

College Park Trolley Trail Project



PALS



AUTHORS

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UNDER THE SUPERVISION OF

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ACKNOWLEDGMENTS

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Moira Abernethy, Executive Assistant, College Park Department of Planning & Community Development

Carlos Nunes, J.D., Senior Planner, College Park Department of Planning & Community Development

ABOUT PALS

The Partnership for Action Learning in Sustainability (PALS) is administered by the National Center for Smart Growth at the University of Maryland, College Park (UMD). It is a campus-wide initiative that harnesses the expertise of UMD faculty and the energy and ingenuity of UMD students to help Maryland communities become more environmentally, economically, and socially sustainable. PALS is designed to provide innovative, low-cost assistance to local governments while creating real-world problem-solving experiences for University of Maryland graduate and undergraduate students.

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EXECUTIVE SUMMARY

The Fall 2024 *Design in Practice* course engaged 50 students from various academic disciplines in a collaborative project with the College Park Planning Department, aimed at enhancing the Trolley Trail. This multi-use recreational and commuter trail connects four distinct neighborhoods within College Park, Maryland, and is a vital corridor for biking, walking, and running. The course was an opportunity for students to apply design thinking processes in a hands-on setting, addressing real-world challenges and contributing to the improvement of a key community asset.

Students worked in teams of five to develop proposals that would celebrate the unique identities of each neighborhood while maintaining a cohesive experience along the trail. The overarching goals included improving safety, cleanliness, and amenities for all users, while fostering greater engagement with the trail and encouraging healthier, more sustainable modes of transportation. Ultimately, the project sought to strengthen the connection between College Park's residents and students, and the natural environment.

Notable proposals included the integration of glow-in-the-dark pavement, each section of the trail reflecting a distinct color identity for its neighborhood. This feature not only added visual appeal but also aimed to create a captivating, "Instagrammable" experience for visitors.

Design interventions at road crossings incorporated specialized lighting and paving techniques to enhance pedestrian safety. Additionally, playful and community-oriented elements were proposed, such as trolley-themed playgrounds, a "museum" trolley for special events, and informational signage that connects trail users to nearby businesses, parks, and other local amenities.

Together, these proposals envision a revitalized Trolley Trail that could become a pedestrian- and bike-only corridor, reducing the need for cars and parking while promoting more sustainable urban living. The project's outcomes have the potential to drive further development around the trail, transforming it into a vibrant, community-focused space that strengthens the relationship between urban life and nature.

COURSE OVERVIEW AND PEDAGOGICAL FRAMEWORK

This half-semester project in the Design in Practice course, open to students outside the Architecture major, introduced 50 undergraduates to the core principles and tools of design thinking. Students were organized into ten teams of five and asked to develop conceptual proposals to enhance the Trolley Trail based on input from the City of College Park and community stakeholders.

The pedagogical framework was structured around the five phases of design thinking: empathize, define, ideate, prototype, and test. Students conducted field visits, observed trail conditions, mapped neighborhood assets, and held informal interviews to generate insights. They then framed specific design challenges and brainstormed interventions, testing their proposals through critiques and presentations.

Classroom time included lectures, group workshops, and iterative feedback sessions. Students used a range of skills—visual thinking, collaborative ideation, rapid prototyping, storytelling, and presentation. Tools included Adobe Illustrator, Rhino, physical modeling materials, and analog sketching. While many participants had little or no prior design experience, they demonstrated a capacity to engage complex problems creatively and responsibly.

DESIGN HIGHLIGHTS AND THEMES

Recurring design principles emerged across the groups, including the importance of identity, visibility, and historical continuity. Students repeatedly emphasized how spatial interventions—playgrounds, signage, kiosks, or lighting—could transform the trail from a simple commuter path into a layered community destination.

Engagement with **local identity** was a central focus. Several groups chose color-coded trail segments or gateway features to celebrate neighborhood uniqueness.

Safety and visibility—especially lighting—were commonly addressed, with some students proposing glow-in-the-dark paint inspired by global precedents and others designing string light systems to alert cyclists near intersections.

Students explored **sustainable strategies**, such as solar-powered lighting, rain-fed irrigation for gardens, and the reuse of trolley cars as both symbolic and functional public infrastructure.

Many groups proposed **interactive art installations**—like murals, sculptures, or themed “activity zones”—to foster engagement and cultural storytelling.

Several reflections emphasized **practical feasibility**, noting cost, material sourcing, and environmental preservation as key considerations. One student reflected, “Installing solar lights was more affordable and realistic than glow paint.” Others discussed the influence of feasibility on design refinement, highlighting the need to adjust plans after site visits or budget estimations.

There was a notable emphasis on **group dynamics and shared leadership**, with students appreciating the varied talents of their teammates—be it sketching, digital modeling, or public speaking—as essential to the outcome.

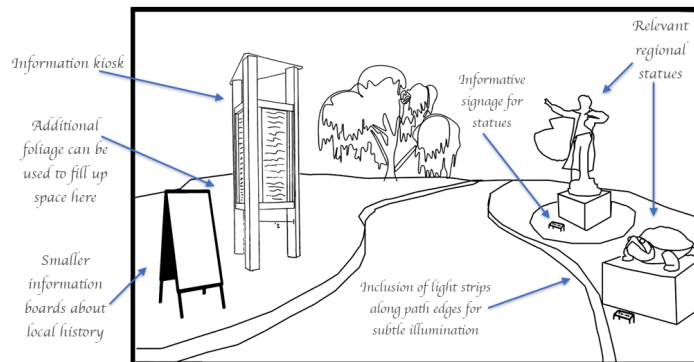
SUMMARY OF STUDENT WORK

One project focused on the integration of themed playgrounds into three key sites along the trail: Berwyn, Paint Branch, and Riverdale. These playgrounds included references to the original trolley system through color-coded designs and interpretive signage, offering educational value alongside physical play. As one student reflected, the collaborative process “highlighted our ability to communicate in ways authentic to the design disciplines with visual, written, and oral methods.”

Another team envisioned activating the trail’s Lake Artemesia area and University Park through a network of wellness-oriented spaces. Their proposal included a dog park, pump track, picnic area, and garden sheds—each designed to foster cross-generational community building, increase physical activity, and improve mental well-being. “We wanted to add very contrasting ideas in the way that the user can interact physically,” one student wrote, noting the influence of their personal interests in the design.



Several students proposed building interactive garden installations that combined educational features with natural and historical storytelling. These included wood and metal kiosks amid botanical and historical gardens. The team emphasized that “creating a product, an experience, and an environment requires design to have a foundational idea,” and that real-world engagement—such as speaking with users—would be key to improving their ideas.



One concept introduced a full-size, stationary trolley car—repurposed as a seating area and interpretive exhibit—placed strategically along the trail. This design honors the area’s transportation legacy while also offering a space for informal gatherings. Accompanying statues of historical figures and informative plaques would tell a broader story of the trail’s evolution and community impact. A student noted: “It was key for us to find an idea to link the importance of the trail’s history using physical objects.”



Another team emphasized tactile material studies and developed custom paving patterns and shaded rest stops, using color and texture to improve wayfinding and the spatial rhythm of the trail. “Our idea was to focus on aesthetics to promote more interactivity,” one student explained, “since the trail could be used for more than just travelling.”



STAKEHOLDER RESPONSE

Carlos Nunes, Senior Planner with the College Park Department of Planning and Community Development and a UMD alumnus, noted, after the final presentation event “Thank you so much for the invitation—it was a pleasure. As an alumnus, I felt incredibly proud to be part of such a remarkable event. Each of the presentations was truly outstanding, and I was impressed by the level of talent and insight showcased. Extraordinary!”

Another stakeholder, Moira Abernethy, Executive Assistant in the Department of Planning and Community Development, noted: “The presentations were awesome! I too loved the lighting theme that changed as you entered each neighborhood, the information kiosk would be great for the pollinator gardens and the perfect way to display the history of Lakeland. It was an eye opener to learn that most students had no experience of the trail and the need for better lighting along it. The themes that included playgrounds for adult-age kids was a great idea (fitness, obstacle course, trolley picnic car, art installations). Lots and lots of good ideas!”

This sentiment was echoed by several guests from the Planning Department and community organizations, who remarked on the creativity, clarity, and passion shown in the student presentations. Stakeholders noted that the integration of identity, safety, and feasibility into student designs felt grounded and forward-thinking.

There was particular appreciation of the student teams’ ability to work across disciplines and to develop ideas that could realistically inform future planning efforts. The presentation event not only helped elevate the students’ work but also opened conversations about how these proposals could influence longer-term improvements along the Trolley Trail corridor.

LESSONS LEARNED AND FUTURE RECOMMENDATIONS

Students consistently emphasized that the **design process** helped them understand how to center user experience. Many commented that with more time, they would have expanded engagement with community members and built working prototypes for testing.

Several students also highlighted the importance of team **diversity and collaboration**. As one student noted, “Having a diverse group allows you to find ideas from every

background... it gave us many more ideas to discuss.” Others observed that working through challenges like attendance and scheduling taught them to plan more intentionally and communicate expectations early.

Some teams stressed the value of **physical modeling and iteration**, expressing a desire to build small-scale prototypes to improve detail and accuracy. One student reflected: “Building a model garden would have helped test out plant and layout ideas with real feedback.” Another noted, “We could have better evaluated placement and flow with more site visits and scaled models.”

There was also a growing awareness of **designing for feasibility**—many noted that beautiful ideas are not enough without understanding costs, maintenance, or accessibility. A student wrote: “It wasn’t just about cool features—it had to work for people, day and night, safely and sustainably.”

The importance of **environmental and social responsibility** also emerged as a core theme, with one reflection noting: “Designers participate in the three E’s—environment, economy, and equity. We were challenged to think beyond aesthetics and build something meaningful.”

A final reflection captured the holistic growth experienced by many students: “I didn’t expect this class to make me rethink how I see the world, but now I walk down the street noticing what’s well designed and what could be better. That’s something I’ll carry with me.”

APPENDIX

Final Presentation Photos









Trolley Trail Idea Pitch



Rose Daignault, Elliot Genus, Johnny Manzari, Grace Yi

Pitch

Statues

Bring back the trolley trails history by incorporating statues of historical figures who shaped the trail and college park today



Trolley

Adding a physical trolley for people to sit in and lounge. It can also serve as a historical piece and a symbol defining the trail.



Historical Figures for Statues



**Rose Powhatan
(Pamunkey/Tauxenent)**

- Close ties to DMV area
- Attended Howard University
- An educator and visual specialist creating murals, paintings, totem poles, etc.



**Chief Turkey Tayac
(Piscataway)**

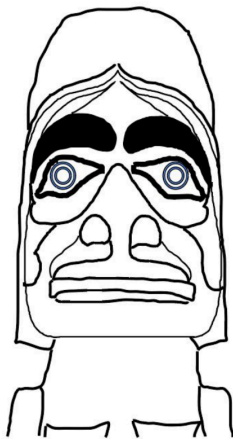
- Key leader in revitalizing the Piscataway people
 - Native tribe to College Park



**Charles Benedict Calvert
(College Park)**

- Founder of Original University of Maryland
- Initiated the growth of the college we attend today

Statue Drawings & Examples



Piscataway Totem Inspired Statue

Rose Powhatan Inspired Statue

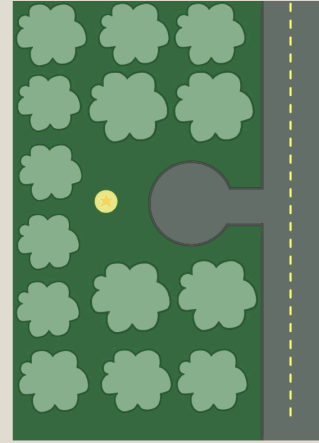
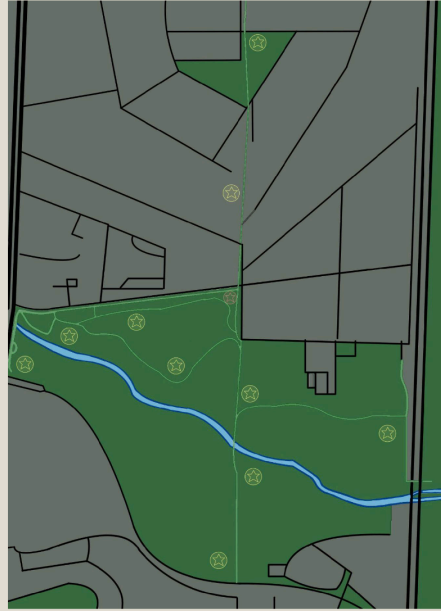
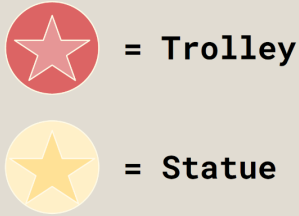


- Pay homage to inspirational figures
- Utilize local artists to maintain authenticity and community

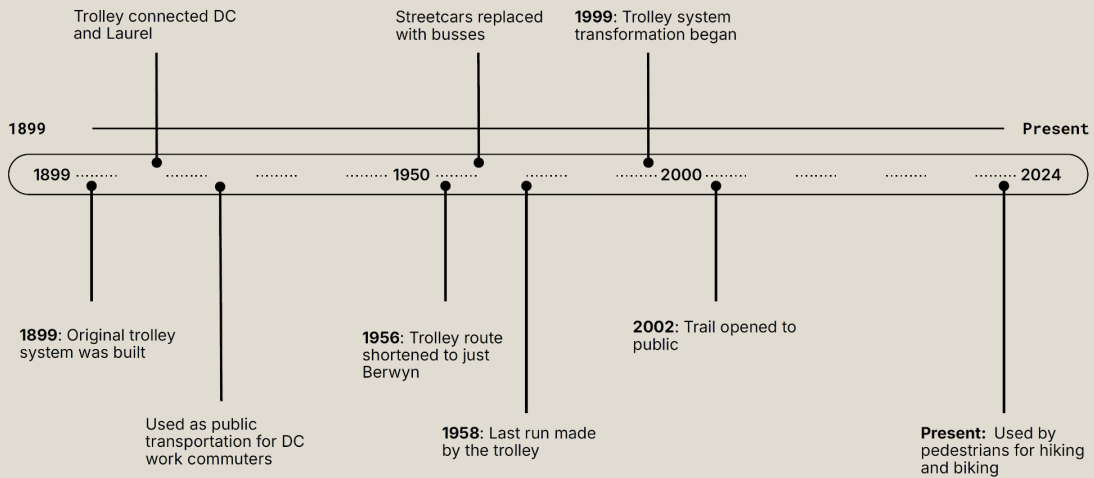


Pamunkey/Tauxenent Totem Inspired Statue

Maps



Trolley History



Why a Trolley on the Trail?

A physical trolley is a great idea for multiple reasons:

- Symbolizes the trail and captures the history of the area.
- Creates a visiting point for users.
- Offers seating and a space to congregate.
- Old trolley cars can be used as a sponsor from the Baltimore Streetcar Museum.
- A visually appealing location for users to take pictures, and share.



Location of Trolley on Trail



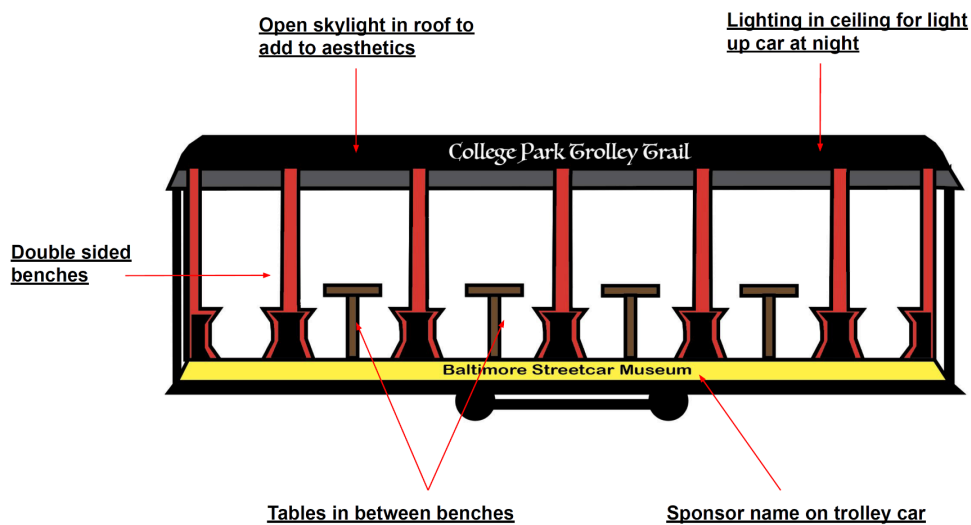
Corner of Lakeland Rd and Rhode Island Ave

- Playground and park nearby
- Perfect spot for families to spend time outside on the trail

Trolley on Trail



Drawing of Trolley



Perspective Drawings of Trolley

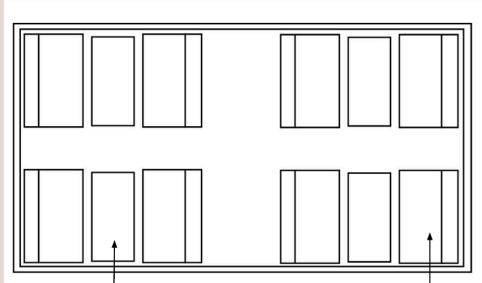
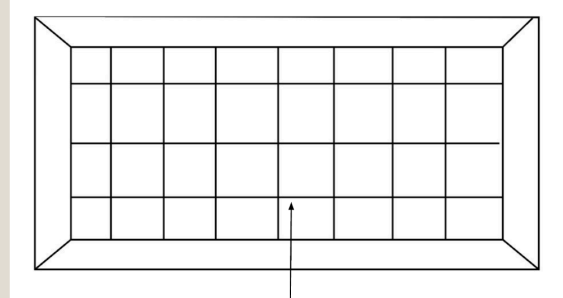


Table in between benches

Benches inside trolley car

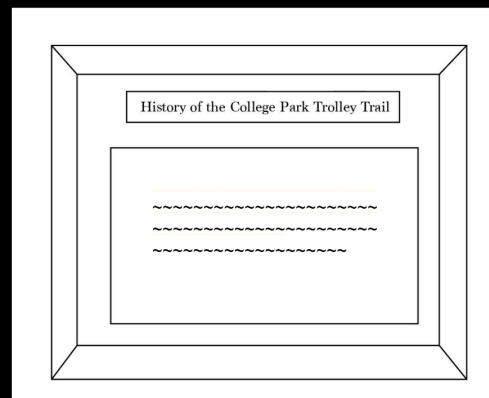


Skylight to replace roof of trolley for natural light and to provide a view of night sky

Plaques

Found on statues and trolley

- Would include the history of the trail along with fun facts
- Can outline the history of important statue figures and their importance to the area
- Each plaque can be numbered to show how many can be found





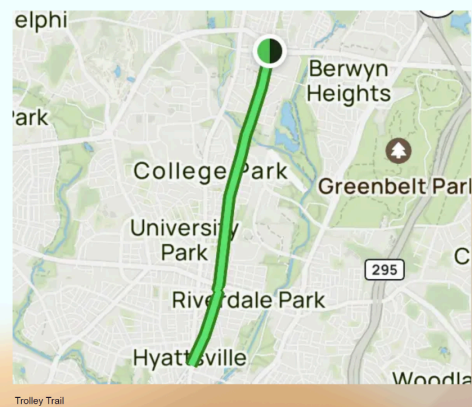
Information Kiosk - Botanical/Historical Garden

Fall 2024 | ARCH270 | Victor, Jason, Trent, Daniel, Travon

SECTION

Current Use of The Trolley Trail

The College Park Trolley Trail is a popular recreational path that connects neighborhoods and parks. Its perfect for walking, jogging, biking, and dog walking. Has scenic views, peaceful surroundings, and a safe, environmentally friendly commuting route are all. The trail also provides health, fitness, and the development of green spaces within the community for transportation in College Park.



SECTION

Background Information

- It is a popular multi-use trail in the Washington, D.C. metropolitan area, running primarily through the suburban areas of Maryland.
- It is particularly notable for connecting the University of Maryland (UMD) campus in College Park to the surrounding neighborhoods.
- The trail follows the route of a historic trolley line and is part of a larger effort to promote sustainable transportation, recreation, and connectivity in the region.



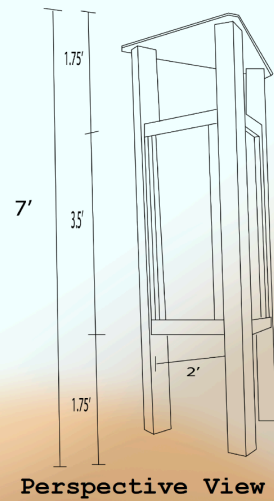
Our Idea

Roots & Info Hub

SECTION

Information Kiosk

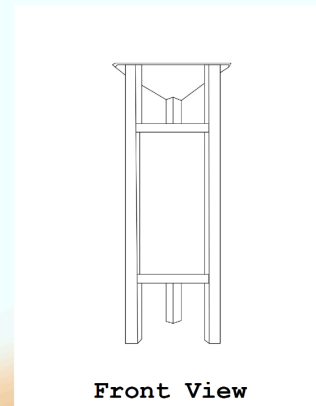
- The kiosk will be 7ft tall and 3ft in length. The screen on the kiosk will be 3.5ft tall and 2 ft in length.
- The kiosk will be made out of wood. It will have a roof to create shade while you look at the information on the kiosk.
- The kiosk will be part of four gardens. Two of them will be a Botanical Garden and the other two will be a Historical Garden.



SECTION

Information Provided

- History of the area near by.
- Restaurants/ Stores nearby.
- Directions/information about the Botanical Garden and Historical Garden.



SECTION

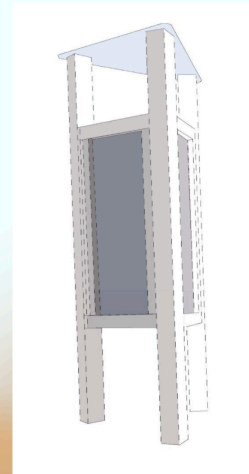
Perspective Model

This is the perspective model/drawing of our kiosk. This kiosk will retain its core design through all 3 iterations of our stations.

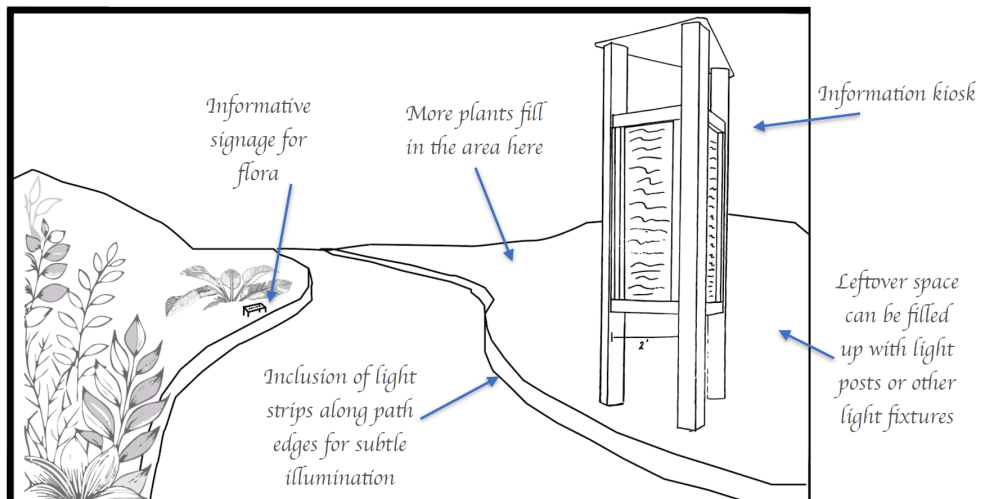
The design takes inspiration from our chair design, utilizing the same triangular shape and tall figure.

There will also be a light fixture implanted into the middle of the kiosk, which will shoot light up towards the roof, diffusing the light.

The design features three large screens, each tailored with information related to the station.



Rough Sketch of Botanical Garden



SECTION



Scope and Vision of Botanical Garden

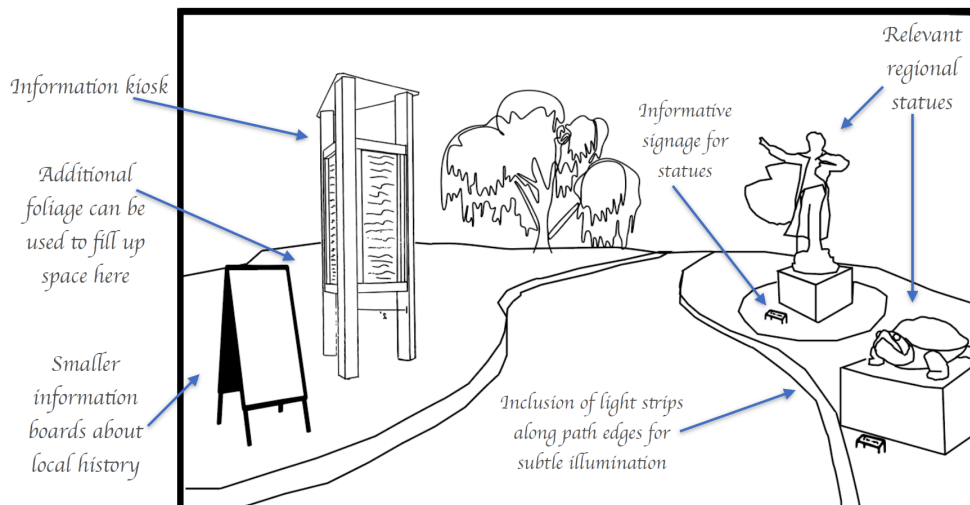
The garden can also educate the public about the different types of plants and their benefits.

The garden can help elevate the aesthetic appeal of the trail, as the bright colors and lush growth will help bring in visitors.

This garden can also work in collaboration with the UMD's Arboretum, or it can also be used as a ground for students or scientists to conduct research.

The garden provides a space for endangered flora to thrive.

Rough Sketch of Historical Garden



SECTION

Scope and Vision of Historical Garden

The garden can help elevate the aesthetic appeal of the trail, as the statues will help bring in visitors.

The garden can also educate the public about the history of the area.

The garden can be used as an tourist attraction.

Is valuable not only for its beauty and historical significance but also for the role it plays in knowledge preservation.



SECTION

Potential Users/Uses

- Nature enthusiast, locals, tourists, fitness groups, and families.
- It would serve as an education hub for those interested in local flora and wildlife.
- Provide route guidance and trail information to walkers, joggers, and cyclists.
- Offer relaxing space for visitors seeking leisure or wellness activities.





Trolley Trail Playground

Fall 2024 | Arch 270 | Luna, Kevin, Will, Connor, and Jorge

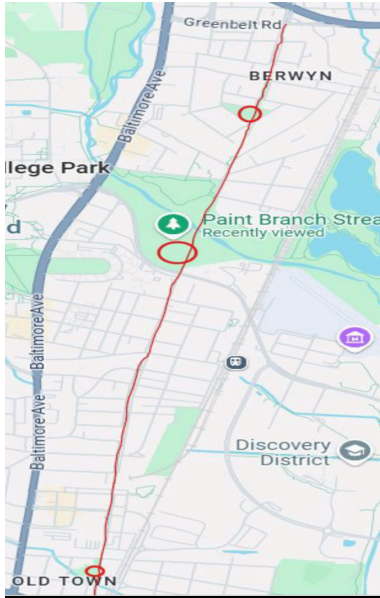
Problem

- Limited access to playgrounds along the trolley trail.
- Little information reflecting the history of the original trolley system that connected these neighborhoods.

Opportunities

- Bring families to the trail to learn about history and enjoy the new playground.
- Connect communities with shared history.





Playground Locations

1. Berwyn Neighborhood Park
2. Paint Branch Stream Valley Park
3. Riverdale Neighborhood Park

Berwyn Neighborhood Park

		
Sage Green	Ivory White	Deep Burgundy
Used for: structures like slides or climbing frames.	Used for: support posts, trim accents, or shaded areas, giving it a classic, clean look.	Used for: details like railings or small accents, adding warmth and a touch of the Victorian energy.

Paint Branch Stream Valley Park

Colors

Colors derived from the natural aesthetic of the area, choice of colors influenced by the natural stream and woodlands, that are giving the nature-centric energy.



**Stream
Blue**

Used for: structures
like slides or
climbing frames.



**Forest
Green**

Used for: seating,
railing, or lower play
surfaces, blending
with the trees.



**River Rock
Grey**

Used for: supporting
beams or walking
surfaces for a balanced,
stone-like accent.



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Riverdale Neighborhood Park



Brick Red

Used for: larger
structures,
representing the
historical brick
architecture.



Gold Ochre

Used for: play
surfaces or climbing
frames reflecting
the grand accents
of the historic
mansion.



Charcoal Grey

Used for: smaller
structures and details
adding a modern
contrast to the overall
design.

- These colors are a unique way to incorporate the past with the present in a neat and interesting way within the idea of the playground.



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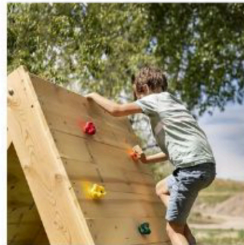
Project Design Vision



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Interior Ideas



**How often were streetcars
stopping in Riverdale?**

Swipe to reveal the answer

every 10 minutes



The History of Riverdale Neighborhood



John, a resident at Riverdale since 1988
wants to tell you all about it!

Press the button to learn more

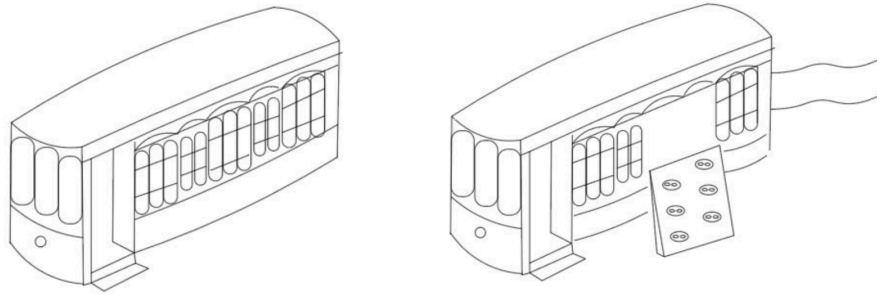
Or scan the qr code for
more interactive resources



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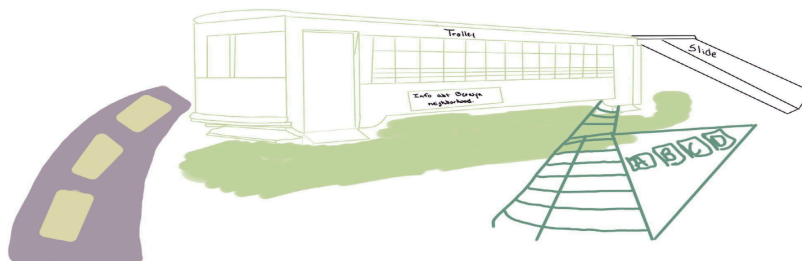
Playground Designs



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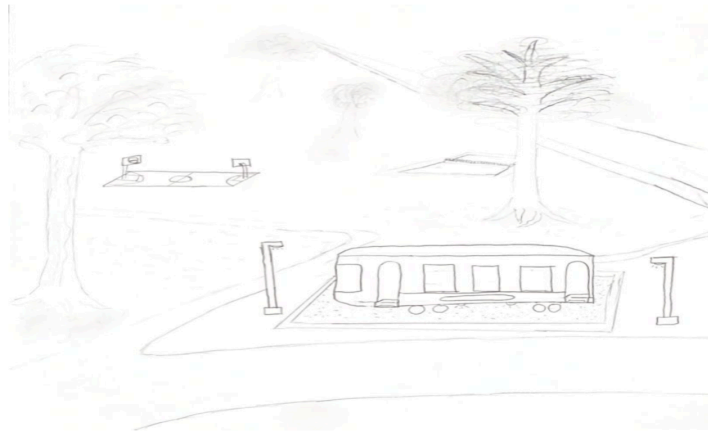
Playground Designs



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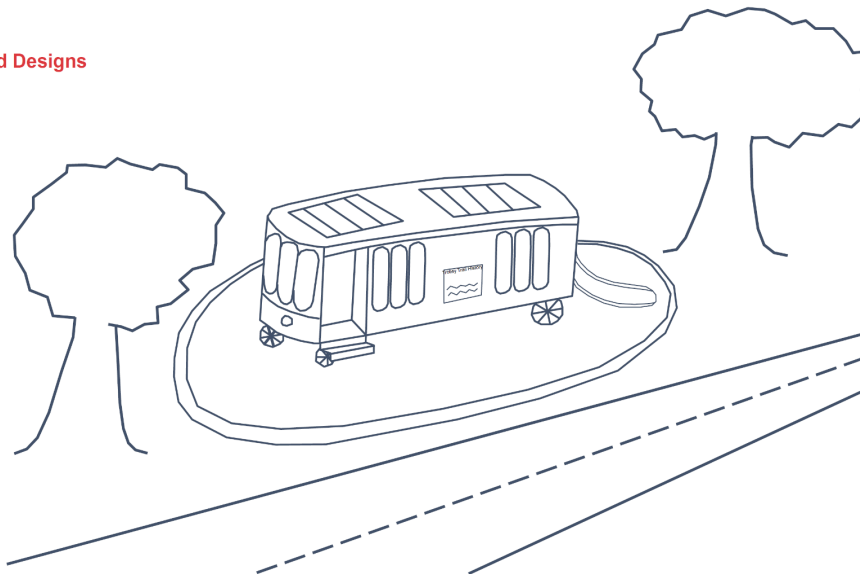
Playground Designs



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Playground Designs



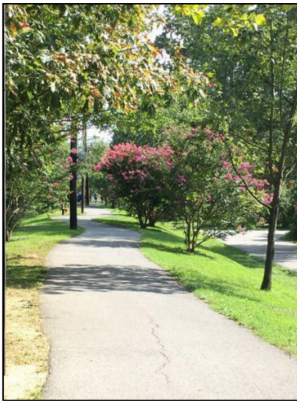
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Trolley Trail Idea

Group 6

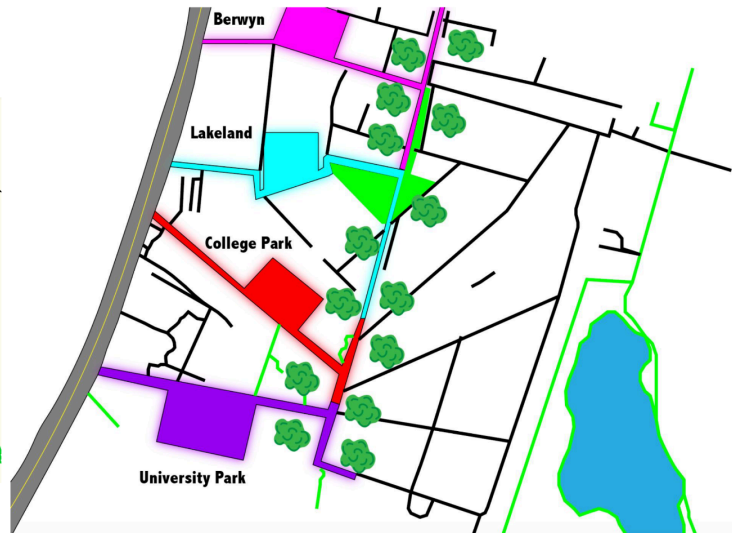
Define the Problem



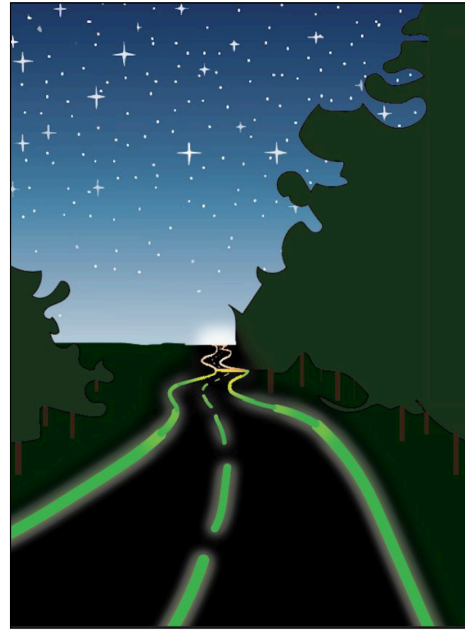
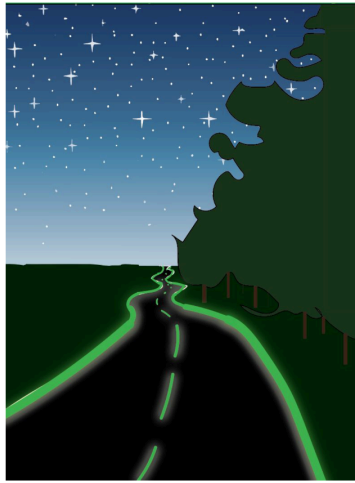
Solution



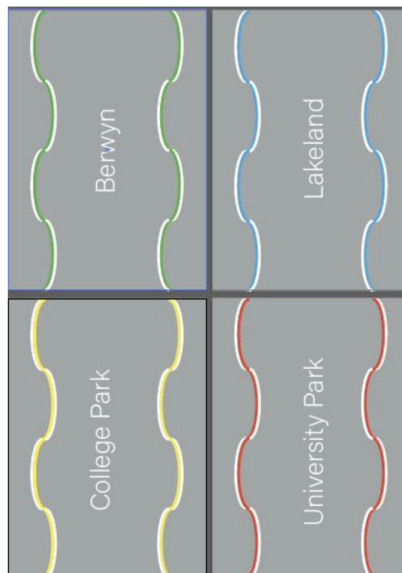
Site Plan

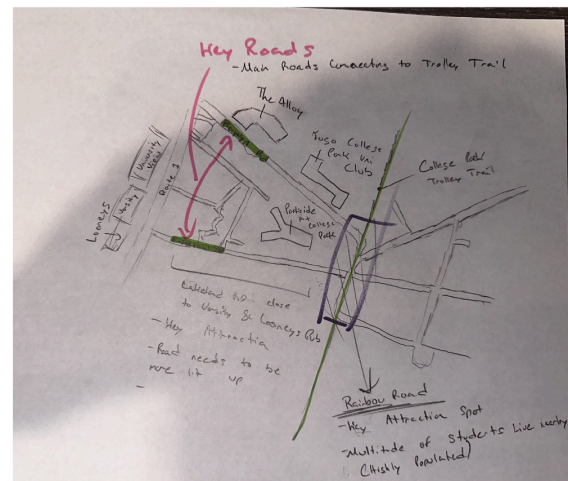
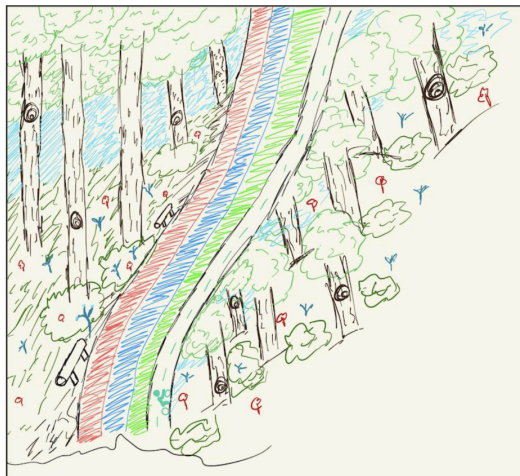
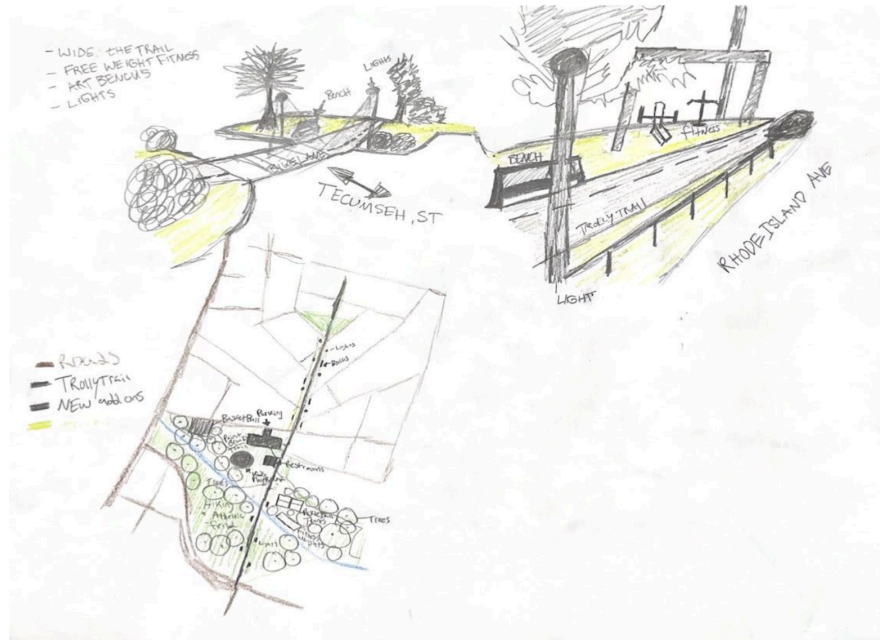


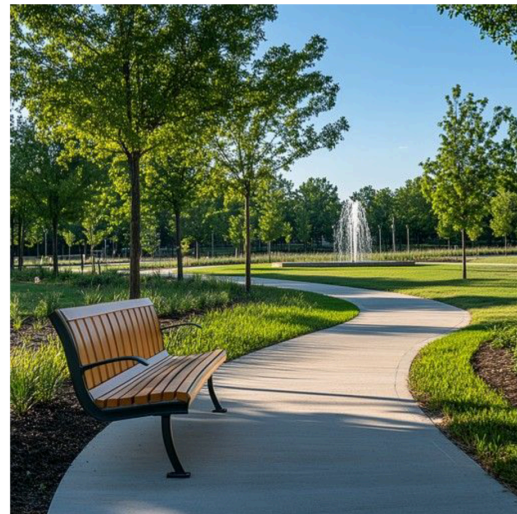
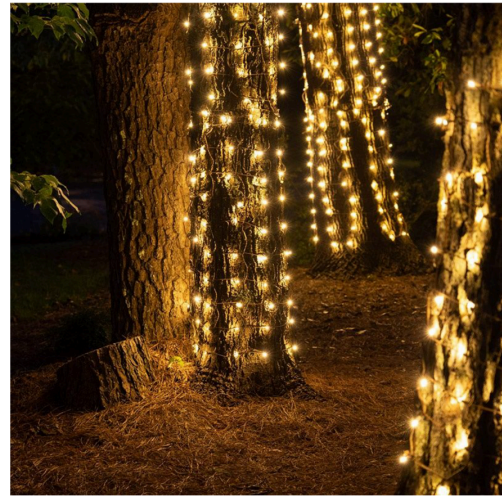
3D Perspective Drawing



Patterns

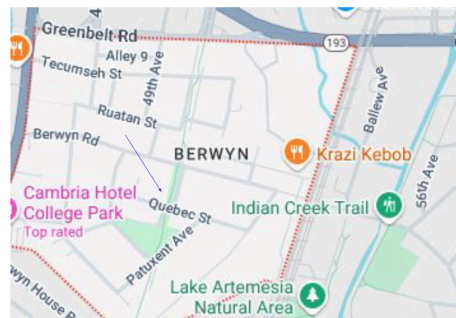
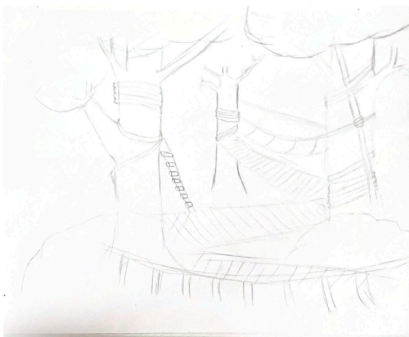






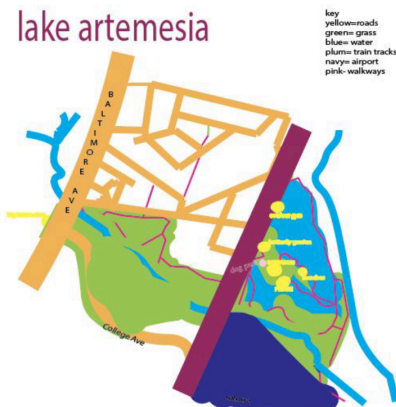


BREWYN OBSTACLE COURSE



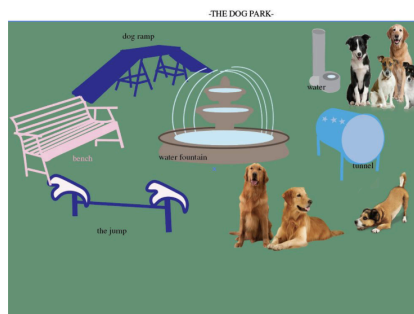
ABOUT LAKE ARTEMESIA

- In the mid 1800s the Baltimore and Ohio Railroad dug there for room for cargo. Now its the lake.
- Named after founder Edwin Newmans wife
- Over 4 million dollars in today's currency was invested by him to create the lake.
- Lakes are man made and are over 38 acres, 2 miles worth of trails
- Thrive 450 is there an outdoor gym, as well as a pierre, bathroom, butterfly garden, and benches.



- Can provide increased social opportunities
- Allows for cross generation bonding, all ages and all people love pets and can visit the dog park
- Increased physical activity for both humans and pets
- Can attract a diverse group of people to the trail
- Can help mental health, dogs are often used in this space

LAKE ARTEMESIA DOG PARK



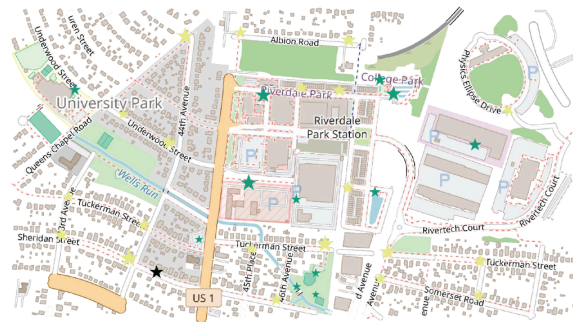
LAKE ARMESTIA PICNIC AREA

- Gives people a place to sit and relax
- People have a place to cook food and eat
- Can relax in shady areas
- Place to enjoy views from



ABOUT UNIVERSITY PARK

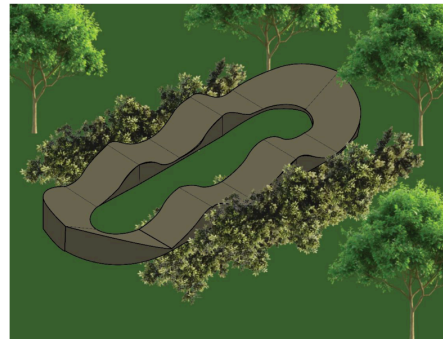
- As of 2022 has a population of 2600 people
- Has a strong sense of community with many events being held
- Has easy access to local parks and trails, such as the trolley trail
- Adjacent to College Park Maryland
- Has a median household income of \$197,000



UNIVERSITY PARK GARDEN/SHED AREA



UNIVERSITY PARK PUMPTRACK



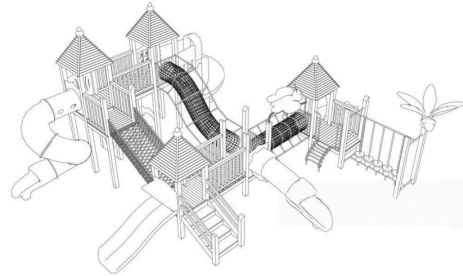
- Promotes physical activity
- Increased social interaction and Community

OLD TOWN PLAYGROUND

DRAWING AND LOCATION



- A great location for a Kids playground would be near the intersection of Rhode Island Avenue and Calvert Road due to its central Accessibility and proximity to amenities



OLD TOWN TROLLEY TRAIL – PLAYGROUND BENEFITS

- Promote Physical Health: Playgrounds encourage active play, helping children and adults improve fitness, coordination, and overall health.
- Foster Social Interaction: They create spaces for people to meet, build friendships, and strengthen community bonds.
- Enhance Mental Well-being: Play reduces stress, boosts mood, and supports cognitive development, particularly in children.
- Increase Property Value: Proximity to playgrounds can make neighborhoods more desirable and positively impact real estate values.
- Encourage Outdoor Engagement: Playgrounds draw people outdoors, fostering a connection with nature and reducing screen time.



**Partnership for
Action Learning
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