



Adaptive Environments

Human Centered Design

**South End Branch, Boston Public Library  
Proposed Scope of Work: Library-for-All Renovation  
December 20, 2007**

**Approach:**

Adaptive Environments (AE) proposes to consult with Boston Public Library Neighborhood Services in a collaborative, participatory process to plan renovations to the South End branch library that will make it more usable and more welcoming to current and new users. AE will use the lens of universal design in the analysis and development of recommendations for both the physical and information technology environments. Universal design a framework for the design of places, things, information, communication and policy that focuses on the user, on the widest range of people operating in the widest range of situations without special or separate design. The project will be documented and organized as a case study in order to provide the Boston Public Library with a tool for educating and soliciting potential funders to support replication of the project in other branches.

**1) Undertake a citizen participation process** in collaboration with the BPL Neighborhood Services Manager, Friends of the South End Library, Branch staff and representatives of other neighborhood groups.

The process will include:

- gather priorities identified to date by Friends of the SE Library & others. Solicit information from identified priority audiences (e.g., young adults, families) via face-to-face meetings.
- uncover unmet needs by interviewing people whose needs may not be known (e.g., older residents in the neighborhood, working age low-income adults, disparate immigrant groups including the large number of Latinos as well as Asians and a growing number of Africans at Cathedral Housing.

**Product #1:** *Consensus plan with goals and priorities for the renovation of the South End branch.*

**2) Research best practices in both information technology and physical space design in small libraries across the US and the EU.**

The American Library Association and the European Commission have both committed to universal design as a key to libraries that work well for the demographic realities of the 21<sup>st</sup> century.

“Libraries should use strategies based upon the principles of universal design to ensure that library policy, resources and services meet the needs of all people (ALA Council policy statement, January 16, 2001).”

**Product #2:** *A digital compendium of best practice examples will be organized as a resource that informs the South End Branch process as well as the plans for replication of the project.*

**3) Conduct analysis of existing conditions:**

Inventory and evaluation of the current physical environment and information technology resources are necessary in order to identify resources that work well, resources that work poorly and gaps in resources.

**Information Technology** inventory including hardware, software & peripherals from an accessibility and universal design perspective. The assessment will include current capacity of technology used by the community and by staff.

**Built environment** inventory will include observation, documentation and testing (e.g., indoor air quality) of the following:

- Lighting
- Physical Layout
- Wayfinding & navigation
- Color
- Furnishings
- Indoor Air Quality

**Product #3:** *A written report detailing existing conditions in both categories.*

#### **4) Renovation Design Development & Cost Estimation**

In order to get the most impact from the participatory process, we see design development is a spiral of drafting, reviewing, incorporating feedback and redrafting until consensus is reached. It starts with knowing the budget for the renovation and weighing choices against this reality. Priorities beyond the initial budget can be pursued but to a lesser level of detail.

There are two distinct elements to Design Development & Cost Estimation: Built Environment & Information Technology. The best outcome is expected to result from a clear understanding of a relationship between the technology functions and the design of the physical space.

- Prepare initial set of recommendations following information gathering. Invite feedback.
- Revise to incorporate recommendations.
- Develop revised design recommendations with additional detail. Invite feedback.
- Revise to incorporate recommendations.

**Product #4:** *Develop final recommendations for priorities for immediate work in the built environment and information technology with available funds & describe future priorities when funding is available.*

#### **5) Prepare construction documents with specifications for agreed upon work in initial phase**

AE will prepare construction documents suitable for moving forward with renovations using either internal BPL staff or external contractors.

**Product #5:** *Construction documents with detailed drawings and specifications.*

#### **6) Document the entire process and prepare an illustrated narrative case study.**

The case study is intended to support both replication and solicitation of funding support for additional branch library projects. The initial case study will be supplemented by the Post-Occupancy Evaluation noted in #7.

**Product #6:** Case Study of the process and results with narrative and images. Until the POE is complete and integrated, the Case Study will remain a draft.

### **7) Conduct a Post-Occupancy Evaluation**

In order to know whether the renovations have had the intended outcome of improving the experience of building users, a Post Occupancy Evaluation (POE) will be conducted at least three months after changes are complete for the first phase. Post Occupancy Evaluation involves systematic evaluation of opinion from the perspective of the people who use the building and will include patrons and staff. Particular interest groups identified as priorities for outreach through the participatory process will be solicited in particular for their opinion of the effectiveness of the changes.

**Product # 7:** POE written report.

### **8) Organize a landscape charrette for the South End branch outdoor space on the corner of Rutland and Tremont Streets.**

In partnership with either the Boston Architectural College (BAC) or the Graduate School of Design (GSD) at Harvard, organize a participatory design planning event for the future integration of library programming in the adjacent park.

**Product #8:** Charrette outcome report to be attached to the case study. It is expected to include a description of the process, participants, working drawings and recommendations.

## **Adaptive Environments' Team:**

As in all AE projects, we assemble teams that combine our internal staff with external colleagues who bring expertise pertinent to the particular project

**Faith Baum, AIA, Adjunct Professor, Rhode Island School of Design**

**LEAD DESIGNER, PHYSICAL ENVIRONMENT**

Faith Baum has been practicing architecture since 1978. She received her Bachelor of Arts (1973) and Master of Architecture (1978) degrees from the University of Pennsylvania. An active member of the BSA, AIA and IIDA, she is a registered architect in the states of Massachusetts, Rhode Island and Pennsylvania.

Beside practice, Faith is committed to design education. She has served as a guest critic at numerous universities and as assistant professor of Interior Design at Drexel University (1990-1992). She headed the department of Interior Design at the Boston Architectural Center (now Boston Architectural College) (1993-1997) where she initiated the curricula for Bachelor of Interior Design and the Master of Interior Design degrees. Faith's utilizes her education activities to research the topics of the design of the environment and contribute to the education of the next generation of design professionals.

Presently, Faith is principle of Faith Baum Architects in Lexington, MA and teaches two courses in the Interior Architecture Department at Rhode Island School of Design; *Human Factors* and *Color for Interiors*. Her coursework and practice converge to focus on human centered design, exploring the physiological and psychological requirements of environmental design. Faith has presented this topic at American Association Of Museums Annual Meeting And Museum Expo, (2001), Neocon (2002), and Residential Build Boston (2005). She contributed the chapters on *Human Factors*, *Color*, and *Paint* to the Interior Design Graphic Standards, (Wiley Publications, 2001).

**Barbara Knecht, R.A., AE Director of Design,**

**CASE STUDY WRITER**

Knecht's work in architecture and urban environments includes research and analysis, architectural programming, publicly funded housing, project planning and management. She works with the public (NYC Housing Authority, NYC Department of Homeless Services) and private (The Kaplan Fund, Center for Independence of the Disabled) sectors as well as numerous not for profit organizations (HELP USA, Self-Determination Housing Project of Pennsylvania, SoHo Partnership). She writes Continuing Education articles on architectural technology for *Architectural Record* and on urban issues for The Enterprise Foundation.

Prior to her consulting work, Barbara Knecht served as Advisor to the Executive Deputy Commissioner for the NYC Human Resources Administration and Acting Assistant Deputy Commissioner for the Health and Human Services Unit. Her responsibilities included design and implementation of special projects for the New York City shelter system and long-term planning and crisis resolution in health service delivery to homeless people. In this position, she also designed new models of special needs housing, and developed policy and plans for health services.

From 1987-89 she served as Director of Facilities Design for New York City Human Resources Administration, Supported Housing Development. She developed architectural programs, reviewed design and coordinated development for emergency, transitional and SRO housing for homeless families and adults. Projects included the first newly constructed SRO housing in NYC, as well as 2300 family units and 1600 adult beds produced by conversion of non-residential buildings, rehabilitation of vacant residential buildings, and construction of new buildings.

Ms. Knecht holds a Master of Architecture from Columbia University and a Bachelor of Arts from the University of California, Berkeley where she worked with Ray Lifshetz on the earliest architectural program that engaged people with disabilities in the studio and in community projects. She is a registered architect in New York State. She was awarded a Loeb Fellowship in Advanced Environmental Studies at Harvard University Graduate School of Design, a Kinne Fellowship from Columbia University and a grant from the Graham Foundation for Advanced Studies in Fine Arts.

Ms. Knecht is the author of the article in the January 2004 issue of Architectural Record, *Accessibility Regulations and a Universal Design Philosophy Inspire the Design Process*.

**Emmanuel Andrade, Architectural Designer, LEED Certified**  
**DESIGN DEVELOPMENT, INDOOR AIR QUALITY ASSESSMENT, SPECIFICATION RESEARCH,**  
**CONSTRUCTION DOCUMENTS**

Emmanuel Andrade earned a Bachelor's Degree in Architecture from Universidade Norte do Paraná and has a Brazilian architecture license. Emmanuel joined AE initially as an intern and now works as an architectural designer. He contributes to all AE consulting projects and has developed increasingly sophisticated skill in plan review and design development.

**Stephen Demos, RA, AE Senior Architect**  
**BEHAVIORAL DESIGN REVIEW, DESIGN DEVELOPMENT REVIEW**

Demos is Senior Architect at AE and has over 30 years of architectural practice specifically addressing universal design and design for people with special requirements. Since 1991, Mr. Demos has been responsible for design review of pedestrian facilities and ADA compliance for the entire \$14.7 billion Central Artery/Third Harbor Tunnel project in Boston - over 75 design contracts covering buildings, transit stations, parking garages, commercial spaces; water ferry docks; sidewalks, parks, plazas, streetscapes; and the park at Spectacle Island. Other

recent work includes Universal Design Consultant for the Boston Exhibition and Convention Center, three Boston subway stations, four docking facilities, and assorted buildings and residences. He has also recently collaborated on a rider's guide to Boston's subway system and wrote the access related text in the new R.S. Means *ADA Compliance Pricing Guide*.

Mr. Demos has been on the faculty of Harvard Graduate School of Design, Boston Architectural Center, Phillips Academy, and Phillips Exeter Academy as well as presenting courses, workshops, and lectures both in the U.S. and abroad.

He was formerly Chief Architect for the Executive Office of Communities and Development and Chief Architect for the Boston Housing Authority. In these capacities, he developed design criteria based on behavioral design and sociological research. One of his books on behavioral based design won a Progressive Architecture Award for Applied Research, and many housing projects on which he collaborated have won state and national awards.

#### **Valerie Fletcher, AE Executive Director**

##### **PRINCIPAL IN CHARGE**

Fletcher has been Executive Director of Adaptive Environments for since January of 1998. She is responsible for organizational management and sets priorities and strategic direction with the Board of Directors. She lectures and writes extensively on all aspects of universal design and has co-chaired three international conferences on universal design. Valerie currently oversees projects addressing the role of design in social sustainability for the UN, creating an international universal design case study digital inventory, developing a new publication for Barnes and Nobel on inclusive residential design and a range of universal design consulting projects. Fletcher is Principal Investigator for AE's New England ADA and Accessible IT Center (Region I DBTAC). She is Special Advisor to Toto Limited in Japan.

Fletcher's career has been divided between design and disability. She is the former principal of Fletcher Studio Design. She is the former Deputy Commissioner of the Massachusetts Department of Mental Health where she established the Office of Consumer Affairs and was responsible for overseeing the conversion of \$74m from institutional care to community services resulting from the closure of four inpatient hospitals. The expanded network of community support services included 1400 units of scattered site housing, supported employment, supported education and flexible wrap around teams. She was also responsible for the creation of a new initiative for the

homeless mentally ill annualized at \$13M. Fletcher has a masters degree in ethics in public policy from Harvard University.

**Ana Julian, Associate AIA, TA Specialist, New England ADA Center @ AE**

**ADA/Massachusetts Architectural Access Board Review**

Ms. Julian is originally from Bogota and fluent in Spanish, French and English. She is an architectural designer who trained and practiced in Paris where she earned a Masters of Architecture degree from the Ecole Speciale d'Architecture and a Master in Techniques of Construction at the Institute de la Construction Industriale. She holds a certificate in Museum Studies from Harvard University Extension School. Ms. Julian has traveled extensively in Europe and practiced in French architectural firms designing affordable housing in Paris as well as a variety of projects for clients in the developing world. Ms. Julian initially joined AE as an intern in 1998 when she moved to the US. She became full-time Coordinator of Design and Communications in 2003, a position in which she participates in design consulting projects and in international collaborations.

**Maura Parente - Coordinator, Institute for Human-Centered Design at AE**

**PRODUCT REVIEW AND DESIGN DEVELOPMENT**

Maura Parente is an industrial designer and is the Coordinator of the Institute for Human Centered Design at Adaptive Environments in Boston. At the Institute, Maura works with the international design community to generate awareness about human-centered design. She is involved on a range of projects that cross design and non-design disciplines from educating clients about best practices to utilizing user-experts.

Maura has a MA of Industrial Design from Pratt Institute and specialized in designing products for the health care industry. Prior to becoming an industrial designer, she was a Program Director at a nursing facility in Cambridge, MA, which fueled her interest in the need to develop products and spaces that supported a spectrum of ages as well as peoples' diverse abilities.

**Maryanne Parker-O'Toole, MSLIS, Director of Information Management -**

**LEAD, INFORMATION TECHNOLOGY REVIEW & RECOMMENDATIONS**

Ms. Parker-O'Toole began her position in January 2006. She brings extensive experience in a wide range of accessibility technology including assistive technology. Since 1999,

Ms. Parker-O'Toole was Director of Academic Computing and Director of the New Media Center at the Art Institute of Boston where she developed the technology department from two general computer labs with 24 workstations to six digital studios specializing in animation, graphic design, digital printing utilizing 80 workstations. She was previously the Coordinator of Information, Training, Outreach and Publicity at the Massachusetts Assistive Technology Partnership Center.

Ms. Parker-O'Toole has a Masters in Library and Information Science from Simmons College and a BFA in Fine Arts from Massachusetts College of Art with a concentration in Sculpture and Industrial Design. She has extensive experience in on-line course development and very sophisticated skills to ensure the accessibility of all technology including digital, on-line and multi-media. Ms. Parker-O'Toole is a person with a disability.

**Katie Robert, AE Intern, Emmanuel College**

**PROJECT ASSISTANT**

Katie joined AE as an intern in the fall of 2007. While pursuing her BA in psychology at Emmanuel College, she has done research on the impact of environmental color on human affect, and is working with a professor examining aesthetics and the relationship between innovation and attraction preference. An avid artist since a youth, Katie participated in Art All-State in high school, and is now taking studio courses in drawing and sculpting. In the future, Katie hopes to merge her passions with what she's learned about universal design at AE for a Master's in interior design in order to eventually create environments that reflect the needs and aspirations of their occupants. She is particularly interested in how the design of community environments, such as hospitals, libraries and schools, can help or hinder its wide variety of users.

**Gabriela Sims, MPA, AE Director of Administration**

**ADMINISTRATION & DEVELOPMENT OF SPECIFICATIONS**

Ms. Bonome-Sims is AE's Director of Administration and manages financial operations as well as policies and procedures for Adaptive Environments. She has been with Adaptive Environments for sixteen years.

Ms. Sims will oversee the administrative and financial management for AE's portion of the project. She will also assist in the development of specifications and oversee graphic design. She has

taught Human Factors for the Interior Design Department at the New England School of Art and Design since 2000. She has an undergraduate degree from Parsons School of Design and a Masters in Public Administration from Suffolk University.

**Sally To, Intern @ AE, Rhode Island School of Design**

**PROJECT ASSISTANT (outreach to Chinese community)**

Sally To was born in Seattle, Washington and currently resides in Providence, Rhode Island with family in New York City. Currently in her fourth year at Rhode Island School of Design studying Interior Architecture, she holds strong interests in other fields as well including graphic design, architecture, and urban design. She has worked at Konyk Architecture PC in Brooklyn, New York as an architectural intern, taught underprivileged New York City Chinatown youth at Herald Gospel Camp, and volunteered rebuilding houses in New Orleans, Louisiana. She has won numerous awards and scholarships in the fine arts and graphic design through Scholastics Art and Writing Awards and Graphic Communications Scholarship, Award and Career Advancement Foundation, Inc. Having lived in and traveled to many countries, like Great Britain, Japan, and Italy, she fosters a deep appreciation for many cultures.

**Nella Young - Graduate Intern @ AE, Tufts University**

**PROJECT ASSISTANT**

Nella is a graduate student in the Urban and Environmental Policy and Planning program at Tufts University who comes to Adaptive Environments with an interest in urban planning and nonprofit management. She has worked in an assortment of startup companies and nonprofit organizations, including her most exciting job as an environmental art teacher and kayaking instructor at the Island School in the Bahamas. She has a Bachelors Degree in Sculpture from Wesleyan University. Nella brings her varied background in experiential education, outdoor leadership, and site-specific sculpture to explore the work of planning the built environment with many users' needs in mind.



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### BUDGET:

South End Branch, Boston Public Library  
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Product #1: Consensus plan with goals and priorities for the renovation of the South End branch	\$5,980
Product #2: A digital compendium of best practice examples will be organized as a resource	\$3,953
Product #3: A written report detailing existing conditions in both categories.	\$5,780
Product #4: Develop final recommendations for in the built environment & IT	\$5,940
Product #5: Construction documents with detailed drawings and specifications.	\$2,930
Product #6: Case Study of the process and results with narrative and images.	\$5,940
Product #7: POE written report.	\$2,835
Product #8: Charrette outcome report to be attached to the case study.	\$3,404
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<b>TOTAL</b>	<b>\$36,762</b>