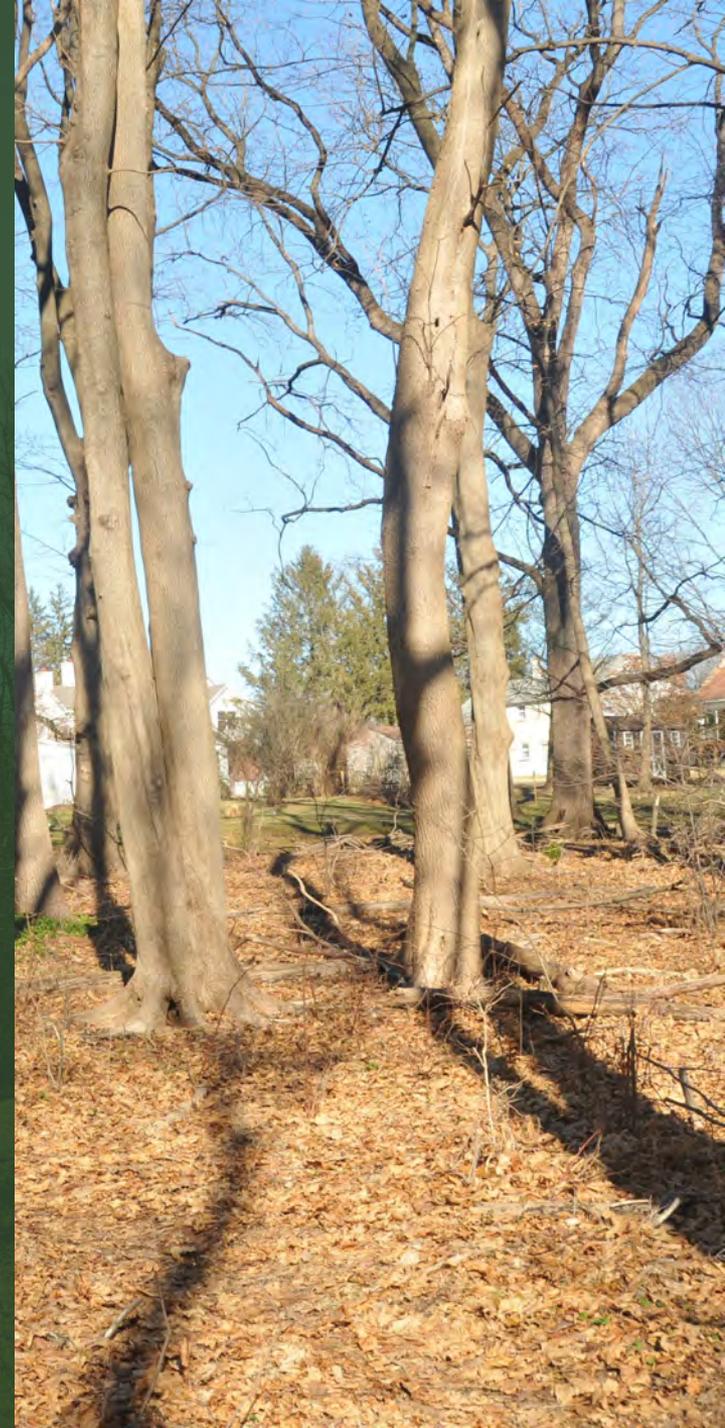
# Master Plan Committee

## Committee:

- Mark Niemiec, Chair
- Brian Walker, Vice-Chair
- Christopher Bashore, Secretary
- Helise Bichefsky-Reilly, D.O.
- Joe Bones
- John Butow
- Brian Hamilton
- John Meisel
- Brendan Phillips
- Barbara Rutz
- Zoe Warner, Ph.D.

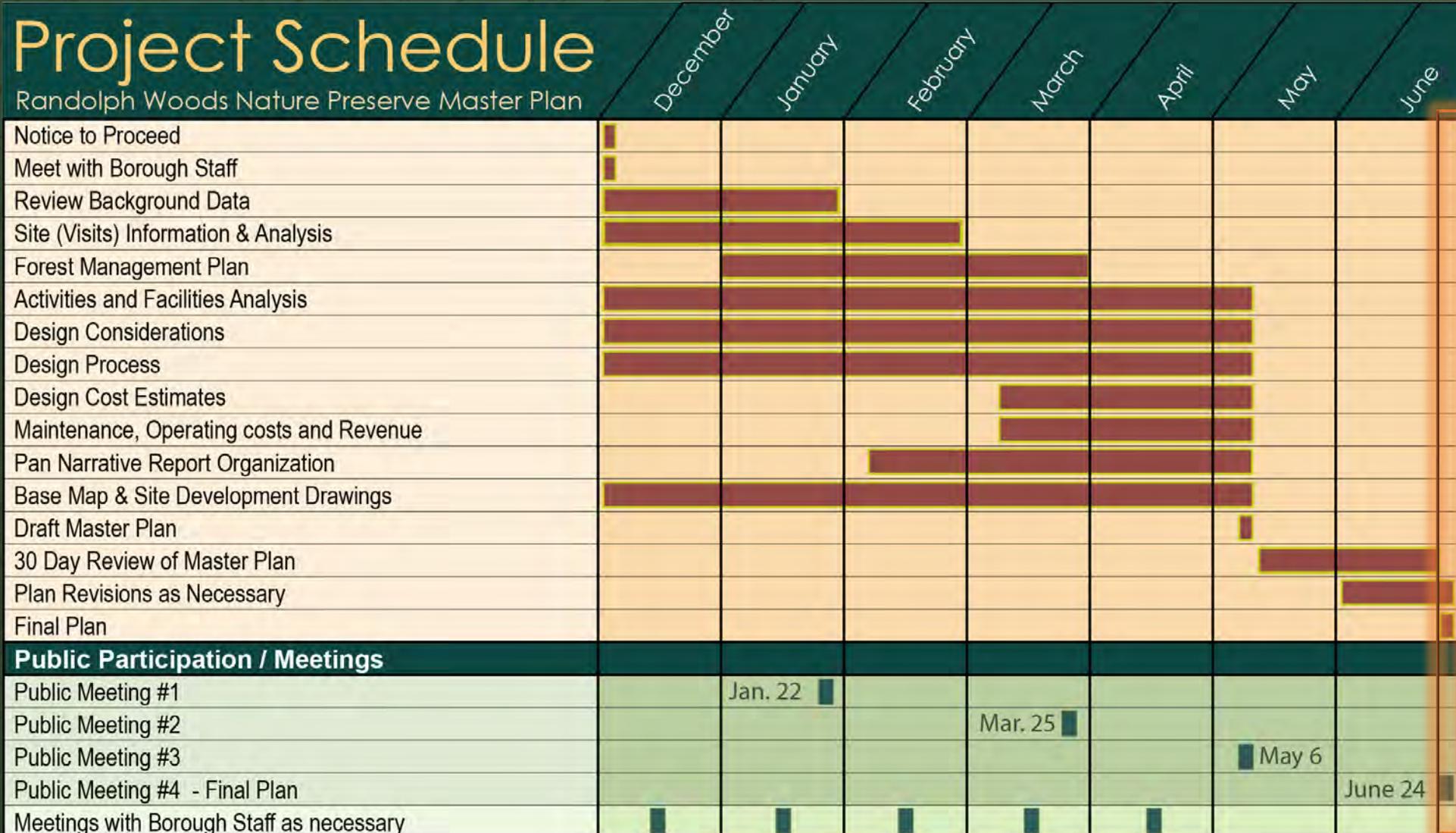
## Professional Guidance:

- Andrew Kirkpatrick, Willistown Conservation Trust, Director of Stewardship



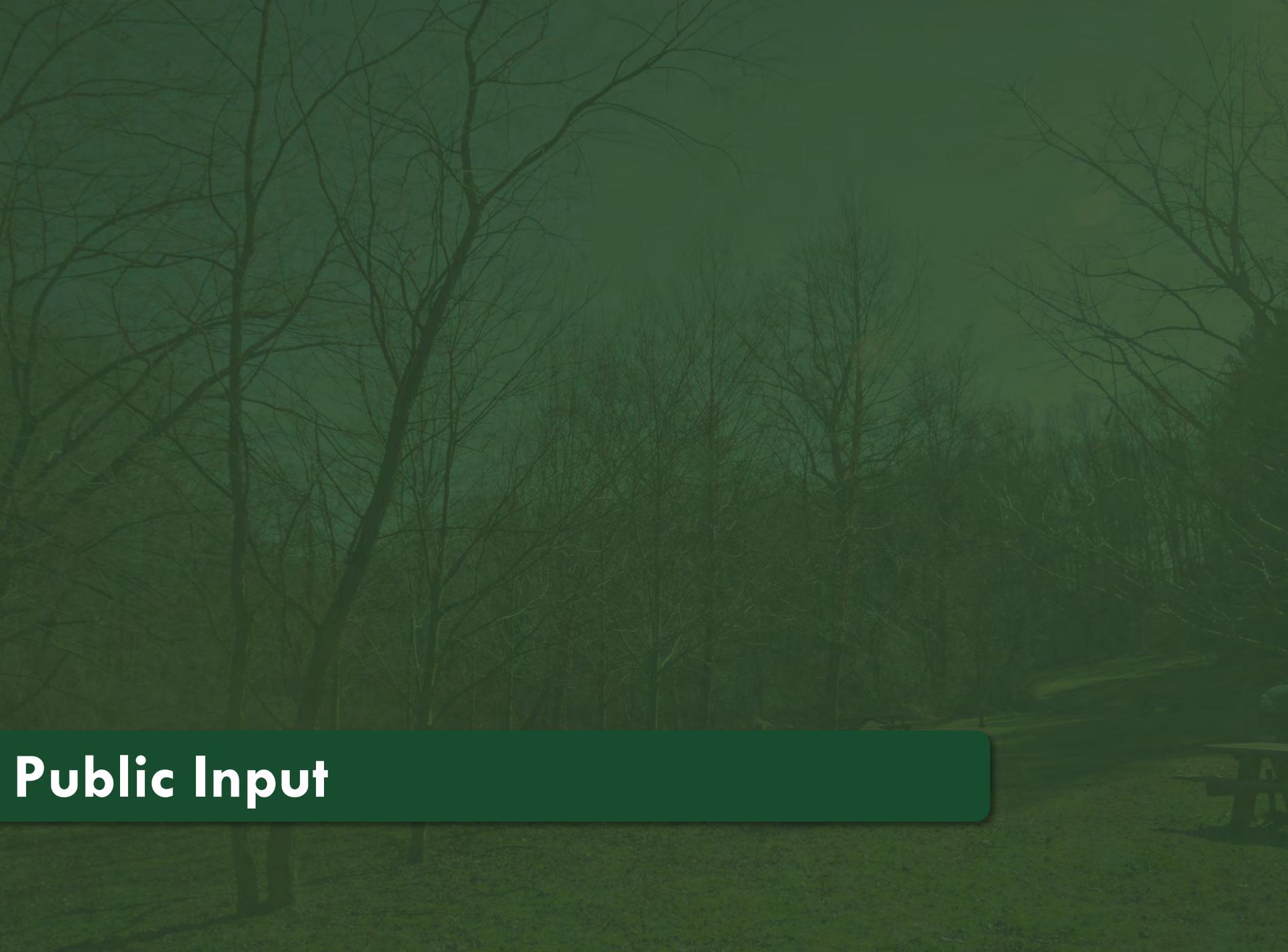
# Project Schedule

Randolph Woods Nature Preserve Master Plan



We are at the third meeting on June 24 due to Covid-19  
 The Final Meeting Date is To Be Determined  
**Late September / Early October**



The background of the slide is a dark green color with a faint, semi-transparent image of a forest. The trees are mostly bare, suggesting a late autumn or winter setting. In the lower right corner, a wooden picnic table is visible. The overall mood is quiet and natural.

# Public Input

# Public Meeting #1

• 40 Attendees

## Goal

- Create preserve master plan
- Protect and enhance natural resources
- Improve water quality
- Make Randolph Woods a night sky preserve
- Consider how preserve uses affect natural resources
- Preserve open space across Borough
- Get more kids to play in the woods

## Facts

- Large open space in the Borough
- Entry to Randolph Woods by public works is not attractive
- The forest / canopy is not healthy and in decline
- Malvern is walkable
- Randolph Woods is a regional park
- Second bridge trail has steep slope
- Steep Topography
- Deer eating understory
- 43 Acres
- Current trail locations are unclear
- Many invasives in forest
- Dogs must be leashed
- Many people are moving to Malvern.

## Concepts

- Address stormwater runoff from parking area
- Make biking as safe as possible
- Avoid blanket 'no biking' policy
- Fix forest health
- Make Randolph Woods accessible for kids
- Celebrate water of Ruth Run
- Encourage borough-wide biking
- Educate the broader biking community
- Focus funding on 38 acres in easement
- Trails to have minimal ecological impact
- More trash cans
- Need better signage for walkers / bikers
- Walking trails
- Biking trails
- Restrooms
- Pavilions with educational elements
- Section of the woods / trails just for biking
- Remove invasives
- More benches in general
- No lighting in Randolph Woods
- More benches at the two bridges
- Bat boxes

- Unpaved trail into park
- Community to help with trail maintenance
- Dog park
- Nighttime park activities
- Butterfly garden
- Wetland boardwalk
- Water fountains for water bottle filling
- Integrate pump house for water bottle filling station
- Develop sprinkler or irrigation system for plants not doing well
- Trail markers for bikers and walkers
- Bird house / bluebird houses
- Use ADA laws to improve site access
- Fix steep trail currently in drainageway
- Better park surveillance
- Great Valley Mountain Bike Club
- Willistown Conservation Trust
- Crum Creek Watershed Association
- Local Schools
- Malvern Arts
- Bluebird Society

# Public Opinion Survey

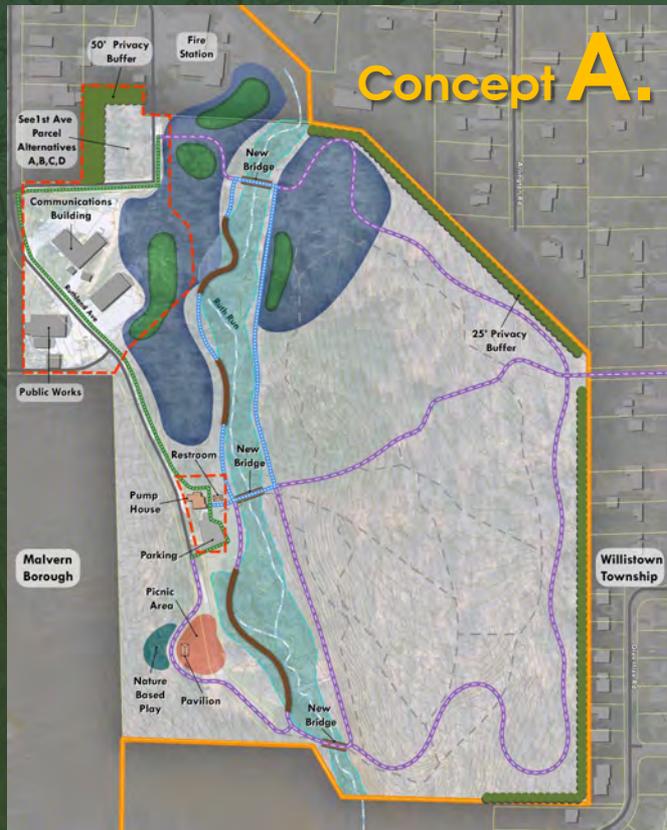
- 465 survey responses

fact<sub>preserve</sub> feel<sub>woods</sub> right<sub>open space</sub> park<sub>paved</sub> close<sub>secluded</sub>  
natural<sub>nice</sub> area<sub>great</sub> walk<sub>go</sub> quiet<sub>small</sub> trails  
house nature<sub>trees</sub> peaceful<sub>quiet place</sub> s<sub>kids</sub> borough<sub>stream</sub>  
Malvern love

*The 'word cloud' below represents the words most often used to answer the question: "What do you like most about Randolph Woods Nature Preserve?" The larger the font, the more popular the response.*

# Public Meeting #2

- Virtual Meeting - 25 Attendees
- Concepts A and B presented for public discussion & feedback



- The Types of Trails (i.e. hiking / ada) received positive feedback
- In general people wanted more trails than in A but less than B



# Forestry and Habitat Restoration

# Forest Management Report

- Deer Management Priority
- Years 1-3 – Invasive Removal
- Years 3-10 Select Canopy Openings paired with Tree Plantings



## Existing Conditions

- |  |                                     |  |  |
|--|-------------------------------------|--|--|
|  | Contour 2'                          |  | Management Unit 1: White Pines   |
|  | Stream                              |  | Management Unit 2: Smaller Diameter Hardwoods / Open Woodland Areas                                      |
|  | Sensitive Area                      |  | Management Unit 3: Mature Hardwood (Poplar)  |
|  | Parcel Line                         |  | Management Unit 4: Water Resource Protection Area - Hydric Soils / Wetlands / Headwater / Stream Buffers |
|  | Bridge                              |  |  |
|  | Sidewalk                            |  |  |
|  | Road                                |  |  |
|  | Building                            |  |  |
|  | Areas Outside Conservation Easement |  |  |
|  | Municipal Boundary                  |  |  |
|  | Existing Trail                      |  |  |



# Ecology Restoration Recommendations:

## Management Area 1 White Pine Plantation

- (A)** White Pine / Forested Wetland Ecotone Understory Habitat Planting

## Management Area 2 Smaller Hardwood / Open Woodland Forest

- (B)** Select Canopy Thinning; Pocket Planting of Native Shrub Grassland Savannah Habitat

## Management Area 3 Mature Hardwood Forest

- (C)** Address Trail Erosion

## Management Area 4 Water Resource Protection

- (D)** Invasive & Spruce Tree Removal / Restoration Plantings

- (E)** Lawn to Meadow Conversion



The background of the slide is a dark green color with a faint, semi-transparent image of a wooded area. In the foreground, there is a grassy field with a wooden picnic table on the right side. The trees in the background are mostly bare, suggesting a late autumn or winter setting. The overall tone is muted and naturalistic.

# Draft Master Site Plan







# Pump Track

- Used by mountain bikers for training focused on developing upper body strength.
- Vary in size from neighborhood scale of 5,000 to 10,000 SF to regional scale of 10,000 - 20,000 SF



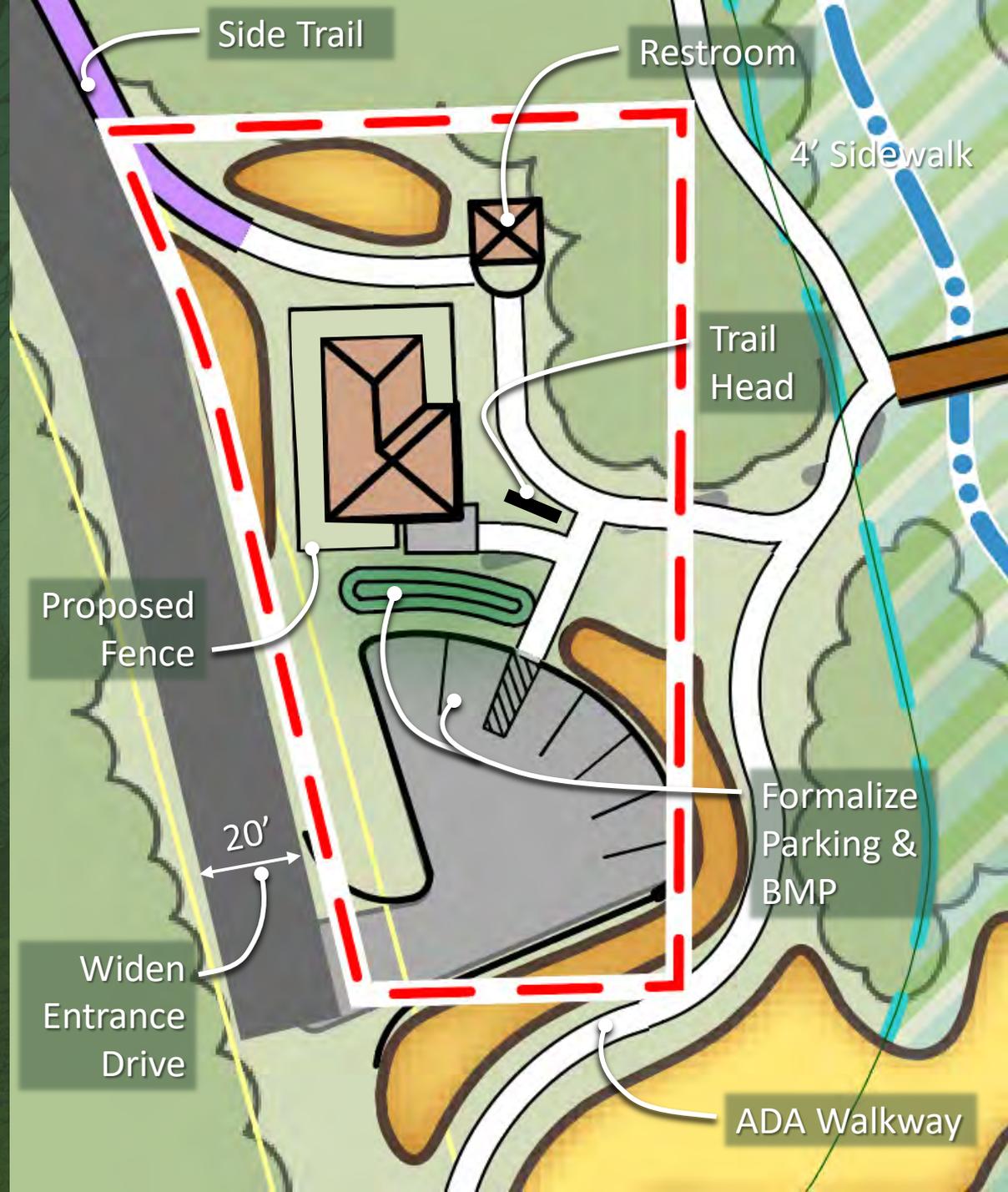
# Improved Entrance

- Preserve sign moved to corner of Ruthland & First Avenues for increased visibility
- Sidewalks provide connection to preserve
- Trees beautify & formalize preserve entrance
- Treat Stormwater from yard before entering woods



# Improved Parking Area

- Stand alone restroom
- ADA accessible stone dust pathways
- Formalize parking – 2 ADA with Van Unloading Access and 5 Regular Spaces
- Native meadow plantings
- Widen entry drive to 20'



# Options for the Pumphouse

Not suitable for adaptive reuse for a bathroom. Recommend a separate bathroom be built. More economical and easier to maintain.

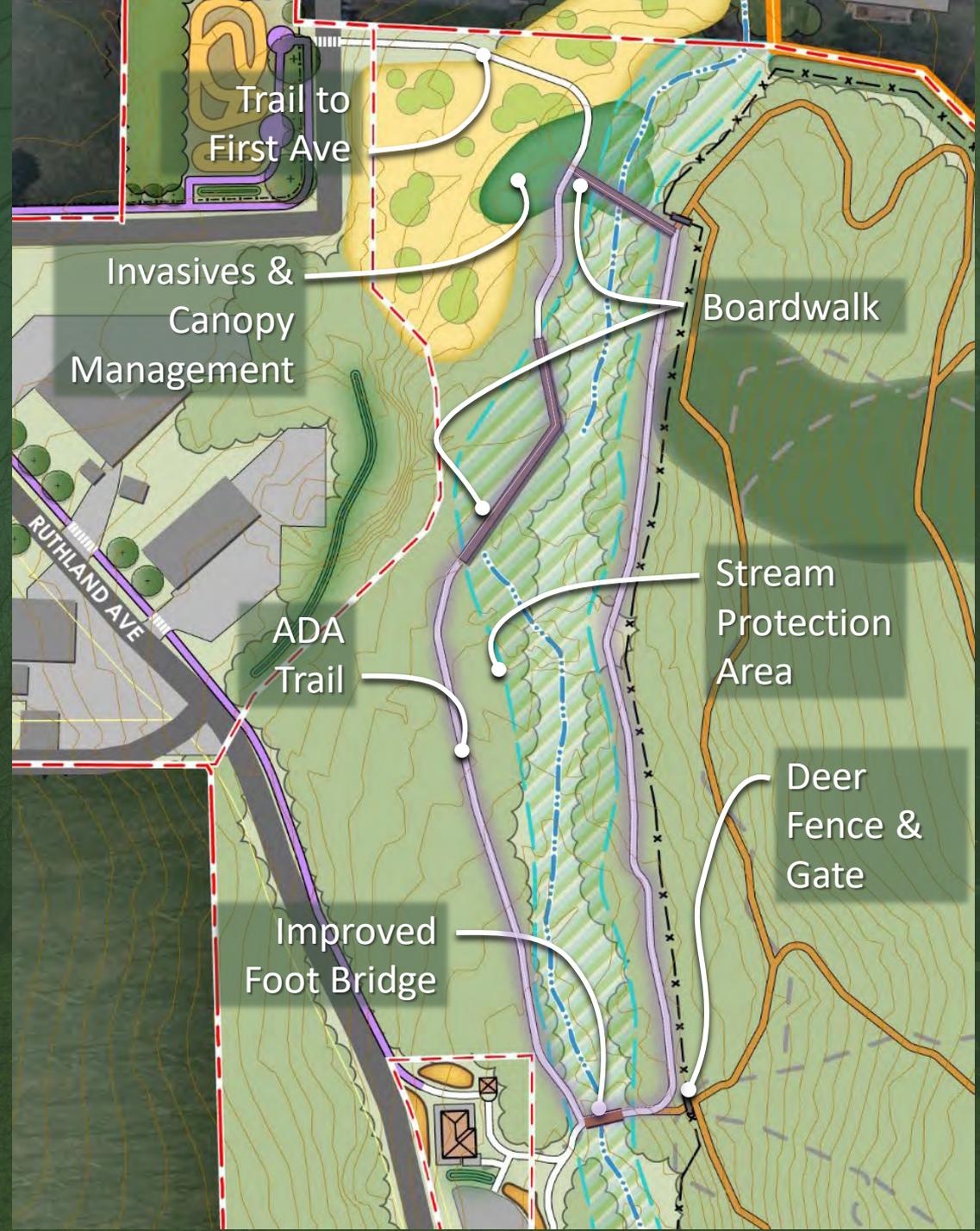
- 1. Renovate.** Renovate so that this is usable building. The structure is 1150 square feet. Redevelopment costs can be reasonable estimated at a minimum of \$350/SF. This results in a renovation cost of at least \$400,000 Can this be justified in context of the needs and costs to protect the forest and headwaters resources? Also, what are the uses of this building that would justify this cost?
- 2. Modify.** Partially demolish the walls, roof to remain to create an open air pavilion structure.
- 3. Interpretive Partial Demolition.** Demolish most of the structure and leave the foundation walls up to a height of about 3 feet. Interpret the historic use and spring that remains in the building. May or may not wish to add a new roof that over the foundation (but not attached to it). (Precedent of a similar use is Franklin Court which uses a analogous technique to display the home of Benjamin Franklin).
- 4. Wait.** “Mothball” the structure for the time being. Revisit in the future. Use now for equipment storage?

***\*Note: The utility pole next to the pump house formerly had a large electrical transformer on the pole. Recommend conducting soil tests in the vicinity of the pole to test for the presence of any PCBs.***



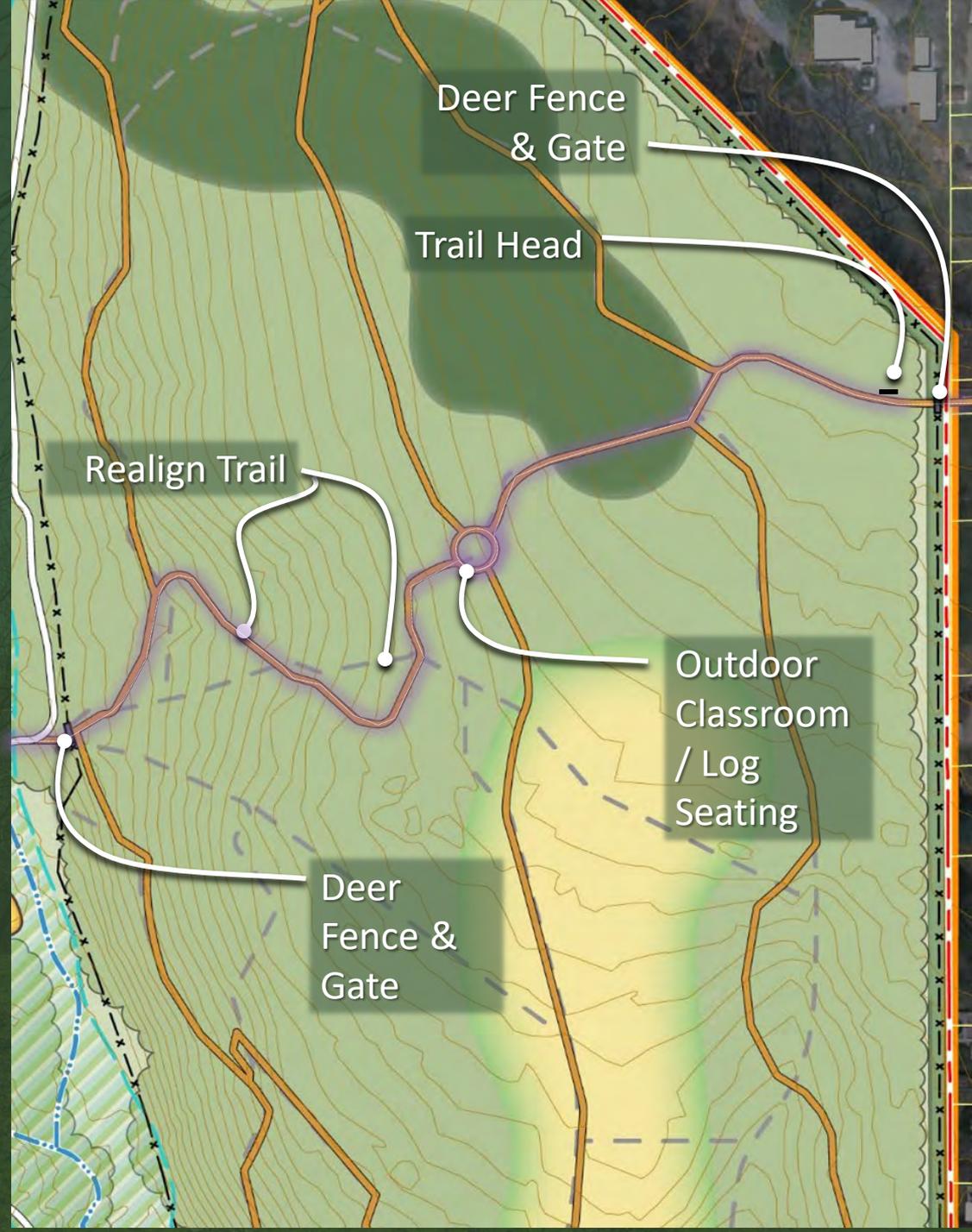
# ADA Headwaters Loop Trail

- 5' Wide stone dust trail
- 0.36 Mile Loop
- Boardwalks through stream protection areas
- Interpretive signage theme: Headwater Protection



# Duffryn Trail

- 3-5' Hiking Trail
- 0.25 Miles
- Trail Head
- Outdoor Classroom



# Pine Plantation Birds of Prey Trail

- 5' Wide stone dust trail
- 0.42 Miles Loop
- Board walks through stream protection areas
- Interpretive signage theme: History of White Pine in Pennsylvania / Importance to Bird of Prey Habitat



# Hardwood Forest Birders Loop Trail

- 3-5' Wide dirt hiking trail
- 0.50 Miles Upper Loop  
0.42 Miles Lower Loop  
0.63 Outer Loop
- Interpretive signage theme:  
Song Bird Habitat



# Full Loop Trail

- 3-5' Wide dirt hiking trail
- 0.88 Miles





# Implementation

# Estimated Costs of Development

Estimated Costs of Development Summary		
<b>1. Ruthland Ave Entrance</b>	<b>\$</b>	<b>71,300</b>
<b>Total Proposed Site Improvements</b>	\$	56,900
Design and Engineering (10%)	\$	5,700.00
Construction Cost Total	\$	8,700.00
<b>2. First Ave Entrance</b>	<b>\$</b>	<b>163,400</b>
<b>Total Proposed Site Improvements</b>	\$	130,500
Design and Engineering (10%)	\$	13,100.00
Construction Cost Total	\$	19,800.00
<b>3. Pump House Area</b>	<b>\$</b>	<b>256,700</b>
<b>Total Proposed Site Improvements</b>	\$	205,100
Design and Engineering (10%)	\$	20,600.00
Construction Cost Total	\$	31,000.00
<b>4. Picnic &amp; Play Meadow</b>	<b>\$</b>	<b>205,100</b>
<b>Total Proposed Site Improvements</b>	\$	164,000
Design and Engineering (10%)	\$	16,400.00
Construction Cost Total	\$	24,700.00
<b>5. Trail Improvements</b>	<b>\$</b>	<b>258,000</b>
<b>Total Proposed Site Improvements</b>	\$	206,200
Design and Engineering (10%)	\$	20,700.00
Construction Cost Total	\$	31,100.00
<b>Forest Management and Restoration</b>	<b>\$</b>	<b>272,200</b>
<b>Total Proposed Site Improvements</b>	\$	236,600
Design and Engineering (10%)	\$	23,700.00
Construction Cost Total	\$	11,900.00
<b>Preserve Wide Improvements Total:</b>	<b>\$</b>	<b>1,226,700</b>
<b>Total Proposed Park Wide Site Improvements</b>	\$	999,300
Design and Engineering (10%)	\$	100,200.00
Construction Cost Total	\$	127,200.00

Detailed cost estimates are in the Draft Master Plan Report.

Construction Cost Include are estimated as a percentage of the total improvement cost. They include:

- Mobilization 3%,
- Erosion & Sedimentation Control 2%, and
- Construction Contingency 10%

# Recommended Phasing Priorities

## Restoration:

- 1-3 Invasives Removal
- 4-10 Years Restoration Planting

## Improvements:

### Phase A

- Fencing & Educational Signage
- Pump Track

### Phase B

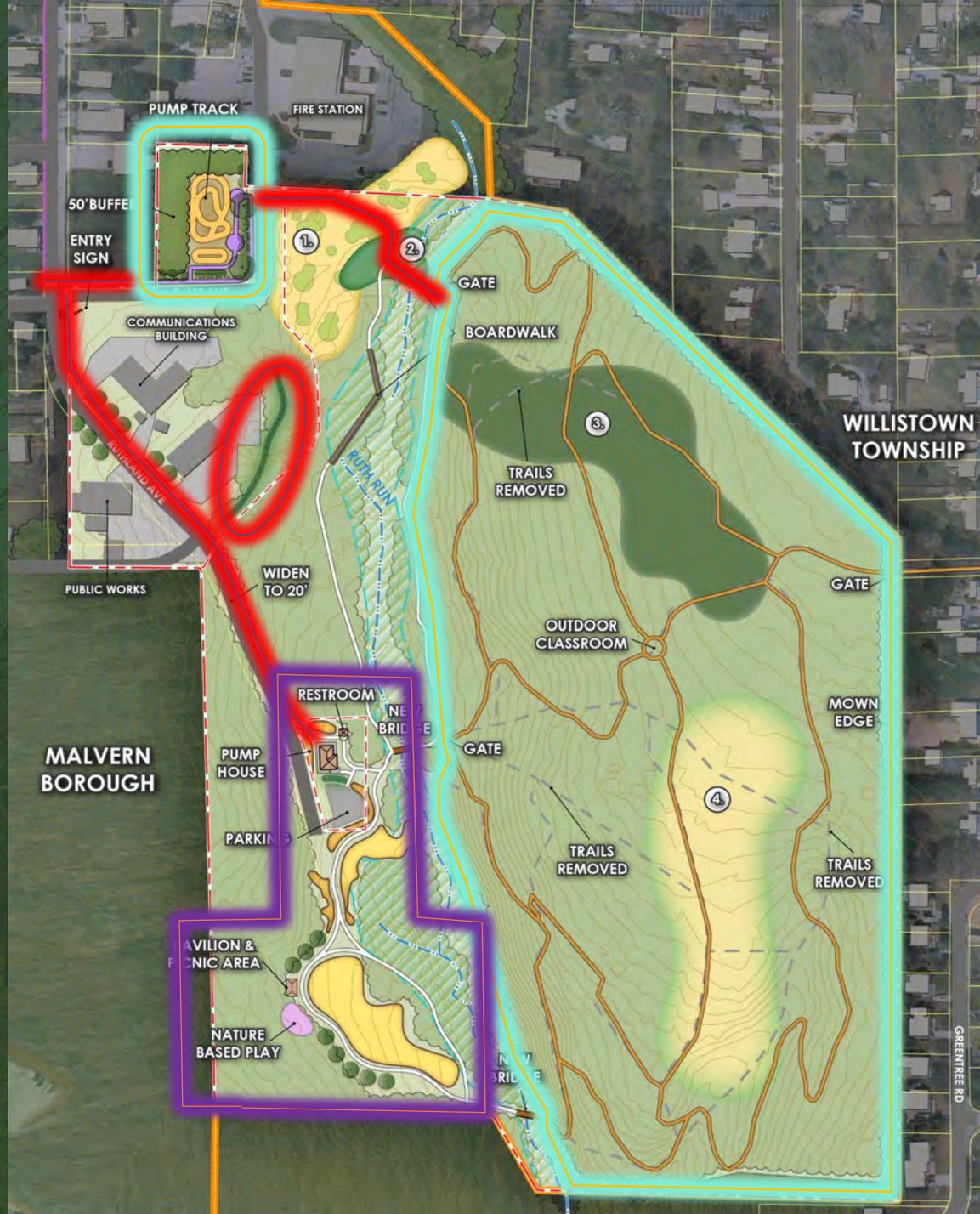
- Sidewalk Improvements
- Entry Signage
- BMP
- First Ave Connection

### Phase C

- Picnic Pavilion
- Nature Play
- Meadow Loop Trail
- Restrooms
- Parking Improvements

### Phase D

- Trail Improvements





# Draft Report

# RANDOLPH WOODS NATURE PRESERVE

## Master Site Plan



June 2020 - Draft



## Data Collection & Methodology

The data of this report was compiled from various sources, including the Malvern Borough, Delaware Valley Regional Planning Commission, previous planning studies, and field reconnaissance data obtained by the consultant.

Field maps and planning documents were created using Geographic Information System (GIS) base mapping. This information was combined with base aerial photography, Municipal boundaries, roadways, sidewalks, parcels, and other identifying land use features.

## Site Reconnaissance

The consultant team conducted site reconnaissance on January 17th, 2020. Site photographs, measurements, and field observations gathered during this trip were valuable throughout the project process. The consultants visited the site again on March 23rd, 2020 to gather additional site specific data.



## Public Participation

Community input is a critical component to any successful master plan. Meetings with the public and Malvern Borough staff were held throughout the planning process. The public helped identify important existing conditions, explains needs and concerns about a new park, and provided critical feedback on desired preserve elements and proposed solutions.

The consultant team worked with Malvern Borough to ensure that the public had adequate opportunity to voice their opinions for Randolph Woods and endeavored to incorporate ideas generated through public discussion wherever appropriate.

Public meetings served as critical benchmarks during the project process; they informed the public on project progress and provided an opportunity for feedback and discussion. Attendance lists and meeting minutes can be found in the appendix of this study.

## Trails & Pedestrian Facilities

The consultant team worked closely with Malvern Borough to appropriately delineate improvements along existing trails, as well as determine locations for new pedestrian facilities. These facilities can be broken down into the following categories:

- Sidewalks (4 foot wide concrete): Total length: 0.15 mi
- ADA Stone Dust Trails (5 foot wide): Total length 0.65 mi
- Hiking Trails (3 to 5 foot earthn trails): Total length 1.45 mi
- Pedestrian Boardwalks: Total Length .05 mi
- 2 new ADA bridges

**TOTAL: 2.3 MILES of Pedestrian Facilities**



# Next Steps

- Simone Collins to complete DRAFT Randolph Woods Plan – Available on the Borough Website July 1.
- 30+ day public review & comment period.
- Submit written comments to Chris Bashore, Manager at [cbashore@malvern.org](mailto:cbashore@malvern.org)
- Final Meeting Date To Be Determined (Late Sept / Early Oct.)



# Discussion & Questions

