



# MCFARLAND PARK IMPROVEMENTS + STORY COUNTY CONSERVATION CENTER

April 2023



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## EXECUTIVE SUMMARY

This master plan identifies future development of the Conservation Center at McFarland Park. The plan accounts for current and future use of the center, recognizing social, environmental and economic influences. This plan aligns with Story County Conservation's mission and is consistent with the Strategic Plan.

The existing Conservation Center no longer serves its intended purposes well. Insufficient educational display space creates significant lost opportunities with engaging new and diverse audiences with conservation. Insufficient teaching spaces limits the number of school and public programs which can be offered. Insufficient work space causes significant hurdles for staff and causes staff work space to be spread around multiple county facilities. The proposed master plan alleviates those shortfalls and allows for growth areas for all of the above-mentioned areas.

The plan accounts for re-purposing and improving the current conservation center, as well as constructing a new center. The current building will be re-purposed as a hub for classroom activities while the new building will serve as the public gateway to the outdoors and administrative center. The campus design provides synergy of both facilities.

This plan does not have a funding plan associated. Funding will be determined on a case-by-case basis and will necessitate a multi-pronged approach to funding sources.

The plan was developed by Shive-Hattery through a series of staff, board, and public opinion. Public open houses were held in Ames and Colo. Public opinion has been incorporated into the plan.

This master plan meets the community's desire to experience nature through a learning center environment.



## MASTER PLAN PROCESS

McFarland Park is home to Story County Conservation's (SCC) environmental education and administrative headquarters. As Story County Conservation continues to grow and expand services the need for a new facility was a key consideration for the future master planning process. Understanding the vision of SCC was the first step in determining improvement priorities and where a new facility was best positioned.

A Collaborative Process was instrumental in identifying areas of improvement and priority. Below were the steps Story County Conservation (SCC) incorporated to achieve this final master plan:

- Visioning Workshops- A robust kick-off work session with staff, two representatives from the SCC Board and design team worked together to identify overarching goals. Integrating intimate knowledge of those who work with the public and utilize the building space assisted in laying the groundwork for creating guiding principles. The team did a site tour of the current facility to understand the usage, challenges and space constraints. The team also walked the park observing a variety of ecosystems from prairie, aquatic and forest that makes this park a unique attraction. The group identified some major themes through the first kick-off workshop. These include:
  - Keep the conservation center at McFarland Park: This location is the center of a greenbelt through the county and reflects a "Gateway" experience. This location helps to avoid becoming an Ames only amenity.
  - "Legacy" - building generational interest and utilization of the SCC park system is a goal of the master plan and a new facility at McFarland Park would help to strengthen that interest.
  - Ideally, "connecting" people to the "enjoyment" of nature, the outdoors and the environment through amenities is the key goal.
  - Through expanding visitor's knowledge and encouraging positive experiences visitors encounter relevance and enjoyment.
  - There are opportunities to move visitors deeper into McFarland Park, utilize the land and immerse users into their natural surroundings.
  - There are opportunities for bus routes connections, trail system connections to further make the park more accessible.
  - The idea of Satellite educational centers in other locations with McFarland being the "Mother Ship" was well received. These centers may be a small built structure that echoes consistent architectural character that can be utilized for on site educational programming and events.
    - o Different parks offer different amenities, make them personalized to that park
    - o These spaces can be used to attract and facilitate different audiences. There are various needs depending on the park, i.e. at Tedesco the needs are bus parking and shelters with restrooms.
    - o Local flavor with a tie back to the overall identity of Story CC
    - o Create destinations, specialize and "personalize". Don't offer everything at each locations

A collaborative visioning workshop was also held with the entire SCC Board. In addition to reviewing the themes a discussion on how to reach more people was held. As SCC moves forward it will be important to consider the following:

1. Info for all levels: beginner to experienced
2. Offer different education or experience levels for different comfort levels
3. Program ideas: Custom itineraries, Story CC university - earn badge etc.

The idea of determining how to name the new facility was explored. Jim Pease led an exercise to brainstorm the opportunities that lie ahead with messaging. It was apparent that the building should communicate SCC's mission and values. Advantages for a nature center were considered to be a focal point for programs, teach about the mission through active and passive learning, serve multiple needs and make nature accessible.



## MCFARLAND PARK IMPROVEMENTS

MARCH 2023

## MASTER PLAN PROCESS CONTINUED

- Stakeholder Engagement –Key questions were identified and built into an online intelligent survey that was distributed to the public with 116 participants and 102 of those from Story County. 104 participants have been to the existing McFarland Park conservation center and expressed the main reason for visiting was to explore the lake and the outdoors. 77 participants agreed that McFarland Park was the best location for a new center. The survey results identified that the top 5 offerings desired for future improvements included the following:

- Paddle sports
- Additional trail wayfinding signage
- Additional indoor and outdoor programming
- Fishing
- Equipment rental

- Design Process – Shive-Hattery worked closely with staff to conduct an inventory and analysis stage that considered existing vegetation to preserve or remove due to quality, utilities, viewsheds to emphasize, and universal design to enhance accessible recreational opportunities. Reviewing SCC existing documentation and studies was important in understanding unique site improvements:

- Sensitive area study
- Watershed study
- Strategic Plan
- Economic studies
- Capital Improvement Plan for 10 years
- Space study
- Trail plan

Utility information, sun angles, drainage patterns and topography exhibits were collected and overlaid with improvement areas to site the new facility. The design team had frequent meetings to collaborate with SCC staff and board members to guide planning efforts and identify needs and possibilities and the repurposing of the existing center. This feedback was incorporated into a preferred concept that was illustrated through illustrative site plans, floor plans and 3D renderings. Inspiration images were paired with specific areas to provide a vision of the type of amenities and more detail that may reflect the style of the proposed improvements.



## MCFARLAND PARK IMPROVEMENTS

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## PUBLIC INPUT MEETING - MARCH 27, 2023

An open house was held on March 27th from 5:00-7:30pm at Ames Public Library to gather public response to the proposed improvements. Graphics for both Hickory Grove Park and McFarland Park were displayed throughout the space to view, ask questions and provide input. Written public comments from the evening are documented in Appendix A. In general attendees were excited about future possibilities and having expanded amenity offerings at the park.



## MCFARLAND PARK IMPROVEMENTS + COUNTY CONSERVATION CENTER SUMMARY + COSTS

Once the master plan concepts had been tested via the public open house a pricing exercise was conducted to capture ballpark amounts of site improvements and a low-high range of potential building costs for both the new and existing conservation center. The opinion of probable costs addresses utilities, buildings, pathways, amenities, site restoration and allowances for sustainable amenities such as a green roof, solar panels and stormwater quality treatment techniques to message the importance of environmental stewardship through the built form.

The new County Conservation Center proposed at McFarland Park is programmed to house educational displays, multi-sized groups and classes, County Conservation staff, collaboration open space, multiple restrooms, breakout rooms, and ample storage. The building is designed to have sustainable features and educational aspects built in to reflect the values of SCC.

The existing building is to remain on site and receive renovations with an addition to the back. The interior is programmed to hold classroom space, work space and storage. The current large auditorium space is proposed to be filled in and transformed into a large functional flex use classroom that can be split into two meeting spaces.

The outdoor space between the two buildings is to become an educational yet explorational space with seating areas, interactive features and intertwined with stormwater quality features. Near the new building there are proposed stormwater features that will collect roof runoff and surface water runoff to exemplify and educate on water quality. There are several different pockets of seating options in sun and shade throughout for relaxation or an afternoon picnic. Integrating environmental art, signage and natural features such as boulders and a variety of plants will enhance the user experience. One of the larger proposed features is an amphitheater with a view of the lake to host groups, clubs and environmental education classes.

### MCFARLAND PARK IMPROVEMENTS - COSTS SUMMARY OPINION OF PROBABLE COST

PROJECT NAME	ESTIMATED PROJECT COST
SITE IMPROVEMENTS	\$2,816,107
BUILDING IMPROVEMENTS	\$14,758,526 - \$19,242,346
<b>TOTAL ESTIMATED COST</b>	<b>\$17.6 million - \$22.1 million</b>



**MCFARLAND PARK IMPROVEMENTS MASTER PLAN  
OPINION OF PROBABLE COST**

#	ITEM DESCRIPTION	QUANTITY	UNITS	UNIT COST	TOTAL COST
<b>McFarland Park</b>					
1	General Conditions and Mobilization (7%)	1	LS *	\$130,500	\$130,500
2	Construction Staking	1	LS *	\$20,000	\$20,000
3	Earthwork	29,000	CY *	\$5	\$145,000
4	Erosion Control	1	LS *	\$15,000	\$15,000
5	Removal and Site Prep	1	LS *	\$70,000	\$70,000
5	New Parking Lot - PCC 6"	7,660	SY *	\$65	\$497,900
6	New Park Drive - PCC 7"	4,096	SY *	\$75	\$307,200
7	Building Access Drive - PCC 6"	197	SY *	\$65	\$12,805
8	Walkways - PCC, 5"	1,894	SY *	\$50	\$94,700
9	Kayak Express Walkway - Permeable Asphalt	6,600	SF *	\$20	\$132,000
10	New Building Entrance Plaza - Permeable Asphalt	2,608	SF *	\$20	\$52,160
11	New Building Covered Patios - PCC 5"	472	SY *	\$50	\$23,600
12	Walkways - Colored PCC 5"	180	SY *	\$70	\$12,600
13	Boardwalk	90	LF *	\$80	\$7,200
14	Limestone Benches	4	EA *	\$700	\$2,800
15	Amphitheater	1	LS *	\$100,000	\$100,000
16	Large Shelter - 24'x44'	1	LS *	\$140,000	\$140,000
17	Shelter Pad, 34'x54' PCC 5"	204	SY *	\$50	\$10,200
18	Sculptures / Art Installation	1	LS *	\$15,000	\$15,000
19	Trees	50	EA *	\$250	\$12,500
20	Bioswale Soil (Rain Garden)	600	CY *	\$40	\$24,000
21	Bioswale Seeding + Erosion Control Mat	1.5	ACRE *	\$3,500	\$5,250
22	Bioswale Vegetation Enhancements	1	LS *	\$50,000	\$50,000
23	Stormwater Infrastructure Allowance	1	LS *	\$100,000	\$100,000
24	Native Seeding	1	ACRE *	\$1,200	\$1,200
25	Site Restoration & Turf Seeding	1	ACRE *	\$3,500	\$3,500
26	Fire Rings	1	EA *	\$400	\$400
27	Picnic Tables	8	EA *	\$1,000	\$8,000
	Construction Subtotal				\$1,993,515
	Master Plan Level Contingency** (25%)				\$498,400
	<b>Construction Subtotal w/ Contingency</b>				<b>\$2,491,915</b>
	Professional Design & Engineering Fees** (10%)				\$249,192
	Soft Costs** (Geotech, Topo Survey, Printing, Permitting, etc.)				\$75,000
	<b>ESTIMATED TOTAL PROJECT COSTS*</b>				<b>\$2,816,107</b>

\*TOTAL PROJECT COSTS AND CONSTRUCTION COSTS PROVIDED HEREIN ARE MADE ON THE BASIS OF ENGINEER'S EXPERIENCE AND QUALIFICATIONS AND REPRESENT THE ENGINEER'S BEST JUDGMENT. HOWEVER, THE ENGINEER CANNOT AND DOES NOT GUARANTEE THAT BIDS OR ACTUAL TOTAL PROJECT OR CONSTRUCTION COSTS WILL NOT VARY FROM THE ESTIMATE OF PROBABLE CONSTRUCTION COST. THIS COST OPINION IS INTENDED TO ASSIST IN BUDGETARY ASSESSMENT AND DOES NOT GUARANTEE THAT ACTUAL PROJECT COSTS WILL NOT EXCEED OR BE LOWER THAN THE AMOUNTS STATED IN THIS ESTIMATE.

\*\*CONTINGENCY REPRESENTS UNKNOWN RISKS RELATED TO DESIGN & CONSTRUCTION. THE CONTINGENCY MAY BE REDUCED AS THE PROJECT PROGRESSES. GENERAL CONDITIONS & MOBILIZATION COSTS ARE ESTIMATED TO COVER GENERAL CONTRACTOR'S OVERHEAD & PROFIT, COSTS UNRELATED TO SPECIFIC BID ITEMS, INSURANCES, BONDS, ETC. PROFESSIONAL DESIGN & ENGINEERING FEES TO DEVELOP PLANS AND SPECIFICATIONS FOR THE PURPOSE OF PUBLIC BIDDING AND ASSUMES 1 BID PACKAGE AND DOES NOT REPRESENT EFFORT FOR BIDDING OR CONSTRUCTION PHASE SERVICES. SOFT COSTS ARE EXPENSES NOT PROVIDED BY CONSULTANT OR CONTRACTOR SUCH AS GEOTECHNICAL INVESTIGATION, TOPOGRAPHIC SURVEY, PRINTING AND PERMITTING COSTS.

**MCFARLAND PARK IMPROVEMENTS MASTER PLAN  
OPINION OF PROBABLE COST**

#	ITEM DESCRIPTION	QUANTITY	UNITS	UNIT COST	TOTAL COST
<b>McFarland Park - Low Cost Range</b>					
<b>BUILDING IMPROVEMENTS</b>					
10	New Conservation Center - Building	14,600	SF *	\$450	\$6,570,000
11	Educational Materials	1	LS *	\$1,000,000	\$1,000,000
12	Existing Conservation Center Renovations	6,220	SF *	\$350	\$2,177,000
13	Existing Conservation Center Addition	400	SF *	\$375	\$150,000
21	Site Utilities - Water (Distribution and individual hook-ups)	1	LS *	\$18,200	\$18,200
22	Site Utilities - Sanitary (Distribution and individual hook-ups)	1	LS *	\$100,410	\$100,410
23	Site Utilities - Electrical (Distribution and site pedestals)	1	LS *	\$21,250	\$21,250
28	Picnic Tables	8	EA *	\$1,000	\$8,000
29	Adirondack Chairs	34	EA *	\$1,000	\$34,000
	Construction Subtotal				\$10,078,860
	Master Plan Level Contingency** (25%)				\$2,519,800
	FFE - Furniture Allowance				\$250,000
	AV Allowance				\$100,000
	Solar Allowance				\$200,000
	Sustainable Features Allowance - Green Roof				\$200,000
	<b>Construction Subtotal w/ Contingency</b>				<b>\$13,348,660</b>
	Professional Design & Engineering Fees** (10%)				\$1,334,866
	Soft Costs** (Geotech, Topo Survey, Printing, Permitting, etc.)				\$75,000
	<b>ESTIMATED TOTAL PROJECT COSTS*</b>				<b>\$14,758,526</b>

<b>McFarland Park - High Cost Range</b>					
<b>BUILDING IMPROVEMENTS</b>					
10	New Conservation Center - Building	14,600	SF *	\$650	\$9,490,000
11	Educational Materials	1	LS *	\$1,000,000	\$1,000,000
12	Existing Conservation Center Renovations	6,220	SF *	\$400	\$2,488,000
13	Existing Conservation Center Addition	400	SF *	\$450	\$180,000
21	Site Utilities - Water (Distribution and individual hook-ups)	1	LS *	\$18,200	\$18,200
22	Site Utilities - Sanitary (Distribution and individual hook-ups)	1	LS *	\$100,410	\$100,410
23	Site Utilities - Electrical (Distribution and site pedestals)	1	LS *	\$21,250	\$21,250
28	Picnic Tables	8	EA *	\$1,000	\$8,000
29	Adirondack Chairs	34	EA *	\$1,000	\$34,000
	Construction Subtotal				\$13,339,860
	Master Plan Level Contingency** (25%)				\$3,335,000
	FFE - Furniture Allowance				\$250,000
	AV Allowance				\$100,000
	Solar Allowance				\$200,000
	Sustainable Features Allowance - Green Roof				\$200,000
	<b>Construction Subtotal w/ Contingency</b>				<b>\$17,424,860</b>
	Professional Design & Engineering Fees** (10%)				\$1,742,486
	Soft Costs** (Geotech, Topo Survey, Printing, Permitting, etc.)				\$75,000
	<b>ESTIMATED TOTAL PROJECT COSTS*</b>				<b>\$19,242,346</b>

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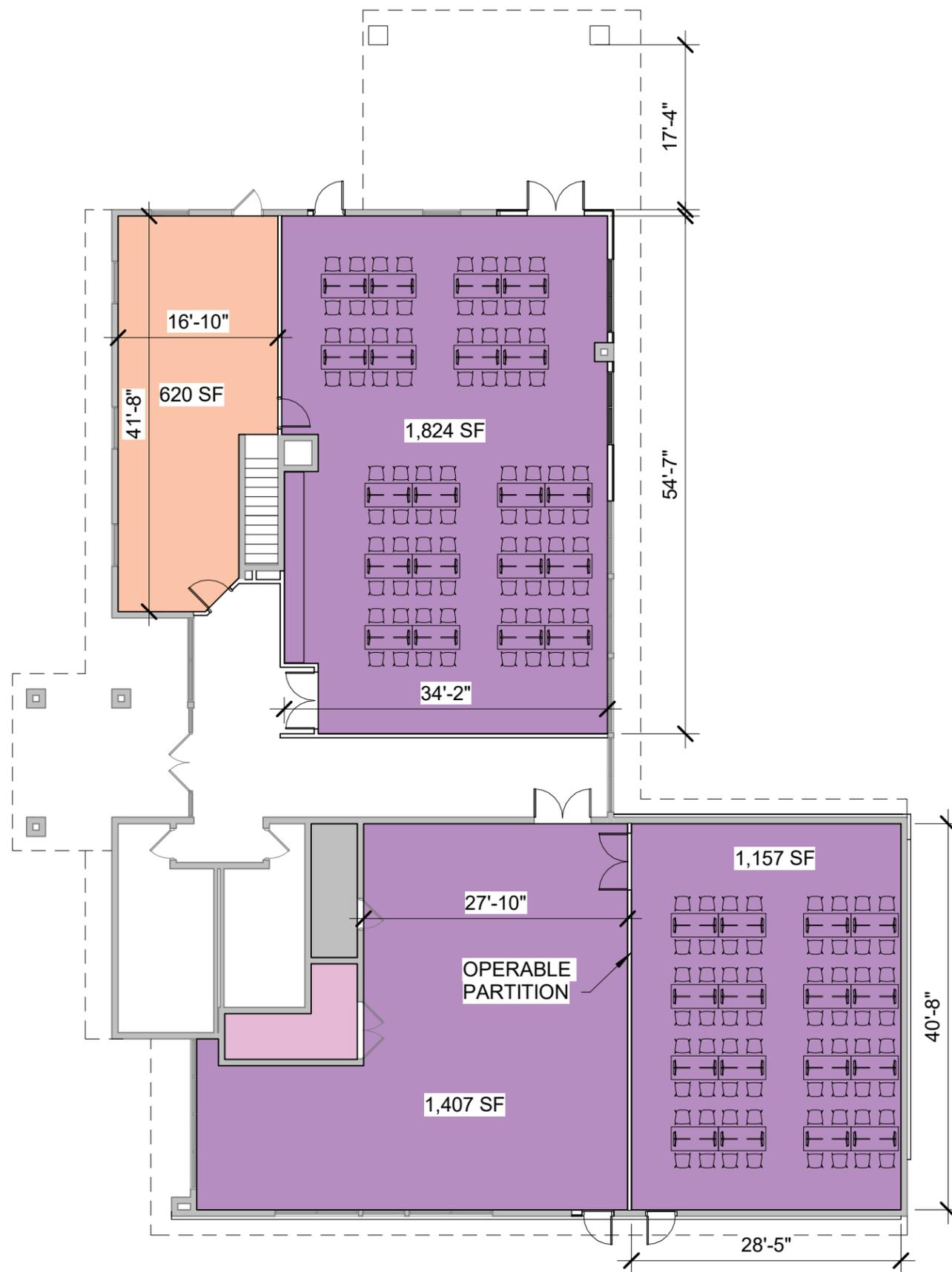


- ① EXISTING BUILDING/  
NEW CLASSROOM SPACE
- ② NEW PARKING LOT
- ③ STORMWATER  
INFILTRATION FEATURE
- ④ NEW CONSERVATION  
CENTER
- ⑤ OPEN AIR SHELTER
- ⑥ POLLINATOR HABITAT
- ⑦ SEATING NODE
- ⑧ AMPHITHEATER
- ⑨ EXISTING NATURE  
PLAYSCAPE



**PLAN LEGEND**

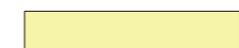
	CLASSROOM
	EXHIBIT/EVENT
	OFFICE
	CONFERENCE ROOM
	BREAKROOM
	WORKROOM
	MECH/ELEC
	STORAGE



**MCFARLAND PARK IMPROVEMENTS RENOVATIONS TO EXISTING BUILDING**

MARCH 2023

**PLAN LEGEND**

	CLASSROOM
	EXHIBIT/EVENT
	OFFICE
	CONFERENCE ROOM
	BREAKROOM
	WORKROOM
	MECH/ELEC
	STORAGE





















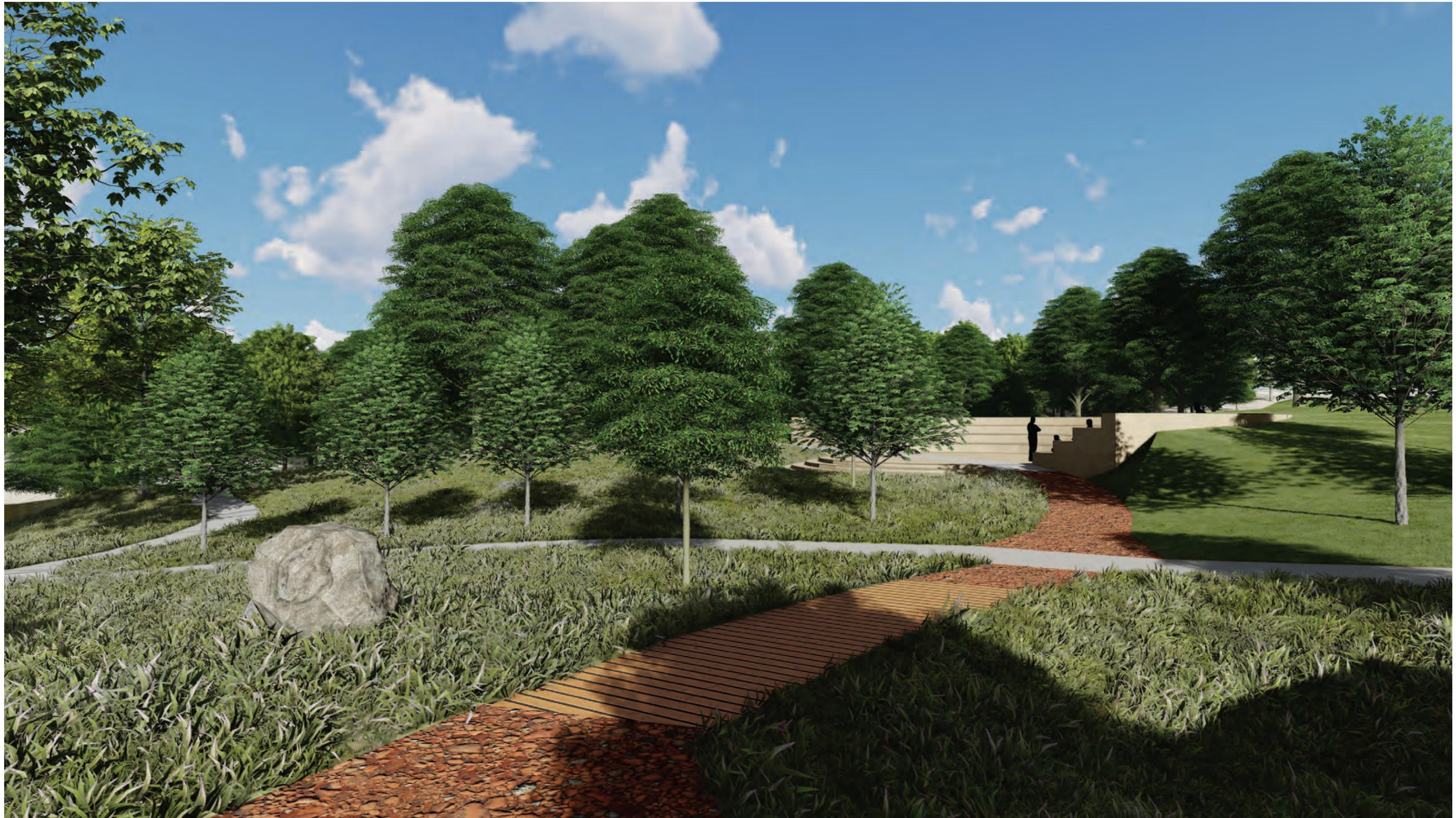












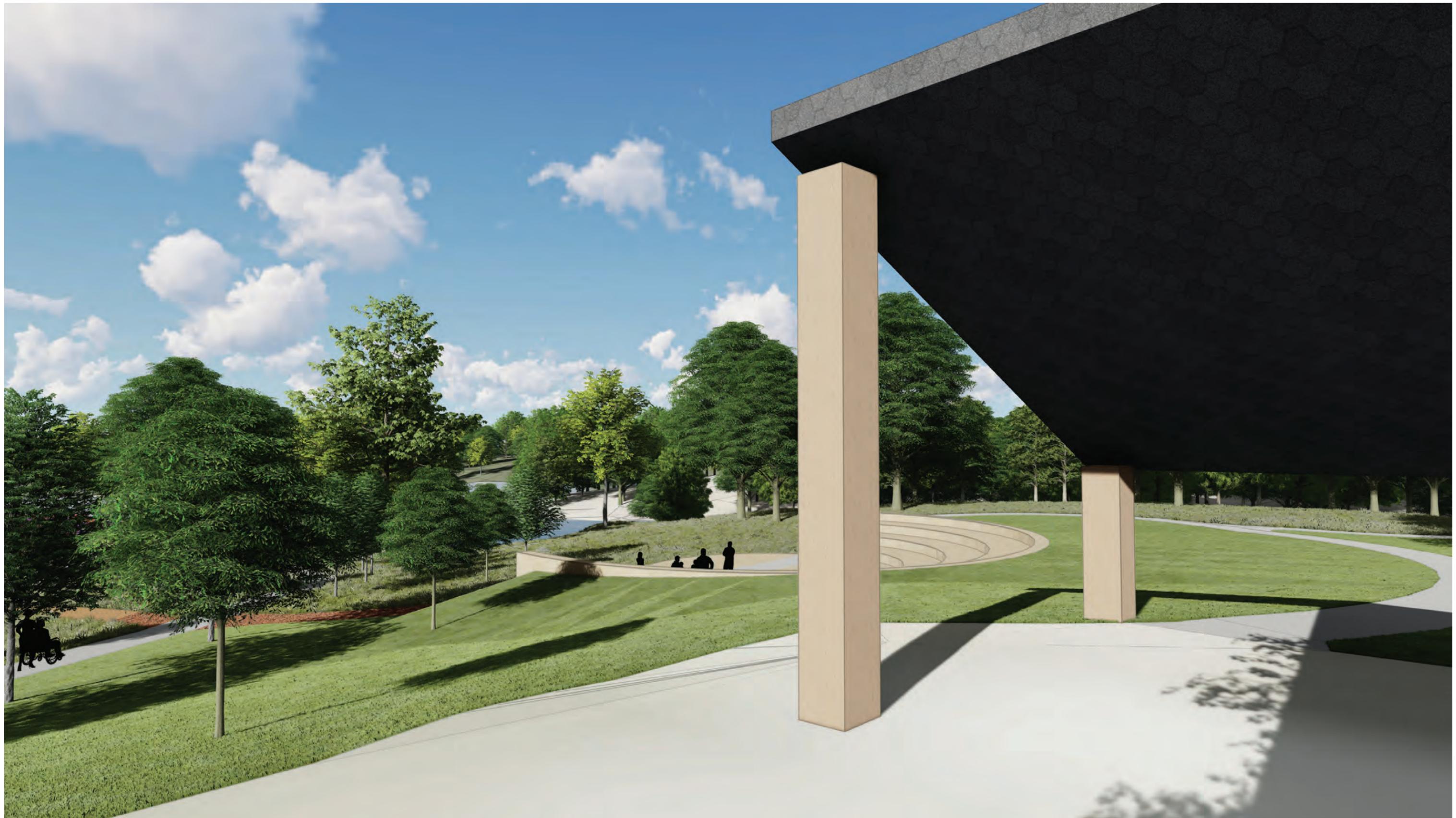












## APPENDIX A: MCFARLAND PARK PUBLIC COMMENTS

- Possibility of solar panels on center roof of new building
- Like the idea of a “green roof” in sections
- Happy to see no flat roofs
- Consider a shelter with a windbreak
- How will you keep skate boarders off amphitheater?
- Make McFarland more of a destination center - use the site for classes (nature and crafty), board meetings, group meetings, receptions, etc.
- Transportation to and from McFarland makes it inaccessible. Is there any way to work on getting bus/HIRTA transportation?
- Looks nice – go for it!
- Would like to see an indoor viewing area for birding in either building
- Suggest moving the amphitheater to the north of the new building so you could have occasional concerts or performers – utilizing the overhang better
- A very shallow spot to catch polliwogs with fresh water flowing through would be great – saw this at the nature center at Saylorville
- Is there a small beach area?
- Will the bird blind continue?
- Make sure there is enough storage where the education team needs it
- Infrastructure for charging electric bicycles, cars, buses, etc.
- Bicycle repair station similar to one at Tedesco
- Asses feasibility of solar panels over some of the parking stalls, solar panels on building roofs (backup power, cleaner power), and vertical axis wind power generation
- Picnic shelter outlets and lighting
- Bicycle racks
- Incorporate solar and other conservation practices (rain gathering barrels, rain chains in lieu of downspouts, permeable walking and driving surfaces) as educational models
- Like the idea of phasing in parking so only what is needed is paved; permeable paving
- Great designs – take the trails for easability to get around – harder surfaces, permeable paving to allow strollers and/or walkers
- Need children & adult interactive educational stations inside the building
- Fun education vital to get our kids and adults engaged
- Add paved walk to picnic shelter NE of new building for handicap accessibility
- Use previous walking material
- On existing building, have interior and exterior sinks/water tables areas for kids projects with “creatures”
- Bathroom out in prairie/wood area
- Solar panels
- Must have bird friendly glass throughout exterior
- Motion sensitive lighting in parking lots and walkways
- Add multi-use path in from along road & property lines

