



a Park for the Heart of Hanson

Bills + Maurer

The Conway School
Spring 2018



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History

A Forward Approach

A Sunny Start

In 1919, the Hanson Tuberculosis Hospital was built to treat TB patients from Plymouth County. From its inception, the hospital, later called the Plymouth County Hospital, implemented a progressive and thoughtful approach as a TB sanatorium: children suffering from TB spent many hours outdoors as the sun was thought to accelerate treatment.

Prior to becoming a TB sanatorium, the 56-acre site was farmed. When the hospital was established, it embraced the tradition of agriculture, growing vegetables and raising livestock for patients.

As the prevalence of TB dwindled, the hospital transitioned to a general care facility in 1965. The hospital changed once more in 1982, becoming a chronic care facility (Cranberry Specialty Hospital). After a period of low admittance, the hospital was officially closed in 1992.



Decay and Neglect

Following the closing of the hospital in 1992, the site was purchased by developers looking to build on the land. These efforts fell through and the site returned to the town's ownership and remained unattended and neglected. What was once a charming oasis for rehabilitation became a hot spot for graffiti. The structure withstood multiple fires in this time and was barricaded by a large fence to keep out trespassers and ghost hunters and to prevent vandalism.

Committees formed during this period explored alternatives for the hospital. Unfortunately, those efforts were not successful and the site continued to decay.



A Bright Future

Looking to provide Hanson with sound recommendations for repurposing the property—ideas included a municipal park—selectmen formed the Final Plymouth County Hospital Reuse Committee (FPCHRC). Its first order of business was to attend to the decaying hospital building. Within the first year, the committee determined that the building had become a liability and decided to demolish it.

The demolition and removal of the hospital building would be the first step in developing a park.

Many residents describe having an intimate bond with the hospital site and are eager to see it opened to public use. Having identified a need for additional recreational opportunities in the town, the committee and the town agreed to explore its use as a municipal park to honor the history of the site while offering a range of activities and recreation options.



Community Vision and Project Goals

Local Need

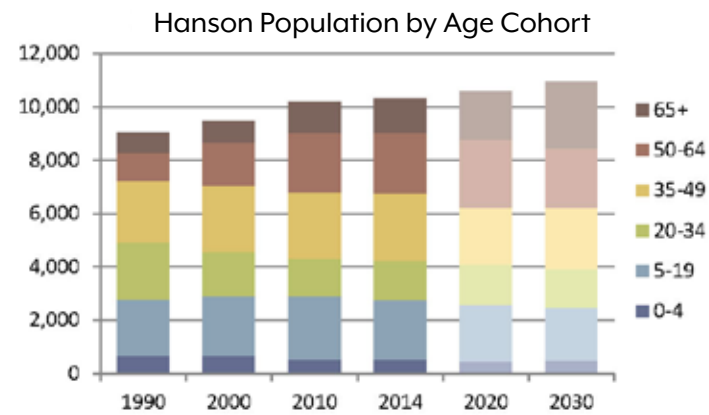
The town of Hanson does not currently have a public, central gathering area or park. Playgrounds are on school properties and unavailable to residents during school hours. Open space and recreation amenities in Hanson consist primarily of conservation parcels with trails for hiking or walking, including the expansive Burrage Pond Wildlife Management Area, and ballfields, most of which are affiliated with schools. Camp Kiwanee (public) and Rainbow Camp (private) offer lodges and cabin rentals, swimming, ballfields, and summer camp programs. Many residents make use of the parks and playgrounds in other towns when they need a playground or a place to picnic, especially Whitman Park. While these neighboring parks will likely remain destinations, there is a desire, as expressed by community members, to build a municipal park in Hanson itself.

Who is in Hanson?

Population: 10,477
Town size: 15.75 square miles
Median Household Income: 93,517
Median Non-household Income: 39,135

Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

The community has expressed the need for park amenities to serve all ages and demographics. The growing population of adults over 50, according to the recent Community Preservation Report (see below), suggests the need for a municipal park in Hanson with pathways and destinations accessible for older residents. The lack of industry and commercial development in town places the financial burden on its residents. The FPCHRC wants to explore ways to fund the construction of a park on this site through grants and the strategic sale of portions of the property to reduce the need to rely on residents and the Town. The committee would therefore like park designs to align with grant requirements to support this effort when possible.



Source: Town of Hanson Community Preservation Plan

Not for construction. Part of a student project and not based on a legal survey.

Community Meeting Feedback

In two well-attended community meetings held in the spring of 2018, residents expressed their strong preference for a park with destinations for a wide range of activities and a mix of calm and very active, play-filled zones. Residents would like the park to be a destination throughout all four seasons and to provide shelters that allow for comfortable use even on rainy days.

The most requested elements included:

- Multi-use trails (for a range of uses from walking to snowshoeing)
- Play areas for kids
- Picnic tables
- Benches
- Fields for flexible use (e.g., frisbee, picnics)
- Space for performances (e.g., concerts, theater)
- Space for large events (e.g. farmers' markets, carnivals)
- All-weather, covered areas (for gatherings or events)
- Quiet, relaxing spaces

Residents would also like the park to have:

- Bathrooms
- Adequate parking
- Water fountains
- ADA accessible pathways
- Good visibility throughout, gates, and dawn-to-dusk hours to foster a sense of safety



Residents examine and provide feedback on draft designs at a community meeting in the spring of 2018.



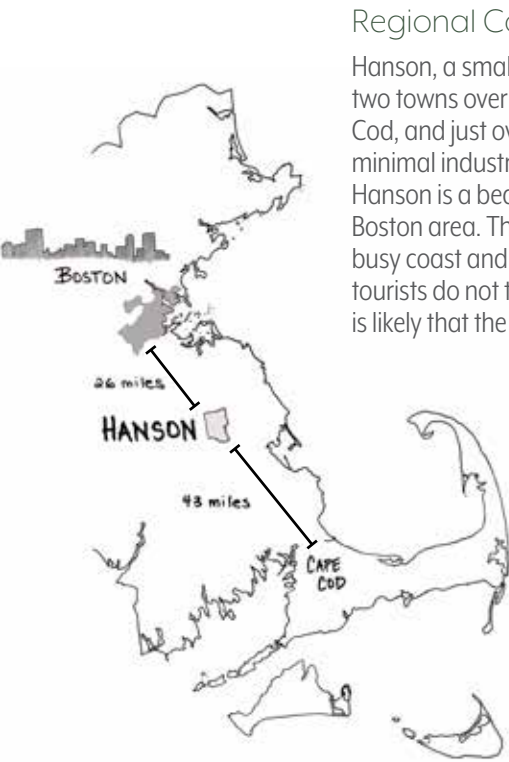
Project Goals

This master plan proposes a design for the former Plymouth County Hospital grounds for use as a municipal park with amenities that address unmet recreation needs.

To meet the community's broadest goals, this park should generally include the following categories:

- Elements for all ages
- Flexible use spaces
- A memorial to the history of the hospital and its patients
- An educational area around the historic Bonney House structure
- Parking and pathways for increased visitor traffic
- Connections to nearby recreation and conservation areas

Regional and Local Context



Regional Context

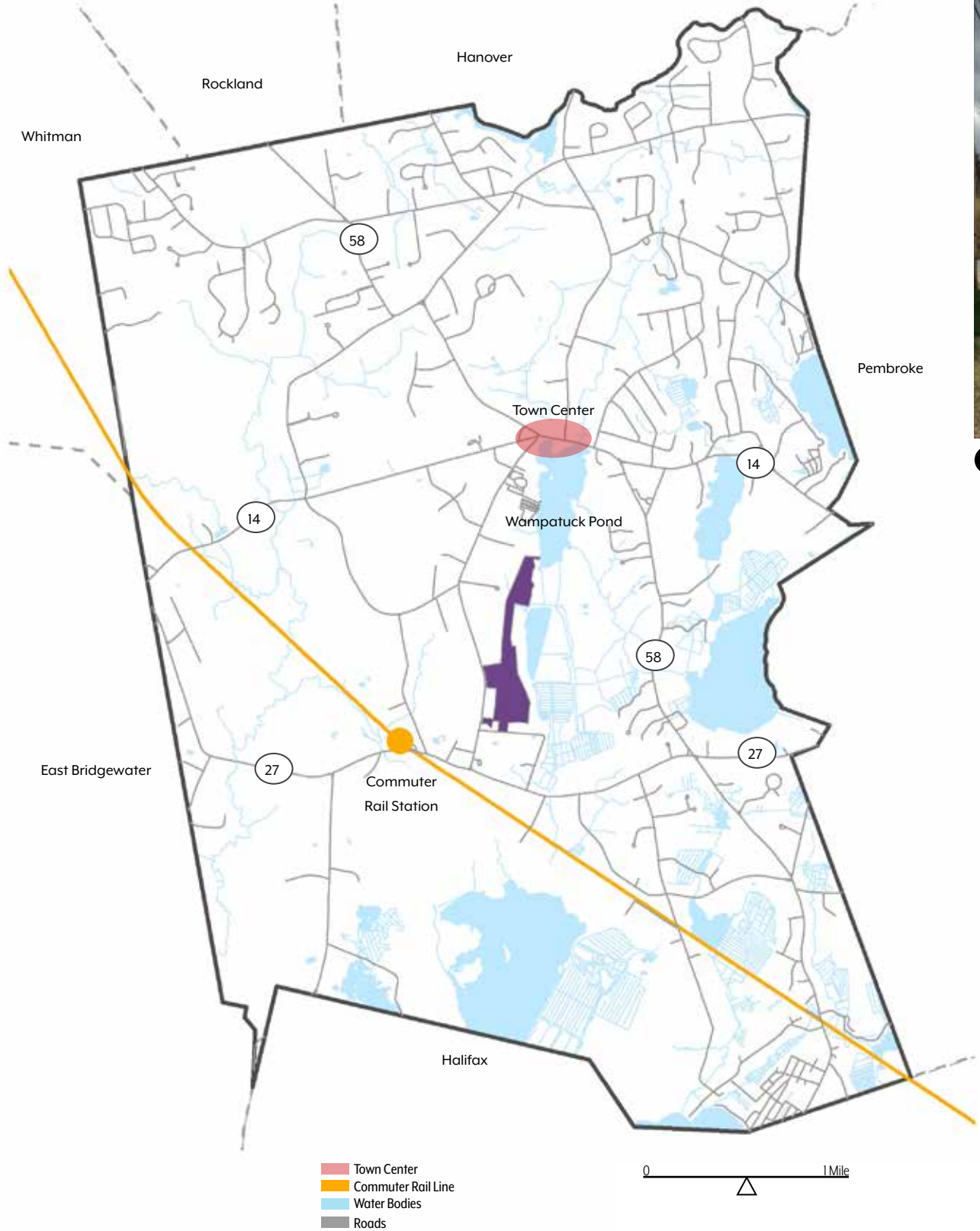
Hanson, a small town in Plymouth County, is two towns over from the coast, close to Cape Cod, and just over 25 miles from Boston. With minimal industry or commercial development, Hanson is a bedroom community for the Metro Boston area. Though Hanson is not far from the busy coast and the bustling Boston metropolis, tourists do not typically stumble into Hanson. It is likely that the primary visitors to the proposed park will be residents of Hanson and adjacent towns.

The commuter rail creates a public transportation connection between Hanson and Boston. The park site is just over a half mile from the local commuter rail station (a 2-minute drive or a 13-minute walk) via north-south running High Street. Proximity to the commuter rail station might facilitate wider regional draw for larger events on site.

Local Connectivity

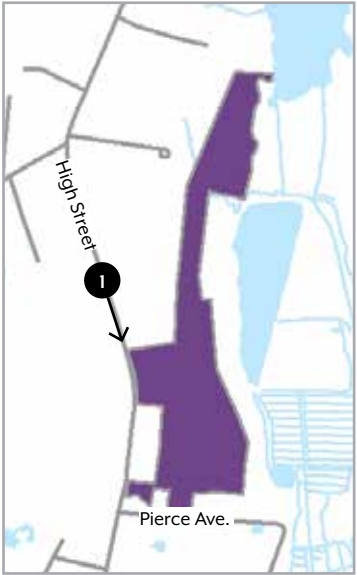
High Street also connects the site to the center of town located 1.5 miles to the north (a 30-minute walk or 3-minute drive). This central area houses Town Hall and a couple small strips of stores. Low-density residential development, consisting primarily of single-family homes, lines High Street, along which there are no sidewalks. Currently, there is little pedestrian use of these roads and the site is primarily accessed by vehicle. However, the town intends to construct a sidewalk along High Street in the near future, which may increase and encourage pedestrian access at least from the nearby residences.

The site's property line touches Wampatuck Pond in the northeast corner, though there are no delineated trails or boat ramps leading down to the waterfront. If cleared and formalized, this connection could be used by boaters. In winter months when the pond freezes, residents interested in hiking, cross-country skiing, or snowshoeing could make use of the pond as an extension of the site's trails.



1 High Street, the primary road connecting town center to the site, does not have any sidewalks for safe pedestrian access.

Site



Greenway Connections

Ecological Connections

The site is near a protected open space parcel called Burrage Pond Wildlife Management Area. Its proximity suggests an opportunity to connect conservation lands in town. Strategies to tie these open spaces together could be applied to other nearby open lands.

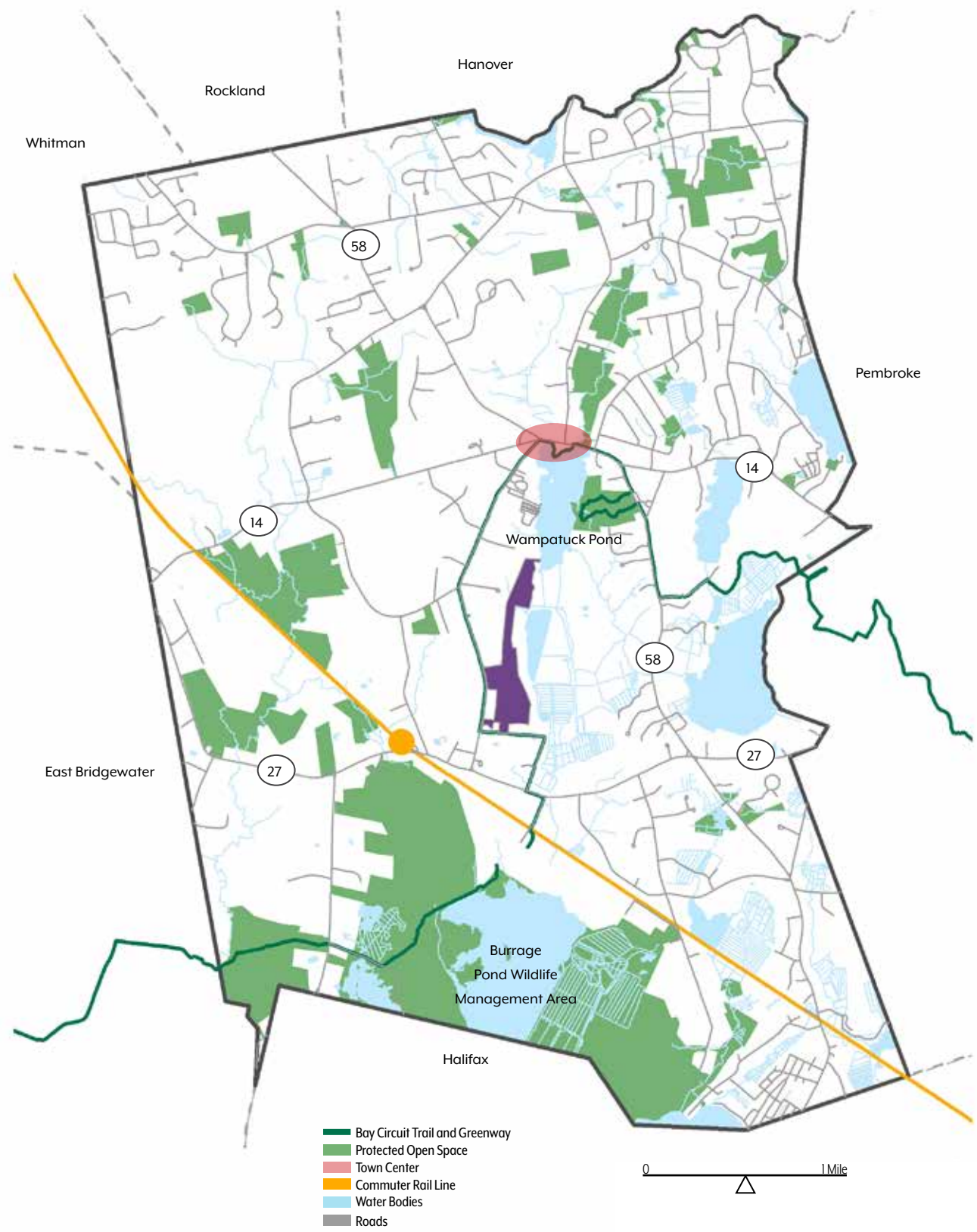
Burrage Pond, once called the Great Cedar Swamp, is a large conservation area south of the former hospital grounds comprising 968 acres in Hanson and another 670 acres in Halifax. The property, now owned by MassWildlife, is enjoyed by many, including horseback riders, hikers, mountain bikers, and dog walkers. The land is considered an area of conservation priority by *BioMap2* and a priority for the preservation of rare species according to MassWildlife.

Enhancing pedestrian and ecological connections between these two properties could increase awareness of Hanson's natural assets and help support the wildlife challenged by the fragmentation caused by development. Restoring and enhancing ecological functions on the former hospital grounds would increase its ability to provide habitat for wildlife and the site could then serve as an important link with the Burrage Pond and Wampatuck Pond areas, especially if its role as habitat was protected into the future.

Bay Circuit Trail and Greenway

The Bay Circuit Trail and Greenway is a system of over 230 miles of recreational trails that encircle the Metro Boston area. First conceived in 1929, the intention was to connect residents around Boston with open space. Finally, in the 1980s and 90s, this system was formally established and a hiking path in 37 towns in eastern Massachusetts (either on formal paths or along roads) was identified, including a portion in Hanson.

The trail runs adjacent to the site along High Street and Pierce Avenue, neither of which currently have sidewalks, and continues south to Burrage Pond. The members of the FPCHRC are interested in moving the trail from the road into the site to take advantage of the property's scenic and natural qualities. Integrating this trail into a park design would be one way to create pedestrian connections with Burrage Pond. The Town has considered ways that this trail can support the establishment of "greenways" to provide continuous habitat for wildlife and connectivity for humans. Connecting the trail with the former hospital grounds and establishing contiguous habitat along its length would increase the ecological value of this landscape (see page 30 of Hanson's 2009 Open Space and Recreation Plan for more details).



Burrage Pond Wildlife Management Area offers miles of flat trails along the pond and former cranberry bogs for recreation of all types. Image courtesy of Kurt Tarvis.



The Bay Circuit Trail connects hikers to a 230-mile path around the Metro Boston area (Hanson outlined in red). Paths through Hanson skirt the site on the west.

Existing Conditions

The 56-acre site consists of three zones with unique characteristics, including the meadows, the village, and the clearing. This document's area of focus for the design of a municipal park is the southern half, which includes the village and clearing.

Zones

The Village

The village zone occupies Bonney Hill in the center of the property. Most of the site's remaining historic infrastructure, such as the historic administrative buildings and an old well, is located in this area. The High Street entrance into the village is the only current access point to the site. The village is home to a couple renters and community uses: the Plymouth County Beekeepers Association, a food pantry, and a community garden. At the northwestern corner of the village is the former superintendent's lot, which the town is planning to sell. Historic structures like the Bonney House, a maple allée, and an old chimney east of the village were selected to remain during demolition.

The Clearing

What remains in the hospital's footprint is an open, disturbed area with minimal vegetation. White pines wrap around the southern end of the clearing. Beyond the eastern tree line is an operating cranberry bog and, to the north, its reservoir supply, is visible through the trees. A chain-link fence divides the two properties. Pierce Avenue extends east to west along the southern border of the site. The town is exploring the possible sale of the southern Pierce Avenue area but is interested in preserving some frontage for access to the proposed park. Residences about the western and southern edges of the clearing. Two driveways on Pierce Avenue and High Street used to provide vehicle access to the hospital but are now closed and overgrown.

The Meadows

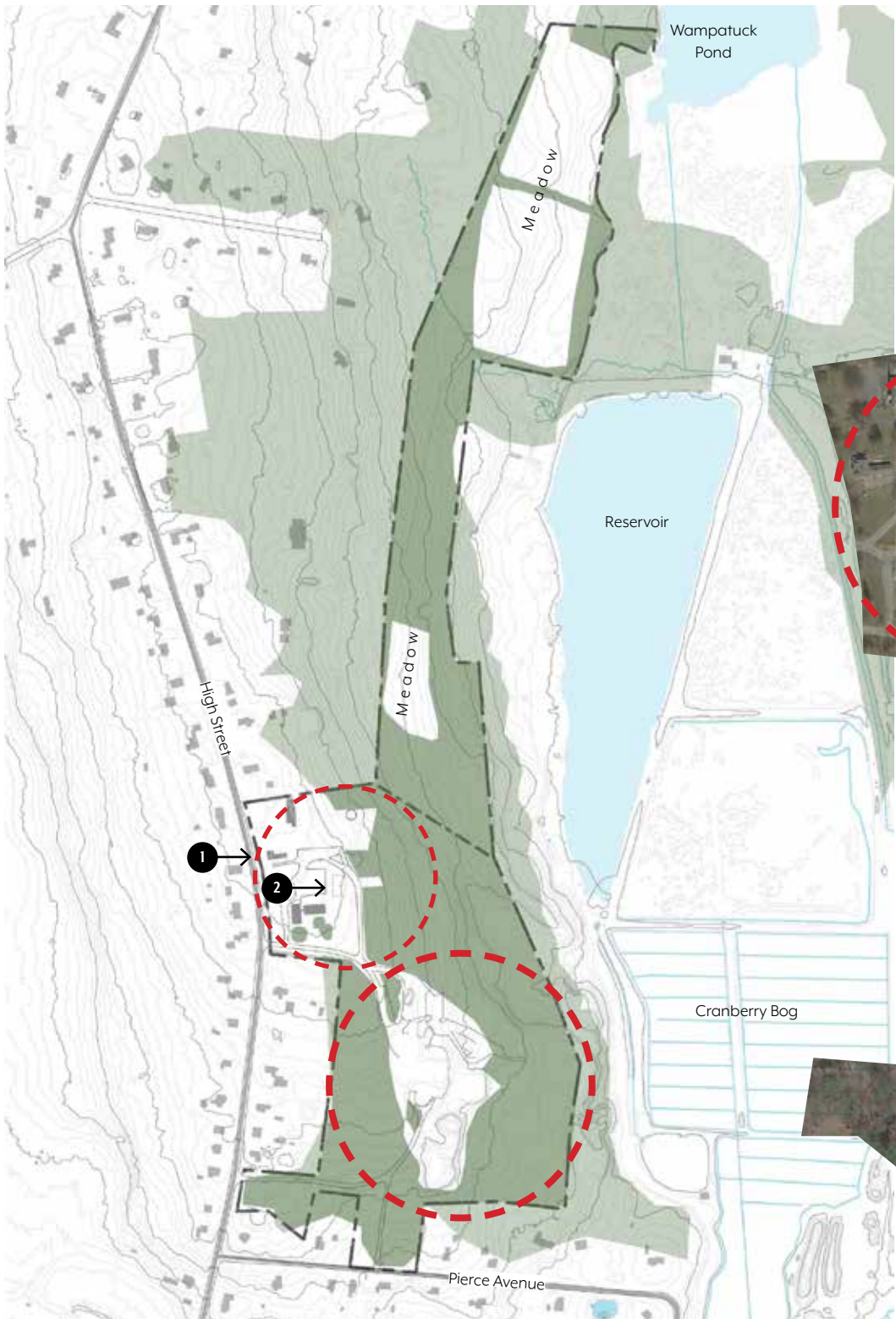
Located north of the village, three large meadows surrounded by forest harbor rich and increasingly rare habitat, far from the recent construction disturbance. The southern tip of Wampatuck Pond borders the northeastern edge of the meadows. A trail system extends north to south and wraps around the northernmost meadow.



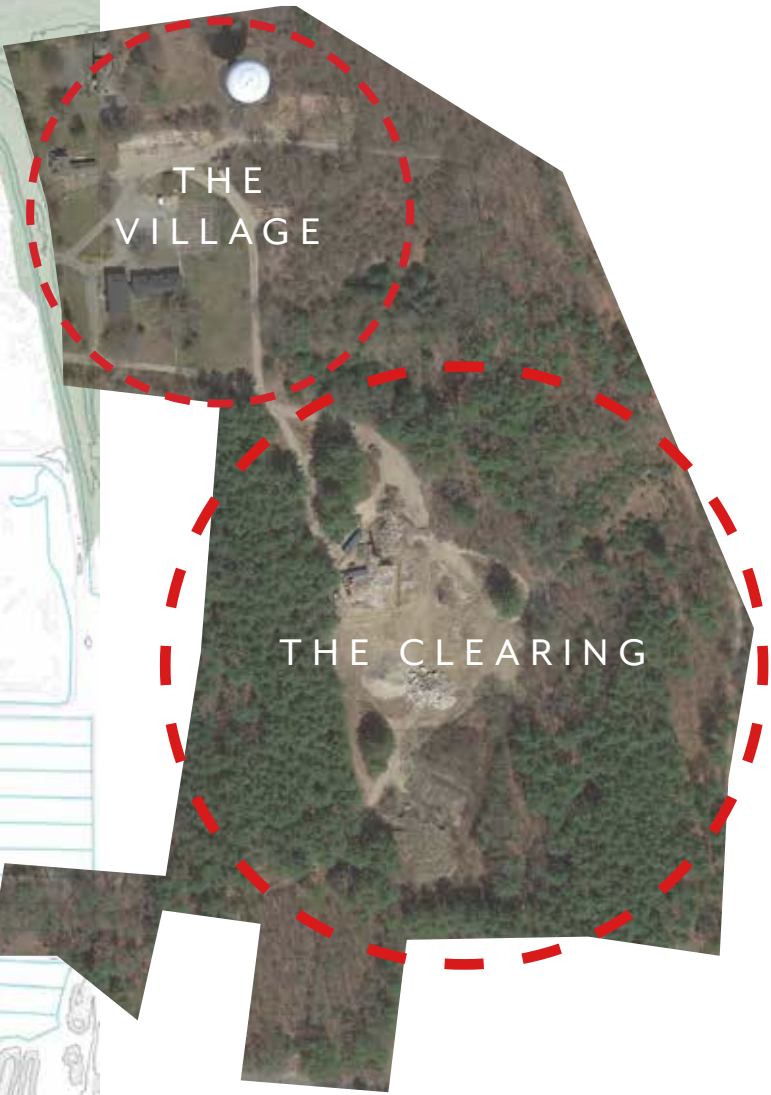
1 View of Bonney House, one of the remaining historic structures on site, and water tower in the background.



2 The community gardens, located in the village, bring community groups like the Boy Scouts to the property.



The connection between the village and the clearing is important as the town wants to integrate the history of the site with the park.



Circulation

Current pedestrian and vehicular movement throughout the site is minimal. A municipal park and potential events will likely increase visitation to the site and residents have expressed their concern about a need for adequate parking to accommodate this change. The FPCHRC requested the master plan evaluate the feasibility for 100 parking spaces on site.

Observations and Implications

Vehicular Flow

Primary vehicular access to the site is via the northern High Street entrance. Parking is currently limited to the village and accommodates approximately 15 vehicles. The parking area is not striped and broken asphalt in front of a now demolished building functions as informal additional parking. In the southern quarter of the site are two unused vehicular entrances on High Street and Pierce Avenue. If opened, these entrances could expand vehicular access to the property, though there is currently no parking in this southern zone.

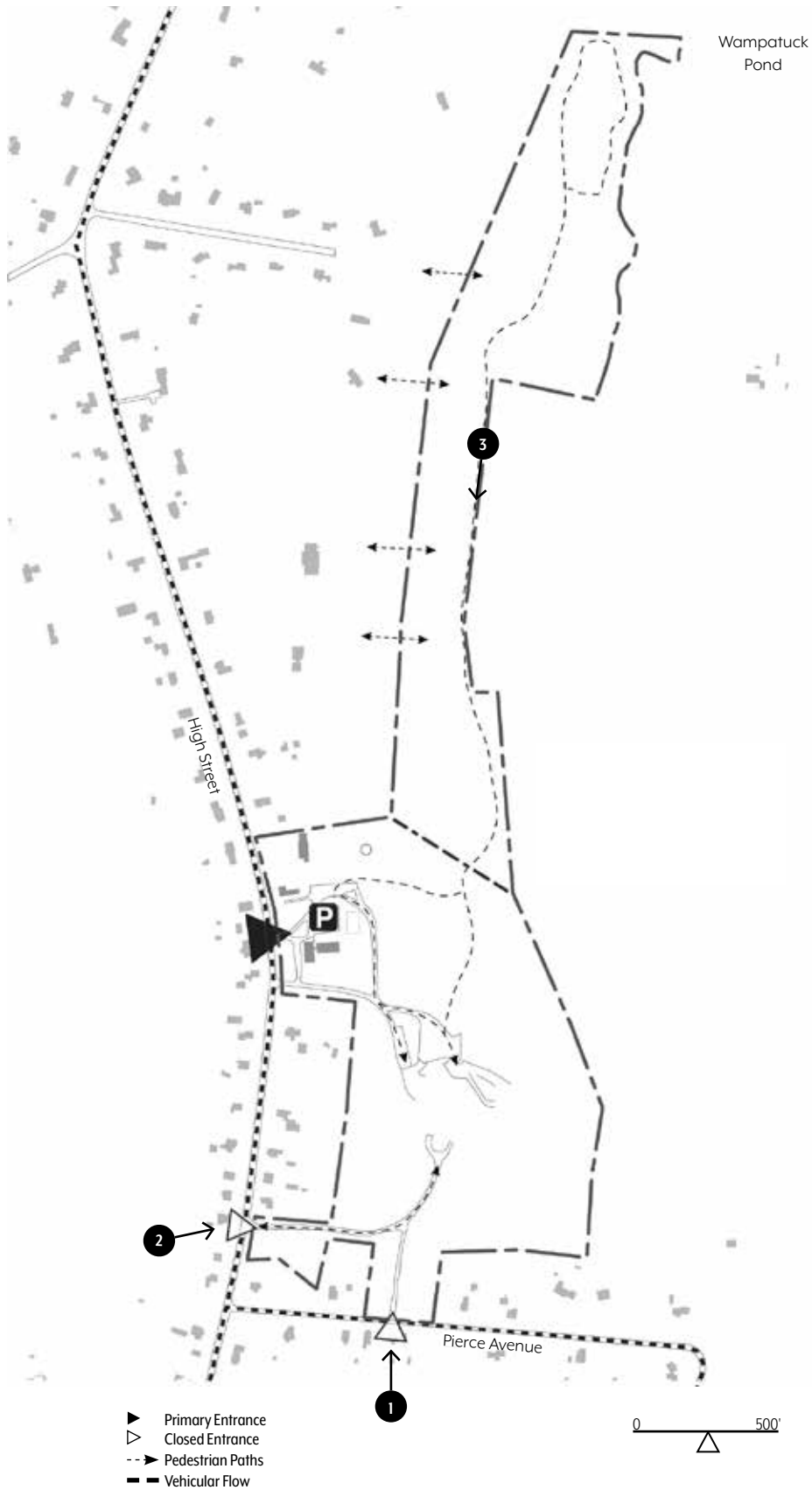
Neighborhoods to the west and southwest of the site will have to be considered in the proposed park design in order to minimize noise disturbance and circulation conflicts near residential zones. Opening the two unused entrances to vehicles would shift traffic closer to the abutting homes.

Pedestrian Movement

Pedestrian paths from adjacent residences puncture the western meadow area through the woods. Foot traffic is undefined throughout the southern focus area. Northern meadow trails are paved but have decayed without proper maintenance. Defining permitted access points and formalizing pedestrian trails will be integral to cultivating a sense of safety and fostering enjoyment of the site as a whole. A minimal extension of the northern path can expand access to Wompatuck Pond. The food pantry and Beekeepers Association use of the land is focused between the parking lot and their offices in the village. Between their staff and the food pantry's open hours (Tuesdays for 4 hours), they receive 20 cars at most in this lot during the week. Typically, there are closer to 2-5 cars present. This area will have to be configured thoughtfully to enhance the pedestrian experience in the village core while not impacting vehicular movement and these tenants.

Bay Circuit Trail and Greenway

Connecting to other trail systems like the Bay Circuit Trail and Greenway would likely increase pedestrian visitors. Relocating the route of the trail from High Street into the park could increase pedestrian movement into the park, away from High Street and Pierce Avenue. This would provide trail-users with a safer experience as both streets do not have sidewalks.



1 Closed Pierce Avenue entrance.



2 Closed High Street entrance.



3 View of northern meadow path.

Disturbance

The demolition of the main hospital building in 2017 left a large scar in the landscape. Fill from the town’s sandpit covers the former hospital area—left on site during prior attempts to develop the site. In the year following demolition, the land shifted from a largely impervious lot into a new landscape with grasses and forbs and unvegetated, eroding slopes.

Observations and Implications

The sand fill spread throughout the open area is approximately three feet deep and was partially seeded with a conservation mix. The unseeded areas have very little vegetative growth and opportunistic plants that are suited to disturbed land and sandy, dry soils will likely establish here over time. Many invasive species thrive in these conditions. In order to establish vegetation suitable for a park and desired by residents, species will need to be selected for their preference for these conditions or soil amendments will be needed to support other desired plants.

Due to minimal vegetative cover, less water is infiltrating into the soil. This causes pooling in flat areas and erosion on slopes. This is important to mitigate as the acceleration of surface water movement can increase sedimentation and pollutant runoff into nearby water bodies. The cranberry bogs to the east, at a lower elevation than the clearing, may be impacted by this runoff if vegetation is not established.

Prevalent throughout Massachusetts, many invasive plants such as oriental bittersweet, Japanese knotweed, and multiflora rose have become commonplace on the site. These plants are a marker of pre-existing plant communities on adjacent sites as well as a sign that the conditions here are appropriate for these species. Although these invasive plants can impact native plant and animal communities, they offer ecological services as many animals use them for forage and cover. It is important to understand the possible benefits of these plants before any invasive management scheme is implemented. Removing habitat or applying herbicides may damage the existing ecological functions of the land. If invasive plants are to be removed, careful planning to ensure the services they provide are replaced by new plant species is critical.



1 Eroding southern slope caused from rapid sheet-flow and minimal vegetative cover.



2 Invasive species like multiflora rose thrive in the northern meadows. Though very aggressive, these mounds provide habitat for wildlife.

Not for construction. Part of a student project and not based on a legal survey.



Prior to demolition, the hospital and roadways dominated the landscape and the land was vegetated throughout.



A recent aerial photograph shows the large scar in landscape following demolition. Vegetation in construction zone has yet to recover.

Summary Analysis

This unusual property features a wide range of experiences. Some areas feel enclosed by mature forest, while others are open and expansive. Sun exposure across the site varies as does vegetative cover. Most of the property feels private and tucked away from development, though noise and sightlines, especially on the west, pierce that experience.

The Village

Public, Historic, Sunny, Noisy, Wet

The only portion of the property visible from the road and regularly used by renters, this area is the most public. Parking and pedestrian circulation is concentrated here. A number of historic buildings are in use or undergoing renovations, but care is needed to address declining conditions of other historical elements including the maple allée and old well. Soils here do not drain well, but the area is open and sunny.

Opportunities

A park design can take advantage of the existing roads, parking lots, and sightlines to bring visitors on site with minimal disturbance. The concentration of historic structures in this area also supports the vision of a historic educational center here.

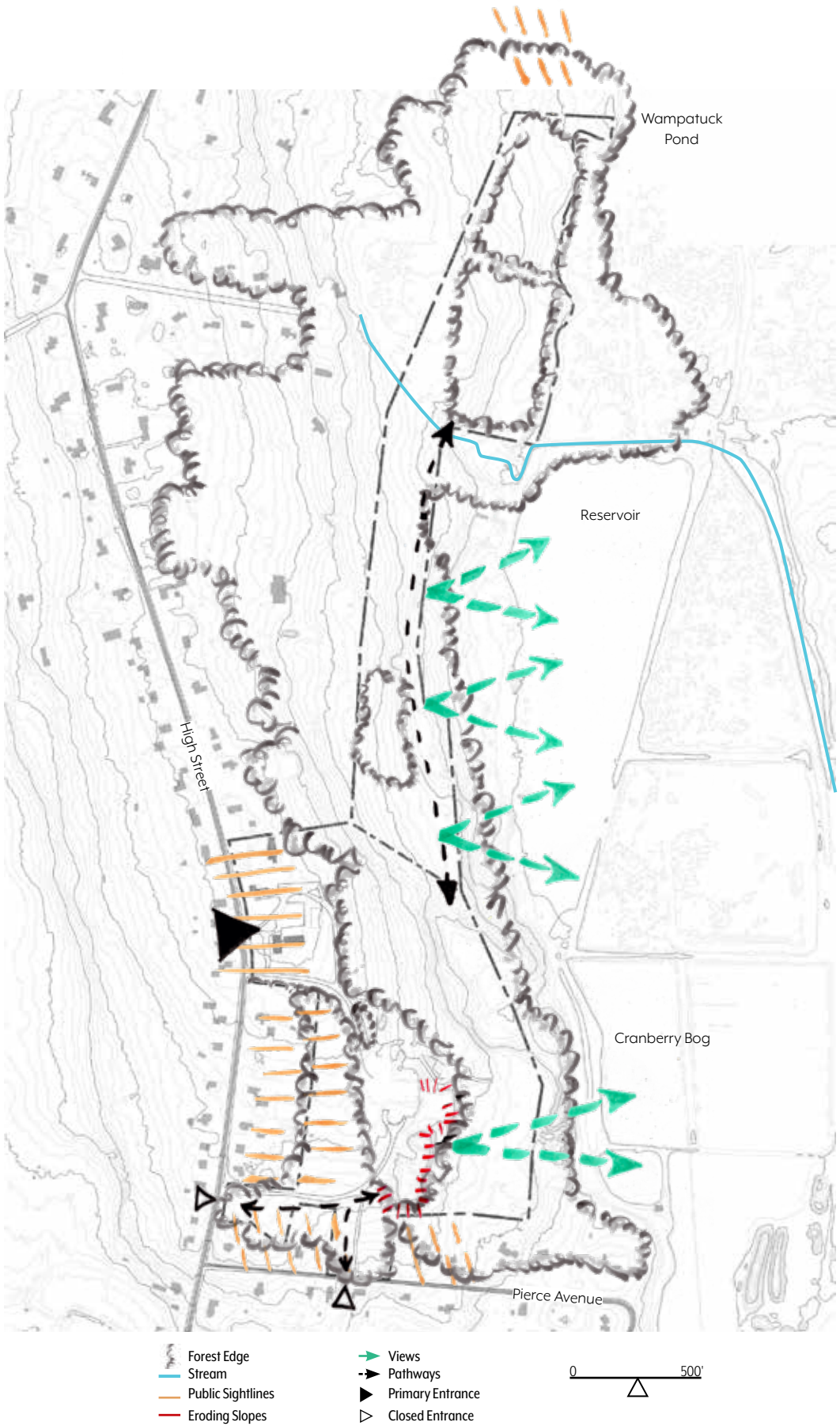
The Clearing

Secluded, Expansive, Sunny, Noisy, Sandy, Disturbed

The former hospital building location offers the longest and most expansive views on the property. While noise from the neighborhood and machinery used at the cranberry bogs filters in, the woods on all sides makes the space feel private and tucked away from surrounding activity. It is possible to see the cranberry bogs through the trees. Recent construction and the distribution of fill has changed the soil and vegetation in this area and the fill is eroding into the forested edges down steep slopes. These fill soils may be underlain by the same poorly draining soils present in other areas of the property.

Opportunities

Vegetating and regrading the steep, unvegetated slopes will vastly improve the ecological functions of this disturbed area. The feeling of separation between this area and the rest of the property also suggests that it could be home to destinations that bring visitors in to enjoy the long views and secluded nature. However, addressing the town's concern about vandalism and illegal activity in this tucked away area will be important to ensure its long-term success.



Trails and Entrances

Private, Shady, Quiet, Wooded

The northern trails have desirable views east through the woods out to the reservoir and cranberry bogs and their path through the woods fosters a sense of calm enclosure. However, the northern trails are in poor condition and bordered by a chain-link fence along the property line. Two entrances at the southern end of the property are also wooded and enclosed. There is minimal visibility from the road down either driveway and perforated views from adjacent residences through the trees.

Opportunities

The contrasting feeling of these wooded trails to the openness of the rest of the site could provide a chance for visitors to enjoy the quiet of the forest away from public activity. Supporting police surveillance of the site and limiting access through less visible entries at night might support residents' sense of safety in these areas. The potential for a long north-south trail that connects with existing paths could meet residents' interest in extensive four-season, multi-use trails.

Meadows

Enclosed, Private, Quiet, Wet

The meadows are surrounded by forest which buffers them from residential development, making these spaces quiet and secluded. The wooded trails extending from the village to the northern area of the property emerge into this valuable habitat which provides an experience of open space more private than that of the expansive southern clearing. A perennial stream runs through this zone and the land directly adjacent to the stream is designated as a wetland.

Opportunities

Maintaining these areas as meadows will preserve a rare form of habitat and give visitors to the park an opportunity to experience and learn about a range of habitat types across the site. The quiet and secluded feeling of this area offers a contrast to the expansive southern clearing, which might be preferable to some visitors.

Proximity to Neighbors

The location of this property between residential development and the cranberry bogs lends the site a mixed sense of privacy and exposure. The neighbors directly north and south of the property line have a line of sight through the forest onto the land which decreases the sense of separation from town on the edges of the property. Sounds from these homes permeate through the woods including sounds of roosters and mowers. It is safe to assume that an increase in sound from activity in the park will impact the adjacent homeowners.

Design Alternatives

The following design alternatives were informed by site analysis and park element ideas proposed by residents in an initial community meeting. Community members reacted to the following design concepts at a subsequent forum which led to the final design.

Meadow habitat with informal mown paths and rolling landforms fills the clearing. Woodland destinations and trails provide opportunities for walking, hiking, performances, and serene exploring in nature.

Pros

- Establishes peaceful, secluded nature park away from the activity of the village
- Amphitheater makes use of the picturesque eastern woods
- Maple allée as main entry emphasizes the site's historic character
- Creates valuable meadow habitat for birds and insects and meadow grasses stabilize soils
- Uses earth from eroding slopes to build hills
- Minimal long-term maintenance to limit burden on staff

Cons

- Significant land movement is necessary to build berms
- Few formal gathering or activity areas are provided
- Few programmatic elements requested by the community are added
- Contains minimal parking
- No vehicular access through the southern park area or from the south entrance



Not for construction. Part of a student project and not based on a legal survey.

Play and activity-focused, this design includes a looping multi-use trail and flexible open space for a wide range of uses from large events like a carnival to pickup frisbee games.

Pros

- Includes many elements requested by residents (e.g. multi-use trail, playground, dog park, shady picnic area, two bathrooms)
- Includes destinations for all ages with a central gathering and play zone
- Multi-use trails are usable for emergency and patrol vehicles
- Open fields to accommodate multiple uses
- Spiral mound memorializes the hospital's circular driveway
- 100 parking spots and new southern driveway meet PARC grant requirements and increase vehicle access across site

Cons

- Cost of construction and maintenance may be prohibitive
- Expands impermeable surfaces by adding parking areas
- Removes part of existing western forest edge
- Turf grass surfaces do not add significantly to ecological functions of the clearing



A dominant memorial area opens onto formal paths and lush vegetation with opportunities to educate visitors about the site's history and native vegetation.

Pros

- Gathering area on hospital foundation footprint functions as memorial and space for events/performances
- Contains active, programmed and natural, quiet areas
- Emphasis on history and native vegetation creates educational opportunities
- Canopy walk destination draws visitors into the lower woodlands
- Open fields to accommodate multiple uses
- Slightly increases parking capacity

Cons

- Incorporates fewer programmatic elements requested in community meetings
- Cost of construction and garden maintenance may be prohibitive
- Proximity of southern parking to houses may disturb neighbors





The Park

Residents of Hanson envision a park with a multitude of uses. The following design shapes the existing landscape into distinct areas through the strategic use of earthwork, vegetation, and hardscape. This offers a variety of experiences to visitors and accommodates a range of activities. From hillsides to climb, to multi-use trails, to quiet corners in woodland groves, the proposed park takes advantage of the expansive nature of this property to allow visitors to create their own adventure. The village remains the primary gateway to the park and active use is focused in the southern zone. This allows for the preservation of the northern meadows and wetlands for low-impact exploring and as valuable wildlife habitat.

Design Vision

DESIGNED BY: ELAN BILLS AND ALISON MAURER

A Park for the Heart of Hanson

FINAL PLYMOUTH COUNTY HOSPITAL REUSE COMMITTEE
SPRING 2018

Final Design

The Village

The village is the main entry for those heading into the park and is a destination in itself. Visitors to this area will include patrons coming and going to the food pantry, community garden, water tower, and park. There is space here for picnics and events like drive-in movies or a farmers' market. The arrival of the historical society to the Bonney House makes this area prime for educational programming.

See sheet I2 for more details.

The Park

After parking in the village, park visitors walk along multi-use, ADA-accessible trails to reach the clearing within which the trails loop around a large expanse of fields and meadows. Visitors encounter a memorial circle with a long fountain and wide steps with views to the south. Additional features within the redesigned clearing include woodland picnic and playground areas, an open turf lawn for games and events, a group of constructed mounds, and a sloping hillside with views of a meadow. The park experience is shaped by open areas of turf grass and areas planted with taller vegetation tolerant of dry, sandy soils that will support soil fertility.

See sheets 14-17 for more details.

Trails

A looping trail system in the south connects to the existing northern meadow trail. Primary paths are universally accessible and usable for walking, biking, cross-country skiing, and snowshoeing for enjoyment in all seasons. Informal woodland trails connect the woodland garden to the historic chimney, maple allée, and canopy boardwalk. The Bay Circuit Trail and Greenway routes through the Pierce Avenue entry and skirts the edge of the park through the eastern woods, reconnecting with the northern trails at the canopy boardwalk and exiting the property through the northernmost edge adjacent to Wampatuck Pond.

See sheets 13 and 18 for more details.

Primary Circulation & Parking

Primary access to the property remains through the village and traffic is routed through one-way roads. This area remains the arrival hub with primary and overflow parking for large events. The historic southern High Street entrance is restored for use as a secondary vehicular entrance with minimal parking for quick access to the southern clearing and the Bay Circuit Trail and Greenway.



Design Details

The Village

Picnic Area and Gardens

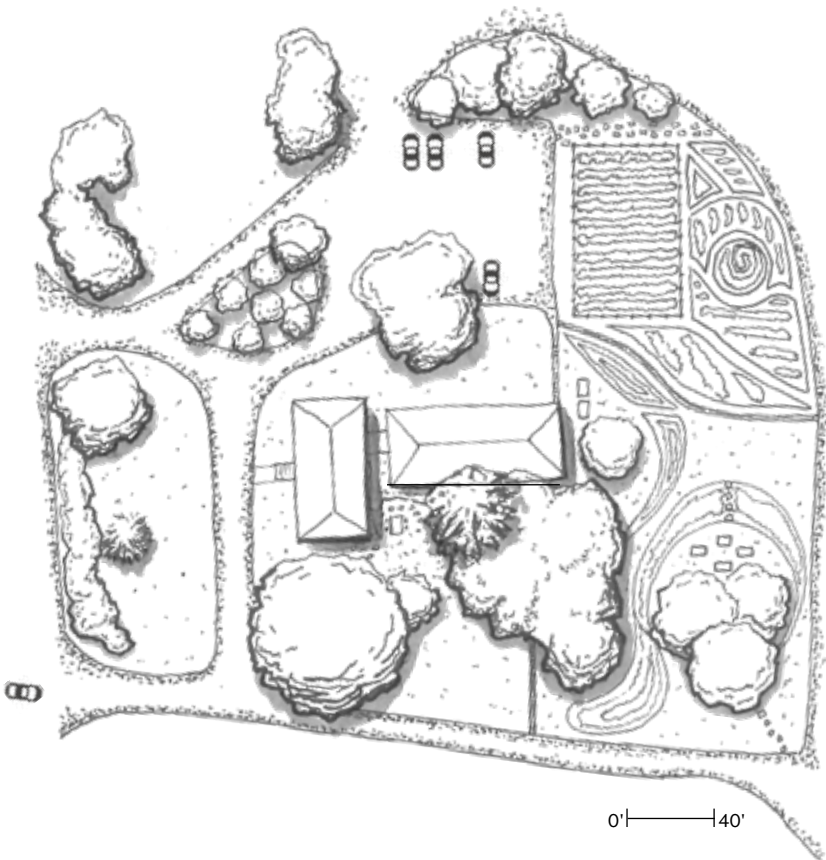
For those arriving at the park, school groups visiting the historical society, or staff members of the resident organizations, picnic tables surrounded by gardens create a welcoming place to gather outside in the village. Pollinator gardens or small kitchen demonstration gardens could add outdoor educational opportunities to the Beekeepers Association or the historical society's programming. A bathroom is easily accessible from paths to the north and south and from the parking lots. The town might explore locating solar panels on shade structures over picnic tables, sheltering tables from sun and rain.

Old Foundations and Historic Tour

Denser vegetation around the water tower driveway visually separates the area from the park while maintaining vehicular access for maintenance. Pedestrians are directed to move through the village via clear, ADA-accessible pathways. For access to the northern trails, pedestrians are encouraged by a trail kiosk to walk north past the two old hen house foundations. These are some of many historic elements on site that could be part of a historic scavenger hunt beginning at the Bonney House. Measures must be taken to ensure that the foundations are safe to climb on.

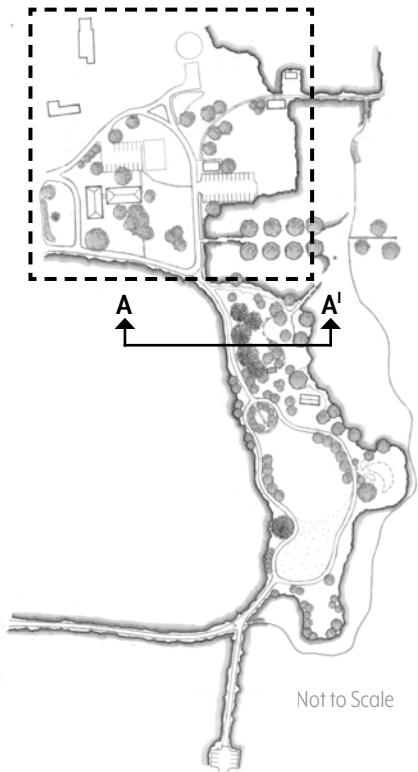
Parking and Event Space

Roads through the village make use of existing infrastructure. Circular, one-way traffic flow moves visitors first past the scenic southern side of the old administrative buildings, past an old beech tree, to the primary parking lot adjacent. Parking east of the road allows visitors to access the rest of the property without crossing traffic. A secondary parking lot north of the buildings ensures space for tenants and accommodates overflow parking. Reinforced turf east of the road is opened for parking for large events and at other times of year functions as picnic or event space (e.g., flea markets or drive-in movies).

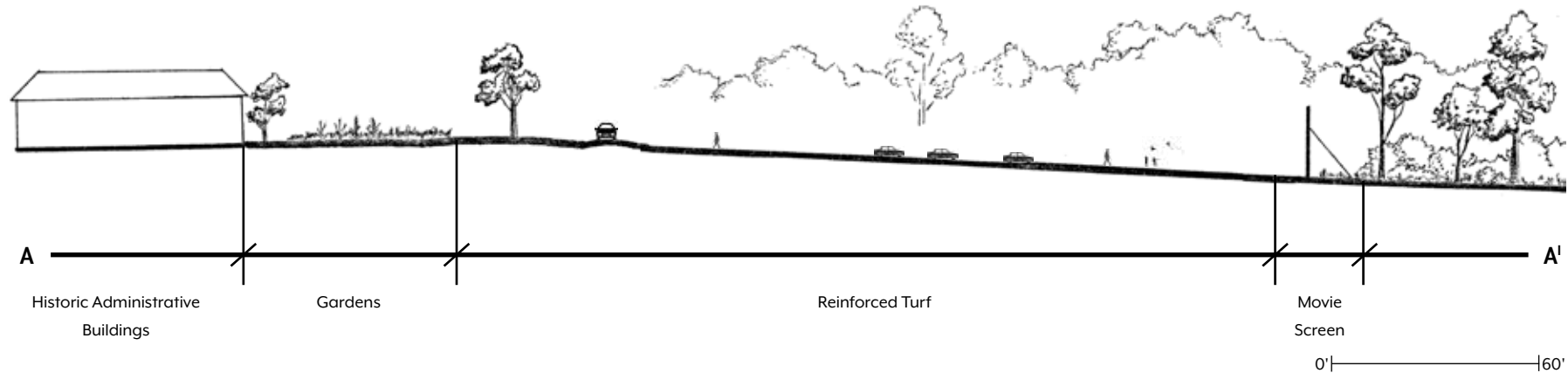


Village Detail

Expanding east and south from the community gardens, pollinator beds and picnic areas create spaces for educational programming and outdoor enjoyment of this zone.



West



Westfarms Mall in Connecticut has installed reinforced turf, which allows water to infiltrate while reducing any risk of compaction with a deep gravel layer. This surface can double as event space and picnic area in times of minimal traffic.



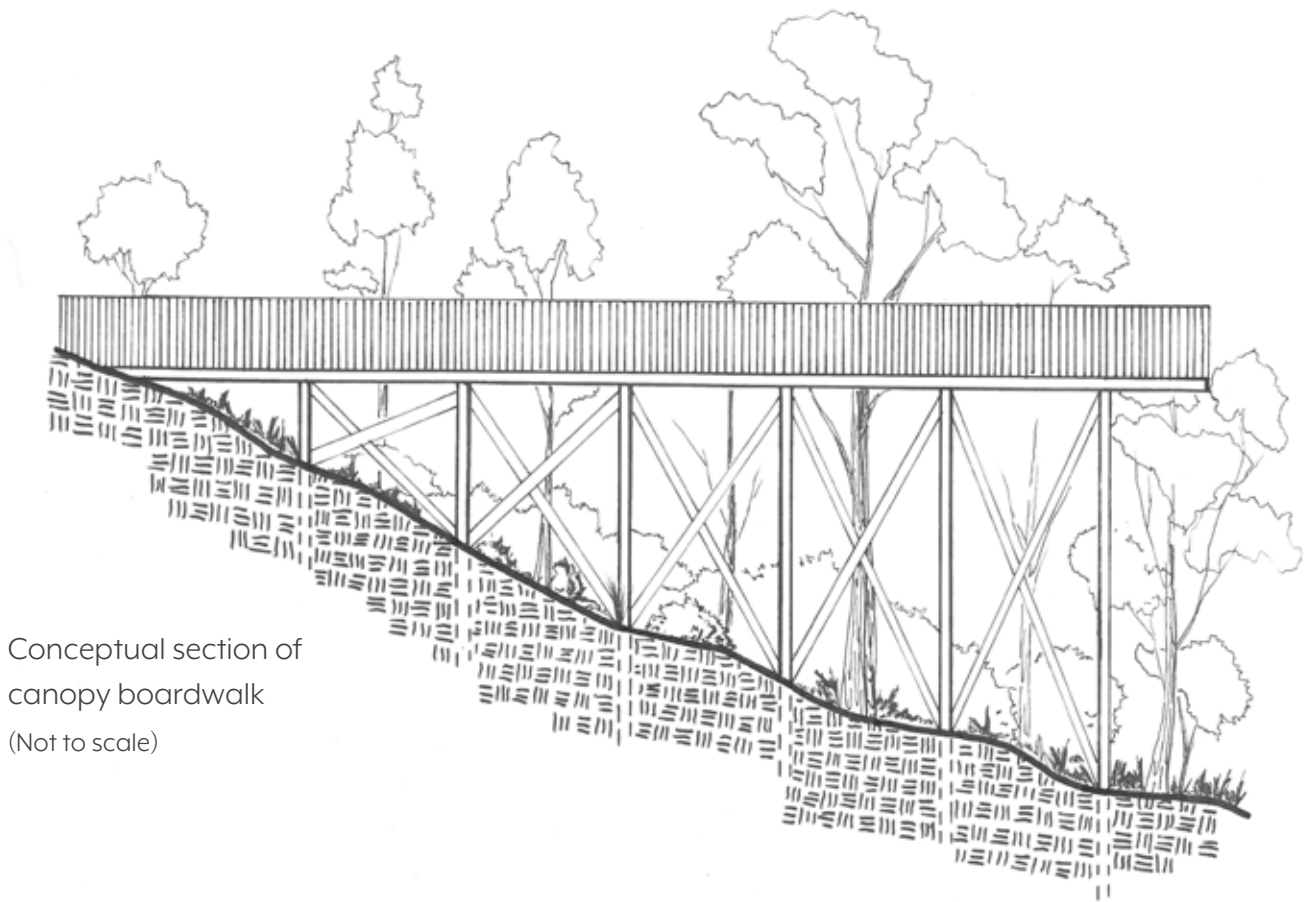
Not for construction. Part of a student project and not based on a legal survey.

Design Details

Canopy Boardwalk and Woodland Amphitheater

Woodland Zone

From the village, one can see a pathway into the woods down the historic maple allée, around which vegetation has been thinned to expose the line of old trees. The straight path directs visitors to the canopy boardwalk which extends above the steep eastern hillside out into the forest. The Bay Circuit Trail and Greenway meets the straight allée path at the beginning of the canopy boardwalk and continues north to a woodland amphitheater. The location of this amphitheater takes advantage of the hillside and the beautiful views out into the flatter woods. Both the amphitheater and canopy boardwalk provide visitors with an immersive experience of the tall, open woods and glimpses of the reservoir and beyond.

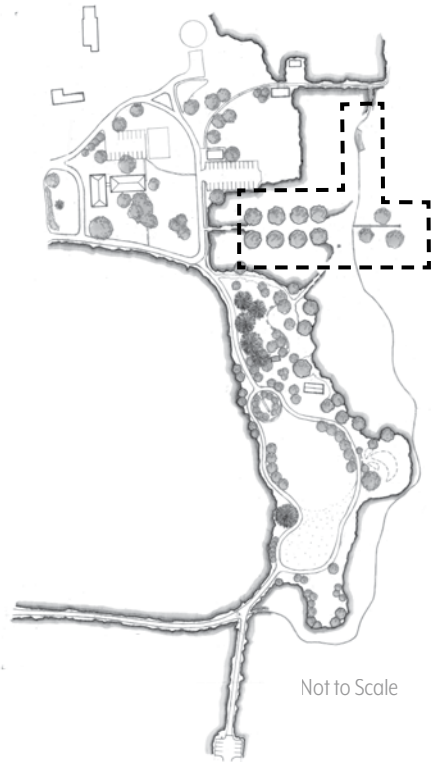


Conceptual section of canopy boardwalk
(Not to scale)

Canopy boardwalks can encourage park visitors to engage with forests in a new way. The boardwalk and observation deck can take many shapes like the netting at Morris Arboretum in Philadelphia (bottom center) to Kew Gardens in London (bottom left).



The Scott Outdoor Amphitheater at Swarthmore College is a stunning example of the integration of an amphitheater into the woods (bottom right).



Design Details

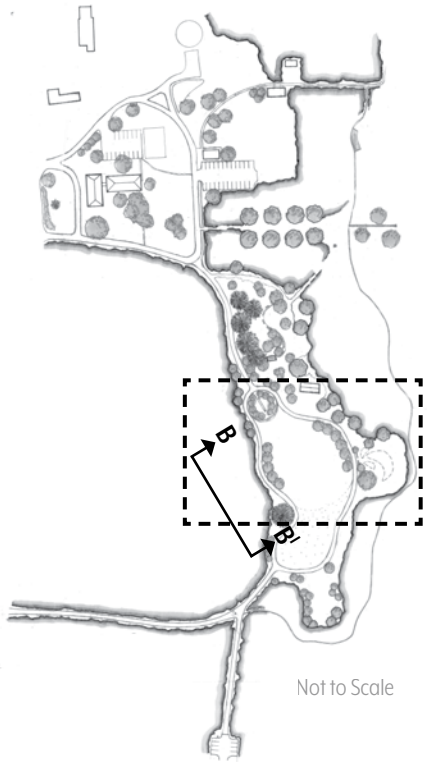
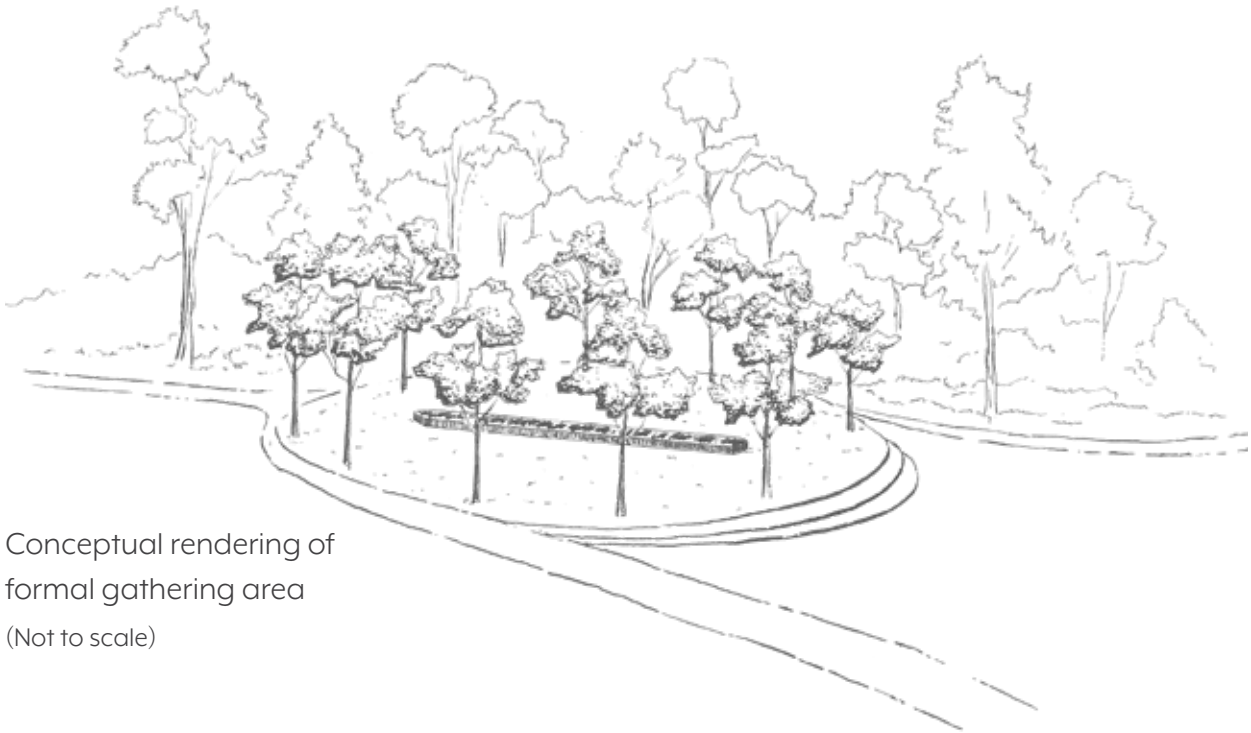
The Northern Clearing

Memorial Circle

The multi-use pathway leading into the park from the village offers glimpses of the park through the woods before opening up to a formal memorial which references the circular shape of the hospital's former driveway. This space is defined by a ring of trees and wide turf-covered steps from which visitors can view the full expanse of the park. A low and long fountain runs through the center, functioning both as a reflecting pool and seating wall.

Picnics, Pavilions, and Playgrounds

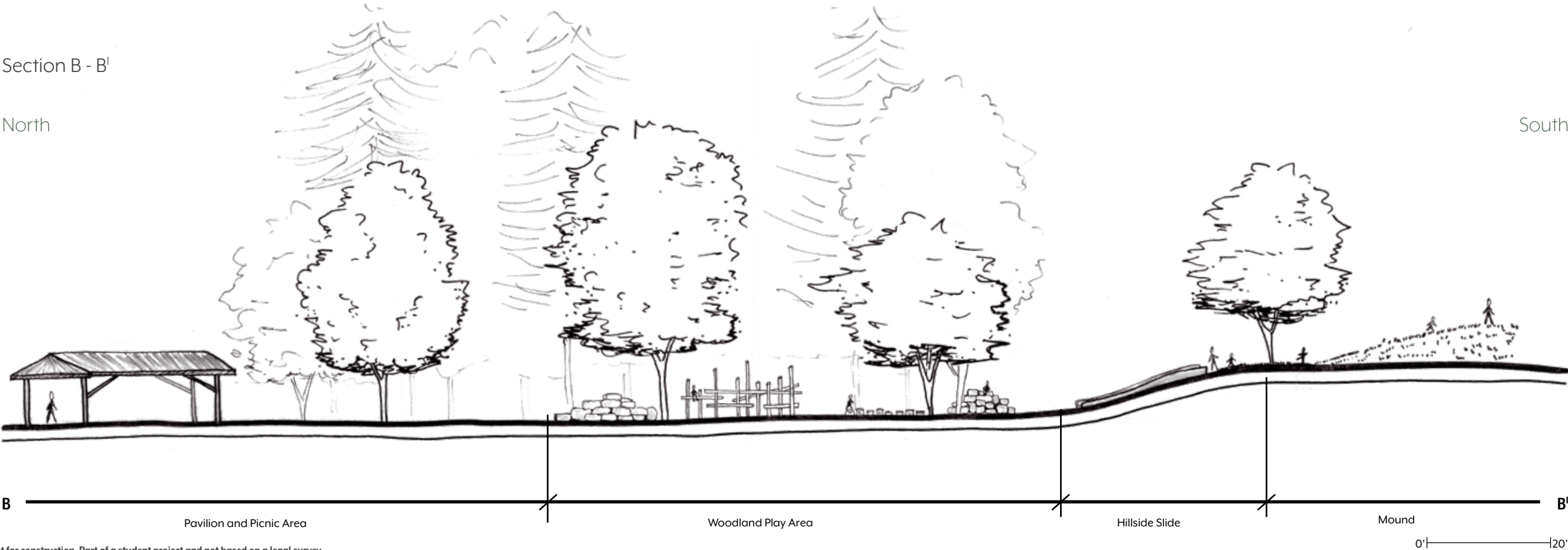
For informal gatherings and larger events, pavilions of different sizes are situated throughout a woodland grove east of the memorial circle. An ADA-accessible trail through a woodland shade garden connects this area to the primary pathway at the southeastern corner of the village. A playground for younger kids is visible from the main path and pavilions. Adventure play structures constructed from natural materials provide kids with a corridor of play options along the wooded edge to the mound in the east (described on sheet 15).



Section B - B'

North

South



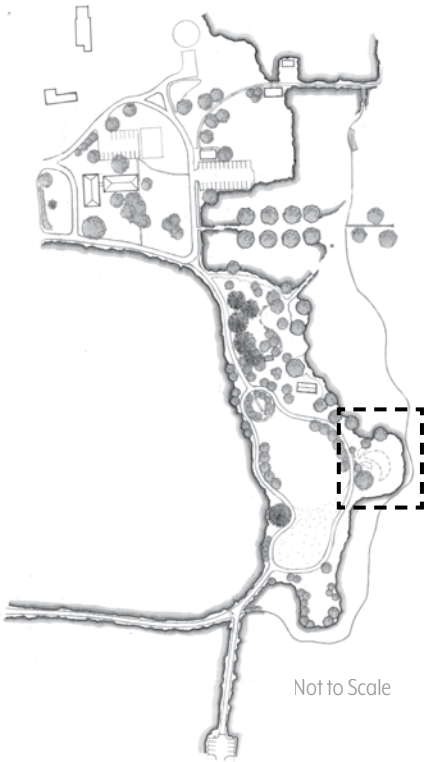
Design Details

Mounds

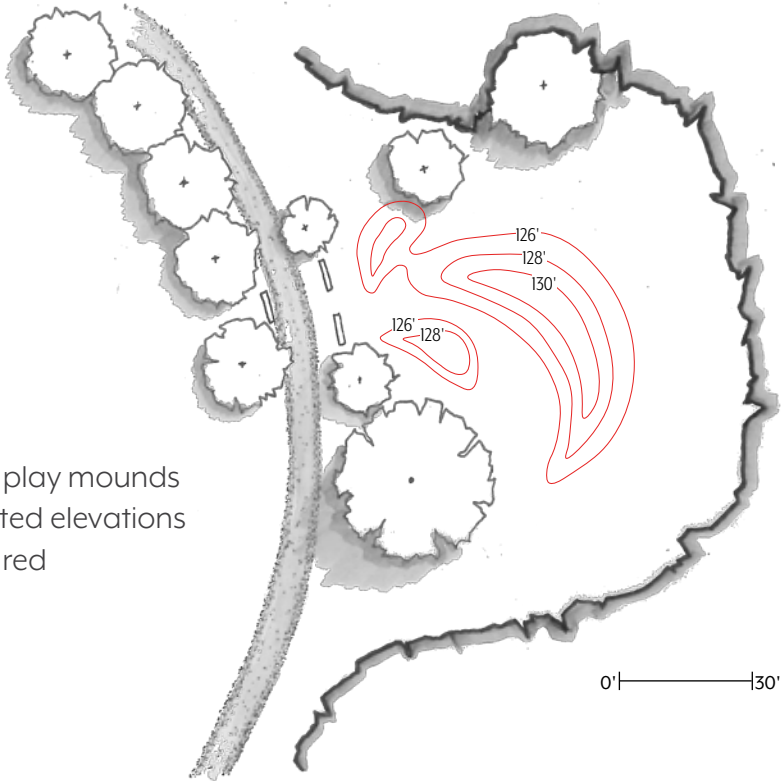
Landform Play

The eastern corner is built up into a grassy mound surrounded by smaller mounds for exploring and play. The height of the mound is emphasized by the natural topography on its northern edge, descending down to the woodland play area described on sheet 14. The location of this mound draws visitors into the park and presents them with views to the eastern woods and the bogs beyond.

Conceptual rendering of play mounds located along main path
(Not to scale)



Creating shifts in the topography gives kids and adults a place to play or lay down and a novel vantage point from which to view the rest of the park. The Regenstein Learning Campus in Chicago (top left), Bates Landscapes' Tallawong Garden in Australia (bottom left), and Charles Jencks' Garden of Cosmic Speculation (right), illustrate a variety of scales at which this kind of landform can be implemented and enjoyed.



Plan view of play mounds with suggested elevations indicated in red

Not for construction. Part of a student project and not based on a legal survey.

Play Precedents

Play structures can take advantage of what is on site (downed wood, changes in topography, large flat areas) to create a range of play experiences. Simple solutions, like a long line of tree stumps, can create an engaging playful space at little cost. Larger structures like hillside slides or hammocks could entertain visitors of all ages. The following precedents can inspire the design of play areas to fit the specific needs of Hanson residents.



Play structures built from natural materials like tree stumps provide kids with a free-range, adventurous play experience. Blue Lake Regional Park in Fairview, OR, provides one example of a simple yet engaging play structure.



Governor's Island in New York provides a compelling example of play structures that encourage kids to explore. This kind of structure is usable by kids of all ages and encourages parents and kids to play together.



Materials on site could be used by local artists to create fun, exploratory areas on the forest edge. From the Czech Republic, this example demonstrates how simple, natural materials can be turned into a unique play experience.



A slide built into a hillside makes use of the topography on site. Sasaki's Smale Riverfront Park in Cincinnati demonstrates how play elements can integrate into the landscape.



Hammocks on Governor's Island offer a place to gather and relax. These would be one way to program open space on site for enjoyment by adults and kids.



Smaller grass mounds would encourage exploration. The Regenstein Learning Campus at the Chicago Botanic Garden provides a terrific example.

Design Details

Southern Clearing

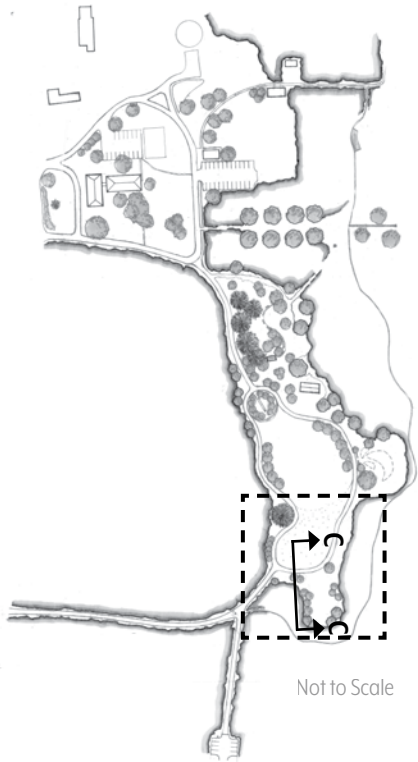
Southern Zone

A wide expanse of meadow and an open lawn on a sloping hillside offer quiet refuge from the busier, activity-focused park areas. Mowing pathways through the meadow can provide space to wander and explore or can be formalized into educational trails to learn about grasslands. The southern hillside provides views of the whole park is a quiet place to relax, and is visible in the distance as one enters this open parkland. The gentle slope makes for a perfect place to lay down and can serve as an informal amphitheater.



Access and Parking

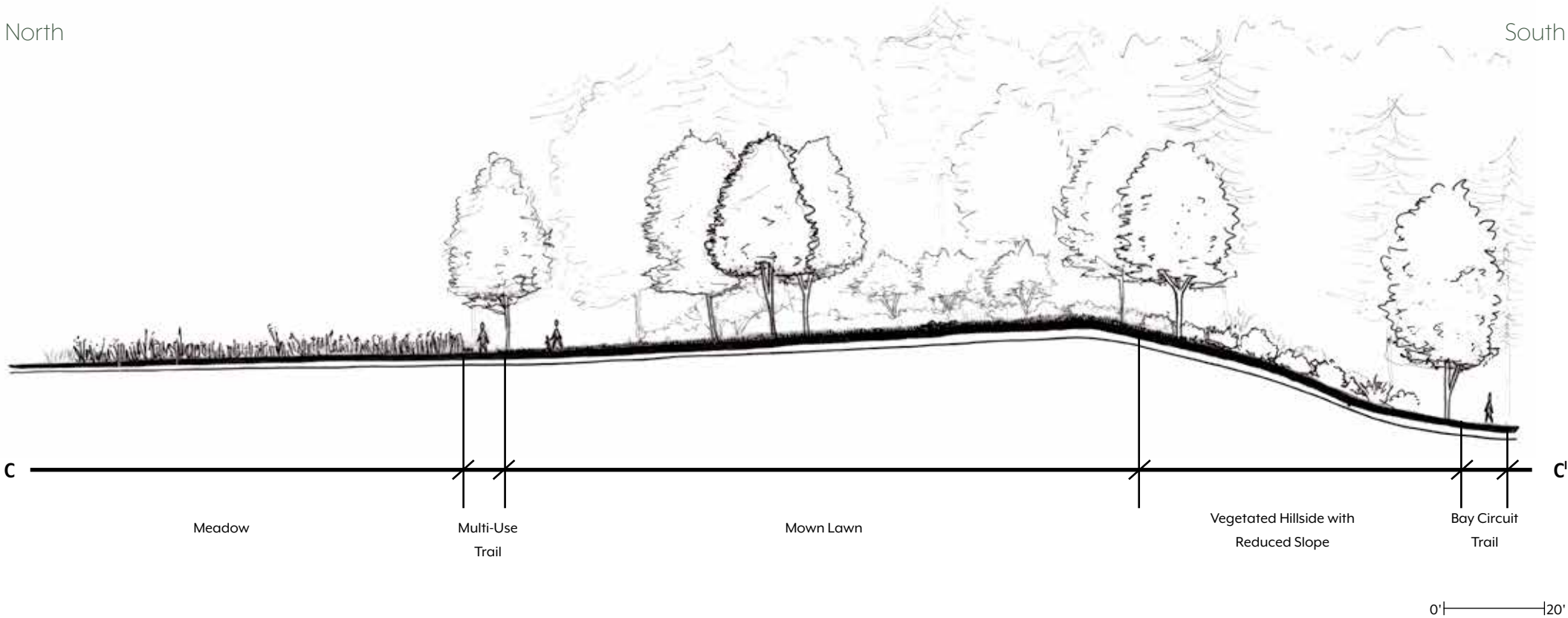
The northern pathway from the village is the main entrance to the southern clearing. This ADA-accessible trail doubles as emergency and patrol vehicle access, if needed, with an exit point on Pierce Avenue. By the Pierce entrance are seven parking spots within sight of the road. A gate blocks access to this drive and parking lot after dusk.



Section C - C'

North

South



Design Details Trails

The pathways proposed in this master plan connect visitors to all corners of the site. The Bay Circuit Trail and Greenway is integrated into the site and a primary ADA-accessible pathway makes the park usable for all while provides emergency vehicle access.

Bay Circuit Trail and Greenway

To bring the trail off High Street as much as possible, this design proposes siting a trail entry kiosk within sight of Pierce Avenue, directing hikers into the park. A woodland path breaks off to the east and skirts the central park area, reconnecting with park amenities and paths at the canopy boardwalk. Another trail kiosk would inform visitors about the trail at the main parking entry point in the village.

The trail would connect with the path to the northern meadows, bringing hikers into these scenic areas, and exit the property at the northernmost property edge. The town will need to explore opportunities for an easement through the abutting neighbors' property to make this connection feasible.



Bay Circuit Trail and Greenway
△ Not to Scale

ADA Pathways and Multi-Use Trails

The central looping pathway facilitates access to new park amenities in the south for all visitors. This path should be at least ten feet wide to accommodate two-way movement of pedestrians, people using wheelchairs, and bicyclists. This path would also support occasional patrol vehicle or emergency access to the southern clearing.

For other pathways on site, for example the path to the woodland amphitheater, a minimum width of three feet is necessary to serve visitors using wheelchairs.



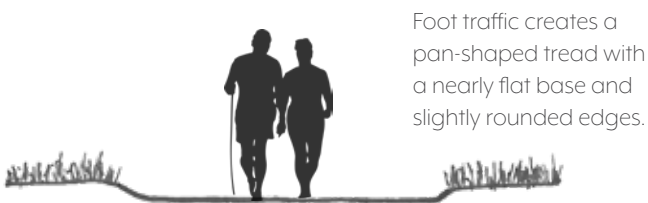
ADA-Accessible, Multi-Use Trail
ADA-Accessible
△ Not to Scale

Multi-Use ADA Pathway Requirements



Trail Surface:
natural, granular,
wood chips

Minimum 3' width



Foot traffic creates a
pan-shaped tread with
a nearly flat base and
slightly rounded edges.



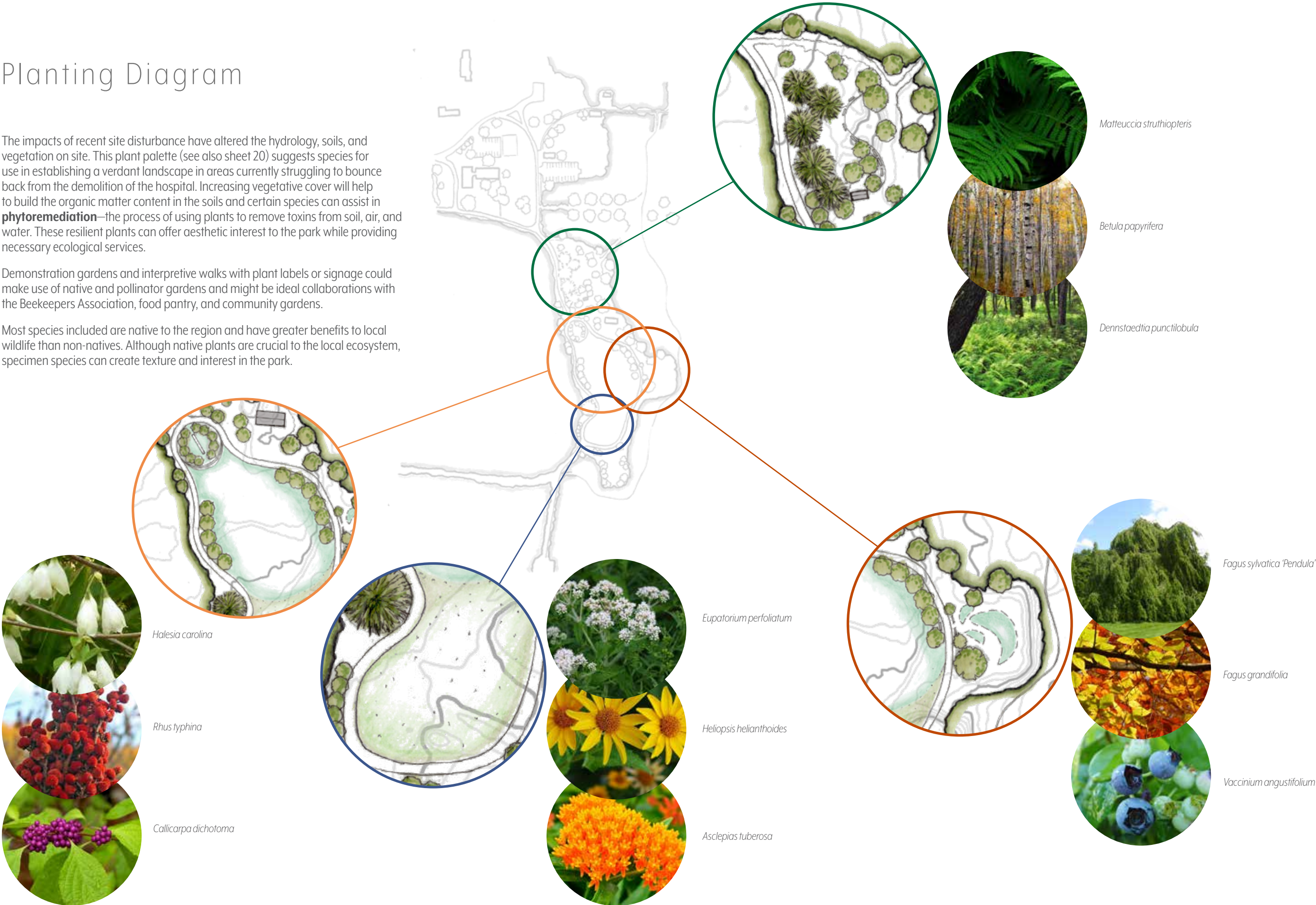
Mountain bikes create
gently swaled treads with
gradually sloped edges

Planting Diagram

The impacts of recent site disturbance have altered the hydrology, soils, and vegetation on site. This plant palette (see also sheet 20) suggests species for use in establishing a verdant landscape in areas currently struggling to bounce back from the demolition of the hospital. Increasing vegetative cover will help to build the organic matter content in the soils and certain species can assist in **phytoremediation**—the process of using plants to remove toxins from soil, air, and water. These resilient plants can offer aesthetic interest to the park while providing necessary ecological services.

Demonstration gardens and interpretive walks with plant labels or signage could make use of native and pollinator gardens and might be ideal collaborations with the Beekeepers Association, food pantry, and community gardens.

Most species included are native to the region and have greater benefits to local wildlife than non-natives. Although native plants are crucial to the local ecosystem, specimen species can create texture and interest in the park.



Not for construction. Part of a student project and not based on a legal survey.

Meadow

<i>Botanical name, Common Name</i>	Spread	Height	Bloom Time
<i>Agastache foeniculum</i> , anise (lavender) hyssop	1.5 to 3 feet	2 to 4 feet	July to August
<i>Asclepias syriaca</i> , common milkweed	.75 to 1 feet	2 to 3 feet	June to July
<i>Asclepias tuberosa</i> , butterfly milkweed	1 to 1.5 feet	1 to 2.5 feet	May to September
<i>Aster lateriflorus</i> , calico aster	1 to 3 feet	1 to 3 feet	September to October
<i>Chamaecrista fasciculata</i> , partridge Pea	1 to 3 feet	1 to 3 feet	June to October
<i>Coreopsis lanceolata</i> , lanceleaf coreopsis	1 to 1.5 feet	1 to 2 feet	May to July
<i>Echinacea purpurea</i> , purple coneflower	1.5 to 2 feet	2 to 3 feet	June to August
<i>Eupatorium maculatum</i> , spotted Joe Pye weed	2 to 4 feet	5 to 7 feet	August to October
<i>Eupatorium perfoliatum</i> , boneset	3 to 4 feet	3 to 4 feet	June to October
<i>Heliopsis helianthoides</i> , oxeye sunflower	2 to 4 feet	3 to 6 feet	June to September
<i>Monarda fistulosa</i> , wild bergamot	2 to 3 feet	2 to 4 feet	June to September
<i>Penstemon hirsutus</i> , hairy beardtongue	1.5 to 2 feet	1 to 3 feet	June to July
<i>Pycnanthemum tenuifolium</i> , narrowleaf mountainmint	2 to 3 feet	2 to 3 feet	June to September
<i>Schizachyrium scoparium</i> , little bluestem	1.5 to 2 feet	2 to 4 feet	N/A
<i>Solidago bicolor</i> , white (silver rod) goldenrod	1.5 to 2 feet	2 to 3 feet	June to October
<i>Solidago juncea</i> , early goldenrod	2 to 3 feet	2 to 4 feet	July to August
<i>Solidago nemoralis</i> , gray goldenrod	.5 to 2 feet	.5 to 2 feet	June to October
<i>Vernonia noveboracensis</i> , New York ironweed	3 to 4 feet	4 to 6 feet	August to September
<i>Zizia aurea</i> , golden alexanders	1.5 to 2 feet	1.5 to 3 feet	<i>April to August</i>

Turfgrass

<i>Botanical name, Common Name</i>	LBS/1000 ²	Maintenance	% by rate
<i>Festuca rubra</i> , red fescue	3 to 4	minimal	65 to 75
<i>Lolium perenne</i> , perennial rye grass	3 to 4	minimal	10 to 20
<i>Poa pratensis</i> , Kentucky blue grass	3 to 4	minimal	remainder

Ferns

<i>Botanical name, Common Name</i>	Spread	Height	Sun/Shade
<i>Matteuccia struthiopteris</i> , ostrich fern	5 to 8 feet	3 to 6 feet	Part shade to full shade
<i>Dennstaedtia punctilobula</i> ., hay-scented fern	2 to 3 feet	1.5 to 2 feet	Part shade to full shade
<i>Osmundastrum cinnamomeum</i> , cinnamon fern	2 to 3 feet	2 to 3 feet	Part shade to full shade

Shrubs

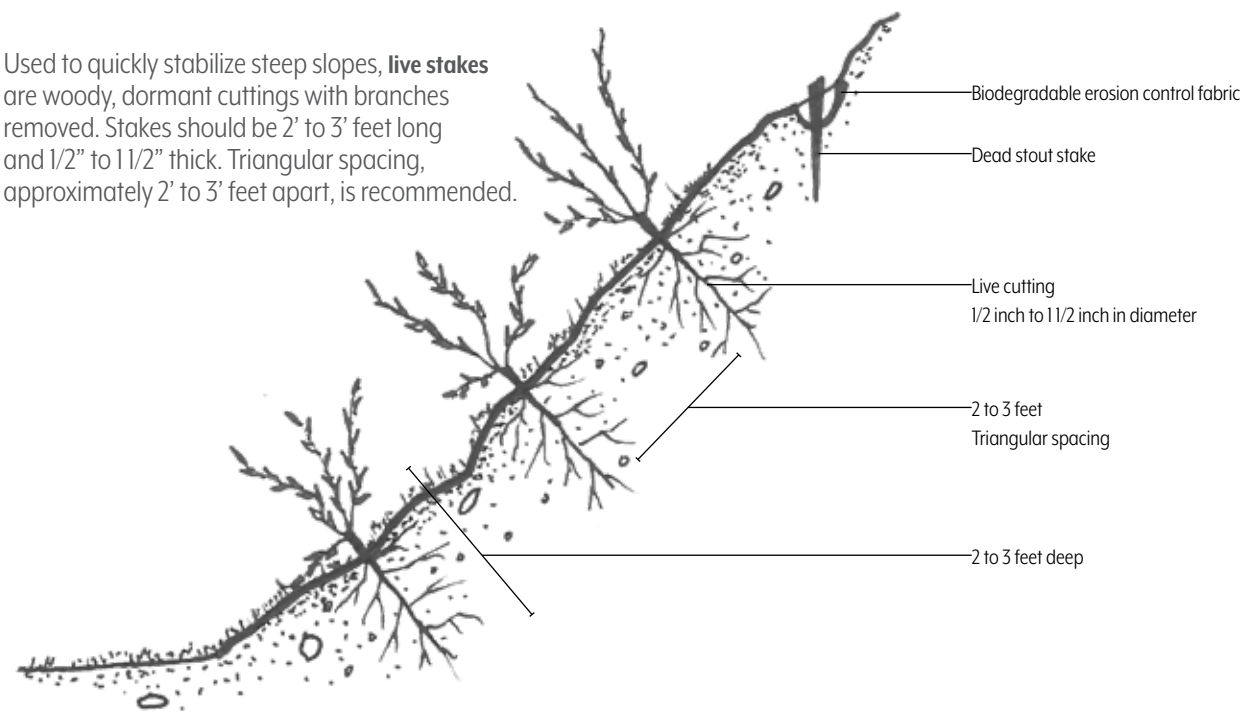
<i>Botanical name, Common Name</i>	Sun/Shade	Spread	Height	Bloom Time
<i>Aronia arbutifolia</i> , chokeberry	Full sun to part shade	3 to 4 feet	6 to 8 feet	April
<i>Callicarpa dichotoma</i> , beautyberry	Full sun to part sun	3 to 5 feet	3 to 4 feet	June to August
<i>Cornus amomum</i> , silky dogwood	Full sun to part shade	6 to 12 feet	6 to 12 feet	May to June
<i>Cornus racemosa</i> , gray dogwood	Full sun to part shade	10 to 15 feet	10 to 15 feet	May to June
<i>Cornus sericea</i> , red twig dogwood	Full sun to part shade	8 to 12 feet	6 to 9 feet	May to June
<i>Ilex verticillata</i> , winterberry	Full sun to part shade	3 to 12 feet	3 to 12 feet	June to July
<i>Kalmia latifolia</i> , mountain laurel	Part shade	5 to 15 feet	5 to 15 feet	May to June
<i>Lindera benzoin</i> , spicebush	Full sun to part sun	6 to 12 feet	6 to 12 feet	March
<i>Morella pensylvanica</i> , bayberry	Full sun to part shade	5 to 10 feet	5 to 10 feet	May
<i>Rhus glabra</i> , smooth sumac	Full sun to part shade	9 to 15 feet	9 to 15 feet	June
<i>Rhus copallinum</i> , winged sumac	Full sun to part shade	10 to 20 feet	7 to 15 feet	July to August
<i>Rhus aromatica</i> , fragrant sumac	Full sun to part shade	6 to 10 feet	2 to 6 feet	April
<i>Viburnum opulus</i> var. <i>americanum</i> , cranberrybush	Full sun to part shade	8 to 12 feet	8 to 12 feet	April to May
<i>Viburnum cassinoides</i> , witherod viburnum	Full sun to part shade	5 to 12 feet	5 to 12 feet	May to June
<i>Viburnum lentago</i> , nannyberry viburnum	Full sun to part shade	6 to 12 feet	14 to 16 feet	May
<i>Viburnum dentatum</i> , arrowwood viburnum	Full sun to part shade	6 to 10 feet	6 to 10 feet	May to June
<i>Viburnum lantanoides</i> , hobblebush viburnum	Full to part shade	6 to 12 feet	6 to 12 feet	May to June
<i>Vaccinium corymbosum</i> , highbush blueberry	Full sun to part shade	8 to 12 feet	6 to 12 feet	May
<i>Vaccinium angustifolium</i> , lowbush blueberry	Full sun to part sun	.5 to 2 feet	.5 to 2 feet	May

Trees

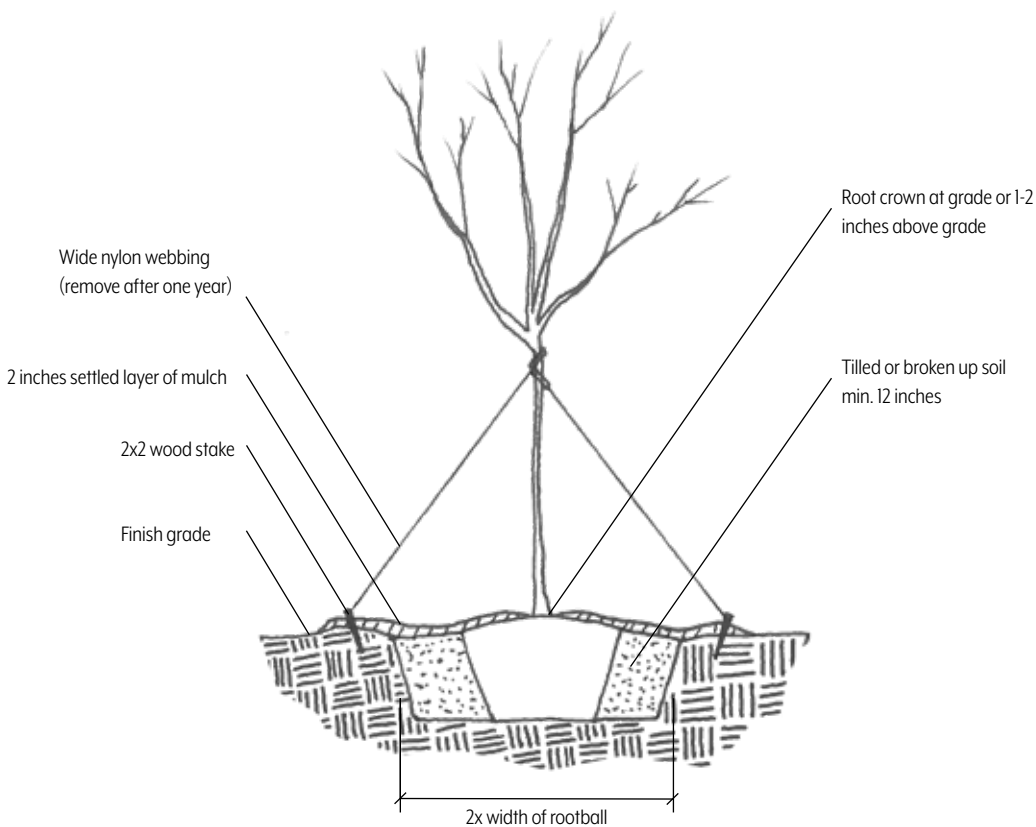
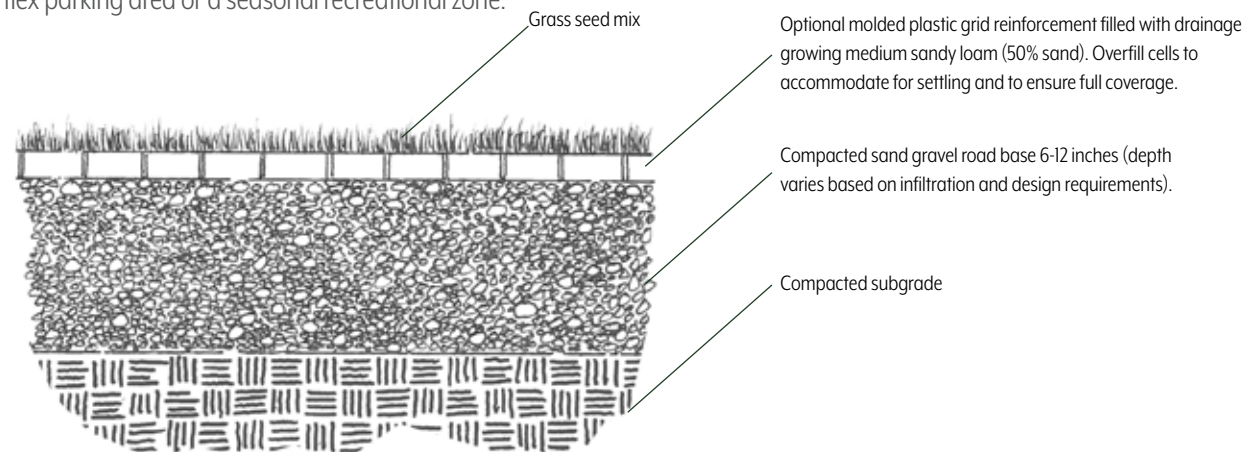
<i>Botanical name, Common Name</i>	Sun/Shade	Spread	Height	Bloom Time
<i>Acer palmatum</i> , Japanese maple	Full sun to part shade	10 to 25 feet	10 to 25 feet	April
<i>Amelanchier canadensis</i> , serviceberry	Full sun to part shade	15 to 20 feet	25 to 30 feet	April to May
<i>Betula papyrifera</i> , paper birch	Part shade	25 to 50 feet	50 to 70 feet	
<i>Cornus alternifolia</i> , pagoda dogwood	Full sun to part shade	20 to 32 feet	15 to 25 feet	May to June
<i>Fagus grandifolia</i> , American beech	Full sun to part shade	40 to 80 feet	50 to 80 feet	
<i>Fagus sylvatica</i> ‘ <i>Pendula</i> ’, European beech	Full sun to part shade	20 to 40 feet	35 to 50 feet	April to May
<i>Halesia carolina</i> , Carolina silverbell	Full sun to part shade	20 to 35 feet	40 to 50 feet	April
<i>Hamamelis virginiana</i> , common witchhazel	Full sun to part shade	15 to 20 feet	15 to 20 feet	October to December
<i>Ostrya virginiana</i> , eastern hophornbeam	Full sun to part shade	20 to 30 feet	25 to 40 feet	April
<i>Rhus typhina</i> , staghorn sumac	Full sun to part shade	20 to 30 feet	15 to 25 feet	
<i>Stewartia pseudocamellia</i> , Japanese stewartia	Full sun to part shade	8 to 25 feet	12 to 40 feet	June to July

Construction Details

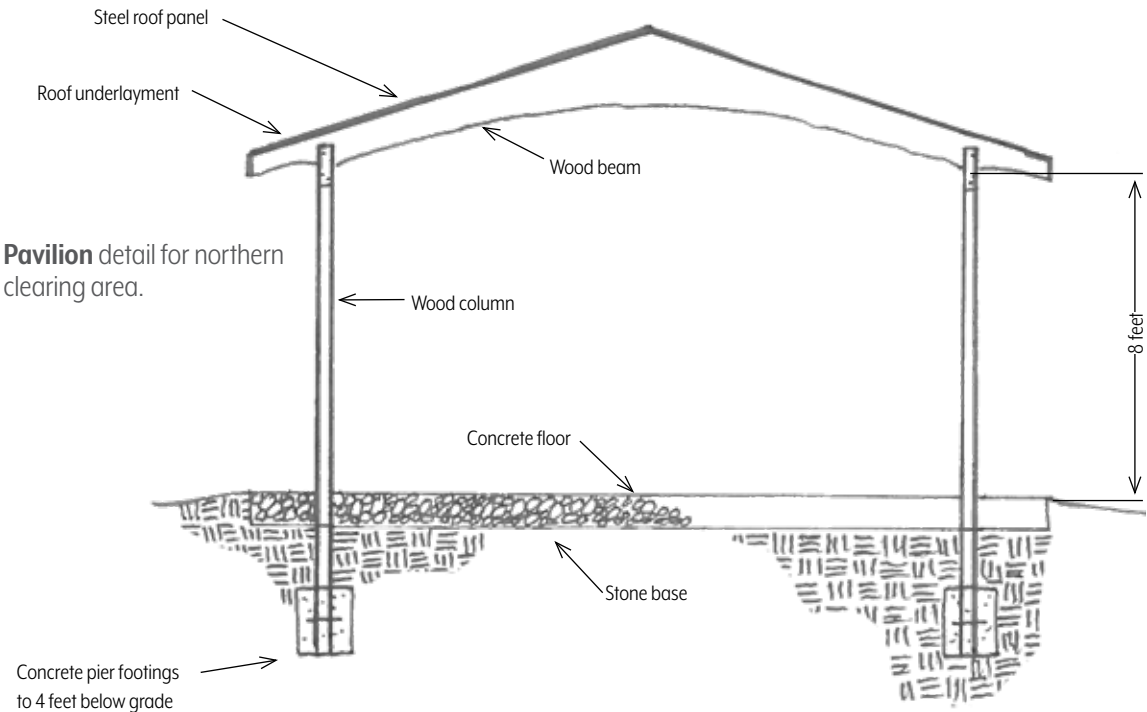
Used to quickly stabilize steep slopes, **live stakes** are woody, dormant cuttings with branches removed. Stakes should be 2' to 3' feet long and 1/2" to 1 1/2" thick. Triangular spacing, approximately 2' to 3' feet apart, is recommended.



Reinforced Turf is a malleable surface used to accommodate many functions. It can be used as a flex parking area or a seasonal recreational zone.



Proper **tree planting** is crucial for the establishment of the tree. Ensure that the root crown is at or above grade and if the tree is wrapped in burlap or wire, remove before planting.



Cost Estimate

The chart reflects a range of estimates from low to high. The range of costs will provide the town with a rough estimate for the design and installation of the park. Some costs are yet to be determined.

Demolition

Product/ Material	Unit of measure	Quantity	Low Cost	High Cost	Total Low	Total High
Clearing and Grubbing	AC	1	\$4,000	\$6,000	\$4,000	\$6,000
Asphalt Removal	SY	21,200	\$3.00	\$4.50	\$63,600	\$95,400
					Total	\$67,600
						\$101,400

Site Preparation/Improvements

Product/ Material	Unit of measure	Quantity	Low Cost	High Cost	Total Low	Total High
Imported Topsoil	CY	2,070	\$45	\$60	\$93,150	\$125,200
Asphalt Path	SF	21,200	\$3.00	\$4.50	\$63,600	\$95,400
Boardwalk	SF	550	\$85	\$125	\$46,750	\$68,750
Grading	SF	45,000	\$.08	\$.12	\$3,600	\$5,400
Asphalt Parking	SF	2,500	\$4.50	\$6.00	\$11,250	\$15,000
Reinforced Turf	SF	20,000	\$12	\$16.00	\$240,000	\$320,000
					Total	\$457,350
						\$719,750

Landscaping

Product/ Material	Unit of measure	Quantity	Low Cost	High Cost	Total Low	Total High
Hydroseed	AC	94,400	\$16	\$0.18	\$15,104	\$16,992
Meadow Seeding	AC	.5	\$3,000	\$4,000	\$1,500	\$2000
Trees (3-4" caliper)	EA	40	\$575	\$700	\$23,000	\$28,000
Mulch	CY	15	\$40	\$50	\$600	\$825
Shrubs	1 gallon	100	\$30	\$40	\$3,000	\$4,000
					Total	\$43,204
						\$51,817

Electrical/Plumbing

Product/ Material	Unit of measure	Quantity	Low Cost	High Cost	Total Low	Total High
Restroom facility	EA	1	\$50,000	\$80,000	\$50,000	\$80,000
Lighting	LS				TBD	TBD
					Total	\$50,000
						\$80,000

Amenities

Product/ Material	Unit of measure	Quantity	Low Cost	High Cost	Total Low	Total High
Play Mounds	LS	1	\$3,000	\$4,000	\$3,000	\$4,000
Amphitheater	LS	1	\$9,000	\$12,000	\$9,000	\$12,000
Water Feature	LS	1	\$8,000	\$12,000	\$8,000	\$12,000
Tot Lot	LS	1				TBD
Drinking Fountain	EA	2	\$750	\$1,800	\$1,500	\$3,800
Grills	EA	3	\$400	\$800	\$1,200	2,400
Trail Signage	EA	2	\$250	\$400	\$500	\$800
Dog Station	EA	4	\$400	\$800	\$1,600	\$3,200
Trash Receptacle	EA	10	\$400	\$800	\$4,000	\$8,000
Pavilion	SF	900	\$60,000	\$90,000	\$60,000	\$90,000
Sign Entrance	EA	1	\$500	\$700	\$500	\$700
Park Bench	EA	20	\$500	\$1,200	\$10,000	\$24,00
Bike Rack	EA	2	\$800	\$1,500	\$1,600	\$3,000
					Total	\$100,900
						\$162,000

Total	\$719,054	\$1,114,967
Mobilization (1.5%)	\$10,785	\$16,724
Design/Admin (15%)	\$118,643	\$183,969
Contingency (15%)	\$127,273	\$197,343
Grand Total	\$975,755	\$1,513,003

Phasing

To accommodate the town's limited budget, this project may be constructed in phases. The order can reflect the feedback received during the 2018 community meetings and prioritize improving the ecological functions of the site to support long-term success for vegetation and wildlife. Ideally, each phase would be no longer than 3-5 years.

Phase 1

Initial steps should focus on making the land accessible and safe for public use and creating conditions in the clearing to support the long-term establishment of desired vegetation. Residents expressed an interest in establishing a place to walk and a playground in the early stages of the park's construction.

Open area:

- Form landforms and reduce steepness of eastern slopes
- Add loam to fill soils and seed
- Vegetate slopes and shift any fallen or at-risk trees into the forest away from trails for use as habitat or use for park play or pavilion structures, if possible
- Construct multi-use trail
- Install play structure
- Establish meadow management regimen
- Clear and construct Pierce Avenue entry and gate

Village:

- Clear vegetation east of the village and reestablish path through maple allée
- Restore and build new parking lots and roads in the village
- Construct bathrooms
- Construct village playground and covered gathering area

Phase 2

The second phase should establish larger vegetation and additional park amenities including play and picnic structures.

- Plant shrubs and trees
- Install pavilions and picnic tables
- Construct memorial circle wall and steps
- Establish turf lawn
- Build playground structures in the open area
- Repurpose old foundations and resurface trail to northern meadows

Phase 3

Larger elements which may require targeted fundraising efforts can be implemented as opportunities arise.

- Build woodland amphitheater
- Construct canopy boardwalk
- Install memorial fountain

Not for construction. Part of a student project and not based on a legal survey.

Precedent References

Bates Landscapes- Tallawong, Australia
Image source: [bateslandscape.com.au/portfolio/tallawong](https://www.bateslandscape.com.au/portfolio/tallawong)

Blue Lake Regional Park, Fairview, OR
oregonmetro.gov/parks/blue-lake-regional-park
Image source: pdxparent.com/all-natural-playground-apr15

Charles Jencks - Garden of Cosmic Speculation, Scotland
charlesjencks.com/the-garden-of-cosmic-speculation
Image source: [flickr.com/photos/yellowbookltd/4573613441](https://www.flickr.com/photos/yellowbookltd/4573613441)

John G. and Phyllis W. Smale Riverfront Park, Cincinnati, OH
sasaki.com/project/83/cincinnati-john-g-and-phyllis-w-smale-riverfront-park
Image courtesy of Sasaki

Governor's Island, New York, NY
govisland.com/things-to-do/activities
Images courtesy of West 8 (play structure) and Timothy Schenck (hammocks)

Kew Gardens, London, England
[kew.org/kew-gardens/attractions/treetop-walkway](https://www.kew.org/kew-gardens/attractions/treetop-walkway)
Image source: commons.wikimedia.org/wiki/File:On_the_Treetop_Walkway,_Kew_Gardens.jpg

Morris Arboretum at University of Pennsylvania, Philadelphia, PA
morrisarboretum.org/gardens_treedventure.shtml
Image source: backstage.worldarchitecturenews.com/wanawards/project/out-on-a-limb-tree-canopy-walk/?source=sector&selection=all

Regenstein Learning Campus, Chicago, IL
Image source: asla.org/2017awards/326889.html

Scott Arboretum of Swarthmore College, Swarthmore, PA
scottarboretum.org/gardens-tour/scott-outdoor-amphitheater
Image source: [flickr.com/photos/ajlvi/3538262810](https://www.flickr.com/photos/ajlvi/3538262810)

Storm King Art Center, New Windsor, NY
stormking.org
Image sources: bcnhorticulture.blogspot.com; marcpastorek.com/tag/louisiana-restoration-round-up

Westfarms Mall, West Hartford, CT
Image source: invisiblestructures.com/product/grasspave2/westfarms-mall-west-hartford-connecticut



Acknowledgments

Thank you to the residents of Hanson who so generously gave us their time and feedback.

And to the Final Plymouth County Hospital Reuse Committee, whose work and dedication was essential to developing this proposal.

Finally, thank you to the faculty, staff, and students of the Conway School for their thoughtful feedback and support.