

A New Third Place in Harford County

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An Introduction to 3rd Places

Defining a Third Place

Communities spend the majority of their waking hours at home, a “first place,” and at work or school, a “second place.” When it comes to social interaction outside of a work setting, individuals can feel unsure or unwilling to explore their community. Whether this trepidation is caused by a lack of communal meeting places or a feeling of unwelcomeness in established communal locations, the creation of a well-built Third Place can provide an outlet for these individuals. Third Places, as described by urban sociologist Ray Oldenburg, are defined as locations of refuge other than the home or workplace for people to visit and meet with friends, neighbors, or strangers.¹ A well-structured Third Place supports opportunities for socialization and creates a sense of attachment.² Third Places are wide-ranging in design, with researched examples including parks, public libraries, churches, main streets, and shopping establishments. An important aspect of the third place is the inclusion of a permanent structure to provide a sense of place for the community.³ Third Places not only encourage community engagement but can be used to increase educational opportunities for healthy living. By using the Third Place model, governments can bring health information to the locations where residents wish to reside. The way these Third Places are built can also shape a community of like-minded individuals around a common healthful goal.

Third Places Concepts for Harford County

To best incorporate third places into Harford County, this report makes proposals for a site in Joppatowne, Maryland. This site is ideal for the development of a Third Place location due to its proximity to a nearby community in need of such a place and an adjacent established third place, a church. This report is separated into potential uses of the Joppatowne site. The report proposes four potential Third Place ideas and one proposal to connect the site to the existing community. The proposals for the site itself are the construction of a gazebo, the launching of a community garden, the construction of an interactive playground, and the commissioning of community art projects on the site. To connect the site with the surrounding community, this report examines bike lanes, using the county’s bike lane study, to best provide healthy ways to travel to the site. Finally, in Appendices A and B, this report provides a budget estimation for these projects and a survey to gauge public interest in the proposed site plans.

Gazebo

Introduction

Gazebos are seen as accessible serene getaways. Citizens erect gazebos in their gardens and backyards and on their patios. In that sense, people conjure gazebos as places harboring communal atmospheres and pleasant exchanges. These gatherings may be however formal or informal as the users decide. Therefore, it is not a stretch for the city to replicate such a structure, to create an informal place where small gatherings may occur. In fact, cities such as Wells, ME⁴; Butner, NC⁵; and Midlothian, IL⁶ have done just that. These cities share similar population sizes, income levels, and demographics with Joppatowne.

Benefits

Residents use public gazebos for multiple purposes. For example, in Wells, ME, residents rent the gazebo for weddings, small concerts, and other communal events. Moreover, the city charges an hourly rate to rent the gazebo, making it a source of revenue. Parents may use the gazebo to observe their children play in the nearby playground, thus creating a place where parents can relax and interact with other adults while supervising their children. The town of Butner, NC did just that. A playground is located several yards from the gazebo, which allows concurrent intra-generational communal exchanges. County officials could pitch constructing the gazebo(s) as a community endeavor. County officials may bring neighborhood representatives into the design, procurement, and construction process. For example, Joppatowne residents may decide to design a gazebo with grain bin or marine covers. Such covers could celebrate Joppatowne's farming and harbor heritage. The county could ask local farmers or marinas to donate materials. Once the design and procurement process is complete, residents may volunteer to help with construction. Midlothian, IL used the gazebo as a community building effort. Residents donated money, material, and time to help make Midlothian's gazebo a reality. Now residents use the gazebo for community events, held primarily in the summer.

Drawbacks

Gazebos used for backyards and patios are moderately priced however the county would need to purchase commercial grade materials, which are more expensive. Additionally, the county may need to pay labor, insurance, and other regulatory costs. Maintenance, which should be low, nevertheless remains a cost consideration. Some of the other cities highlighted in this report erected gazebos near water or wooded areas which added to the aesthetic appeal. The proposed location for Joppatowne is neither near water nor a wooded area. The lack of scenery may limit the gazebos' appeal for social events such as weddings and concerts. If the gazebo is unsecured at night some residents may use it as a place to engage in illicit activity. Though it will be located along a busy route, darkness will make it difficult to view activities from the highway to the gazebo. If residents feel it is unsafe many will avoid it, thus nullifying its purpose.

Community Garden

Introduction to Community Gardens

Community gardens are intended to bring a variety of healthy living styles into a community to create a true third space. These gardens provide several benefits to the community: a provider of more nutritious food, a jump-starter of community development, and an opportunity for cross-generational engagement.

Nutrition: The most obvious benefit of allowing community members to grow their own vegetables is the increase in nutritionally rich foods. According to Michigan State University, adults with a household member who participated in a community garden were three and a half times more likely to consume fruits and vegetables at least five times per day.⁷ This link isn't solely due to the act of growing the produce. Community gardeners have more incentive to build their garden and harvest the resulting produce. The social involvement aspect of a community garden encourages active participation, with community gardeners meeting national food and vegetable recommendation at 56% compared to at home gardeners at 37%.⁸

Community Development and Cross-Generational Engagement: Community gardens can have a positive impact on creating a social community while improving the economic value of that community. In a 2006 NYU study, researchers found that community gardens had a positive economic impact on properties within 1000 feet of the garden, with the impact increasing in distance over time.⁹ In addition to these beneficial economic aspects, the social effect community gardens have is less quantifiable but no less important. Community gardens provide opportunities for like-minded community members to interact and build a project together. One 2011 study also found that community gardening was one method for reducing anxiety and stress through communal activity.¹⁰ Finally, in discussion with Joppatowne stakeholders a desire for increased community involvement emerged. Community gardens could provide an outlet for the first step towards community involvement. Gardens in low-income New York neighborhoods increased community involvement to solve other non-related issues. Gardeners attributed this to the garden's facilitation of community engagement.¹¹

Phase 1: Building a Garden

Site Planning: The first step to developing a community garden in Joppatowne is selecting a site on the designated property. The Joppatowne site has plenty of sunlight with no major obstructions to impede plant growth. The main factors therefore to consider are those which support the continued growth of the plot. Important factors include the placement of other projects on the site and water availability. Water availability is one of the largest investments required on the site; the installation of a water-capturing system, a cistern, is a limiting factor in many other community gardens. A second option includes diversion of water from an existing source. The most obvious choice for sourcing this water is the adjacent church. Maintenance of the site is another long-term issue for the county to consider. While community members involved in the project would be expected to handle

the upkeep of their respective plots, the garden itself would likely need to be maintained by the managing department. To minimize the cost of such maintenance, it would be beneficial to plant perennial flowers or crops to reduce the amount of open space in the community garden. Minimizing the county's involvement in care for the site is important in lowering cost and having a long-term community garden.

Soil Testing: Another issue of importance in the early stages of development is the testing of the site's soil characteristics or the importation of higher quality soil for use in the garden. Due to the history of the Joppatowne community, with a displacement of swamp land and the addition of non-native soil, it is possible that the soil on this site would require additional organic matter to make it usable for a community garden. Many community gardens that face issues with soil quality opt to apply a protective layer and purchase soil from an outside source. This mitigates potential risk to future soil and community health as well, with raised beds less susceptible to potential soil infections.¹²

Pricing: While pricing for the garden may vary based on the services offered and resources provided to gardeners, a basic assessment of price was conducted based on resources likely to be included in the final implementation. Included materials likely needed for a community garden include gravel for walkways, t-posts for planting, soil for plots, wood planks to create these raised beds, and fencing to keep out small pests. Included pricing can be observed in the pricing appendix A.

Phase 2: Establishing Community Ties

In our proposed phase 2, connections to county and community agriculture offices, a nominal fee for use of the community garden, and integrating community learning through art installations and educational signs would be essential to engaging Joppatowne residents. Community engagement is essential for the success and growth of the site as well as the success of the garden specifically.

Community Offices: Establishing connections with county and community agriculture offices would be very helpful. Harford County Agriculture Department is responsible for establishing and supporting Farmers Markets within Harford County, and establishing relationships with the office early might aid in the development and sustainability of projects established around the community garden.¹³

It would also be helpful to utilize the networks of the Harford Soil Conservation District, as its mission is to assist with technical planning and design assistance and preserve the Chesapeake Bay watershed through education and promotion of best practices.¹⁴ The Soil Conservation District operates several geocaches in Harford County; geocaches are usually waterproof containers placed at specific coordinates for people to find and mark in the included logbook (usually present) that they found the location.¹⁵ Coordination with the Soil Conservation District might aid in increasing foot traffic within the site and around the community garden.

Membership: In a public endeavor, it is important for users of public goods, like parks and community gardens to have “skin in the game.” This investment helps to cement a connection to the outcome of the service or good. We recommend a nominal fee (around \$5-\$10) to secure a plot in the garden and a “welcome kit” of basic gardening materials to help people get started. This will likely combat the tendency of community-wide projects to fall apart due to lack of public support. This nominal fee would encourage participants’ feeling of ownership of their respective sections, incentivizing continued individual contribution to overall garden success.

The American Community Garden Association has several helpful resources for establishing an effective and flourishing garden project.¹⁶ Resources include samples for Land-Use Agreements, Garden Rules, Community Garden Contracts, How-To Manuals, Evaluation tools, etc. These resources would be helpful in reducing the redundancy of creating entirely new resources for the implementation of the program.

Community Education: Connecting with local schools to provide locals for both art installations and educational displays could encourage traffic to the garden and to the site as a whole. Art installations are described in further detail later on in this proposal, so this section focuses on direct educational benefits like signage and learning opportunities.¹⁷ Partnering with local schools creates opportunities for events like field trips that do not require a large investment. Schools transmit values, and the utilization of a space that exemplifies public action and hands-on scientific principles would be a powerful way to solidify concepts taught in the classroom.

Increasing signage for the general benefit of the public could provide education to the community about local flora and fauna that might be present. The signage would be more of an upfront cost, with minimal upkeep, helped by the gardeners who come to their garden plots. The utilization of passive education could help build the feeling of a Third Place by giving those not actively engaged with other parts of the space. It could contribute to the shared language of the space, serving as conversation starters and learning moments.

Phase 3: Future Initiatives and Community Connections

With the success of the community garden, a discussion of potential connections to other project ideas and future applications is worthwhile. A successful community garden project will establish community interest in increased access to nutritional and locally sourced food. A natural succession to the garden concept could be the inclusion of a farmers’ market on site. While establishing and running a farmers’ market is no small task, future research into community interest of a market should be performed if the garden concept is a success in the community. Finally, other third places included in this report enhance the community garden concept. The inclusion of a community meeting place in a gazebo could bring people to the garden. Connections to the community through bike lanes could also increase the likelihood of foot traffic to the site.

Fascination Station

Introduction

Playgrounds are a staple to any community, acting as a natural third place for families and young people alike. Playgrounds have benefits beyond simple recreational use. Community playgrounds are good spaces for people to connect, build new friendships and a sense of community. These aspects of a playground help people to create a sense of belonging that is necessary to maintain good mental and physical health.

A Different Play Model

Traditional playgrounds are designed to minimize harm with the same old swing set or jungle gym. Children are used to playing with traditional playgrounds and get bored with them easily. New research supports the importance of unstructured play in childhood development.¹⁸ Tamis-Le Monda, an applied psychologist at the New York University states, “Almost all the learning that goes on in the first years of life is in the context of exploration of the environment,” underscoring the value of free play from a young age.¹⁹ This is why there has been a push towards more unconventional forms of playgrounds where children have more say in their playtime. This is also a good opportunity for parents to limit their children’s screentime, oversee, and interact with their children’s active playtime.²⁰ Meghan Talarowski, a Philadelphia-based architect, conducted a survey of sixteen playgrounds in London and found that these adventure playgrounds had 53% more visitors than American conventional playgrounds and that children were 18% more physically active.²¹

These types of playgrounds are growing traction in Europe, Asia and in some cities right here in the U.S. Bringing an interactive playground to Joppatowne would be a good way to attract parents, children, and youth. This is a space where children can explore and create while their parents work in the community garden or mingle with other parents around. Marjory Allen, a British landscape architect and children’s welfare advocate, introduced the concept of adventure playgrounds across London and it became a global phenomenon.²² Allen incorporated old tires, building materials, and tools for kids to design their play structures by themselves.²³ In order to build these playgrounds, designers had to establish the critical elements of controlled risks. Good adventure playgrounds must have a delicate balance between heights, speed, tools, dangerous elements, tools, rough and tumble play, and the ability to become lost.²⁴

David Rockwell adopted Marjory Allen’s adventure playground idea and came up with the portable Imagination Playground. Like Allen, Rockwell recognized that giving kids flexibility in their play keeps

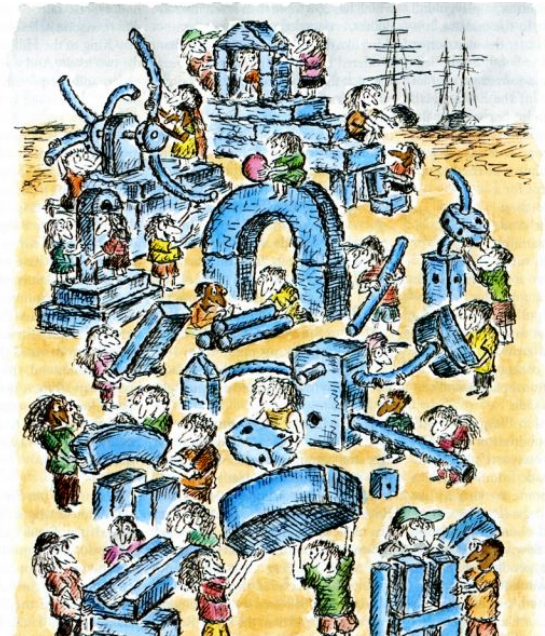


Photo 1: New Yorker Imagination Playground Cartoon

Photo source:

<http://www.imaginationplayground.com/images/content/2/8/2857/New-York-Rebecca-Mead.pdf>

them engaged for a longer time. This is a community playground where the children build their own play space.²⁵ This third place will attract children of all ages and their families due to its uniqueness and ever-changing design. The idea behind an interactive playground is to enhance children's imagination, where creativity and curiosity combine for a fun time. In New York, Mayor Bloomberg transformed vacant lots to family destinations with the use of the Imagination Playground.²⁶ The National Building Museum opened a PLAY, WORK, BUILD exhibit which features Rockwell's building blocks.²⁷ The exhibit is a play/building space for children and their parents. This initiative has been proven successful in a number of cities across the country as well as internationally (Spain, Japan, and Turkey). Benefits of an interactive playground include a constantly changing space to increase usage and retention, a fostering of creativity,²⁸ the encouragement of resilience and complex problem solving,²⁹ an opportunity for exercise, and introducing team building at a young age.³⁰

Safety Requirements

The key to providing a good playground is to make sure that the right safety measures are taken to minimize the risk of injury and liabilities to the local government. Below are some aspects that should be taken into account when building the playground to minimize hazards.

Proper Surfacing: "The surface under and around playground equipment should be soft enough to cushion a fall."³¹ It should go without saying that you want a surface that is both appropriate for physical activities and booby trap proof. Some possible options are sand, wood chips, rubber tiles, turf, etc. When picking a surface you must factor in maintenance, how much will it cost and how often will it need to be changed to remain optimal. Different temperature and climate conditions can speed up the wear and tear process of a playground surface, therefore "Surfacing should be checked routinely for trip hazards, kick-out (displacement), debris and proper drainage."³²

Supervision: You should provide areas designated for parent or guardian supervision; benches would be appropriate so that while children are playing, adults can communicate and build relationships with one another. Easily viewable playgrounds ease the worries of parents especially when it comes to a playground concept that might be new to most if not all of them.

Age appropriate equipment: Being that the Fascination Station is a playground designed by the children themselves, you want to provide safe and age appropriate building materials. According to the 2016 data of Joppatowne, most of the children are older than 5yrs old so you should keep this in mind when buying equipment. You will also need building equipment that is malleable but resistant to different weather conditions. The Imagination Playground have their own playground blocks that are available for purchase. These blocks are good for children of all ages, made from mold resistant lightweight foam, dense and firm enough to build structures and shapes. If the county chooses not to buy the material from their website, similar material blocks would suffice.

Possible Hazards: The playground site and materials should be scanned regularly to look for hazards which include but is not limited to sharp edges, exposed tree roots, tree stumps, cracks or changes in the surface.

Maintenance: The playground site will require routine and proper maintenance and inspections in place to make sure that it remains safe. Some things to keep an eye out for are broken or missing pieces, cracks, rust, mold or any other forms of deterioration. A routine inspection by the Certified Playground Inspector should be a part of your risk management plan.³³

Limitations

Currently, only 38% of families have children under 18³⁴ which means this third place would not benefit the majority of the Joppatowne community. However, this option would be great to incorporate as more families move into the neighborhood and the current residents start to have children.

While it is impossible to build a risk-free playground we hope is to minimize those risks. Some ways are mentioned above in the safety section. It is essential that the county anticipate risk with a contingency plan. It is natural to want to avoid this playground because of its associated risks and the novel concept but in cities where similar playgrounds have been implemented, legal complications stemming from injury have been minimal. In this case, the benefits of this playground far outweigh risks. You might consider using trained staff to oversee the play area and continually monitor its hazard potential.

The costs associated with this playground are considerably lower than a traditional playground, nonetheless, this might be a drawback if the site does not attract as many users as expected. Cost estimates can be found in Appendix A.

Bike Lanes

Creating Connection through an Integrated Approach

The creation of this third place in Joppatowne will be most successful when woven into the fabric of the community and connected to first places (housing) and second places (schools, employment). This report proposes using the third place as a hub by connecting schools, neighborhoods, shopping centers, and churches via bike lanes, shared roadways, and/or safe, pedestrian-friendly walking paths. Joppa Farm Road can be used as the main artery with safe, designated bike lanes. Bike lanes should connect along other main area roads to elementary, middle, and high schools to ensure safe passage for area youth. Connected to these main roads are feeder roads that should possess a combination of sharrows, clear signage, and well-placed crosswalks. The overall result will be a safe, bike- and pedestrian-friendly community with easy access from schools, jobs, and neighborhoods to the third place.

In Figure 12, on page 36 of the 2013 Harford County Bicycle and Pedestrian Master Plan, Joppa Farm Road is detailed with recommendations to improve pedestrian and bicycling use. The plan proposes that the county: ensure that the intersection at Joppa Farm Road and Trimble Road meet ADA regulation, make pedestrian improvements to encourage students to safely walk to school (at Hilton Road and Joppa Farm Road intersection), and paint a crosswalk and place pedestrian crossing signage at the intersection of Kearny Drive and Joppa Farm Road.³⁵ The plan also tasks the county with completing a corridor study to improve walking and cycling conditions along Joppa Farm Road (from US Rt. 40 to Haverhill Road).³⁶ This report echoes the recommendations in the 2013 master plan. However, in lieu of a proper study with community input, this report will attempt to provide a specific plan for using bicycle and pedestrian-focused improvements to connect the community's first and second places to the proposed third place in an intentional way.

The Benefits of Walking and Biking

In an effort to build car-centric transportation systems, many local and state governments have overlooked the importance of walking and bicycling as commuting options. Many people want livable communities where they can commute to work, socialize, and recreate by foot and bicycle. Recent trends in communities across the U.S highlight the desire for increased walkability and bikeability. The 2010 Federal Highway Administration's National Bicycling and Walking Study 15-Year Status Report determined that 12 percent of all trips were made by bicycle or foot. This was a 25 percent increase from 2001, despite communities often lacking adequate facilities for safe walking or bicycling.³⁷

Creating a walkable and bikeable community starts with intentional planning in the built environment. Multiple studies show that most walking trips are less than a ½ mile, while half of all household trips are three miles or less.³⁸ Also, a recent study in the Journal of Public Health Policy found bicyclists will go out of their way to use bicycle infrastructure, highlighting the importance of

having sufficient facilities.³⁹ The connection between land-use planning and transportation planning is critical to safely and effectively accommodate trips by foot and bicycle.

Additionally, pedestrian and bicycle infrastructure can have economic benefits. Studies have found that bicycle infrastructure improvements can have a positive overall impact on business, and that people who walk or bike to a commercial area spend more money per month than those who accessed the area by automobile. The removal of on-street parking is often thought to negatively impact business, but reports show adding facilities such as bicycle racks and bicycle lanes can actually increase economic activity, and also help create a buffer from moving traffic that aides both pedestrian and bicyclist activity. Finally, improving bicycle and pedestrian infrastructure can positively impact real estate values. Homes near bicycle paths have been found to support higher sales prices, and areas that facilitate walkability and attract pedestrians sustain higher rents, revenues, resale values, and property taxes.⁴⁰

Pedestrian and bicycle-specific infrastructure improvements can also improve conditions for all road users. The 2011 Sustainable Streets Index, published by New York City's Department of Transportation, found that improvements such as pedestrian islands and bicycle paths led to an overall reduction in motorist crashes as well as injury crashes, a decrease in speeding, and an increase in pedestrian and bicycle activities.⁴¹ With multiple intersections, schools, churches, and this proposed third place, Joppatowne would likely benefit from these outcomes.

Multimodal transportation

Multimodal transportation networks connect community members with jobs, places of worship, medical offices, schools, parks, and other services. In Joppatowne, accessing these services can be challenging for individuals who walk or bike, due to the fact that many transportation networks were built for automobile travel with networks for pedestrians and bicyclists either incomplete, insufficient, or nonexistent.

Joppatowne would benefit from a shift toward developing a complete and connected multimodal transportation network. Ideally, Harford County would focus attention on comprehensive and extensive networks to reach key destinations instead of standalone pedestrian and bicycle facilities. Achieving connected multimodal networks requires a clear vision and plan. A connected network will require planning and design that account for local context while remaining flexible to the needs of all road users.

Joppa Farm Road serves as a main artery for travel across and through the community. It connects neighborhoods, schools, places of worship, businesses, and public services. The proposed third place also lies along Joppa Farm Road (at the corner of Towne Center Drive), almost halfway between US Rt. 40 and Haverhill Road. As the main thoroughfare, Joppa Farm Road, if properly designed, can serve as a safe, reliable multi-modal transportation hub for the area.

Recommendation

In order to achieve the goals discussed above, Joppa Farm Road, from US Rt. 40 to Haverhill Road, will require substantial signage, both on the pavement itself and along the roadway. Also, roads leading to and intersecting Joppa Farm Road, especially those originating in neighborhoods, should alert drivers and cyclists alike, to the new shared use. Finally, all roads which create an intersection with Joppa Farm should have crosswalks to strengthen walkability along and across the main artery. To improve the ability of cyclists of all levels to use Joppa Farm Road safely, the county should:

- Place shared use signage along the road from US Rt. 40 to Haverhill Road at ½ mile intervals,
- Paint “sharrows” on the pavement between US Rt. 40 and Trimble Road,
- Reduce parking along one side of the road to establish a dedicated bicycle lane from Trimble Road to Garnett Road (see photo below)
- Paint “sharrows” on the pavement between Garnett Road and Haverhill Road—sharrows should be repeated after each intersection and every 100 feet thereafter as recommended by the San Francisco Municipal Transportation Authority⁴²



Photo 2: Painted Bike Lane

Photo source: Ryan Trout (April 22, 2019)

To improve access to Joppa Farm Road for bicyclists, bicycle commuters, and student riders, the county should place “sharrows” on the pavement of neighborhood roads connecting to Joppa Farm Road near the intersection between the respective roads and every 250 feet for up to 500 feet from

the intersection. This will help alert drivers in the neighborhoods and create a cohesive network for bicycle riders. These proposed roads are: Foster Knoll Drive, Still Meadow Drive, Garnett Road, Kearney Drive, Haslett Road, Riviera Drive, Towne Center Drive, Falconer Road, Fitzhugh Road, Breslin Road, Duryea Drive, Barksdale Road, Doncaster Road, Hardwick Place, Shore Drive, and Trimble Road from Joppa Farm Road to Mariner Road.

To increase the walkability of Joppa Farm Road, to and from first and second places near the proposed third place location, the county should focus on pedestrian safety and accessibility. These two parameters can be met by:

- Providing crosswalks along Joppa Farm Road over smaller neighborhood roads and drives. This would require approximately 25 new crosswalks.
- Repainting the crosswalks at Shore Drive and Hardwick Place as well as all four sides of the intersection of Joppa Farm and Garnett Roads.
- Placing raised pedestrian crosswalks across Joppa Farm Road at Towne Center Drive to allow safe crossing from the adjacent church and library, the nearby neighborhood center, the proposed third place, and Joppatowne High School.

To maintain lower costs, create a streamlined look, and simplify maintenance, this report suggests using unlined crosswalks (see picture below).



Photo 3: Simple Lined Pedestrian Crossing

Photo source: Ryan Trout (April 19, 2019)

In 2016, the year with the most recent data, bicyclists and pedestrians accounted for 18.2 percent of traffic fatalities, 16 percent for pedestrians and 2.2 percent for bicyclists. This is compared with only

12.9 percent in 2007.⁴³ Partnering with the local schools to teach safe walking and bicycling to students could assist in lower pedestrian and bicycle accidents. The county could provide students with retroreflective materials for use on jackets, backpacks, and/or bicycles to increase viability. According to the National Highway Traffic Safety Administration, “The widespread use of these retroreflective materials would increase the ability of drivers to detect pedestrians at night in time to avoid crashes.” And the “cost to provide retroreflective materials is low if such supplementary materials are distributed in quantity.”⁴⁴

Community Art

Community art is a collaborative and group-based project, oftentimes designed or intended to address or initiate discussion about community-specific issues. Community art may be visual, interactive, or performative, and must take place in a public space or area. Community art can be collaborative between artists, or even between lay people in the community. This is rooted in the idea that “When people become involved in the design, creation, and upkeep of places, they develop a vested interest in using and maintaining these spaces.”⁴⁵

Community art in any form may easily contribute to Harford County’s plan to “Grow with purpose.” More specifically, community art, in isolation or in combination with any of the ideas proposed here, could contribute to the intentional construction of a third place for residents of Harford County to utilize. By making a site visually appealing, or at least interesting to view and discuss, it could begin to mimic the effect of Rockefeller Plaza has as a third place and provide a sense of place to Joppatowne residents, as well as the entire county.

Partnership with the Community

Harford County has several choices for encouraging engagement within the community. This is a particularly crucial piece of any iteration of a third place within the county. Buy-in from stakeholders is imperative for community members to use this third place initially, but this evolves over the lifespan of artwork into preventing vandalism and fostering respect for the cleanliness and upkeep of a site. As discussed by the Project for Public Spaces, “Citizen involvement in public decision making is too often reactive and negative in character. People are inclined to involve themselves when the status quo is threatened. But citizen involvement is best when community members and grassroots organizations take the lead.”⁴⁶

The Project for Public Spaces states that “Engaging youth has a dual benefit: it also brings more adults into the picture. Research in civic engagement by the League of Women Voters indicates that the factor most likely to get people more involved in community affairs is helping to improve conditions for youth. “Issues related to children, including mentoring and coaching, and education are those most likely to mobilize the untapped reservoir of volunteers.” Therefore, focusing on engaging youth in the community art project would ensure community involvement across a broad swath of community stakeholders.”⁴⁷

The county has several options for involving county youth. For example, the county could initiate a competition among high-school level students involved in the Harford County Public Schools Visual Arts program, specifically the Drawing, Painting, or 3-D Design pathway courses, to encourage involvement. Winners could have their art displayed publicly - either in the selected third place or along the proposed bike trail. The county could select themes for submission, such as “Mariners,” to engage the high school population, or “wellness in Harford County,” to underline the message of the third place. In order to engage younger children, they could engage pre-schools and ask them to submit children’s drawings, which the County could then contract a professional artist to sculpt or create. The County also has an opportunity to partner with corporate or small business sponsors and

minimize costs to the county, as was done in Silver Spring's construction of the Artspace in 2018. This has the dual benefit of engaging local business owners and managers and reducing costs to the county.

Incorporating Third Places

Community art could be an asset to Harford County's effort to establish a Third Place by offering a low cost, engaging addition to the County. The County could engage at any level, either by running a school-oriented competition, contracting artists, or by employing an established community art program.

Additionally, community art can build on the other options of third place outlined here. For example, while children are playing and exploring on the Fascination Station, their parents can congregate around community art. Or, children could even design portions of the Fascination Station - the "art" - contributing to the growth and participation within the playground among community members. A community garden, which already offers beautification and sense of wellness, could be augmented by special touches from the community - fences that are customized by the person or group maintaining the plot, decorated and colorful gardening tools, or custom sculptures within the garden. A gazebo may act as a gathering place. However, a gathering place without something to discuss or make it special is not a Third Place. The sense of belonging, lack of obligation stemming from a person's presence, and sense of enjoyment are only improved by art that represents a community's needs.

Furthermore, a community art project implemented throughout the potential bike trail beautifies the urban placement. It gives people who are utilizing the bike or walking trails something to talk about. Even ordinary objects serving a dual purpose - benches placed periodically along the trail - can be painted or designed with community art in mind.

Challenges and Benefits

The primary challenges of community art are necessarily associated with the benefits. Therefore, any attempt at implementing a community art project must be undertaken with these challenges in mind. For example, any art installation faces the possibility of vandalism. If art is interactive, such as the "Troll" Sculpture in Seattle, a question of liability may also arise. If these challenges are overcome, Harford County is likely to foster a sense of community engagement and a sense of ownership over the Third Place. Additionally, the simple existence of art beautifies a space. More practically, a large troll statue or a distinctive steel sculpture may facilitate meeting or gathering in the space in question, as it acts as a site-reference. Asking a friend to meet near the "glass mosaic of the Gunpowder River," is much less confusing than meeting near a gas station or any other business that may enforce strict no-loitering policies.



Photo 4: Community members interacting with the Seattle's Fremont Troll

Photo source:

<http://www.vancouversun.com/Children+clamber+onto+foot+tall+troll+sculpture+sporting+giant+Santa+type+under+Highway+Aurora+Bridge+Tuesday+2013+Seattle+sculpture+built+1990+steel+rebar+wire+concrete+clutches+actual+Volkswagon+Beetle+sports+hubcap+usually+bare+headed/9322725/story.html>

The most glaring challenge to community art is engagement. While engagement across every level of the community is imperative to the success of community art projects, it is also problematic to ensure that different strata of the community are given representative input and balancing conflicting ideas or goals. However, should a community art project gather and utilize community input, it could easily become imperative to the County's identity. Where Seattle is known for its "troll under the bridge," Harford County could be known for its unique art project. Commonly cited as a reason community art projects have failed is a lack of community investment. "The shortcomings most often cited have been poor communication, differing commitment levels, and a lack of a sustained impact. Almost none of these 'failures' had anything to do with the quality of the artists or the enthusiasm level of the project partners. More often than not, the difficulties encountered were due to poor partnership development and artists and arts administrators who lacked basic community engagement skills." LA County Arts notes that, "...success of community-based work is often tied to role the community has in identifying its own needs, formulating possible solutions, doing the work, and owning the result."⁴⁸

Vandalism is also a reality of public space. If the community can access it freely and feel safe, some ill-intentioned individuals may seize the opportunity to perform crime that they would have done elsewhere. This is unavoidable, but certain steps, such as community engagement, regular (but not oppressive) police presence can reduce it.

Survey Explanation

We include a proposed survey in Appendix B. The survey proposes to gauge interest in order to ensure that the community in Joppatowne embraces the ideas contained in this report. As we propose multiple options, it seems useful to gauge resident and stakeholder response to these ideas. The survey would help to inform the community of the project and its potential details and might give any final decision greater legitimacy among those most directly affected. The survey divides into sections in accord with the proposed projects: a community garden, gazebo options, Fascination Station, bike lanes and art installations, as well as general questions.

Conclusion

The ideas for the Joppatowne site included in this report vary in scope and commitment level for the county. If the county chooses to proceed with a lower commitment project, the construction of a gazebo on the site could be an excellent first step to building community in Joppatowne. More complicated proposals such as the fascination station or the community garden would require gauging public interest, to ensure the community's commitment to the ideas put forward in this document. Whatever the county decides, the residents of Joppatowne deserve locations meet and socialize with their fellow community members. The creation of unique, county-sponsored, third place could build healthy habits and create a sense of a community belonging.

Appendix A: Budget Estimates

Gazebo

The proposed Gazebo focuses on a small gathering place that can be a nucleus for further site development. We expect the Gazebo to have enough space for a large family or group to sit comfortably. Typically, a 12' diameter octagon gazebo sits 6 people; we have provided estimates for up to an 18' diameter, in case a slightly larger seating area was preferred. Much of the costs of materials could be offset depending on the level of community involvement. General national costs are as follows:

Gazebo	Option 1	Option 2	Option 3	Option 4
Diameter (ft)	12	14	16	18
Sq Foot	114	154	202	255
Cost of Concrete ⁴⁹	627	847	1111	1402.5
Cost of Structure (Lower Bound)	2280	3080	4040	5100
Cost of Structure (Upper Bound)	4560	6160	8080	10200
Cost of Labor (Lower Bound)	3990	5390	7070	8925
Cost of Labor (Upper Bound) ⁵⁰	7980	10780	14140	17850
Gazebo Total Costs				
Lower Bound	6897	9317	12221	15427.5
Upper Bound	13167	17787	23331	29452.5

Community Garden

While pricing for the garden may vary based on the services offered and resources provided to gardeners, a basic assessment of price was conducted based on resources likely to be included in a final implementation. Included materials likely needed for a community garden include gravel for walkways, t-posts for planting, soil for plots, wood planks to create these raised beds, and fencing to keep out small pests. Additionally, a 500-gallon cistern is included in the budget appendix to demonstrate additional variables that may be required for the garden to succeed.⁵¹

Professional Services	
Site design	140
Tilling	150
Soil Testing	24
Construction	200
Set-up supplies	
Stakes	80
String	20
Fencing	600
Signage	50
Compost bin supplies	200
Picnic table/bench	100
500-gallon cistern	400
Compost (10 yards)	450
Mulch (wood chips, straw, burlap bags)	100
Wheelbarrows (2)	80
Long handed tools (20)	200
Hand tools	40
Hoses	60
Watering cans	40
TOTAL STARTUP COSTS	2934
Extras and Annual Maintenance	
Water system cleaning (cistern)	100
Seeds	200
PR/Printing	200
Event Supplies	200
TOTAL ANNUAL COSTS	700

Fascination Station

Our budget estimate for the interactive playground is geared towards providing a space for up to 20 children to play. Typically, 75 square feet per child is required for safe play, so we plan on a 1600 sq. foot playground.⁵² While synthetic surfacing is clearly much, much more expensive than conventional wood or sand, it requires far less maintenance (raking, refilling, etc.)

Surfacing	
Synthetic (Rubber, Tires, Turf) Lower Bound	12800
Synthetic (Rubber, Tires, Turf) Upper Bound	32000
Natural (Wood, Gravel, Sand) Lower Bound	2400
Natural (Wood, Gravel, Sand) Upper Bound	4800
Structure	
Imagination Playground Big Blocks Set	6000
Benches for Parents	1000
TOTAL (Lower Bound)	9400
TOTAL (Upper Bound)	39000

Bike Lanes

The below estimate was made with the assumption of consistent costs between different locations within Joppatowne. The amount in the TOTAL column was arrived at by multiplying the average cost of the infrastructure by the recommended number of said infrastructure.

Infrastructure	Description	Median	Average	Minimum	Maximum	Cost Unit	Recommended Number	TOTAL*
Crosswalk	Striped Crosswalk	\$340	\$770	\$110	\$2,090	Each	31	\$23,870
Raised Crossing	Raised Crosswalk	\$7,110	\$8,170	\$1,290	\$30,880	Each	1	\$8,170
Pavement Marking Symbol	Shared Lane/ Bicycle Marking	\$160	\$180	\$22	\$600	Each	200	\$36,000 ⁵³

Community Art

This section is much too dependent on the imagination and creativity of Joppatowne's community to make any sort of hard cost estimate. In lieu of a line item budget, then, we advocate funding a general community art initiative through a grant program. Grants for community art typically run between \$2,500-10,000, depending on the size and location of the project.⁵⁴

Survey

For a survey on community preferences, which will be expanded upon fully in Appendix B, we decided Qualtrics would be the most viable and cost-effective option. However, even with a high rate of internet access in Joppatowne⁵⁵, we understand that an online survey may miss lower income

or older households, so we have included cost estimates for phone and “snail mail” surveys. These cost estimates are based off of a theoretical survey that receives 350 returns, which is what we determined as a statistically significant sample size of Joppatowne’s 4800 households.

Online Survey Options	Cost Per Response	95% CI, 5% ME	90% CI, 5% ME
Qualtrics	\$3,000/yr	\$3,000/yr	\$3,000/yr
Other Options			
Mail	\$20 ⁵⁶	\$7,020	\$5,080
Phone	\$50 ⁵⁷	\$17,550	\$12,700

Appendix B: Survey

Note for Harford County Government:

While designing this resident survey, we intended to provide an exhaustive set of relative and helpful questions. Additionally, we provide a suggestion in parenthesis as to what type of question each question could be. We would expect you to cut questions before sending out this survey. We would suggest that the final survey not take longer than 10 to 12 minutes. Respondents exhibit fatigue in surveys longer than 10 to 12 minutes and no longer answer questions thoroughly.

From the Perspective of the Government to the Residents Taking the Survey:

This project is designed to contribute towards making Harford County a more livable community with improved health and wellness. We are conducting this survey to gauge what you want to see in the future of our county. We have consulted with students in a course at the University of Maryland's School of Public Policy to create four potential ideas to help our county prosper. Four ideas under review include: a community garden, a gazebo area, a "Fascination Station", and bike lanes with art. The survey below is broken down into sections regarding these four potential ideas, and after learning about all of them you will have the opportunity to rank which ones you would most like to see implemented in Joppatowne. This is not yet a guaranteed project for Joppatowne but is under active consideration by county planning staff.

We hope to:

- Encourage Harford County community members to interact
- Improve the quality of life in Harford County
- Foster community wellness

General Questions

- Do you have a space where you regularly gather with people in your community? (Multiple choice, single select)
 - Yes
 - No
- If yes, what type of place is it? (Multiple choice, multiple select)
 - Park
 - Church
 - School
 - Sportsfield
 - Coffee Shop
 - Diner
 - Pool
 - Gym

- Rentable Indoor Space (If selected the following options presented)
 - Dog Park
 - Shopping Center
 - Local Market
- Could you rate these types of spaces in order of personal priority? (Ranking, rank top 5)
 - Park
 - Church
 - School
 - Sportsfield
 - Coffee Shop
 - Diner
 - Pool
 - Gym
 - Rentable Indoor Space
 - Dog Park
 - Shopping Center
 - Local Market
- How far are you willing to travel to gather with people in your community? (Multiple choice, single select)
 - Less than a mile
 - 1-2 miles
 - 2-3
 - 3 or more
- What mode of transportation are you most likely to use to get to a destination where you can gather with people in your community? (Multiple choice, single select)
 - Walk
 - Bike
 - Bus
 - Car
 - Rideshare options (Lyft, Uber)
 - Other Mode: write in
- Do you envision this space as one where you would gather with existing friends or where you would meet new people in your community? (Multiple choice, multiple select)
 - Gather with existing friends
 - Meet new people in your community
- How do you envision using this space? (Multiple choice, multiple select)

- Being active (using a playground, playing sports)
 - Sitting and talking
 - Playing games (ping pong, chess, board games)
 - Cooking food (grilling, etc.)
- What would you like to see in this space? (Open ended)
 - Write in answer
- Do you rent your home or do you own your home? (Multiple choice, single select)
 - Rent
 - Own
- Do you have children? (Multiple choice, single select)
 - Yes
 - No
- How many? (If yes is selected in prior question, ask this follow up question)
 - 1-2
 - 3-4
 - More than 4 children
- How old are you? (Multiple choice, single select)
 - 18-24
 - 25-34
 - 35-44
 - 45-64
 - 65-75
 - 75 and older
- What is your gender? (Multiple choice, single select)
 - Female
 - Male
 - Non-Binary/Third Gender
 - Prefer to self-describe: write in
 - Prefer not to say
- What is your race/ethnicity? (Multiple choice, single select)
 - African-American/African/Black/Caribbean
 - Asian/Pacific Islander
 - Caucasian

- Hispanic/Latino
- American Indian/Alaska Native
- Other (including biracial)
- Prefer Not to Answer

Community Garden

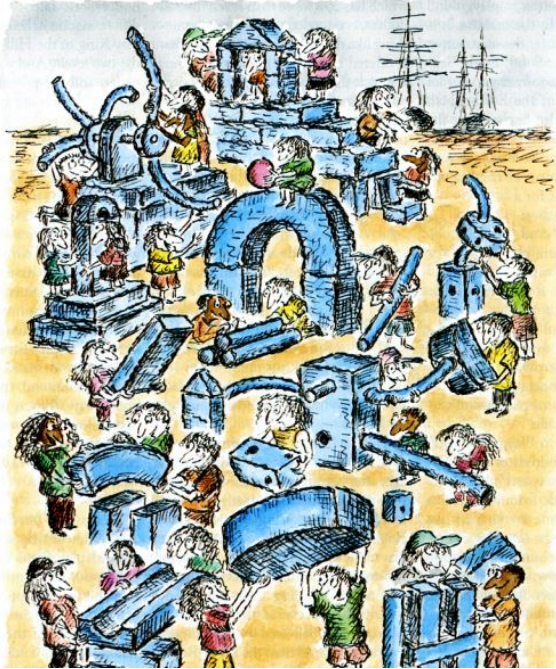


- Would you participate in a community garden? (Multiple choice, single select)
 - Yes
 - Maybe
 - No
- What would motivate you to join a community garden? Select all that apply. (Multiple choice, multiple select)
 - If the local government encouraged me too
 - If friends and family chose to participate

- If my church participated
 - If local schools could participate
 - If there was also a space to gather and sit with friends in the garden
 - If we could take home the produce grown there
- What do you think is an appropriate amount to pay for a season? (Ex. Apr.-Oct.) (Slider Q)
 - Make slider from \$0 to \$25
- What would you like included with your season fee? Select all that apply. (Multiple choice, multiple select)
 - A plot
 - Water
 - Gardening tools
 - Seeds
 - Fertilizer mix
 - A lockable shed for tools
- How far would you be willing to travel to get to a community garden? (Multiple choice, single select)
 - Up to ¼ mile
 - Up to ½ mile
 - Up to 1 mile
 - More than 1 mile
- Do you have an existing Farmer's Market in your community (Multiple choice, single select)
 - Yes
 - No
- If no, would you like to see one in your community? (Multiple choice, single select)
 - Yes
 - No

Fascination Station

Fascination Station is a community playground where children build their own play spaces. At this location, you would find building blocks and pieces as shown in the image above to explore and create. This is a safe option to foster creativity and friendships among kids in the community.



- In this space, are you looking for someone to gather with your kids or just as adults?
(Multiple choice, single select)
 - With kids
 - Just as adults
 - A mix of both
- If you do have kids, how far would you travel with your kids for a place for them to play?
(Multiple choice, single select)
 - ¼ mile
 - ½ mile
 - 1 mile
 - More than 1 mile
- How often do you go to a park in your community?(Multiple choice, single select)
 - Everyday
 - At least twice weekly
 - Once per month
 - More than once each month
 - Only occasionally
 - Never
- If you don't go to a park now, what would make you want to visit a park?(Multiple choice, multiple select/write in)

- More activities for kids
- More benches/seating
- Other (write in)

Gazebo

- How many times a year would you use a gazebo?(Multiple choice, single select)
 - Weekly
 - Monthly
 - Occasionally
 - Never
- How much seating would you prefer the gazebo include?(Slider question ranging from 5 to 40)
 - Enough for 5
 - Enough for 10
 - Enough for 20
- What would you use the gazebo for?(Multiple choice, multiple select)
 - Gatherings like birthday parties
 - Playing games with friends
 - Getting together for a picnic
 - Concerts
 - Weddings

Bike Lanes



- If there were bike lanes along Joppa Farm Road, how often would you use them? (Multiple choice, single select)
 - Every day
 - A couple times a week
 - A couple times a month
 - Occasionally
 - Never
- If you would use these bike lanes, why would you be using them? You may choose more than one option. (Multiple choice, multiple select)
 - Exercise
 - Transportation (to get from Point A to Point B)
 - Recreationally (just to spend time with people and be social)
- How important is the aesthetic of your community to you? (Multiple choice, single select)
 - Not important at all
 - Mildly important
 - Very important
- Is there local art in your community? (Multiple choice, single select)
 - No
 - A little bit
 - A lot
- Is there school pride in your community? (Multiple choice, single select)
 - No
 - A little bit
 - A lot

Conclusion Question

- Out of these four options, how would you rank them in order of your preference?(Ranking Question)
 - 1: Bike Lanes with art
 - 2: Community Garden
 - 3: Fascination Station
 - 4: Gazebo

Endnote Citations

- ¹ Mehta, V., & Bosson, J. K. (2010). Third places and the social life of streets. *Environment and Behavior*, 42(6), 779-805.
- ² Mehta, V., & Bosson, J. K. (2010). Third places and the social life of streets. *Environment and Behavior*, 42(6), 779-805.
- ³ Mehta, V., & Bosson, J. K. (2010). Third places and the social life of streets. *Environment and Behavior*, 42(6), 779-805.
- ⁴ Wells Harbor Community Park. (n.d.). Retrieved from <http://www.wellstown.org/Facilities/Facility/Details/Wells-Harbor-Community-Park-4>
- ⁵ Town of Butner. (n.d.). Gazebo Park. Retrieved from <http://www.butnenc.org/departments/parks-recreation/gazebo-park/>
- ⁶ Village Green and Hillyer Memorial Gazebo. (n.d.). Retrieved from <https://www.villageofmidlothian.net/298/Village-Gazebo>
- ⁷ Alaimo, K., Packnett, E., Miles, R., Kruger, D. (2008). Fruit and Vegetable Intake among Urban Community Gardeners. *Journal of Education and Behavior*. 40(2). 94-101
- ⁸ Litt, J., Soobader, M., Turbin, M., Hale, J., Buchenau, M., Marshall, J. (2011). The Influence of Social Involvement, Neighborhood Aesthetics, and Community Garden Participation on Fruit and Vegetable Consumption. *American Journal of Public Health*. 101(8). 1466-1473
- ⁹ Berg, V., Custers, M. (2011). Gardening Promotes Neuroendocrine and Affective Restoration from Stress. *Journal of Health Psychology*. 16. 3-11.
- ¹⁰ Armstrong, D. (2000). A survey of community garden in upstate New York: Implications for health promotion and community development. *Health and Place*. 6. 319-327
- ¹¹ University of Maryland Extension, College of Agriculture. (n.d.) Checklist for Reducing Health Risks in Community Gardens. Retrieved from: http://extension.umd.edu/sites/extension.umd.edu/files/_docs/programs/grow_it_eat_it/Reducing%20Risks%20in%20Community%20Gardens.pdf
- ¹² Harford County Department of Agriculture. (n.d.) Agriculture. Retrieved from <https://www.harfordcountymd.gov/1655/Agriculture>
- ¹³ Harford Soil Conservation District. (n.d.). Past, present and future of conservation districts. Retrieved from <http://www.harfordscd.org/index.html>
- ¹⁴ Harford Soil Conservation District About. (n.d.) Our Mission. Retrieved from <http://www.harfordscd.org/about.html>
- ¹⁵ Sample Garden Plot Registration. (n.d.). Retrieved from <https://communitygarden.org/resources/sample-garden-plot-registration/>
- ¹⁶ Resources: Community Garden Management. (n.d.) Retrieved from <https://communitygarden.org/resources/category/community-garden-management/>
- ¹⁷ Environmental Education in the Community Garden (n.d.) Retrieved from <https://communitygarden.org/resources/environmental-education-community-garden/>
- ¹⁸ Misra, T. (2018). 'Risky' Playgrounds Are Making a Comeback. City Lab. Retrieved from <https://www.citylab.com/life/2018/08/can-risky-playgrounds-take-over-the-world/565964/>
- ¹⁹ Klass, P., M.D. (2018). Taking Playtime Seriously. New York Times. Retrieved from <https://www.nytimes.com/2018/01/29/well/family/taking-playtime-seriously.html>

-
- ²⁰ Klass, P., M.D. (2018). Taking Playtime Seriously. New York Times. Retrieved from <https://www.nytimes.com/2018/01/29/well/family/taking-playtime-seriously.html>
- ²¹ Misra, T. (2018). 'Risky' Playgrounds Are Making a Comeback. City Lab. Retrieved from <https://www.citylab.com/life/2018/08/can-risky-playgrounds-take-over-the-world/565964/>
- ²² Haubursin, C. & G., Barton. (2019, February 21). Why safe playgrounds aren't great for kids [Video file]. Retrieved from <https://www.vox.com/videos/2019/2/21/18229434/risky-playground-design>
- ²³ Haubursin, C. & G., Barton. (2019, February 21). Why safe playgrounds aren't great for kids [Video file]. Retrieved from <https://www.vox.com/videos/2019/2/21/18229434/risky-playground-design>
- ²⁴ Haubursin, C. & G., Barton. (2019, February 21). Why safe playgrounds aren't great for kids [Video file]. Retrieved from <https://www.vox.com/videos/2019/2/21/18229434/risky-playground-design>
- ²⁵ Rockwell, D. (2010). Unpacking Imagination. New York Times. Retrieved from <http://www.imaginationplayground.com/images/content/1/0/10601/IP-Op-Ed-Illustration-for-email-1.pdf>
- ²⁶ Imagination Playground (n.d). Retrieved from <http://www.imaginationplayground.com/product/playspace.html>
- ²⁷ Play Work Build. National Building Museum. Retrieved from <https://www.nbm.org/exhibition/play-work-build/>
- ²⁸ Klass, P., M.D. (2018). Taking Playtime Seriously. New York Times. Retrieved from <https://www.nytimes.com/2018/01/29/well/family/taking-playtime-seriously.html>
- ²⁹ Haubursin, C. & G., Barton. (2019, February 21). Why safe playgrounds aren't great for kids [Video file]. Retrieved from <https://www.vox.com/videos/2019/2/21/18229434/risky-playground-design>
- ³⁰ Imagination Playground (n.d). Retrieved from <http://www.imaginationplayground.com/product/big-blocks.html>
- ³¹ 018. 'The Daily Dozen': A 12-Point Playground Safety Checklist. Parks & Recreation, 8–9. Retrieved from EBSCOhost, [search.ebscohost.com-login.aspx?direct=true&db=asn&AN=131105233&site=ehost-live](http://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=131105233&site=ehost-live).
- ³² 018. 'The Daily Dozen': A 12-Point Playground Safety Checklist. Parks & Recreation, 8–9. Retrieved from EBSCOhost, [search.ebscohost.com-login.aspx?direct=true&db=asn&AN=131105233&site=ehost-live](http://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=131105233&site=ehost-live).
- ³³ 018. 'The Daily Dozen': A 12-Point Playground Safety Checklist. Parks & Recreation, 8–9. Retrieved from EBSCOhost, [search.ebscohost.com-login.aspx?direct=true&db=asn&AN=131105233&site=ehost-live](http://search.ebscohost.com/login.aspx?direct=true&db=asn&AN=131105233&site=ehost-live).
- ³⁴ Data USA: Joppatowne, MD. Retrieved from <https://datausa.io/profile/geo/joppatowne-md>
- ³⁵ Harford County. Bicycle and Pedestrian Master Plan, 2013. (2013). Retrieved March 11, 2019, from <https://www.harfordcountymd.gov/DocumentCenter/View/1825/2013-Bicycle-and-Pedestrian-Master-Plan-PDF?bidId>
- ³⁶ Harford County. Bicycle and Pedestrian Master Plan, 2013. (2013). Retrieved March 11, 2019, from <https://www.harfordcountymd.gov/DocumentCenter/View/1825/2013-Bicycle-and-Pedestrian-Master-Plan-PDF?bidId>
- ³⁷ Federal Highway Administration. (2010, May). The National Walking and Bicycling Study: 15-Year Status Report. Retrieved April 16, 2019, from http://www.pedbikeinfo.org/cms/downloads/15-year_report.pdf
- ³⁸ Federal Highway Administration. (2010, May). The National Walking and Bicycling Study: 15-Year Status Report. Retrieved April 16, 2019, from http://www.pedbikeinfo.org/cms/downloads/15-year_report.pdf
- ³⁹ Dill, J. J Public Health Pol (2009) 30(Suppl 1): S95. <https://doi.org/10.1057/jphp.2008.56>

-
- ⁴⁰ Bushell, M. A., Poole, B. W., Zegeer, C. V., & Rodriguez, D. A. (2013, November). Costs for Pedestrian and Bicyclist Infrastructure Improvements. Retrieved April 13, 2019, from [http://www.pedbikeinfo.org/cms/downloads/Countermeasure Costs_Report_Nov20131.pdf](http://www.pedbikeinfo.org/cms/downloads/Countermeasure%20Costs_Report_Nov20131.pdf)
- ⁴¹ New York City Department of Transportation. (2011). Sustainable Streets Index 2011. Retrieved April 16, 2019, from http://www.nyc.gov/html/dot/downloads/pdf/sustainable_streets_index_11.pdf
- ⁴² Sallaberry, M. (2008, September 4). Shared Lane Markings: When and Where to Use Them. Retrieved April 13, 2019, from <https://nacto.org/wp-content/uploads/2010/08/Shared-Lane-Markings-When-and-Where-to-Use-Them.pdf>. San Francisco Municipal Transportation Agency, Pro Walk/Pro Bike, Seattle, WA.
- ⁴³ Kunkle, F. (2019, February 26). Bicyclist and pedestrian deaths outpace traffic fatalities, report says. Retrieved April 20, 2019, from https://www.washingtonpost.com/transportation/2019/02/26/bicyclist-pedestrian-deaths-outpace-traffic-fatalities-report-says/?utm_term=.260d4e19e76a
- ⁴⁴ Richard, C. M., Magee, K., Bacon-Abdelmoteleb, P., & Brown, J. L. (2018, April). Countermeasures that work: A highway safety countermeasure guide for State Highway Safety Offices, Ninth edition (Report No. DOT HS 812 478). Washington, DC: National Highway Traffic Safety Administration.
- ⁴⁵ Borrup, T. (2009). 5 Ways art projects can improve struggling communities. *Project for Public Spaces*. Retrieved from: <https://www.pps.org/article/artsprojects>
- ⁴⁶ Borrup, T. (2009). 5 Ways art projects can improve struggling communities. *Project for Public Spaces*. Retrieved from: <https://www.pps.org/article/artsprojects>
- ⁴⁷ Borrup, T. (2009). 5 Ways art projects can improve struggling communities. *Project for Public Spaces*. Retrieved from: <https://www.pps.org/article/artsprojects>
- ⁴⁸ Cleveland, W. (2011). Arts-based community development: Mapping the terrain. *LA County Arts*. Retrieved from: https://www.lacountyarts.org/sites/default/files/pdfs/civic_engagment_arts_based_community_develop_bcleveland_paper1_key.pdf
- ⁴⁹ An estimate by Cole Concrete, Inc. of Joppatowne, MD on April 10, 2019. Decorative Stamped Concrete. (n.d.). Retrieved from <http://www.coleconcrete.com/>
- ⁵⁰ Cost of structure and labor taken from an average of 89 cost profiles hosted at <https://www.improvenet.com/r/costs-and-prices/gazebo-construction-cost-estimator>
- ⁵¹ The estimates are based on a ½-acre garden site with 25'x30' in-ground beds for a total of 20 plots with a 60'x50' common area. Retrieved from <https://vcgn.org/wp-content/uploads/2018/02/SampleGardenCost-VCGN-2013.pdf>
- ⁵² Recommended space for safe play from the National Resource Center for Health and Safety in Child Care and Early Education <http://nrckids.org/CFOC/Database/6>
- ⁵³ All numbers were provided by Costs for Pedestrian and Bicyclist Infrastructure Improvements from the UNC Highway Safety Research Center: http://www.pedbikeinfo.org/cms/downloads/Countermeasure%20Costs_Report_Nov20131.pdf
- ⁵⁴ <http://www.townofchapelhill.org/Home/ShowDocument?id=7050>
Retrieved from the United States Census Bureau QuickFacts page for Joppatowne
- ⁵⁵ Retrieved from the United States Census Bureau QuickFacts page for Joppatowne <https://www.census.gov/quickfacts/joppatownecdpmaryland>
- ⁵⁶ http://www.pra.ca/resources/pages/files/technotes/rates_e.pdf

⁵⁷http://www.tai.org.au/sites/default/files/TB4%20%20Phone%20and%20internet%20survey%20comparison%20final_7.pdf