



View of the pond boardwalk with the existing Trailside Museum building beyond (Pressley Associates 2007).

## E. Advisory Committee and Review Comments

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1. Briefing Materials
2. May 7, 2008 Presentation
3. Sign-in Sheet
4. Preliminary Design Comments
5. Advisory Meeting Summary and Outcome





# Briefing Materials

## TRAILSIDE MUSEUM MASTER PLAN

Blue Hills Reservation  
Milton, Massachusetts

Massachusetts Department of Conservation & Recreation

April 28, 2008



# Trailside Museum Master Plan

## Introduction

The Trailside Museum at the Blue Hills Reservation was founded in 1959 with the mission:

to promote awareness, appreciation and active concern for our environment among people of all ages and to provide enjoyable, affordable environmental education by drawing upon the natural resources of the Blue Hills Reservation, Trailside and beyond.

The Museum is operated by the Massachusetts Audubon Society (MAS) through a 5-year permit agreement with the Department of Conservation and Recreation (DCR), who manage the Blue Hills Reservation. In June 2007, DCR engaged the project team of Pressley Associates, Schwartz/Silver Architects, Bryant Associates, ObjectIDEA, Ursa International and LEC Environmental Consultants to prepare a Master Plan for the Trailside Museum that provides a ten-year vision for the buildings, site and educational exhibits.



## Department of Conservation and Recreation (DCR)

The Massachusetts Department of Conservation and Recreation (DCR) was established in 2003 as a merger of the former Metropolitan District Commission (MDC) and the Department of Environmental Management (DEM). The mission of the DCR is to exercise the care and oversight for the natural, cultural and historic resources of the Commonwealth and provide quality outdoor recreational opportunities that are environmentally sustainable, affordable and accessible to all citizens.

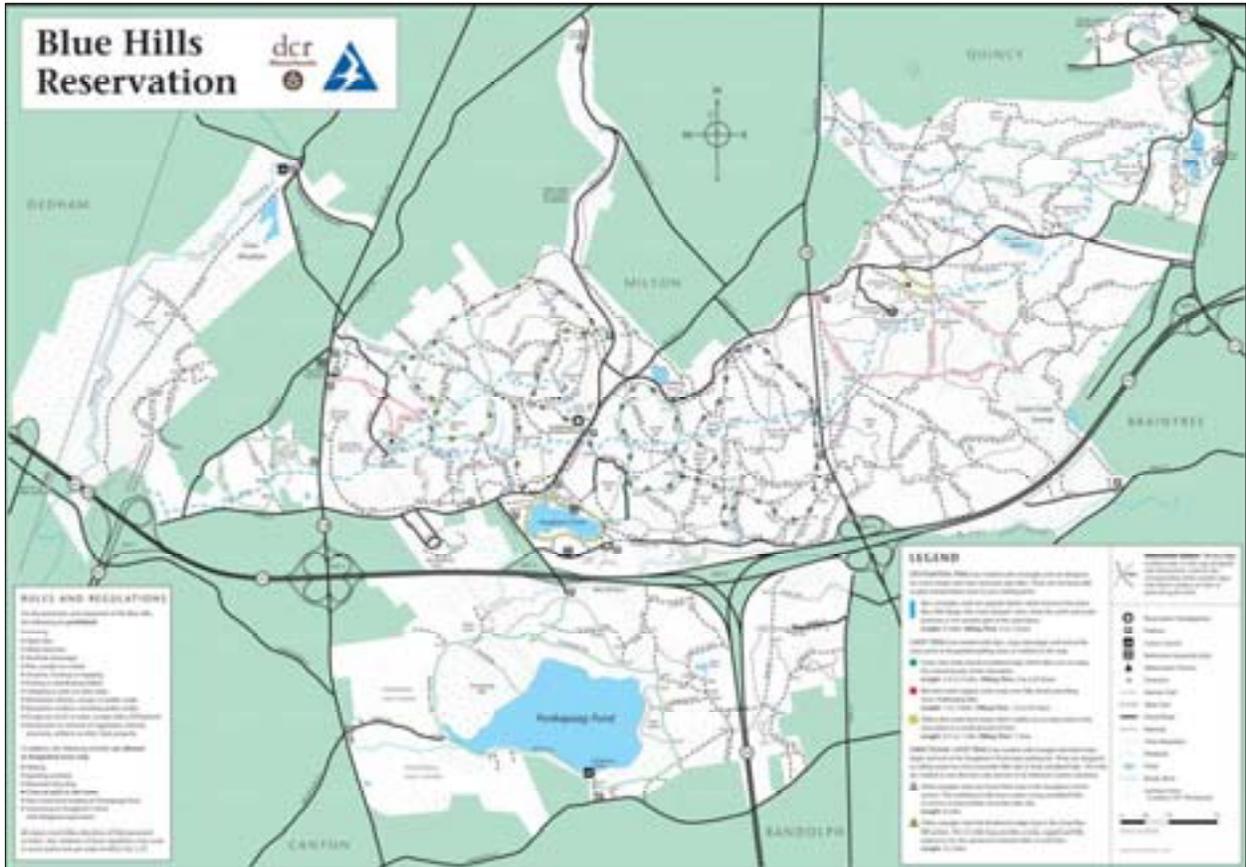
## The Blue Hills Reservation

The Blue Hills Reservation is the Commonwealth's largest urban park, encompassing over 7,000 acres from Quincy to Dedham, Milton to Randolph. It's most distinguishing characteristic is Great Blue Hill, which reaches a height of 635 feet and is the highest of the twenty-two hills in the Blue Hills chain. From the summit, park visitors can see over the entire metropolitan Boston area. With its scenic views, varied terrain and 125 miles of trails, the Blue Hills Reservation offers year-round enjoyment for visitors. The Metropolitan Parks Commission purchased the lands of Blue Hills Reservation in 1893; the natural resources of the Blue Hills include geologic features and habitats that support a diverse assemblage of species. Recreational trails traverse upland and bottomland forests, marsh, swamp and pond edges, and meadows and the reservation provides a wide range of recreational activities and interpretive programs. The combination of significant natural, cultural and recreational resources makes the Blue Hills Reservation one of the Commonwealth's most important, complex and popular parks.

## Massachusetts Audubon Society

Founded in 1896, the Massachusetts Audubon Society (MAS) is the oldest independent state Audubon

society in the nation and the largest environmental organization in New England.<sup>1</sup> The Society protects more than 29,000 acres of conservation land in Massachusetts including 58 wildlife sanctuaries, 40 of which are open to the public and serve as the location for its education and conservation programs.<sup>2</sup> MAS conducts educational programs for nearly 15,000 schoolchildren each year, and advocates for sound environmental policies at the local, state and federal levels. In their 2000-2010 Strategic Plan, MAS defined their roles as a “leader and catalyst for conservation, by acting directly to protect the nature of Massachusetts and by stimulating individual and institutional action through education, advocacy and habitat protection.”



Trail map for the Blue Hills Reservation (courtesy DCR)

### Blue Hills Trailside Museum

The Trailside Museum is the interpretive center for the Blue Hills Reservation and is managed by Massachusetts Audubon Society. The Nature Center/Museum is open Wednesday through Sunday, and Monday holidays, 10 a.m. to 5 p.m. The museum building contains indoor exhibits that introduce visitors to the native wildlife and natural history of the Reservation. Outside, the museum offers live animal exhibits featuring a River Otter, Red-tailed Hawks, Snowy Owl and other native wildlife. The museum requires a small admission fee and MAS offers free weekend programs with the museum admission. MAS also provides a wide range of special programs both at Trailside and at other locations, such as local school programs. The summer camp at Chickatawbut Hill is run by Trailside staff.

<sup>1</sup> Massachusetts Audubon Society. "Strategic Plan 2000-2010." (Lincoln, MA: Massachusetts Audubon Society, 2000), 1.

<sup>2</sup> Mass Audubon. Strategic Plan, 6.



**Overview**

The 9-acre site contained within the Trailside Museum Master Plan project area includes two large parking areas, the museum building complex, the exterior live animal (zoological) exhibits and their associated support buildings, the historic comfort station (sanitary building), a pond, and the two major trailheads leading to the summit of Great Blue Hill. Operations at Trailside Museum are governed by the existing 5-year permit agreement/MOU between the Massachusetts Audubon Society (Mass Audubon) and the Department of Conservation and Recreation. Two adjacent facilities, the Blue Hills Ski Area and the Meteorological Observatory also use the Trailside parking areas. The Red Dot Trail, which is the most popular trail in the Blue Hills Reservation, begins in the south parking lot near the Trailside Museum.

**Architecture and Interiors**

The buildings and structures at the Trailside Museum include the museum complex (visitor wing, exhibit wing and lecture wing), historic sanitary building, maintenance garage, and several sheds and barns associated with the live animal exhibits. The condition of these features varies considerably. The museum complex resembles a New England farmhouse with an attached barn. Successive renovations to the building resulted in a broad range of quality in basic construction and systems. Staff areas are fragmented and public spaces are linked by awkward stairs and ramps. A detailed inventory and evaluation of the



*Main path leading to museum visitor wing*

architecture and interiors completed by Schwartz/Silver Architects has revealed that the lecture wing (barn), constructed c.1975 is in relatively good condition; it houses public program space on the upper floor with animal care and a woodshop below. The 1956 exhibit wing is in the poorest condition, with outdated exhibits, which except for a few changing displays, have not changed in fifty years. While the former c.1890 visitor wing is in fair to good condition, it has some serious issues related to accessibility and the dismal conditions of the animal quarantine area on the lower cellar level. Overall, the entire building and its approach have areas with substantial deterioration that require urgent attention and do not meet current standards for universal access and museum facilities.



*Museum exhibit & lecture wings from the pond.*

Interior live animal exhibits include the Great Horned Owl, possum, skunk, bees and poisonous snakes. All animal exhibits would benefit from increased access to natural light and ventilation and the poisonous snake enclosures present a dangerous situation because they are accessed directly through the public gallery space. The program animal holding area and quarantine facilities in the basement contain cages, small office and storage, with reptiles kept in the furnace room. All animal facilities need substantial improvement including increased access to sunlight, cleanable surfaces with floor drains, increased ventilation, and better circulation for both on and off-site programs.



*Otter enclosure*

### **Landscape and Site**

The Trailside Museum site consists of approximately 9.3 acres within the Blue Hills Reservation on Canton Avenue (Route 138) at the base of Great Blue Hill. The site is distinguished by a level plateau on which two parking lots are sited between a man-made pond. The museum building and its outdoor exhibit loop are located on the east slope of Great Blue Hill. The museum setting is awkward as the main entrance is located perpendicular to both parking areas and is not visible from either parking area or Canton Avenue. The two bituminous parking lots provide striped parking spaces for approximately 208 vehicles; these parking areas are most heavily used during ski season, fall weekends and during special events.



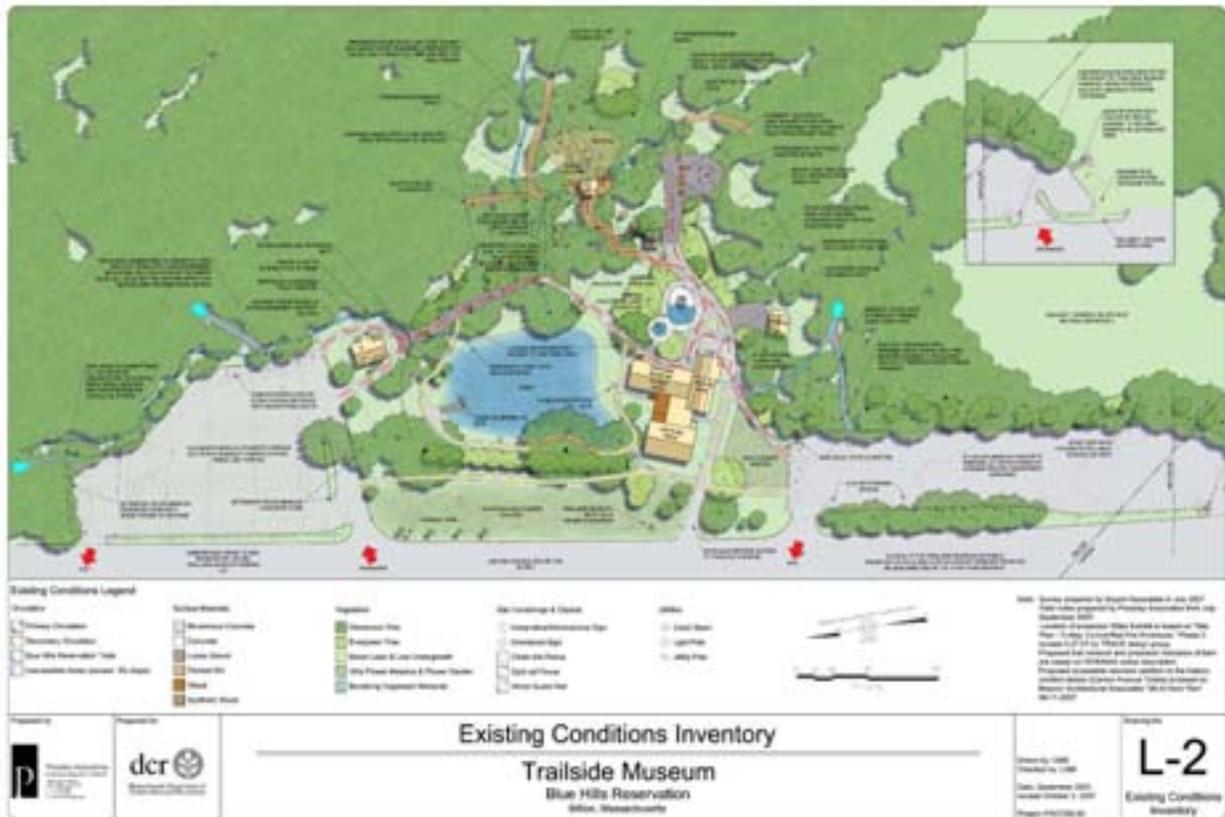
*Pond and adjacent wetland showing sedimentation.*

Unfortunately, most of the striped spaces do not meet the minimum requirements for parking spaces. Bus access is also very difficult to accommodate because of the narrow width of the plateau, making full bus turn around impossible. Canton Avenue is currently striped to prevent left turns, so visitors must enter both parking lots at their southern ends, heading northbound on Route 138, and exiting onto the northbound lane from the north end of both lots.

Three trailheads lead from the Trailside area to the summit of the Great Blue Hill, Eliot Tower and the Meteorological Observatory. Because of the location of the museum and the design of the exhibit loop, many of the existing paths within the museum environs do not meet current accessibility standards and the museum entrance location and outdoor site orientation is very confusing to visitors. Site conflicts also exist between maintenance activities, transport of program animals and the public.

The exterior live animal exhibits are enclosed by an 8' fence, required by the U.S.D.A.; five existing exterior enclosures provide space for the River Otter, turtles, Snowy Owl, White-tailed Deer, and Red-tailed Hawks. DCR and MAS are currently working on a new fox and Turkey Vulture enclosure funded by NSTAR. The outdoor enclosures are free to the public and are open during the day even when the museum is closed. While these exhibits are popular for visitors, all of the current enclosures do not provide sufficient space, off-exhibit holding areas, keeper access, vegetation and natural habitat areas, visitor set-backs, and interpretive materials consistent with current AZA (Association of Zoos and Aquariums) standards.

Given the location of the museum at the base of Great Blue Hill, runoff from the adjacent slope is a serious issue, as is stormwater runoff to and from the large parking areas. Substantial sedimentation has occurred in the pond and it is in urgent need of both upslope drainage improvements and dredging. The natural areas of the site are dominated by upland forest and the pond and surrounding wetland areas. The pond, intermittent stream and associated wetlands are protected as Wetland Resource Areas under the Massachusetts Wetlands Protection Act. The Trailside Museum project area is contained within the boundary of a Multiple Resource Area listed on the National Register of Historic Places in 1980, and the Multiple Property Listing for the "Metropolitan Park System of Greater Boston," designated in 2003. Only the comfort station (sanitary building) is identified as individually significant, but DCR files also contain a potential archeological site.



## Operations

The existing 5-year permit agreement between the Department of Conservation and Recreation and the Massachusetts Audubon Society forms the framework for the joint management, operation and maintenance of the Trailside Museum facility. The Commonwealth provides a subsidy of approximately \$425,000 appropriated by the Legislature for the museum, but the MAS current cost of operations is approximately \$600,000. Both MAS and DCR Blue Hills District contribute services toward the maintenance of the site and buildings, but current operational and capital funds are not sufficient to support the facility's maintenance, management, staffing and programmatic needs. MAS provides a wide assortment of popular on-site and off-site programs with a special emphasis on live animals.

## Master Plan Goals and Objectives

After a careful inventory and evaluation of existing conditions, including buildings, site and exhibits, the project team worked collaboratively with DCR and MAS to re-affirm the mission of the Trailside Museum, and to consider appropriate alternatives for its future. Key principles for the future museum facilities include:

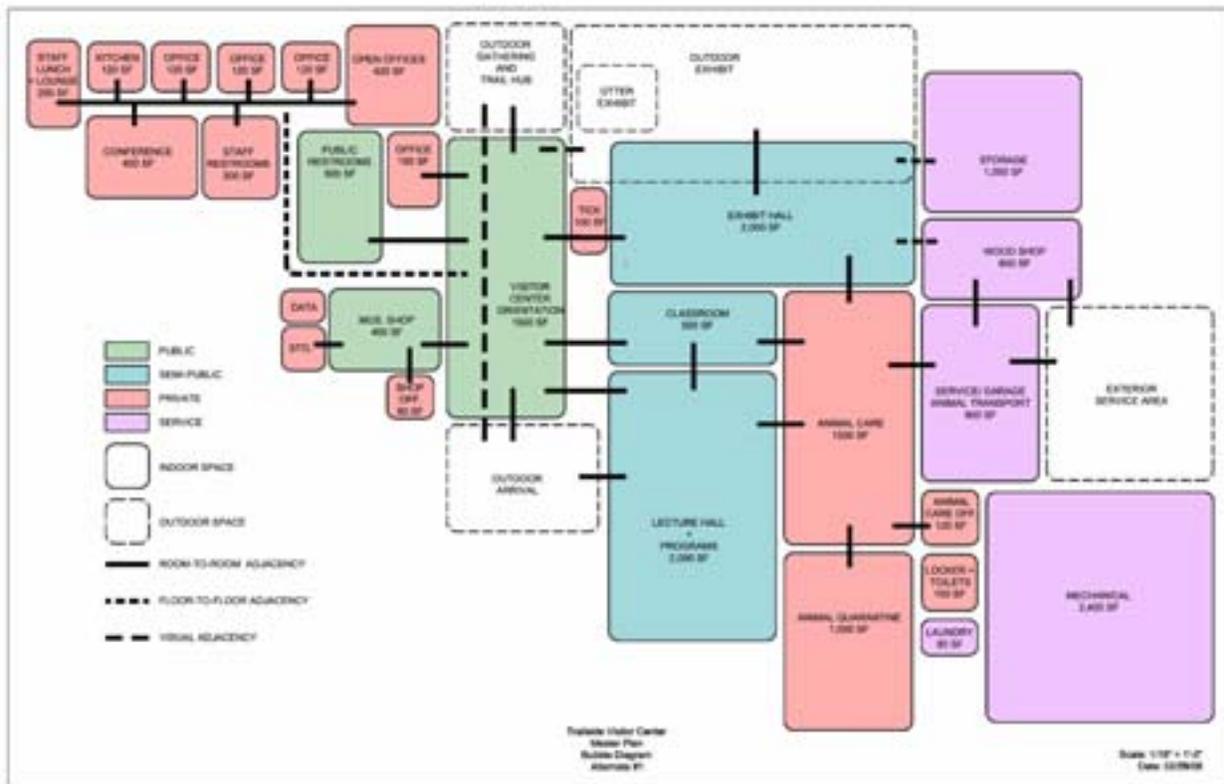
1. Trailside Museum will continue as a non-profit nature education center that introduces residents and visitors to the natural history of the Blue Hills.
2. The Museum will continue as a partnership between the Massachusetts DCR and MAS. Future management agreements and funding must be structured to reinforce this collaboration.
3. Live animals are, and will continue to be, an integral part of the Museum experience as both indoor and outdoor exhibits, and animals used for onsite and off-site programs. The Master Plan will provide for approximately the same number and species of live animal exhibits.
4. The current, realistic goal for Museum staffing is 12 [MAS] positions, which is a very small increase from the existing positions. Additional DCR staff may be recommended to support the collaboration.
5. Environmental stewardship and awareness will continue to be a focus of the new Museum – expressed in the exhibits, programs and facilities.
6. The new Trailside Museum should both visually communicate and function as a “gateway” to the Blue Hills Reservation. Other facilities that use the site should not diminish the operation, function, and character of the Museum.
7. While this Master Plan is focused on the Trailside Museum, parking improvements to facilitate operation during peak ski season will also be considered.
8. Every effort should be made to make the primary visitor experience (arrival, museum entrance, public program and exhibit areas) safe, interesting, informative, engaging and universally accessible.
9. Recommendations for parking and vehicular drop off should meet current standards, and strive to maintain current capacity to the greatest extent possible. Major re-grading of the hillside or relocating the pond has not been considered.
10. Strategies for new buildings and site amenities are designed with consideration for natural and cultural resource protection.

## Preliminary Recommendations

### Alternatives Considered

Based on direction from DCR, the planning team evaluated three alternatives for the museum:

1. Major renovation of the existing museum
2. New museum in the current location, accessed from the south parking lot
3. New museum accessed from the north parking lot.



As illustrated above, the master plan team also considered the organization of interior spaces within the museum, including public visitor areas, program spaces, offices, animal care facilities and support areas, as well the relationship between the interior and exterior. This analysis determined that a new and much improved museum facility could be created with only a very slight increase in overall square footage (from approximately 15,000 sq. ft. to 20,000 sq. ft.) Site amenities in the project area requiring substantial upgrade or improvement include visitor arrival and vehicular drop off, re-configured parking areas meeting current turning and spatial standards, improved animal enclosures, and overall universal access.

Based on the analysis, DCR, MAS, and the project team selected alternative 3 – a new museum accessed from the north parking lot – as the preferred alternative. Given the very tight and restrictive site conditions and the condition of the existing building, this location would be the least disruptive to the current operation and presents the greatest opportunity for a memorable museum experience in a sustainable, energy-efficient building with integrated exterior and interior exhibits.



## ADVISORY COMMITTEE MEETING



### Trailside Museum Master Plan Blue Hills Reservation

Massachusetts Department of Conservation and Recreation  
Massachusetts Audubon Society

## PROJECT TEAM

Department of Conservation and Recreation  
Massachusetts Audubon Society

### Consultant Project Team

- Pressley Associates
- Schwartz/Silver Architects
- Object | IDEA – Interpretive Specialist
- Ursa International – Zoological Exhibit Designer
- Bryant Associates – Survey, Site/Structural Engineering
- LEC Environmental Consultants – Habitat/Wetland Inventory

### Process

Master Plan – 10 year horizon

- Phase 1: Information Gathering, Benchmarks
- Phase 2: Analysis, Visioning and Alternative Design Concepts
- Phase 3: Draft and Final Master Plan

Ongoing Improvements – Address immediate needs before new facility is funded and implemented



## AGENDA

- Introduction
- Planning Process
- Site Issues
- Museum Building Issues
- Goals and Objectives
- Program and Adjacencies
- Preferred Alternative Discussion
  - Site
  - Outdoor Exhibits
  - Museum Building
  - Visitor Experience
- Next Steps



## TRAILSIDE MUSEUM IN CONTEXT



## EXISTING SITE CONDITIONS

Trailside Museum Master Plan | Blue Hills Reservation



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## EXISTING SITE ISSUES

### Circulation

#### Vehicular circulation issues

- State Route 138
- Parking lot entry and exit
- Parking lot shared use and substandard design
- Vehicular/pedestrian conflicts



#### Pedestrian circulation issues

- Museum entrance is not visible from entry
- Live animal exhibit loop is not accessible
- Pond walk is fenced with limited access
- Walks and paths to Museum entrance are not accessible
- Difficult to achieve full accessibility on this site due to natural topography/slope



Trailside Museum Master Plan | Blue Hills Reservation

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## EXISTING SITE ISSUES

### Deer

- Enclosure size and complexity
- Holding and safety issues

### Otter

- Enclosure size and complexity
- Service, water quality, access, and safety

### Raptors

- Obtrusive Exhibit Enclosure
- No secondary containment, limited exhibit features

### Fox/Turkey Vulture

- New NSTAR exhibit underway
- Exhibit design for flexibility, site impact issues

### Turtles

- Enclosure Orientation and Complexity
- Service, water quality, access, and safety issues

### Exterior Animal Exhibits

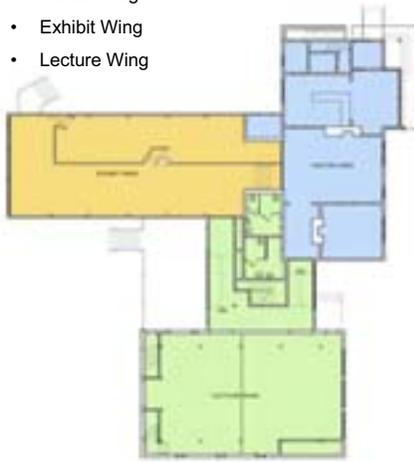


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## EXISTING MUSEUM BUILDING

### Trailside Museum

- Visitor Wing
- Exhibit Wing
- Lecture Wing



### Overview



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## EXISTING MUSEUM BUILDING ISSUES

Trailside Museum Master Plan | Blue Hills Reservation

- Construction
- Envelope
- MEP
- Life Safety
- Accessibility
- Historical Value



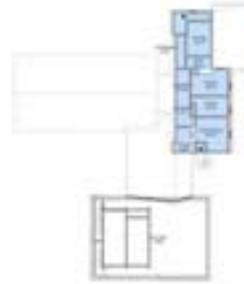
Visitor Wing c.1890



Basement Floor Plan



First Floor Plan



Second Floor Plan

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## EXISTING MUSEUM BUILDING ISSUES

Trailside Museum Master Plan | Blue Hills Reservation

- Construction
- Envelope
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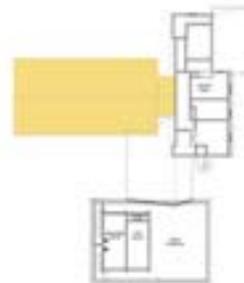
Exhibit Wing c.1956



Basement Floor Plan



First Floor Plan



Roof Plan

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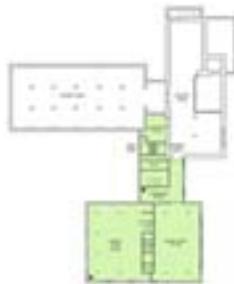
## EXISTING MUSEUM BUILDING ISSUES

Trailside Museum Master Plan | Blue Hills Reservation

- Construction
- Envelope
- MEP
- Life Safety
- Accessibility
- Historical Value



Lecture Wing c.1975



Basement Floor Plan



First Floor Plan



Second Floor Plan

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## EXISTING MUSEUM BUILDING ISSUES

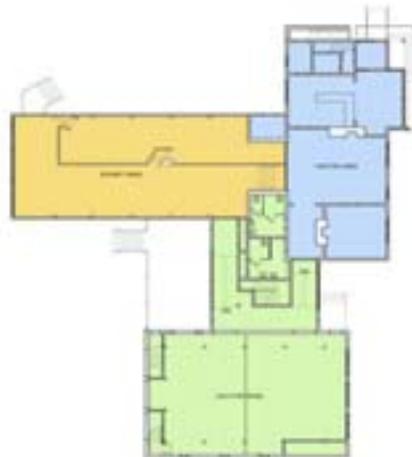
Trailside Museum Master Plan | Blue Hills Reservation

Existing Building is below current applicable standards for:

- Visitor Facilities
- Museum Exhibits
- Accessibility
- Energy Efficiency

Preferred Alternative proposes replacement of buildings in a different location overlooking the pond, which will allow current facility to operate during construction of new Museum/Visitor Center.

### Existing Conditions Assessment



## GOALS & OBJECTIVES FOR THE TRAILSIDE MUSEUM

Trailside Museum Master Plan | Blue Hills Reservation

1. Non-profit nature education center focused on the natural history of the Blue Hills;
2. Partnership between the Massachusetts DCR and MAS;
3. Live animals are integral to exhibits and programs;
4. Realistic goal for Museum staffing is 12 [MAS] positions; additional DCR staff may be recommended to support the collaboration;
5. Environmental stewardship and awareness is a focus of the new Museum;
6. Museum is the "gateway" to the Blue Hills Reservation; other nearby uses and facilities should not diminish the operation, function, and character of the Trailside Museum;
7. Parking improvements should facilitate operation during peak ski season;
8. Primary visitor experience (arrival, museum entrance, public program and exhibit areas) will be safe, interesting, informative, engaging and universally accessible;
9. Parking and vehicular drop off should meet current standards, and strive to maintain current capacity to the greatest extent possible;
10. Strategies for new buildings and site amenities are designed with consideration for natural and cultural resource protection.

### Design Principles



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## PROGRAM

### Program Requirements Summary

Trailside Museum Master Plan | Blue Hills Reservation

Museum Building		
Component/Space	Existing Space	Recommended
Public arrival, orientation, restrooms, shop (free space)	1,327 sq. ft.	4,400 sq. ft.
Public exhibit space (paid)	1,976 sq. ft.	2,050 sq. ft.
Program areas, lecture hall, function room	1,876 sq. ft.	3,475 sq. ft.
Staff offices, restrooms, kitchen	1,238 sq. ft.	2,887 sq. ft.
Animal care, quarantine excluding exterior space	2,036 sq. ft.	2,755 sq. ft.
Service areas	1,579 sq. ft.	1,925 sq. ft.
Circulation	2,128 sq. ft.	1,450 sq. ft.
Storage	2,388 sq. ft.	2,110 sq. ft.
TOTAL (net)	14,548 sq. ft.	21,052 sq. ft.
TOTAL (gross)	18,185 sq. ft.	26,315 sq. ft.

Maintenance Building		
Service garage/vehicle storage	489 sq. ft.	1,200 sq. ft.

Animal Exhibits/Enclosures		
Public exhibits (otter, turtle, deer, hawks, owl, vulture, fox)	9,902 sq. ft.	33,320 sq. ft.
Exterior program animal enclosures and barn	386 sq. ft.	2,425 sq. ft.

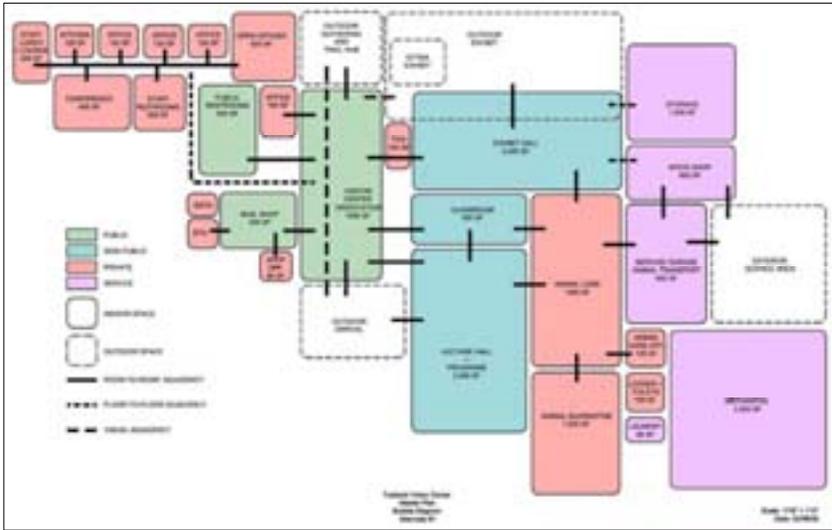
  

Site Features		
Arrival, drop-off, and orientation	4,027 sq. ft.	4,000 sq. ft.
Outdoor gathering and amphitheater	3,020 sq. ft.	7,380 sq. ft.
Vehicular circulation and parking including service drive	100,129 sq. ft.	97,377 sq. ft.
Pedestrian circulation including exhibit loop and maintenance access	2,663 lin. ft.	3,900 lin. ft.

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PROGRAM

Interior Program & Adjacencies



Trailside Museum Master Plan | Blue Hills Reservation

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PREFERRED ALTERNATIVE

Site Overview



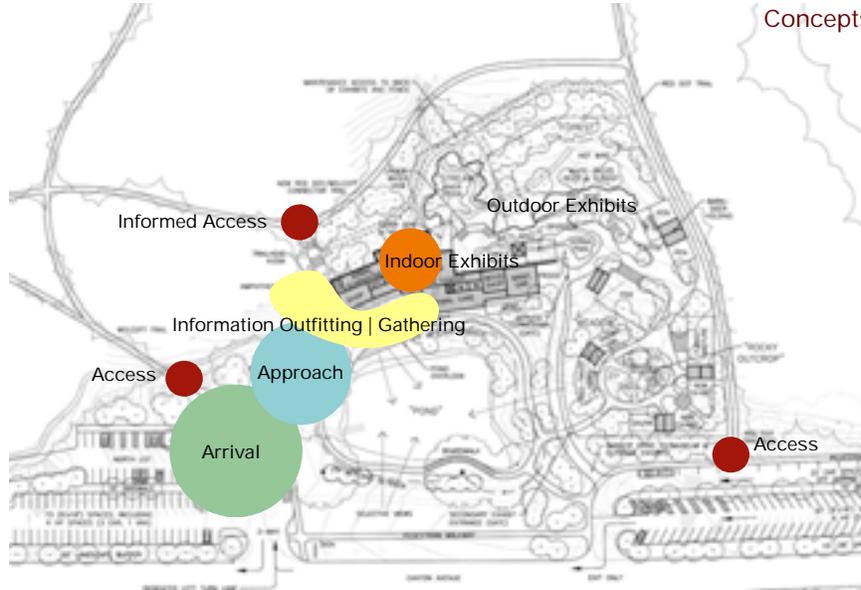
Trailside Museum Master Plan | Blue Hills Reservation

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VISITOR EXPERIENCE

Concepts

Trailside Museum Master Plan | Blue Hills Reservation



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VISITOR EXPERIENCE

Gathering

Trailside Museum Master Plan | Blue Hills Reservation

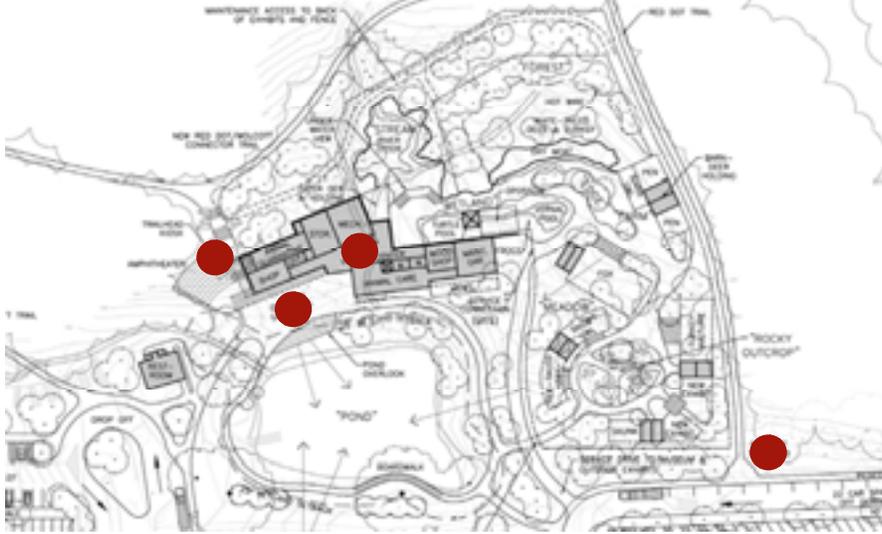


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VISITOR EXPERIENCE

Information Outfitting

Trailside Museum Master Plan | Blue Hills Reservation



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VISITOR EXPERIENCE

Interpretive

Trailside Museum Master Plan | Blue Hills Reservation



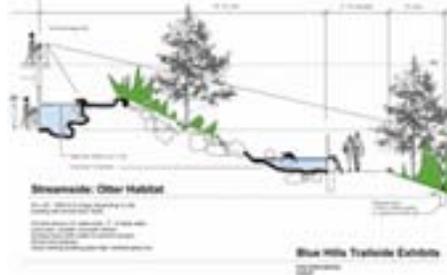
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PREFERRED ALTERNATIVE

Zoological Exhibit Standards

GOALS for Trailside

- Meet or exceed USDA/AZA Standards
- Non-obtrusive, appropriately-sized barriers
- Viewing considerations (visitor/animal)
- Access to clean water, sunlight, and fresh air
- Enrichment opportunities/complexity
- Holding or shift areas with secondary containment
- Utility accessed from outside exhibit areas



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PREFERRED ALTERNATIVE

Site Detail



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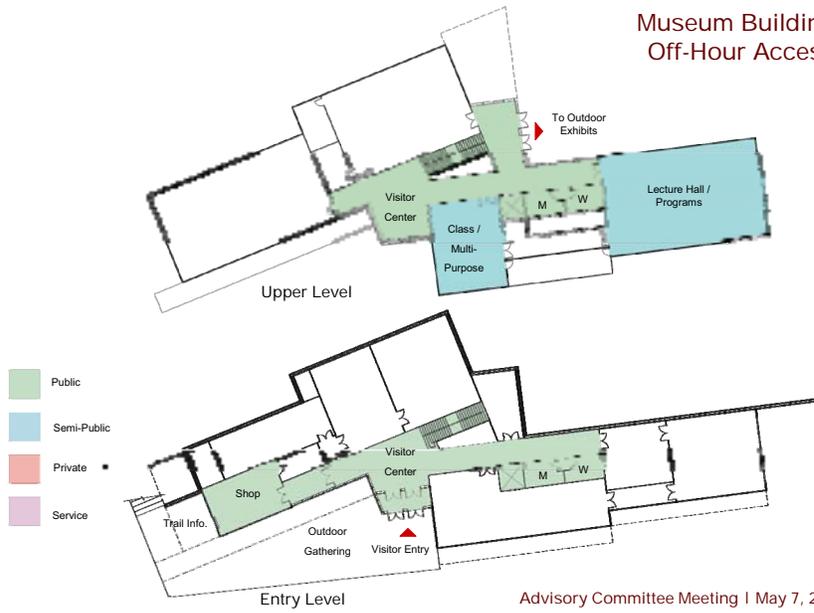
Trailside Museum Master Plan | Blue Hills Reservation



PREFERRED ALTERNATIVE

Museum Building  
Off-Hour Access

Trailside Museum Master Plan | Blue Hills Reservation



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PREFERRED ALTERNATIVE

Site Overview

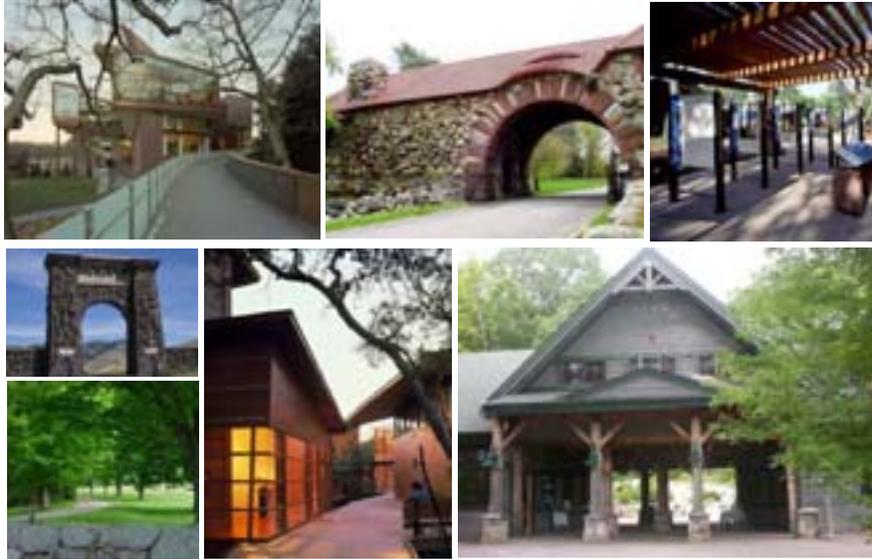
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Architectural Character – Entrance

Trailside Museum Master Plan | Blue Hills Reservation



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Architectural Character – Building in Landscape

Trailside Museum Master Plan | Blue Hills Reservation



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Architectural Character – Materials

Trailside Museum Master Plan | Blue Hills Reservation



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Architectural Character – Sustainable Design

Trailside Museum Master Plan | Blue Hills Reservation



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## NEXT STEPS

### Preferred Plan

- Refine and develop preferred alternative based on AC comments (drainage, visitor experience, plan and section/elevation study)
- Review by DCR/MAS
- AC Meeting

### Master Plan Report

- Produce draft Master Plan by June 30, 2008
- Review by MAS and DCR
- Final Master Plan document for DCR/MAS by October 1, 2008

## THANK YOU







## Peter Jackson's Trailside design Comments 5/5/08

Barbara-

I've been spending more time with the plan and there's a lot to talk about. I'm really sorry to be missing the meeting. There is much I can't understand without a larger scale plan and some grades. Here's some questions and observations, I'm sure many are from a lack of understanding of the details.

1. The vehicular circulation and drop-off areas on the site are much improved. Moving the main museum access area avoids some conflicts during the winter and has been long discussed. Remember the ski area conflicts are only for 4 months unless new year round uses are envisioned for the ski hill.
2. The building siting is dramatic and certainly provides greater visibility. I think it's compromised somewhat by pinching in the two ends of the parking areas. Do these provide the same number of spaces as are current?
3. I'd urge you to look a little more closely at the bus turnaround in the north lot. Wouldn't it be better to circulate along the back edge of the lot and exit from the north entrance?
4. I don't think the south wing of the building respects the hillside topography of the site and I think it should be rotated 45° so the axis parallels the contours.
5. I don't understand how the drainage coming down the hill works through the building. It seems you take advantage of it to create the otter display and create a wetland environment for the vernal pool and turtles. Does it then go in a pipe under the building and emerge on the other side to flow into the pond? Is the building slab on grade?
6. It seems the pond is not part of the animal enclosure. Does it not have to be?
7. I guess the new NStar fox/turkey vulture exhibit would be lost in this plan.
8. I'd like to learn more about the concepts and design ideas behind the outdoor exhibits. I'm concerned that access to them when the museum is closed is a far walk and difficult. I also don't understand the grading and accessibility.
9. Why a "Farm"? It doesn't seem to fit with the rest of the concept, natural environments of the Blue Hills.
10. In the building, is it possible to enliven the entry level lobby with a glass viewing area to see the otter exhibit underwater?

Just some thoughts. I hope to learn more later.

Pete Jackson  
Park Planning Associates  
14 Capen Street  
Milton, MA 02186  
617-696-2834  
pjacks@comcast.net

-----Original Message-----

From: Farina, Barbara (DCR) [mailto:Barbara.Farina@state.ma.us]  
Sent: Thursday, May 01, 2008 5:02 PM  
To: pete jackson  
Subject: RE: Trailside Museum

Pete-

The site currently presents many accessibility issues. Moving the animal exhibits down helps with that. Yes, the current building diagram has the public enter at grade and exit on the upper level at the animal exhibits. There is still some disagreement about this and we are open to discussion.

We struggled with the parking, discussing many possibilities, but had to reject most and finally reworked the most plausible one. As I have said before there is no eureka scheme for parking that vanishes all the issues on this parking site. The fast rte 138 traffic, the limited flat area unless you carve into the hillside, the competing uses of Trailside and Ski area lead us to this scheme which works fairly well.

We discussed showing 3 schemes but decided rather than divert the discussion with two schemes no one really liked we'd focus on the one. We will have the schemes at the meeting. There is plenty to discuss.

The idea of the facility being a gateway to both the hillside and the museum is one we all agree on. Serious hikers can still skirt the built environment if they like, but the idea of a place to check a map, see the trail conditions or bird sighting reports and creating a meeting place for groups was important.

This is a master plan and the building and other pieces will change. We hope to create a document to guide us and a site plan that positions things correctly so we can move ahead confidently. We hope to build support for the project with this MP.

I invited individuals from many groups, seeking a balance of interests and expertise. Milton and Canton Rec offices, Canton Planning, You from Milton planning, ski area, Weather Ob, Zoo New England director and head Vet, Buttonwood zoo, Friends of BH, Trail watch, a few neighbors and a few others. We sought a small focused group so we can have a good discussion.

Sorry we'll miss you.

Barbara

-----Original Message-----

From: pete jackson [mailto:pjacks@comcast.net]  
Sent: Thursday, May 01, 2008 4:34 PM  
To: 'Farina, Barbara (DCR)'  
Subject: RE: Trailside Museum

I don't have much to comment on yet, I'd have to hear the presentation and discussion first. I hope you present the three alternatives and what led you to suggest this preferred one. It's a little strange to be asking for citizens' input but to have made many of the decisions before going to the public.

One item of interest for me is how you're going to handle the Accessibility issue. It looks like you enter the building to a lower level lobby, that the public spaces are on the second floor, and that

you exit from the second floor to get to the outdoor exhibits. This might not be right but it's what I interpret from the drawings. I'm sure elevations and colored graphics presented at the meeting will make this clear. Overall the plan looks like a terrific facility. The next challenge will be to get it built and then to secure predictable operational funding.

I would guess this meeting is a first discussion with the Advisory Committee in preparation for a public meeting?



## Trailside Museum Meeting Comments from Gail Janeczek, Buttonwood Park Zoo

A bunch of thoughts, in no particular order:

### **Species selection**

I agree with John Linehan regarding coyotes and fisher. Coyotes are social and ours are pretty active during the day. Our coyotes answer ambulance sirens. Fisher are solitary but active in the cold weather. Think animals that are social, diurnal or vocal. A mob of crows are social, vocal and diurnal. We have a flock of 10 – 12 wild turkeys on exhibit and they are always doing something interesting for guests to see. They are either displaying, feeding, gobbling, dust bathing, chasing each other or doing something else interesting. Deer are social and diurnal, though you might want to consider displaying the deer and turkey separately (even pinioned turkey can get across a moat.)

Consider eliminating nocturnal species (possum, skunk, raccoon) for outdoor exhibit. I have not seen a good exhibit for possum, skunk or raccoon, where the animals are visible during the day.

### **Financial considerations**

I think it will be possible to get funding for the renovation but I do think the on-going issue with keeping Trailside Museum open will continue, unless changes are made. You must charge people to see the animals. The statement was made that Trailside doesn't want to be a zoo, but frankly, most people come to the museum to see the animals. You are giving away your major draw.

I also strongly suggest you charge what the market will bear for programs, scout overnights, birthday parties, (see Harvard Museum of Natural History website [www.hmnh.org](http://www.hmnh.org) for their birthday party arrangements, which would be comparable to Trailside's) and evening function rentals. In the past, I feel the museum has underpriced its programs with the thought that not every school or group can afford to come to the facility. You need to set your prices at the going rate and then offer reduced rates for disadvantaged schools and communities. Schools from Milton and Canton can afford to pay full rate, Dorchester and Stoughton schools would be eligible for a lower rate.

The gift store needs to sell a good assortment of bottled water, soda, juices and pre-packaged snacks. In the fall, you'll make a huge amount of money. In the future, you can see if a concession is justified.

### **Classroom space**

You may want to consider having two classrooms. A school bus holds 65 children. Most schools want to fill a school bus for a field trip. Having two smaller classrooms (or one large classroom with a moveable wall) will allow the group to be broken in half and taught by two instructors.



To: Barbara Farina, DCR  
From : Andrea Lukens, Mass Audubon  
Re: Mass Audubon comments on Preferred Alternative 3A  
Date: May 23, 2008

Review Team: Gary Clayton, Stu Weinreb, Lucy Gertz, Norman Smith, Andrea Lukens

Mass Audubon is very pleased to have the opportunity to participate in and comment on the Master Planning process for the Trailside Museum. Trailside Museum is an important and popular interpretive and environmental education center that in many ways serves as the gateway to the Blue Hills Reservation. We value the ongoing partnership between DCR and Mass Audubon as we work together to improve the visitor services and programming opportunities at Trailside.

Mass Audubon supports the Preferred Alternative 3A design and building concept. We believe that the relocation of the Trailside building to the proposed location overlooking the pond will enhance Trailside in a variety of ways. We support the shifting focus to the North Parking lot as the primary “address” of Trailside. This will provide a more welcoming, aesthetically appealing approach to the Museum that will be more clearly understood by visitors when they arrive. We feel that the location overlooking the pond will not only enhance the view from the building, but will also create an inviting view of Trailside from the road, encouraging more visitors to explore the building, the site, and the Reservation.

In response to some of your specific questions about the draft Master Plan, we offer the following comments:

The Red Dot Trail. We suggest that the primary trail-head for the Red Dot Trail be relocated from the South Parking lot to the area behind the proposed new Museum, encouraging hikers to park in the North Parking lot and to pass by the information center at Trailside before heading out on the trail. In recent designs of the site, the access to the trail system has been simplified and enhanced behind the building, with the result that hikers could reach the intersection with the Red Dot Trail in about the same distance as if they were accessing it from the South Parking lot. The benefits of this relocation would include: enhanced orientation offerings to all hikers; reduction in erosion in the stretch of trail that currently leaves directly from the South Parking lot; clarifying the entrance to the Reservation; and eliminating the possibility of disturbance caused to display animals by hikers and their pets on the Red Dot Trail.

Permanent and Temporary Exhibits. We endorse the discussions of the Master Plan team regarding permanent and temporary exhibits. We envision that approximately 75 - 80% of the interior exhibits will be permanent; with 20 – 25% of the space reserved for temporary exhibits. We expect that the temporary space can be utilized primarily for traveling exhibits that don't require ongoing exhibit development by Trailside programming staff.

“Visitor Center”. We suggest changing the name of the entrance area on the Building Plan from “Visitor Center” to “Information and Orientation Area” to clarify the purpose of this particular portion of the overall building. We envision that this Orientation area will provide introductory exhibits to provide information to all visitors to Trailside; and this will be an area that is available to visitors free of charge. Visitors who want to visit the separate “Exhibit area” will pay a small fee to enter that area.

Access to Wildlife Exhibits. We propose that a small fee be charged to visitors to the outdoor wildlife exhibit area. As currently designed, we anticipate that visitors would pay a fee that would provide them access not only to the indoor exhibit area but also to the outdoor wildlife area. We also like the idea of making at least a small view of wildlife available to all visitors. One way this could be accomplished is through the viewing window into the Animal Care area on the first floor of the building.

Event Rental. Mass Audubon supports the idea of designing the building in such a way that meeting spaces are created that would be attractive for groups to rent. The primary purpose of the building will continue to be environmental education; our approach would be to design for the largest mission-related function of the building, probably aiming for a capacity of up to 200 people. We would look for a design that is as versatile as possible, and would likely include a well-designed kitchenette or galley kitchen to allow for food service as part of meetings and functions.

Flexibility in wildlife exhibits. We support the idea of designing the outdoor wildlife exhibits with the flexibility to consider adding additional animal species in the future. We do not encourage a significant increase in the area designed for these exhibits; and support the efforts in the master plan so far to minimize the visual impact of the required perimeter fencing.

Ongoing partnership between DCR and Mass Audubon. As stated earlier, we greatly value the ongoing partnership with DCR, and appreciate being involved in the Master Planning process in our role as operators of Trailside. We look forward to working with you to determine the best possible long-term arrangements to enhance the management and financial support for Trailside.

**Trailside Master Plan Preferred Option**  
**Comments from DCR, MAS and Advisory Committee**  
**May 22, 2008**

The collaboration between MAS, DCR and Pressley's team on this master plan is bearing fruit. Within DCR there is discussion as to how to move ahead with this project. The meeting with Senator Brian Joyce went very well and clearly the project has his support at this early stage. While the Advisory Committee meeting raised some difficult questions, they were ones that needed to be addressed, particularly the funding as it does have implications for the layout of the site and building. The master plan goals of mapping the future for Trailside and stirring up enthusiasm for this venture are being met.

I have gotten some comments back from DCR staff, MAS and Advisory Committee members and I would like to include them here so our team and the Pressley team can arrive next Wednesday prepared to make decisions in a working session. In most cases I have sum up the comments.

**I. Site**

**A. Trails**

The area for the animal exhibits and building is restrained by the terrain, Rte 138, the pond, the historic rest room and the Red Dot trail. If something had to give the easiest piece seems to be the Red Dot trail. Would a small shift south be reasonable to consider, or perhaps we should look at a bigger change?

In their comments MAS has proposed moving the trail head to an area behind the museum to reinforce the information gathering hub, avoid disturbance to the animals and reduce trail erosion. DCR has reservations about this large a move.

Successful integration of the building, site and the trails is advantageous. The new Red dot/ Wolcott connector provides the ability to tie in to other trails and take a different route up and down without having to walk through the parking lots to your vehicle. The connector should allow for possible future expansion of the exhibits for a medium sized mammal.

**B. Traffic/ Vehicular Access**

**South Lot**

The south lot layout has won over many, including the ski area operators I have spoken with. The design has resolved many issues and raised expectations that we might be able to move on this piece if the ski area is on board. It might also be possible to try it out with jersey barriers and new striping on a trial basis while we look for funding. The bus lane improves functioning and safety. The outstanding bits are where will snow be stored and can the exit to the lot be angled and narrowed to deter its' use as an entrance. There have been concerns voiced about the ease of plowing both the lot and the long sidewalk, yet a tradeoff needs to be struck between the ease of maybe three months of plowing and having a sea of asphalt that was likened to a "Walmart parking lot". The drainage issue still needs a look.

**North lot**

We all endorse the use of the North lot as the new approach to Trailside. The 3A option does seem to have a lot of circulation and all hoped this could be altered a bit. The north lot comments uniformly questioned the wisdom of having a two way entrance and many wondered about the need for the circular drop off. A single entry/exit condition once existed and was replaced. Traffic safety is a priority. Another question raised was whether adding diagonal parking would gain us more spaces.

With all the comments in mind I asked Pressley to take another look at the layout with the hope that they could finesse a layout for the meeting. I gave them the following parameters. If the elimination of the two way entrance and drop off is desirable then a return to the Alternate 1 layout gets us closest. To this layout I would suggest an increase of the landscape buffer to match the south lot, inclusion of a bioswale, elimination of the bus parking and the smaller parking islands and finally angling and narrowing the exit only drive. Maintaining the ability to recirculate within this lot is desirable since many of the rows contain few spaces, this suggests that they remain 90 degrees. We must also consider likely areas for snow storage. The number of parking spaces lost has not been a show stopper so far, especially since the new south lot increases the number on that side. The new layout should not decrease the number further and a gain would be welcome.

Should a public bus stop on the property be selected? Can we simply designate a point on the curb where the other buses drop off?

### **C. Service Access**

The separation of service and main pedestrian access makes great sense. The collection of service functions near the service road access will improve efficiency.

### **D. Drainage/ Stormwater**

These issues are due to be examined by Bryant in this last phase. Concern has been raised about the position of the building over the intermittent stream. Can this be done easily given the designation of the stream?

### **E. Pond**

Though DCR and MAS would like to remove barriers to the pond our experience suggests that without careful design and consideration given to the heavy and often unauthorized use the pond will suffer.

## **II. Architecture:**

The new building location has won approval from all. The siting between pond and hillside presents unique opportunities. There have not been many comments on the building, perhaps given the conceptual stage of the design. The adjacencies are good and resolve many of the conflicts inherent in the existing building.

The question about the access to the auditorium off hours remains. The entire building should not need to remain open. MAS wants to stay focused on their educational mission, though agrees that having a revenue producing space makes sense to design for. The frequency and type of use can always be adjusted. A design capacity of 200 people with an available kitchenette or galley kitchen has been cited by Audubon.

The percentage of max 25% changing to 75% fixed is firm and needs to be discussed and addressed in the floor plan. A small fee would be charged for the indoor exhibit according to MAS. The idea of the permanent exhibit inhabiting the lobby areas, as presented at the AC meeting, should be discussed.

## **III. Interpretive**

The inclusion of the native habitats is a wonderful idea in the outdoor exhibit. There were several questions about the terminology of "Farm" and a suggestion that "field" might fit in better, describing it as a bit drier than the meadow habitat perhaps. Some further ideas about the outfitting component and the indoor exhibits would be welcome. In the final document please include a section about the proposed name change, although no decision has been arrived at to date.

We are looking forward to the Experience Outline and Experience Maps. This sort of discussion is helpful to add life and information to what we see, tied hopefully to the 4 types of visitors that MAS has described.

#### **IV. Ursa International**

DCR and MAS have come to believe that charging for most or all of the animal exhibits is necessary in order to avoid giving away the main attraction and help support the facility. The tradition of the venerable facility has sometimes been difficult to see past. DCR suggested allowing one or two animals to be seen for free or at least provide some views in to them. MAS comments suggested that views into the animal care facility might be one of the “freebies” and perhaps a “small view of the wildlife”. This decision should help with the layout of building and site and should be discussed at the meeting.

Phase two objectives for Ursa describe brainstorming exercises and recommendations for options and exhibit concepts as well as “refining design criteria regarding each animals requirements, including barriers, material substrates, holding area criteria, exhibit elements and features as well as visitor amenities and educational interactive”. Much of this has been conducted to date and we look forward to the other pieces. The animal data sheets are very useful to have. General information about enclosure materials/methods would be helpful to have in mind as we move ahead, as well as discussions or ideas about how information about each animal might be displayed. Data sheets pertaining to the animals housed inside the building, snakes, small mammals etc., are anticipated.

##### **A. Mammal exhibit**

One outcome of the Advisory Committee meeting was the idea that there was an omission of certain native mammals. Mammals, such as coyotes and fishers, have a growing presence in Boston area communities and are interesting to watch, their absence is a missed opportunity. DCR staff discussed earlier in the process that the addition of another mammal would add a bit of balance to the exhibits and draw in visitors. MAS feels that given the current financial situation more animals require more staff and can not be accommodated, though they agree that the inclusion of a larger mammal would be wise to plan for. This master plan serves as an assessment of the present and a guide to where we wish to go in the future, with that spirit in mind, dreaming a bit bigger is warranted. The animals mentioned by various people as possible new exhibits include: coyotes, fishers, raccoons, beavers and thinking further into the future black bears.

##### **B. Picnic Area**

While the use of the amphitheatre has been mentioned as a possible picnic site, MAS feels that a picnic site with tables is needed within the bounds of the outdoor exhibit fencing. The location of it outside the fencing will draw large non Trailside groups who historically have not treated the site kindly. Is there reason to be concerned about unauthorized/misuse use of the amphitheater?

##### **C. Short Term Changes to Otter enclosure**

The current thinking of DCR and MAS is that the otter’s enclosure must somehow be improved/enlarged while maintaining the pool in its’ current location for the short term. Any thoughts you might have on this would be appreciated.

##### **D. Free vs. Paid animal Exhibits**

Our DCR/MAS team has been grappling with the question of how much should be given away at Trailside. This is a delicate dance balancing tradition, operating costs, disadvantaged visitors and remaining accessible to all. It now seems that both MAS and DCR concur on making most of the outdoor animal viewing for a fee. If we determine that one or two animals should be visible free or during the off hours, which two would you recommend and how could we meet the USDA requirements?

#### **E. Wild Turkeys/Deer Combined**

The growing sense is that this animal combination in one exhibit is not one Trailside should pursue. Wild turkey's can fly into the enclosure and Buttonwood staff has reported their experience with pinioned turkey's getting across moats. This should be discussed and the type of visitor/ barrier for the deer may influence this decision.

#### **V. Drainage Improvements and Stormwater Management**

Bryant was identified as the team member to review this issue, examining existing conditions and delineating drainage and approximate runoff volumes for various areas. Bryant was to describe options for open and closed drainage and prepare a technical memorandum, including illustrations and planning level construction cost estimates. Coordination of this information with the current parking layouts and pedestrian access would be good. Examination of the reality and difficulties of the stream under the new museum should be done.

#### **VI. Phase Three Inclusions**

There are a few other pieces of information that have been raised during the course of this project. We would like to include them in the final master plan. A brief list of other similar facilities within about 50 miles and information such as their name, location, whether they have animals, AZA accredited, hiking trails, water access, relative size, any particular focus and any unique aspects. For comparison it would be interesting to know the acreage of the benchmark facilities. It came up earlier and again at the Advisory Committee meeting.

#### **VII. Shelved Thoughts**

Other ideas that are unrepresented in the plans, but have been discussed, should be included in the master planning document. These fall under the heading of unlikely now, but worth revisiting as we proceed. A flight aviary, butterfly garden or exhibit, cafe and others we have perhaps hastily discarded. Are there any features, or areas we have missed?

#### **VIII. Remaining Schedule**

We should discuss the remaining schedule at the meeting.

Trailside has waited decades for the opportunity to undertake a Master Plan for this site. We are making progress in the right direction and as it becomes more tangible to others we hope to move consistently along towards the final goal of a rebuilt Trailside. We are pleased to be able to collaborate with the Pressley team in making decisions that will stand the test of time.

Sincerely,

Barbara Farina  
Architect/Regional Planner

Cc: DCR team, MAS team, Pressley



## Trailside Master Plan

### Blue Hills Reservation

Milton, Massachusetts

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## Advisory Committee Meeting Summary and Outcomes

### Summary

On May 7, 2008, the Massachusetts Department of Conservation and Recreation (DCR) held a meeting with the newly formed Trailside Advisory Committee, to brief the group on the Master Plan, discuss the preliminary design plans, and to seek comments and feedback from the group. The meeting was attended by numerous individuals representing DCR partners at the Blue Hills and other related organizations (Friends of the Blue Hills, Blue Hill Observatory, Zoo New England, Buttonwood Park Zoo, Massachusetts Audubon Society (MAS)), and others. Following an introduction by DCR Project Manager, Barbara Farina, the consultant team gave a presentation that summarized the planning process to date, assumptions and requirements of the master plan, ending with a description of the preferred alternative. Advisory Committee members raised **many** questions and issues, which are described below. Note that several comments related to similar themes, so they have been consolidated into eight general headings. Attached to this summary is a list of the organizations and groups invited to the meeting and the project team.

### AC Meeting Discussion Topics

1. **FUNDING:** While all agreed the idea of improving the Trailside Museum, exhibits and site has long been needed, several attendees raised questions regarding the cost of rebuilding the museum and lack of potential future funding.

Response: The purpose of the Trailside Museum Master Plan is to define a vision for the future and map out a process to implement this desired future. The Master Plan will be instrumental in forming the basis for fundraising, including operating and capital appropriations through DCR, MAS contributions, or other sources and building general support for the project. A strategic funding plan that identifies potential revenue and income sources, donors, etc. is not currently part of the scope of

work for the Trailside Master Plan. However, both DCR and MAS agree that developing a joint plan to fund the Trailside Museum is an important goal and is a logical next step in the planning process.

2. **PAID vs. FREE areas:** The existing facility provides free access to all the outdoor animal enclosures, with a nominal fee to view the indoor exhibits. Several individuals questioned whether or not MAS and DCR should continue to provide this attraction without charging market rate or charging to see the animals, commonly acknowledged as the most popular exhibit.

Response: The preliminary plan was based on the model that exists at present, with flexibility to offer the exterior exhibits either free or as a ticketed venue. However, based on feedback from the Advisory Committee, DCR and MAS revisited this approach and determined that they will move forward treating most of the outdoor exhibit area as a ticketed (paid) activity, with access via the building and using stronger control points in the building proper to separate paid and unpaid areas. The recommended plan reflects this decision.

3. **SCOPE of the ANIMAL COLLECTION:** Several individuals questioned the composition of the animal species exhibited in the outdoor enclosure area. Numerous comments suggested the potential for educational programs that stress relationships with urban wildlife, emerging species in the area, and animals lost from Blue Hills. Other potential animal species mentioned included Fisher and Coyote.

Response: Because of the uncertainty regarding potential increases in operational funding, DCR and MAS originally specified that the plan include the animals currently on exhibit, or those that had been exhibited recently on site, rather than an expanded animal collection. This includes White-tailed Deer, Red Fox, River Otter, Opossum, Skunk, Wild Turkey, Turkey Vulture, Snowy Owl, Red-tailed Hawk, Barn Owl, and turtles. Limiting the expansion of the animal exhibits also allowed the total land area utilized/disturbed for the animal enclosures and the building footprint to remain similar to the existing condition, while improving the enclosures to meet current husbandry and interpretive standards. Based on the Advisory Committee feedback, DCR and the consultant team have developed a small list of additional exhibits that could be developed if sufficient capital and operating costs were available. The area for this expansion is shown on the recommended plan.

4. **ANIMAL ENCLOSURE AREA:** The preliminary plan included a tight arrangement of exhibits to meet the current program of animal species, which resulted in a very constricted location of the perimeter fence against the Red Dot Trail. This raised some concern amongst the attendees. Separating White-tailed Deer and Wild Turkey was also discussed in order to provide greater protection for the captive birds.

Response: DCR, MAS and the consultant team agree that the location of the perimeter fence against the Red Dot Trail is not ideal as it does not provide sufficient buffer between the exhibits and trail. Considering the opportunity to expand the animal program in the future, as discussed above, the team agreed to recommend re-locating the Red Dot Trail to allow for exhibit expansion and to increase the buffer area. However, this will enlarge the area of disturbance beyond the foot print currently occupied by the animal enclosures and existing building complex, and requires an increase in operational funding and staffing for MAS. The exhibits are intended to be designed with specific species requirements for both habitat and animal holding, arranged following habitat types found in the Blue Hills with some adjustments made to accommodate the very tight and sloped site. The NSTAR exhibit has been replaced in this plan. DCR, MAS and the consultant concurred with the idea of separating Wild Turkey and Deer.

5. **TRAILSIDE BUILDING:** The preliminary plan proposed a new building on the east side of the pond. While there was unanimous support for the new approach, the need for flexible, rentable space was discussed, as well as the desire to strengthen the information/orientation function at the lower level entrance with clear direction to the exhibits upstairs. The need to insulate the woodshop from animal care was also discussed.

Response: With the decision to operate the interior/exterior exhibit areas as a paid venue, the building plans have been revised to strengthen arrival and orientation, controlled access for a portion of the building for night meetings/presentations,

and to ensure that the public lecture hall can accommodate 200 people. This will ensure that the lecture hall is an easily rentable space that could help offset some of the operating costs of the new building.

6. **POND PROTECTION:** The preliminary plan included a trail and boardwalk around the pond. This area is proposed to be outside the perimeter fence in an effort to keep the perimeter fence out of view and confined to the animal enclosure area. Advisory Committee members raised concern regarding protecting the shoreline vegetation and restricting access, as is currently practiced.

Response: The consultant team, DCR and MAS acknowledge that the pond boardwalk and access must be carefully designed to protect the shoreline vegetation. A specific approach is described in the summary of the recommended plan (below). The pond does not have to be within the USDA-required perimeter fence area because it does not contain any live animal enclosures. The team has looked at other urban/suburban pond and boardwalk settings for ideas on design, management and control, which will be described in the draft Master Plan document.

7. **DRAINAGE and EROSION:** The new building site is located on the lower slope of Great Blue Hill, so that site drainage is a concern, particularly the existing drainage ditch that runs under the proposed building site.

Response: Bryant Associates, Engineers will be providing more detailed recommendations regarding storm water management and site drainage for the draft and final Master Plan.

8. **TRAILSIDE'S NAME:** There was some discussion about the Trailside Museum name, and whether or not it reflects the scope of the exhibits, programs, and mission of the existing facility, particularly the use of the word "Museum" to describe the building.

Response: DCR, MAS and the consultant team have discussed this issue extensively throughout the planning process. While a decision has not yet been made, it is likely that the word "museum" will be dropped from the name, replaced with something that better reflects the actual operation and mission of Trailside.

## Additional Written Comments

DCR received three sets of written comments related to the preliminary preferred plan. Comments were received from Peter Jackson, Park Planning Associates in Milton; Gail Janeczek of Buttonwood Park Zoo (formerly at Zoo New England) and consolidated comments from MAS. A summary of the additional points raised in the comments, are included below.

1. **PARKING and VEHICULAR CIRCULATION:** While the vehicular circulation is much improved and the conflict resolved with the entrance to the museum moved to the north lot, the comments noted that the bus turnaround might not be needed at the north lot.

Response: DCR, MAS and the design team have revisited the design of the north lot to eliminate bus parking and maximize parking spaces (see recommended plan below).

2. **BUILDING COMMENTS:** The written comments also addressed a.) the angle of the building in relation to the slope, b.) the addition of a second classroom to accommodate a full school bus (65 children), c.) 200 person capacity for the lecture hall, d.) the addition of a small kitchenette for functions, and e.) re-naming the "visitor center" as "information and orientation area."

Response: The location of the building has been adjusted to respond to the slope of the site. The building is intended to be built into the slope, with the east side of the first floor excavated into the hillside. After careful discussion, DCR and MAS determined that an additional classroom is not desired. Instead, an outdoor program/picnic area was added to the animal exhibit area. The lecture hall will seat 200 people. A kitchenette was added and the designation of the lower level public area will be Information and Orientation area.

3. FINANCIAL CONSIDERATIONS: Written comments also addressed the fees charged for programs, function rentals, gift shop sales, and concessions.

Response: As part of the next phase of work, DCR and MAS should develop a financial plan that includes operational and capital funding needs and income; an appropriate fee schedule for exhibit entrance, education programs, and function rentals; and opportunities for concessions.

4. EXTERIOR EXHIBIT COMMENTS: Eliminating nocturnal species (skunk, raccoon, and opossum) was suggested.

Response: DCR and MAS have requested that the current animal species exhibited at Trailside be included in the proposed site plan. That said, eliminating nocturnal species and focusing on more active native animals, including emerging species and animals that historically inhabited the Blue Hills, but are no longer extant in the Blue Hills is recommended in the future.

5. INTERIOR EXHIBIT COMMENTS: Written comments addressed the opportunity to view the otter from the upper lobby of the building outside the exhibit hall, and suggested the ideal composition of permanent and temporary exhibits be approximately 75-80% permanent exhibits and 20-25% temporary exhibits.

Response: The intent has always been to have the otter exhibit visible from within the building and this has been labeled on the final recommended site plan. DCR concurs with the distribution of permanent/temporary exhibits desired by MAS.

## DCR and MAS Follow-Up

DCR, MAS and the consultant team met on May 28<sup>th</sup> following the AC meeting to review all of the comments and determine what changes were needed to the preliminary plan. During this process, the participants concurred on changes to the parking layout of the north lot, and the potential for expanded outdoor animal exhibits. One additional change that had not been considered previously, was re-locating the lower leg of the Red Dot Trail, which occupies an alignment originally developed as a drainage way. This new alignment terminating in the center of the north parking lot would make possible the potential to redirect water off the trail and provides more space for an expanded animal collection in the future, and places the Red Dot trailhead closer to its historic location. These changes are all reflected in the new Site Plan, which is attached to this report.

## Revised Recommended Plan

### General Description

The recommended design for the new Trailside building coordinates integrates site circulation and topography, provides an efficient and functional distribution of the building program, and incorporates a sustainability plan appropriate for a nature center. The selected site slopes down from east to west, so that the new building will have two stories at the west (entry) side facing the pond, and one story at the uphill side. Visitors will use new vertical circulation inside and outside the building to make the transition to the outdoor exhibits and to the hiking trails, respectively. The building's lower (entry) level includes the "free" public areas, such as the lobby, orientation exhibits and the gift shop, as well as staff-only areas such as animal care and the workshop, which are served by a staff entrance. At the upper level are the "paid" public areas such as the lecture hall and exhibits, and also staff administrative offices. The interior stair, which transitions between the "free" information/orientation area and the "paid" exhibit area provides a conceptual representation of Great Blue Hill, with opportunities for interpretive exhibits incorporated into the stair. One live animal enclosure – for snakes – is visible from the stair and orientation area. Building materials can include local or regional wood and stone (note that it is small enough in area to have a wood structure, according to the Building Code), and the majority of program spaces will have windows, allowing natural ventilation, daylighting and views to the site.

The site plan emphasizes improved vehicular and pedestrian circulation for Trailside visitors, trail users and shared winter use by the Blue Hills Ski Area. The north parking lot will become the primary parking and vehicular drop off for the Trailside building, with the south lot available as the primary lot for skiers, with both lots proximate to the trail system for recreational hikers.

However, either lot can alternatively be used for skiers or Trailside visitors as pedestrian paths connect both parking lots and the building entrance around the pond, which is now free and open to all with an elevated board walk. The outdoor animal exhibits are accessed through the Trailside building and feature amphibians, birds and mammals native to the Blue Hills. The proposed animal exhibit area contains species currently exhibited at Trailside, with a designated expansion area for future exhibit development. The animal enclosures are roughly grouped or arranged following a series of native habitats (wetlands, forest, fields, and rocky outcrop), with accompanying plant community exhibits incorporated into the enclosure area. Both the interior and exterior exhibits emphasize the geology, plant communities, habitats and animal species native to the Blue Hills, with opportunities for the presentation of "Hot Topics" current to the Reservation. Outdoor program spaces are provided in two areas: an outdoor amphitheater transitions up the slope at the north end of the museum with easy access to trails, and a second program/picnic area is located within the animal exhibit area. Trails can be easily accessed both from the south parking (Red Dot Trailhead) as well as the north parking lot and outdoor gathering area.

### Specific Changes

The proposed Site Plan and building Floor Plans attached to this summary reflect design changes that address comments received on the preliminary draft plans, and the aforementioned follow-up discussion between DCR, MAS, and the consultant team, and which were included in the draft Master Plan. The following changes should be noted from the plan presented on May 7:

1. Vehicular circulation and parking:
  - North parking lot has been reconfigured to eliminate bus turn-around and to increase parking capacity
  - Exits from both lots have been angled to direct traffic exiting right only, for safety and improved traffic flow.
  - Total parking capacity is now 202 parking spaces (119 in south lot, 83 in north lot) Note that the current parking capacity is 208 striped spaces (103 in south lot, 105 in north lot) but the majority of these spaces are substandard in size with some inaccessible. Note that this site plan results in a net reduction of impermeable surface area devoted to parking. (Good Point)
  - Inclusion of a proposed public bus stop location for a potential future stop. (Thanks)
2. Museum building:
  - Building has been rotated slightly on the site
  - Information/orientation area is reconfigured slightly to create clearer control points for arrival and ticketing, and expanded to house large groups out of the weather.
  - Kitchenette is added to 2nd floor program area
  - Emergency egress is provided at northwest corner of lecture hall
  - View of Otter exhibit (pool + den) is noted in 2nd floor lobby and exhibit hall.
  - Snake exhibit is free and visible from the first floor information/orientation area
3. Red Dot Trail:
  - Trail and trailhead have been relocated south of existing trail to provide additional space and buffer for the outdoor animal enclosures, returning the trailhead to its historic location.
  - Equalizes access from both parking lots to the Reservation's most popular trail
  - Allows for better drainage and control of severe erosion
4. Outdoor animal enclosure area:
  - Program/picnic area has been added
  - White-tailed Deer and Wild Turkey have been separated with individual enclosures
  - Holding area for Red Fox has been added
  - Fisher has been added to phase 1 exhibit area.
  - Exhibit and holding dimensions reflect professional husbandry standards for zoological exhibits.
  - Expansion area is proposed to accommodate additional species (Bob Cat, Lynx, Black Bear, and Coyote).

## 5. Pond boardwalk:

- A new raised boardwalk is shown on the site plan. This will be elevated above the pond and wetland vegetation, with railings to prevent site access and to protect the shore of the pond. The perimeter should be heavily planted with woody wetland vegetation on the outside to further discourage unauthorized access. This boardwalk is proposed to be open and free to all visitors. A low fence could be considered later if necessary for additional site protection.

## 6. Stormwater management

- The site plan shows conceptual recommendations for stormwater management: drainage swales, bio swales, and devices to reduce the hydraulic energy of water flowing down the slope (energy dissipater), which would all be developed in greater detail as the schematic design plans are prepared in subsequent phases.

## Trailside Advisory Committee Invitees

Ski Blue Hills Management LLC  
Blue Hill Observatory Science Center  
Brookwood Community Farm  
Buttonwood Park Zoo- New Bedford  
Canton Planning Board  
Canton Recreation Department  
DCR Regional Staff  
DCR TrailWatch  
Eastern Nazarene College  
Friends of the Blue Hills  
Massachusetts Audubon Society  
Milton Planning Board  
Milton Recreation Department  
Trailside Sanctuary Committee  
Trustees of Reservation - Bradley Estate  
Wakefield Charitable Trust  
YMCA Camp Ponkapoag  
Zoo New England

## Project Team

Massachusetts Department of Conservation and Recreation (DCR)  
Peter Church, Acting Deputy Director for Urban Parks and Recreation  
Barbara Farina, Architect and Regional Planner, Trailside Project Manager  
Maggie Brown, Captain, Park Rangers  
Robin Pfetsch, Architecture Section Director  
Julia O'Brien, Chief Planner  
Robert MacKenzie, Blue Hills District Manager  
Paul Cavanagh, Resource Management Planner  
Brian Haak, Regional Resident Engineer

Massachusetts Audubon Society (MAS)  
Norman Smith, Sanctuary Director, Trailside Museum  
Andrea Lukens, Regional Director  
Stuart Weinreb, Director of Capital Assets and Planning  
Lucy Gertz, Visitor Education

## Consultant Team

Pressley Associates, Landscape Architects  
Schwartz/Silver Architects  
Object/IDEA, Interpretive Planners  
Ursa International, Zoological Exhibit Specialists  
Bryant Associates, Engineers  
LEC Environmental Consultants