MON-D06: Access and Experience: A Best-Practice Primer for Inclusive Design

Lead Presenter:
Jennifer Brooke, ASLA – Principal, Lemon|Brooke

Co-Presenter:
Stuart Weinreb, ASLA – Director of Capital Assets and Planning, Mass Audubon

Co-Presenter:
Thomas McCarthy, ASLA – Director, Universal Access Program

Learning Objectives:

- Learn how an inclusive design approach is different than meeting ADA design standards.
- Acquire inclusive design strategies and specifications used on park, conservation land, institutional and recreational projects.
- Understand how technical knowledge, program management and community partnerships together create successful inclusive landscapes.
- Explore demand for frontline information regarding design and construction of inclusive landscapes and available resources.

Inclusive Design: Dispelling Myths and Managing Expectations

Speaker Bio- Jennifer Brooke

Jennifer is a founding partner and principal designer at Lemon|Brooke, a small practice with big project experience, steadfastly focused on the designed landscape. At the core of their approach is a belief that the built environment is a profound source of identity, meaning, clarity, and equity. In 2005, the firm’s principals, Christian Lemon and Jennifer Brooke created the studio that has developed an integrated portfolio including university and corporate campuses, schools, museums, urban plazas, and roof gardens.

Their professional expertise and personal life collided in 2006 when they became parents of a Deafblind child. This opened a unique window through which to look at the role of design as not just an exercise in shaping experience but also a tool for positive change. Lemon|Brooke continues to successfully overlay this perspective onto the firm’s expectations for the delivery of timeless, efficient, integrated and memorable spaces.

Recognized for her ability to blend the artful and the practical, Jennifer explores the sensory impacts of the environment on the human experience. She is a regular consultant to the Institute for Human Centered Design, where her expertise as both an award winning-designer and the steadfast parent of a sensory and mobility challenged child are brought to bear on the challenges of creating universally accessible spaces that are also aesthetically prominent.

Jennifer has had an active academic background and held a tenured teaching appointment at the University of California, Berkeley and an adjunct faculty position in the Architecture Department at the California College of Art in San Francisco. Jennifer earned a BFA at Parsons School of Design in New York City and a MLA from Harvard
University, in Cambridge MA, where she was awarded the Charles Elliot Traveling Fellowship for excellence in design, and the Thayer Award for academic excellence.

Currently she is focused on the expansion of a children’s science museum in Acton, MA, a signature stormwater reclamation project in the urban heart of Philadelphia, PA and a K-12 campus in suburban Fairfield Co., CT for students on the Autism Spectrum.

Jennifer may be contacted at jennifer@lemonbrooke.com

**Defining Disability:** ADA, 1990 - Person centric, diagnosis-based definition
http://www.ada.gov/ada_intro.htm
WHO, 2001 – Context centric, experience-based definition
http://www.who.int/classifications/icf/icf_more/en/

**Scale vs. Meaning:** Small moments are important.

Ian McHarg found a way to make small pieces of the environmental puzzle have equal weight in an overall development equation. Even things that had previously not been seen as having economic value such as scenic views.


Is there a parallel model for weighting the small, intimate, and sensory rich moments so important to an individual’s understanding of place?

‘Sensory feedback shapes individuality to provide equal space for behavioral excellence’, 10/01/2015, [Current Biology](http://www.current-biology.com)

**Educate / Elaborate:** Precedents are powerful.

Keep a collection of images that reflect inclusive design strategies that not only work, but may not typically be thought of as inclusive strategies. Expand the visual vocabulary of your team.

If Merriam-Webster can do it, surely we designers can too...
http://www.visualdictionaryonline.com/

**Fantasy / Reality:** Who are you designing for?

Gather statistics about current and potential users, as they may be different today than they will be in 5 years. How are they different now than 5 years ago? Survey people. Allow for multiple means for responding. It never hurts to ask.

Inclusive Process: Jane Jacobs said, “Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody.”

Designing ‘for’ is different than designing ‘with’. Who to call upon? User-Experts can offer insight not intuitively available, test assumptions and provide empirical evidence. Real people with real feedback.

http://www.humancentereddesign.org/universal-design/userexperts

An obstacle is only a problem until you start seeing it as a challenge. Problem solving is what designers do and do elegantly.

Paying for Inclusion: The world is your client.

OXO based their entire business on the concept that Universal Design would create beneficial products but also be a sensible business model. http://www.oxo.com/our-philosophy

‘Designing for the most diverse range of people is good for business. “What is Universal Design and how can it benefit business?’ US Dept. of Labor

http://www.dol.gov/odep/media/newsroom/universal.htm

Already a recognizable strategy for product design, is ‘inclusive’ a selling point in the design of the environment yet? Europe and Scandinavia are moving ahead quickly....The US, long without the buy-in of an idea that disability is human condition that we will all share at some point, is slowly catching up, aided by an aging population with the resources to change the status-quo.

http://www.inclusivedesign.no/case-studies/category123.html

Inclusive Design: Designing the Outdoor Experience

Speaker Bio – Stu Weinreb

Stu Weinreb has applied his landscape architecture skills to protect, enhance and manage natural and cultural resources for public benefit and enjoyment for over 30 years. His career in public work began at the Massachusetts Department of Environmental Management, with the restoration of Walden Pond’s banks and trails. He subsequently led a team that created the master plan for the Walden Pond State Reservation. He went
on to plan and manage the restoration of significant sites across the Massachusetts state park system, including the Boston Harbor Islands, Mt. Greylock, and Pilgrim Memorial State Park, the site of Plymouth Rock.

As the Director of Capital Assets and Planning for the Massachusetts Audubon Society, an educational nonprofit organization, Weinreb oversees planning, design, and construction of major improvement projects for the 61 wildlife sanctuaries Mass Audubon owns and operates for the purposes of education and environmental conservation. He has brought an emphasis on sustainability through green design and building, energy conservation, and renewable energy to Mass Audubon’s sanctuary system over the past 12 years.

As Director of Capital Assets and Planning for Mass Audubon, an educational nonprofit organization, he has applied his landscape architecture skills to the planning, restoration, and continuing stewardship of the 34,000 acres in Mass Audubon’s portfolio, along with the 250 structures that sit in these significant cultural and important ecological landscapes. For over twelve years Stu has brought an emphasis on sustainability through green design and building, energy conservation, and renewable energy to Mass Audubon’s sanctuary system, for the purposes of education, environmental conservation, and enjoyment of the outdoors for all.

In 2013, Stu received the ASLA’s LaGasse Medal for contributions to the management and conservation of natural resources and public landscapes.

Weinreb is a longstanding member of the Walden Pond Board of Directors, a citizens advisory committee that advises the Department of Conservation and Recreation on park planning and management.

Stu can be contacted at: sweinreb@massaudubon.org

Intro – Mass Audubon’s Approach to Accessibility & Inclusivity

GOAL: Connect People and Nature: Engage and motivate people to learn about, enjoy and be inspired to act to protect the Nature of Massachusetts
OBJECTIVE: Enhance visitor services and visitor education
ACTION: Expand universal accessibility of buildings, trails, and exhibits;
Go beyond ADA requirements to provide opportunities for all visitors to have a meaningful outdoor experience

Two Key Concepts:
  1) Trail Design for Universal Access
  2) Going Beyond Physical Access

ADA Compliance Only Goes So Far
Access Routes Are Not Trails

U.S. Forest Service Trail Accessibility Guidelines

Create Trails to Provide An Interesting Experience For All
Select a Site That Contains Interesting Features
Connect Features & Points of Interest

Challenges
  Grade
  Tread Surface
  Drainage
Include Trail Builders
Professional Trail Builders Association

Going Beyond Physical Access
Rope Guide System for the Visually Impaired
The “Experiential” or “Sensory” Overlay
Self-Guided Interpretation

Outreach: Creating Partnerships for Inclusivity
Transportation
Customer Service
Materials in Multiple Formats
Information Available in Advance
Supporting Different Levels of Independence

Programming and Planning Inclusive Design in the Larger Recreation Landscape

Speaker Bio- Tom McCarthy
(413)348-2383
Tom has been committed to providing quality accessible recreation experiences in the outdoors for more than twenty years. Prior to his concentrating on the needs of people with disabilities to access outdoor recreation, Tom began his affiliation with state parks through the Massachusetts Department Environmental Management as a consulting Landscape Architect in the late 1980’s. He developed a broad overview of public outdoor recreation and the importance of design to create an affinity between the natural and built environments. In 1995, his creation of the Universal Access Program reflected the broader scope of outdoor recreation needs for people with disabilities in Massachusetts State and Urban Parks through the combination of Universal Design, specialized programming and the inclusion and strategic placement of adaptive recreation equipment. Tom has consulted on projects and presented nationally and internationally on the importance of planning for the inclusion of adaptive technologies and equipment along with assistive programming for outdoor recreation activities when designing outdoor recreation facilities and large scale landscapes. His work in the blending of site design and programmatic accessibility strategies has made numerous state parks and recreation facilities accessible to people with disabilities at a level that goes far beyond meeting current standards.
Planning for the Recreation Landscape
Accessible outdoor recreation in the larger landscape.

Determining the Scope - Gathering all the information
What programming is available to the public as offered by the public agency, Park system, municipality, etc.? What has been evaluated? Is there a transition plan in place? What is the quality of the plans and evaluations?

What is Possible - Do not make assumptions
About what is or is not possible. About what is safe or unsafe. About who you think your user group might be. At the beginning it's critical that all options are left open. It is very important that there is an inherent belief that all options are possible. Plan on serving everyone regardless of ability.

Who needs this?
Government estimates 18 + % of the population has some type of disability. This estimate includes everything from very minor disabilities that might be considered more of an inconvenience to the individual afflicted to the most severe disabilities. Within this huge range of diagnoses of disability the range of ability within each diagnosis is huge as well.

Who is Able Bodied?
Ability is very much a personal, individual experience. Factors affecting an individual's ability within a particular disability go far beyond a medical diagnosis to include factors such as attitude, financial resources, environment, where someone lives, and so on.
GENERAL ASSESSMENT CHECK LIST

Universal Access Program

This is intended as a minimal survey guideline to assist capital planning efforts

Park Name: ___________________________________________

Park Building or Recreational Activity: _______________________________

(Use one form for each building with public programs and/or each recreational activity.)

Instructions:

• General accessibility criteria are given in italics.
• Indicate/Answer “yes” or “no” at each item.
• This form may be filled out electronically, to allow additional notes below each category, especially at parks that have multiple use areas.

Parking

__Handicap/Accessible Parking (clearly marked with signs, level, 8 foot wide minimum parking space with 5 foot aisle, minimum of 1 van space with 8 foot wide aisle, within 200 feet of the visitor’s center/restroom)

Pathways

__Pathways (connect from accessible parking to restrooms, visitor center, recreation site/activity, yurts, campsites, etc., at least 3’ wide, smooth transition — no gaps)

Entrances to Buildings

__Entrances (32” clearance, usually requires 36” wide door, doorway not blocked, door opens easily, not overly heavy)

Rest Rooms

__Entrance/doorway (as above, 32” minimum clearance)
__Grab bars (two bars firmly affixed to the side wall nearest the toilet and back wall)
__Toilet is in working condition
__Lock in working condition (there is one and it keeps the door closed)
__Access/Egress to bathroom/clivus (properly graded, smooth correct width)
__Receptacle (in accessible stall for disposal of non-flushable items)

Picnic Areas

__Picnic Tables (with overhang for wheelchair accessibility, 3’ diameter clear space around table for maneuvering wheelchair, overhang facing out- if near wall- so it can be used by wheelchair, available on or near areas being used by the UA program on program days)
__Rotating Grills – 3’ diameter clear space all around

Boardwalks

__Boardwalks to water/on beach (no more than one-half inch gap in wood, surface smooth, nails/screws not sticking up, non-slip surface, especially near water, unobstructed).

Reach Heights

__44” maximum height (for any offering to the public, such as brochures or maps, paper towels/hand dryer.)
Get a quick accessibility overview of an organization with many parks. Use the general assessment checklist above to generate data to be entered into the Accessible Park Matrix, shown below as an Excel spreadsheet.

### Accessible Park Matrix

Here is an example of how the Accessible Park Matrix is structured:

<table>
<thead>
<tr>
<th>Park Name</th>
<th>Location/State</th>
<th>Region</th>
<th>Telephone</th>
<th>Website</th>
<th>Parking</th>
<th>Pathways</th>
<th>Restrooms</th>
<th>Wheelchair</th>
<th>Play Areas</th>
<th>Beaches</th>
<th>Boating</th>
<th>Camping</th>
<th>ADA Accessible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lupine Bay Park</td>
<td>Massachusetts</td>
<td>New England</td>
<td>508-530-0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hansen Park</td>
<td>Massachusetts</td>
<td>New England</td>
<td>508-530-0000</td>
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</tr>
</tbody>
</table>

The matrix includes columns for various features such as parking, pathways, restrooms, wheelchair accessibility, play areas, beaches, boating, and camping, along with an indicator for ADA accessibility.

The Accessible Park Matrix helps to systematically assess and document the accessibility of parks, ensuring that organizations can identify areas for improvement and provide better access for all visitors.
**References & Resources:**

United States Access Board, Guidelines and Standards for Federal Outdoor Developed Areas  

United States Access Board, Guidelines and Standards for Recreation Areas  

United States Access Board, ABA Guidelines for Buildings and Sites  

Department of Justice, 2010 ADA Standards for Accessible Design  

United States Forest Service, Accessibility Guidebook for Outdoor Recreation and Trails  

National Park Service, All In!, Accessibility in the National Park Service  
[http://www.nps.gov/aboutus/upload/All_In_Accessibility_in_the_NPS_2015-2020_FINAL.pdf](http://www.nps.gov/aboutus/upload/All_In_Accessibility_in_the_NPS_2015-2020_FINAL.pdf)

National Trails Training Partnership  
[http://www.americantrails.org/resources/accessible/](http://www.americantrails.org/resources/accessible/)

Mass Audubon’s Accessible Trail Manual  

Mass Audubon’s issue of *Connections*, featuring a cover article about our accessible trails project.  

Article describing the Mass Audubon accessible trails project in the IMLS blog:  

Professional Trail Builders Association  

**Public design and assessment Resources**


- Architectural Barriers Act Accessibility Standards (ABAAS)—[http://www.access-board.gov/ada-aba/](http://www.access-board.gov/ada-aba/)

• Beneficial Designs—http://www.beneficialdesigns.com/


• Forest Service National Trail Specifications—http://www.fs.fed.us/database/acad/dev/trails/trails.htm

• Forest Service recreation opportunities—http://www.fs.fed.us/recreation/

• Forest Service Trail Accessibility Guidelines (FSTAG)—http://www.fs.fed.us/recreation/programs/accessibility/


• International Building Code (IBC)—http://www.iccsafe.org/


• Recreation Opportunity Spectrum (ROS)—http://fsweb.wo.fs.fed.us/eng/facilities/recopp.htm


• Rehabilitation Act Section 504—http://www.accessboard.gov/enforcement/Rehab-Act-text/title5.htm


• Uniform Federal Accessibility Standards Accessibility Checklist—http://www.access-board.gov/ufas/UFASchecklist.txt/
