



Champaign County Forest Preserve District 2023 Nature Center Feasibility Study



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Introduction

The Homer Lake Interpretive Center (HLIC) opened to the public in 1974. The Interpretive Center is located in the Homer Lake Forest Preserve, originally known as the Salt Fork River Forest Preserve.

HLIC houses exhibits and provides space for scheduled programs, walk-in visitors, and staff work areas.

This document serves to summarize progress thus far in the development of a nature center, presents visitation and community demand data, reviews the challenges of the existing facility, and presents a few scenarios for moving forward.

Visioning

In 2015, the District contracted David Michael Moore, a group facilitator, to host a visioning session with the Museum and Education Department. The goals of that session were to identify unique themes for a future nature center, explore “out-of-the-box” ideas for the facility and its location, and to build consensus within the Department for the development.

The facilitator invited staff to share stories of Interpretive

Center patrons, requested information on current offerings at the Center, and asked what the future could look like for a new facility. The group developed a series of overarching themes and a building program “wish-list.”

During the workshop, the audience identified for the existing Interpretive Center was broad, including adults & seniors, families, and grade-school students.



Figure 1. 2015 Visioning Board by David Michael Moore

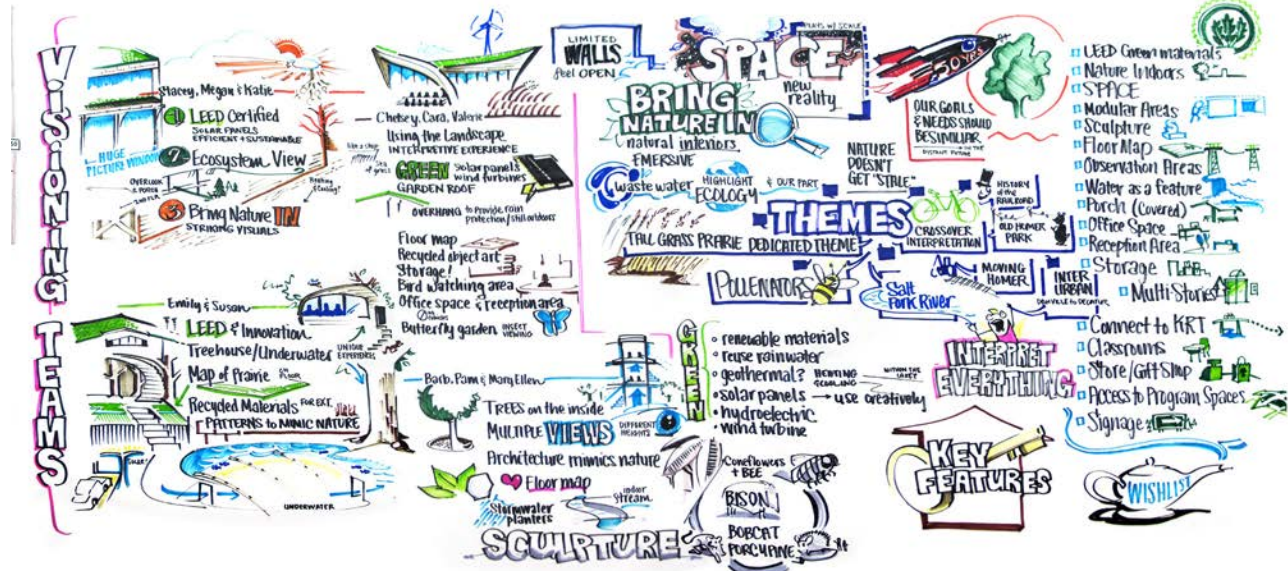
Future opportunities with the development of the Kickapoo Rail Trail (KRT) nearby were identified as a way to broaden the audience beyond existing regular patrons.

Themes that emerged during the discussion included unique stories of the area: tallgrass prairie, the Salt Fork River, local history of the railroad and the development of Homer, history of the interurban rail line, sustainable agriculture, and Old Homer Park. These themes are not duplicated at nearby interpretive centers.

Architectural priorities from the session included LEED certification, bio-mimicry, biophilic design, bridging landscape and interior architecture, creating a sense of place, iconic structures/sculptures, easy access to outdoor program areas.

2015 VISIONING SESSION THEMES:

TALLGRASS PRAIRIE
SALT FORK RIVER
LOCAL RAIL HISTORY
DEVELOPMENT OF HOMER
INTERURBAN RAIL
SUSTAINABLE AGRICULTURE
OLD HOMER PARK



Concept Design

Following the visioning exercise with David Michael Moore, in 2020, consultant was hired to develop a concept building and landscape plan for the future Interpretive Center. A request for proposals was issued to select a design team to review existing stakeholder feedback, solicit new stakeholder feedback, evaluate potential sites for the new interpretive center and deliver a concept design with cost estimates.

After reviewing the qualifications submitted via proposal, Lake Flato, an architecture firm based in San Antonio, Texas and MKSK, a landscape architecture firm from Indianapolis, Indiana were selected to work with the District.

Lake Flato and MKSK facilitated a public meeting via Zoom on July 8th, 2020 and presented Homer Lake Forest Preserve history, solicited feedback on visitation patterns, gathering information on favorite features of Homer Lake Forest Preserve, and discussed green building practices. During the meeting, the group also discussed proposed options for siting the new facility. Four options were proposed, included near the existing Interpretive Center, the Walnut Hill area near the natural playscape, near the Salt Fork Center on the southern edge of the lake, and West Lake, near the north boat launch and Homer Lake Road access.

After studying several options, the proposed building siting was located west of the existing Interpretive Center, near the existing boat launch. The site selected has good views of the lake and is situated within a variety of natural area types, which is beneficial for interpretation. No new main roads were proposed, reducing infrastructure expenses. Parking was proposed in several pods along existing roads to reduce the impact both visually and environmentally of a single, large parking area. Outdoor classroom areas were proposed south of the proposed building with easy access to the lake and facility. A series of swales were designed to mitigate the stormwater runoff effects of the new building on



ENLARGED SITE PLAN

Figure 2. Lake Flato Concept Site Plan

the landscape. Naturalized landscape materials were proposed such as flagstone, boulders, black locust decking, and native plantings.

The design concept for the building was based on one of the themes from the earlier visioning session, agricultural setting, and local vernacular barn architecture.

The proposed structure was 13,900sf with two primary "wings," a 8,500sf north building, primarily designed for public access, and a 5,400sf south building, primarily designed for staff use and planned programming. Both of these zones were connected with an indoor hall. Building program areas included exhibit space, live animal storage,

2021 PROJECTED COSTS
BUILDING CONSTRUCTION: \$8,555,184
SITWORK: \$2,268,250
FURNISHINGS (AVE): \$228,950
EXHIBITS (AVE): \$386,500
ESTIMATED TOTAL: \$11,438,884

live animal viewing areas, a staff garage, event space, bird viewing area, classrooms, offices, a kitchen, conference room, and staff flex space.

A cost estimate was developed by Fennessy Consulting Services in November 2020 based on the plans developed by Lake Flato and MKSK. The total project estimate was \$8,555,184, with \$6,286,934 for building construction and

\$2,268,250 for site work. This estimate does not include final design documents, which based on the construction estimate will likely range from \$770,000 to \$1,026,000. The estimate also does not include loose furnishings or exhibit planning and construction. Loose furnishings could range from \$166,000 to \$291,900 and exhibit costs could range from \$280,000 to \$493,000.

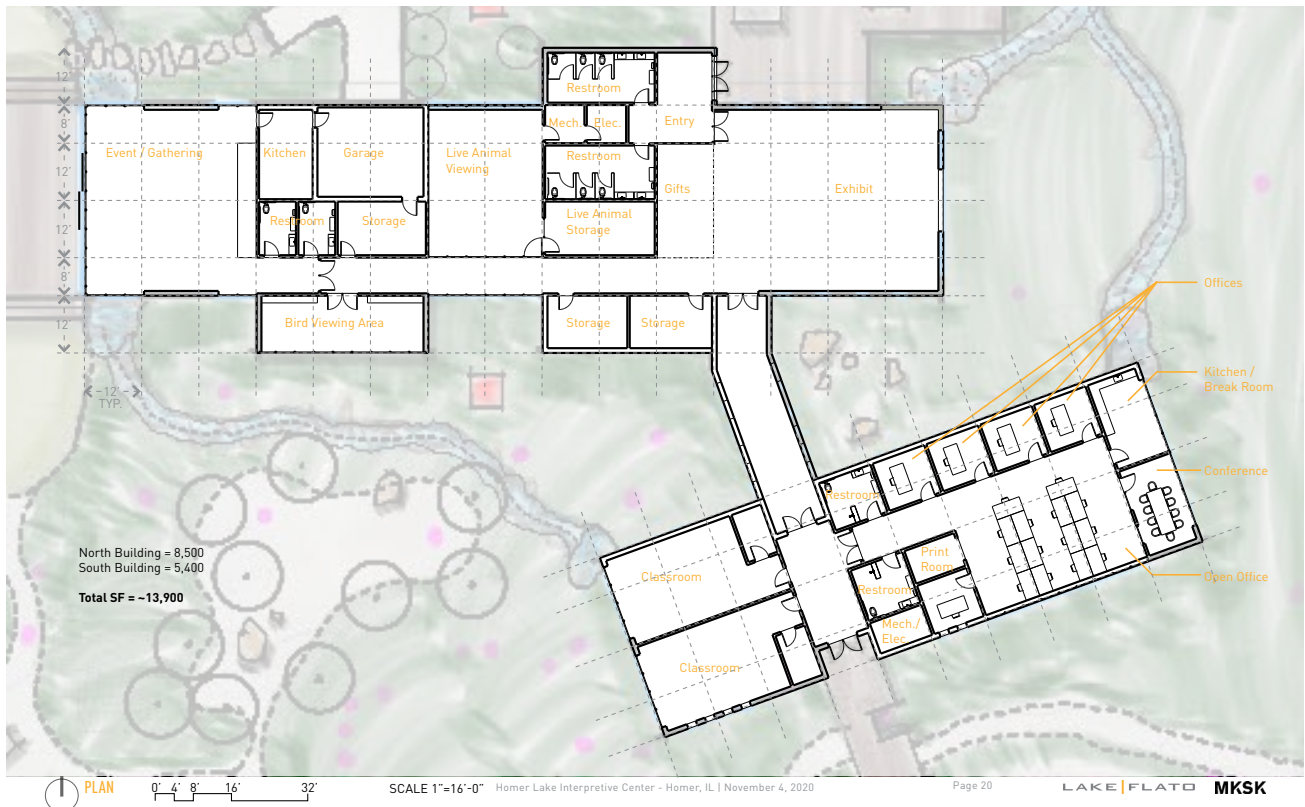


Figure 3. Lake Flato Concept Floor Plan



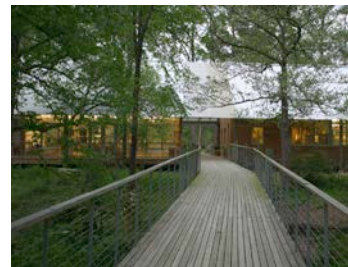
RENDERING

Homer Lake Interpretive Center - Homer, IL | November 4, 2020

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LAKE | FLATO MKSK

Figure 4. Lake Flato Conceptual Rendering



BUILDING PRECEDENTS - MODERN

Homer Lake Interpretive Center - Homer, IL | November 4, 2020

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LAKE | FLATO MKSK

Figure 5. Lake Flato Precedent Images

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Figure 6. Lake Flato Conceptual Rendering

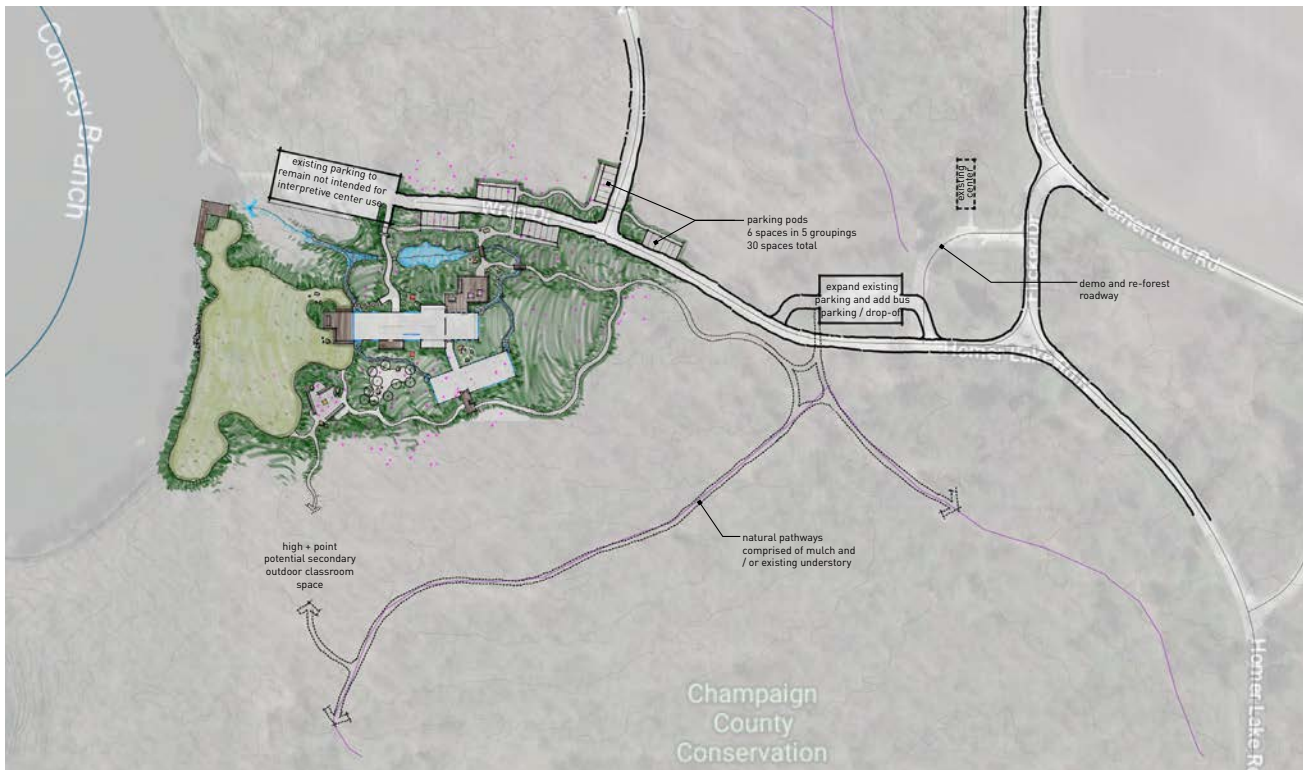


Figure 7. Lake Flato Concept Plan

Program Workshop

In order to refine the project program, staff from across several District departments met in October 2021 to identify why the District is building a nature center and to develop a succinct “why” statement. A “why” statement can help guide an organization through the planning and implementation process in a focused, meaningful manner. Staff structured the workshop using Simon Sinek’s *Find Your Why* and IDEO’s *Field Guide to Human-Centered Design* texts.

Although there has arguably been fatigue in “providing feedback” for the nature center, periodically centering on the motivation for a project can help ensure the group is moving in the same direction. Revisiting previously discussed project elements, can help verify decisions made and identify new project elements to be discussed (Figure 8).

There were staff attendees from the Museum & Education Department, Homer Lake Operations, Planning, Marketing, and Natural Resources. Including a variety of staff encouraged sharing diverse viewpoints and challenging perspectives.

During the workshop, staff were split into small groups, each with members from various departments, and share stories of how their proudest moments at CCFPD positively impacted the lives of others. After sharing and discussing stories,

staff coded the actions from the events shared and developed themes. From those themes, staff distilled two draft why statements by analyzing both the contribution to be made and the impact it will have.

Following the workshop, a smaller group of staff met to finalize a single why statement. This statement strengthens the narrative for the project as we move forward. The workshop also helped to move the staff toward consensus on the scope of the project and differentiate wants vs. needs of staff.

THE HUMAN DIFFERENCE
Share a specific story of when you have felt most proud to work at CCFPD.

Why did this event leave such an impact?

How did this event contribute to the lives of others?

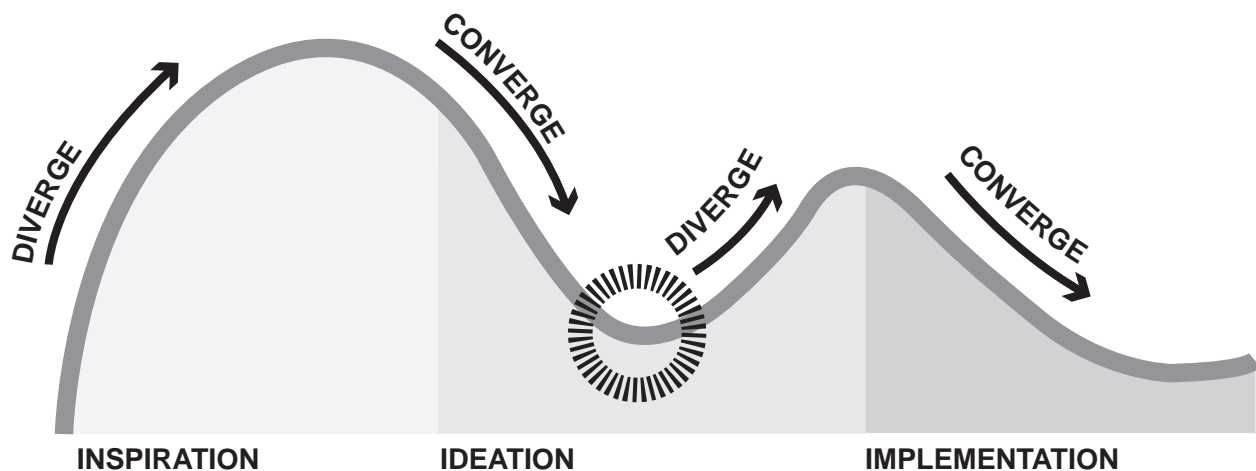
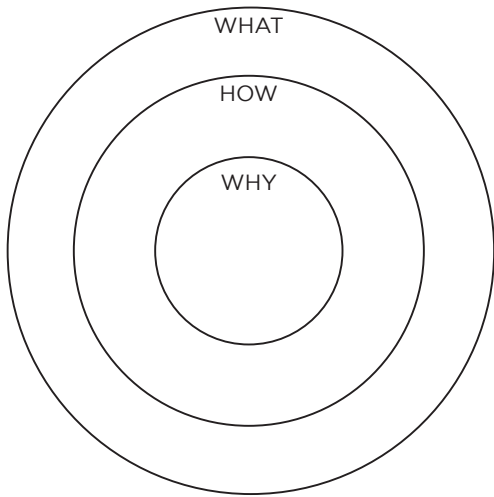


Figure 8. IDEO “Human-Centered Design” process diagram



WHAT: The tangible products, services, and jobs we preform: interpretive programs, animal collections, leading school groups, existing Homer Lake Interpretive Center, Homer Lake Forest Preserve outdoor amenities, interpretive and maintenance staff, etc.

HOW: Our values, guiding principles, and actions: District Strategic Plan, Interpretive Plan, annual budgets, Board Meetings, staffing plans, etc.

WHY: Our collective purpose: The Champaign County Forest Preserve District is ...

Figure 9. Sinek et al. 2017 Find Your Why diagram

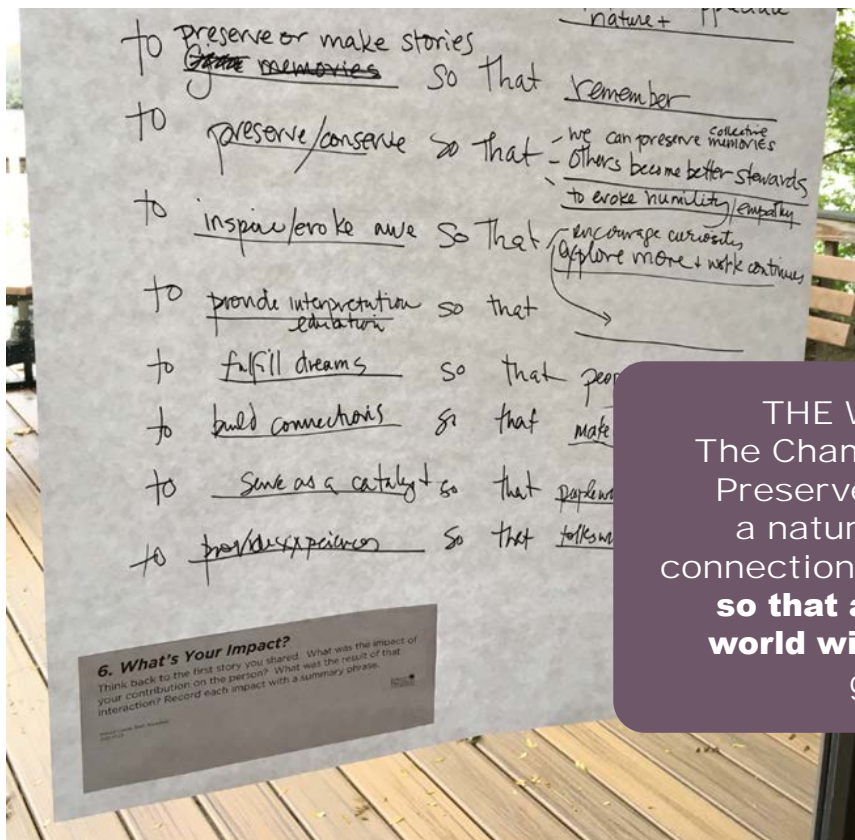


Figure 10. Image from staff exercise during programming workshop.

Visitation Patterns

The Homer Lake Interpretive Center staff track participation of program attendees (both onsite and offsite) and visitation to the Interpretive Center. Below are some general trends in visitation and program participation. Prior to the pandemic, participation and visitation grew considerably between 2009 and 2016, and plateaued from 2017 to 2019 (Figure 12).

On average, the Homer Lake Interpretive Center is open to the public 25 hours per week, with shorter hours in winter months and longer hours in the spring, summer, and fall (Figure 13). The Center is primarily open during the week. From April to October, the months the center is open on weekends, 14% of the hours open are

during weekend periods (Figure 14). When studying average visitation per hour by day from 2015-2019 from April to October, nearly one third of the visitation occurs during the weekend. Self reported visitation data from the 2014 and 2022 Needs Assessment Surveys are included in the

next section. It is worth noting that the relative number of respondents reporting visiting the HLIC in the 2022 survey is likely inflated slightly because roughly one-third of survey respondents who accessed the survey were on District mailing lists, suggesting a higher ratio of District supporters/patrons.

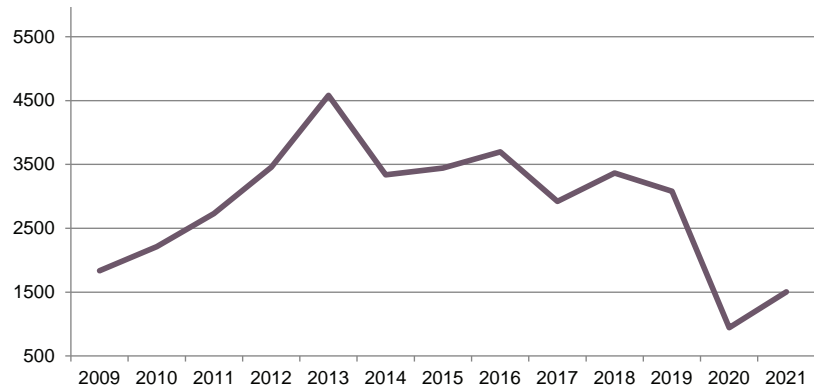


Figure 11. Homer Lake Interpretive Center Visitation from 2009 - 2021, excluding public and school program patrons

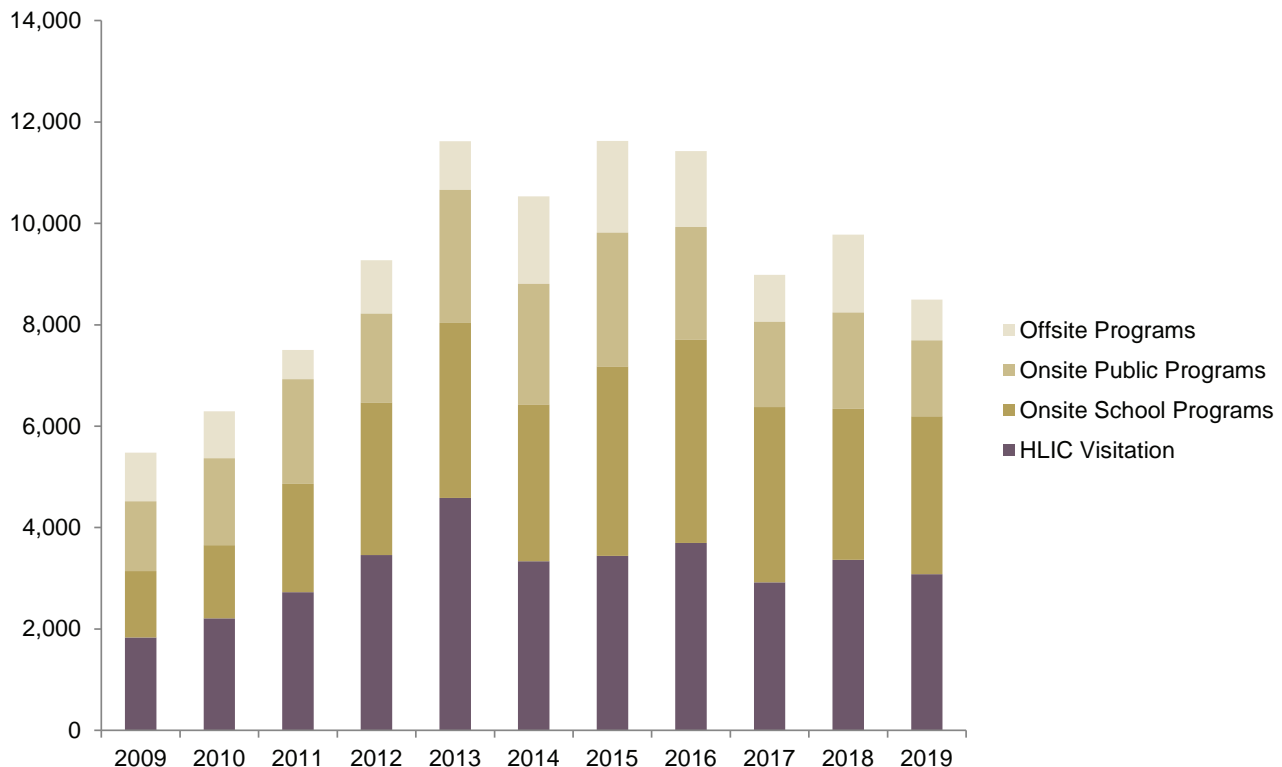


Figure 12. Homer Lake Interpretive Center Visitation by type from 2009 - 2019

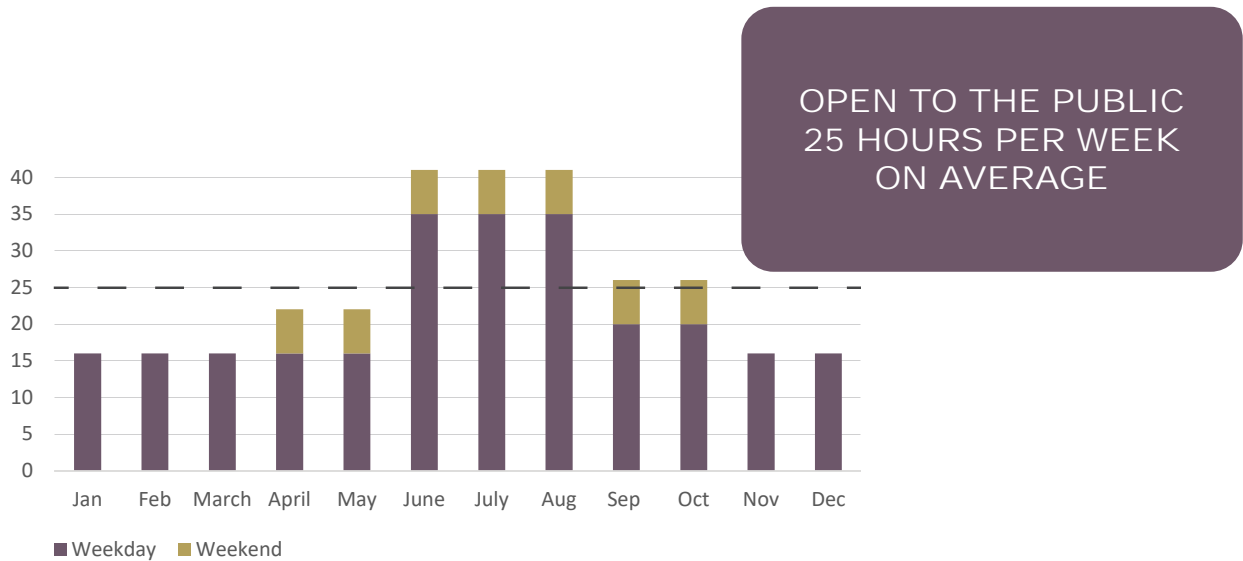


Figure 13. Total Hours Open to the Public Per Week by Month

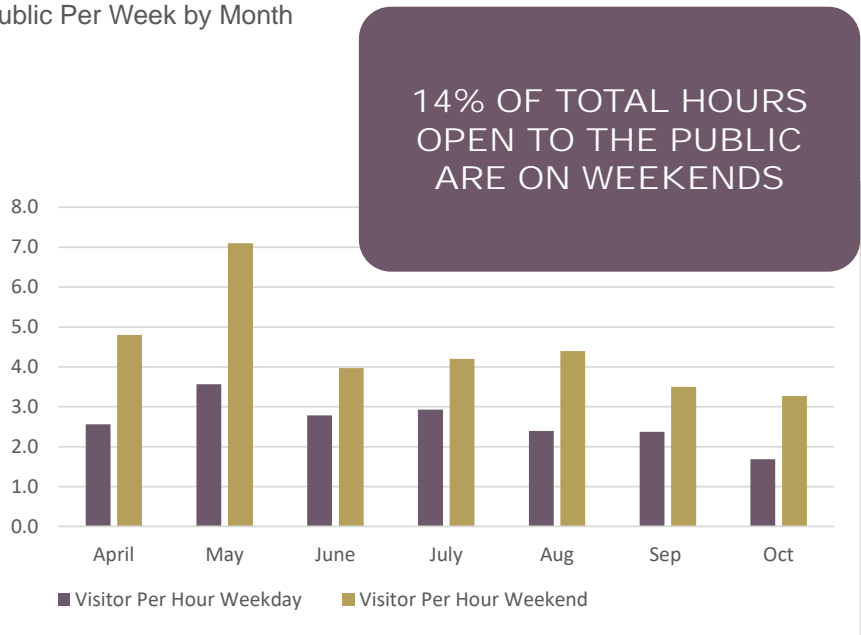


Figure 14. Average Hourly Visitors by Month and Time of Week (2015-2019)

32% OF AVERAGE PUBLIC VISITATION OCCURS ON WEEKENDS FROM APRIL - OCTOBER



Public Input and Needs Assessment

Public input on the future nature center was solicited via a few methods: (1) 2014 County-wide Needs Assessment Survey, (2) Lake Flato conceptual planning public participation, (3) qualitative input gathering in tandem with the District-wide Comprehensive Plan, and (4) the 2022 County-wide Needs Assessment Survey.

In coordination with work on the District-wide Comprehensive Plan, staff solicited community feedback on the demand for a new nature center facility.

There was relatively high visitation among respondents of the 2014 survey to the Homer Lake Interpretive Center at 18%, compared to 28% at the Museum of the Grand Prairie (Figure 17). HLIC visitation increased to 28% in the 2022 survey, while the Museum of the Grand Prairie remained at 28% (Figure 16). As noted earlier, self-reported visitation in 2022 for District facilities in general is likely inflated.

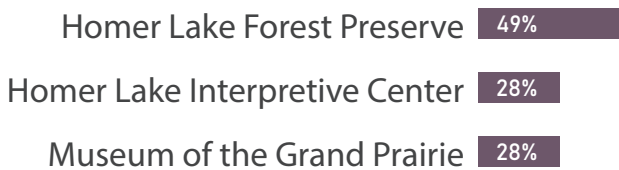


Figure 16. Facility Visitation General (2022 Needs Assessment)

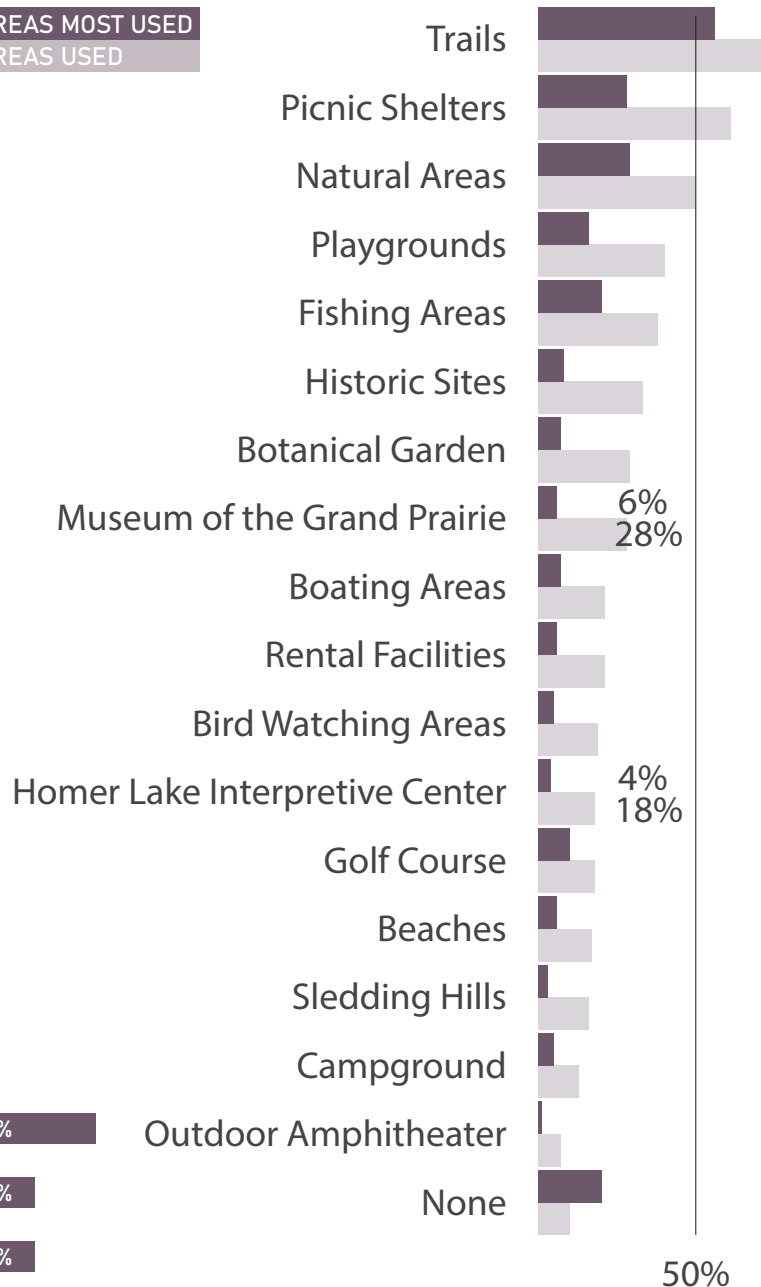


Figure 17. Facilities and Areas Used by Respondents (2014 Needs Assessment)



Figure 15. Frequency of Homer Lake Interpretive Center Visitation (2022 Needs Assessment)

Ratings of existing general environmental and cultural programming/spaces in both the 2014 and 2022 surveys was high. In 2014, most respondents felt their needs were met for “nature museums” and environmental/cultural educational programming (Figure 18). In 2022, nearly half of the respondents had participated in education

programming in the District. Of those users, most were completely or somewhat satisfied with the programs. A very small percentage were dissatisfied (Figure 19). Nearly 60% of 2022 respondents had visited exhibits in the District, and most were satisfied with them (Figure 19). When asked specifically about the HLIC, 2022 respondents

who identified as users were generally satisfied. Satisfaction ratings were highest for programming, but were still positive for exhibits, live animal viewing, staff interactions, and restroom facilities (Figure 20). Generally, survey respondents have expressed their satisfaction with existing environmental and cultural offerings.

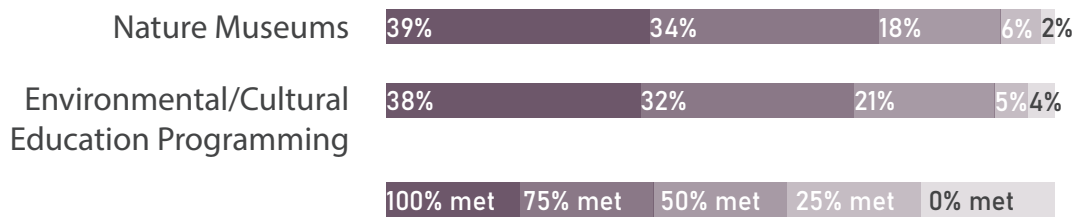


Figure 18. How Well Recreational Facilities and Areas Meet the Needs of Respondents (2014 Needs Assessment)

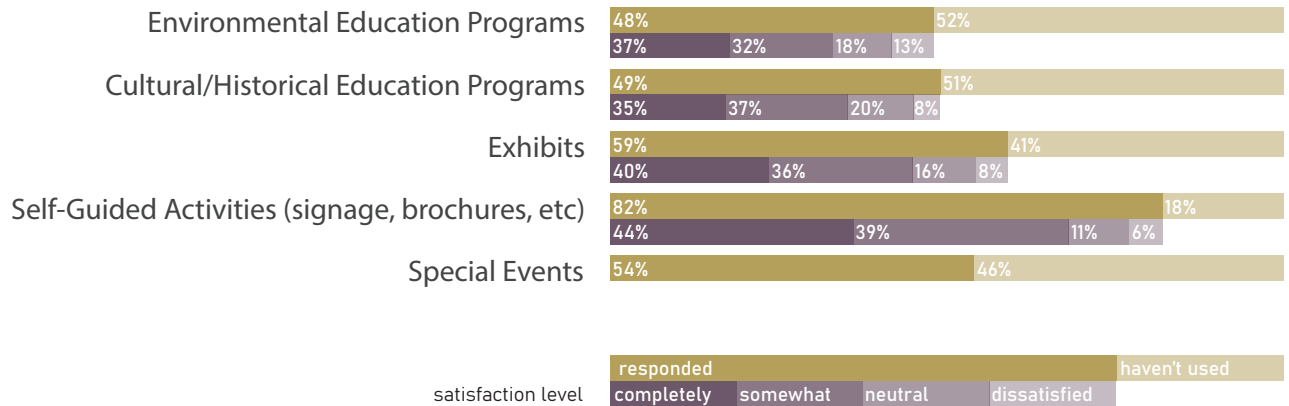


Figure 19. Satisfaction level of users for general District offerings (2022 Needs Assessment)

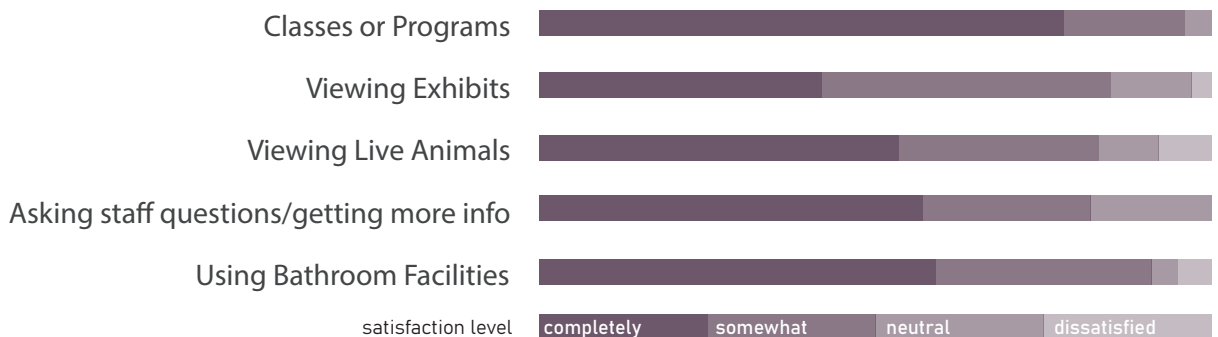


Figure 20. Satisfaction level of HLIC users (2022 Needs Assessment)

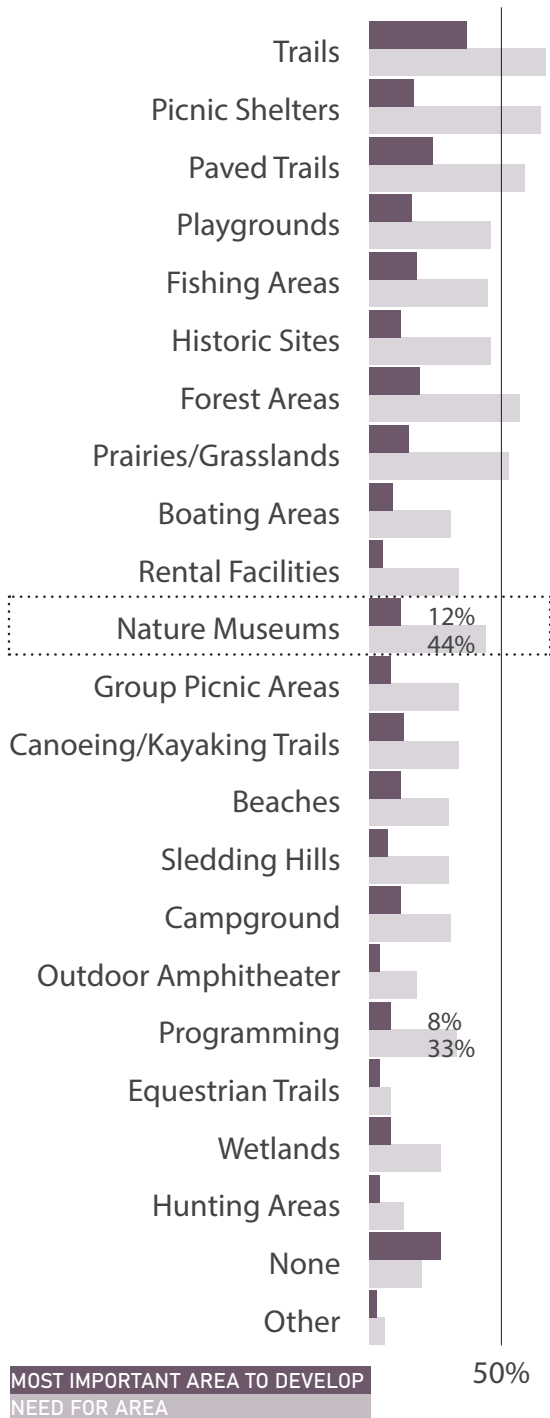


Figure 21. Need for Facilities/Areas & Most Important for Development (2014 Needs Assessment)

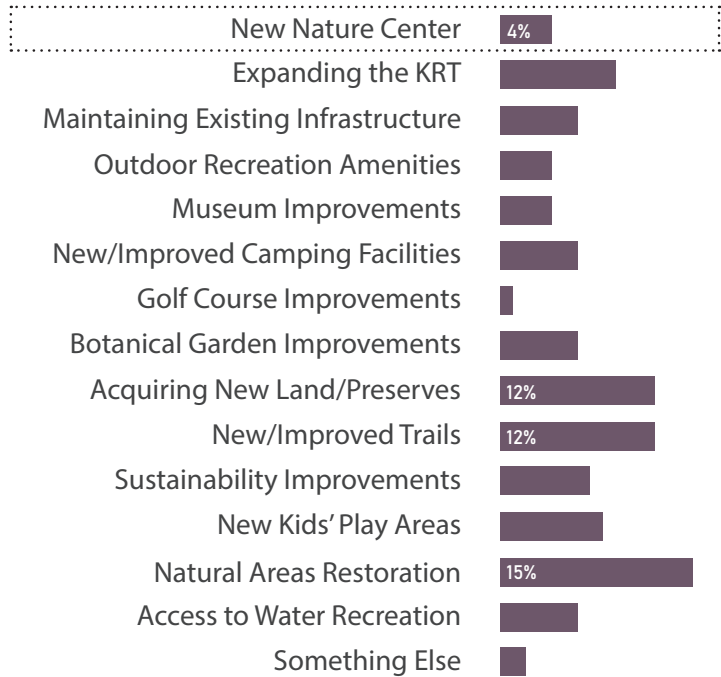


Figure 22. Priorities for spending tax funds (2021 Qualitative Data Gathering for Comprehensive Plan)



Figure 23. Priorities for the District to pursue (2022 Needs Assessment)

There are few consistent desired priorities among residents when asked about prospective improvements. Natural areas restoration/expansion, improving/expanding trails, and acquiring

land for natural areas are commonly ranked high among respondents. When asked about the need for an area of facility, 44% responded that a “nature museum” was a needed facility. However, when asked

about the most important areas for the Forest Preserve to develop, this number dropped to 12% (Figure 21). This is not surprising because survey respondents are typically less judicious with their selections

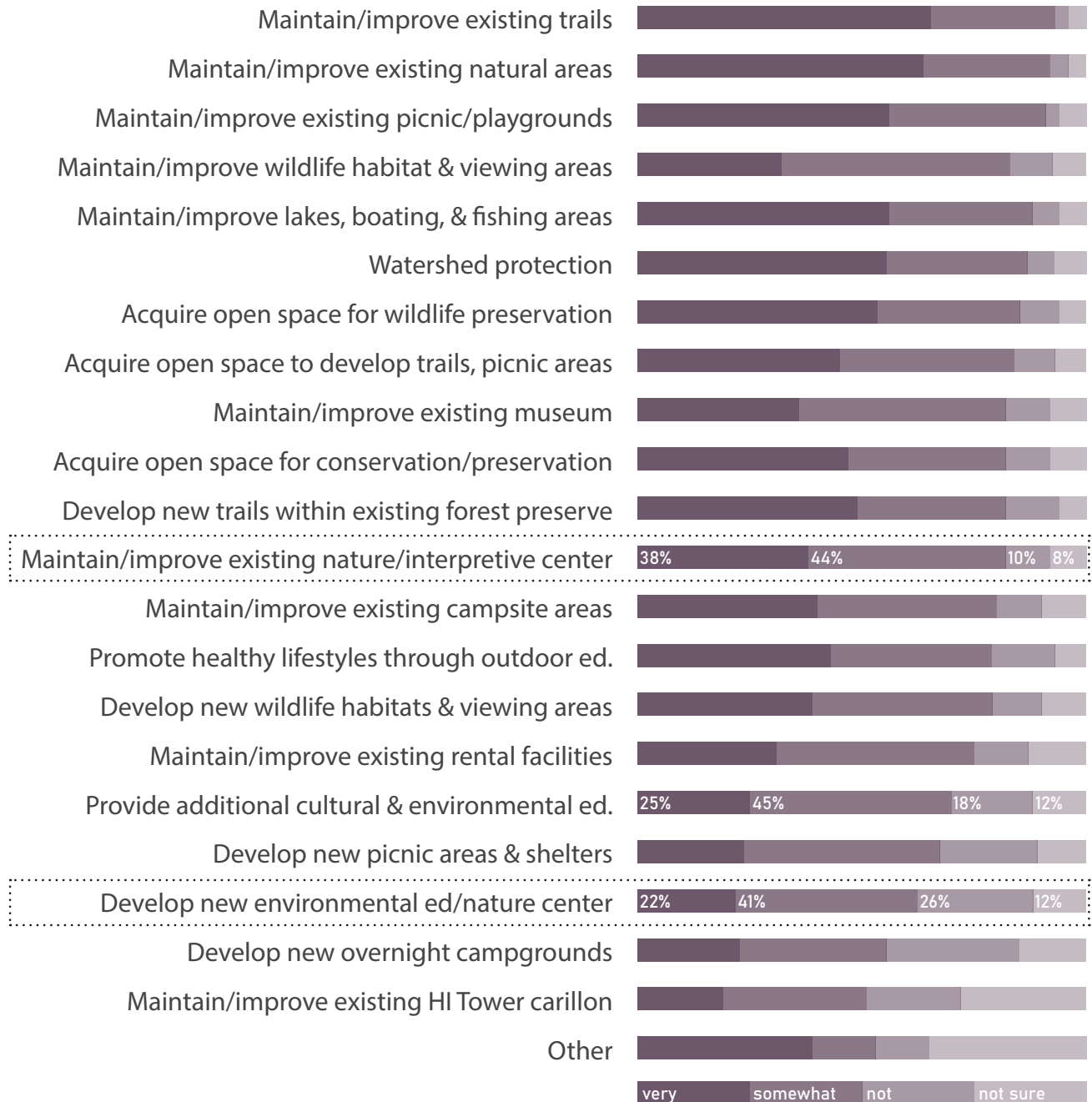


Figure 24. Importance Respondents Place on Possible Actions or Improvements (2014 Needs Assessment)

when they are not asked to prioritize. Because nearly three quarters of respondents found their needs were already being met by existing “nature museums,” they may not have prioritized additional development (Figures 18, 19). Although improving the existing nature center or building a new center are not top priority for survey participants, 20% of

respondents in 2022 ranked it in their top 4 priorities to pursue, suggesting demand for improvements (Figure 23). When asking specifically about prospective activities of greatest interest throughout the District, programming, self-guided activities, and special events were all highly selected, but there was also a relatively high interest in viewing

exhibits (Figure 25). However, when compared to activities respondents had participated in at the Homer Lake Interpretive Center, viewing exhibits was far more popular than attending classes or programs (Figure 26). This suggests a potential opportunity for growth. Both outdoor and indoor program space were rated highly in spaces of greatest interest for a new facility (Figure 28).

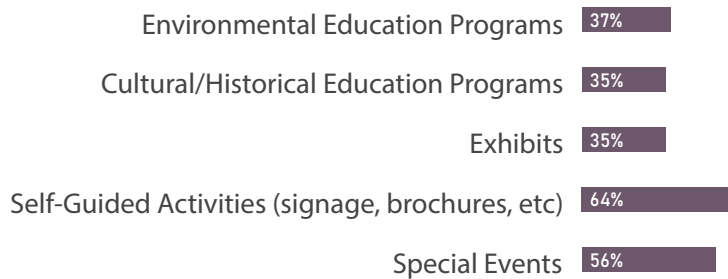


Figure 25. Activities of greatest interest District-wide (2022 Needs Assessment)

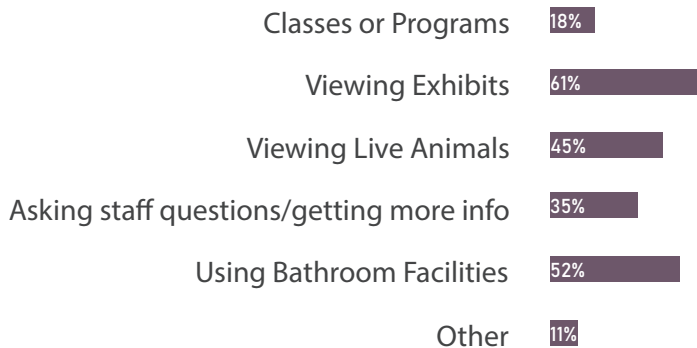


Figure 26. Activities participated in at the HLIC (2022 Needs Assessment)

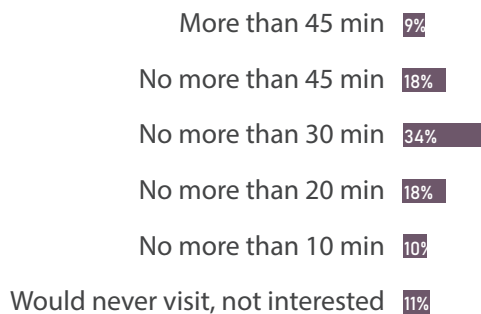


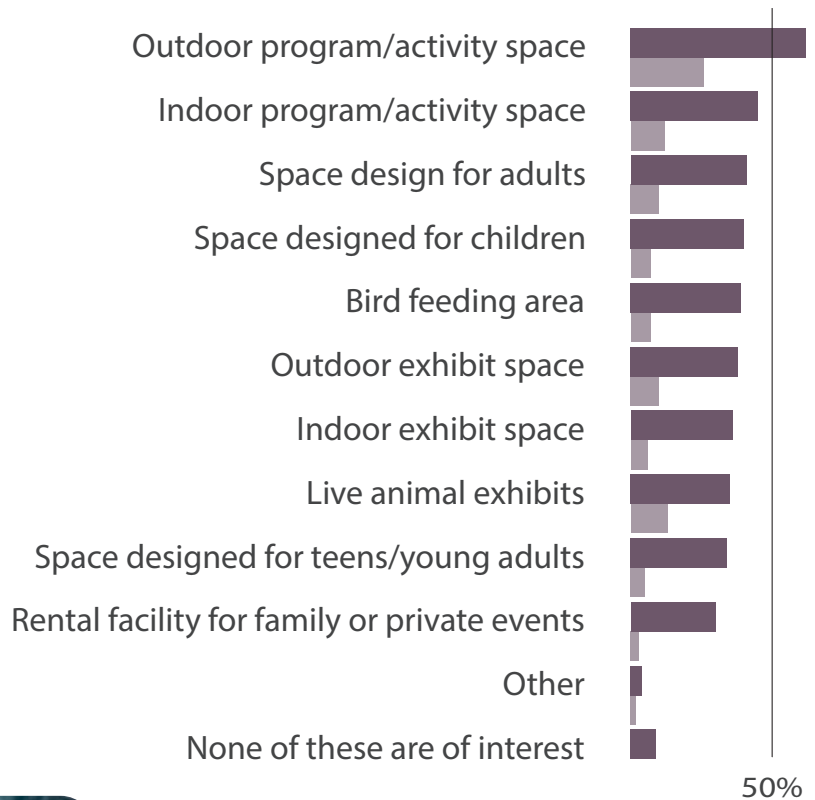
Figure 27. Distance willing to travel to a nature center (2022 Needs Assessment)

Viewing live animals at the existing HLIC was nearly as popular as viewing general exhibits (Figure 26). There was a slightly higher demand for live animal exhibits than typical indoor exhibit space when asking about a new nature center (Figure 28).

New outdoor program/activity space had the highest interest rating for a new nature center, which aligns with the popularity of outdoor programmed space throughout the District such as the Homer Lake Playscape, Middle Fork Beach, and Mabery Gelvin Botanical Garden (Figure 28). This is an opportunity for a unique landscape space designed for programming.



In 2022, when asking directly whether the District should build a new nature center, renovate the existing, or not move forward with a new facility, renovation/addition to the existing HLIC is favored (Figure 29). Thirty-seven percent of respondents were in favor of a new facility, whether that be at Homer Lake or another location (Figure 29). Respondents favored renovation at thirty-eight percent as highly important compared to twenty-two percent for a new nature center when ranking District priorities in 2014 (Figure 24). While the ratio between building new or renovating is similar between the two surveys, there is slightly higher support in 2022 than 2014.



of interest (choose more than one)
greatest interest (choose one)

Figure 28. Most desired spaces in a new nature center (2022 Needs Assessment)

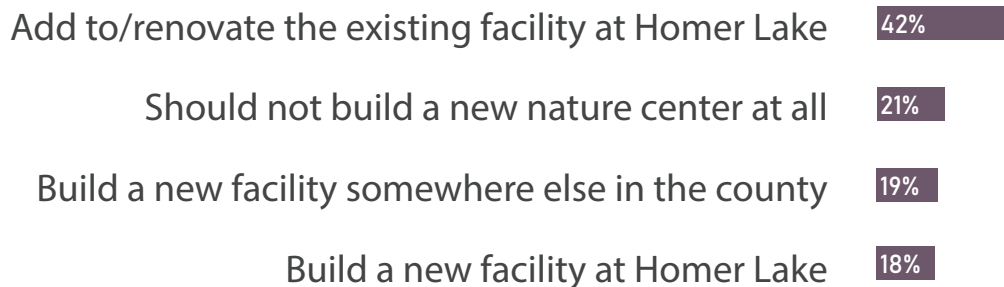
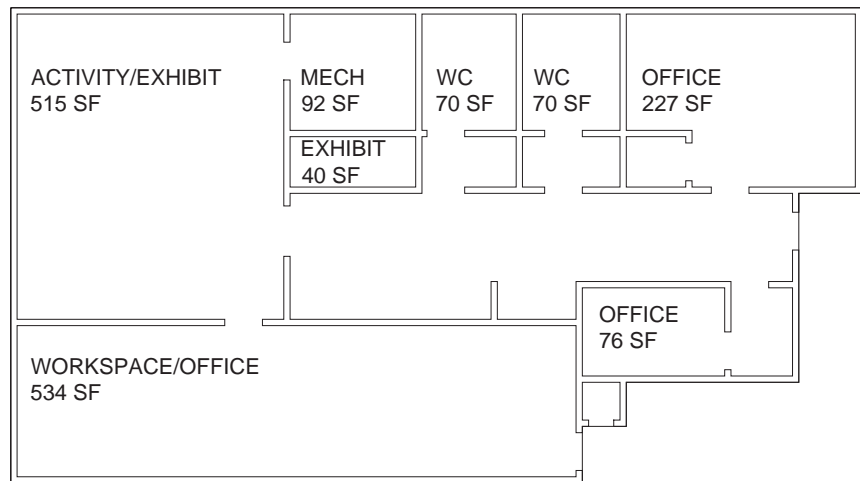


Figure 29. Opinions on a prospective new nature center (2022 Needs Assessment)

Existing Facility

The existing Homer Lake Interpretive Center was constructed in 1975 and is approximately 2100 square feet. Although some capital improvements have been made in recent years, the space is not functional for daily staff operations, programs, animal displays/care, or walk-in patrons. Adequate space is an issue for programming. For all programs for children (even if they are scheduled as outdoor programs), an indoor facility backup is needed. The only space for programs doubles as the exhibit space, making exhibit space inaccessible to the general public while a program is taking place. The exhibit space is also relatively small at 515sf. In comparison, the education center classroom at the Museum of the Grand Prairie where many other programs are held is 900sf. A typical program may have twenty children participating, but space for parents and guardians must also be accounted for in the facility. The restrooms are also not ideal during programs because many younger participants require assistance in the restroom, making them temporarily inaccessible to general patrons during that time. The space for animal care is not large enough and requires staff to encroach into the exhibit area for regular maintenance of the enclosures. In order to make the space more functional with its current footprint, not only would major renovations be required, they would not necessarily solve the lack of square footage needed for more functional operations.

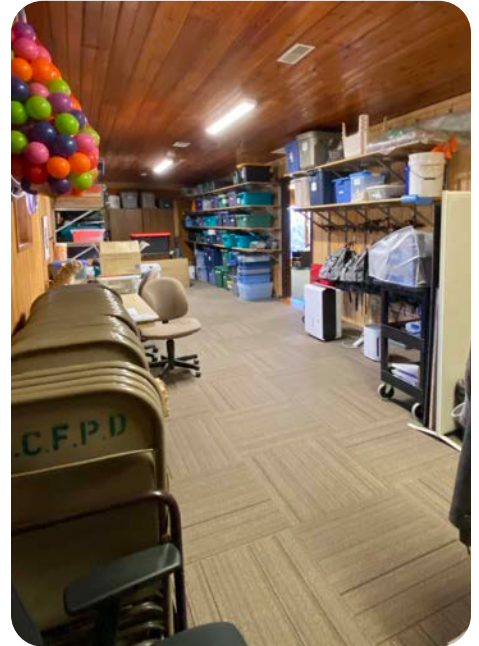


**Existing Homer Lake
Interpretive Center
2100 sf**



Homer Lake Interpretive Center Exhibit Space

Recent Capital Improvements:
 2001 - Minor interior renovations
 2010 - Mold inspections
 2013 - Moisture mitigations
2016 - ADA sidewalk
2019 - Roof replacement
 2021 - Garage installation



Staff prep/storage/
workspace



Limited staff space



Staff spaces located in a corridor



Limited animal care space



Program held in storage room



Program held in staff offices



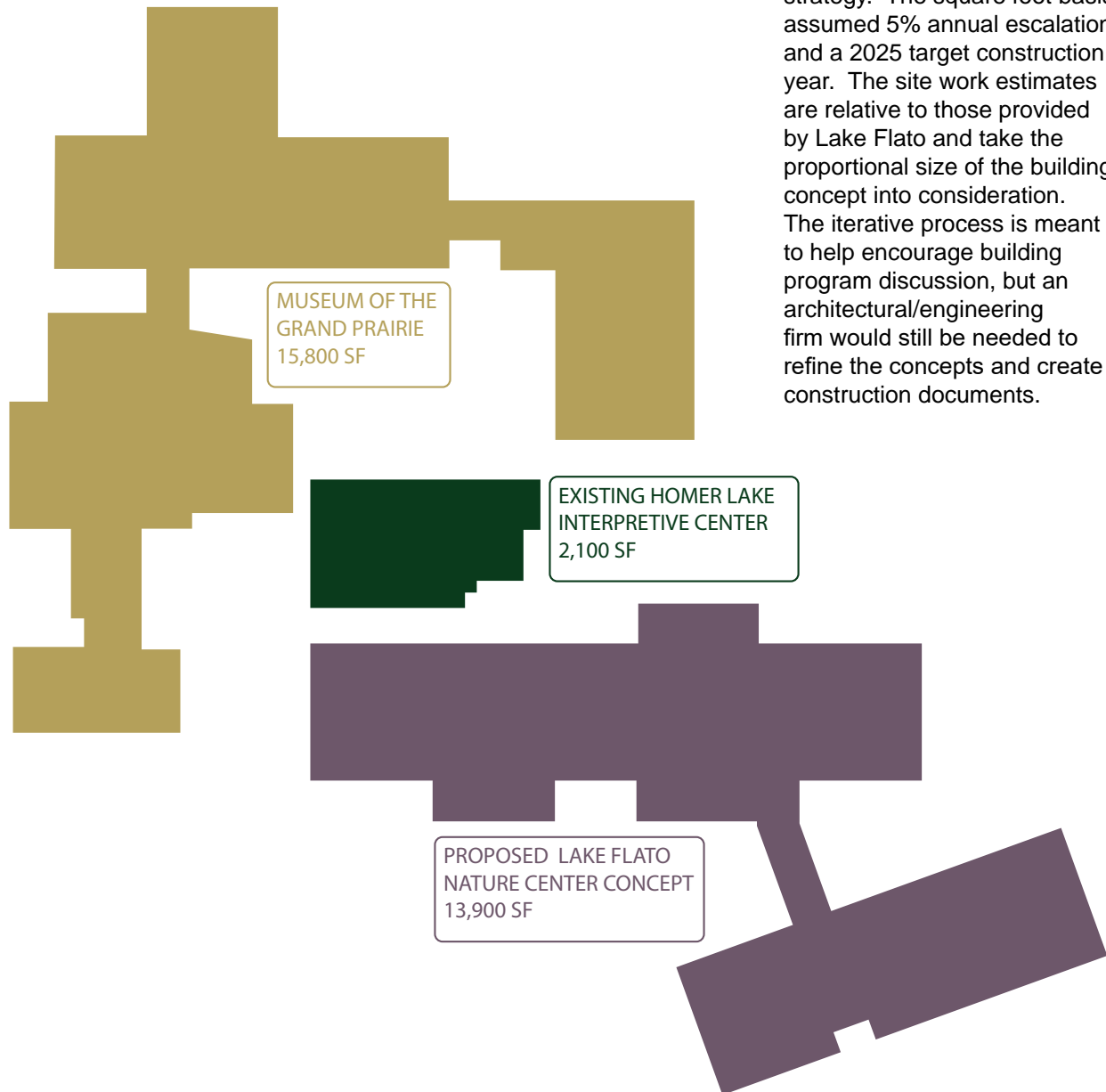
Homer Lake Interpretive Center Exhibit Space: During programs, exhibits must be moved to make space for participants.

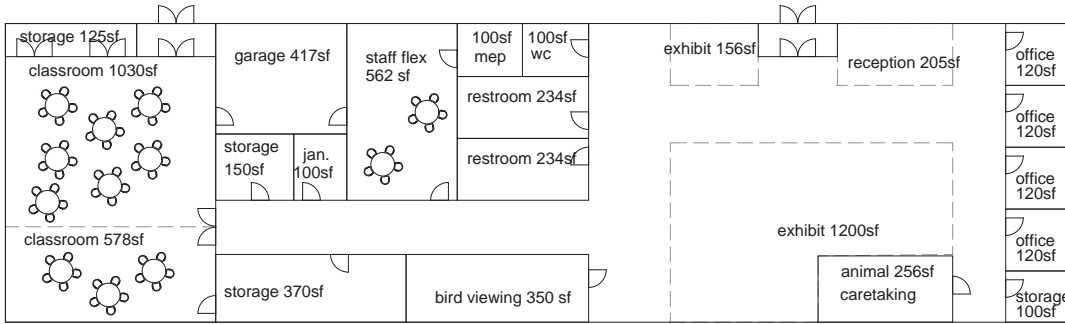
Refining Concepts

After reviewing the concept design presented by Lake Flato, staff studied the footprint of existing facility in relation to the proposed Lake Flato building and the Museum of the Grand Prairie to better understand the scale of the design. Staff discussed aspects of the design that were favorable and those which were less desirable. Staff also

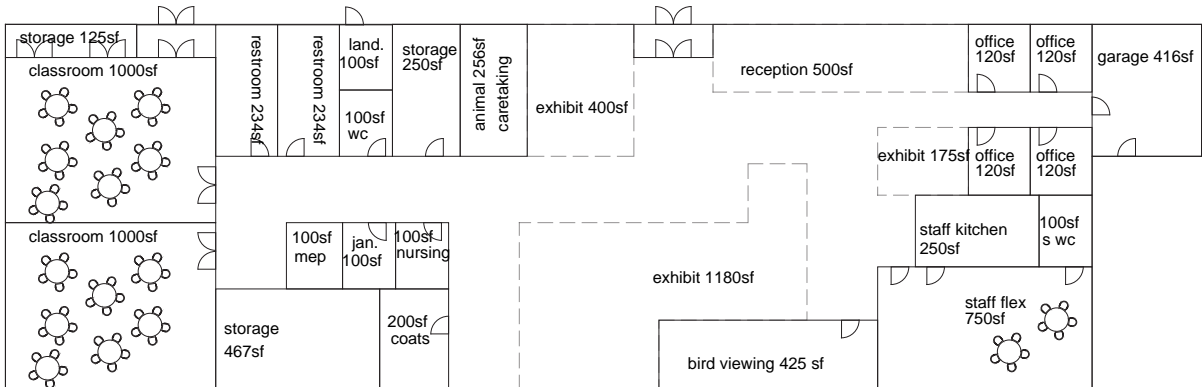
developed additional iterations of the facility building program to study the highest priority spaces and their associate costs. Staff weighed exhibit space, staff space, classroom space, and support areas such as storage and reception areas. In general, the overall size of the proposed concept facility was relatively large, nearly the size of the entire

Museum of the Grand Prairie. When considering potential cost of a facility that large, staff developed several iterative floorplans to help identify the most important spaces for general operations and those identified in public feedback. Based on the cost estimate provided by Lake Flato, staff prorated estimates for each concept iteration based on a cost per square foot estimating strategy. The square foot basis assumed 5% annual escalation and a 2025 target construction year. The site work estimates are relative to those provided by Lake Flato and take the proportional size of the building concept into consideration. The iterative process is meant to help encourage building program discussion, but an architectural/engineering firm would still be needed to refine the concepts and create construction documents.

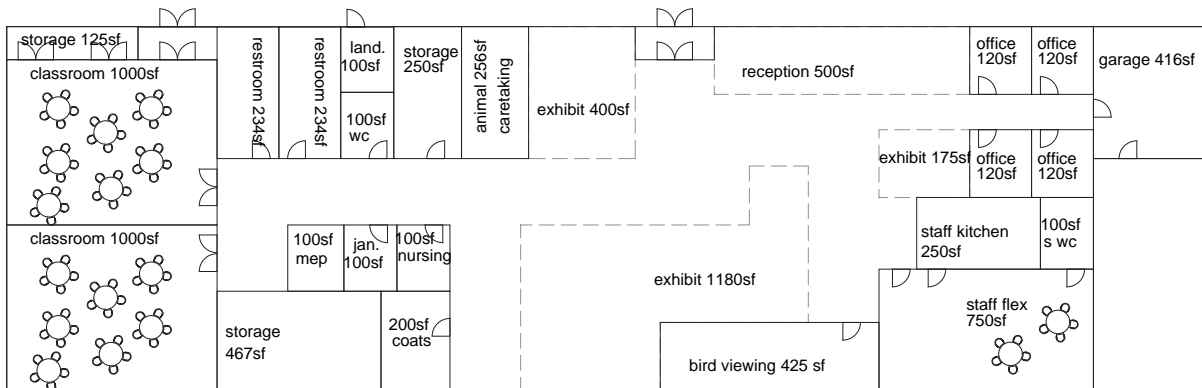




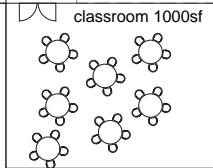
9,200sf
 Building Construction: \$4.8 million
 Site Work: \$1.8 million
 A/E: \$800,000
 Total: \$7.4 million

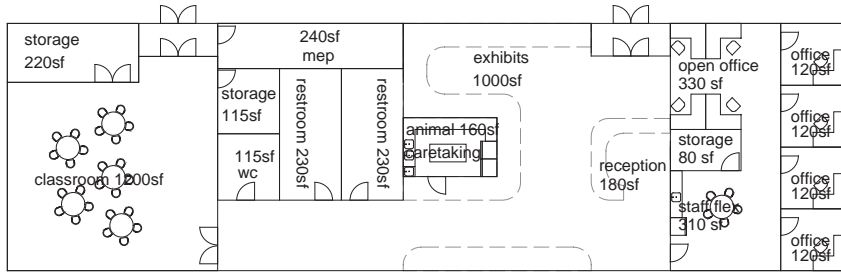


11,800sf
 Building Construction: \$6.2 million
 Site Work: \$2.3 million
 A/E: \$1.0 million
 Total: \$9.5 million

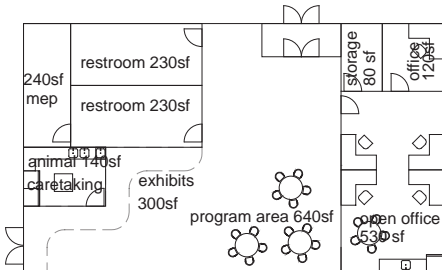


12,800sf
 Building Construction: \$6.7 million
 Site Work: \$2.5 million
 A/E: \$1.1
 Total: \$10.3 million

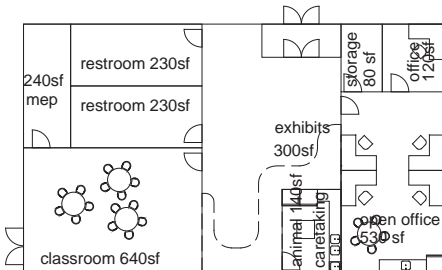




6,000sf
 Building Construction: \$3.2 million
 Site Work: \$1.2 million
 A/E: \$500 thousand
 Total: \$4.9 million



3,000sf
 Building Construction: \$3.2 million
 Site Work: \$1.2 million
 A/E: \$500 thousand
 Total: \$4.9 million



3,000sf
 Building Construction: \$3.2 million
 Site Work: \$1.2 million
 A/E: \$500 thousand
 Total: \$4.9 million

Funding Scenarios

Assumes PARC Application is Successful

13,900sf Facility (Lake Flato Concept Plan)

Grants	\$4,300,000	PARC	\$2,500,000
		Public Museum	\$750,000
		Clean Energy (net zero)	\$1,000,000
		Small Grants	\$50,000
Match/Donations	\$6,900,000	CCFPD	\$6,900,000
		Total	\$11,200,000

6,000sf Facility

Grants	\$3,800,000	PARC	\$2,500,000
		Public Museum	\$750,000
		Clean Energy (net zero)	\$500,000
		Small Grants	\$50,000
Match/Donations	\$1,100,000	CCFPD	\$1,100,000
		Total	\$4,900,000

Assumes PARC Application is not Successful

13,900sf Facility (Lake Flato Concept Plan)

Grants	\$1,800,000	PARC	\$0
		Public Museum	\$750,000
		Clean Energy (net zero)	\$1,000,000
		Small Grants	\$50,000
Match/Donations	\$9,400,000	CCFPD	\$9,400,000
		Total	\$11,200,000

6,000sf Facility

Grants	\$1,300,000	PARC	\$0
		Public Museum	\$750,000
		Clean Energy (net zero)	\$500,000
		Small Grants	\$50,000
Match/Donations	\$3,600,000	CCFPD	\$3,600,000
		Total	\$4,900,000

Assumes PARC/Clean Energy Applications are not Successful

13,900sf Facility (Lake Flato Concept Plan)

Grants	\$800,000	PARC	\$0
		Public Museum	\$750,000
		Clean Energy (net zero)	\$0
		Small Grants	\$50,000
Match/Donations	\$10,400,000	CCFPD	\$10,400,000
		Total	\$11,200,000

6,000sf Facility

Grants	\$800,000	PARC	\$0
		Public Museum	\$750,000
		Clean Energy (net zero)	\$0
		Small Grants	\$50,000
Match/Donations	\$4,100,000	CCFPD	\$4,100,000
		Total	\$4,900,000

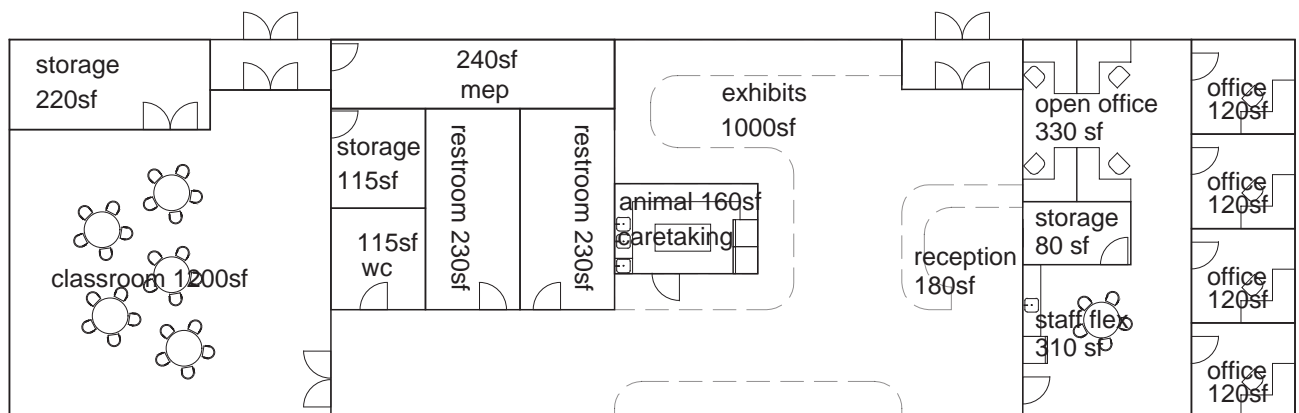
There are limited large capital grants which are a good fit for the prospective nature center. An application for an Illinois Department of Natural Resources (IDNR) Public Museum Capital Grant (PMC) would be highly competitive and an award would be likely. However, an application for a similar capital grant administered through IDNR, the Park and Recreational Facility Construction Program grant, would be less competitive because the scoring favors more traditional indoor recreation. The Illinois Clean Energy Foundation offers a net zero grant, but it is only awarded after the facility is proven to be net zero for a year. The funds available via Illinois Clean Energy are also likely to decline in future years. Staff are continuing to research large funding sources, but are also considering the possibility that those may be limited and will effect the target project size.

Recommendations

After revisiting earlier planning efforts, reviewing the concept design from Lake Flato, developing a “why” statement for the project, studying past and recent community input surveys, and work-shopping prospective conceptual spatial layouts, staff created a matrix of scenarios to examine the benefits and

drawbacks to projects of various scales. At this time, staff are recommending a new facility of approximately 6,000 square feet. While not particularly favored in recent surveys, building new instead of renovating the existing center addresses the spatial limitations. However, a facility nearly the size of the

Museum of the Grand Prairie would likely be too large for the needs of the District and too costly in both the short term for construction and long term staffing/maintenance. The plan provided is in an early conceptual phase but is a useful tool in generating estimates, studying potential sites, and creating timelines.



Medium Facility 6,000sf
 Building Construction: \$3.2 million
 Site Work: \$1.2 million
 A/E: \$500 thousand
 Total: \$4.9 million



SCENARIO	BENEFITS	DRAWBACKS
<p>LARGE, FLAGSHIP FACILITY +/- 14,000SF</p>	<p>Room to grow</p> <p>Regional draw</p> <p>More exhibit space</p> <p>Improved staff/operational space</p> <p>Space for improved/expanded programs</p>	<p>High initial costs</p> <p>High maintenance/replacement costs</p> <p>High site impact</p> <p>Long fundraising lead time</p> <p>Not favored in needs assessments</p>
<p>MEDIUM FACILITY +/- 6,000SF</p>	<p>Feasible initial costs</p> <p>Potential for phasing</p> <p>Improved staff/operational space</p> <p>Space for improved/expanded programs</p> <p>Shorter fundraising lead time</p>	<p>Medium site impact</p> <p>Less room to grow</p> <p>Medium maintenance/replacement costs</p>
<p>REPLACEMENT FACILITY +/- 3,000SF</p>	<p>Feasible initial costs</p> <p>Potential for phasing</p> <p>Improved staff space</p> <p>Low site impact</p> <p>Less fundraising lead time</p> <p>Favored in Needs Assessments</p>	<p>Limited program space</p> <p>Less room to grow</p> <p>Less of a destination</p>
<p>RENOVATION FACILITY +/- 2,000SF</p>	<p>Feasible initial costs</p> <p>Improved staff space</p> <p>Low site impact</p> <p>Less fundraising lead time</p> <p>Favored in Needs Assessments</p>	<p>Limited program space</p> <p>Less room to grow</p> <p>Less of a destination</p> <p>Limited staff/operational space</p> <p>Limited animal care-taking space</p> <p>Limited phasing ability</p>