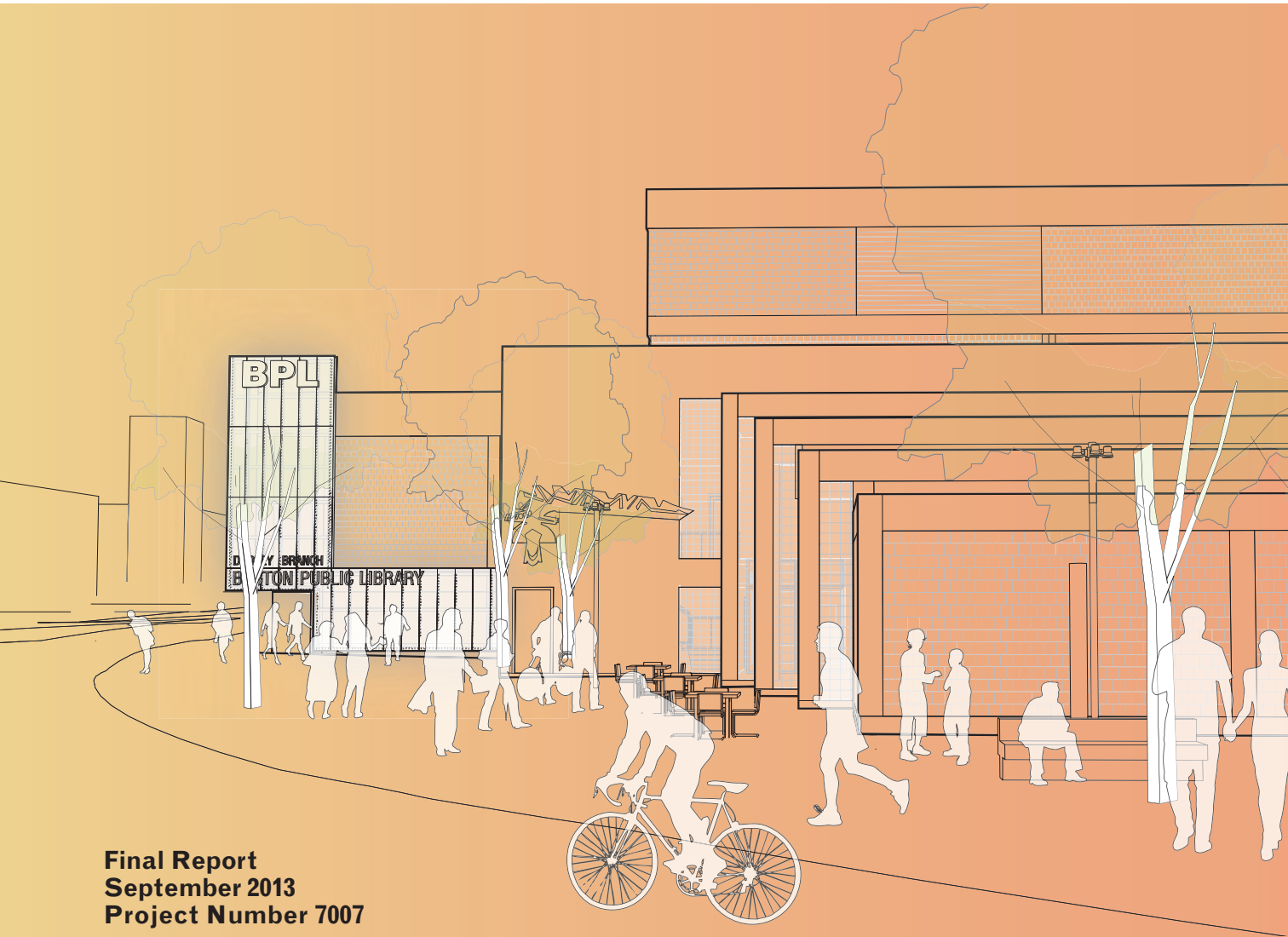
Programming Study for the DUDLEY BRANCH of the Boston Public Library



Final Report
September 2013
Project Number 7007

City of Boston
Thomas M. Menino, Mayor
Boston Public Library
Amy Ryan, President
Property and Construction Management Department
Michael J. Galvin, Commissioner and Director

utile

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New curtainwall galzing increases the connection between the library and the site

Consid
the build

Consider adding trees where possible

Carefully consider interface between bicycles and pedestrians in the plaza

Improvements to the plaza can better define areas for active programming and comnmunity gathering

er modest enhancements
ling's street presence and

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1 EXECUTIVE SUMMARY

As it stands, The Dudley Branch of the Boston Public Library is brimming with potential. The 35 year old building features a robust structure, beautiful and generous spatial arrangements allowing for a wide range of programmatic possibilities,and a prominent location from which to serve the Dudley Square community. Starting with these basics, this study outlines how the building can be responsibly reconsidered to meet the evolving needs of the contemporary library.

The Dudley Branch Library Study was commissioned by The City of Boston Property and Construction Management Department (PCMD), and the Boston Public Library (BPL). Utile, Inc. was selected in July 2012 to lead the study and to produce this report.

In order to take immediate action on improving the building's entry and address certain site concerns, work on the project was split into two courses: the design and documentation of entry and site improvements; and a comprehensive study of the library. The entry project is on track for a Fall 2013 completion.

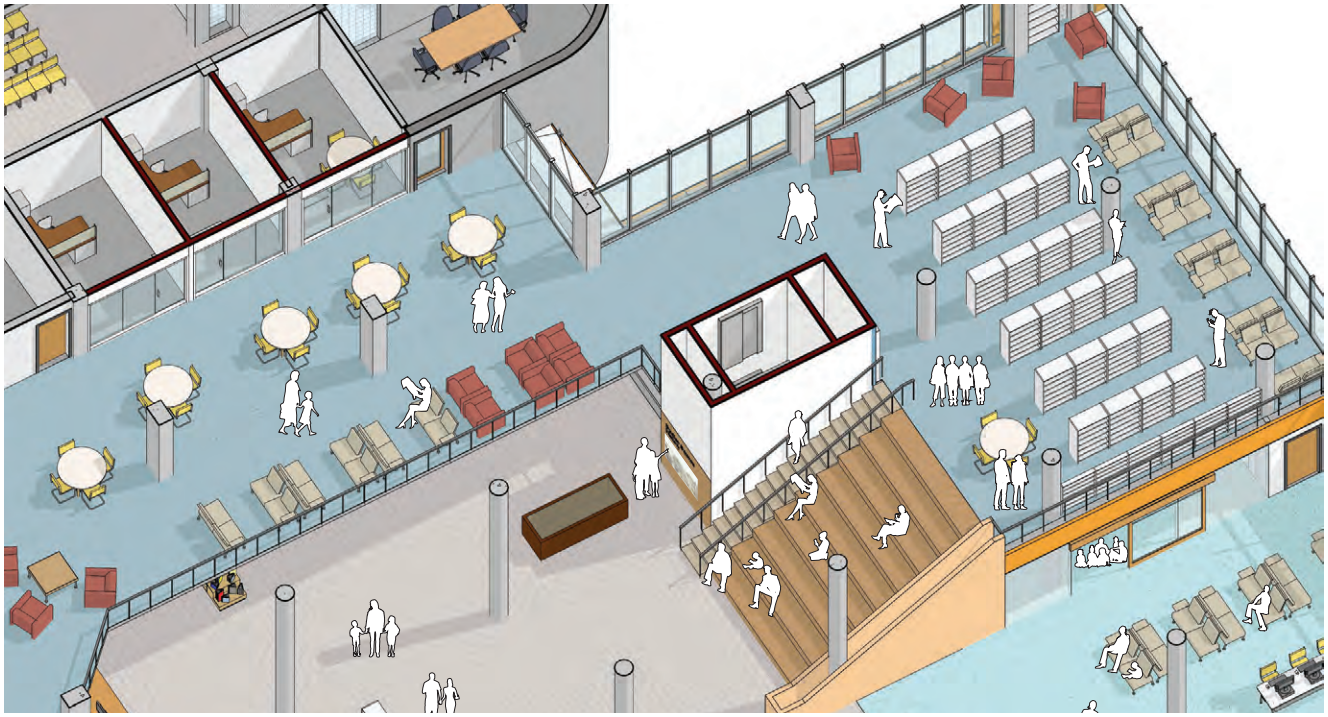
The study itself was broken into three phases: (1) an existing conditions analysis to take stock of the building's suitability to meet the current and future needs of the library; (2) a programming study to determine the optimal sizes and adjacencies for all of the various library functions; and (3) a conceptual design that brings it all together and illustrates how a thoughtful, well considered layout can breathe new life into the existing building and help it better serve its community.

The "BPL Compass: Strategic Plan," was developed by the BPL and approved by the Trustees in November 2011. It served as a critical resource throughout the study process to judge how the existing building functions and eventually to understand priorities and goals for the library during programming and design phases. Ultimately the BPL Compass served as a living document that ensured all efforts in this process were consistent with the objectives of the BPL. Further the study benefited from the spirited participation of a Community Advisory Committee which ensured this process was an inclusionary community effort.

The existing conditions analysis identified areas of focus that became priorities during the conceptual design phase. The programming phase concluded that areas devoted to meeting space and reading areas needed to be greatly increased in size. This increase is balanced by reducing the overall collection size and removing duplicative spaces.

The concept design strived to breathe new life into the library by building on its existing assets while addressing some of its shortcomings. It considered every area (entry, adult reading, adult non fiction, young adult, children's, community, literacy center, staff, and building systems) and fosters an environment that is welcoming, engaging and more responsive to how patrons use the library. The concept design distilled the following recommendations for the renovation of the branch:

- Create a meaningful connection between the levels of the library with a programmed stair. This serves as a central gathering place and establishes some hierarchy and orientation;
- Reposition and centralize the circulation desk as well as other staff areas to improve sightlines;
- Improve spatial definition to better respond to particular needs to distinct user groups of the library;
- Improve performance and energy efficiency of



building systems as necessary. In particular, update mechanical distribution systems to remove large low hanging ducts in the library "box;"

- » Ensure that the library is fully accessible inside and out;
- » Improve signage and wayfinding;
- » Modernize furnishings and equipment to be more flexible and comfortable;
- » Enhance the branch's local history and archive section

In total, the conceptual design adds approximately 1,200 sq. ft. of new area for a 27,000 gross sf. ft. facility. Site recommendations were developed to better connect the library to its site amenities and enhance the overall presence of the building. The conceptual design recommended more glazing to increase visibility into the library from outside. It also considered strategies to enhance the plaza and incorporate additional greenspace.

This Final Report describes the process, outcomes and conclusions of the nearly year long study of the Dudley Branch. It reflects a range of perspectives from a variety of stakeholders. Next steps require an appropriation for design and construction phase. The participants all look forward to building on the conclusions of this study and working to revitalize this valuable community asset.

(Top) Illustrative axonometric view of conceptual design showing a new connection between the two levels of the building.
(Middle) Illustrative rendering of concept design for the Dudley Branch.
(Bottom) Illustrative rendering of Dudley Branch Entry improvements. The entry design is a seperate scope of work from this study.

2 Project Background

Project Team
History of the Dudley Branch Library
Process and Schedule
BPL Compass

Section Summary

- A project team of city stakeholders, consultants and community members geared this study of the future of The Dudley Branch Library.
- The Dudley Branch Library has served its communtiy well for decades, but it is in need of substantial investment.
- The study consisted of three phases: existing conditions analysis, programming and concept design.
- Community input was important through the process and all relevant information was posted to the BPL website for further public outreach
- The BPL Compass served as a living document that guided the process of the study.

Project Team

The project team for this study was made up of members of the City of Boston Property and Construction Management Department, the Boston Public Library, a Community Advisory Committee composed of key stakeholders, and the project consultants.

City of Boston Property and Construction Management Department

Michael Galvin, Commissioner and Director of Capital Construction
Joseph Mulligan, Deputy Director of Capital Construction
Daniel Pierce, Assistant Director of Capital Construction
Patrick Brophy, Assistant Director for Operations of Capital Construction
Maureen Anderson, Senior Project Manager
Tom Leahy, Senior Project Manager
Alistair Lucks, Project Architect

Boston Public Library (BPL)

Amy Ryan, President
Christine Schonhart, Director of Library Services, Branches
Jim Meade, Superintendent of Facilities
Eamon Shelton, Major Projects Program Manager
Janet Buda, Branch Librarian for the Dudley Branch

Boston Redevelopment Authority

Kairos Shen, Chief Planner City of Boston
Roger Mann, Special Assistant

Boston Transportation Department

Patrick Hoey, Projet Manager

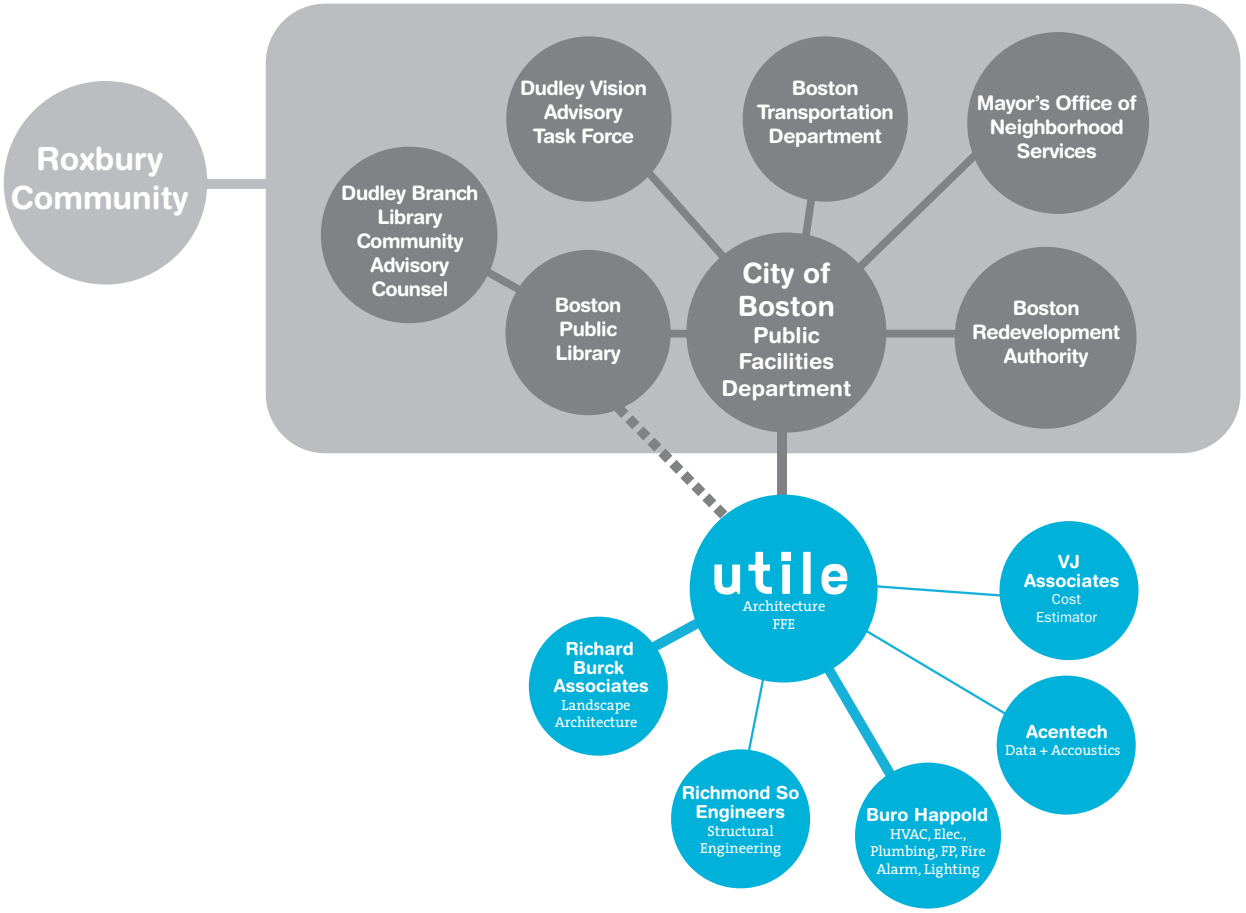
Community Advisory Committee

Alwyn McLeod, Mayor's Office of Neighborhood Services, Roxbury Coordinator
Sarah Ann Shaw
Inez Foster
Andrea Swain
Loretta Bell-Lewis
Mary Churchill
Aziza Robinson-Goodnight
Bing Broderick
Eric Estevez

Project Consultants

Utile, Inc.
Michael LeBlanc, Principal
Jonathan Evans, Project Manager

Buro Happold, MEP Engineers
Richmond So, Structural Engineers
Richard Burck Associates, Landscape Architecture
Acentech, Data and Acoustics
VJ Associates, Cost Estimator

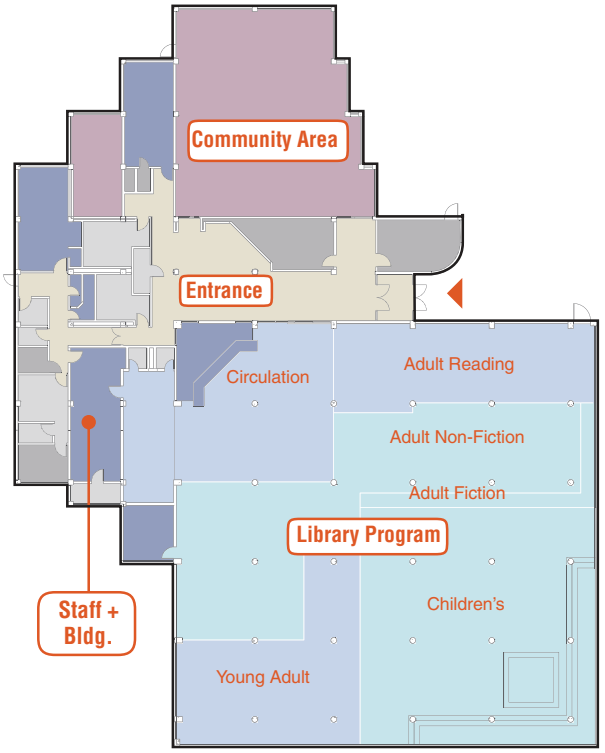

Roxbury Community
Dudley Vision Advisory Task Force
Boston Transportation Department
Mayor's Office of Neighborhood Services
Dudley Branch Library Community Advisory Counsel
Boston Public Library
City of Boston Public Facilities Department
Boston Redevelopment Authority
utile
Architecture
FFE
VJ Associates
Cost Estimator
Richard Burck Associates
Landscape Architecture
Acentech
Data + Accoustics
Richmond So Engineers
Structural Engineering
Buro Happold
HVAC, Elec., Plumbing, FP, Fire Alarm, Lighting

History of the Dudley Branch Library

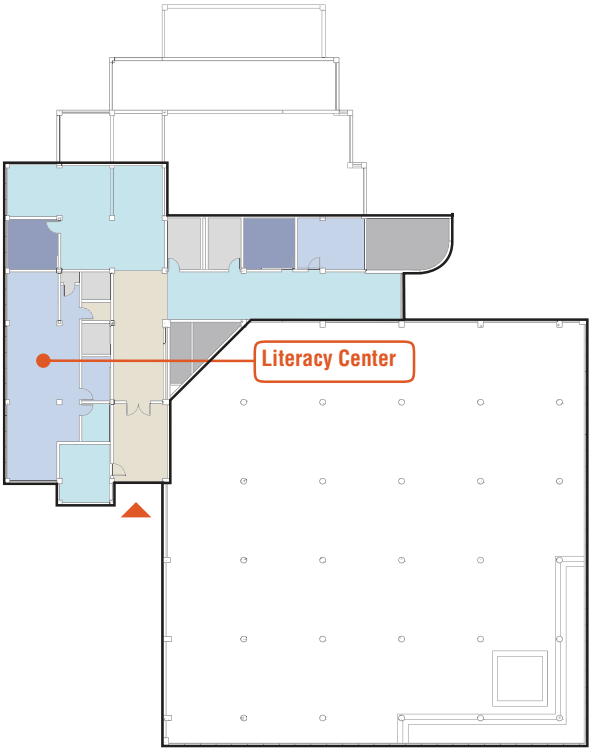
Image Credit: kmwarch.com

The current home of the Dudley Branch was designed by Kallmann McKinnell and Wood (KMW) and opened in 1978. Located in the heart of Dudley Square, the building replaced the Mount Pleasant Branch and the Fellowes Athenaeum. The Library was developed as part of a larger municipal development in Dudley Square that included a new courthouse and police station. The initial design for the Dudley Branch featured a "Little City Hall" on the second floor of the facility. This space functioned essentially as a building within the building as it has it's own entry and has no relationship with the rest of the library. Eventually the municipal office moved out of the Dudley Branch and was replaced by a daycare program that assisted the adjacent courthouse. Once it was discontinued, the second floor took on it's current function as The Literacy Center. Like many public buildings of it's era the Dudley Branch is distinctly brutalist in its architectural expression and has an imposing presence that many see as cold and unwelcoming.

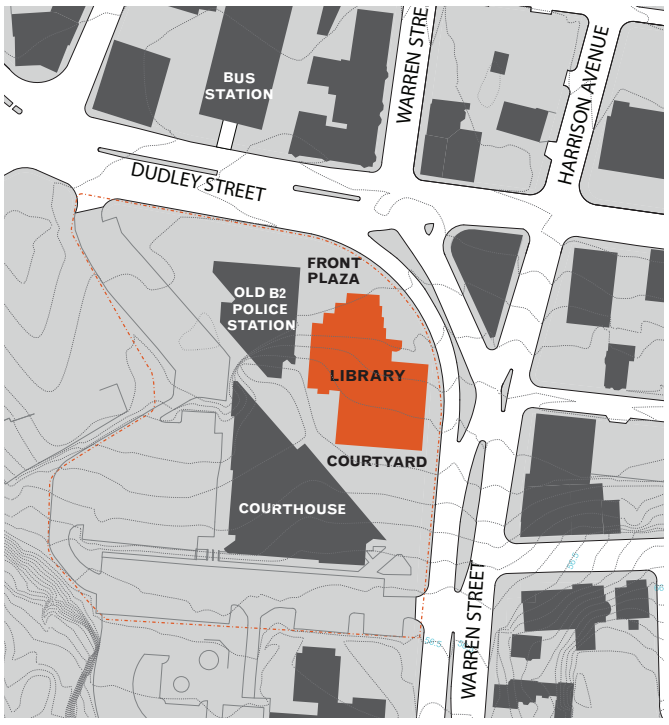
While the aesthetic merits of brutalist buildings are a topic for debate, there is no question that the functional performance of their building systems is frequently lacking. The Dudley Library is no exception as it's outdated, inefficient systems make it one of the more expensive branches for the city to operate. From a programming standpoint, the building design as is lacks flexibility which makes it hard to respond to changing programmatic demands. That said, it's generous spaces and overall "good bones" give it great potential for renovation.

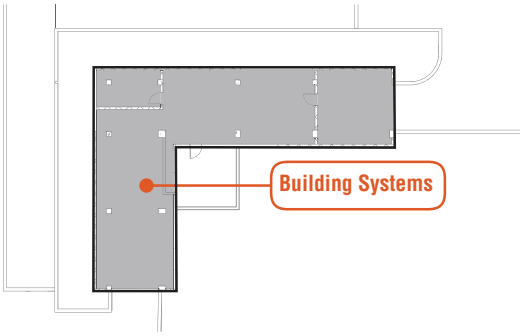


First Level



Second Level





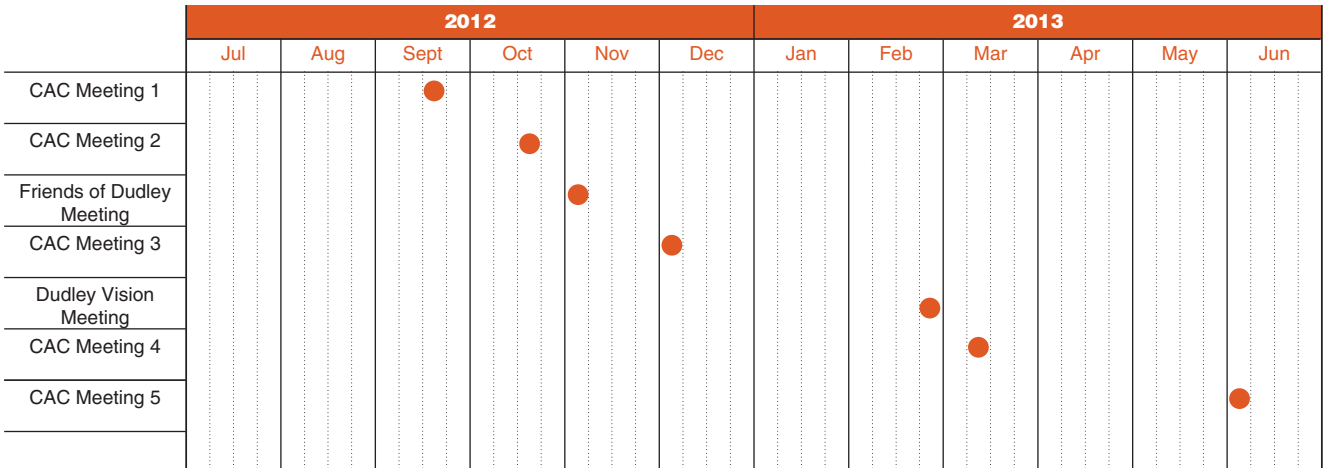
Third Level

(Top) Diagrammatic floor plans of existing layout of the Dudley Branch.
(Bottom Left) Site Plan of Dudley Branch Library and adjacent Municipal Development

Process and Schedule

The Dudley Branch Library study was undertaken to chart a course for the future of the branch. Given a desire to take immediate action on improving the building's entry and other site concerns, work on the project was split into two courses: The design and documentation of entry and site improvements; and a study of the library. The study itself was broken into three phases: (1) an existing conditions analysis to take stock of the building's suitability to meet the current and future needs of the library (2) a programming study to determine the optimal sizes and adjacencies for all of the various library functions; and (3) a conceptual design that brings it all together and illustrates how a thoughtful, well considered layout can breathe new life into the existing building.
Throughout all phases, the study utilized the "BPL Compass: Strategic Plan," developed by the BPL as a guide. The BPL Compass established the goals and objectives for all BPL branches. Periodic meetings with the project's Community Advisory Committee benchmarked the process and provided a valuable forum for community input throughout.
This first phase entailed a comprehensive analysis of the building by various stakeholders. The Study Team worked with BPL staff and stakeholders to determine how the existing branch functions. The building was analyzed for signs of wear and tear in its fixtures, furnishing, finishes. With the help of the subconsultants on the team, the structure, mechanical, electrical, plumbing, fire protection, and acoustic systems of the building were thoroughly studied. This scope of work resulted in a room-by-room report on all existing spaces in the library and, more importantly, a list of specific areas of focus for the ultimate renovation.

The Programming phase of the report entailed determining ideal sizes and adjacencies for all of the various functions of the library. This phase culminated with a detailed program of the ideal size and features of every desired spaces. A milestone in this phase was a tour of the Brighton Branch Library. This was a very relevant precedent because it dealt with similar issues of renovating a brutalist style building. Its success illustrated that change was possible at the Dudley Branch.
Finally the Concept Design Phase brought everything together to illustrate how the desired spaces could flourish within a redesigned building. The objective of this phase was to optimally lay out all spaces while



leveraging the existing building's positive features and addressing its shortcomings. This scope also took into account recommendations for the exterior of the library and coordinated these with the early action entry design project.

Key documents and presentations for this study were regularly posted to the Boston Public Library website. The schedule for the year long study was as follows:

CAC Meeting #1 - 9/20/2012

- Introduction to Study
- Presentation of Entry Canopy Design
- Introduction to scope of Programming Study

CAC Meeting #2 - 10/22/2012

- Presentation of Alternate entry design options and the preferred scheme - a wall hugging perforated metal marquee sign.
- Presentation of initial observations of existing building

Friends of the Dudley Branch Meeting - 11/03

- Presentation of Entry Design and options the design of the marquee.
- Presentation of relevant precedents.
- Tour of the Brighton Branch Library.

CAC Meeting #3 - 12/03/2013

- Final Presentation of Entry Design.
- Presentation of Comprehensive Building Assessment and specific areas of concern in the branch.

Dudley Vision - 02/28/2013

- Presentation of Final Entry Design.

CAC Meeting #4 - 03/13/2013

- Presentation of programming conclusions.
- Presentation of two initial concept design proposals.

CAC Meeting # 5 - 06/03/2013

- Presentation of final concept design.

Public Meeting - 06/24/2013

- Presentation of final concept design

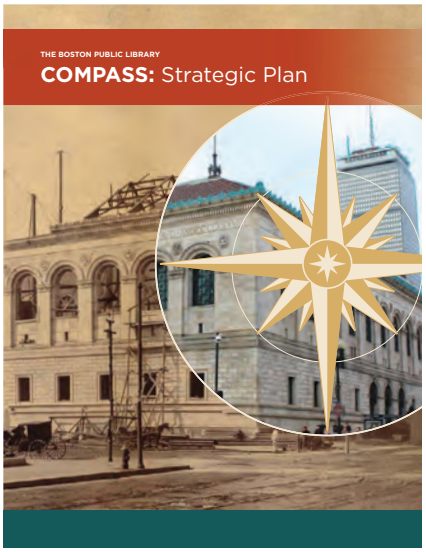
Final Report Submitted - 09/0213

Entry and Site Improvements - 06/2013 - 11/2013

- Construction of Entry Marquee and other Site Improvements
- This early action scope is a separate scope of work from this Library Study

BPL Compass

The Boston Public Library developed the Compass: Strategic Plan to structure the future growth of the library system. The planning process for The Compass was initiated in 2009 and culminated with the report issued in May 2012. It outlines a set of principles - user-centered institution, community gathering, special collections, center of knowledge, children and teens, access and innovation, sustainable organization and fun - to guide the performance of all branches of the BPL system. The report is a critical tool for the BPL to meet the evolving needs of library as a community anchor and an archive of information.
For the purposes of this study, The Compass serves as a lens through which to analyze the Dudley Branch's existing performance. Ultimately it will also help generate conceptual frameworks for it's eventual comprehensive renovation.



I. User Centered Institution

The BPL is a user-centered institution with services that anticipate and respond to neighborhood interests and the changing demographics of the City and Commonwealth.

A. Enable easy and effective access to library services.
   - » Improve navigation and use of physical locations for able-bodied users and those with physical, vision, or auditory challenges

II. Community Gathering

The BPL exists to serve and sustain communities that foster discovery, reading, thinking, conversing, teaching, and learning, in accessible, sustainable, and welcoming facilities throughout the City, as well as with an engaging online presence.

A. Provide library spaces that are inviting, stimulating, comfortable, clean, and safe.
   - » Develop a long-term Capital plan for existing and potential locations, including the reduction of physical barriers to accessibility
   - » Develop a plan to update or renovate furnishings, as needed
   - » Review security plan to foster a safe workplace
   - » Evaluate existing locations, including outdoor spaces, in order to maximize usage
   - » Look for opportunities to create "innovation lab" space in existing buildings for group work, conversation, and conference.

C. Link community members to library programs and services within the BPL system and beyond.
   - » Position library as a community information node linking users to other resources in their communities

D. Minimize the library's environmental impact.

III. Special Collections

The BPL is committed to the ongoing development and preservation of its distinctive special collections, which provide citizens from all walks of life with access to their common cultural heritage.

A. Strengthen and grow collections that focus on existing strengths and geographic specialties.
   - » Prioritize the preservation of the City's local history; identify, exhibit, and promote appropriate collections

IV. Center of Knowledge

The BPL is a center of knowledge that serves researchers, lifelong learners, and the intellectually curious through its incomparable collections, digital resources, and access to other scholarly networks.

A. Develop community-responsive and neighborhood-reflective circulating collections.
B. Develop and support a public training program that meets the needs of a wide range of communities.
C. Support the research, scholastic, and literacy needs of the City and Commonwealth.
   - » Establish the library as the go-to place for basic computer skills learning

V. Children and Teens

The BPL fosters the love of reading and skills in critical and creative thinking among children and teens – from early literacy through mature readership – by offering a slate of services that provide academic support and intellectual growth.

A. Focus on providing early learning experiences.
   - » Enhance early literacy programs, including age-appropriate, multilingual collections

B. Invest in and support system-wide youth services.
   - » Provide positive and energetic programs and technology resources for children and teens

VI. Access and Innovation

The BPL provides access to and training in innovative technology, electronic resources, and digital information through its own holdings and its strategic position within the wider world of knowledge.

B. Provide state-of the art public computing spaces.
C. Keep pace with evolving standards on access to public computing resources, and to online resources.

VII. Sustainable Organization

The BPL depends on sustainability of resources through a judicious stewardship of finances; active employee participation and professional development in an environment of dignity and respect; and partnerships that enrich services, expand outreach, and leverage public investment through private support.

A. Support a staff that is diverse and enriched through professional development and training.
F. Create ongoing marketing campaigns and initatives that inform residents of programs and services.

VIII. Fun

The BPL leads the way for people of all ages with recreational reading and media, invigorating programs, user-created content, and opportunities for discovery in settings that are stimulating and engaging.

A. Connect people to popular books, music, films, and artwork
B. Embrace role as a cultural and entertainment hubs in the City of Boston.
   - » Embrace neighborhood branches as tourist destinations, exhibition spaces, architectural attractions, and performance venues.

C. Create an engaging and positive atmosphere for library users and staff
D. Showcase the library's collections through vibrant, interactive exhibitions and programs

3

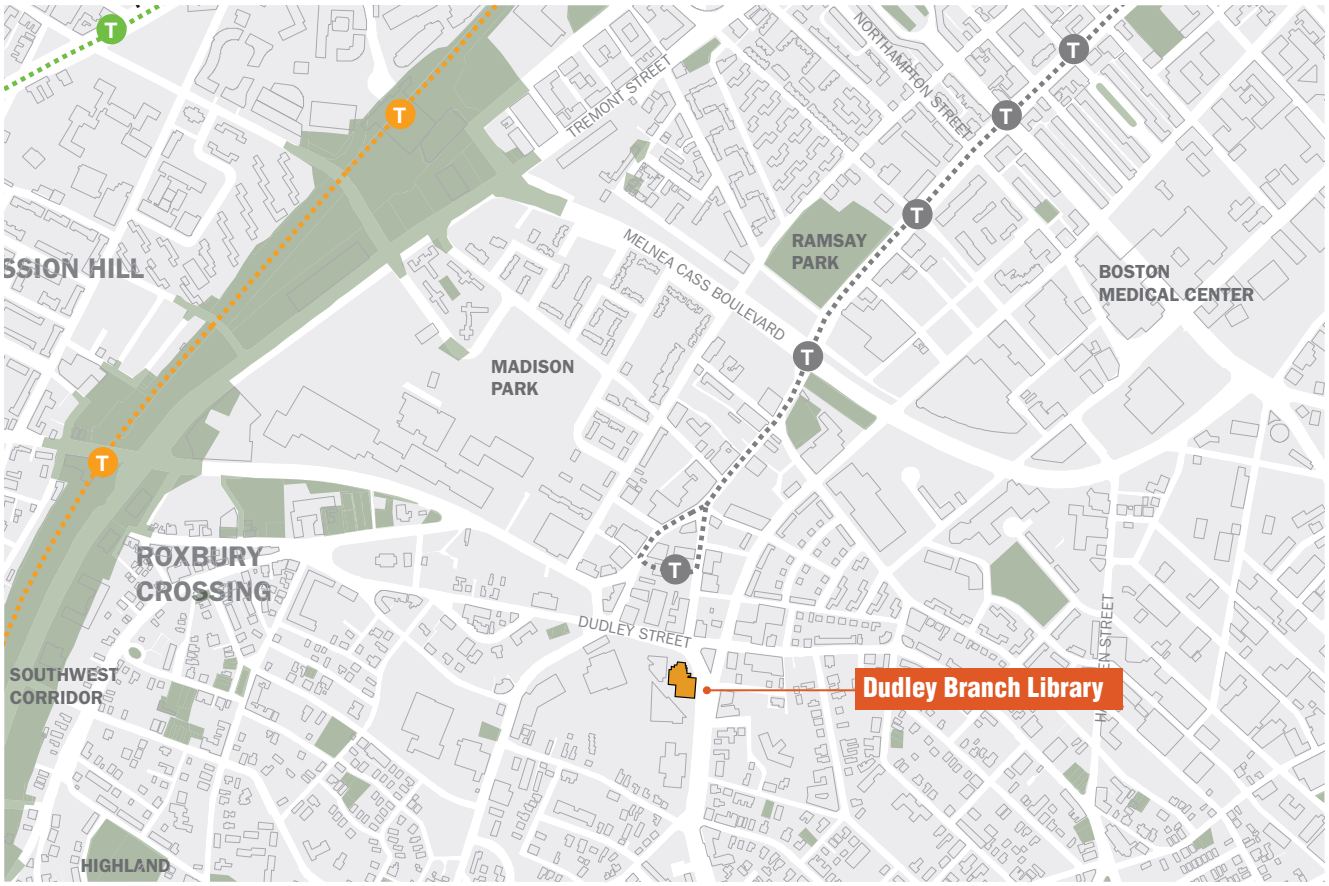
Context Analysis

Dudley Square Background and Current Development
Urban Analysis
- **Existing Conditions**
  - **Public Realm Considerations**
  - **Entry and Wayfinding**
- **Future Considerations**
- **Phase I - Early Action Scope**

Section Summary

- Dudley Square is the commercial center of Roxbury and The Dudley Branch Library occupies an important corner anchoring its public realm.
- There are existing urban design obstacles that hamper the influence the Library currently has in Dudley Square.
- Many development efforts are underway that may influence the future development of the Dudley Branch.

Dudley Square Background

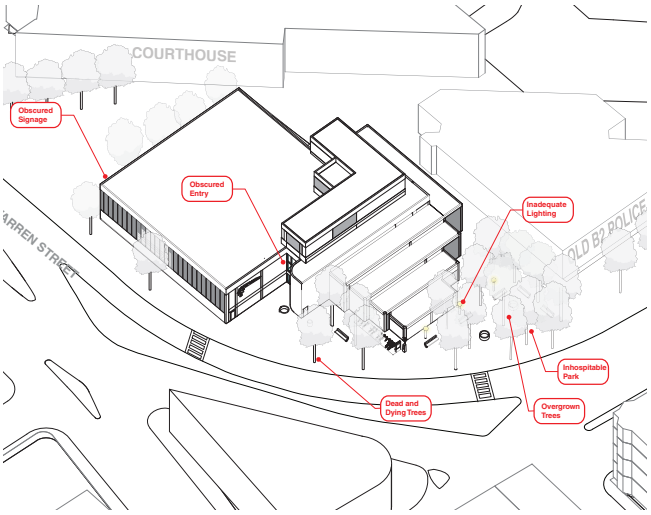


Dudley Square is the historical heart of Roxbury. The long standing commercial and civic center features a robust building stock with architectural and cultural significance. One of Boston's oldest neighborhoods, Roxbury had its heyday in the early 20th century. At the turn of the century the area emerged as a center for European immigrants. By the mid-20th Century, the great migration made Roxbury a center for the African-American community in Boston.

Roxbury, like many other neighborhoods across the country, went through a post war period of decline but has seen significant progress over the years. Indeed, targeted investment from the public and private sectors have begun to set the stage for the Dudley Square Renaissance. New development includes: The Dudley Municipal Office Facility; B2 Police Station; private development at Parcels 3,8,9 and 10; renovation of the Dudley Bus Station; BWSC storm water and sewer separation project; and BTD Complete Streets redesigns of Melnea Cass Boulevard and Dudley Square. While challenges do remain, the groundwork has been laid for a better Dudley Square. In the midst of

it all, at the corner of Warren and Dudley streets, the Dudley Branch of the Boston Public Library is ideally positioned to play an active role in the growth of the neighborhood.

Urban Analysis



(Opposite) Lower Roxbury vicinity map.
(Opposite Bottom) The new Dudley Municipal Center aims to strengthen the Dudley Square Neighborhood.
(L) Dudley Square vicinity map
(R) Axonometric view of existing urban design challenges for the Dudley Branch

Existing Conditions

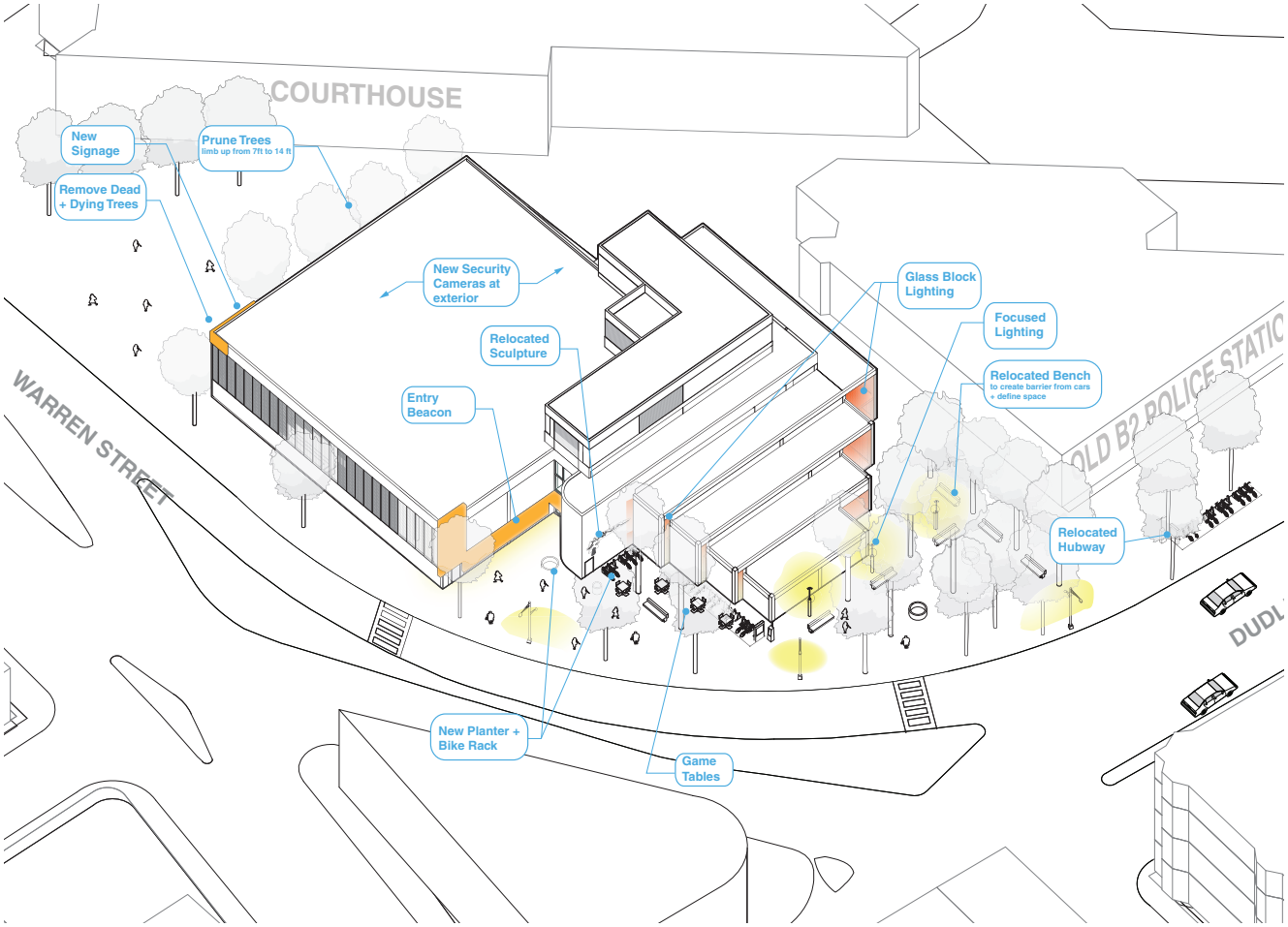
The library is a vital component of the public realm of Dudley Square and as such, its relationship and orientation to the square should be considered in this study. The Dudley Branch Library is simultaneously part of and disconnected from Dudley Square. It's nicely sited on a prominent corner but because of heavy tree cover, the building's material palette, and an obscured entry, it doesn't engage with it's front plaza or the rest of the neighborhood. It's a missed opportunity to bring the positive energy of the library out to the neighborhood.

As mentioned earlier, The library is part of a municipal development that included the Courthouse and Police Station. This development had an insular, courtyard orientation and focus which was a typical characteristic of developments of that era. Given the development of the new B2 station among other factors, this inward reading may no longer be appropriate and opportunities to reconsider the plazas adjacent to the Library should be explored.

The existing plazas have served the Library well but are in need of reconsideration. Many have commented on the need for more vegetation and a "softer" atmosphere. The front plaza of the library currently has inhospitable furnishings, inadequate lighting, and overgrown trees that hide the building and it's signage. There is also a desire for this area to be better defined with active programming. Ensuring this area is a safe and welcoming amenity for the library and the neighborhood as a whole should be a priority moving forward.

Traffic patterns also play a role in disconnecting the library from the rest of Dudley Square. The Library is sited at the confluence of several oversized streets, many of which are of an arterial nature and have very fast moving traffic. This autocentric atmosphere hampers the connection between the Library and Dudley Square.

Another factor worth noting is the building's night presence. The significant storefront activity contributes to a very well lit north edge of Dudley Street. The library on the other side is set back from the street



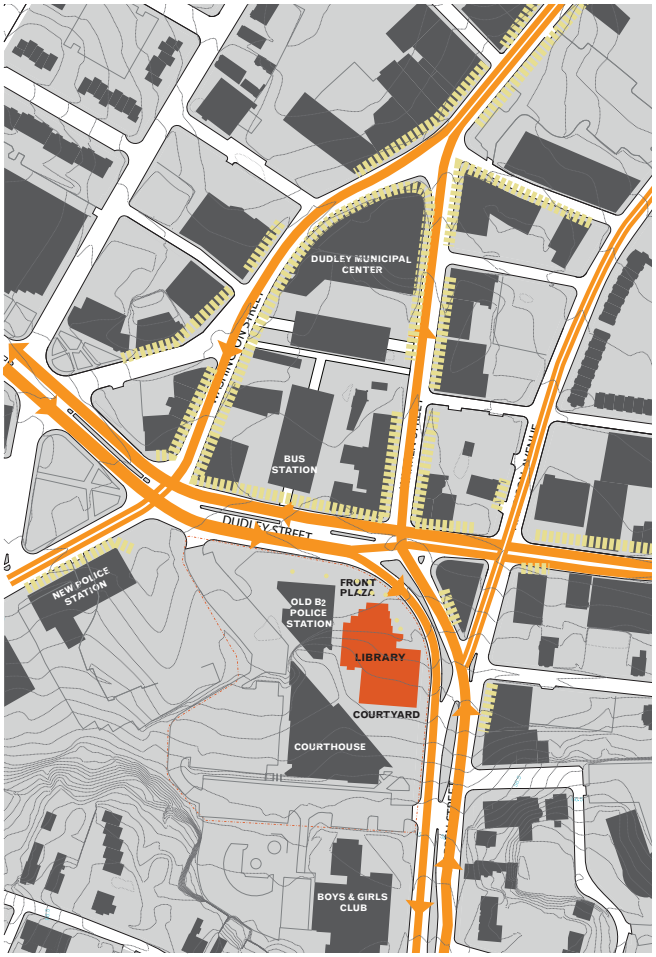
edge and is currently does not have a strong presence at night. This exacerbates the sense that the plaza in front of the library is an inhospitable place to be. Over the years, this area has been the subject of much analysis from many interested stakeholders. One such study, Placemaking in the Warren Street Corridor, organized by The Massachusetts Smart Growth Alliance and the Project for Public Spaces in June 2012, documented several programmatic and design ideas for several of Dudley Square's underused public spaces with a specific focus on those surrounding the library. Regarding the library's presence that study echoed what has been outlined in this report; that the entry is difficult to find, the building's lack of transparency casts an imposing presence that belies what happens inside of the building, and that there is no interaction between the plaza and the interior of the library.

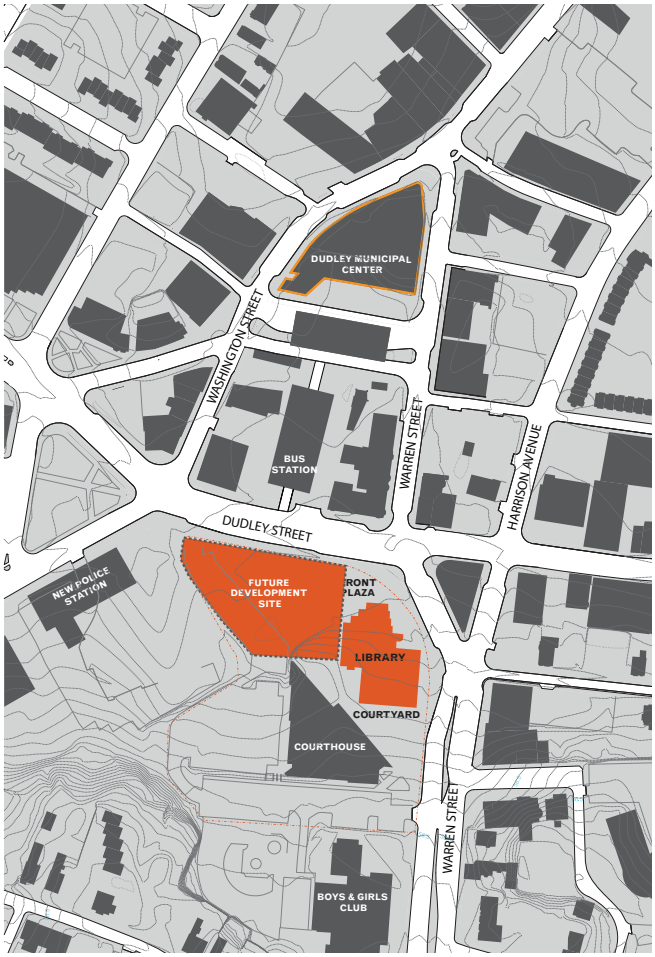
Entry and Wayfinding

Many have quipped that the Dudley Branch Library is one of the few libraries in the country that doesn't have a front door. Indeed, the building's entry is recessed deep behind a stair and isn't oriented towards the building's primary facade on Dudley Street. Further the signage for the library is all very minimal and modest. All in all the existing entry does very little to announce, or celebrate the presence of the library. Similarly, the approach coming from the north lacks clear wayfinding. What signage there is is obscured by heavy tree cover.

Future Considerations

The Dudley Branch is in a rapidly changing Dudley Square neighborhood as the last years have seen a flurry of activity. Chief among this is the development of the Dudley Municipal Center at the site of the old Ferdinand Building. This project will reflect the community's aspirations while infusing the area with hundreds of workers and restoring a significant





building to its former glory. The Boston Transportation Department (BTD) is spearheading a complete streets project for several key streets that converge at Dudley Square. This work considers roadway design, multi modal transportation needs, intersection and streetscape design and other concerns. This work will provide expanded space at the front plaza and slow traffic in the area. Adjacent to the library, the old B2 police station will be demolished and redeveloped to provide a large, center block mixed use development. Taken as a whole, these efforts can influence the design of the Dudley Branch's site.

Phase I - Early Action Scope

As part of an early action plan in 2013, work is currently underway to improve the existing entry to the library. This work will feature a new self-illuminated marquee to better call out the entrance to the library. This scope also includes site upgrades like tree pruning, new lighting and new security cameras to make the plaza a more welcoming environment.

(Opposite Top) Axonometric view of early action site improvements to the Dudley Branch. This scope of work is a seperate project from this study.
(Clockwise from top) Diagram of vehicular circulation and night presence in the Dudley Square vicinity. Diagram of future development near the Dudley Branch. Perspective views of the new entry marquee for the Dudley Branch. This scope of work is a seperate project from this study.

4

Existing Building Assessment

Existing Building Programming Assessment

Areas of Focus
Summary of Existing Facility Assessment

Section Summary

» The project team has identified seven major areas of concern for the Dudley Branch:
  1. Architectural Aesthetics - The building appears cold and imposing;
  2. Separated Entry - Multiple, disconnected entries are inefficient;
  3. Community Space - Improve finishes , wayfinding and visual monitoring
  4. Library Volume -Spatial definition and acoustics are difficult;
  5. Digital Resources - Not enough supply to meet the growing demand;
  6. Literacy Center - Inefficiently laid out and not integrated with rest of the building;
  7. Staff and Support Space - Poorly laid out and inflexible
» There is need for substantial MEP improvements throughout the building
» The building's structure is generally in good shape
» There are acoustical concerns in the library, specifically from an isolation standpoint
» Several improvements are necessary to make the building fully code compliant

Areas of Focus

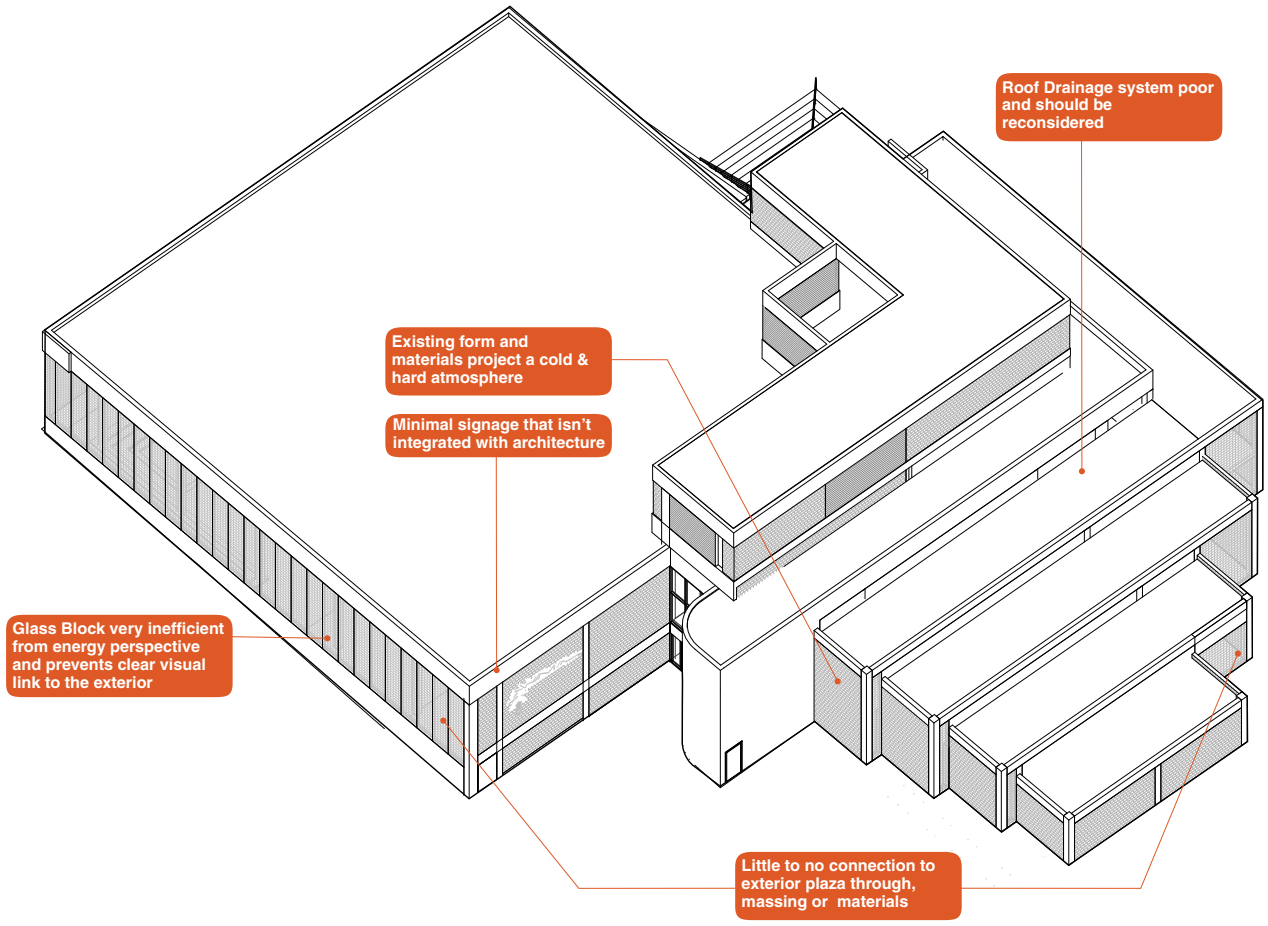
Architectural Aesthetics

Consistent with much of the architecture of the era, the Dudley Branch is stylistically brutalist. The pure geometric forms, concrete walls and minimal use of ornament are all characteristics of this approach to architecture. Popular in the 1960s and 1970s, several public buildings in and around Boston including the State Service Center, Boston City Hall (also designed by KMW) and several libraries and academic buildings experimented with this new architectural language.

The brutalist style gives the Dudley Branch a cold and imposing presence that runs counter to how a library should ideally function in the community. Indeed, both the entry off of Warren Street and the one to the Literacy Center off the courtyard are recessed and unwelcoming to passersby. Moving forward, the renovation of the Dudley Branch should embrace opportunities to warm up the building's facades. Such work would make the library a much more welcoming, and inviting presence in the community.

On the interior, this architectural style presents challenges for how the library functions. Most of the library functions are within the main "box" that lacks order. As such, interior spaces are literally and visually separated. This creates problems with patron services, security and overall staff efficiency.

Brutalist buildings like the library are dated not just in terms of style but more importantly performance. Looking solely at the exterior envelope, the glass block used at window openings performs extremely poorly from an energy perspective. Further, the existing roof drainage system needs to be reconsidered because of frequent leaks. Please see the MEP Systems Report for more information on the building's mechanical performance.



(Opposite) North face of the Dudley Branch
(Top) Illustrative axonometric diagram
(Bottom) Alley between Dudley Branch and old B2 station

Separated Entry

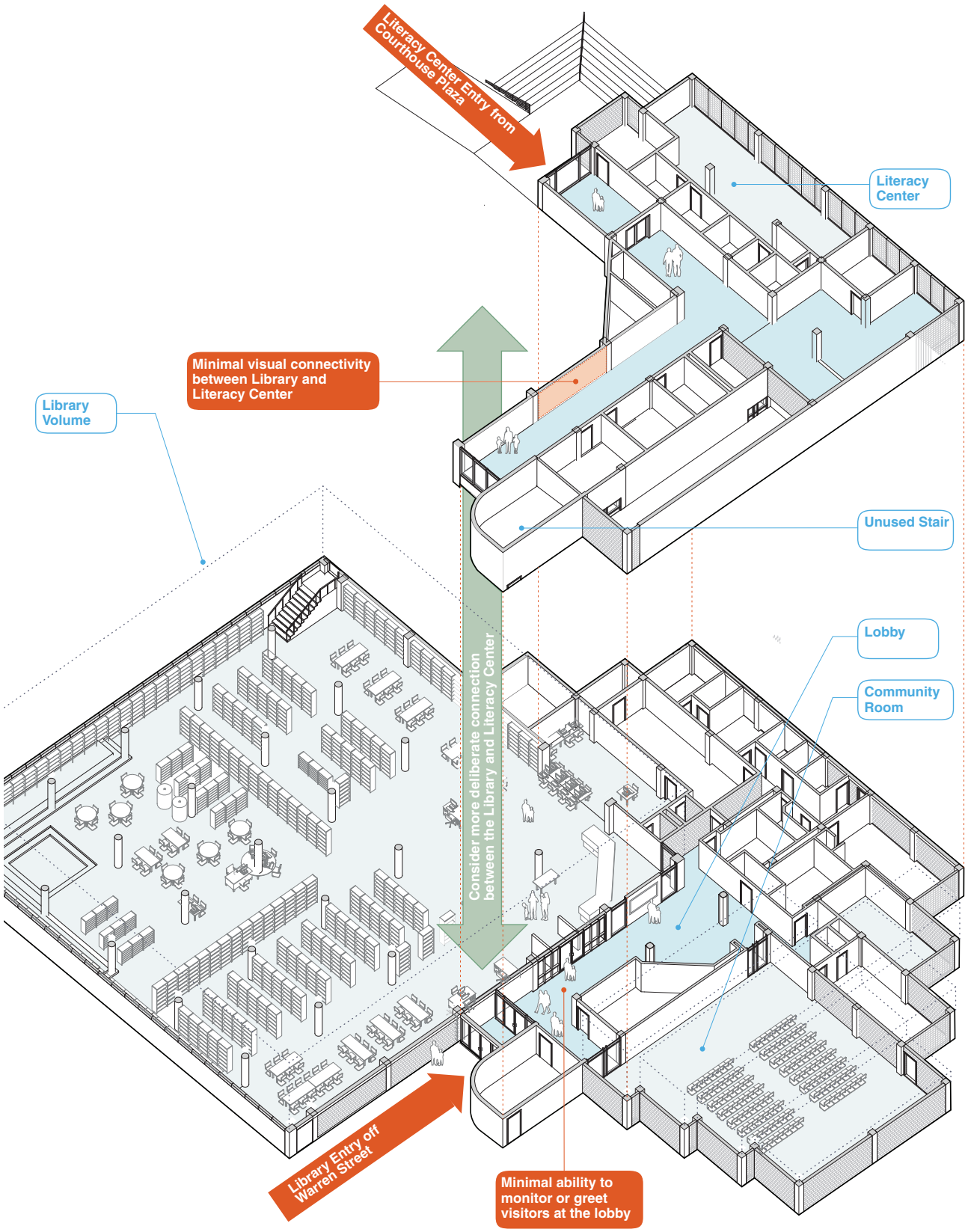
A unique characteristic of the Dudley Branch is that there are in fact two separate facilities within the 27,900 square foot building. The library proper, with its main entrance of Warren Street, is housed on the first level while The Literacy Center, accessed off the upper Courthouse plaza on the buildings southern face, occupies the second level. The Literacy Center was originally designed as a "Little City Hall" which ran completely independent of the library. The space was then used as a daycare for the courthouse before eventually becoming the Literacy Center. It is important to note that this entry to the Literacy Center has a non-conforming ramp that will have to be made ADA accessible with the eventual renovation.

As currently laid out, there is no connectivity between the two spaces. An existing stair that would connect the two branches is largely unused. Further complicating matters is the lack of an elevator. As a result, to get from the Library to the Literacy Center you have to exit the library and walk around to the other side of the building. Visually, when inside either space there is minimal visual connectivity to the other space. So while there is often a long line at the computer stations in the main library, those at the literacy center - clouded by a large expanse of glass block - are frequently underused.

Their separation reinforces the fact that the two facilities have minimal if any interaction. The staffs are completely independent of each other and have separate, occasionally duplicative, support areas.

Moving forward, the BPL would like to better connect the branch with the Literacy Center. This consolidation unlocks several opportunities for the building to get more efficient by removing duplicative spaces. More importantly, it's an opportunity to clean up the circulation by exploring ways in which a more direct and purposeful link can be made between the two levels of the library.

(Far Left) Library entry off Warren Street
(Left) Literacy Center entry off courtyard
(Opposite) Illustrative axonometric diagram of the existing entry sequence


Literacy Center Entry from Courthouse Plaza
Literacy Center
Minimal visual connectivity between Library and Literacy Center
Library Volume
Unused Stair
Lobby
Community Room
Consider more deliberate connection between the Library and Literacy Center
Library Entry off Warren Street
Minimal ability to monitor or greet visitors at the lobby

Community Space and Library Entry

The Dudley Branch hosts a wide range of programs and activities. From labor union meeting to jazz concerts, holiday festivals to piano classes, the myriad of different uses puts a heavy demand on the community room to be flexible to meet the ever shifting demand. While the spaces are a constant hub of activity, there are shortcomings that prevent it from performing as well as it can.

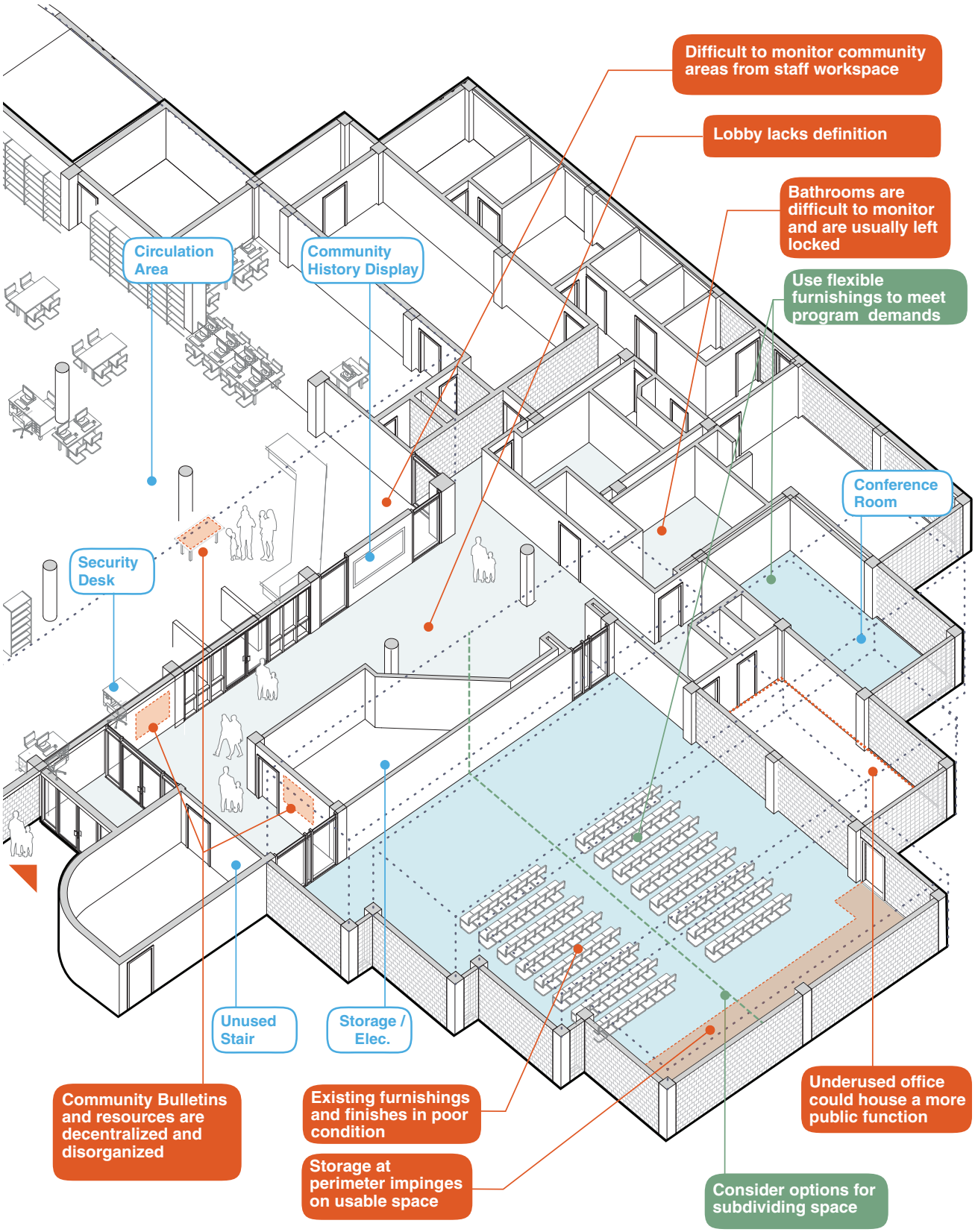
The point of arrival for the Library is an ill-defined, dark, oversized lobby. This space serves as a hinge that divides the library from the community space, but in this in between role, it is "owned" by neither space and there is no staff presence to greet visitors, nor is there any clear wayfinding strategy to direct visitors. This lack of visual supervision is part of the reason why the public bathrooms are generally left locked up. The existing community displays and special collections of local history are nice defining element of this space that could be strengthened to help better define this area.

While the existing bulletin boards in the lobby are well used, they lack any organization and appear overwhelming. Further, between the multiple bulletin boards, counters and display tables, there are too many landing spots for information. Without any clear order for all of the flyers, pamphlets, and posters, the library falls short of helping visitors make sense of this information.

The Community Room is a striking space with a very distinct stepped roof profile. However, its existing furnishings and finishes don't measure up and show various signs of their age. Water damage mars the ceiling and the tectum acoustic panels show signs of wear and tear. Currently, storage is scattered along the perimeter of the room. While this no doubt makes setting up for various functions easier, it takes away from the dignity of the space. Moving forward, consider ways to improve the level of finish that is in keeping with its role in the library and the greater community.

Looking ahead, the library staff and community stakeholders point out the need for more meeting spaces within the library. This demand is undoubtedly a testament to the library's success. Addressing these issues will optimize its functional performance and strengthen its role as a community anchor.

(Left) Community Room
(Opposite) Illustrative axonometric diagram of community space


Difficult to monitor community areas from staff workspace
Lobby lacks definition
Bathrooms are difficult to monitor and are usually left locked
Use flexible furnishings to meet program demands
Circulation Area
Community History Display
Conference Room
Security Desk
Unused Stair
Storage / Elec.
Community Bulletins and resources are decentralized and disorganized
Existing furnishings and finishes in poor condition
Storage at perimeter impinges on usable space
Underused office could house a more public function
Consider options for subdividing space

Report on the Use of Community Room

Janet Buda, Branch Librarian, Dudley Branch

Children's Programs:

Preschool Film Programs: Typically about 30 kids attend the Tuesday Morning Preschool Films programs. From July 2011 to October 30th there were 62 programs with 1860 children attending.
Children and Teen Summer Reading programs: These programs average 20 kids per program. For July/August 2011 & July/August 2012 there were 11 combined Summer programs that used the auditorium. The Youth Services librarians have many more Summer Reading programs than that but the others do not take place in the auditorium. The auditorium attendance was roughly 220.
There were two "Countdown to Kindergarten" programs in this time period - August 17, 2011 & August 22, 2012. Typically this event is an all day program with lots of activities and 75 to 100 future kindergarteners attend with a total of 150 to 200 participants.
Saturday piano classes for children have been an ongoing program for children in this time period. The class averages 10-15 children per class. There were 24 such classes and two recitals in this time period. Attendance was about 260 participants .
Programs for Teens:
The Citi Spotlight Spoken Word Program gave workshops on hip-hop and spoken word for teens . Typically 10 to 20 teens would participate in these workshops. There were six workshops plus one showcase performance in this time period. Attendance was about 60 to 120 teens participating. The showcase was very well attended by friends and families with an attendance somewhere between 75 to 100 at the showcase performance.
MssgLnks gave 8 workshops on vocal training plus 1 showcase performance. On average 10 teens participated in each workshop. The attendance would have been 80 participants all told plus the folks who attended the showcase performance.
There were two ongoing poetry workshop series for in April 2012. The combined sessions were nine. On average 15 to 20 teens participated in these workshops making the attendance ranging from 135 to 180. There were also Poetry Slam performances but they were actually in Room B.
There was an excellent Financial Literacy Workshop in May with 30 students attending.

Image Credit: Dudley Branch Library Facebook Page

Family Programming:

There were three outstanding "Family" programs during this time period of July 2011 to the present.
The Dancing Chickens of Ventura Fabian: The Visiting Mexican Artists Program. 50 adults with their children attended in November 2011.
The SafetyNet Christmas extravaganza – this was on Saturday, December 3rd 2011. It is an all day event which involves all parts of the library. Hundreds of families come in and out all day.
A Black History Month program called "Family Day at the Library" sponsored by Parents Management. This was on Saturday February 11th 2012. It is an all day event with many activities. I recollect that there were at least one hundred adults and children – perhaps more.
Adult Programming:
July / August 2011 – Spanish computer classes – eight sessions with 10 adults participating. Attendance totally 80 for this initiative.
There were seven GED related programs with around 35 to 40 adults attending making the attendance ranging from 245 to 287.
In September 2011 there was an artist reception. 10 people attended.
There were numerous workshops for adults covering math instruction, music, yoga, literacy volunteer training and vocal and piano lessons.
The adult lectures included one in November 2011: "African American Notables at Forest Hills Cemetery" This was presented by the Massachusetts Black Librarian Network and around 75 people attended.
In February 2012, the Friends of the Dudley Square

Branch hosted a Genealogy program in honor of Black History Month around 75 attended. In April 2012 there was a lecture entitled " From Hearth to Kindles and Nooks: Fairy Tales in an Age of Electronic Entertainments" given Harvard professor Maria Tatar. Surprisingly over 50 adults came to hear this lecture. We also had two author book signings – in May Mwalim*7 Master Storyteller read from his book, "A Mixed Medicine Bag: Original Black Wampanoag Folklore" and more recently author Dr. Earle Williams did readings from his book "Roxbury Redemption." Those two programs brought in about 50 adults in total.

One outstanding program this past year was the " A Tribute to Abby Lincoln" Fundraiser sponsored by the "Friends of the Dudley Square Branch". Over two hundred people attended this after-hours event. Performers included students and faculty from the Berklee School of Music and members of the Makanda Project with Diane Richardson on the vocals .

Outside Groups Using the Auditorium:

A number of outside agencies regularly schedule the auditorium for their purposes several times throughout the year.
Massachusetts Department of Transportation holds hearings for the public ; City of Boston Elections Department has regular trainings for volunteer poll workers; Hugues Monestine, Senior Planner for Community Planning for the City of Boston holds monthly meetings of the Roxbury Strategic Master Plan Oversight Committee in the auditorium the first Monday of each month. Typically there 75 to 100 community stakeholders attend those meetings; MathPOWER which is a non-profit affiliated with Northeastern University whose mission is to promote literacy in mathematics uses the auditorium on a regular basis; Jumpstart which is affiliated with Boston University and whose mission is to pair qualified and motivated mentors with preschool children. The mentors prepare these children for school success with early literacy programs. This organization frequently uses the auditorium to train and prepare the mentors for this mission throughout the year; The Service Employees International Union (SCIU) uses the auditorium throughout the year for their meetings.

Also we had two Career or Resource Fairs this year. They were all day long events with people streaming in and out all day. Too numerous to count. One of the Fairs was sponsored by the Urban League of Boston and one was sponsored by the Dimock Center. Also Reverend Susan Chorley linked the Dudley Branch to a recovery organization, Latinas Y Ninos Casa Esperanza 263 Eustis Street in Roxbury and that group was able to have several programs here throughout this past year.
These are some of the highlights of how the auditorium in the Dudley Square Branch gets used. It is a large spacious room which sometimes is called upon to house up to 200 people or more.

Image Credit: Dudley Branch Library Facebook Page

Library "Box"

At almost 28,000 square feet, the Dudley Branch is one of the larger branch libraries in the BPL system. Unfortunately, most of the functions of the library are housed within a large, singular box that doesn't efficiently accommodate them. While this space is an architecturally striking space, it presents limited options for effectively housing the myriad of distinct functions of the library. With the various public functions of the library lumped into this one static box, issues such as such spatial definition, acoustics, wayfinding become challenging.

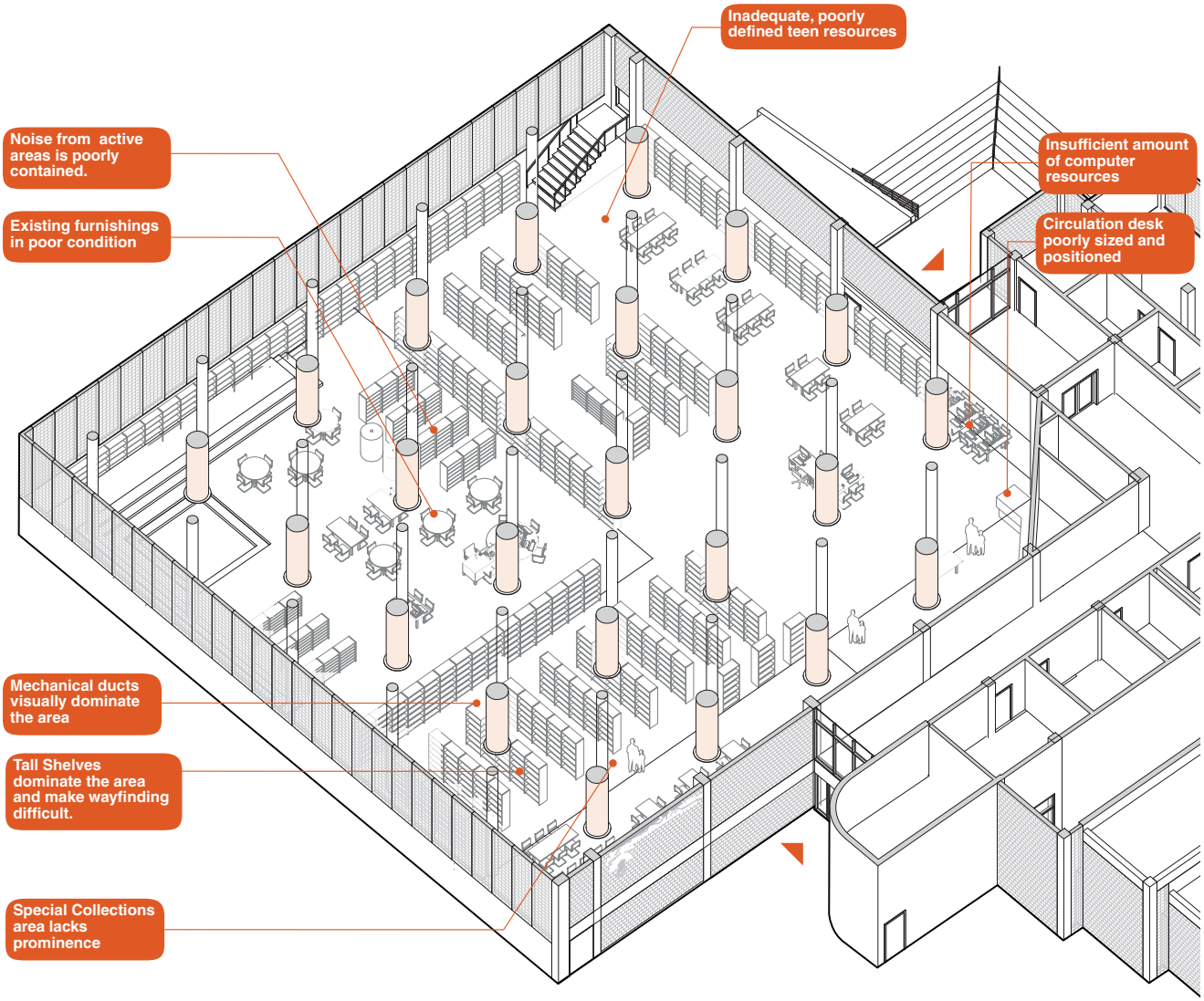
Visually this space is overwhelming. The dense network of high shelves, the long mechanical ducts coming down from the ceiling and the lack of any clear hierarchy or order make wayfinding difficult. The space needs a signage strategy that goes beyond the current ad-hoc signs. The existing furnishings should be replaced. They are very bulky, look overly institutional and don't include any options for more leisurely or relaxed reading. Beyond style, much of the furniture shows its age in its general amount of wear and tear. Taken together these issues prevent the library from being as stimulating or comfortable as it should be.

Beyond visual clarity, the lack of spatial definition is troublesome because it hurts the functionality of certain areas. The Children's Area in particular suffers from being too close to the other functions. Because the programs designed for this area are often noisy, they are typically held in the Community Room and not in the Library proper. Unfortunately this means that if a child comes to a program, they may miss the opportunity to be exposed to the library. Further, while there are several "kid-sized" features and furnishings in the Children's Area, they aren't enough to make a distinct place that overcomes the vastness of the Library box.

The Young Adult area is another zone needing a stronger presence. Given that this is an age group that the library is trying to attract, there's a need for them to have a place to call home in the library. The Dudley Branch is currently exploring short term ways to carve out a Young Adult zone in the southwest corner of the Library. Such efforts would help create a place in an otherwise amorphous space that lacks any embraceable, defining traits. The Teen Librarian has said that the teens who visit the library want a defined space to call their own and that this would give the Library a place to house programs such as writing workshops and video screenings. While short term efforts to fill this need should be supported, developing a permanent solution should be a priority for the renovation.

Because everyone's lumped into the same space, many have remarked that there is a hesitancy to make any noise at all for fear of disturbing someone. This fosters an atmosphere that is more quiet and reserved than it should be. On the other hand, others have reported that there is often a general chattiness in the library as several groups have small conversations. Either way, the critical issue is addressing the need for acoustic isolation so that areas that need to be quiet are quiet, while other zones can support casual conversations.

Ultimately as the programmatic demands for the library change, space dedicated to collections must be reviewed to ensure appropriate size as well as allowing for more active zones and meeting space. These new demands make addressing the challenges of the "static box" that much more critical for the future of The Dudley Branch.



Key Concerns with the Library "Box"

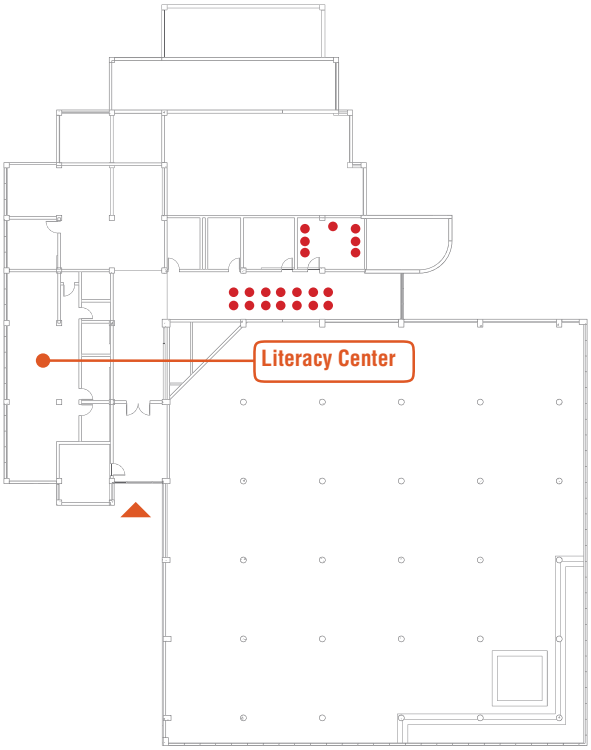
- » Adequately sized but poorly configured
- » Undefined spaces
- » Lack of clear signage
- » Antiquated, worn furnishings
- » Poor acoustic separation

(Top) Illustrative axonometric diagram of library "box"
(Bottom) View from inside library

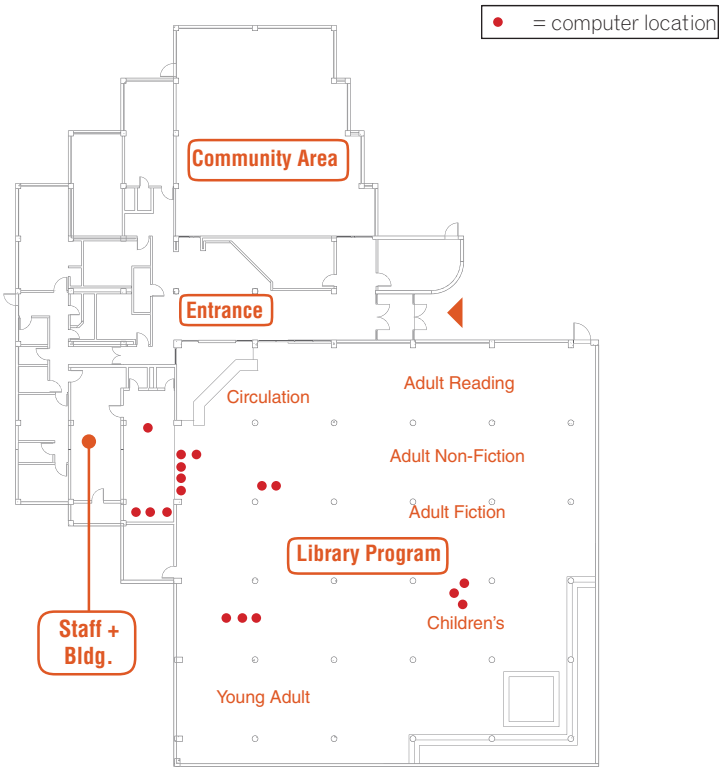
Computers / Digital Resources

The most consistent feedback received about the Dudley Branch is the need for more digital resources. Currently there are 12 computers tucked away in an alcove near the circulation desk and another 6 are scattered in the library. The Branch also has laptops that can be checked out by patrons. Given that this is frequently the most active area of the library, the current number doesn't seem to be enough to meet the need. There is often a significant wait for a patron to use a computer. Members of the Community Advisory Committee have echoed this need and further explained it by indicating that many library patrons do not have access to computers at home. As such, those in the library are a critical community resource.

Because this is such a highly used service at this branch, technology offerings need to be expanded into a state of the art space that can grow. Meeting this growing need should take into account the specific needs for the different demographics - adults, teen, children. Further, this is another opportunity to consider how to best leverage the integration of the library with the Literacy Center by efficiently sharing digital resources across both program areas.



Second Level



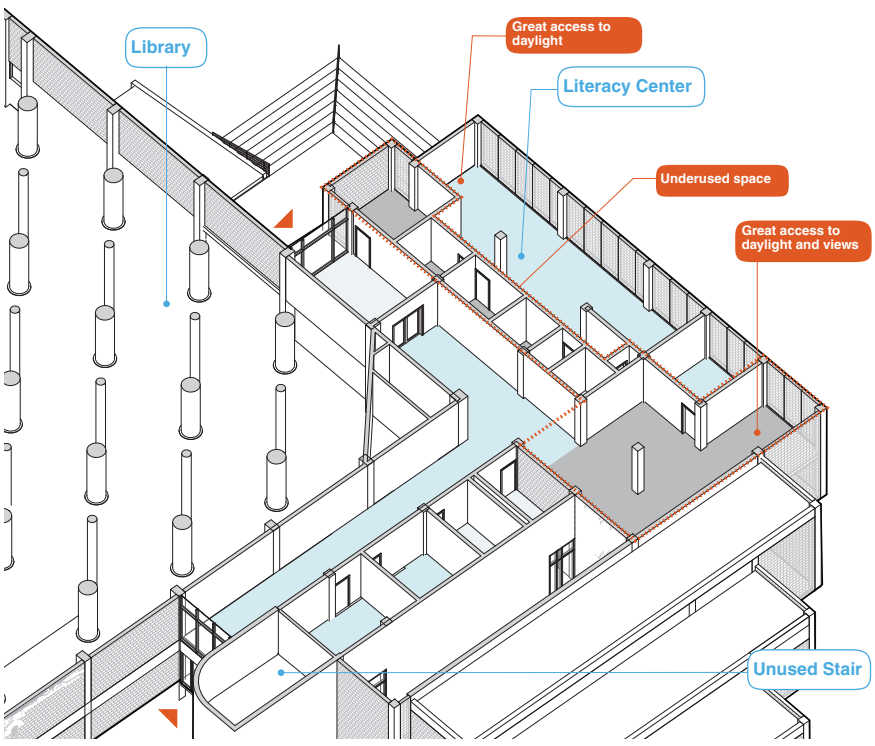
First Level

Literacy Center

Over the years, the second floor of the Dudley Branch has served several functions. Its transformed from Little City Hall, to a daycare facility, to its current use as the Literacy Center. While its function has changed, its design as essentially a building within a building has remained constant. Given the desire to connect the Literacy Center with the Library, options for better integrating the second level with the ground level should be considered.

The Literacy Center has some of the best spaces in the building. They feature great daylight, generous ceiling heights and a relatively serene atmosphere. Unfortunately it appears that much of the general public doesn't get the opportunity to engage with these great spaces for reasons such as difficulty finding the entrance, not knowing what is available, or not knowing it exists at all. Some of these spaces that are remnants of the areas prior functions are not optimally programmed for the Literacy Center. For example, along the edge of the Literacy Center classroom there are several auxiliary rooms that do not appear to be frequently used. Around the corner, the stacks area features several work tables that, according to staff members, are only used when large visiting groups come by. This is a significant missed opportunity as this area has great daylight and a nice elevated view - albeit through glass block - of Dudley Square. This level also features dedicated staff support spaces that would become redundant if this level is better integrated with the rest of the library.

The loose fit of the Literacy Center at this second level is an opportunity to take advantage of this asset of the library. By honing in on just how much space is required to efficiently hold the Literacy center, the second level can consider opportunities to open up to the expanding needs of the library below.



(Top) Illustrative axonometric diagram of library "box"
(Bottom) View from inside library

Staff Workspace and Support Space

Staff members of the Dudley Branch face many challenges with the lay-out of their work areas. While the overall scale of much of the workspace is consistent to that in other branches, at Dudley it is often poorly laid out and clunky, oversized furniture inhibits spaces from being efficiently used.

The circulation desk epitomizes the challenges facing the staff work areas of the library. The desk is tucked away in a corner instead of clearly front and center to help orient visitors. It's bulky and too high which makes it feel too imposing and also makes it difficult for staff to monitor the library. There are poor sightlines to the lobby and community room from this desk. Behind the desk several staff members are stationed in a small triangular shaped workspace. Those staff members that are stationed out in the public areas feel that their work areas need improvement. In addition, the staff workroom features bulky countertops and disorganized resources that make it harder for staff to do their jobs.

Currently an area intended to be a public conference room is being used as an office for a rotating BPL staff member. This is a poor fit because it takes away a much needed conference room and while it helps meet the need for office space, this staff desk is disconnected from other staff areas.

Similarly, the amount of area the Dudley Branch has for "back of house" functions like storage and building systems equipment is adequately sized in relation to other similar libraries. The critical issue is that these areas suffer from a lack of organization. While some staff members state the need for more storage space, making better use of existing resources should greatly help matters.

Summary of Facility Assessment

The following summary reflects the consultant team's analysis of the existing building systems of the Dudley Branch. See the appendix for full reports.

Mechanical, Electrical and Plumbing Conclusions

» Much of the mechanical system is significantly beyond its service life expectancy
» The operating efficiency of the system has dropped which has resulted in an overall increase in energy consumption
» Lighting is highly inefficient and in some cases wouldn't meet current code
» Fire Alarm System in poor condition and doesn't meet ADA code
» Sensitive Tel/Data equipment needs to be better protected
» Plumbing fixtures nearing end of useful life.
» Roof drainage a concern.

System / Component	Comment	Retain / Replace
Boilers	Recently renovated and in good condition	Retain
Hot Water Pumps	Recently renovated and in good condition	Retain
Unit AC-1	Unit is over 20 years old	Replace
Unit AC-2	Unit is over 20 years old	Replace
Unit AC-3	Unit is over 20 years old	Replace
Unit AC-4	Unit is over 20 years old	Replace
Internal Ductwork	Varies - see appendix	Varies
Cooling Tower (C.T.)	Replaced within last 10 years has another 10 years of useful life.	Retain
C.T. Dunage	Heavily corroded	Replace
C.T. Vibration Isolators	Heavily corroded	Replace
Heating Sys. Pipework	Repair and retain sections as needed	Retain / Repair
Cooling Sys. Pipework	Repair and retain sections as needed	Retain / Repair

Structural Conclusions

» Existing concrete structure is in good shape
» Several areas of local water damage indicate roof failures
» Steel dunage supporting cooling tower is badly corroded
» Renovation should be cognizant of scope of work compliance thresholds

Acoustic Conclusions

» Existing library volume performs well acoustically as the reverberations are reasonably controlled by ceiling tile and carpeting
» The Children's area is a point of concern from an isolation standpoint
» Community Room performs well acoustically for meetings but it may need to be enhanced to better house music performances
» Literacy Center is not isolated from noise from mechanical equipment at penthouse

Code Considerations

» Accessibility - Existing entries, ramps, accessible routes and restrooms are not accessible and will need to be made compliant as part of the renovation.
» Sprinklers are currently not in the building. A partial, non-compliant system is in the second level. The scale of the anticipated renovation will trigger the need for sprinklers throughout the building.
» New work will have to comply with the new code.

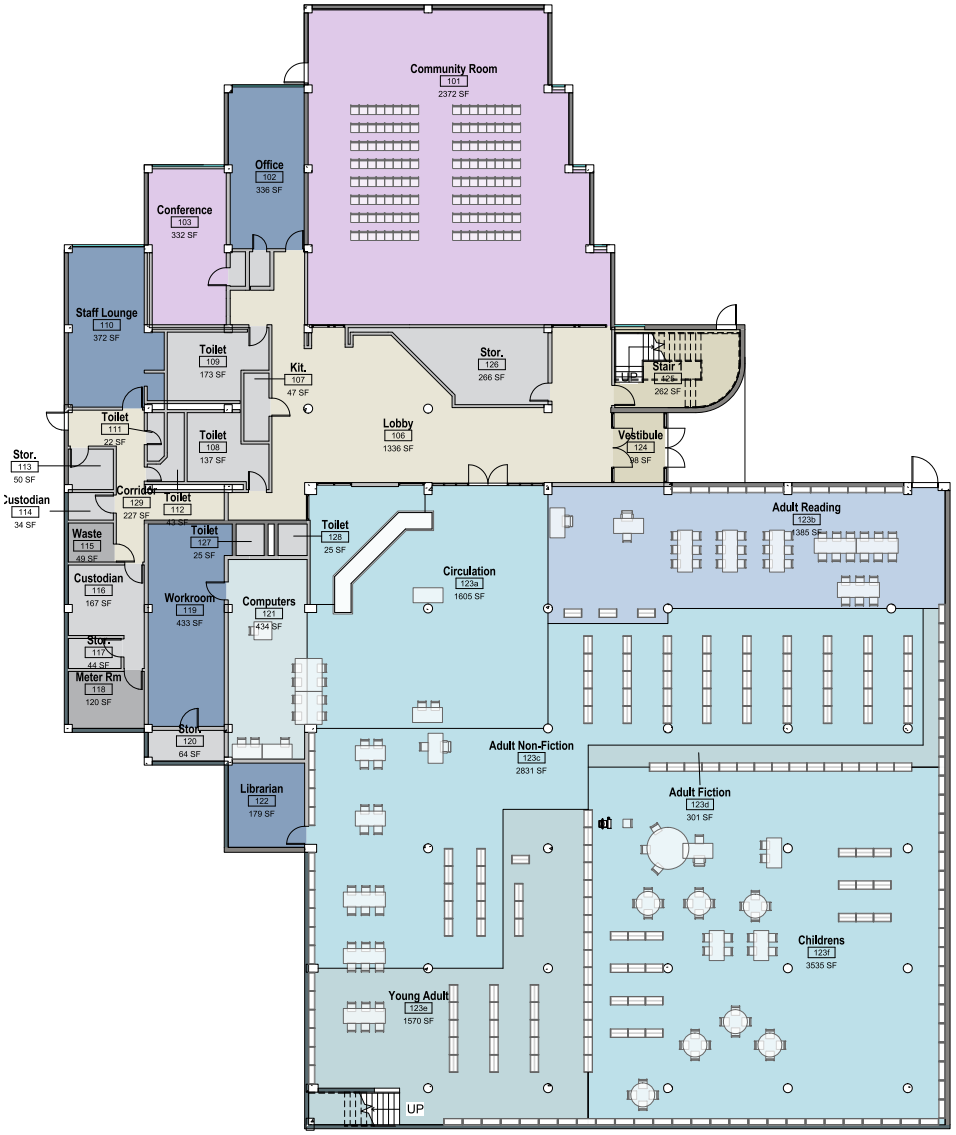
5

New Program Guidelines

Existing Program Zones
Proposed Changes to Collections
Proposed Changes to Program Zones
Programming Conclusions

Section Summary

- This sections analyzes the various program areas of the library and considers which areas will increase or decrease to meet the evolving demands of the library.
- The most significant change is a decrease in the collection size in order to provide more reading and meeting areas
- Meeting all of the program demands for the library may entail a modest increase to the overall floor area of the building



First Level Plan

Exting Library Plans Colored By Use

The existing plans for the Dudley Branch Library are shown here colored by use. It provides a snapshot of how the various spaces within the library are used within the building.

Patron Engagement: Spaces for active, patron oriented, library programming (i.e., Conference Rooms, reading areas)

Community Space: Flexible meeting space predominately for community, non-library spacific use.

Collection / Stacks: Shelving and display space for books and other media

Public Support: Auxilary public program (i.e., bathrooms, storage)

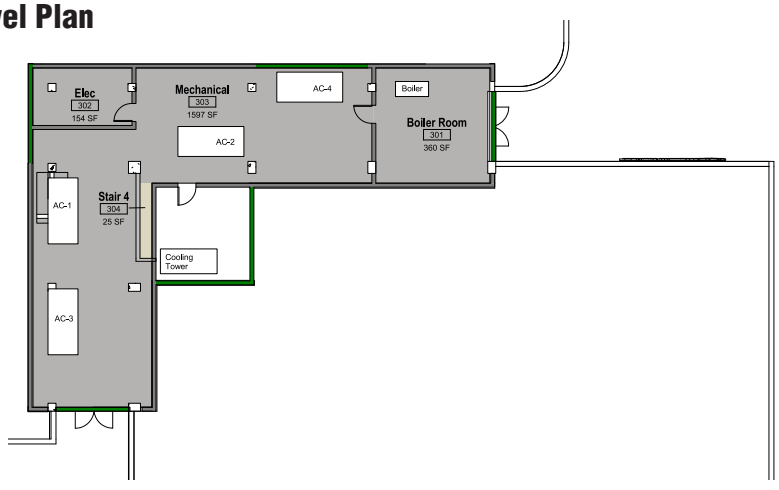
Circulation: (i.e., lobbies, corridors)

Staff: Work areas for library staff (i.e., offices, workstations)

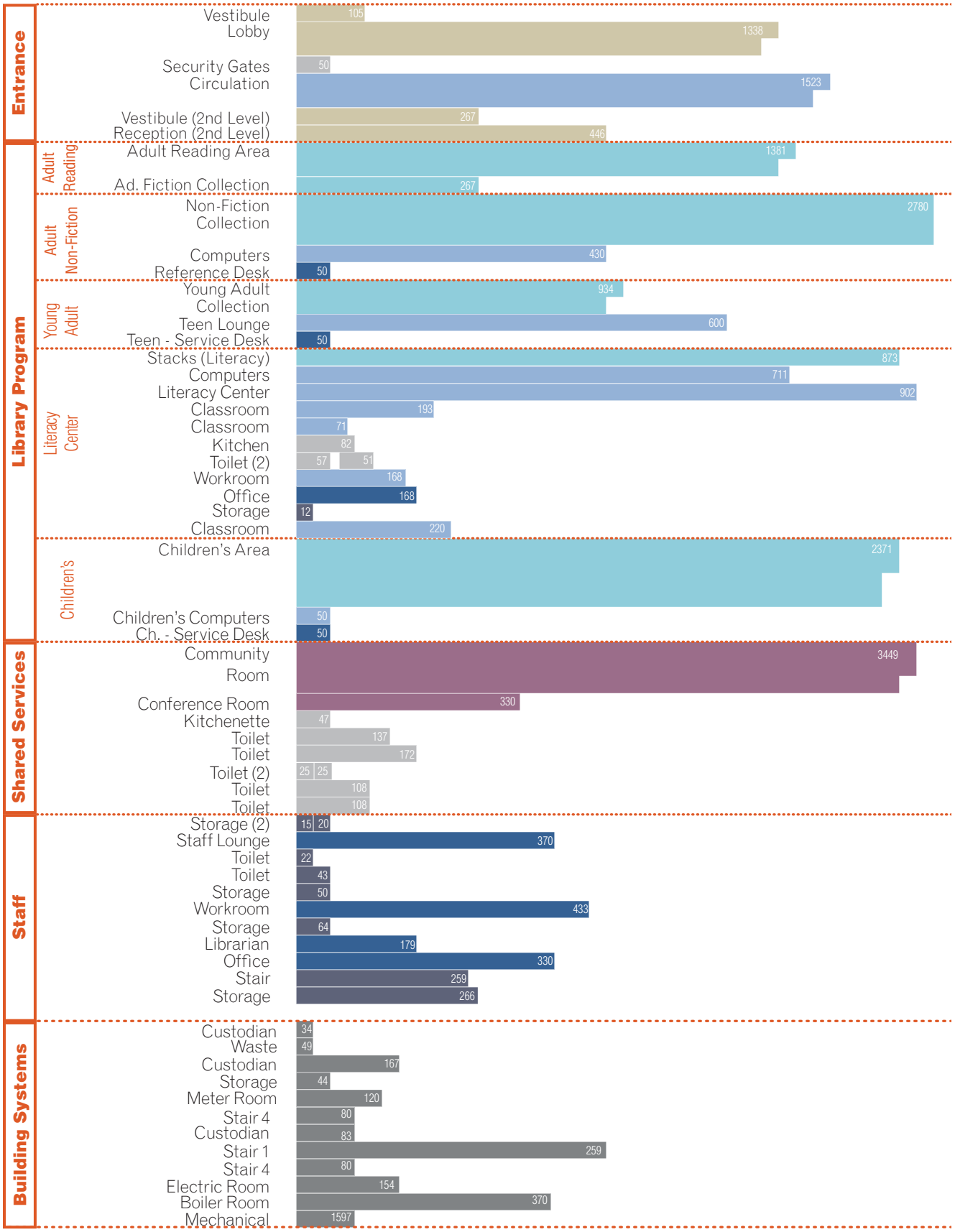
Staff Support: Storage and other staff back of house areas

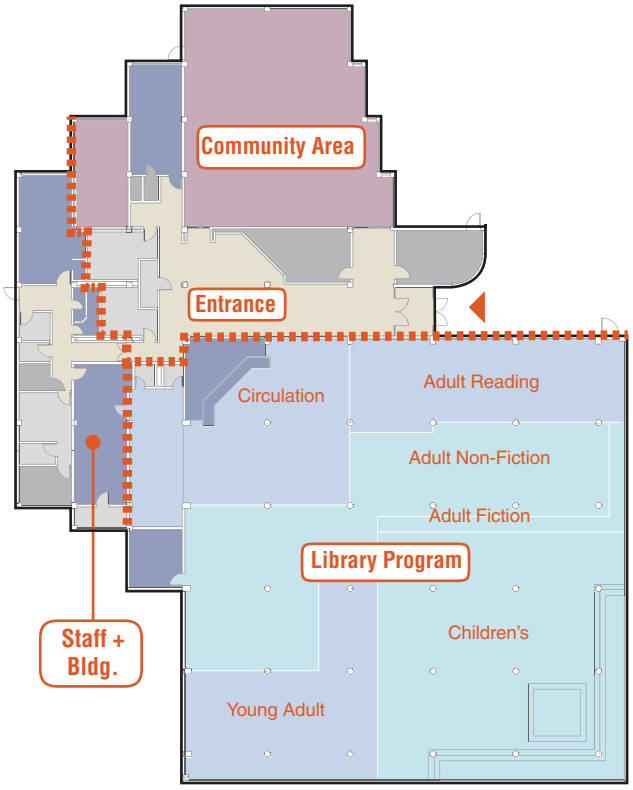
Bldg Systems: Mechanical and other back of house service spaces

Second Level Plan

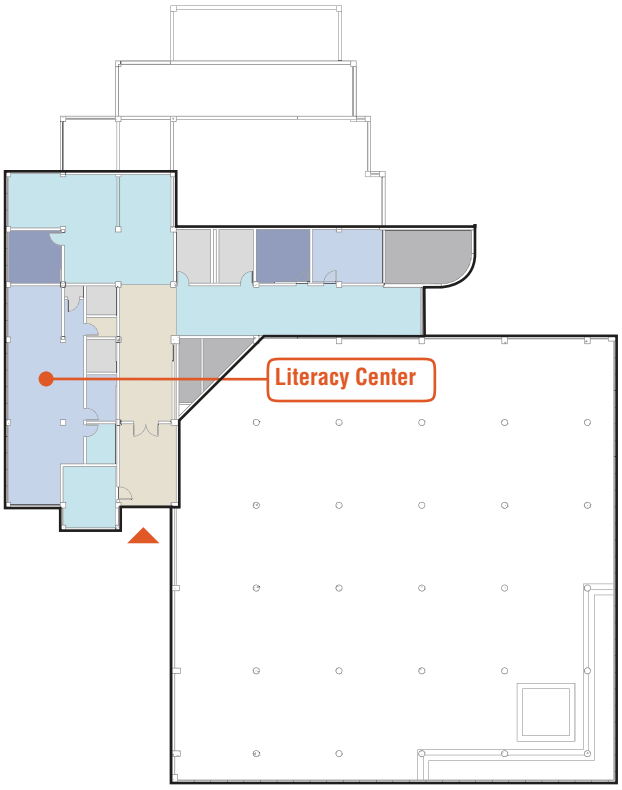


Mechanical Penthouse Plan


Entrance
Vestibule 105
Lobby 1338
Security Gates 50
Circulation 1523
Vestibule (2nd Level) 267
Reception (2nd Level) 446
Library Program
Adult Reading
Adult Reading Area 1381
Ad. Fiction Collection 267
Adult Non-Fiction
Non-Fiction Collection 2780
Computers 430
Reference Desk 50
Young Adult
Young Adult Collection 934
Teen Lounge 600
Teen - Service Desk 50
Literacy Center
Stacks (Literacy) 873
Computers 711
Literacy Center 902
Classroom 193
Classroom 71
Kitchen 82
Toilet (2) 57 51
Workroom 168
Office 168
Storage 12
Classroom 220
Children's
Children's Area 2371
Children's Computers 50
Ch. - Service Desk 50
Shared Services
Community Room 3449
Conference Room 330
Kitchenette 47
Toilet 137
Toilet 172
Toilet (2) 25 25
Toilet 108
Toilet 108
Staff
Storage (2) 15 20
Staff Lounge 370
Toilet 22
Toilet 43
Storage 50
Workroom 433
Storage 64
Librarian 179
Office 330
Stair 259
Storage 266
Building Systems
Custodian 34
Waste 49
Custodian 167
Storage 44
Meter Room 120
Stair 4 80
Custodian 83
Stair 1 259
Stair 4 80
Electric Room 154
Boiler Room 370
Mechanical 1597



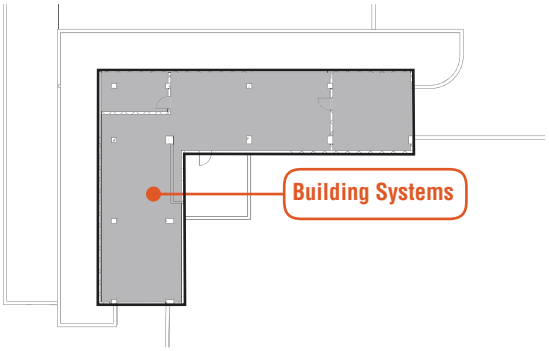
First Level Diagram



Second Level Diagram

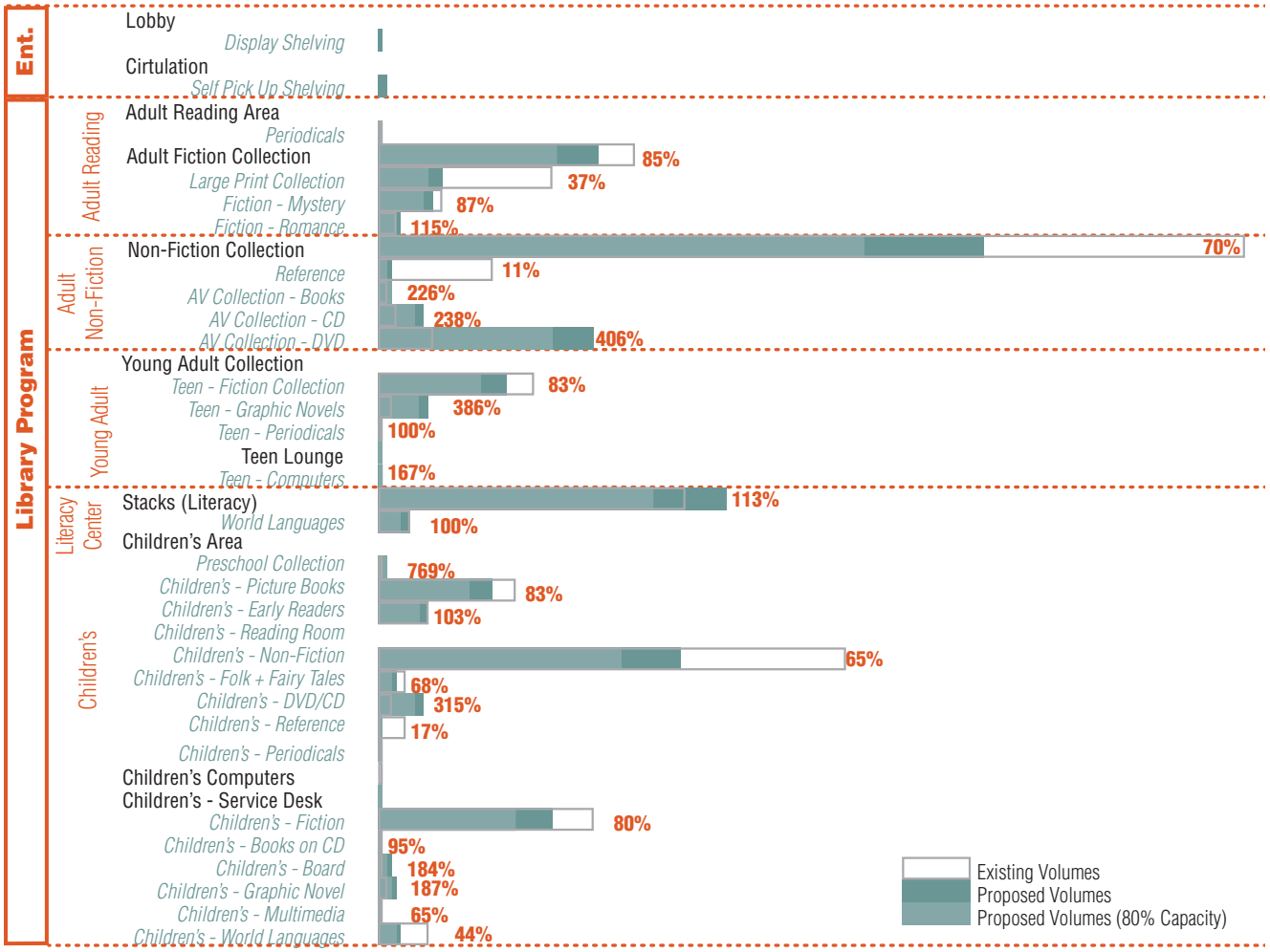
Existing Area and Major Zones

Like most libraries the Dudley Branch serves a wide range of patrons and has a wide range of uses. As such, it is helpful to consider the library as a series of distinct program zones. These zones contain all necessary rooms and resources and they range from very public, like the Community Zone or the Adult Non-Fiction Area, to very private and out of the public eye like the Staff and Building Systems Area. The Dudley Branch is divided into nine interior zones. Moving forward, some of these areas will have to transform significantly while others may shrink to meet the evolving demands of the library.



Mechanical Penthouse

(Opposite) Existing program areas fo the Dudley Branch. Vaules are measured in square feet.
(Above) Existing floor plan diagrams for the Dudley Branch.

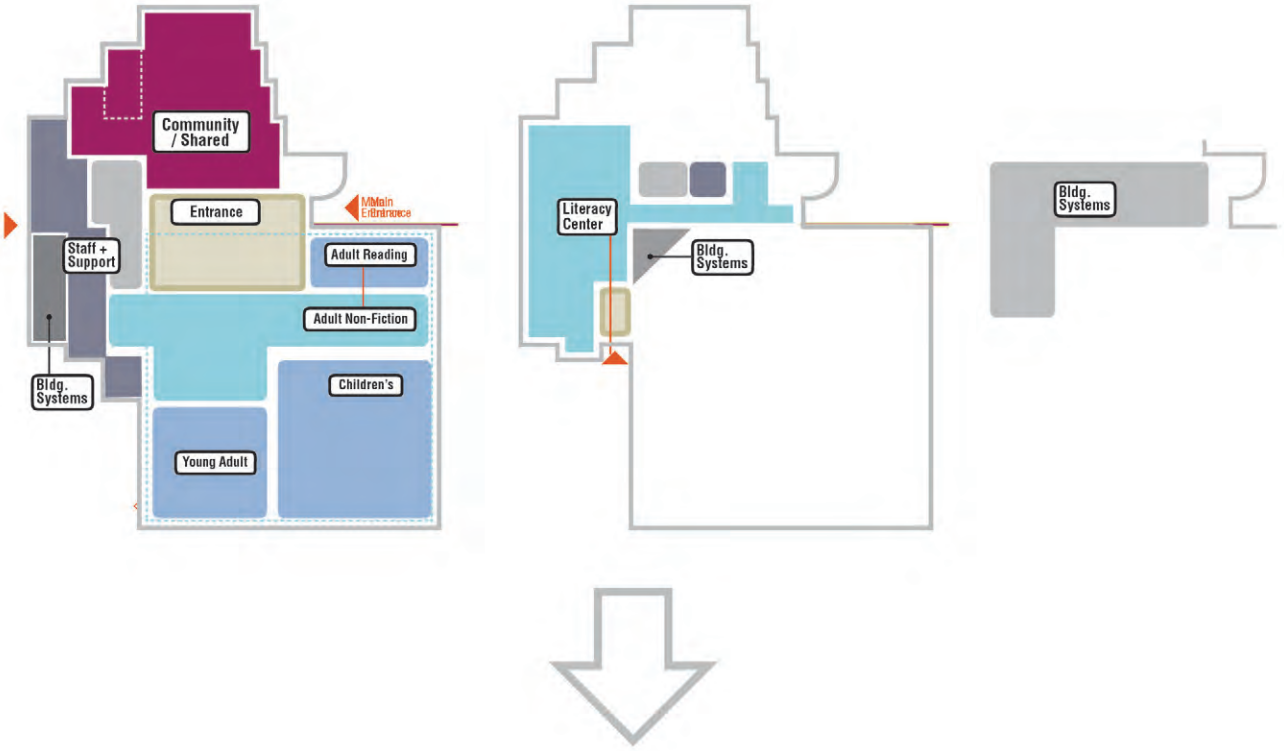


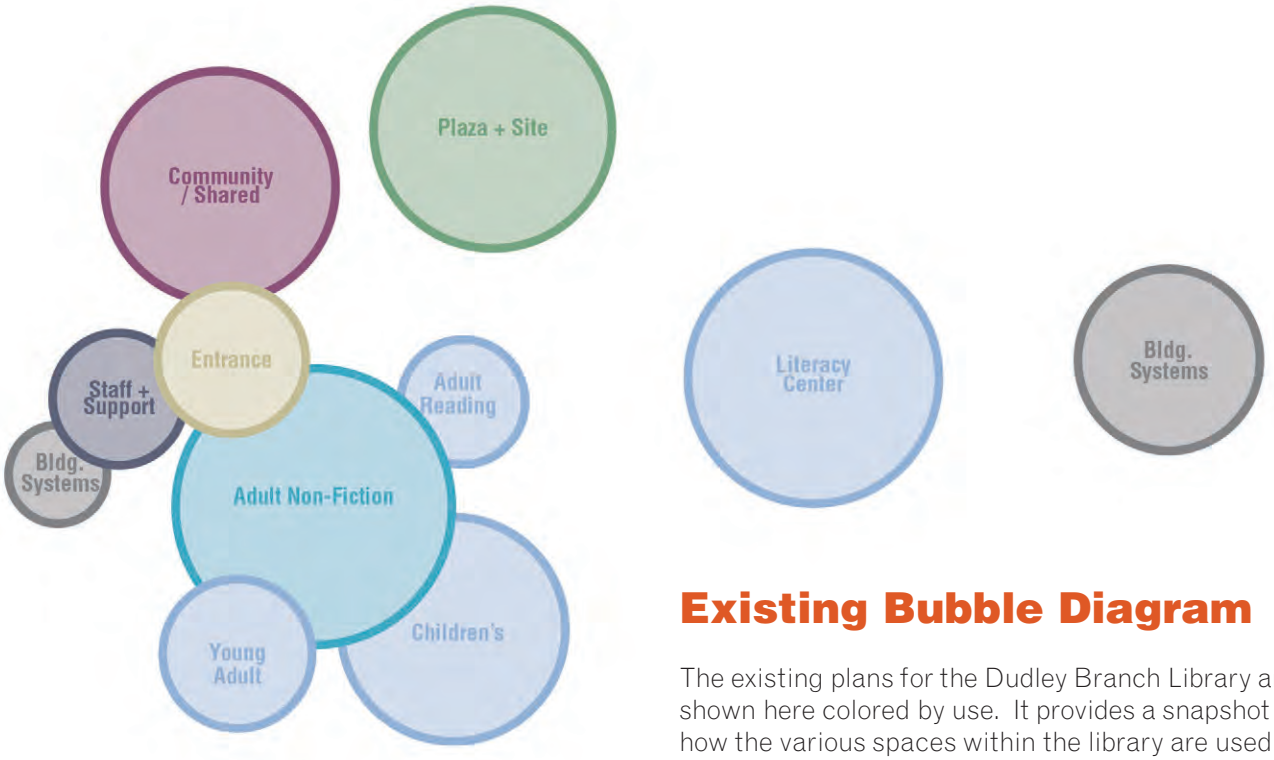
Proposes Changes to Collections

A significant area of change for the branch is the amount of space devoted to collections. Given the library's digital resources and the ability to share materials from anywhere in the Boston Public Library network, the total number of volumes stored will be decreased at the Dudley Branch. In order to reach this optimal collection size, BPL staff analyzed circulation data for the branch to see what media is in high demand versus media that doesn't get much use and can be removed from the stacks. This process also took into account current trends in public libraries in general. The objective of this reduction is to allow more space for meeting areas and other desired program.

The above graphic reflects each section of circulating media in the library the proposed changes to its collection size. Shown in orange is the percent change for that media type. While some sections such as non-fiction are decreasing significantly, others like graphic novels and AV media are increasing significantly.

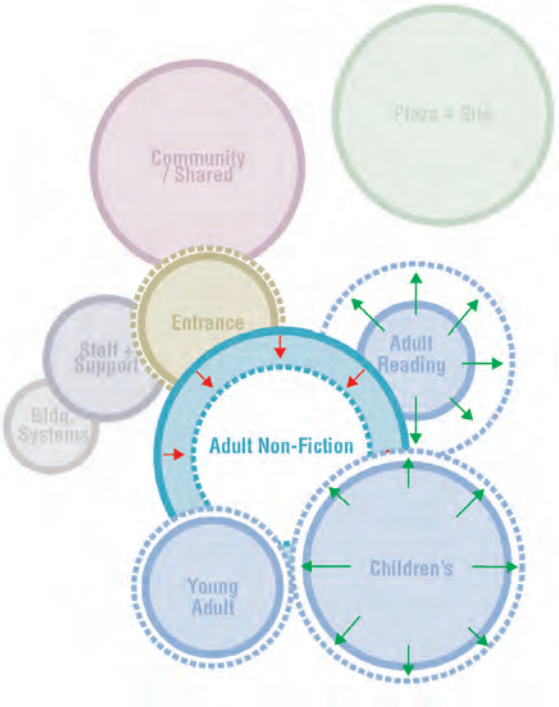
Library Stacks, Dudley Branch





Existing Bubble Diagram

The existing plans for the Dudley Branch Library are shown here colored by use. It provides a snapshot of how the various spaces within the library are used within the building.



Entrance: Similar

- Will include new program such as self checkout and display shelving.
- Will features displays of local history, cultural artifacts, and rotating community authored art.
- Floor area for this zone is currently poorly laid out and can be more efficiently laid out.

Adult Reading: Increase

- Will increase to provide a variety of comfortable seating options.
- Fiction Collection size to stay similar to existing.

Adult Non-Fiction: Decrease

- Based on usage statistics, this collection size can decrease to allow for more computers and seating.
- Increase amount of computers from 8 to 20

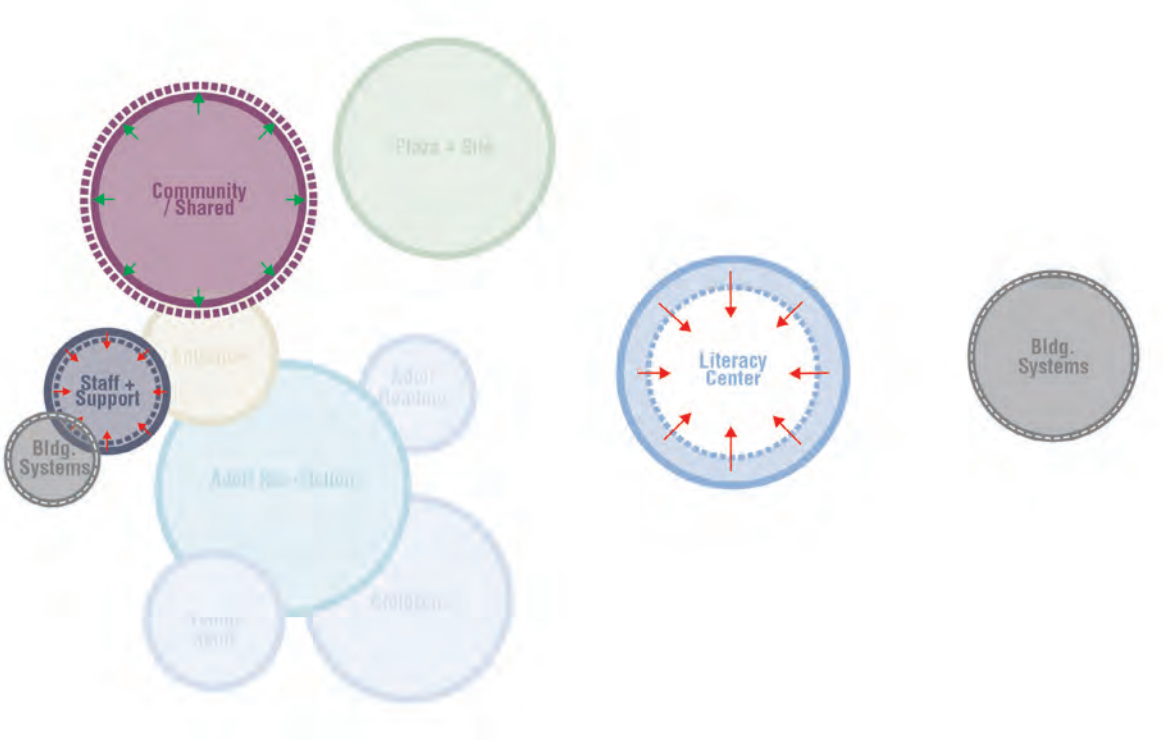
Young Adult: Similar

- Develop a much more efficient layout that includes designated lounge spaces and computer resources.

Children's: Similar / Slight Increase

- Area to largely remain similar to existing.
- Potential slight increase in area to absorb increase in collection size and new program pieces.

Precedent - Allston Branch Library
Attractive, well daylit comfortable seating at reading areas



Community + Shared Services: Similar / Increase

- » Upgrade in the layout of this areas.
- » Potential slight increase due to addition of more small meeting spaces.
- » Improved storage spaces to unclutter meeting room

Literacy Center: Decrease

- » Area devoted to teaching and stacks will remain consistent with existing plan.
- » Space efficiencies achieved through combining staff spaces such as a breakroom.

Staff Areas: Similar / Decrease

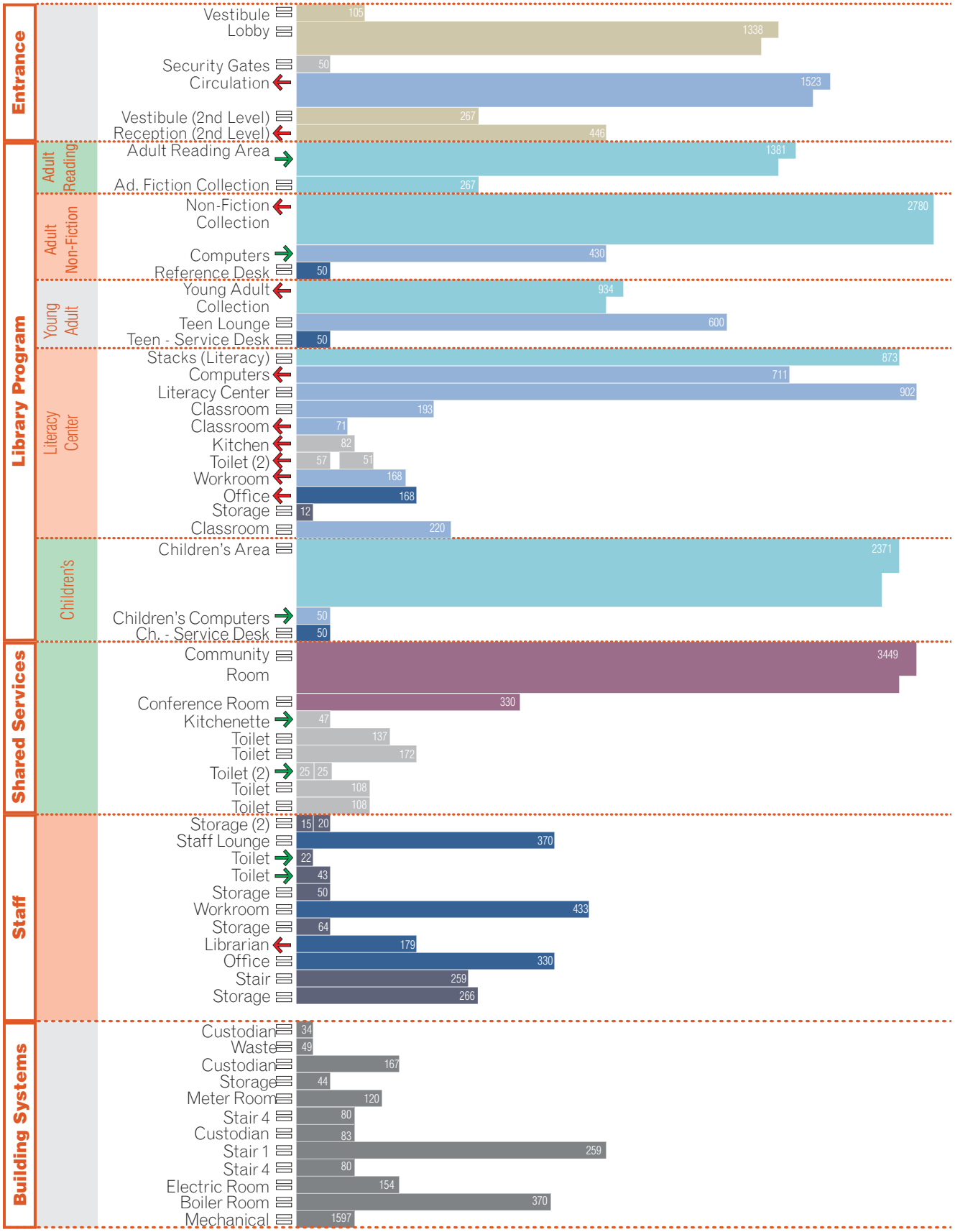
- » The size and location of these areas to generally remain similar to existing.
- » Overall decrease in area due to consolidation of several duplicative Literacy Center and Library spaces.

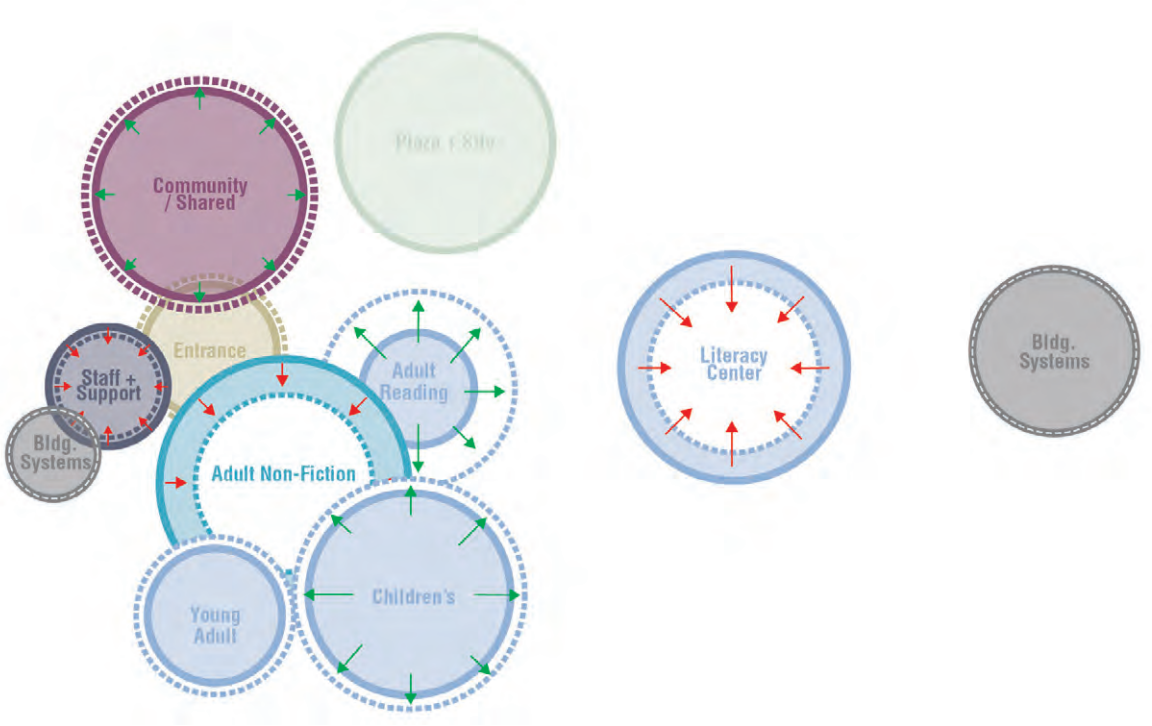
Building Systems: Similar

- » Same size and similar location as the existing plan.
- » Overall improvements in system and locations

Precedent - Mattapan Branch Library

Young Adult areas well defined with distinct furniture and finish selections.


Entrance
Vestibule 105
Lobby 1338
Security Gates 50
Circulation 1523
Vestibule (2nd Level) 267
Reception (2nd Level) 446
Library Program
Adult Reading
Adult Reading Area 1381
Ad. Fiction Collection 267
Adult Non-Fiction
Non-Fiction Collection 2780
Computers 430
Reference Desk 50
Young Adult
Young Adult Collection 934
Teen Lounge 600
Teen - Service Desk 50
Literacy Center
Stacks (Literacy) 873
Computers 711
Literacy Center 902
Classroom 193
Classroom 71
Kitchen 82
Toilet (2) 57 51
Workroom 168
Office 168
Storage 12
Classroom 220
Children's
Children's Area 2371
Children's Computers 50
Ch. - Service Desk 50
Shared Services
Community Room 3449
Conference Room 330
Kitchenette 47
Toilet 137
Toilet 172
Toilet (2) 25 25
Toilet 108
Toilet 108
Staff
Storage (2) 15 20
Staff Lounge 370
Toilet 22
Toilet 43
Storage 50
Workroom 433
Storage 64
Librarian 179
Office 330
Stair 259
Storage 266
Building Systems
Custodian 34
Waste 49
Custodian 167
Storage 44
Meter Room 120
Stair 4 80
Custodian 83
Stair 1 259
Stair 4 80
Electric Room 154
Boiler Room 370
Mechanical 1597



Composite

- Areas of growth and reduction reflect the changing demands and use of the library.
- Meeting these program demands may entail a modest increase to the overall floor area of the building.

Other Factors Influencing Area Change

- Compliance with accessibility guidelines may cause some areas to increase. In particular bathrooms and kitchen areas will be affected.
- Developing furniture plans with more flexible, comfortable seating may cause reading areas to increase
- Consolidating some support functions associated with the Literacy Center within the Library proper will allow a decrease in floor area
- Similarly, developing flexibility with meeting spaces may result in an overall decrease in floor area.
- While reducing collection sizes decreases shelving areas, lowering the heights of the shelves to help with sightlines and wayfinding could result in shelving areas increasing.

(Opposite) Existing Program Areas for the Dudley Branch highlighting which areas will increase, decrease or remain the same in size.

6

Conceptual Design

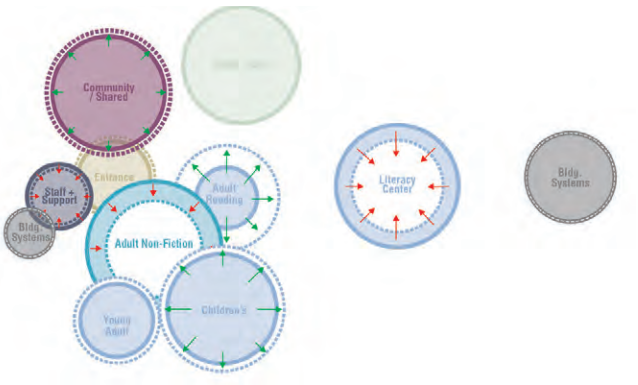
Design Objectives
Final Concept Design
Building Systems Recommendations
Program Spreadsheet
LEED Checklist

Section Summary

» The concept design strived to breathe new life into the library by building on its existing assets while addressing some of its shortcomings.
» It considered every area (entry, adult reading, adult non fiction, young adult, children's, community, literacy center, staff, and building systems) and fosters an environment that is welcoming and more responsive to how patrons use the library.
» The concept design distilled the following recommendations for the renovation of the branch:
    1. Create a meaningful connection between the levels of the library with a programmed stair. This serves as a central gathering place and establishes hierarchy and orientation;
    2. Reposition and centralize the circulation desk as well as other staff areas to improve sightlines;
    3. Improve spatial definition to better respond to particular needs to distinct user groups of the library;
    4. Improve performance and energy efficiency of building systems as necessary. In particular, update mechanical distribution systems to remove large low hanging ducts in the library "box;"
    5. Ensure that the library is fully accessible inside and out;
    6. Improve signage and wayfinding;
    7. Modernize furnishings and equipment to be more flexible and comfortable;
    8. Enhance opportunities for local history display
» In total, the conceptual design adds approximately 1,200 sq. ft. of new area for a 27,000 gross sf. ft. facility.

Design Objectives
Guiding Principles

Meet Program Space Needs



BPL Compass

Leverage the BPL Compass as a living document to ground the design process

Architectural Aesthetics

Consider opportunities to “open up” and “warm up” the building to better connect it to the neighborhood

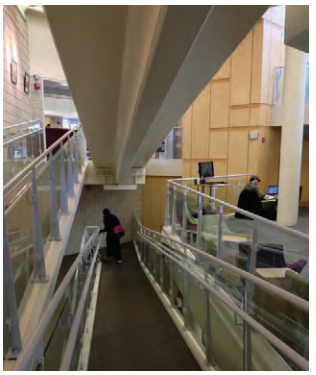
Existing Exterior
Brutalist style contributes to an imposing, insular and cold street presence

Precedent -
Brighton Branch Library

Accessibility

Ensure the library is fully accessibility inside and out

Existing Entries
Both primary entries are currently not handicapped accessible.



Precedent -
Brighton Branch Library

Technology

Embrace state-of-the-art technology resources

Precedent -
Grove Hall Branch Library

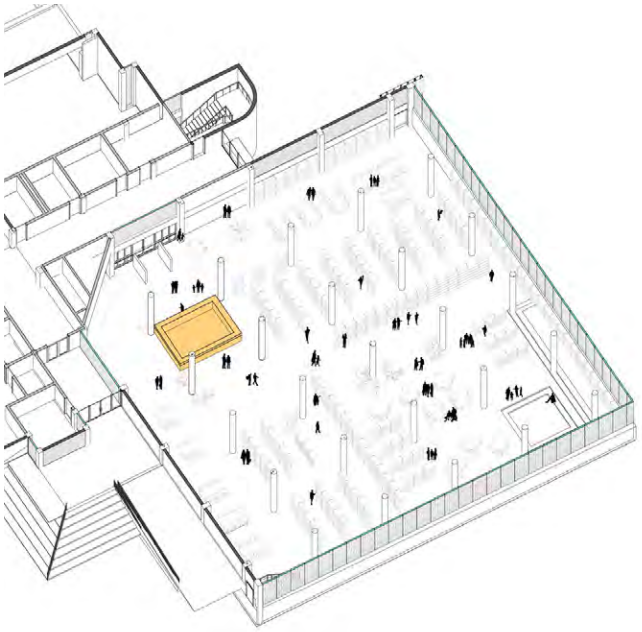
Precedent -
Mattapan Branch Library

Sustainability

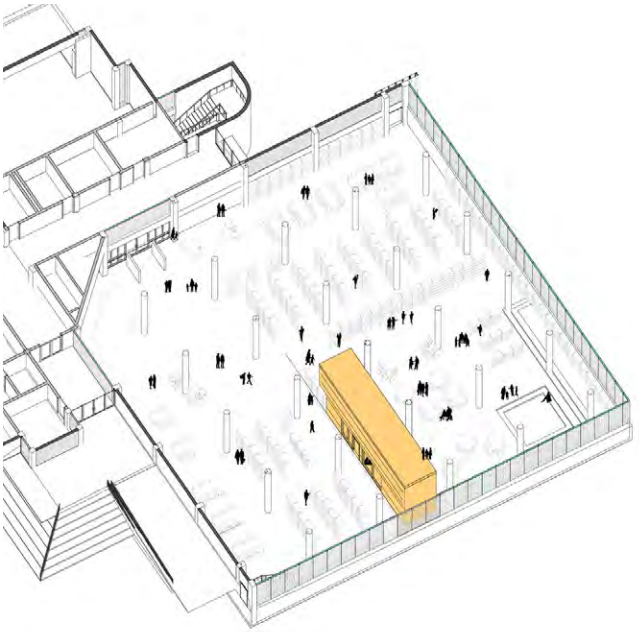
Develop in an environmentally responsible manner

Precedent -
Brighton Branch Library

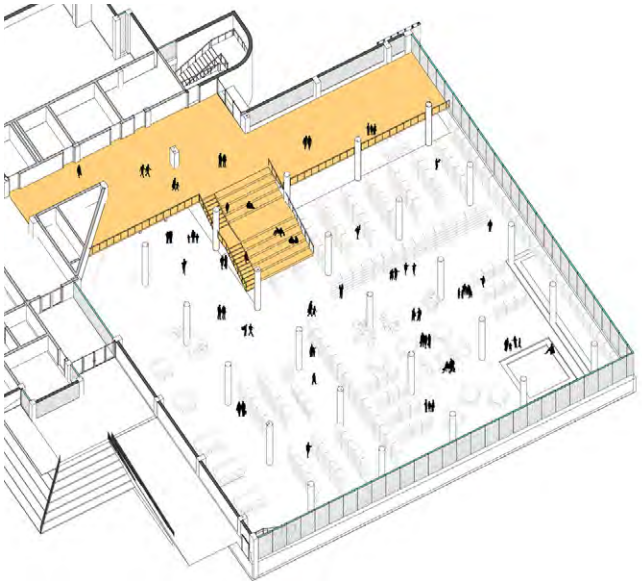
Design Strategies for the Library “Box”



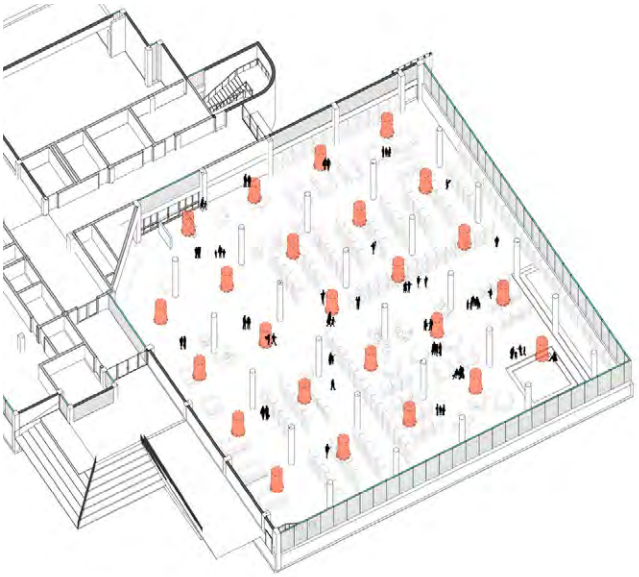
Centralize the Circulation Desk



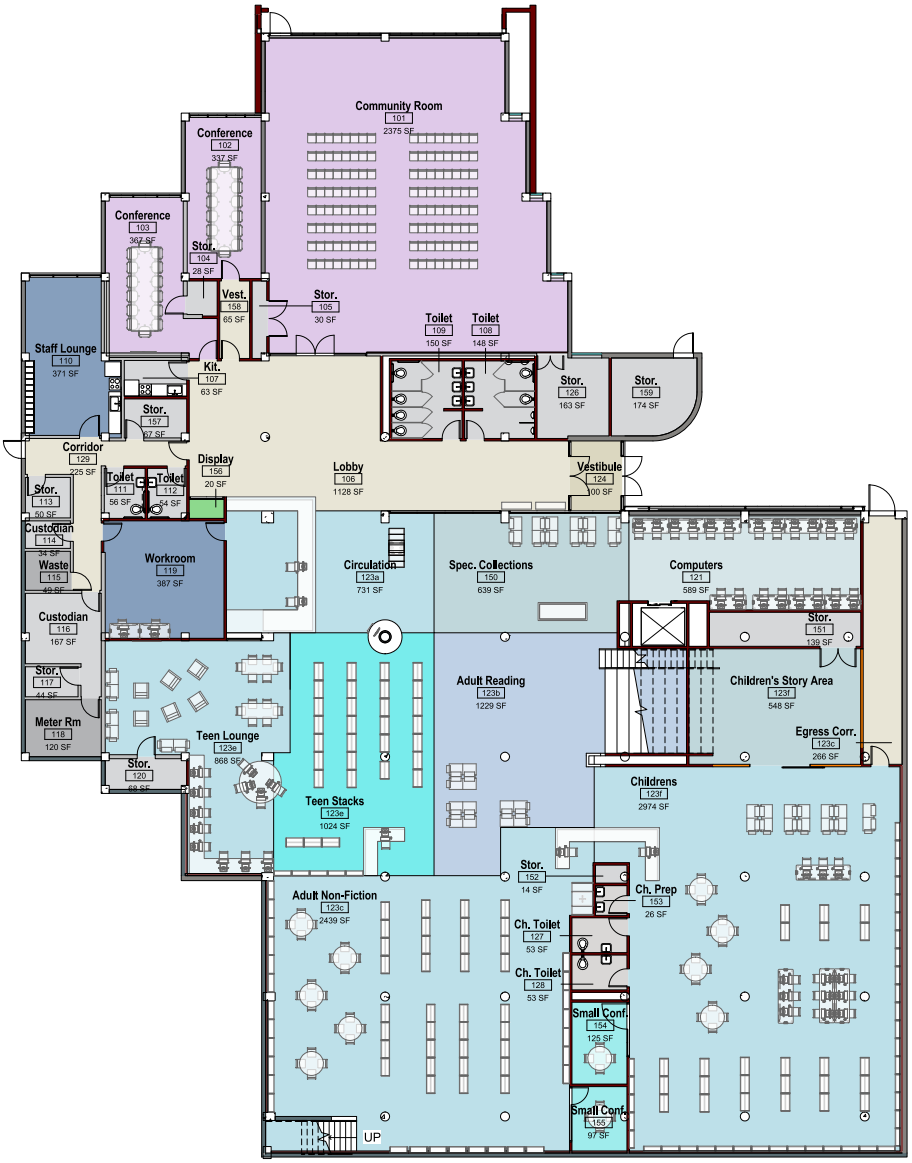
Separate areas with a bar of support program



Establish a meaningful, occupiable connection between the levels

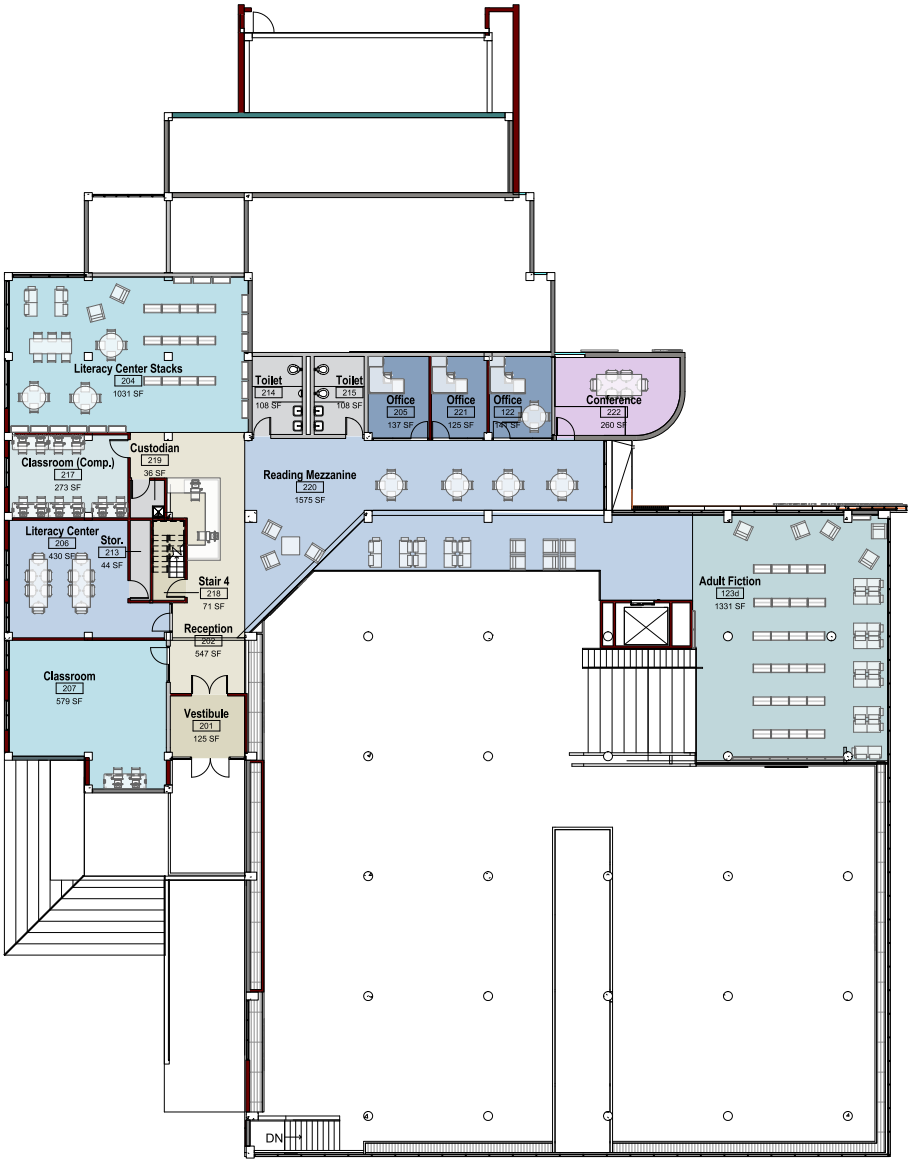


De-clutter the space by removing low hanging ducts

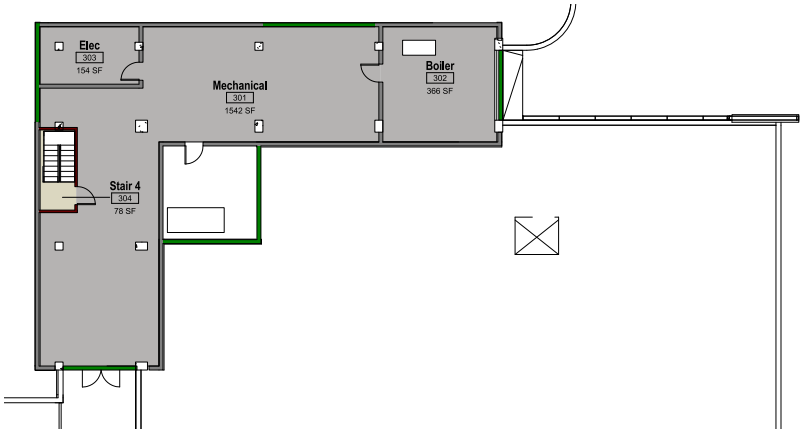


First Level Plan

Final Conceptual Design for the Dudley Branch Library



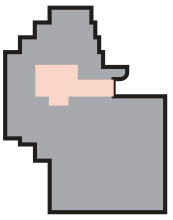
Second Level Plan

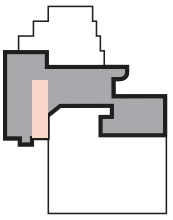


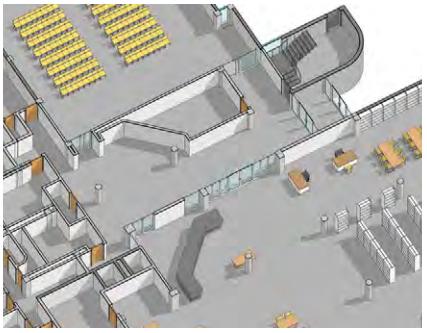
Mechanical Penthouse Plan

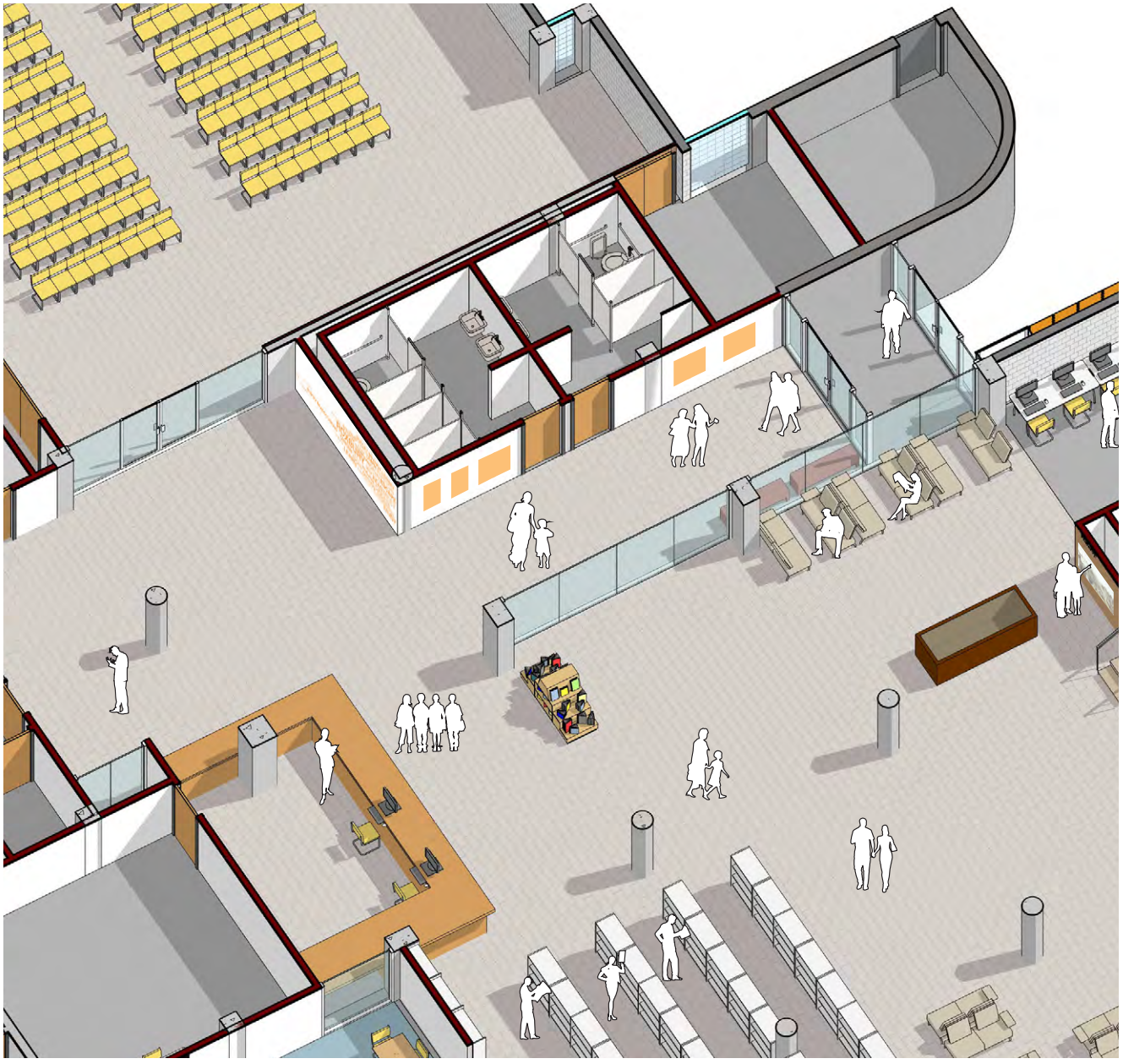
Entry

- 2,731 SF
- 30% Decrease in Area
- 5 Faces of Shelving
- 2 Computers
- 18 Casual Seating Locations
- 0 Table Seating Locations

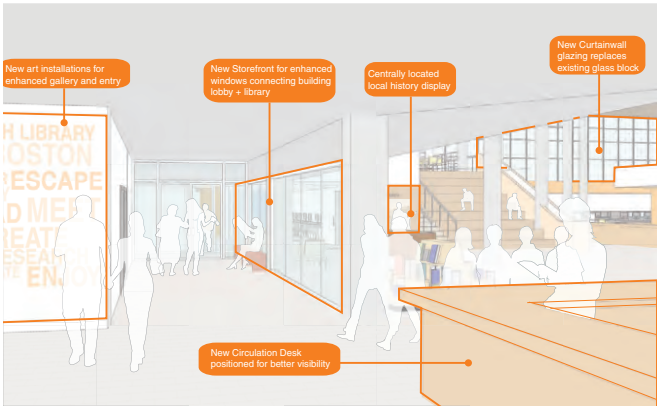


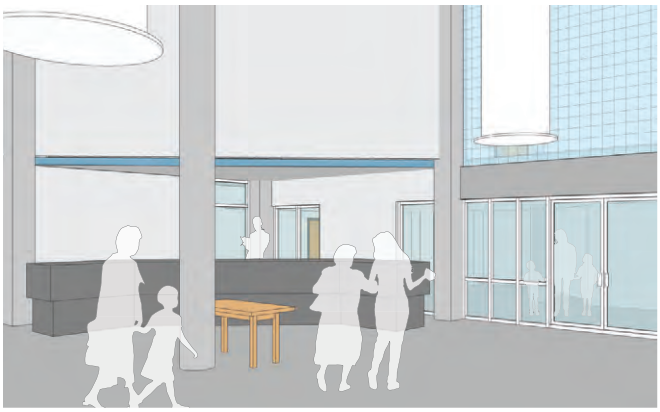


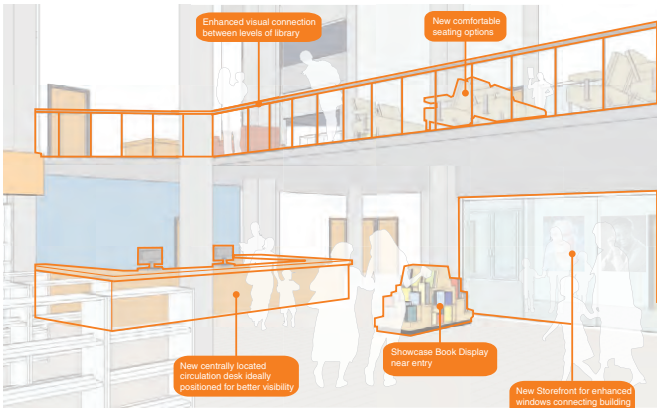


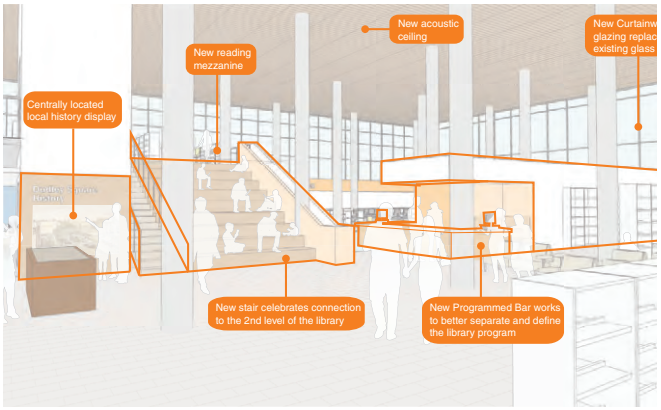


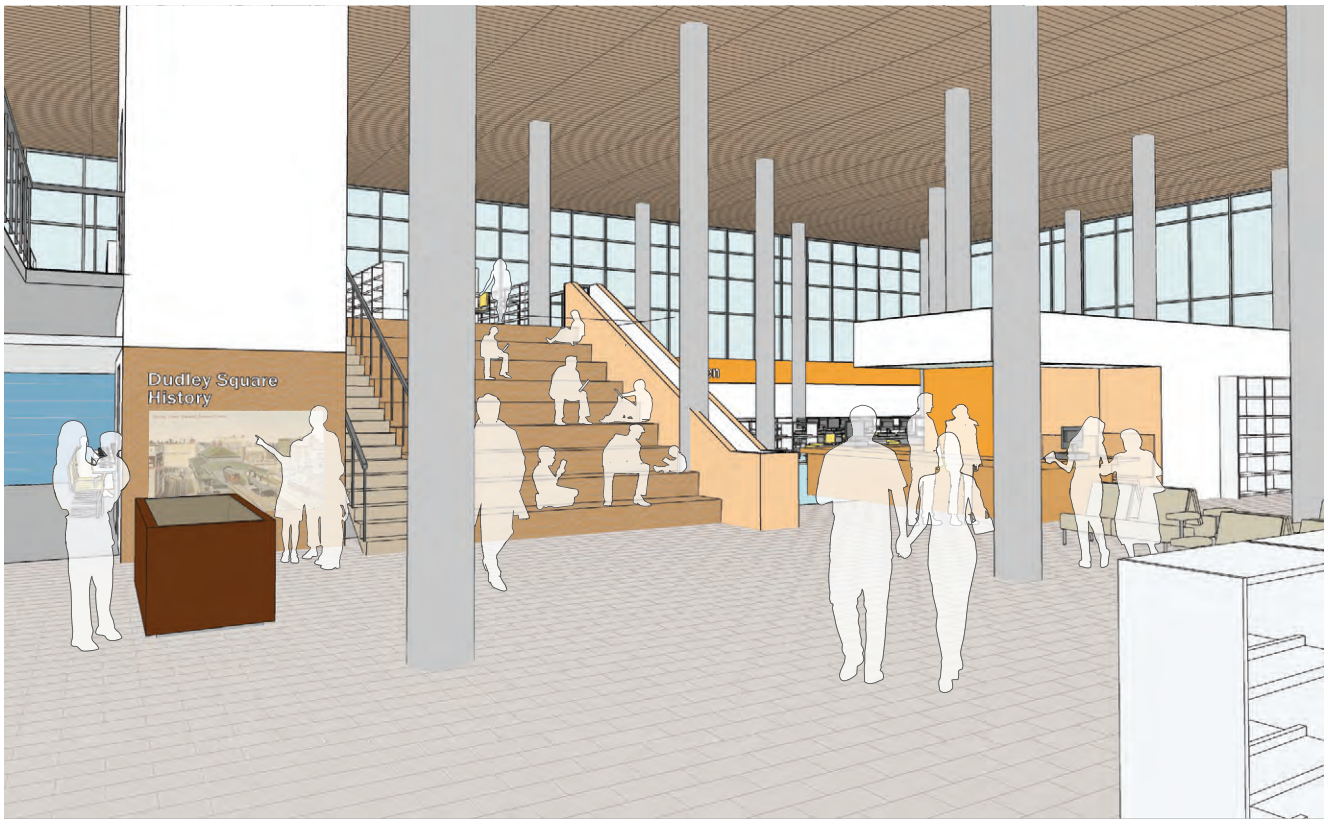
» Showcase display shelving and self pick-up shelving and self checkout computers
» Defined area for Community Bulletin Boards
» Art / Local History and community authored work can prominently define this area
» Lobby opened up to the Library for better connectivity
» New circulation desk with enhanced visibility





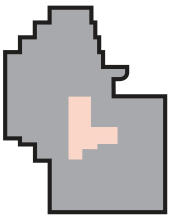

Enhanced visual connection between levels of library
New comfortable seating options
New centrally located circulation desk ideally positioned for better visibility
Showcase Book Display near entry
New Storefront for enhanced windows connecting building

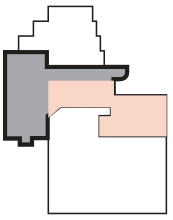

New acoustic ceiling
New reading mezzanine
Centrally located local history display
New stair celebrates connection to the 2nd level of the library
New Programmed Bar works to better separate and define the library program

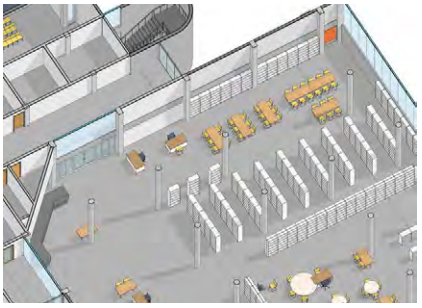

Dudley Square History

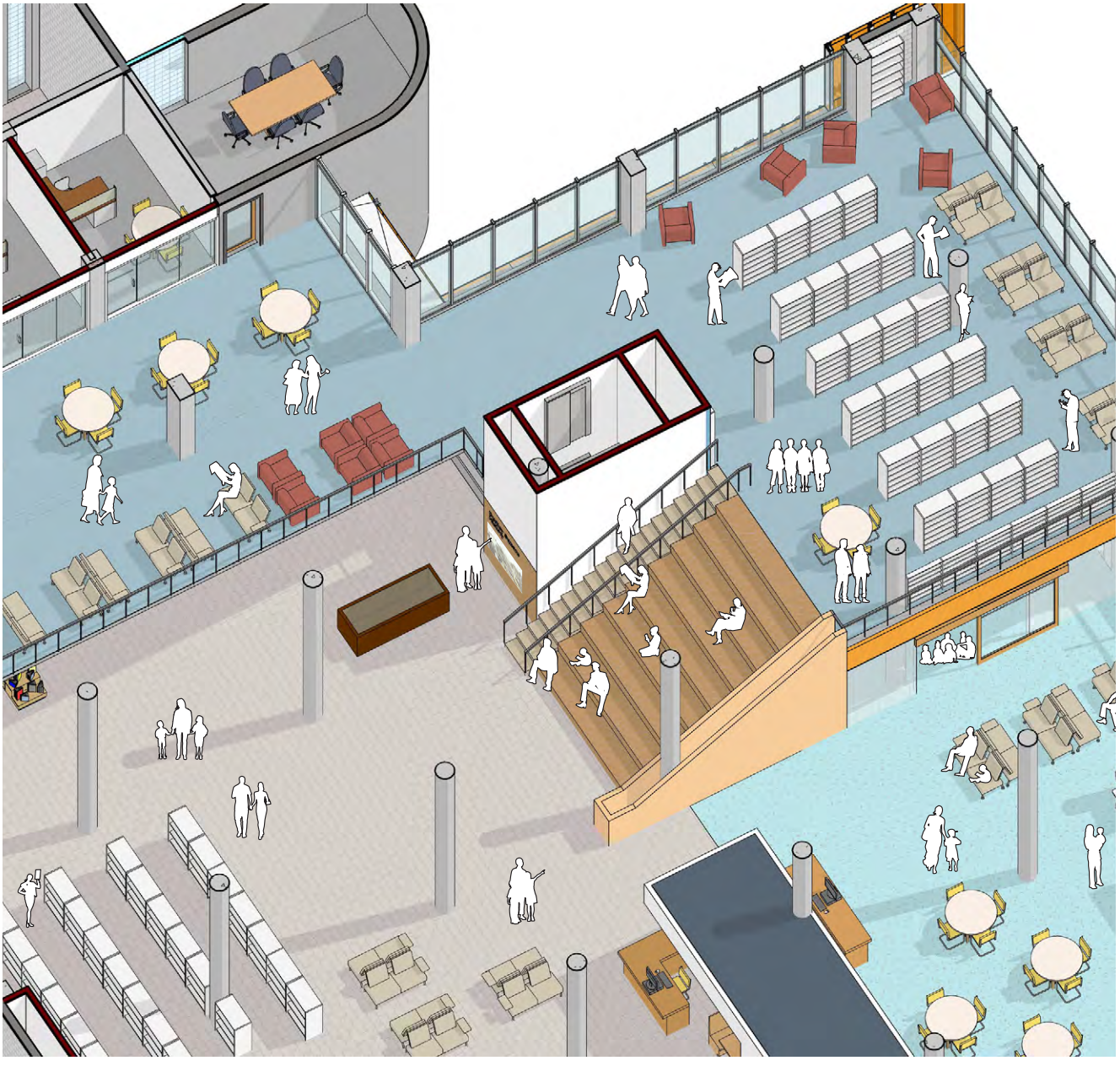
Adult Reading

- 4,232 SF
- 192% Increase in area
- 52 Faces of Shelving
- 0 Computers
- 38 Casual Seating Locations
- 44 Table Seating Locations

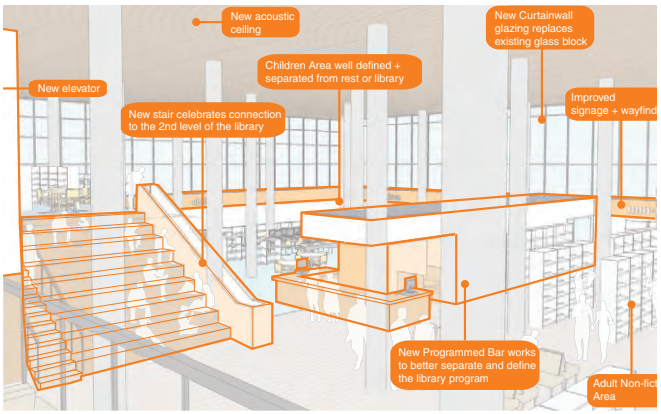






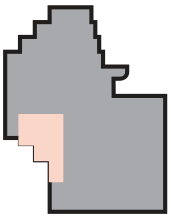


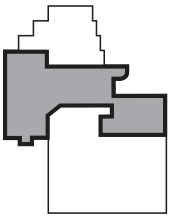
» Defined by “programmed stair” that functions as a distinct and exciting gathering space.
» Transformed with a range of comfortable seating options.
» Great access to daylight and views
» Enhanced Special Collections and local archive area

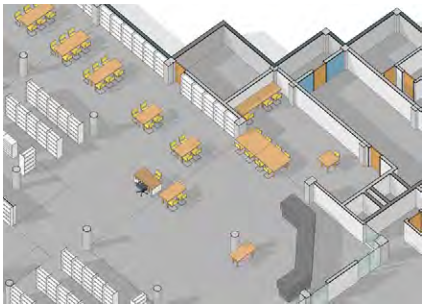


Young Adult

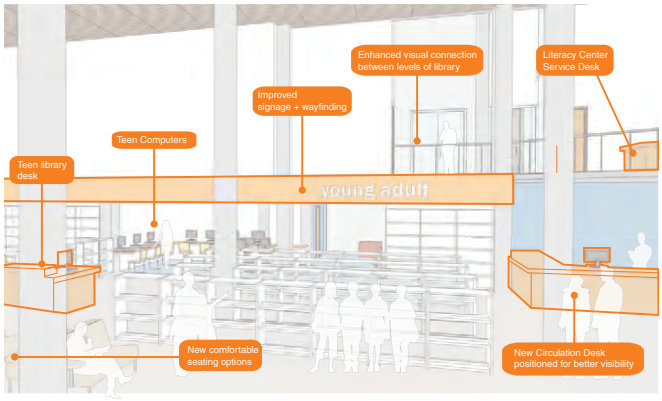
- 1,892 SF
- No change in area
- 30 Single Face Shelving
- 13 Computers
- 16 Casual Seating Locations
- 12 Table Seating Locations

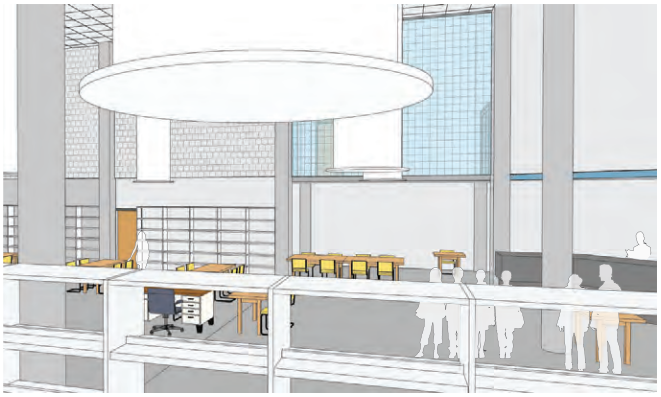


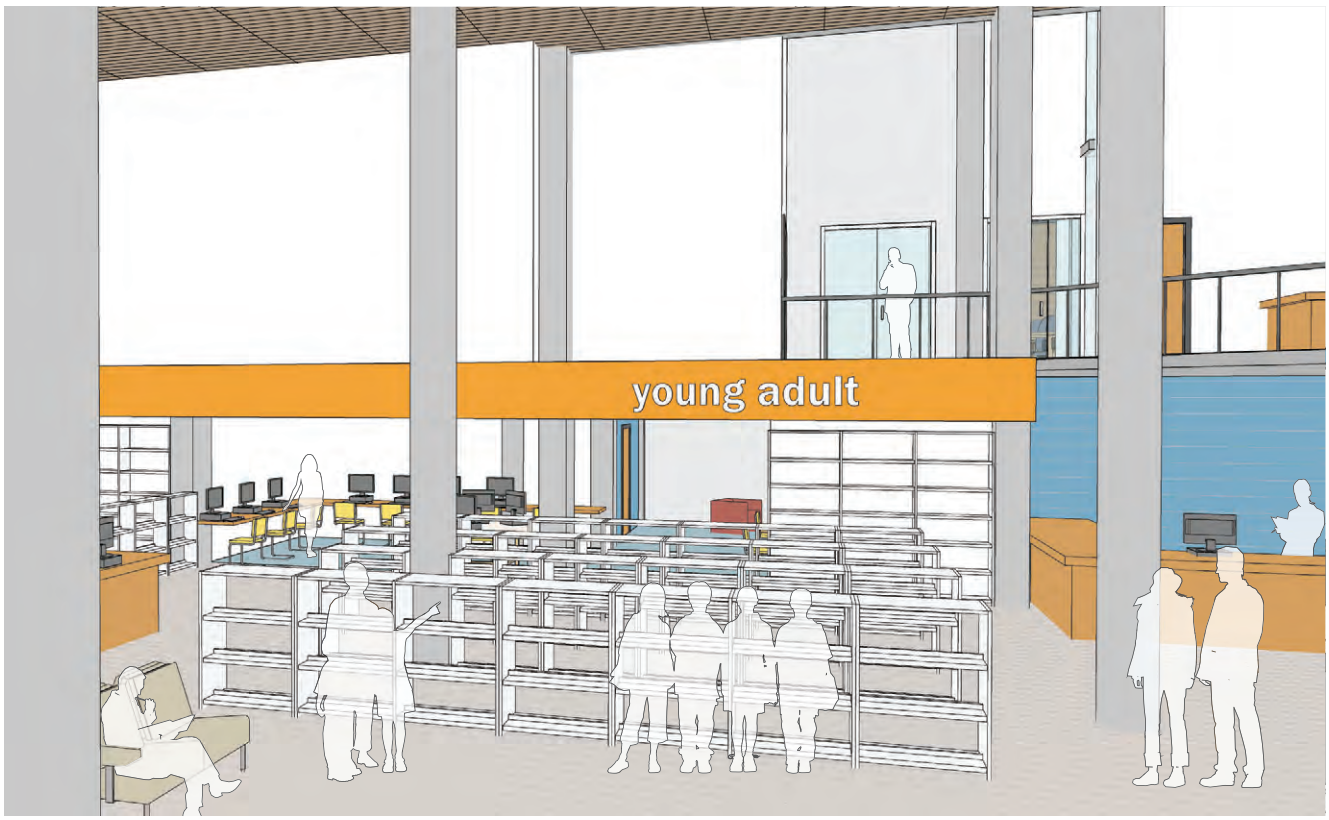




» Enhanced stacks, furnishings, and digital resources designed to foster an atmosphere to draw more teens to the library
» Teen Lounge designed to house workshops and informal gatherings
» More computer resources
» Their own zone in the building is established without compromising the atmosphere of the adult or children's areas.

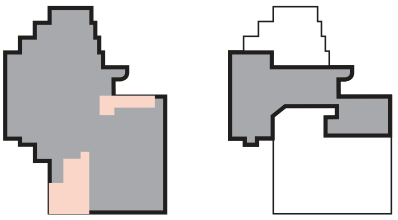




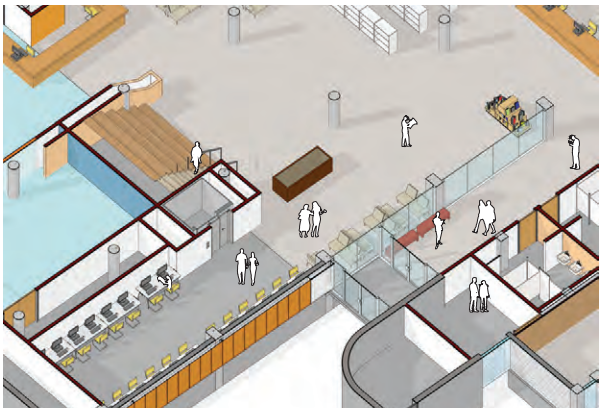


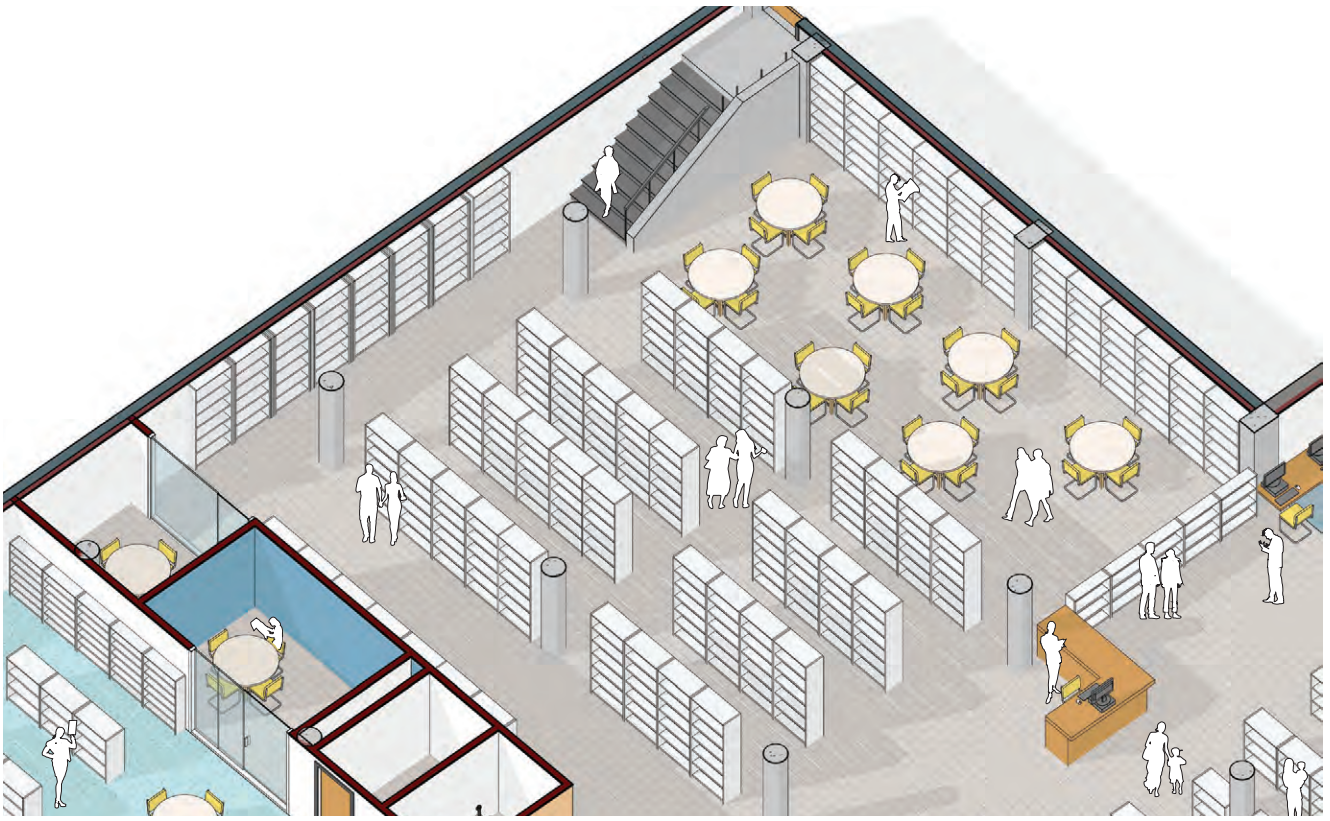
Adult Non Fiction

- 3,667 SF
- 8% increase in area
- 90 Single Face Shelving
- 21 Computers
- 16 Casual Seating Locations
- 32 Table Seating Locations



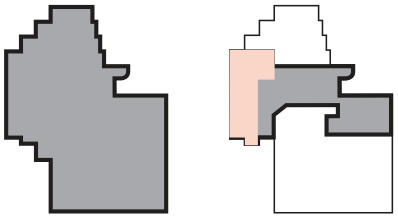
- Decreased collection size allows more space for in demand programs
- More computer resources
- Flexible Furnishings
- Small Conference rooms for small group meetings



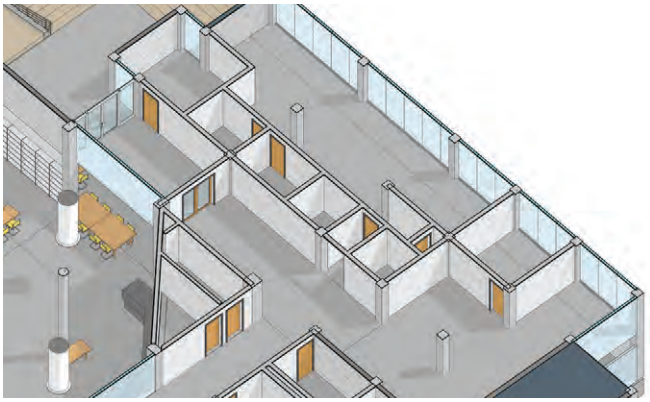


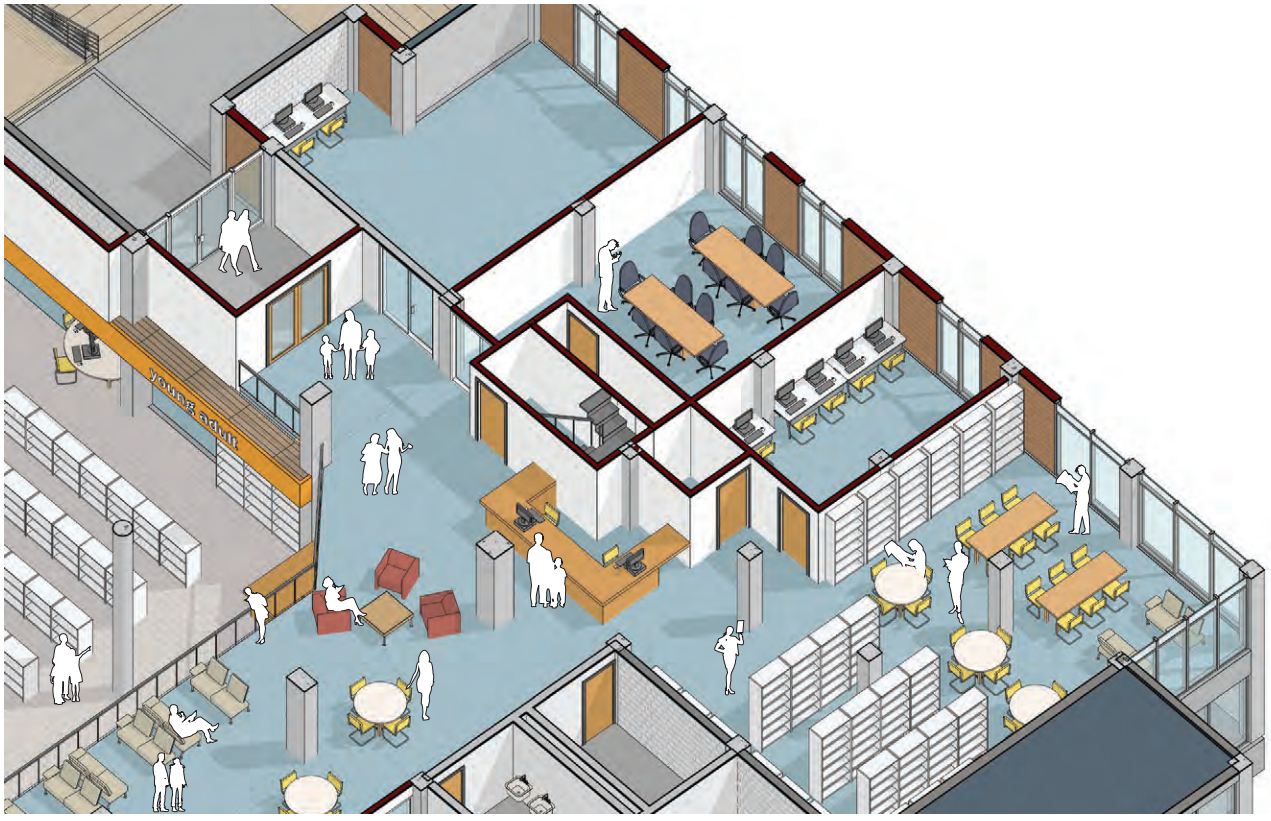
Literacy Center

- 2,494 SF
- 30% Decrease in Area
- 53 Single Face Shelving
- 14 Computers
- 7 Casual Seating Locations
- 28 Table Seating Locations



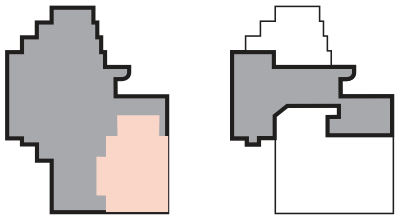
- Reconsidered to provide two large, flexible classroom spaces as oppose to the singular long space with underused small spaces.
- More flexible, comfortable furnishings.
- Efficiencies gained through integration with Library.
- New centrally located staff desk





Children's

- 3,673 SF
- 10% Increase in Area
- 70 Single Face Shelving
- 13 Computers
- 14 Casual Seating Locations
- 28 Table Seating Locations

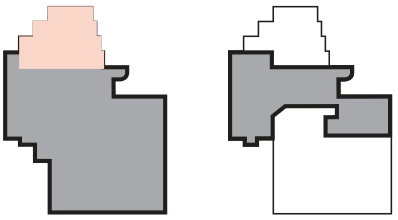


- Distinct areas for varying age groups
- Flexible multi-purpose gathering area (700 SF)
- New designated toilet facilities for this area

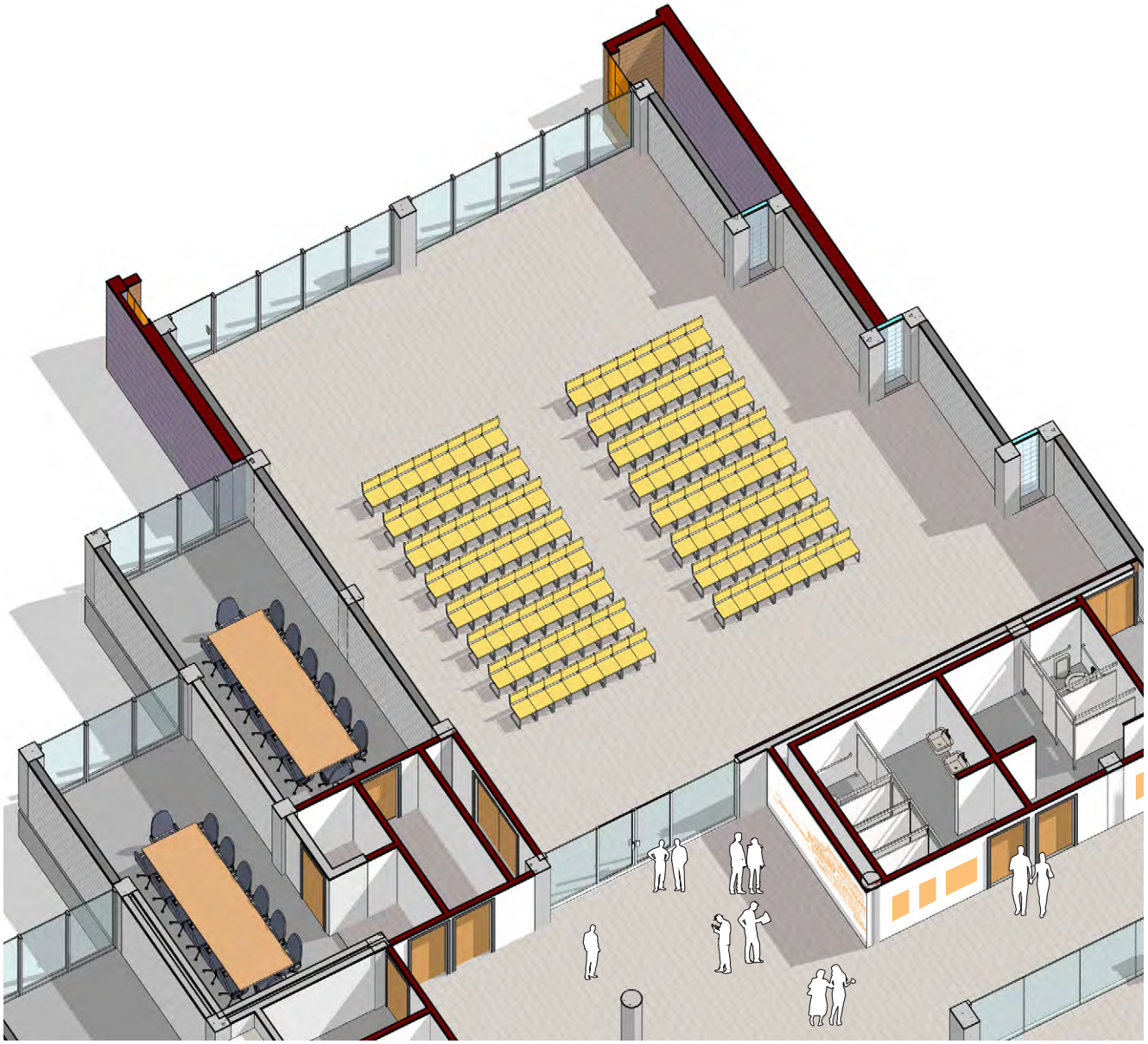

children

Shared / Community

» 4,022 SF
» 20% Increase in Area



» New conference area added by reprogramming Conference Room added with the repurpose of the existing staff office.
» Significant upgrades to furnishings, fixtures, and equipment.
» Strengthen storage areas.

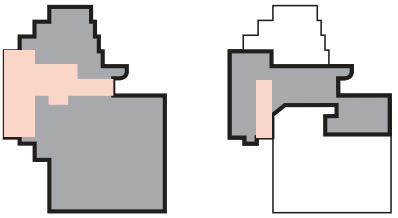


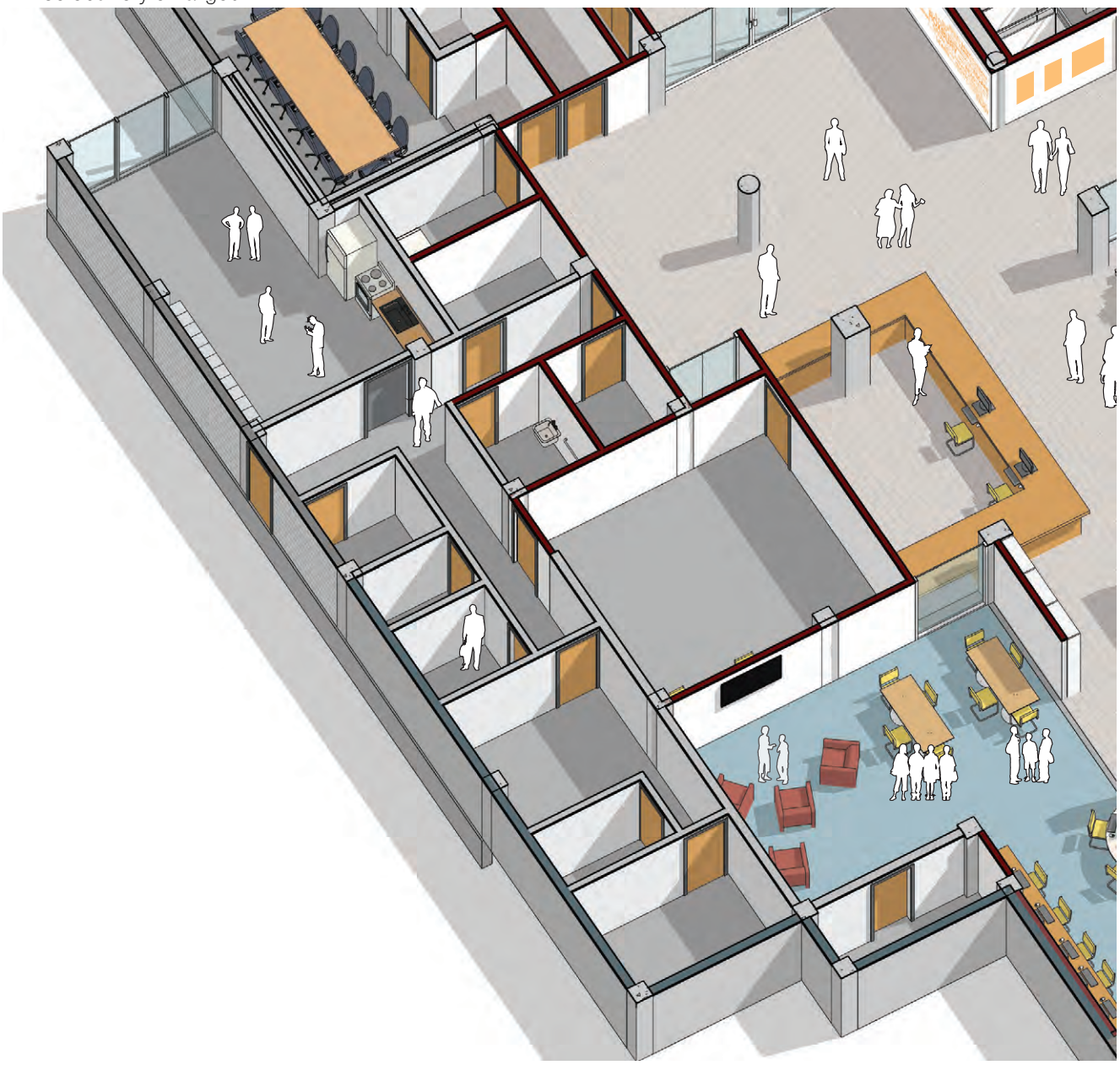
Staff Areas

» 1,626 SF
» 3% Increase in Area
» Size of staff areas largely the same size as in the existing layout.
» Upgrades to furnishings, fixtures, and equipment.
» Some office space redistributed to second level.
» Storage areas enhanced and selectively enlarged.

Building Systems

» 2,652 SF
» 19% Decrease in Area
» Area reductions from removal of stair
» Areas devoted to building systems remain the same.





Building Systems Recommendations

Summary of New System Recommendations

Mechanical

System / Component	Comment
Hot Water System	The hot water system and its components appear to be in good condition. No major replacement or repair appear to be necessary. Any requirement for hot water with new system recommendations should be coordinated with the existing system requirements and capabilities.
Air Conditioning System	As previously indicated the air conditioning units need replacement. BH recommends that these units be replaced with modern air conditioning units with the following: · Hot water heating coils. The units can utilise hot water from the current heating system. · DX cooling coils with condenser water heat rejection. The units would use new compressor DX cooling coils and reject heat to the existing cooling tower via a condenser water loop. · Alternatively the cooling could be provided by air cooled DX cooling coils integral to the new units. BH recommends a price comparison for both strategies be provided by the contractor.
Cooling Tower (C.T.)	If a water cooled loop is the preferred choice the existing cooling tower could remain. The AC unit cooling coils would need to be coordinated with the requirements and capabilities of the cooling tower.
Additional Cooling	Where additional cooling is required dedicated Variable Refrigerant Volume (VRV) circuits would be provided. Final selection of indoor units would be coordinated with the internal architectural requirements of the spaces. Condensing units would be located on the roof.
Ventilation	The ventilation requirements for the spaces shall be supplied by the new AC units.

Electrical

» Recommend replacement of the existing 480V switchboard and 208V distribution board as the equipment is beyond their useful life expectancy.
» New system would allow for safer operation and maintenance of equipment and increased future flexibility
» New lighting and controls.

Fire Protection

» New fire service will be needed to supply automatic sprinkler and standpipe system.
» New automatic sprinkler system will be required.

Plumbing

» New plumbing fixtures throughout.
» New service lines as necessary.
» Improve roof drainage system.

MEP Building Systems Narrative, Buro Happold, Inc.

6 Concept MEP Building Systems Narrative

6.1 Introduction

The building system described are based on limited visual survey of the existing systems and determine how to integrate upgrade or enhancements to building system to support the Concept level programming needs at the Dudley Branch of the Boston Public Library. It is understood that the architectural legacy of the project should be maintained under any proposed library renovation and that the project is targeting meeting or exceeding LEED Silver certification.

6.2 Mechanical

LEED & Sustainability:

The mechanical systems shall be selected with optimum coefficient of performance values on compressors to reduce running costs. All new pumps and fans shall be complete variable frequency drives. All final air filters shall be MERV 13. All refrigerants in new equipment shall be in accordance with LEED requirements. Indoor thermal comfort and air quality shall meet the requirements of LEED.
The mechanical design process should include application for all relevant utility rebates and incentive programs, including NSTAR advanced building program.

System design criteria:

All areas in the building shall be heated and cooled and shall maintain appropriate temperature and humidity levels based on ASHREA Application handbook to maintain the following space conditions. The limits are statistical design targets and may be exceeded for part of the year.

Climate Zone, Moisture Regime:	5 (Massachusetts)
Interior Design Conditions:	Heating: 72°F maximum
	Cooling: 75°F minimum
Outdoor Design Conditions:	Heating (99.6%) 7°”F
	Cooling (1%) 87° dry bulb; 71° wet bulb

Heating System:

The existing system is to be retained for generating heating hot water for the building. This consists of one (1#) gas fired condensing boilers, two primary pumps and two base mounted secondary pumps. Hot water from the boiler plant will be pumped to any existing heating elements that are to be retained and to any new heating elements that are to be installed as part of the renovation.

Any new heating elements being selected shall be based upon the existing boiler plant capabilities.

Cooling System:

The cooling system shall be a hybrid of new air conditioning units and where required, a Variable Refrigerant Volume (VRV) system to supplement areas that require additional cooling.

The air conditioning units will consist of a fan, filters (final to be MERV 13), hot water heating coil, DX cooling coil (water cooled), mixing section, intake and exhaust sections, dampers and all associated controls. The coefficient of performance for the compressors on the coils shall ensure that energy targets for the building will be met. Controls shall allow for full air side economizer mode to reduce energy costs.

Heating/cooling air shall be supplied via ductwork to spaces as required. Space thermostats shall communicate with the unit to ensure adequate setpoints in the space are being met.

VRV units will provide heating/cooling to spaces that cannot be cooled or heated by the air conditioning units. The final indoor unit type of the indoor units (cassette, wall mounted, concealed) shall be agreed with the architect in subsequent design stages. The number of indoor/outdoor units will be dependent on the capability of the new air conditioning units.

For pricing purposes BH recommends that 16# 2TR indoor units with 2# outdoor condensing units are allowed for. This will need to be verified in the subsequent design stages.

BAS:

The BAS system should be set up to achieve the most energy efficiency operation of the mechanical systems through outdoor air temperature compensation while providing accurate control of environmental conditions.

The BMS will consist of a network of controllers that will be provided to integrate all of the HVAC equipment monitoring and control. The system will be provided with a user workstation located in a designated BMS/ Security monitoring room area of the Library. The BMS will also linked to a remote central monitoring center on the Boston Public Library network and will be provided with remote web access capability.

6.3 Electrical

General

The electrical system throughout the building will be designed to provide an electrical service and distribution system of adequate capacity and protection required for the design intent of the building. The Electrical system

shall comply with the requirements of the Massachusetts Building Code and all other governing agencies at the time of renovation.

Normal Power Distribution

The existing building electrical service could be reused subject to confirmation that addition of new electrical load will not exceeds the capacity of the existing utility transformer.

However, it is recommended that the existing 480V switchboard and 208V distribution board should be replaced in its entirety as part of any major renovation to the building as the equipment are beyond their useful life expectancy. New switchboard and distribution board will allow new loads such as new HAVC equipment to be sized appropriately as replacement parts would be difficult to source to retrofit existing distribution equipment. This approach would allow spare space and capacity to be incorporated to increase flexibility for future growth to support changes to program space, as well as allowing for safer operation and maintenance of equipment.

Emergency Power

A source of emergency power is required by code to provide egress lighting in the case of a power outage, and to maintain the fire alarm system for a minimum of 90-minutes. Egress lighting should be powered by either emergency batteries integral to light fixtures or by remote mini inverters sized for connected load. The Fire Alarm will be backed up by integral batteries.

It is assumed that the building will not need an emergency generator for standby power. Further discussion will be required with the Boston Public Library to establish if this assumption remains appropriate in future design phases.

Lighting and Controls

New energy efficient lighting will be provided in area of renovation complete with new lighting controls to meet the latest State Energy Code at the time of renovation. Bi-level switching control will be provided for all enclosed rooms except in corridors, lobbies, restrooms, stairways and storage rooms.

In general all lighting will be switched by automatic lighting shut off controls to turn lights off during off hours. Vacancy sensor type wall switches will be provided in all space occupied by staff to allow user control of lighting. Occupancy sensors will be used to control the lighting in classrooms, meeting rooms, conference rooms and other rooms that are generally unoccupied. Where Mechanical system VRVs or FCUs are provided for enclosed rooms, contact closure relay shall be integrated into the control boxes.

Automatic daylighting controls by photo control sensors should be provided in with natural daylight spaces greater than 250 sq.ft. This control zone will control only those lights in the day lit zone within 15 feet from window where appropriate. All exterior and select general interior circulation lighting will be controlled thru astronomical time clock control with manual override for special events.

Emergency lighting will be provided such to meet required code levels at 11 lux minimum along the path of egress with a 40 to 1 maximum/minimum ration, utilizing building luminaries, where possible. Exit signs will be provided throughout the path of egress.

Wiring Devices

New receptacles should be provide based on program requirement. Where high concentration of receptacle outlets are required for areas such as computer clusters and classrooms, the use of high capacity surface raceway, ADA complaint over floor raceway or power poles should be used to provide dedicated pathways for installing power and data cables.

Fire Detection and Alarm System

The fire detection and alarm system will comprise smoke and heat detectors, strobe and horn alarms and an addressable fire alarm controls panel (FACP). The standard of the fire alarm systems will be developed to comply with the Massachusetts Building Code requirements and NFPA codes. The addressable system is capable of identifying precise areas of fire/alarm enabling rapid direct response to an incident. The design of the fire alarm system will comprise the division of the building into zones for ease of identification.

Visual alarm indication will be installed in all public spaces, to ensure both able and disabled persons are aware of the emergency situation. A remote annunciator will be place in the main lobby of the building at a location approved by Boston Fire Department.

6.4 Fire Protection

Fire Service

The building will require a new fire service to supply the automatic sprinkler and standpipe system. A backflow preventer, double check valve assembly type (DCVA) will be located in the Water Service Room and distribute to the system accordingly.

A fire department connection (Siamese) will be installed at the front of the proposed building as per NFPA requirements, and in compliance with all local authorities having jurisdiction. A check valve with an automatic ball drip will be installed in the pipe feeding the fire department connection and drain to the nearest existing drain.

A hydrant flow test is required to confirm that a fire pump is not required.

Sprinkler

Buro Happold

The building will be equipped with an automatic sprinkler system designed and installed as per NFPA 13 and all other authorities having jurisdiction. All spaces will be served by a wet-type sprinkler system.

The sprinkler system will include quick response sprinklers throughout. Each floor will be zoned separately and each zone assembly will include a control valve, water flow switch and tamper switch. The sprinkler system will be connected to a combination sprinkler riser, located in or adjacent to the main stairway. Each sprinkler zone shall be limited to 52,000 square feet as per NFPA 13 requirements.

Fire Standpipe

A Class III standpipe system is anticipated to be required and should be confirmed by code review. Each egress stairwell will be equipped with a standpipe riser as well as fire hose valve with cap and chain on each floor as per NFPA 14. Additional risers or outlets are required if all portions of each floor are not within 150 feet of a hose outlet.

Structural Narrative, RSE Associates, Inc.

RSE

RSE ASSOCIATES, INC.

DUDLEY BRANCH LIBRARY STUDY

STRUCTURAL NARRATIVE
Concept Design

June 13, 2013

1. PROOSED MEZZANINE WITH ELEVATOR

   - Proposed elevator will require new pit, and underpinning at two existing footings
   - Several existing footings will need to be expanding to account for the increased loading.
   - Most existing columns are not expected to require reinforcement since there unbraced lengths will be reduced.
   - Existing structure along the edge of the proposed mezzanine may need to be reinforced.
   - New structure will consist of either steel beams with composite slab on metal deck, or new concrete slabs.
   - Mezzanine will be designed for a live load of 150 psf to allow for future flexibility.

2. STAIR OPENINGS

   - Infill 2 existing stair openings. New structure will consist of either steel beams with composite slab on metal deck, or new concrete slabs.
   - Create new opening for stair to mechanical rooms. Support existing slab around proposed opening with steel beams.

RSE ASSOCIATES, INC.

REFERENCE STANDARDS

- Massachusetts State Building Code (780 CMR), 8th Edition
- AISC, Code of Standard Practice for Steel Buildings and Bridges, and applicable regulations.
- ACI 301 "Specifications for Structural Concrete for Buildings."
- ACI 315 "Manual of Standard Practice for Detailing Reinforced Concrete Structures."
- ACI 318 "Building Code Requirements for Reinforced Concrete."
- AWS D1.1 "Structural Welding Code - Steel."

MATERIALS

- Structural Steel Shapes, Plates, and Bars: ASTM A 36 / A992 (W shapes).
- Cold-Formed Steel Tubing: ASTM A 500, Grade B.
- Hot-Formed Steel Tubing: ASTM A 501.
- Steel Pipe: ASTM A 53, Type E or S, Grade B; or ASTM A 501.
- Steel Castings: ASTM A 27, Grade 65-35.
- Headed Stud-Type Shear Connectors: ASTM A 108, Grade 1015 or 1020.
- Anchor Bolts: ASTM F1554.
- Steel Reinforcing: ASTM A615 Grade 60.
- Welded Wire Fabric: ASTM A185.
- Unfinished Threaded Fasteners: ASTM A 307, Grade A.
- High-Strength Threaded Fasteners: ASTM A 325 or ASTM A 490, as applicable.
- Steel Decking: ASTM A446, 33 Ksi Galvanized.
- Cast in Place Concrete: F'c = 4,000 psi (no fly ash, 10% Portland cement).
- No concrete curing compound to be used (wet cure only).

Program Spreadsheet

Dudley Branch Programming

			AREA REQUIREMENTS				COLLECTIONS					SHELVING				PROP. PATRON SEATING			COMP
Room #	Area Name		Extg. Area	Added Area	% move	Prop. Area	% Diff	Extg. Vols.	Prop. Vols.	80% Capacity	vols /lf	lf	#sh	#levels	#sfs	casual	table	com p.	
		0 0	0																
	ENTRANCE																		
124	Vestibule		98		sim.	100													
106	Lobby		1339		sim.	1,128										2			
	Display Shelving		0			20			100	N/A	6	17	6	3	2				
	Self Check Out		0																2
	Self Pickup Shelving		0						200	160	8	25	8	3	3				
201	Vesitbule (2nd Level)		267		sim.	125													
202	Reception (2nd Level)		446		dec	547													
	Security Gates	0	80		sim.	80													
123a	Circulation	0	1523		dec.	731													
	TOTAL		3,753			2,731		-	300	160	14	42	14	6	5	2	-	-	2
	ADULT READING AREA																		
123b	Adult Reading Area		1,381		inc.	1,229													
	Periodicals		-				86%	58	50	50	1	50	17	7	2				
123d	Fiction Collection		320		sim	1,331	84%	5,965	5,000	4,000	8	500	167	5	33	12	0		
	Large Print	0	-		dec.		25%	4,005	1,000	800	8	100	33	5	7	23	4		
	Fiction - Mystery	0	-		sim.		67%	1,502	1,000	800	8	100	33	5	7				
	Fiction - Romance	0	-		sim.		115%	434	500	400	8	50	17	5	3				
155	Small Conference			100	+	97													
220	Reading Mezzanine			1,680	+	1,575													
	TOTAL		1,701	1,780		4,232		11,964	7,550	6,050	33	800	267	27	52	20	10	-	-
	ADULT NON-FICTION AREA																		
123c	Non-Fiction Collection		2,780		dec.	2439	50%	20,007	10,000	8,000	8	1,000	333	5	67		28		
	Reference		-				4%	2,627	100	80	6	13	4	5	1				
	AV Collection - Books		-				226%	155	350	280	8	35	12	5	2				
	AV Collection - CD		-				238%	420	1,000	800	25	32	11	4	3				
	AV Collection - DVD		-				406%	1,231	5,000	4,000	25	160	53	4	13				
121	Computers		430		inc	589	0%	20	0	0	6	0	0	5	0			20	20
	Reference Desk		50			incl. above			0	0	8	0	0						1
	World Languages		-		sim		72%	698	500	400	7	57	19	5	4				
150	Special Collections/Archive			50	+	639													
	TOTAL		3,260			3,667		25,158	16,950	13,560	93	1,297	432	33	90	-	28	20	21
	YOUNG ADULT AREA																		
123e	Young Adult Collection		934		dec.	1,024											12		
	Teen - fiction collection		0				69%	3,607	2,500	2,000	8	250	83	4	21	4			
	Teen - Graphic Novel		0				322%	311	1,000	800	8	100	33	7	5				
	Teen - periodicals		0				100%	6	6	5	1	5	2	7	1				
123e	Teen - Lounge		600		sim	868			0	0	8	0	0	7	1	4	8		
123e	Teen - Computers		0		inc	incl. above	0%	12	0	0	6	0	0	7	1			12	12
123e	Teen - Service Desk	0	50			incl. above			0	0	8	0	0	4	1				1
	TOTAL	0	1,584			1,892		3,936	3,506	2,805	39	355	118	36	30	8	20	12	13
	LITERACY CENTER																		
204	Stacks (Literacy)		873		sim	1,031	113%	7106	8000	6,400	8	800	267	5	53				
203	Computer Stations		708	del.	del.	del													
206	Literacy Center		902		sim./ dec	430										4	24		
207	Classroom		193		del.	579													2
208	Classroom		71	remove duplicate space	del.	del.												10	10
209	Kit.		82		del.	del.													
210	Toilet		57		del.	del.													
212	Toilet		51		del.	del.													
216	Workroom		168		del.	del.													1
205	Office		168		sim.	137													1
213	Stor.		12			44													
217	Classroom (Computer)		220		sim./ inc.	273													
	TOTAL		3,505	(429)		2,494		7,106	8,000	6,400	8	800	267	5	53	4	24	10	14

CHILDREN'S AREA																			
Childrens	0	3,449		sim.	2974										40				
Preschool Collection Story Area	0	0		inc.	548				0	25	0	0	3	0	8				
Children's-Picture Books	0	0				48%	3,118	1,500	1,200	25	48	16	3	5					
Children's - Board	0	0						200	160	15	11	4	3	1					
Children's Early Readers	0	0				103%	1,163	1,200	960	25	38	13	3	4					
Children's Reading Room	0	0			incl. above										14	24			
Children's Non-Fiction	0	0				46%	10,754	5,000	4,000	15	267	89	5	18					
Children's Folk+Fairy Tales	0	0				68%	588	400	320	15	21	7	3	2					
Children's DVD/CD	0	0				315%	317	1,000	800	25	32	11	4	3					
Children's Reference	0	0				17%	577	100	80	300	1	1	3	1					
Children's Periodicals	0	0				100%	13	13	10	1	10	3	3	1					
Children's - Computer	0	50			incl. above	0%	12										12	12	
Children's - Librarian	0	50			incl. above					8	0	1	3	1				1	
Children's - Fiction	0	0				80%	5,007	4,000	3,200	15	213	71	3	24					
Children's - Books on CD	0	0				95%	37	35	28	25	1	0	3	1					
Children's - Graphic Novels	0	0				187%	214	400	320	15	21	7	3	2					
Children's - Multimedia	0	0				65%	46	30	24	15	2	1	3	1					
Children's - World Languages	0	0				44%	1,125	500	400	8	50	17	3	6					
4 Small Conference			125	+	125														
3 Children's Prep Area			20	+	26														
TOTAL		**3,549**	**125**		**3,673**		**22,971**	**14,378**	**11,502**	**532**	**716**	**240**	**48**	**70**	**62**	**24**	**12**	**13**	
SHARED SERVICES																			
1 Community Room		2384		sim.	2375												128		
3 Conference		324		sim.	367														
7 Kit.		47		inc.	63														
8 Toilet		137		sim.	148														
9 Toilet		172		sim.	150														
7 Toilet		25		inc.	53														
8 Toilet		25		inc.	53														
4 Toilet		108		sim.	108														
5 Toilet		108		sim.	108														
2 Conference Room					337														
2 Conference					260														
TOTAL		**3,330**	**-**		**4,022**														
STAFF																			
4 Stor.		15			28														
5 Stor.		20			30														
0 Staff Lounge		370		sim.	371										4	8		1	
1 Toilet		22			56														
2 Toilet		43			54														
3 Stor.		50			50														
9 Workroom		433		sim.	387													3	
0 Stor.		64			68														
2 Librarian		179		sim.	141													1	
2 Office		330	del.	del.														1	
1 Office					125														
6 Stor.		266			163														
1 Stor.			143		139														
2 Stor.			7		14														
TOTAL		**1,792**	**150**		**1,626**										**4**	**8**	**-**	**6**	
BUILDING SYSTEMS																			
4 Custodian		34		sim.	34														
5 Waste		49		sim.	49														
6 Custodian		167		sim.	167														
7 Stor.		44		sim.	44														
8 Meter RM		120		sim.	120														
5 Stair 1		260		del.															
8 Stair 4		80		sim.	71														
9 Custodian		83		sim.	36														
5 Stair 1		260		del.															
3 Mechanical Room		1597		sim.	1542														
1 Boiler Room		360		sim.	366														
2 Electric Room		154		sim.	154														
4 Stair 4		80		sim.	78														
TOTAL		**3,288**			**2,661**														
TOTAL PROGRAM AREAS		**25,762**	**1,626**		**26,998**		**71,135**	**50,684**	**40,477**	**719**	**4,010**	**1,338**	**155**	**300**	**120**	**81**	**54**	**69**	
PERCENT DIFF FROM EXTG.					**104.80%**														

LEED Checklist

Y	?	N			
18	3		**Sustainable Sites**	Possible Points:	**26**
Y			Prereq 1	Construction Activity Pollution Prevention	
1			Credit 1	Site Selection	1
5			Credit 2	Development Density and Community Connectivity	5
			Credit 3	Brownfield Redevelopment	1
6			Credit 4.1	Alternative Transportation—Public Transportation Access	6
	1		Credit 4.2	Alternative Transportation—Bicycle Storage and Changing Rooms	1
	1		Credit 4.3	Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles	3
2			Credit 4.4	Alternative Transportation—Parking Capacity	2
			Credit 5.1	Site Development—Protect or Restore Habitat	1
			Credit 5.2	Site Development—Maximize Open Space	1
1			Credit 6.1	Stormwater Design—Quantity Control	1
	1		Credit 6.2	Stormwater Design—Quality Control	1
1			Credit 7.1	Heat Island Effect—Non-roof	1
1			Credit 7.2	Heat Island Effect—Roof	1
1			Credit 8	Light Pollution Reduction	1
4			**Water Efficiency**	Possible Points:	**10**
Y			Prereq 1	Water Use Reduction—20% Reduction	
2			Credit 1	Water Efficient Landscaping	2 to 4
			Credit 2	Innovative Wastewater Technologies	2
2			Credit 3	Water Use Reduction	2 to 4
13	3		**Energy and Atmosphere**	Possible Points:	**35**
Y			Prereq 1	Fundamental Commissioning of Building Energy Systems	
Y			Prereq 2	Minimum Energy Performance	
Y			Prereq 3	Fundamental Refrigerant Management	
6	3		Credit 1	Optimize Energy Performance	1 to 19
			Credit 2	On-Site Renewable Energy	1 to 7
2			Credit 3	Enhanced Commissioning	2
2			Credit 4	Enhanced Refrigerant Management	2
3			Credit 5	Measurement and Verification	3
			Credit 6	Green Power	2
4	2		**Materials and Resources**	Possible Points:	**14**
Y			Prereq 1	Storage and Collection of Recyclables	
1	1		Credit 1.1	Building Reuse—Maintain Existing Walls, Floors, and Roof	1 to 3
	1		Credit 1.2	Building Reuse—Maintain 50% of Interior Non-Structural Elements	1
1			Credit 2	Construction Waste Management	1 to 2
			Credit 3	Materials Reuse	1 to 2

Materials and Resources, Continued

Y	?	N			
1			Credit 4	Recycled Content	1 to 2
1			Credit 5	Regional Materials	1 to 2
			Credit 6	Rapidly Renewable Materials	1
			Credit 7	Certified Wood	1

Indoor Environmental Quality — Possible Points: 15

Y			Prereq 1	Minimum Indoor Air Quality Performance	
Y			Prereq 2	Environmental Tobacco Smoke (ETS) Control	
1			Credit 1	Outdoor Air Delivery Monitoring	1
			Credit 2	Increased Ventilation	1
1			Credit 3.1	Construction IAQ Management Plan—During Construction	1
1			Credit 3.2	Construction IAQ Management Plan—Before Occupancy	1
1			Credit 4.1	Low-Emitting Materials—Adhesives and Sealants	1
1			Credit 4.2	Low-Emitting Materials—Paints and Coatings	1
1			Credit 4.3	Low-Emitting Materials—Flooring Systems	1
	1		Credit 4.4	Low-Emitting Materials—Composite Wood and Agrifiber Products	1
			Credit 5	Indoor Chemical and Pollutant Source Control	1
1			Credit 6.1	Controllability of Systems—Lighting	1
1			Credit 6.2	Controllability of Systems—Thermal Comfort	1
1			Credit 7.1	Thermal Comfort—Design	1
	1		Credit 7.2	Thermal Comfort—Verification	1
1			Credit 8.1	Daylight and Views—Daylight	1
			Credit 8.2	Daylight and Views—Views	1

Innovation and Design Process — Possible Points: 6

			Credit 1.1	Innovation in Design: Specific Title	1
1			Credit 1.2	Innovation in Design: Specific Title	1
			Credit 1.3	Innovation in Design: Specific Title	1
			Credit 1.4	Innovation in Design: Specific Title	1
			Credit 1.5	Innovation in Design: Specific Title	1
1			Credit 2	LEED Accredited Professional	1

Regional Priority Credits — Possible Points: 4

1			Credit 1.1	Regional Priority:Building reuse	1
1			Credit 1.2	Regional Priority: Heat Island Effect - non-roof	1
1			Credit 1.3	Regional Priority: Heat Island Effect - roof	1
			Credit 1.4	Regional Priority: Specific Credit	1

Total — Possible Points: 110

54	10		

Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110

7

Conceptual Site Design

Section Summary

» The conceptual site design considers ways to enhance the relationship between the library and its site
» Site recommendations centered around the following five goals:
    1. Enhance the connectivity between the site and the Library.
    2. Create a well defined, flexible plaza,
    3. Optimize the design of operational site requirements.
    4. Work with other initiatives to better focus resources for maximum benefit
    5. Increase greenspace where possible.
» The design recommendations work to strengthen the presence of the Dudley Branch in the Dudley Square community.

The design of the site for the Dudley Branch is an opportunity to consider how to extend the conceptual design objectives in order to affirm and strengthen the presence of the library in the community. With its large front plaza, the Dudley Branch has the opportunity to establish better outdoor public space in a community in search of this very thing. Given the climate for change in the area and the significant developments underway, this section considers how the site design of the Dudley Branch can create a welcoming environment that anchors the library within the public realm of Dudley Square.

The Site Design for the Dudley Branch can be distilled into the following five goals:

1- Enhance the connectivity between the site and the Library

Establish meaningful connections between the library interior and the context.

2- Create a well defined, flexible plaza

Transform the existing inhospitable plaza into a well defined asset for a range of possible uses.

3- Optimize design of operational site requirements

Carefully integrate staff parking, loading entries and other essential functions into the library site design.

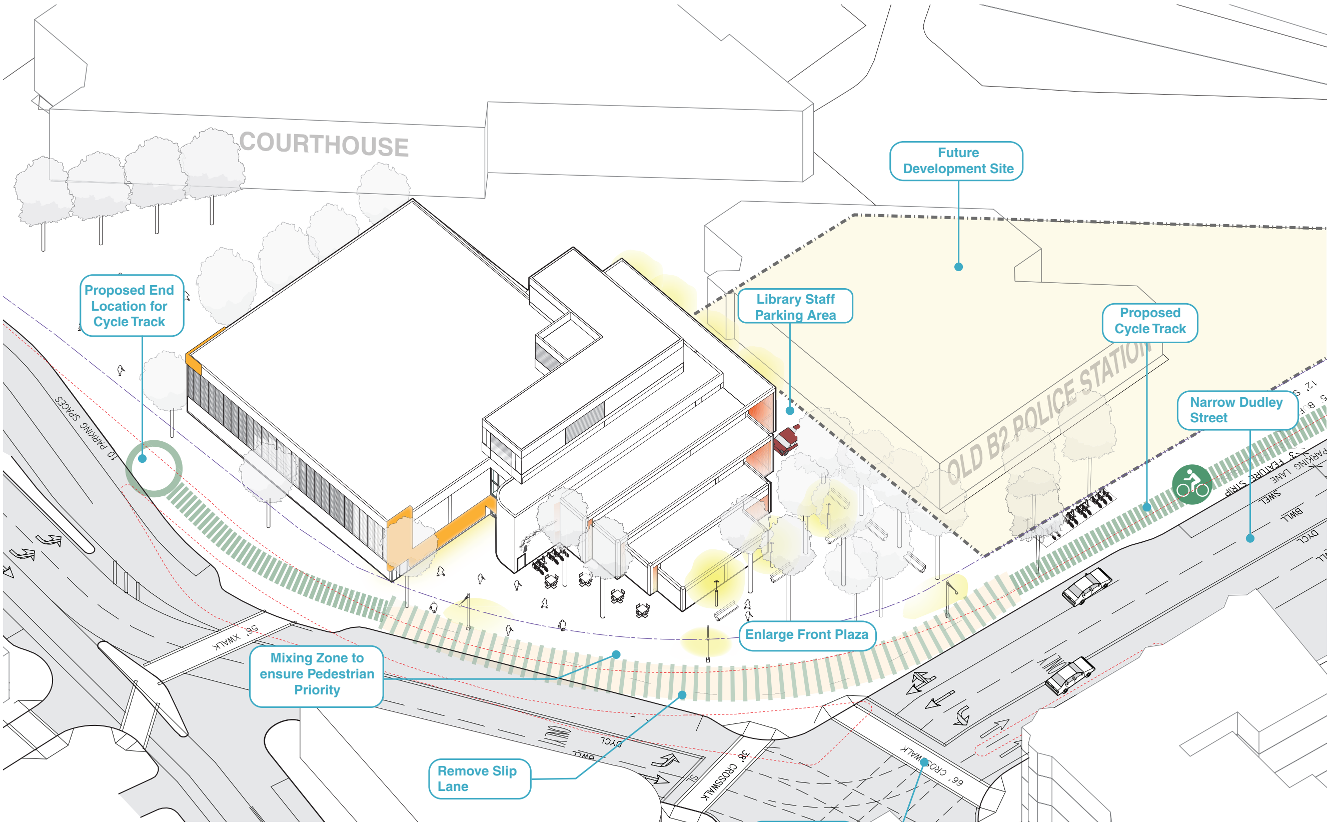
4- Work with other initiatives to better focus resources for maximum benefit

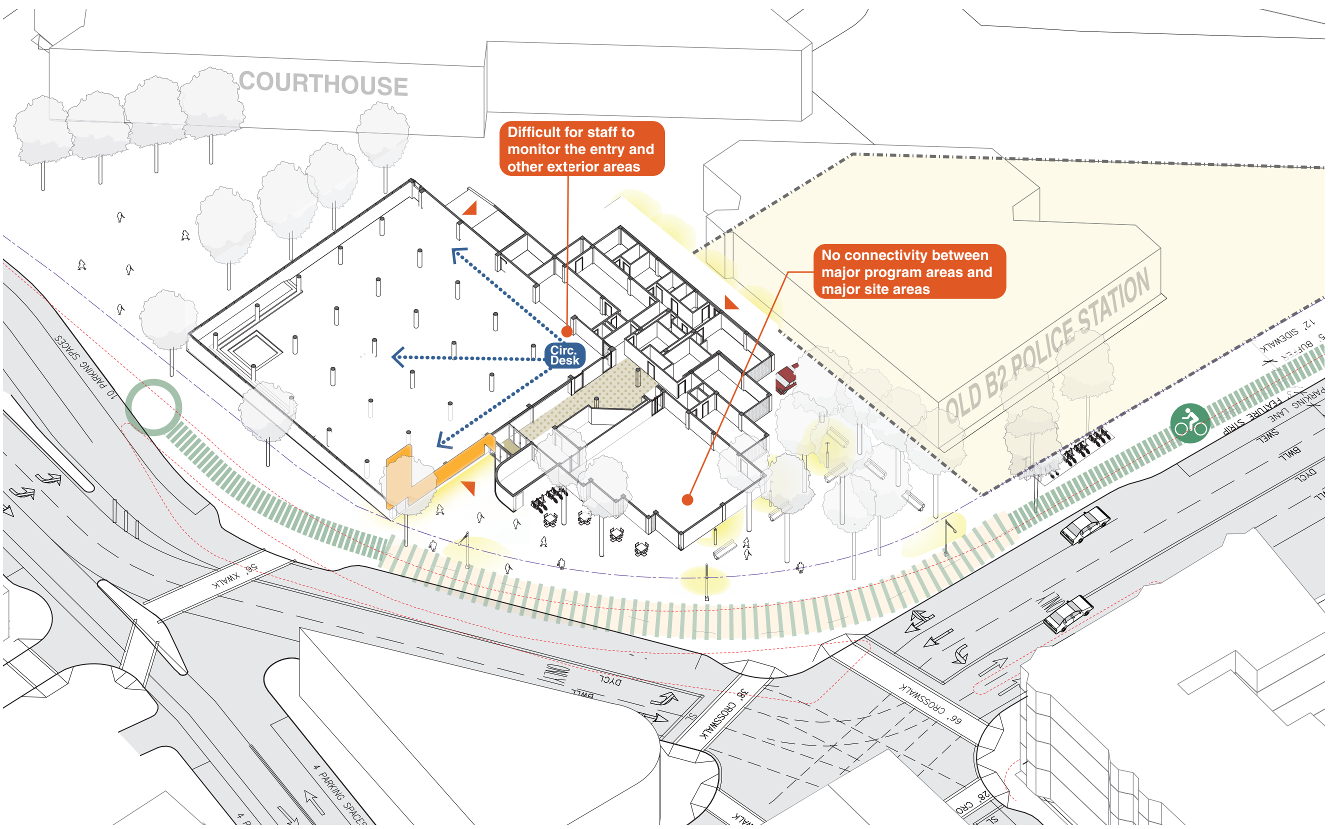
Streetscape improvements and new private development should inform the design of the front plaza.

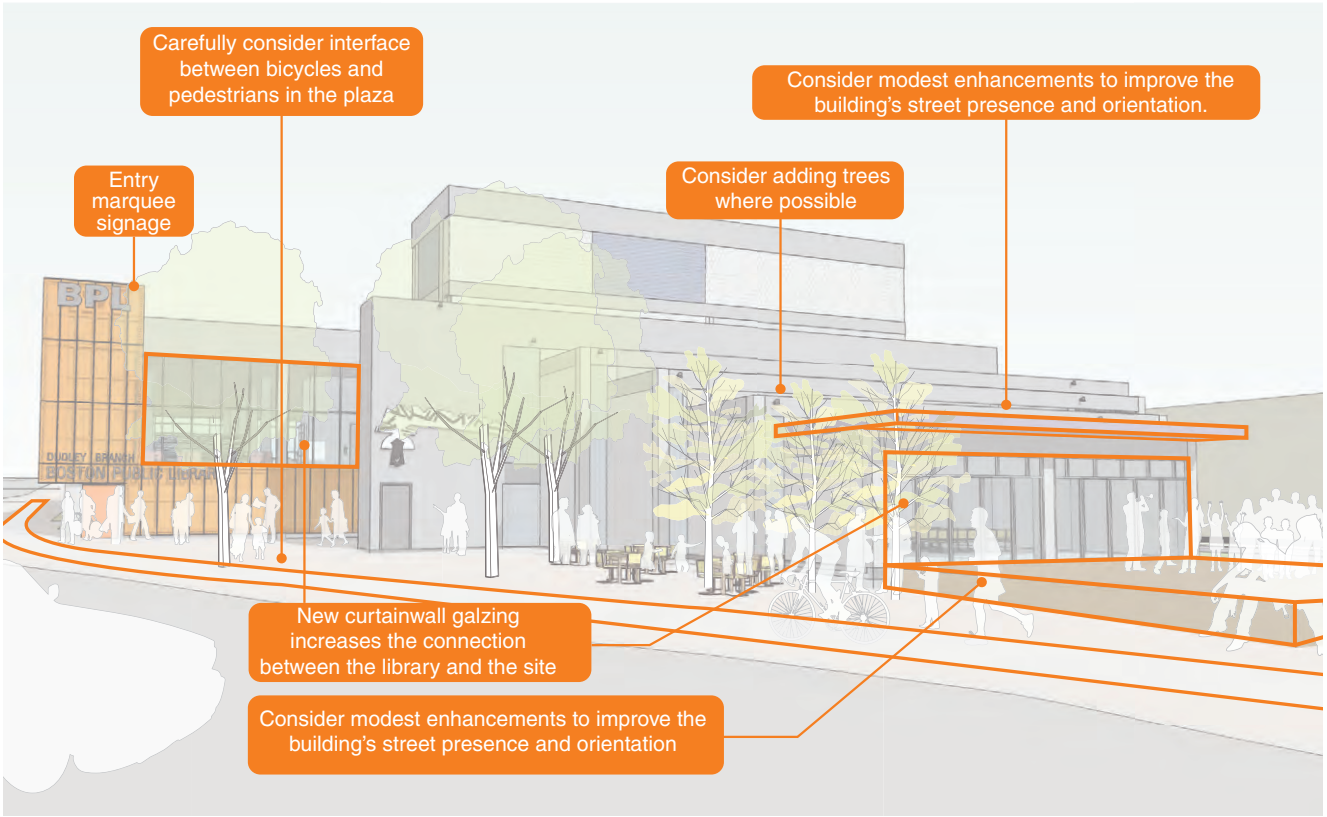
5- Increase Greenspace

Look for opportunities to soften the plaza wherever possible by incorporating new trees and plantings.

(Top) Existing view of front Plaza of the Dudley Branch
(Middle) Existing view of courthouse plaza at south side of Dudley Branch
(Bottom) Illustrative view of BTD Complete Streets Improvements . Image courtesy of BTD
(Opposite Top) Axonometric view of Dudley Branch and potential area improvements
(Opposite Bottom) Axonometric view of the Dudley Branch

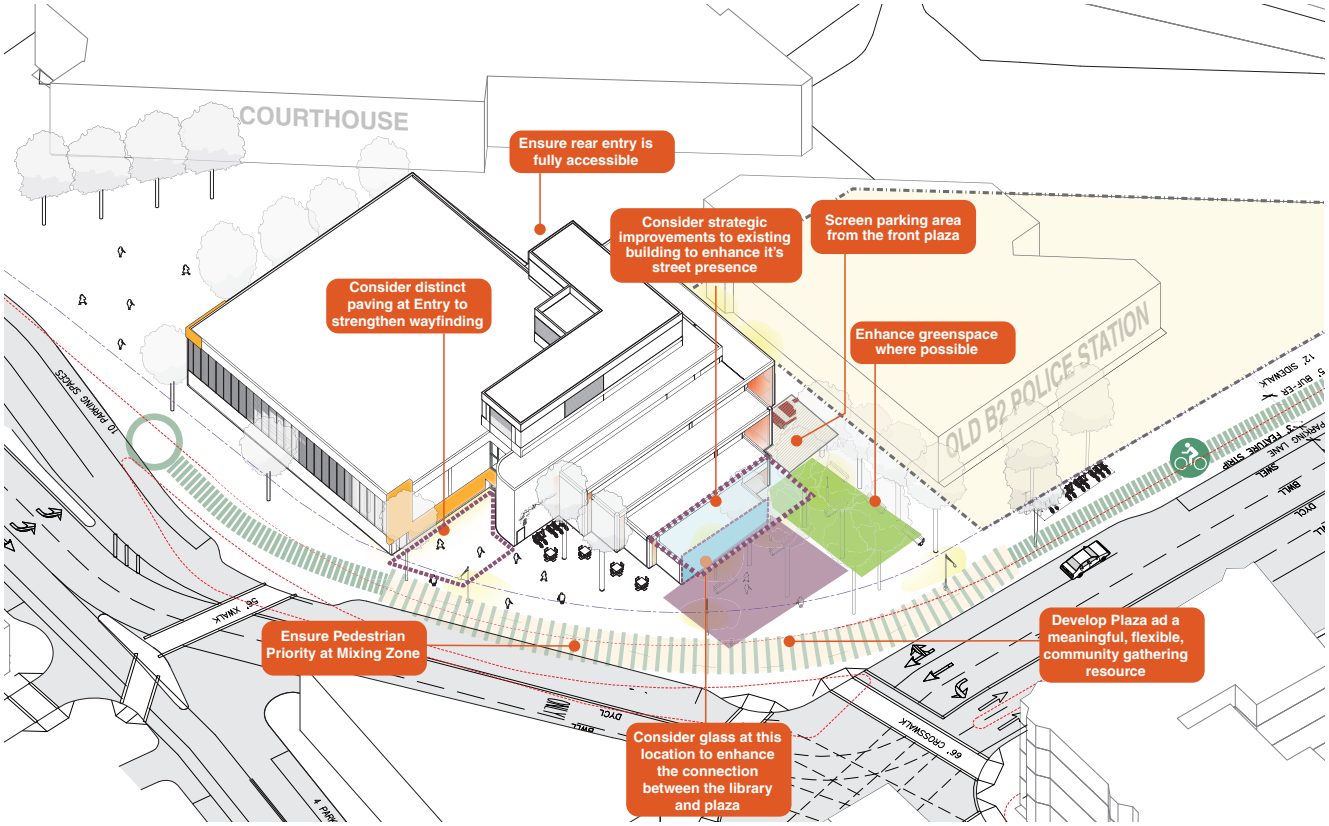

COURTHOUSE
Future Development Site
Proposed End Location for Cycle Track
Library Staff Parking Area
Proposed Cycle Track
Narrow Dudley Street
OLD B2 POLICE STATION
Enlarge Front Plaza
Mixing Zone to ensure Pedestrian Priority
Remove Slip Lane
10 PARKING SPACES

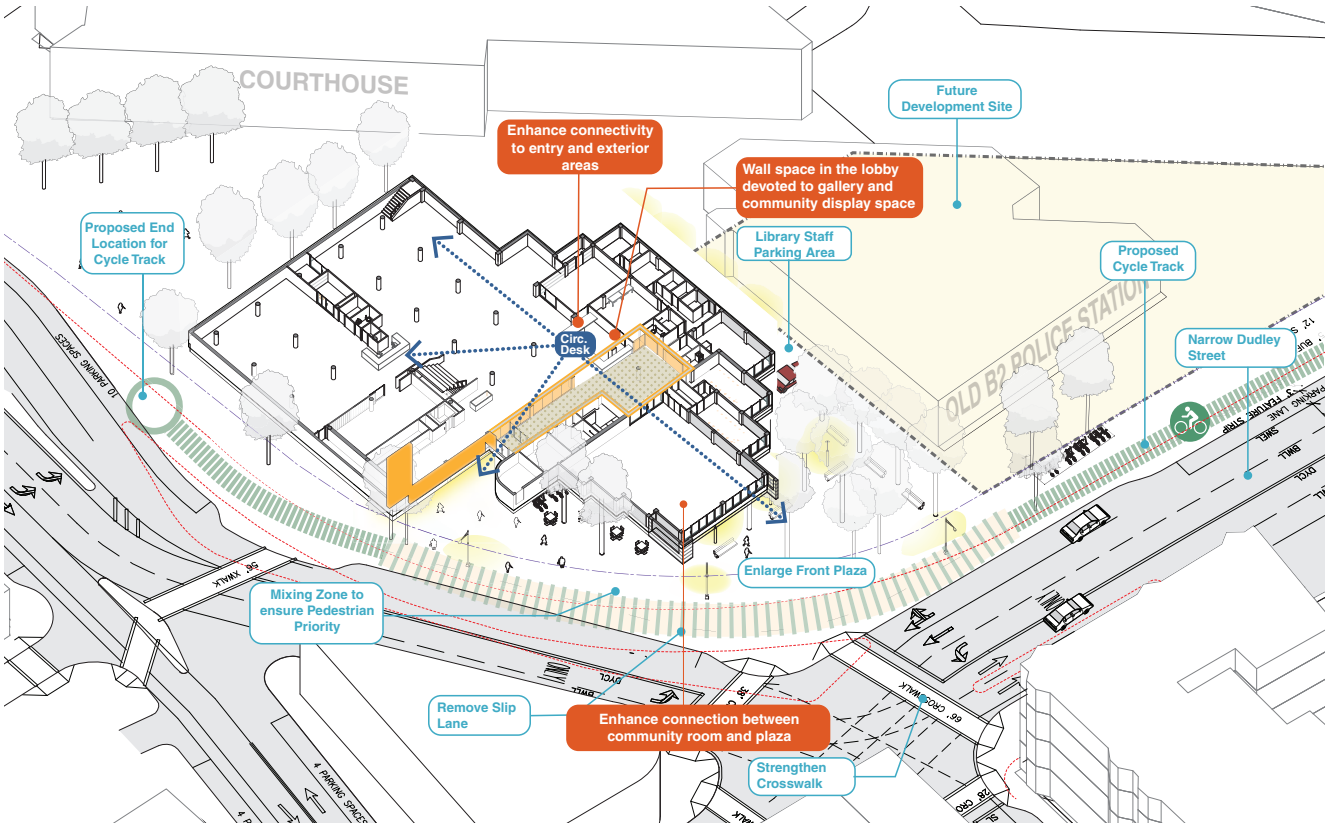

COURTHOUSE
Difficult for staff to monitor the entry and other exterior areas
No connectivity between major program areas and major site areas
Circ. Desk
OLD B2 POLICE STATION
10 PARKING SPACES
4 PARKING SPACES

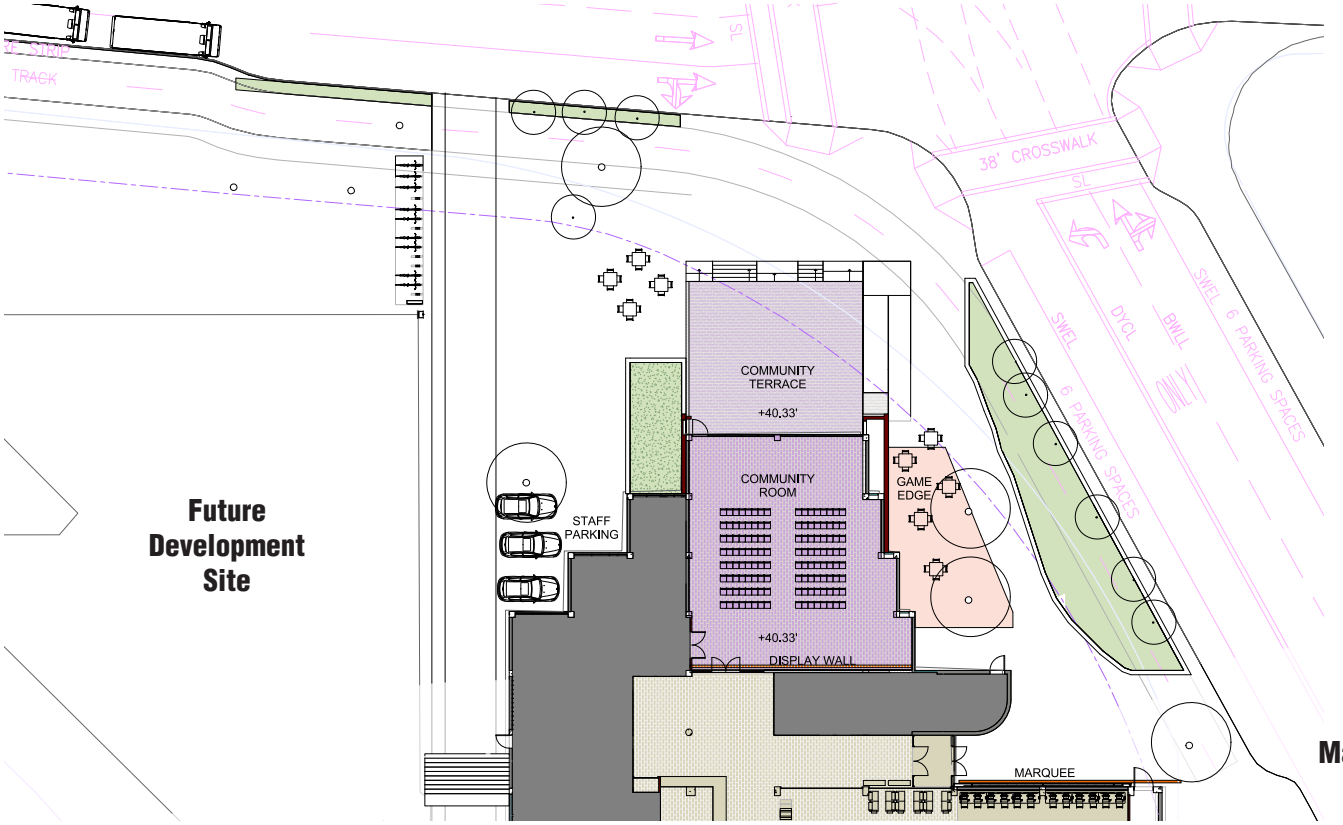


Enhance the connectivity between the site and the Library

Enhancing the connectivity between the library and its site can open up the building and soften the edges of its imposing brutalist architectural style. One way to achieve this is by replacing much of the existing glass block with high performance curtainwall. This will allow for the richness of activity of the library to be on display to the community. So instead of an insular bunker-like building, the Dudley Branch could better showcase itself and its assets to those passing by.
Reconsidering the northern wall of the community room that faces the plaza could dramatically improve the relationship between the library and the plaza. Currently this wall is made of concrete masonry units and casts a cold, imposing face to Dudley Square. A straightforward remedy would be to replace this infill wall with curtainwall or storefront glazing. This would immediately connect the community room with Dudley Square. It could also allow for a literal inside-outside connection programmatically between the community room and the plaza. Operationally, this could allow for a clean sightline from a repositioned circulation desk clear out to the front plaza. This would be a drastic improvement as currently the staff has no ability to monitor any exterior areas. Building off of this, there are design opportunities to modestly add to this face of the existing building to create a more welcoming, front facade that is in keeping with the vision to better warm up the existing building.
A very pragmatic but essential thing to consider is the ground elevations. Currently, both entries to the library are inaccessible as the slope of the sidewalk to them is too steep. Existing site grades will have to be revised to address this lack of accessible entries into the building
While much attention is focused to the northern face of the library and its relationship to Dudley Square, it is important to consider the courthouse side of the library as well. Firstly, the property line between the library, courthouse and B2 site should be clarified so that each stakeholder can manage their area accordingly. From the library perspective, new curtainwall glazing at this facade can create a more meaningful connection between the library and the plaza and allow passersby to have a glimpse into the richness of the library's interior. The entry that is currently used to access the Literacy Center can be de-emphasized and used just as emergency egress from the second level. Lastly, site furniture here could be upgraded in a manner consistent with the rest of the site redesign.


COURTHOUSE
Ensure rear entry is fully accessible
Consider strategic improvements to existing building to enhance it's street presence
Screen parking area from the front plaza
Consider distinct paving at Entry to strengthen wayfinding
Enhance greenspace where possible
OLD B2 POLICE STATION
Ensure Pedestrian Priority at Mixing Zone
Develop Plaza ad a meaningful, flexible, community gathering resource
Consider glass at this location to enhance the connection between the library and plaza


COURTHOUSE
Future Development Site
Enhance connectivity to entry and exterior areas
Wall space in the lobby devoted to gallery and community display space
Proposed End Location for Cycle Track
Library Staff Parking Area
Proposed Cycle Track
Circ. Desk
OLD B2 POLICE STATION
Narrow Dudley Street
Enlarge Front Plaza
Mixing Zone to ensure Pedestrian Priority
Remove Slip Lane
Enhance connection between community room and plaza
Strengthen Crosswalk



Create a well defined, flexible plaza

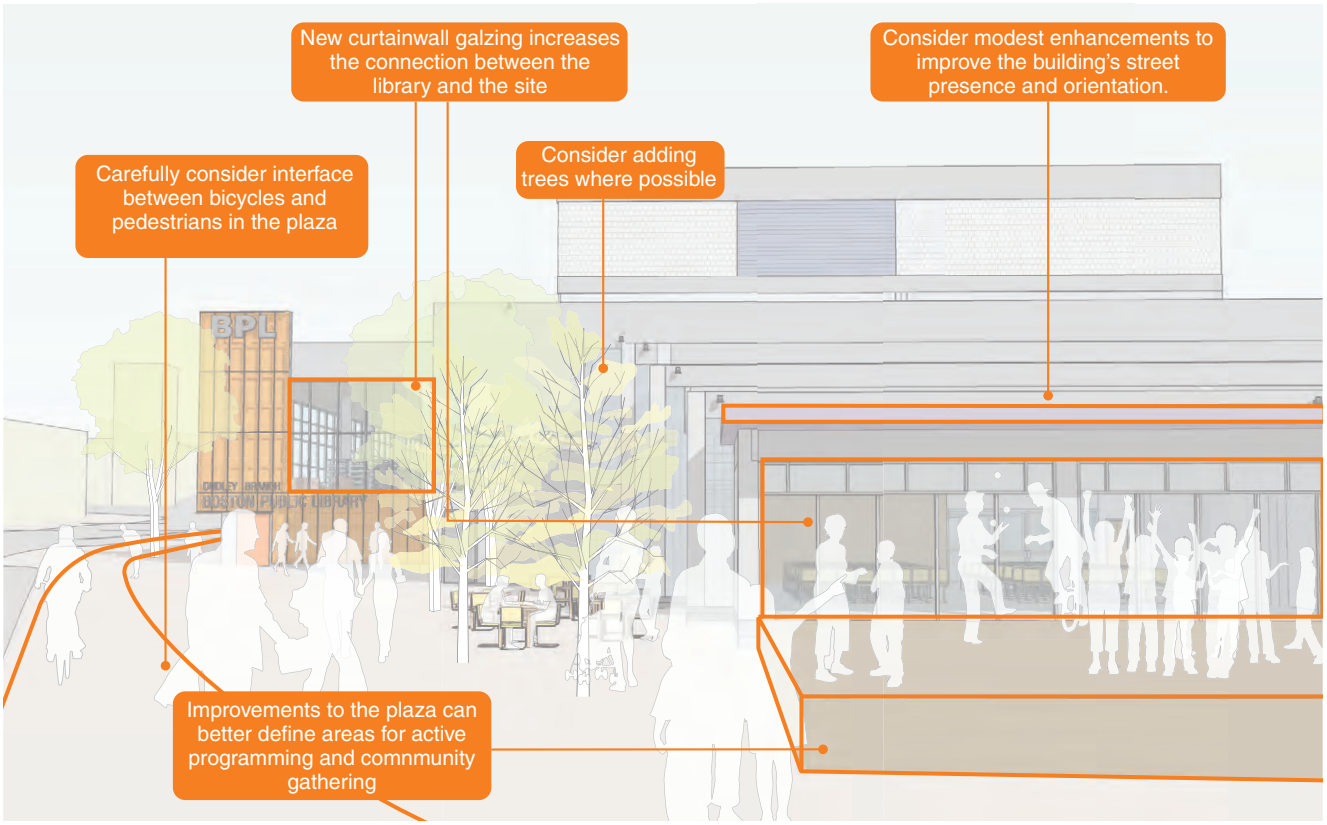
The front plaza is one of a small number of publicly accessible open spaces in the vicinity of Dudley Square. It's existing furnishings and finishes make it a very uncomfortable area to occupy. Reconsidering this plaza would transform this inhospitable area into an inviting amenity for the library and Dudley Square.
Meetings with the CAC underscored the wealth of events that occur in the community and the need for suitable space to hold events. This is consistent with the recommendations of the Placemaking in the Warren Street Corridor study of 2012. That study recommended that the library plaza be more actively programmed for events such as outdoor film screenings, live music, outdoor reading and classroom space. Game spaces for chess, dominoes and hopscotch was also a recommendation for the library plaza.
Meeting these goals could mean working with the grading of the site to give the plaza some hierarchy from the reset of the streetscape. Setting the plaza up even a few steps from the rest of the sidewalk could better define that space and set it apart from the rest of the sidewalk. From a material perspective, unit pavers, and other hardscape treatment could work to help define the plaza as a significant space in the community. New street furniture and plantings will support this revitalization of the plaza. It is important to note that the furniture in particular, should be as flexible as possible so that it can be moved to accommodate the widest range of activities in the plaza.

Optimize design of operational site requirements

The redesign of the library site is mindful of the pragmatic operational needs of the library. Operation parking and access needs will be preserved.
The existing alleyway that flanks the library is preserved and with it, the entry to the staff area will remain operational. Loading, trash pickup and other service needs can be handled from this entry which is conveniently located and far from more public areas of the library. Just off of this alleyway a zone that is informally used as parking will be better defined as staff parking for three vehicles. This parking area should be screened from the plaza and other more public areas of the site.

Work with other initiatives to better focus resources for maximum benefit

As discussed earlier, there are several initiatives underway aimed at transforming Dudley Square. The Library sits next two projects in particular that will influence its site design. The Complete Streets project

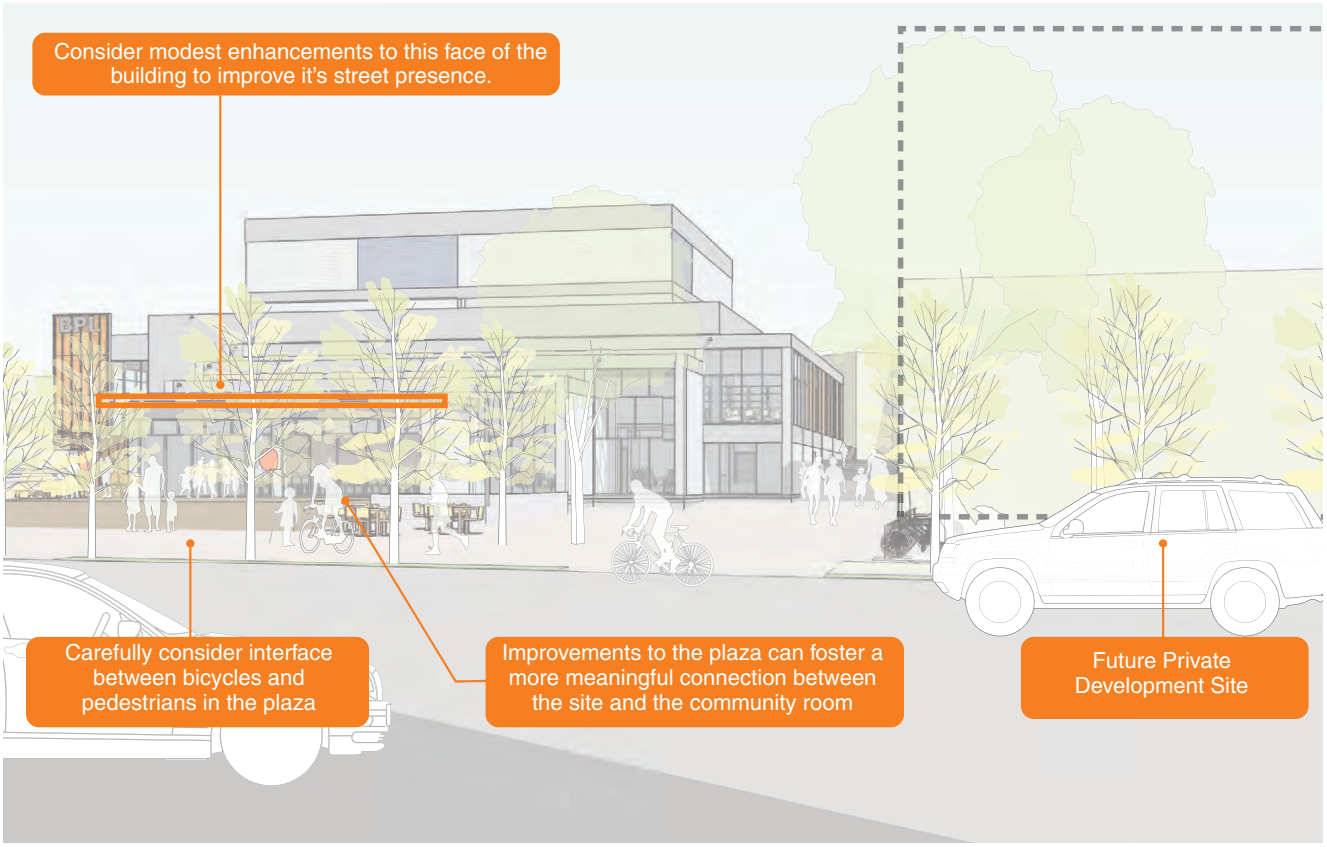


undertaken by the Boston Transportation Department (BTD) and the New Private Development of the old B2 Police Station sponsored by the Boston Redevelopment Authority (BRA) should work in concert with the Library site design to maximize their positive impact. The Dudley Square Complete Streets Design Project outlines roadway, intersection and streetscape design plans for Dudley Square. It looks to modernize existing conditions in order to improve conditions for buses, pedestrians, bicycles and traffic as a whole. Near the Dudley Branch, this work will result in Dudley Street being narrowed and a new dedicated bicycle track being introduced. In discussions with BPL staff and the CAC group, the bicycle track was a big topic of discussion. While a dedicated bicycle lane would be a boon to the safety of bicyclists in the area, it was feared that it would detract from the functionality of the plaza and create an unsafe area for pedestrians. The Complete Streets study is considering the space in front for the library to be a "mixing chamber" whereby through signage, and material change, cyclists would know that this area is a pedestrian priority zone. Among library stakeholders, there is a desire to ensure that pedestrian priority ensured in areas surrounding the library.

The Development of the B2 lot should be mindful of existing egress and servicing routes to the library. As such, the existing alleyway may likely need to remain in place. Further, given the eventual enhancement of the front plaza to the library, the development at the old B2 site should consider active, publicly oriented ground level program in order to take advantage of this openspace amenity.

Increase Greenspace

Throughout the process of this study, several stakeholders have commented that the lack of greenspace contributes to the plaza feeling cold and unwelcoming. As such, a redesigned plaza should look to incorporate trees and plantings wherever possible. While the ultimate amount of plantings should be mindful of maintenance logistics, these areas should be designed to be a four season visual amenity for the library.



Site Design Precedents

Landscape Design Narrative
Richard Burck Associates, Inc.

The Boston Public Library's Dudley Branch is one of the most important and active civic buildings in the community of Roxbury. In contrast to the library's interior, however, the current surrounding landscape is both underused and uninviting. The northern plaza, darkened by over-crowded canopy trees and dominated by monotonous, gray concrete surfaces, offers little visual or social interest. Massive, out of scale benches, also plain concrete, are laid out in a fixed, orthogonal grid that neglects the potential for positive social interaction, and a field of parked cars, right on the plaza, further diminishes the quality of this outdoor space. As a result of these characteristics, most library visitors pass through the landscape without lingering, and the most reliable site users are a small group of regular chess players. The following text outlines conceptual design recommendations for the redesign of the plaza.

The proposed landscape should be a reinvented, landmark plaza that will provide a rich mixture of social and community-building opportunities and create flexibility for the needs of the library and the surrounding neighborhood. The proposed BTD project will increase pedestrian safety at Dudley Square and reduced the presence of traffic at the enlarged library plaza. These improvements should also include the setting of curbs at proper elevations to allow the entrance plaza to meet accessible cross slopes. The library's vibrant new signage marquee will serve as a visual magnet at the library's main entrance.

Cast in place concrete could be used throughout the landscape, but the landscape may also be enhanced and accented with granite coping and wood seating surfaces. New, delicate-foliage trees should be conscientiously sited to preserve open views from the street to the main entrance and the Community Terrace, and in time these trees can provide the plaza with a canopy 'ceiling' that will filter sunlight and fit with the scale of the pedestrian. In plaza planters, low-growing native shrubs and groundcover species will provide four-season visual interest while maintaining clear sight lines to the building.

In order to safely light the landscape without creating unnecessary light pollution, site lighting should be limited to fixtures that complement and enhance specific features of the library landscape. Linear lighting along the planter walls can cast a soft glow down its face while illuminating walking surfaces at night. Small, adjustable lights, mounted to slender, unobtrusive poles can match tree spacing and appear integrated with the landscape plantings.

(Top) Illustrative view of north face of library outlining proposed recommendations
(Bottom) Site Design Precedents. Clockwise from top left: Silver Spring Civic Building (MD), Dewey Square (Boston MA), Indianapolis Cultural Trail (IN), Francis Parker School (San Diego CA)

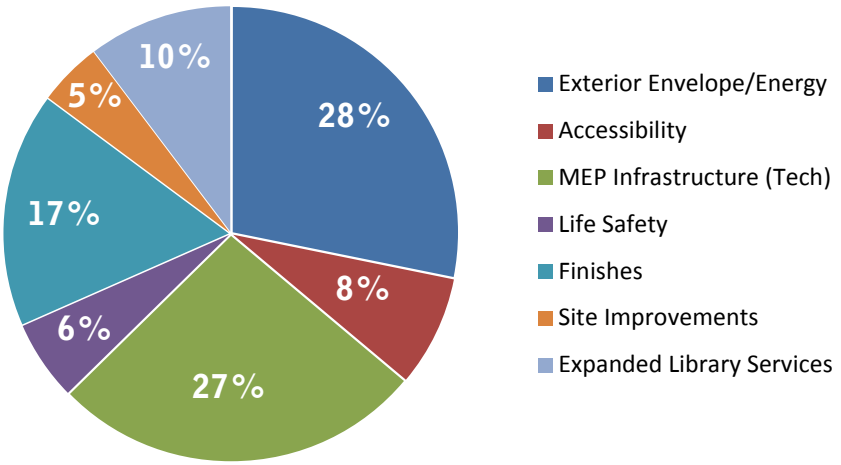
8

Cost Estimate

Estimate Assumptions
Estimate Summary
Full Cost Estimate

Section Summary

» The conceptual design recommendations for the Dudley Branch have an estimated total construction cost of **$10,992,894**
» The scope of work is broken down by cost as per the following graph:



SD Estimate
CITY OF BOSTON PCMD
DUDLEY BRANCH LIBRARY
Boston, MA

August 29, 2013

BASIS OF ESTIMATE

The estimate is based on the drawings and documents prepared by Utile Architecture + Urban Design, dated June 3, 2013.

Qualifications / Clarifications:

1 Labor costs included using Chapter 149 prevailing wage rates.
2 Existing foundation system is assumed to be conventional concrete spread & column footing type.
3 Existing structure is assumed to be conventional structural steel type
4 The following mark ups area used:

General Conditions & General Requirements	15.00%
Insurance & Bond	1.50%
Building Permit	0.00%
Contractor's Overhead & Profit	5.00%
Design Contingency	10.00%
Construction Contingency	Excluded
Phasing & Temporary work	0.00%
Escalation Contingency (6% per year for 2 year)	12.00%

5 The estimate assumes all long-lead items can be purchased to meet schedule requirements.

6 The estimate is based on the premise that the design will meet all codes, laws, ordinances, rules, & regulations in effect at the time that the estimate was prepared. The estimate shall be adjusted should any discrepancies between design and the aforementioned codes, laws or ordinances result in, or require, an increase in the cost of the work.

The estimate excludes the following:

1 A-E Fees
2 Overtime
3 Hazardous materials abatement, both site and building
4 Working in contaminated soils
5 Loose furniture and equipment except as noted in the Estimate
6 Loose technology equipment (i.e. Computers, Printers, Etc.)
7 Telecom/Security/Equipment devices & wiring excluded. Infrastructure only (empty conduit) included.
8 Builder's Risk Insurance
9 Special seismic requirements
10 Third party commissioning costs

SD Estimate
CITY OF BOSTON PCMD
DUDLEY BRANCH LIBRARY
Boston, MA

August 29, 2013

TRADE BREAKDOWN

	DESCRIPTION	Cost/SF	AMOUNT
02000	SITE CONSTRUCTION	$31.51	810,507
03000	CONCRETE	$12.39	318,660
04000	MASONRY	$6.80	175,000
05000	METALS	$8.94	229,873
06000	WOOD & PLASTIC	$8.68	223,375
07000	THERMAL AND MOISTURE PROTECTION	$15.62	401,736
08000	DOORS AND WINDOWS	$44.31	1,139,780
09000	FINISHES		
	09250 Gypsum Board Assemblies	$3.93	101,108
	09300 Tiling	$1.71	44,000
	09500 Acoustical Panel Ceiling	$17.61	453,055
	09640 Wood Flooring	$8.16	210,000
	09650 Resilient Tile Flooring	$1.54	39,601
	09900 Painting	$3.62	93,094
10000	SPECIALTIES	$2.43	62,382
11000	EQUIPMENT	$4.26	109,600
12000	FURNISHING	$22.88	588,667
14000	CONVEYING SYSTEMS	$3.58	92,000
15300	FIRE PROTECTION	$6.00	154,338
15400	PLUMBING	$5.50	141,477
15500	HVAC	$35.00	900,305
16000	ELECTRICAL	$38.55	991,724
	SUB TOTAL		**7,280,281**
	GENERAL CONDITIONS & GENERAL REQUIREMENTS	15.00%	1,092,042
	BONDS, INSURANCE	1.50%	125,585
	BUILDING PERMITS	0.00%	0
	CONTRACTOR'S OVERHEAD & PROFIT	5.00%	424,895
	SUB TOTAL ECC BEFORE CONTIGENCIES		**8,922,803**
	DESIGN CONTINGENCY	10.00%	892,280
	CONSTRUCTION CONTINGENCY		EXCLUDED
	PHASING & TEMPORARY WORK	0.00%	0
	ESCALATION CONTINGENCY	12.00%	1,177,810
	TOTAL CONSTRUCTION COSTS		**$10,992,894**
	TOTAL GROSS AREA (SF)		*25,723*
	COST PER GSF		*$427.36*
ADD ALTERNATES			
ALT 1	Add for ballasting to roof		$53,594
ALT 2	Add for Green Roof		$589,538
ALT 3	Entry Proscenium		$157,707
ALT 4	Replace CMU with travertine & Community Room		$64,145

SD Estimate
CITY OF BOSTON PCMD
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	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
02000 SITE CONSTRUCTION					
	DEMOLITION:				
	Remove existing doors & frames	28	EA	75.00	2,100
	Remove existing masonry walls	4,000	SF	10.00	40,000
	Remove existing GWB partitions	7,810	SF	1.50	11,715
	Remove existing finishes	25,723	SF	1.75	45,015
	Remove existing roof coverings	18,674	SF	2.00	37,348
	Remove existing MEP	25,723	SF	2.00	51,446
	Remove existing Misc. Millwork	25,723	SF	1.00	25,723
	Remove existing concrete stair	1	EA	3,000.00	3,000
	Remove existing exterior glass block	6,045	SF	10.00	60,450
	Saw cutting existing concrete for new stair	69	SF	45.00	3,105
	Remove concrete	151	SF	25.00	3,775
	Saw cutting slab on grade concrete for new elevator	33	SF	45.00	1,485
	Remove concrete	69	SF	5.00	345
	SITE IMPROVEMENTS:				
	Site improvements - allowance	17,500	SF	30.00	525,000
	Subtotal				**$810,507**
03000 CONCRETE					
	Repair floor concrete from stair	1	LS	3,000.00	3,000
	Repair floor concrete from elevator	1	LS	5,000.00	5,000
	Concrete floor on metal deck for Mezzanine	3,012	SF	55.00	165,660
	Infill concrete floors at existing stair locations	300	SF	100.00	30,000
	Concrete elevator pit with sump pump pit	1	EA	15,000.00	15,000
	Underpinning at existing footings	1	EA	5,000.00	5,000
	Expand concrete footings for increased loading	1	LS	30,000.00	30,000
	Repair concrete slab on grade, complete	1	LS	10,000.00	10,000
	Concrete @ stair:				
	Egress stair	1	FLT	15,000.00	15,000
	Feature staircase	1	FLT	40,000.00	40,000
	Subtotal				**$318,660**
04000 MASONRY					
	CMU elevator wall	1,000	SF	25.00	25,000
	CMU in infilling openings	3,000	SF	50.00	150,000
	Subtotal				**$175,000**
05000 METALS					
05120	STRUCTURAL STEEL:				
	New mezzanine :				
	Structural steel for Mezzanine	5	TON	15,000.00	75,000
	Structural steel for stair infill	3	TON	15,000.00	45,000
05500	METAL FABRICATION:				
	Stairs:				
	Egress stair, metal stair w/railing, single width	1	FLT	3,000.00	3,000
	Feature staircase	1	FLT	15,000.00	15,000
	Glass railing	69	LF	350.00	24,150

SD Estimate
CITY OF BOSTON PCMD
DUDLEY BRANCH LIBRARY
Boston, MA

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	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
	Glass railing around Mezzanine edge	120	LF	350.00	42,000
	Allowance for miscellaneous metals not identifiable at this design stage	25,723	SF	1.00	25,723
	Subtotal				**$229,873**
06000	**WOOD AND PLASTIC**				
06100	ROUGH CARPENTRY:				
	Rough carpentry	1	LS	5,000.00	5,000
	Misc. wood blocking	817	LF	5.00	4,085
06200	FINISH CARPENTRY:				
	Wood Wall Paneling				
	Acoustic wood wall paneling, 8' high	1,600	SF	28.00	44,800
	Reception				
	Reception desk at waiting/reception	2	EA	15,000.00	30,000
	Library				
	Circulation desk	100	LF	700.00	70,000
	Work counter	100	LF	140.00	14,000
	Story-telling platform	1	LS	3,000.00	3,000
	Staircase seating and balustrade	1	LS	45,000.00	45,000
	Community/Faculty Dining Kitchenette				
	Base storage units	20	LF	150.00	3,000
	Counters	20	LF	75.00	1,500
	Wall storage units	23	LF	130.00	2,990
	Subtotal				**$223,375**
07000	**THERMAL AND MOISTURE PROTECTION**				
07154	WATERPROOFING:				
	@ Elevator pit	1	EA	1,200.00	1,200
	@ Ceramic tile @ 2nd floor	216	SF	1.50	324
07200	INSULATION:				
	New roof insulation, tapered	18,674	SF	4.00	74,696
07250	SPRAY- ON FIREPROOFING:				
	Sprayed-on fireproofing to steel, 2-hr rating	2,500	SF	3.00	7,500
07550	ROOFING:				
	New roof coverings, Mod Bit roofing	18,674	SF	16.00	298,784
	Misc. penetration	1	LS	5,000.00	5,000
07600	SHEET METAL:				
	Metal flashing @ window heads & perimeter	403	LF	30.00	12,090
07900	CAULKING & SEALANT:				
	Sealants & caulking at partitions	6,120	SF	0.35	2,142
	Subtotal				**$401,736**
08000	**DOORS AND WINDOWS**				
08110	DOORS & FRAMES:				
	Exterior:				
	HM Doors w/HM frames and hardware:				
	Single	3	EA	1,500.00	4,500

SD Estimate
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DUDLEY BRANCH LIBRARY
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	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
	Aluminium and glass doors @ glass walls				
	Double	4	PR	6,000.00	24,000
	Interior:				
	Wood Doors w/HM frames & hardware:				
	Single	22	EA	1,800.00	39,600
	Double	3	PR	2,400.00	7,200
	SS doors w/frames & hardware @ Notatorium:				
	Single	1	EA	1,500.00	1,500
08500	WINDOWS/ GLASS CURTAIN WALL				
	Exterior:				
	Pre-Finished Aluminium/glass curtain wall	6,120	SF	135.00	826,200
	Exterior solar shading	4,000	SF	50.00	200,000
	Interior:				
	Metal and glass partitions	552	SF	65.00	35,880
	Sidelight @ interior doors	6	EA	150.00	900
	Subtotal				**$1,139,780**
09000 FINISHES					
09250	GYPSUM BOARD:				
	Interior:				
	Double sided wall	7,116	SF	9.00	64,044
	Single sided wall	3,456	SF	6.50	22,464
	Ceiling finish:				
	GWB ceiling	1,000	SF	8.00	8,000
	Misc. GWB soffit and fascia	300	LF	22.00	6,600
	Subtotal				**$101,108**
09300	Tiling				
	Marble saddle	6	EA	60.00	360
	Ceramic tile, bathrooms:				
	@ floor	760	SF	18.00	13,680
	@ kitchen	65	SF	18.00	1,170
	@ walls, 8'0" high	880	SF	18.00	15,840
	Stair finishes				
	Stone treads and risers	180	LF	65.00	11,700
	Paint & sealer to egress staircases	1	FLT	1,250.00	1,250
	Subtotal				**$44,000**
09500	Acoustical Panel Ceiling				
	Acoustic tile ceiling, tectum	8,251	SF	5.00	41,255
	Suspended wood acoustical panel ceilings in metal grid	16,472	SF	25.00	411,800
	Subtotal				**$453,055**
09640	Wood Flooring				
	Hardwood flooring	14,000	SF	15.00	210,000
	Subtotal				**$210,000**

SD Estimate
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DUDLEY BRANCH LIBRARY
Boston, MA

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	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
09650	Resilient Tiling Flooring				
	Rubber flooring	3,500	SF	8.00	28,000
	Cork floor plank	800	SF	14.00	11,200
	Concrete sealer@ flooring @ M/E/P	267	SF	1.50	401
	Subtotal				**$39,601**
09900	Painting				
	Patching and painting existing walls	25,723	SF	2.50	64,308
	Paint GWB wall	17,688	SF	0.75	13,266
	Paint GWB ceiling	1,000	SF	1.00	1,000
	Paint wood doors w/ clear finish	28	EA	130.00	3,640
	Paint metal doors	3	EA	150.00	450
	Paint GWB fascia/soffits	300	LF	5.00	1,500
	Misc. finishes	25,723	SF	0.25	6,431
	Paint exposed M-E-P	1	LS	2,500.00	2,500
	Subtotal				**$93,094**
10000	**SPECIALTIES**				
	Tack Board (10x4 / office & classrooms)	6	EA	350.00	2,100
	Bulletin boards (10x4 / office & classrooms)	3	EA	300.00	900
	Display boards	40	SF	120.00	4,800
	Wall mounted Projection Screen	2	EA	4,000.00	8,000
	Ceiling mounted Projection Screen	2	EA	4,500.00	9,000
	Metal Toilet Partitions	5	EA	1,000.00	5,000
	Metal Toilet Partitions ADA	4	EA	1,200.00	4,800
	Urinal Screens	1	EA	450.00	450
	Toilet accessories:				
	Small rooms	4	RMS	1,200.00	4,800
	Large rooms	4	RMS	1,600.00	6,400
	Janitor closet accessories	2	EA	100.00	200
	Fire extinguisher cabinets - allowance	9	EA	375.00	3,215
	Signage & graphics	25,723	GFA	0.30	7,717
	Misc. specialties	1	LS	5,000.00	5,000
	Subtotal				**$62,382**
11000	**EQUIPMENT**				
	Library				
	Double sided library shelving	400	LF	135.00	54,000
	Single sided library shelving	250	LF	100.00	25,000
	Wood end panels to library shelving	60	EA	350.00	21,000
	Kitchen				
	Ranges	2	EA	1,800.00	3,600
	Refrigerators	2	EA	3,000.00	6,000
	Subtotal				**$109,600**

SD Estimate
CITY OF BOSTON PCMD
DUDLEY BRANCH LIBRARY
Boston, MA

August 29, 2013

	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
12000	**FURNISHING**				
	Mecho shades	6,120	SF	15.00	91,800
	Entry mats & frames - allowance	100	SF	45.00	4,500
	Furniture includes below				
	Entry	1	LS	56,866.67	56,867
	Adult Reading	1	LS	136,474.00	136,474
	Young Adult	1	LS	52,676.00	52,676
	Adult non-Fiction	1	LS	57,850.00	57,850
	Children's	1	LS	80,210.00	80,210
	Shared / Community	1	LS	10,725.00	10,725
	Staff Areas	1	LS	97,565.00	97,565
	Subtotal				**$588,667**
13000	**SPECIAL CONSTRUCTION**				
	Subtotal				**$0**
14000	**VERTICAL TRANSPORTATION**				
	ELEVATORS				
	Elevator, 2 Floors, 2 Stops	1	EA	92,000.00	92,000
	Subtotal				**$92,000**
15300	**FIRE PROTECTION**				
	Fire Protection (Sprinkler) - complete system	25,723	GFA	6.00	154,338
	Subtotal				**$154,338**
15400	**PLUMBING**				
	Plumbing - complete system	25,723	GFA	5.50	141,477
	Subtotal				**$141,477**
15500	**HVAC**				
	HVAC - complete system - including:	25,723	GFA	35.00	900,305
	New AHUs				
	Localized VAV Boxes				
	Temperature Control System				
	Branch ductwork (maintain existing main ductwork runs)				
	Connections to existing Cooling Tower				
	Connections to existing Boiler				
	Subtotal				**$900,305**
16000	**ELECTRICAL**				
	Electrical - complete system - including:	25,723	GFA	25.00	643,075
	Lighting & Controls				
	Power				
	A/V System including Built-in Projectors				
	Assisted-Listening System				

SD Estimate
CITY OF BOSTON PCMD
DUDLEY BRANCH LIBRARY
Boston, MA

August 29, 2013

	DESCRIPTION	QUANTITY	UNIT	UNIT PR	AMOUNT
	BMS				
	Security System - Infrastructure only				
	Fire Alarm System	25,723	GFA	3.00	77,169
	Tel/Data - Infrastructure only	25,723	GFA	5.85	150,480
	AV system				
	Community Room	1	EA	60,000.00	60,000
	Conference Room	1	EA	20,000.00	20,000
	Childrens Area	1	EA	10,000.00	10,000
	Young Adult Lounge	1	EA	10,000.00	10,000
	Literacy Center	1	EA	5,000.00	5,000
	Special Collections	1	EA	8,000.00	8,000
	Display Walls	1	EA	8,000.00	8,000
	Subtotal				**$991,724**

SD Estimate
CITY OF BOSTON PCMD
Boston, MA

August 29, 2013

ALTERNATES

ALTERNATES	DESCRIPTION OF WORK	QTY	UNIT	UNIT PR	AMOUNT
ALT 1	Add for ballasting to roof				53,594
ALT 2	Add for Green Roof				589,538
ALT 3	Entry Proscenium				157,707
ALT 4	Replace CMU with travertine & Community Room				64,145
	Total of Alternates:				**$864,984**
ALT 1	**Add for ballasting to roof**				
	Ballast to roof coverings	18,674	SF	2.00	37,348

	Sub Total:				37,348
	Mark Ups :			43.5%	16,246

	Total : ALT 1				**$53,594**
ALT 2	**Add for Green Roof**				
	Green Roof System on Mod Bit Roof	18,674	SF	22.00	410,828

	Sub Total:				410,828
	Mark Ups :			43.5%	178,710

	Total : ALT 2				**$589,538**
ALT 3	**Entry Proscenium**				
	Travertine fin wall with support	1,300	SF	40.00	52,000
	Acrylic Fascia	200	SF	52.00	10,400
	Teak Wood Accent wall	100	SF	55.00	5,500
	Structural steel to support opening	40	LF	700.00	28,000
	Backligthing & fascia	200	SF	55.00	11,000
	Interface with existing surface	1	LS	3000.00	3,000

	Sub Total:				109,900
	Mark Ups :			43.5%	47,807

	Total : ALT 3				**$157,707**

SD Estimate
CITY OF BOSTON PCMD
Boston, MA

August 29, 2013

ALTERNATES

ALTERNATES	DESCRIPTION OF WORK	QTY	UNIT	UNIT PR	AMOUNT
ALT 4	Replace CMU with travertine & Community Room				
	Remove existing CMU wall	900	SF	5.00	4,500
	Metal stub support	900	SF	9.00	8,100
	Cementboard	900	SF	4.00	3,600
	Travertine	900	SF	25.00	22,500
	Repair to existing	1	LS	6000.00	6,000

	Sub Total:				44,700
	Mark Ups :			43.5%	19,445

	Total : ALT 4				**$64,145**

Alternates to the Conceptual Design of the Dudley Branch

ALT 1

» Considering that the roofs of the library are highly visible, this alternate proposes adding a full stone ballast to the roofs.

ALT 2

» Building off alternate 1, this line item considers the cost implications of an extensive green roof system. An extensive green roof would add a light layer of vegitation on top of the roof membrane

ALT 3

» This scope considers significant enhancements to the north facade of the Dudley Branch. Dubbed the “proscenium,” this entails adding ornamental walls to the existing building that would frame the front plaza and provide a welcoming face to the building.

ALT 4

» This alternate builds on alternate 3 and considers upgrading the finish of allof the exterior walls that frame the Community Room.

Appendix

9.1 Programming Checklist Matrix

Programming Checklist Matrix

The following reflects the responses to the condition of the Dudley Branch after a tour of the facility by the library working group. Jim Meade, Superintendent of Facilities (JM), Christine Schonhart, Director of Library Services, Branches (CS), Janet Buda, Branch Librarian (JB), Jonathan Evans and Michael LeBlanc, Utile (U), Abi Vladeck, Capital Planning (AV), and Vladimir Yampolsky, BPL (VY) took part in the walkthrough. The responses are structured in relation to the BPL Compass Guiding Principles format.

I. User Centered Institution

The BPL is a user-centered institution with services that anticipate and respond to neighborhood interests and the changing demographics of the City and Commonwealth.

Outcomes

A. Enable easy and effective access to library services.

» Improve navigation and use of physical locations for able-bodied users and those with physical, vision, or auditory challenges

	Excellent	Good	Poor		
Ease of use and navigation for able-bodied users and those with physical and vision challenges			● ● ●	Exterior slope leading into the building needs improvement – pavement is cracked and the grade does not meet current code requirements. Front entrance door is problematic – it does not stay shut, needs a push-button handicapped entrance; flooring in the vestibule immediately inside the doors is a trip hazard and is worn and in need of replacement; interior lobby is spacious and easy to navigate. Interior of branch needs improvement to allow for more space between shelves and some areas of seating. Lighting is generally good but not energy efficient. -CS The placement of furniture and displays for a-v material impede the ability to move freely and easily around the branch. We have a large population of wheelchair bound patrons. I am working with my staff to move the dvds, cds and books on tape to more suitable locations so that I can put in a work order to have these outdated and cumbersome display units remove to improve access. -JB	Accessibility issues with the entrance. The entrance door does not have a push button or motion detector operator. The interior doors have the same issue. There is a need for some shelving and furniture adjustment . -JM No clear organizational strategy makes ease of use difficult. -U Difficult view out front. No push button at entrance. Bathrooms not accessible. - AV Entrance might be too steep. Some doors and entrances are not ADA compliant - VY Literacy Center entrance has a non-conforming ramp entry - MA

	Excellent	Good	Poor		
Interior wayfinding			●	There is no interior wayfinding. None of the spaces are identified. Staff has made home-made signs to help people follow the flow of the collection – signage is unattractive and not very helpful. Lots of "kitschy" stuff (trophies, beauty and the beast cut outs, ripped posters) needs to be removed to allow for better wayfinding. -CS There does need to be a coordinated effort to have unified signage throughout the branch to indicate the different subject areas of the library. Unfortunately, whoever designed the placement of the shelving made it so that whole areas of the branch are cut off from other areas – that is there is no sight line from one area to the other. -JB	There is limited signage this needs a comprehensive review. -JM There is no clear signage system within the facility. Further the layout of the shelving makes clear, comprehensible sight lines difficult. -U None at entrance - AV Very few signs. - VY
Exterior wayfinding			●	Most of the signage on the exterior is blocked by trees. Traveling south on Warren Street, you can't see the sign at all. The sign on the top left of the building as you are facing the entrance is small and too high to notice. Art work on the exterior is in disrepair and needs to be removed to allow for signage to announce the branch. -CS I believe the architects are working on that problem actively now. Yes it is very bad. -JB	The entrance to the library is not obvious. This needs work (our current project will address the issue) -JM Poor signage and heavy tree cover makes it very difficult to locate the existing entrance. This difficulty holds true from every approach to the library. - U Exit signage hard to see - AV Needs a push button for entrance and signs that it's a library. - VY
Suggestion box to allow staff to track suggestions			●	There is no suggestion box. -CS Good idea – I'll consult with my staff to have one set up. That should be an easy fix. -JB Didn't see one - VY it's a librarys. - VY	N/A -JM Did not look as if there was one set up. - U Didn't see - AV

II. Community Gathering

The BPL exists to serve and sustain communities that foster discovery, reading, thinking, conversing, teaching, and learning, in accessible, sustainable, and welcoming facilities throughout the City, as well as with an engaging online presence.

Outcomes

A. Provide library spaces that are inviting, stimulating, comfortable, clean, and safe.

- Develop a long-term Capital plan for existing and potential locations, including the reduction of physical barriers to accessibility
- Develop a plan to update or renovate furnishings, as needed
- Review security plan to foster a safe workplace
- Evaluate existing locations, including outdoor spaces, in order to maximize usage
- Look for opportunities to create “innovation lab” space in existing buildings for group work, conversation, and conference.

C. Link community members to library programs and services within the BPL system and beyond.

- Position library as a community information node linking library users to other resources in their communities

D. Minimize the library’s environmental impact.

- 1. Improve existing environmental and recycling efforts

	Excellent	Good	Poor		
State of Public Furnishings		●	●● ●●	Most of the furnishings are original to the building. Chairs are falling apart and are not comfortable. Tables are bulky. There are no real comfortable areas to sit. Computer tables are inadequate and too close together. – Also in an awkward spot. Staff desks are bulky and not ergonomic – recently purchased staff chairs are in good condition.- CS Community Room has “good bones” but the furnishings appear old and the bathroom furnishings are in poor condition. - U Not modern - feels institutional - AV	This branch opened in the early 1970's and most of the furnishings are the original ones that were brought in at that time. With the exception of one dusty couch in the Children's Room , there are no leisure or relaxing type furnishings. Everybody has to sit on hard chairs at butcher block tables. There are many library support catalogs like DEMCO or Brodart which probably have great ideas for more up to date and contemporary furnishings. -JB Almost all are original. In need of upgrade!-JM Desks need to be upgraded - VY
State of interior finishings			●● ●● ●	All areas need updated paint; carpeting is in disrepair and can be a tripping hazard. Circulation desk is too large, not in the right spot for the best sight-lines and is dark and not welcoming. Windows let in good light – but don’t allow for exterior views. Shelving is inflexible.- CS Floors and walls need replacement and repairs -JM Some items could use updates - VY	The fact that this is a concrete based building it would be a challenge to improve the interior finishings. The goal in that area, I believe would be to re-design the interiors so that you feel less like you are in a dungeon. -JB Ceilings, walls and floors need repair in community spaces. - U Red metal around doors/windows need paint. Old scotch tape everywhere. - AV
Usability of interior space			●● ●● ●	Other than the children’s area, spaces are not well defined. No real teen space – teen and adult computers are bunched together. Patrons seem to use the tables, but that is all that is available – there are no comfortable spaces to sit. Auditorium is well used, but could use refreshing. Temperature varies throughout branch depending on where you stand.- CS Should be rearranged. - AV The space does not lay out well views of the hall, bathrooms and offices are blocked from staff. The shelving in the main library blocks site lines. -JM	The sizes of the community spaces are good but they are tough to visually monitor. The central foyer in particular is too large to be left unmonitored. - U Air columns in main library. Adult/Children/ Teen areas not well defined. - VY One of the major problems in this area is the dominance throughout the branch of the large forbidding red shelving. The shelving limit s visibility and access throughout the branch. Doing research with those library catalogs and visiting more recently built or upgraded branches could simulate great ideas to replace those shelving units.-JB

II. Community Gathering

	Excellent	Good	Poor		
State of exterior finishings		●●	●●●●	In general the exterior concrete is good, but it needs a power washing; exterior art is falling apart and makes the building look shabby; exterior plaza – which is not library property is dark and uninviting. Emergency exit doors are in need of paint. Graffiti removal needed. Back plaza area needs a deep cleaning as it smells quite badly. - CS Landscaping and painting are needed. -JM Concrete good; needs new signs; art deteriorating; benches not good. - AV	I believe that the architects have plans to improve the green space around the branch, put some inviting lighting in there, make the outside seating more comfortable and perhaps install chess tables. -JB Concrete and other existing façade elements are in pretty good shape. The plaza and landscape needs work to soften and "humanize" the area. -U Mosaic near front door needs to be replaced. -VY
Usability of exterior space		●	●●●●	There are some benches for people to relax on, but they are made of concrete and in a dark area of the plaza. Patrons sometimes set up their own exterior seating to play chess. Because the plaza is not very inviting most community members don't spend a lot of time in the exterior spaces. - CS That would be a challenge for the architects who I believe are working on that one. -JB	The space needs to be better utilized. -JM Disconnected from interior of the library which would make passive supervision difficult. Existing concrete furnishings are cold and imposing. -U Possible other use for back area - VY
Usability of community or multipurpose room		●● ●●	●●	This room is well used, very spacious and generally can accommodate all the programs. However, it needs to be painted and needs updated AV including an overhead projector. May also benefit from some built in storage to put chairs, craft materials and other things that are heavily used in that area. Genie lift needs a better home – or to be hidden behind a screen. The light switch is on the opposite side as the door – which means you have to walk through the dark to find the switch. Ceiling has water damaged tiles that need to be replaced. Conference Room B carpet needs replacement, the walls need paint, AV is needed and flexible furnishings would help this space be much better used. Staff office is in need of flooring, furnishings and electrical and data updates. CS	The rooms (the auditorium and Room B) are used heavily by community groups in the neighborhood and they seem to adequately provide for their needs. I make audio-visual equipment available for them and they have access to a kitchen for refreshments. -JB The space is used quite a bit by the community but could certainly use upgrades to the AV system and furnishings. - JM Very well used and seems to have sufficient, centrally located storage. -U Functional but could look nicer. Needs new furniture. - AV Projector mount carpet - VY
"Innovation Lab" space for group work, conversation and conference			●●●●	There is not currently a space for this – however if Conference Room B could be reconfigured with flexible furnishings this could be a great space for this use. -CS Whole library area undifferentiated, everyone works together. - AV	One does not exist at this time. I think Christine Schonhart's ideas about rethinking the furnishings in Room B so that the room could be switched back and forth to being an "innovation lab" or training space or meeting space were very good. -JB

II. Community Gathering

	Excellent	Good	Poor		
Locations position as a community information node through the use of bulletin boards, etc.		●● ●● ●	●	There is a large bulletin board for notices; however it needs to be better maintained. There is a lot of information on it which makes it a bit overwhelming if you're looking for something.-CS We have a good sized community bulletin board and we display community flyers on a regular basis in the branch. Of course , there is always room for improvement. -JB	Bulletin boards are located right at the entry to the library. It does appear a bit overloaded and may need to be more carefully kept up to date. - U Limited number just one large board -JM Bulletin board - busy. - AV Board needs to be better organized. -VY
Facility support for environmental and recycling efforts		●	●● ●	The building does participate in the City's recycling program. There have been upgrades to the heating plant a new efficient boiler has been installed There are plans to upgrade the lighting but there are many more opportunities for energy savings. -JM	We have had communication issues in the past with when to put our recycle bins out to be picked up. I am hoping that has been straightened out. -JB Didn't see. - AV Some recycling bins were seen but there did not appear to be an organized recycling strategy. -U
Visibility throughout library		●	●● ●●	There are some sight lines from the circ desk (mainly to the computers and adult area), but tall shelves make it difficult to see across the expansive space. You can't see into the Dudley Literacy Center at all and these two spaces need to be better integrated. -CS Sight lines need work and the view to adjacent rooms needs change. -JM	Existing layout of shelves and the position of the circulation desk makes passive observation difficult. - U Shelves could be shorter. - AV Poor. - JB
Exterior lighting			●● ●● ●●	There are a few flood lights at the entrance, but the rest of the plaza is fairly dark. Since the police station moved, the alley behind the branch is quite dark.-CS Needs more lights. -VY Poor – see my above comments. -JB	The exterior lighting for the plaza needs improvement and more security lighting for the area between the library and the police station is needed. -JM There is an urgent need to improve exterior lighting for safety and wayfinding. -U Plaza especially. - AV
Security Cameras			●● ●● ●●	No cameras currently exist on the exterior – need them all entrances and doorways.-CS Needed desperately – we have none. -JB We need security cameras for the interior and some location outside (plaza and doorways) -JM	Doesn't exist indoors or outdoors - VY No cameras. - AV Cameras are urgently needed especially since there is no view of the exterior from the circulation desk. -U
Alarm Systems		●	●	Did not see. - U Unfortunately, it goes off sometimes when it is not supposed to but it does work. -JB	The Fire alarm system needs upgrade it is obsolete. Security alarms need to be enhanced and tied into a new CCTV system. -JM

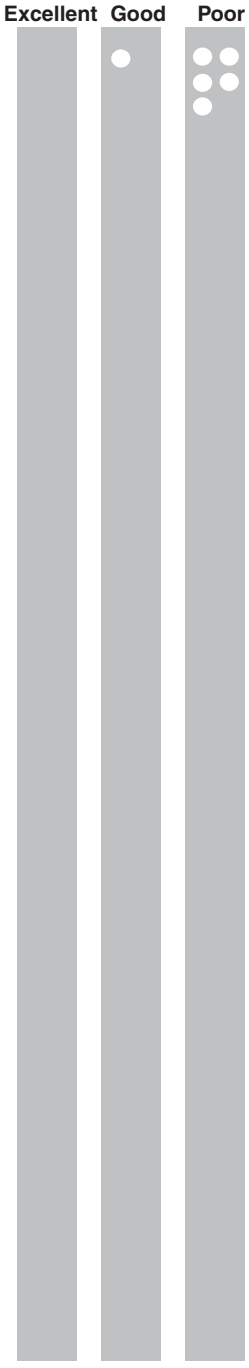
III. Special Collections

The BPL is committed to the ongoing development and preservation of its distinctive special collections, which provide citizens from all walks of life with access to their common cultural heritage.

Outcomes

A. Strengthen and grow collections that focus on existing strengths and geographic specialties.

- Prioritize the preservation of the City's local history; identify, exhibit, and promote appropriate collections



Local history collection display area	Staff say the collection is appropriate, however the display cabinet is small and not in a prominent location within the branch. Staff indicates that the collection needs to be curated and reviewed on a regular basis. -CS	This is something that I have not had time to focus on. Perhaps I can work with the Adult Services Librarian at some point on this collection. -JB Existing cabinet is a nice start but needs to be a much more celebrated part of the library. -U
	There is some local history in a cabinet but you would need to search it out. No signage or information on content. -JM	Not sure where to look for info...Bookcase? -AV Can be organized better. - VY

IV. Center of Knowledge

The BPL is a center of knowledge that serves researchers, lifelong learners, and the intellectually curious through its incomparable collections, digital resources, and access to other scholarly networks.

Outcomes

A. Develop community-responsive and neighborhood-reflective circulating collections.

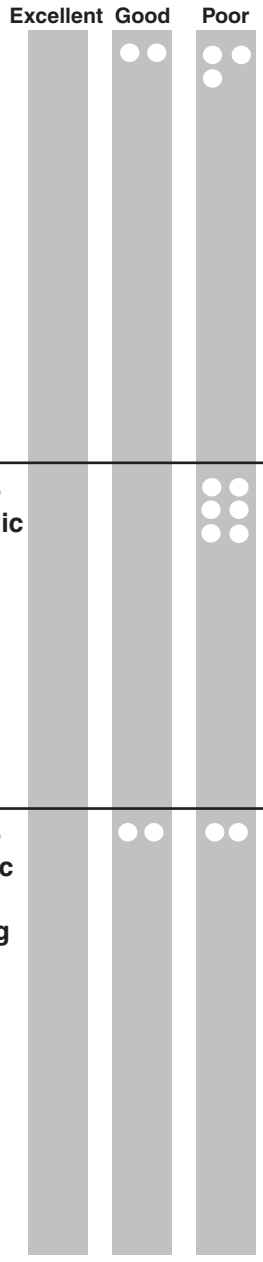
- Assess current circulating collections and develop plan for maximizing the use of existing collections through weeding and collection development
-

B. Develop and support a public training program that meets the needs of a wide range of communities.

- Provide and enhance public training program to include technical, health, civic, and financial literacy

C. Support the research, scholastic, and literacy needs of the City and Commonwealth.

- Establish the library as the go-to place for basic computer skills learning



Ratio of collection size to shelving capacity.	The Dudley branch is quite large and can hold a large collection; however the majority of the materials do not circulate. There is some in house use of certain collections, however DVDs and other media is a growing demand but we do not have adequate shelving. Need to evaluate collection needs and assign appropriate shelving. Staff suggests modular or moveable shelving so that as the collection needs change, shelving can adapt with it. -CS	We actually have more shelving than we need. This is unusual because most branches I have worked at the opposite was true. Unfortunately, the shelving is cumbersome and clumsy and it is difficult to reach many of the shelves. -JB There appears to be a good amount of growth space but final judgment is pending further program development. -U This is under review now .Needs work. -JM Extra capacity on shelves - but they should be shorter. - AV
Accommodations for public training	None currently exist, outside of the Literacy Center. The branch needs additional data and electrical outlets throughout the building to allow for "pop up" public training spaces. -CS The idea of re-designing Room B so that it could flip back and forth from a conference room to a lab type space would work well here. -JB	Doesn't have a designated area. -U Does not exist. Will need upgrades to the power and data. -JM No training space. - AV Projector mount, smartboard, computer desks - VY
Accommodations for basic computer skills learning	Current location of public computers is problematic. Patrons are too close together, too close to the staff work room and teens and adults are all together. Wire management is in need of improvement. Tables and chairs are not appropriate for current or future technology needs. This is one of the most highly used services at Dudley and more care and considerations needs to take place in the planning of the space. -CS	The Literacy Center has a designated computer training area that appears to meet the current demand. -U The space needs to be compartmentalized all the computers are in one location. Infrastructure upgrades needed. -JM No defined classroom. - VY There are computers. - VY

V. Children and Teens

The BPL fosters the love of reading and skills in critical and creative thinking among children and teens – from early literacy through mature readership – by offering a slate of services that provide academic support and intellectual growth.

Outcomes

A. Focus on providing early learning experiences.

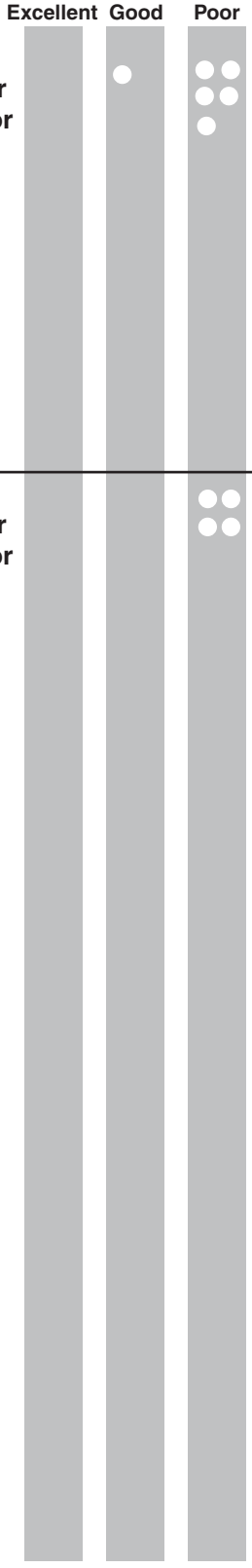
- Enhance early literacy programs, such as reading readiness, including age-appropriate, multilingual collections

B. Invest in and support system-wide youth services.

- Provide positive and energetic programs for children and teens
- Update and enhance technology provided for youth and teens

	Excellent	Good	Poor		
Accommodations for early literacy programs, such as reading readiness		●●	●●	The Children's Room is large and has an open space for programs. The multipurpose room could also accommodate this purpose. Carpet in the children's room needs replacement. Some opportunities exist to create spaces for different age groups. -CS The Children's Room is large and spacious. There is a storytelling pit where there is plenty of room for toys , games, felt boards and other learning aids for early literacy programs. -JB	The literacy center is for adults only. It does not appear that this need is being meet elsewhere. -U We are tied in with the literacy center up stairs so there are opportunities. The branch itself does not have computer connections for this purpose. -JM Children's space - but no dedicated EL. space in library - AV
Accommodations for children's programming		●●	●	The space in the children's room or the multi-purpose room are good spaces, which need some updating – see "Community Gathering" comments on multi-purpose room -CS Storytimes are in the Children's storytelling area. Room B has been used for Kids & Teens craft and gaming programs. Puppet shows , magic shows, Museum of Science programs, etc. are easily accommodated in the auditorium. There is a weekly children's film program every Tuesday in the auditorium. -JB	Designated space, floor, stage needs updating. - AV There is enough space for programming but upgrades to the infrastructure is needed. -JM There is a need for greater acoustic separation so childrens programming doesn't interfere with adjacent functions. -U The Children's Room could use a few more pc's – there are only two there now for children. -JB
Accommodations for teen programming		●●	●●	Currently no well defined teen space. Mostly adults sitting in the teen area. Teen Librarian's desk is not well placed. Teen computers are mixed with adults. Collections are not well displayed or easy to navigate. -CS The Teen Librarian uses both Room B and the auditorium for craft and gaming programs. She has done cooking programs with the kitchen facility available to the public. -JB	There needs to be a separate area for teens. -JM Undifferentiated - AV There is a designated Teen Librarian and teen area but this area needs better spatial definition and focus. -U

V. Children and Teens



Capacity and availability for technology for children

There is growing demand in this area and technology spaces need updated furnishings and technology. Need additional data and electrical outlets -CS

The teen technology area is very shortly (hopefully before the holidays) going to be moved to a new designated "Teen Space" area – away from the adult computers. -JB

Infrastructure upgrades needed. -JM

There are some designated computers in the children's area but they could use an update. -U

Computers can be added- VY

Other than regular computers? - AV

Capacity and availability for technology for teens

There is growing demand in this area and technology spaces need updated furnishings and technology. This space needs to be removed from the adult computer area. Need additional data and electrical outlets.-CS

The teen technology area is very shortly (hopefully before the holidays) going to be moved to a new designated "Teen Space" area – away from the adult computers. -JB

Some there but needs to be strengthened overall. -U

Infrastructure upgrades needed. -JM

Lumped in with adults. - AV

Computers can be added- VY

VI. Access and Innovation

The BPL provides access to and training in innovative technology, electronic resources, and digital information through its own holdings and its strategic position within the wider world of knowledge.

Outcomes

A. Provide state-of the art public computing spaces.
B. Keep pace with evolving standards on in-person access to public computing resources, and to online resources.

	Excellent	Good	Poor		
In-person access to public computing resources			●● ●● ●	Because this is such a highly used service at this branch, we need to expand technology offerings including training classes, in a state of the art space that can grow. Flexible furnishings to allow for everyday use as well as classroom teaching are needed. -CS You can never have enough public computers – the laptops have helped though. -JB	Adult area and teen area are mixed, need to be separated - VY Didn't see - outlets? wifi? - AV Doesn't appear to be enough equipment to meet the demand. -U There is limited access and it is all in one location.-JM
Overall state of computing spaces and IT infrastructure incl. the ability to support laptop, e-reader and future lending technologies		●	●● ●	I really can't speak with authority on this question- I would have to refer that to the IT Dept. -JB Computer spaces cramped. -AV	Updates across the board are needed. -U Data drops and power drops need to be redone- VY
State of audio/ visual equipment		●●	●● ●	The A/V cabinet is an antique but works well still. -JB Upgrades needed equipment is outdated. - JM Updates across the board are needed. -U	Need AV, projectors, smart boards- VY LCD projector works, mic system works, nice large screen. - AV

VII. Sustainable Organization

The BPL depends on sustainability of resources through a judicious stewardship of finances; active employee participation and professional development in an environment of dignity and respect; and partnerships that enrich services, expand outreach, and leverage public investment through private support.

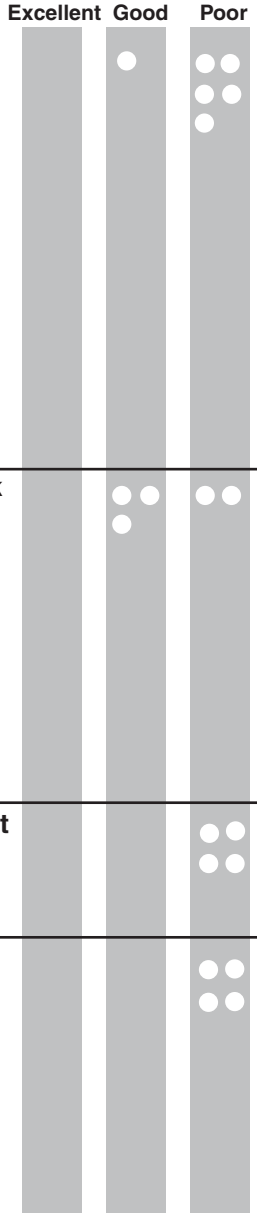
Outcomes

A. Evaluate business practices and workflow to optimize efficiency.

- Improve fine receipt procedures and explore alternatives to current pay-for-print system
- Streamline workflow in collections, technology and resource sharing areas

B. Seek out and establish partnerships that enhance services.

- Explore a new programming model where partner organizations complement and enhance library services and expertise
- Provide collaborative opportunities to foster connections/relationships with local schools, businesses and improve coordination with city agencies



Location's ability to accommodate updates to business practices and workflow efficiencies	Circulation desk is near the workroom, but it's awkward to have to walk through public computers to get there. Workroom is disorganized and messy. Staff can't reach most of the shelving because there are big tables in front of it. Pay for print system needs improvement. Staff kitchen is well used, but in need of updates to the furnishings and appliances. There are three kitchens in this branch – all of which need work. Lockers in staff room are in good condition. -CS The visual limitations of the circulation desk and access to the adjoining spaces needs work. - JM	Lots of staff space but needs to be better organized. - AV Difficult with existing layout but there is nothing in the "bones" of the building that would prohibit this in a renovation. -U The most important issue here is that the circulation desk needs to be re-designed and moved to another area. -JB
External book drops	A book drop exists, however it's not easy to find at all. In fact, it's practically hidden. It's on the Warren Street side of the building, flush with the wall, with a tiny sign on it. The cart in which books are returned is nowhere near the workroom to allow for easy emptying of the cart and processing of the books. You have to drag the cart through the entire library to get to the work room. -CS	Well positioned on the exterior façade. -U It has easy access to Warren St. but it leaks water inside and is difficult for staff to manage. -JM We have a good working book drop.-JB Could use better signage. Interior a mess. - AV
Self-check-out	Not set up yet.-JB Doesn't exist - CS N/A -JM	Didn't see. - AV Doesn't seem to be available. -U
Self-pick-up	Doesn't exist - CS We have not set that up yet and I don't think it is necessary unlike Copley where it is essential. -JB	Didn't see. - AV Doesn't seem to be available. -U N/A -JM

VII. Sustainable Organization

	Excellent	Good	Poor		
Space for storage and support of library operations		●●●●●		There is plenty of storage but it is disorganized and desperately in need of clean out. Staff indicates that it would be helpful to have built in shelving in the spaces to help keep them better organized. Right now piles and piles of stuff is shoved in every closet. Wires for all technology needs to be put in a data closet and not out in the open of the workroom. -CS The storage space is adequate but is not used in an optimal way. I will have to work with the staff on this issue. -JB	The space needs to be better organized and there is a great need to add shelving throughout the storage spaces .There is sufficient space it needs to be organized. -JM Didn't see. - AV Good overall amount of storage but there needs to be an organizational strategy to make the best use of this space. -U
Identify any partner adjacencies at this location	●	●		We have frequent interactions all year long with the numerous community groups in the neighborhood. -JB	The library appears to be well linked with community based organizations. -U
State of Overall Facilities and Systems		●●	●●	Staff and public restrooms need improvement. Staff restrooms are small and entrances do not meet ADA requirements. Public restrooms are not within sight of the staff and are locked most of the time. Fixtures and flooring need improvement. -CS There was a new HVAC system put in last year. I would refer this question to the Facilities personnel. -JB	The building needs improvement. The HVAC system has been upgraded but needs more work Electrical, data, alarms, security systems need upgrades overall fair A larger buildings view is planned. -JM Existing finishes need improvement and the HVAC System may need updating. -U Looks tired, bad layout. - AV

VIII. Fun

The BPL leads the way for people of all ages with recreational reading and media, invigorating programs, user-created content, and opportunities for discovery in settings that are stimulating and engaging.

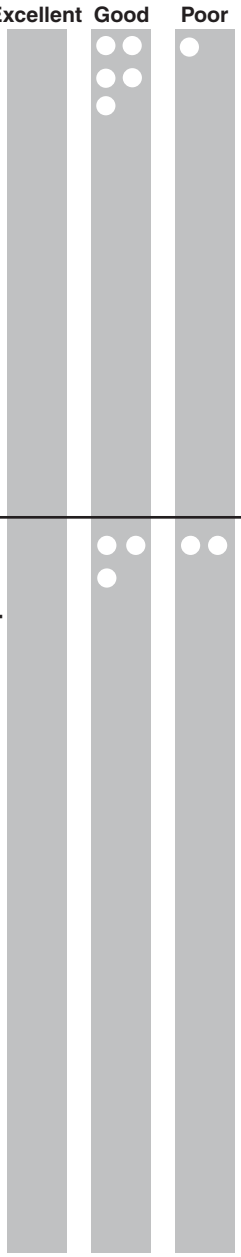
Outcomes

A. Connect people to popular books, music, films, and artwork – whether the materials are brand new or simply new to select audiences.

- Rededicate efforts to support interactive formats through collections and programming

B. Embrace role as a cultural and entertainment hubs in the City of Boston.

- Embrace neighborhood branches as tourist destinations, exhibition spaces, architectural attractions, and performance venues



Exhibition and performance spaces

There are two large exhibition cabinets in the lobby and two floor cases. These need to be curated and kept up to date. The floor cases are empty and the two cabinets have had the same exhibit in them for months. Performance space exists in the multi-purpose room. -CS

There is a performance space and meeting room Cabinets and cases exist but need some TLC. - JM

The scale of the existing Community Room works well for exhibitions or performances. -U

We have one large auditorium which can hold up to 200 people comfortably for performances. We have several jazz programs a year which are very popular. We have two standing glass cases for 3D exhibits and 2 large glass wall cases for artists' exhibits. -JB

Community room needs refresh. Display cases need better organization. - AV

Space to allow staff and community to highlight popular books, music and films

More appropriate display shelving is needed as you enter the branch. Most furniture is too bulky and not flexible enough for different types of displays. -CS

The space exists it needs to be restructured for appropriate use. -JM

There are spaces that serve some of these functions but they need to be better structured and celebrated in the building. -U

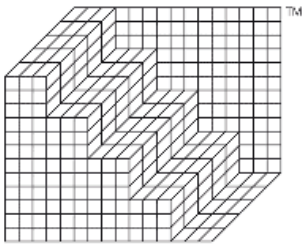
The standing glass cases and the wall display cases have hosted many of these kinds of displays. The Friends of the Dudley Square Branch had an exhibit of Afro-American genealogy books last year, for example. . -JB

Space exists, but not well used. - AV

Appendix

9.2 Existing Facility Assessment

Mechanical, Electircaland Plumbing Systems Report
Structural Report
Acoustic Report
Code Analysis



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Dudley Branch - Boston Public Library

MEP/FP Existing Condition and Concept Report

September 2013

Revision 02

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Date	September 19, 2013	September 19, 2013
approved	**Niall Cooper**	
signature		
date	September 19, 2013	

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1 Introduction

The Dudley Branch of the Boston Public Library opened its doors in its current location at 65 Warren Street, in April of 1978. Since this time, subsequent minor renovations have occurred on the building. As a vital neighbourhood institution in the Dudley community, the City of Boston has recognized that the facility would benefit from a modernization. The extent of such refurbishment is under study by a design team lead by the architectural firm Utile. Buro Happold is working with this team to evaluate the existing MEP/FP systems and make recommendations for how they can be upgraded to meet the design team's programming study.

This document is the first of two reports; the first evaluating the existing systems and the second recommending suitable upgrades based on the programming ideas from the Utile lead design team.

2 Existing Mechanical

2.1 Codes, Standards, & References

From our initial review of the property, we believe the following codes will be applicable for a future renovation.

- International Mechanical Code 2009
- International Energy Conservation Code 2009
- Stretch Energy Code – International Building Code 2009, Chapter 115, Appendix AA

2.2 Existing System

The building's Heating Ventilating and air Conditioning (HVAC) system consists of four DX Air Conditioning units (AC-1, AC-2, AC-3 and AC-4) rejecting heat to a cooling tower via a condenser water loop. A new gas-fired condensing boiler feeds a series of duct-mounted heating coils. The building systems were originally installed approximately 35 years ago. These largely original components work together to provide heating, ventilation and cooling for the building as described in the following sections. No specific thermal comfort or maintenance issues were cited by the staff, but it was noted that the remaining original equipment is significantly beyond its median service life.

ASHRAE (Applications, Chapter 37, Table 4) describes the likely median service life for the existing equipment, as follows:

- Air Conditioners (water-cooled packaged units), 15 Years
- Boilers (steel water-tube), 30 years
- Unit Heaters (hot water), 20 years
- Diffusers, grilles and registers, 27 years
- Ductwork, 30 years
- Fans (Axial), 20 years
- Fans (Centrifugal), 25 years
- Coils (DX and water), 20 years
- Cooling Towers (galvanized metal), 20 years
- Pumps (base-mounted), 20 years
- Motors (electric), 18 years
- Controls (pneumatic), 20 years
- Valve actuators (pneumatic), 20 years

2.2.1 Zoning and Controls

The four air conditioners split the building into four large constant volume zones as listed below.

- AC-1 Auditorium
- AC-2 Literacy Center, 2nd Floor
- AC-3 Main Room
- AC-4 Main Room

Within each of these zones, localized duct mounted hydronic reheat coils are used to adjust the temperature based on the space needs.

2.2.2 Heating System

A high-efficiency gas-fired hot water boiler has recently been installed as part of a capital improvement at the library to replace heating system components that were no longer operating. From markings on the equipment, it appears that they were installed in February 2011. An image of this new equipment can be seen below. The main heating plant components that were replaced include a single Lochinvar gas-fired condensing boiler, which uses the existing combustion air/ventilation system, flue system (through existing roof), two new base-mounted secondary hot water pumps, two in-line primary hot water pumps. The existing natural gas line to the existing boiler burners has been retained..

Hot water from the new boiler plant is currently distributed to the four air conditioning units as well as wall-mounted radiators installed along the perimeter. In addition to the perimeter heating, hot water coils are installed in the air handling equipment to temper the air before it is delivered to the space. Heating hot water is also utilized to heat the various back of house spaces throughout the building; cabinet unit heaters in vestibules, unit heaters in storage spaces and utility rooms. The valving of these back of house hydronic heating equipments are controlled via localized thermostats.

2.2.3 Cooling System

Air Conditioning units AC-1 through AC-4 are equipped with compressors and DX cooling coils, which reject heat to a condenser water loop routed through the mechanical room to a cooling tower on the roof of the library. Condenser water pumps P-1 and P-2 circulate condenser water through the cooling tower which rejects heat from the loop to atmosphere. The original cooling tower has been replaced with a new Baltimore Air Coil unit within the last 10 years. The existing dunnage is heavily corroded and in poor condition. The existing vibration isolator springs are also heavily corroded and

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are no longer providing any useful vibration isolation. Images of the cooling tower and the condition of the support dunnage can be seen below. Cooling supply and return air is ducted from the AC units and routed to the space as described in the distribution section below.




2.3 Distribution

The HVAC distribution networks are broken down into two mediums, the hydronic heating loops and the airside heating and cooling ductwork distribution. The hydonic piping loops begins and ends at the new condensing boiler and which generates the supply heating hot water (HWS) and receives the return hot water (HWR). Hot water supply is pumped around the building via the in-line primary heating hot water pump sets (P-3 and P-4) via a 4" HWS main. This main emanates from the boiler room on the mechanical level providing connections for hot water to duct mounted radiant heaters (RH) on the supply air ductwork for AC-3 and AC-4 as well as localize unit heaters on the mechanical levels. Addition HWS taps feed down to Level 1 and 2 to provide hot water to duct mounted heating coils for office spaces of the Literary Center and Library as well as and localized fin-tube radiators along the

perimeter of each the level. All hydronic piping is returned via an equivalent hot water return (HWR) loop. Diagrams of this distribution can be seen in the annotated existing HVAC drawings in Appendix A.

The airside distributions are divided into the four zones of each AC unit. All AC units receives fresh air from motor actuated louvered openings to outside at the mechanical level and each has their own dedicated supply and return branches which work out from the mechanical level. An overhead approach is utilized for all for zones and can be seen in the following images.

The conditioned air for the reading room from AC-3 and AC-4 is distributed via large overhead duct proejctions from the ceiling. Distratificiation fans are also in the main reading room helping in the heating season to force the hot air down.

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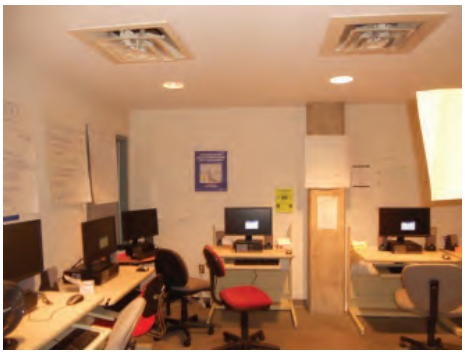

For cellular spaces throughout the Literary Center, overhead supply and return grilles in the ceiling are utilized to provide conditioned air to the spaces from AC-2.

In the community room (auditorium) overhead supply and return condition air is integrated into the ceiling as exposed ducts aligning with the structure.

2.4 Energy Efficiencies

The remaining existing system components are significantly beyond their median service life expectancy, as noted in earlier sections of this report. The operating efficiency of the individual components will have naturally dropped during their 35 years of operational life, which will have given rise to a consequent increase in overall energy consumption. Simple replacement of the individual system elements will help improve building energy usage, but there a number of component upgrades and system re-configuration options that will allow further energy savings to be made. A number of the following strategies will be explored in subsequent design phases.

Chilled Water Generation – Replacing the existing AC units with the combination of a central water-cooled chiller generating chilled water to feed Air Handling Units will reduce overall cooling system energy usage through the improved efficiency of the water-cooled chiller's compressors when compared to the AC unit's compressors.

Based on replacement of existing AC unit with an Energy Efficiency Ratio (EER) of 9.7, per manufacturer's factory data – see Appendix, energy saving from the new cooling system would be in the order of 45% approx. with a direct replacement unit with EER of 14.1. This excludes additional energy saving that could be expected from the use of premium efficiency fans and variable frequency drives – see below.

Demand Controlled Ventilation – Providing automatic control of dampers to modulate provision of outdoor air to suit different levels of occupancy through the monitoring of CO_2 levels in the space will allow significant energy savings to be made when the building is operating with at less than design peak occupancy levels. However, exact energy saving is difficult to quantify without carrying out an analytical assessment by constructing an energy model.

Variable Frequency Drives and Premium Efficiency Motors on Fans and Pumps – Providing variable frequency drives together with more efficient motors on fans and pumps will allow the HVAC systems to capitalize on the potential energy savings associated with controlling these components through variable speed operation.

An one to one fan motor replacement can typically provide between 5% to 10% energy saving. Coupled with the additional of variable frequency drives, typically energy saving from new motors and drives would be in the range of 10%-25%.

Displacement Ventilation - Exploring ways that underfloor/ displacement ventilation could be incorporated into new schemes for the main public library space and auditorium area could yield significant energy savings in use by allowing the efficient introduction of cooling air directly into the occupied zone and reducing overall heat gains by allowing stratification of hot air at the top of these tall spaces during the cooling season. However, exact energy saving is difficult to quantify without conducting an analytical assessment by constructing an energy model.

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2.5 Opinion of Condition

The existing conditions report previously issued highlighted the age of the existing systems and need for replacement of several components. The following table provides recommendations for retaining or removing system components to allow for a more energy efficient and functioning system:

System/Component	Comment	Retain / Replace
Boilers	Recently renovated and in good condition.	Retain
Hot Water Pumps	Recently renovated and in good condition.	Retain
Unit AC-1	Unit is over 20 years old and requires replacement.	Replace
Unit AC-2	Unit is over 20 years old and requires replacement.	Replace
Unit AC-3	Unit is over 20 years old and requires replacement.	Replace
Unit AC-4	Unit is over 20 years old and requires replacement.	Replace
Internal Ductwork	Air distribution ductwork (supply & return) inside the building appears to be in good condition. Where possible this ductwork could be re-used, provided its meets the energy code. In some instances ductwork is concealed in ceiling void spaces and until renovation beings, it is difficult to ascertain whether the ductwork can be re-used. Existing ductwork may require to be made redundant based on the final architectural layout and room air requirements. Large overhead duct proejctions from the ceiling of the main Library should be removed as part of proposed renovation.	Varies
Cooling Tower	Replaced within the last 10 years, and has another 10 years of useful life. Replacement is likely in approx. 10 years.	Retain

Cooling Tower Dunnage	Heavily corroded.	Replace
Cooling Tower Vibration Isolators	Heavily corroded.	Replace
Heating System Pipework	Repair and repair sections as needed for re-used.	Retain/Repair
Cooling System Pipework	Repair and repair sections as needed for re-used.	Retain/Repair

New System Recommendations:

System	Comment
Hot Water System	The hot water system and its components appear to be in good condition. No major replacement or repair appear to be necessary. Any requirement for hot water with new system recommendations should be coordinated with the existing system requirements and capabilities.
Air Conditioning System	As previously indicated the air conditioning units need replacement. BH recommends that these units be replaced with modern air conditioning units with the following: • Hot water heating coils. The units can utilise hot water from the current heating system. • DX cooling coils with condenser water heat rejection. The units would use new compressor DX cooling coils and reject heat to the existing cooling tower via a condenser water loop. • Alternatively the cooling could be provided by air cooled DX cooling coils integral to the new units. BH recommends a price comparison for both strategies be provided by the contractor.
Cooling Tower	If a water cooled loop is the preferred choice the existing cooling tower could remain. The AC unit cooling coils would need to be coordinated with the requirements and capabilities of the cooling tower.

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Additional Cooling	Where additional cooling is required dedicated Variable Refrigerant Volume (VRV) circuits would be provided. Final selection of indoor units would be coordinated with the internal architectural requirements of the spaces. Condensing units would be located on the roof.
Ventilation	The ventilation requirements for the spaces shall be supplied by the new AC units.

3 Existing Electrical

3.1 Codes, Standards, & References

From our initial review of the property, we believe the following codes will be applicable for a future renovation.

- Massachusetts State Building Code (780 CMR) 8th Edition
- Massachusetts Electrical Code, 527 CMR §12.00. The Massachusetts Electrical Code is an amended version of the 2011 National Electrical Code (NFPA 70)
- NFPA 72 – 2011: National Fire Alarm Code
- AHSRAE Standard 90.1-2007 Energy Standard for Buildings Except Low-Rise Residential

3.2 Existing Service & Distribution

From an initial site visit on Thursday October 25th, the following details have been visually surveyed. As the project progresses, as-built drawings and / or additional surveys will be required to thoroughly assess the existing conditions.

3.2.1 Service Entrance

The building has an existing 800A 480V 3 Phase electrical served by a pad mounted utility transformer on grade located on the north side of the building, off Warren Street. The incoming service is routed from the utility transformer to the main electrical room located on the upper level of the building. The exact route of the service conduit from the transformer to the main electrical room could not be traced, to determine if the code requires 2-hour fire rating for the service entrance is being provided to protect the incoming service.

One NStar meters (#5046480) is mounted adjacent to the service entrance switch in the main electrical room to continually monitor the services usage at set intervals. According to facility staff, the meter system has built-in communication capability that allows the meter to be read remotely by NStar.

At the time of the site visit, the maximum demand recorded on the meter read 1.47 kW which is unrealistically low for the type, size and function of building. Measure utility bill data for the last 12-months should be obtained from the city to determine existing demand to confirm electrical equipments are adequately rated prior to any renovation.

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3.2.2 Distribution System

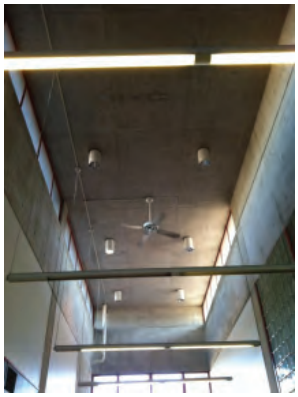
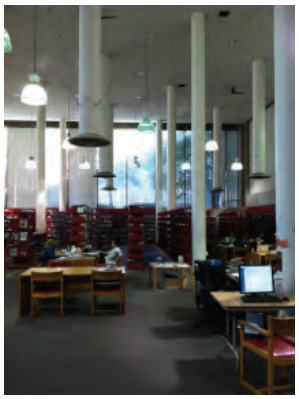
The main service entrance panel is rated at 800A 480/277V 3 Phase, manufactured by Square D consisting of C.Ts cabinet, and spring charged disconnect fused switch with remote tripping capability from the entrance lobby. The proper operation of the remote switch is unknown.

The topology of the electrical distribution consists of 480V, 3 Phase switchboard utilizing fused switch to feed all large mechanical equipment directly or via a Motor Control Center located in the adjacent mechanical room. A 1000A 208/120V distribution system is derived through a 300 kVA dry type transformer located in the same room, and feeds branch circuit panelboards located throughout the building.

There were no visible signs of installation data on the equipment but based on visual observation of style and type of fused switches use on the equipment, the installation appears to be original to be building, circ 1973 and is estimated to be 39 years old. It is recommended that the main distribution equipment should be replaced in its entirety as part of future major renovation to the building.

3.3 Electrical Lighting and Controls

Most of the existing light fixtures appears to be original consisting of fluorescent lamps in most single story public spaces, metal halide lamps in the double-high library stack and computer areas in the Literacy Center, and incandescent type lamps in back of house spaces. - Most of which and are highly inefficient compared to alternative lamp technologies that are currently available. According to personnel at the ‘city’, the building has secured the help of the utility company to carry out energy retrofit program to replace inefficient lamps at the facility during the month of Nov/Dec 2012.

Controls of interior lighting were mostly by manual wall switches which would not meet code lighting control requirements. Areas with high infiltration of daylight, such as in the library stack and computer areas should be automatically controlled by daylight sensor. Exterior lights are wire to mechanical time clock set to 6:30PM to 7:00AM. Emergency lightings are provided by dedicated egress light fixtures wired to remote battery enclosure throughout the building. Exit signs are also provided throughout.



3.4 Small Power

The uses of power strips are prevalent around computer clusters due to the increase in use of computers and peripherals devices in a modern library. In some areas where new power is required, new receptacles have been installed carried out by 3rd party building Services and Maintenance Company on an as-need basis. Small power should be reworked to provide appropriate receptacle outlets for future program changes to minimize the use of power strips.

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3.5 Fire Detection and Alarm System

The existing fire alarm system is a conventional non-addressable type panel manufactured by Edwards System Technology; model EST-3, zoned by areas at the facility. The systems generally comprise of a fire alarm control panel located in the corridor on the ground floor at the back of house space, an annunicator at the entrance vestibule, duct smoke detectors, horn/strobes notification devices and manual alarm pull stations located throughout the facility. Some of these devices are installed at heights that at inconsistent with current fire alarm code or ADA requirement and would need to be reinstalled at proper height.

The existing system is not meeting ADA code, appears to be in below average condition and appears to be near its useful design life, therefore; it is recommended that new fully addressable fire alarm system shall be installed to replace the aging system.

3.6 Tele/Data and Security

Service Entrance fibre and copper for the building is routed to an interior closet behind Community Room that was probably intended for use as a storage room. Any renovation planned around this area should factor in the importance of maintaining communication lines to prevent unnecessary downtime that serves the library. As part of future renovation, a separate closet should be built around the existing equipment and infrastructure to protect it from physical damage and from unauthorized access.

A separate network IT rack is currently located in an open office with UPS. As with the service entrance equipment mentioned above, the equipment should be housed in a separate closet protect it from physical damage and from unauthorized access. Additionally, if the equipments are to be enclosed in a room or closet, the room should be provided with power and proper environmental condition.

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3.7 Opinion of Condition

A detailed review of maximum electrical demand based on historic records from Utility Company for a minimum of 12 months is required to determine availability spare capacity to support future renovation and/or program changes. Depending on overall scale of renovation and new power requirement, considerations should be given to replace the electrical distribution equipment.

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4 Existing Plumbing

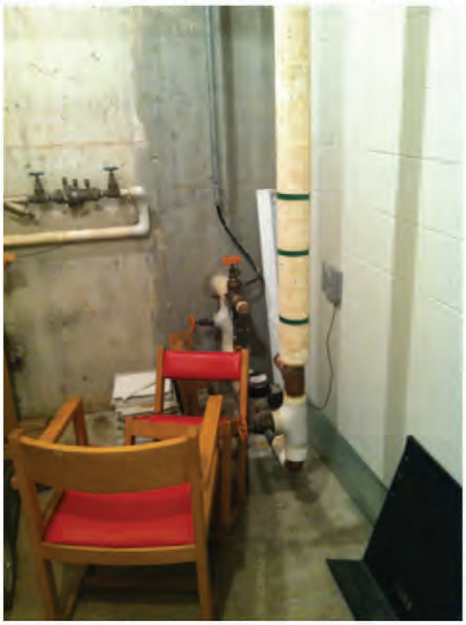
4.1 Codes, Standards, & References

From our initial review of the property, we believe the following codes will be applicable for a future renovation.

- Massachusetts State Building Code, 8th edition
- 248 CMR 10.00: Uniform State Plumbing Code

4.2 Existing System

Domestic water is supplied to the building by a single 2-1/2 inch (assumed) water service main. The service enters the building from an unknown size water main that is running in the plaza southwest of the library into a shared utility room (pictured below left). Upon entry, the service is metered and distributed to the building. Domestic hot water is generated for the building at the mechanical level via a new hot water heater (pictured below right). Similar to the heating hot water, the domestic hot water heater was replaced in February 2011 and appears to be in good working order. Low pressure gas is supplied to the Library Building from a gas main in running in the plaza southwest of the library by the existing courthouse. The service extended to a shared utility room at the mechanical level where it predominately feeds the heating hot water boiler and the domestic hot water heater.



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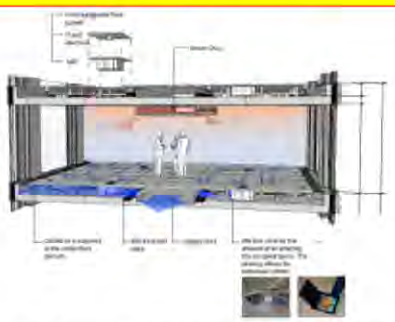
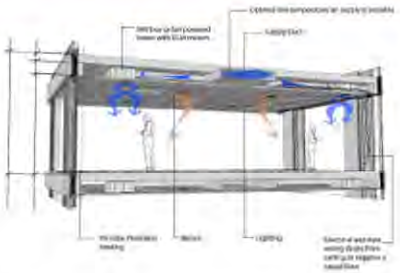
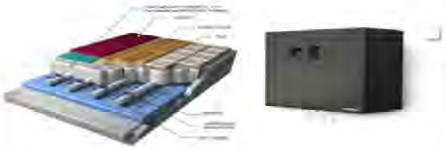
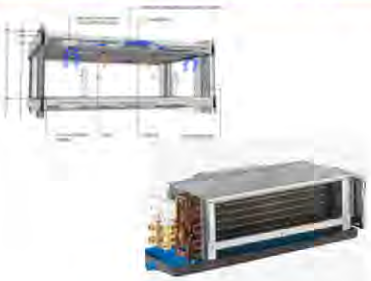
A complete sanitary and venting system is extended through extra heavy hub & spigot cast iron to all fixtures requiring a sanitary connection of the existing building. The majority of the fixtures where observed in satisfactory working condition, but they are nearing the end of their useful life. In general, the building's toilet rooms will need to be renovated and replaced in their entirety. ADA standards and 248 CRM, Table 1: Minimum Facilities for Building Occupancy shall be consulted for revised quantity and room layout.

Stormwater is collected from all roofs extended through extra heavy hub & spigot cast iron drains. The piping was largely concealed, but those observed were primarily insulated. Although our research of the existing drawings suggests that all of the roof drains were replaced during a 2003 renovation, it appears that leaks within the roof drainage have occurred over the recent life of the building. It is particularly noticeable in the community room which has significant water damage along its ceilings as can be seen in the image below. Any future renovation of the building would need to address improved roof drainage.

Matrix of Mechanical Options for the Dudley Branch

SYSTEM →	Under Floor Air Distribution	Overhead Air Distribution
DISCUSSION ↓		
System description	Conditioned air is supplied to the room at low level, with low velocities and at an elevated temperature to avoid draughts etc. The amount of air required to condition a room via underfloor ventilation can be typically less than that required for an overhead or sidewall system as only the occupied zone is being conditioned.	Overhead air distribution supplies the air to the occupied zone from high level in the space. Various types of diffusers are employed depending on the room characteristics to mix the air in the space without causing drafts or compromising the comfort of occupants. Variable Air Volume air handling units located in on the roof could provide conditioned air to each VAV box which controls the air volume locally and hence the temperature of each space.
Advantages	• Very good IAQ • Air supplied where required (occupied zone) resulting in better ventilation effectiveness. • Air distribution and electrical distribution occupies same space/ combined access for AV, IT, communications and HVAC • Allows for exposed concrete slab and use of thermal mass to reduce internal heat gains.	• High cooling & heating capacities. • Caters well to varying loads. • System is proven and well known.
Disadvantages	• Reduces individual control. • Floor plenum requires cleaning (every1-2 years) • Lower heating/cooling capability than overhead system. • May require supplemental perimeter heating.	• Requires larger servicing routes. • Good control relies on accurate commissioning. • Reduced IAQ when compared with UFAD. • Can require higher ventilation airflow rates.
Environment	• Very good Indoor Air Quality (IAQ) • Good acoustics when compared with overhead. • No water required for indoor components. • Lower energy usage and running costs through conditioning of only the occupied zone.	• System can be noisy if not designed/installed correctly. • Water required if re-heat VAV is being used. • Very good de-humidification characteristics when compared with other systems.
Cost	• Highest capital cost option • Requires less ductwork than overhead. • Tight plenum required. • Not as maintenance intensive as other systems. Typically no real maintenance in occupied space.	• Lowest capital cost option • Common system – possibly leading to lower costs over more unfamiliar systems. • Dampers (and valves associated with re-heat) require maintenance and are within occupied space. • Not as maintenance intensive as other systems. • All-air overhead systems typically have higher running costs than water cooled system.
Flexibility	• Very flexible system, air terminals and power/ IT devices can easily be moved allowing for a much more flexible furniture layout, without affecting mechanical distribution.	• Relatively flexible. Any revision to floor/wall layouts requires re-routing of ductwork and diffusers (and pipework if re-heat is used).
Existing Conditions	• System lends itself well to the main room as this is a tall space. Vertical ductwork from the roof units would need to be routed through the room to a newly constructed plenum in the main room. • Would not be suitable for other spaces due to lower ceiling heights, resulting in a different system being utilized for those spaces which may result in higher capital costs.	• Would work well with existing conditions as essentially all ductwork routes are already defined. Coordination of terminal units and diffusers etc. would be required with architect. • Could be used for all spaces in the project.
Summary/ Recommendations	• While excellent application for tall spaces such as the main open library area, the system's capital cost and limited benefits in lower height spaces means that it's not a recommended system choice for the Dudley Library	• Simple, low capital cost solution that could be employed successfully for the Dudley Library, but could also be improved upon operationally by exploring a more hybrid systems solution

On Floor Water Cooled VRV	Radiant Heating and Cooling Floor with Dedicated Outdoor Air AHU	Overhead Air Distribution with Localized Water-Cooled VRV
		
Indoor units (similar to fan coil units – can be ceiling or floor mounted) use refrigerant DX circuit rejecting heat via a heat exchanger to a cooling tower loop (using water). Heat exchanger can be located outside of space being served. A separate air handling unit provides required ventilation to the spaces served.	Pipework is routed in loops below the floor slab and hot water (for heating) or chilled water for cooling is pumped through the pipework. The floor is used as the transfer medium providing heating or cooling to the space. A valve manifold provides individual thermal zone control and can be located outside of occupied space. A separate air handling unit provides required ventilation to the spaces served.	An overhead air distribution system can also be utilized for the main open library space in conjunction with more localized use of water-cooled VRV units for small, separately enclosed meeting and break out spaces within the overall volume. A radiant floor heating system can still be utilized for the large open-plan space library areas.
• Floor Units minimize ductwork when compared with VAV. • Provides excellent individual control when dedicated units serve dedicated spaces. • Can provide simultaneous heating and cooling if required. • Can provide heating without connection to existing heating system.	• Concentrates heat evenly in space. • Eliminates draughts. • Concealed beneath floor – no units in area served. • Can provide heating without connection to existing heating system. • Low grade heat requirements – easy to integrate with alternative energy sources	• Combines the benefits of individual local control in the highly varying occupancy of the smaller, cellular spaces together with the simplicity and limited capital cost of overhead distribution scheme for the large open plan areas.
• Ceiling or floor mounted units require space in occupied zone. • Requires dedicated outdoor air unit to provide ventilation. • Refrigerant lines running in occupied space.	• Requires definitive coordination with slab pour and can affect schedule if not coordinated properly. • Additional controls required to avoid condensation on floor. • Reduced heating/cooling capacity when compared with other systems.	• Separate, dedicated outdoor air unit, fresh air ductwork and refrigerant lines still required to the cellular spaces conditioned by the water-cooled VRV units
• Electrical supply for winter heating & summer cooling can lead to higher running costs. • Good acoustics when compared with overhead, no compressor in space if heat exchanger is located in plantroom on roof. • Refrigerant volume and type must meet local code requirements.	• Using water as the heating/cooling medium in lieu of air significantly reduces running costs. • Excellent acoustics – no moving/running parts in the occupied space. • Provides excellent comfort conditions over forced air systems.	• Balanced compromise solution on energy usage and acoustics when utilized in conjunction with a radiant floor heating system
• Less common system – possibly leading to higher costs over more familiar systems. • Local filters at units require changing in occupied space. • Reduces ductwork over VAV system (ductwork still required for ventilation.	• Dedicated outdoor air system (for ventilation) in addition to radiant floor may increase overall capital costs. • Minimal maintenance required when compared to all air systems. • Reduces ductwork over VAV system (ductwork still required for ventilation.	• Balanced compromise solution on capital cost • Radiant floor heating would be a value added capital cost addition
• Reduced flexibility over other systems. Any revision to floor/wall layouts requires re-routing of ductwork (from unit to space served) and diffusers and refrigerant lines.	• Excellent flexibility over other systems. No indoor units (other than fresh air ducts/diffusers) means ultimate furniture/ wall flexibility in open plan spaces.	• Balanced compromise solution on overall flexibilty
• Would work well with existing conditions. Ventilation ductwork & refrigerant line routes could take same path as current ductwork routes. Coordination & location of indoor units and diffusers etc. would be required with architect. • Could be used for all spaces in the project.	• Would require extensive work with existing flooring & structure which may lead to higher costs and possible schedule impact. • Could be used for all spaces in the project.	• Would work well with existing conditions.
• System is slightly more maintenance intensive and slightly less flexible than other solutions when employed throughout. Could be improved upon operationally by exploring more hybrid systems solution.	• System is not ideally suited to multiple spaces with highly varying occupancy, rapid control response and potential demand for simultaneous heating and cooling across the floor plate.	• System combination provides balanced compromise of approaches for cost and operational flexibility and is recommended as an option to explore further in future design phases. • Thermal upgrade to building envelope/ curtain wall with additional external shading is also recommended

RSE
RSE ASSOCIATES, INC.

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November 19, 2012

Jonathan Evans
Utile, Inc.
50 Summer Street
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Re: Dudley Branch Library Study

Dear Jonathan,

In accordance with your request, RSE Associates, Inc performed a site visit to the project site in Boston, MA to review the existing conditions and determine the structural impact of the proposed renovations. Our recommendations are based on a general visual survey of the building and original structural drawings from 1973.

Existing Conditions

The existing building is a cast-in-place concrete structure. The reading room is a large open space with a tall single story. The remainder of the building varies from one to three stories tall with several roof heights. Foundations are spread footings and there is no basement. The lowest level is a conventional slab on grade while the upper floors are two-way concrete slabs, 8" thick. The lowest roof over the community room steps at each of 4 concrete beams. These beams provide clear spans up to approximately 30'-0" in length. Six inch deep, one-way concrete slabs span from beam to beam. The remainder of the roofs are 8" thick, 2 way concrete slabs. There are no drop panels or column capitals. The lateral system, while not clearly defined, appears to be concrete walls and frames.

Where visible, existing concrete appears to be in good condition with some local water damage observed at the underside of the exposed roof slabs. It appears that some minor repairs have been made previously. Some additional cracks may require repairs and patching. The worst conditions were observed at the roof drain penetrations over the machine room, level 3. In these locations, repairs may include wire brushing rebar and patching. Failures in the roofing that allow water penetration in these areas should be resolved.

Only the beams were visible at the roof over the community room but the ceiling finish was water damaged indicating that water has infiltrated this area. The finish was intact so we were unable to observe the condition of the slab.

There is a rooftop cooling tower on an elevated dunnage at the roof adjacent to level 3. The unit appears newer, but the dunnage is badly corroded. The steel has rusted significantly in several locations and has delaminated. These beams should be repaired or replaced. At the posts, it may only be necessary to wire brush and paint to prevent further corrosion.

We recommend a contingency be carried for possible repairs to the concrete slabs in areas where there was leaking. Once finishes have been removed, an assessment can be made of the condition of the concrete slab.

RSE

Code Evaluation

Alterations and additions to existing buildings are governed by the requirements of the International Existing Building Code, 2009 (IEBC) with Massachusetts amendments found in Chapter 34 of the Massachusetts State Building Code, 8th edition.

Since proposed scope of work has not been defined, we have been directed to consider varying degrees of renovation. It should be noted that the code requirements depend on the extent of proposed renovations.

The IEBC allows for evaluation of existing structures using one of three methods: (1) the Prescriptive Compliance Method, (2) the Work Area Compliance Method, and (3) the Performance Compliance Method.

The Prescriptive Compliance Method would be recommended if changes are minimal and a new roof is installed. If loading on existing elements increases beyond a nominal threshold, alterations are required to meet the criteria of the International Building Code (IBC), 2009 with Massachusetts amendments. This is the code that governs new construction and can be a high threshold for existing structures to meet.

The Work Area Method requires different degrees of upgrades depending on the extent of the proposed changes. Where upgrades are required to the existing structure, they can be designed for reduced loads. We would recommend that this approach be taken for this project.

The third method, the Performance Compliance Method, does not appear to have seen wide use. This method can be more uncertain as it allows for much more discretion on the part of the building inspector. It also appears to be more stringent with regards to non-structural elements.

Regardless of which method is used, there may be additional requirements for the non-load bearing, masonry walls. If the work area exceeds 50% of the aggregate area of the building, the requirements of Appendix A1of the IEBC must be met. This requires that masonry walls be tied into floors and roofs. Such anchorage may already be in place, but would need to be verified in the field.

Work Area Method – Levels of Work

The Work Area Method defines three levels of work, each with progressively more requirements. Since different potential scopes of work are to be proposed to the client, the code defined levels of work should be taken in to consideration.

The levels are defined in chapter 4 of the IEBC and are:

> "Level 1 alterations include the removal and replacement or the covering of existing materials, elements, equipment, or fixtures using new materials, elements, equipment, or fixtures that serve the same purpose." The requirements for this level of work are found in chapter 6 of the IEBC and the structural scope is confined to wall anchorage of masonry walls to the roof where the roof is to be replaced. There are non-structural requirements as well.
>
> "Level 2 alterations include the reconfiguration of space, the addition of elimination of any door or window, the reconfigurations or extension of any system, or the installation of any additional equipment." The requirements for this level of work are found in chapters 6 and 7 of the IEBC. In addition to the anchorage requirements of Level 1, changes that effect structure may trigger seismic analysis and upgrade of the whole building. This requirement is only triggered if the existing lateral

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elements are substantially affected by the renovation. Gravity elements may also need to be evaluated and reinforced if they are affected. The code does permit the use of reduced forces in lieu of the full code values.

"Level 3 alterations apply where the work area exceeds 50 percent of the aggregate area of the building." The requirements for this level of work are found in chapters 6 through 8. The requirements are cumulative so they include those in Level 1 and 2. Structural requirements of Level 3 are similar to those of Level 2, but work required by other disciplines may vary.

Code Impact of Specific Changes Under Consideration

1. New entrance sign, upgrades to mechanical equipment and lighting: It is understood that the changes in mechanical equipment will not increase the gravity load on any element by more than 5% over what is currently in place, and new mechanical openings are expected to be minimal due to the number of shafts that may be reused. Given the proposed changes, we do not anticipate any additional structural requirements.

2. Reconfiguring more than 50% of the aggregate gross area of the building: This extent of scope will trigger the requirements of Appendix A1 including anchorage of masonry to floors and roofs. If no structural elements are affected, the non-structural requirements of Level 3 must be met.

3. Addition of an elevator without creating new openings in the existing structure: so long as the elevator shaft does not increase the demand on any gravity element by more than 5% or any lateral element by more than 10%, no structural upgrades will be required. We recommend that any such addition be structured so as to provide additional gravity and lateral capacity and avoid triggering an upgrade.

4. Addition of an elevator requiring significant new openings at the existing second floor slab will require an analysis of the impact on the capacity of the floor diaphragm to distribute lateral forces. Depending on the location of the elevator, existing beams may need to be removed requiring additional reinforcement.

5. Additional floor area at the second floor: see item 2 above.

Please do not hesitate to contact us with any questions or comments.

Yours truly,

Jennifer A. S. McClain, PE
Principal

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Acentech

November 13, 2012

Michael Leblanc, AIA
Utile, Inc.
50 Summer Street
Boston, MA 02110

Subject: Existing Conditions Survey and Goals - Acoustics
Dudley Square Library Renovation
Boston, MA
Acentech Project No. 622533

Dear Michael:

This letter is a summary of the existing conditions observed during the recent walk through of the Dudley Square Library. We also discuss the appropriate acoustical goals for the various spaces within the library.

BACKGROUND

The Library opened in April 1978. The building includes the following occupy able spaces:

- a 11,000 sf library area with a 28 ft ceiling that includes stacks and reading areas;
- AV area off of the library space;
- A community room, used for larger community meetings and band practices;
- A conference room, used for smaller meetings;
- Offices for various administration;
- Classrooms for various uses including computer and language instruction; and
- Circulation spaces.

We visited a majority of these spaces during the walk through to experience the existing acoustical conditions, which are described below. We also heard feedback from a staff member in the Literacy Center that provided their feedback about the acoustics, which are also noted below.

ACOUSTICAL GOALS AND CRITERIA

There are three categories of the acoustical conditions that should be considered during the future design of the space. These acoustical factors include:

- the sound isolation from adjacent spaces and mechanical equipment rooms (quantified by STC ratings);

- background sound levels from mechanical systems and exterior noise (quantified by Noise Criterion, or NC, levels);
- room acoustics, to avoid echoes, excess reverberation and control the buildup of activity noise (quantified by reverberation times).

For the various spaces within the Library, there will be somewhat different quantitative goals to achieve for the appropriate acoustical environments. These goals are listed in the following table:

Space	*STC*	*NC*	*RT (secs)*	*Comments*
Library	45*	NC-35 to NC-40	1.2 to 1.5	The space should not be too quiet or too reverberant.
AV Space	45	NC-30 to NC-35	0.5 to 0.6	These goals assume that the occupants use headphones with limited amplified playback.
Community Space	60	NC-30 to NC-35	0.8 to 1.0	The primary goal is to control the buildup of noise for when there are music practices, while providing a quiet space for community meetings.
Conference Room	50	NC-30 to NC-35	0.6 to 0.7	Privacy is important for this space; low reverberation will be important in case this room might be used for audio recording or teleconferencing activities.
Offices	45	NC-30 to NC-35	0.5 to 0.6	Privacy from adjacent spaces, moderate sound levels, and moderate reverberation and noise control.
Classrooms	50	NC-25 to NC-30	0.6 to 0.7	Isolation from adjacent spaces, quiet sound levels for good listening conditions, and good reverberation control.
Circulation spaces	-	NC-40 to NC-45	0.6 to 0.7	Moderate sound levels from the mechanical systems and moderate control of reverberation and noise.
Mechanical equipment rooms	55	-	-	High levels of sound isolation for the airborne sound from the equipment; vibration isolation of the equipment is equally important.

* The sound isolation rating (STC) will depend on the loudness of the adjacent space. The ratings included will suffice for adjacent spaces without significant noise; it is useful to choose the higher rating for two spaces that are adjacent to each other with different STC ratings.

EXISTING ACOUSTICAL CONDITIONS

The following acoustical conditions were noted during the walk through of the Library spaces.

Library Space

This space includes a concealed spline mineral fiber acoustical ceiling tile, glass block and gypsum board walls, and carpeted floor. There is one corner where a children's area is located, opposite from the circulation desk.

Sound Isolation
The space did not appear to have any sound isolation issues to the adjacent spaces.

Background Sound Levels
The sound level was sufficiently quiet for the library uses within this space.

Room Acoustics
Acoustically, the reverberation of the space is reasonably controlled by the acoustical ceiling tile and carpeting for general library activities. When the children's area is active, this corner of the library can be rather loud.

Future Design Improvements
It would be useful to create the children's area so that it has a greater amount of sound absorption and possibly surrounded by acoustical barriers to minimize the sound of their activity from the rest of the library. Otherwise, the design should have similar acoustical conditions to the existing space.

AV Space

This space includes a gypsum board ceiling, gypsum board walls, and carpeted floor.

Sound Isolation
The space did not appear to have any sound isolation issues to the adjacent spaces.

Background Sound Levels
The sound level was sufficiently quiet for the audiovisual uses within this space.

Room Acoustics
The acoustical liveliness of the space is somewhat higher than other spaces due to the gypsum board ceiling, but is acceptable provided that people use headphones when using the media devices.

Future Design Improvements
One possible improvement could be to include a sound absorbing ceiling to control the buildup of noise within this space.

Community Space

This space includes a Tectum ceiling panels, Tectum and gypsum board walls, and vinyl tile floor. This space is used for community meetings, group events, band practices and films.

Sound Isolation
We did not observe any sound isolation issues when we visited, but there was no band practice occurring; it is not entirely clear how significant the sound isolation uses would be when these practices occur. Judging from the constructions, the sound isolation should be sufficient for typical community meetings and events within this room.

Background Sound Levels
The sound level was sufficiently quiet for the meeting and music practice activities conducted within this space.

Room Acoustics
The reverberation time of the space is relatively well controlled by the extensive coverage of Tectum panels on the ceiling and wall surfaces.

Future Design Improvements
Most likely, improvements to the sound isolation could be achieved by incorporating vestibules with gasketed doors for the entrances. Room acoustics can be updated by replacing the Tectum, if desired, though a comparable amount of sound absorption is necessary to control the loudness for music practices. Adding sound diffusing surfaces would be helpful for the acoustics during music practices and meetings.

Conference Room

This space includes concealed spline mineral fiber ceiling panels on the lower ceiling and exposed concrete on the upper ceiling, gypsum board walls, and carpeted floor.

Sound Isolation
We did not observe any sound isolation issues when we visited. Judging from the constructions, the sound isolation should be sufficient for typical meetings in this room.

Background Sound Levels
The sound level was sufficiently quiet for the meeting activities conducted within this space.

Room Acoustics
The reverberation time of the space is unbalanced, with reasonably good control under the low ceiling, but are longer under the area of the higher ceiling.

Future Design Improvements
Privacy of this room can be improved by using a gasketed door for the entrance. Room acoustics can be improved by placing a sound absorbing finish on the upper ceiling.

Offices

These spaces include a combination of exposed concrete and mineral fiber ceiling panels, gypsum board walls, and carpeted floors.

Sound Isolation
We did not hear of any sound isolation issues when we visited. Judging from the constructions, the sound isolation should be sufficient for typical office activities.

Background Sound Levels
The sound levels are sufficiently quiet for these spaces.

Room Acoustics
The reverberation time of these spaces are reasonably good where the acoustical ceiling tiles are used, but are noticeably longer under the concrete ceilings.

Future Design Improvements
If greater sound privacy is sought for these rooms, a gasketed door should be used for these rooms. These rooms should include sound absorbing ceiling finishes.

Classrooms

These spaces include a combination of exposed concrete and mineral fiber ceiling panels, gypsum board walls, and vinyl tile floors.

Sound Isolation
Penthouse mechanical equipment was audible in this room; this appeared to be due to the lack of vibration isolation of the mechanical equipment. Otherwise, the existing constructions are sufficient for the sound isolation of the typical classroom activities.

Background Sound Levels
As mentioned above, the mechanical system sound levels are intrusive to these spaces. Some of this noise is due to the vibration transmission; other mechanical system noise was due to airflow through the ductwork and diffusers. The staff also noted that the lighting ballasts produce significant noise, which is an issue in the Literacy Center. These should be reduced to achieve the desired goals.

Room Acoustics
The reverberation time of these spaces are reasonably good where the acoustical ceiling tiles are used, but are noticeably longer, and excessive, where the exposed concrete ceilings are located.

Future Design Improvements
If greater sound privacy is sought for these rooms, gasketed doors should be used for these rooms. These rooms should include sound absorbing ceiling finishes. Noise and vibration control from the mechanical systems is necessary.

Circulation Spaces

These spaces consist of exposed concrete or gypsum board ceilings, gypsum board and glass block walls, and vinyl tile floors.

Sound Isolation
In the Literacy Center, there is an issue of insufficient isolation from the penthouse mechanical equipment. In the other circulation spaces, sound isolation did not appear to be an issue.

Background Sound Levels
In the Literacy Center, there is excess mechanical system noise from the penthouse mechanical room. As in the classrooms, the staff noted that the lighting ballasts produce significant noise, which is an issue in the Literacy Center. In other spaces, the sound levels are sufficiently quiet for these spaces.

Room Acoustics
The reverberation time of these spaces are relatively long and lead to the potential for an excess buildup of noise when people are actively conversing in these areas.

Future Design Improvements

Noise and vibration isolation from the penthouse mechanical equipment is critical to minimize the transmission of this noise to these spaces. Adding sound absorption within these spaces would be helpful to control the buildup of noise when these spaces are active.

Mechanical Equipment Rooms

These spaces include a combination of exposed concrete and mineral fiber ceiling panels, gypsum board walls, and carpeted floors.

Sound and Vibration Isolation

The equipment within the penthouse mechanical room is mounted directly on the concrete slab, which is the ceiling of the spaces below in the Literacy Center. As a result, there is significant transmission of the mechanical system noise and vibration to below.

Background Sound Levels

The sound levels within this space are not a critical concern, provided the building engineer is not to have an office in this space in the future.

Room Acoustics

The reverberation time within this space is not critical, unless the space is to be occupied.

Future Design Improvements

Of critical importance will be to isolate the future mechanical systems from the concrete slab of the penthouse. This will help to minimize transmission of noise to the spaces below. Noise control may also be necessary in the ductwork to control the transmission via these paths that serve the occupied spaces.

* * * * *

We trust this report provides the information that you need at this time. Please call me at 617-499-8058 if you have any questions about this information.

Sincerely yours,

ACENTECH INCORPORATED

Jeffrey L. Fullerton, INCE Bd. Cert., LEED AP$_{BD+C}$
Supervisory Consultant in Acoustics

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HUGHES ASSOCIATES, INC.
FIRE PROTECTION ENGINEERS
CODE CONSULTANTS

DUDLEY SQUARE LIBRARY
65 WARREN STREET – ROXBURY, MA
CHAPTER 34 REPORT

Prepared for:

Utile, Inc.
50 Summer Street
Boston, MA 02110

Prepared by:

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5 Mount Royal Avenue, Suite 240
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HAI No. 1RMC00100.000
Utile No. 1219

November 16, 2012

EXECUTIVE SUMMARY

This report serves as the Chapter 34 Report for the project. This report describes the code compliance considerations based on the work being considered.

The Dudley Square Library Project entails the alteration of the existing library at 65 Warrant Street in Roxbury, Massachusetts. The following efforts are anticipated:

- Accessibility improvements.
- Addition of an elevator.
- Related alterations/renovations associated with the accessibility and program improvements.
- New interior finishes in certain areas.
- Upgrades/maintenance to MEP systems as necessary.
- New exterior elements to facilitate accessible entrances
- No changes in use are proposed

As an existing building exceeding an aggregate area of 7,500 square feet, M.G.L. Ch. 148 §26G must be reviewed. Based on the Guidelines issued by the Automatic Sprinkler Appeals Board, sprinklers are required to be provided throughout the building.

As an existing building undergoing an alteration, 780 CMR Chapter 34 is applicable. Chapter 34 requires the project to comply with one of three permissible methods (780 CMR §101.5):

1. The Prescriptive Method
2. The Work Area Method, or
3. The Performance Method

Upon review of provisions, application of the Prescriptive Method is permitted. In general, all new work must comply with the new construction criteria to the fullest extent feasible. Where strict compliance cannot be achieved, compliance alternatives or variances must be pursued.

The cost of the work is expected to exceed 30% of the full and fair cash value. If that occurs, the building is required to be made fully compliant with 521 CMR. Full upgrades would include making all entrances accessible, the exterior site accessible routes, restrooms, stairways, ramps, etc. Variances may be sought, but variances may only be granted by the Architectural Access Board and based on technical infeasibility or where the cost is excessive without substantial benefit to the persons with disabilities.

Plumbing fixtures must be provided per Section 10:10 of 248 CMR 10, the Massachusetts Uniform State Plumbing Code (Section 10:10 (18) and 10:10 (18): Table 1). Until the reconfigure plan is known, the exact number of required fixtures cannot be determined.

The elevator is required to be fully compliant with 524 CMR and 521 CMR.

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EXECUTIVE SUMMARY

This report serves as the Chapter 34 Report for the project. This report describes the code compliance considerations based on the work being considered.

The Dudley Square Library Project entails the alteration of the existing library at 65 Warren Street in Roxbury, Massachusetts. The following efforts are anticipated:

- Accessibility improvements.
- Addition of an elevator.
- Related alterations/renovations associated with the accessibility and program improvements.
- New interior finishes in certain areas.
- Upgrades/maintenance to MEP systems as necessary.
- New exterior elements to facilitate accessible entrances
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3. The Performance Method

Upon review of provisions, application of the Prescriptive Method is permitted. In general, all new work must comply with the new construction criteria to the fullest extent feasible. Where strict compliance cannot be achieved, compliance alternatives or variances must be pursued.

The cost of the work is expected to exceed 30% of the full and fair cash value. If that occurs, the building is required to be made fully compliant with 521 CMR. Full upgrades would include making all entrances accessible, the exterior site accessible routes, restrooms, stairways, ramps, etc. Variances may be sought, but variances may only be granted by the Architectural Access Board and based on technical infeasibility or where the cost is excessive without substantial benefit to the persons with disabilities.

Plumbing fixtures must be provided per Section 10:10 of 248 CMR 10, the Massachusetts Uniform State Plumbing Code (Section 10:10 (18) and 10:10 (18): Table 1). Until the reconfigure plan is known, the exact number of required fixtures cannot be determined.

The elevator is required to be fully compliant with 524 CMR and 521 CMR.

INTRODUCTION

BACKGROUND

Utile, Inc. has retained Hughes Associates, Inc. (HAI) to provide fire protection, life safety, and accessibility code consulting services for the Dudley Square Library Project in Roxbury, Massachusetts.

This report serves as the Chapter 34 Report for the project. This report describes the code compliance considerations based on the work being considered.

The information in this report is based on the following information provided by Utile, Inc. and the project team:

- A brief site visit was performed on October 25, 2012 by Bob Carasitti (with project team members)
- Existing Floor Plan Drawings dated 10/11/2012
- Discussions and e-mail correspondence between Bob Carasitti and the project team members.

PROJECT DESCRIPTION

The Dudley Square Library Project (the Project) involves the renovation of the existing library building at 65 Warren Street in Roxbury, Massachusetts. The Building consists of two levels and a mechanical penthouse: First and Second Levels.

The project entails substantial renovations and alterations to provide improved life safety, accessibility and overall building performance. More specifically, the following efforts are anticipated:

- Accessibility improvements.
- Addition of an elevator.
- Related alterations/renovations associated with the accessibility and program improvements.
- New interior finishes in certain areas.
- Upgrades/maintenance to MEP systems as necessary.
- New exterior elements to facilitate accessible entrances.
- No changes in use are proposed.

APPLICABLE CODES

The following primary codes are applicable to this project:

- **Accessibility** - Massachusetts Architectural Access Board, 521-CMR and the Americans with Disabilities Act Guidelines (ADAAG).
- **Building** - Massachusetts State Building Code (780 CMR) 8th Edition. 780 CMR is an amended version of the 2009 International Building Code.
- **Electrical** - Massachusetts Electrical Code, 527 CMR §12.00. The Massachusetts Electrical Code is an amended version of the 2011 National Electrical Code (NFPA 70).
- **Elevators** - Massachusetts Elevator Regulations, 524 CMR. The Massachusetts Elevator Code is an amended version of the 2004 Edition of ASME A17.1, Safety Code for Elevators and Escalators.
- **Fire Prevention** - Massachusetts Fire Prevention Regulations, 527 CMR.
- **Mechanical** - International Mechanical Code, 2009, as adopted and amended by 780 CMR (IMC).
- **Plumbing** - Massachusetts Fuel Gas and Plumbing Codes, 248 CMR

ASSUMPTIONS AND CONSIDERATIONS

The code review and this report have been prepared based on the following specific assumptions and considerations.

1. If any hazardous materials are to be located within the Building now or in the future, the amount of such materials will be limited to the exempt amounts permitted by 780 CMR §307.1. An inventory of the products should be established and confirmed to be in compliance particularly for the science laboratories.
2. The Building is not equipped with an automatic sprinkler protection.
3. The Building will be equipped with a new fire alarm system.
4. The building is presumed compliant with the codes applicable at the time of original construction/last substantial renovation and has a valid certificate of occupancy and/or is otherwise considered legally existing.

EXISTING CONDITIONS SUMMARY

Building Height Two stories above grade (First and Second Levels).
Approximately 33'8" above grade plane.
Approximately 10'8" from lowest level of Fire Department Access to highest occupied floor

Building Area Approx. 25,400 sf per 780 CMR (26,000 sf per MGL ch.148 §26G)
1 – 20,000 sf
2 – 5,400 sf

Building Uses Assembly (Group A-3 Use)

Construction Type IB, protected noncombustible construction

Sprinklers Sprinklers are not provided throughout the building: a partial, noncompliant system is installed in areas of the second level.

Fire Alarm A fire alarm is provided throughout (no voice alarm)

Egress The second level is served by two exits: 1) an exterior door directly to the exterior and 2) an enclosed stairway. The first level is served by five exits: 1) main entrance, 2) rear exit, 3) library direct door A, 4) library direct door B and 5) community room door.

Historic The Building is not listed on a historic register or within a historic district.

Accessibility Entrances: Currently there are no fully compliant accessible entrances to the Building: however there are usable entrances from the exterior to each of the two levels.

Accessible Route: There are accessible routes within each floor, but there is no internal vertical accessible route between levels.

Public Restrooms: There are currently no fully compliant accessible restrooms provided.

Public Drinking Fountains: Accessible public drinking fountains are not currently provided.

Public Telephones: No accessible public telephones are provided.

Project Costs Project costs are estimated at: Unknown as of the date of this report but is expected to be in excess of 33% of the building value (not including 36 month look back for 521 CMR).

M.G.L. CHAPTER 148 SECTION 26G REVIEW

Since the aggregate building area is greater than 7,500 sf and sprinklers are not currently provided throughout, review of the application of Massachusetts General Law Chapter 148 Section 26G (M.G.L. Ch148 §26G) is necessary. This law requires sprinklers in certain a) new buildings and b) existing buildings undergoing "major alterations" or addition.

The guidelines issued by the Automatic Sprinkler Appeals Board (the appeal authority for matters of M.G.L. Ch148 §26G) are used by the Board in its determinations and its recommended practice for fire officials (see Appendix A).

Item 8 of the guidelines addresses the application under "major alterations" and provides a two part test to determine if a project is to be considered "major alterations". In order for M.G.L. Ch148 §26G to be applicable under "major alterations" both Part A and Part B must be satisfied.

A. Part A considers the "nature of work" involved. In general, the consideration revolves around physical opportunity… does the proposed work provide the opportunity to install sprinkler by exposing ceilings, relocating walls, opening floors and similar efforts?

Considering the guideline criteria, the project work proposed provides opportunity to install sprinklers in the work areas. Based on our understanding of the Board's precedence, Part A will be considered satisfied: final determination is left to the Head of the Fire Department.

B. Part B considers the scope of the work and the cost/benefit of the work separately. One or the other of these subtests must be satisfied. If neither of the Part B subtests is satisfied, then MGL ch148 s26G is not applicable as a "major alterations" and sprinklers are not required throughout the building.

    1. The "scope of work" review considers the project area relative to the total building area. If the project area entails 33% or more of the total gross building area, then the scope is considered major and Part B is satisfied.

    2. The "cost/benefit" review considers the project's cost relative to the assessed value of the building. If the project cost (excluding the cost of the sprinklers) is equal to or greater than 33% of the assessed building value, then the "cost/benefit" is considered major and Part B is satisfied.

Considering the project area exceeds 33% of the building and the expected costs will exceed 33% of the building value, both Part B subtests will be satisfied. Since both Parts A and B will be satisfied, M.G.L. Ch148 §26G considers the effort a "major alteration" and requires sprinklers to be installed throughout the building.

780 CMR REVIEW

As an existing building undergoing an alteration, 780 CMR Chapter 34 is applicable. 780 CMR Chapter 34 is an amended version of the 2009 International Existing Building Code (IEBC). Chapter 34 requires the project to comply with one of three permissible methods (780 CMR §101.5):

4. The Prescriptive Method
5. The Work Area Method, or
6. The Performance Method

Upon review of provisions, application of the Prescriptive Method is appropriate and provides for the most straightforward code application. In turn, it should also prove cost effective.

INTERNATIONAL FIRE CODE

Section 101.5.1 the Prescriptive Method requires compliance with the International Fire Code (IFC) Chapter 46 as a baseline criterion. IFC Chapter 46, Section 4603.1 requires the present Group A use to be compliant as identified in Table 4603.1 and further enumerated in Sections 4603.2 through 4603.7.3. In addition, all buildings means of egress must comply with Section 4604. In general the building either complies or will be made compliant with all the criteria required by Chapter 46 of the IFC (by project work or as is otherwise required by 780 CMR). Therefore, application of Chapter 3 of the IEBC is permitted.

780 CMR 34 – CHAPTER 3, PRESCRIPTIVE METHOD

SECTION 301 GENERAL

Chapter 3 contains ten sections addressing various aspects of the Prescriptive Method. Several are not applicable to the proposed project based on scoping. The following Table summarizes the Sections and their potential applicability based on the scenarios identified:

Section	Scope	Applicability
301	General	Yes
302	Additions	Not Applicable
303	Alterations	Yes
304	Repairs	Not Applicable
305	Fire Escapes	Not Applicable
306	Glass Replacement	Maybe?
307	Change of Occupancy	Not Applicable
308	Historic Buildings	Not Applicable
309	Moved Structures	Not Applicable
310	Accessibility	Yes - 521 CMR

Table 1 - Prescriptive Method Applicable Sections Summary

Section 301.2: Building Materials

Chapter 3 has general provisions relative to building materials which may be applicable depending on the proposed assemblies selected. In general, new materials should comply with new construction criteria, but materials similar to the existing materials may also be used provided life safety is not compromised as determined by the Building Official. Likewise, existing materials are presumed complaint with the code in effect at the time of original construction and may remain unchanged provided the Building Official does not determine them to be "dangerous to life, health or safety".

301.2.1 Existing materials. Materials already in use in a building in conformance with requirements or approvals in effect at the time of their erection or installation shall be permitted to remain in use unless determined by the code official to be dangerous to life, health or safety. Where such conditions are determined to be dangerous to life, health or safety, they shall be mitigated or made safe.

301.2.2 New and replacement materials. Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted for repairs and alterations, provided no hazard to life, health or property is created. Hazardous materials shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

SECTION 303 ALTERATIONS

Section 303.1: General

In general, all new work must comply with the requirements for new construction.

303.1 General. Except as provided by Section 301.2 or this section, alterations to any building or structure shall comply with the requirements of the code for new construction. Alterations shall be such that the existing building or structure is no less conforming with the provisions of this code than the existing building or structure was prior to the alteration.

Exceptions:

1. *An existing stairway shall not be required to comply with the requirements of Section 1009 of the International Building Code where the existing space and construction does not allow a reduction in pitch or slope.*

2. *Handrails otherwise required to comply with Section 1009.12 of the International Building Code shall not be required to comply with the requirements of Section 1012.6 of the International Building Code regarding full extension of the handrails where such extensions would be hazardous due to plan configuration.*

Section 303.2: Flood Hazard Areas

Compliance with Appendix G of 780 CMR is required for all buildings within a Flood Hazard Area. The project team should confirm whether the building is located in a Flood Hazard Area.

Sections 303.3 through 303.5: Structural Provisions

A structural engineer must be consulted to confirm compliance with structural provisions of Sections 303.3 through 303.5.

Section 303.6: Means of Egress

Compliance with 780 CMR §102.2.2.1 is required for all existing buildings. It is our opinion that compliance with Section 102.2.2.1 is/will be achieved.

> ***102.2.2.1 Existing Non Conforming Means of Egress****. The following conditions shall be corrected in all existing buildings:*
>
> 1. *Less than the number of means of egress serving every space and/or story, required by Chapter 10 of the International Building Code 2009 with Massachusetts Amendments (780 CMR 10.00);*
> 2. *Any required means of egress component which is not of sufficient width to provide adequate exit capacity in accordance with section 1005.1 of the International Building Code 2009 with Massachusetts Amendments (780 CMR 1005.1);*
> 3. *Any means of egress which is not so arranged as to provide safe and adequate means of egress, including exit signage and emergency lighting in accordance with Chapter 10 of the International Building Code 2009 with Massachusetts Amendments (780 CMR 10.00); or*
> 4. *Where the occupant load of an existing Group A-2 Nightclub use is 50 or greater…* ***Item 4 is not applicable as there is no A-2 use present****.*
>
> *If not corrected, the building official shall cite each deficiency in writing as a violation. Said citation shall order the abatement of the non conformance and shall include such a time element as the building official deems necessary for the protection of the occupants thereof, or as otherwise provided for by statute.*

Number of Exits

Based on Table 1021.1, two exits are required from every floor at a minimum.

Floor	O.L.	# Exits	Exits						
			#1	#2	#3	#4	#5	#6	#7
2	<200	2	Vestibule 201	Stair 1	-	-	-		-
1	<1,000	5			Vestibule 124	Community Room Door	Rear Door	Library Door A	Library Door B

Table 2 - Number of Exits

Capacity of Exits

The available capacity provided is compliant. The exit capacity from each floor is as follows:

Floor	Capacity	Calculated O.L.	Program O.L.
2	440	<200	?
1	1,100+	Approx. 690	

Table 3 - Exit Capacity

Emergency Lighting and Signage

Egress illumination will be provided as required by 780 CMR §1006.1 and satisfy the following criteria:

- Illumination Lighting Level – Not less than 1 foot-candle at the walking surfaces.
- Emergency Power – Normal power for egress illumination is to be provided by the electrical supply. Emergency power is required per 780 CMR 1006.3. Emergency power must be sufficient for not less than 90 minutes.

Likewise, exit signage will be provided as required by 780 CMR §1011.1. Exit signage must be internally or externally illuminated and provided with a 90 minute back up power source. Exit illumination and signage will be compliant for the Building.

SECTION 306 GLASS REPLACEMENT

Section 306.1: Glass Replacement

Although glass replacement is not identified as part of the project, it is noted that new glass assemblies must comply with new construction criteria.

> *306.1 Conformance. The installation or replacement of glass shall be as required for new installations.*

SECTION 310 ACCESSIBILITY

Section 310: Accessibility

The building is considered a place of public accommodation with Public Uses (as defined by 521 CMR and ADAAG) and is therefore required to comply with applicable provisions of 521 CMR or ADAAG (See Page 11 of this report).

780 CMR – NEW CONSTRUCTION CRITERIA

All new work must comply with new construction criteria. Where compliance with new construction criteria is technically infeasible, compliance alternatives/variances may be sought.

INTERIOR FINISHES

Chapter 8 of 780 CMR regulates interior finish and trim of buildings. Interior finish includes all wall, ceiling and floor finishes, wainscoting and paneling or other finish applied structurally or for acoustical treatment, insulation, decoration or similar purposes (780 CMR §801.1). All materials used for wall and ceiling interior finish and trim must be classified in accordance with ASTM E84, by their flame-spread rating as follows:

Interior Finish Classifications		
Classification	**Flame Spread**	**Smoke Development**
Class A	0 – 25	0 – 450
Class B	26 – 75	0 – 450
Class C	76 – 200	0 – 450

Table 4 - Interior Finish Classifications

Interior finish materials that have a flame-spread rating in excess of 200 or a smoke-developed rating in excess of 450 are not permitted. The interior finishes provided within the project should have flame-spread classifications that do not exceed the following classifications in the locations identified (780 CMR Table 803.9):

Interior Finish Requirements (780 CMR Table 803.9)			
Use Group	**Required Vertical Exits/Passageways**	**Exit Access**	**Rooms**
A-3, Assembly	**A**	**B**	**C**
B, Business	**A**	**B**	**C**

Table 5 - Interior Finish Requirements

MEANS OF EGRESS

The following new construction criteria are also applicable to the altered areas.

Accessible Means of Egress

At least one (1) accessible means of egress is provided from an accessible room or space. Where more than one (1) means of egress or exit is required from a floor, room or space at least two (2) accessible means of egress are provided. Accessible means of egress must provide a continuous path of travel to a public way (780 CMR §1007.1).

Open exit access stairways permitted by 780 CMR §1016.1 are permitted to be considered a part of an accessible means of egress (780 CMR §1007.3, exception 1).

Areas of rescue assistance/areas of refuge are not required in the existing building (780 CMR §1007.3 Exception 3 and 521 CMR §20.12 Exception b).

Travel Distance

Exits are located such that the maximum length of exit access travel, measured from the most remote point to an approved exit along the natural and unobstructed line of travel does not exceed 250-feet (780 CMR §1016.1). The common path of travel to a point where access to two (2) independent exits are provided does not exceed 75-feet (780 CMR §1014.3, §1015.1).

Exit Access Arrangement
When two exits are required from a room or space, the exits must be separated by minimally one-third the maximum diagonal of the space served (780 CMR §1014.2.1).

Egress doors serving an occupant load greater than 50 persons are required to swing in the direction of egress travel (780 CMR §1008.1.2).

Emergency Lighting
The means of egress is equipped with artificial lighting facilities to provide the required intensity of illumination continuously during the time that condition of occupancy of the building requires that the exits be available. Lighting is also provided to illuminate the exit discharge (780 CMR §1006.1). The means of egress lighting in the building, rooms, or spaces required to have more than one (1) exit or exit access, is connected to an emergency electrical system that complies with 527 CMR §12.00, the Massachusetts Electrical Code (780 CMR §1006.1) to assure continued illumination for a duration of not less than 90 minutes in case of emergency or primary power loss (780 CMR §1006.3).

FIRE PROTECTION SYSTEMS

Sprinkler Systems
The building is required to be provided with automatic sprinkler protection under M.G.L. Ch. 148 §26G, and in accordance with 780 CMR §903.

Fire Extinguishers
Portable fire extinguishers are not required per 780 CMR. However, 527 CMR requires extinguishers to be provided at the discretion of the head of the fire department. All fire extinguishers to be provided are to be in accordance with NFPA 10, *Standard for the Installation of Portable Fire Extinguishers* (780 CMR §906.0).

Fire Detection and Alarm Systems
A new fire alarm system will be required and voice capability is recommended.

ELEVATORS

Elevator service will be provided to with the new elevator. As the elevator will be within the existing footprint, it must be ADA/521 CMR compliant but it is not required to accommodate a gurney Under 524 CMR. If the library wishes to voluntarily provide a medical emergency/gurney capable elevator (or an addition is created outside the existing footprint), the cab must be sized to accommodate a 24”x84” (with 5” radius corners) ambulance gurney in its horizontal position per 524 CMR §17.40. The elevator must be equipped with Phase I and II automatic recall and Fire Department control features (780 CMR §30.00 and 524 CMR).

Sprinklers are not permitted in the elevator machine rooms, in the elevator pits (except hydraulic), or at the top of elevator hoistways (780 CMR §903.2 Exception 2 and 524 CMR).

521 CMR REVIEW

The applicability of 521 CMR to existing buildings is based upon the cost of work in conjunction with the type of work being performed.

521 CMR APPLICABILITY

In general, if spaces and features are altered, replaced or added they must be made compliant to new construction criteria. The remainder of the building must be upgraded if certain dollar thresholds are reached. The extent of upgrades to the remainder of the building depends on the amount of money being spent (over a 36 month period) and in relation to the building's full and fair cash value. Thresholds are as follows:

- If the work being performed amounts to less than 30% of the full and fair cash value[1] of the building and if the work costs less than $100,000, then only the work being performed is required to comply with 521 CMR (521 CMR §3.3.1) (see exceptions below).

- If the work being performed amounts to less than 30% of the full and fair cash value of the building and if the work costs $100,000 or more, then the work being performed is required to comply with 521 CMR. In addition, an accessible public entrance and an accessible toilet room, telephone, drinking fountain (if toilets, telephones and drinking fountains are provided) are required to be provided in compliance with 521 CMR (521 CMR §3.3.1) (see exceptions below).

  Exceptions: Whether performed alone or in combination with each other, the following types of alterations are not subject to 521 CMR §3.3.1 unless the cost of the work exceeds $500,000 or unless the work is being performed on an entrance or toilet.

  - Curb Cuts: The construction of curb cuts must comply with 521 CMR §21.

  - Alteration work which is limited solely to electrical, mechanical, or plumbing systems; to abatement of hazardous materials; to retrofit of automatic sprinklers and does not involve the alteration of any elements or spaces required to be accessible under 521 CMR. Where electrical outlets and controls are altered, they must comply with 521 CMR.

  - Roof repair or replacement, window repair or replacement, repointing masonry repair work.

[1] The assessed valuation of a building (not including the land) as recorded in the Assessor's Office of the municipality at the time the building permit is issued as equalized at 100% valuation. The equalized 100% valuation must be based upon the Massachusetts Department of Revenue's determination of the particular city's or town's assessment ratio (521 CMR §5.38). If no assessed value exists, or the assessed value is more than three years old, a request to substitute the appraised value may be submitted to the Board.

- Work relating to septic system repairs (including Title V, 310 CMR §15.00 improvements), site utilities, and landscaping.

- If the work performed amounts to 30% or more of the full and fair cash value of the building, the entire building is required to comply with 521 CMR (521 CMR §3.3.2).

  - Where the cost of constructing an addition to a building amounts to 30% or more of the full and fair cash value of the existing building, both the addition and the existing building must be fully accessible (521 CMR §3.3.2.a).

- No alteration is permitted which decreases or has the effect of decreasing accessibility or usability of a building or facility below the requirements for new construction (521 CMR §3.3.4).

- If alterations of single elements, when considered together, amount to an alteration of a room or space in a building or facility, that space must be made accessible (521 CMR §3.3.5).

Based on the expected costs exceeding the 30% threshold, the entire Building is required to fully comply with 521 CMR unless variances are sought.

521 CMR CONSIDERATIONS

As a libraryBuilding, compliance with Chapter 12 of 521 CMR is required. Additional use chapters are applicable to specific uses within the school as well: such as assembly uses which must comply with Chapter 14.

Educational facilities must comply with 521 CMR, except as specified or modified in 521 CMR 11.00, 12.00 (libraries), and 14.00, .

Libraries

Libraries must comply with the following (See also Figure 12a).

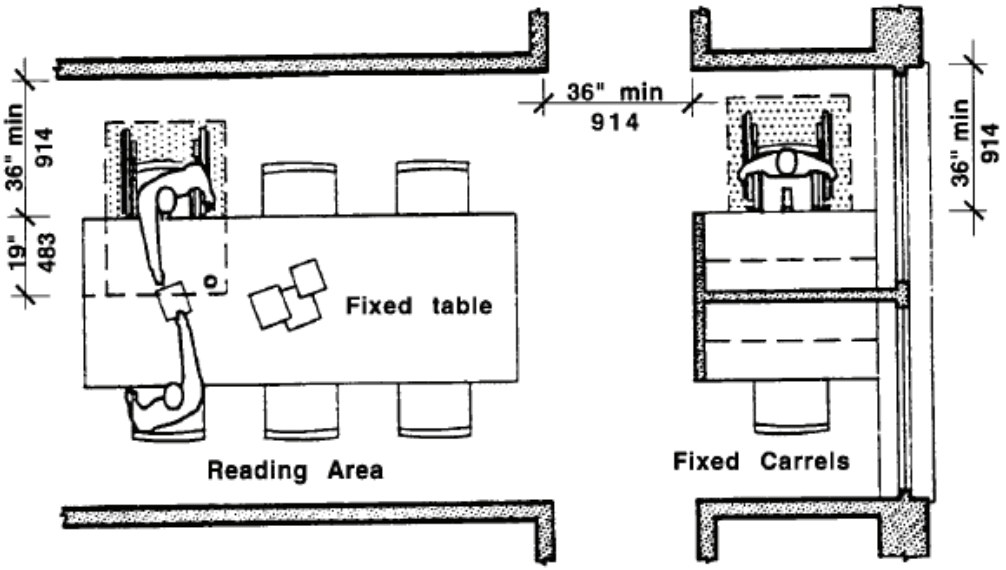
- Reading Areas, Study Areas and Computer Workstations: Where tables, study carrels, computer workstations, or fixed seating are provided, at least 5% with a minimum of one of each element must be accessible, be on an accessible route, and comply with the following:

  a) Access aisles: A 36 inch access aisle must be provided between tables and between study carrels. Seating cannot overlap the access aisle (See Fig. 12a).

  b) Clear floor space must be provided at each seating space. Such clear floor space cannot overlap knee space by more than 19 inches (See Fig. 12a).

c) Knee Clearances: If seating for disabled persons is provided at tables or counters, kneespace clearances at least 27 inches high, 30 inches wide, and 19 inches deep shall be provided (See Fig. 12a).

d) Height of Tables or Counters: The tops of accessible tables and counters shall be from 28 inches to 34 inches above the finished floor or ground.

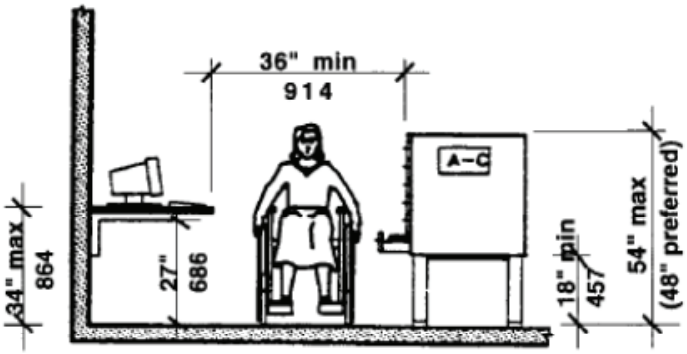


Seating in Libraries
Figure 12a

- Check-Out Areas (If provided): At least one lane at each check-out area shall have a counter a minimum of 36 inches in length and a maximum of 36 inches in height.

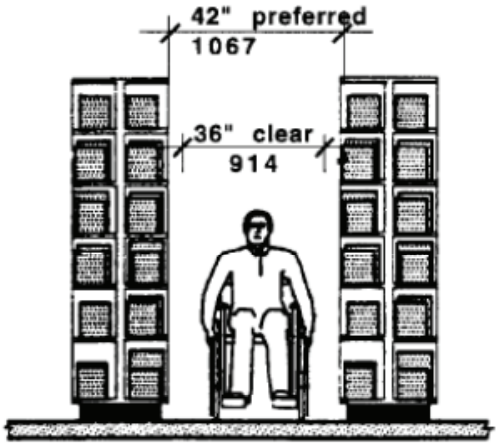
- Security Devices (If provided): Any traffic control or book security gates or turnstiles cannot prevent access or egress to people in wheelchairs. Security gates must have a 32 inch clear opening. If turnstiles are used, an adjacent accessible, unlocked door or gate must be provided. Any level changes created by such devices must comply with 521 CMR 20.00: Accessible Route and 521 CMR 29.00: Floor Surfaces.

- Card Catalogs (If provided): Clear aisle space at card catalogs must be a minimum of 36 inches and comply with Fig. 12b. Maximum reach height shall be between 18 inches and 54 inches, with a height of 48 inches preferred.



Catalogs (Card and Computer)
Figure 12b

- Stacks: Aisles between stacks must have a minimum clear width of 36 inches and preferably 42 inches, where possible, as shown in Fig. 12c. Shelf height in stack areas is unrestricted.



Stacks
Figure 12c

ACCESSIBLE ROUTES

Accessible routes within the site must be provided from public transportation stops, accessible parking and accessible passenger loading zones, and public streets or sidewalks to the accessible building entrance served. All public entrances are required to be accessible (521 CMR §25.1). It is required that at least one accessible route connect accessible buildings, accessible facilities, accessible elements, and accessible spaces that are on the same site.As previously noted in the accessible egress section of this report, areas of rescue assistance/areas of refuge are not required in the building (780 CMR §1007.3 Exception 3 and 521 CMR §20.12 Exception b.

PUBLIC TOILET ROOMS

All public toilet rooms must be accessible (521 CMR §30.1). Within the public restrooms, the clear spaces required for the accessible route, the turning space(s) and the fixture(s) is permitted to overlap (521 CMR §30.5). Where multiple single user toilet rooms are provided, all must be made accessible except where multiple single user toilet rooms are grouped together and accessed from a common door. Where multiple single user toilet rooms are accessed from a shared door, this arrangement functions as a public toilet room and only one single user toilet room is required to be accessible. This is consistent with the number of toilet stalls that would be required to be made accessible in a conventional public toilet room.

DOORS

All doorways and openings along accessible routes must comply with 521 §26.00, including: All doorways and openings required to be accessible have a clear opening of not less than 32 inches. A minimum clear floor area must be provided on both sides of all non-automatic doors and gates, in accordance with 521 CMR §26.6. The minimum space between two hinged or pivoted doors in series must be 48 inches, plus the width of any door swinging into the space. Doors in series must swing either in the same direction or away from the space between the doors.

STAIRWAYS

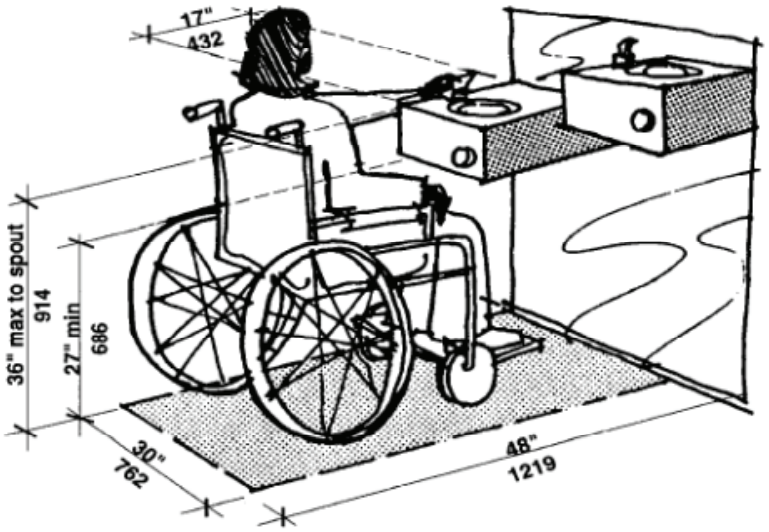
Stairways must have continuous handrails on both sides of all stairs (521 CMR §27.4.1). Where handrails terminate at the top and bottom of a stair run, they must have extensions that comply with 521 CMR §27.4.3. Ends of handrails are either rounded or returned smoothly to the floor, wall, or post. Extensions on handrails that are not attached to walls must be returned smoothly to the floor or a post. Extensions are not required where such extensions would cause a hazardous condition. When a handrail is mounted adjacent to a wall, the clear space between the handrail and the wall must be 1½ inches.

DRINKING FOUNTAINS

Drinking fountains include water coolers. Drinking fountains, when provided, must comply with the following requirements.

1. Where only one drinking fountain is provided on a floor it shall be accessible. A single drinking fountain can be installed by the use of a "high-low" fountain (See Fig. 36a).

2. Where more than one drinking fountain is provided on a floor, one in each location must be accessible and shall be on an accessible route.



Drinking Fountains
Figure 36a

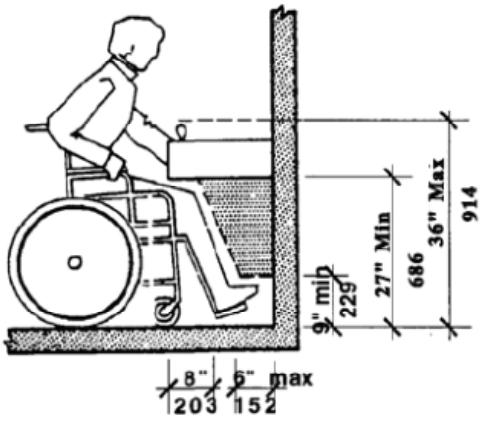
Clearances

Clearance must comply with the following:

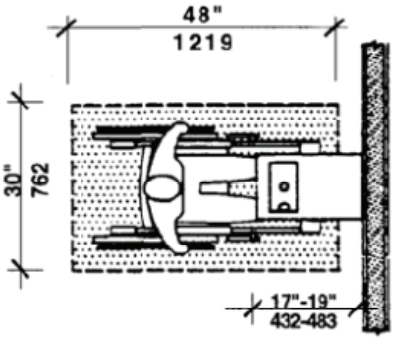
a) Wall and post-mounted cantilevered units allowing only a front approach must have a clear knee space between the bottom of the apron and the floor or ground.

   a. The knee space must be at least 27 inches (27" = 686mm) high, 30 inches (30" = 762mm) wide, and 17 inches to 19 inches (17" to 19" = 432mm to 483mm) deep. See Fig. 36b and 36c.

   b. These units must also have a minimum clear floor space to allow a person in a wheelchair to approach the unit facing forward (See Fig. 36b and 36c).

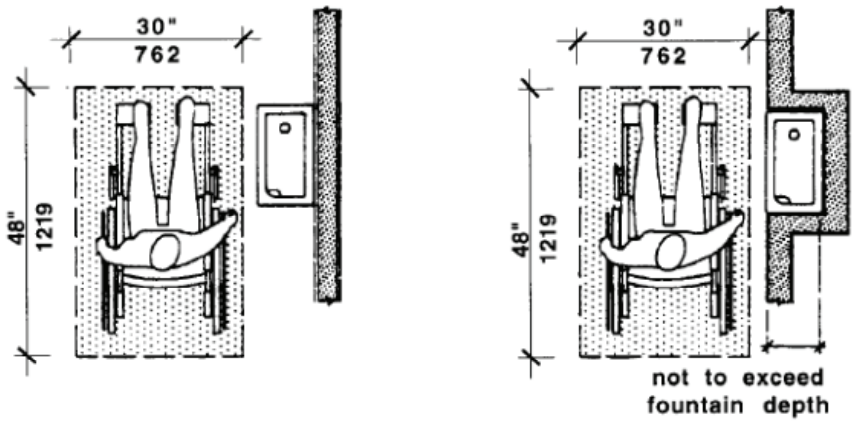


Front Approach (Elevation)
Figure 36b



Front Approach (Plan)
Figure 36c

b) Free-standing units not having a knee space under them must have a clear floor space that allows a person in a wheelchair to make a parallel approach to the unit (See Fig. 36d). This clear floor space must comply with 521 CMR 6.6, Side Reach.

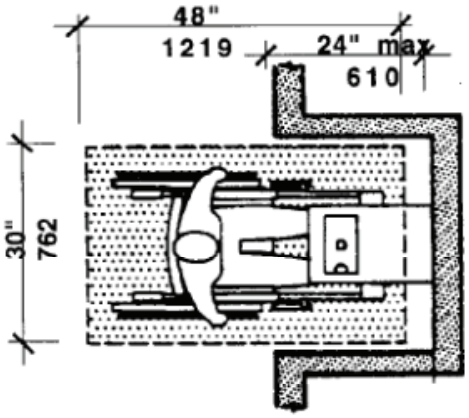


Parallel Approach
Figure 36d

c) Built-in units must comply with the following:

a. Where a drinking fountain is cantilevered or wall mounted along an accessible route it must comply with the requirements of 521 CMR 20.6, Protruding Objects.

b. Where a drinking fountain is cantilevered in a recess, the recess must be not less than 30 inches wide, and the fountain must comply with 521 CMR 36.2.1 (See Fig. 36e).



Front Approach (Cantilevered in a Recess)
Figure 36e

c. Where a drinking fountain is located in a recess and has no knee space below, the recess depth must not exceed the fountain depth and the fountain must have a clear floor space that allows a person in a wheelchair to make a parallel approach to the unit (See Fig. 36d). This clear floor space must comply with 521 CMR 6.4, Clear Floor or Ground Space for Wheelchairs.

Spouts

The spouts of drinking fountains and water coolers shall comply with the following:

a) Spouts must be located at the front of the unit and must direct the water flow in a trajectory that is parallel or nearly parallel to the front of the unit.

b) The spout must provide a flow of water at least four inches high to allow the insertion of a cup or glass under the flow of water.

c) On an accessible drinking fountain with a round or oval bowl, the spout must be positioned so the flow of water is within three inches of the front edge of the fountain.

d) Spouts must be no higher than 36 inches measured from the floor or ground surface to the spout outlet (See Fig. 36a).

Controls

Controls must comply with the following:

a) Controls must be front-mounted or side-mounted near the front edge of the drinking fountain.

b) Controls must be operable with one hand and must not require tight grasping, pinching or twisting of the wrist. Knob-type faucets are not permitted. The force required to activate

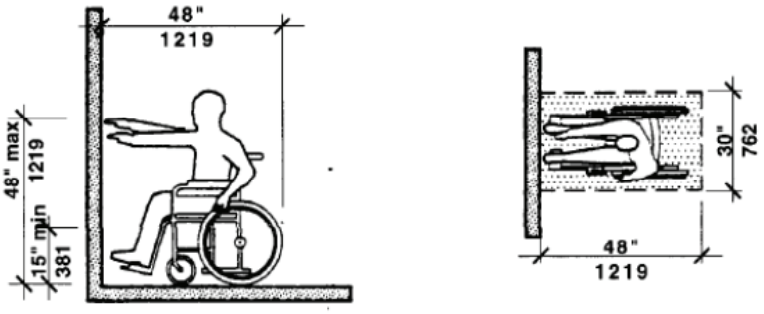
the controls must be no greater than five lbs.

c) Other types of controls may be installed in addition to, but not instead of, hand operated controls.

REACH RANGES

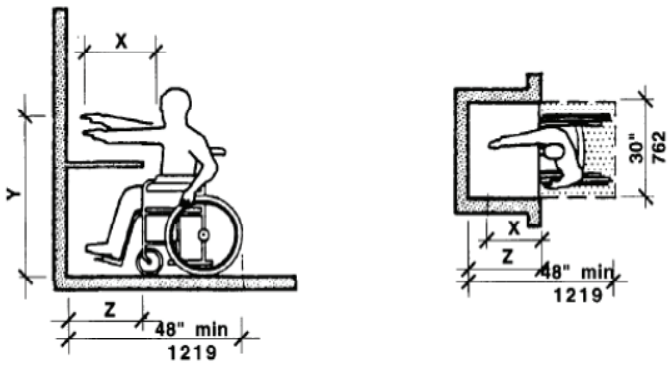
Forward Reach

If the clear floor space only allows forward approach to an object, the maximum high forward reach allowed shall be 48 inches. The minimum low forward reach is 15 inches.



High Forward Reach Limit
Figure 6k

If the high forward reach is over an obstruction, reach and clearances shall be as shown in Fig. 6l.

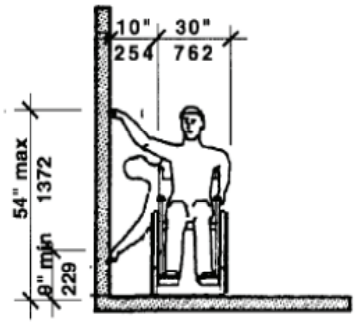


NOTE: X shall be less than or equal to 25" (635 mm). Z shall be greater than X.
When X is less than 20" (508 mm), then Y shall be 48" (1219 mm) max.
When X is 20" to 25" (508 to 635 mm), then Y shall be 44" (1118 mm) max.

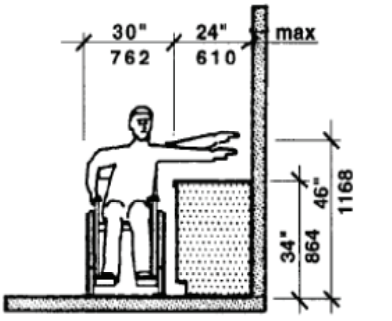
Maximum Forward Reach over an Obstruction
Figure 6l

Side Reach

If the clear floor space allows parallel approach by a person in a wheelchair, the maximum high side reach allowed shall be 54 inches and the low side reach shall be no less than nine inches (above the floor (See Fig. 6m). If the side reach is over an obstruction, the reach and clearances shall be as shown in Fig. 6n.



High and Low Side Reach
Figure 6m



Maximum Side Reach over Obstruction
Figure 6n

TRANSACTION COUNTER

Where counters have cash registers and are provided for sales or distribution of goods or services to the public, at least one of each type shall comply with the following.

a) Location: The counter shall be on an accessible route
b) Length: A portion of the counter shall be at least 36 inches in length and be located closest or nearest the cash register.
c) Height: That portion of the counter shall not exceed 36 inches above the finish floor.

248 CMR REVIEW (PLUMBING FIXTURES)

Plumbing fixtures must be provided per Section 10:10 of 248 CMR 10, the Massachusetts Uniform State Plumbing Code (Section 10:10 (18) and 10:10 (18): Table 1). The plumbing code requires fixtures to be provided based on the uses in the building and the occupant load established for the uses. The factors for libraries are as follows:

Fixture	Libraries/Halls
Women's Water Closets	1/50
Men's Water Closets	1/100
Men's Urinals	50% substitution
Lavatories for Each Sex	1/200
Water Fountains	1/1000
Service Sink	1/floor

Until the reconfigure plan is known, the exact number of required fixtures cannot be determined.

Dudley Square Library
Chapter 34 Report
HAI No. 1RMC00100.000

November 16, 2012
Page A-1

Appendix A
Commonwealth of Massachusetts
Fire safety Commission's
Automatic Sprinkler Appeals Board
Guidelines M.G.L. c. 148 s. 26G

The Commonwealth of Massachusetts
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Fire Safety Commission
Automatic Sprinkler Appeals Board
P.O. Box 1025 ~ State Road
Stow, Massachusetts 01775
(978) 567-3181 Fax:(978) 567-3121

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MAURICE M. PILETTE
VICE CHAIRMAN

MEMORANDUM

TO: **Interested persons**

FROM: **Commonwealth of Massachusetts, Fire Safety Commission's Automatic Sprinkler Appeals Board**

DATE: **October 14, 2009**

RE: **Advisory regarding recent amendments to M.G.L. c. 148, s. 26G (Chapter 508 of the Acts of 2008) which requires enhanced sprinkler protection in certain buildings which total more than 7,500 gross square feet in floor area.**

Introduction

Because of the unique characteristics of each building construction project, the Board realizes that it is not possible to address all aspects of this law in a single guidance document. As the Board hears appeals based upon the newly revised law, the Board anticipates that some of the conclusions found in this document may be subject to further review and possible modification. Accordingly, persons should closely monitor further guidance and decisions from the Board regarding this matter.

The Commonwealth of Massachusetts' Fire Safety Commission and the Automatic Sprinkler Appeal's Board (hereinafter referred to as "the Board"), has received several requests for guidance regarding the recent amendments to M.G.L. c.148, s.26G (Chapter 508 of the Acts and Resolves of 2008), which requires an adequate system of automatic sprinklers to be installed in certain buildings or structures totaling more than 7,500 square feet. Under s. 26G, this Board has jurisdiction to hear appeals from orders issued by heads of the fire department who are charged with enforcing the law. Under the authority of M.G.L. c. 30A, s. 8, the Board is issuing this advisory guidance document to assist heads of fire departments and building owners to understand the basic requirements of this law.

In developing this document, the Board has used its best efforts in developing guidance consistent with the language of the statute, legislative intent, related cases and common sense. This

document is not intended to be the final word on this matter or meant to be a substitute for a good faith, reasonable interpretation of the statute by the head of the fire department. In determining whether a building is subject to this law, the head of the fire department should make fair, consistent and well-reasoned determinations, based upon the reading of the law and the specific factors that exist for a particular building.

1. How did the law change?

The law changed in two significant ways. First, the law will now be applied uniformly throughout the state in all cities and towns. The provisions of M.G.L c. 148, s. 26G, in various forms, have been law since 1982. However, until this recent amendment to M.G.L. c. 148, s. 26G (c. 508 of the Acts of 2008), the law only applied within those cities and towns that adopted the law by local option. However the law now applies to all municipalities on a statewide basis.

The second major change expanded the instances in which sprinkler systems will be required. The law limits the installation of sprinklers to new buildings and buildings subject to major alterations or additions if said buildings feature more than 7,500 gross square feet in floor area. Under the old law, the construction of an addition required sprinklers in the "addition only." The new law requires sprinklers to be installed based upon the building's sum total of square feet (s.f.) in floor area "in the aggregate." As an example, under the new law, if you have an existing building that has 5,000 s.f. of floor area and you are constructing a 3,000 s.f. addition, you will now be required to install an adequate sprinkler system throughout the building, since the building will now total over 7,500 s.f. in the aggregate (8,000 s.f.).

2. Why was the law changed?

The legislative activity to amend the provisions of M.G.L. c. 148, s. 26G arose in the aftermath of a tragic commercial building fire, which occurred in Newton, Massachusetts in February, 2000, resulting in the death of five individuals. It was the Legislature's intent to apply the law throughout the state. This reasoning is based upon the long-standing, fire safety principal that sprinklers save lives. Additionally, there was the desire to eliminate a perceived loophole, which existed in the old s. 26G. Under the old law, if you were only constructing an addition to a building without any major modifications to the existing building, a sprinkler system was required in the "addition only" if the addition itself contained over 7,500 s.f. in floor area. A building could have been added to by means of a series of smaller additions (7,500 s.f. or less) over the course of many years, resulting in the significant enlargement of the original building without the need to ever install sprinklers.

3. When does the law take effect?

The new law clearly applies to "the construction of buildings, structures or additions or major modifications thereto which total, in the aggregate, more than 7,500 gross square feet ***permitted after January 1, 2010***". (Sec. 6, c. 508 of the Acts of 2008). Therefore, if the date of the issuance of the permit is after January 1, 2010, the enhanced requirements will be applicable.

4. What type of buildings or structures are covered by the law?

The law, in general applies to "every building and structure…" and does not specify which particular use groups or building classifications are subject to the law. However the law does include several specific exemptions. The law does not apply to:

- Buildings or additions used for residential purposes;
- Rooms or areas of a telephone central office equipment building when such rooms or areas are protected with an automatic fire alarm system;
- Open-air parking structures, defined as: buildings, structures, or portions thereof, used for parking motor vehicles and having not less than twenty- five per cent of the total wall area open to atmosphere at each level, utilizing at least two sides of the structure; and
- Buildings used for certain agricultural purposes, as defined in M.G.L. c. 128 s. 1A.

Additionally, the statute contains some exceptions, if certain conditions or circumstances exist. They include:

- Buildings or structures, or certain areas of such buildings or structures, where the discharge of water would be an actual danger in the event of a fire, the head of the fire department shall permit the installation of such other fire suppressant systems as are prescribed by the state building code in lieu of automatic sprinklers; and
- No such sprinkler system shall be required unless sufficient water and water pressure exists.

It should also be noted that buildings owned by the Commonwealth are generally not subject to the provisions of s. 26G. In accordance with long standing case law and confirmed by a fairly recent Opinion of the Attorney General (No. 00/01-1), buildings owned by the state are not subject to the statutory requirements of laws such as s. 26G, unless there is express statutory language indicating that the state is subject to the law. However, buildings that are owned by state authorities or other similar entities created by the Legislature, may not necessarily be considered "state owned" and therefore exempt. In such situations, the particular statute creating the authority or entity should be reviewed by the head of the fire department with the assistance of the town attorney to determine if an exemption exists.

5. Does the law apply retroactively to all existing buildings, which are within the scope of the law?

No, the Legislature intended to give some protection to owners of existing or older buildings against the large expense of installing sprinklers by requiring the installation only upon some triggering event. The law is only triggered if: (1) a new building or structure is constructed or (2)

an addition is built onto an existing building or structure or (3) major alterations or modifications are planned for an existing building. Additionally, it should be noted that the building must total more than 7,500 gross s.f. in floor area, in the "aggregate" (existing building and addition). In short, if you are not constructing a new building, adding onto an existing building or undertaking major alterations to an existing building, or if the building does not total more than 7,500 gross s.f. in the aggregate, you are not required to install sprinklers under this particular law.

6. What method is used to determine if a building totals, in the aggregate, more than 7,500 gross square feet in floor area?

The statute specifically states that for the purposes of this law, "the gross square footage of a building or structure shall include the sum total of the combined floor areas for all floor levels, basements, sub-basements and additions, in the aggregate, measured from the outside walls, irrespective of the existence of interior fire resistive walls, floors and ceilings". It should be noted that this calculation is unique and is somewhat different from the method used in the state building code, which in general, uses interior measurements to determine floor area.

7. Is a sprinkler system always necessary when there is an addition to a building, which is within the scope of the law?

It will depend upon how large the building will be after the addition is built. If an addition is being constructed to an existing building and the addition creates a building with a combined total of more than 7,500 s.f. "in the aggregate", an adequate system of sprinklers will now be required throughout the building (addition and the existing building), without regard to the existence or extent of alterations, if any, to the previously existing building.

The legislative activity to amend the provisions of M.G.L. c. 148, s. 26G arose in the aftermath of a tragic commercial building fire, which occurred in Newton, Massachusetts in February 2000, resulting in the death of five individuals. The elimination of the limiting words "addition only," in the old law and the requirement that the square footage determination be conducted "in the aggregate", indicates the clear intent of the Legislature to require the enhanced sprinkler protection throughout the building when the building is added to and if the gross s.f. of the addition, combined with the existing building, totals more than 7,500 s.f. "in the aggregate." If the building, including the new addition, totals less than 7,500. s.f., sprinklers are not required under the provisions of this law.

8. Is a sprinkler system always required if renovations are taking place in a building, which is within the scope of the law?

This depends upon whether the renovations are considered ***"major"*** alterations or modifications, as those terms are used in the statute. The Board realizes that the determination to install sprinklers, is often difficult and should be decided on a case-by-case basis, based upon the unique characteristics of the building and the nature and extent of the work. However, the Board suggests that such decisions be made in a predictable and consistent manner throughout the Commonwealth. Therefore, the Board suggests that fire officials, in deciding if "major alterations or modifications" are taking place, should be guided by the Massachusetts Appeals Court case

Congregation Beth Shalom & Community Center, Inc. v. Building Commissioner of Framingham et. Al., 27 Mass. App. Ct. 276 (1989).

In this case, the Court discussed the meaning of the terms "major alterations" as those words are used in M.G.L. c. 148, s. 26G. (It should be noted that those terms remain in the law, notwithstanding the amendments to s. 26G) The Court said that the terms "major alterations" shall include "any work, not repairs, which is "major" in scope or expenditure, and which results in changes affecting a substantial portion of the building". In its decision, the Court looked at the nature of the planned work and would require sprinklers throughout the building if "the extra cost of installing sprinklers would be moderate in comparison to the total cost of the work contemplated…" or "if the physical work being done is of such scope that the additional effort to install sprinklers would be substantially less than would have been if the building were intact."

At this time, it is the intent of the Board to consider the following factors established in the Congregation Beth Shalom case, to determine whether "major" alterations or modifications are taking place, thus requiring sprinklers to be installed throughout a building in accordance with M.G.L. c. 148, s. 26G.

A. What is the nature of the actual work?

- Is the planned physical work the type of work that would make the effort to install sprinklers substantially less than it would have been if the building were intact?
- Is the work merely minor repairs or cosmetic vs. major alterations? Examples of "major" alterations or modifications, include, but may not be limited to:
  - The demolition or reconstruction of existing ceilings or installation of suspended ceilings;
  - The removal and/or installation of sub flooring, not merely the installation or replacement of carpeting or finished flooring;
  - The demolition and/or reconstruction or repositioning of walls or stairways or doorways; or
  - The removal or relocation of a significant portion of the building's HVAC, plumbing or electrical systems involving the penetration of walls, floors, or ceilings.

B. What is the scope of the work or cost/ benefit of sprinkler installation?

This involves a review of the scope of the major alterations or modifications. Does it affect a substantial portion of the building? This requires a review to determine how much of the building is being affected by the work; or a determination that the cost of installing sprinklers is moderate in comparison to the total cost of the work.

5

To assist fire officials, building owners and construction project managers in making decisions, the Board has established the following two presumptions that may be used to determine if the scope or the cost of the planned alterations or modifications are "major" thus requiring sprinklers to be installed throughout a building.

1) Major alterations or modifications are reasonably considered major in scope when such work affects thirty-three (33) % or more of the "total gross square footage" of the building, calculated in accordance with section 26G.

2) Major alterations or modifications are reasonably considered major in scope or expenditure, when the total cost of the work (excluding costs relating to sprinkler installation) is equal to or greater then thirty-three (33) % of the assessed value of the subject building, as of the date of permit application.

It is the conclusion of the Board, at this time, that if the nature of the work is the type of work described in **A** **and** also meets at least one of the two presumptions described in **B** above, then it can be reasonable to conclude that the alterations or modifications are "Major", thus requiring sprinklers throughout the building.

The Board is aware that buildings and circumstances vary from one project to another and that it would be unreasonable to expect that a single set of criteria could reasonably apply to all situations. Therefore, this list of described factors is not necessarily all-inclusive, but is meant to provide a common sense guideline for fire departments and building owners to determine if a sprinkler system is probably required under the provisions of this particular law.

9. What if the work is not "major" in scope for this particular permitted project, but appears to be part of a long-range plan?

If the specific permitted alterations or modifications are not considered "major," as described, but appear to be one phase of a series of modifications being conducted over a reasonably short period (i.e. 5 years or less), it may be reasonable to conclude that such work could be part of a long range project resulting in "major alterations" to the entire building, or a substantial portion of it, thus triggering the sprinkler requirements. Although this occurrence may be rare, fire officials should be aware of future and past recent projects to determine if there is a series of planned projects that, taken together, may be considered "major" alterations or modifications, which would trigger the sprinkler requirements.

10. The statute states that "no such sprinkler system shall be required unless sufficient water and water pressure exists". How is it determined if there is a lack of sufficient water and water pressure?

This language, creating an apparent exemption for situations involving lack of sufficient water and water pressure, has remained unchanged in the new amendments. In determining cases in which this issue has been raised, the Board has been guided by the Massachusetts Appeals Court case of *Chief of the Fire Department of Worcester v. John Wibley, et al. 24 Mass. App. Ct. 912 (1987).*

In that case the court concluded that:

> "The term "sufficient water and water pressure exists" means that the owner of a building or addition to which the statute applies must have access to a source of water sufficient to operate an adequate system of sprinklers, or the exemption applies. The source may be either on the land on which the new building or addition is constructed or off the land, provided that it is legally available to the owner of the building or addition."

In the Wibley case, the court, in agreeing with the fire chief, concluded that sufficient water and water pressure existed, notwithstanding the fact that the source of water was not on the owner's land, but was legally available by means of a connection requiring the excavation to a legally available water main located 500 yards away.

11. Who has the responsibility to enforce the sprinkler installation requirements of this new law?

Under both the old and new version of M.G.L. c. 148, s. 26G, the head of the fire department is given the statutory authority to enforce the law.

12. What action should be taken by the head of the fire department at this time?

It is recommended that the head of fire department coordinate with the local building official and confirm that the building official is aware of the new law, its applicability and the statute's unique method of determining a building's total floor area. Additionally, it is suggested that procedures be established to assure that the building official communicate to the appropriate fire department personnel the existence of construction activities to buildings in excess of 7,500 s.f., which may be subject to the provisions of M.G.L. c. 148, s.26G. Once the head of the fire department determines that a planned building construction project is subject to s. 26G, the building owner/construction manager should be informed of the determination and the reasons for it by a written notice signed by the head of the fire department. The notice should also contain the information about the ability to appeal such determination to the Commonwealth's Automatic Sprinkler Appeals Board within 45 days of the receipt of such notice.

13. How are appeals filed with the Board?

The law allows for any person aggrieved by an interpretation, order, requirement or direction of the head of the fire department, (or the failure to so act) to file an appeal with the Automatic Sprinkler Appeals Board. Such appeals must be filed ***within 45 days*** after receiving service of notice of the head of the fire department's determination. The Board has a formal application form that must be completed by the person seeking the appeal. In addition to the application form, a detailed statement of the basis for the appeal, a copy of the chief's determination and an appeal application fee ($100.00) must accompany each application. Automatic Sprinkler Appeals Board application forms may be obtained by calling: 978-567-3181 or on the web at www.mass.gov/dfs (right side of the page Mass. Automatic Sprinkler Appeals Board).

14. What are the Board hearings like?

Members of the Commonwealth's Fire Safety Commission hold hearings of the Automatic Sprinkler Appeals Board. The hearings are informal and the strict rules of evidence used in a court of law are not used. The hearings require the presence of the appellant and the head of the fire department or their agent or attorney. The parties should be fully prepared to present their positions at the hearing. All plans, drawings, photographs expert findings/analysis or any other documents, information and testimony and arguments should be presented at the hearing to assist the Board in making its findings and determination.

Appendix B
IFC Chapter 46 Review Summary

Section 101.5.1 the Prescriptive Method requires compliance with the International Fire Code (IFC) Chapter 46 as a baseline criterion. IFC Chapter 46, Section 4603.1 requires the present Group A use to be compliant as identified in Table 4603.1 and further enumerated in Sections 4603.2 through 4604. From Table 4603.1, the following sections apply:

Chapter 46 Section	Feature	Project Applicability
4603.2	Elevator Operation	Applicable
4603.3.2	Vertical Openings Connecting 3 to 5 Stories	Applicable
4603.3.3	Vertical Openings Connecting more than 5 Stories	Not Applicable
4603.3.6 & 4603.3.7	Escalators	Not Applicable
4603.4	Sprinklers (M.G.L. Ch 148 §26G trumps)	
4603.5	Standpipes	Applicable
4603.6	Fire Alarm	Applicable
4604	Egress	Applicable

4603.2 Elevator Operation
Since the elevator will be new, compliance with new construction criteria is required and therefore Chapter 46 provisions are inherently satisfied.

4603.3.2 Vertical Openings Connecting 3 to 5 Stories
As the existing stairways connect 3 stories, Section 4603.3.2 requires they be enclosed in one hour fire resistance rated enclosures with one hour opening protection that are self closing and positive latching. This provision is consistent with 780 CMR criteria of original construction and should be satisfied. As the doors would also serve occupant loads greater than 50, panic hardware devices are required to be provided as well.

4603.5 Standpipes
This section requires standpipes in existing buildings when the highest occupied floor is greater than 50 feet above the lowest level of fire department access. Since the highest occupied floor is less than 50 feet above the lowest level of fire department access, standpipes are not required for the building.

4603.6.1 Fire Alarm Systems
This section requires a fire alarm system to be installed unless a previously approved existing fire alarm system is present. Since there is an existing approved fire alarm system, a new fire alarm system is not required.

4604 Egress
This section contains minimum egress provisions in terms of number, capacity and arrangement of egress consistent with 780 CMR §102.2.2.1. Compliance with 780 CMR §102.2.2.1 is mandatory regardless of any project.

Appendix

9.3

Room Data Reports

124 | Vestibule

Existing

Area: 106 SF
User: Public

Function/Performance

- Threshold zone for entry into lobby
- Well scaled space with appropriate finishes
- Storefront framing showing signs of wear and tear

Considerations

- This space generally works well but needs updates to its finishes.

Finishes + Condition

Area	Finish	Condition
Floor	MAT	Fair
Ceiling	GYP	Fair
Wall	GYP/CIP	Fair
Base	VNYL	Fair

Proposed

Area: 100 SF
User: Public
Occupant Load:
Collection Size: N/A

Function/Performance

- Threshold zone for entry into lobby
- Well scaled space with appropriate finishes

Fixtures/Furniture/Equipment

- Bulletin Board

Other Information

- Entrance door actuator on electronic eye or paddle, depending on operational or deisgn requirements

Finishes

Area	Finish
Floor	MAT
Ceiling	GYP
Wall	GYP/CIP
Base	VNYL

Technical Requirements

Doors/Windows	Glazed	Lighting	
Mechanical		Security	
Tech/Electrical		Signage	
Plumbing/FP		Accessibility	
A/V			

106 | Lobby

Existing

Area: 1339 SF
User: Public

Function/Performance

- Point of arrival for the Library.
- Ill-defined, "placeless," difficult to monitor.
- Lack of signage and wayfinding makes navigating the space difficult.
- Area is very insular with minimal connections to the library program
- Community Displays are successful

Considerations

- Establish a better point of arrival to the library
- Strengthen community displays.
- Develop better connections to the library program and the exterior
- Consider ways staff can visually monitor area to help issues of wayfinding and security.

Finishes + Condition

Area	Finish	Condition
Floor	STONE	Fair
Ceiling	GWB	Fair
Wall	GWB	Fair
Base	N/A	Fair

Proposed

Area: 1,128 SF
User: Public
Occupant Load: 1 occupant/100 SF
Collection Size: N/A

Function/Performance

- Point of arrival with a sense of place, wayfinding signage.
- Area for enclosed display of informational literature or open display of leaflets, literature, or messages.

Fixtures/Furniture/Equipment

- Bulletin Board
- Bench (2)
- Display Case
- Literature carrels
- Book Drop
- Display wall/ Gallery space

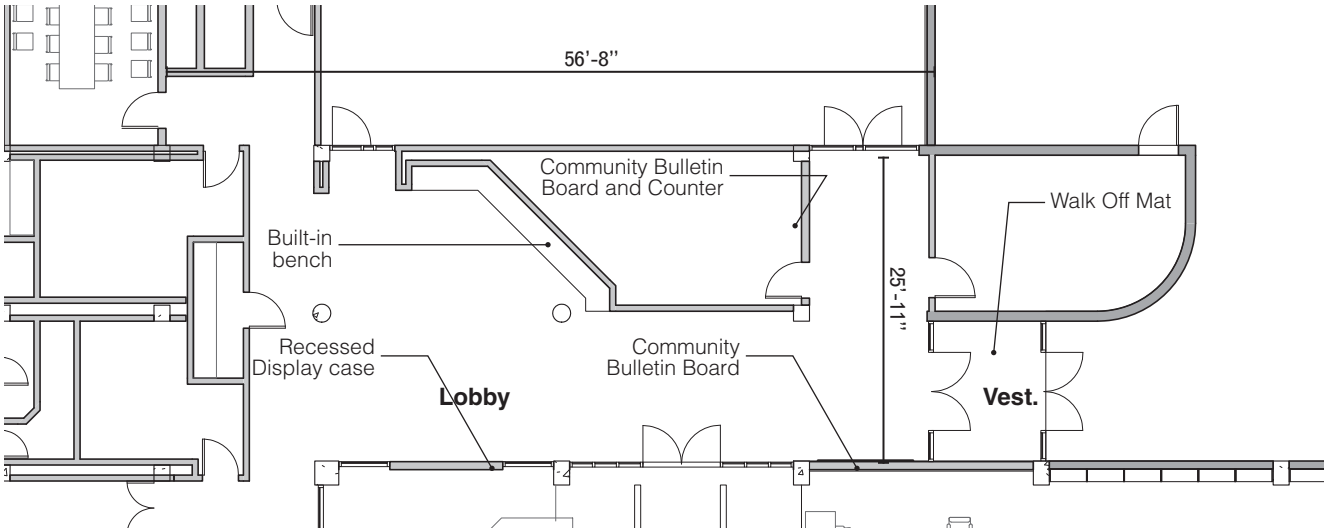
Other Information

Finishes

Area	Finish
Floor	TERR
Ceiling	TECT
Wall	GWB
Base	N/A

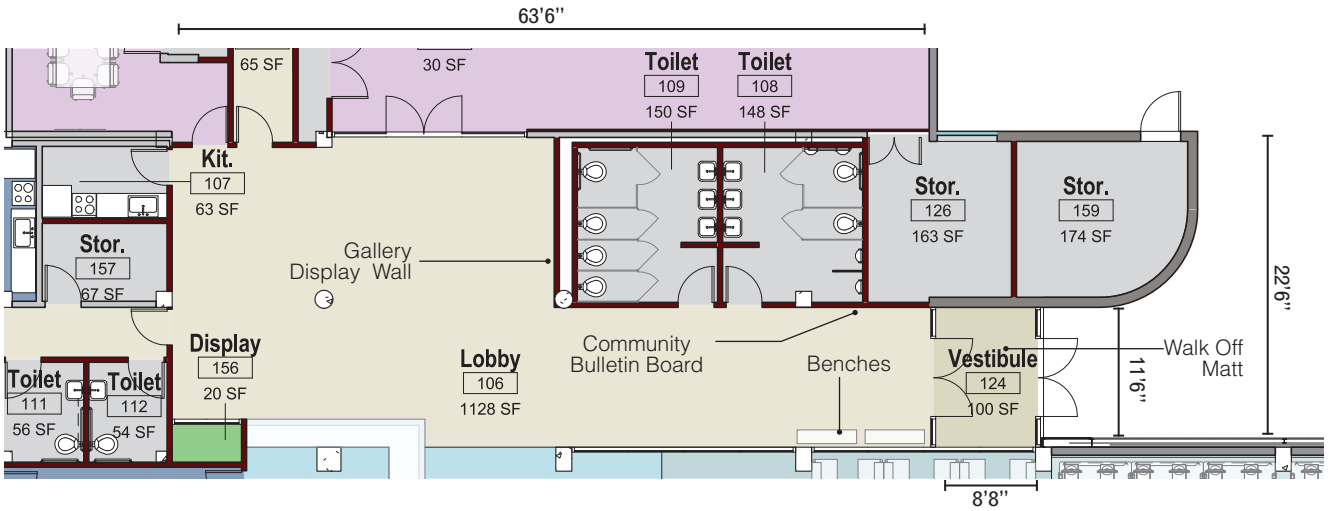
Technical Requirements

Doors/Windows		Lighting	Ambient Light
Mechanical		Security	
Tech/Electrical		Signage	Directional
Plumbing/FP		Accessibility	
A/V			



Existing Floor Plan

Scale: 1/16" = 1'-0"



Proposed Floor Plan

Scale: 1/16" = 1'-0"

201 | Vestibule

Existing

Area: 267 SF
User: Public

Function/Performance

- Threshold zone for entry into Literacy Center
- Well scaled space with appropriate finishes
- Storefront framing showing signs of wear and tear

Considerations

- This space generally works well but needs updates to its finishes.

Finishes + Condition

Area	Finish	Condition
Floor	CPT	Fair
Ceiling	CIP	Fair
Wall	GYP	Fair
Base	VNYL	Fair

Proposed

Area: 125 SF
User: Public
Occupant Load: N/A
Collection Size: N/A

Function/Performance

- Threshold zone for entry into lobby
- Well scaled space with appropriate finishes

Fixtures/Furniture/Equipment

- Bulletin Board

Other Information

- Entrance door actuator on electronic eye or paddle, depending on operational or design requirements
- Provide security gates

Finishes

Area	Finish
Floor	MAT
Ceiling	N/A
Wall	GWB
Base	VNYL

Technical Requirements

Doors/Windows	Glazed	Lighting	
Mechanical		Security	
Tech/Electrical		Signage	
Plumbing/FP		Accessibility	
A/V			

202 | Reception

Existing

Area: 446 SF
User: Public

Function/Performance

- Workspace for Literacy Center staff
- Workstations appear to be too small
- Existing furnishings are old and inflexible

Considerations

- Space works well for current use. Will need to be reconsidered as part of the integration of the Literacy Center with the Library

Finishes + Condition

Area	Finish	Condition
Floor	CPT	Fair
Ceiling	CIP	Fair
Wall	GYP	Fair
Base	VNYL	Fair

Proposed

Area: 547 SF
User: Public
Occupant Load: N/A
Collection Size: N/A

Function/Performance

- Second point of arrival with a sense of place, wayfinding signage.
- Mainly used by staff

Fixtures/Furniture/Equipment

- Bulletin Board
- Display Case
- Literature carrels

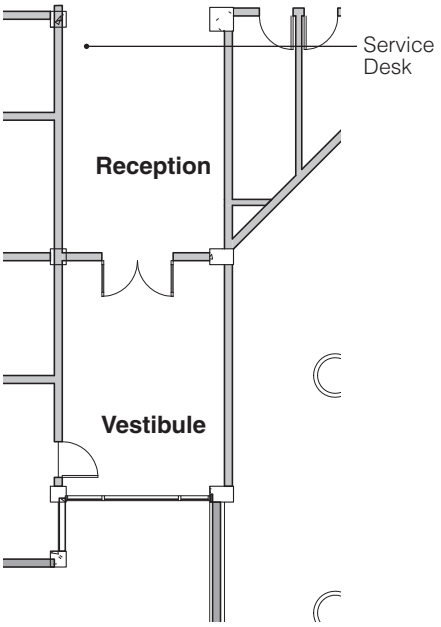
Other Information

Finishes

Area	Finish
Floor	HW
Ceiling	N/A
Wall	GWB
Base	WOOD

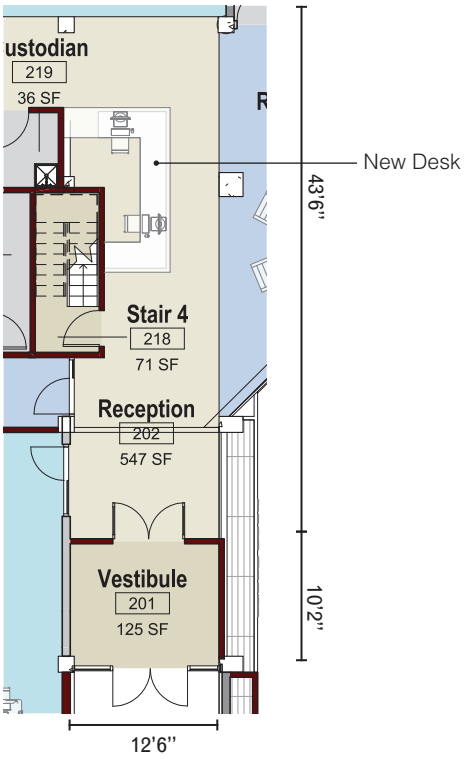
Technical Requirements

Doors/Windows		Lighting	Ambient Light
Mechanical		Security	
Tech/Electrical		Signage	Directional
Plumbing/FP		Accessibility	
A/V			



Existing Floor Plan

Scale: 1/16" = 1'-0"



Proposed Floor Plan

Scale: 1/16" = 1'-0"

123a | Circulation + Entry Area

Existing

Area: 1523 SF
User: Staff, 5 persons

Function/Performance

- Main circulation desk for the library
- Poorly positioned in the corner of the library.
- Staff work areas are crammed behind a very big and bulky desk.
- Visual monitoring from this area is difficult because of poor sight lines.

Considerations

- Completely reconsider this area as part of the renovation. Should respond to the needs for more workspace and be better positioned for greeting and monitoring.

Finishes + Condition

Area	Finish	Condition
Floor	CPT	Fair
Ceiling	ACT	Fair
Wall	GYP, CIP	Fair
Base	VNYL	Fair

Proposed

Area: 731 SF
User: Staff, 5 persons
Occupant Load: 1 occupant/50 SF
Collection Size: 300 vols. / 5 SFS

Function/Performance

- Open and functional work space for staff
- Counter for the checkout of books

Fixtures/Furniture/Equipment

- Circulation Desk
- Display Case
- Display Shelves
- Security Desk
- Self Checkout Station

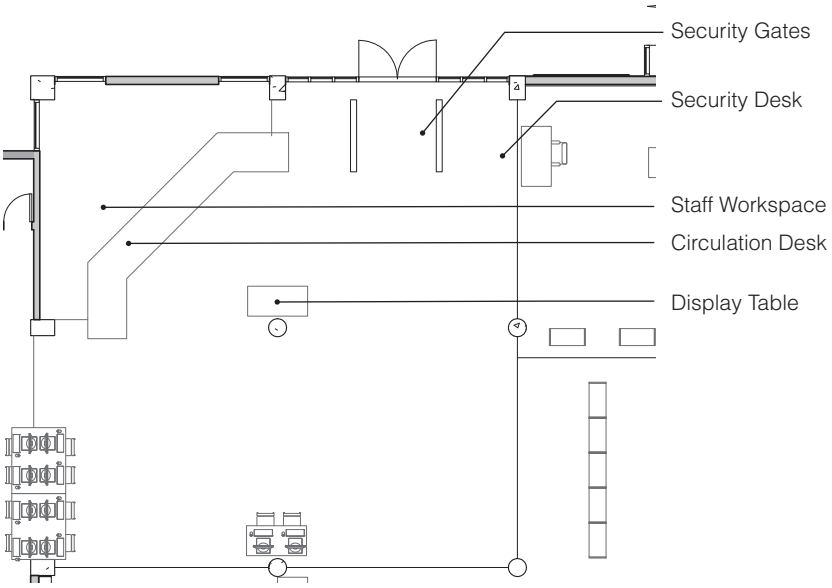
Other Information

Finishes

Area	Finish
Floor	HW
Ceiling	WOOD
Wall	GWB
Base	WOOD

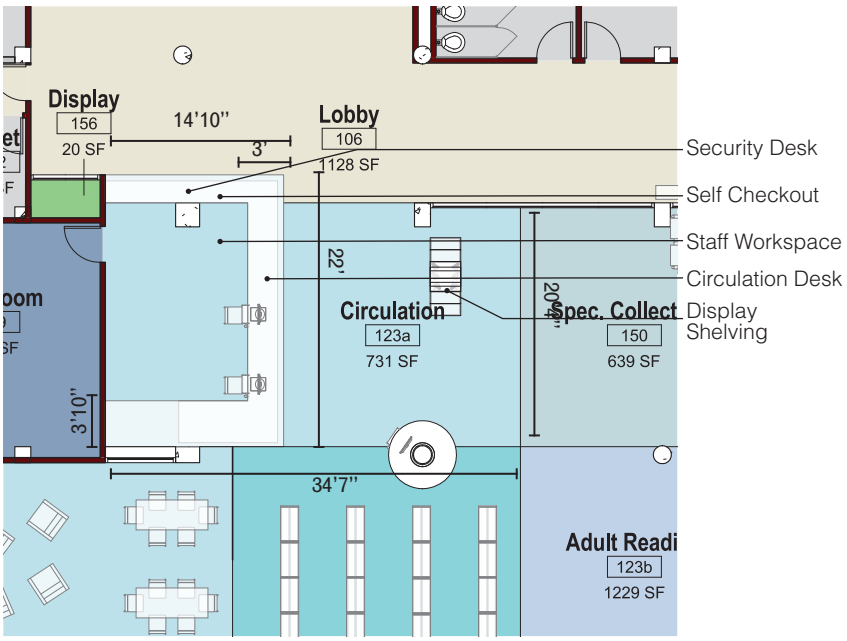
Technical Requirements

Doors/Windows		**Lighting**	Ambient Light
Mechanical		**Security**	
Tech/Electrical		**Signage**	Identifying
Plumbing/FP		**Accessibility**	Counter ht. 36"
A/V			



Existing Floor Plan

Scale: 1/16" = 1'-0"



Proposed Floor Plan

Scale: 1/16" = 1'-0"

123b | Library - Adult Reading Area

Existing

Area: 1381 SF
User: Public

Function/Performance

- Existing furnishings are old and inflexible.
- No comfortable seating options.
- Display shelving for showcase materials is inflexible not prominently featured in the library

Considerations

- Comprehensive renovations are necessary to furnishings, shelvings, fixtures and finishes to create an inviting, engaging space for visitors to the library.
- Consider acoustic needs and potentially develop distinct noisy and quiet areas
- Special Collections cabinet should be enhanced and made more prominent.

Finishes + Condition

Area	Finish	Condition
Floor	CPT	Fair
Ceiling	ACT	Fair
Wall	GYP, CIP	Fair
Base	VNYL	Fair

Proposed

Area: 1,229 SF
User: Public
Occupant Load: 1 occupant/50 SF
Collection Size: 50 vols. / 2 SFS

Function/Performance

- Add new comfortable seating options
- Add new display shelving for showcasing materials
- Include easier wayfinding options

Fixtures/Furniture/Equipment

- 12 New comfortable seating options
- Bleacher seating option

Other Information

- Text goes here

Finishes

Area	Finish
Floor	HW
Ceiling	WOOD
Wall	GWB
Base	WOOD

Technical Requirements

Doors/Windows	none	Lighting	Ambient Light
Mechanical		Security	
Tech/Electrical	Tbls Power/Data	Signage	Directional
Plumbing/FP		Accessibility	1 Booth 28"-34"
A/V			

123d | Library - Adult Fiction Area

Existing

Area: 302 SF
User: Public

Function/Performance

- Wayfinding within the collection is difficult
- Shelving very dense, imposing and inflexible.

Considerations

- Comprehensive renovations are necessary to furnishings, shelvings, fixtures and finishes to create an inviting, engaging space for visitors to the library.

Finishes + Condition

Area	Finish	Condition
Floor	CPT	Fair
Ceiling	ACT	Fair
Wall	GYP, CIP	Fair
Base	VNYL	Fair

Proposed

Area: 1,331 SF
User: Public
Occupant Load: 1 occupant/100 SF
Collection Size: 5000 vols. / 33 SFS

Function/Performance

- Include optimal signage for the ease of wayfinding
- Stacks rearranged to decrease the imposing density
- Stack area for adult fiction collection

Fixtures/Furniture/Equipment

- 23 comfortable seating options
- 33 sfs

Other Information

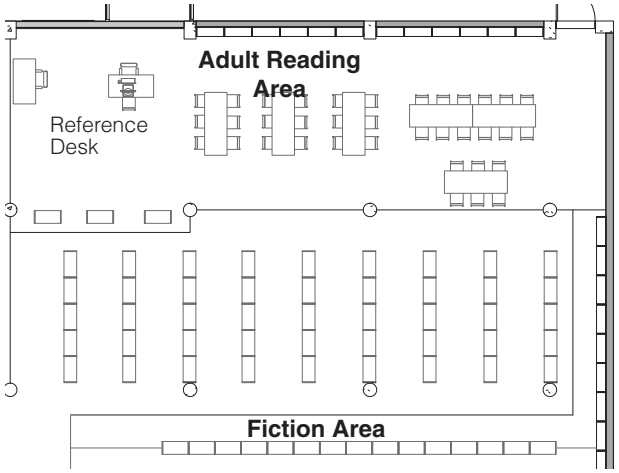
- No volumes on the top or bottom shelves

Finishes

Area	Finish
Floor	HW
Ceiling	WOOD
Wall	GWB
Base	WOOD

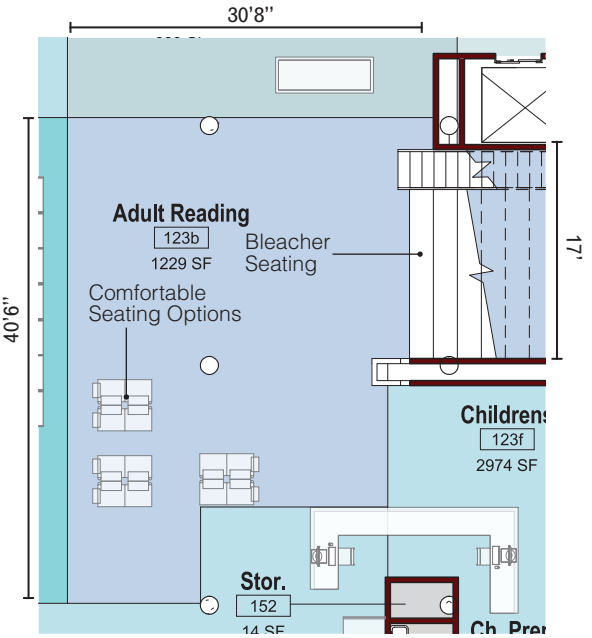
Technical Requirements

Doors/Windows	none	Lighting	Ambient Light
Mechanical		Security	
Tech/Electrical	Floor Ports	Signage	Collection ID
Plumbing/FP		Accessibility	42" b/w Stacks
A/V			



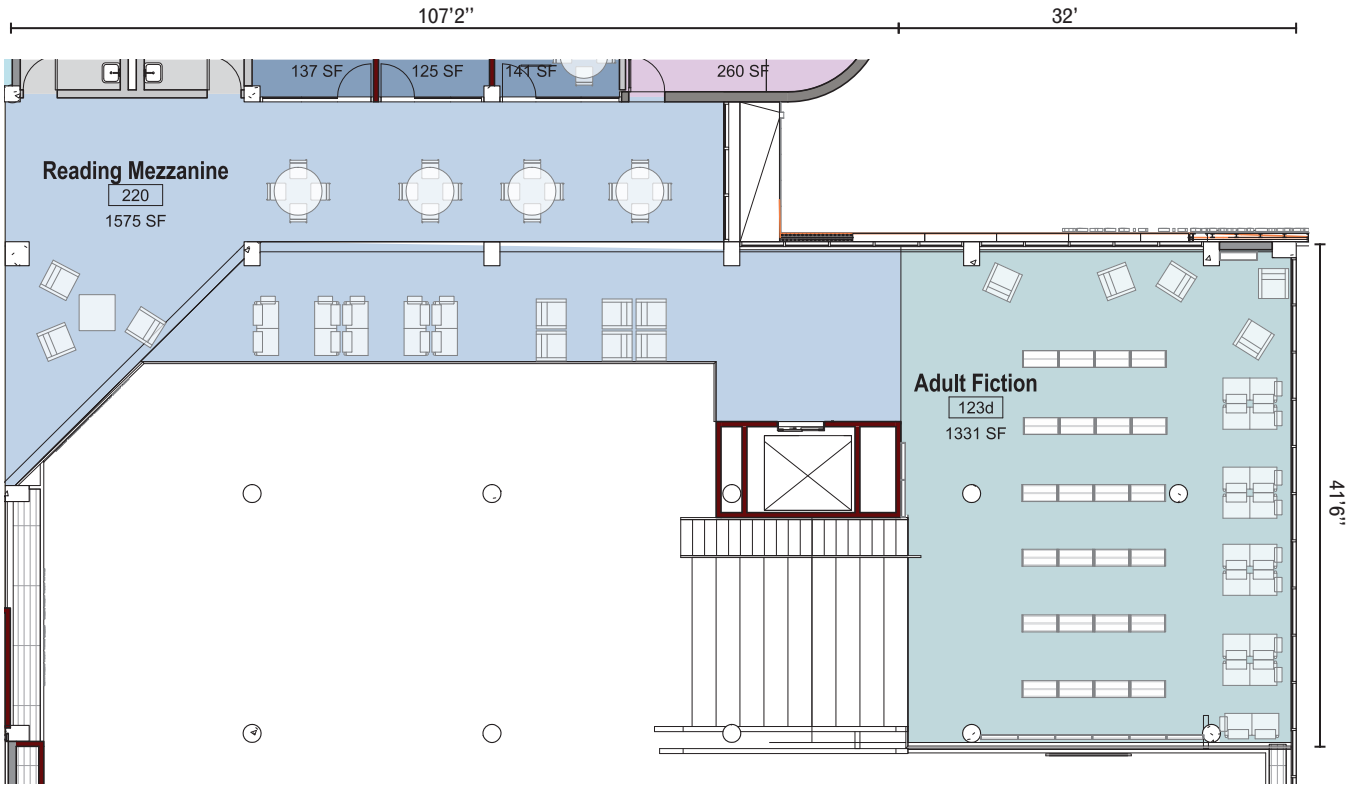
Existing Floor Plan

Scale: NTS



Proposed Floor Plan

Scale: 1/16" = 1'-0"



Proposed Floor Plan

Scale: 1/16" = 1'-0"

123c | Library - Adult Non Fiction Area

Existing

Area: 2780 SF
User: Public

Function/Performance

- Existing furnishings are old and inflexible.
- No comfortable seating options.
- Wayfinding within the collection is difficult
- Shelving very dense, imposing and inflexible.

Considerations

- Comprehensive renovations are necessary to furnishings, shelvings, fixtures and finishes to create an inviting, engaging space for visitors to the library.

Finishes + Condition

Area	Finish	Condition
Floor	CPT	Fair
Ceiling	ACT	Fair
Wall	GYP, CIP	Fair
Base	VNYL	Fair

Proposed

Area: 2,439 SF
User: Public
Occupant Load: 1 occupant/ 100 SF
Collection Size: 10,000 vols. / 67 SFS

Function/Performance

- Add new comfortable seating options
- Add new display shelving for showcasing materials
- Include easier wayfinding options
- Stack area for the adult Non-Fiction collection

Fixtures/Furniture/Equipment

- 5 tables/ 20 table seating
- 67 sfs

Other Information

- Distribute lower stack sections to provide sight lines and surface for setting materials.
- No volumes on the top or bosttom shelves when 7 shelves high; and none on bottom shelf with 3 shelves high

Finishes

Area	Finish
Floor	HW
Ceiling	WOOD
Wall	GWB
Base	WOOD

Technical Requirements

Doors/Windows	Glazed	Lighting	
Mechanical		Security	
Tech/Electrical		Signage	
Plumbing/FP		Accessibility	
A/V			

121 | Computer Area

Existing

Area: 430 SF
User: Public

Function/Performance

- Very well used. Often the most active area in the library.
- Alcove area that houses 12 computers and 1 printer.

Considerations

- Redevelop these digital areas as a priority of the renovation.
- Consider digital needs distinctly based on user type (i.e. adult versus child computer areas)

Finishes + Condition

Area	Finish	Condition
Floor	CPT	Fair
Ceiling	GYP	Fair
Wall	CMU	Fair
Base	VNYL	Fair

Proposed

Area: 589 SF
User: Public
Occupant Load: 20
Collection Size: N/A

Function/Performance

- Increase the amount of work stations to 20.

Fixtures/Furniture/Equipment

- 20 work stations
- 10 desks
- 2 printers
- 20 task chairs

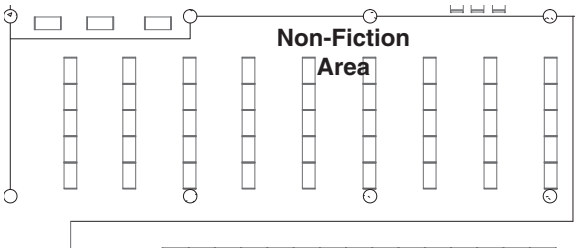
Other Information

Finishes

Area	Finish
Floor	HW
Ceiling	TECT
Wall	GWB
Base	WOOD

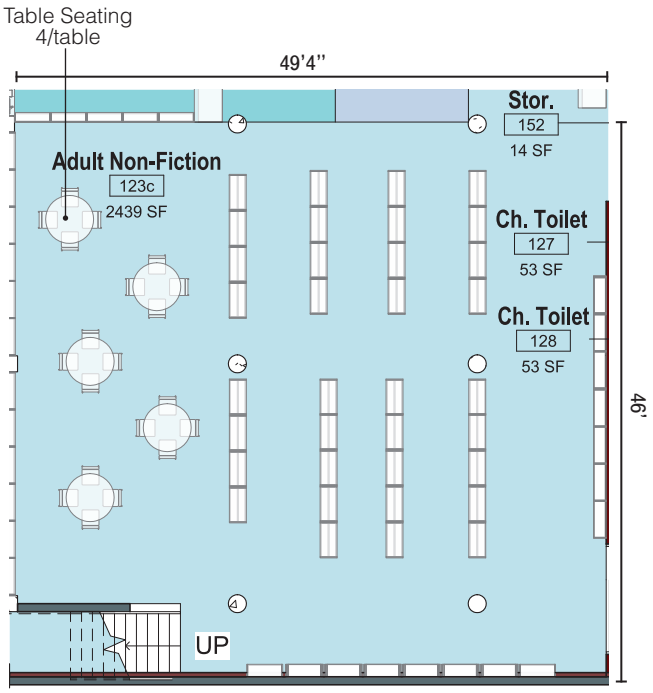
Technical Requirements

Doors/Windows	none	Lighting	Ambient Light
Mechanical		Security	
Tech/Electrical	Power/Data	Signage	Directional
Plumbing/FP		Accessibility	1 Station
A/V			



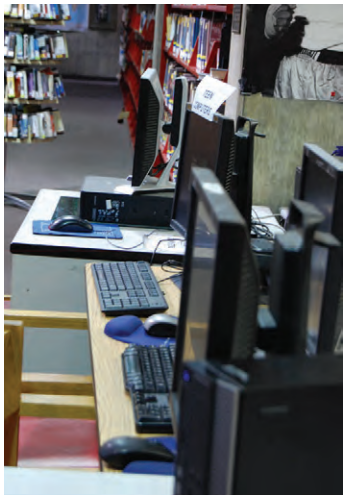
Existing Floor Plan

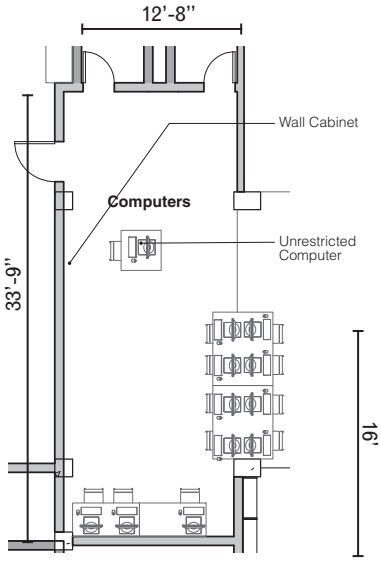
Scale: NTS



Proposed Floor Plan

Scale: 1/16" = 1'-0"





Existing Floor Plan

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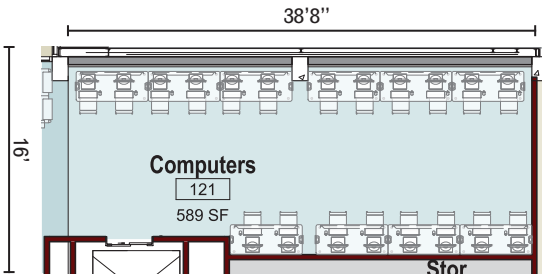


Proposed Floor Plan

Scale: 1/16" = 1'-0"

150 | Special Collections / Local History

Existing

THIS AREA IS NOT IN THE ORIGINAL BUILDING

Proposed

Area: 639 SF
User: Public
Occupant Load: 1 occupant/100 SF
Collection Size: N/A

Function/Performance

- Special collection stacks with added seating
- Include local history section to host local texts and exibits

Fixtures/Furniture/Equipment

- 12 comfortable seating options

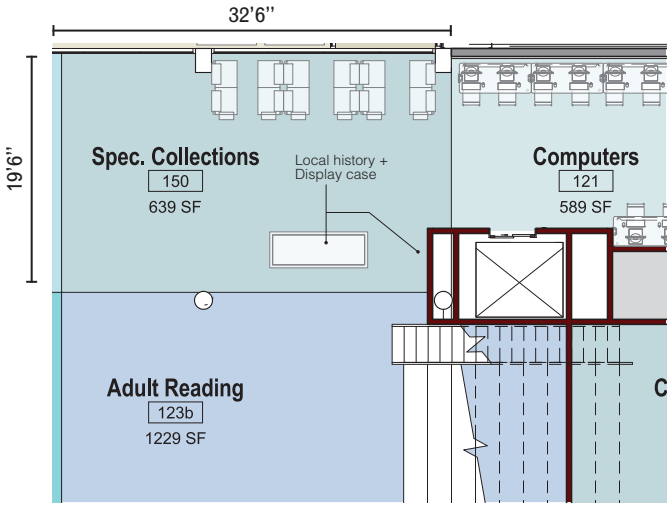
Other Information

Finishes

Area	Finish
Floor	HW
Ceiling	TECT
Wall	GWB
Base	WOOD

Technical Requirements

Doors/Windows	Glazed	Lighting	
Mechanical		Security	
Tech/Electrical		Signage	
Plumbing/FP		Accessibility	
A/V			



Proposed Floor Plan

Scale: 1/16" = 1'-0"

123e | Library - Young Adult Area (Stacks + Lounge)

Existing

Area: 934 SF
User: Public

Function/Performance

- Space is well used but lacks definition.
- Tough to hold programs because of acoustic issues.
- Existing furnishings are old and inflexible.
- No comfortable seating options.
- Wayfinding within the collection is difficult
- Shelving very dense, imposing and inflexible.

Considerations

Finishes + Condition

Area	Finish	Condition
Floor	CPT	Fair
Ceiling	ACT	Fair
Wall	GYP, CIP	Fair
Base	VNYL	Fair

Proposed

Area: 1,024 SF
User: Public
Occupant Load: 1 occupant/50 SF
Collection Size: 2,500 vols. / 21 SFS

Function/Performance

- Stack area for the young adult collection.
- It is within a larger room or space.
- Computer stations for young adults.
- Area for young adult collection stacks

Fixtures/Furniture/Equipment

- 30 sfs
- 2 tables, 8 table chairs, 12 casual seats, 12 computer work station, 1 booth
- Homework tables, lounge chairs, flat-screen TV, video game system

Other Information

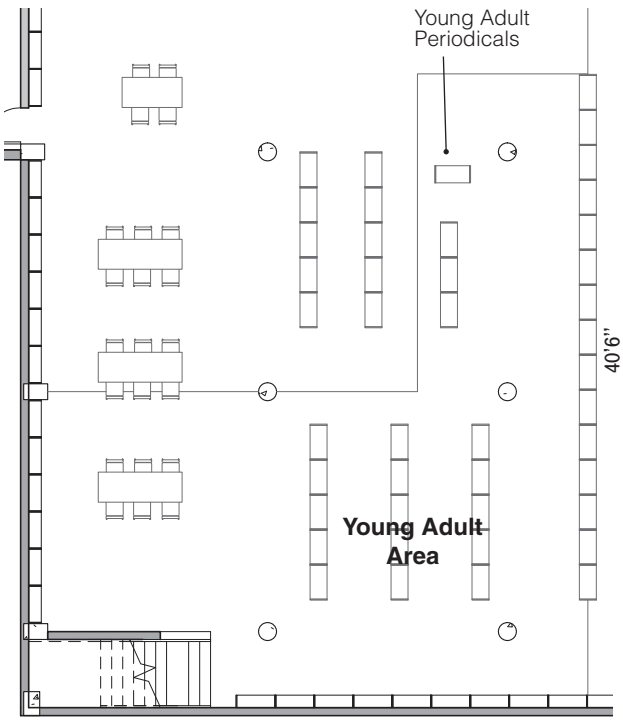
- No volumes on bottom shelves.

Finishes

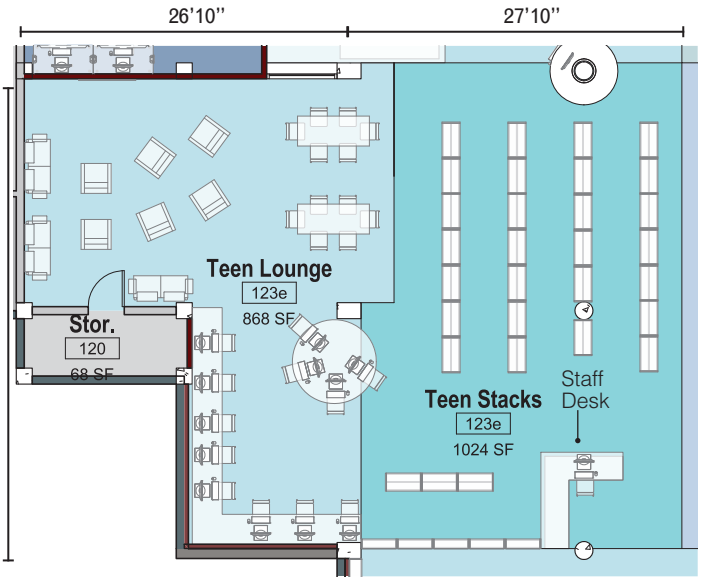
Area	Finish
Floor	HW
Ceiling	WOOD
Wall	GWB
Base	WOOD

Technical Requirements

Doors/Windows	none	Lighting	Ambient Light
Mechanical		Security	
Tech/Electrical	Power/Data/Tel.	Signage	Collection ID
Plumbing/FP		Accessibility	
A/V	TV		



Existing Floor Plan
Scale: 1/16" = 1'-0"



Proposed Floor Plan
Scale: 1/16" = 1'-0"

123f | Library - Children's Area

Existing

Area: 3449 SF
User: Public

Function/Performance

- Space is well used but lacks definition.
- Tough to hold programs because of acoustic issues.
- Existing furnishings are old and inflexible.
- No comfortable seating options.
- Wayfinding within the collection is difficult
- Shelving very dense, imposing and inflexible.

Considerations

- Comprehensive renovations are necessary to furnishings, shelvings, fixtures and finishes to create an inviting, engaging space for visitors to the library.

Finishes + Condition

Area	Finish	Condition
Floor	CPT	Fair
Ceiling	ACT	Fair
Wall	GYP, CIP	Fair
Base	VNYL	Fair

Proposed

Area: 2,974 SF
User: Public
Occupant Load: 1 occupant/50 SF
Collection Size: 14,378 / 70 SFS

Function/Performance

- Stack area and reading area associated with the children's collections. It will have a mixture of table seating, comfortable casual seating, and computer work stations.
- The existing story time lit would be replaced with the story area which will provide better acoustic seperation from sensitive areas.

Fixtures/Furniture/Equipment

- 4 tables, 16 table seats
- 14 comfortable seating options
- 12 work stations, 4 tables
- 70 sfs
- Barn doors as partition

Other Information

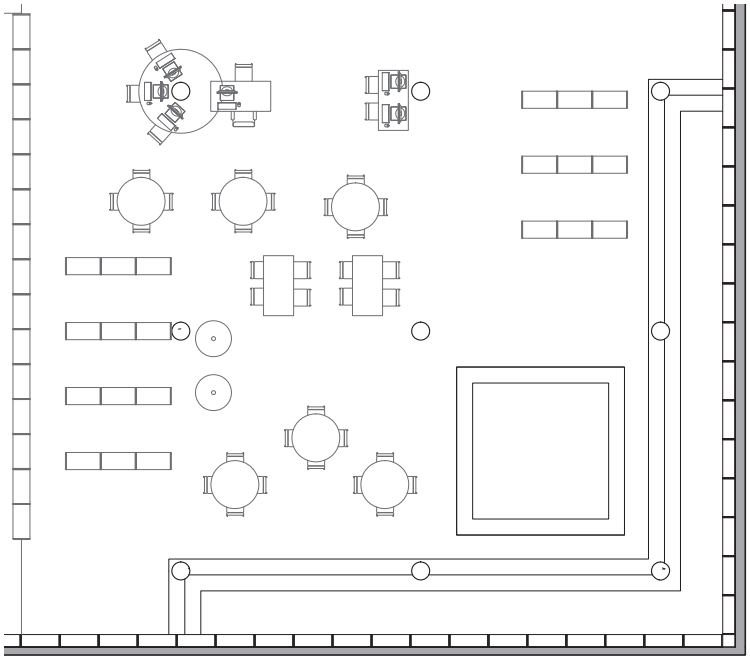
- Seating may be distributed among collection.

Finishes

Area	Finish
Floor	HW
Ceiling	WOOD
Wall	GWB
Base	WOOD

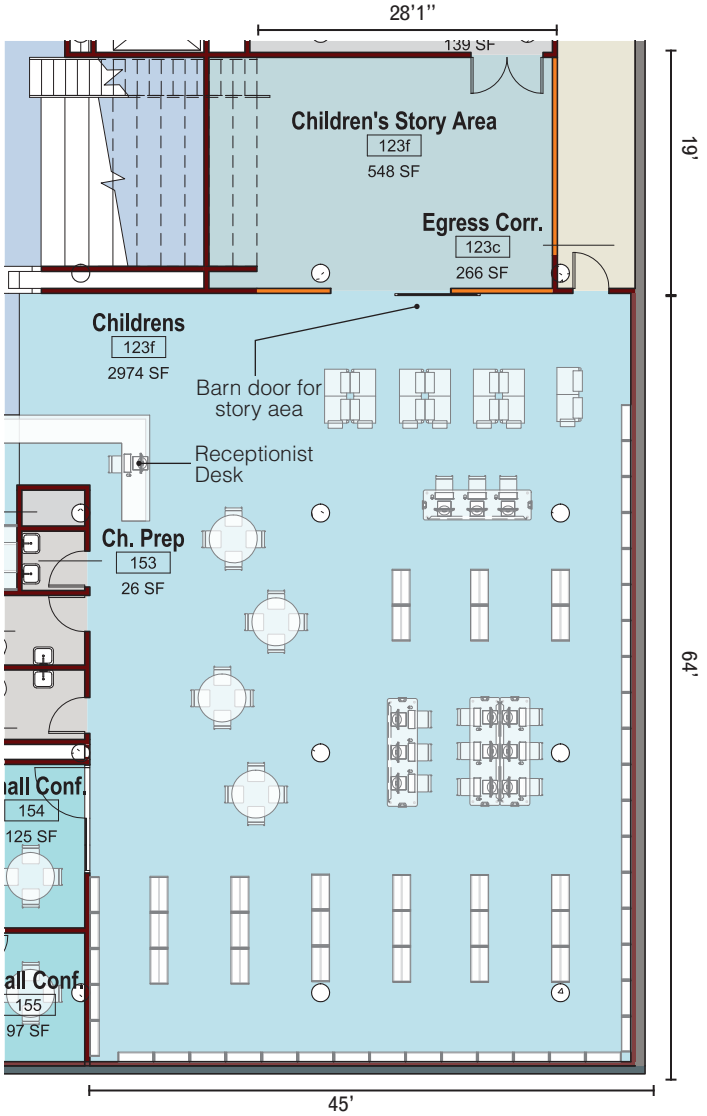
Technical Requirements

Doors/Windows	none	Lighting	Ambient Light
Mechanical		Security	
Tech/Electrical		Signage	
Plumbing/FP		Accessibility	1 table ht. 26"-30"
A/V			



Existing Floor Plan

Scale: 1/16" = 1'-0"



Proposed Floor Plan

Scale: 1/16" = 1'-0"

204 | Literary Center Stacks

Existing

Area: 873 SF
User: Public

Function/Performance

- Collection stacks and work tables for the Literacy Center.
- Well day lit, pleasant space.
- Underused space.
- Existing furnishings are old and inflexible.
-

Considerations

- Space appears oversized for current use. Will need to be reconsidered as part of the integration of the Literacy Center with the Library

Finishes + Condition

Area	Finish	Condition
Floor	CPT	Fair
Ceiling	CIP/GWB	Fair
Wall	GWB	Fair
Base	VNYL	Fair

Proposed

Area: 1,031 SF
User: Public
Occupant Load: 1 occupant/100 SF
Collection Size: 8,000 vols. / 53 SFS

Function/Performance

- Stack are a and reading area for the literacy center.
- Well lit reading spaces with adjacency to stacks.
- Stack area for literary center collection

Fixtures/Furniture/Equipment

- 53 sfs
- 4 tables, 18 table seating
- 6 comfortable seating options

Other Information

- Text goes here

Finishes

Area	Finish
Floor	HW
Ceiling	N/A
Wall	GWB
Base	WOOD

Technical Requirements

Doors/Windows	none	Lighting	Ambient Light
Mechanical		Security	
Tech/Electrical	Power/Data	Signage	Collection ID
Plumbing/FP		Accessibility	42" b/w Stacks
A/V			

203 | Computers

Existing

Area: 708 SF
User: Public

Function/Performance

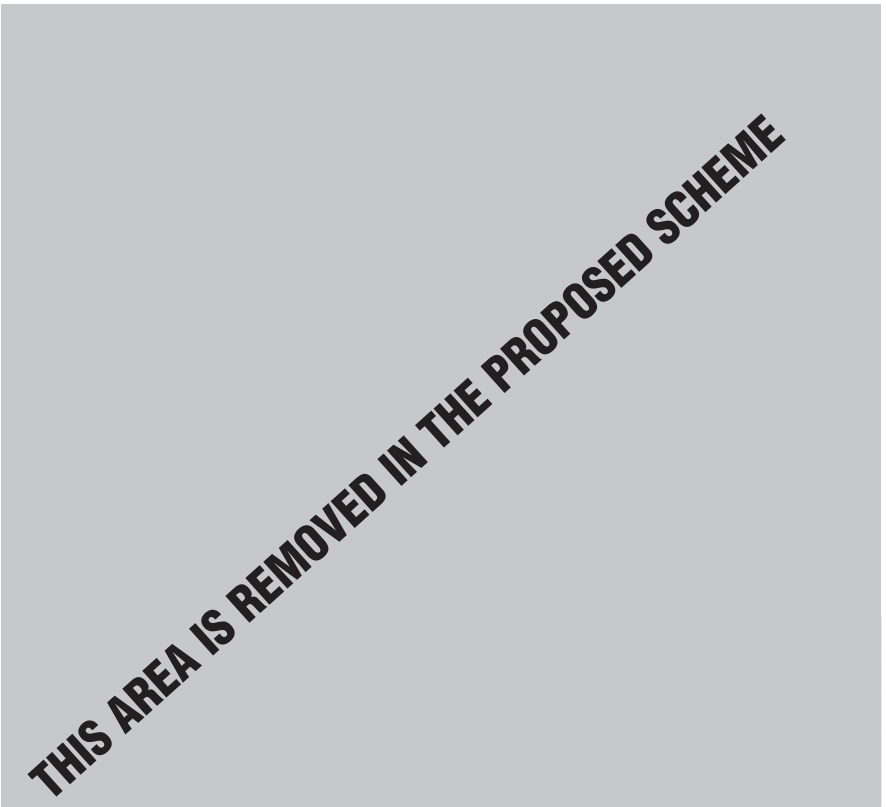
- Computer workstations for public use
- Well used area that has pleasing access to daylight.
- Existing furnishings are old, bulky, and inflexible.

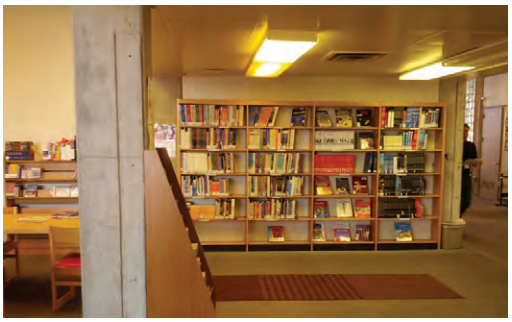
Considerations

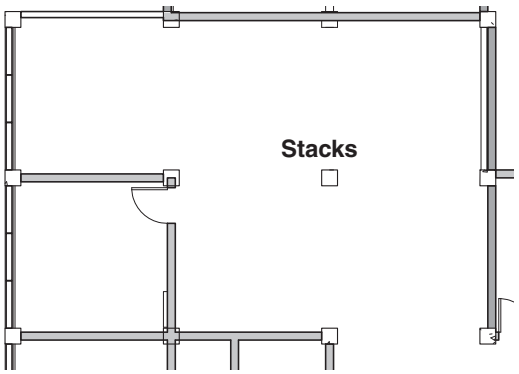
- Space works well for current use. Will need to be reconsidered as part of the integration of the Literacy Center with the Library

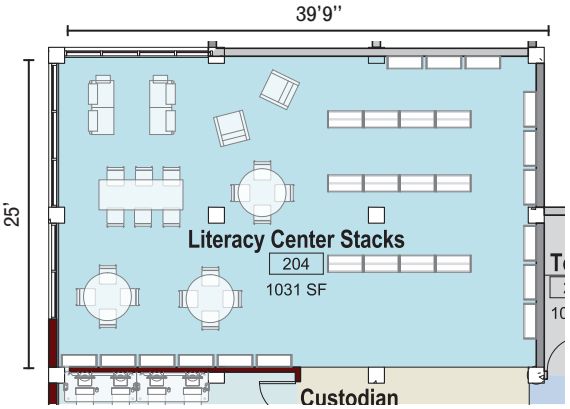
Finishes + Condition

Area	Finish	Condition
Floor	CPT	Fair
Ceiling	CIP	Fair
Wall	GYP, CIP	Fair
Base	VNYL	Fair







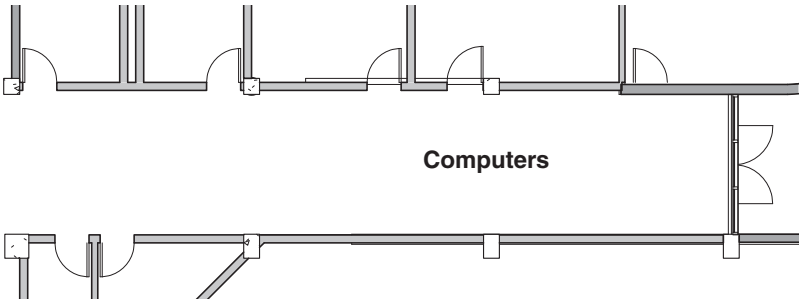


Existing Floor Plan

Scale: 1/16" = 1'-0"

Proposed Floor Plan

Scale: 1/16" = 1'-0"



Existing Floor Plan

Scale: 1/16" = 1'-0"

206 | Literacy Center

Existing

Area: 902 SF
User: Public

Function/Performance

- Primary Literacy Center Classroom Area
- Very well used component of the building
- Existing furnishings are old, bulky and inflexible.

Considerations

- Space works well for current use. Will need to be reconsidered as part of the integration of the Literacy Center with the Library

Finishes + Condition

Area	Finish	Condition
Floor	VCT	Fair
Ceiling	CIP	Fair
Wall	GWB	Fair
Base	VNYL	Fair

Proposed

Area: 430 SF
User: Public
Occupant Load: 1 occupant/50 SF
Collection Size: N/A

Function/Performance

- Reduced in size with separate computer room and classroom.

Fixtures/Furniture/Equipment

- 2 tables/ 12 table seating

Other Information

Finishes

Area	Finish
Floor	RUBBER
Ceiling	N/A
Wall	GWB
Base	VNYL

Technical Requirements

Doors/Windows	none	Lighting	Ambient Light
Mechanical		Security	
Tech/Electrical		Signage	
Plumbing/FP		Accessibility	
A/V			

207 | Classroom

Existing

Area: 193 SF
User: Public

Function/Performance

- Secondary classroom area within the Literacy Center
- Great access to natural light
- Existing furnishings are old, bulky and inflexible.

Considerations

- Space appears to be underused. Will need to be reconsidered as part of the integration of the Literacy Center with the Library

Finishes + Condition

Area	Finish	Condition
Floor	VCT	Fair
Ceiling	CIP/GWB	Fair
Wall	GWB	Fair
Base	VNYL	Fair

Proposed

Area: 579 SF
User: Public
Occupant Load: 1 occupant/50 SF
Collection Size: N/A

Function/Performance

- Classroom area associated with the literacy center.

Fixtures/Furniture/Equipment

- 2 work stations
- 2 task chairs
- 1 desk

Other Information

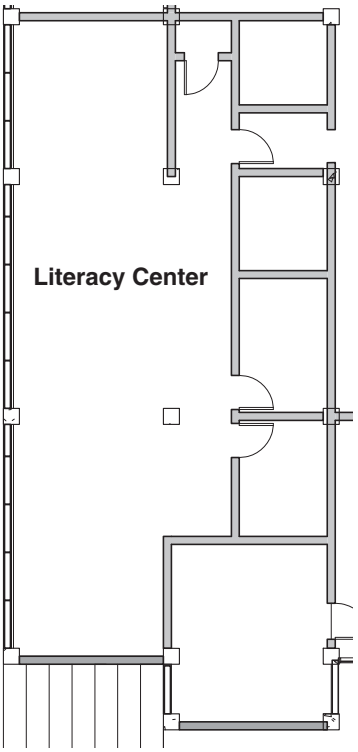
- AV requirements for classrooms may be handled with a rotating cart.

Finishes

Area	Finish
Floor	RUBBER
Ceiling	N/A
Wall	GWB
Base	VNYL

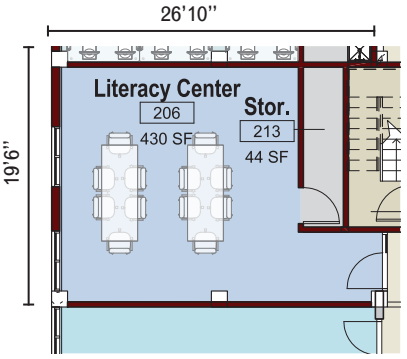
Technical Requirements

Doors/Windows	none	Lighting	Ambient Light
Mechanical		Security	
Tech/Electrical	Power/Data	Signage	
Plumbing/FP		Accessibility	
A/V			



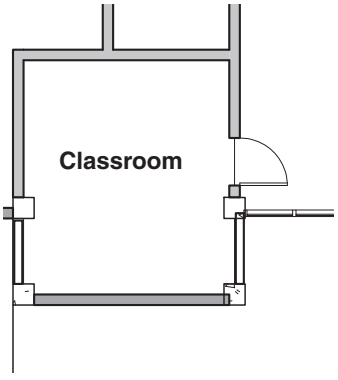
Existing Floor Plan

Scale: 1/16" = 1'-0"



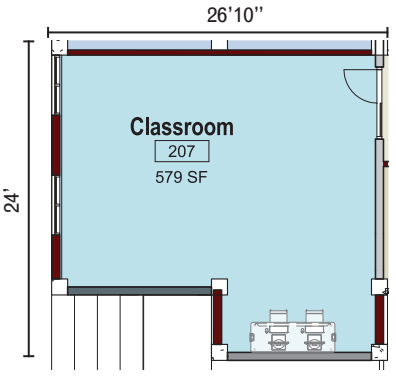
Proposed Floor Plan

Scale: 1/16" = 1'-0"



Existing Floor Plan

Scale: 1/16" = 1'-0"



Proposed Floor Plan

Scale: 1/16" = 1'-0"

208 | Classroom

Existing

Area: 71 SF
User: Public

Function/Performance

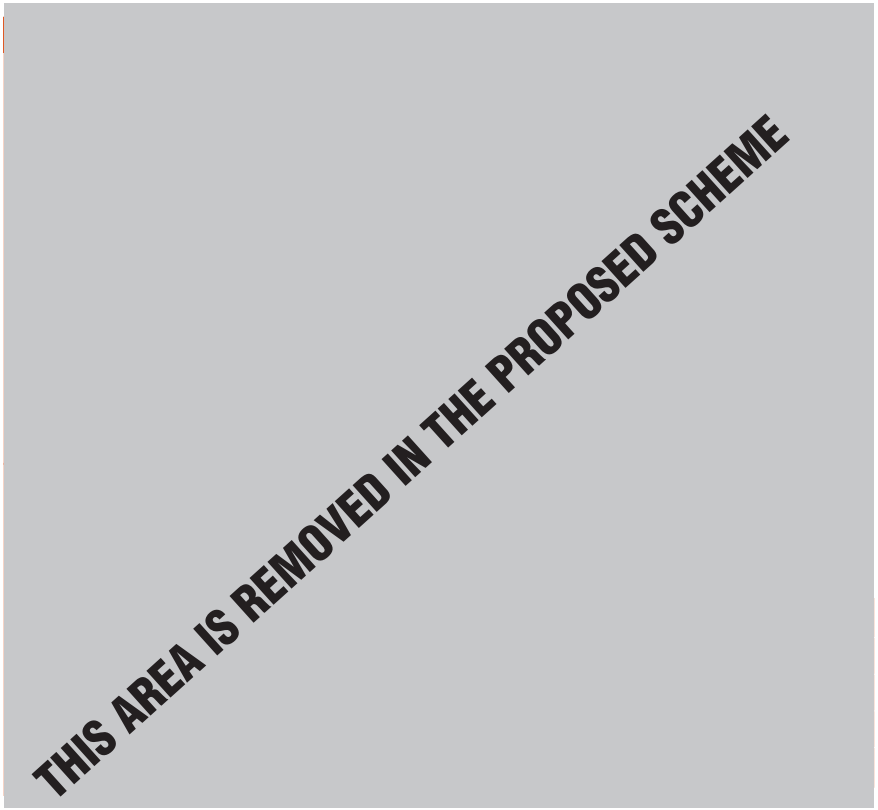
- Secondary classroom area within the Literacy Center
- Doesn't appear to be in use
- Existing furnishings are old, bulky and inflexible.

Considerations

- Space appears to be underused. Will need to be reconsidered as part of the integration of the Literacy Center with the Library

Finishes + Condition

Area	Finish	Condition
Floor	VCT	Fair
Ceiling	GWB	Fair
Wall	GWB	Fair
Base	VNYL	Fair



209 | Kitchen

Existing

Area: 82 SF
User: Staff

Function/Performance

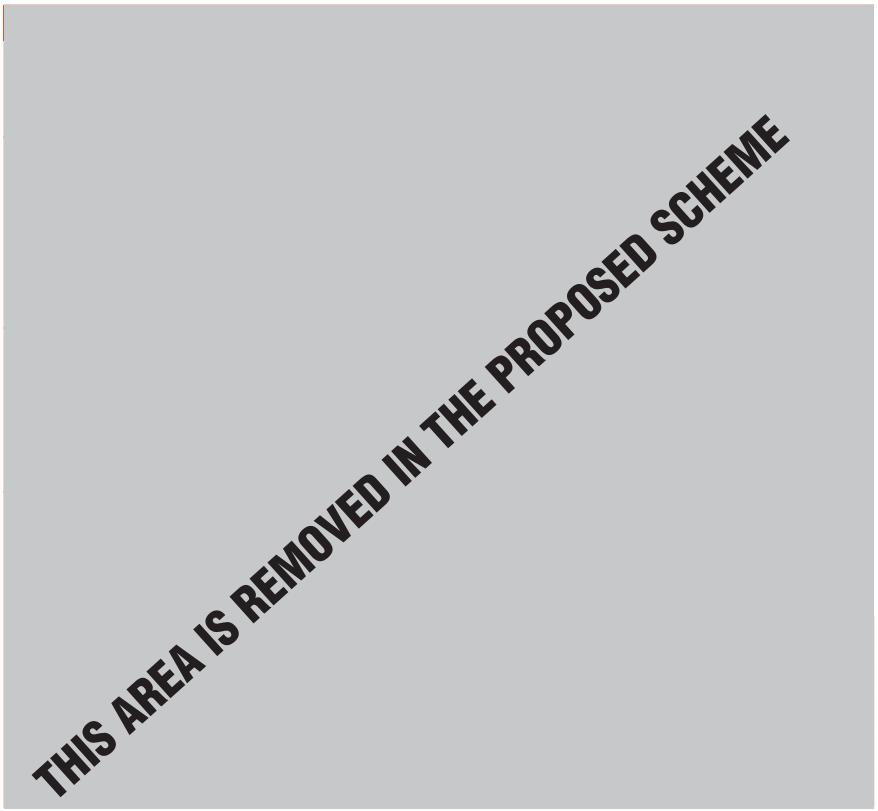
- Kitchen that
- Cabinets and equipment in poor condition
- Appears to be an underused remnant of the areas prior use as a day care facility

Considerations

- Space appears to be underused. Will need to be reconsidered as part of the integration of the Literacy Center with the Library

Finishes + Condition

Area	Finish	Condition
Floor	VCT	Poor
Ceiling	CIP	Fair
Wall	GWB	Fair
Base	VNYL	Fair



210,211 | Toilet, Vestibule

Existing

Area: 57 SF(210),34 SF(211)

User: Public

Function/Performance

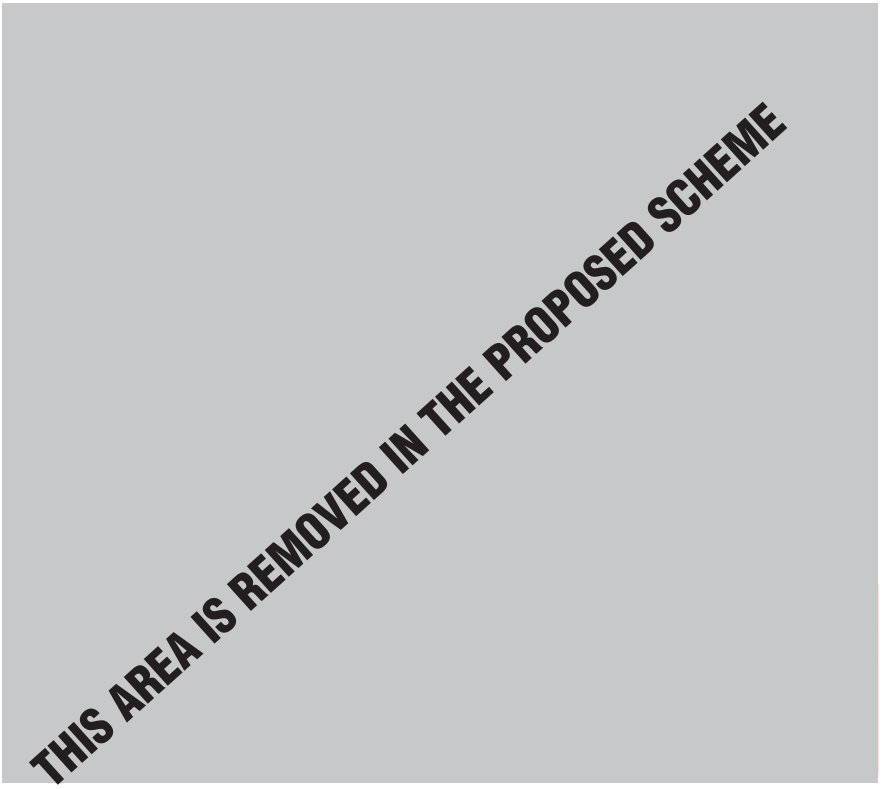
- (210) Unused toilet room
- (210) Appears to be a remnant of the areas prior use as a day care facility
- (211) Connection between Literacy Center classrooms and the lobby.

Considerations

- Space appears to be underused. Will need to be reconsidered as part of the integration of the Literacy Center with the Library

Finishes + Condition

Area	Finish	Condition
Floor	CT	Fair
Ceiling	CIP	Fair
Wall	GWB/CT	Fair
Base	CT	Fair



212, 213 | Toilet, Storage

Existing

Area: 51 SF(212), 12 SF(213)

User: Public

Function/Performance

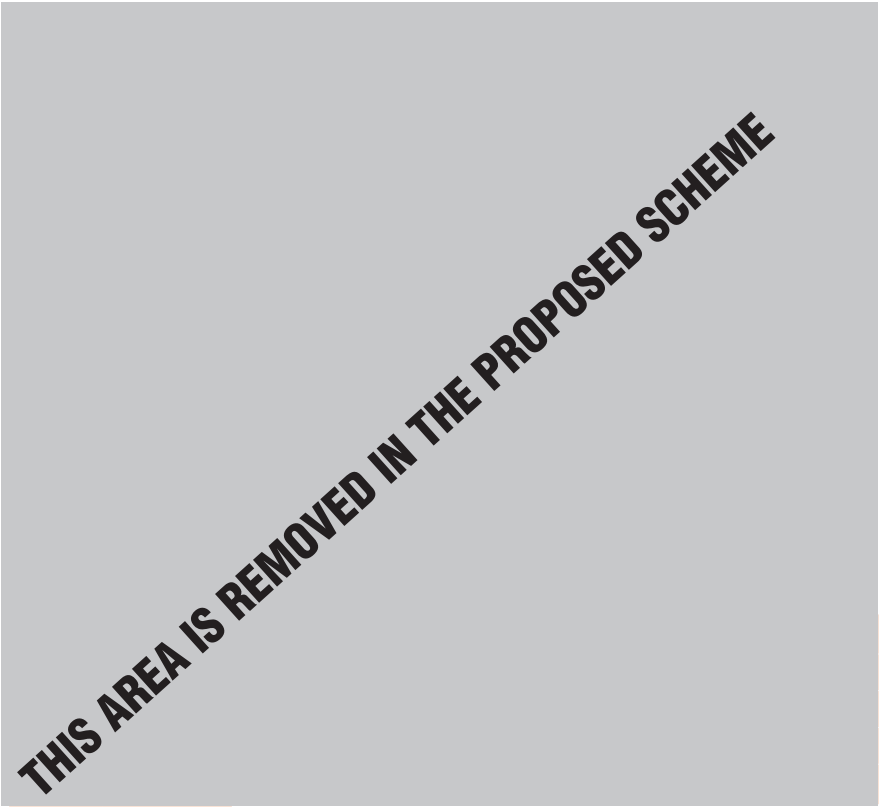
- (212) Underused toilet room
- (213) Underused closet

Considerations

- Space appears to be underused. Will need to be reconsidered as part of the integration of the Literacy Center with the Library

Finishes + Condition

Area	Finish	Condition
Floor	VCT	Fair
Ceiling	GWB	Fair
Wall	GWB	Fair
Base	VNYL	Fair



214 | Toilet

Existing

Area: 108 SF
User: Public

Function/Performance

- Primary womens bathroom for second level.
- Generally in good shape - though some fixtures and accessories show sign of age
- Well positioned in the center which allows for staff to monitor the area

Considerations

- Currently works well.
- While not a primary program area, the bathrooms should be welcoming and hospitable.

Finishes + Condition

Area	Finish	Condition
Floor	CT	Fair
Ceiling	GWB	Fair
Wall	GWB	Fair
Base	CT	Fair

Proposed

Area: 108 SF
User: Public
Occupant Load:
Collection Size:

Function/Performance

- Women's restroom for library patrons.
- Number of fixtures is determined by the Massachusetts State Plumbing Code based on occupancy.

Fixtures/Furniture/Equipment

- Sink
- Toilet, standard toilet accessories

Other Information

Finishes

Area	Finish
Floor	PT
Ceiling	TECT
Wall	GWB/PT
Base	CT

Technical Requirements

Doors/Windows	Push/pull/lock	Lighting	
Mechanical		Security	
Tech/Electrical	GFI outlet	Signage	Room ID
Plumbing/FP	Sinks/Toilet/Flr	Accessibility	
A/V			

215 | Toilet

Existing

Area: 108 SF
User: Public

Function/Performance

- Primary womens bathroom for second level.
- Generally in good shape - though some fixtures and accessories show sign of age
- Well positioned in the center which allows for staff to monitor the area

Considerations

- Currently works well.
- While not a primary program area, the bathrooms should be welcoming and hospitable.

Finishes + Condition

Area	Finish	Condition
Floor	CT	Fair
Ceiling	GWB	Fair
Wall	GWB	Fair
Base	CT	Fair

Proposed

Area: 108 SF
User: Public
Occupant Load:
Collection Size:

Function/Performance

- Women's restroom for library patrons.
- Number of fixtures is determined by the Massachusetts State Plumbing Code based on occupancy.

Fixtures/Furniture/Equipment

- Sink
- Toilet, standard toilet accessories

Other Information

Finishes

Area	Finish
Floor	PT
Ceiling	TECT
Wall	GWB/PT
Base	CT

Technical Requirements

Doors/Windows	Push/pull/lock	Lighting	
Mechanical		Security	
Tech/Electrical	GFI outlet	Signage	Room ID
Plumbing/FP	Sinks/Toilet/Flr	Accessibility	
A/V			

216 | Workroom

Existing

Area: 168 SF
User: Staff

Function/Performance

- Primary support space for Literacy Center Staff.
- Cabinets an furnishings in fair condition.
- Could benefit from a more organized storage strategy

Considerations

- Space works well for current use. Will need to be reconsidered as part of the integration of the Literacy Center with the Library

Finishes + Condition

Area	Finish	Condition
Floor	VCT	Fair
Ceiling	GWB	Fair
Wall	GWB	Fair
Base	VNYL	Fair

205 | Office

Existing

Area: 168 SF
User: Staff

Function/Performance

- Office space for Literacy Center staff
- Existing furnishings are old and inflexible.

Considerations

- Space works well for current use. Will need to be reconsidered as part of the integration of the Literacy Center with the Library

Finishes + Condition

Area	Finish	Condition
Floor	CPT	Fair
Ceiling	CIP	Fair
Wall	GWB	Fair
Base	VNYL	Fair

Proposed

Area: 137 SF
User: Staff
Occupant Load:
Collection Size:

Function/Performance

- Private office for literacy center staff.

Fixtures/Furniture/Equipment

- 1 work station
- 1 task chair
- 1 desk

Other Information

Finishes

Area	Finish
Floor	RUBBER
Ceiling	TECT
Wall	GWB
Base	VNYL

Technical Requirements

Doors/Windows	Office Lockset	Lighting	Ambient/Task
Mechanical		Security	
Tech/Electrical	Power/Data/Tel	Signage	Room ID
Plumbing/FP		Accessibility	
A/V			

217 | Classroom

Existing

Area: 220 SF
User: Public

Function/Performance

- Computer training classroom
- Furnishings and equipment are well suited for the room

Considerations

- Space appears to works well for current use. Will need to be reconsidered as part of the integration of the Literacy Center with the Library

Finishes + Condition

Area	Finish	Condition
Floor	VCT	Fair
Ceiling	GWB	Fair
Wall	GWB	Fair
Base	VNYL	Fair

Proposed

Area: 273 SF
User: Public
Occupant Load: 1 occupant/50 SF
Collection Size:

Function/Performance

- Computer classroom associated with the Literacy Center.

Fixtures/Furniture/Equipment

- 10 Work Stations
- 10 task chiars

Other Information

- AV requirements for classrooms may be handled with a rotating cart.

Finishes

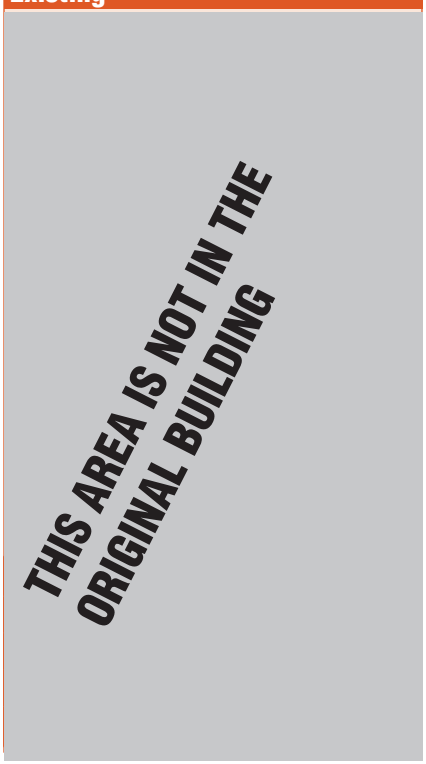
Area	Finish
Floor	RUBBER
Ceiling	TECT
Wall	GWB
Base	VNYL

Technical Requirements

Doors/Windows	none	Lighting	Ambient Light
Mechanical		Security	
Tech/Electrical	Power/Data	Signage	Room ID
Plumbing/FP		Accessibility	
A/V			

154 | Small Conference

Existing



Proposed

Area: 125 SF
User: Public
Occupant Load: 1 occupant/50 SF
Collection Size:

Function/Performance

- Conference room associated with adult reading areas.

Fixtures/Furniture/Equipment

- 1 table, 4 seats

Other Information

- AV requirements may be handled with a rotating cart.

Finishes

Area	Finish
Floor	HW
Ceiling	TECT
Wall	GWB
Base	WOOD

Technical Requirements

Doors/Windows		**Lighting**	Ambient Light
Mechanical		**Security**	
Tech/Electrical	Power/Data/Tel	**Signage**	Room ID
Plumbing/FP		**Accessibility**	
A/V	TV		

127, 128 | Toilet, Toilet

Existing

Area: 25 SF(127),25 SF(128)
User: Public

Function/Performance

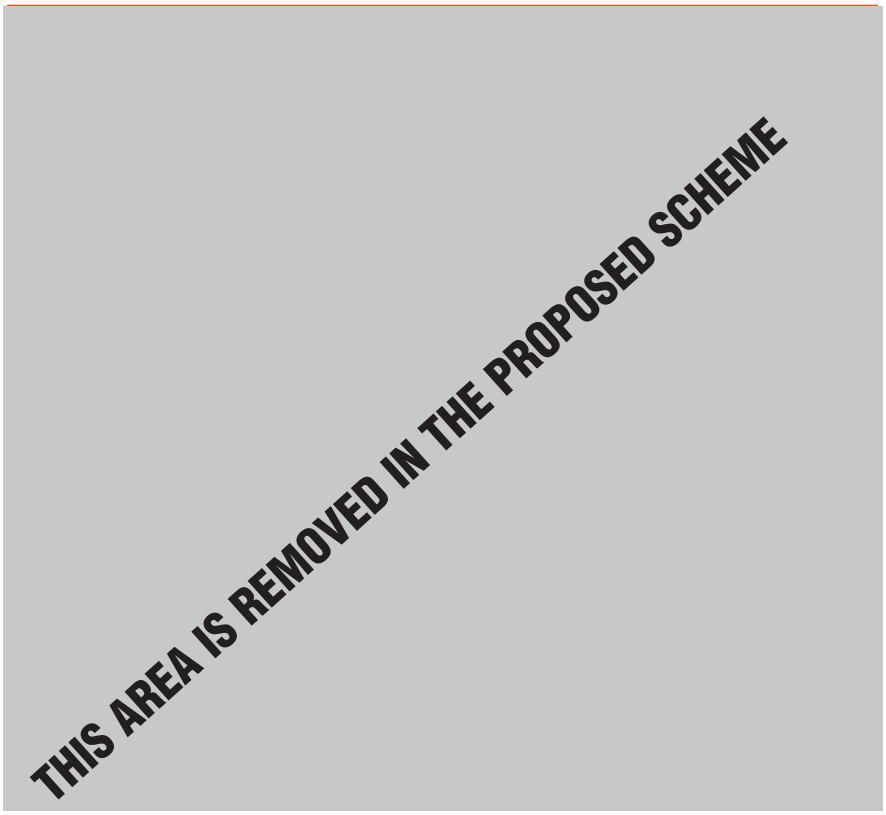
- Primary restrooms used by library patrons.

Considerations

- All restrooms should be reconsidered. Visual monitoring of this areas is a critical public safety concern.
- While not a primary program area, the bathrooms should be welcoming and hospitable.

Finishes + Condition

Area	Finish	Condition
Floor	CT	Fair
Ceiling	GWB	Fair
Wall	GWB	Fair
Base	CT	Fair



101 | Community Room

Existing

Area: 2371 SF
User: Public

Function/Performance

- Flexible multi purpose community space serves as a much needed community meeting space and hosts various programs and events.
- Equipment and furniture storage are stored within room, which minimizes the areas usable space and creates visual clutter. These elements should be housed in designated storage areas.
- Acoustics are poor for performances. (See Acoustical Report for more information)
- Existing furnishings in need of replacement
- Lack of sprinklers can be prohibitive for future upgrades.
- Lighting controls poorly positioned in the room.
- Exposed duct work not well integrated with the design of the space

Considerations

- Work to better reflect and accommodate the various functions of the space.
- Develop the design to better reflect the spaces' significance to the community.
- Develop storage strategy that allows for maximum use and flexibility of the available area.
- Consider brightening the area by upgrading finishes and incorporating daylight to lighten the space.

Finishes + Condition

Area	Finish	Condition
Floor	VCT	Fair
Ceiling	GWB/TECT	Poor
Wall	GWB/TECT	Poor
Base	VNYL	Fair

Proposed

Area: 2375 SF
User: Public
Occupant Load: 1 occupant / 7 sf net
Collection Size: N/A

Function/Performance

- Multipurpose room for larger lectures, special events, and after hours use.

Fixtures/Furniture/Equipment

- 128 stackable chairs
- multimedia lectern, portable platform stage, tables
- Computer, Phone, AV rack with equipment, flatscreen TV, LCD projector

Other Information

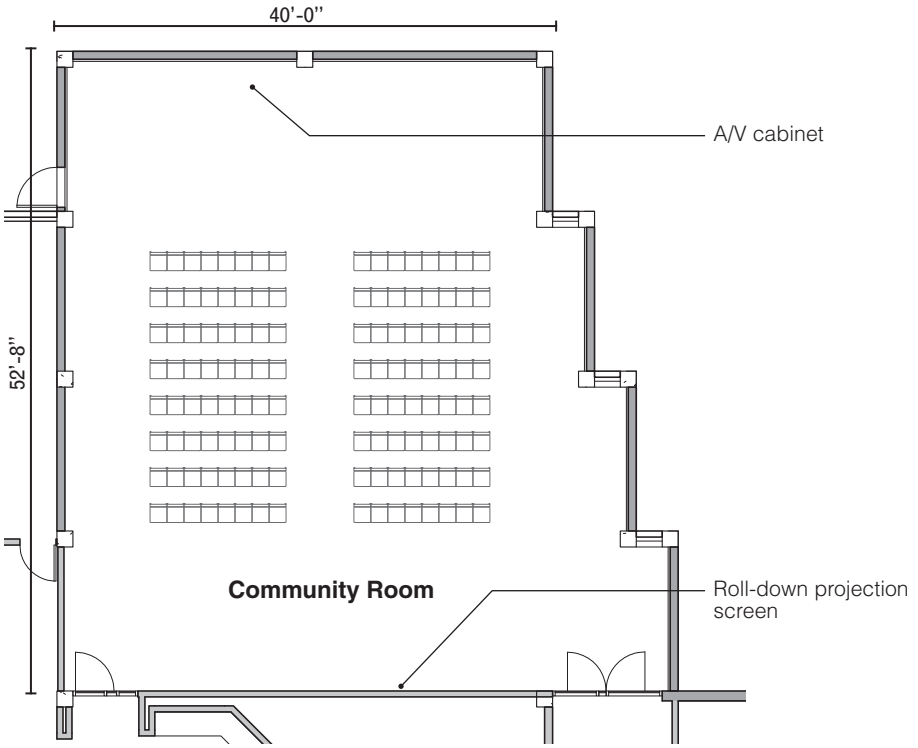
Other Information

Finishes

Area	Finish
Floor	TERR
Ceiling	WOOD
Wall	GWB/WOOD
Base	N/A

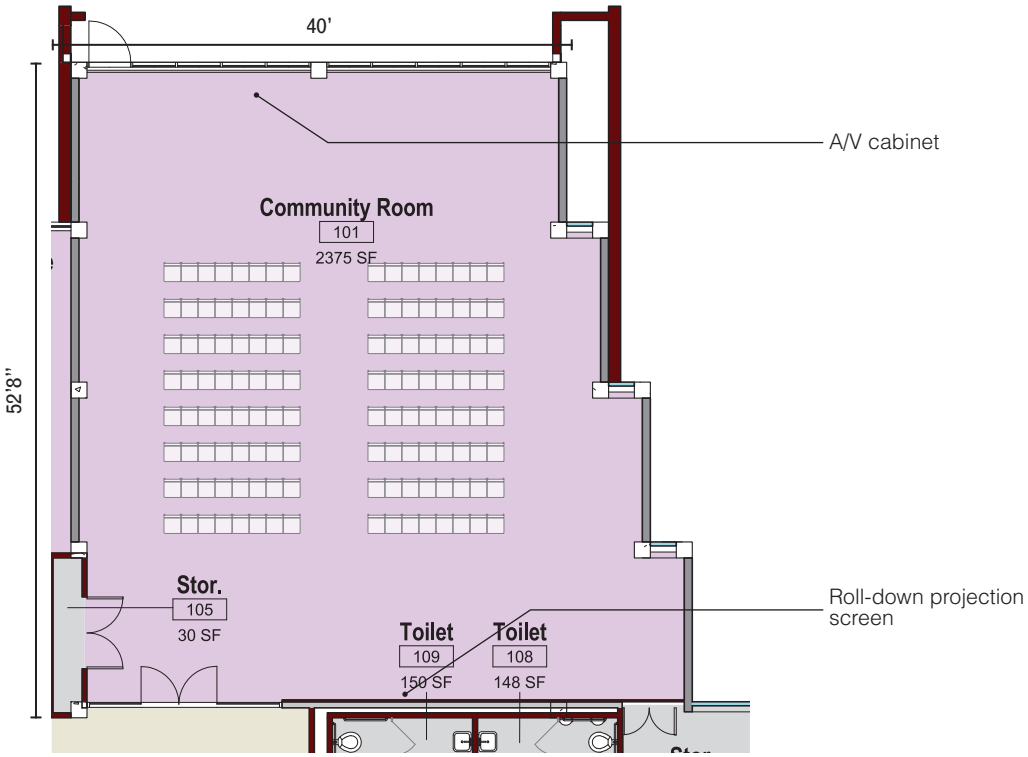
Technical Requirements

Doors/Windows	Classroom Lock	Lighting	Ambient Light
Mechanical		Security	
Tech/Electrical	Power/Data/Tel	Signage	Room ID
Plumbing/FP		Accessibility	
A/V	Sound, Video		



Existing Floor Plan

Scale: 1/16" = 1'-0"



Proposed Floor Plan

Scale: 1/16" = 1'-0"

102 | Office

Existing

Area: 330 SF
User: Staff

Function/Performance

- Currently used as workspace for two part time library staff members.
- Underused space that is too large for its current function.

Considerations

- Given this rooms location in the building, and its double height volume, it could be reconsidered to house some more public function.
- Its proximity to the front plaza and large expanse of windows further make it well suited for more public program.

Finishes + Condition

Area	Finish	Condition
Floor	VCT	Fair
Ceiling	GWB	Fair
Wall	GWB	Fair
Base	VNYL	Fair

Proposed

Area: 337 SF
User: Public
Occupant Load: 1 occupant/50 SF
Collection Size:

Function/Performance

- Conference room associated with community room.

Fixtures/Furniture/Equipment

- 1 conference table, 14 seats

Other Information

Finishes

Area	Finish
Floor	CORK
Ceiling	TECT
Wall	GWB
Base	WOOD

Technical Requirements

Doors/Windows		Lighting	Ambient Light
Mechanical		Security	
Tech/Electrical	Power/Data/Tel	Signage	Room ID
Plumbing/FP		Accessibility	
A/V			

103 | Conference

Existing

Area: 330 SF
User: Staff, Public

Function/Performance

- Well used meeting space used for both internal staff and community meetings.
- Features a distinct stepped profile of its ceiling
- Existing finishes and furnishings show signs of age.

Considerations

- Given its position within the building, this area could potentially have a more tangible connection to the front plaza.
- Update the finishes and furnishings

Finishes + Condition

Area	Finish	Condition
Floor	CPT	Fair
Ceiling	ACT/CIP	Fair
Wall	GWB	Fair
Base	VNYL	Fair

Proposed

Area: 367 SF
User: Public
Occupant Load: 1 occupant/50 SF
Collection Size:

Function/Performance

- Conference room associated with community room.

Fixtures/Furniture/Equipment

- 1 conference table, 14 seats

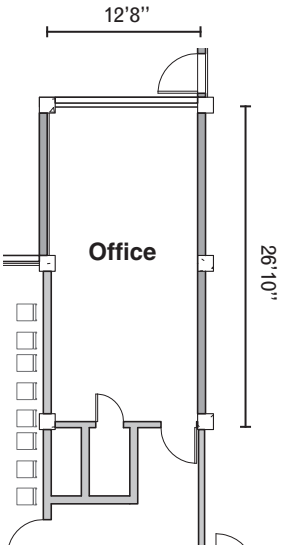
Other Information

Finishes

Area	Finish
Floor	CORK
Ceiling	TECT
Wall	GWB
Base	WOOD

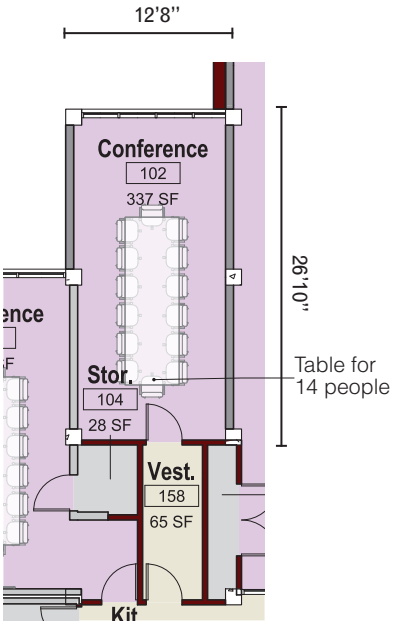
Technical Requirements

Doors/Windows		Lighting	Ambient Light
Mechanical		Security	
Tech/Electrical	Power/Data/Tel	Signage	Room ID
Plumbing/FP		Accessibility	
A/V			



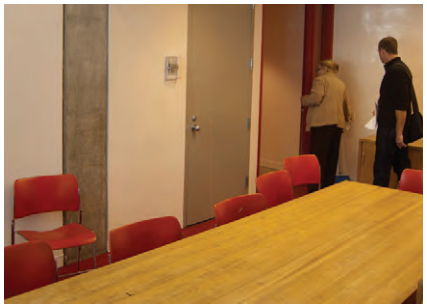
Existing Floor Plan

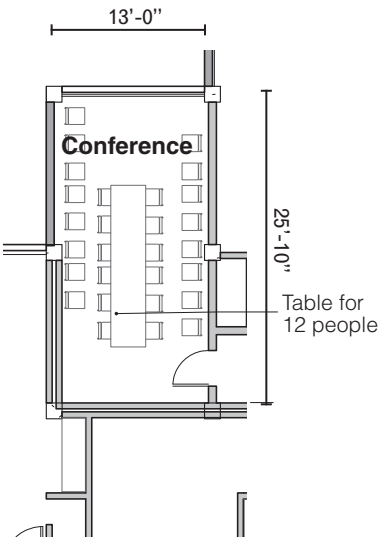
Scale: 1/16" = 1'-0"



Proposed Floor Plan

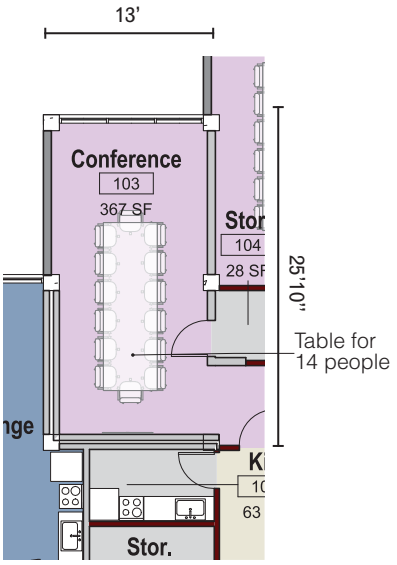
Scale: 1/16" = 1'-0"





Existing Floor Plan

Scale: 1/16" = 1'-0"



Proposed Floor Plan

Scale: 1/16" = 1'-0"

107 | Kitchenette

Existing

Area: 47 SF
User: Public

Function/Performance

- Kitchenette used by community groups for functions in the Community Room.
- Currently very cramped and does not meet accessibility requirements.
- The tightness of the space makes it difficult to comfortably hold more than a couple of people in there at a time.

Considerations

- Ensure compliance with all applicable building and accessibility codes.
- Consider the spaces that this kitchen is serving and explore relocating to have a more direct connection to critical served spaces.

Finishes + Condition

Area	Finish	Condition
Floor	CT	Fair
Ceiling	GWB	Fair
Wall	CT	Fair
Base	VNYL	Fair

Proposed

Area: 63 SF Occupant Load:
User: Public Collection Size:

Function/Performance

- Small kitchen for minor food set up.

Fixtures/Furniture/Equipment

- Counters with backsplashes
- Base and upper cabinets
- Refrigerator, microwave, stove, dishwasher

Other Information

Finishes

Area	Finish
Floor	RUBBER
Ceiling	TECT
Wall	GWB
Base	VNYL

Technical Requirements

Doors/Windows		Lighting	Ambient Light
Mechanical		Security	
Tech/Electrical	Power Appliances	Signage	
Plumbing/FP		Accessibility	
A/V			

108, 109 | Toilet

Existing

Area: 137 SF (108), 172 SF (109)
User: Public

Function/Performance

- Restrooms that are open to the public when community room is in operation.
- In poor shape - damaged partitions, poor ventilation and harsh lighting create an inhospitable environment.
- The inability to visually monitor this space makes it a hot spot for unsavory activities. As a result it is locked and only open when there is an even taking place in the community room.
- Handicapped Accessibility is also a concern

Considerations

- All restrooms should be reconsidered. Visual monitoring of this areas is a critical public safety concern.
- While not a primary program area, the bathrooms should be welcoming and hospitable.

Finishes + Condition

Area	Finish	Condition
Floor	CT	Fair
Ceiling	GWB	Fair
Wall	CMU	Fair
Base	N/A	Fair

Proposed

Area: 148 SF (108), 150 SF (109) Occupant Load:
User: Public Collection Size:

Function/Performance

- Restrooms available for library patrons use.
- Number of fixtures is determined by the Massachusetts State Plumbing Code based on occupancy.

Fixtures/Furniture/Equipment

- Sink (3 each)
- 4 toilets (Women's Restroom)
- 2 toilets and 2 urinals (Men's Restroom), 2 urinals, stall partitions, standard toilet accessories
- Floor drain (1 each)
- Standard toilet accessories

Other Information

Finishes

Area	Finish
Floor	PT
Ceiling	TECT
Wall	GWB
Base	PT

Technical Requirements

Doors/Windows	Push/pull/lock	Lighting	
Mechanical		Security	
Tech/Electrical	GFI outlet	Signage	Room ID
Plumbing/FP	Sink/Toilet/Drain	Accessibility	1 toilet/stall
A/V			

110 | Staff Lounge

Existing

Area: 370 SF
User: Staff

Function/Performance

- Primary break area for library staff members features personal storage, a full kitchen, an eating area and lounge seating.
- Generously sized and features several distinct areas -
- Features an underused closet
- Furnishings are old, cheap and inflexible
- Existing storage lockers are very institutional

Considerations

- Make a nicer place to relax by enhancing daylight access and adding more comfortable seating.
- Consider the equipment needs of the staff kitchen (i.e., coffee maker)

Finishes + Condition

Area	Finish	Condition
Floor	VCT	Fair
Ceiling	ACT	Fair
Wall	GYB	Fair
Base	VNYL	Fair

Proposed

Area: 371 SF
User: Staff
Occupant Load:
Collection Size:

Function/Performance

- Staff break room with small kitchen for minor food preparation, casual seating, and lockers for personal items.

Fixtures/Furniture/Equipment

- Tables
- Task chairs
- Lounge chairs
- Coffee table
- Standard kitchen appliences

Other Information

Finishes

Area	Finish
Floor	RUBBER
Ceiling	TECT
Wall	GWB
Base	VNYL

Technical Requirements

Doors/Windows	Classroom Lock	Lighting	Ambient Light
Mechanical		Security	
Tech/Electrical	Power/Data	Signage	
Plumbing/FP	Sink	Accessibility	
A/V			

104, 105 | Storage

Existing

Area: 15 SF(104), 20 SF(105)
User: Staff

Function/Performance

- 104: Storage closet used by the "Friends of the Dudley Library."
- 105: Storage closet is used by library staff.
- Both closets are well sized but inefficiently used and lack a clear organizational strategy.

Considerations

- Develop a comprehensive storage strategy that takes into account zoning resources by type, and user. In many cases, the simple addition of a shelving system would

Finishes + Condition

Area	Finish	Condition
Floor	VCT	Fair
Ceiling	GWB	Fair
Wall	GWB	Fair
Base	VNYL	Fair

Proposed

Area: 28 SF(104), 30 SF(105)
User: Staff
Occupant Load:
Collection Size:

Function/Performance

- General storage used by "Friends of the Dudley Library" and library staff for library materials such as seasonal displays, supplies, and book carts.

Fixtures/Furniture/Equipment

- Industral Shelving Units

Other Information

Finishes

Area	Finish
Floor	CIP
Ceiling	N/A
Wall	GWB
Base	VNYL

Technical Requirements

Doors/Windows	Storeroom Lock	Lighting	Utility Lighting
Mechanical		Security	
Tech/Electrical		Signage	
Plumbing/FP		Accessibility	
A/V			

111, 112 | Toilet

Existing

Area: 22 SF(111),43 SF(112)
User: Staff

Function/Performance

- Staff bathrooms are very poorly laid out.
- Cramped spaces that feel very tight and cold.
- Not accessible

Considerations

- Develop fully code compliant toilet facilities.

Finishes + Condition

Area	Finish	Condition
Floor	CT	Fair
Ceiling	GWB	Fair
Wall	CT	Fair
Base	VNYL	Fair

Proposed

Area: 56 SF(111),54 SF(112) Occupant Load:
User: Staff Collection Size:

Function/Performance

- Accessible restrooms for staff use only.

Fixtures/Furniture/Equipment

- Sink
- Toilet, toilet accessories
- Floordrain

Other Information

Finishes

Area	Finish
Floor	PT
Ceiling	TECT
Wall	GWB/PT
Base	PT

Technical Requirements

Doors/Windows	Privacy Lockset	**Lighting**	Utility Lighting
Mechanical		**Security**	
Tech/Electrical		**Signage**	
Plumbing/FP		**Accessibility**	Sink, Toilet, Acc.
A/V			

113 | Storage

Existing

Area: 50 SF
User: Staff

Function/Performance

- Storage closet is used by library staff and the "Friends of the Dudley Library".
- Closet is inefficiently used and lack a clear organizational strategy.

Considerations

- Develop a comprehensive storage strategy that takes into account zoning resources by type, and user. In many cases, the simple addition of a shelving system would greatly make storage more efficient.

Finishes + Condition

Area	Finish	Condition
Floor	CIP	Fair
Ceiling	CIP	Fair
Wall	CMU	Fair
Base	N/A	Fair

Proposed

Area: 50 SF Occupant Load:
User: Staff Collection Size:

Function/Performance

- General storage used by "Friends of the Dudley Library" and library staff for library materials such as seasonal displays, supplies, and book carts.

Fixtures/Furniture/Equipment

- Industrial Shelving Units

Other Information

Finishes

Area	Finish
Floor	CIP
Ceiling	N/A
Wall	CMU
Base	N/A

Technical Requirements

Doors/Windows	Storeroom Lock	**Lighting**	Utility Lighting
Mechanical		**Security**	
Tech/Electrical		**Signage**	
Plumbing/FP		**Accessibility**	
A/V			

114, 115 | Custodian, Waste

Existing

Area: 34 SF(114),49 SF(115)
User: Staff

Function/Performance

- (114) Mop Sink....
- (115) Storage closet is used by library staff.
- (115) Closet is inefficiently used and lack a clear organizational strategy.

Considerations

- Develop a comprehensive storage strategy that takes into account zoning resources by type, and user. In many cases, the simple addition of a shelving system would greatly make storage more efficient.

Finishes + Condition

Area	Finish	Condition
Floor	CIP	Fair
Ceiling	CIP	Fair
Wall	CMU/CIP	Fair
Base	N/A	Fair

Proposed

Area: 34 SF(114),49 SF(115) Occupant Load:
User: Staff Collection Size:

Function/Performance

- Small room for custodial supplies and a mop sink.

Fixtures/Furniture/Equipment

- Industral Shelving Units
- Floor mounted mop sink

Other Information

Finishes

Area	Finish
Floor	CIP
Ceiling	N/A
Wall	CMU/CIP
Base	N/A

Technical Requirements

Doors/Windows	Storeroom Lock	Lighting	Utility Lighting
Mechanical		Security	
Tech/Electrical		Signage	Room ID
Plumbing/FP	Mop Sink	Accessibility	
A/V			

116 | Custodian

Existing

Area: 167 SF
User: Staff

Function/Performance

- Primary workspace for custodial staff
- Large amounts of loose storage highlights need for a better storage strategy for the library.

Considerations

- Develop a comprehensive storage strategy that takes into account zoning resources by type, and user. In many cases, the simple addition of a shelving system would greatly make storage more efficient.

Finishes + Condition

Area	Finish	Condition
Floor	VCT	Fair
Ceiling	CIP	Fair
Wall	CMU/CIP	Fair
Base	VNYL	Fair

Proposed

Area: 167 SF Occupant Load:
User: Staff Collection Size:

Function/Performance

- Efficient workspace for custodial staff.
- Organized storage system

Fixtures/Furniture/Equipment

- Industral Shelving Units

Other Information

Finishes

Area	Finish
Floor	RUBBER
Ceiling	N/A
Wall	CMU/CIP
Base	VNYL

Technical Requirements

Doors/Windows	Storeroom Lock	Lighting	Utility Lighting
Mechanical		Security	
Tech/Electrical		Signage	Room ID
Plumbing/FP		Accessibility	
A/V			

117 | Storage

Existing

Area: 44 SF
User: Staff

Function/Performance

- Storage closet is used by library staff.
- Closet is inefficiently used and lack a clear organizational strategy.

Considerations

- Develop a comprehensive storage strategy that takes into account zoning resources by type, and user. In many cases, the simple addition of a shelving system would greatly make storage more efficient.

Finishes + Condition

Area	Finish	Condition
Floor	VCT	Fair
Ceiling	CIP	Fair
Wall	CMU	Fair
Base	N/A	Fair

Proposed

Area: 44 SF
User: Staff
Occupant Load:
Collection Size:

Function/Performance

- Small, organized storage room for library staff

Fixtures/Furniture/Equipment

- Industral Shelving Units

Other Information

Finishes

Area	Finish
Floor	RUBBER
Ceiling	N/A
Wall	CMU
Base	N/A

Technical Requirements

Doors/Windows	Storeroom Lock	**Lighting**	Utility Lighting
Mechanical		**Security**	
Tech/Electrical		**Signage**	
Plumbing/FP		**Accessibility**	
A/V			

118 | Meter Room

Existing

Area: 120 SF
User: Staff

Function/Performance

- Storage closet is used by library staff.
- Closet is inefficiently used and lack a clear organizational strategy.

Considerations

- Develop a comprehensive storage strategy that takes into account zoning resources by type, and user. In many cases, the simple addition of a shelving system would greatly make storage more efficient.

Finishes + Condition

Area	Finish	Condition
Floor	VCT	Fair
Ceiling	CIP	Fair
Wall	CMU	Fair
Base	N/A	Fair

Proposed

Area: 120 SF
User: Staff
Occupant Load:
Collection Size:

Function/Performance

- Small, organized meter room used by custodial staff.

Fixtures/Furniture/Equipment

- Industral Shelving Units

Other Information

Finishes

Area	Finish
Floor	RUBBER
Ceiling	N/A
Wall	CMU
Base	N/A

Technical Requirements

Doors/Windows	Storeroom Lock	**Lighting**	Utility Lighting
Mechanical		**Security**	
Tech/Electrical		**Signage**	
Plumbing/FP		**Accessibility**	
A/V			

119 | Workroom

Existing

Area: 433 SF
User: Staff

Function/Performance

- Main work area for book processing
- Counters too deep, making shelves difficult to access
- Data equipment should be in a stand alone closet
- Existing sink is not frequently used

Considerations

- Foster better connectivity to circulation desk and other staff work areas
- Consider an island workspace for a more efficient layout that would permit easier access to wall shelving.

Finishes + Condition

Area	Finish	Condition
Floor	VCT	Fair
Ceiling	ACT	Fair
Wall	GYP	Fair
Base	VNYL	Fair

Proposed

Area: 387 SF
User: Staff
Occupant Load: 4 staff
Collection Size:

Function/Performance

- Room for receiving sorting, cataloging, and reshelving activities.

Fixtures/Furniture/Equipment

- 2 work stations
- 2 tables
- 2 task chairs

Other Information

Finishes

Area	Finish
Floor	RUBBER
Ceiling	TECT
Wall	GYP
Base	VNYL

Technical Requirements

Doors/Windows	Classroom Lock	**Lighting**	Ambient Light
Mechanical		**Security**	
Tech/Electrical	Power/Data/Tel.	**Signage**	Room ID
Plumbing/FP		**Accessibility**	
A/V			

120 | Storage

Existing

Area: 64 SF
User: Staff

Function/Performance

- Storage closet is used by library staff.
- Closet is inefficiently used and lack a clear organizational strategy.

Considerations

- Develop a comprehensive storage strategy that takes into account zoning resources by type, and user. In many cases, the simple addition of a shelving system would greatly make storage more efficient.

Finishes + Condition

Area	Finish	Condition
Floor	VCT	Fair
Ceiling	CIP	Fair
Wall	CIP/CMU	Fair
Base	N/A	Fair

Proposed

Area: 68 SF
User: Staff
Occupant Load:
Collection Size:

Function/Performance

- Small, organized storage room for library staff

Fixtures/Furniture/Equipment

- Industral Shelving Units

Other Information

Finishes

Area	Finish
Floor	RUBBER
Ceiling	CIP
Wall	CIP/CMU
Base	N/A

Technical Requirements

Doors/Windows	Storeroom Lock	**Lighting**	Utility Lighting
Mechanical		**Security**	
Tech/Electrical		**Signage**	
Plumbing/FP		**Accessibility**	
A/V			

122 | Librarian Office

Existing

Area: 182 SF
User: Staff, 5 persons

Function/Performance

- Workspace for Branch Librarian
- Large amount of books stored in office may reflect Insufficient storage elsewhere
- Poor ventilation
- Lack of connectivity (both literal and visual) with staff work areas and important public areas.
- Workspace for head librarian
- Small meeting space
- Media storage

Considerations

- Develop better connectivity to library staff and the library as a while
- Currently feels like a leftover space. Should reflect the importance of the branch librarian's position.

Finishes + Condition

Area	Finish	Condition
Floor	CPT	Fair
Ceiling	ACT	Fair
Wall	GYP, CIP	Fair
Base	VNYL	Fair

Proposed

Area: 141 SF
User: Staff, 5 persons
Occupant Load: 1 staff
Collection Size: 200 vols.

Function/Performance

- The private office of the branch librarian.

Fixtures/Furniture/Equipment

- 1 work station, desk, task chair
- 1 table, 4 guest chairs,

Other Information

Finishes

Area	Finish
Floor	RUBBER
Ceiling	TECT
Wall	GWB
Base	VNYL

Technical Requirements

Doors/Windows	Office Lockset	Lighting	Ambient/Task
Mechanical		Security	
Tech/Electrical	Power/Data/Tel.	Signage	Room ID
Plumbing/FP		Accessibility	
A/V			

125 | Stair 1

Existing

Area: 260 SF
User: Staff

Function/Performance

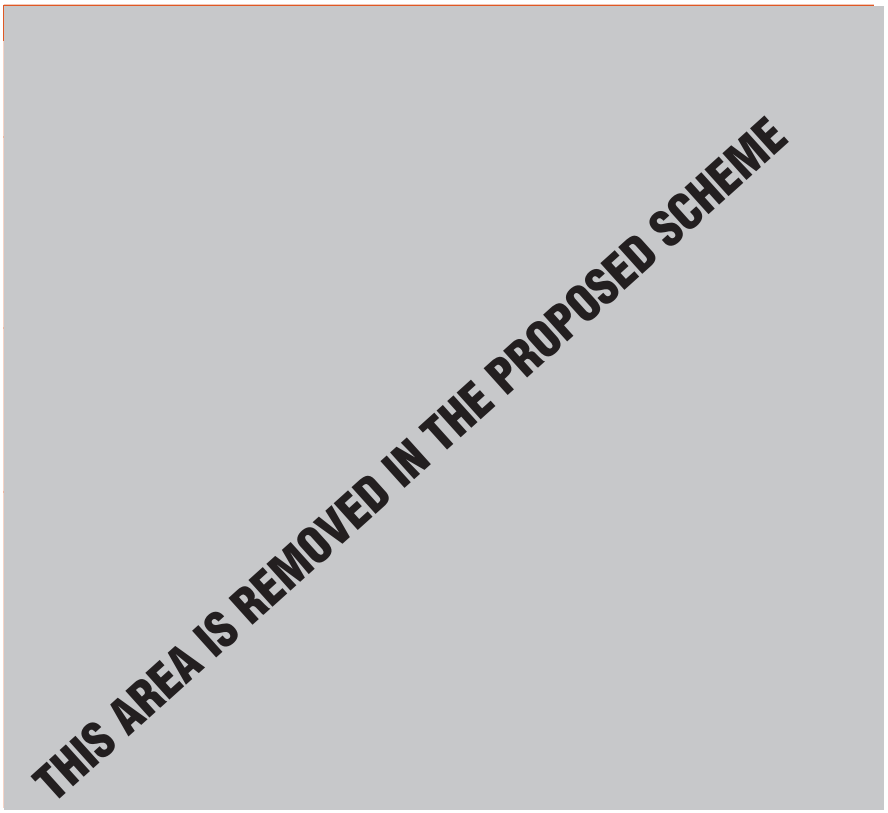
- Stair that connects lobby to Literacy Center above.

Considerations

- Reconsider use of the stair since there will likely be greater connectivity between the two floors

Finishes + Condition

Area	Finish	Condition
Floor	CIP	Fair
Ceiling	CIP	Fair
Wall	CIP	Fair
Base	N/A	Fair



126 | Storage

Existing

Area: 266 SF
User: Staff

Function/Performance

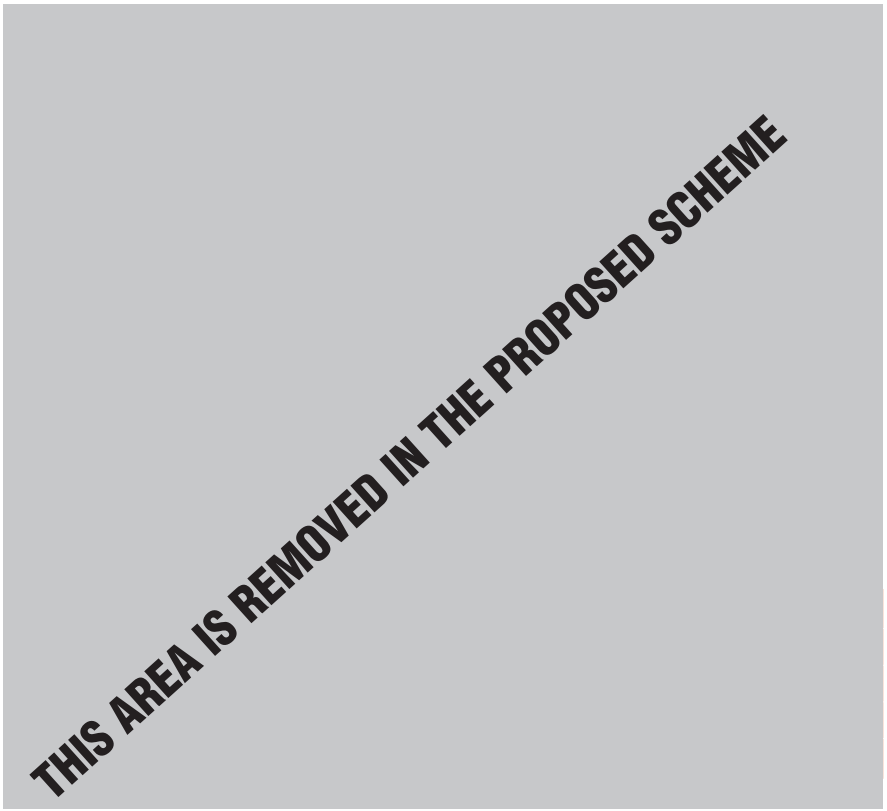
- Storage area for community room equipment.
- Appears to be a dumping ground for large, cumbersome equipment, (Pianos, File Cabinets, etc.)
- Electrical Panel at this location should be better shielded from general storage

Considerations

- Develop a comprehensive storage strategy that takes into account zoning resources by type, and user. In many cases, the simple addition of a shelving system would greatly make storage more efficient.

Finishes + Condition

Area	Finish	Condition
Floor	CIP	Fair
Ceiling	CIP	Fair
Wall	GWB	Fair
Base	N/A	Fair



218,219 | Stair 4, Custodian

Existing

Area: 80 SF(218), 80 SF(219)
User: Staff

Function/Performance

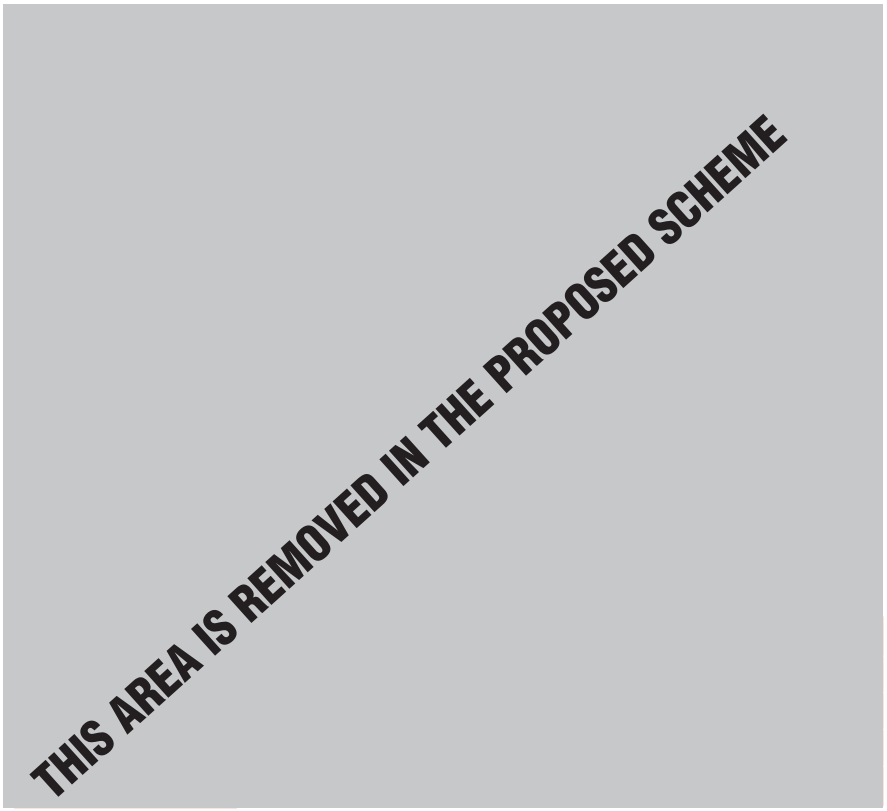
- (218) Access to mechanical floor
- (219) Custodial closet for the second level

Considerations

- N/A

Finishes + Condition

Area	Finish	Condition
Floor	CIP	Fair
Ceiling	CIP	Fair
Wall	CMU	Fair
Base	N/A	Fair



138 | Boiler Room

Existing

Area: 370 SF
User: Staff

Function/Performance

- Boiler Room

Considerations

- N/A

Finishes + Condition

Area	Finish	Condition
Floor	CIP	Fair
Ceiling	CIP	Fair
Wall	CMU	Fair
Base	N/A	Fair

Proposed

Area: 366 SF
User: Staff
Occupant Load: 1 occupant
Collection Size:

Function/Performance

- Area for building's boiler and mechanical equipment.

Fixtures/Furniture/Equipment

- See Chapter 6 for equipment recommendations

Other Information

Finishes

Area	Finish
Floor	CIP
Ceiling	CIP
Wall	CMU
Base	N/A

Technical Requirements

Doors/Windows		Lighting	Utility Lighting
Mechanical		Security	
Tech/Electrical	Power/Data/Tel.	Signage	Room ID
Plumbing/FP	Floor drains	Accessibility	
A/V			

135 | Electrical Room

Existing

Area: 154 SF
User: Staff

Function/Performance

- Electric Room

Considerations

- N/A

Finishes + Condition

Area	Finish	Condition
Floor	CIP	Fair
Ceiling	CIP	Fair
Wall	CMU	Fair
Base	N/A	Fair

Proposed

Area: 154 SF
User: Staff
Occupant Load:
Collection Size:

Function/Performance

- Room for main electrical equipment for the library.

Fixtures/Furniture/Equipment

- See Chapter 6 for equipment recommendations

Other Information

Finishes

Area	Finish
Floor	CIP
Ceiling	CIP
Wall	CMU
Base	N/A

Technical Requirements

Doors/Windows	Storeroom lock	Lighting	Utility Lighting
Mechanical		Security	
Tech/Electrical		Signage	Room ID
Plumbing/FP		Accessibility	
A/V			

136 | Mechanical

Existing

Area: 1597 SF
User: Staff

Function/Performance

- Mechanical Room

Considerations

Finishes + Condition

Area	Finish	Condition
Floor	CIP	Fair
Ceiling	CIP	Fair
Wall	CMU	Fair
Base	N/A	Fair

Proposed

Area: 1,542 SF
User: Staff
Occupant Load: 5
Collection Size:

Function/Performance

- Area for the building's mechanical equipment; including air handlers, chillers, boilers, pumps, and panels.

Fixtures/Furniture/Equipment

- See Chapter 6 for equipment recommendations

Other Information

Finishes

Area	Finish
Floor	CIP
Ceiling	CIP
Wall	CMU
Base	N/A

Technical Requirements

Doors/Windows	Double doors	Lighting	Utility Lighting
Mechanical		Security	
Tech/Electrical	Power/Data/Tel.	Signage	Room ID
Plumbing/FP		Accessibility	
A/V			

151 | Stair 4

Existing

Area: 25 SF
User: Staff

Function/Performance

Considerations

Finishes + Condition

Area	Finish	Condition
Floor	CIP	Fair
Ceiling	CIP	Fair
Wall	CMU	Fair
Base	N/A	Fair

Proposed

Area: 78 SF
User: Staff
Occupant Load:
Collection Size:

Function/Performance

Fixtures/Furniture/Equipment

Other Information

Finishes

Area	Finish
Floor	CIP
Ceiling	CIP
Wall	CMU
Base	N/A

Technical Requirements

Doors/Windows		Lighting	
Mechanical		Security	
Tech/Electrical		Signage	
Plumbing/FP		Accessibility	
A/V			

Appendix

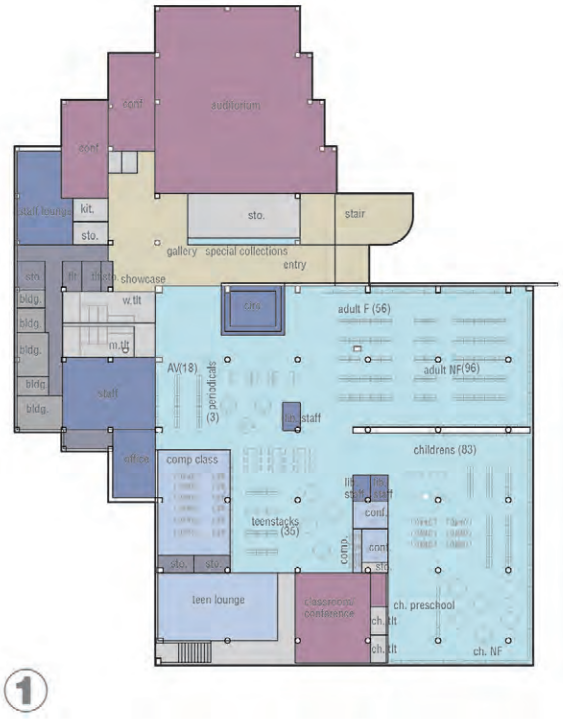
9.4

Concept Design Appendix

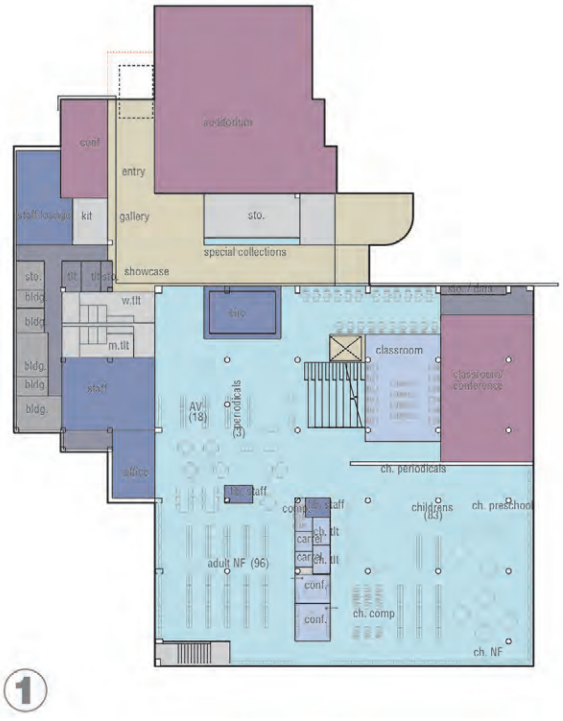
Early Studies
Precedents

Early Studies

Scheme I - “All In”



Scheme 2 - “Bleachers”



Scheme 3 - “Hillside”

Scheme I - “All In”

This scheme looked to fit all required program upgrades within the existing building envelope. This scheme did not fit the program well within the envelope and did not sufficiently address the concerns with the existing building.

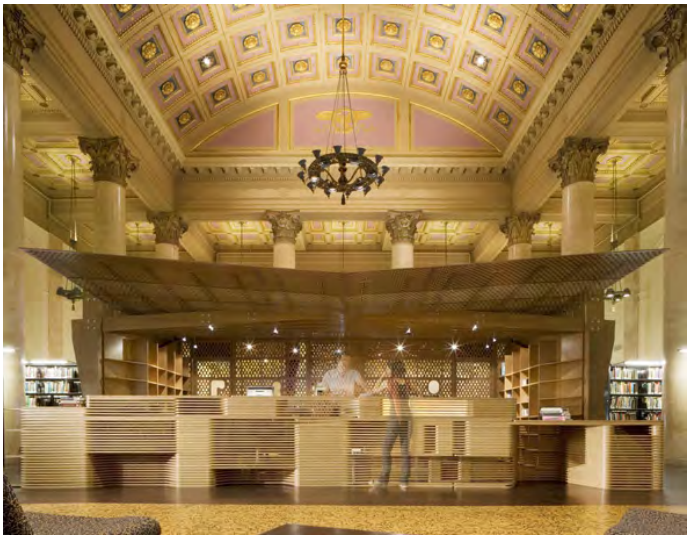
Scheme 2 - “Bleachers”

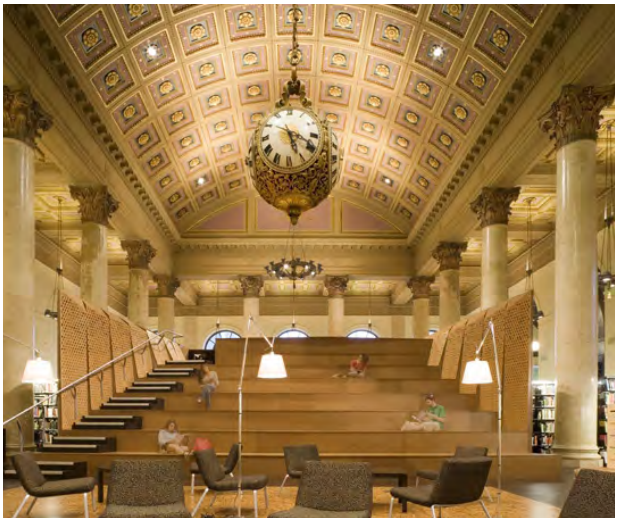
This scheme proposes a modest mezzanine addition to the second level and a grand stair. This also tests the viabilty of creating an entrance to the library from the north. Much of this scheme became the basis for the final concept.

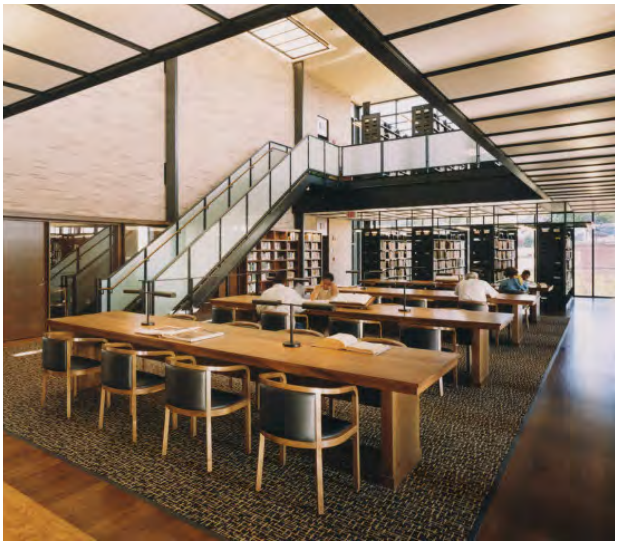
Scheme 3 - “Hillside”

This scheme built on Scheme 2 and considered larger additions to the second level and a new community room. This scheme added too much floor area to the library and was deemed a poor fit.

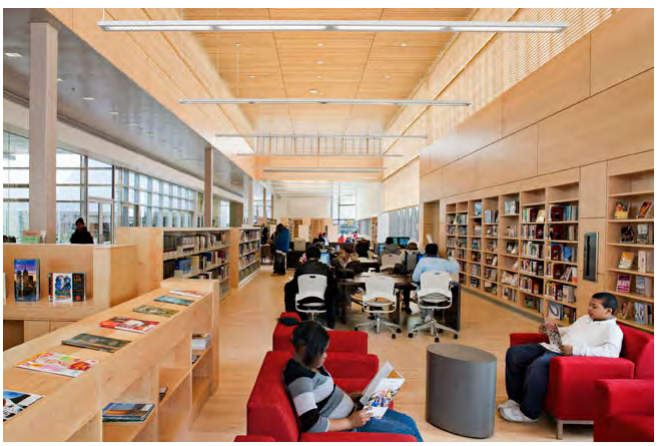
Relevant Precedents







(Clockwise from top left) Circulation Desk at Fleet Library at Rhode Island School of Design. Bleacher Seating at Fleet Library at Rhode Island School of Design. Open Stair at Hyde Park Branch of Boston Public Library. Meeting rooms at Hyde Park Branch of Boston Public Library.



(Clockwise from top left) Yale Museum of British Art. Barnes Museum. Mattapan Branch of Boston Public Library. Brighton Branch of Boston Public Library.

Appendix

9.5

Meeting Minutes

CAC Meeting #1 - 9/20/2012

- Introduction to Study
- Presentation of Entry Canopy Design
- Introduction to scope of Programming Study

CAC Meeting #2 - 10/22/2012

- Presentation of Alternate entry design options and the preferred scheme - a wall hugging perforated metal marquee sign.
- Presentation of initial observations of existing building

CAC Meeting #3 - 12/03/2013

- Final Presentation of Entry Design.
- Presentation of Comprehensive Building Assessment and specific areas of concern in the branch.

CAC Meeting #4 - 03/13/2013

- Presentation of programming conclusions.
- Presentation of two initial concept design proposals.

CAC Meeting # 5 - 06/03/2013

- Presentation of final concept design.

Public Meeting - 06/24/2013

- Presentation of final concept design

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Meeting Minutes

Project:	Dudley Branch Library Community Advisory Council Meeting: Entry/Plaza Presentation and Programming Kickoff
Subject:	Initial scoping meeting
Date:	09-20-2012, 6-8 PM, at Dudley Branch of the Boston Public Library
Present:	Dudley Branch Community Advisory Council (CAC), Maureen Anderson (MA) BPFD, Joe Mulligan (JM) BPFD, Christine Schonhart (CS), BPL, Michael LeBlanc (ML), Utile, Inc., Jonathan Evans (JE), Utile, Inc.,
Distribution:	All present

Issue	Comments	Action by
Presentation of Plaza design	**Utile presents proposed improvements to the public plaza in front of the Dudley Branch of the BPL. Immediate improvements include pruning trees, removing dead trees and adding lighting along the police station. Near term upgrades include enhanced lighting of the plaza, moving the Hubway and pay phones, and the addition of street furniture.**	
	-CAC member expresses a concern that the concrete benches create a bunker like mentality and wants to look into softening them or replacing them entirely. - JM mentions that the city will install supplemental lighting off of the B2 Police Station soon. - CAC member suggests that existing payphones may be transformed into Wi-Fi hot spots. - CAC members state the need for ensuring presence of handicapped parking spaces. - CAC discusses possibility of providing publicly accessible power access at existing light poles for public activities at the plaza. - JM suggested looking into possibility of digitally projecting images onto the existing library exterior walls. - CAC members express concern over the dirty state of the front plaza and want it to be powerwashed. - City has begun cleaning plaza	
Presentation of Entry design	**Utile presents proposals to better announce the entry of the Dudley Branch BPL. These center on establishing a view corridor to the entry, treating the ground texture, around the entrance, adding wall graphics and installing a canopy at the entry.**	

	- CAC members state desire to preserve and enhance the visibility of the literacy center from the street. There is a concern that the canopy may block the visibility of the literacy center from Warren Street. -JM states that the ultimate shape of the canopy is not yet set. - In discussion of a wayfinding strategy, a CAC member brings up possibility of introducing "trailblazer signs" to announce the presence of the Dudley Branch of BPL from surrounding arterial roads. - CAC members state the desire to preserve and relocate the existing sculpture adjacent to the front door. - A strategy of wall washing with colored lights is well received by the CAC as a strategy for brightening the building and enhancing its night presence. - The wall facing onto the plaza was called out by the CAC as an ideal location for a mural or art work. -CAC member states that community engagement in the design and installation process would contribute to the sense of ownership felt by the community. - CAC members suggest that names of important Roxbury figures and notable authors as possible ideas for the wayfinding/word supergraphic at entry. - CAC members state a desire to see more canopy/entrance designs.	
Presentation of Programming Goals	**CS presents BPL Compass Goals and Objectives and directed audience as to where it can be found online (http://www.bpl.org/compass/strategic-plan/) These goals focus on being a user-centered institution, reflecting their community, reaching out to youth, being a center for knowledge and providing access to innovative technology.** **ML and JE present propositional ideas for rethinking the library to kick off the programming discussion. This included ideas for creative space planning, integrating art, signage, and fostering a lifelong love of reading among other things.** **ML and JE present a draft of a proposed project schedule. The schedule includes three additional CAC/Public meetings and strives for a completion date for the final programming an recommendation report in mid-March.**	
	- CS notes that the Dudley Branch is one of just four libraries in the city with a designated teen librarian and that this is a resource that should be reflected in the programming process. -CAC member wants to highlight the areas local history and	

	special collections. Rare books and obscure topics are mentioned as showcasing opportunities for “marketing” the library. - In presenting the proposed numbers for circulating media, CS highlights that media and teen books seem to be in the highest demand and need to be increased. - In discussing the circulating statistics, a CAC member notes that many people use the library books and resources without checking the books out. - CAC members mention the need for Community Use space to be a central programming element. - CAC member mentions the poor condition of the existing bathrooms. - CAC states desire for café space. CS discusses library softening stance on food and drink and cautioned that café space requires “back of house space” for support and there may be an opportunity to partner with new mixed use developments at the old B2 site. - CAC member states desire for more evening hours to better accommodate work schedules. - CAC member states that a self-service kiosk would help. CS states that BPL has ordered one for the Dudley Branch. - CAC member suggests the possibility of a reading garden. - MA and JM discuss the Brighton Library as a precedent for renovating brutalist era libraries and discuss the possibility of arranging a formal tour of the facility. - The Chicago Teen Media Center is brought up as a precedent for craft/making spaces and music recording spaces that actively engage the community. - CAC member describes the Grove Hall Teen area as a successful example for programming and integrating community art. -Regarding the building’s HVAC system, a CAC member mentions that there are a lot of cold spots in the library.	

The next meeting will be in October and will follow up with more information on the canopy/entry design and draft program and library information.

This memorandum represents our understanding of the events which transpired and the actions which were taken. If they do not conform to a recipient's understanding, prompt written notice must be communicated to the writer. If no corrections or objections are made, this memorandum will be relied upon as a factual interpretation of this meeting.

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Meeting Minutes

Project: Dudley Branch Library Community Advisory Council Meeting 2:
Revised Entry/Plaza Presentation and Programming Observations

Subject: Initial scoping meeting

Date: 10-22-2012, 6-7:30 PM, at Dudley Branch of the Boston Public Library

Present: Maureen Anderson (MA) BPFD, Joe Mulligan (JM) BPFD, Amy Ryan (AR) BPL, Christine Schonhart (CS), BPL, Janet Buda (JB) BPL, Michael LeBlanc (ML) Utile, Inc., Jonathan Evans (JE) Utile, Inc., Elizabeth Christoforetti (EC) Utile Inc.,

Distribution: All present

Issue	Comments	Action by
Presentation of Revised Entry design	**Utile presents the various evolutions to the entry design since the last CAC Meeting. These include different canopy options as well as several wall mounted options. The final scheme, which was described in greater detail, was a new fa□ade made up of back lit perforated metal in the shape of an □L□ on the entry wall. This piece serves to call out the presence of the entry and addresses signage and way finding concerns.** **Utile also presents material samples for the perforated metal and a sample of a printed graphic on metal to give a sense of its finish and durability.** **Utile assigns the CAC group the task of developing the content for the □word cloud□ that will be incorporated into the new wall.**	
	-MA states that there has been pruning of the trees in the plaza and new lighting has been installed in the walkway between the library and the B2 Police Station. -MA and ML describe reasons for reconsidering the canopy. These concerns include maintenance costs, durability, protection from inclement weather and vandalism. - CAC member wants the existing sculpture on the entry wall preserved. The member states that it is an important work from a local artist who has since died. - CAC member asks about the design strategy for the walls of the stair core. - Several CAC members express a desire to see brighter, more vibrant colors for the metal panel. -CS comments that the concrete and masonry library can serve as a great backdrop that will accept a range of colors. -CAC member proposes using two tones of color for the wall system.	

	- CAC member states a desire to see imagery on the new wall that encourages children to come into the library. - MA sets deadline of next Monday for CAC members to submit content for proposed "word cloud" graphic. - CAC member asks if there is any proposed ground treatment at the entry. ML responds that for now, it's just limited to power washing and that any more comprehensive reconsideration of the ground surface will be in a separate, later, scope. - CAC member asks for coordination with BTD development of streetscape improvements in the area. - CS comments that the precise content and placement of the signage components is still in development and shouldn't be seen as permanently fixed yet. - CAC member comments that the Boys and Girls Club next door is known as "the blue building" and perhaps there is a way to use color to similarly brand the library.	
Presentation of Walk through observations	**Utile presents programming takeaways from a walk through and interviews with BPL staff. The presentation included observations about what's working well and what are critical challenges in both the public and back of house areas of the library.**	
	- CAC member states that casual conversations are currently challenging in the central library space. There is an anxiety about interrupting people trying to work quietly. - CAC member states that the "Countdown to Kindergarten event" is held in the auditorium and not in the actual library space. This prevents children from actually engaging with the library. - CAC member states that the circulation desk should be on axis with the main entry to the library and not tucked away in the corner. - CAC member asks for better acoustic separation between community spaces in the library. -CAC members agree with Utile's presentation that the building is currently not energy efficient. - CAC member expresses concern that the acoustics are very bad in the main community room and in the hallway. There is too much space and too many hard surfaces for sound to bounce off of. This is especially troublesome for music performances. - JE asks to see a comprehensive schedule of all the events held in the community spaces. JB will provide that data by 11/2. - CAC member asks if the central community room can be subdivided to better facilitate hosting multiple meetings.	

	- CAC member expresses desire to better connect the Literacy Center and the library. ML discusses the possibility of a cleaner strategy for circulation that would encourage more interaction between both levels. - In regards to the bathrooms, CAC members state that maintenance and security are the chief concerns. A CAC member proposes adding diaper changing stations to the bathrooms. - JM and MA propose arranging tour of precedent libraries for the CAC group. - CAC members propose Saturday 11/3 as the date for the library tour and it could take place of their scheduled meeting of the Friends of Dudley Library. - CAC member proposes that Utile present the entry concept to the Friends of the Library on 11/3 before embarking on the tour. - JM encourages Utile to present examples of renovations to buildings of a similar brutalist style as the existing library at that meeting on 11/3.	

This memorandum represents our understanding of the events which transpired and the actions which were taken. If they do not conform to a recipient's understanding, prompt written notice must be communicated to the writer. If no corrections or objections are made, this memorandum will be relied upon as a factual interpretation of this meeting.

utile

Meeting Minutes

Project:	Dudley Branch Library Community Advisory Council Meeting 3: Revised Entry/Plaza Presentation and Programming Observations
Subject:	Final Entry Design and Existing Conditions Survey Findings
Date:	12-03-2012, 6-8:00 PM, at Dudley Branch of the Boston Public Library
Present:	Maureen Anderson (MA) BPFD, Joe Mulligan (JM) BPFD, Tom Leahy (TM) BPFD, Jim Meade (JMe) BPL, Christine Schonhart (CS), BPL, Dudley Branch Community Advisory Committee (CAC), Michael LeBlanc (ML) Utile, Inc., Jonathan Evans (JE) Utile, Inc., Nick Buehrens (NB) Utile Inc.,
Distribution:	All present

Issue	Comments	Action by
Presentation of Finalized Entry design	***Utile presents a slideshow of proposed work to the Dudley Branch entry. This included final renderings of the entry wall marquee, options for relocating the existing sculpture, and modest renovations to the lobby.*** CAC members comment that it's hard to assess colors digitally projected. ML and MA outline that a lighting mockup will be scheduled in the near future and this could be an opportunity to get a better sense of the color palate. CAC members don't like putting the sculpture on the Literacy Center. Prefer it on the front at the "game room." Regarding the sculpture relocation, CAC members state need for trees to be limbed in the "game room" if the sculpture is to be featured there. Several CAC members state a desire to see more community created artwork as part of the lobby renovations. As an example, a CAC member presents a mural recently completed as part of a Jazz Concert in the auditorium. JM indicates that there are opportunities for community involvement in making the lobby a better, more defined place. CAC members state that interior signage and wayfinding needs to be addressed as part of the lobby renovation. In concluding the discussion on community artwork, ML and JE state that the design team will further develop the design to better identify opportunities for community are to be displayed.	

Presentation of Program	***Utile presents a slideshow update of the Programming Study for the Dudley Branch. This presentation included key takeaways from the building survey performed by the consultant team as well as a discussion of the*** "High Priority Issues" ***for the Library Programming.*** CAC members state that acoustics are a particular point of concern in the auditorium. CAC members state that the auditorium should be optimized for use in both directions. CAC member states that improvements should consider a moveable partition so that the space can house multiple meetings simultaneously. In discussing the need for more meeting space in the neighborhood, a CAC member states that a point of concern is that most neighborhood community spaces typically have a time cut off. Regarding the library itself a CAC member says that the height of shelves and the lighting are very important. A CAC member describes that the new lighting installed is an improvement over what was previously in place. CAC member points out that while it's g ood to have a connection between the Library and the Literacy Center, the two spaces are used differently and need some separation. CAC members agree that community information needs to be better presented in an organized way. CAC member states the need for a permanent space for allocation and presentation of Roxbury History. In discussing possible connectivity between the library and the second level, CAC members express safety concerns over a guardrail and want to make sure that this zone will be safe. CAC member asks if the ground surfaces can be programmed as an activity area. JE and MA outline that this will be taken into account as part of the long term vision for the plaza but not as part of the early action scope of work. CAC member suggests that fountains be considered to enliven the plaza.	

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Meeting Minutes

Project:	Dudley Branch Library Community Advisory Council Meeting 4: Programming Presentation
Subject:	Entry Design Update and Programming and Conceptual Design Presentation
Date:	3-18-2013, 6-7:30 PM, at Dudley Branch of the Boston Public Library
Present:	Maureen Anderson (MA) PCMD, Alistair Lucks (AL) PCMD, Tom Leahy (TL) PCMD, Christine Schonhart (CS), BPL, Eamon Shelton (ES), BPL, Dudley Branch Community Advisory Committee (CAC), Sarah Markell (SM) BPL, Janet Buda (JB), BPL, Michael LeBlanc (ML) Utile, Inc., Jonathan Evans (JE) Utile, Inc., Nick Buehrens (NB) Utile Inc.,
Distribution:	All present

Issue	Comments	Action by
Presentation of Finalized Entry design and projected Schedule	***Utile begins slideshow with a recap of the Entry Design scope of work. This included a tentative schedule that projects construction of the entry wrapping up in August of 2013.*** MA outlines that there are minor coordination issues left to wrap up the Entry Design drawings. These include the General Conditions and other sections of the specifications. ML suggests that specific language be included in the contract documents to limit the amount of time that construction work will impede use of the Main Entrance on the ground floor.	
Presentation of Program Areas and Conceptual Designs	***Utile presents a slideshow breaking down the various zones of the library and outlining future size projections for each. The presentation then outlined two conceptual designs for accommodating the new program within the existing building.*** MA and other BPL staff comment that sight lines for staff on the second floor need adjustment. In discussing the schemes, Utile states that a key to unlocking the potential of the library is connecting the two floors in a meaningful way. CAC Member asks if the local display area called out in the designs will be permanent or revolve. JE responds that the designs are considering having both a permanent display and opportunities for rotating exhibits as well. In discussing site work there was confusion as to the extents of the site, particularly at the space between the library and courthouse. The group concludes that there is a need to propose limits of work for the site. CAC member states that the front door needs to be ADA compliant. BPL Librarian states desire for books to be able to be checked out	

	from the staff desk in the Literacy Center. BPL Librarian asks if there can be a prep area with a sink in the children's area given the amount of Arts and Crafts that occur in the area. JB wants to see an interior chess area included in the library. CS brings up the Grove Hall Jazz Lounge as a precedent for the proposed new floor area off the second level. CS notes that windows can be added at the second level near the new sign to better open up the library to the context and bring more daylight in. MA states that the 1st option presented is preferable. MA notes that in Option 2 the Adult space gets broken up by the teen space and that this is probably not desirable. JE states that better connectivity can be achieved without needing to move through another programmed area. The group discussed incorporating more glass into the auditorium to make the Library more welcoming from Dudley Street. Regarding computer resources, CS and BPL Library staff conclude that clustering the machines into three groups (general, teens, and children) is the desired approach as opposed to distributing them throughout the library. ES brings up the position of the elevator in both schemes. The discussion concludes that the elevator location as well as the connection to the penthouse level needs further study. MA states that when the renovations take place the library would be closed for a period of 12 – 18 months. MA and CS outline the next steps of the process. They state that funding for renovations is not in place and that BPL will request funds for the work in Fiscal Year 2014. MA outlines the next steps for the Library Study. The next CAC meeting will be in May and the Report will be finished in June. The work may also be presented at the May meeting of the Dudley Vision Advisory Task Force. MA,TL, CS and others inspected the service stairwell to the mechanical penthouse. They directed Utile to undertake further study to assess the feasibility of relocating the stair or installing a ladder, in order to open up space as part of future renovations. The meeting concludes by moving down to the lobby of the library for review of improvements included in the Entry Design scope of work. CS and others conclude that the existing bench should be removed and replaced with chairs. CS and MA indicate that the existing alcove adjacent to the Community room should be furnished with bulletin board type surface. MA to direct Utile. CS and MA to review options for wall graphics in lobby and direct Utile in advance of completion of the Entry Construction Documents.	

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Meeting Minutes

Project:	Dudley Branch Library Community Advisory Council Meeting 5: Programming Presentation
Subject:	Conceptual Design Presentation
Date:	6-3-2013, 6-7:30 PM, at Dudley Branch of the Boston Public Library
Present:	Maureen Anderson (MA) PCMD, Alistair Lucks (AL) PCMD, Tom Leahy (TL) PCMD, Christine Schonhart (CS), BPL, Eamon Shelton (ES), BPL, Janet Buda (JB), BPL, Alwyn McLeod, (AM) Mayor's Office of Neighborhood Services, Roger Mann (RM) BRA, Sibu Malaba (SM) Aide for Senator Chang-Diaz, Dudley Branch Community Advisory Committee (CAC), Jonathan Evans (JE) Utile, Inc,
Distribution:	All present

Issue	Comments	Action by
Presentation of Conceptual Design for Library Renovation	***Utile presents a slideshow with a recap of the Entry Design scope of work. This included a tentative schedule that projects construction of the entry wrapping up in August of 2013.*** CAC Member asks if the ultimate renovation work will be in this year or next year's budget. CS states that it will be a request in next year's budget. CAC Member asks if, with all of the increased openness, will the library be too noisy? JE states that in some areas some noise is desirable and that proper acoustic finishes will be considered for ceilings and other surfaces. CAC Member asks about the quality of finish materials in the proposed renovation. The Copley branch is brought up as a reference for the high level of finish and long lifespan of materials. MA states that the City strives for a significant level of finish, durability and lower maintenance requirements in new projects and looks for mechanical systems to have a 40 year lifespan. JE points to the recent libraries that have been constructed by the city as an example of the high level of quality the city strives for in these types of projects. CAC member wants to ensure that the proposed shelving is lower than what is currently there. JE ensures that the proposal shows lower shelving to help ensure better visibility throughout. CAC member points out that lighting of the stacks can be difficult and urges the team to consider track lighting on the shelves. After a description of the proposed local history/ archive space CS emphasizes that this would be a very unique opportunity and that no other branch library would have such a space. CAC member	

	suggests that this could be an opportunity for partnerships with the Roxbury Historical Society or other similar institutions. CS points out that the library has the ability to digitize resources so information could potentially be dynamically displayed on flat screen displays. CAC members like the bar of program that separates the children's area from the adult collection CAC member points out the structural columns in the library as something that could be transformed to be more engaging and integrated with the renovation. Regarding the design of the Young Adult Area, a CAC member asks if it's better for the space to be open or closed. CS states that, based on what they've learned from other branches, they prefer the space be open to the rest of the library. A CAC member suggests that the walls in the Young Adult area be used for display. The idea of a high quality tackable surface is discussed as an opportunity for the area. Regarding the story area, SM asks if its possible to have natural light in the area. JE outlines that it will be possible to receive some borrowed light high into the space. A CAC member brings up safety as a concern if certain areas of CMU are removed and replaced with glass. Regarding the kitchen, a CAC member asks if there are provisions to accommodate the needs of caterers who would potentially be using the space.	
Presentation of Site Design	***Utile presents a slideshow outlining site and exterior opportunities at the Dudley Branch*** Regarding future site opportunities, CAC members express desire to see more outside learning program. A CAC member suggests building off of the popularity of the chess tables and making a large chess board as a ground surface treatment. SM suggest there be a display outside that can highlight upcoming events. This could potentially be interactive to be more engaging. Several CAC members emphasize that the plaza is important. It is suggested that this area should function like a stage for the community. CAC members describe that several events are held in the plaza ranging from drumming circles to bake sales and jazz concerts.	

	CAC members suggest this space could hold a book fair. Further, this space could feature moveable shelving as a way to bring the interior functions of the building out to the plaza. Flexible furniture, and electrical outlets are also mentioned as future opportunities for the plaza. Regarding the other efforts underway, CAC members raise concern over the mix of pedestrians and bikes in the plaza. A suggestion is made to move the proposed cycle track a close to the street edge as possible so as not to interfere with the Library plaza.	
Presentation of Project Schedule	**Utile presents a schedule indicating the study will be wrapping up in June and that the Entry is anticipated to be completed in late summer/early Fall 2013.** MA reiterates that the study is the first step in a process and the next step is to acquire funding to move design work forward. After a CAC member asks about schedule, MA indicates that it will take 1 year to fully design the library and another 1.5 years to 2 years for construction. The construction will require the library to be temporarily shut down. Regarding Phase I work, it was announced that Paul J Rogan out of Braintree was the contractor with the lowest bid for the work. A full construction estimate will be included in the study. Community wide meeting will be held on June 24th in the Library auditorium. Ads will be places in the June 13th and 20th editions of the Bay State Banner to publicize the event. A CAC member suggests sending a flyer to churches to the Office of Family Engagement to further get the word out.	

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Meeting Minutes

Project: Dudley Branch Library Public Meeting

Subject: Presentation of Phase I Entry and Site Design and Conclusions of the Study

Date: 6-24-2013, 6-7:30 PM, at Dudley Branch of the Boston Public Library

Present: Maureen Anderson (MA) PCMD, Eamon Shelton (ES), BPL, Jonathan Evans (JE), Michael LeBlanc (ML) Utile, Inc,
Richard Heate, Altha Henderson, Mimi Jones, Sarah Ann Shaw,

Distribution: All present

Issue	Comments
Presentation of Phase I Entry and Site Design	***Utile begins the presentation by describing the Phase I Scope of work. This centers on entry and site design presents a slideshow with a recap of the Entry Design scope of work. The design features a new signage marquee that better announces the entry and helps warm up the building. Also outlined were site improvements geared towards making the plaza a more welcoming and secure environment. The plaza phase I construction has been approved to move forward. The construction will not impact the library operations and the tentative schedule has the construction finishing in September 2013.*** The design is well received by the audience. The audience expresses a desire to see the plaza better maintained and secured
Presentation of Programming Conclusions and Conceptual Design	***Utile presents programming conclusions outlining new spatial demands on the library. This leads into an in depth presentation of the concept design for the library that works to meet program needs as well as other design goals while leveraging the assets of the existing building.*** This presentation is well received by the audience. Members appreciate how the design works with the existing building to bring out its positive attributes. Audience expresses support for the gallery and history display spaces. Audience members also support the improved spatial definition and how every target user group has their own distinct zone in the library. Audience appreciates efforts to better open up the library; connecting the first and second floors sightlines and access. Particularly at the Community room, the audience appreciated the enhanced connectivity to the exterior.
Presentation of Programming Conclusions and Conceptual Design	***Utile presents a slideshow outlining site and exterior opportunities at the Dudley Branch. The presentation references the eventual development of the B2 Police Station and the Dudley Complete Streets Project.*** Audience appreciates efforts to better connect the library with its site areas. Regarding the site design and the integration with the BTD Complete Streets effort underway, audience members raise concerns over the mix of bike traffic

	with pedestrian traffic at the Front Plaza of the Library. (JE) describes the idea that is being considered of a "mixing zone" whereby through signs and design changes in certain areas, bikes know that they no longer have priority in certain areas. (MA) states that planters and other physical elements that could create a hard edge to protect pedestrian areas from bike traffic. An audience member suggests that there should be better collaboration between various efforts underway in Dudley and that a meeting featuring representatives of all projects be held. (MA) stated that the study portion of the project is completing. Tonight's presentation will be posted on the BPL web site and the dudleyvision.org web site. The design and construction phases for the library are dependent on funding in future capital budgets. In conclusion, the audience expresses appreciation of the efforts of the working team in completing a thoughtfully considered design for the library.

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