COMPREHENSIVE STUDY

RICHARD W. KANODE
FARM PARK
PRELIMINARY MASTER PLAN

8213-A Stevens Road
Thurmont, Maryland 21788

Prepared For:
Frederick County Division of Parks & Recreation
Frederick County Division of Public Works

Prepared By:
Human & Rohde, Inc.
Landscape Architects

November 2023

RICHARD W. KANODE FARM PARK

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BACKGROUND:

Under the conditions set forth in the executed Memorandum of Understanding Regarding Parkland Dedication dated August 14, 2017 between Richard W. Kanode and Frederick County, the County agreed to "develop the Kanode Farm as a county park facility for the use and enjoyment of the general public, containing agricultural, equestrian, educational and recreational facilities consistent with the terms of the Agricultural Preservation Easement." This agreement, based on the conditions set forth in Mr. Kanode's will, established the intended use of the property. Mr. Kanode also bequeathed a charitable quasi-endowment fund in the amount of $1,000,000 to subsidize and augment the costs associated with the development, operation and management of the park. Upon Mr. Kanode's passing, the County took full possession of the farm and began the master planning process. Over the course of five (5) Kanode Farm Park Master Plan Advisory Committee meetings held between September 2022 and January 2023, members and guests advised the County and its design consultants regarding a variety of equestrian facilities, agricultural education and research needs, and active agricultural activities to be incorporated into the master plan for the Kanode site. The Preliminary Master Plan was accepted by the Advisory Committee at their January 11, 2023 meeting with one opposing vote. The minutes of all Master Plan Advisory Committee meetings are attached to this report.

Based on the information offered by the Master Plan Advisory Committee, the Preliminary Master Plan established the following use areas:

- a centralized area for equestrian riding and education (± 8.3 acres),
- approximately 64 acres retained for active farming,
- 30 acres reserved for agricultural research, test plots and demonstration gardens,
- nearly 6 acres designated for meadow and orchard demonstration management,
- over 10 acres reserved for the creation of a native arboretum,
- a variety of environmental science outdoor classroom areas,
- space around the existing bank barn and log building for the development of visitor orientation and educational opportunities for Frederick County agriculture students,
- walking and equestrian trails with rest areas and interpretive signage,
- park maintenance area,
- stream buffer enhancement plantings, and
- supporting facilities.

The vast majority of the property (175+ acres) is held in a Maryland Agricultural Land Preservation Foundation (MALPF) Easement which imposes restrictions to development. The following activities are allowed per the MALPF "Guidelines for Use of Land in the MALPF Program in addition to normal agricultural and silvicultural uses": agro-tourism and education tours/programs, horse training, horse riding lessons, horse shows, cross-country riding, hunting, canoeing, trail riding, hiking, and group picnics. It is stipulated that these activities must not interfere with the agricultural operations and that parking is limited to two acres of pervious surfacing. The proposed activities and parking were designed to comply with the MALPF restrictions.

The MALPF Board of Trustees reviewed the Preliminary Master Plan and offered minor comments which were incorporated into the plan in late January 2023. In an email from Anne Bradley, Frederick County Land Preservation Program Administrator, to the Division of Parks and Recreation (DPR) dated March 22, 2023, it was stated the MALPF Staff "do not feel any of the proposed uses would need further review by MALPF's staff or Board" based on the revised Plan. This statement was construed as acceptance of the proposed uses and facilities.

The Preliminary Master Plan was subsequently put on display at an Open House held on April 12, 2023, and then presented to the Frederick County Parks and Recreation Commission for review and comment on April 13, 2023.

Following the Parks and Recreation Commission presentation, the Community formally requested that additional studies be performed to substantiate the feasibility and need for the proposed equestrian, agricultural education, and active agriculture facilities. Three (3) issues were expressed to be of concern:

I. **Feasibility**: Are the proposed facilities and amenities necessary and appropriate to serve the public need? Can the site physically support the proposed uses and programming? What is the Division of Parks and Recreation's plan for the programming and operation of the facilities?

II. **Traffic**: What is the potential impact to local roads due to increased traffic to the site, including horse trailers and school buses?

III. **Archaeology**: Are there historically sensitive areas on the site and what are the potential impacts posed by development?

A feasibility study, traffic impact study, and additional Phase 1 archaeological investigations were subsequently performed. A copy of the Traffic Study performed by The Traffic Group, Inc. and the Phase I Archaeological Survey of the Kanode Farm Property prepared by Applied Archaeology and History Associates, Inc. are attached in full to this report. Summaries of these studies follow the Feasibility section.

I. FEASIBILITY

Establish need for the proposed facilities.
What is the proposed programming and operation?
Do the proposed facilities adequately support those needs and programming?

Agriculture educators and researchers and equine industry experts were invited to provide comments on the various elements and activities proposed in the Preliminary Master Plan. Frederick County's Office of Economic Development was also consulted for commentary. The information collected from these various sources is documented in separate sections:
A. Agriculture Education and Research Facilities and B. Equestrian Facilities.

A. AGRICULTURE EDUCATION AND RESEARCH FACILITIES

Summary: Various agriculture-related members of the Kanode Farm Park Master Plan Advisory Committee, all of whom are expected to be future users of the park, provided the following descriptions of their programming needs and goals that would be supported by the facilities proposed at the Kanode Farm. Other agricultural industry authorities were also invited to review the Preliminary Master Plan and provide comments. Each relayed general satisfaction with the assignment of active and educational/research areas and their functionality, and many offered additional suggestions for programming and facility development. Agricultural preservation was noted to be the priority. In summary, these parties found the elements proposed in the preliminary master plan to be adequate to conduct the desired agricultural education activities and programs and to engage in agricultural research of various types.

1. Frederick County Public Schools
   Diane Herndon, Educator / FFA

During the Master Plan Advisory Committee's initial meetings, Ms. Herndon, who represented FCPS, expressed that there is a lack of adequate facilities to serve the current and growing interest in agriculture majors and FFA activities. Throughout the design process, Ms. Herndon offered advice on elements that would best support FCPS's needs and expressed satisfaction with the educational facilities being provided in the master plan. At Human & Rohde's request, Ms. Herndon has provided a more detailed description of how she sees the site being used:

- For a variety of events, the facilities would serve 9 of the 10 high and the FCPS Career and Technology Center (CTC). Thomas Johnson High School (TJ) does not currently have an ag program, but there are some opportunities for TJ to join, as there are some students interested in starting an ag club. Middle school ag programming is coming, so there is a possibility of that being added in the future. On average, there are approximately 50 to 75 FFA members per school. Unduplicated ag education enrollment is about 75-150 depending on the school.
- It is anticipated that buses and personal vehicles will be used to access the park, depending on the event. Bus traffic would mainly be during the school week and personal vehicles on the weekend.
- FFA would like to bring back an ag science field day with hands-on stations related to all aspects of agriculture and a judging invitational (dairy/horse/livestock) to start.
- The student garden plots are more likely to be utilized by students that live closer to the park (Catoctin, Walkersville, Frederick). These would be accessed by personal vehicle.

2.a. Frederick County Cooperative Extension Service
   Mark Townsend, Extension Service Agent

Mr. Townsend explained that Frederick County farmers like to see tangible, local research initiatives/projects. Many have complained and leveled criticism of research conducted at University research farms citing concerns over the validity as they do not believe that the work conducted on those farms accurately reflects their specific conditions.

Towards this end, the intent would be to conduct small plot (30'x30') trials as well as larger field scale (2 ac+ treatments) evaluations of novel cropping practices including cover crops, alternative cash crops, pest management strategies and more at the Kanode Farm site. It is anticipated that the large majority of these works would be funded through awarded research grants for which the Extension Service agent would seek funding. The actual plot creation/field work would be performed by a local farmer and the day-to-day management of the plots would be the responsibility of the field agent.

In addition to the data collected from these evaluations, the Extension Service would hope to hold field days and other demonstration opportunities for farmers to see the on-going work as well as see the novel strategies in action. For example, some cover crop practices can frankly be scary for farmers who have not seen how they work or their outcomes, whereby a demonstration plot (at scale) on a farm that better emulates their farm conditions would be incredibly beneficial to their understanding of the practice. Fundamentally, the desired outcomes of both the plot data and demonstrations is to improve farmer understanding and subsequent adoption of more "sustainable" agricultural practices that advance ecological, economic, and social impacts of agriculture.

Farming practices at Kanode Farm (August 2022)

2.b. Frederick County Cooperative Extension Service / 4-H Participation
Erin Kline & Anna Mae Glenn

Ms. Glenn and Ms. Kline offered the following list of 4-H programs that the proposed facilities at Kanode Farm Park could easily support:

- "Farm Camp": This is something that has already been discussed with Parks and Rec. They would be the host/organizer of the camp and University of Maryland Extension could help

provide educators for specific topics. It might have 100 kids or so and it would be hosted in the summer. They would need access to restrooms and some indoor space throughout the day when it gets warm. They would likely interact with animals and small farm equipment. It would be difficult to host this at a private farm without showing favoritism to a specific family/business which is why a park is a great place to host this.

- Farm Field Trips: The Extension Service often organizes farm field trips for kids in BCPS, however, sometimes this is difficult when local farms don't have restrooms available for large groups or they aren't set up to handle handicapped visitors. Field trips would involve about 100 kids per day (one grade of students from one school). Sometimes just a singular field trip is hosted and other days it is a weeklong series of field trips for different schools. This is usually done in the Spring.
- Educational Series for Youth: 4-H would consider hosting hands-on practical workshops for youth. We are envisioning 1 to 3-hour long sessions that might run 3 to 6 weeks. One topic that has been discussed is a homesteading series for youth. They would learn things like canning, raising animals, making soaps, etc. Some sort of classroom-type situation would be needed for this. Some of these workshops could be hosted at the UME office in Frederick, however, the classroom space is small and there is not much room for outdoor agriculturally related demonstrations with animals or equipment.
- Agriculture Internship: Youth who are interested in learning about agricultural research could shadow or intern with ag staff and tag along for the research being done at the farm park. This would help to build workforce readiness for those youth.
- 4-H club meetings: There are (24) 4-H clubs in Frederick County and they all use public spaces (churches, parks, schools, etc.) for meetings. There is the potential for some clubs wanting to host their meetings here or have outdoor agricultural training/fun days. Clubs are usually 30-60 kids.
- 4-H animal show or training days: 4-H often wants to host training events for their youth in order to help them learn how to work with their animals in advance of the fair. The Fairgrounds is a possible place to use, but sometimes they are booked up with many other paying events throughout the year. If 4-H were to host animal science workshops at the park, there would need to be some sort of barn and/or animal showing for kids. It could also be possible that a 4-H club might want to host their own show in order to allow kids to exhibit their animals somewhere other than the county and state fair. Frederick has quite a lot of small "community shows" and there is the possibility of this place being used for hosting that kind of small show.

3. Frederick County Agricultural Preservation Advisory Board
   Samuel G. Tressler III, Board Chairman

Mr. Tressler offered the following comments on the Preliminary Master Plan:

- The plan supports the Board's directives and goals.
- Mr. Tressler is pleased with the organization of the land bays.

- The lease farming along Stevens Road makes for a good entry but also maintains the character of the entire project.
- Day use will eliminate excessive road construction.
- He appreciates the plan of using as many existing buildings as possible.
- Location and proximity of the structures is also positive.
- In Mr. Tressler's opinion, this will definitely be a sound investment for Frederick County, as it is not only recreational but educational as well. He feels that Frederick County will be admired for the construction of a park of this nature.

Northern and Eastern fields at Kanode Farm to be preserved for active farming

4. Regenerative Agriculture Practices
   Taylor Roman, Asst. Mgr. Common Root Farm and member of Mobilize Frederick workgroup/Healthy Soils Frederick subgroup

Mr. Roman explained that the term regenerative agriculture refers to a philosophy of designing and managing farming systems. This approach identifies farms as ecosystems (aka agroecosystems) and asserts that successful farms should also provide the same benefits as healthy, biodiverse ecological systems. This includes benefits like water cycling, building nutrient rich soils and resiliency in the face of disturbances and climate change.

In order to create agroecosystems that provide these benefits, farmers practicing regenerative agriculture prioritize systems and practices which perform the following functions:

- Retain water in the landscape and reduce erosion.
- Reduce disturbance to the soil ecosystem from tilling.
- Promote biodiversity through plantings, and avoid the use of products that reduce biodiversity (such as synthetic pesticides)

The word "regenerative" recognizes that conventional agricultural practices have played a huge part in degenerating the landscapes we live in; and that by creating farming systems modeled

after natural ecosystems we can grow food and other crops in ways that not only avoid harming the land but actively work to reestablish the natural systems that sustain life on our planet.

The Kanode park is an excellent site to model farming practices that match the regenerative agriculture philosophy; being situated in an area of the county that is still significantly agrarian, and only a few miles from the Monocacy River. Historically agriculture has been one of the major contributors to sediment and nutrient run-off into the Monocacy, leading to concerning reductions in water quality. The Monocacy serves as a major source of water for residents in Frederick County. Encouraging regenerative agricultural practices that will reduce direct contamination of the river will help to maintain the health of the river ecosystem and surrounding lands, as well as reduce stress and wear on county water treatment plants downriver.

To Mr. Roman's knowledge, there are currently no sites on public land in the county modeling regenerative agriculture for education and research. Frederick County has such a large amount of farmland and an identity strongly attached to agriculture it is his opinion that research and innovations that reduce harm and maintain the health of the land which sustains us are crucial.

A variety of partners could implement research and production on the ± 24-acre parcel reserved for regenerative agriculture at Kanode park, including those already engaged with the process of creating the master plan; namely the FCPS CTC agricultural education program and the UMD Extension Office. This parcel could also be leased out to an independent farmer (similar to the other leased parcels) who agrees to adopt/avoid certain management practices, in order to remain in line with Parks and Rec's definition of regenerative agriculture.

Considering that the philosophy of regenerative agriculture can cover a wide variety of farming practices, the current facilities and infrastructure planned for the park could reasonably cover the needs of farming operations on this parcel, especially operations which require less equipment, irrigation and other inputs. One example might be on-contour plantings of perennial shrubs and trees for fruit and nut production. Regardless of the operation, it would be good to reserve some facilities space for equipment storage. Lack of irrigation and deer fencing will largely restrict the kinds of farming that can occur on this site.

The next steps in finalizing plans for the regenerative agriculture parcel for this park would include:

- Parks and Rec creating a working definition for "regenerative agriculture," as a guiding force in creating criteria around land management practices that would be permitted on this parcel. UMD may already have a working definition for this term that could be used.
- Parks and Rec deciding whether the space will be reserved for the use of local institutions, like FCPS and UMD Extension, or whether it will be leased out to an independent farmer.

Other Agricultural References:

5. Frederick County Office of Economic Development
Katie Stevens, Associate Director of Agriculture Business

Human & Rohde consulted with Katie Stevens, the Director of Workforce Development and Agriculture Business regarding the County's need for the proposed agricultural facilities from an economic standpoint. Ms. Stevens referred to the "Livable Frederick" Master Plan for the county's agricultural planning goals. She pointed out that Kanode Farm Park would be an ideal location to realize many of these goals and initiatives, including the following:

Goal: Agriculture
"Support and protect Frederick County's agricultural community and existing and emerging agricultural industries, to promote an environment where agriculture operations continue to be competitive, sustainable, and profitable in Frederick County."

- Initiative: "Ensure that opportunities exist in Frederick County to protect, maintain, and teach the community about Frederick County's rural agricultural heritage, culture, and role in maintaining a healthy natural environment."
- Supporting Initiative: "Develop a program to educate the public and farming community on planning and agricultural issues."
- Supporting Initiative: "Provide support for the development of agricultural support businesses in Frederick County by actively promoting farms, resources, events, and information."
- Supporting Initiative: "Support the diversification of farming innovations, such as regenerative agriculture, and ensure flexibility to allow for emerging and next generation farm operations."

Ms. Stevens offered the following additional comments and suggestions:

- The Kanode Farm will offer an invaluable platform for agricultural education. With agriculture dominating over half of the County's acreage, it is crucial to educate individuals of all ages about this vital industry. The park can serve as a hub for learning, featuring student project plots, hoop houses, and teaching pavilions. These resources will allow both children and adults to immerse themselves in hands-on experiences, fostering a deeper understanding of crop cultivation, sustainable farming practices, and the myriad opportunities within agriculture. The park will allow a variety of community organizations such as the Farm Bureau, Soil Conservation, Agriculture Business Council, Parks and Rec, the Food Council, and others to come together to provide education about different topics in Agriculture. The park can also provide the opportunity to do research on new agricultural crops and new opportunities for our farm community. While all but one Frederick County High School has an agricultural program, there are not currently programs in Elementary or Middle School, this park will provide the opportunities to learn about Agriculture at a younger age and to learn and experience how food is grown. The park's emphasis on education ensures that future generations appreciate and engage with the importance of farming in our community.

Participant in Prince Georges County Urban Ag Incubator Program

- While Frederick County is the largest agricultural county in Maryland, it does not have an agricultural center. Frederick would like to model the Montgomery County Agricultural Park and the Baltimore County Agriculture Center. One program that Frederick County would like to start is an agricultural incubator program like Prince Georges County Urban Agriculture Incubator. Access to land is one of the biggest challenges for beginning farmers and this program can help foster a new generation of farmers. In this program, beginning farmers lease small plots of land for up to five years where they learn to grow vegetables, flowers, or other agricultural products along with learning business and marketing skills. This program could build on many of the aspects of the Kanode Farm Park including the composting, hoop houses, fencing, and education space. It's important that we continue to provide opportunities to grow our agricultural community and the Kanode Farm Park would provide the space to conduct a program like this as well as others in the future.
- Use the log cabin building as office space for local agricultural people to meet with county agricultural staff so they do not need to travel all the way into Frederick. Establish drop-in days for these meetings.
- Establish a “master composting program” with a composting area that could incorporate manure from the equine use.
- Model programming and operations at the Kanode Farm Park to be similar to the Montgomery County Ag Park and the Center for Maryland Agriculture and Farm Park in Baltimore County.

Center for Maryland Agriculture and Farm Park, Baltimore County, MD

6. Fox Haven Farm
   JoAnn Coates-Hunter, Director

Human & Rohde also consulted with the director of Fox Haven Farm, JoAnn Coates-Hunter, for the purpose of comparing facilities, operation, and programming. Fox Haven is a 730-acre non-profit environmental learning center for children and adults, with an ecological retreat, and certified organic farm located in Jefferson, Maryland. The land and facilities are leased from the landowner and include a converted milking parlor where meetings and events take place, a bank barn with solar panels which provide the majority of the power for the site and water collection storage tanks which provide gravity fed irrigate to the lower herb garden, and a farmhouse serving as office, meeting and rental space. There are 3 acres of organically managed heritage apple orchard and herb farm and 578 acres of certified organic farmland with rotating cow pasture. The farm itself is an LLC which is not part of Fox Haven Farm's operation. 400 acres of the site are in permanent easement including 131 acres in MALFP easement. There is a small primitive outdoor learning area in the lower woods where outdoor skills classes are held. The facilities are serviced by private well and septic. The operation is funded largely through facility rentals for weddings, parties and events, with some income from class fees and less from grants. Visitor parking is in paved areas near the barn and farmhouse and in grass overflow parking areas. The site sees 3 to 4 school buses periodically during Fall and Spring school programs. The buses either park in the onsite parking area when there are few cars or along the entrance road in non-designated areas. Public classes may have up to around thirty participants. The neighbors are invited to an annual social event to foster continued goodwill.

Fox Haven Farm

The two facilities, though similar, will not be in direct competition due to their locations and overall programming. Fox Haven Farm is located in the southern part of Frederick County and is therefore not in close proximity to Kanode Farm Park. While Fox Haven does engage in sustainable farming and conservation practices and offers environmental/ecological programs, their focus is primarily on growing medicinal plants, partnering with local hospitals, fostering health and well-being, and connecting with nature. On the other hand, Kanode's programming will be primarily to promote agricultural and natural resource education and provide opportunities for agricultural research designed generally to benefit farmers and gardeners.

Ms. Coates-Hunter commented that Kanode's agricultural programming is sorely needed in Frederick County, where the schools must travel to Washington County to visit University of Maryland farm facilities in order to learn about agriculture and where our food comes from. Her vision would be to provide a progression of agricultural education beginning in elementary school through high school that would foster interest that will keep the farming tradition alive in Frederick County.

Ms. Coates-Hunter also offered the following comments and recommendations for Kanode's agricultural programming:

- Sponsor a yearly social event with the neighbors as Fox Haven does. Involve the community/invite them to the programs.
- Provide clear signage to direct people to the site.
- Provide clear rules throughout for the intended use of the facilities and where people can go.
- Provide cameras for security throughout the site.
- Consider trash collection policy.
- Solar panels on the roofs and windmills – educational (farming history, environmental benefits) and practical! Grants are available and she encourages the county to start the application process ASAP! Recommends the on-line power monitoring for educational purposes.
- Programming to introduce farming at an early age with progression from elementary to middle to high school to foster long term interest in farming.
- The Health Department will likely require outdoor sinks and refrigeration for produce grown by FCPS students (and perhaps the display gardens).
- Provide a place to cook outside – hot plates or grills – so people can participate in full circle of grow, harvest, eat.
- Deer management by fencing and seasonal hunting. Generate revenue (hunters will pay for the privilege) and donate meat to the local food bank.
- Offer opportunities for environmental groups – Sierra Club, birders, etc. – to sponsor informational/interpretive signage.
- Partner with local hospitals to sponsor diabetes educational program with a nutritionist. More interesting location than a doctor's office so people might actually participate when prescribed by a doctor. Can see where the food comes from.
- The proposed manure storage area might be too close to where people are going to be.

Fox Haven Farm Milking Parlor / Classroom and Event Space

B. EQUESTRIAN FACILITIES

Summary: The overall design for the equestrian facilities is based on input from the Master Plan Advisory Committee members who are experienced equestrians, including Dr. Justin Sobota with the Maryland Horse Industry Board and Carolyn Mackintosh, owner and operator of Loch Moy Farm in Adamstown. Guests of committee members who participate in equestrian activities also offered their opinions and expressed their desire for various facilities and amenities that are closer to home in Frederick County since participants often have to travel far distances to find facilities that offer the amenities and activities they desire.

Based on the information offered by the Advisory Committee, the following facilities and amenities were incorporated into the Master Plan:

- 100' x 200' arena (dressage, jumping) with potential for being enclosed
- 300' x 300' western arena (barrel racing, jumping)
- 100' x 100' practice ring
- Obstacle Course
- Approximately 3 miles of riding trails
- Horse trailer parking (approximately 15 to 20)
- Office with staff and minimal visitor parking
- Electric and water service (no night lighting)
- Existing barn/shed for arena grooming equipment
- Manure storage area
- Restroom facilities (vaulted toilets and portable toilets for events)
- Space for event tents
- Overflow parking for events (in the agriculture research area)

At the Open House held January 11, 2023, County residents with horses expressed support for the equestrian facilities and trails. A few attendees voiced their pleasure at the prospect of having trails nearby where they could drive their horse-drawn sullies because there are few places where this activity is available.

Nearby residents expressed their concerns about the impacts to the community and road system due to increased traffic, horse trailers and buses, and questioned whether the proposed improvements might impact the historical significance of the site. These issues are addressed under the Traffic Study and Phase I Archaeological Investigation report discussed in later sections of this document. The community's concerns about need and feasibility for the equestrian component of the master plan are addressed as follows:

1. Maryland Horse Industry Board
   Mr. Ross Peddicord, Executive Director of the Maryland Horse Industry Board

The purpose of the Maryland Horse Industry board is "to promote equestrian activities and the use of horses for recreation through promotional activities that create awareness and visibility for the equine industry, educational and research projects to benefit the equine industry, and developmental efforts, such as job training programs, facilities planning and export marketing to stimulate the growth of the local horse economy." As Executive Director, Mr. Peddicord is

without question an expert in the best position to comment on the need, feasibility and adequacy of the proposed equine facilities at Kanode Farm Park.

Mr. Peddicord commented that there is a real need for these facilities, especially for trail riding, and stated that the proposed activities "complement everything else equestrian in the county/region". He provided a very detailed history and analysis of equestrian facilities and participation in Frederick County which is attached in the Appendix at the end of this report. The following are Mr. Peddicord's main points in support of equestrian activities at Kanode Farm Park:

- The Kanode Park will only complement and enhance current riding activities in the county. It will help spur interest in horses and eventually encourage some horse owners to buy or lease farms. This maintains open space, vital in Maryland where pastures are considered a great source to prevent nutrient run-off into the Chesapeake Bay. In this way, horse farms benefit all citizens.
- There are currently 77 boarding and lesson barns licensed in Frederick County. These are PUBLIC riding stables licensed by the MD Horse Industry Board. All of these riders need places to ride their horses and the trails/arenas at Kanode Park will be a perfect spot for them to go. I'm sure few folks in Frederick agricultural/recreational circles know this many public licensed horse farms exist in Frederick County. During the recent COVID pandemic, interest in the outdoors, including horse sports, grew. We surveyed our nearly 800 licensed riding stables and many experienced as much as 10% growth in riding activity. That interest seems to be holding steady with many stables reporting waiting lists.
- By opening Kanode Park and signaling that the county supports the need for added equestrian facilities and its interest in the equine community, the county helps maintain and grow horse-related businesses such **Farmer's Cooperative,** Maryland's largest horse feed manufacturer located in Frederick; veterinarian services such as **South Mountain Equine** in Middletown and other equine medical establishments; plus farriers, hay and straw growers, real estate agents, tack suppliers, etc.
- At the public meeting to unveil initial plans for the Kanode facility, many folks who attended said there is a pressing need for horseback riding trails in the county and also horse carriage driving venues. The Catoctin Mountain trails used to be functional, but by and large folks said they are now unrideable. Back in the day, there used to be a volunteer mounted patrol, but no more. In addition, the Rose Hill Carriage Driving Club was once a thriving organization and more driving trails/opportunities could help reinvigorate the club.

In summation, Mr. Peddicord stated that horses are a vital part of the history and current culture of Frederick County. The Kanode Park will be in a controlled environment for equine activities, complement existing horse venues, help serve a huge population of equine enthusiasts, encourage new riders, and prove a welcome addition to the county and state equestrian community.

<u>Other Equestrian Industry Consultants</u>

Human & Rohde further consulted with two other industry experts who have had direct involvement in the development, construction, and/or operation of their facilities. Mr. Jeffrey Budnitz with the Baltimore County Equestrian Center and Ms. Lynda Arnold, director of the Carroll County Equestrian Center were approached to review the Preliminary Master Plan and

provide comments on the composition and functionality of the proposed equestrian facilities. Both of these equestrian facilities are similar in scope to Kanode Farm Park and are also operated by County agencies.

2. Baltimore County Equestrian Center
   1114 Shawan Rd., Cockeysville, MD (operated by Baltimore County)
   - 1 outdoor arena with jumps (250' x 300') - by reservation
   - 1 indoor arena for therapeutic riding (approx. 70' x 150') – by reservation
   - Atwood Footing designed for fall impact attenuation and comfort of horses
   - Material for indoor arena specially formulated to reduce dust
   - Gravel parking for trailers, approx. 190' x 230' (20-30 trailers)
   - Overflow parking on grass to the west of the outdoor arena
   - Grandstand and bleachers/viewing areas/elevated judging platform
   - Barn with stalls
   - Fenced paddocks
   - 2 miles of riding/walking trail (natural surface) – used predominantly by pedestrians
   - Restrooms and classroom within the indoor arena
   - Manure storage container
   - Wash down areas for animals and water for horses
   - Water tank for dust control of outdoor arena
   - Fees: Outdoor Arena: Individual $16/hour (max. 2 hours)
     Private group: $489 half day / $780 full day
     Non-Profit organization: $442 half day / $780 full day
     Indoor Arena: Private group: $375 half day / $687 full day
     Non-Profit organization: $338 half day / $624 full day
   - Hours: sunrise to sunset

Baltimore County Equestrian Center

Mr. Budnitz was instrumental in the design and construction of the Baltimore facility and is well versed in the elements that make a successful and properly run operation. He is of the opinion that the layout of the Master Plan functioned well but could benefit from some modifications. He offered the following comments:

- Move the manure storage further away from visitor areas. Recommends a container that can be picked up by a roll off truck. Place it where a frontend loader can access it and the truck can back up to pick up the container.
- Wherever possible, in general make elements bigger:
  - Widen the trailer parking area
  - Widen the road leading to the parking (to help prevent conflicts with trailers entering and exiting at the same time / accommodate tractor trailer)
  - Increase the size of the practice arena
- Make sure parking stalls are long enough for large pickup trucks (to accommodate horse people and farmers coming to ag events)
- Check turning radii around the trailer parking lot for fifth wheel horse trailers.
- Provide containment fencing to prevent a loose horse from getting away.
- Separate people from the horses as much as possible.
- Provide separate paved area around the arena fences for viewing and ADA compliance to give people something to stand on and prevent erosion. He recommended bleachers.
- Provide elevated judging platforms.
- Prohibit barrel racing in the Western arena. The sharp turns gouge out the footing material and can damage the filter fabric and drainage layer.
- Provide wash down stations and drinking water for horses throughout.
- Extend pavement all the way to the Dairy Barn.
- Consider housing for barnyard animals (pigs, sheep) for 4-H
- Consider using the arenas for other purposes such as livestock showing and ag equipment expo. Make sure gates are wide enough for the equipment to enter.
- Prohibit the use of tent stakes within the arenas (will damage the footing system). Use other means of securing tents.

3. Carroll County Equestrian Center
   2512 Grimville Road, Mount Airy, MD (operated by Carroll County)

- (2) arenas: 125' x 220' and 140' x 240' / sand over stone dust base
- (2) Dressage judge's stands, bleachers
- (2) Hunter-Jumper judges stands
- Cross Country jumps
- (2) sheds
- Trailer and spectator parking – grass
- Small gravel trailer parking area outside the entrance gates for trail riders when the facility is closed.
- Water standpipes for animals
- Arena watering is via water trucks or by the fire department prior to events
- No manure storage
- No permanent restroom facilities. Portable toilets only.
- No lighting.
- 3 miles of riding trails (natural surface)
- Concession Stand
- Spectator Shade Pavilion
- Fees: $150 / day for Youth Equine Organizations (4-H, Pony Club)
  $250 / day for Other Equine Organizations
  $10/hour per student / lesson: instructions in the ring (by reservation)
  Use of the ring for schooling purposes is free to members

Carroll County Equestrian Center

Lynda Arnold, Director of the Carroll County Equestrian Center, is an equestrian with four horses of her own. She has been responsible for general management of the Carroll County facility since 2010, overseeing a variety of equestrian events. Ms. Arnold takes reservations for events and is responsible for general maintenance of the facility, making sure the arenas and grounds are in good condition for public use. The facility serves individual riders and small groups by reservation and hosts large two-day competitive events. The facility is operated on a limited budget from Carroll County and relies solely on volunteer labor for trail maintenance. Watering the arenas for dust control is only done prior to special events and utilizes water trucks or a nearby fire department when available. There is no manure storage provided; users are expected to pick up after their animals and haul the manure away or spread the manure evenly over the grass areas.

In Ms. Arnold's opinion, the Preliminary Master Plan for Kanode Farm Park functions properly for the proposed equestrian uses and programming. She offered the following comments for consideration based on her experiences:

- Provide cameras for security purposes. The Carroll County facility has been vandalized and dirt bikes damage the arenas and surrounding grass areas.
- ADA is a big issue. Consider providing E-Bikes for access throughout the site.
- Select plant material that is not toxic to horses. Especially avoid Cherry trees.
- The size of the proposed practice arena is adequate, but it could be round instead of square or rectangular based on conversations with other equestrians.

4. Additional Similar Equestrian Facilities

Harford County and Oak Ridge Park Equestrian Centers are examples of other similar county-operated equestrian facilities in Maryland. These facilities are far enough from Frederick County to not be in competition with Kanode's proposed operation. Both offer similarly sized arenas, storage, and parking facilities compared to those proposed for Kanode, further demonstrating that Kanode's design is adequate to support the desired activities and programming.

a. Harford County Equestrian Center
608 North Tollgate Road, Belair, MD (run by Harford County)

- (3) stone dust arenas: 140' x 280', 125' x 240', 120' x 225' (approx.)
- circular show area (approx. 55' dia.)
- (2) permanent barns
- Open and closed pavilions
- Hosts other events: Annual Harford County Fair, antique car show, flea markets, dog shows, tractor pulls.

Harford County Equestrian Center

b. Oak Ridge Park Equestrian Center
13675 Oaks Road, Hughesville, MD (run by Charles County)

- (2) sand arenas: 320'x 150' and 280' x 150'
- Roofed judge's stand, bleachers
- Warm up area (fenced paddock)
- Trailer Parking (approx. 200' x 400') – grass
- Water, Portable Toilets
- Additional trailer/spectator parking for events.
- 7 miles of riding trails
- Facilities are used by: local equestrian groups, 4-H Mounted Wanderers, Potomac Valley Dressage Association (schooling and recognized events), Southern MD Quarter Horse Association, MD Arabian Horse Assoc., Southern MD Trail riders, local youth organizations.

Oak Ridge Park Equestrian Center

The only Frederick County-owned facility offering riding trails is Othello Regional Park in Knoxville. As previously attested by Ross Peddicord, riding trails are in short supply and the demand is high.

c. Othello Regional Park
1901A Jefferson Pike, Knoxville, MD 21758

- Public horse trails only (natural surface / wood chips in wet areas)
- Parking in designated grass area
- Open March 15 to December 1

C. SITE CONDITIONS / CONSTRAINTS

As discussed in the Site Analysis portion of the Master Planning process, the site offers ample space for parking, equestrian facilities/arenas, and gardening and farming activities on multiple scales, with supporting amenities. Facilities have been located to minimize earthwork and tree removal, with the equestrian arenas and parking area placed on the flattest part of the ridge adjacent to the existing farm complex. Trails will largely follow natural contours to provide compliant slopes. Lease farming has been allocated to the north and east portions of the site which maintains the agricultural view shed from Stevens Road.

Utilities:

Based on initial analysis, existing wells are sufficient to supply water needed for horses and agricultural use.

As identified in the Master Plan, the existing septic system will be adequate for only park staff utilizing the existing log building. Due to soil conditions, it is not anticipated that any additional septic areas will be possible, therefore, public restrooms will be limited to vaulted toilets and portable facilities brought in for the occasional larger event. This is not an unusual situation; many county parks have vaulted toilets and the County has contracts with pumping companies to regularly service these facilities.

Site Entrance:

The site's entrance is at the best location for sight distance along Stevens Road and requires minimal improvements. A turning radius suitable for horse trailers, school buses, and emergency vehicles will be designed during the development of construction plans. Traffic and roadway impacts are discussed further under Section II Traffic Summary.

D. VISITOR'S CENTER / EDUCATIONAL FARM / EQUESTRIAN ARENAS OPERATIONS:

1. Staffing / Operation

This is only a potential list of park and recreation staffing. Actual staffing will be based on phasing of the park and the needs generated by programming. The cost of salaried positions may possibly be offset by the generous endowment provided in Mr. Kanode's will.

- Agricultural Resource Program Manager – 1 employee
- Park Education Specialist – 1 employee
- Supervisor/Maintenance Leader/Park Techs – 4 employees
- A full-time Volunteer Program Coordinator may be necessary to work with 4-H, elementary schools, the general public, Master Gardener/Naturalist groups, scouts, etc.
- *Office of Agriculture* Staff person could be located onsite.
- Part-time, non-benefit, seasonal employees – multiple for Parks and Rec departments
- Volunteer opportunities available seasonally
  - General farm animal and plant care
  - Education program support
  - Carpentry

2. Public Park Schedule

- Year-Round Use

3. Days & Hours of Operation

- Tuesday through Sunday (closed Mondays, except by special request)
- 8:00 a.m. to Sunset
- Visitors will be welcome to tour the facility at their leisure during regular Park hours. Scheduled guided tours and programs will be available for Girl/Boy Scouts, pre-schoolers, senior citizens, and school field trips.

4. Fees

Fees will be charged for reservations of the arenas during designated days and times.

5. Use Of Existing Buildings

- Log Building: Office space, possibly the base for meetings, visitor coordination
- Garage: Park equipment, Kabota, ATV's
- Pole Barn: Park and farm maintenance equipment storage (mowers, arena groomer)
- Dairy Barn: Flex space
- Shed: Storage, Farmer's Equipment
- Milking Parlor: storage

6. Programming

Purpose/Mission Statement:

The Richard W. Kanode Farm Park is founded on rural heritage to inspire sustainable stewardship and provide opportunities for agricultural education and passive recreation.

Purpose of Property:

Agricultural Education

Goals for Program Development:

- Sustainable Practices
- Pollinator gardening
- Native plants
- Habitat preservation/expansion – monarch butterflies, etc.
- Accessibility
- Preservation, both natural and cultural / rural life
- Agricultural Literacy

Potential Programs:

The Division of Parks and Recreation envisions the park as a place where multi-generational visitors can enjoy the park or learn some skills and appreciation for agriculture, farming, and/or conservation. Similar to other special parks in Frederick County, Parks and Recreation and their partners would provide themed programming relevant to all age groups and interests. The type and number of life-long learning programs and environmental education programs are endless. Agricultural partnerships will enhance Parks and Recreation's learning opportunities at Kanode Farm Park for all ages and provide young farmers an opportunity to enhance their skills through incubator programs. Equestrian areas will provide the opportunity to learn how to ride, enhance equestrian skills, or just enjoy the natural beauty of the park trails.

The various classes and programs will be found online, in the special section in the 'Recreater' print brochure, and on recreater.com. Some examples of the on-going possibility of classes and small events being considered that would need both indoor and open space include:

Nature/Wildlife:

- “Gardening for Wildlife”
- “Seed Bombs for Pollinators”
- “Dendrology workshop”
- “Intro to Birds – Bird watching”
- “A Bee’s Life – learn all about bees / beekeeping”
- “Nature Explore”

Farm/Agriculture:

- Farm Camp
- Kids Farmers Markets
- Farm Friends Story Time
- Homeschooling Homesteading
- “All About Apples” visit to the orchard
- Greenhouse and food production areas
- Pictures with Sunflowers
- Harvest Hayrides
- Conservation Academy
- Sustainable Farm Practices
- Organic practices
- New Farmer Incubator Program*
- Meet the Farm Animals Tour and programs
- Contracted Riding or Horse Care programs

Enrichment:

- Landscape design
- Painting/Drawing Landscapes-Nature

‘Small’ Programming:

- Special Guest Speakers
- Equine related activities
- Garden demonstration day programs
- Educational Workshops – various
- School/Group Field Trips

Park Signage:

Possible Interpretive Signage / Theme Ideas include:

- Agricultural History and Practices
- Nature
- Birds
- Indigenous People
- Wetlands
- Monarch Butterflies

Amenities and Program Spaces:

- Pavilion Rental for Equestrian uses (hourly via a fee)
- Outdoor Riding Arena (hourly use by reservation and via a fee)
- The upper level of the existing Bank Barn could be converted / improved to public use space for camps and programs.
- Field Trips
- Greenhouses for community garden rentals
- Equipment rental for New Farmer Incubator Program*
- Trails for walking or riding horses
- Adding areas for goats, sheep, and chickens to live on the property. Open pastures for these animals to graze.
- Fenced-in Master Gardner's Interpretive Garden Space: free to public and part of the school tour.
- Beekeeper areas

Similar Project Sites to visit/model:

- Environmental Education Joint Spaces at the Adams County, PA Agricultural and Natural Resources Center and the Baltimore County Center for Maryland Agriculture and Farm Park
- Prince George's County Urban Ag Incubator
- Montgomery County Agricultural Park

Partnerships:

- Local Farms
- 4-H Clubs / FFA
- Scouts
- UMD Agricultural Extension Service
- Local colleges
- Master Gardeners and Naturalists
- Frederick County Food Council
- Frederick County Food Bank

II. TRAFFIC SUMMARY

Traffic Study

A Traffic Study was performed by The Traffic Group, Inc. in October 2023 which focused on Stevens Road and Old Frederick Road. The Traffic Group made assumptions about the trips to be generated based on information provided by DPR regarding staffing and programming for the park. Since the one-lane bridge is out of service, traffic counts were not able to be performed at the time of this study. Consequently, the Traffic Group reviewed and evaluated the traffic counts along Old Frederick Road and Stevens Road compiled in February and April of 2023 which were obtained by Frederick County Office of Traffic Engineering (OTE) for the bridge renovation project. The conclusion is that both Stevens Road and Old Frederick Road have "plenty of available peak hour and daily capacity for the Park" without widening these roadways. The full report is attached in the Appendix at the end of this document.

As noted in the Master Plan Advisory Committee Minutes, neighbors objected to any widening of Stevens Road. The Traffic Study concluded that no improvements are necessary to handle the projected traffic.

Stevens Road looking East

Office of Traffic Engineering Comments

OTE has also reviewed the Preliminary Master Plan and offers the following comments for consideration moving forward:

- Regarding the width of Stevens Road, this road has been a low volume (most recent ADT is 217 vehicles per day at the bridge in 2022) tar and chip road. The existing road surface type and width is adequate for the existing traffic volume. If widening was desired, i.e. expand

from the existing 17' to 20' and overlay with asphalt, this work may be possible between Old Frederick Road and the park entrance. At this time there is only dedicated rights-of-way on one side of the road in most locations, so smoothing out the horizontal/vertical curves near the bridge would likely require new rights-of-way acquisition. The proximity of Wilhide Road to the bridge is also a challenging factor.

- Since this road has a tar and chip surface, it is likely to be considered a "candidate rustic road" in the new Rustic Road Program. This may place additional restrictions or requirements on any road expansion work that is proposed.

- The park entrance and the intersection of Old Frederick Road/Stevens Road should be reviewed with the park's design vehicle in mind (school bus and/or truck with horse trailer, whichever is worse). The park entrance radii and the width of Stevens Road about 100' to the east of the park entrance should be reviewed to see if two design vehicles can enter/exit without unduly interfering with each other or other road users. The intersection with Old Frederick Road could be reconstructed to allow a school bus or truck/horse trailer combination to enter/exit Stevens Road more easily. Stevens Road could be widened on the south side at the park entrance, and on the north side at Old Frederick Road. There are dedicated right-of-way areas at these locations.
- This intersection of Stevens Road/Hunt Club Road and Old Frederick Road has already come to OTE's attention in the past due to higher-than-expected crash frequency. OTE suggests that speeding on Old Frederick Road may be a contributing factor. The County installed warning signs and advisory speeds on Old Frederick Road as a mitigation.

- Overall, this park is similar to the Catoctin Creek Park on Sumantown Road. In that case, Sumantown was about 12' wide in many places when the park was built, and later widened to 17' or more a few years later. Catoctin Creek Park is also similar because it is near an historic truss bridge. OTE would like to have Stevens Road improved where most needed (intersection at Old Frederick Rd and at park entrance) before the park opens.

<u>Bridge Rehabilitation Project</u>

The bridge over Hunting Creek on Stevens Road to the west of the Kanode property is under repair and out of service. The contractor's shop drawings for the repairs are currently being reviewed by the Frederick County Office of Transportation Engineering (OTE) and fabrication may begin once they are approved. OTE noted that the renovated bridge will be adequate to accept horse trailers with 14'-0" vertical clearance and clear roadway width of 13'-0" (increased from 12'-9").

<u>Directional Signage:</u>

It is recognized that the smaller local roads leading to the park site may not be able to handle horse trailers. Directional signage will be provided to direct visitors to the site from Old Frederick Road, with signs posted at critical intersections on county roads. The website for the new park will also provide appropriate directions.

III. ARCHAEOLOGY SUMMARY

Additional Phase 1 Archeological investigations within the areas of proposed disturbance were conducted in September 2023 by Applied Archaeology and History Associates, Inc. The Abstract and Section 6 Summary and Recommendations state: "The site is recommended not eligible for inclusion in the NRHP and no further archaeological investigation is recommended."

The full report is attached in the Appendix at the end of this document. It includes a listing and photographs of the few recovered artifacts found scattered within the existing cluster of farm buildings. The report explains the process by which the artifacts were recovered, where they were found, and an assessment of their historical value. None of the artifacts were deemed to be significant and it was concluded that no further studies are warranted.

Since there were no significant findings, it may therefore be concluded that the development of the proposed facilities will have no adverse effect on the historical nature of the site from an archaeological standpoint. The historically agricultural nature of the site will be maintained by the preservation and improvement of the existing farm buildings, while the proposed agricultural programming for the site will serve to support and enhance the site's agricultural history. Furthermore, the proposed equestrian use and programming is compatible with agricultural practices and education.

IV. CONCLUSIONS AND RECOMMENDATIONS:

The information gathered from the agricultural and equestrian community and experts overwhelmingly supports the need, feasibility, and functionality of the activities and facilities proposed in the Richard W. Kanode Farm Park Preliminary Master Plan. The site has natural limitations and assets which have been taken into consideration for the placement of the various proposed features. There is adequate capacity on Stevens Road and Old Frederick Road to handle the traffic to the park, but further review is recommended for final design of the park entrance. There are no significant archaeological findings that would be affected by the proposed development. Therefore, except for some minor modifications and additions recommended by those who reviewed the plan, the Preliminary Master Plan has been deemed viable.

DPR has reviewed the various recommendations from reviewers for improvement of the master plan and directed that the following changes and additions be incorporated into the construction documents for each phase of the park's development:

- Enlarge the horse trailer parking and widen approaching roadways to better handle two-way traffic of horse trailers.
- Enlarge the practice arena.
- Add containment fencing around the equestrian area to prevent horses from escaping.
- Provide paved viewing areas in key areas around the arena fencing.
- Relocate the manure storage away from visitor areas.
- Provide animal wash stations.
- Enclose the agricultural research and incubator plots with deer fencing and gates.
- Assign garden plot area for Master Gardeners and community garden plots (for a fee) within the research / test plot area.
- Assign paddock and barn areas for temporary housing of farm animals in support of programming.
- Change possible use of the existing Dairy Barn from Vet/Farrier's Workshop to "Flex Space".
- Designate a composting area for "Master Composters".

ATTACHMENTS APPENDIX

ATTACHMENT 1

KANODE FARM PARK

ADVISORY COMMITTEE MEETING MINUTES

September 16, 2022

MEETING MINUTES – MEETING #1

Subject: Richard W. Kanode Farm Park Master Plan

Date of Meeting: September 14, 2022

Location: Frederick County Division of Parks and Recreation, Bourne Building

Attendees: Joel Anderson and Brigitta Shroyer, Adjacent Property Owner Representative
Darrell Saxton and Suzanne Saxton, Adjacent Property Owner Representative Alt.
Viktor Kraenbring, Frederick County Parks & Rec Commission Representative
Eric Troxell, Board Member, Fred. Co. Agricultural Preservation Advisory Board
Richard Bittner, Vice Chair, Fred. Co. Agricultural Pres. Advisory Board Alt.
Dr. Justin Sobota, Equine Veterinary, MD Horse Industry Board – MDA
Carolyn Mackintosh, Loch Moy Farm, MD Horse Industry Board – MDA
Taylor Roman, Regenerative Agriculture
Diane Herndon, Educator, Frederick Co. Public Schools, Career & Tech Center
Mark Townsend, Agent Associate, Frederick Co. Cooperative Extension Office
Graham Hubbard, Planning and Permitting Division Staff Member
Jeremy Kortright, Parks & Rec. Division Director
Bob Hicks, Parks & Rec., Deputy Director
John Barrett, Division of Public Works, Project Manager
John Rohde, Human & Rohde, Inc.
Lynette Pinhey, Human & Rohde, Inc.

Advisory Committee Members Absent:
Charlotte Davis, Frederick County Parks & Rec Commission Representative Alt.
Kitty Gialanella, President, Frederick County Farm Museum Association, Inc.
Denny Remsburg, President, Frederick County Farm Bureau
Dave Ziedelis, Executive Director, Frederick County Tourism Council
Louise Kennelly, Executive Director, Frederick County Arts Council, Inc.

PURPOSE
This was the first meeting of the Richard W. Kanode Farm Park Master Plan Advisory Committee. Bob Hicks opened the meeting at 7:00 P.M. and distributed an agenda for the evening. He then had everyone in attendance introduce themselves.

1. Bob went over the history of the site and the County's involvement that started January of 2020. The site is approximately 182 acres with 175 acres in MALF Easement plus 9.6 acres around the existing farm buildings as non-conforming use. The MALF Easement restricts development of the site to agricultural, educational and equestrian uses.

2. The drone flight of the site was then shown.

3. Bob explained the master plan process for the park from committee meetings and recommendations through a public meeting for the preliminary master plan and ultimate approval and adoption by the County Council.

4. Lynette Pinhey of Human & Rohde explained the design process that will be used to match the characteristics of the site with the intended use. She presented the Site Analysis plan which graphically depicted the natural and man-made features of the site including topography, slopes, streams, drainage ways, wetlands, flood plain, soils, structures, utilities, and wooded areas. The Soils Map was then shown to illustrate that nearly the entire site has shallow bedrock and impermeable soils which pose the greatest constraints for site development. Lynette then presented the Land Bay Map which designates land use areas based on the information from the site analysis and the knowledge that the site may only be developed for agriculture, education and equestrian purposes. Four land bays were identified.

   A. Area A included the existing farm complex and Kanode residence for the purpose of park support operations, visitor orientation, and Kanode museum space. A new park entrance drive is necessary to keep park traffic separate from the residential driveway. The entrance will be located near the existing driveway entrance due to sight distance requirements along Stevens Road.
   B. Area B could be designated as the Agricultural Education Corridor, fronting on Stevens Road and extending south to the farm complex. This use maintains the rural character of Stevens Road and the agricultural view shed. Currently in active agriculture, this area could support demonstration and interpretive farming as well as regenerative farming practices for educational purposes.
   C. Area C, adjacent to and south of the farm complex, is suitable for equestrian activities including arenas, therapeutic riding, and associated parking for horse trailers.
   D. Area D is the actively farmed area on the east side of the stream and hedgerow and could continue as lease farming.

   A multi-use trail was shown around the entire perimeter of the property providing a loop for exercise, exploration and access to all areas of the site. The remainder of the site, with its poor soils, steeper slopes and flood plain, was recommended to be left as open space with the potential for environmental education.

5. The attendees were then asked to offer their ideas for desired activities and facilities for the site. There were questions about the trail surface, entrance road surface, and a discussion about acceleration and deceleration lanes. Jeremy Kortright indicated that the park will be more of a passive park which is intended to not generate a lot of traffic, therefore there should be no need for improvements to Stevens Road. It was also explained that the park would be limited to day-use only. Maintenance of any proposed improvements was questioned and Jeremey responded that maintenance will be the responsibility of Parks & Rec staff.

6. The issue of proposed sanitary facilities for the park was also discussed. The existing septic system for the old Kanode residence has minimal capacity and the soils are restrictive for perc testing and septic systems, so alternative means of septic disposal will likely be necessary. Options include vaulted toilets, portable toilets, and special events trailers. It was suggested that although the upper part of the site did not perc, perhaps exploratory perc testing could be done in the area of Land Bay C to determine if some kind of septic system is possible.

7. The following "wish list" was developed:

- Agricultural education area / events space / gathering area for student groups
- Demonstration of historical farming practices to present day and future
- Space for Field Day events
- Agricultural Demonstration / Regenerative Farming area (10-20 acres)
- Agricultural Research plots / Demonstration turf plots
- Arenas: Western / Barrel Racing / Jumping/ Reining, with practice ring
    - Minimum 100' x 200'
    - Grand Prix arena for jumping: 235' x 295'
    - 260' x 520' to accomodate multiple dressage courses
    - Reining/Barrel Racing arena: 130' x 200'
- Indoor Arena: 100' x 200'
- Gallup / exercise track with measured distances
- Horse Obstacle Course
- Horse Trailer and car parking (quantity to be determined)
    - need continuous loop for trailers
    - parking limited to 2-acres and paving must be permeable per the MALF agreement
- Re-purpose existing farm buildings for meeting/classroom space and other educational and equestrian uses
- Composting / manure storage / raw materials
    - Concrete bays
    - Cooperative effort with off-site composting enterprise
- Native tree orchard / arboretum
- Silvopasture
- Educational natural resources area near the creek
- Student practical experience project area
    - +/- 20 plots similar to community garden set up (15'x 15')
    - Hoop houses
- Educational managed meadow / encourage pollinators
- Wetlands educational area
- Maintain private access to farm field and provide private storage for the lease farmer
- Buffer Northeast neighbor from the trail

- No lighting (except for security)
- Deer management program
- No asphalt paving

Committee members were encouraged to email additional wish list requests and comments to Bob Hicks. The meeting was adjourned at 9:10 P.M.

The next meeting will be a site visit for the Advisory Committee to walk the property on Wednesday, **October 12, 2022 at 5:30 P.M**.

Sincerely,

Human & Rohde, Inc.
Lynette B. Pinhey

Cc: Attendees and Committee Members

October 17, 2022

MEETING MINUTES – MEETING #2

Subject: Richard W. Kanode Farm Park Master Plan

Date of Meeting: October 12, 2022

Location: The Kanode Farm, Stevens Road, Thurmont, MD

Attendees: Joel Anderson and Brigitta Shroyer, Adjacent Property Owner Representative
Darrell Saxton and Suzanne Saxton, Adjacent Property Owner Representative Alt.
Viktor Kraenbring, Frederick County Parks & Rec Commission Representative
Charlotte Davis, Frederick County Parks & Rec Commission Representative Alt.
Richard Bittner, Vice Chair, Fred. Co. Agricultural Pres. Advisory Board Alt.
Carolyn Mackintosh, Loch Moy Farm, MD Horse Industry Board – MDA
Diane Herndon, Educator, Frederick Co. Public Schools, Career & Tech Center
Mark Townsend, Agent Associate, Frederick Co. Cooperative Extension Office
Bob Hicks, Parks & Rec., Deputy Director
John Barrett, Division of Public Works, Project Manager
John Rohde, Human & Rohde, Inc.
Lynette Pinhey, Human & Rohde, Inc.

Advisory Committee Members Absent:

Dr. Justin Sobota, Equine Veterinary, MD Horse Industry Board – MDA
Eric Troxell, Board Member, Fred. Co. Agricultural Preservation Advisory Board
Taylor Roman, Regenerative Agriculture
Kitty Gialanella, President, Frederick County Farm Museum Association, Inc.
Denny Remsburg, President, Frederick County Farm Bureau
Dave Ziedelis, Executive Director, Frederick County Tourism Council
Emily Holland, Public Art Program Director, Frederick County Arts Council, Inc.
Louise Kennelly, Executive Director, Frederick County Arts Council, Inc.
Graham Hubbard, Planning and Permitting Division Staff Member
Jeremy Kortright, Parks & Rec. Division Director

Others: Deanna Bandy, Dee Dees All Around Horses, Poolesville, MD

PURPOSE

This was the second meeting of the Richard W. Kanode Farm Park Master Plan Advisory Committee for the purpose of walking the property. Base plans were distributed and Bob Hicks led the tour beginning with the log house and farm buildings including explanations of the history of the farm. The tour progressed through the lower field to the creek, then west towards the meadow, back up to the dairy barn, and concluded at the pond.

The meeting was adjourned at approximately 6:40 P.M.

The next meeting will be held at **6:30 P.M.** on Wednesday, **November 9, 2022 at the Bourne Building**.

Sincerely,

Human & Rohde, Inc.
Lynette B. Pinhey

Cc: Attendees and Committee Members

November 11, 2022

MEETING MINUTES – MEETING #3

Subject: Richard W. Kanode Farm Park Master Plan

Date of Meeting: November 9, 2022

Location: Frederick County Division of Parks and Recreation, Bourne Building, Frederick, MD

Attendees: Joel Anderson and Brigitta Shroyer, Adjacent Property Owner Representative
Darrell Saxton and Suzanne Saxton, Adjacent Property Owner Representative Alt.
Charlotte Davis, Frederick County Parks & Rec Commission Representative Alt.
Dr. Justin Sobota, Equine Veterinary, MD Horse Industry Board – MDA
Diane Herndon, Educator, Frederick Co. Public Schools, Career & Tech Center
Jeremy Kortright, Parks & Rec. Division Director
Bob Hicks, Parks & Rec., Deputy Director
John Rohde, Human & Rohde, Inc.
Lynette Pinhey, Human & Rohde, Inc.

Advisory Committee Members Absent:

Viktor Kraenbring, Frederick County Parks & Rec Commission Representative
Mark Townsend, Agent Associate, Frederick Co. Cooperative Extension Office
Eric Troxell, Board Member, Fred. Co. Agricultural Preservation Advisory Board
Richard Bittner, Vice Chair, Fred. Co. Agricultural Pres. Advisory Board Alt.
Carolyn Mackintosh, Loch Moy Farm, MD Horse Industry Board – MDA
Taylor Roman, Regenerative Agriculture
Kitty Gialanella, President, Frederick County Farm Museum Association, Inc.
Denny Remsburg, President, Frederick County Farm Bureau
Dave Ziedelis, Executive Director, Frederick County Tourism Council
Emily Holland, Public Art Program Director, Frederick County Arts Council, Inc.
Louise Kennelly, Executive Director, Frederick County Arts Council, Inc.
Graham Hubbard, Planning and Permitting Division Staff Member
John Barrett, Division of Public Works, Project Manager

Others: Kait Dudley (guest of Carolyn Mackintosh)

PURPOSE

This was the third meeting of the Richard W. Kanode Farm Park Master Plan Advisory Committee. The purpose was for the presentation of Concept Plans for the Park.

First, a revised Land Bay Plan was presented by Human & Rohde in which lease farming (part of Land Bay C) was switched with the agricultural education corridor (Land Bay B) in consideration of further discussions with the Advisory Committee. It was explained that changing land bay B to active lease farming along Stevens Road will ensure that the original

character of the roadway and viewshed will be maintained. The designation for this land bay has been changed to D1.

Two (2) Concept Plans were then presented. Both plans showed lease farming activities in the northern and eastern parts of the site, visitor orientation and agricultural education/teaching in the northwest corner of the site amid the existing farm complex area, park maintenance within the existing farm complex buildings, equestrian facilities on the ridge just south of the farm complex, and agricultural demonstration and research areas below the equestrian area and extending southward to the floodplain limit. Environmental science outdoor classroom areas are designated at the existing pond, wetlands, stream, creek, and meadow, plus proposed native plant arboretum areas. All educational areas are to include interpretive signage. The multi-use trail follows the perimeter of the farm fields providing a continuous path around the park that includes rest areas, overlooks, and interpretive signage in key areas. Adjacent residences will be screened. Concept Plans A and B differ only in the arrangement of the equestrian parking and arena facilities and the student agricultural education plots and teaching facilities.

Discussion included the following points:

Equestrian:

1. The type of programming for the equestrian area will determine the size of the facilities. Day use only was confirmed. It was determined that the use will be mostly for schooling and local riders with the opportunity for small events only. Parks also plans to program for camps and therapeutic riding.
2. Bleachers are not necessary but provide space to add them in the future if need dictates.
3. Two 100' x 200' arenas are not needed. A small practice arena is desirable in addition to the one 100' x 200' show arena which could ultimately be enclosed.
4. 300' x 300' for the Western arena is adequate. This arena would be the priority.
5. Provide multiple water hydrants.
6. Provide a quarantine area. The dairy barn was determined to be adequate for this purpose.
7. Equipment is needed to drag the arenas periodically throughout the day when in use. This equipment could be housed in the adjacent pole barn with other maintenance equipment.
8. Surfacing for the two types of arenas will be different. Specifications for preferred footing material will be provided by the Committee and will be included in the Master Plan Report.
9. The obstacle course area needs to only accommodate a few obstacles, so the area may be smaller than depicted on the concept plans.
10. In general, the arrangement of the arenas, parking and other facilities shown in Concept B was preferred. The obstacle course and manure storage will be located as shown in Concept A.

Roads and Trails:

11. The trail system is intended to provide ADA access to all parts of the park site. However, perhaps not all trails need to be ADA accessible. The County can provide an ATV to access steep or unpaved areas.

12. Horses can tolerate small gravel (like the trails at Catoctin) but grass is preferred. A dual trail may be considered.
13. Where farm machinery will cross the trail, the trail pavement section will need to be adequate to support the weight.
14. Compacted gravel for the park road would give the impression of a more natural surface, however it would be impervious and therefore could require some type of storm water management treatment. The parking surfaces must be permeable per the MALF restrictions. Permeable surfacing options will be considered for the road and parking in the Master Plan Report.
15. Consider parking on the shoulder of the park road to accommodate additional overflow parking during large events.

Agricultural Education / Research / Demonstration Areas

16. The general arrangement of the agricultural education area shown in Concept A was acceptable. However, the student garden plots area next to the bank barn is to be revised to show the clustered garden plot arrangement from Concept B.
17. While classroom space within the bank barn is desirable, the required renovations would be very costly and it may be many years before these improvements could be considered.
18. In the research plot area, provide space west of the small-scale demonstration gardens where classes can assemble and organize before exploring the test plots and gardens (somewhat centralized to facilitate observation of the students).

Other

19. This park will have dedicated mowers so that the mowing height will be set appropriately for this environment (higher than athletic fields at other parks).
20. A nutrient management plan may be required for the agricultural research fields and would be done by the user. There is already a plan required in the lease for the farm.
21. It was reiterated that there will be no night lighting except for security purposes.

The meeting was adjourned at approximately 8:20 P.M.

The next meeting will be held at **6:30 P.M.** on Wednesday, **December 14, 2022 at the Bourne Building**.

Sincerely,

Human & Rohde, Inc.
Lynette B. Pinhey

Cc: Attendees, Committee Members and Guest

December 16, 2022

MEETING MINUTES – MEETING #4

Subject: Richard W. Kanode Farm Park Master Plan

Date of Meeting: December 14, 2022

Location: Frederick County Division of Parks and Recreation, Bourne Building, Frederick, MD

Attendees: Joel Anderson and Brigitta Shroyer, Adjacent Property Owner Representative
Darrell Saxton and Suzanne Saxton, Adjacent Property Owner Representative Alt.
Eric Troxell, Board Member, Fred. Co. Agricultural Preservation Advisory Board
Richard Bittner, Vice Chair, Fred. Co. Agricultural Pres. Advisory Board Alt.
Carolyn Mackintosh, Loch Moy Farm, MD Horse Industry Board – MDA
Denny Remsburg, President, Frederick County Farm Bureau
Taylor Roman, Regenerative Agriculture
Diane Herndon, Educator, Frederick Co. Public Schools, Career & Tech Center
Graham Hubbard, Planning and Permitting Division Staff Member
Bob Hicks, Parks & Rec., Deputy Director
John Rohde, Human & Rohde, Inc.
Lynette Pinhey, Human & Rohde, Inc.

Advisory Committee Members Absent:

Charlotte Davis, Frederick County Parks & Rec Commission Representative Alt.
Dr. Justin Sobota, Equine Veterinary, MD Horse Industry Board – MDA
Viktor Kraenbring, Frederick County Parks & Rec Commission Representative
Mark Townsend, Agent Associate, Frederick Co. Cooperative Extension Office
Eric Troxell, Board Member, Fred. Co. Agricultural Preservation Advisory Board
Richard Bittner, Vice Chair, Fred. Co. Agricultural Pres. Advisory Board Alt.
Kitty Gialanella, President, Frederick County Farm Museum Association, Inc.
Dave Ziedelis, Executive Director, Frederick County Tourism Council
Emily Holland, Public Art Program Director, Frederick County Arts Council, Inc.
Louise Kennelly, Executive Director, Frederick County Arts Council, Inc.
Jeremy Kortright, Parks & Rec. Division Director
John Barrett, Division of Public Works, Project Manager

Others: Phil Arnold, Instructor – CAD Architecture, Frederick Co. Public Schools, Career & Tech Center (guest of Diane Herndon)
Bradley Keriakos, Student - CAD Architecture, Frederick Co. Public Schools, Career & Tech Center (guest of Diane Herndon)

PURPOSE

This was the fourth meeting of the Richard W. Kanode Farm Park Master Plan Advisory Committee. The purpose was for the presentation of Preliminary Master Plan for the Park.

Bob Hicks had arranged for Flossie Ale, Director of Dream Park Equestrian Center, Gloucester County, NJ, to talk about her equestrian facility and surfacing recommendations, but she was unable to join the meeting. Bob will invite her to speak at the next meeting.

The Preliminary Master Plan presented by Human & Rohde is a composite of Concepts A and B as discussed at Meeting #3. The plan includes the Equestrian area in Concept B, modified to provide only one 100'x 200' arena with a small practice arena and a smaller obstacle course as shown on Concept A. The dairy barn is designated for the requested horse quarantine area. Agricultural Research/Demonstration areas are as shown on Concept B plus the agricultural education area from Concept A adjacent to the bank barn with the clustered student garden plot arrangement from Concept B. A teaching observation area was added in between the small-scale demonstration gardens and the test plots as requested.

Discussion included the following points:

1. Mr. Saxton, the neighbor along Stevens Road to the northeast, requested that the trail be moved further away from their property due to noise from users. It was agreed the trail would bypass the northeast corner and run south along the west side of the narrow hedgerow instead of along the stream corridor.
2. Ms. Mackintosh recommended that the 100'x 200' equestrian arena and practice arena be switched so that the practice arena would be in the middle and could therefore be accessed more easily by both of the show arenas.
3. Programming for the agricultural research/demonstration farm fields and test plots, native plant arboretum, and meadow/orchard areas are to be determined in the future in cooperation between user groups and Parks and Recreation as development of the park continues over time.
4. There was discussion about the relocation of the utility pole at the proposed park entrance. Mr. Anderson is concerned about any potential impacts to his property. More study is needed.
5. Mr. Troxell inquired about the areas and acreage available for the lease farming fields.
6. Mr. Arnold inquired about power for the equestrian events area, water, restroom facilities, and prevailing winds in regards to the manure stockpile area. The manure storage area is very small and tucked into the farm/equestrian complex and should not be objectionable.
7. Mr. Arnold also volunteered his students to create a scale model of the master plan with the goal of having it available for display at the public meeting open house.

The Preliminary Master Plan will be revised per these comments and presented at the next Advisory Committee Meeting for another review.

The meeting was adjourned at approximately 8:00 P.M.

The next meeting will be held at **6:30 P.M.** on Wednesday, **January 11, 2023 at the Bourne Building**.

Sincerely,

Human & Rohde, Inc.
Lynette B. Pinhey

Cc: Attendees, Committee Members and Guest

January 13, 2023

MEETING MINUTES – MEETING #5

Subject: Richard W. Kanode Farm Park Master Plan

Date of Meeting: January 11, 2023

Location: Frederick County Division of Parks and Recreation, Bourne Building, Frederick, MD

Attendees:
Joel Anderson and Brigitta Shroyer, Adjacent Property Owner Representative
Darrell Saxton and Suzanne Saxton, Adjacent Property Owner Representative Alt.
Eric Troxell, Board Member, Fred. Co. Agricultural Preservation Advisory Board
Richard Bittner, Vice Chair, Fred. Co. Agricultural Pres. Advisory Board Alt.
Carolyn Mackintosh, Loch Moy Farm, MD Horse Industry Board – MDA
Dr. Justin Sobota, Equine Veterinary, MD Horse Industry Board – MDA
Viktor Kraenbring, Frederick County Parks & Rec Commission Representative
Mark Townsend, Agent Associate, Frederick Co. Cooperative Extension Office
Dave Ziedelis, Executive Director, Frederick County Tourism Council
Graham Hubbard, Planning and Permitting Division Staff Member
Jeremy Kortright, Parks & Rec. Division Director
Bob Hicks, Parks & Rec., Deputy Director
John Barrett, Division of Public Works, Project Manager
John Rohde, Human & Rohde, Inc.
Lynette Pinhey, Human & Rohde, Inc.

Advisory Committee Members Absent:

Charlotte Davis, Frederick County Parks & Rec Commission Representative Alt.
Taylor Roman, Regenerative Agriculture
Diane Herndon, Educator, Frederick Co. Public Schools, Career & Tech Center
Denny Remsburg, President, Frederick County Farm Bureau
Eric Troxell, Board Member, Fred. Co. Agricultural Preservation Advisory Board
Richard Bittner, Vice Chair, Fred. Co. Agricultural Pres. Advisory Board Alt.
Kitty Gialanella, President, Frederick County Farm Museum Association, Inc.
Emily Holland, Public Art Program Director, Frederick County Arts Council, Inc.
Louise Kennelly, Executive Director, Frederick County Arts Council, Inc.

Others:
Erin Shroyer, 4-H Program, Frederick Co. Cooperative Extension Office (guest of Mark Townsend)
Kelly Ketzengerger, Nature Center Manager, Fountain Rock Park, DPR
Phil Arnold, Instructor – CAD Architecture, Frederick Co. Public Schools, Career & Tech Center (guest of Diane Herndon)
Bradley Keriakos, Student - CAD Architecture, Frederick Co. Public Schools, Career & Tech Center (guest of Diane Herndon)
Stephen Fulton, Co-Owner, Full Moon Farm, Finksburg, MD (by phone)

PURPOSE

This was the fifth meeting of the Richard W. Kanode Farm Park Master Plan Advisory Committee. The purpose was for the presentation of the Revised Preliminary Master Plan for the Park. Bob Hicks invited Steven Fulton, co-owner of Full Moon Farm in Finksburg, Maryland, to talk about his equestrian facility and answer questions from the Advisory Committee. The main points Mr. Fulton addressed are as follows:

- Drainage is the biggest issue with riding trails and outdoor arenas.
- Advises compaction testing for the subgrade.
- Grooming the arenas should be performed on a regular basis by professionals.
- Use an experienced arena builder to construct the arenas and get the best warranty.
- Provide all-weather parking.
- Do not use curbs in the parking lot.
- In regards to liability, provide well-maintained facilities, insist on the use of approved protective gear (especially head gear), and have participants sign release forms.

The revised Preliminary Master Plan presented addressed comments from Meeting #4. The multi-use trail was moved away from the northeast residential property line and now travels down the west side of the narrow hedgerow to meet the trail at the pond. In the equestrian area, the 100'x200' arena was switched with the practice arena, putting the practice arena in between the 2 full-sized arenas.

An enlargement of the park entrance was presented to demonstrate to Mr. Anderson that the proposed relocation of the conflicting utility pole would not interfere with his plans to install screening along his frontage. Graham Hubbard also confirmed that the county driveway separation requirement would not apply since the existing and proposed driveway aprons will overlap.

Further discussion of construction considerations included crowning and providing a good base for the arenas and parking, with strong emphasis on proper drainage as mentioned by Mr. Fulton. The need for all-weather parking was repeated and it was decided that the label for the horse-trailer lawn parking area should be changed to indicate a stabilized lawn same as the overflow parking area to the south of the equestrian facility (and use the same hatch pattern).

Dr. Justin Sobota motioned, with second by Mark Townsend, to accept the preliminary master plan with the above revision. The motion was approved.

Bob Hicks informed the committee that the Preliminary Master Plan has been forwarded to the MALF Board for review. Once it is approved by the MALF Board, the Preliminary Master Plan may be presented at an Open House (date to be determined).

The meeting was adjourned at approximately 7:40 P.M.

Note: After adjournment, Dr. Sobota indicated that the label for the horse quarantine area at the dairy barn was not quite accurate. It was decided to revise the label to Vet/Farrier Workshop. This revision will be included in the final version of the Preliminary Master Plan.

Sincerely,

Human & Rohde, Inc.
Lynette B. Pinhey

Cc: Attendees, Committee Members and Guests

ATTACHMENT 2

TRAFFIC STUDY

The Traffic Group, Inc.

October 2023

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October 23, 2023

Mr. Bob Hicks, CPRP
Deputy Director
Frederick County Division of Parks and Recreation
355 Montevue Lane, Suite 100
Frederick, MD 21702

RE: Kanode Farm Park
Frederick County, Maryland
Our Agreement No.: 2023-0804

Dear Mr. Hicks,

As requested, we have prepared a Traffic Study for the Richard W. Kanode Farm Park, see Appendix for Preliminary Master Plan, which is located on the south side of Stevens Road generally between Old Frederick Road and Wilhide Road in Thurmont, Frederick County, Maryland. The Kanode Farm Park is visioned to have the following:

- Equestrian Facility.
- Multi-Use Trails traversing the entire property.
- Environmental Science Area at the Pond on the eastern/central portion of the property.
- Agriculture Education Areas to include classes or events for the following subjects (potential):
  - Nature/Wildlife.
  - Farming/Agriculture.
  - Wilderness/Adventure.
  - Enrichment Programs.

It is anticipated that many local groups will be using this facility including:

- University of Maryland Extension and other Local Colleges.
- 4H Clubs / Future Farmers of America (FFA).
- Boy and Girl Scouts.
- Master Gardeners/Naturalists.
- Local Farms.

For this type of facility, it is difficult to determine Trips Generated for those coming into and out of the Park since the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition) does not have a Land Use Code that is like this use. Therefore, we used the best available information to determine trips. Please note that when generating trips for most analyses, it is based on the trips that occur for 1 hour during the Morning (7 to 9 AM) and Evening (4 to 6 PM) Peak Hours.

It is our understanding that the following full-time employees will be needed for this facility:

- Agricultural Resource Program Manager/Equestrian Manager – 1 employee
- Park Education Specialist – 1 employee
- Supervisor/Maintenance Leader/Park Technicians – 4 employees

Therefore, we would expect 6 inbound AM trips and 6 PM outbound PM Peak Hour Trips for employees. Conservatively, we should expect some part-time and seasonal employees to arrive during the peak hours. It is our opinion that these employees shouldn't be more than the full-time employees, but we will assume the same 6 inbound AM Trips and 6 PM outbound Peak Hour Trips.

This would yield the following employee trip generation:

	AM			PM		
	In	**Out**	**Total**	**In**	**Out**	**Total**
Full-Time Employees	6	0	6	0	6	6
Part-Time Employees	6	0	6	0	6	6
Total	**12**	**0**	**12**	**0**	**12**	**12**

Guests to the Park are going to vary by day, time, and even seasonal and are extremely hard to project without obtaining data from similar facilities. Daily, we would not anticipate any trips coming into the facility before 8 AM when the employees arrive.

For the PM Peak Hour, we are going to estimate double the employees for the Total Peak Hour Trips, and this would yield the following:

	AM			PM		
	In	**Out**	**Total**	**In**	**Out**	**Total**
Guests	**12**	**12**	**24**	**12**	**12**	**24**

Overall, this would yield the following employee trip generation:

	AM			PM		
	In	**Out**	**Total**	**In**	**Out**	**Total**
Employees	0	0	0*	0	12	12
Guests	12	12	24	12	12	24
Total	**12**	**12**	**24**	**12**	**24**	**36**

***Employees arrive in different hour than the Guests during the AM Peak Hour.**

Traffic counts were conducted along both Stevens Road, just west of Old Frederick Road and Old Frederick Road, south of Stevens Road in February and April of 2023 and the results are as follows (see Appendix for full counts):

Stevens Road (February)

- Average Daily Traffic (ADT) is about 250 trips per day.
- AM Peak Hour – 23 Trips.
- PM Peak Hour – 35 Trips.
- Roadway Width – ranging from 16 to 18 feet – no shoulders and no edgelines or centerlines.
- West of the site there is a one lane bridge.

Notes: Plenty of available peak hour and daily capacity for the Park. Frederick County would allow access to this road with widths ranging from 16 to 18 feet.

Old Frederick Road (April)

- Average Daily Traffic (ADT) is about 1775 trips per day.
- AM Peak Hour – 126 Trips.
- PM Peak Hour – 170 Trips.
- Roadway Width – about 20 feet – no shoulders but has edgelines and a centerline.

Notes: Plenty of available peak hour and daily capacity for the Park.

As shown in this report, the two major roads (Stevens Road and Old Frederick Road) are both low volume and the expected trips from the Richard W. Kanode Farm Park would be easily accommodated on this road network. Please let me know if you have any questions. Thank you.

Sincerely,

Joseph J. Caloggero, P.E. PTOE, PTP
Vice President

JJC:smb

(M:\Proposals\2023\2023-0804_Kanode Farm ParkP\DOCS\REPORTS\INITIAL\TIS LtrRpt_Hicks.docx)

APPENDIX

STEVENS ROAD

RELOCATED UTILITY POLE & OVERHEAD WIRES

PARK ENTRY GATES

PARK ENTRY SIGN: RICHARD W. KANODE FARM PARK

40' front setback line

REST AREA / OVERLOOK WITH INTERPRETIVE SIGNAGE (AGRICULTURE/FARMING)

view

SUZANNE L. SAXTON AND DARRELL W. SAXTON L. 2955, F. 441

SCREEN PLANTINGS

BRIAN N. ROMAN AND TAYLOR S. ROMAN L.14311, F. 138

MULTI-USE TRAIL

EXISTING RESIDENTIAL DRIVEWAY

PROPOSED PARK DRIVEWAY

NAD83 JASPCS

ACTIVE LEASE FARMING 37.5 acres ±

STREAM BUFFER ENHANCEMENT PLANTINGS

REST AREA

WETLANDS

buffer

stream

100'

ELIZABETH VAN DERMARK L.13275, F. 141

BUFFER PLANTINGS

DANIEL STEWART PROUTY AND AMY LYNN WOLCOTT PROUTY L.13043, F. 99

PARK WELCOME / ORIENTATION BOOTH AND DIRECTIONAL SIGNAGE

REST AREA / OVERLOOK WITH INTERPRETIVE SIGNAGE (AGRICULTURE/FARMING)

VISITOR / AG EDUCATION PARKING LOT

SCREEN PLANTINGS

EXISTING DRIVEWAY

AGRICULTURE EDUCATION TEACHING PAVILION

AGRICULTURE EDUCATION ACTIVITIES LAWN

VISITOR ORIENTATION PATIO & PERGOLA

GRAVEL DRIVE TO BE REMOVED

RESTROOM FACILITIES

PICNIC AREA

VET/FARRIER WORKSHOP

ENVIRONMENTAL SCIENCE AREA: POND ECOLOGY / OBSERVATION DECK WITH INTERPRETIVE SIGNAGE

POND

REST AREA / OVERLOOK

MULTI-USE TRAIL

ACTIVE LEASE FARMING 26.5 acres ±

REST AREA / OVERLOOK

Creek

Hunting

Big

50' sideyard setback line

HOOP HOUSES

BANK BARN

GATE

GARAGE

STAFF PARKING

PARK MAINTENANCE

GATE

GARAGE / SHED

MANURE STORAGE BAY

GATE

AGRICULTURE EDUCATION OUTDOOR CLASSROOM WITH SHED

AGRICULTURE EDUCATION STUDENT PROJECT PLOTS & COMPOST AREA SURROUNDED BY DEER FENCING

STABILIZED LAWN HORSE TRAILER PARKING (150' X 300')

EQUESTRIAN FACILITY OFFICE & PARKING

TRAILER BYPASS

100' X 200' ARENA (ENCLOSED)

EQUIPMENT STORAGE

POLE BLDG

EQUESTRIAN EVENTS TENT AREA

RESTROOM FACILITIES

EQUESTRIAN OBSTACLE COURSE

PRACTICE ARENA 100' X 100'

FILL SLOPES

300' X 300' WESTERN ARENA

OPEN AGRICULTURAL AREA

STREAM BUFFER ENHANCEMENT PLANTINGS

NATURAL MEADOW / ORCHARD 3.2 acres ±

flood hazard line

REST AREA

ENVIRONMENTAL SCIENCE AREA: MEADOW OUTDOOR CLASSROOM WITH INTERPRETIVE SIGNAGE

2.7 acres ±

RAMPS (ADA ACCESS TO MEADOW)

MANAGED DEMONSTRATION MEADOW / ORCHARD

STAIRS

REST AREA / OVERLOOK WITH INTERPRETIVE SIGNAGE

MULTI-USE TRAIL

REST AREA / OVERLOOK

AGRICULTURE DEMONSTRATION AREA PARKING LOT

REST AREA

STREAM BUFFER ENHANCEMENT PLANTINGS

RESTROOM FACILITIES

AGRICULTURE EVENTS PAVILION AND OVERLOOK

AGRICULTURE FIELD DAY / EVENTS LAWN

SMALL SCALE DEMONSTRATION GARDENS

AGRICULTURE EDUCATION PAVILION: OUTDOOR CLASSROOM / TEACHER OBSERVATION AREA AND OVERLOOK

RESEARCH / TEST PLOTS

BULLETIN BOARDS AT PATH INTERSECTIONS

REST AREA WITH INTERPRETIVE SIGNAGE

NATIVE PLANT ARBORETUM 0.8 acres ±

ENVIRONMENTAL SCIENCE AREA: WETLAND & STREAM OUTDOOR CLASSROOM WITH INTERPRETIVE SIGNAGE

REST AREA

WETLANDS

EX. FARM CROSSING

un-named stream

REST AREA / OVERLOOK

50' sideyard setback line

BENJAMIN N. FEDER L.12798, F. 178

MULTI-USE TRAIL

STREAM BUFFER ENHANCEMENT PLANTINGS

REST AREA WITH INTERPRETIVE SIGNAGE

NATIVE PLANT ARBORETUM 1.5 acres ±

AGRICULTURAL RESEARCH / REGENERATIVE FARMING DEMONSTRATION FIELDS

24 acres ±

REST AREA

MULTI-USE TRAIL

REST AREA / OVERLOOK WITH INTERPRETIVE SIGNAGE

NATIVE PLANT ARBORETUM 8.6 acres ±

50' rear setback line

ENVIRONMENTAL SCIENCE AREA: NATIVE PLANTS / CREEK OUTDOOR CLASSROOM WITH INTERPRETIVE SIGNAGE

WILLIAM A. STUDY AND JOHN WILLIAM STUDY L.9751, F. 341

RAMSBURG FAMILY LLC. L.5825, F. 675

DOUGLAS W. ZITTLE, JR. AND MICHELE YOUNG-ZITTLE L.2354, F. 102

PRELIMINARY MASTER PLAN

RICHARD W. KANODE FARM PARK

Prepared by:
HUMAN & ROHDE, INC., LANDSCAPE ARCHITECTS
512 Virginia Avenue, Towson, Maryland 21286

January 2023

NORTH

100 0 50 100 200 300 400

SCALE: 1" = 100'

Brudis & Associates, Inc.
11000 Broken Land Parkway Suite 450
Columbia, Maryland 21044
410-884-3607

Location: STEVENS RD 50' W OF OLD FREDERICK RD
Direction: EB LANE 1

County: Frederick
Town:

Interval (dd) : 15
(In Minutes)

PEAK HOURS	AM PERIOD 12:00AM-12:00PM	Start	End	PM PERIOD 12:00PM-11:59PM	Start	End
		07:00	08:00		14:45	15:45

HOUR ENDING	Mon 2/6/23	Tue 2/7/23	Wed 2/8/23	Thu 2/9/23	Fri 2/10/23	Sat 2/11/23	Sun 2/12/23	DAILY AVERAGE	WEEKDAY AVERAGE	WEEKEND AVERAGE	HOURLY AVERAGE	
00:15	*	*	***0***	***0***	*	*	*	0	0	0		
00:30	*	*	***0***	***1***	*	*	*	1	1	0		
00:45	*	*	***0***	***0***	*	*	*	0	0	0		
01:00	*	*	***1***	***0***	*	*	*	1	1	0	**01:00**	1
01:15	*	*	0	0	*	*	*	0	0	0		
01:30	*	*	0	0	*	*	*	0	0	0		
01:45	*	*	0	0	*	*	*	0	0	0		
02:00	*	*	0	0	*	*	*	0	0	0	**02:00**	0
02:15	*	*	0	0	*	*	*	0	0	0		
02:30	*	*	1	0	*	*	*	1	1	0		
02:45	*	*	0	0	*	*	*	0	0	0		
03:00	*	*	0	1	*	*	*	1	1	0	**03:00**	1
03:15	*	*	0	0	*	*	*	0	0	0		
03:30	*	*	0	0	*	*	*	0	0	0		
03:45	*	*	1	0	*	*	*	1	1	0		
04:00	*	*	0	0	*	*	*	0	0	0	**04:00**	1
04:15	*	*	0	0	*	*	*	0	0	0		
04:30	*	*	0	0	*	*	*	0	0	0		
04:45	*	*	1	0	*	*	*	1	1	0		
05:00	*	*	0	1	*	*	*	1	1	0	**05:00**	1
05:15	*	*	1	0	*	*	*	1	1	0		
05:30	*	*	0	0	*	*	*	0	0	0		
05:45	*	*	0	0	*	*	*	0	0	0		
06:00	*	*	1	1	*	*	*	1	1	0	**06:00**	2
06:15	*	*	0	0	*	*	*	0	0	0		
06:30	*	*	4	2	*	*	*	3	3	0		
06:45	*	*	2	2	*	*	*	2	2	0		
07:00	*	*	2	1	*	*	*	2	2	0	**07:00**	7
07:15	*	*	***3***	***1***	*	*	*	***2***	***2***	***0***		
07:30	*	*	***5***	***5***	*	*	*	***5***	***5***	***0***		
07:45	*	*	***5***	***5***	*	*	*	***5***	***5***	***0***		
08:00	*	*	***3***	***2***	*	*	*	***3***	***3***	***0***	**08:00**	15
08:15	*	*	1	3	*	*	*	2	2	0		
08:30	*	*	2	0	*	*	*	1	1	0		
08:45	*	*	3	***6***	*	*	*	5	5	0		
09:00	*	*	0	***6***	*	*	*	3	3	0	**09:00**	11
09:15	*	*	4	***1***	*	*	*	3	3	0		
09:30	*	*	4	***3***	*	*	*	4	4	0		
09:45	*	*	4	3	*	*	*	4	4	0		
10:00	*	*	0	2	*	*	*	1	1	0	**10:00**	11
10:15	*	*	0	1	*	*	*	1	1	0		
10:30	*	*	4	3	*	*	*	4	4	0		
10:45	*	*	9	5	*	*	*	7	7	0		
11:00	*	*	1	4	*	*	*	3	3	0	**11:00**	14
11:15	*	*	1	1	*	*	*	1	1	0		
11:30	*	*	3	2	*	*	*	3	3	0		
11:45	*	*	0	2	*	*	*	1	1	0		

Brudis & Associates, Inc.
11000 Broken Land Parkway Suite 450
Columbia, Maryland 21044
410-884-3607

Location: STEVENS RD 50' W OF OLD FREDERICK RD
Direction: EB LANE 1

County: Frederick
Town:

Interval (dd) : 15
(In Minutes)

PEAK HOURS	AM PERIOD 12:00AM-12:00PM	Start	End	PM PERIOD 12:00PM-11:59PM	Start	End
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HOUR ENDING	Mon 2/6/23	Tue 2/7/23	Wed 2/8/23	Thu 2/9/23	Fri 2/10/23	Sat 2/11/23	Sun 2/12/23	DAILY AVERAGE	WEEKDAY AVERAGE	WEEKEND AVERAGE	HOURLY AVERAGE
12:00	*	*	4	3	*	*	*	4	4	0	12:00 8
12:15	*	*	1	0	*	*	*	1	1	0	
12:30	*	*	5	4	*	*	*	5	5	0	
12:45	*	*	1	1	*	*	*	1	1	0	
13:00	*	*	3	3	*	*	*	3	3	0	13:00 9
13:15	*	*	0	2	*	*	*	1	1	0	
13:30	*	*	4	2	*	*	*	3	3	0	
13:45	*	*	4	7	*	*	*	6	6	0	
14:00	*	*	2	2	*	*	*	2	2	0	14:00 12
14:15	*	*	4	4	*	*	*	4	4	0	
14:30	*	*	2	2	*	*	*	2	2	0	
14:45	*	*	2	2	*	*	*	2	2	0	
15:00	*	*	0	5	*	*	*	3	3	0	15:00 11
15:15	*	*	7	7	*	*	*	7	7	0	
15:30	*	*	1	6	*	*	*	4	4	0	
15:45	*	*	5	14	*	*	*	10	10	0	
16:00	*	*	1	4	*	*	*	3	3	0	16:00 23
16:15	*	*	5	6	*	*	*	6	6	0	
16:30	*	*	5	4	*	*	*	5	5	0	
16:45	*	*	0	6	*	*	*	3	3	0	
17:00	*	*	4	0	*	*	*	2	2	0	17:00 15
17:15	*	*	1	4	*	*	*	3	3	0	
17:30	*	*	3	2	*	*	*	3	3	0	
17:45	*	*	7	4	*	*	*	6	6	0	
18:00	*	*	1	4	*	*	*	3	3	0	18:00 13
18:15	*	*	4	4	*	*	*	4	4	0	
18:30	*	*	1	2	*	*	*	2	2	0	
18:45	*	*	1	0	*	*	*	1	1	0	
19:00	*	*	1	1	*	*	*	1	1	0	19:00 7
19:15	*	*	0	0	*	*	*	0	0	0	
19:30	*	*	1	0	*	*	*	1	1	0	
19:45	*	*	1	2	*	*	*	2	2	0	
20:00	*	*	1	2	*	*	*	2	2	0	20:00 4
20:15	*	*	1	2	*	*	*	2	2	0	
20:30	*	*	0	0	*	*	*	0	0	0	
20:45	*	*	0	2	*	*	*	1	1	0	
21:00	*	*	0	2	*	*	*	1	1	0	21:00 4
21:15	*	*	1	0	*	*	*	1	1	0	
21:30	*	*	1	0	*	*	*	1	1	0	
21:45	*	*	1	0	*	*	*	1	1	0	
22:00	*	*	2	0	*	*	*	1	1	0	22:00 3
22:15	*	*	0	0	*	*	*	0	0	0	
22:30	*	*	0	0	*	*	*	0	0	0	
22:45	*	*	2	0	*	*	*	1	1	0	
23:00	*	*	0	0	*	*	*	0	0	0	23:00 1
23:15	*	*	0	0	*	*	*	0	0	0	
23:30	*	*	0	1	*	*	*	1	1	0	
23:45	*	*	1	0	*	*	*	1	1	0	
00:00	*	*	0	0	*	*	*	0	0	0	00:00 1
TOTAL	**0**	**0**	**157**	**180**	**0**	**0**	**0**	**169**	**169**	**0**	
AM Peak Vol	0	0	16	13	0	0	0	15	15	0	
PM Peak Vol	0	0	13	32	0	0	0	23	23	0	

Brudis & Associates, Inc.
11000 Broken Land Parkway Suite 450
Columbia, Maryland 21044
410-884-3607

Location: STEVENS RD 50' W OF OLD FREDERICK RD
Direction: WB LANE 2

County: Frederick
Town: #

Interval (dd) : 15
(In Minutes)

PEAK HOURS	AM PERIOD 12:00AM-12:00PM	Start	End	PM PERIOD 12:00PM-11:59PM	Start	End
		08:30	09:30		15:30	16:30

HOUR ENDING	Mon 2/6/23	Tue 2/7/23	Wed 2/8/23	Thu 2/9/23	Fri 2/10/23	Sat 2/11/23	Sun 2/12/23	DAILY AVERAGE	WEEKDAY AVERAGE	WEEKEND AVERAGE	HOURLY AVERAGE	
00:15	*	*	0	0	*	*	*	0	0	0		
00:30	*	*	0	1	*	*	*	1	1	0		
00:45	*	*	0	0	*	*	*	0	0	0		
01:00	*	*	1	0	*	*	*	1	1	0	01:00	1
01:15	*	*	0	0	*	*	*	0	0	0		
01:30	*	*	0	0	*	*	*	0	0	0		
01:45	*	*	0	0	*	*	*	0	0	0		
02:00	*	*	0	0	*	*	*	0	0	0	02:00	0
02:15	*	*	0	0	*	*	*	0	0	0		
02:30	*	*	1	0	*	*	*	1	1	0		
02:45	*	*	0	0	*	*	*	0	0	0		
03:00	*	*	0	0	*	*	*	0	0	0	03:00	1
03:15	*	*	0	0	*	*	*	0	0	0		
03:30	*	*	0	0	*	*	*	0	0	0		
03:45	*	*	0	0	*	*	*	0	0	0		
04:00	*	*	0	0	*	*	*	0	0	0	04:00	0
04:15	*	*	0	0	*	*	*	0	0	0		
04:30	*	*	0	0	*	*	*	0	0	0		
04:45	*	*	1	0	*	*	*	1	1	0		
05:00	*	*	0	1	*	*	*	1	1	0	05:00	1
05:15	*	*	1	0	*	*	*	1	1	0		
05:30	*	*	0	0	*	*	*	0	0	0		
05:45	*	*	0	0	*	*	*	0	0	0		
06:00	*	*	1	1	*	*	*	1	1	0	06:00	2
06:15	*	*	0	0	*	*	*	0	0	0		
06:30	*	*	1	0	*	*	*	1	1	0		
06:45	*	*	1	2	*	*	*	2	2	0		
07:00	*	*	0	0	*	*	*	0	0	0	07:00	2
07:15	*	*	3	1	*	*	*	2	2	0		
07:30	*	*	4	3	*	*	*	4	4	0		
07:45	*	*	1	2	*	*	*	2	2	0		
08:00	*	*	2	1	*	*	*	2	2	0	08:00	9
08:15	*	*	1	1	*	*	*	1	1	0		
08:30	*	*	1	0	*	*	*	1	1	0		
08:45	*	*	3	5	*	*	*	4	4	0		
09:00	*	*	0	5	*	*	*	3	3	0	09:00	8
09:15	*	*	2	0	*	*	*	1	1	0		
09:30	*	*	2	1	*	*	*	2	2	0		
09:45	*	*	4	1	*	*	*	3	3	0		
10:00	*	*	0	2	*	*	*	1	1	0	10:00	6
10:15	*	*	0	0	*	*	*	0	0	0		
10:30	*	*	3	1	*	*	*	2	2	0		
10:45	*	*	5	3	*	*	*	4	4	0		
11:00	*	*	0	1	*	*	*	1	1	0	11:00	7
11:15	*	*	0	1	*	*	*	1	1	0		
11:30	*	*	2	1	*	*	*	2	2	0		
11:45	*	*	0	0	*	*	*	0	0	0		

Brudis & Associates, Inc.
11000 Broken Land Parkway Suite 450
Columbia, Maryland 21044
410-884-3607

Location: STEVENS RD 50' W OF OLD FREDERICK RD
Direction: WB LANE 2

County: Frederick
Town: #

Interval (dd) : 15
(In Minutes)

PEAK HOURS	AM PERIOD 12:00AM-12:00PM	Start	End	PM PERIOD 12:00PM-11:59PM	Start	End
		08:30	09:30		15:30	16:30

HOUR ENDING	Mon 2/6/23	Tue 2/7/23	Wed 2/8/23	Thu 2/9/23	Fri 2/10/23	Sat 2/11/23	Sun 2/12/23	DAILY AVERAGE	WEEKDAY AVERAGE	WEEKEND AVERAGE	HOURLY AVERAGE
12:00	*	*	3	0	*	*	*	2	2	0	12:00 4
12:15	*	*	0	0	*	*	*	0	0	0	
12:30	*	*	4	0	*	*	*	2	2	0	
12:45	*	*	0	0	*	*	*	0	0	0	
13:00	*	*	1	1	*	*	*	1	1	0	13:00 3
13:15	*	*	0	1	*	*	*	1	1	0	
13:30	*	*	1	2	*	*	*	2	2	0	
13:45	*	*	3	6	*	*	*	5	5	0	
14:00	*	*	2	1	*	*	*	2	2	0	14:00 8
14:15	*	*	3	1	*	*	*	2	2	0	
14:30	*	*	0	1	*	*	*	1	1	0	
14:45	*	*	2	0	*	*	*	1	1	0	
15:00	*	*	0	3	*	*	*	2	2	0	15:00 5
15:15	*	*	4	3	*	*	*	4	4	0	
15:30	*	*	0	3	*	*	*	2	2	0	
15:45	*	*	1	8	*	*	*	5	5	0	
16:00	*	*	0	2	*	*	*	1	1	0	16:00 11
16:15	*	*	3	6	*	*	*	5	5	0	
16:30	*	*	4	2	*	*	*	3	3	0	
16:45	*	*	0	3	*	*	*	2	2	0	
17:00	*	*	1	0	*	*	*	1	1	0	17:00 10
17:15	*	*	0	0	*	*	*	0	0	0	
17:30	*	*	2	1	*	*	*	2	2	0	
17:45	*	*	4	1	*	*	*	3	3	0	
18:00	*	*	1	2	*	*	*	2	2	0	18:00 6
18:15	*	*	1	2	*	*	*	2	2	0	
18:30	*	*	0	1	*	*	*	1	1	0	
18:45	*	*	1	0	*	*	*	1	1	0	
19:00	*	*	0	0	*	*	*	0	0	0	19:00 3
19:15	*	*	0	0	*	*	*	0	0	0	
19:30	*	*	0	0	*	*	*	0	0	0	
19:45	*	*	0	0	*	*	*	0	0	0	
20:00	*	*	0	1	*	*	*	1	1	0	20:00 1
20:15	*	*	0	1	*	*	*	1	1	0	
20:30	*	*	0	0	*	*	*	0	0	0	
20:45	*	*	0	0	*	*	*	0	0	0	
21:00	*	*	0	1	*	*	*	1	1	0	21:00 1
21:15	*	*	0	0	*	*	*	0	0	0	
21:30	*	*	0	0	*	*	*	0	0	0	
21:45	*	*	0	0	*	*	*	0	0	0	
22:00	*	*	0	0	*	*	*	0	0	0	22:00 0
22:15	*	*	0	0	*	*	*	0	0	0	
22:30	*	*	0	0	*	*	*	0	0	0	
22:45	*	*	1	0	*	*	*	1	1	0	
23:00	*	*	0	0	*	*	*	0	0	0	23:00 1
23:15	*	*	0	0	*	*	*	0	0	0	
23:30	*	*	0	0	*	*	*	0	0	0	
23:45	*	*	1	0	*	*	*	1	1	0	
00:00	*	*	0	0	*	*	*	0	0	0	00:00 1
TOTAL	**0**	**0**	**83**	**87**	**0**	**0**	**0**	**85**	**85**	**0**	
AM Peak Vol	0	0	7	11	0	0	0	9	9	0	
PM Peak Vol	0	0	8	18	0	0	0	13	13	0	

Brudis & Associates, Inc.
11000 Broken Land Parkway Suite 450
Columbia, Maryland 21044
410-884-3607

Location: STEVENS RD 50' W OF OLD FREDERICK RD
Direction: COMBINED TOTAL

County: Frederick
Town:

Interval (dd) : 15
(In Minutes)

PEAK HOURS	AM PERIOD 12:00AM-12:00PM	Start	End	PM PERIOD 12:00PM-11:59PM	Start	End
		07:00	08:00		15:30	16:30

HOUR ENDING	Mon 2/6/23	Tue 2/7/23	Wed 2/8/23	Thu 2/9/23	Fri 2/10/23	Sat 2/11/23	Sun 2/12/23	DAILY AVERAGE	WEEKDAY AVERAGE	WEEKEND AVERAGE	HOURLY AVERAGE	
00:15	*	*	0	0	*	*	*	0	0	0		
00:30	*	*	0	2	*	*	*	1	1	0		
00:45	*	*	0	0	*	*	*	0	0	0		
01:00	*	*	2	0	*	*	*	1	1	0	01:00	2
01:15	*	*	0	0	*	*	*	0	0	0		
01:30	*	*	0	0	*	*	*	0	0	0		
01:45	*	*	0	0	*	*	*	0	0	0		
02:00	*	*	0	0	*	*	*	0	0	0	02:00	0
02:15	*	*	0	0	*	*	*	0	0	0		
02:30	*	*	2	0	*	*	*	1	1	0		
02:45	*	*	0	0	*	*	*	0	0	0		
03:00	*	*	0	1	*	*	*	1	1	0	03:00	2
03:15	*	*	0	0	*	*	*	0	0	0		
03:30	*	*	0	0	*	*	*	0	0	0		
03:45	*	*	1	0	*	*	*	1	1	0		
04:00	*	*	0	0	*	*	*	0	0	0	04:00	1
04:15	*	*	0	0	*	*	*	0	0	0		
04:30	*	*	0	0	*	*	*	0	0	0		
04:45	*	*	2	0	*	*	*	1	1	0		
05:00	*	*	0	2	*	*	*	1	1	0	05:00	2
05:15	*	*	2	0	*	*	*	1	1	0		
05:30	*	*	0	0	*	*	*	0	0	0		
05:45	*	*	0	0	*	*	*	0	0	0		
06:00	*	*	2	2	*	*	*	2	2	0	06:00	3
06:15	*	*	0	0	*	*	*	0	0	0		
06:30	*	*	5	2	*	*	*	4	4	0		
06:45	*	*	3	4	*	*	*	4	4	0		
07:00	*	*	2	1	*	*	*	2	2	0	07:00	9
07:15	*	*	6	2	*	*	*	4	4	0		
07:30	*	*	9	8	*	*	*	9	9	0		
07:45	*	*	6	7	*	*	*	7	7	0		
08:00	*	*	5	3	*	*	*	4	4	0	08:00	23
08:15	*	*	2	4	*	*	*	3	3	0		
08:30	*	*	3	0	*	*	*	2	2	0		
08:45	*	*	6	11	*	*	*	9	9	0		
09:00	*	*	0	11	*	*	*	6	6	0	09:00	19
09:15	*	*	6	1	*	*	*	4	4	0		
09:30	*	*	6	4	*	*	*	5	5	0		
09:45	*	*	8	4	*	*	*	6	6	0		
10:00	*	*	0	4	*	*	*	2	2	0	10:00	17
10:15	*	*	0	1	*	*	*	1	1	0		
10:30	*	*	7	4	*	*	*	6	6	0		
10:45	*	*	14	8	*	*	*	11	11	0		
11:00	*	*	1	5	*	*	*	3	3	0	11:00	20
11:15	*	*	1	2	*	*	*	2	2	0		
11:30	*	*	5	3	*	*	*	4	4	0		
11:45	*	*	0	2	*	*	*	1	1	0		
12:00	*	*	7	3	*	*	*	5	5	0	12:00	12
12:15	*	*	1	0	*	*	*	1	1	0		
12:30	*	*	9	4	*	*	*	7	7	0		
12:45	*	*	1	1	*	*	*	1	1	0		
13:00	*	*	4	4	*	*	*	4	4	0	13:00	12
13:15	*	*	0	3	*	*	*	2	2	0		
13:30	*	*	5	4	*	*	*	5	5	0		
13:45	*	*	7	13	*	*	*	10	10	0		
14:00	*	*	4	3	*	*	*	4	4	0	14:00	20
14:15	*	*	7	5	*	*	*	6	6	0		
14:30	*	*	2	3	*	*	*	3	3	0		
14:45	*	*	4	2	*	*	*	3	3	0		
15:00	*	*	0	8	*	*	*	4	4	0	15:00	16
15:15	*	*	11	10	*	*	*	11	11	0		

15:30	*	*	1	9	*	*	*	5	5	0		
15:45	*	*	6	22	*	*	*	14	14	0		
16:00	*	*	1	6	*	*	*	4	4	0	**16:00**	33
16:15	*	*	8	12	*	*	*	10	10	0		
16:30	*	*	9	6	*	*	*	8	8	0		
16:45	*	*	0	9	*	*	*	5	5	0		
17:00	*	*	5	0	*	*	*	3	3	0	**17:00**	25
17:15	*	*	1	4	*	*	*	3	3	0		
17:30	*	*	5	3	*	*	*	4	4	0		
17:45	*	*	11	5	*	*	*	8	8	0		
18:00	*	*	2	6	*	*	*	4	4	0	**18:00**	19
18:15	*	*	5	6	*	*	*	6	6	0		
18:30	*	*	1	3	*	*	*	2	2	0		
18:45	*	*	2	0	*	*	*	1	1	0		
19:00	*	*	1	1	*	*	*	1	1	0	**19:00**	10
19:15	*	*	0	0	*	*	*	0	0	0		
19:30	*	*	1	0	*	*	*	1	1	0		
19:45	*	*	1	2	*	*	*	2	2	0		
20:00	*	*	1	3	*	*	*	2	2	0	**20:00**	4
20:15	*	*	1	3	*	*	*	2	2	0		
20:30	*	*	0	0	*	*	*	0	0	0		
20:45	*	*	0	2	*	*	*	1	1	0		
21:00	*	*	0	3	*	*	*	2	2	0	**21:00**	5
21:15	*	*	1	0	*	*	*	1	1	0		
21:30	*	*	1	0	*	*	*	1	1	0		
21:45	*	*	1	0	*	*	*	1	1	0		
22:00	*	*	2	0	*	*	*	1	1	0	**22:00**	3
22:15	*	*	0	0	*	*	*	0	0	0		
22:30	*	*	0	0	*	*	*	0	0	0		
22:45	*	*	3	0	*	*	*	2	2	0		
23:00	*	*	0	0	*	*	*	0	0	0	**23:00**	2
23:15	*	*	0	0	*	*	*	0	0	0		
23:30	*	*	0	1	*	*	*	1	1	0		
23:45	*	*	2	0	*	*	*	1	1	0		
00:00	*	*	0	0	*	*	*	0	0	0	**00:00**	2

TOTAL	**0**	**0**	**240**	**267**	**0**	**0**	**0**	**254**	**254**	**0**		
AM Peak Vol	**0**	**0**	26	20	**0**	**0**	**0**	23	23	0		
PM Peak Vol	**0**	**0**	24	46	**0**	**0**	**0**	35	35	0		

Brudis & Associates, Inc.
11000 Broken Land Parkway Suite 450
Columbia, Maryland 21044
410-884-3607

Location: OLD FREDERICK ROAD @ BRIDGE 1.5 MILES SOUTH OF MD. ROUTE 550
Direction: NB LANE 1

Task No.: 2021-01
Interval (dd) : 15
(In Minutes)

County: Frederick
Town:

PEAK HOURS	AM PERIOD 12:00AM-12:00PM	Start	End	PM PERIOD 12:00PM-11:59PM	Start	End
		07:00	08:00		16:30	17:30

HOUR ENDING	Mon 4/25/22	Tue 4/26/22	Wed 4/27/22	Thu 4/28/22	Fri 4/29/22	Sat 4/30/22	Sun 5/1/22	DAILY AVERAGE	WEEKDAY AVERAGE	WEEKEND AVERAGE	HOURLY AVERAGE	
00:15	*	*	1	0	*	*	*	1	1	0		
00:30	*	*	0	1	*	*	*	1	1	0		
00:45	*	*	1	2	*	*	*	2	2	0		
01:00	*	*	2	2	*	*	*	2	2	0	01:00	5
01:15	*	*	2	0	*	*	*	1	1	0		
01:30	*	*	1	0	*	*	*	1	1	0		
01:45	*	*	1	2	*	*	*	2	2	0		
02:00	*	*	0	0	*	*	*	0	0	0	02:00	3
02:15	*	*	1	1	*	*	*	1	1	0		
02:30	*	*	1	0	*	*	*	1	1	0		
02:45	*	*	3	1	*	*	*	2	2	0		
03:00	*	*	4	3	*	*	*	4	4	0	03:00	7
03:15	*	*	1	0	*	*	*	1	1	0		
03:30	*	*	0	1	*	*	*	1	1	0		
03:45	*	*	2	3	*	*	*	3	3	0		
04:00	*	*	4	3	*	*	*	4	4	0	04:00	7
04:15	*	*	1	3	*	*	*	2	2	0		
04:30	*	*	8	3	*	*	*	6	6	0		
04:45	*	*	3	3	*	*	*	3	3	0		
05:00	*	*	6	5	*	*	*	6	6	0	05:00	16
05:15	*	*	13	14	*	*	*	14	14	0		
05:30	*	*	9	7	*	*	*	8	8	0		
05:45	*	*	17	15	*	*	*	16	16	0		
06:00	*	*	13	10	*	*	*	12	12	0	06:00	49
06:15	*	*	15	8	*	*	*	12	12	0		
06:30	*	*	18	12	*	*	*	15	15	0		
06:45	*	*	20	20	*	*	*	20	20	0		
07:00	*	*	16	22	*	*	*	19	19	0	07:00	66
07:15	*	*	23	26	*	*	*	25	25	0		
07:30	*	*	24	23	*	*	*	24	24	0		
07:45	*	*	22	26	*	*	*	24	24	0		
08:00	*	*	20	24	*	*	*	22	22	0	08:00	94
08:15	*	*	15	17	*	*	*	16	16	0		
08:30	*	*	15	15	*	*	*	15	15	0		
08:45	*	*	20	21	*	*	*	21	21	0		
09:00	*	*	17	20	*	*	*	19	19	0	09:00	70
09:15	*	*	7	18	*	*	*	13	13	0		
09:30	*	*	13	17	*	*	*	15	15	0		
09:45	*	*	14	18	*	*	*	16	16	0		
10:00	*	*	9	11	*	*	*	10	10	0	10:00	54
10:15	*	*	18	16	*	*	*	17	17	0		
10:30	*	*	15	11	*	*	*	13	13	0		
10:45	*	*	13	17	*	*	*	15	15	0		
11:00	*	*	14	9	*	*	*	12	12	0	11:00	57
11:15	*	*	9	14	*	*	*	12	12	0		
11:30	*	*	9	14	*	*	*	12	12	0		
11:45	*	*	9	6	*	*	*	8	8	0		

Brudis & Associates, Inc.
11000 Broken Land Parkway Suite 450
Columbia, Maryland 21044
410-884-3607

Location: OLD FREDERICK ROAD @ BRIDGE 1.5 MILES SOUTH OF MD. ROUTE 550
Direction: NB LANE 1

Task No.: 2021-01
Interval (dd) : 15
(In Minutes)

County: Frederick
Town:

PEAK HOURS	AM PERIOD 12:00AM-12:00PM	Start	End	PM PERIOD 12:00PM-11:59PM	Start	End
		07:00	08:00		16:30	17:30

HOUR ENDING	Mon 4/25/22	Tue 4/26/22	Wed 4/27/22	Thu 4/28/22	Fri 4/29/22	Sat 4/30/22	Sun 5/1/22	DAILY AVERAGE	WEEKDAY AVERAGE	WEEKEND AVERAGE	HOURLY AVERAGE
12:00	*	*	10	15	*	*	*	13	13	0	12:00 43
12:15	*	*	***10***	***9***	*	*	*	10	10	0	
12:30	*	*	***12***	***5***	*	*	*	9	9	0	
12:45	*	*	***9***	***13***	*	*	*	11	11	0	
13:00	*	*	***3***	***14***	*	*	*	9	9	0	13:00 38
13:15	*	*	11	5	*	*	*	8	8	0	
13:30	*	*	9	13	*	*	*	11	11	0	
13:45	*	*	9	12	*	*	*	11	11	0	
14:00	*	*	12	11	*	*	*	12	12	0	14:00 41
14:15	*	*	***9***	9	*	*	*	9	9	0	
14:30	*	*	***13***	13	*	*	*	13	13	0	
14:45	*	*	***18***	7	*	*	*	13	13	0	
15:00	*	*	***17***	6	*	*	*	12	12	0	15:00 46
15:15	*	*	4	11	*	*	*	8	8	0	
15:30	*	*	16	10	*	*	*	13	13	0	
15:45	*	*	10	12	*	*	*	11	11	0	
16:00	*	*	10	8	*	*	*	9	9	0	16:00 41
16:15	*	*	12	16	*	*	*	14	14	0	
16:30	*	*	9	5	*	*	*	7	7	0	
16:45	*	*	***12***	***14***	*	*	*	***13***	***13***	***0***	
17:00	*	*	***13***	***20***	*	*	*	***17***	***17***	***0***	17:00 51
17:15	*	*	***10***	***26***	*	*	*	***18***	***18***	***0***	
17:30	*	*	***9***	***15***	*	*	*	***12***	***12***	***0***	
17:45	*	*	14	11	*	*	*	13	13	0	
18:00	*	*	10	9	*	*	*	10	10	0	18:00 52
18:15	*	*	15	23	*	*	*	19	19	0	
18:30	*	*	6	10	*	*	*	8	8	0	
18:45	*	*	13	9	*	*	*	11	11	0	
19:00	*	*	10	9	*	*	*	10	10	0	19:00 48
19:15	*	*	12	9	*	*	*	11	11	0	
19:30	*	*	4	6	*	*	*	5	5	0	
19:45	*	*	7	6	*	*	*	7	7	0	
20:00	*	*	7	6	*	*	*	7	7	0	20:00 29
20:15	*	*	5	9	*	*	*	7	7	0	
20:30	*	*	10	6	*	*	*	8	8	0	
20:45	*	*	5	5	*	*	*	5	5	0	
21:00	*	*	1	5	*	*	*	3	3	0	21:00 23
21:15	*	*	4	0	*	*	*	2	2	0	
21:30	*	*	4	2	*	*	*	3	3	0	
21:45	*	*	0	1	*	*	*	1	1	0	
22:00	*	*	0	4	*	*	*	2	2	0	22:00 8
22:15	*	*	0	1	*	*	*	1	1	0	
22:30	*	*	1	2	*	*	*	2	2	0	
22:45	*	*	2	0	*	*	*	1	1	0	
23:00	*	*	2	0	*	*	*	1	1	0	23:00 4
23:15	*	*	0	1	*	*	*	1	1	0	
23:30	*	*	1	1	*	*	*	1	1	0	
23:45	*	*	0	1	*	*	*	1	1	0	
00:00	*	*	1	0	*	*	*	1	1	0	00:00 3

TOTAL	0	0	830	869	0	0	0	850	850	0
AM Peak Vol	0	0	89	99	0	0	0	94	94	0
PM Peak Vol	0	0	44	75	0	0	0	60	60	0

Brudis & Associates, Inc.
11000 Broken Land Parkway Suite 450
Columbia, Maryland 21044
410-884-3607

Location: OLD FREDERICK ROAD @ BRIDGE 1.5 MILES SOUTH OF MD. ROUTE 550
Direction: SB LANE 2

County: Frederick
Town: #

Task No.: 2021-01
Interval (dd) : 15
(In Minutes)

PEAK HOURS	AM PERIOD 12:00AM-12:00PM	Start	End	PM PERIOD 12:00PM-11:59PM	Start	End
		10:30	11:30		16:15	17:15

HOUR ENDING	Mon 4/25/22	Tue 4/26/22	Wed 4/27/22	Thu 4/28/22	Fri 4/29/22	Sat 4/30/22	Sun 5/1/22	DAILY AVERAGE	WEEKDAY AVERAGE	WEEKEND AVERAGE	HOURLY AVERAGE	
00:15	*	*	***0***	***3***	*	*	*	2	2	0		
00:30	*	*	***2***	***3***	*	*	*	3	3	0		
00:45	*	*	***2***	***0***	*	*	*	1	1	0		
01:00	*	*	***0***	***0***	*	*	*	0	0	0	**01:00**	5
01:15	*	*	2	0	*	*	*	1	1	0		
01:30	*	*	0	0	*	*	*	0	0	0		
01:45	*	*	0	1	*	*	*	1	1	0		
02:00	*	*	0	0	*	*	*	0	0	0	**02:00**	2
02:15	*	*	1	1	*	*	*	1	1	0		
02:30	*	*	0	0	*	*	*	0	0	0		
02:45	*	*	0	0	*	*	*	0	0	0		
03:00	*	*	3	1	*	*	*	2	2	0	**03:00**	3
03:15	*	*	1	0	*	*	*	1	1	0		
03:30	*	*	0	1	*	*	*	1	1	0		
03:45	*	*	0	0	*	*	*	0	0	0		
04:00	*	*	0	0	*	*	*	0	0	0	**04:00**	1
04:15	*	*	0	0	*	*	*	0	0	0		
04:30	*	*	1	2	*	*	*	2	2	0		
04:45	*	*	0	2	*	*	*	1	1	0		
05:00	*	*	2	1	*	*	*	2	2	0	**05:00**	4
05:15	*	*	1	3	*	*	*	2	2	0		
05:30	*	*	2	2	*	*	*	2	2	0		
05:45	*	*	2	4	*	*	*	3	3	0		
06:00	*	*	2	1	*	*	*	2	2	0	**06:00**	9
06:15	*	*	8	4	*	*	*	6	6	0		
06:30	*	*	8	2	*	*	*	5	5	0		
06:45	*	*	13	12	*	*	*	13	13	0		
07:00	*	*	9	9	*	*	*	9	9	0	**07:00**	33
07:15	*	*	11	13	*	*	*	12	12	0		
07:30	*	*	4	6	*	*	*	5	5	0		
07:45	*	*	8	7	*	*	*	8	8	0		
08:00	*	*	6	7	*	*	*	7	7	0	**08:00**	31
08:15	*	*	7	11	*	*	*	9	9	0		
08:30	*	*	14	15	*	*	*	15	15	0		
08:45	*	*	5	10	*	*	*	8	8	0		
09:00	*	*	9	***12***	*	*	*	11	11	0	**09:00**	42
09:15	*	*	9	***17***	*	*	*	13	13	0		
09:30	*	*	5	***11***	*	*	*	8	8	0		
09:45	*	*	13	***15***	*	*	*	14	14	0		
10:00	*	*	9	4	*	*	*	7	7	0	**10:00**	42
10:15	*	*	11	11	*	*	*	11	11	0		
10:30	*	*	5	9	*	*	*	7	7	0		
10:45	*	*	***14***	***12***	*	*	*	***13***	***13***	***0***		
11:00	*	*	***6***	***16***	*	*	*	***11***	***11***	***0***	**11:00**	42
11:15	*	*	***7***	***17***	*	*	*	***12***	***12***	***0***		
11:30	*	*	***18***	***6***	*	*	*	***12***	***12***	***0***		
11:45	*	*	7	10	*	*	*	9	9	0		
12:00	*	*	6	8	*	*	*	7	7	0	**12:00**	40
12:15	*	*	***12***	***11***	*	*	*	12	12	0		
12:30	*	*	***8***	***12***	*	*	*	10	10	0		
12:45	*	*	***13***	***12***	*	*	*	13	13	0		
13:00	*	*	***9***	***10***	*	*	*	10	10	0	**13:00**	44
13:15	*	*	14	9	*	*	*	12	12	0		
13:30	*	*	10	15	*	*	*	13	13	0		
13:45	*	*	20	10	*	*	*	15	15	0		

Brudis & Associates, Inc.
11000 Broken Land Parkway Suite 450
Columbia, Maryland 21044
410-884-3607

Location: OLD FREDERICK ROAD @ BRIDGE 1.5 MILES SOUTH OF MD. ROUTE 550
Direction: SB LANE 2

County: Frederick
Town: #

Task No.: 2021-01
Interval (dd) : 15
(In Minutes)

PEAK HOURS	AM PERIOD 12:00AM-12:00PM	Start	End	PM PERIOD 12:00PM-11:59PM	Start	End
		10:30	11:30		16:15	17:15

HOUR ENDING	Mon 4/25/22	Tue 4/26/22	Wed 4/27/22	Thu 4/28/22	Fri 4/29/22	Sat 4/30/22	Sun 5/1/22	DAILY AVERAGE	WEEKDAY AVERAGE	WEEKEND AVERAGE	HOURLY AVERAGE	
14:00	*	*	15	16	*	*	*	16	16	0	14:00	55
14:15	*	*	14	18	*	*	*	16	16	0		
14:30	*	*	22	16	*	*	*	19	19	0		
14:45	*	*	18	30	*	*	*	24	24	0		
15:00	*	*	22	19	*	*	*	21	21	0	15:00	80
15:15	*	*	22	24	*	*	*	23	23	0		
15:30	*	*	31	24	*	*	*	28	28	0		
15:45	*	*	21	24	*	*	*	23	23	0		
16:00	*	*	28	***34***	*	*	*	31	31	0	16:00	104
16:15	*	*	12	***30***	*	*	*	21	21	0		
16:30	*	*	***24***	***35***	*	*	*	***30***	***30***	***0***		
16:45	*	*	***33***	***28***	*	*	*	***31***	***31***	***0***		
17:00	*	*	***25***	***28***	*	*	*	***27***	***27***	***0***	17:00	108
17:15	*	*	***31***	***21***	*	*	*	***26***	***26***	***0***		
17:30	*	*	22	33	*	*	*	28	28	0		
17:45	*	*	20	20	*	*	*	20	20	0		
18:00	*	*	23	16	*	*	*	20	20	0	18:00	93
18:15	*	*	13	12	*	*	*	13	13	0		
18:30	*	*	20	16	*	*	*	18	18	0		
18:45	*	*	17	13	*	*	*	15	15	0		
19:00	*	*	11	13	*	*	*	12	12	0	19:00	58
19:15	*	*	16	18	*	*	*	17	17	0		
19:30	*	*	11	15	*	*	*	13	13	0		
19:45	*	*	8	10	*	*	*	9	9	0		
20:00	*	*	7	18	*	*	*	13	13	0	20:00	52
20:15	*	*	10	4	*	*	*	7	7	0		
20:30	*	*	11	12	*	*	*	12	12	0		
20:45	*	*	6	13	*	*	*	10	10	0		
21:00	*	*	10	5	*	*	*	8	8	0	21:00	36
21:15	*	*	7	7	*	*	*	7	7	0		
21:30	*	*	5	7	*	*	*	6	6	0		
21:45	*	*	6	6	*	*	*	6	6	0		
22:00	*	*	7	4	*	*	*	6	6	0	22:00	25
22:15	*	*	4	1	*	*	*	3	3	0		
22:30	*	*	5	5	*	*	*	5	5	0		
22:45	*	*	4	4	*	*	*	4	4	0		
23:00	*	*	1	5	*	*	*	3	3	0	23:00	15
23:15	*	*	6	1	*	*	*	4	4	0		
23:30	*	*	1	2	*	*	*	2	2	0		
23:45	*	*	1	2	*	*	*	2	2	0		
00:00	*	*	2	1	*	*	*	2	2	0	00:00	8
TOTAL	**0**	**0**	**891**	**958**	**0**	**0**	**0**	**925**	**925**	**0**		
AM Peak Vol	0	0	45	51	0	0	0	48	48	0		
PM Peak Vol	0	0	113	112	0	0	0	113	113	0		

Brudis & Associates, Inc.
11000 Broken Land Parkway Suite 450
Columbia, Maryland 21044
410-884-3607

Location: OLD FREDERICK ROAD @ BRIDGE 1.5 MILES SOUTH OF MD. ROUTE 550
Direction: COMBINED TOTAL

Task No.: 2021-01
Interval (dd) : 15
(In Minutes)

County: Frederick
Town:

PEAK HOURS	AM PERIOD 12:00AM-12:00PM	Start	End	PM PERIOD 12:00PM-11:59PM	Start	End
		06:30	07:30		16:30	17:30

HOUR ENDING	Mon 4/25/22	Tue 4/26/22	Wed 4/27/22	Thu 4/28/22	Fri 4/29/22	Sat 4/30/22	Sun 5/1/22	DAILY AVERAGE	WEEKDAY AVERAGE	WEEKEND AVERAGE		HOURLY AVERAGE
00:15	*	*	1	3	*	*	*	2	2	0		
00:30	*	*	2	4	*	*	*	3	3	0		
00:45	*	*	3	2	*	*	*	3	3	0		
01:00	*	*	2	2	*	*	*	2	2	0	01:00	10
01:15	*	*	4	0	*	*	*	2	2	0		
01:30	*	*	1	0	*	*	*	1	1	0		
01:45	*	*	1	3	*	*	*	2	2	0		
02:00	*	*	0	0	*	*	*	0	0	0	02:00	5
02:15	*	*	2	2	*	*	*	2	2	0		
02:30	*	*	1	0	*	*	*	1	1	0		
02:45	*	*	3	1	*	*	*	2	2	0		
03:00	*	*	7	4	*	*	*	6	6	0	03:00	10
03:15	*	*	2	0	*	*	*	1	1	0		
03:30	*	*	0	2	*	*	*	1	1	0		
03:45	*	*	2	3	*	*	*	3	3	0		
04:00	*	*	4	3	*	*	*	4	4	0	04:00	8
04:15	*	*	1	3	*	*	*	2	2	0		
04:30	*	*	9	5	*	*	*	7	7	0		
04:45	*	*	3	5	*	*	*	4	4	0		
05:00	*	*	8	6	*	*	*	7	7	0	05:00	20
05:15	*	*	14	17	*	*	*	16	16	0		
05:30	*	*	11	9	*	*	*	10	10	0		
05:45	*	*	19	19	*	*	*	19	19	0		
06:00	*	*	15	11	*	*	*	13	13	0	06:00	58
06:15	*	*	23	12	*	*	*	18	18	0		
06:30	*	*	26	14	*	*	*	20	20	0		
06:45	*	*	33	32	*	*	*	33	33	0		
07:00	*	*	25	31	*	*	*	28	28	0	07:00	98
07:15	*	*	34	39	*	*	*	37	37	0		
07:30	*	*	28	29	*	*	*	29	29	0		
07:45	*	*	30	33	*	*	*	32	32	0		
08:00	*	*	26	31	*	*	*	29	29	0	08:00	125
08:15	*	*	22	28	*	*	*	25	25	0		
08:30	*	*	29	30	*	*	*	30	30	0		
08:45	*	*	25	31	*	*	*	28	28	0		
09:00	*	*	26	32	*	*	*	29	29	0	09:00	112
09:15	*	*	16	35	*	*	*	26	26	0		
09:30	*	*	18	28	*	*	*	23	23	0		
09:45	*	*	27	33	*	*	*	30	30	0		
10:00	*	*	18	15	*	*	*	17	17	0	10:00	95
10:15	*	*	29	27	*	*	*	28	28	0		
10:30	*	*	20	20	*	*	*	20	20	0		
10:45	*	*	27	29	*	*	*	28	28	0		
11:00	*	*	20	25	*	*	*	23	23	0	11:00	99
11:15	*	*	16	31	*	*	*	24	24	0		
11:30	*	*	27	20	*	*	*	24	24	0		
11:45	*	*	16	16	*	*	*	16	16	0		
12:00	*	*	16	23	*	*	*	20	20	0	12:00	83
12:15	*	*	22	20	*	*	*	21	21	0		
12:30	*	*	20	17	*	*	*	19	19	0		
12:45	*	*	22	25	*	*	*	24	24	0		
13:00	*	*	12	24	*	*	*	18	18	0	13:00	81
13:15	*	*	25	14	*	*	*	20	20	0		
13:30	*	*	19	28	*	*	*	24	24	0		
13:45	*	*	29	22	*	*	*	26	26	0		
14:00	*	*	27	27	*	*	*	27	27	0	14:00	96
14:15	*	*	23	27	*	*	*	25	25	0		
14:30	*	*	35	29	*	*	*	32	32	0		
14:45	*	*	36	37	*	*	*	37	37	0		

15:00	*	*	39	25	*	*	*	32	32	0	**15:00**	126
15:15	*	*	26	35	*	*	*	31	31	0		
15:30	*	*	47	34	*	*	*	41	41	0		
15:45	*	*	31	36	*	*	*	34	34	0		
16:00	*	*	38	42	*	*	*	40	40	0	**16:00**	145
16:15	*	*	24	46	*	*	*	35	35	0		
16:30	*	*	33	40	*	*	*	37	37	0		
16:45	*	*	45	42	*	*	*	44	44	0		
17:00	*	*	38	48	*	*	*	43	43	0	**17:00**	158
17:15	*	*	41	47	*	*	*	44	44	0		
17:30	*	*	31	48	*	*	*	40	40	0		
17:45	*	*	34	31	*	*	*	33	33	0		
18:00	*	*	33	25	*	*	*	29	29	0	**18:00**	145
18:15	*	*	28	35	*	*	*	32	32	0		
18:30	*	*	26	26	*	*	*	26	26	0		
18:45	*	*	30	22	*	*	*	26	26	0		
19:00	*	*	21	22	*	*	*	22	22	0	**19:00**	105
19:15	*	*	28	27	*	*	*	28	28	0		
19:30	*	*	15	21	*	*	*	18	18	0		
19:45	*	*	15	16	*	*	*	16	16	0		
20:00	*	*	14	24	*	*	*	19	19	0	**20:00**	80
20:15	*	*	15	13	*	*	*	14	14	0		
20:30	*	*	21	18	*	*	*	20	20	0		
20:45	*	*	11	18	*	*	*	15	15	0		
21:00	*	*	11	10	*	*	*	11	11	0	**21:00**	59
21:15	*	*	11	7	*	*	*	9	9	0		
21:30	*	*	9	9	*	*	*	9	9	0		
21:45	*	*	6	7	*	*	*	7	7	0		
22:00	*	*	7	8	*	*	*	8	8	0	**22:00**	32
22:15	*	*	4	2	*	*	*	3	3	0		
22:30	*	*	6	7	*	*	*	7	7	0		
22:45	*	*	6	4	*	*	*	5	5	0		
23:00	*	*	3	5	*	*	*	4	4	0	**23:00**	19
23:15	*	*	6	2	*	*	*	4	4	0		
23:30	*	*	2	3	*	*	*	3	3	0		
23:45	*	*	1	3	*	*	*	2	2	0		
00:00	*	*	3	1	*	*	*	2	2	0	**00:00**	11

TOTAL	**0**	**0**	**1721**	**1827**	**0**	**0**	**0**	**1774**	**1774**	**0**		
AM Peak Vol	0	0	120	131	0	0	0	126	126	0		
PM Peak Vol	0	0	155	185	0	0	0	170	170	0		

ATTACHMENT 3

PHASE I ARCHAEOLOGICAL SURVEY

Applied Archaeology and History Associates, Inc.

September 2023

Additional Phase I Archaeological Survey of the Kanode Farm Property

Frederick County, Maryland

Prepared for:

Human & Rohde, Inc.

512 Virginia Ave.

Towson, Maryland 21286

Prepared by:

Applied Archaeology and History Associates, Inc.

2130 Priest Bridge Drive Suite 1

Crofton, Maryland 21114

Draft

September 2023

AA HA APPLIED ARCHAEOLOGY & HISTORY ASSOCIATES

Draft

Additional Phase I Archaeological Survey of the Kanode Farm Property

Frederick County, Maryland

Prepared for:

Human & Rohde, Inc.
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Authored By:

Jasmine Gollup, MA, RPA, Kristen Browne, Emily Masters, MA, RPA, and Patrick Walters

September 2023

ABSTRACT

In September 2023, Applied Archaeology and History Associates, Inc. (AAHA) conducted a Phase I archaeological survey of a portion of the Kanode Farm Project Area (Study Area) near Creagerstown in Frederick County, Maryland. A previous Phase I survey was conducted in August 2022 on the northern portion of the property and does not overlap with the current Study Area. The survey was conducted in anticipation of a request from the Frederick County Division of Planning and Permitting Historic Preservation Commission. The purpose of the investigation was to identify archaeological resources within the Study Area and, to the extent possible, assess their eligibility for inclusion in the National Register of Historic Places (NRHP).

The Study Area incorporates 28 acres within the central portion of the larger Kanode Farm Property. It is within Maryland Archaeological Research Unit 17: Monocacy Drainage. The majority of the Study Area consists of agricultural fields but the northern extent incorporates a portion of a circa 1911 dwelling and farmstead. One locus of previously identified precontact site 18FR183 is mapped along the southern extent of the Study Area.

Background research revealed that the Study Area was part of a 195-acre property patented as 'Friendship' to John Briggs (or Biggs) in 1807. Stevens Road, which bounds the overall property to the north, was named after Frank Stevens, who acquired the property in 1898. The Stevens family resided on the farm until 1959.

In total, 499 shovel test pits (STPs) were excavated during the Phase I field survey, resulting in the identification of one new archaeological site (18FR1179) and four isolated finds (KFA-ISO-01, KFA-ISO-02, KFA-ISO-03, and KFA-ISO-04). All artifacts were recovered from the Ap-horizon.

Site 18FR1179 represents a low-density domestic scatter dating to the mid- to late-nineteenth through early-twentieth century and is likely associated with the extant farm complex and residence. In total, eight historic artifacts were recovered from the Ap-horizon within the site boundary, reflecting a diffuse artifact scatter unlikely to represent a meaningful activity area. Portions of the site were unable to be excavated due to impervious surfaces such as extant structures, concrete pads, and gravel pathways. No horizontal or vertical artifact patterning was identified, no features were encountered, and no potentially sealed cultural contexts were recorded. The site does not have the potential to contribute meaningful information on rural lifeways in historic Frederick County. **The site is recommended not eligible for inclusion in the NRHP and no further archaeological investigation is recommended.**

The four isolated finds (KFA-ISO-01, KFA-ISO-02, KFA-ISO-03, and KFA-ISO-04) do not represent discrete areas of human occupation. **By definition, isolated finds are ineligible for inclusion in the NRHP. No further archaeological investigation is recommended.**

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1. INTRODUCTION

In September 2023, Applied Archaeology and History Associates, Inc. (AAHA) conducted a Phase I archaeological survey of a portion of the Kanode Farm Project Area (Study Area) near Creagerstown in Frederick County, Maryland. A previous Phase I survey was conducted in August 2022 in the northern portion of the property and does not overlap with the current Study Area. The survey was conducted in anticipation of a request from the Frederick County Division of Planning and Permitting Historic Preservation Commission (County) prior to the development of a new recreational area. In accordance with Section 106 of the National Historic Preservation Act, this investigation consisted of background research followed by an archaeological field survey. The purpose of the investigation was to identify archaeological resources within the Study Area and, to the extent possible, assess their eligibility for inclusion in the National Register of Historic Places (NRHP). As required by the County and the Maryland Historical Trust (MHT), all work was conducted by a qualified professional archaeologist in accordance with guidelines established by the *Standards and Guidelines for Archaeological Investigations in Maryland* (Shaffer and Cole 1994), and, where appropriate, *Technical Update Number 1* (Morehouse et al. 2018).

The fieldwork was supervised by Patrick Walters with assistance Kristen Browne, Dylan Howes, Emely Espinoza, Molly Donatelli, and Jessica Devlin. Lab processing was conducted by Jasmine Gollup, RPA. Jeanne A. Ward, RPA served as principal investigator and Patrick Walters served as project manager.

The Study Area is located 1.7 miles southwest of Creagerstown and incorporates 28 acres within the central portion of the Kanode Farm Property (Figure 1-1 to Figure 1-3). It lies within Maryland Archaeological Research Unit 17, the Monocacy Drainage (Figure 1-4). The majority of the Study Area consists of agricultural fields but the northern extent incorporates a portion of a circa 1911 dwelling and farmstead. One locus of previously identified precontact site 18FR183 is mapped along the southern extent of the Study Area.

Organization of the Report

This report presents six (6) chapters and a list of references cited. Following this introduction, which includes a brief description of the project, Chapter 2 provides an overview of the environmental conditions. Chapter 3 discusses the cultural context of the Study Area vicinity. Chapter 4 provides the field and laboratory methods used during the investigation. Chapter 5 presents the findings of the investigation and Chapter 6 summarizes the findings and provides recommendations. References cited are followed by the property chain of title (Appendix A), artifact inventory (Appendix B), the Maryland Archaeological Site Survey form (Appendix C), and the qualifications of the investigators (Appendix D).

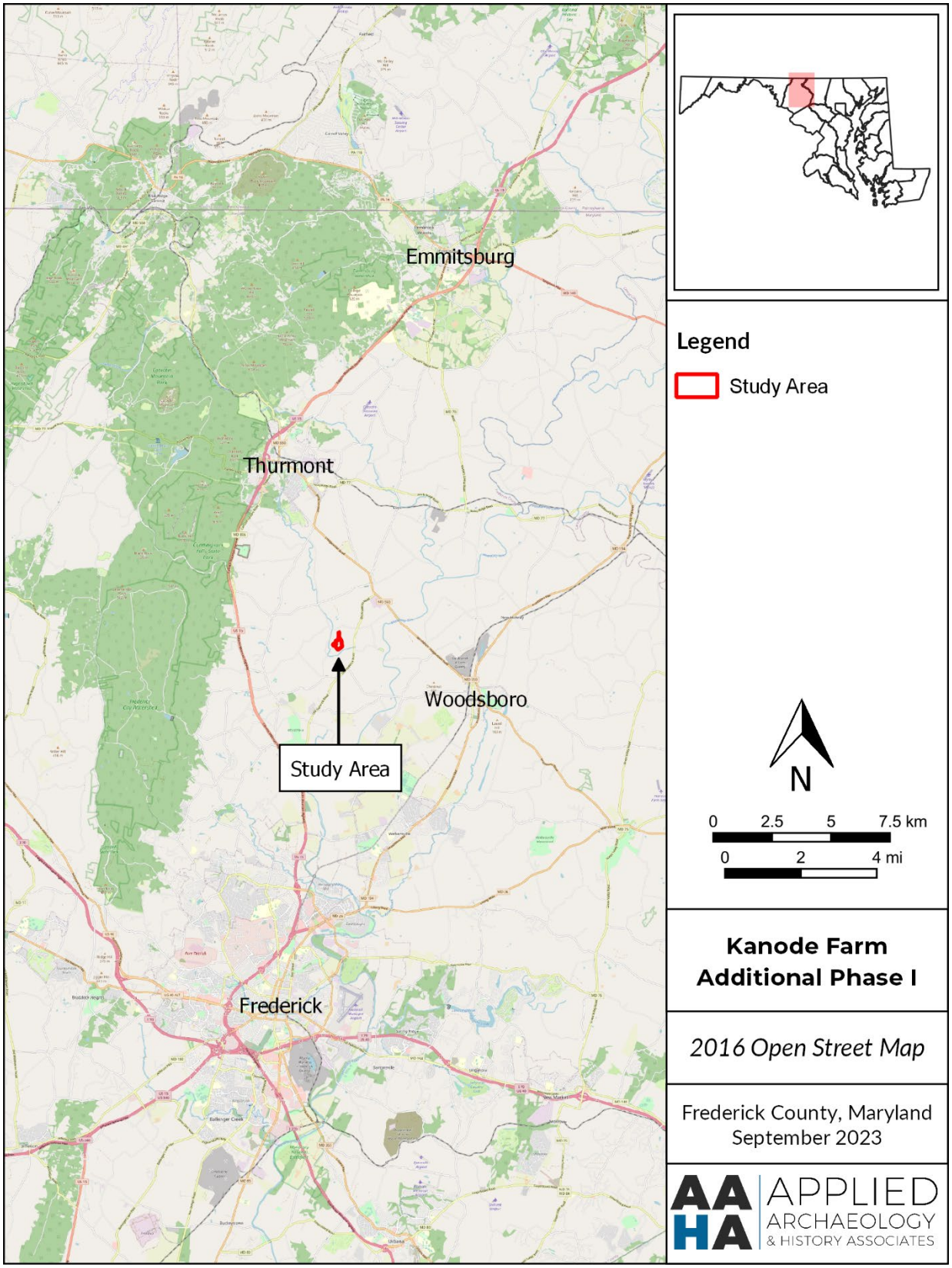

Figure 1-1. Location of the Study Area on the 2016 Open Street Map basemap.

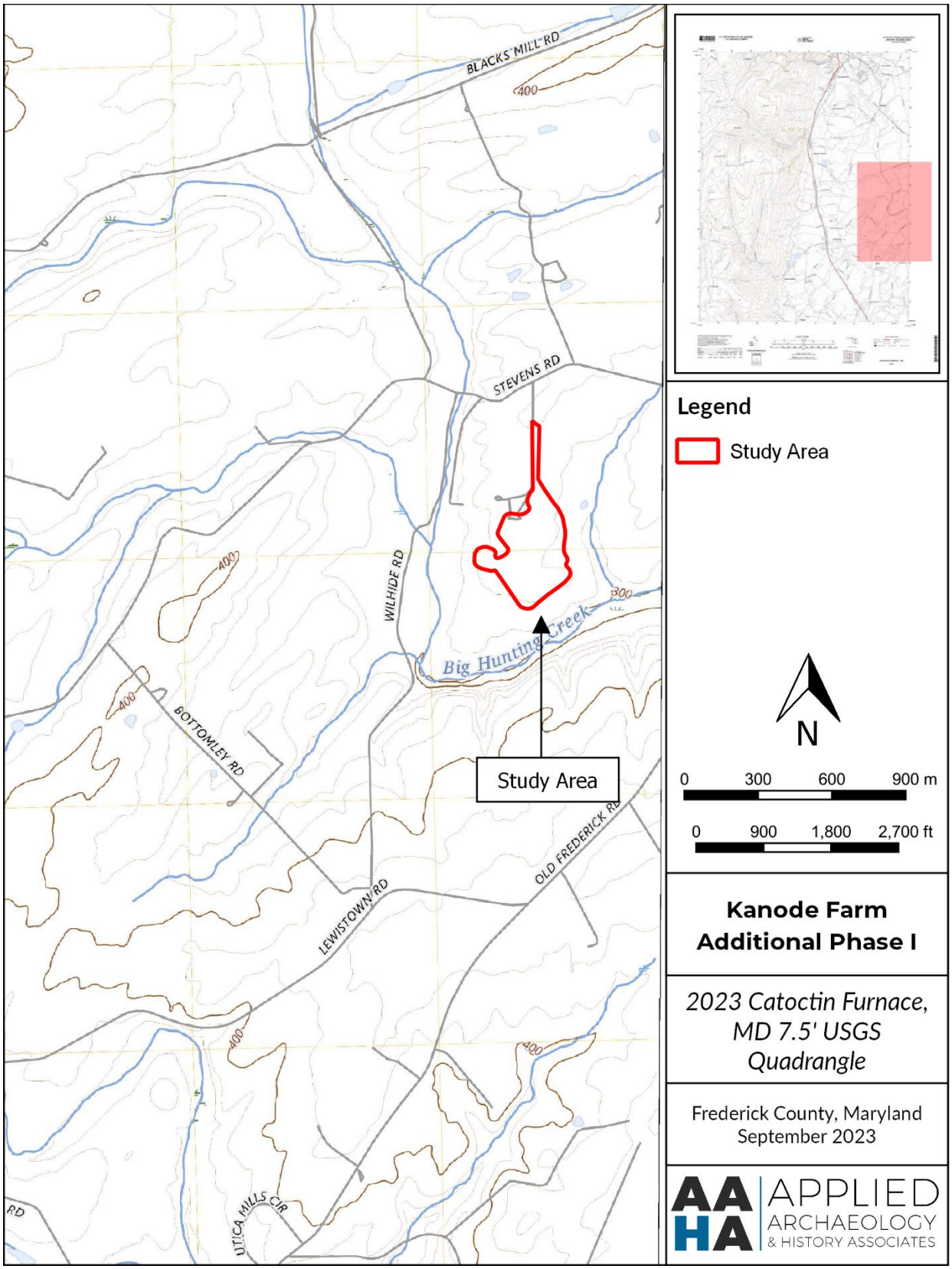

Figure 1-2. Detail of the 2023 United States Geological Survey (USGS) Catoctin Furnace, MD 7.5-minute quadrangle showing the location of the Study Area (USGS 2023).

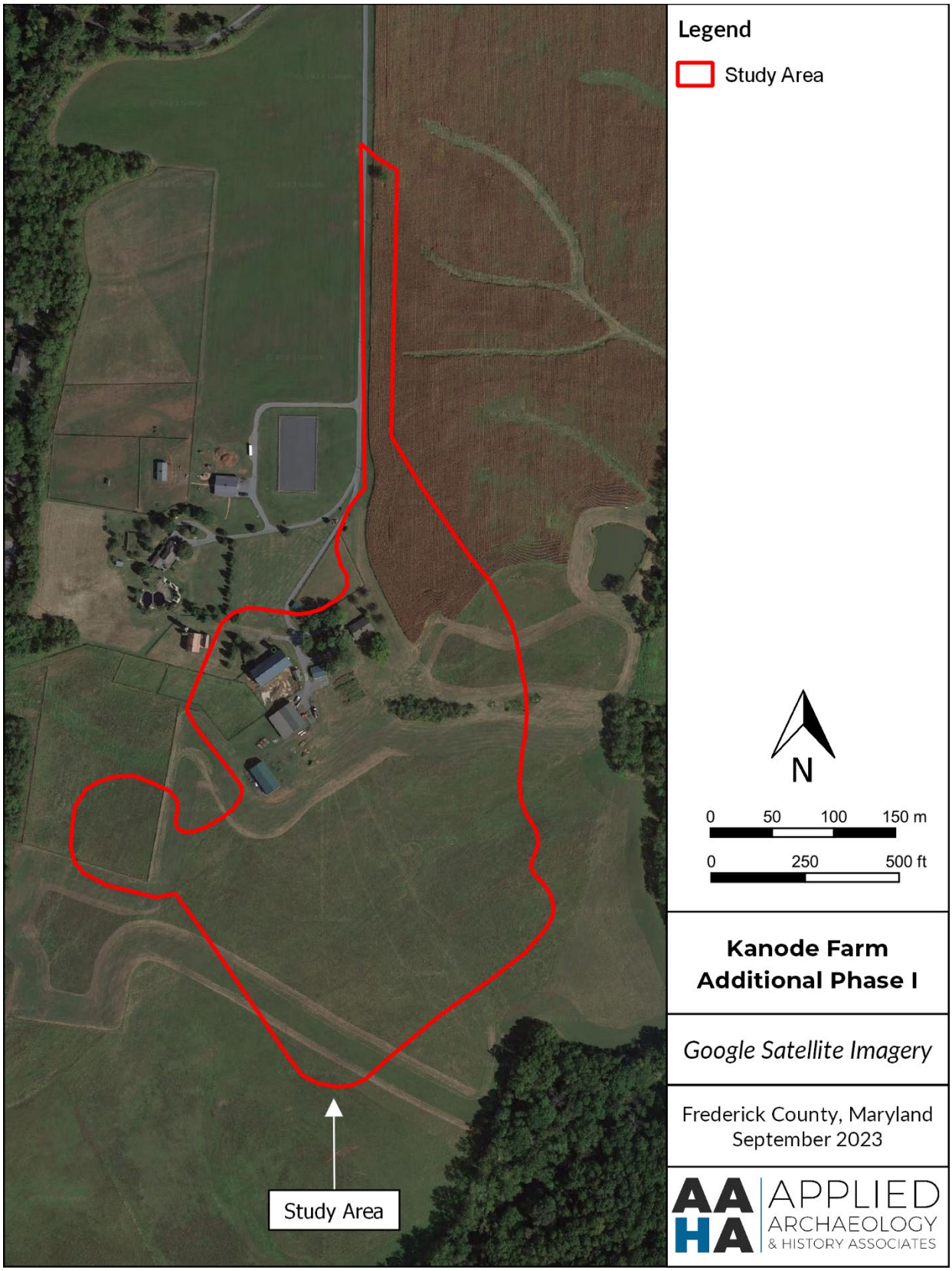

Figure 1-3. Aerial photograph showing the current conditions of the Study Area.

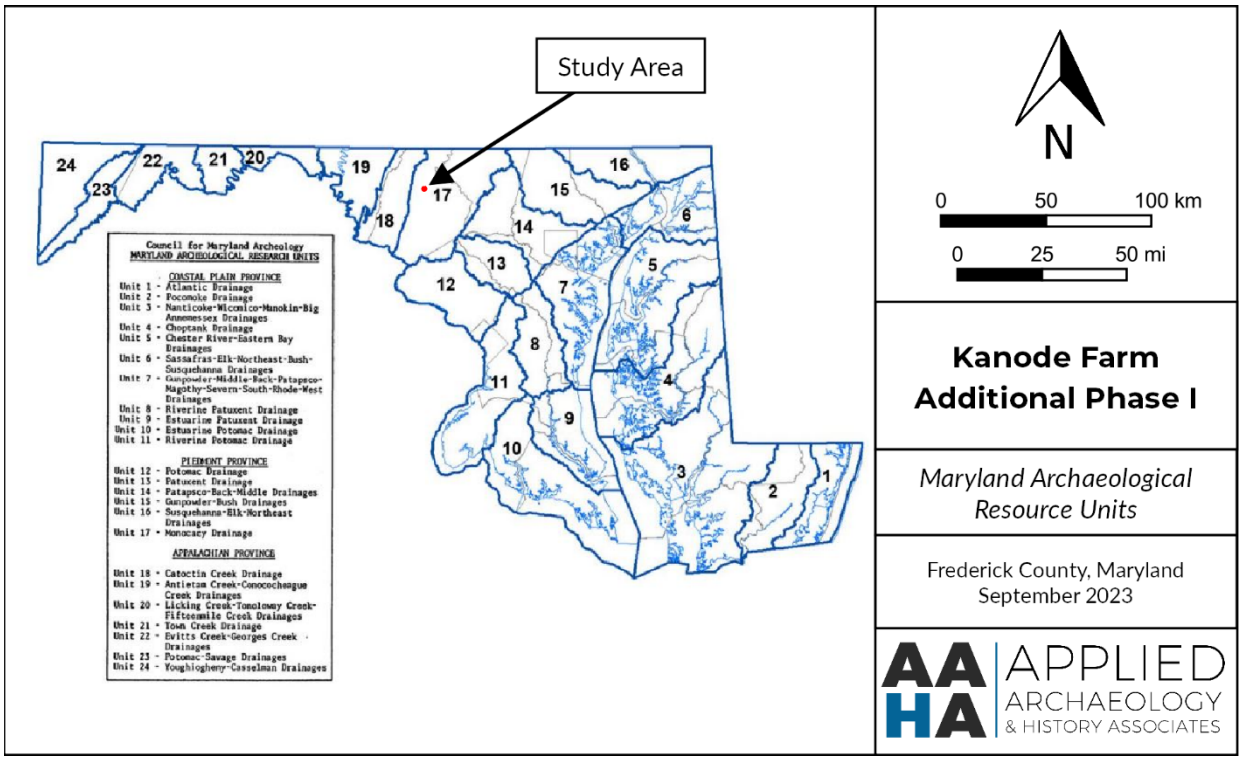

Figure 1-4. Map of Maryland Archaeological Research Units showing the location of the Study Area.

2. ENVIRONMENTAL CONTEXT

The Study Area incorporates approximately 28 acres of a larger property located 0.4 miles south of Stevens Road and contains a portion of a farm complex shown on historic maps from 1911. The narrow northern extension of the Study Area lies within agricultural fields paralleling an existing driveway. The Study Area is situated along the southern terminus of an upland ridge that overlooks Big Hunting Creek to the south and west and an unnamed tributary of the Monocacy River to the east.

Physiography and Geology

The Study Area is located in the Eastern Piedmont, Mesozoic Lowland Region, Gettysburg Lowland District physiographic province characterized by relatively flat to gently rolling surfaces (Reger and Cleaves 2008; Figure 2-1). This region is underlain by red shales, siltstones, and thin sandstones bordered in places by limestone and quartz conglomerates dating to the Triassic period. The Study Area is directly adjacent to a tributary of Big Hunting Creek, a tributary of the Monocacy River in the Potomac River watershed. Relief is gently sloping from north to south with an elevation ranging from 102 to 110 meters (m; 336 to 362 feet [ft]) above mean sea level (MD iMap Topography Viewer 2021).

Geological strata underlying the Study Area are included within the New Oxford formation, consisting of up to 1,371-m (4,500-ft) thick deposits of red, maroon, and gray sandstone, siltstone, and shale. These sediments were faulted down during the Triassic period of the Mesozoic era at the base of Catoctin Mountain (Cleaves et al. 1968).

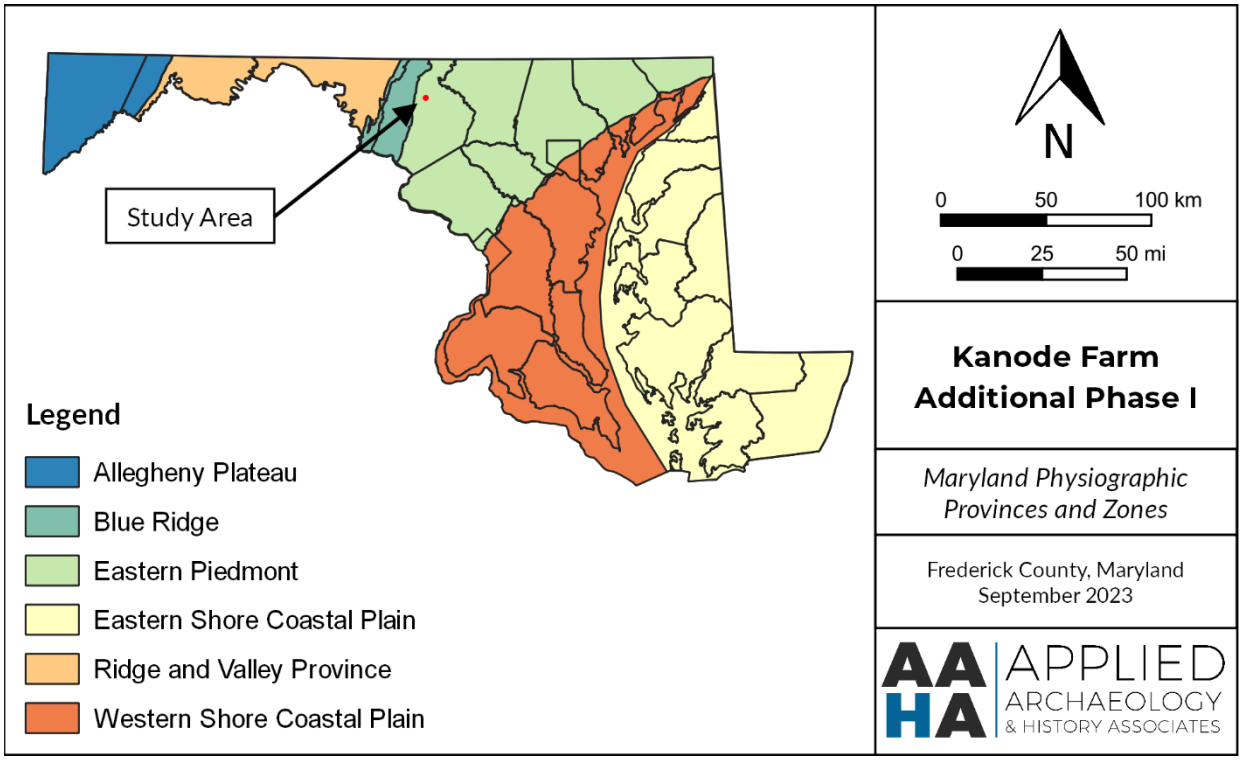

Figure 2-1. Study Area location on a map of Maryland's physiographic provinces.

Soils

Soil analysis utilized the USDA Web Soil Survey (WSS) as depicted in Figure 2-2. The Study Area is primarily occupied by Penn-Reaville silt loams (PrB; 3-8% slopes) and Penn silt loam (PnB; 3-8% slopes). Both soil series are considered prime farmland. Penn series soils are classified as moderately deep and well-drained. They are generally encountered on minimally sloped ridges and hills and are formed in residuum weathered from noncalcareous reddish shale, siltstone, and fine-grained sandstone normally dated to the Triassic period. Reaville silt loams are classified as moderately deep and moderately well drained to somewhat poorly drained soils that formed in residuum weathered from red Triassic, interbedded shale, siltstone, and fine-grained sandstone.

A small portion of the Study Area's western extent is mapped as Klinesville channery silt loam (KnC; 8-15% slopes). Klinesville soils are classified as shallow and somewhat excessively drained soils that are formed in residuum from red shale, slate, siltstone, and fine-grained sandstone. They are typically encountered on highly dissected upland landforms.

Paleoenvironment

Approximately 15,000 years ago, sea levels began rising and transgressing the exposed Atlantic continental shelf. By 10,000 BP ocean waters extended to the Cape Charles paleochannel located at the mouth of the Chesapeake Bay (Dent 1995:75). During this same period, the vegetational landscape consisting of coniferous forests associated with the late Pleistocene was being displaced by a mixed coniferous-deciduous forest with reduced open character (Owens et al. 1974:399–400). Pollen cores obtained from the Dismal Swamp in the southern margins of the Chesapeake region show a transition from pine and spruce trees to oak, chestnut, and hickory around 8,200 years ago (Whitehead 1972:308). After 3,500 years ago the local flora and fauna assume a relatively modern character.

Before the arrival of Europeans, the environment was primarily wooded in deciduous hardwoods (Hall 1973:73). The dominant tree species included red and white oak, sweetgum, swamp maple, holly, beech, white cedar, and bald cypress. Following European settlement, the area gained an evergreen component, including Virginia, shortleaf, and loblolly pines. Dominant species in this habitat included white and southern red oak, tulip poplar, loblolly pine, American holly, sweet pepper bush, arrowwood, Japanese honeysuckle, poison ivy, and Virginia creeper. Food sources available to precontact inhabitants in the late summer, fall, and early winter of this region include fruits, seeds, greens, and tubers (Steponaitis 1986:79). Tubers, fruits, greens, and seeds would have been available in the spring, summer, and fall seasons, with dominant species of silky dogwood, bald cypress, seaside alder, narrow-leaved cattail, spotted touch-me-not, buttonbush, sedges, and skunk cabbage.

Modern Climate

Frederick, Maryland currently experiences an average of 42.97 inches (in) of precipitation per year. Snowfall averages 35.2 in. Average daily maximum temperature is 84.6 degrees Fahrenheit and the average daily minimum temperature is 22.1 degrees Fahrenheit (Kraft 2003). The growing season lasts for an average of 190 days (Weather Spark 2023).

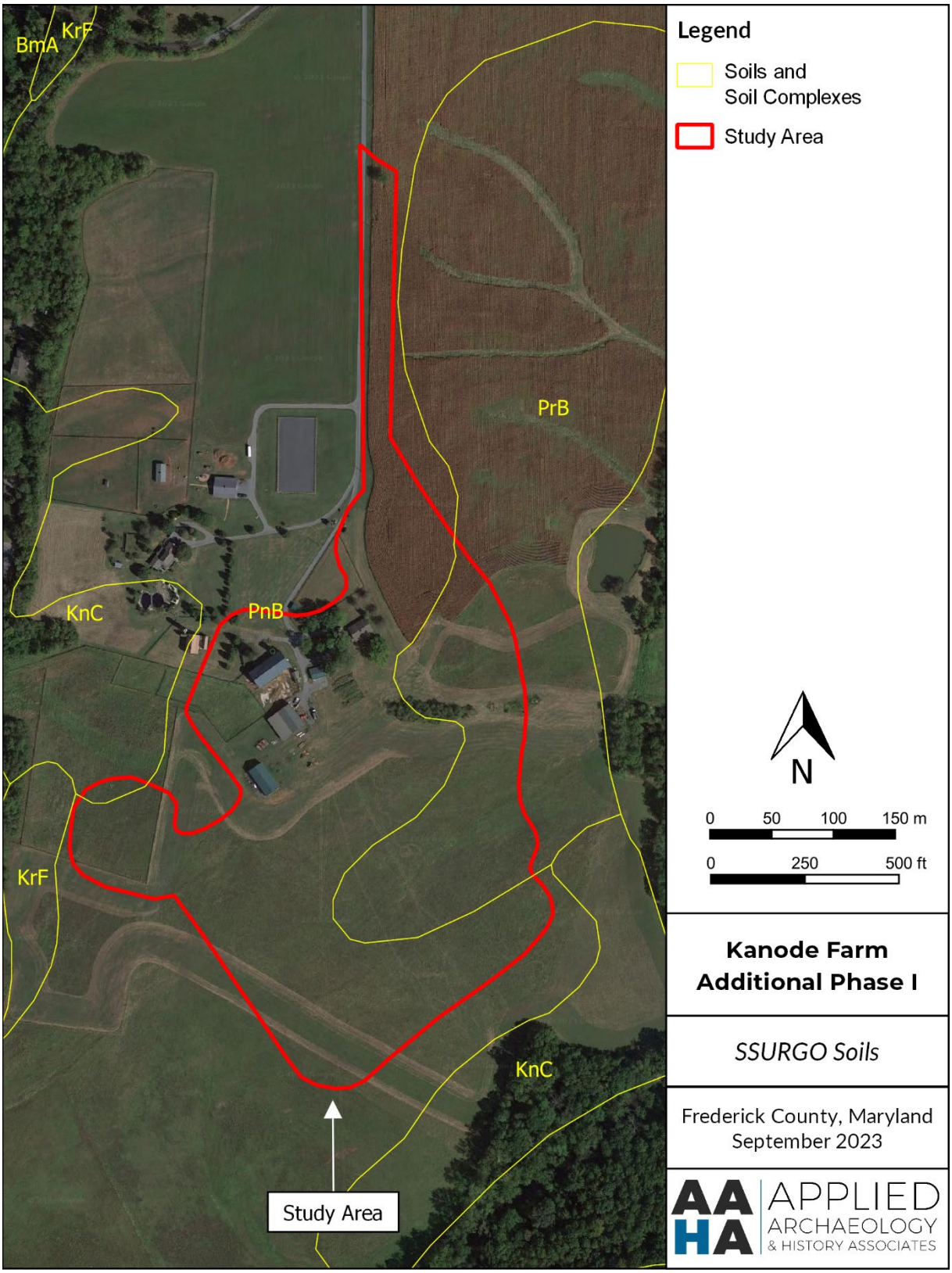

Figure 2-2. Aerial photograph showing soils and soil complexes within the Study Area

Flora and Fauna

Prior to the historic development of the area, the landscape was likely made up of grasslands intermingled with stands of pine and deciduous trees. Representative species present in the Study Area would have included white oak and post oak, hickory, pines, dogwood, sweetgum, and yellow poplar. While intensive development and historic agricultural practices have dramatically altered vegetation patterns, stands of older growth trees along the Monocacy River provide examples of the flora once encountered within the area.

Faunal resources in the region would have included a varied cross-section of game. Elk, deer, bear, wolf, fox, rabbit, hare, and beaver provided meat for sustenance and pelts for clothing and trade. Fowl, including turkey, partridge, and pigeon, also supplemented human diets. The local streams and creeks yielded an assortment of aquatic species. While the range of game varied based on vegetation, topography, and fresh water sources, they provided a substantial resource base to support precontact and historic inhabitants in the region.

3. CULTURAL CONTEXT

Precontact Context

The precontact chronology of the Middle Atlantic region is commonly divided into three chronological periods: Paleoindian (circa 13,000 - 7500 B.C.), Archaic (7500 - 1000 B.C.), and Woodland (1000 B.C. - A.D. 1600). These periods are also commonly subdivided into Early, Middle, and Late subperiods: Early Archaic (7500 - 6000 B.C.), Middle Archaic (6000 - 4000 B.C.), Late Archaic (4000 - 1000 B.C.), Early Woodland (1000 - 300 B.C.), Middle Woodland (300 B.C. - A.D. 900), and Late Woodland (A.D. 900 - 1607). The periods generally mark cultural development from nomadic hunter-gatherers during the Paleoindian period to sedentary villagers in the Late Woodland period.

Paleoindian Period (13,000 – 7500 B.C)

During the latter part of the last glacial period, known as the Wisconsin, most of northern North America was deeply buried beneath thick sheets of ice. The vast amounts of water contained in these continental glaciers lowered ocean levels by as much as 130 m. Large expanses of the continental shelf were exposed, with dry land extending for many kilometers beyond present shorelines. The glaciers did not flow as far south as present-day Maryland, and the Chesapeake Bay of today existed only as the ancestral Susquehanna River Valley. Glacial recession 11,000 years ago (ca. 9,000 B.C.) raised the sea level and inundated the ancestral river valleys (Walker 1981; Wall 1981).

Paleoindian people were mobile, generalized foragers who lived in small bands in seasonal camps (Dent 1995; Gardner 1989). Paleoindian sites are identified by the presence of diagnostic artifacts, the earliest well-documented type are Clovis projectile points, which were typically fashioned of high-quality cryptocrystalline materials such as chert, chalcedony, and jasper. Later Paleoindian points include smaller Clovis-like and Cumberland variants, small “Mid-Paleo” points and, at the later end of the Paleoindian period, Hardaway or Hardaway-Dalton points. Other diagnostic tools include gravers, endscrapers, denticulates, spokeshaves, perforators, knives, pièces ésquillées, and unifacial flake tools. Lithic material utilized for tools include quartz, which is abundant in northern Virginia, and other local sources such as hornfels and chert (Wall 1981, 2013).

Archaic Period (7500 – 1000 B.C.)

The Archaic period is divided into three subperiods: Early Archaic (7500 - 6000 B.C.), Middle Archaic (6000 - 4000 B.C.), and Late Archaic (4000 - 1000 B.C.). The beginning of the Archaic period coincides with the Holocene epoch, marked by a climatic shift to a warmer, temperate climate with vegetation changing to a mixed coniferous-deciduous forest (Dent 1995). By 1000 B.C., the Chesapeake Bay and the inundated portion of the Potomac River reached their present limits and modern climactic and biotic regimes developed to their present state. Oysters and a variety of benthic and pelagic fishes occupied newly created niches in a rich estuarine environment (Walker 1981; Wall 1981).

Increasing seasonality of resources brought on by these climatic changes led to changes in subsistence strategies and seasonally-focused mobility. Archaic populations were characterized by small, mobile bands living in base camps near critical resources (Purrington 1983; Wall 1981). Subsistence was based on hunting, fishing, and foraging and continued to change with the environment (Cowan 1985). Settlement patterns changed dramatically through the Archaic period as populations increased and subsistence patterns changed (Gardner 1987; Wall 1981, 2013). Archaic period sites are typically situated on well-drained river terraces, near springs, and at the junction of tributary streams.

The typical tool kit expanded during the Archaic period to include new forms of projectile points, utilized flakes, bifaces, ground stone tools, grinding tools, and unifacial tools. The prevalence of grinding implements, polished stone tools, and carved soapstone bowls by the Late Archaic suggests increased use of plant resources and possibly changes in subsistence strategies and cooking technologies (Cowan 1985). Quartz was the preferred lithic material throughout the Early and Middle Archaic period with increased use of rhyolite, quartzite, and ferruginous sandstone during the Late Archaic period (Barber 1991; Hantman 1990).

Diagnostic projectile points are the primary typological criteria used to identify and date Archaic period occupations. Early Archaic sites are characterized by corner and side notching and include forms such as Palmer and Kirk. The end of the Early Archaic subperiod and the beginning of the Middle Archaic subperiod is marked by stemmed base forms such as Stanly, Morrow Mountain, and Guilford types. The side-notched Halifax type transitions into the Late Archaic subperiod, which is identified by stemmed and notched forms such as Savannah River, Susquehanna, and Perkiomen (Broyles 1971; Coe 1964; Dent 1995; Gardner 1974; Sarudy et al. 2001; Wall 1981).

The Late Archaic subperiod is marked by increases in population density and decreased mobility. Increased population necessitated a more predictable food supply, leading to the development of agriculture. Cultigens such as sunflower, sump weed, and possibly goosefoot may have been cultivated as early as 2,000 B.C. (Yarnell 1976) and remains of squash have been found in the lower Little Tennessee River Valley with contexts containing Savannah River projectile points (circa 2,400 B.C.) (Chapman and Brewer Shea 1988). In the Piedmont areas of Maryland, many sites contain artifacts typical of the Savannah River Complex such as broadspears and steatite bowls. Sites with elements of the Savannah River Complex range from small, temporary campsites to larger, seasonal camps including hearth features and stone platforms.

Woodland Period (1000 B.C. – A.D. 1600)

The Woodland period is divided into three subperiods: Early Woodland (1000 - 300 B.C.), Middle Woodland (300 B.C. - A.D. 900), and Late Woodland (A.D. 900 - 1600). The Woodland period in general is distinguished by the development of settled village horticulture, the intensification of regional trade networks, and the introduction of fired-clay ceramics. Settlement patterns indicate an increasingly sedentary lifestyle exploiting a limited array of resources within a smaller catchment area focusing on rich alluvial floodplain locations.

The Early Woodland period is characterized by a continuation of many of the cultural traditions and subsistence and settlement patterns established in the Late Archaic (Gardner 1982) with a

gradual shift towards floodplain locations, particular on the Piedmont Plateau (Klein and Klatka 1991:54). Burial ceremonialism is noted in many Early Woodland period cultures in eastern North American; however, this phenomenon is not typically found in the Piedmont region until the late Middle Woodland period. Accretion mounds have been identified in the Ridge and Valley and inner Piedmont provinces, although mounds in the Piedmont are restricted to the Rivanna and Rapidan drainages. The Middle Woodland subperiod is marked by further changes in ceramics and is thought to have been a time of increased reliance on horticulture, population aggregation, and increased sedentism (Blanton 1992:72).

By the Late Woodland subperiod, agriculture assumed a primary role in Native American subsistence, leading to major changes in settlement patterns. Arable land became the dominant settlement factor, with sites located on fertile floodplain soils or on adjacent higher terraces or ridges. Settlements dating to this subperiod consist of large villages and small hamlets supported by base camps and activity areas. Evidence of palisades indicate a rise in intergroup conflict. Locations used partially or largely for ceremonial purposes were also present, usually in association with habitation sites. The large base camps, hamlets, and villages are typically located on bluffs, terraces, or high floodplains adjacent to rivers or major tributaries while small seasonal camps and non-seasonally-based satellite camps supporting nearby sedentary villages and hamlets are located along smaller streams in the interior (Potter 1989, 1993).

Population increases led to increased socio-political complexity, manifested in Maryland and Virginia as the establishment of chiefdoms, most notably the Powhatan chiefdom (Potter 1989, 1993). Records of these chiefdoms are provided by European explorers, including John Smith, who provide extensive details of their socio-political organization (Hodges and Hodges 1994). The villages that housed tribal chiefs, called werowances (Potter 1993) were located on large estuaries of major rivers, such as the Rappahannock River. In the Maryland Piedmont, villages were located near fishing spots and on arable soils where corn could be easily cultivated (Potter 1993:34). Other identified site types from the Late Woodland subperiod include quarries, workshops, seasonal base camps, hamlets, and villages. The Potomac Creek site in Stafford County, Virginia, represents a Late Woodland agrarian village with a chiefdom-level social hierarchy and burial ceremonialism. Burial remains demonstrate ranked status, with both high-status individual burials and group burials in ossuaries. The individual burials often contained elaborate grave goods including decorative gorgets, shell maskettes, and obtuse angled pipes (Hodges and Hodges 1994).

The Woodland period tool kit varies significantly throughout the period and reflects the increasing variety of tasks necessitated by changes in subsistence methods. The Early Woodland tool kit is similar to the Late Archaic with stylistic changes. Changes in material culture during the Middle Woodland include the replacement of the spear thrower with the bow and arrow. During the Middle to Late Woodland period, projectile points forms evolved, with popular forms identified as Jacks Reef, Chesser Notched, and various triangular forms (Prufer 1975). Projectile points representing the Late Woodland period are primarily Levanna, Clarksville, and Madison types, typically manufactured from local quartz (Egloff and Potter 1982).

Ceramic wares are used as diagnostic tools to date Woodland period sites. Early Woodland varieties such as Marcy Creek Plain and variants, resemble the preceding Late Archaic soapstone vessels. Cord-marked, soapstone-tempered Selden Island ceramics, sand- and-grit-tempered Accokeek ceramics, and cord-marked and plain ceramics tempered with quartz, shale, and other crushed rock are common throughout the Early Woodland period. Ceramic technology improved throughout the Woodland period, with changes in form, temper, and decoration. Middle Woodland pottery is marked by the used of net impression as surface treatment with noted types including Albemarle, and Popes Creek ware (Gardner and Walker 1993:4). Common ceramic types of the Late Woodland period include Shepherd, Keyser, Potomac Creek types, Rappahannock, Moyaone, and various other minority types with plain, cord- and fabric-marked surfaces (Egloff and Potter 1982; Gardner and McNett 1971; Gardner and Walker 1993).

Historic Period Overview

In 1588, Captain Vincente Gonzales, believed to be the earliest European to enter the Chesapeake Bay, sailed from Florida along the Atlantic seaboard (Quinn 1977). In 1608, John Smith explored the Chesapeake Bay and documented the surrounding land, including contemporary Native American villages. Trade was established with these groups, most of which spoke Algonquian languages. In the Piedmont region, Iroquoian groups such as the Susquehannock, Seneca, and Tuscarora were also present. The Monocacy River connected regional waterways including the Susquehanna River, the Potomac River, and the Chesapeake Bay to the Piedmont and other western regions. By the late seventeenth and the early eighteenth centuries, the combined effects of internal conflict and externally introduced diseases and destabilizing influences resulted in a significant reduction in the Native American population and eventual relocation of Native Americans from the Chesapeake Bay area (Jennings 1984).

Settlement in what is now the State of Maryland began in 1634 when 150 English colonists settled St. Mary's City on the lower Potomac River (Fausz 1984). Cecilius Calvert, second Lord Baltimore, was proprietor of the colony. In 1632, he inherited the charter for the region from his father, George Calvert, who had secured the Maryland grant from King Charles I. The success of tobacco cultivation in the colony of Virginia encouraged early Maryland colonists to adopt this agricultural focus, requiring a large labor force of indentured servants and slaves. The area that would become Frederick County remained unsettled for nearly a century following the founding of the Maryland Colony (Williams and McKinsey 1910:1), although traders visited the region periodically. Due to the economic dominance of tobacco, settlements clustered around major navigable waterways where tobacco could easily be shipped to European markets. The Monocacy Valley, far above the Fall Line, was initially undesirable and, as such, remained unsettled throughout the seventeenth century (Chapelle et al. 1986).

Explorers and traders were the first Europeans to enter the Piedmont during the first decade of the eighteenth century, with settlers entering the region around 1720. The first permanent settlement is thought to have been at Monocacy, founded in 1729 (Williams and McKinsey 1910:3). Beginning in 1732, speculators from Annapolis and the Eastern Shore acquired large tracts of land along the Monocacy and Potomac Rivers (Tracey and Dern 1987) leading to an influx of English-speaking settlers from eastern parts of the Maryland Colony in the southern

portion of the region and German-speaking settlers from York County, Pennsylvania in the north. In the northern region, the German-speaking settlers practiced subsistence agriculture on small farms and were primarily German Lutherans or Calvinists. In the southern region, the English settlers, typically Anglicans, attempted to replicate the plantation system prevailing in the Tidewater, including the practice of slavery. The population of the area grew rapidly, and in 1748 Frederick County was created out of portions of Prince George's and Baltimore Counties (Tracey and Dern 1987:23).

In 1727, a 7,000-acre grant, which included the area that would become Frederick Town, was patented to Benjamin Tasker (Tracey and Dern 1987:23). This grant was purchased by Daniel Dulaney, an Irish land speculator, in 1744 and Frederick Town was subsequently laid out. In 1748, Frederick Town became the seat of the newly created Frederick County (Wesler et al. 1981). Dulaney, impressed with the rapidity by which the Pennsylvania Dutch developed agricultural infrastructure, enticed German settlers to the town (Wust 1978:21). An influx of German immigrants in the late 1740s gave the town of Frederick and the surrounding County a German character. Frederick remained the economic and cultural center of Frederick County throughout the late eighteenth century. Frederick was located along the Great Wagon Road, an important migration and trade route running from Pennsylvania into the Appalachian Valley in Virginia with connections along the Potomac River, and into the Shenandoah and Ohio River Valleys.

During the French and Indian War, isolated farmsteads in western Frederick County were targeted for French raids, leading settlers to flee to the eastern part of the county. The town of Frederick became a midway staging point for excursions by British and colonial troops (Tracey and Dern 1987). General Edward Braddock marched through Frederick in 1755 on his way to Fort Duquesne (Whitmore and Cannon 1981:13). The signing of the Peace of Paris in 1763 ended the French and Indian War, but it was not until 1765 that conditions finally improved enough for settlers to inhabit western Frederick County once again.

Residents of Frederick County overwhelmingly supported the United States during the American Revolution. One of the first official repudiations of the Stamp Act occurred in Frederick in 1765 (Cannon et al. 1995:22). While no military action occurred in Frederick County, the need for food and iron to supply the army led to an increase in industry and population. The Hessian Barracks, built in 1780 to hold German mercenary prisoners in Frederick, still stands and was listed in the NRHP in 1971 (NRHP 2021).

During the late eighteenth century, the population of Frederick County rapidly increased (Wesler et al. 1981:140). The economic focus on grain cultivation led to the construction of mills along waterways, with 80 flour and grist mills noted within Frederick County by 1791 (Scharf 1882:361, 369; Stiverson 1977) By 1790, Frederick County was the largest wheat-producing county in the newly formed United States (Henninghausen 1892:13). In addition, industries developed to process other natural resources in the area, including iron ore, slate, limestone, copper, and flintstone with manufactories including iron furnaces, glass factories, tanneries, and paper mills (Hitselberger et al. 1994:561; Scharf 1882:361, 369). Iron produced at Frederick County's Catoctin Furnace, as well as other furnaces in Washington and Allegheny counties, were shipped through Frederick to eastern cities and ports.

Transportation improvements within Frederick County after the American Revolution opened the region to expanded commerce and development. By 1818, the Baltimore Turnpike provided a direct overland route between the markets of Baltimore City and the inhabitants of Frederick and, by 1821, Frederick had been connected to Cumberland in Allegany County (Miller 1886:135). The National Road, commissioned by President Jefferson, connected Baltimore to Illinois and ran through Frederick, eventually becoming US-40. The expansion of the overland roadway network and economic growth in the county's interior brought new forms of transportation infrastructure beginning in the second quarter of the nineteenth century. The Chesapeake and Ohio Canal, operating from 1831 to 1924, was quickly overshadowed by the Baltimore and Ohio (B&O) Railroad, which serviced Frederick by 1831. As the town and county became increasingly connected to urban markets, the economy and population steadily increased.

Although in decline, slavery continued to be practiced in Frederick County, albeit at a lower rate than in the state's tobacco-producing regions (Williams and McKinsey 1910:219). Between 1830 and 1860, the number of slaves in the county steadily declined from 6,370 to 3,243; at the same time, the number of free African Americans climbed from 2,985 to 4,967. The town of Frederick was known for its religious pluralism, home to communities in the Lutheran, Reformed, Catholic, Anglican, and Anabaptist traditions.

The citizens of Frederick were generally Unionists during the Civil War. The Maryland vote on secession took place in Frederick on April 29, 1861, when the General Assembly voted 53-13 against secession (Scharf 1882:202). The movement of the Assembly's vote to Frederick had been orchestrated by President Lincoln himself, who believed a vote to remain in the United States was more likely in the western part of the state than in Southern-sympathizing Annapolis. War Department records indicate that nearly 34,000 white Marylanders enlisted in volunteer regiments for the United States and an additional 8,700 Black Marylanders enlisted in the United States Colored Troops (United States War Department 1880:69–70). Many of these soldiers hailed from Unionist parts of the state such as Frederick, Washington, and Allegany Counties.

During the Civil War, many skirmishes, raids, and deployments occurred throughout Maryland, with the majority occurring either close to or within Frederick County. Several large battles were fought in or near Frederick County, including some of the war's earliest battles at Harper's Ferry in 1861. In early September 1862, Confederate Lt. Gen. Robert E. Lee crossed the Potomac River into Maryland in order to draw the war out of Northern Virginia long enough to take in the year's harvest. Confederate forces entered Frederick hoping for volunteers, but found few supporters among the town's citizens. Lee's army had been divided, with one element raiding the Maryland countryside and one element sieging Harper's Ferry. The Confederates in Frederick were forced to fall back across the Middletown Valley on September 11-12 by United States forces under the command of Maj. Gen. George B. McClellan, leading to a series of battles at three South Mountain passes on September 16 (Scharf 1882). These holding actions were ultimately successful and allowed the Confederate Army to concentrate near Sharpsburg for the September 17 Battle of Antietam in Washington County. The battle was a stalemate due largely to McClellan's reluctance to commit his whole force but did result in Lee's army slipping back across the Potomac River instead of pushing further north.

In July 1864, Confederate troops once again entered Maryland under the command of Lt. Gen. Jubal Early. Early had been operating in Virginia's Shenandoah Valley since the late spring and had successfully pushed United States forces aside to open a path to Washington. This was done at Lee's command both to draw Federal troops away from the ongoing siege at Petersburg (which had begun on June 9, 1864) and to menace the Federal capital during an election year that seemed increasingly threatening to Lincoln. Early briefly occupied Frederick before engaging Maj. Gen. Lew Wallace at the Battle of Monocacy on July 9. Wallace's outnumbered force was defeated but had succeeded at delaying Early's advance by one day, just enough time for the Federal VI Corps to arrive and reinforce the defenses of Washington. Early would launch a failed attack at Fort Stevens, within the District of Columbia, on July 12, 1864. Unable to capture the city, Early returned to the Shenandoah Valley.

As slavery had played a limited role in the economy of Frederick County, the economic upset that marked the end of the Civil War and the emancipation of enslaved people was less disruptive than in other areas of the country. Increased demand for agricultural products bolstered the local economy, while the resumption of rail transportation allowed local farmers to satiate urban markets (Grisby and Hoffsommer 1949:12). Dairying expanded as transportation improved, eliminating the need for expensive farm machinery and fertilizer for the fields. While agricultural items were shipped to urban areas, other local industries generally supplied local needs (Hitselberger et al. 1994:561; Scharf 1882).

At the beginning of the twentieth century, the economy of Frederick County stagnated due to increased mechanization leading to job and population loss as many unemployed residents moved out of the county and into larger urban centers. After World War I, overproduction of grain, closure of foreign markets, and increased government health regulations forced many farmers out of business, further swelling the ranks of the unemployed (Whitmore and Cannon 1981:63, 100). The economy rebounded during World War II as industry shifted to the manufacture of aircraft and weapons and farms intensified their production to meet the needs of overseas operations. Local manufacture of ship components which were later sent to coastal shipyards employed additional personnel and steel factories worked to full capacity. Personnel were desperately needed to meet production demands, and men leaving to fight in Europe and the Pacific left vacancies filled by African Americans and women. The establishment of Fort Detrick in Frederick County provided a boost to the local economy in the form of military and civilian scientists employed at the biological warfare research facility. Continued research at the facility postwar retained many employees and provided continuing job opportunities for returning veterans.

Frederick County continued to witness substantial growth throughout the remainder of the twentieth century. Construction and improvement to major roadways, such as I-70, I-270, and US-40, opened the City of Frederick and its surrounding environs to commuters to Baltimore and Washington, D.C. Rail transport has declined significantly in response to the overwhelming growth of automobile use. Despite the expansion of residential development within communities surrounding the Frederick area, as well as along the major road corridors, the county still supports a robust agricultural industry.

The Kanode Farm Property Study Area

Property History

The Kanode Farm property is part of a 195-acre property patented as 'Friendship' to John Briggs (or Biggs) in 1807 (Frederick County Patent Certificate 1503; see Appendix A for references). By 1821, the portion of Friendship containing the Study Area had been incorporated into a larger 270-acre parcel owned by Samuel Fleming that also included part of 'Rich Bottom' (Frederick County Land Records [FC Land Rec] JS 13:127). At this time, the larger property was divided between Fleming's two daughters: Nancy Snook and her husband, Adam, and Elizabeth Brengle and her husband, Jacob. Adam and Nancy Snook acquired the portion containing the Study Area. The 1830 and 1840 US Census records the Snooks residing in Frederick County District 4, which incorporates the Study Area. In both years, Adam is listed at the head of a household with 7-8 total individuals, all of whom are free white persons (Bureau of the Census 1830, 1840).

In 1842 the Snooks sold their 140-acre property to John Hill, who subsequently incorporated adjacent properties into his farmstead (FC Land Rec HS 18:573-576). John Hill was not identified in census records, but an Eve Hill is documented in the Creagerstown area with John's known daughters, Catherine and Julian Ann (Bureau of the Census 1850). At this time, Eve is recorded as owning $11,600 in real estate. John and Eve's daughters, Catherine Biser and Julian Ann Barrick, sold 236 acres including the Study Area to Frank Stevens in 1898 (FC Land Rec DHH 1:440).

Frank Stevens was a farmer born and raised in Creagerstown. According to his obituary in *The News* (Thursday, September 9, 1937), he was a democrat elected County Commissioner in 1913 and served as president of the board in 1916. He was married to Elsie Gaver and had one child, who died in infancy. Frank and his extended family resided on the property until 1959, when the property was sold to Edgar and Rachel Emrich (FC Land Rec ECW 621:129). Prior to the Stevens family's ownership, Stevens Road, which runs along the property's northern boundary, was known as Angleberger Road.

The Emrichs sold the property to Price and Dorothy Lewis in 1971, after which the property transferred through multiple individuals and portions of it were subdivided. In 1998, the property had been reduced to 175.153 acres and was acquired by Richard Kanode from the Brylawski Memorial Trust (FC Land Rec CCK 2382:884).

Historic Maps

Dennis Griffith's 1795 *Map of Maryland* is one of the first historic maps to depict Frederick County. The Study Area is shown between the Monocacy River and Catoctin Mountains along the north bank of Hunting Creek (Figure 3-1). Creagerstown lies to the east, with the road leading from Emmitsburgh south to Frederick running through town. Various mills are depicted along tributaries of the Monocacy River, including Woods Mill near the confluence of Hunting Creek and the Monocacy River, along with a copper mine.

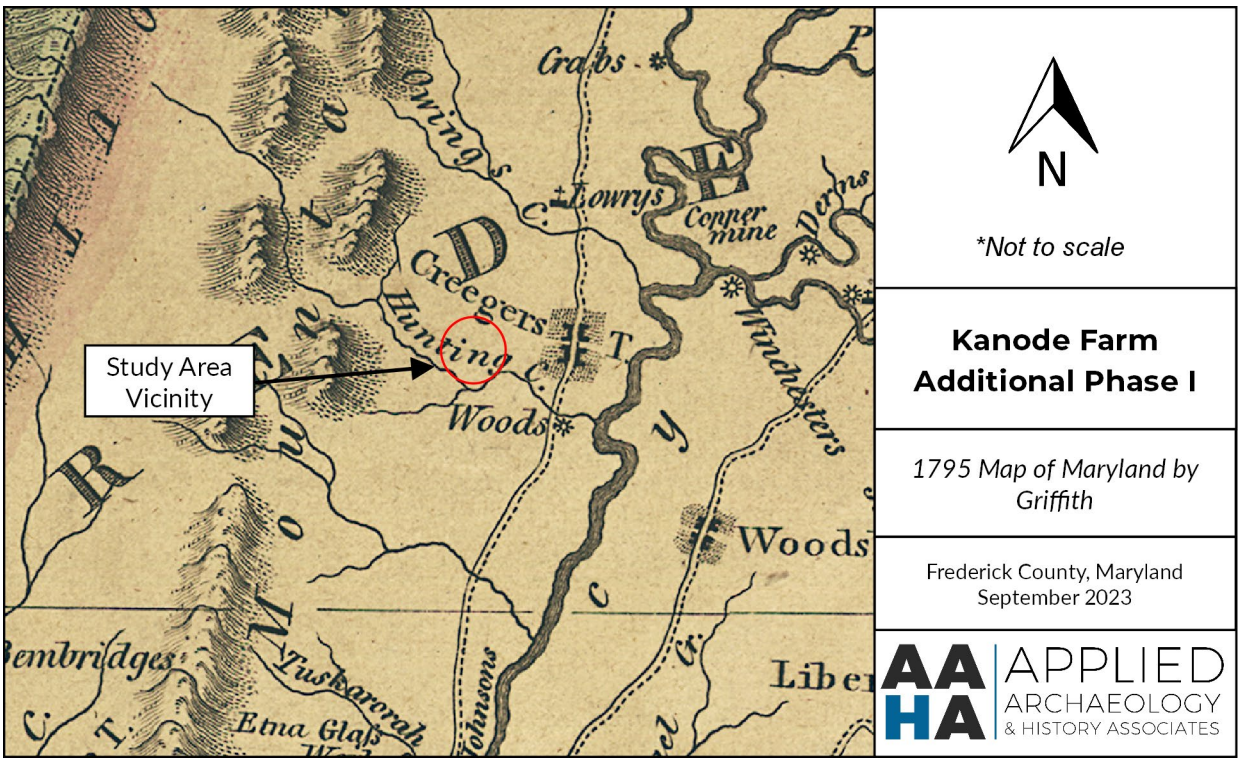

Figure 3-1. Detail of Dennis Griffith's 1795 *Map of Maryland* showing the Study Area vicinity (Griffith 1795).

The 1808 map of *Washington and Frederick Counties, Maryland* by Varle depicts early settlement in Frederick County (Figure 3-2). The population has increased since 1795, with additional towns and industries noted throughout the area. The Study Area is located south of Creegers Town near the junction of Big Hunting Creek and Little Hunting Creek, west of the Monocacy River. Two mills are noted at this junction.

Isaac Bond's 1858 *Map of Frederick County, Maryland* (Figure 3-3) labels towns, roads and railways, bodies of water, individual residences and businesses, and notable landmarks. The Study Area is located in the Creagerstown district and in the vicinity of dwellings owned by Mrs. Hill and J.M. McDonnel. Creagerstown is shown to the northeast and various roads extend in all directions from the town. Roads are present to the east and west of the Study Area and represent the early iterations of Old Frederick Road (east) and Wilhide Road (west). Notable public buildings nearby include merchant saw mills (MSM) to the northwest and southwest, a grist and saw mill (GSM) and woolen factory (WF) to the east, and public school 86 to the north.

The 1873 *Frederick County Atlas – Creagerstown* by D.J. Lake shows an increase in residential properties in the area (Figure 3-4). The Study Area is shown in an open area between various residences of Mrs. Hill, Mrs. Snook, and E. Myers. No structures appear within the Study Area. The 1911 *Emmitsburg, Maryland* 15-minute USGS quadrangle shows the Study Area south of a main road in an open field between an unnamed stream and an unimproved roadway (Figure 3-5). Hunting Creek School is noted to the northeast along with an unnamed church to the northwest. A structure is shown on the eastern side of the unimproved roadway within the central portion of the Study Area.

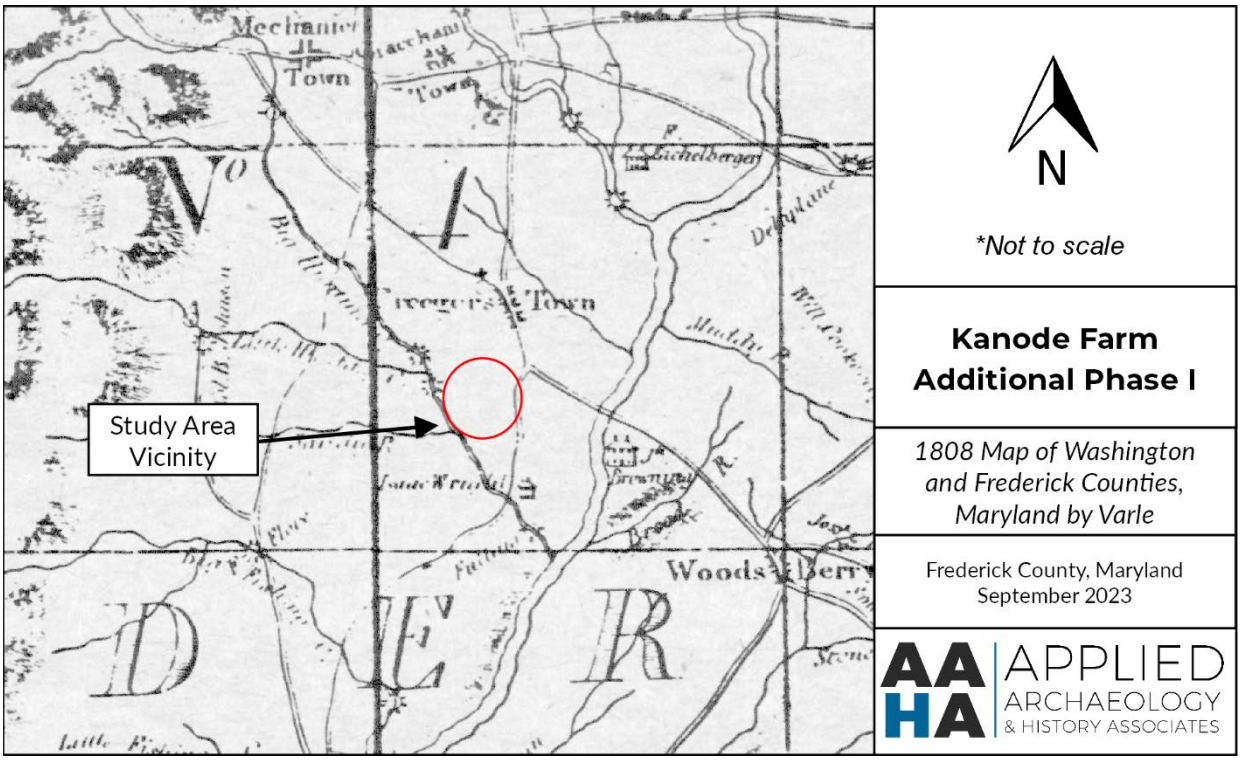

Figure 3-2. Detail of Varle's 1808 *Map of Washington and Frederick Counties, Maryland* showing the Study Area Vicinity (Varle 1808).

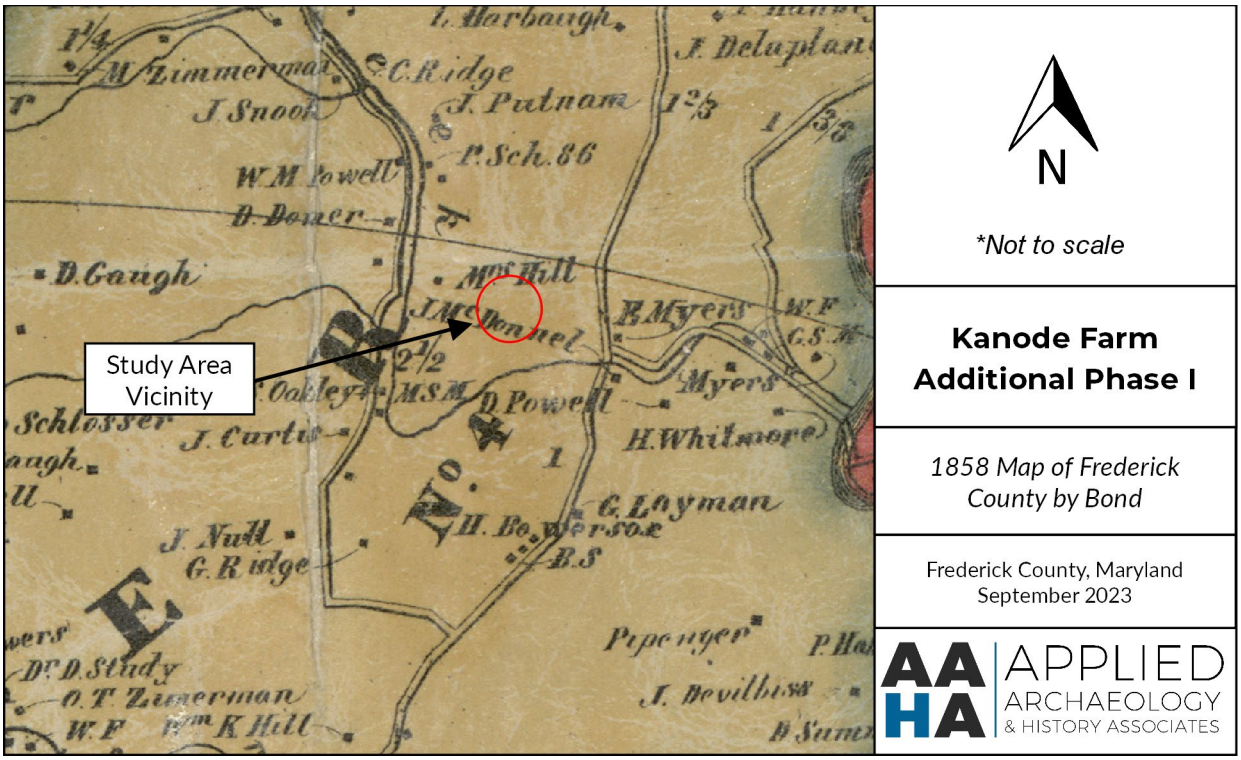

Figure 3-3. Detail of Isaac Bond's 1858 *Map of Frederick County, Maryland* showing the Study Area vicinity (Bond 1858).

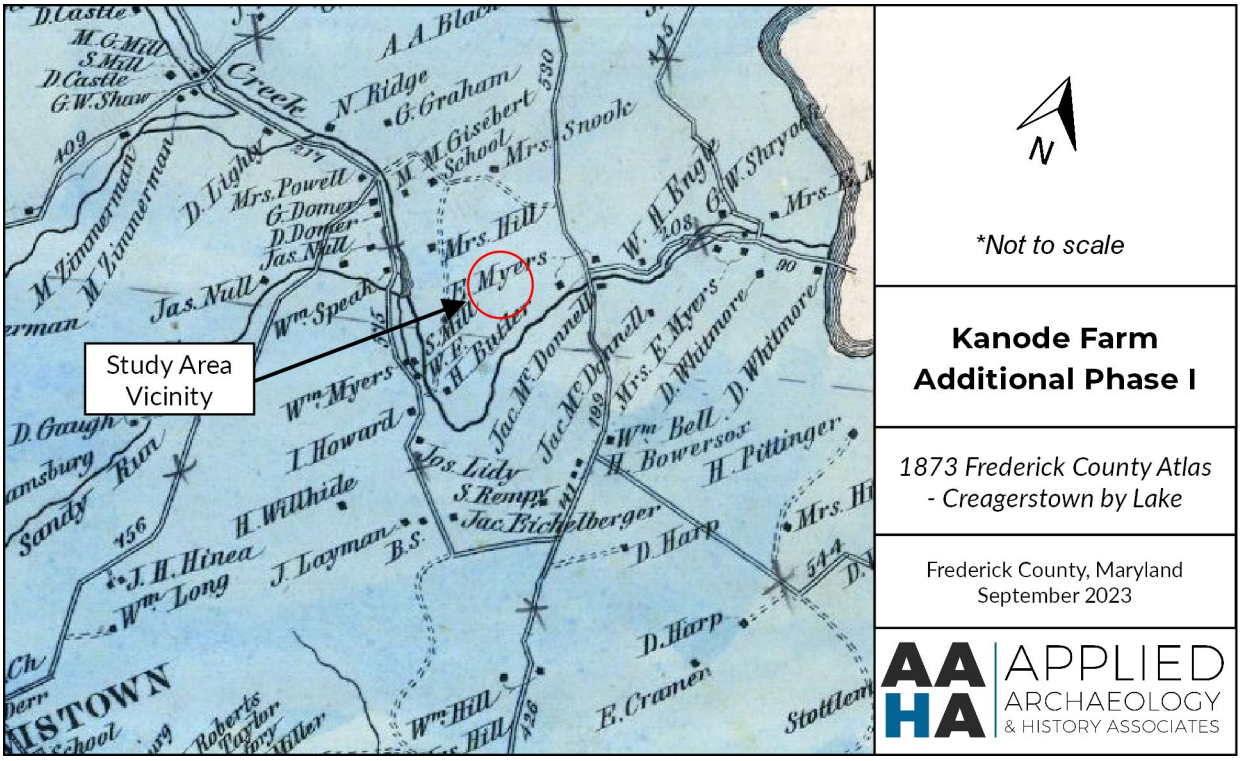

Figure 3-4. Detail of the 1873 *Frederick County Atlas – Creagerstown* by D. J. Lake showing the Study Area vicinity (Lake 1873).

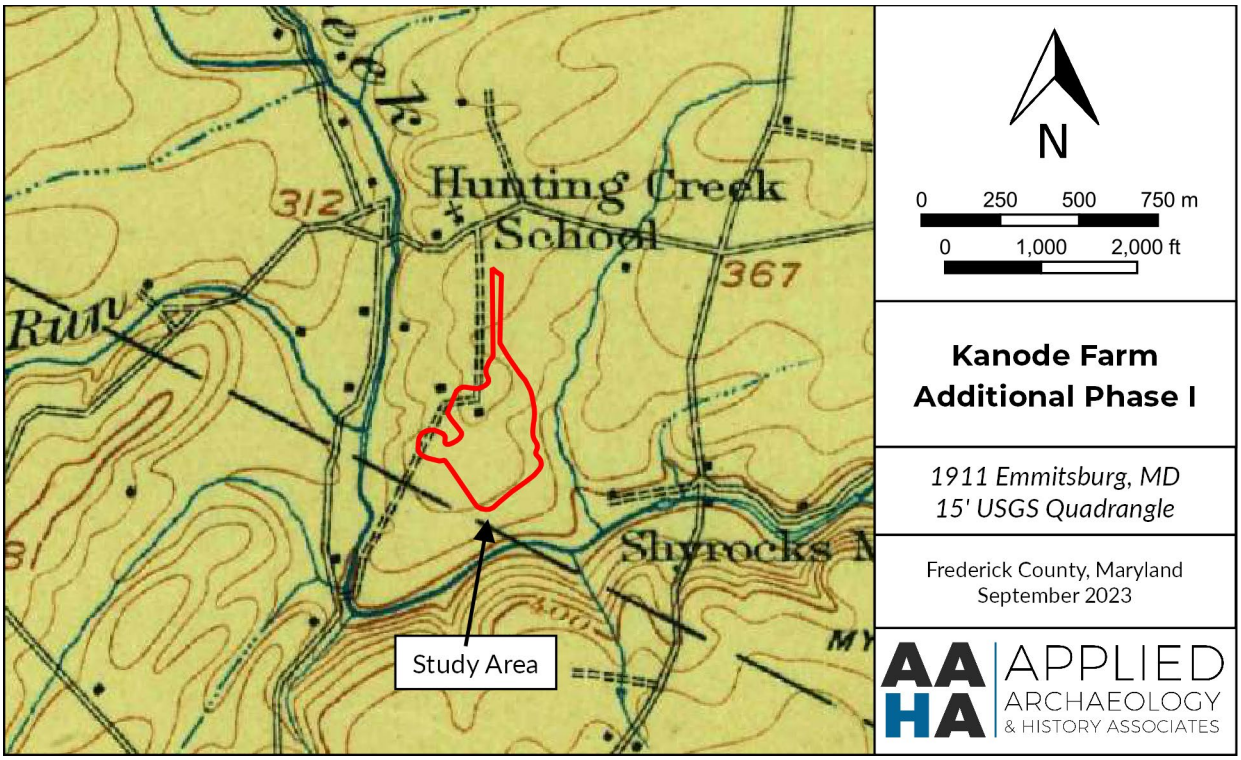

Figure 3-5. Detail of the 1911 *Emmitsburg, Maryland* 15-minute USGS quadrangle showing the location of the Study Area.

The 1943 *Emmitsburg, Maryland* 15-minute USGS quadrangle shows the addition of numerous structures in the vicinity of the Study Area, including three within the Study Area (Figure 3-6). The improvement of MD-72 has brought increased development to the area, particularly along Big Hunting Creek. Hunting Creek School is still shown north of the Study Area. The orientation of the unimproved road forming part of the western boundary of the Study Area has changed, with the southern part no longer in use and an eastbound portion added. The four structures depicted within the Study Area are clustered around the end of this roadway.

Fewer structures are noted within the Study Area on the 1953 *Catoctin Furnace, Maryland* 7.5-minute USGS quadrangle (Figure 3-7). The unimproved roadway has been shortened and only one structure and two outbuildings are depicted within the Study Area. The area remains rural, with structures scattered throughout the area. The nearest population center is Creagerstown and the Catoctin Recreational Demonstration Area is located to the west.

The earliest available historic aerial photograph of the Study Area was taken in 1958. The 1958 aerial shows the Study Area as an agricultural field with a farmstead present in the west-central portion at the end of an unimproved roadway (Figure 3-8). The farmstead's location corresponds to the buildings shown on twentieth-century USGS maps. The 1981 aerial shows minimal changes, including additional trees or wooded field dividers and a fallow agricultural field (Figure 3-9). By 2009, a new residence had been built to the immediate west of the Study Area, utilizing the roadway, which appears to have been paved by this time (Figure 3-10). Additional outbuildings and wooded field dividers are visible.

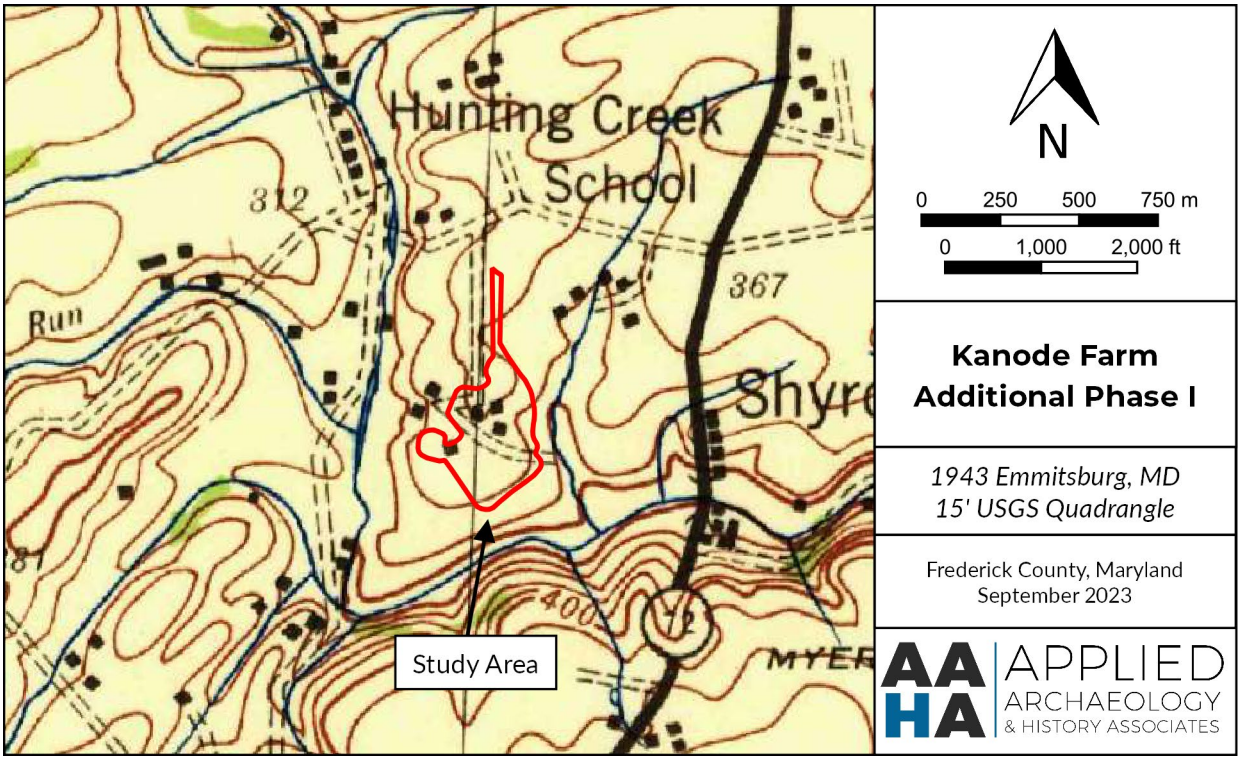

Figure 3-6. Detail of the 1943 *Emmitsburg, Maryland* 15-minute USGS quadrangle showing the location of the Study Area.

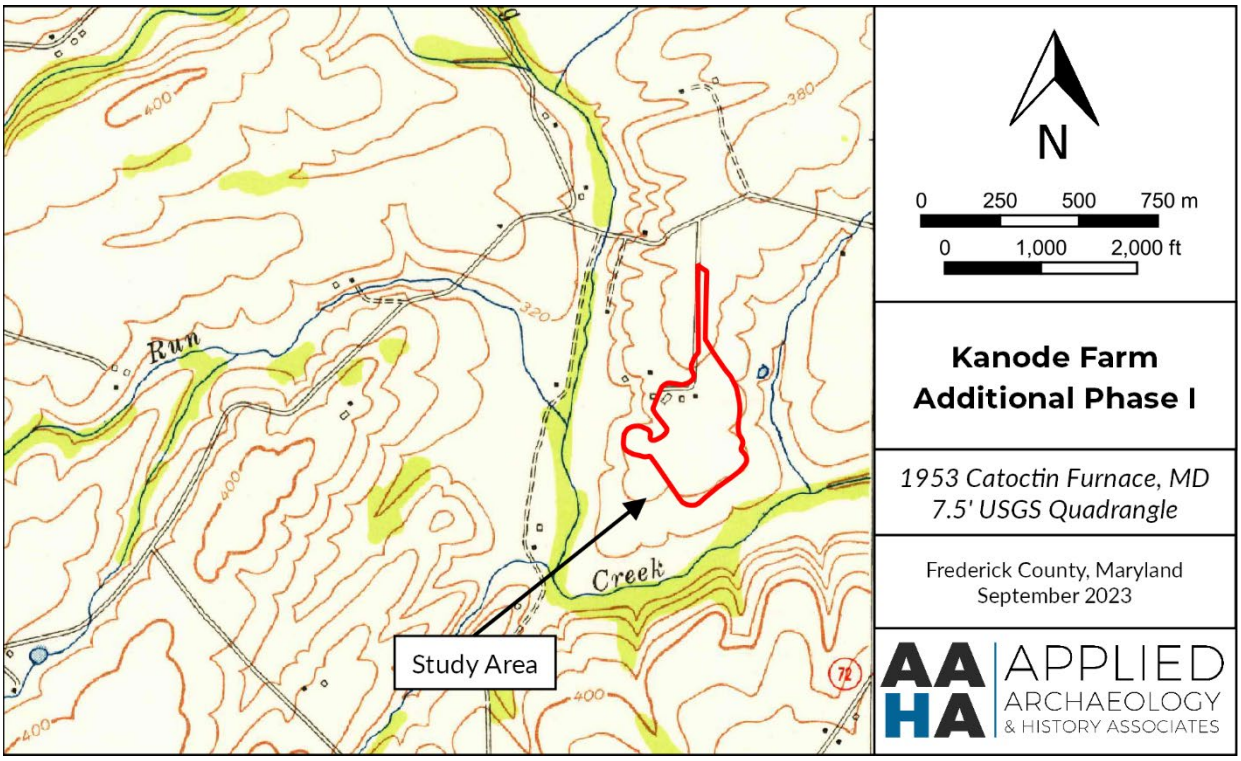

Figure 3-7. Detail of the 1953 *Catoctin Furnace, Maryland* 7.5-minute USGS Quadrangle showing the location of the Study Area.

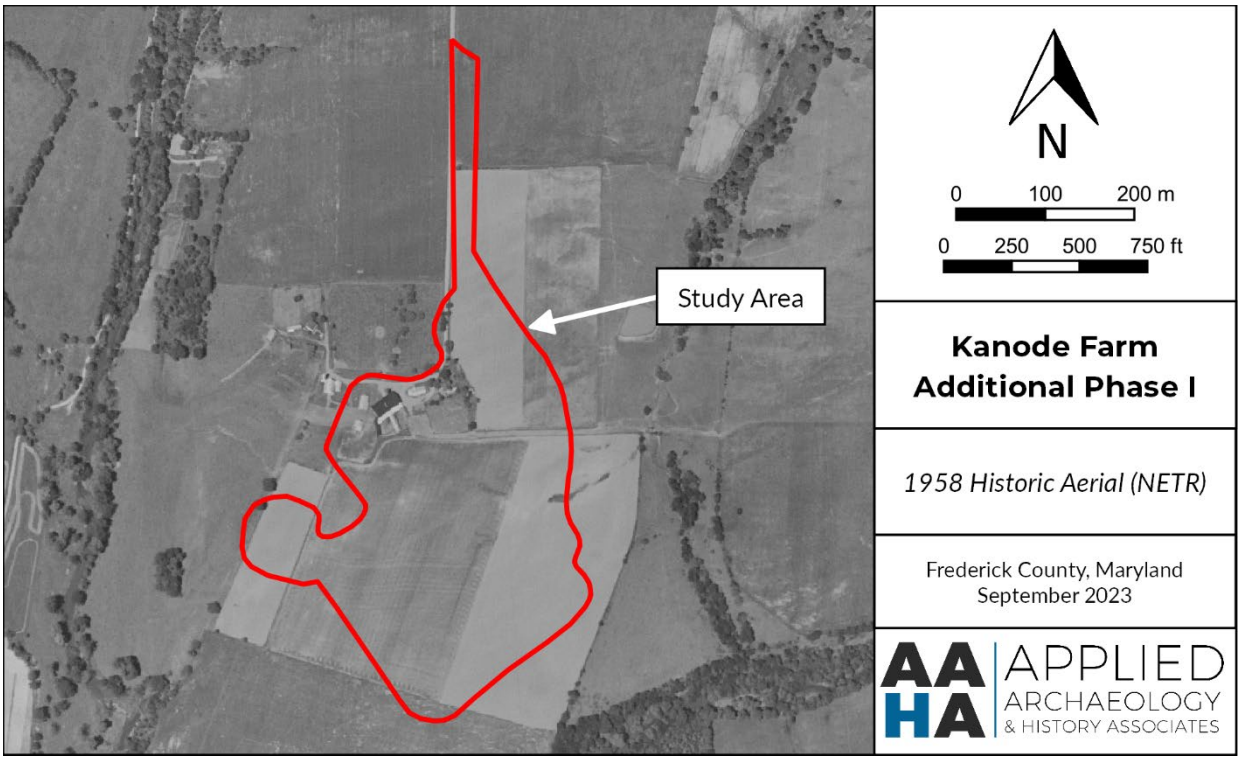

Figure 3-8. 1958 aerial imagery of the Study Area (Nationwide Environmental Title Research, LLC. 2023).

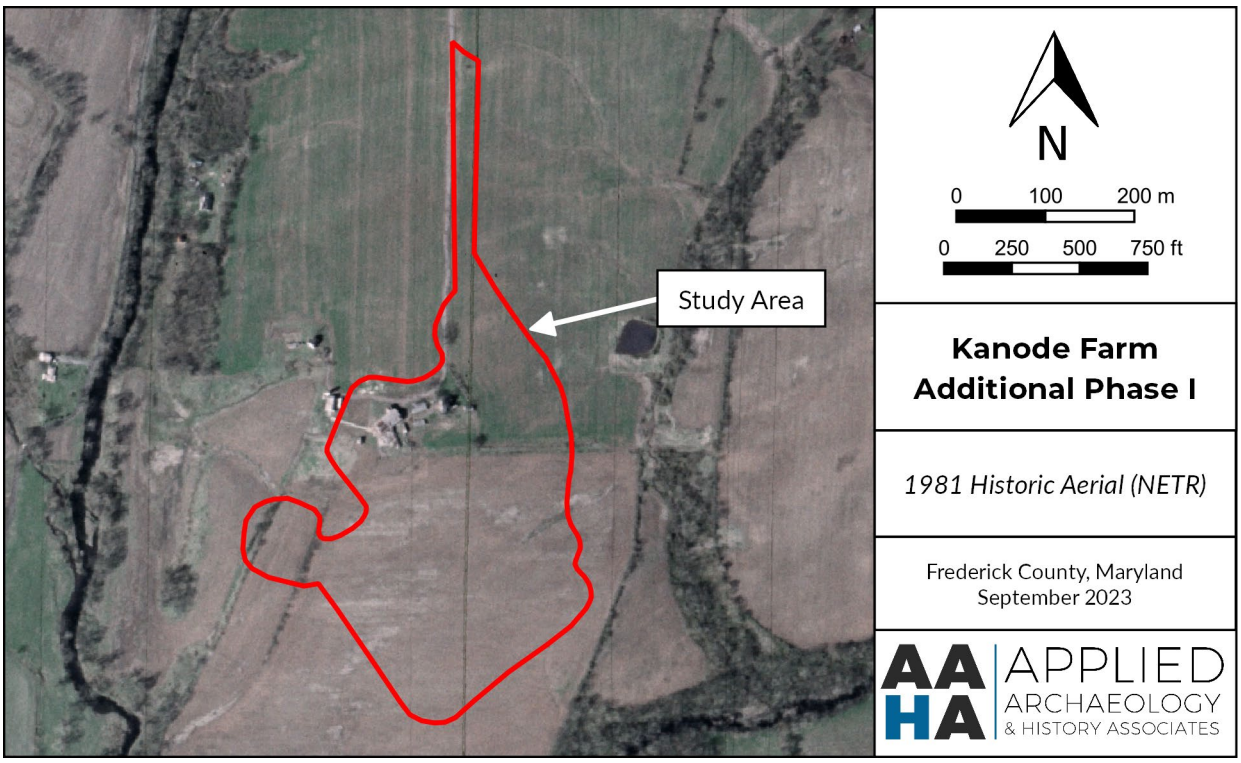

Figure 3-9. 1981 aerial imagery of the Study Area (Nationwide Environmental Title Research, LLC. 2023).

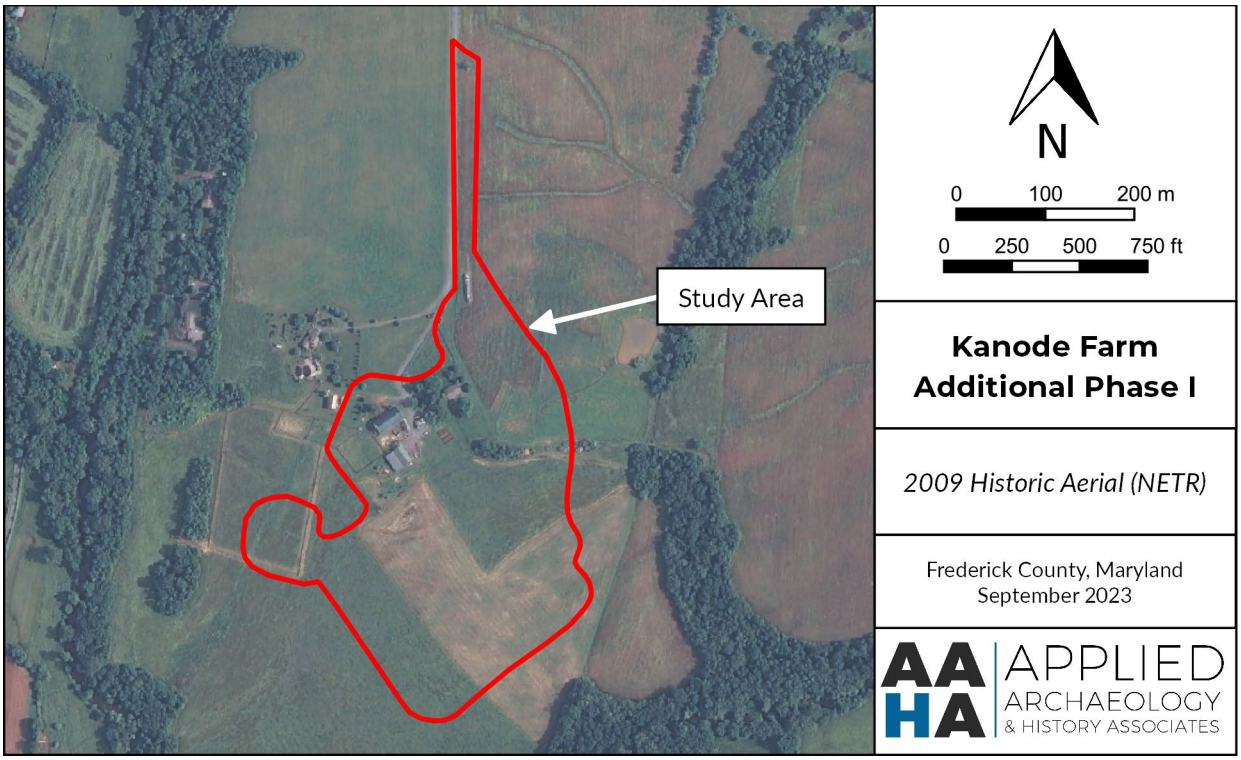

Figure 3-10. 2009 aerial imagery of the Study Area (Nationwide Environmental Title Research, LLC. 2023).

Previous Research and Recorded Sites

Three archaeological surveys have been conducted within one mile of the Study Area, none of which fall within the Study Area, however, the original survey of Kanode Farm in 2022 is adjacent (Table 3-1). In 1982, the Maryland Geological Survey, Division of Archaeology, conducted an intensive archaeological reconnaissance of archaeological sites in the Monocacy River Valley. In 1989, R. Christopher Goodwin & Associates conducted a Phase I investigation of a bridge crossing at Hunting Creek. During the survey, a portion of site 18FR183 was revisited and several pieces of debitage and one spokeshave were recovered. AAHA conducted a Phase I survey of another portion of the Kanode Farm property north of the current Study Area in 2022 that recorded one low density precontact lithic scatter (18FR1154).

TABLE 3-1. ARCHAEOLOGICAL SURVEYS WITHIN ONE MILE OF THE STUDY AREA.

MHT CALL #	REPORT TITLE	AUTHOR, YEAR	COMPANY	SURVEY TYPE
FR 28D	Archeological Resources of the Monocacy River Region, Frederick and Carroll Counties, Maryland	Kavanagh, Maureen (1982)	Maryland Geological Survey Division of Archaeology	Phase I
FR 46	Intensive Archeological Survey of the Old Frederick Road Bridge Over Hunting Creek, Frederick, Maryland	Polglase, Christopher R. and Michelle Moran (1989)	R. Christopher Goodwin & Associates	Phase I
TBD	Phase I Archaeological Survey of the Kanode Farm Property, Frederick County, Maryland	Melton, Mandy (2022)	AAHA	Phase I

Eight (8) archaeological sites have been identified within one mile of the Study Area, none of which are located within the Study Area (Table 3-2). Site 18FR183 is located to the immediate south of the Study Area. The site is precontact, with Archaic and Woodland subperiod components, identified through surface and subsurface survey. The site has not been evaluated for inclusion in the NRHP.

The remaining sites include four precontact, one historic, and two multi-component sites. Identifiable precontact temporal periods span all subperiods of the Archaic and Woodland periods. Historic components are represented at three (3) sites and include a nineteenth-century house ruin, an early twentieth-century mill, and an artifact scatter. None of the sites have been evaluated for inclusion in the NRHP.

TABLE 3-2. ARCHAEOLOGICAL SITES WITHIN ONE MILE OF THE STUDY AREA.

SITE #	SITE NAME	SITE TYPE	TOPOGRAPHIC SETTING	INVESTIGATION SUMMARY	NRHP STATUS
18FR183*	Hunting Creek I	Early, Middle, & Late Archaic and Early & Late Woodland short-term camp/lithic scatters	Terrace, Floodplain	Phase I Surface Collection & STPs	Not Evaluated
18FR187	Hunting Creek II	Middle Woodland short-term camp/workshop	Low Terrace	Phase I Surface Collection	Not Evaluated
18FR300	Edwards	prehistoric lithic scatter	Low Terrace, Floodplain	Phase I Surface Collection	Not Evaluated
18FR369	Hunting Creek Mill	early 20th-century mill ruin	Low Terrace, Floodplain	Phase I Surface Collection	Not Evaluated
18FR371	Anderson II	Late Archaic & Middle Woodland short-term resource procurement	Low Terrace	Phase I Surface Collection	Not Evaluated
18FR570	Anderson	Late Archaic short-term resource procurement, historic unknown	Low Terrace, Floodplain	Phase I Surface Collection	Not Evaluated
18FR710	Evans 7	Late Archaic & Late Woodland short-term camp, 19th-century masonry house ruin	Floodplain	Phase I Non-systematic Surface Collection	Not Evaluated
18FR1164	KF-01	Prehistoric lithic scatter	Upland Flat	Phase I systematic survey	Not Evaluated

* *Site located adjacent to Study Area*

Seven historic properties listed on the Maryland Inventory of Historic Properties (MIHP) have been documented within one mile of the Study Area, none of which fall within the Study Area (Table 3-3). The properties include a historic district representing a mill community, two farmsteads, two residences with outbuildings, and a bridge, with the remaining resource unidentified.

The Black's Mill Survey District (MIHP# F-6-70) incorporates an eighteenth- to nineteenth-century community that developed around two former grist mill sites. Five contemporaneous residential properties are associated with the district. Three of the dwellings are of brick construction and two are of log and frame construction. Over time, the district became a commercial hub and a crossroads community between Creagerstown and Thurmont. The bridge has been recommended eligible for NRHP inclusion under Criterion C as a significant example of a metal Pratt truss bridge. This type of bridge was initially designed in 1844 by Caleb Pratt and was in use through the early twentieth century.

The remaining resources include an 1850s frame or possible log structure emblematic of typical 'middle-class' residences in the area (MIHP# F-6-66), a circa 1850s brick dwelling with stone summer kitchen or slave house (MIHP# F-3-70), a circa 1858 farmstead (MIHP# F-3-7), and a circa 1820s stone dwelling that may have operated as an inn at some point in its history (MIHP# F-3-10). Outbuildings associated with the structures include barns, smokehouses, a wagon shed, and a corncrib.

TABLE 3-3. HISTORIC PROPERTIES WITHIN ONE MILE OF THE STUDY AREA.

MIHP #	SITE NAME	DATE	TYPE	NRHP STATUS
F-3-7	Jacob Eichelberger Farm	c. 1858	Farmstead	Not Evaluated
F-3-10	David Myers House (Miller's Tavern, Old Stone Inn)	1820-1830	Dwelling and outbuildings	Not Evaluated
F-3-70	Jacob McDonnel Farmstead	1850-1858	Farmstead	Not Evaluated
F-6-66	Ridge House	c. 1850	Dwelling and outbuildings	Not Evaluated
F-6-70	Black's Mill Survey District	18th – 19th century	District: residential and mills	Not Evaluated
F-6-121	Bridge F-407	1914	Bridge	Eligible (4/3/2001)
F-6-154	Friendship	n/a	n/a	Not Evaluated

4. METHODS

Background Research

A review of existing data on regional and local prehistory, history, and the environment was conducted consisting, in part, of an examination of the pertinent literature and historic maps in the collections of the MHT in Crownsville. Records of historic properties recorded by the MHT in the vicinity of the Study Area were examined. In addition, records of known archaeological sites and archaeological surveys in the vicinity of the Study Area were also examined.

Field Methods

Archaeological field methods incorporated an initial pedestrian walkover followed by systematic shovel test pits (STPs) at 15-m intervals. STPs measured at least 40 centimeters (cm) in diameter and extended 10 cm into sterile subsoil or to the limit of practical excavation, whichever was shallower. All STP measurements were taken and recorded in metric measurements. All STPs were excavated by natural stratigraphy (layers). The soil profile of each STP was recorded on standardized forms describing Munsell color and USDA soil types and STPs depicting irregular stratigraphy were photographed and drawn in profile as appropriate. Manually excavated soils were passed through a 1/4-inch hardware screen mesh to ensure uniform recovery of artifacts. Radial STPs at 7.5-m intervals were excavated around STPs containing cultural material to determine the extent of any artifact concentrations encountered during shovel testing. Narrative field notes and photographs were produced to document the results of the field investigation. All STPs and TUs were recorded on a survey map and with a Trimble Geo7x GPS unit capable of sub-meter accuracy. STPs were not excavated in areas exhibiting surface disturbance or obstructions including standing water or wetlands, graveled or paved driveways, pushpiles, etc.

Soil Identification

As soils are excavated during archaeological investigation, significant changes in soil color and texture are given arbitrary designations in sequence by roman numeral (Stratum I, Stratum II, etc.) for the purpose of organizing data during excavation. These strata are evaluated against type profiles for soil series documented in the Study Area and identified by soil horizon. Soil horizons are designations given to soil layers that exhibit similar weathering patterns and soil formation processes (Vogel 2002:8). Environment factors contribute to the formation of soil horizons, most commonly topography, parent material, climate, and deposition chronology. Soil movement, compaction, or erosion can cause soil horizons to form by altering the mixture of clay, silt, sand, organic material, and heavy minerals. Each soil horizon exhibits distinctive characteristics, as shown in Table 4-1. They generally fall within six standard classifications, called master soil horizons, designated with the capital letters O, A, E, B, C, and R. Subordinate horizons, notated with a lowercase letter placed after the uppercase letter (e.g., Ap-horizon) further classify master horizons based on more specific criteria. Where a soil stratum contains a mix of soils exhibiting characteristics of two master horizons, capital letters for both appear in the designation (e.g., BA-horizon), with the master horizon most prevalent placed first.

TABLE 4-1. GENERAL SOIL HORIZON DESCRIPTIONS AND CHARACTERISTICS

Soil Horizon	Description
O	Characterized by high moisture content and heavy concentrations of decaying organic material. Subordinate horizons include Oe and Oi but are uncommonly reported by archaeologists because O-horizons are recent.
A	Characterized by accumulation of organic material and/or leeching of clay and minerals; generally darker than underlying soils. Ap (an A-horizon with evidence for plowing or other anthropomorphic disturbance) is the most common subordinate horizon.
E	Characterized by leeching of clay and minerals without accumulation of organic material. Subordinate horizons are uncommon.
B	Characterized by accumulation of clay and/or heavy minerals. Common subordinate horizons are Bt (with strong clay accumulation), Bw (with weak clay accumulation), or Bg (formed in saturated soils).
C	Characterized by parent material that does not appear to be significantly altered by soil formation processes. Cr (parent material cementing to form early stages of sedimentary rock) is a common subordinate horizon.
R	Bedrock. Characterized by solid igneous, sedimentary, or metamorphic rock underlying soils.

Laboratory Methods

All recovered artifacts were transferred to AAHA's laboratory in Crofton, Maryland for cleaning, cataloguing, and analysis. Artifacts were washed in tap water using a soft toothbrush, with the exception of all metals, floral material, textiles, leather, friable bone or shell, or precontact ceramics with food residue which were carefully dry-brushed.

Artifacts were sorted by general categories (historic, precontact, and organic) and analyzed according to morphological or material attributes. Precontact artifacts were cataloged by their function (debitage, tool, vessel, etc.). Biological or organic artifacts were classified as floral, faunal, or lithic. Historic artifacts were catalogued according to functional group categories derived from Stanley South's *Method and Theory in Historical Archaeology* (South 1977). Diagnostic types were identified when possible.

After cataloging, artifacts were placed into 4-mil polyethylene re-sealable bags with acid-free identification cards containing the following information: site number, lot and catalog number, provenience, and date of excavation. Artifacts were labeled with their appropriate site number, lot, and catalog number following noted curation facility guidelines. Artifacts will be curated at the Maryland Archaeological Conservation Laboratory (MAC Lab) upon completion of the project.

An artifact inventory was prepared using Microsoft Excel during artifact analysis; the complete artifact inventory for the project is presented as Appendix B. All laboratory procedures were performed in accordance with state and federal curation guidelines, including the *Standards and Guidelines, Technical Update No. 1: Collections and Conservation Standards* (Morehouse et al. 2018) and the Secretary of the Interior's *Standard and Guidelines for Curation* (36 CFR 79).

5. RESULTS

The Study Area consists of 27.8 acres approximately 160 m south of Stevens Road within the Kanode Farm Property (Figure 5-1). It primarily includes open or landscaped fields in the south with an active cornfield in the north. The northern extent of the Study Area consists of a 22 to 30 m wide corridor extending north-south along a gravel drive from Stevens Road to a farm complex located within west-central portion of the Study Area. The farm complex consists of a residence and five outbuildings associated with the agricultural complex (Figure 5-2).

The residential structure exhibits log construction and consists of two above-ground stories and a basement on a fieldstone foundation (Figure 5-3). A wooden deck extends along the rear of the structure and recent renovations were apparent. The five auxiliary structures located southwest of the main residence consist of two pole barns and a garage constructed from metal sheeting, a brick and cinderblock structure, and a larger metal barn on a fieldstone foundation. An additional outbuilding associated with the farm complex is located northwest of the Study Area. The building consists of two adjoining cinderblock and wood barn structures with an attached silo. The northwestern portion of the Study Area is situated within a fenced-in pasture extending west from the farm complex.

Figure 5-1. Overview of the southern portion of the Study Area. View to the east.

Figure 5-2. Overview of the farm complex in the northwestern portion of the Study Area. View to the southwest.

Figure 5-3. North and east elevations of the log home within site 18FR1179. View to the southwest.

The additional Phase I survey was conducted between September 5-11, 2023 as an extension of a survey previously conducted by AAHA in August 2022. In total, 470 regular interval and 29 radial STPs were excavated, resulting in the identification of one new archaeological site (18FR1179) and four isolated finds (KFA-ISO-01, KFA-ISO-02, KFA-ISO-03, and KFA-ISO-04; Figure 5-4). One locus of previously identified precontact site 18FR183 is mapped along the southern extent of the Study Area but no evidence of this site was reidentified during the field survey.

The stratigraphy across the Study Area is generally consistent, consisting of a compact, deflated Ap-horizon over a Bt-horizon (Figure 5-5). The Ap-horizon generally consists of a reddish brown (5YR 5/4) to brown (7.5YR 4/4) silty clay extending to between 15 to 40 centimeters below surface (cmbs). The Ap-horizon appears slightly depleted along the top of the low-lying ridgeline within the northwestern portion of the Study Area surrounding the farm complex and site 18FR1179. This depletion is likely a result of natural erosion and continuous plowing activity. The Bt-horizon consists of a reddish brown (5YR 5/4) to strong brown (7.5YR 5/6) compact clay or silty clay. Impervious surfaces associated with the farm complex often prevented excavation of STPs between extant structures.

Site 18FR1179

Site 18FR1179 is a low-density artifact scatter associated with the extant farm complex and residence that likely dates to the early twentieth-century. The site is located at the southern extent of a gravel drive extending approximately 535 meters (m) south from Stevens Road in Thurmont, Maryland. It is situated near the southern terminus of a low-lying ridgeline that gently slopes south toward Big Hunting Creek. An unnamed tributary of Big Hunting Creek is located approximately 290 m to the east and Big Hunting Creek lies 500 m to the south. Five extant structures were located within the site boundary at the time of the survey, including an unoccupied log residential structure, situated in the eastern portion of the site, four outbuildings, and fencing associated with the agricultural usage of the Study Area. A gravel road extends north-south through the center of the site and connects to each auxiliary structure resulting in a moderate amount of impervious surfaces throughout the site.

Soils within site 18FR1179 are generally compact and consist of an Ap-horizon over a Bt-horizon (see Figure 5-5). The Ap-horizon typically consists of a reddish brown (5YR 5/4) to brown (7.5YR 5/4) silty clay extending to between 15 to 35 centimeters below surface (cmbs). The Bt-horizon consists of a yellowish red (5YR 5/6) to strong brown (7.5YR 5/6) compact clay. The Ap-horizon represents the plowzone and all artifacts were recovered from this context. No sub-plowzone features or cultural horizons were observed. Portions of the site were unable to be excavated due to impervious surfaces such as extant structures, concrete pads, and gravel pathways.

In total, eight historic artifacts were recovered from site 18FR1179, all from the Ap-horizon (Figure 5-6). Identified artifacts are attributed to the architectural (n=4) and domestic (n=4) functional groups. Architectural artifacts include two fragments of aqua-colored window glass, one machine-headed, machine-cut nail fragment, and one iron washer. Machine-headed cut nails were commonly produced from 1820 through 1890, when wire nails became common in North American architectural applications (Nelson 1968).

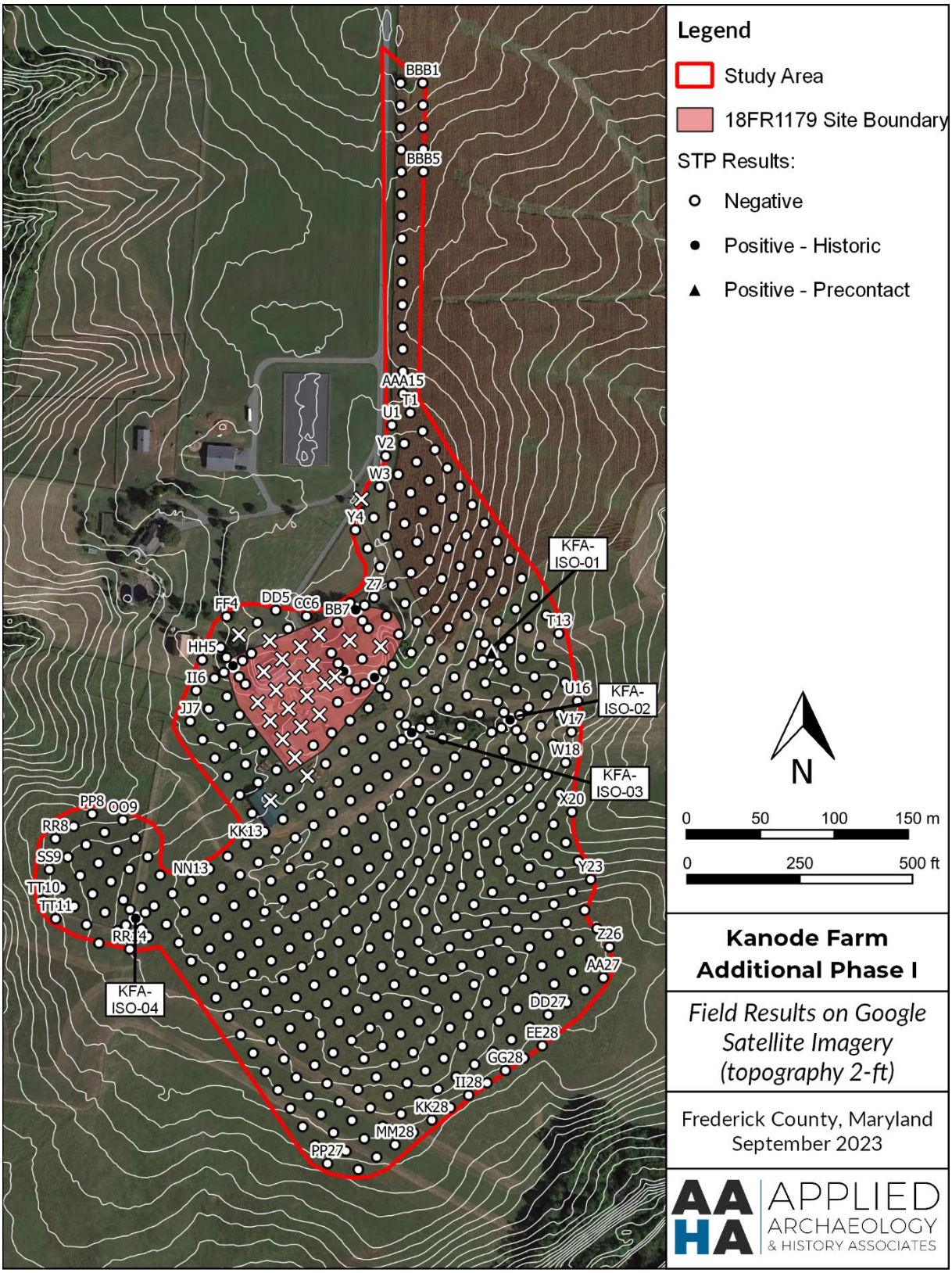

Figure 5-4. Results of the Phase I survey at Kanode Farm.

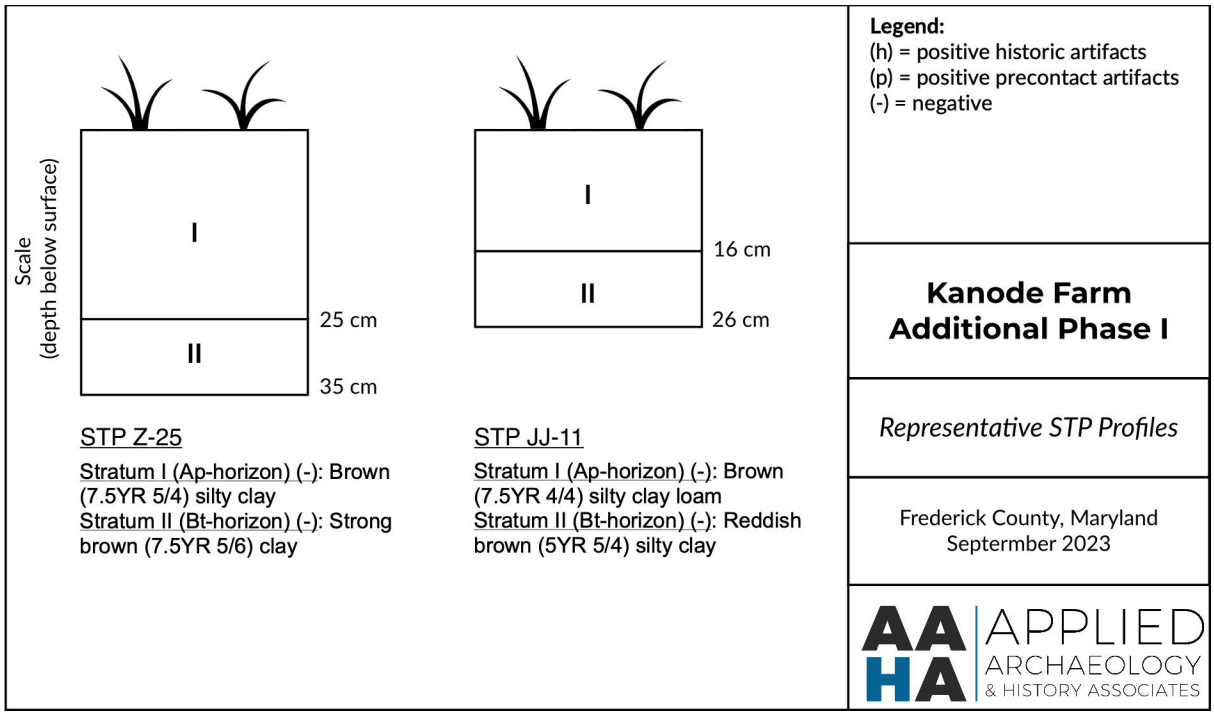

Figure 5-5. Representative STP profiles from the Study Area.

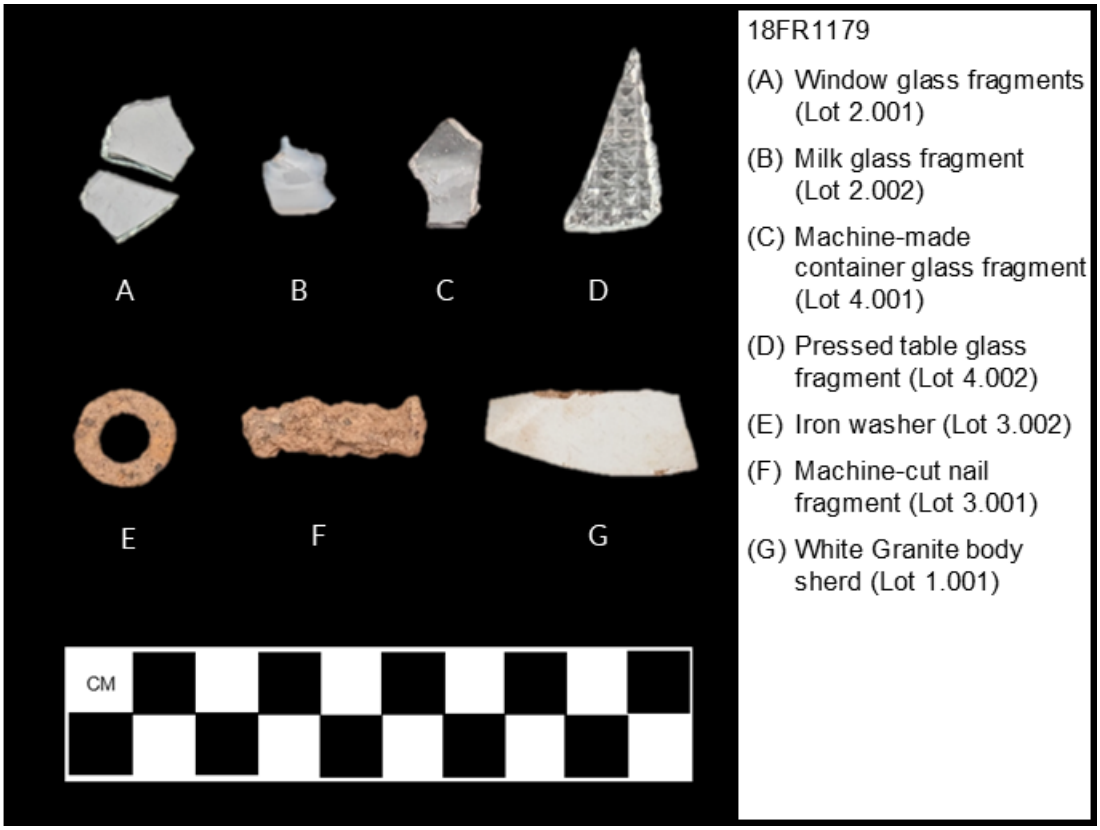

Figure 5-6. Historic artifacts recovered from site 18FR1179.

Domestic artifacts include ceramics (n=1) and glassware (n=3). The ceramic sherd is an undecorated body sherd of White Granite. White Granite wares began production in the mid-nineteenth century and were popular through the early twentieth century (Maryland Archaeological Conservation Lab 2012). The glassware recovered includes one fragment of pressed tableware, one small fragment of machine-made container glass, and one small fragment of machine-made glass from an unidentifiable object. The mechanization of bottle glass production occurred in the first decade of the twentieth century (Lindsey 2021). The recovered artifacts reflect a mid- to late-nineteenth through early-twentieth century domestic artifact scatter. Although this artifact scatter is likely related to the twentieth-century occupation of the property, it does not exhibit horizontal or vertical artifact distributions that suggest individual activity areas and is sparse compared to other twentieth-century site assemblages.

Isolated Finds

In total, 20 artifacts were recovered from four isolated find locations within the Study Area (Table 5-1). A majority of artifacts recovered from isolated finds were recovered from a single STP, consisting of 15 machine made bottle glass fragments likely originating from the same vessel. These isolated finds likely represent casual discard and do not represent meaningful loci of human occupation.

TABLE 5-1. ARTIFACTS RECOVERED FROM ISOLATED FINDS

HORIZON	ARTIFACT	COUNT	TOTAL
KFA-ISO-01			
Ap	Retouched Flake Tool (Chert)	1	**1**
KFA-ISO-02			
Ap	Coal fragment	2	**3**
Ap	White granite ceramic	1	
KFA-ISO-03			
Ap	Bottle glass – machine made	1	**1**
KFA-ISO-04			
Ap	Bottle glass – machine made	15	**15**

6. SUMMARY AND RECOMMENDATIONS

In September 2023, AAHA) conducted a Phase I archaeological survey of a portion of the Study Area near Creagerstown in Frederick County, Maryland. A previous Phase I survey was conducted in August 2022 on the northern portion of the property and does not overlap with the current Study Area. The survey was conducted in anticipation of a request from the Frederick County Division of Planning and Permitting Historic Preservation Commission. The purpose of the investigation was to identify archaeological resources within the Study Area and, to the extent possible, assess their eligibility for inclusion in the NRHP.

The Study Area incorporates 28 acres within the central portion of the larger Kanode Farm Property. It is within Maryland Archaeological Research Unit 17: Monocacy Drainage. The majority of the Study Area consists of agricultural fields but the northern extent incorporates a portion of a circa 1911 dwelling and farmstead. One locus of previously identified precontact site 18FR183 is mapped along the southern extent of the Study Area.

Background research revealed that the Study Area was part of a 195-acre property patented as 'Friendship' to John Briggs (or Biggs) in 1807. Stevens Road, which bounds the overall property to the north, was named after Frank Stevens, who acquired the property in 1898. The Stevens family resided on the farm until 1959.

In total, 499 STPs were excavated during the Phase I field survey, resulting in the identification of one new archaeological site (18FR1179) and four isolated finds (KFA-ISO-01, KFA-ISO-02, KFA-ISO-03, and KFA-ISO-04). All artifacts were recovered from the Ap-horizon.

Site 18FR1179 represents a low-density domestic scatter dating to the mid- to late-nineteenth through early-twentieth century and is likely associated with the extant farm complex and residence. In total, eight historic artifacts were recovered from the Ap-horizon within the site boundary, reflecting a diffuse artifact scatter unlikely to represent a meaningful activity area. Portions of the site were unable to be excavated due to impervious surfaces such as extant structures, concrete pads, and gravel pathways. No horizontal or vertical artifact patterning was identified, no features were encountered, and no potentially sealed cultural contexts were recorded. The site does not have the potential to contribute meaningful information on rural lifeways in historic Frederick County. **The site is recommended not eligible for inclusion in the NRHP and no further archaeological investigation is recommended.**

The four isolated finds (KFA-ISO-01, KFA-ISO-02, KFA-ISO-03, and KFA-ISO-04) do not represent discrete areas of human occupation. **By definition, isolated finds are ineligible for inclusion in the NRHP. No further archaeological investigation is recommended.**

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APPENDIX A:

Chain of Title

Kanode Farm Property
Chain of Title

CCK 2382:884 Deed February 19, 1998
Grantee: Richard W. Kanode
Grantor: E. Fulton Brylawski, Trustee of the Brylawski Memorial Trust
$365,000; 175.153 acres

CCK 2331:688 Deed September 10, 1997
Grantee: Brylawski Memorial Trust
Grantor: E. Fulton Brylawski
In Fee simple; 175.153 acres

CCK 1733:1040 Deed September 20, 1991
Grantee: E. Fulton Brylawski
Grantor: Loyal F. and Louise L. Osterlund
$565,000; 175.153 acres

CCK1496:486 Deed June 29, 1988
Grantee: Loyal F. and Louise L. Osterlund
Grantor: Darrell T. and Sue C. Liu
$338,400; 175.153 acres

CCK 1001:983 Deed October 22, 1976
Grantee: Darrell T. and Sue C. Liu
Grantor: Price Lewis Jr. and Dorothy B. Lewis
$10.00; 215.153 acres

ECW 852:71 Deed June 30, 1971
Grantee: Price Lewis Jr. and Dorothy B. Lewis
Grantor: Edgar G. and Rachel L. Emrich
$10.00; 234.209 acres (231.734 acres with Stevens Road ROW excluded)
Stevens road (Angleberger Road)

ECW 621:129 Deed June 23, 1959
Grantee: Edgar G. and Rachel L. Emrich
Grantor: Rachel D. Whitmore (widow, life tenant), Edward W. and Dorothy F. Whitmore, Franklin H. and Audrey L. Whitmore, and Oscar Kenneth and Mary V. Whitmore
$47,000; 237 acres
Last will and testament of Elsie H. Stevens (Frederick Will Record H.D.R.1:588). See **Plat Book**

ECW 3:159, "Whitmore, Rachel D."

DHH 1:440 Deed April 9, 1898
Grantee: Frank M. Stevens
Grantor: Catherine Biser and Julian Ann Barrick, executors of Last will and Testament of John Hill.
$4,720; 236 acres
Known as “Friendship” and “Rich Bottom”

HS 18:573-576 Deed October 21, 1842
Grantee: John Hill
Grantor: Adam and Nancy Snook
$3,900; “Friendship” and “Rich Bottom” 140 acres,

JS 13:127 Deed April 16, 1821
Grantee: Adam and Nancy Snook
Grantor: Jacob and Elizabeth Brengle
270 acres split between Nancy Snook and Elizabeth Brengle as per will of Samuel Fleming (Frederick Will Record G.M. 2:267). Known as “Friendship” and “Rich Bottom”

APPENDIX B:

Artifact Inventory

Kanode Farm Additional - Phase I
Site 18FR1179 - Artifact Inventory

Site	FS #	Lot #	Cat #	STP	Strat	Depth (cmbs)	Artifact Class	Subclass	Artifact Type	Subtype	Material	Portion	Count	Weight (g)	Comments
18FR1179	4	1	.001	BB-10	I	0-18	Historic	Domestic Ceramic	White Granite	No Decoration Present	Ceramic	Body	1	3.93	paste stained
18FR1179	5	2	.001	AA-7	I	0-20	Historic	Architecture	Window	Aqua	UNID Glass	Fragment	2	1.12	
18FR1179	5	2	.002	AA-7	I	0-20	Historic	Domestic Glass	UNID	Machine-made	UNID Glass	Fragment	1	0.23	milk glass, small fragment
18FR1179	6	3	.001	CC-9	I	0-22	Historic	Architecture	Nail	Cut - Machine Head	Iron	Incomplete	1	4.88	heavily corroded
18FR1179	6	3	.002	CC-9	I	0-22	Historic	Architecture	Other		Iron		1	1.27	washer, moderately corroded
18FR1179	7	4	.001	GG-6	I	0-26	Historic	Domestic Glass	Container	Machine-made	UNID Glass	Fragment	1	0.72	colorless
18FR1179	7	4	.002	GG-6	I	0-26	Historic	Domestic Glass	Tableware	Pressed	UNID Glass	Body	1	2	impressed checkerboard

Kanode Farm Additional - Phase I
Isolated Finds - Artifact Inventory

Site	FS #	Lot #	Cat #	STP	Strat	Depth (cmbs)	Artifact Class	Subclass	Artifact Type	Subtype	Material	Portion	Cortex	Count	Weight (g)	Comments
KFA-ISO-01	1	1	.001	W-12	I	0-24	Precontact	Tool	Flake Tool	Retouched Flake	Chert	Fragment	N	1	1	dark gray chert with blue-ish mottling (Onondaga?). Striking platform visible with worked edge, broken along length.
KFA-ISO-02	2	1	.001	X-15	I	0-24	Historic	Activity	Industrial	Coal	Coal	Fragment		2	2.41	
KFA-ISO-02	2	1	.002	X-15	I	0-24	Historic	Domestic Ceramic	White Granite	Molded	Ceramic	Rim		1	1.25	faint molded floral decoration under rim. Paste heavily stained.
KFA-ISO-03	3	1	.001	BB-13	I	0-19	Historic	Domestic Glass	UNID	Machine-made	UNID Glass	Fragment		1	1.48	aqua colored
KFA-ISO-04	8	1	.001	QQ-13	I	0-24	Historic	Domestic Glass	Bottle	Machine-made	UNID Glass	Fragment		1	0.53	sprite green
KFA-ISO-04	8	1	.002	QQ-13	I	0-24	Historic	Domestic Glass	Bottle	Machine-made	UNID Glass	Finish		2	20.46	amber brown color, screw-top finish. Mends. Likely same vessel as other amber glass in provenience, except Cat #.006
KFA-ISO-04	8	1	.003	QQ-13	I	0-24	Historic	Domestic Glass	Bottle	Machine-made	UNID Glass	Base		2	4.13	cup-bottomed with stippling. Likely from same vessel.
KFA-ISO-04	8	1	.004	QQ-13	I	0-24	Historic	Domestic Glass	Bottle	Machine-made	UNID Glass	Body		2	5.07	with embossed symbol, mends.
KFA-ISO-04	8	1	.005	QQ-13	I	0-24	Historic	Domestic Glass	Bottle	Machine-made	UNID Glass	Body		6	6.31	amber brown color, mold seam visible on largest piece.
KFA-ISO-04	8	1	.006	QQ-13	I	0-24	Historic	Domestic Glass	Bottle	Machine-made	UNID Glass	Body		1	9.32	amber brown, thicker than other pieces.

APPENDIX C:

Maryland Archaeological Site Survey Form

MARYLAND INVENTORY OF HISTORIC PROPERTIES

ARCHEOLOGICAL SITE SURVEY: BASIC DATA FORM

Date Filed: 09/14/2023

Check if update: ☐

Maryland Department of Planning
Maryland Historical Trust
Division of Historical and Cultural Programs
100 Community Place
Crownsville, Maryland 21032

Site Number: 18FR1179
County: Frederick

A. DESIGNATION

1. Site Name: KFA-01

2. Alternate Site Name/Numbers: Kanode Farm

3. Site Type (describe site chronology and function; see instructions):
Mid- to late-nineteenth through early-twentieth century domestic artifact scatter

4. Prehistoric _____ Historic X Unknown _____

5. Terrestrial X Submerged/Underwater _____ Both _____

B. LOCATION

6. USGS 7.5' Quadrangle(s): Catoctin Furnace, MD | (For underwater sites) NOAA Chart No.:

(Photocopy section of quad or chart on page 4 and mark site location)

Latitude in decimal degrees 39.555245 Longitude in decimal degrees -77.381630

7. Maryland Archeological Research Unit Number: 17

8. Physiographic Province (check one):

_____ Allegany Plateau	X Lancaster/Frederick Lowland
_____ Ridge and Valley	_____ Eastern Piedmont
_____ Great Valley	_____ Western Shore Coastal Plain
_____ Blue Ridge	_____ Eastern Shore Coastal Plain

9. Major Watershed/Underwater Zone (see instructions for map and list): Middle Potomac River

C. ENVIRONMENTAL DATA

10. Nearest Water Source: Unnamed tributary of Big Hunting Creek Stream Order: _____

11. Closest Surface Water Type (check all applicable):

_____ Ocean	X Freshwater Stream/River
_____ Estuarine Bay/Tidal River	_____ Freshwater Swamp
_____ Tidal or Marsh	_____ Lake or Pond
	_____ Spring

12. Distance from closest surface water: 295 meters (or 970 feet)

C. ENVIRONMENTAL DATA [CONTINUED]

13. Current water speed: _____ knots

14. Water Depth: _____ meters

15. Water visibility: _____

16. SCS Soils Typology and/or Sediment Type: Penn Silt Loam, 3-8% slopes (PnB)

17. Topographic Settings (check all applicable):

_____ Floodplain	_____ Hilltop/Bluff
_____ Interior Flat	__X__ Upland Flat
_____ Terrace	_____ Ridgetop
_____ Low Terrace	_____ Rockshelter/Cave
_____ High Terrace	_____ Unknown
_____ Hillslope	_____ Other: _____

18. Slope: 3-8%

19. Elevation: 106-109 meters (or 348-358 feet) above sea level

20. Land use at site when last field checked (check all applicable):

__X__ Plowed/Tilled	_____ Extractive
_____ No-Till	_____ Military
_____ Wooded/Forested	_____ Recreational
_____ Logging/Logged	_____ Residential
_____ Underbrush/Overgrown	_____ Ruin
__X__ Pasture	__X__ Standing Structure
_____ Cemetery	_____ Transportation
_____ Commercial	_____ Unknown
_____ Educational	__X__ Other: Agricultural complex; unoccupied home

21. Condition of site:
    - __X__ Disturbed
    - _____ Undisturbed
    - _____ Unknown

22. Cause of disturbance/destruction (check all applicable):

__X__ Plowed	_____ Vandalized/Looted
_____ Eroded/Eroding	_____ Dredged
_____ Graded/Contoured	_____ Heavy Marine Traffic
_____ Collected	_____ Other: _____

23. Extent of disturbance:
    - _____ Minor (0-10%)
    - _____ Moderate (10-60%)
    - _____ Major (60-99%)
    - _____ Total (100%)
    - __X__ % unknown

C. ENVIRONMENTAL DATA [CONTINUED]

24. Describe site setting with respect to local natural and cultural landmarks (topography, hydrology, fences, structures, roads). Use continuation sheet if needed.

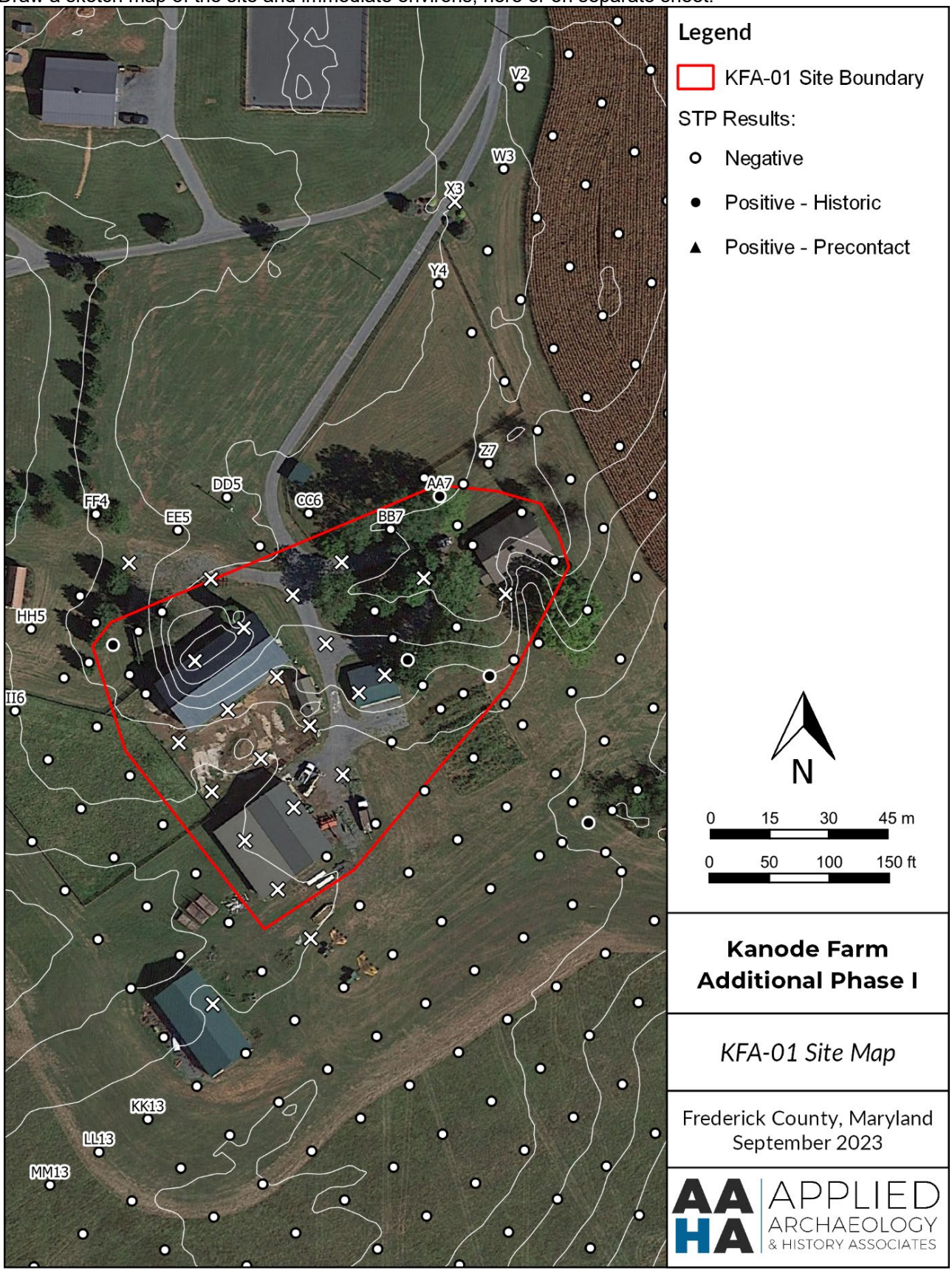
Site KFA-01 is situated in north-central Frederick County and associated with an extant farm complex and residence that date to the early nineteenth century. The site is located at the southern extent of a gravel drive extending approximately 535 meters (m) south from Stevens Road in Thurmont, Maryland. The site is situated near the southern terminus of a low-lying ridgeline that gently slopes south toward Big Hunting Creek. An unnamed tributary of Big Hunting Creek is located approximately 290 m to the east and and Big Hunting Creek lies 500 m to the south. Five extant structures were located within the site boundary at the time of the survey, including an unoccupied log home, situated in the eastern portion of the site, four outbuildings, and fencing associated with the agricultural usage of the Study Area. Two additional farm complex structures are located 20 m northwest and 20 m southwest of the site but were not included within the site boundary. A gravel road extends north-south through the center of the site and connects to each auxiliary structure resulting in a moderate amount of impervious surfaces throughout the site.

25. Characterize site stratigraphy. Include a representative profile on separate sheet, if applicable. Address plowzone (presence/absence), subplowzone features and levels, if any, and how stratigraphy affects site integrity. Use continuation sheet if needed.

Soils within site KFA-01 were generally compact and consisted of an Ap-horizon over a Bt-horizon. The Ap-horizon generally consists of a reddish brown (5YR 5/4) to brown (7.5YR 5/4) silty clay extending to between 20 to 35 centimeters below surface (cmbs). The Bt-horizon consists of a yellowish red (5YR 5/6) to strong brown (7.5YR 5/6) compact clay. The Ap-horizon represents the plowzone and all artifacts were recovered from this context. No subplowzone features were observed.

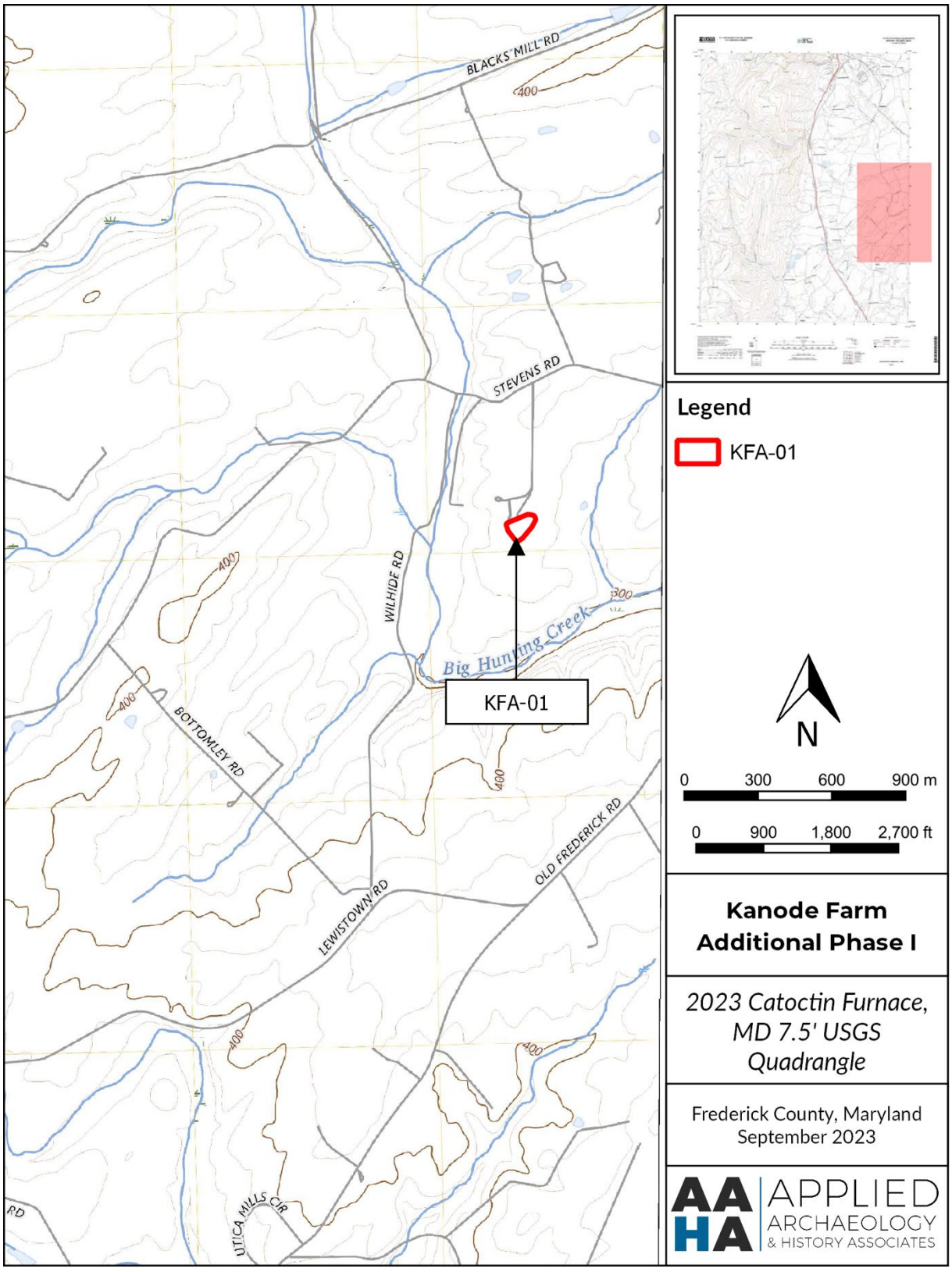
26. Site size: 121 meters by 87 meters (or 396 feet by 284 feet)

27. Draw a sketch map of the site and immediate environs, here or on separate sheet:

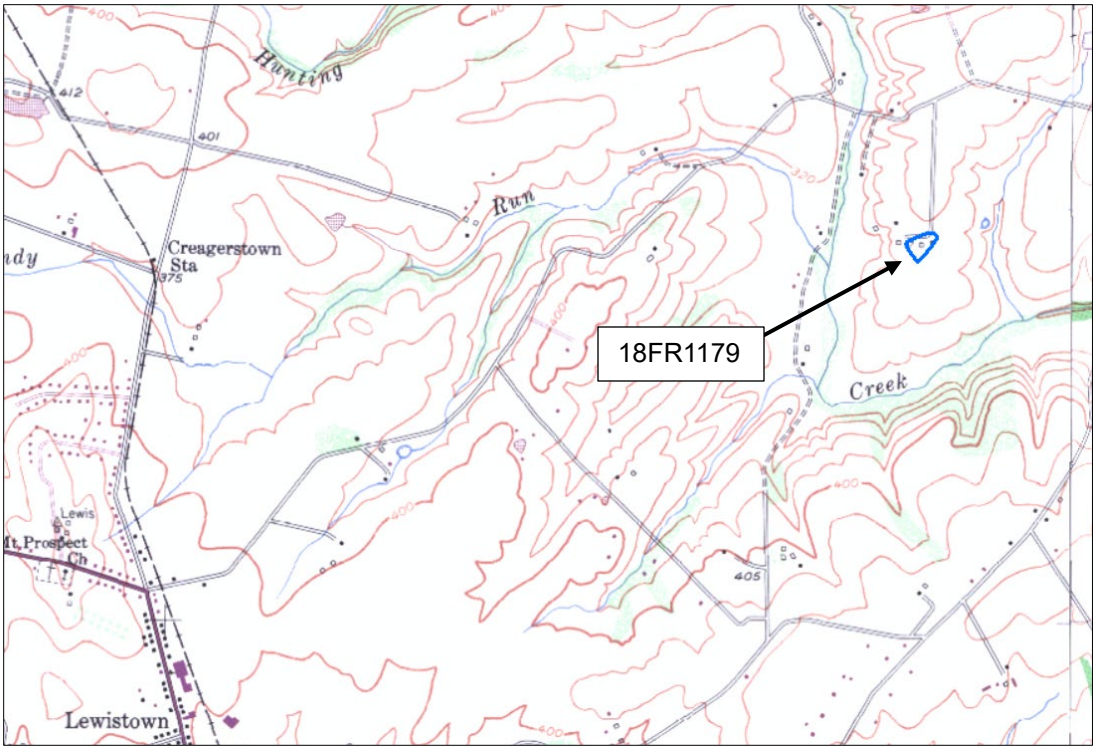


Scale: North arrow:

Photocopy section of quadrangle map(s) and mark site location with heavy dot or circle and arrow pointing to it.



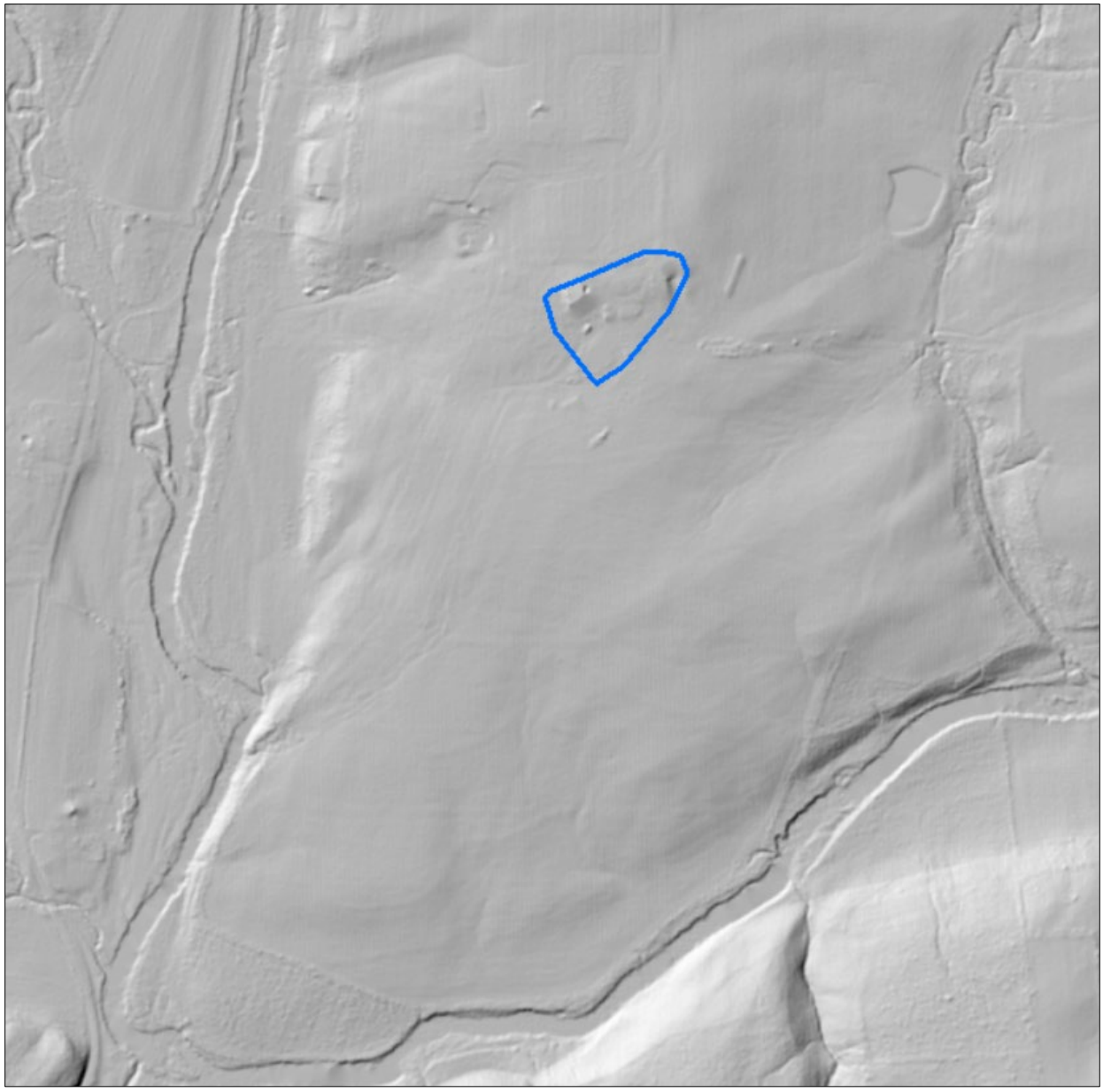
18FR1179
KFA-01 (Kanode Farm, Mrs. Hill)
Catoctin Furnace 7.5' Topographic Quadrangle 1953, Photorevised 1985



National Web Map Service 6" Orthophoto Map, c. 2020

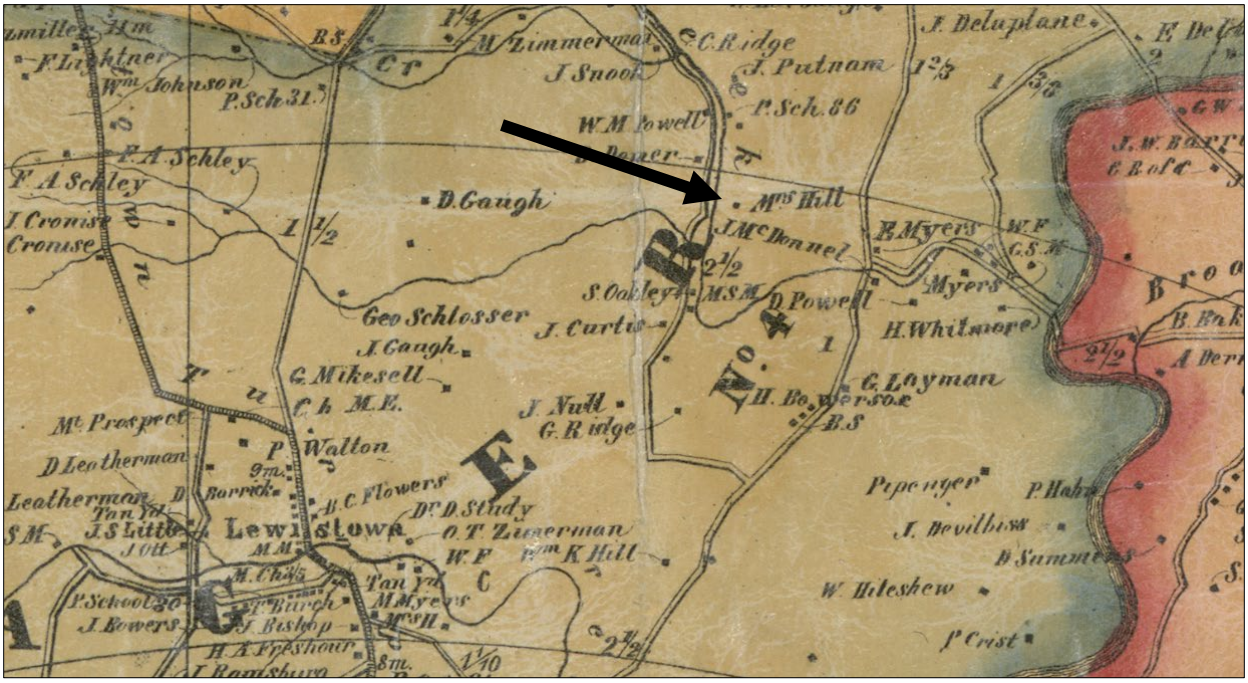
MHT GIS 09/14/2023 JKC

18FR1179
KFA-01 (Kanode Farm, Mrs. Hill)
MD iMAP LiDAR Hillshade Data, Frederick County, 2012

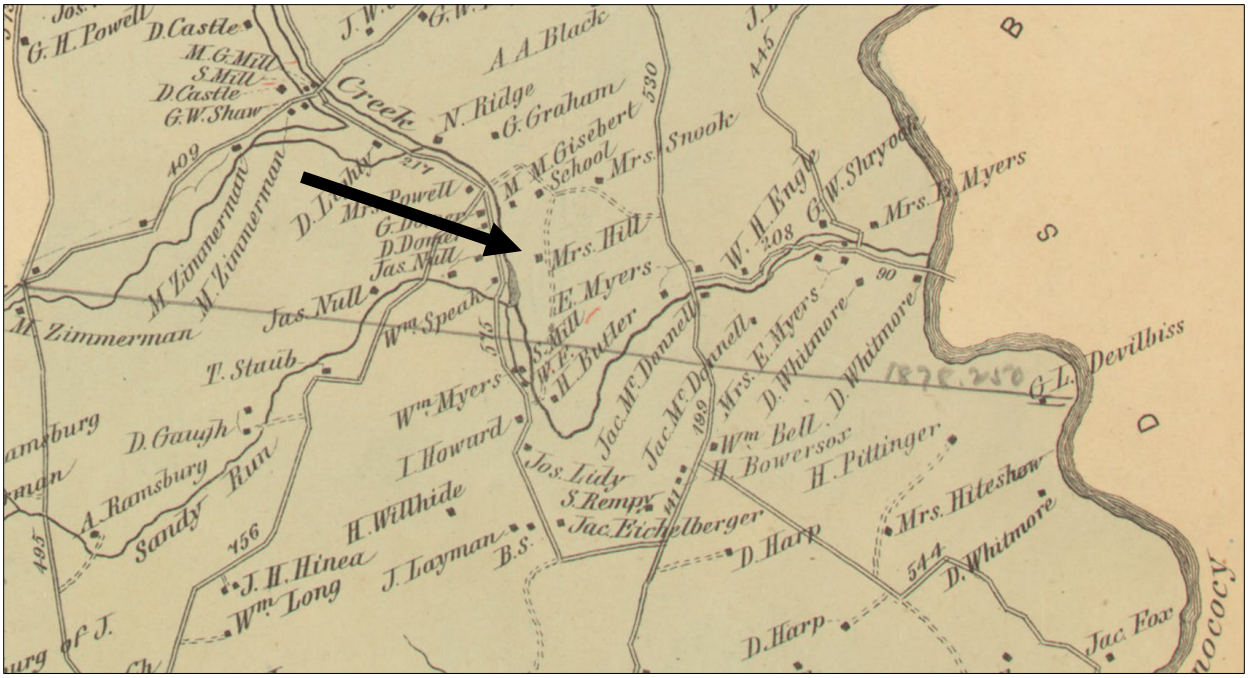


MHT GIS 09/14/2023 JKC

18FR1179
KFA-01 (Kanode Farm, Mrs. Hill)
Bond, Isaac, Map of Frederick County, Maryland, 1860

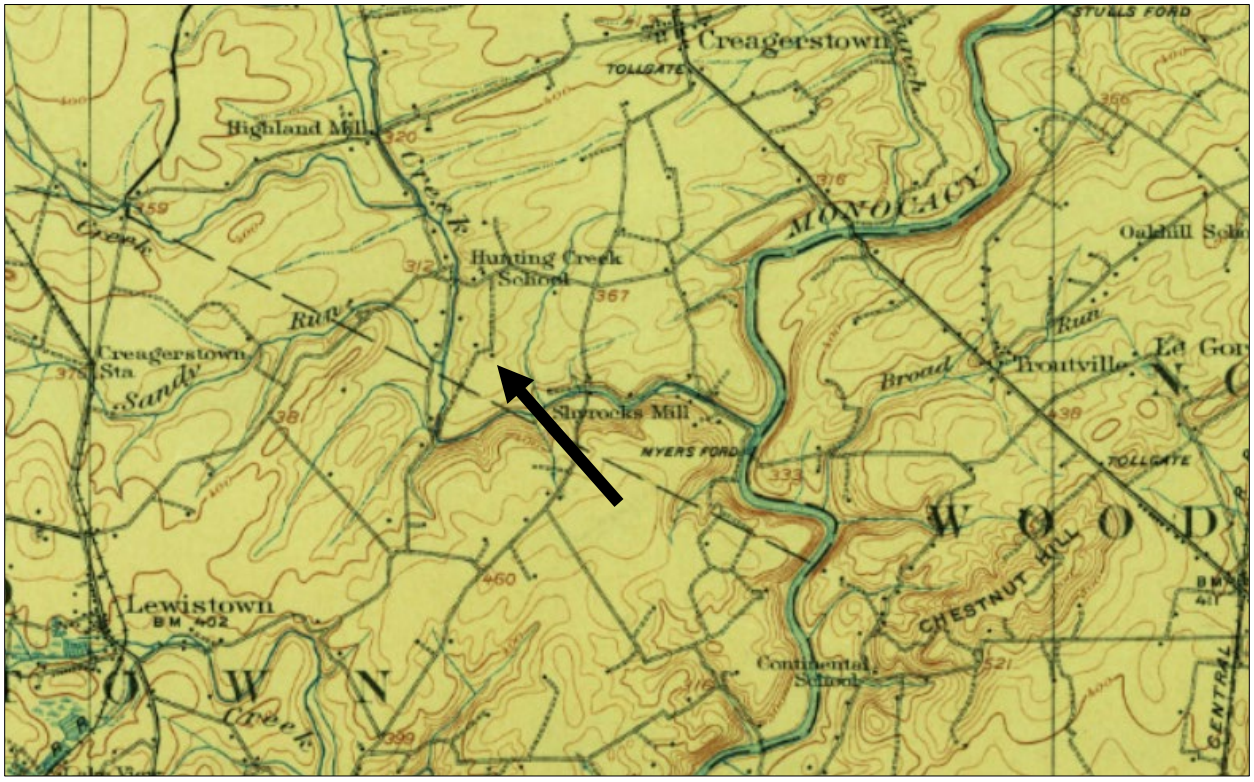


Lake, D.J., Atlas of Frederick County, Maryland, 1873, Creagerstown District No. 4

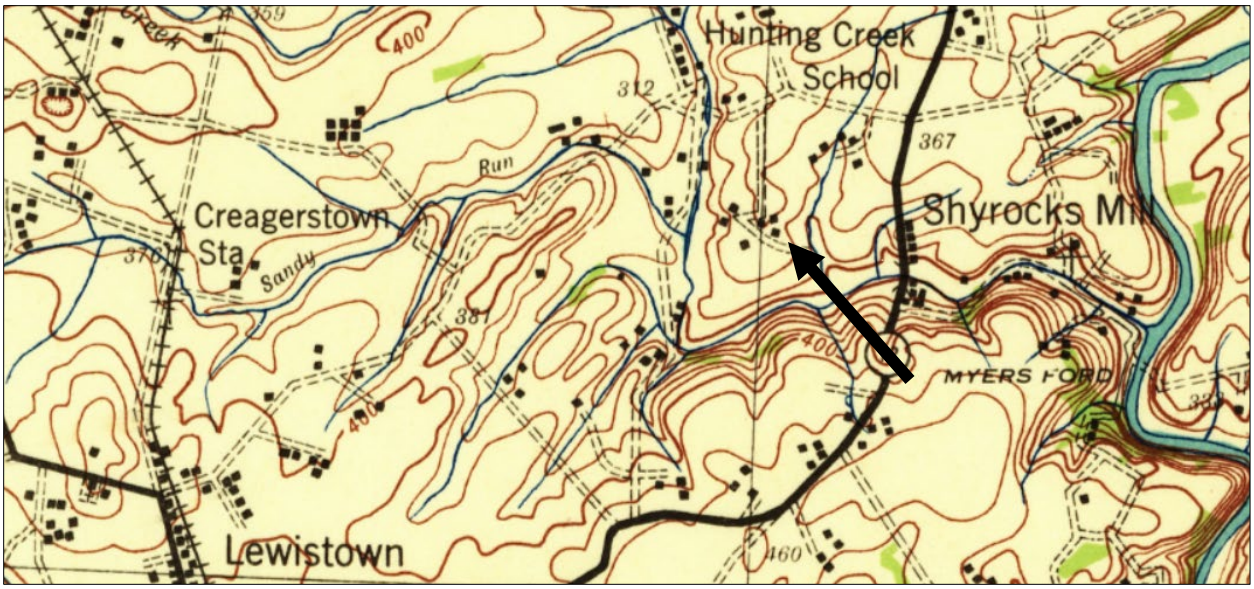


MHT GIS 09/14/2023 JKC

18FR1179
KFA-01 (Kanode Farm, Mrs. Hill)
Emmitsburg 15' Topographic Quadrangle 1911



Emmitsburg 15' Topographic Quadrangle 1943



MHT GIS 09/14/2023 JKC

D. CONTEXT

28. Cultural Affiliation (check all applicable):

PREHISTORIC
_____ Unknown
_____ Paleoindian
_____ Archaic
_____ Early Archaic
_____ Middle Archaic
_____ Late Archaic
_____ Terminal Archaic
_____ Woodland
_____ Adena
_____ Early Woodland
_____ Middle Woodland
_____ Late Woodland

_____ CONTACT

HISTORIC:
_____ Unknown
17th century
_____ 1630-1675
_____ 1676-1720
18th century
_____ 1721-1780
_____ 1781-1820
19th century
_____ 1821-1860
__X__ 1861-1900
20th century
__X__ 1901-1930
_____ post-1930

____ UNKNOWN

E. INVESTIGATIVE DATA

29. Type of investigation:

__X__ Phase I
_____ Phase II/Site Testing
_____ Phase III/Excavation
_____ Archival Investigation
_____ Monitoring
_____ Field Visit
_____ Collection/Artifact Inventory
_____ Report From Informant
_____ Other:
_____

30. Purpose of investigation:

__X__ Compliance
_____ Research
_____ Avocational
_____ Regional Survey
_____ Site Inventory
_____ MHT Grant Project
_____ Other:
_____

31. Method of sampling (check all applicable):

_____ Non-systematic surface search
_____ Systematic surface collection
_____ Non-systematic shovel test pits
__X__ Systematic shovel test pits
_____ Excavation units
_____ Mechanical excavation
_____ Remote sensing
_____ Other:
_____

32. Extent/nature of excavation: STPs were excavated at 15-meter intervals, Radial STPs were excavated at 7.5- meter intervals around positive STPs.

F. SUPPORT DATA

33. Accompanying Data Form(s):

_____ Prehistoric
__X__ Historic
_____ Shipwreck

34. Ownership: _____ Private _____ Federal _____ State __X__ Local/County
_____ Unknown

35. Owner(s): Frederick County, MD
    Address: 12 East Church Street Frederick, MD 21701
    Phone: _____
    Email: _____

36. Tenant and/or Local Contact: _____
    Address: _____
    Phone: _____
    Email: _____

37. Other Known Investigations: _____

38. Primary report reference or citation: _____
    Gollup et a. (2023) Additional Phase I Archaeological Survey of the Kanode Farm Property, Frederick County, Maryland. (In Progress)

39. Other Records (e.g. slides, photos, original field maps/notes, sonar, magnetic record)?
    _____ Slides X Field record _____ Other: _____
    X Photos _____ Sonar
    X Field maps _____ Magnetic record

40. If yes, location of records: AAHA offices (Crofton, MD)

41. Collections at Maryland Archeological Conservation (MAC) Lab or to be deposited at MAC Lab?
    X Yes
    _____ No
    _____ Unknown

42. If NO or UNKNOWN, give owner: _____
    location: _____
    and brief description of collection: _____
    _____
    _____

43. Informant: _____
    Address: _____
    Phone: _____
    Email: _____

44. Site visited by Kristen Browne
    Company/Group name: Applied Archaeology and History Associates (AAHA)
    Address: 2130 Priest Bridge Rd Crofton, MD 21114
    Phone: 410-224-3402
    Email: kbrowne@aahainc.com Date: 09/05/2023

45. Form filled out by: Kristen Browne
    Company/Group name: Applied Archaeology and History Associates (AAHA)
    Address: 2130 Priest Bridge Rd Crofton, MD 21114
    Phone: 410-224-3402
    Email: kbrowne@aahainc.com Date: 09/12/2023

46. Site Summary/Additional Comments (append additional pages if needed):

Site KFA-01 was identified during a Phase I survey of a 27.8-acre portion of the Kanode Farm property. The site is a mid- to late-nineteenth through early-twentieth century domestic, low-density artifact scatter associated with the extant dwelling and agricultural complex within the northwestern portion of the Study Area. The site was identified by four shovel test pits (STPs) which yielded a total of eight historic artifacts. All artifacts were recovered from the Ap-horizon or disturbed matrices between the four extant structures located within the site. Impervious surfaces such as concrete pads and gravel pathways often precluded subsurface testing throughout the site. Architectural artifacts include two fragments of aqua-colored window glass, one machine-headed, machine-cut nail fragment, and one iron washer. Domestic artifacts include one sherd of White Granite ceramic, one fragment of pressed tableware, one small fragment of machine-made container glass, and one small fragment of machine-made glass from an unidentifiable object. The presence of machine-headed cut nails and White Granite ceramics within the assemblage suggest the site was occupied as early as the mid-nineteenth century while the presence of machine-made bottle glass suggests a possible occupation into the early-twentieth century.

MARYLAND ARCHEOLOGICAL SITE SURVEY: HISTORIC DATA FORM

Site Number 18FR1179

1. Site class (check all applicable, check at least one from each group):

a. [X] domestic
[ ] industrial
[ ] transportation
[ ] military
[ ] sepulchre
[ ] religious

. [ ] commercial
[ ] educational
[ ] non-domestic agricultural
[ ] unknown
[ ] other:
_____

b. [ ] urban
[X] rural
[ ] unknown

c. standing structure:
[X] yes
[ ] no
[ ] unknown

d. above-grade/visible ruin:
[X] yes
[ ] no
[ ] unknown

2. Site Type (check all applicable):

[X] artifact concentration
[ ] possible structure
[ ] post-in-ground structure
[X] frame structure
[X] masonry structure
[X] log structure
[ ] farmstead
[ ] plantation
[ ] townsite
[ ] road/railroad
[ ] wharf/landing
[ ] bridge
[ ] ford

[ ] mill (specify:_____)
[ ] raceway
[ ] quarry
[ ] furnace/forge
[ ] other industrial (specify):
_____
[ ] battlefield
[ ] military fortification
[ ] military encampment
[ ] cemetery
[ ] unknown
[ ] other:_____

3. Ethnic Association:

[ ] Native American
[ ] African American
[ ] Angloamerican
[ ] Hispanic American
[ ] Asian American

[ ] other Euroamerican (specify):
_____
[X] unknown
[ ] other:
_____

4. Categories of material remains present (check all applicable):

[X] ceramics
[X] bottle/table glass
[ ] other kitchen artifacts
[X] architecture
[ ] furniture
[ ] arms
[ ] clothing
[ ] personal items

[ ] tobacco pipes
[ ] activity items
[ ] human skeletal remains
[ ] faunal remains
[ ] floral remains
[ ] organic remains
[ ] unknown
[ ] other:
_____

5. Diagnostics (choose from manual and give number recorded or observed):

Machine-headed cut nail (1)
White granite (1)
Machine-made glass (2)

6. Features present:
   _____yes
   __X__no
   _____unknown

7. Types of features present:

_____ construction feature	_____ road/drive/walkway
_____ foundation	_____ depression/mound
_____ cellar hole/storage cellar	_____ burial
_____ hearth/chimney base	_____ railroad bed
_____ posthole/postmold	_____ earthworks
_____ paling ditch/fence	_____ raceway
_____ privy	_____ wheel pit
_____ well/cistern	_____ unknown
_____ trash pit/dump	_____ other:
_____ sheet midden	_____
_____ planting feature	

8. Flotation samples collected:
   _____ yes
   __X__ no
   _____ unknown

   analyzed:
   _____ yes, by _____
   _____ no
   _____ unknown

9. Soil samples collected:
   _____ yes
   __X__ no
   _____ unknown

   analyzed:
   _____ yes, by _____
   _____ no
   _____ unknown

10. Other analyses (specify):_____
    _____
    _____
    _____

11. Additional comments:

12. Form filled out by: Kristen Browne
    Address/Company: AAHA
    Date: 09/12/2023

Soil Map—Frederick County, Maryland
(18FR1179)

Map Scale: 1:3,150 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 45 90 180 270

Feet
0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:12,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Frederick County, Maryland
Survey Area Data: Version 19, Sep 14, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 23, 2020—Nov 20, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CrB	Croton-Abbottstown silt loams, 3 to 8 percent slopes	0.2	0.5%
KnC	Klinesville channery silt loam, 8 to 15 percent slopes	3.9	8.6%
PnB	Penn silt loam, 3 to 8 percent slopes	26.7	58.7%
PrB	Penn-Reaville silt loams, 3 to 8 percent slopes	14.7	32.2%
Totals for Area of Interest		**45.5**	**100.0%**

APPENDIX D:

Qualifications of Investigators

W. Brett Arnold, MS, RPA

Chief Executive Officer, Principal Investigator

Applied Archaeology and History Associates, Inc.

Education

AAS, 2024 (anticipated), Accounting, Prince George's Community College

MS, 2014, Anthropology, University of Wisconsin--Milwaukee

BA, 2011, Archaeology and German Studies, College of Wooster

Registrations

Register of Professional Archaeologists #28887637

Skills

Project Management
Managerial Accounting
Technical Writing

Years of Experience

Total: 12 With Firm: 5

Contact

2130 Priest Bridge Drive, Suite 1
Crofton, MD 21114
p: 410-224-3402
e: barnold@aahainc.com

Mr. William Brett Arnold is a historian, archaeologist, and business manager. Mr. Arnold has twelve years of professional experience, with ten years' experience in cultural resource management Mid-Atlantic region. He has contributed to technical reports and directed archaeological fieldwork for eight years. His experience ranges from privately funded research projects to compliance surveys for state and federal agencies. Mr. Arnold is also experienced in using GPS, total station data, and GIS in archaeological contexts. His professional qualifications meet the U.S. Department of the Interior criteria for archaeologists and historians and he is a member of the Register of Professional Archaeologists. Mr. Arnold excels in the collection of historic materials, both primary and secondary sources, and the development of archaeological probability assessments. His research interests include the Tidewater region during the Contact Period, the development of religion in the United States, and the American Civil War. Mr. Arnold also possesses training in financial and managerial accounting, operations process generation, human resources, and small business development.

Representative Projects

Phase IA Archaeological Assessment for the Noah Hillman Garage and Annapolis City Dock, City of Annapolis, MD: Project Archaeologist for research project assessing archaeological potential of two city-owned parcels in Annapolis. The research uncovered documentary evidence for lumber yards, oyster packing plants, and an ice factory at the Annapolis City Dock and frame structures related to the City Hotel at the Noah Hillman Garage.

Aquasco Background Research, Prince George's County, MD: Historic research specialist supporting efforts to better understand the development of a late nineteenth- and early twentieth-century Black community in Aquasco, Maryland. Responsible for background research, title research, and coauthoring report.

I-495/I-270 Managed Lane Survey, Prince George's and Montgomery Counties, MD: Project Archaeologist responsible for directing multiple crews in a Phase I survey of areas within a proposed expansion of the I-495/I-270 right-of-way and coauthoring report. The survey included pedestrian survey and shovel testing across over two dozen discontinuous areas throughout the corridor.

Archaeological Assessment of the Rising Sun Inn and Vicinity, Anne Arundel County, MD: Consultant responsible for coauthoring research design and assisting in fieldwork at the eighteenth-century Rising Sun Inn in Millersville, Maryland. Survey consisted of shovel testing and intensive background research into the inn.

Archaeological Survey for the Rural Plains House Precinct, Richmond National Battlefield Park, Hanover County, Virginia: Project Archaeologist for a survey around the eighteenth-century Rural Plains house on the Totopotomoy Creek Battlefield for the National Park Service Northeastern Division. The survey included shovel testing and test unit excavations in and around the Rural Plains house and identified nineteenth-century features related to the house's postbellum occupation.

Emily Masters, MA, RPA

Project Archaeologist

Ms. Emily Masters is an archaeologist for Applied Archaeology and History Associates, Inc. (AAHA). Ms. Masters has eight years of professional experience, with seven years' experience in cultural resource management and research projects in the Mid-Atlantic and Northeast regions. Ms. Masters has been contributing to technical reports and directing archaeological fieldwork for five years. She has been a contributing or co-author on over 50 technical reports, including Phase IA, IB, and II archaeological surveys. Ms. Master's expertise lies in field survey and resource evaluation, and has experience excavating and analyzing cultural material from historic and precontact period sites in Maryland, Pennsylvania, Delaware, West Virginia, Virginia, Ohio, New York, Massachusetts, Vermont, and New Hampshire. Ms. Masters is also experienced in using GPS and GIS in archaeological contexts. Ms. Masters' professional qualifications meet the U.S. Department of the Interior criteria for archaeologists and she is a member of the Register of Professional Archaeologists.

Representative Projects

Future Expansion of the Dobson Development Area – Prince George's County, MD: Crew Chief for Phase I archaeological investigations of the proposed 730-acre development area. Assisted in the development of an archaeological sensitivity assessment to direct field efforts. Investigations resulted in the identification of one historic site, two historic scatters, two precontact sites, and the reidentification and expansion of an existing historic artifact scatter. One Late Woodland precontact site was recommended for avoidance or additional testing due to the recovery of diagnostic materials indicative of an underrepresent time period in the vicinity of the survey area.

FirstLight Northfield Mountain Pumped Storage and Turners Falls Hydroelectric Project, Franklin County, MA, Windham County, VT, Cheshire County NH: Crew Chief for Phase IB survey of 12,000 linear meters of Connecticut river shoreline in Vermont, New Hampshire, and Massachusetts resulting in the identification of 29 archaeological sites. Assisted with the development of research design and conducted fieldwork for Phase II site examination of 19 sites. Four precontact sites and two historic sites were recommended eligible for listing in the NRHP under Criterion A and D.

East Point Solar Energy Center Project, Schoharie County, NY: Contributing author of Phase IA report responsible for preparing historic and precontact sensitivity analysis and Field Director for Phase IB investigations of the proposed 1,200-acre solar energy project. Phase IB identified 13 precontact and three historic archaeological sites. The proposed project designs were redrawn to avoid four of the sites recommended at potentially eligible for NRHP and one historic cemetery.

Raines Corner Phase II, Monroe County, WV: Crew Chief for Phase I and Phase II level archaeological investigations of a bridge replacement project in south-eastern West Virginia. Phase I survey identified one previously undocumented archaeological site yielding precontact artifacts from sub-plowzone contexts suggesting the vertical integrity of cultural deposits. Phase II evaluation of the site resulted in the recovery of 3,000 precontact artifact. The site was determined eligible for NRHP under Criterion D and avoided through construction re-design.

Applied Archaeology and History Associates, Inc.

Education

MA, 2020, Applied Archaeology, Indiana University of Pennsylvania

BA, 2014, Anthropology, West Chester University

Registrations

Register of Professional Archaeologists #58089080

Skills

Survey and Resource Evaluation

Technical Writing

GIS

Years of Experience

Total: 8 With Firm: 3

Contact

2130 Priest Bridge Drive, Suite 1
Crofton, MD 21114
p: 717-830-8827
emasters@aahainc.com

Jasmine Gollup, M.A., RPA

Laboratory Director

Jasmine Gollup is the Laboratory Director for Applied Archaeology and History Associates, Inc. (AAHA). Ms. Gollup has 13 years of professional experience in cultural resource management and research projects in the Mid-Atlantic and Northeast regions. Ms. Gollup has conducted archaeological laboratory work for 12 years and has been a contributing or primary author on technical reports for eight years. Her experience includes cultural material recovered from Phase I through III excavations conducted for compliance surveys for state and federal agencies. Ms. Gollup's professional qualifications meet the U.S. Department of the Interior criteria for archaeologists and historians and she is a Registered Professional Archaeologist. Ms. Gollup excels in the identification of cultural materials, the preparation of collections for curation at state, local, or private repositories, and historic archival research.

Representative Projects

East Pat Lofts – Frederick County, MD: Laboratory Director for Phase I and II archaeological investigations at a historic site within the city of Frederick. Conducted background and historical research. Oversaw and conducted laboratory analysis of all recovered artifacts. Prepared artifacts and paperwork for curation. Contributing author for technical report.

Caroline County North Regional Park – Caroline County, MD: Laboratory Director for Phase I archaeological investigations. Conducted background and historical research and laboratory analysis of all recovered artifacts. Prepared artifacts and paperwork for curation. Contributing author for technical report.

Melrod – Stafford County, VA: Laboratory Director for Phase II archaeological investigations at two multi-component sites. Conducted background and historical research. Oversaw and conducted laboratory analysis of all recovered artifacts. Prepared artifacts and paperwork for curation. Contributing author for technical report.

FirstLight Northfield Mountain and Turners Falls Project – Franklin County, MA: Laboratory Director for Phase II archaeological investigations at 17 sites along the Connecticut River in Franklin County, MA. Conducted laboratory analysis, historic research, and contributed to technical report.

KOA Cacapon – Morgan County, WV: Laboratory Director for Phase I archaeological investigations. Conducted background and historical research. Oversaw and conducted laboratory analysis of all recovered artifacts. Prepared artifacts and paperwork for curation. Contributing author for technical report.

Pig Point – Anne Arundel County, MD: Archaeological Laboratory Director for Phase III investigations of the Pig Point prehistoric site on the Patuxent River with Anne Arundel County Department of Planning and Zoning. Included field and laboratory work, as well as supervision of volunteers and interns in the lab.

Historic St. Mary's City/St. Mary's College of Maryland – St. Mary's County, MD: Archaeological Laboratory Director for Phase III level archaeological investigations for St. Mary's College of Maryland. Mitigation of several 17th century sites prior to construction. Tasks included field and laboratory work, as well as supervision of technicians in the lab.

Applied Archaeology and History Associates, Inc.

Education

M.A., 2011, Archaeology, Cornell University

B.A., 2009, Sociology/Anthropology and History, Elizabethtown College

Registrations

Register of Professional Archaeologists #39454409

Skills

Artifact Identification
Curation and Collections Management
Technical Writing
Historic Research

Years of Experience

Total: 13 With Firm: 2

Contact

2130 Priest Bridge Drive, Suite 1
Crofton MD 21114
p: 240-678-7988
e: jgollup@aahainc.com

Applied Archaeology and History Associates, Inc.

Education

B.A., 1999, History, Washington College

Skills

Mid-Atlantic Archaeology
Contact Period Research
Resource Evaluation
Project Management
Public Outreach

Years of Experience

Total: 21 With Firm: 2

Contact

2130 Priest Bridge Drive, Suite 1
Crofton, MD 21114
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Patrick Walters

Director of Marketing, Project Archaeologist

Patrick Walters has designed and directed surveys and excavations of historic and prehistoric archaeological resources in the Northeast, Mid-Atlantic, and Southeast for over 19 years. He has obtained a thorough knowledge of Section 110 and Section 106 and of the National Historic Preservation Act as amended (NHPA) and applying the National Register of Historic Places (NRHP) eligibility criteria to cultural resources. As a professional in the field of cultural resources management, Mr. Walters has served as Project Archaeologist on many cultural resources studies throughout the Mid-Atlantic. He has also acted in a management role in coordination with multiple state and federal agencies in the implementation of National Environmental Policy Act (NEPA) policies, and in coordination of public outreach programs on behalf of municipalities for stewardship of NRHP properties. Mr. Walters has a broad knowledge of cultural resource management principles and practices, archaeological survey, evaluation, and data recovery methodologies, and presentation of research results within federal and state agency, academic, and public sector frameworks. He has extensive experience on Maryland CRM projects including Phase I, II, and III terrestrial excavation, research, technical reports, and prehistoric and historic artifact analysis. He has experience in archaeological site research for archaeological survey projects in Maryland, New Jersey, New York, Virginia, Pennsylvania, and West Virginia. He has also supervised archaeological surveys in Coastal Plain and Piedmont regions of the Middle Atlantic region.

Representative Projects

BGE Church Circle Monitoring – Annapolis, MD: Acted as Project Manager overseeing archaeological monitors supporting construction crews during utility installation in the City of Annapolis. Conducted laboratory analysis for all identified artifacts. Prepped paperwork and artifacts for curation.

AIA Legacy Collections Project – Annapolis, MD: Project Manager for a project to process, recondition, and deliver final curation to the MAC Lab portions of the legacy AIA archaeological collections held in City storage lockers for over 20 years. The original project design called for final curation of up to 80 boxes of the approximately 1000 in storage, however, the project team was able to process over 250, clearing out one of the three City storage units in the process.

Phase IA Archaeological Assessment for the Noah Hillman Garage and Annapolis City Dock, City of Annapolis, MD: Project Manager for research project assessing archaeological potential of two city-owned parcels in Annapolis. The research uncovered documentary evidence for lumber yards, oyster packing plants, and an ice factory at the Annapolis City Dock and frame structures related to the City Hotel at the Noah Hillman Garage.

Cloverfields – Queen Anne's County, MD: Acting as Project Manager role for ongoing archaeological excavations, monitoring, archaeological collection on-site curation management, and historic preservation planning for rehabilitation of a ca. 1710-11 plantation style house and surrounding gardens.

Conowingo Dam and Muddy Run Pumped Storage Relicensing Project – PA/MD: Project Archaeologist in support of environmental impact studies required for 40-year license renewal. Principal author of reports submitted to Exelon Generation Company, LLC and the Pennsylvania SHPO and MHT.

ATTACHMENT 4

HISTORY AND DATA ON HORSES AND EQUINE ASSETS IN FREDERICK COUNTY

Mr. Ross Peddicord, Executive Director
Maryland Horse Industry Board

HISTORY AND DATA ON HORSES AND EQUINE ASSETS IN FREDERICK COUNTY

Ross Peddicord, MDA
Executive Director, Maryland Horse Industry Board

HISTORY

Frederick County is one of the largest counties in Maryland. It has a long horse history, starting with Frederick as a main stop on the National Highway with horses transporting goods from Baltimore to the West. The county has been the setting for large draft horse breeding operations.There have also been large horse racing farms. Frederick was the home of **Glade Valley Farm,** once one of the state's leading Thoroughbred operations. as well as **Yankeeland Farm**, a major national Standardbred harness breeder. It was also home to the **New Market Hounds** that merged with the **Middletown Hounds** approximately 40 years ago. There are several 4-H and pony clubs. **The Frederick Pony Club** is one of the oldest in the state. **The Great Frederick Fair** is also one of the oldest and largest in the state with live harness racing, a harness racing training center that operates year round; a horseland exhibition and numerous horse shows. About 30 years ago **Carolyn Mackintosh** started the **Loch Moy Farm** equine competition venue, now one of the largest 3-Day Event complexes in the Mid Atlantic region. There are 77 licensed lesson and boarding barns and 4 certified Horse Discovery Centers.

Champion horses like **Gallorette** and **Challedon** were bred in Frederick County. Pan Am gold medalists **Marilyn Little and Packy McGaughan** grew up in Frederick County. Baseball legend "**King Kong" Keller** started his Yankeeland Standardbred farm in Frederick County. The **Enfield Family** near Jefferson are among the state's leading families devoted to the sport of jousting. The **Brinkley Family** had one of the largest and most successful Welsh pony breeding and showing operations in New Market.

According to the most recent Maryland Horse Census compiled by the National Agricultural Statistics Service, there are:

7,850 horses in Frederick County, making it the third largest county horse population-wise in Maryland, only trailing Baltimore and Montgomery counties

These horses are worth $144M

There are **1,600 places in Frederick County where horses are kept** from large competition venues like Loch Moy Farm in Adamstown to small farmettes where 1-2 horses are stabled. **These places comprise 21,400 acres.**

Total equine assets in Frederick County amount to $442M.

FREDERICK COUNTY EQUINE ASSETS

Competition Venues:

Loch Moy Farm Equine Event Venue, Adamstown--attracts 5,000 -6,000 entries per year in the equestrian disciplines of 3 Day Eventing, Dressage and Show Jumping

J Bar W Rodeo, Johnsville--attracts thousands of spectators and entries for twice-monthly rodeos from June-September in the Western disciplines of barrel racing, roping, cutting and bronc/bull riding

Great Frederick Fair, Frederick: offers 10 days of horse shows, pulling contests, live harness racing and is open year-round as a harness racing training facility

These facilities provide competition outlets for local horse enthusiasts who are members of several equestrian youth organizations such as the **Frederick Pony Club** and numerous 4-H Clubs with members who have horse projects. There are also adult riding organizations such as the **New Market-Middletown Valley Foxchasing Club** and the **Thurmont Riding Club.** These clubs provide outlets for organized equestrian activities.

Petersville Farmers Woods, Petersville: This is the site of the National Jousting Championships, held annually in October; and of a local jousting tournament and clinics during the year, Jousting is Maryland's state sport and a number of jousting enthusiasts, including Brad Enfield, the current national and state champion, are from Frederick County.

Four Certified Maryland "Horse Discovery Centers:"

The Horse Discovery Centers are volunteer programs geared to growing interest in horses so that more folks can learn about horses, sign up for riding lessons, lease and buy horses and eventually, perhaps, purchase farms.

These centers are public riding/education centers that volunteer to open their facilities to the general public so they can be introduced to horses in a friendly and knowledgeable way:

Good Intentions Farm, Keymar: The farm specializes in raising and training Clydesdale draft horses and teaching the public about draft horse breeds.

Foxie G Thoroughbred Rescue, Libertytown: As many as 60-70 former racehorses are retired here, some for life, others being retrained and put up for adoption. There are also educational programs and open houses.

Paradise Stables, New Market: A state of the art boarding and lesson barn that also participates in community programs that benefit the public.

Silverado Frederick County 4-H Therapeutic Riding Program, Thurmont: Probably the county's largest therapeutic riding program that serves riders with special needs.

Horse Sales Stable:

Livestock Legacy Sales, Thurmont: One of the only remaining sales auctions for recreational riding horses in the Mid-Atlantic region fosters an outlet for horse trainers and first-time buyers alike to help meet the need for providing recreational riding horses.

Boarding & Lesson Barns:

There are currently 77 boarding and lesson barns licensed in Frederick County. Refer to the list below. These are **PUBLIC** riding stables licensed by the MD Horse Industry Board.

Ascension Day
Aviemore
Bennett's Creek
Black Dog
Blue Bottom
Blaven (Lic. pending)
Bloomsbury Forge
Breezy Hill
Buck Forest
By Chance
Celebration
Changing Strides
Christine Betz Dressage
Cook's Choice
Destination Eventing
Dog Tired
Dream Catcher
East View
Elevation Dressage & Eventing
Equine Education Center
Everafter
Fantail
February Star
Feelgood
Finding Hearts
Forward Strides
Forevermore
Foxie G
Fox Glen
Gaits of Hope
Glenwillow
Good Friday

Good Intentions
Grazy Days
Harley
Hidden Paradise
High Cirrus
Homestead
Hunting Horn
Kismet Farm Equestrian Ctr
Knight Life
Koogle Farm
Long Lane
Magnanelli Ranch
Middle Ridge
Misty Peaks
New Leaf
North Fork School of Equitation
O'Neill Farm
Olde Timers Stable
Our Farm
Out of the Blue
Paradise Stables
Plantation Valley
Playland Equestrian Ctr.
Pleasant Ridge
Poco Valley
Renn
Riley Meadows
Rippeon Farms
Rocky's Horse Rescue
Saddleview Ranch
Settle Down
Sevens Boarding
Silverado
Starry Night
Summer's Performance
Thunder Mountain Ranch
Top Line Equestrian Ctr.
Urbana Riding Club
Walden Lane
Whiskey Ridge
White Rock View
Whitetail Ridge
Windsong Arabians
Windy Oak
Woodvale