

MONTGOMERY COUNTY DEPARTMENT OF PARKS

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

MCPB Item: 12 Date: 7/11/19

July 3, 2019

MEMORANDUM

- TO: Montgomery County Planning Board
- VIA: Michael F. Riley, Director of Parks Shuchi Vera, Acting Deputy Director, Department of Parks Andy Frank, Division Chief, Park Development Division Pm
- **FROM:** Wen Huang, Landscape Architect/Project Manager, 301-495-2466 Judie Lai, Architectural Section Supervisor, Park Development Division 1/1

SUBJECT: Facility Plan for the SEED Classroom at Black Hill Regional Park

STAFF RECOMMENDATION: APPROVE the Recommended Facility Plan, including the cost estimate.

PROJECT DESCRIPTION

Introduction

The purpose of this project is to prepare a facility plan for proposed SEED Classroom program in Black Hill Regional Park, located at 20941 Lake Ridge Drive in Boyds, MD. The project is located within the Clarksburg Master Plan & Hyattstown Special Study area.

The SEED (Sustainable Education Every Day) Classroom is to repurpose the abandoned maintenance yard and convert it to an environmental-friendly site. The building is designed for net-zero energy and net-zero water. All exposed structure and building systems can help children to learn how the building functions, and better understand the flows of energy and water.



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The SEED Classroom project was initiated by Parks staff in 2014 in order to expand the program space for the Black Hill Regional Park Nature Center Program to serve the needs of the growing adjacent community.

Established around Little Seneca Lake, Black Hill Regional Park is a 1300-acre park (not including the Lake) located in Boyds. Formed in 1985, Little Seneca Lake is 505 acres, owned and managed by the Washington Suburban Sanitarv Commission (WSSC). Of the 1300 acres park land, 104 acres are developed for recreational use. The rest part of the park is currently constrained by environmental buffers. The park is known for its natural settings with lake views, boating, picnic areas, trails, and many programs hosted by Black Hill Nature Program. Black Hill Nature Program is located at the Visitor Center of the Park, which more than 35,000 people pass through every year.

The proposed SEED Classroom site is located half a mile north of the Black Hill Visitor Center along Lake Ridge Drive, the park entrance road. It is sited in the abandoned maintenance yard that is fenced with a chain-link fence and paved almost entirely with asphalt paving within the fence. At the back of the fence is a gravel parking lot with abandoned storage bins, and a greenhouse and shed used by the Friends of Black Hill Nature Program.



The project site was used as a maintenance yard until 2004 when the new Black Hill Maintenance Yard opened. It was abandoned since then and has been primarily dormant, with some use as a storage site for miscellaneous excess park items such as boats, benches, picnic tables, etc. The SEED Classroom project will reactivate this forgotten area and repurpose it as an environmentally friendly site.

Project Funding and Timing

The facility planning study was funded with \$90,000 from the FY 2017-2019 Capital Improvements Program in the Facility Planning: Non-Local Parks PDF 958776. Facility planning represents thirty percent (30%) complete construction documents, including a proposed design, cost estimate and determination of regulatory feasibility.

This project received \$250,000 bond bill in 2019 from the State of Maryland for the construction of the project. There were also donations and private grants received through various fundraising events. A summary of these funding sources is available at the end of this report.

LSG Landscape Architecture, Inc. was hired in February 2019 as the project's prime consultant with sub-consultant Clark Azar & Associates working on civil engineering. A public meeting was held on April 02, 2019 to collect public input, and an on-line forum was established for this project to collect further public input.

The site Natural Resources Inventory/Forest Stand Delineation (NRI/FSD) and Forest Conservation Exemption were approved by the M-NCPPC Department of Planning on May 29, 2019. The Stormwater Management (SWM) Concept Plan was approved by Montgomery County Department of Permitting Services on May 30, 2019. If approved, the project would be proposed for design and construction in the Fiscal Year 2017-2022 Capital Improvements Program (CIP.) Parks expects the project to be developed using a combination of community fundraising, State bond bill, and CIP funding.

Facility Planning Process

The facility planning for this project: included the following steps:

- 1. Recognize the need for the program and the identify appropriate site location for implementation.
- 2. Review and analyze existing site conditions, project background information and site utilities.
- 3. Solicit input from Parks staff on the general concept, design ideas and criteria.
- 4. Identify final program of requirements and priorities.
- 5. Prepare site design concept.
- 6. Present design concept to the community and stakeholders.
- 7. Develop site plan based on input received.
- 8. Prepare and obtain approval of a Natural Resources Inventory/Forest Stand Delineation Summary Map and Forest Conservation Exemption.
- Prepare stormwater management concept submission, conduct geotechnical investigations, and obtain approval of the Storm Water Management Concept Plan from the Department of Permitting Services.
- 10. Develop recommended plan based on feedback from the community, staff and regulatory agencies.
- 11. Finalize facility plan package and prepare cost estimate.
- 12. Present facility plan recommendations and costs to the Montgomery County Planning Board for approval.

MASTER PLAN RECOMMENDATIONS

Clarksburg Master Plan and Hyattstown Special Study Area, Approved 1994 and amended in 2011

The 1994 Clarksburg Master Plan establishes a long-range vision of Clarksburg as the northernmost population center along the I-270 Corridor.

Across West Old Baltimore Road from Black Hill Regional Park's main entrance, the Master Plan calls out a new community for Cabin Branch Neighborhood (page 64) that will include 1,900 residential dwelling units, 500 senior units, and retail and employment use, as well a future elementary school site.

Black Hill Nature Center and Visitor Center serves more than 35,000 visitors every year. In 2015 alone, the number of people attending the nature center program doubled. As Cabin Branch Neighborhood currently being under construction, the need for additional programming space is expected to become greater and the existing 25-person auditorium is falling short of demand to serve the growing community.

Black Hill Regional Park Master/Management Plan, Approved May 2002

The 2002 Master Plan has four core provisions for the park (page 1 of Public Presentation in the Appendix A, Volume 1). One of them is to *Renovate, expand, or replace older facilities in the park (including the Black Hill Visitor Center)*. It recommended that "to the extent possible, facility renovation, expansion and replacements of existing recreational development is proposed to occur within...pockets of already developed areas".

2017 Park, Recreation and Open Space (PROS) Plan

The 2017 Park, Recreation, and Open Space (PROS) Plan serves as the planning policy for parks and recreation in Montgomery County to the year 2030 and beyond. It assesses needs and recommends strategies for the delivery of park and recreation facilities, protection of natural resource areas, and preservation of historic/cultural areas and agricultural lands.

The 2017 PROS Plan indicates the importance of educating citizens and staff about nature resources (page 147) and references Vision 2030 Strategic Plan about the needs to expand nature programs (page 116). SEED Classroom program is the number one priority as a "Living Classroom" at Black Hill Nature Center in the Park Foundation's fundraising list (Page 55).

Using existing park and recreation facilities and lands more fully is a major goal of the 2017 *PROS Plan (page 5)*. SEED Classroom will meet this goal by activating existing dormant developed land to optimize the land usage and create new program that will benefit the growing communities.

Vision 2030: The Parks and Recreation Strategic Plan, Approved and Adopted June 2011

Vision 2030 is a strategic plan for park and recreation services in Montgomery County for the next twenty years. Vision 2030 Strategic Plan recommends expanding outdoor nature programs. This

function was ranked among the top priorities by the statistically valid Vision 2030 Strategic Plan survey (Executive Summary page 6; and Volume 2, page 16). The Needs Assessment Survey ranked Nature Centers with outdoor education areas seventh (7th) in priority for investment (Volume 2, page 18).

Vision 2030 Strategic Plan recommended that the Department of Parks develop an environmental literacy program for County residents of all ages that fosters a fundamental understanding of the systems of the natural world, the relationships and interactions between the living and non-living environment, and the ability to deal sensibly with complex issues that involve weighing scientific evidence, uncertainty and economic, aesthetic and ethical considerations. It recommends the development of environmental education programs that meet Montgomery County Public Schools (MCPS) and State environmental literacy curriculum standards (Volume 2, page 20).

In the table on page 84 of Appendix E, 2010 survey results show the Nature Center program as the Core Service with Drop-in Experience. This service has been recognized to have higher demand in Potomac and Rural Areas.

EXISTING CONDITIONS

The SEED Classroom program site is located in Black Hill Regional Park at 20941 Lake Ridge Drive along the main entrance road entering the eastern peninsula, an area of the park where most of the developed amenities are located and the majority of park activities take place. Previous active use of the site ceased in 2004 when the new maintenance yard became active. The site is currently used for miscellaneous storage.

The site is accessed via an existing 20-feet wide, 100-feet long paved asphalt driveway. Existing site features consist of the following:

- A 235' x 120' fenced area, 85% of which is covered with asphalt pavement. This area is leveled. The chain link fence is 10-feet high.
- Recently removed building structures such as office trailer, two-level storage shed, and other miscellaneous sheds within the fence. (There currently are no structures remaining within the existing fenced area).
- A steep gravel parking area (approximately 9,000 square feet) outside of the fence. This area has an average running slope of 7.6%.
- A row of concrete block storage bins next to the gravel parking lot (18' x 90') that are not in use.
- A 16 'x 20' greenhouse used by



volunteers from the Friends of Black Hill Nature Program.

- A 16' x 12' storage shed used in conjunction with the greenhouse.
- An existing septic field.

The office trailer previously on this site was connected to public water and utilized a septic system for wastewater. The septic field is still active and is located to the east of the existing fence line. The Montgomery County Department of Health, Well and Septic Division, has confirmed that the septic system is acceptable for use by the SEED classroom program.

Public water supply and the existing electrical panel are located on the south side of the site immediately outside of the fence.

Vehicular access to the site is available from the west off of Lake Ridge Drive. There is no direct pedestrian access to the site from the Visitor Center, so pedestrians would have to use the shoulder of Lake Ridge Drive. According to the Master Plan of Black Hill Regional Park, a trail along the east side of Lake Ridge Drive is proposed for future park development, which would provide pedestrian access and link the site to other park amenities.

The south/southeast side of the site is bordered by a strip of trees between the site and Black Hill Trail. The north side of the site contains undeveloped forested area that has a number of prehistoric sites identified according to Montgomery County GIS Archaeology Layer. A *Preliminary Archaeological Review Form* is attached for more detailed information. Please refer to <u>Attachment 9</u>.

Stormwater runoff from the site is currently untreated. Stormwater sheet flows northeast across the pavement and creates significant erosion along the steep slopes within and beyond the gravel parking lot area. Proposed stormwater management facilities will address this runoff and provide additional educational opportunities.

COMMUNITY OUTREACH

Community Meeting

A public meeting was held on April 2, 2019 at the Black Hill Visitor Center. There were 5 community members in attendance. The goal of this meeting was to share the SEED Concept and the conceptual site plan with the park users and the surrounding community.

Staff presented information regarding the SEED Classroom concept and the site plan, answered questions, and collected input from the community. There was overwhelming support for the idea to repurpose the site for the proposed use. There were questions and discussion about the greenhouse relocation, deer browsing, meadow maintenance, parking capacity, fencing for deer, site access, and funding. Please refer to <u>Attachment 12</u> for meeting minutes.

Open Townhall Online Forum

A follow-up on-line forum page for this project was launched after the community meeting for the community members who were not able to attend the meeting in person. As the time of writing, two (2) responses and one (1) email response have been received. They expressed support of

the program and included concerns regarding the capacity of the SEED Classroom, pedestrian/bike access, unattractive pavement, and request to provide greater visibility for the facility from the main park entrance road. Please refer to <u>Attachment 13</u> for Open Town Hall Online Comment Report.

Other Public Outreach events that the Nature Program has done include:

- 1. Friends of Black Hill Nature Programs (FOBH) meetings: This project is on every general and board meeting since January 2016. FOBH have donated \$10,000 to the project and plan to do more. They organized and funded part of the Wine & Cheese Fundraiser mentioned below.
- 2. Friends of Ten Mile Creek Annual meeting on September 10, 2017 and pontoon tour on May 19, 2019. They helped organize and funded part of the Wine & Cheese Fundraiser and donated over \$3,000.
- 3. Wine & Cheese SEED capital campaign kick-off party on March 24, 2018. Raised \$7,000 from the 35 people who attended including \$200 from a 4-year old preschool student.
- 4. **Chamber of Commerce gatherings** in Rockville, Frederick (at Madison Fields) and Clarksburg (at Grill Marx) 2017-2018
- 5. Meetings with partner the **Barnesville School of Arts and Sciences** and with the management of **Clarksburg Outlets**. The outlets are willing to give us free window space to advertise the project and allowed us to do tabled events for free to advertise our program and the SEED project.

Banners and posters about the SEED Classroom have been posted at the old maintenance yard (future site of SEED) and in the Black Hill Visitor Center since 2017. Nature Program staff have had many conversations with visitors and program participants about the SEED Classroom project. Almost all the feedback received about the project has been positive and enthusiastic. Park patrons recognize that more space is needed for private events and to grow the preschool program. People are most excited that the project will turn an under-used and industrial area of the park to be green and useful.

AGENCY COORDINATION AND REGULATORY APPROVALS

Staff have coordinated internally within Parks as well as with regulatory agencies throughout the facility planning process.

M-NCPPC Department of Parks

The Project Manager coordinated with various stakeholders within the Department of Parks throughout the planning process to solicit comments and input as part of the Planning, Design, Construction and Operations (PDCO) team process. Staff provided input on a variety of aspects of the design, construction, and site maintenance, which included accessibility, sustainability, function, affordability, practicality, inclusivity, and equity, among others. This included staff from Facilities Management, Nature Facility and Nature Program, Northern Region, Urban Forestry, Historic Preservation, Cultural Resources Stewardship, Park Police, Environmental Engineering, and Park & Trail Planning.

M-NCPPC Department of Planning

The Natural Resources Inventory and Forest Conservation Exemption/Tree Save Plan was approved on May 29, 2019 (File # 42019149E). Refer to <u>Attachments 3 and 4</u> for the approved plans and letter.

Montgomery County Department of Permitting Services (DPS)/Water Resources (DPS)

A stormwater management concept plan (#284767) was approved by DPS on May 30, 2019. The stormwater management design strategy for this project was to replicate the natural hydrology of the site by decreasing impervious surfaces and using Environmental Site Design surface stormwater management practices to minimize the impact of the project on downstream water resources. One micro-bioretention is proposed, as well as the removal of existing asphalt and gravel. Refer to <u>Attachments 5 and 6</u> for the approved plans.

Montgomery County Department of Permitting Services (DPS)/Fire Marshal Review

A Fire Marshal review was approved by DPS on April 29, 2019. A one-way looped fire lane is proposed at the entrance of the facility. Refer to <u>Attachments 7</u> for the approved plans.

Montgomery County Department of Permitting Services (DPS)/Well and Septic

Staff coordinated with DPS regarding the existing septic system. It was concluded that the 1986 septic system is usable for the proposed SEED Classroom project and no new septic permit is needed. Refer to <u>Attachments 8</u> for coordination.

Montgomery County Department of Environmental Protection (DEP)

Staff coordinated with the Department of Environmental Protection for the prospect of net-zero water system of the SEED Classroom by using reclaimed roof rainwater for the sink and composting toilet water. It was concluded that this system is supported by DEP and can be coordinated by applying for a review from DEP for the use of non - potable water re - use systems prior to receiving WSSC plumbing permits. Refer to <u>Attachments 8</u> for coordination.

RECOMMENDED FACILITY PLAN

The Recommended Facility Plan for SEED Classroom envisions the site itself as an outdoor extension of the classroom that tells the story of how a forgotten area of pavement is transformed into a fun, educational, and sustainable place in the middle of nature.

In the search for a location for this expansion of the Black Hill Nature Center programming, this site was selected to take advantage of the opportunity to repurpose and activate the abandoned maintenance yard into an environmentally friendly and functional site. The plan intends to remove

unnecessary pavement and gravel while reusing necessary portions of the pavement as part of the site design. The goal is to incorporate the innovative SEED Classroom based on a complete understanding of the site's attributes and constraints, the mission of the SEED Classroom, the needs of the service area, and maintenance objectives. The result is a fully functional SEED Classroom program that activates every portion of the fenced area and allows the relic parking area to be naturalized.

The site has two areas with distinctive characters. One area is the fenced area where the old maintenance office was located. The other area is the area behind the fence that has the old gravel parking and storage bins.



The existing fenced area of the site is flat and paved with asphalt, which can become ADA compliant with little to no additional grading and suits for siting new facilities. This area is ideal as the "Programmed Area" for the SEED Classroom program. Any site component that needs to be paved or located on a paved surface is arranged in this area to maximize the utilization of existing pavement. Approximately forty-five percent (45%) of the existing asphalt pavement is unnecessary for the program and will be removed and turned into landscape and/or pervious area. This space has the site's point of arrival, gathering spaces, walkway connections, SEED Classroom building and program spaces, greenhouse, planters, and SWM management area.

The area behind the fence has a steep slope and is surrounded by forest. Most of this area is covered in gravel and was previously used for employee parking back when the site operated as a maintenance yard. Half of the area has septic field underneath and is not suitable for any development. This area is proposed as a "Re-naturalized Area". This facility plan proposes to naturalize this entire area outside of the existing fence. After removing all built elements, the areas will be converted into meadow and/or forest, as appropriate, through seeding and tree planting. This area will serve as the extended outdoor natural space for SEED Classroom and blend in with the surrounding woods.

A complete set of 30% design plans is included in <u>Attachment 1</u>. A full version site rendering plan is included in <u>Attachment 2</u>.

The Facility Plan is developed with base design components and add alternate components. The base design components are critical to enable the construction and operation of SEED Classroom program. The add alternate components, which will be pending funding availability, would enhance the site and the program. The design components are summarized at the end of this section.

Site Plan







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Black Hill Regional Park SEED Classroom Facility Plan (Base Plan) Montgamery Caunty Departm ent of Parks, Montg



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A. Point of Arrival:

Point of arrival includes:

- Looped entrance
- Parking spaces
- Bus drop-off area
- Fire truck access
- Bike racks
- Entrance plaza with new fence

This location contains the only new pavement proposed as part of this project (yellow shaded area in the graphic). The new pavement is introduced to create a one-way



looped entrance that can not only used by park patrons in cars, but also accommodate fire-truck access and bus drop-off.

Seven parking spaces, including one accessible parking space, are provided at the point of arrival. These are intended primarily for the use of parents to drop-off and pick-up preschool students, and for people with disabilities. During public events the main parking lot 800 feet south of the site will be used. The public will then walk/bike along Lake Ridge Drive to access the site. Funding constraints limited additional pedestrian access as part of this facility plan program.

Along the edge of the driveway, bollards and bike racks will separate the driveway from the plaza entrance area. This plaza serves as the hub of the program. It connects the parking lot, the entrance of the SEED Classroom program space, entrance to the greenhouse area, and interpretive and viewing opportunities to the stormwater management facility. Stamped asphalt paving surface is included as an add alternate to make the plaza more attractive should funding become available.

A fence with plantings in the front defines the edge of the entrance plaza. Chain link fence is in the base design, and the timber fence is listed as an add



alternate to deliver the idea of sustainable and environmentally friendly site design. Wood benches will be present at the plaza.

B. SEED Classroom Area

SEED Classroom Area will be used by the Nature Center Program for a park-based nature preschool program. Therefore, it is an enclosed area using the combination of new and existing fences. The area includes:

- SEED Classroom and deck
- Outdoor gathering space
- Outdoor nature space and play area

A SEED Classroom is an environmentally responsible structure that serves as a unique educational tool. The concept of SEED Classroom was initiated in Seattle, WA in 2011. Currently there are three SEED Classroom nationwide, including one in Phipps Conservatory and Botanic Gardens in Pittsburgh (2015) and one in Mary McLeod Bethune Day Academy Charter School in DC (2016).



SEED classroom FEATURES

- Net-zero energy
- Net-zero water
- LBC materials Red List compliant
- Abundant natural daylighting
- B Solar photovoltaic array
- C Super efficient mechanical system
- Living wall fed by treated greywater
- Ongoing performance monitoring led by students
- Rainwater treatment for sinks
- G Composting toilet
- Rainwater collection and filtering
- Structural Insulated Panels (SIPs) R-49 ceiling + R-40 wall insulation
- Curriculum-integrated features
- "SEEDpacket" building guidebook tailored to students and teachers
- "SEEDpatch" online learning network

The above image shows the distinguishing features that a SEED Classroom building has. Each SEED Classroom houses all the systems the classroom needs to be self-sustaining. Materials and systems are left exposed to teach students how the building works. The design allows the building to become a living laboratory for its students and encourages creative education through the building's living and technical components. The SEED Classroom is net zero water and net zero energy and will allow students to track energy production and rainwater collection. Collected rainwater will be used for the sink, the composing toilet and to irrigate the living green wall inside the building. The SEED classroom will provide an example of how people can learn in a space that is healthy for its inhabitants and the environment.

A typical SEED Classroom building has a vestibule, an open classroom space, a lab with an indoor living green wall and a composing toilet.



SEED Classroom at Phipps Conservatory and Botanic Gardens

The location of the SEED Classroom building on the site is carefully selected to have the most exposure to the sun for the solar panels on top of the roof while closest to the exiting septic tank for the composing toilet inside the building. The SEED Classroom will be built on pedestals over the existing asphalt. A raised wood deck with accessible ramp will provide ADA compliant access to the building. This area will also serve as an extension of the classroom space.

Outside of the classroom space the existing asphalt pavement will be mostly removed. Pavement will remain to accommodate a gathering space with a few picnic tables and a 20' x28' shelter. This shelter space has a gate connection to the outside entrance plaza as well as adjacent greenhouse area for use during for public events.

The remaining area will serve as the outdoor nature space supporting the SEED Classroom nature program. It features raised garden planters, an orchard, a natural play area close to the outdoor gathering space, and a wildflower area overlooked from the deck.



SEED Classroom – outdoor gathering space



SEED Classroom - outdoor nature space

The shelter, garden planters, nature play components, and orchards are included as add alternate items.

Additionally, the existing chain link fence is not visually appealing. If funds are available, Black Hill Nature Center staff would like to install a new fence that better blends with the new facility. Fence replacement is also listed as an add alternate item.

It is our intention to use Design-Build (D/B) delivery method for the SEED Classroom. The design needs to comply with net-zero water and net-zero energy system. The building can be constructed on-site or a prefabricated structure. The D/B method will provide flexibility on design and shorten the design and construction period of time,

We are considering pursuing either LEED or Living Building Challenge certification. However, the process needs to be done by a specialist and there are costs associated. An add alternate is included in the cost estimate for consideration.

C. <u>Stormwater Management</u>

The existing site does not have any stormwater treatment; this lack of runoff control has resulted in significant areas of erosion in the gravel parking area behind the fence. A micro-bioretention facility is proposed to treat the stormwater runoff for the site. One add-alternate item is an interpretive sign for the micro-bioretention facility for students and visitors alike to learn about how the facility functions.

Additionally, much of the existing impervious surfaces of the site, including structures, asphalt, and compacted gravel, will be removed and underlying areas restored to a pervious condition as part of this project.

D. <u>Greenhouse</u>

The existing greenhouse is located by the paved gravel parking area. It was purchased by and is utilized by volunteers for the Friends of Black Hill Nature Program (FOBHNP). They hold an annual native plant sale at this site. They also maintain raised plant beds located on the pavement inside the fenced area as well as a tool storage shed down by the greenhouse.

The facility plan recommends designating an area of the existing asphalt pavement near the entrance loop for the greenhouse and plant beds. It will be fenced to protect the plants from deer damage, but will have gate access from both the entrance plaza and the gathering space in the SEED Classroom area. With this design, volunteers have better vehicular access from the parking lot, direct access to the raised beds, more space for plant sale (utilization of the entrance plaza), and connectivity to the SEED Classroom, allowing the greenhouse operations to become part of the educational program. Along with the relocation of the greenhouse, the shed will be relocated to a nearby location adjacent to the proposed loop driveway for easy access.

The greenhouse was originally purchased by FOBHNP and it is suspected by members of that group as well as Parks staff that it is unlikely sturdy enough for a relocation. Therefore, the facility plan proposed to demolish the existing greenhouse and replace with a new 14' x 24' greenhouse. This item as well as the relocation of the shed are listed as add alternate items. The greenhouse will require water and electrical connection to the site, which are also listed as add alternate items.



E. <u>Re-naturalized Area</u>

The existing gravel parking lot on the steep slope to the west of the site has been a maintenance issue for many years with erosion problems. Moreover, with the maintenance yard no longer in this location this area is not necessary for storage or parking. The removal of the infrastructure in this area will allow the site to be naturalized into a meadow and forest, which will both serve as an educational component for the pre-school as well as increase the natural area of Black Hill park.

The area closer to the SEED classroom site, which includes the septic field, will be re-naturalized with meadow seed mix. The lower area will be reforested following the *Planting Requirements for Land Disturbing Activities and Related Mitigation on M-NCPPC, Montgomery County Parkland (2018)*. The planting species will be determined by Parks Natural Resources and Nature Center staff.

Facility Planning Design Component Summary

Key Elements		Base Design Components		Add Alternates
Point of Arrival	1.	Looped entrance drive with culvert, traffic safety signage and a speed hump near the entrance	1.	Stamped asphalt at the entrance plaza
	2. 3.	(7) parking spaces including (1) accessible parking space Bus Drop-off Area	2.	Featured timer fence and gates
	3.	Fire Lane	3.	Shrubs and trees
	4.	Entrance Plaza and new fences		
SEED Classroom Area	1.	SEED Classroom building and affiliated components	1.	Shelter and shelter furniture
	2.	Outdoor deck	2.	Natural Play components
	3.	Connecting walkway from parking lot to and around building	3.	Garden Planters
	4.	Outdoor gathering space with tables and umbrellas	4.	Orchard
	5.	Meadow/wild flower area	5.	Colored Asphalt at seating area
	6.	Interpretive Signages	6.	Replacement of existing chain link fence
			7.	LEED net-zero / Living Building Challenge Certification
Stormwater Management (SWM)	1.	A micro-bioretention Facility		
	2.	Landscape plantings		
	3.	Removal of existing pavement		
Green House Area	1.	Plant tables for storage	1.	New greenhouse replacement
	2.	Fence around the area	2.	Shed relocation
Re-naturalized Area	1.	Meadow	1.	Reforestation trees

COST ESTIMATE

Construction Costs

A summary of construction costs is outlined in the table below. A detailed cost estimate is included in the facility plan report.

ltem	Subtotal
Site Preparation, Demolition, Tree Care	\$65.000
Sediment & Erosion Control	\$13,200
Earthwork	\$66,900
Stormwater Management	\$43,600
Utilities	\$12,300
Vehicular Pavement	\$69,600
Site Amenities and Furnishings	\$34,000
Landscaping, Micro-bioretention Plants, and Maintenance	\$19,500
Miscellaneous (Asbuilts, Electronic Submittal Submission)	\$9,500
Construction Subtotal Construction Contingency (15% of Construction Subtotal) SEED Classroom building and deck (Design/Build)	\$333,600 \$50,000 \$500,000
Construction Total (Subtotal plus Contingency)	\$883,600
Site Design with Contingency (15% of Construction Total)	\$130,000
Staff Chargebacks for Design, Construction Management &	\$88,000
Inspections (10% of Construction Total)	<i>QOOOOOOOOOOOOO</i>
TOTAL PROJECT COST (Base Design)	\$1,101,600

Operating Budget Impact

The annual cost to operate and maintain the SEED Classroom complex is estimated at \$109,000. This includes conversion of a seasonal Park Naturalist position to a career staff position to provide programming and operate the facility. Costs also include maintenance of the building, grounds and bioretention areas, as well as custodial services. The building features, bioretention areas, and plantings all serve as educational opportunities for the public. Assumptions for generation of revenue from programming have also been included. Refer to <u>Attachment 11</u> for more details.

Funding Status

The project has gone through several fundraising events and was presented to Maryland State Senate for bond bill. Below is a summary of the current funding status of this project.

Item	Funding
Donations Received	\$51,072
Outstanding Pledges/Grants	\$116,509
Friends of Black Hill Nature Program	\$10,000
First Energy	\$10,000
Green Mountain Energy (Sun Club)	\$96,509
Bond Bill 2019	\$250,000
TOTAL FUNDS RAISED	\$417,581
Additional Funding Needed TOTAL PROJECT FUNDING (for Base Design)	\$684,019 \$1,101,600

Items listed as add alternates may be constructed pending availability of future contributions and fundraising.

CONCLUSION

Staff recommends approval of the Recommended Facility Plan and the associated cost estimate. The proposed plan enhances the Nature Center Program and features of Black Hill Regional Park and reflects the collective vision of Parks staff and the greater community. The program is balanced to meet the needs of users while greatly improving the appearance and function of the existing site. The proposed project will help improve nature education program, provide efficient and educational building and site operation, and is designed for the enjoyment of current and future generations. If approved, the project will be included in the FY21-26 Capital Improvements Program for design and construction.

ATTACHMENTS

- 1. Site Plan Renderings
- 2. 30% Construction Documents- Site Work
- 3. Natural Resources Inventory / Forest Conservation Exemption
- 4. Natural Resources Inventory / Forest Conservation Exemption / Tree Save Plan Approval Letter
- 5. Stormwater Management Concept Plan and Report
- 6. Stormwater Management Concept Approval Letter
- 7. Fire Access Plan and Fire Lane Establish Order
- 8. DEP and DPS coordination
- 9. Preliminary Archaeological Review Form by Montgomery Parks staff
- 10. Detailed Cost Estimate
- 11. Operating Budget Impact
- 12. Community Meeting Minutes
- 13. Open Town Hall On-line Comment Report