

## Luray, VA: Andrew Jackson School Memorial Park Conceptual Site Master Plan



**Prepared for Living Legacy**  
November 2021

Luray, VA: Andrew Jackson Memorial Park  
Conceptual Site Master Plan

Project funding provided in part by the US Forest Service in cooperation with the  
Virginia Department of Forestry Urban and Community Forestry Program



20UCF08





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**The Community Design Assistance Center (CDAC)** is an outreach center in the College of Architecture and Urban Studies at Virginia Tech that assists communities, neighborhood groups and non-profit organizations in improving the natural and built environments. Assistance is provided in the areas of landscape architecture, architecture, planning, and interior design. Working with communities, the conceptual planning and design provides communities with a graphic vision of their project that can then be used for grant applications and fundraising for the next steps toward implementation.

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## ACKNOWLEDGMENTS

The CDAC team would like to acknowledge the following individuals for their contributions throughout the project:

**Walt Surrat**

Treasurer, Living Legacy

**Liz Lewis**

Board Member, Living Legacy

**Audre King**

Executive Director and Founder, Living Legacy

**Duane Painter**

Chairman, Living Legacy

**Mary Menefee**

Secretary, Living Legacy

and

Those who volunteered time for the betterment of the West Luray Rec Center and Living Legacy.

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## PROJECT DESCRIPTION

### West Luray Rec Center Background and Project Overview

The West Luray Recreation Center is a former Rosenwald school that has been converted into a community-based recreation center. The community center is privately owned and operated in partnership with Living Legacy, a local non-profit. The West Luray Recreation Center provides a positive activity and learning environment for underserved youth in nearby neighborhoods, Luray, and Page County. Some of what the center provides include an after-school tutoring program, mentoring, meals, and space for indoor activities and socializing.

According to a map from around 1885, the original school building at 630 West Main Street in Luray was a one room school called “School No 5”, which served black students in the area. Later around 1924, a Rosenwald School was built as a school for black children living in Luray. Julius Rosenwald, who was part owner and president of Sears, Roebuck and Co., started the Rosenwald Schools after meeting Booker T. Washington and discovering that there was a lack of educational opportunities for black students, especially in the South. The school was named the Andrew Jackson School after a black businessman and shopkeeper named Andrew Jackson (not after the president of the same name).

In 2017, the school building, which was in poor condition, was purchased by Audre King. His vision was to clean up and restore the old Andrew Jackson School and create a community center. Consistent volunteer work through the years has transformed the building into a successful and vibrant community center for the West Luray community. Renovations will continue on the building, such as replacing the roof and installing a central HVAC system.

The West Luray Recreation Center, or TheREC, supported with only volunteer staff, includes a game room, kitchen, a computer lab with internet, and large meeting space. The center has been used for forums, group meetings, and study hall. Fifteen to thirty students attend study hall each week.

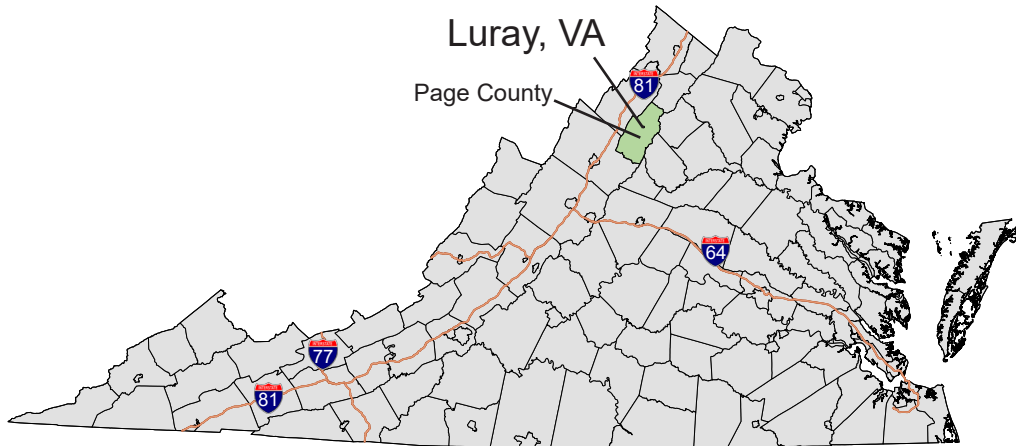
Living Legacy wanted to develop a conceptual site master plan for the property behind the West Luray Recreation Center building in order to expand its potential for offering youth-oriented recreational and community-based agriculture learning opportunities. This design effort included the land immediately around the building as well as behind the building and down the slope to create a park as the first outdoor recreation space in the west end of Luray: Andrew Jackson School Memorial Park.

The purpose of this project was to work with the property owner Mr. King, Living Legacy, and the local community to create a conceptual site master plan for Andrew Jackson School Memorial Park.

Initial ideas for the park included two basketball courts, tennis court, open field for soccer or other outdoor play, a sledding hill, utilize the donated greenhouse in concert with a community garden, splash pad, amphitheater, picnic pavilion, a playground, a wall of remembrance to remember former students and teachers, and parking.

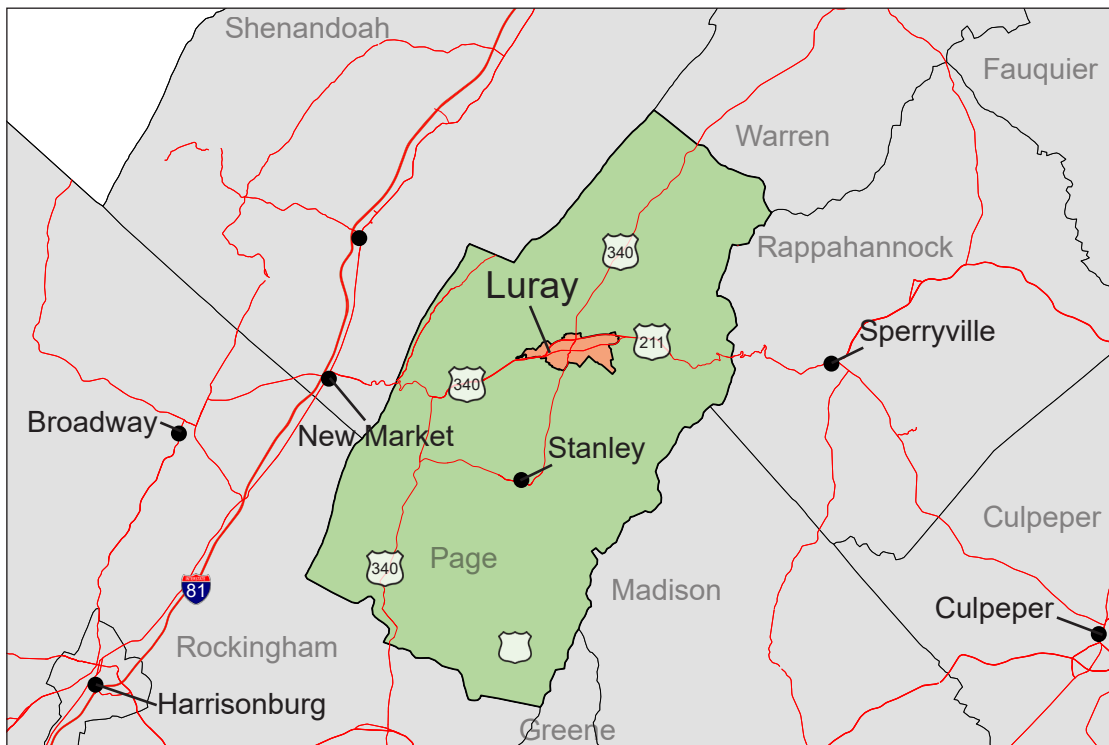
## PROJECT DESCRIPTION

### Project Location



Luray, VA is located in Page County in the northern half of Virginia (above). Two major connectors near Luray are Route 340 and Route 211, which connects Luray to surrounding communities, and I-81 (below).

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## PROJECT DESCRIPTION



The Andrew Jackson School Memorial Park property is located near the downtown area of the Town of Luray (above). The design extent included three parcels surrounding the West Luray Recreation Center, locally known as 'TheREC' (outlined in green below).

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## PROJECT DESCRIPTION

### Design Process

The design process began with a site visit on June 9, 2021. During that visit the property owner Mr. King and members of Living Legacy discussed their broad vision for the property and opportunities to incorporate an adjacent Town-owned parcel that was planned to be transferred to Living Legacy. The CDAC team had the opportunity to tour the site and surrounding neighborhood areas. Input and site photos created a comprehensive foundation that the CDAC team used to develop two preliminary conceptual site master plans for the TheREC site.

The CDAC team presented the preliminary design concepts on July 27, 2021. Following the presentation, a stakeholders committee provided feedback about what they (dis)liked about each design. Living Legacy then facilitated a separate input session with local community members to obtain additional feedback. Final design concepts were presented on October 7, 2021.

Meeting notes from the stakeholder input session and preliminary design presentation can be found in the Appendix.



Stakeholders from TheREC gave CDAC a tour of the site during a site visit on June 9, 2021.



# PART 1: FINAL DESIGN CONCEPT

## FINAL DESIGN CONCEPT

### Site Master Plan

#### Design Description

The final design for TheREC features design elements that create a large recreational space for the building and the surrounding community, especially supporting youth development, mentorship, and healthy living. There are supplemental design elements that serve as a memorial highlighting the contributions and historical significance of the building, former teachers, and students of the former Rosenwald School.

#### Site Entrance

Within the site and along West Main Street is a dedicated parking space for TheREC's activity bus. While there is not a pull-thru exit, the bus can back up and leave via West Main Street. This single-vehicle entrance utilizes the existing opening in the historic stone wall that runs along the sidewalk. Alterations to this wall should carefully consider its historic character and consult with the VA Department of Historic Resources and Town of Luray prior to any changes.

#### Community Gardening

Between the activity bus parking area and TheREC are a number of community garden amenities. There are five 4'x 8' raised garden beds that provide easier access for gardening. These are particularly helpful for those that are less mobile. Beyond the raised garden beds is a traditional ground-level garden. Between the two garden types are a storage shed and greenhouse. The storage building can be used to store garden tools and supplies while the greenhouse can be used to start plants earlier in the spring or maintain plants later in the growing season such as November or early December.

#### Gathering and Special Events

There are three primary spaces that can be used for everyday gathering or special events. The first gathering space is a 600 ft.<sup>2</sup> pavilion that is located near the traditional garden space. The pavilion is large enough for ~20-30 people or six picnic tables. It is accessed via a path that connects to the south entrance of TheREC or from the lower exit of the building. The path that leads to the pavilion from West Main Street has a short memorial wall on the east side of the path with benches. This memorial wall is an excellent opportunity to commemorate individuals associated with the building when it used to be a Rosenwald School.

The second gathering place is a small patio located just off the lower exit of TheREC. This patio can be used daily as youth come and go from the gym that is planned for the lower level of the building. Patio furniture can be added to provide additional seating and umbrellas could provide additional shade.

The third gathering place is an ADA-accessible amphitheater that is built into the hillside just to the north side of the pavilion. This amphitheater is a great location for special events such as outdoor lectures, demonstrations, or small musical events. There are dedicated ADA viewing areas on the top level as well as an ADA ramp on the east side that provides access to the lower walking path, open green space, teen

## FINAL DESIGN CONCEPT

hangout area, basketball court, and playground.

### Active Play and Passive Recreation

The lower (north) portion of the site is where several active play and passive recreation features are located. Following the perimeter trail from the amphitheater leads to a teen hangout area. This is a great place for teens to gather, socialize, or work on school work in a unique sunken-style seating configuration.

Further along the perimeter walking path is a 64' basketball court. The court can be striped to suit a variety of court layouts and could also include infrastructure for volleyball. The court has a short brick retaining wall on the southern half and a chain link fence around the entire court to keep stray balls from bouncing away. West of the basketball court is a small playground with picnic tables.

Near the teen hangout area is a pedestrian path that crosses Bixler's Ferry Road to a small wooded parcel. This parcel, a planned acquisition from the Town of Luray, is a quaint wooded lot with a short walking trail. This trail has a dirt surface and crosses an ephemeral stream in two places. Small plant identification tags can be added along the path for additional environmental education opportunities. A supplemental pedestrian connection is made on the former road bed just north of the triangle-shaped property line.

### Additional Amenities

As a convenience for those playing in the north portion of the site, a sweet smelling toilet (SST) is located near the playground and the basketball court. This unique restroom design is a waterless toilet and utilizes a passive ventilation system to achieve a near-odorless facility. Additional information from the USDA Forest Service about sweet smelling toilets and their design can be found in the Appendix.

It is important to consider how the new recreational amenities and site designs impact surrounding areas at night. In order to provide nighttime illumination while being mindful of the environmental impacts of lighting, dark sky-friendly light fixtures are located along the primary walking paths in the site master plan. These fixtures are specifically designed to concentrate light down toward the ground and reduce light pollution.

The following pages contain the site master plan, perspectives, and precedent images.

Luray, VA: Andrew Jackson Memorial Park  
Conceptual Site Master Plan

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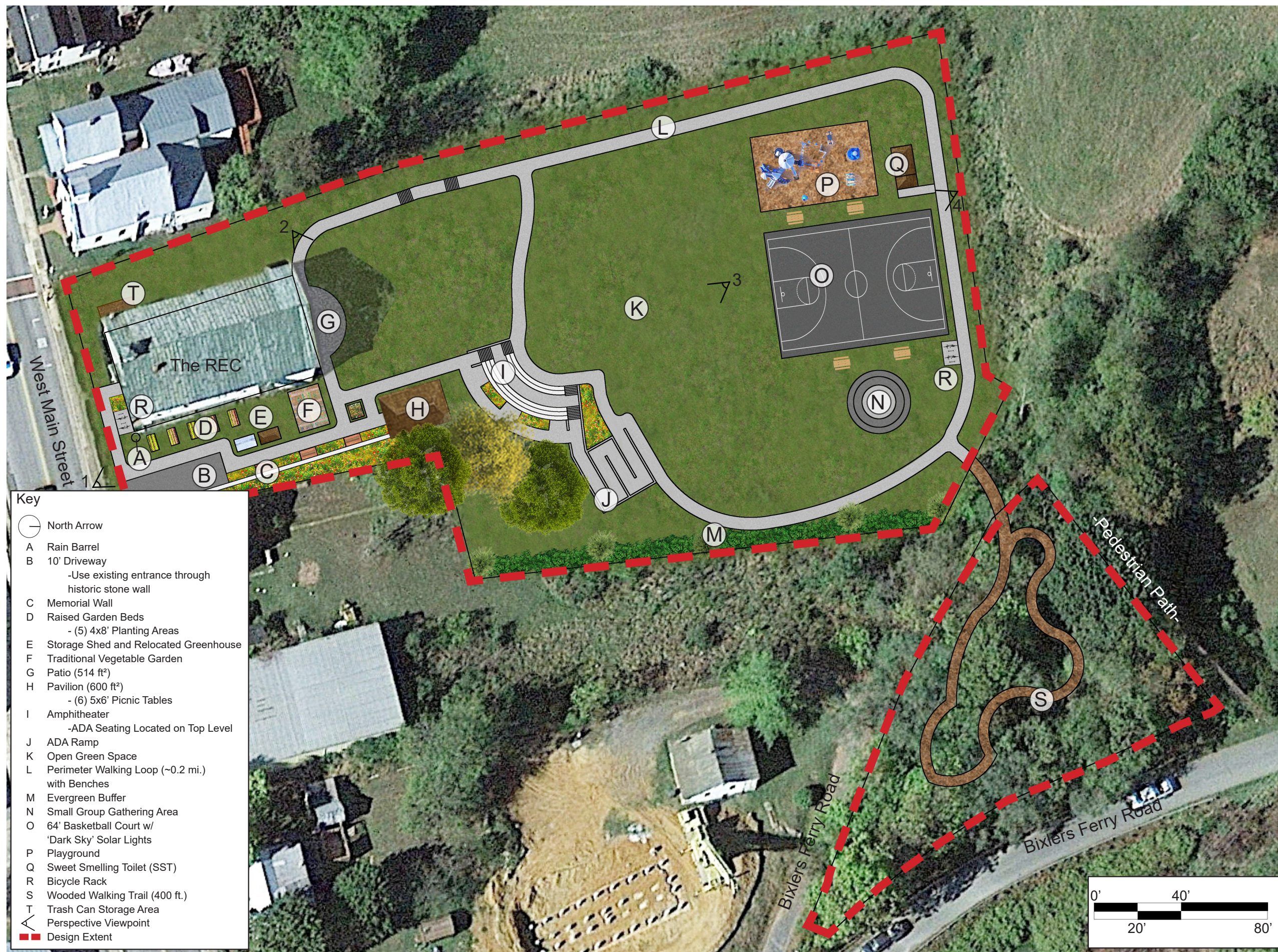
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Luray, VA: Andrew Jackson Memorial Park  
Conceptual Site Master Plan

Final Design Concept  
Site Master Plan  
October 7, 2021







**Perspective 1: Andrew Jackson School Memorial Park Entrance**  
 This perspective depicts the new uses located to the right (east) of the school building. The historic stone wall at the front of the Andrew Jackson School is retained and a plaque honoring the school added to the stone wall. Looking left to right, new features include a rain barrel, raised garden beds, a traditional garden, a greenhouse, storage building, picnic shelter, and a memorial wall.



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Luray, VA: Andrew Jackson Memorial Park  
Conceptual Site Master Plan

Final Design Concept  
 Perspective 1: Andrew Jackson Memorial Park Entrance  
 October 7, 2021





Perspective 2: Picnic Shelter and Outdoor Patio

A new picnic shelter overlooks the amphitheater, which can be seen at the far left, and the park. An outdoor patio provides an additional opportunity for sitting or small outdoor events or talks.



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Luray, VA: Andrew Jackson Memorial Park  
Conceptual Site Master Plan

Final Design Concept

Perspective 2: Picnic Shelter and Outdoor Patio  
October 7, 2021





Perspective 3: Open Green Space and Amphitheater

The open green space provides the opportunity for a range of activities, including serving as a gathering spot for events hosted in the new amphitheater. The amphitheater provides ADA seating areas. In the background can be seen the picnic shelter, storage shed, and outdoor patio area outside of the back of THE REC.



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Luray, VA: Andrew Jackson Memorial Park  
Conceptual Site Master Plan

Final Design Concept  
Perspective 3: Open Green Space and Amphitheater  
October 7, 2021



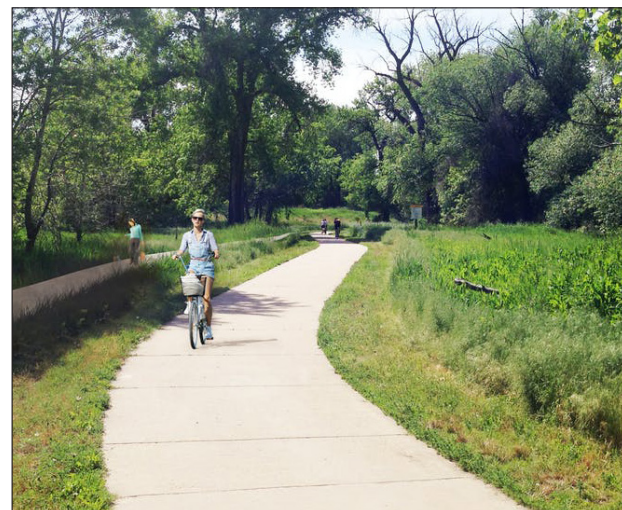


Perspective 4: Basketball Court and Playground Area

The basketball court is located toward the back (north side) of the site. Affixed to the top of the retaining wall of the basketball court is a chain link fence to keep in stray balls. Adjacent to the court is a playground, perimeter walking trail, and sweet smelling toilet (SST).



The basketball court will provide opportunities for active recreation.



A 6' wide walking path loops around the perimeter of the site.



Picnic tables located between the basketball court and playground offer a place to rest while playing.



A sweet smelling toilet (SST) design provides an odor-free restroom option near the playground.



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Luray, VA: Andrew Jackson Memorial Park  
Conceptual Site Master Plan

Final Design Concept  
Perspective 4: Basketball Court and Playground Area  
October 7, 2021





The raised garden beds provide hands-on educational opportunities and for local community members to have garden space.



The memorial wall could have plaques recognizing Andrew Jackson, the school's founder, teachers, and students.



A 'sunken' gathering spot is a unique area for teens to gather while outside.



The picnic shelter will provide opportunities for outdoor gatherings and teaching classes outside.



An amphitheater is a great place for outdoor performances and lectures or could serve as a place for youth to congregate while outside.



Native plants can be planted throughout the site offering opportunities for outdoor education and to provide a pollinator habitat.



A portion of the basketball court is surrounded by retaining walls with a chain link fence affixed to the top.



A playground provides opportunities for active play for younger children.



Night sky-friendly lighting creates a safe and illuminated night environment while also being environmentally conscious to protect the dark, night sky.



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Luray, VA: Andrew Jackson Memorial Park  
Conceptual Site Master Plan

Final Design Concept  
Precedent Images  
October 7, 2021



## FINAL DESIGN CONCEPT

### Trees and Pollinator Plants

#### Design Description

##### Tree Plantings

There are three primary existing trees on the property. These are incorporated into the final design as they are an ecological asset and provide shade to an otherwise exposed site. At least one tree has visible signs of decay and should be further assessed as a potential site risk by the Virginia Department of Forestry (VDOF).

In addition to assessing the health of existing trees, the VDOF is an excellent resource for tree species selection, placement on the site, tree protection protocols during construction activities, and long term management of mature forests.

Contact information for the VDOF Page County Senior Area Forester:

Matt Wolanski, Senior Area Forester  
Virginia Department of Forestry  
540-459-3151  
265 Lakeview Drive  
Woodstock, Virginia 22664

##### Pollinator Plantings

Pollinator plants are interspersed throughout the site plan in designated planting areas. The pollinator plant selection assists in boosting ecological variety and value throughout the site and, when located along walking paths or sitting areas, provide opportunities for wildlife observation. The selected plants are native and many self-seed and spread easily. While they require maintenance following initial planting, native plants/pollinator-friendly perennial plant species will soon establish and require minimal maintenance.

The following pages contain images and plant information for certain trees and pollinator species.

NOTE: Soil samples were not taken during this project. Soil samples should be taken, where appropriate, prior to installing any plant material.

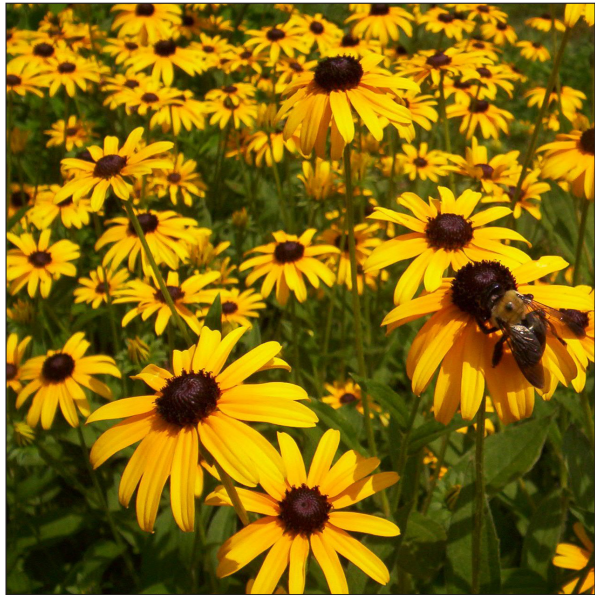
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**American Arborvitae, *Thuja occidentalis***  
Grow in average, medium moisture, well-drained soils in full sun to part shade. Somewhat wide range of soil tolerance. Dense, conical to narrow-pyramidal form and is evergreen.

Height: 20 to 40 feet  
Spread: 10 to 15 feet  
Bloom Time: Non-flowering  
Bloom Description: Non-flowering  
Sun: Full sun to part shade  
Water: Medium  
Maintenance: Low  
Suggested Use: Hedge/screening



**Black-Eyed Susans, *Rudbeckia hirta***  
It is easily grown in average, medium moisture, well-drained soils in full sun. Best in moist, organically rich soils. Tolerates heat, drought and a wide range of soils except poorly-drained wet ones.

Height: 2 to 3 feet  
Spread: 1 to 2 feet  
Bloom Time: June to September  
Bloom Description: Yellow to orange-yellow rays  
Sun: Full sun  
Water: Medium  
Maintenance: Low  
Suggested Use: Native Planting



**Bee Balm, *Monarda didyma***  
Prefers rich, humusy soils in full sun, although some afternoon shade is appreciated in hot summer climates. Does best in well-draining conditions, but can tolerate heavier clay.

Height: 2 to 4 feet  
Spread: 2 to 3 feet  
Bloom Time: July to August  
Bloom Description: Red  
Sun: Full sun to part shade  
Water: Medium to wet  
Maintenance: Medium  
Suggested Use: Herb, Native Planting, Rain Garden



**Cone Flower (Echinacea), *Echinacea purpurea***  
Easily grown in average, dry to medium, well-drained soil in full sun to part shade. Best in full sun. An adaptable plant that is tolerant of drought, heat, humidity and poor soil. Divide clumps when they become overcrowded (about every 4 years).

Height: 2 to 5 feet  
Spread: 1 to 2 feet  
Bloom Time: June to August  
Bloom Description: Purplish pink  
Sun: Full sun to part shade  
Water: Dry to medium  
Maintenance: Low  
Suggested Use: Native Planting



**Lavender, *Lavandula angustifolia***  
Easily grown in average, medium moisture, well-drained soils in full sun to part shade. Best flowering in full sun. Prefers moist, acidic, organically rich soils. Little pruning is required. Prune in early spring if necessary. Shrub borders, woodland gardens.  
Height: 2 to 3 feet  
Spread: 2 to 4 feet  
Bloom Time: June to August  
Bloom Description: Purple  
Sun: Full sun  
Water: Dry to medium  
Maintenance: Medium  
Suggested Use: Herb



**Butterfly Weed, *Asclepias tuberosa***  
Easily grown in average, dry to medium, well-drained soils in full sun. New growth tends to emerge late in the spring. Plants are easily grown from seed, but are somewhat slow to establish and may take 2-3 years to produce flowers.

Height: 1 to 2 feet  
Spread: 0.5 to 1 foot  
Bloom Time: June to August  
Bloom Description: Yellow/orange  
Sun: Full sun  
Water: Dry to medium  
Maintenance: Low  
Suggested Use: Native Planting, Rain Garden



**Yarrow, *Achillea millefolium***  
Best grown in lean, dry to medium, well-drained sandy loams in full sun. Plants do well in average garden soils and tolerate poor soils as long as drainage is good. Plants also tolerate heat and drought.  
Height: 2 to 3 feet  
Spread: 2 to 3 feet  
Bloom Time: June to September  
Bloom Description: White  
Sun: Full sun  
Water: Dry to medium  
Maintenance: Medium  
Suggested Use: Native Plantings



**St. Johnswort, *Hypericum kalmianum***  
Easily grown in average, medium moisture, well-drained soils in full sun to part shade. Prefers moist, rich, sandy loams. Tolerates poor soils. Established plants tolerate some drought.

Height: 2 - 3 feet  
Spread: 2 - 3 feet  
Bloom Time: July to August  
Bloom Description: Yellow  
Sun: Full sun to part shade  
Water: Medium  
Maintenance: Low  
Suggested Use: Hedge



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Luray, VA: Andrew Jackson Memorial Park  
Conceptual Site Master Plan

Final Design Concept  
Screening Hedge and Pollinator Plant Suggestions  
October 7, 2021



## PART 2: SITE INVENTORY AND ANALYSIS

## SITE INVENTORY AND ANALYSIS

### Overview

The West Luray Recreation Center, historically known as the Andrew Jackson School, is a former Rosenwald school that has been converted into a community-based recreation center. The school is named for a local African American businessman and shopkeeper named Andrew Jackson, not the former US president. The community center is privately owned and operated in partnership with Living Legacy, a local non-profit. The design extent for the project includes 3 parcels, totaling approximately 2.3 acres.

Several existing site elements are described in the following pages.

#### Open Space and Wooded Areas

Areas immediately surrounding the building and behind the building are largely open and do not have any mature vegetation with the exception of three large trees at the crest of the hill. One of these trees appears to be in poor condition but all should be assessed by the Virginia Department of Forestry for overall health.

The far northeast portion of the design extent is a triangle-shaped parcel that is expected to be obtained from the Town of Luray. This area is wooded and has an ephemeral stream that drains to the east. There are some signs of informal dumping and should be evaluated by appropriate professionals prior to any development.

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#### Informal Bus Parking

There is currently informal bus parking in the grass to the east of the building. This parking is connected to the west side of the building and has been used as an informal pull-thru drive until a better parking spot can be found for the activity bus. In the future, the bus should be parked outside of the site's interior in order to improve pedestrian safety and overall aesthetic of the site.

#### Sloped Hillside

Generally speaking, the site is relatively flat on the southern and northern most portions. These "flat" areas are, however, divided by a significant slope that is just on the north side of the building. This slope provides opportunities for an integrated amphitheater but poses certain challenges with respect to ADA/universal access to the north portions of the site. A slope analysis included later in this report highlights the most steep areas (indicated as orange and red).

#### Informal Debris

There are several debris piles located in the northern portion of the site, one of which can be seen in the aerial. These piles include informal burn piles as well as other debris that pose potential environmental and safety concerns. These areas should be evaluated by appropriate professionals prior to any development.

The following page contains a site aerial, site images, inventory and analysis, viewshed assessment, and slope analysis map.





**Key**

North Arrow

Design Extent

TheREC Building



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Luray, VA: Andrew Jackson Memorial Park  
Conceptual Site Master Plan

Site Inventory and Analysis

Site Aerial

July 27, 2021





The front facade faces West Main Street and features on-street parking and a new crosswalk (painted). Historically, the bus has been parked on the property but could potentially be parked elsewhere.



A second crosswalk (brick inlay) allows for ADA access but is limited by utility poles in the middle of the sidewalk. The unique stone wall can be seen again on the right side.



There are a number of debris piles located on the site.



A wooden ramp provides ADA access from the sidewalk to the building. There is a short stone wall along the front sidewalk. This wall style could be incorporated into the design.



Trash cans are located adjacent to the street and highly visible. The bus is often informally parked on the lawn.



Burn pile (foreground) and debris mound (background) located in the middle of the site. Given the past use of these areas, both should be evaluated by an environmental professional.



There is a crosswalk across West Main Street in front of the building.



Side view of the portable green house currently being used for storing clothes. On the right, tubes convey stormwater from the building down-slope to an unknown outfall.



The middle portion of the site has a steep slope behind the building that must be addressed in the design process.



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Luray, VA: Andrew Jackson Memorial Park  
Conceptual Site Master Plan

Site Inventory and Analysis  
Site Images (1 of 2)  
July 27, 2021





The PVC pipe in the foreground is a sewer cleanout. This should be investigated further so it may be considered in the design process.



Access to the site via the main access road. Adjacent property owner requires access for hay cutting. The gate to the property is approximately 50' beyond where the people are standing above.



The overall landscape is rolling and pastoral in character. Note the fence posts and the hill's gradual undulation and slope (dotted line).



View looking south from the lower portion of the site to the back of TheREC. The site has a nice flat area with gradual sloping upward on all sides.



View of the northeast corner of the site. This is generally where the the neighbor would need access to the adjacent field (on the right).



Under TheREC is an unfinished room with great potential and could be reimagined as a mixed-use facility with restrooms.



View from the far corner looking towards the lower entry road (yellow arrow). On the left, the neighbor's fence can be seen (orange arrow). Within the uncut grass on the left is the pile of tires.



View of the site from the lower access road. Note the large, mature trees on the left (green). Debris mounds (yellow) and burn pile (orange) are visible.



View of TheREC from the rear. Note the small white door that opens up to the basement area (pictured left).



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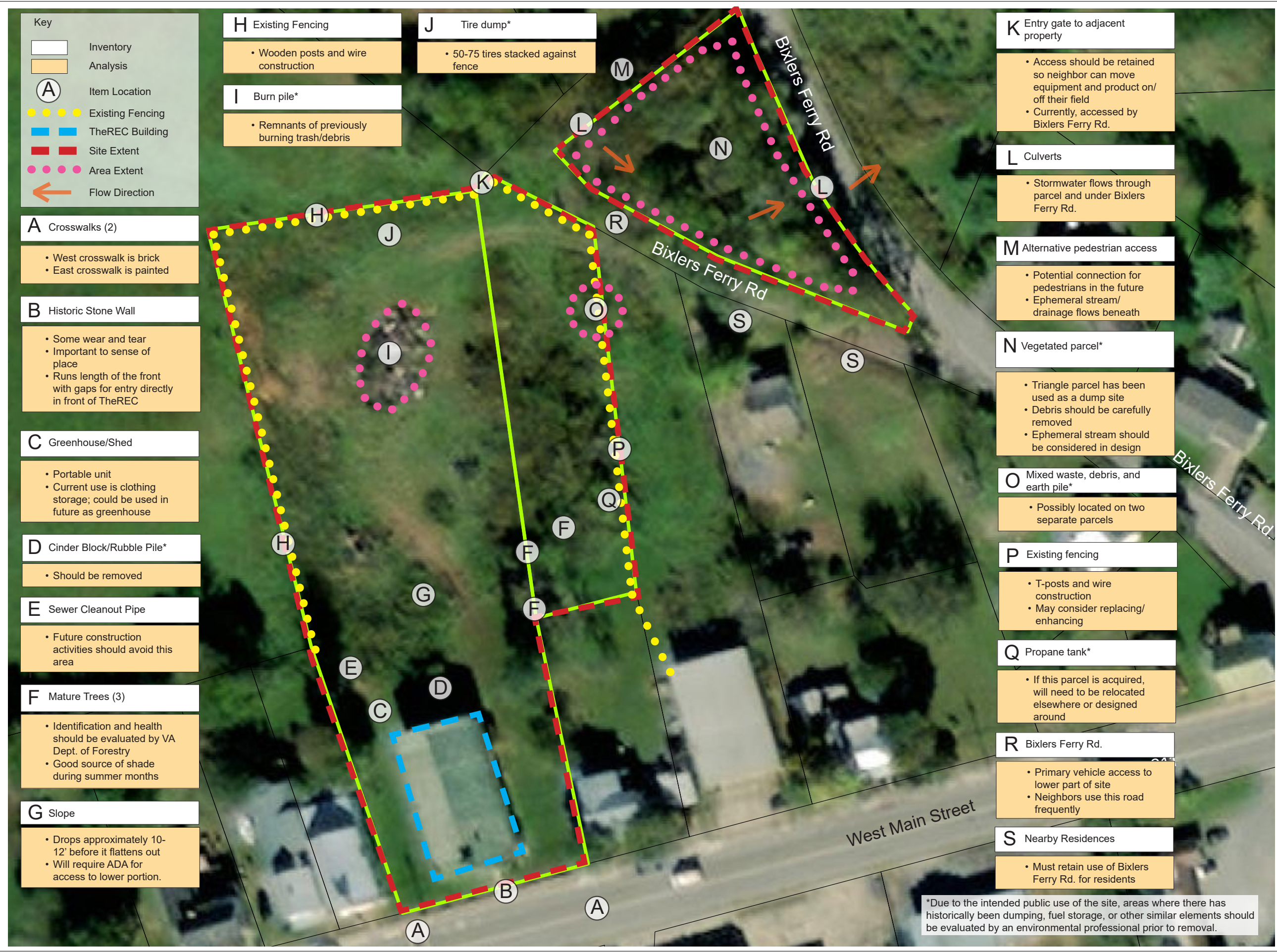
Luray, VA: Andrew Jackson Memorial Park  
Conceptual Site Master Plan

Site Inventory and Analysis

Site Images (2 of 2)

July 27, 2021





**Key**

- Inventory
- Analysis
- Item Location
- Existing Fencing
- TheREC Building
- Site Extent
- Area Extent
- Flow Direction

**H Existing Fencing**

- Wooden posts and wire construction

**I Burn pile\***

- Remnants of previously burning trash/debris

**J Tire dump\***

- 50-75 tires stacked against fence

**K Entry gate to adjacent property**

- Access should be retained so neighbor can move equipment and product on/off their field
- Currently, accessed by Bixlers Ferry Rd.

**L Culverts**

- Stormwater flows through parcel and under Bixlers Ferry Rd.

**M Alternative pedestrian access**

- Potential connection for pedestrians in the future
- Ephemeral stream/drainage flows beneath

**N Vegetated parcel\***

- Triangle parcel has been used as a dump site
- Debris should be carefully removed
- Ephemeral stream should be considered in design

**O Mixed waste, debris, and earth pile\***

- Possibly located on two separate parcels

**P Existing fencing**

- T-posts and wire construction
- May consider replacing/enhancing

**Q Propane tank\***

- If this parcel is acquired, will need to be relocated elsewhere or designed around

**R Bixlers Ferry Rd.**

- Primary vehicle access to lower part of site
- Neighbors use this road frequently

**S Nearby Residences**

- Must retain use of Bixlers Ferry Rd. for residents

**A Crosswalks (2)**

- West crosswalk is brick
- East crosswalk is painted

**B Historic Stone Wall**

- Some wear and tear
- Important to sense of place
- Runs length of the front with gaps for entry directly in front of TheREC

**C Greenhouse/Shed**

- Portable unit
- Current use is clothing storage; could be used in future as greenhouse

**D Cinder Block/Rubble Pile\***

- Should be removed

**E Sewer Cleanout Pipe**

- Future construction activities should avoid this area


**F Mature Trees (3)**

- Identification and health should be evaluated by VA Dept. of Forestry
- Good source of shade during summer months

**G Slope**

- Drops approximately 10-12' before it flattens out
- Will require ADA for access to lower portion.

\*Due to the intended public use of the site, areas where there has historically been dumping, fuel storage, or other similar elements should be evaluated by an environmental professional prior to removal.



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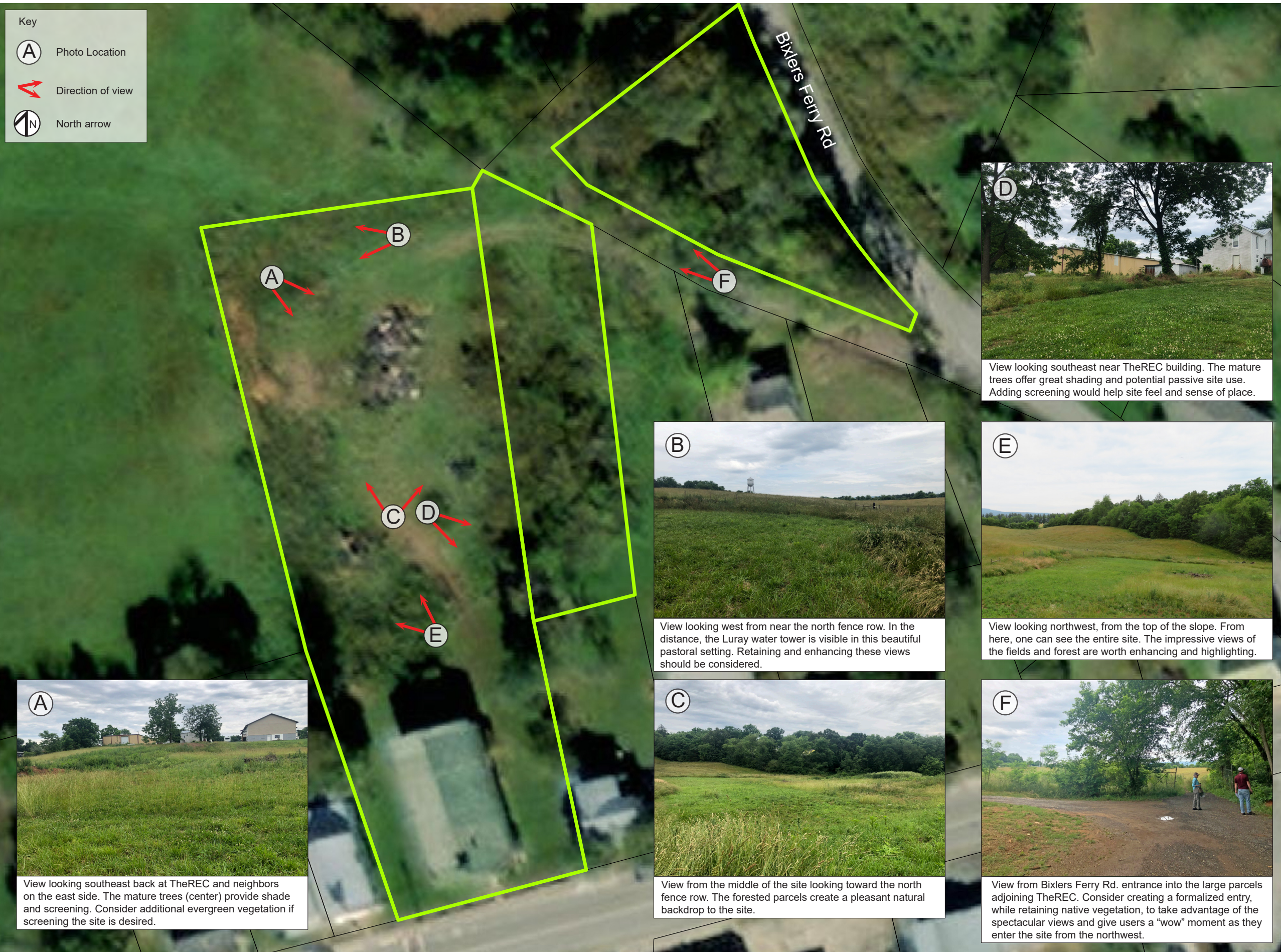
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Conceptual Site Master Plan

Site Inventory and Analysis  
Site Inventory and Analysis  
July 27, 2021

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Conceptual Site Master Plan

Site Inventory and Analysis  
Viewshed Assessment

July 27, 2021





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Luray, VA: Andrew Jackson Memorial Park  
Conceptual Site Master Plan

Site Inventory and Analysis  
Slope Analysis Map  
July 27, 2021



# PART 4: PRELIMINARY DESIGN CONCEPTS

## PRELIMINARY DESIGN CONCEPTS

### Preliminary Design Concept 1: Flexible Sports and Ecology Park

#### Design Description

Preliminary design concept 1 creates a flexible community space that combines agriculture education and active recreation. Youth visiting TheREC can learn to garden, manage a wildflower meadow, or take a walk through the woods. Active play opportunities provide traditional recreation zones that help encourage a healthy lifestyle.

#### Raised Garden Beds

Moving from TheREC building into the site, visitors pass through the vegetable garden, seeing an array of 4x10' raised garden beds. In this space is also the existing greenhouse, rain barrels (which capture stormwater off the roof), and an area for the creation of compost. Gardens are not wild places, but there is much for all generations to learn about growing food and soil/water/nutrient dynamics and the work and delight that goes into growing your own food.

#### Walking Trail and ADA Accessibility

There are a number of walking trails throughout the site. On the east side of the site is a serpentine walking trail through that goes by a wildflower meadow. This meadow is a great opportunity to introduce native plant species to the site, increasing the site's overall ecological value. Youth can use the meadow to participate in a number of citizen science programs, including the Monarch Butterfly Citizen Science program, hosted by the USDA Forest Service.

On the west side of the site are traditional stairs as well as an ADA-accessible ramp. Both options lead to the pavilion, basketball court, playground, and splash pad. Along the ADA ramp is a memorial wall. This is an opportunity to provide additional history about the Andrew Jackson School, individuals that attended the former Rosenwald school, or instructors that used to teach at the school.

#### Pavilion, Basketball Court, Playground and Splash Pad

At the bottom of the ADA ramp and stairs is a direct path to the pavilion, a focal point to the active north section of the site. The basketball court, which is constructed with a 4' retaining wall, features 6 basketball goals. The main goals are for full-court play or the alternative 4 other goals can accommodate multiple 1/2 court games simultaneously. This court also features a 6' buffer all around for safety and is also designed so that tennis or volleyball can be played by erecting the removable poles/net.

Adjacent to the court is a pavilion and playground. The pavilion is large enough for six 5'x6' picnic tables, 2 family changing rooms, a storage room for sports equipment, and a pump room for the splash pad. Centrally located, the pavilion is connected to both the basketball court and the splash pad.

The splash pad features a 10' safety buffer all around, which is enclosed by an 18" seat-wall for users enjoying the splash pad or for spectators watching the basketball court.

## PRELIMINARY DESIGN CONCEPTS

### Lower Parking Area and Wooded Trail

A small parking area is located in the northeast corner of the primary site. This parking area has two standard spaces and one ADA space. Families can park here before going to any of the active play features on the north side of the site such as the basketball court, playground, or splash pad.

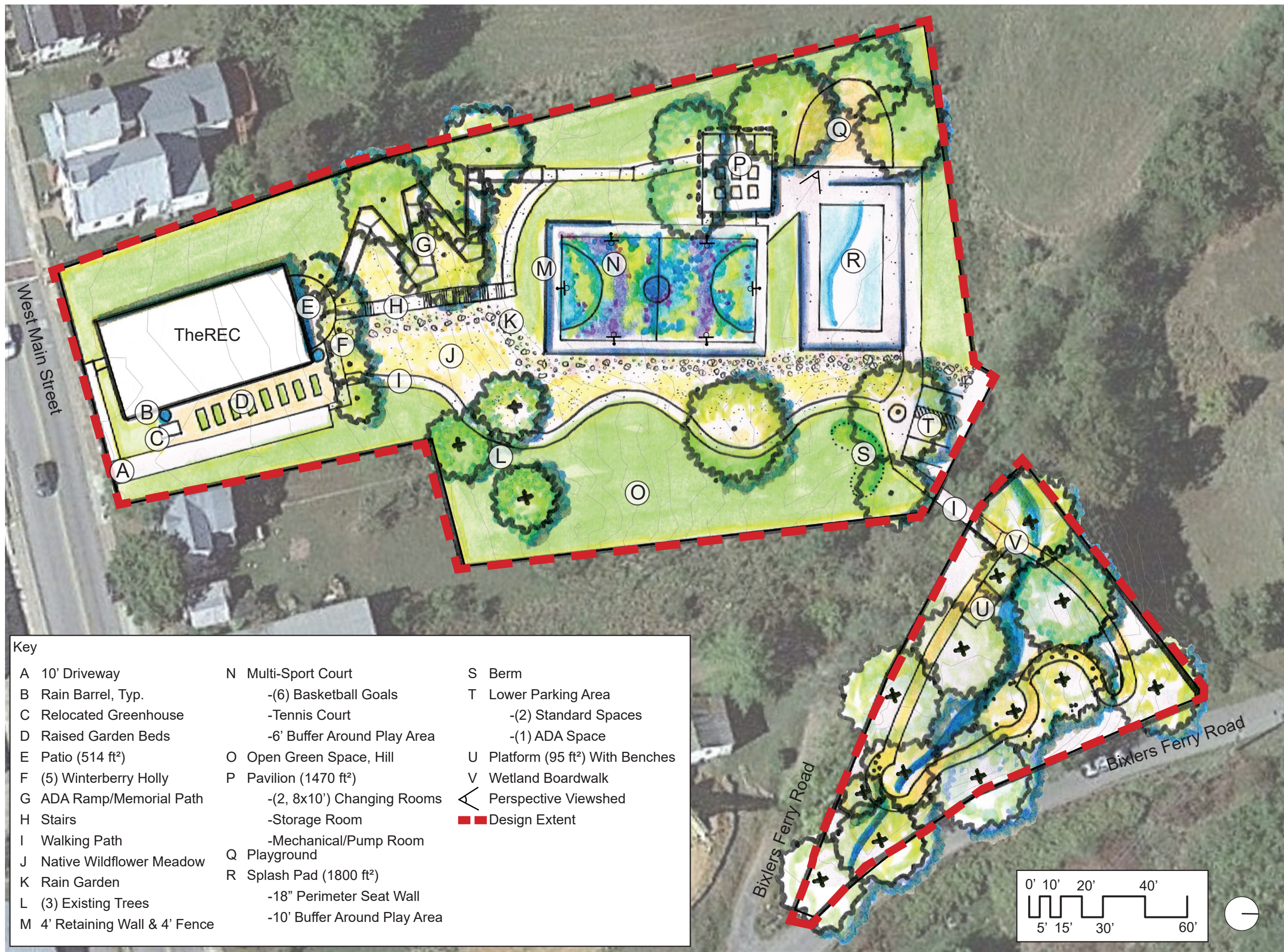
Across Bixlers Ferry Road from the lower parking area is a wetland education area located in the triangle-shaped parcel. This wooded area features a 6' wide wetland boardwalk and small platform that allows for ADA access to the wetland ecology and education section of the site. The boardwalk creates a loop through this parcel, bringing users back to the entry point.

The following pages contain the preliminary design concept 1 site master plan, perspective, and precedent images.



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Key

- |                                |                                      |   |
|--------------------------------|--------------------------------------|---|
| A 10' Driveway                 | N Multi-Sport Court                  | S Berm  |
| B Rain Barrel, Typ.            | - (6) Basketball Goals               | T Lower Parking Area                          |
| C Relocated Greenhouse         | - Tennis Court                       | - (2) Standard Spaces                         |
| D Raised Garden Beds           | - 6' Buffer Around Play Area         | - (1) ADA Space                               |
| E Patio (514 ft <sup>2</sup> ) | O Open Green Space, Hill             | U Platform (95 ft <sup>2</sup> ) With Benches |
| F (5) Winterberry Holly        | P Pavilion (1470 ft <sup>2</sup> )   | V Wetland Boardwalk                           |
| G ADA Ramp/Memorial Path       | - (2, 8x10') Changing Rooms          | ▲ Perspective Viewshed                        |
| H Stairs                       | - Storage Room                       | ■ Design Extent                               |
| I Walking Path                 | - Mechanical/Pump Room               |   |
| J Native Wildflower Meadow     | Q Playground                         |   |
| K Rain Garden                  | R Splash Pad (1800 ft <sup>2</sup> ) |   |
| L (3) Existing Trees           | - 18" Perimeter Seat Wall            |   |
| M 4' Retaining Wall & 4' Fence | - 10' Buffer Around Play Area        |   |



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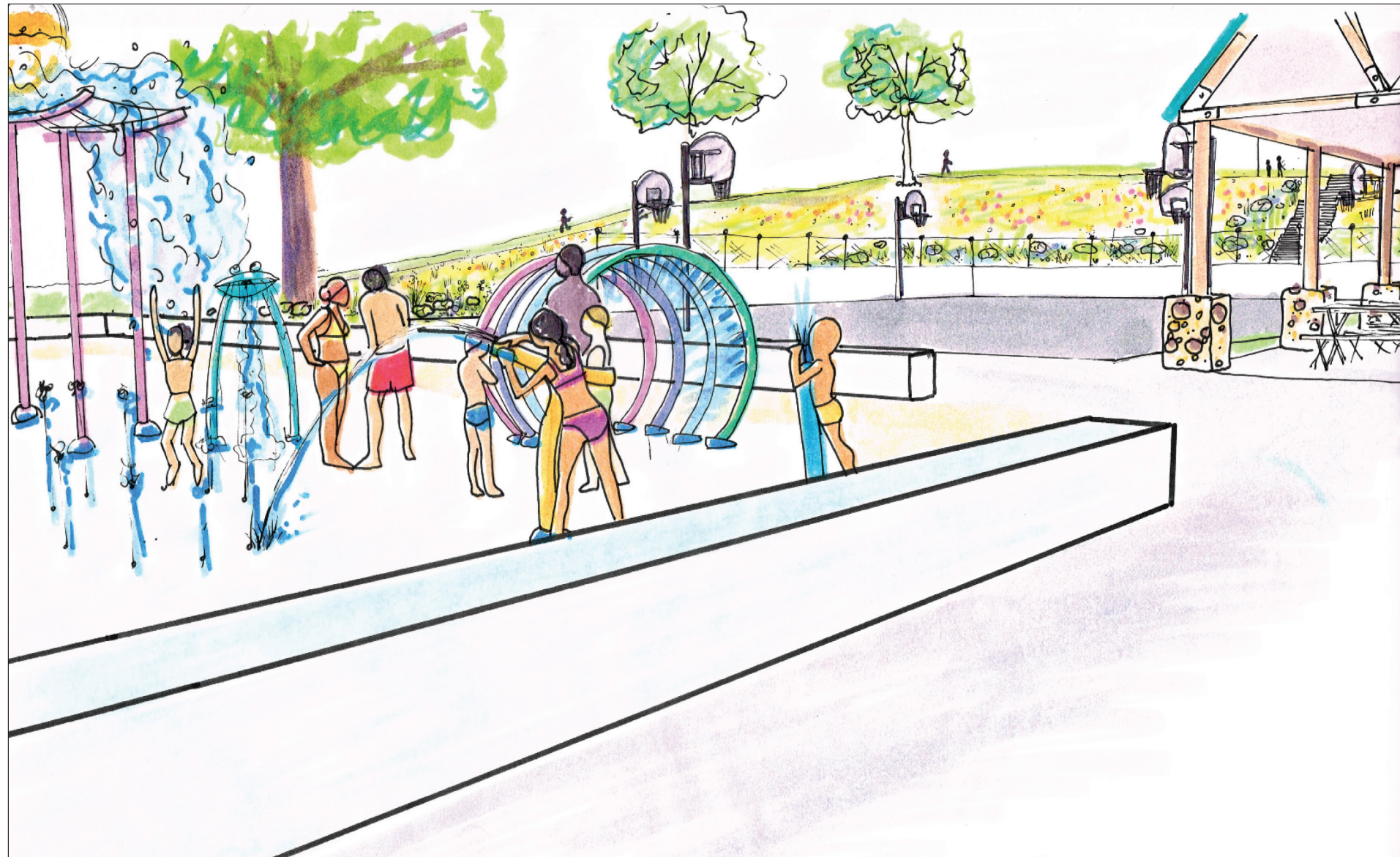
Luray, VA: Andrew Jackson Memorial Park  
Conceptual Site Master Plan

Preliminary Design Concept 1: Flexible Sports and Ecology Park

Site Master Plan

July 27, 2021





Perspective: Multi-Sport Court and Splash Pad

The multi-sport court is sized to accommodate a full-size basketball game, but with its 6 baskets. It is flexible and allows for 4 simultaneous 1/2-court games. A court this size also doubles for volleyball or tennis, depending on which temporary net is set up. The splash pad features playful water features and has an 8.5' wide buffer between the seat-wall and the 30'x60' designated play area.



The multi-sport court and retaining walls are an opportunity for art and creating a visual theme across built elements will increase visual impact.



The pavilion can incorporate family changing rooms, general storage space, and a pump room for the splash pad.



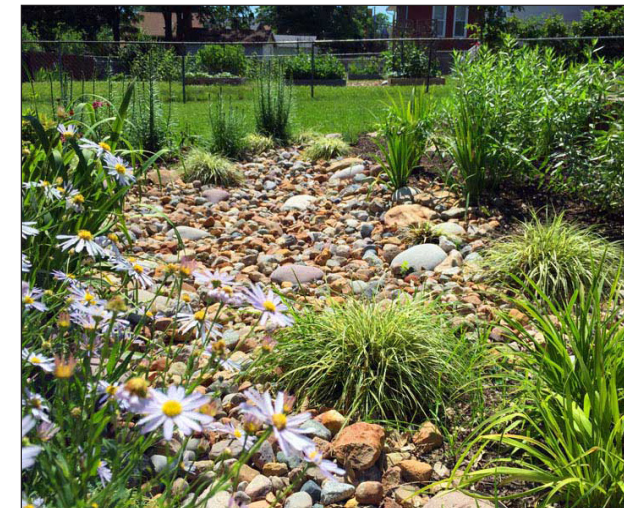
Playgrounds are fun and simultaneously help children develop balance, strength, dexterity, and safe space to explore risk assessment.



Splash pads can be designed with a variety of different play elements and shade structures.



Soil maps for the area revealed gardening will be most productive through raised beds. A simple frame looks tidy and could be left natural or styled to match the existing greenhouse.



A rain garden safely and beautifully conveys water, protecting built features with stormwater management. Most of the time, it will appear as a dry creek bed.



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Luray, VA: Andrew Jackson Memorial Park  
Conceptual Site Master Plan

Preliminary Design Concept 1: Flexible Sports and Ecology Park

Perspective and Precedent Images

July 27, 2021



## PRELIMINARY DESIGN CONCEPTS

### Preliminary Design Concept 2: Active Play/Environmental Exploration

#### Design Description

Preliminary design concept 2 creates a space where children of all ages can visit time and again for active play in the outdoors. Children can come together in a variety of social gathering settings and high-energy play environments.

#### Perimeter Trail, Raised Garden Beds, and Memorial Wall

The front/south entrance of TheREC is connected with the various design elements on the north side of the site by a 6' wide ADA path. This ADA path continues throughout the site. At the north side of the building the ADA path connects with an ADA ramp. A memorial wall is integrated with the ADA ramp. The memorial wall is intended to celebrate those involved with Andrew Jackson School by incorporating pictures, murals, and stories into the ramp and amphitheater's shared retaining walls. Nearby, the 4' perimeter walking path encircles the entire perimeter of the site. The perimeter trail totals approximately 0.3 miles in length.

#### Amphitheater and Open Green Space

The amphitheater offers two sets of two rows of seating, bisected by the 6' ADA path which could offer ADA accessible viewing for events. While the amphitheater does not have a formal stage, it is adjacent to the site's largest relatively flat green space. This creates an environment for casually watching what is happening on the field or gathering for a small performance. Each row can seat approximately 10-15 people.

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The open green space extends from the amphitheater to the picnic shelter. This space could be used for group games or picnics. East of the amphitheater is an additional green space but has a significant slope. The slope could be used as a hill for slip-n-slides in the summer and sledding in the winter. The hill could also be planted as a native wildflower meadow, attracting pollinators and offering beautiful views.

#### Playground and Picnic Shelter

To the north of the amphitheater and open green space is a playground and picnic shelter area. This concept incorporates an adventure-inspired playground and has exciting adventure equipment for a variety of age ranges. Certain play elements might include climbing ropes and nets as well as tire and saucer swings. The 30'x30' picnic shelter offers space for 12-8' long picnic benches. The picnic shelter has an adjacent charcoal grill for informal gatherings.

#### Basketball Court, Skate Park, and Teen Hangout Spot

The basketball court is configured as a 55' x 75' half court and has a seat wall to hang out and watch games. The basketball court could also accommodate other games such as hop scotch or four-square. Next to the basketball court is an 80'x40' skate park. The skate park offers a variety of beginner ramps and elements. Between the two there is a small grassy viewing area for those who want to be right next to the action. East of the half court is a teen "hang out spot", which is a recessed seating area that feels just a little "away from the action". While still highly visible from higher

## PRELIMINARY DESIGN CONCEPTS

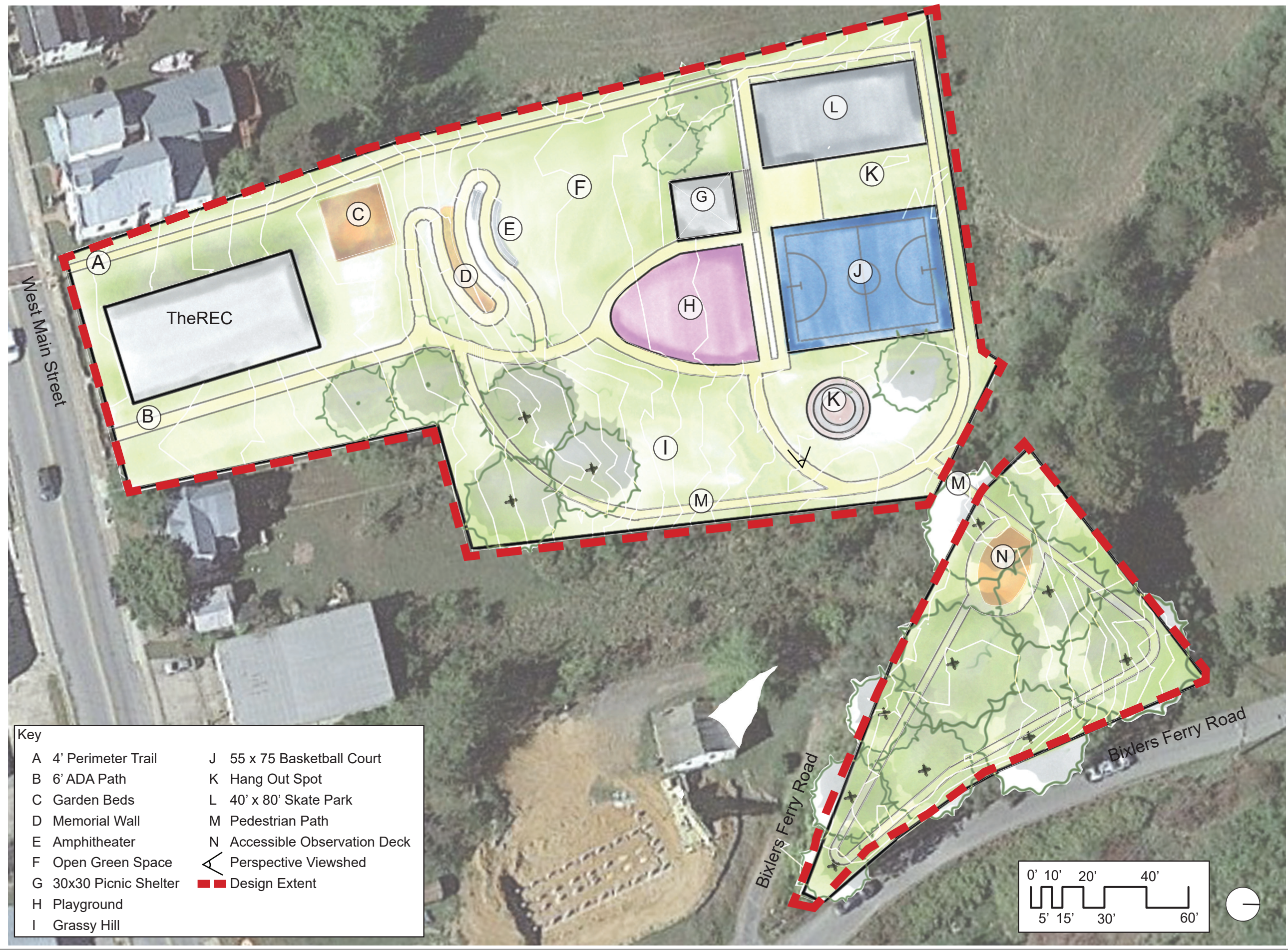
elevations throughout the site, this seating area gives teens and groups a space of their own.

### Wooded Walking Trail and Accessible Observation Deck

The northeast parcel of the site has a boardwalk-style path and ADA-accessible deck. The wooded path is shaded by the mature trees and creates a nice to have a relaxing moment in the woods or pause in nature. This is a place for people to enjoy nature together while separate from the rest of the property. The small ADA observation deck could be used for daily gathering or special environmental education talks.

The following pages contain the preliminary design concept 2 site master plan, perspective, and precedent images.





Key

A 4' Perimeter Trail

B 6' ADA Path

C Garden Beds

D Memorial Wall

E Amphitheater

F Open Green Space

G 30x30 Picnic Shelter

H Playground

I Grassy Hill


J 55 x 75 Basketball Court


K Hang Out Spot

L 40' x 80' Skate Park

M Pedestrian Path

N Accessible Observation Deck

 Perspective Viewshed

 Design Extent



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Luray, VA: Andrew Jackson Memorial Park

Conceptual Site Master Plan

Preliminary Design Concept 2: Active Play and Environmental Exploration

Site Master Plan

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Perspective: Basketball Court, Picnic Shelter, and Hang Out Area  
 The basketball court (smaller than regulation) sits at the northern end of the site adjacent to a seat wall and picnic shelter for viewing opportunities. A hang out area (right) has recessed seating for teens and groups of visitors.



The picnic shelter with charcoal grill serves as a community gathering point and offers shade and views of the basketball court and skate park.



The amphitheater overlooks a large green space, offering space for special events and/or demonstrations.



The skate park offers a compact opportunity for young skaters of all levels to build their skills.



An adventure-style playground will offer exciting elements to engage visitors of a wide age range, involving things like climbing nets and saucer swings.



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Luray, VA: Andrew Jackson Memorial Park  
Conceptual Site Master Plan

Preliminary Design Concept 2: Active Play and Environmental Exploration

Perspective and Precedent Images

July 27, 2021



## PART 5: APPENDIX



## APPENDIX

### Meeting Notes

#### Stakeholder Input Session

June 9, 2021; 1:00-2:00pm

The children that have been attending study hall at TheREC offered the following ideas when TheREC leadership met with them on June 2nd:

- Skate park
- Tire swing
- Saucer swing
- Garden/flower beds

The previous night the community discussed and offered several ideas. The ideas are categorized into the following comments:

- Basketball court(s)
  - Lighting; mentioned “dark sky lights”
  - Water fountain
  - Bathroom facility (perhaps in the basement of (TheREC)
  - Make courts 64’ in size; do not have to be regulation size
- Playground
  - Jungle gym
  - Tire swing
  - Saucer swing
- Picnic shelter/pavilion
  - Lighted/electricity
- Memorial to former students/teachers of school
  - A memorial wall, perhaps on a pathway down from Main Street to the field area
  - Possibly paving stones/bricks set in a pathway or walking path around the perimeter of the park for exercise
- Splash pad
  - Some kind of water spray that could be used for summer’s hottest days
  - Otherwise, a hop-scotch, four-square court on a concrete pad
- Tennis court
- Terraced garden spaces on the hillside leading to the field

Other general comments:

- ADA compliance
- Solar lighted pathway around the perimeter of the park
- Consideration that the current residents of Old Bixlers Ferry Road (by the bottom of plat 47-A) must not have access to their homes disturbed. The old roadway is NOT part of the grant of land. However, we are able to use the old roadway to provide vehicular access



## APPENDIX

- Access must be provided to the gate to the farm field on the rear of the property
- Safety of children is critically important. We will work with community law enforcement to help provide security and safety.
- Consideration of wintertime use and activity
- Fencing
- Timed lighting
- Green field space for unstructured play
- Outdoor theater
- Outdoor musical instruments
- Gazebo
- Rain barrels for water for gardens
- Partnership with Town for ongoing maintenance
- Making sure hardscape is arranged to consider mowing equipment, maintenance equipment access

### Additional Notes:

- With respect to the ball-courts, mixed-use is an option: having nets that can be put up for volleyball or tennis
- With respect to the gardens: would like to consider:
  - Connection to food
  - Meditation/Perennial
- Bus access and parking is a question
  - Stakeholders indicated they were thinking to park the vehicle elsewhere
- Amphitheater as a design element on the slope
- Small green house is portable; currently being used to store clothes
- The building has downspouts which conveys stormwater into pipes and out into lower portions of the site
  - Opportunities for stormwater capture
  - Opportunities for rain gardens
- Access for the neighbor's hay fields is a requirement
- Playground details
  - ADA accessibility
  - Target age range 5 or 6 to 11 years old
- Shelter/Pavilion
  - Should be able to accommodate 20-30 people
  - Stakeholders like the Ralph Dean Rec Park Ballpark Pavilion/Shelter
  - Outdoor Kitchen/Demonstration Area
- Memorial
  - Could be a retaining wall
  - Interested in this being part of the entry from the street; or something on top of the hill
  - Include living members and students still around, as well as names of students who attended



## APPENDIX

- Interested in including an educational component to the trails
- Moments along the trail where stories about the school and site can be told
  - Maybe these can be changed seasonally per a revolving theme
  - Wants to include pictures of the school in the site
- Stakeholders, Donors, and Patrons
  - Would like to include opportunities to recognize and acknowledge donors and stakeholders
  - Also new patrons, donors, and stakeholders to be represented if they choose to engage and fund
  - Could be part of the perimeter walking trail
    - Acknowledgments could be crafted individually
    - Bricks & pavers for a walkway
  - Could be a plaque that could be added to
    - Name/organization/year/funding level
    - Metal tags (approximate dimensions: 1.5 x 4")
- Sustainability and environmental values are important
  - Stormwater management
  - Accessibility
- Safety and Circulation
  - Entrance and Exits
  - Circulation; groups can move through the site safely (ADA)
  - May connect to smaller trails on site
- Splash Park
- Open Space
  - Grassy lane as an opportunity to include a slip n slide (summer) or function as a sledding hill (winter)



## APPENDIX

### Meeting Notes

#### Preliminary Design Presentation

July 27, 2021; 2:00-3:30pm  
Online meeting via Zoom

Using Concept 2: Active Play and Environmental Exploration plan as a basis for “the plan”, the following observations and desires were expressed by the stakeholder committee:

- The consensus is a desire for a family friendly space.
- Prefer the larger pavilion from Concept 1.
- Remove both the skate park and the splash park from the plan
- The basketball court should be not larger than that proposed in Concept 2 and if possible, set to the “old” high school size of 64 feet long.
- Would like the pavilion “G” to be located either at location “C” on Concept 2, or where the new trees are planned at the place where the “B” pathway connects to pathways leading to “D” and “M”. The goal is that the picnic pavilion would overlook the area below and provide a vista of the mountains beyond
- Depending on the location of the picnic pavilion, additional plantings could be considered around the rear of TheREC as envisioned in Concept 1.
- Move the playground “H” located where “L” is.
- Having moved both “G” and “H”, leave the area between “F” and “I” open as green field space.
- Move the amphitheater at “E” to “I” on the hillside below “M” but retain the walking trail that serpentine for handicap access. Perhaps the walkway that now leads to “H” could be placed at the lower side of “I”, below the amphitheater.
- Youth really like the circular “K” hang out spot
- Include several park benches placed along the walking paths
- The walking paths could have bollard-style solar lighting providing soft, non-invasive ground lighting.
- Illuminate the basketball court with dark sky-friendly lights. TheREC does not contribute to light pollution.
- Path “B” should be widened and repositioned so that it can be a vehicular drive for handicapped drop-offs, like Concept 1 envisions.
- The memorial wall will be located along path/drive “B”, after it is repositioned, between the pathway and the building to the east next door.
- • We would remove much of the hardscape between “I” and “F” so that the area is mostly grass with pathways around the perimeter. We envision this area for a variety of field sports like frisbee, badminton, even volleyball.
- • We ask that a pit toilet be placed between “K” and “M”
- • We would remove “N” and move the garden area “C” to the “M” and “N” area.
- • The pathway in the triangular plot will be at grade and perhaps not handicapped accessible. It does not seem cost-effective to build a wooden



## APPENDIX

walkway in this area.

- • Vehicular access will need to be provided on the right of way to the north of “N”
- • There should be bike racks near TheREC and near “K”
- • We would like to consider having a patio behind TheREC like that proposed on Concept 1







## APPENDIX

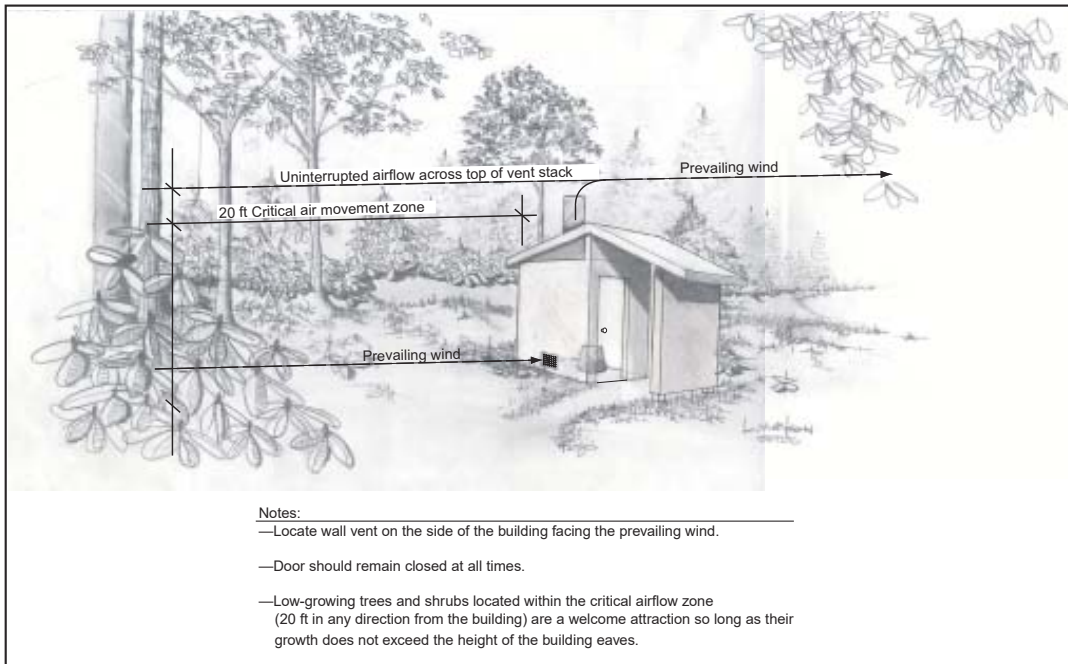


Figure 2—The most important aspect of passive ventilation is an unobstructed airflow over the top of the vent stack.

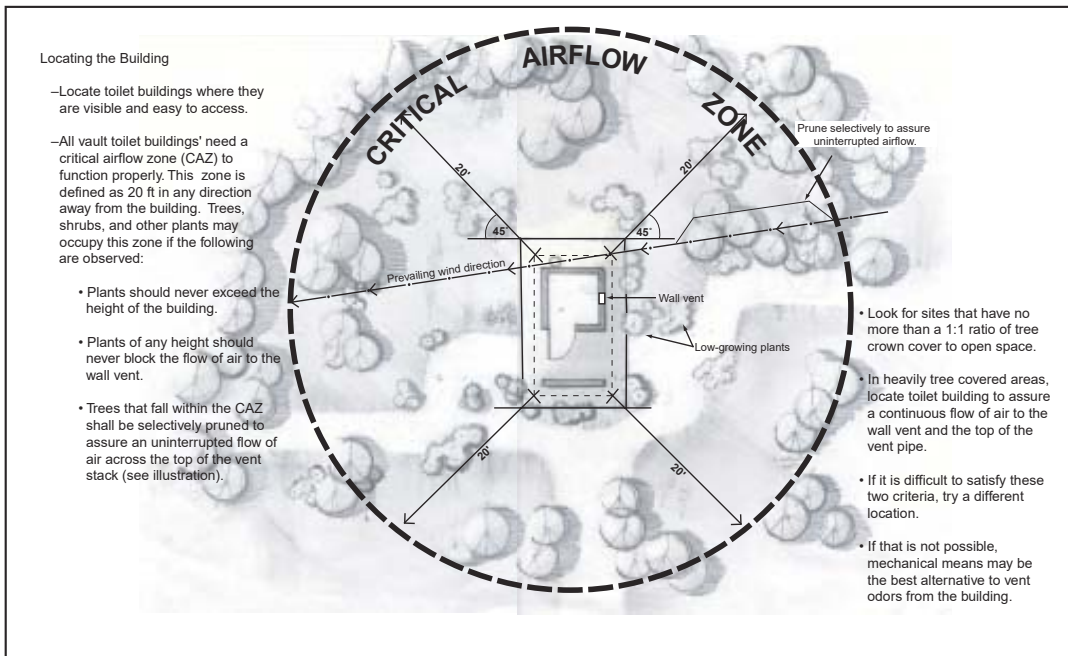


Figure 3—Desired airflow through toilet building.



## APPENDIX

- Know the desired air path through the building. Air enters through the wall vent, flows down the toilet riser, and out the vent stack. The wall vent allows air to enter the building. The vent should not obstruct the free movement of air into the building.
  - (a) In locations with a prevailing wind, locate the vent to pressurize the building. Place the wall vent high on the prevailing windside of the building to pressurize the building and help push air down the riser.
  - (b) When the wind is variable, locate the vent so that a negative draft is prevented. Place the wall vent as low to the ground as possible, where the windspeed is the least. This prevents air from being pulled out of the building through the wall vent.
- Have the proper vent size—120 square inches (10 inches by 12 inches) if unscreened, or 144 square inches (12 inches by 12 inches) if ¼-inch mesh screen is used. Use only one wall vent, one riser, one vault, and one vent stack.
- Extend the vent stack 3 feet above the building to allow solar heating to occur regardless of orientation. The concept of heating the vent pipe with solar energy by orienting it on the south side of the building only helps when the sun is shining on the pipe. Campground toilet use is highest in the morning and evening—when the sun angle is too low to provide much help.

### Siting

Determine the toilet location during the planning stages of the project. Some key things to keep in mind are normal pedestrian traffic flow, prevailing wind (if any), downwind attractions, and vegetation or other obstructions (canyon walls).

- Face the toilet door toward normal incoming pedestrian traffic flow. Do not route visitors around the building to enter.
- Identify airflow characteristics at the site and the prevailing wind to determine the appropriate wall vent location, and downwind impact area. Tying ribbon to a 10-foot pole installed at the site during the initial planning process will allow a quick visual indication of wind direction. Many areas have a shifting wind.

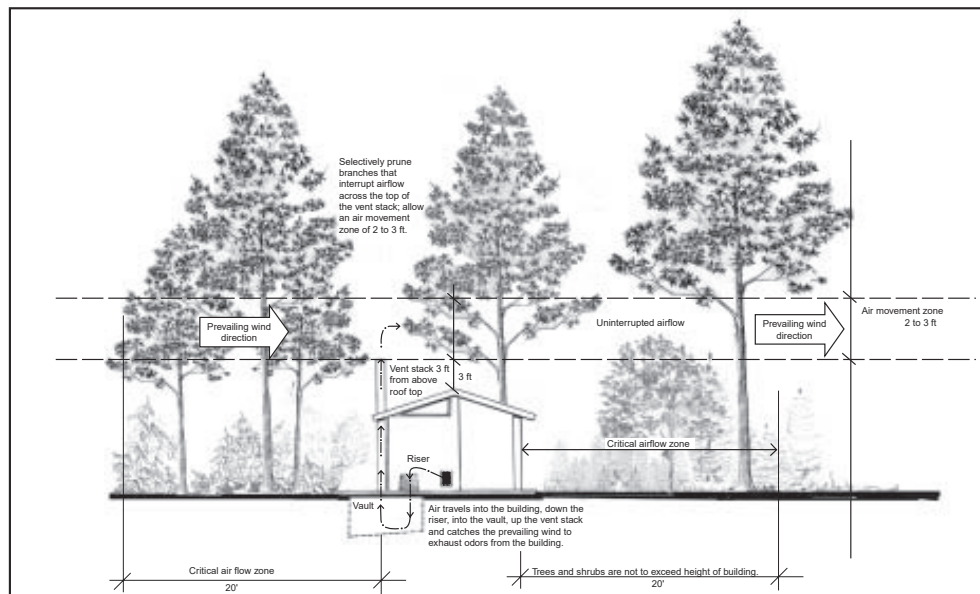


Figure 4—Determine the toilet building location during the planning stages.



## APPENDIX



Figure 5—A good location.

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Figure 6—If dense forest vegetation will interfere with airflow, install a fan in the vent stack.



## APPENDIX

- Check the site plan to see what features are downwind of the proposed toilet location. A functioning SST does not destroy the vault odor; it just moves the odor out of the building. Avoid locating the toilet upwind of facilities or attractions. During the planning stages of a project, evaluate the location of the toilet in relation to other site attractions to minimize the impact of odor.
- Locate the toilet 20 feet from trees or prune the trees to eliminate lower limbs. Pay attention to how dense the vegetation is at 12 to 15 feet above the ground. Prune trees judiciously to allow an unobstructed airflow in the proposed location. Lower vegetation and shrubs around the building do not cause ventilation problems so long as they do not obstruct the wall vent.

### Mitigation Measures

If the toilet must be located in an area where dense forest vegetation will interfere with the airflow across the top of the pipe or upwind of an attraction, mitigation measures are required to ensure an odor-free toilet.

Steps can be taken when a toilet building cannot be located where passive ventilation will work, or when downwind odor is a problem. The Tech-Tip *Vault Toilet Vent Gas Odor Control*, 0023 1304–SDTDC, September 2000, describes the steps in more detail.

- Install a fan in the vent stack. The fan should be capable of moving 75 cubic feet of air per minute. Solar-powered fan kits are available. Battery storage and a timer allow for operation during normal hours of use.
- Install a bio-filter, carbon filter, or pilot flame in the vent stack to minimize downwind nuisance odor.
- Install a buried pipe and a fan to move the odor away from the use area.

All of these options require some form of power, increased cost, and increased maintenance. Solar panels are subject to theft; fans must be replaced every few years.

### Summary

The USDA Forest Service spends millions of dollars every year on vault toilets. Many of these toilets are being installed improperly. Passive ventilation of SST toilets is very effective at eliminating toilet odors, but the best-designed building will not work properly if the siting aspects are ignored. An understanding of the principles of passive ventilation is required to ensure proper location. Although the most important consideration for locating an SST vault toilet is an unobstructed airflow over the top of the vent stack, the size and location of the wall vent and building orientation cannot be ignored.

SST toilets will not function at all locations. If wind and solar power are unavailable to ventilate the toilet, another power source must be used.

For further information or to request the referenced documents, contact SDTDC by phone at 909–599–1267 or by e-mail at [bland@fs.fed.us](mailto:bland@fs.fed.us).