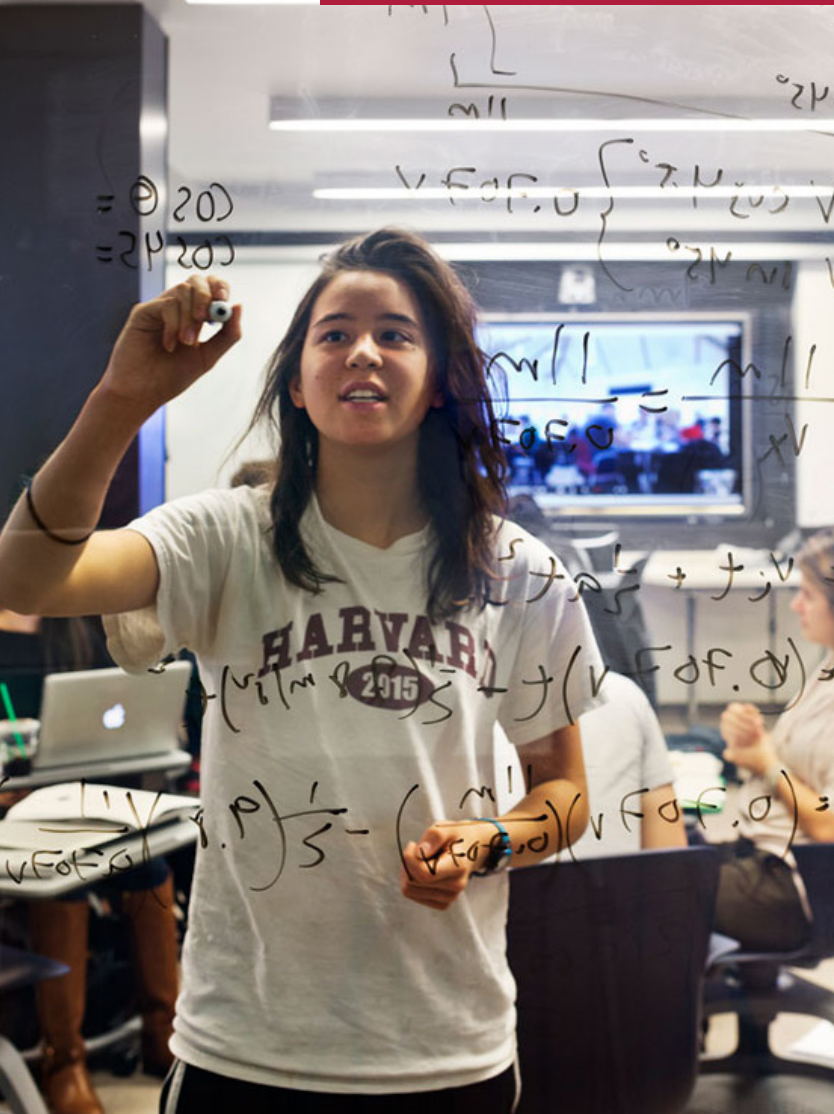




HARVARD HOUSE RENEWAL STRATEGIC ASSESSMENT REPORT

MAY 24, 2016



"The House system is one of the most diverse aspects of the Harvard College experience...The residential experience is integral to Harvard's mission because it is rooted in inclusiveness and citizenship, creating a student's sense of belonging to a community. Each House needs to support the larger mission through programmatic initiatives, capacities, and capabilities that foster intellectual, social, and personal transformation."

-Rakesh Khurana, Danoff Dean of Harvard College



Components of Harvard House Renewal Program Strategic Assessment



House Renewal Program and Post Occupancy Satisfaction



Communication



Project Execution



Financing and Affordability



Fundraising

HARVARD HOUSE RENEWAL STRATEGIC ASSESSMENT REPORT

In 2015, Harvard University performed a yearlong strategic assessment to evaluate the completed House Renewal “test projects” – two half-House projects in Quincy House and Leverett House, and the first whole-House project in Dunster House – along with swing housing. This comprehensive assessment evaluated five areas of activity: the House Renewal Program and post-occupancy satisfaction, communication, fundraising, financing and affordability, and project execution. Each activity was evaluated relative to a set of stated goals, in order to highlight successes and identify challenges. The assessment was conducted by a Steering Committee overseeing the work of five subcommittees dedicated to reviewing each of the areas of activity. The Steering Committee was composed of the following members:

- Rakesh Khurana, Danoff Dean of Harvard College
- Lee Gehrke, Faculty Dean of Quincy House
- Leslie Kirwan, Dean for Administration and Finance
- Jay Herlihy, Associate Dean for Finance
- O’Neil Outar, Senior Associate Dean and Director of FAS Development
- Stephen Lassonde, Dean of Student Life
- Nina Collins, Chief of Staff to the FAS Dean and Associate Dean
- Merle Bicknell, Assistant Dean of FAS Physical Resources
- Stephen Needham, Senior Director of Project Management

The first phase of Harvard’s House Renewal Program consists of the renovation of eight Neo-Georgian upperclassman residences in the River District of the campus. As an initiative to enhance the student experience and foster intellectual, social, and personal transformation, the Harvard House Renewal Program is unique in its goals, design intent, and commitment to historical preservation as compared to projects at peer institutions, and these differences are manifest in the individual projects. The lessons learned from what were found to be very successful “test projects” will inform future House Renewal projects.



HOUSE RENEWAL PROGRAM/POST-OCCUPANCY SATISFACTION

Prior to the physical renovation of the Houses, Michael D. Smith, Edgerley Family Dean of the Faculty of Arts and Sciences (FAS), and John H. Finley, Jr. Professor of Engineering and Applied Sciences, charged the House Program Planning Committee (HPPC) with exploring the fundamental role and purpose of House life. The HPPC process was a formal mechanism for engaging students, faculty, and staff to assess the needs of the College community and to have that assessment inform planning for the renewal of the Houses.

The HPPC, chaired by then Harvard College Dean Evelyn Hammonds, Barbara Gutmann Rosenkrantz, Professor of the History of Science and of African and African American Studies, included three subgroups: the Sub-Committee on Residential Living Spaces, the Sub-Committee on House Life, and the Sub-Committee on Academic and Social Spaces. Each subcommittee included student members and oversaw extensive outreach to students across the College. The final output of this process, the 2009 House Program Planning Committee (HPPC) report, serves as the basis of the guidelines followed in each Renewal project.

The Strategic Assessment study reviewed the completed Stone Hall in Quincy House, McKinlock Hall in Leverett House, and the designs for Dunster House to evaluate how well the completed projects met these guidelines and to assess whether modifications to these guidelines should be made in future projects.

In the spring of 2015, the Bok Center for Teaching and Learning administered focus groups with students and tutors in the two completed projects, and performed in-depth interviews with the House Masters, now Faculty Deans, of Quincy House and Leverett House. Topics explored included the planning process, the transition period, and the impact of the new physical space on community engagement, and peer-to-peer and peer-to-tutor relationships. Harvard College Institutional Research developed, administered, and analyzed questions pertaining to House Renewal that appeared in the 2015 Enrolled Student Survey and 2015 Senior Exit Survey. The Office of Student Life and the Office of Physical Resources and Planning interviewed staff from Quincy House and Leverett House. Additional data were collected from the

Leverett room reservation system on the use of program spaces. Lastly, a space use survey of all common spaces was conducted, and faculty using the “smart classroom” in Stone Hall were interviewed.

These data support the conclusion that the completed projects of the House Renewal Program have succeeded in fulfilling or exceeding the guidelines established through the HPPC process. Some guidelines evolved through the course of the planning and design process, while others were revised as a result of ongoing feedback from the communities inhabiting the renewed Houses. Where students and House staff desired changes to plans, the House Renewal team adapted when these changes did not conflict with the fundamental principles established by the HPPC.

The following HPPC Recommendations were met in each completed project:

- **Promote class year integration:** Mixing suites and hallway bedrooms on each floor has effectively promoted class year integration and interaction.
- **Create neighborhood spaces to attract students and events to the Houses:** As evidenced by the Emerald Theater in McKinlock Hall, neighborhood spaces attract students and new events to the Houses.
- **Meet criteria for hallway common rooms:** While hallway common rooms in residential areas met the HPPC guidelines, student feedback indicates that review of their size, location, and configuration is advisable.
- **Create horizontal and accessible circulation:** This circulation has been successfully achieved.
- **Increase House-based course instruction with academic spaces and innovative technology:** The introduction of new academic spaces and “smart classroom” technology has increased instruction in the Houses. Instructors noted a few challenges including pillars dividing the space, difficulties using the technology without on-site support, and barriers to accessing the space for teaching assistants and students who are not undergraduates.

The following HPPC Recommendations were exceeded in each completed project:

- **Maintain the historic nature and unique character of each House:** Historic rooms were dismantled, updated, and fully restored. Historic exteriors were preserved through the use of historic materials, such as slate, original paint colors, and copper flashings. Historic elements and references were incorporated into artwork and interior finishes. House symbols and mascots were also incorporated into the interior elements of each House.



- **Reduce the future need for overflow housing:** Capacity in the renewed Stone Hall, McKinlock Hall, and Dunster House exceeded what was projected in the 2009 capacity tests, which will contribute to a long-term reduction in the use of DeWolfe Street overflow housing.
- **Avoid large, group hallway bathrooms:** Each House provides a variety of single and multi-fixture bathrooms to allow for sufficient fixture count, accessibility, and privacy. Fixture ratios exceed what is required by code in residential areas.
- **Architects should strive for at least two-thirds of beds in suites, and one-third in hallway bedrooms:** Each renewed House has exceeded the target of two-thirds suites: Quincy House total at 78 percent of beds in suites; Leverett House at 83 percent in suites, and Dunster House at 72 percent in suites.
- **Create a diversity of housing stock:** Each project created a mix of suites, duplex suites, and hallway bedrooms. A variety of accessible room configurations was also created in each House.

Findings: House Spaces

There is great appreciation among all staff and the House communities for the renovated spaces and the residential and programming improvements that these spaces afford the Houses. The renovation of student spaces, both private and public, is seen as a fundamentally positive change in their quality of life.

Students living in both Quincy's Stone Hall and Leverett's McKinlock Hall expressed that they were pleased with the quality of the renovated residential spaces, remarking how "clean, fresh, and new" they feel, and noting a significant improvement in the physical surroundings of their everyday spaces. Students in Dunster House reported the same level of satisfaction in this area.

Horizontal corridors now augment the vertical entryway system, fostering informal interactions with other House residents and tutors. Horizontal tutor communities allow for increased social interactions and communication among members. Students, tutors, and Faculty Deans stated that the new horizontal hallways have fostered a greater sense of community, as everything in the House is more connected. Both students and tutors reported that the new hallways allow for more casual peer-to-peer and peer-to-tutor interaction.

The high level of satisfaction with the renovated spaces is demonstrated by the popularity of these spaces in the housing lottery. Prior to renewal, Stone Hall and Leverett McKinlock were typically occupied by sophomore students, who receive the lowest priority when selecting residential rooms. However, post-renewal, both Houses have found that senior and junior

students choose to live in the renewed spaces rather than the unrenovated portions of the Houses, where the upperclassmen have traditionally lived. Students appreciate the diversity of room/suite configurations and "mixing" of class years on the same floor, which enhances the sense of community in the House.

HALLWAY BEDROOMS. Hallway single bedrooms are in surprisingly high demand. For example, 47 rising Quincy House juniors and seniors entered the spring 2015 lottery for hallway singles; only 35 such singles were available. There are a number of reasons for this increase in demand. Above all, these rooms afford students desired privacy, which for some seniors is sought in order to focus on thesis writing or other advanced academic work. Other students simply did not have a roommate due to leaves of absence or study abroad. Others chose the singles in order to live near a suite of friends along the same hall.

By contrast, hallway doubles are the least desirable housing arrangements, and can exacerbate difficult roommate pairings due to their lack of privacy and space.

Hallway singles are popular and should be offered in future projects, perhaps in greater number. Hallway doubles should be eliminated in upcoming Renewal projects. This finding has already been implemented in Winthrop House and Lowell House where close partnership between House leadership, the architects and the project team has resulted in a significantly higher percentage of singles and suites, and the complete elimination of doubles off the hallway.



These objectives will need to be continually and carefully weighed in discussion with Renewal team members, House staff and the House Renewal Executive Committee members on all future projects.

SUITES. Suites have been the most popular housing option for students. Interviews and lottery trends suggest that students value a variety of suite sizes, including triples and quint. Of all living spaces, the most popular are duplex suites. The first selections in the Leverett House rising senior lottery for 2014-15 were the duplex suites on the top floor of the building.

A variety of suite sizes should continue in future Renewal projects. Where architecture and resources allow, duplex suites should be included in each renewed House.

HALLWAY COMMON ROOMS. Interviews and surveys suggest that the use of hallway common rooms has evolved over time. During the fall of 2013, Stone Hall hallway common rooms were restricted to those students living in the nearby hallway single and double bedrooms in anticipation that they would function as a suite with a central hallway. It was recognized that hallway common room use was low during that term; consequently, two changes were made by the House. First, hallway common rooms were unlocked and made available to all students; second, small study tables were added to the rooms to facilitate their use for group academic work. This model was also used for the McKinlock Hall and Dunster House hallway common rooms. Interviews and surveys confirm that this change has increased hallway common room use; however, these rooms still do not effectively serve the intended purpose of providing private common space to those students in single and double bedrooms off the hallway.

During the planning process, the House Renewal team should clarify with each House the intended use of hallway common rooms. The Houses should investigate ways to make these rooms easy for small groups to reserve (for birthday parties or group meetings, for example). In addition, the House may want to develop themes for each room (meditation, study) or convert underused rooms to other uses, as needed. Due to the feedback and use statistics, future projects should include fewer hallway common rooms and the number of suites should be increased where possible. A broader issue regarding the lack of private party space was also raised, which should be addressed in future Renewal projects.

BATHROOMS. While some students regret the loss of en-suite bathrooms, many students chose to live in the renewed buildings specifically for the advantages that hallway bathrooms provide. In contrast to en-suite bathrooms, students felt that the cleanliness of the hallway bathrooms



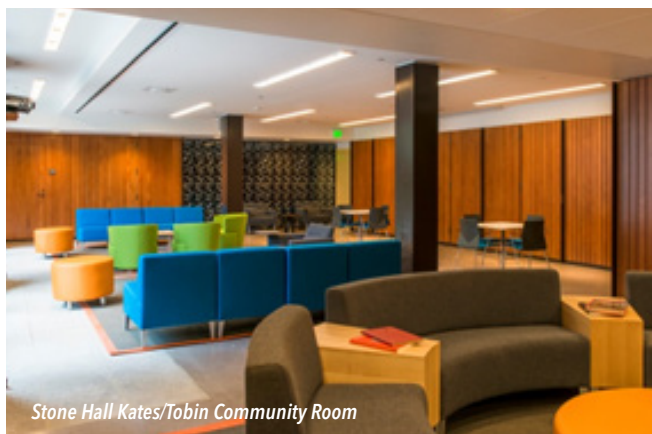
was a marked improvement and appreciated that these facilities were professionally cleaned daily, which is required by regulatory codes. This compares to en-suite bathrooms, where cleaning is the responsibility of students living in the suite. Students also reported that the proximity and number of available bathrooms were important and met their needs. To help maximize privacy, full-height doors and private drying areas were installed in multi-fixture bathroom stalls. Each floor also has single-user bathrooms.



Leverett McKinlock Wong Family Common Room



Dunster House Grille area



Stone Hall Kates/Tobin Community Room



Study nook

Findings: Common Spaces

New and restored common spaces were created in all three of the renewed Houses based on feedback from Faculty Deans, administrators, and students. These spaces have been used for a wide variety of events. The increase in the number and type of common spaces has resulted in increased foot traffic throughout the Houses and thus enhanced social interaction. Similarly, the new horizontal corridors and connectors allow occupants to move through the House without leaving the building, which encourages students to remain in the House and enhances casual social interaction among residents. Flexible and moveable furniture in the common spaces enables a broad range of uses by groups of varying sizes.

Students reported that the design and size of the common spaces allowed them flexibility to enjoy the new program spaces in a number of different ways. Both Stone Hall's Kates/Tobin Community Room and McKinlock Hall's Wong Family Common Room allows for single large events or multiple student groups to gather within the space simultaneously. Quincy students reported that they frequently use the computer workstations in the Kates/Tobin Community Room, while Leverett students cook for themselves in the Wong Family Common Room kitchen. Data suggest that music practice rooms are used consistently during the evening hours and have been well built to contain sound. Some students have suggested larger practice spaces, which would allow for small group rehearsals. However, the video capacity of the practice rooms lacks the technical support that might allow them to be better used for "remote" group practice. Students also reported that the art rooms are also well used. Study nooks are also extremely popular spots, both for individual and small group work.

DINING HALLS. House Renewal has successfully preserved the historic character of both the Leverett House and Dunster House dining halls, while also enhancing these spaces with 21st century technology that supports the many functions and groups who use these spaces.

SHARED SPACES. The HPPC recommended that certain program spaces be shared among the Houses for the benefit of the community and the College. Both students and Faculty Deans have agreed that the process of formalizing inter-House collaborations and the development of neighborhood spaces are still evolving. These 'signature spaces' have the potential to contribute to the distinctiveness of each House and enhance the sense of community among the Houses. Leverett House's Emerald Theater is one such space. It is open to residents of other Houses and can be used for a wide variety of activities, including theatrical productions, musical performances,

presentations, dinners, and more. Between September 2014 and May 2015, the Emerald Theater hosted 367 events, a marked increase in the use of the space as a result of the renovation.

SMART CLASSROOMS. Smart classrooms were not conceived in the recommendations of the HPPC but emerged out of another committee studying twenty-first century classroom design. These classrooms were quickly absorbed into the planning of Stone Hall and Dunster House, and their presence was viewed as an opportunity for increased faculty-student engagement in the Houses. The Stone Hall classroom is used regularly in the evenings by informal groups of students, often for collaborative study. Though the technology-enabled smart classroom in Stone Hall provides many new capabilities, staff and faculty expressed concern with the room's complexity, and suggested future spaces be optimized for the average user.

LIBRARIES. Library use was surveyed, though the libraries in New Quincy and Leverett Towers were not themselves part of the Renewal projects. Surveys find that the libraries are used consistently, both within the regular term and during reading period. Interviews and surveys suggest that House libraries offer needed quiet study space that is not provided in other common spaces in the Houses.

GENERAL. Efforts have been made to provide “hotel-style” fitness spaces with safe, ergonomic machines that are available at any hour. The Dunster House renovation includes a larger gym with various machines and free weights, which was added as a neighborhood space due to Dunster’s ample lower level space and distance from the Malkin Athletic Center (MAC).

Each House should use the process of renewal to develop a “signature space,” where space permits and new funding from the College will help seed innovative and collaborative programming at the neighborhood level. A map of neighborhood spaces would be useful to students. Smart classrooms should emphasize flexible seating and writing surfaces, and not complicated technological capabilities. Additional shared spaces that would enhance the student experience include “maker spaces” to create a vibrant connection between Cambridge and the new undergraduate Harvard John A. Paulson School of Engineering and Applied Sciences (SEAS) campus in Allston and rooms to support digital photography and the visual arts.



Stone Hall smart classroom



Dunster House LL fitness space



COMMUNICATION

To understand the experience of House communities undergoing renewal, the Harvard College Institutional Research Group and the Bok Center for Teaching and Learning defined and implemented multi-faceted audience research. This work included five student focus groups, two tutor focus groups, individual in-depth interviews with Faculty Deans in renewed Houses, a review of all student survey data on House Renewal collected over the period of interest, and new survey data on House Renewal collected from the 2015 senior survey. This research was conducted in the spring and summer of 2015.

Most students are aware of House Renewal. Awareness is slightly higher for those students who live in Houses that have undergone Renewal as compared to those who did not. Top information sources were campus media, word of mouth (peers), and University publications and communications. For students living in Houses undergoing renewal, the Faculty Deans were the main disseminators of information, primarily through email. While events for students wanting to know more about the Renewal process were deemed helpful, efforts

to make the information shared there available to students who could not participate would be appreciated.

Tutors received information about House Renewal at tutor meetings, from other tutors, from the Harvard Gazette and The Harvard Crimson, from Faculty Deans, from architects, and from tours of the renovated spaces.

Faculty Deans received information from the House Renewal team and the many planning meetings they attended. They said they were very involved and felt like their input was considered, and as much as possible, addressed by architects and administrators throughout the process.

Information Gaps

Students reported they were largely unaware of the significant amount of student input that was taken into consideration in planning the renovations. During the process of Renewal, they would have welcomed additional information about what their living spaces would look like, in particular their rooms, bathrooms, and common rooms. They reported that they had a hard time reading floor plans and would have preferred other

means for understanding the layouts of their rooms. The new designs introduced a number of new configurations of rooms and common rooms, and some were surprised by the changes. Some students were unaware of the reasons behind the design (i.e., various compliance issues, accessibility commitments, and the constraints of renovation in a historic building) and found that context helpful.

Tutors expressed a consensus that a “new tutor could get a little bit lost in the shuffle” with the need to keep track of logistics, swing housing, and move-in dates. Tutors would welcome additional opportunities to participate in the planning process.

Faculty Deans reported no information gaps.

Desired Information

Students, when asked an open-ended item on the Enrolled Students Survey and Senior Exit Survey about what should be communicated to them about House Renewal, responded that they most wanted information on House plans and physical space, followed by information on timing and logistics. Students who had not experienced renewal were interested in learning about the goals and purposes of House Renewal and were mostly concerned with the swing period and how student life would be affected. Two other themes that emerged were the decision-making process surrounding House Renewal and opportunities for student involvement in that process.

House Renewal is one of the largest and most ambitious capital improvement campaigns in the history of Harvard College. It aims not only to improve conditions through the renovation of millions of square feet in buildings nearly a century old, but also aspires to change how the physical spaces function to meet programmatic and other goals intrinsic to the residential experience at Harvard today and into the future. These changes are necessary to realize now, and to continue to enable Harvard to provide a transformational educational experience. Communications about the Program have been successful in presenting these multiple dimensions of the project.

Communications to House communities undergoing Renewal should highlight those topics of highest interest to students, i.e., logistics, visualizations of the project at the floor and room level, the context for decision-making, prior input from students and tutors that has shaped the project, and current opportunities for additional student input. Opportunities for students to provide feedback should be as frequent as is practicable and well publicized.



Events providing information on House Renewal or opportunities to give input should be supported by and paired with centralized information available to the House community. Materials could take the form of a FAQ posted on the House website, supported by other appropriate documents. This information would help enable informed conversations about House Renewal among a much broader set of students.

Students were consistent in their view that Faculty Deans are the best source of information on Renewal for their Houses, and the success of the Faculty Deans in that role is important to the success of the project. An easy-to-use communications guide should be provided to Faculty Deans undergoing Renewal in order to share best practices and to identify resources and support.



PROJECT EXECUTION

Because of underlying differences in Program goals, design intent, and the historical nature of the buildings, Harvard's House Renewal Program has higher cost drivers, more complex construction schedules, and more intricate material procurement as compared to other renovation programs. The Project Execution Subcommittee reviewed these aspects of the Program in addition to value engineering and sustainable design analysis.

PROJECT COST DRIVERS. An analysis of labor trends, market competition, and commodity trends revealed that future House projects can expect to escalate between five to seven percent per year over the next five years due to growth in construction prices in the Boston area.

PROJECT SCHEDULE. The team identified scheduling opportunities to benefit future House projects. Proposed schedule changes, alterations to advanced construction packages, and interim milestones will influence future projects.

MATERIALS PROCUREMENT. Procurement is a complicated and time-consuming process requiring a comprehensive execution plan to garner economies of scale. A materials procurement analysis identified opportunities for

acquiring, retaining, and utilizing services and materials to save money on the House projects where practical.

VALUE ENGINEERING. The renovation team successfully utilized a value-engineering process to analyze each House design for compatibility with the University's goals for sustainability, quality of House life, functionality of common spaces, accessibility, constructability, and value for money. For example, a much-loved old tree that was found not to be structurally sound enough to remain on the site was taken down and its wood was milled for use as paneling and furnishing for the student grille in Dunster House. The decision to give the tree new life in the building was meaningful to the House community, furthered our sustainability goals, and contributed to controlling costs on the project.

SUSTAINABLE DESIGN & BUILDING OPERATIONS. Due to the age and National Historic Register designation of the Houses, the installation of a multitude of new mechanical, electrical, and plumbing systems was required to modernize residential spaces, causing the Houses to consume more energy post-Renewal. However, many sustainable and energy-efficient strategies have been used in the design to reduce

whole-building energy consumption. Each of the House Renewal projects aspire to reach the LEED® Gold standard and exceed this level if possible. To date, Stone Hall has achieved LEED Platinum, while Leverett McKinlock and Dunster have achieved LEED Gold. These sustainability achievements align with the University's commitment to sustainability, especially given the pre-existing constraints.

Compared to dormitory renovation projects at competing institutions, Harvard's House Renewal Program is unique. The historical nature of the buildings, design intent for renewed spaces, and goal to foster complete student transformation set this renovation program apart from others.

While these aspects create somewhat of a challenge for the design and construction teams, all three buildings renewed thus far have been completed and opened to students on time and on budget. Given the schedule and construction constraints, and complex project requirements, the team has performed well under challenging circumstances. The analysis of prior House Renewal projects has uncovered many avenues to improve productivity and effectively manage against market escalation of construction costs during future Renewal projects.

The completion of Dunster House yielded much insight for the improvement of future project execution plans for the remaining Houses. Pre-construction scheduling and reprioritization of project components for Dunster House gave way to a more efficient construction period than those of Stone Hall and McKinlock Hall.

Several materials procurement and value-engineering techniques can be applied to future projects. Also, opportunities exist to analyze the projects from a sustainability perspective once a full House has been occupied for two full seasons. A formal measurement and verification period is underway at Dunster House, which will provide the best and most accurate insight on sustainability relative to effectiveness of strategies and energy use.

With the purpose of creating enhanced student living spaces, the House Renewal Program consists of creating high-quality community spaces, seminar rooms, classrooms, music and art rooms, performance spaces, and significant reprogramming of basement spaces. With the refinement of these design plans based on post-occupancy analysis and increasing construction costs in the Boston area, the cost of future projects continues to increase.

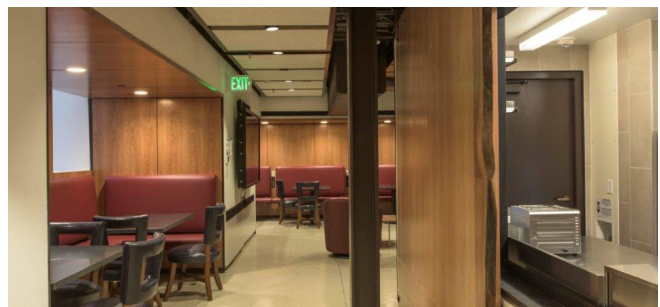
Managing escalating costs for future Houses will continue to challenge the design and construction teams. Also, execution of House Renewal will be more intricate and demanding in the tight, fifteen-month schedule given to each House. Possible



schedule changes in advanced construction and activities during school breaks have been identified for consideration. Even with these refinements, larger projects will necessarily require a construction schedule beyond 15 months. As was announced in February 2016, the renewal of Lowell House has been moved to a two-year schedule, and the current Winthrop project will include the construction of a new wing, Beren Hall, that will occur outside a one-year project window. Future projects should not be bound to a 15-month window, and instead set the construction schedule in response to the project scale and construction market considerations.

DID YOU KNOW?

Leadership in Energy and Environmental Design (LEED) is a nationally accepted organization for design, operation, and construction of high-performance green buildings that provides third-party verification of construction projects.



The wood of an on-site tree was milled for use as paneling and furnishing for the student grille in Dunster House. This decision was meaningful to the House community, furthered our sustainability goals, and contributed to controlling costs on the project.



FINANCING & AFFORDABILITY

The funding model for the Harvard House Renewal Program was developed under a unique set of economic conditions. Since the start of planning, it was always assumed that a project of this scale and scope would require a mix of funding sources, and models have included decapped endowments, incremental debt, philanthropy, reserve use, and non-incremental debt, each being deployed at some point during the project.

The launch of House Renewal followed a period of sustained growth in the Faculty of Arts and Sciences from 2004 to 2008, in which the FAS utilized debt to construct new facilities to support science programs. Servicing this debt placed significant demands on the FAS operating budget. The subsequent global financial crisis of 2008 further heightened concerns that taking on incremental debt would be unsustainable given available operating income. With the House Renewal Program launching just ahead of the public Campaign for Arts and Sciences, it was anticipated that philanthropy would necessarily become available only later in the project but that it would be a key source of support. Decapped endowments therefore would serve as the main source of funding revenue for the first three test projects.

Though the use of decapitalized endowments enabled the successful and timely completion of the projects in Quincy House, Leverett House, and Dunster House, the heavy reliance on this source came at a cost. Decapping endowments maintains a longer lasting and costlier impact to the FAS operating budget than does the use of incremental debt. When an endowment is decapped to support operations or a project such as this one, the associated income from that endowment is lost forever. By comparison, debt has a finite twenty-year impact. Decapitalizations taken to date will remove approximately \$25 million of available cash from the FAS operating budget by the conclusion of the Program. The operating impact is compounded by the House Renewal funding model's focus on utilizing unrestricted endowments and Dean's Reserves. By using these two resources, the School's most flexible resources are being depleted, which will limit the Dean's abilities to invest in other strategic and academic priorities and contribute heavily to FAS-projected deficits. This strategy has contributed to a complete depletion of FAS unrestricted reserves, which were valued at \$112 million in FY 13.

Since 2008, the FAS significantly reduced the percentage of its operating budget utilized for debt service, from 11.5 percent in 2008 to 7.4 percent in 2014. Because of this reduction, the House Renewal Program can utilize non-incremental debt capacity for the design and construction projects of future Houses. Findings suggest that debt must be reconsidered as a more immediate and larger component of future financing plans.

With the Campaign for Arts and Sciences now well underway, strong philanthropic support will be essential to achieving financial equilibrium for this ambitious and mission-critical project. Shifting from a set annual construction schedule to one tied to the successful achievement of House-level philanthropic goals is recommended.





FUNDRAISING

The House Renewal Strategic Assessment coincided with the mid-point of The Harvard Campaign for Arts and Sciences. This presented an opportunity to assess efforts up to this point, in order to ensure success for the remainder of the campaign.

The House Renewal Project builds on an experience that all College alumni share, that of living in the Houses. However, House Renewal is not about recreating the past. Instead, it supports the mission of Harvard College to provide a student experience that is intellectually, personally and socially transformative for today's students by reaching to the future with a new vision for a 21st century House experience.

Prior to construction completion of the first River House projects, fundraisers found it challenging to relay the full experiential scope of the importance of House Renewal beyond architectural renovations. While valiant efforts were made, even the best renderings and visualizations did not capture the changed experience of students living and learning in renewed Houses. As a result, early fundraising efforts toward the \$450 million campaign goal were slow to gain widespread support.

As of fall 2015, there were three highly successful, completed House Renewal projects. Students can now share their own experiences of living in renewed Houses, and Faculty Deans can speak to how the profound changes to the buildings have impacted the House community. No longer an abstract idea, House Renewal has great potential for new fundraising efforts to thrive. In fact, there is more momentum today than the House Renewal Program has experienced at any other point in the project.

Challenge funds have played an important role in many of Harvard's large-scale fundraising efforts, and House Renewal is no exception. Leveraging over \$50 million in gifts to the Program, The Hutchins Family Challenge has been very successful in catalyzing support for House Renewal. A second challenge fund was launched by Kewsong Lee '86 and Zita Ezpeleta'88 in the fall of 2015, and was completed in less than 30 days. There is time for a third challenge fund to be launched prior to the end of this campaign.

In 2016, the momentum continues with a new five-story addition to Winthrop House, Robert M. Beren Hall, named after the alumnus of the Class of '47, M.B.A. '50. In April we received a gift \$10 million gift to name the Faculty Dean's Residence at Eliot House in honor of past Faculty Dean John Finley. Lastly, we can offer prospects a new opportunity to support House Renewal and House-life programs through the naming of one of the House Faculty Deanships.

As of March 31, 2016, \$230 million has been raised towards House Renewal, with recognitions for these gifts provided in spaces across the House system. Going forward we will continue to raise gifts for the House Renewal program as a whole, but we will also launch House-specific campaigns, starting with Lowell House. These efforts will engage all alumni of a House and will offer a unique opportunity to build House community that includes our alumni. Each House campaign will provide new ways for alumni to connect with each other, to honor their House experience and the friendships it forged, and to shape the specific House experience of generations of students to come.



Architectural renderings of Winthrop House and Beren Hall

