



LIBRARIES MASTER PLAN

PURDUE UNIVERSITY

VOLUME I - EXECUTIVE SUMMARY

SEPTEMBER 2023

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00 EXECUTIVE SUMMARY

INTRODUCTION

In November of 2021, Purdue University engaged Perkins&Will as partners in an eight-month study of how best to re-position Purdue Libraries for the campus' current and future needs. The existing library system is comprised of 7 individual libraries spread across campus. Each is embedded within another academic buildings. These existing libraries total about 240,000 assignable square feet.

The Purdue University Libraries and School of Information Studies system on the West Lafayette campus includes six subject-oriented libraries, the Hicks Undergraduate Library, and the Virginia Kelly Karnes Archives and Special Collections Research Center. The campus library system includes 3,317,331 printed volumes and electronic books; 227,814 electronic and print journals; and government documents and microforms in excess of 400,000. To complement the online collections, Libraries also houses more than 600,000 volumes in closed stacks that individuals can request for next-day delivery. In addition, any item held in the Big Ten Academic Alliance libraries can be requested directly and typically arrives within a few days.

With the exception of the Wilmeth Active Learning Center (WALC), each of Purdue's libraries was conceived more than 50 years ago when libraries exemplified forward thinking concepts around the delivery of library resources and services. Since then, some renovations have taken place to better meet student needs and resources purchased and/or licensed are now predominantly digital. Today, the way in which students, scholars, and faculty connect with and use repositories of knowledge has changed significantly. Purdue Libraries remains a leader in the

field, as evidenced by the Association of College and Research Libraries (ACRL), a division of the American Library Association (ALA), which honored the Libraries with the 2015 Excellence in Libraries Award based on the Libraries' numerous innovative initiatives, including leadership in re-defining the role of libraries to meet the needs and expectations of its university; creating a research community in the 21st century, through innovative programs and projects in information literacy; new space designs; new publishing models; international collaborations; and data management. Now is the time to update Purdue's library facilities to meet campus needs and better match programmatic initiatives underway.

Fundamental to the vision of a repositioned Purdue Libraries is an alignment with the university's strategic goals. Purdue's Next Moves outline a visionary investment in transformative education that includes advanced technologies in the classroom, increased engagement, and increased student success through online and in-person experiences. As a part of this masterplan study, the design team has leveraged data analytics to help predict future needs, and anticipates the library's role in facilitating hybrid learning. In addition, Purdue Libraries must address changing customer expectations, new information technologies, emerging modes of learning and scholarship, and understanding evolving research library culture. As one stakeholder said, we are shifting from a culture of 'tool users' to one of 'tool creators.' The design team worked with Libraries leadership and Campus Planning, Architecture and Sustainability to engage more than thirty departments and stakeholder groups to review existing conditions, discuss aspirations, and co-create a project vision.

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Project Vision Statement

The future Purdue Libraries will be the bridge between individual learners and the academic community, the campus and the world. It will connect disciplines and integrate resources across the university so all can engage in the richness of the Purdue experience. The Libraries will be a consistently recognized partner *for experimentation, collaboration, and digital learning. It will be a pathway between knowledge acquisition and its application in the service of society.*

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WHAT IS NOW

The master planning process started with an in-depth review of all available documents regarding building construction history, current layouts, utilization and strategic planning aspirations for the Library. The Team observed student and staff behavior in the library and conducted a series of student intercept interviews to understand current usage patterns. Figures 00.1-00.3 show some of the student interview data. The 7-library system is heavily utilized with over 70% of students surveyed visiting the library 3 or more times per week. Unlike prior generations, today's students are not browsing the book stacks as a mode of discovery with 98% confirming that they never or rarely browse the stacks. Interestingly, students like the 'feel' of books. They appreciate beautifully curated collections surrounding study spaces for how it reinforces a scholarly mindset, elevates a sense of academic purpose, and helps validate students' commitment to learning.

When asked about change, students wanted more library seats and more varied types of seating. This aligns with benchmarked academic library seating metrics that suggest Purdue Libraries need an additional 2,997 seats to be in-line with peers. Put another way, Purdue Libraries are under-seated by a factor of 2:1. The Design Team worked with Purdue Libraries to deploy occupancy sensor technology into all seven libraries to check anecdotal and survey-based information. Sensor data collected over the Spring 2022 semester showed that the Library of Engineering & Science in the Wilmeth Active Learning Center (WALC) and the first floor of Humanities, Social Science and Education (HSSE) libraries to be heavily used and regularly stressed beyond comfortable capacity (see Figure 00.4). WALC and HSSE libraries comprise more than 50% of all library seating, and they are regularly turning away students because they are perceived as 'full'. It should be noted that many academic libraries are reporting 50% - 85% return-to-library rates during the same Spring 2022 semester. It is safe to assume that occupancy rates will rise significantly as students return to pre-Covid use patterns. This will only further stress occupancy rates.

Figure 00.1: How often do you use the library?

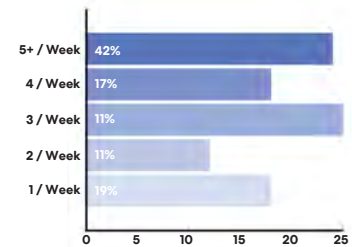


Figure 00.2: What determines which library you visit?

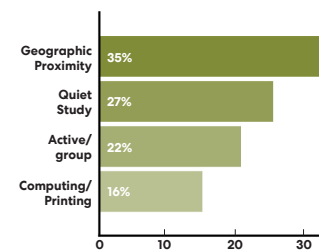


Figure 00.3: How often do you browse the stacks?

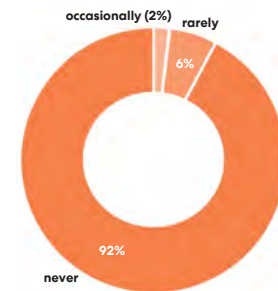
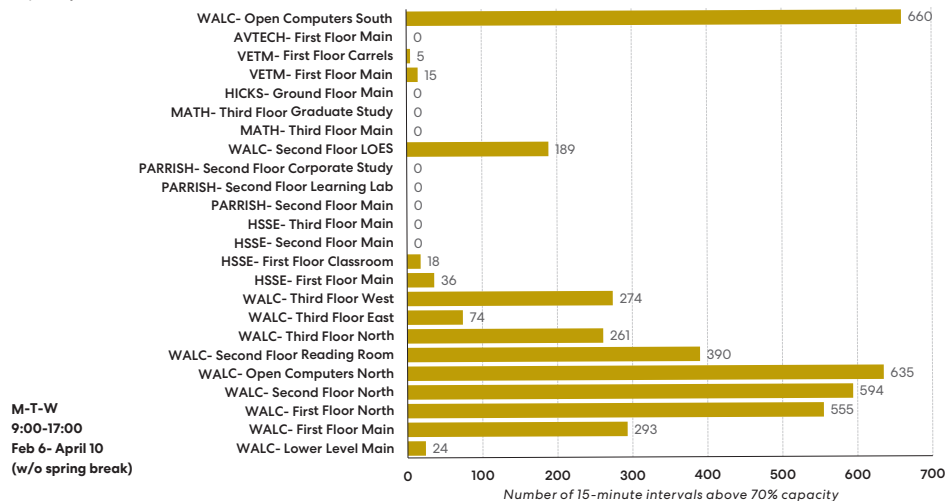


Figure 00.4 - Stress instances for existing libraries: How often do library spaces experience over 70% capacity?



A unique feature of Purdue University is that there are no standalone library buildings. Libraries are embedded in larger academic buildings. These are buildings that include some classrooms, or in the case of WALC, are entirely comprised of classrooms. Using a comparative analysis of library occupancy overlaid with classroom enrollment over time, we discovered strong correlations: as classes discharged, library occupancy increased and vice versa (see Figure 00.5 and 00.6). This suggests that classroom adjacency has a measurable impact on library use. And by extension, deliberate pairing of library resources with classrooms will increase library utilization. This is significant in light of established studies that correlate library use with student success.

Figure 00.5 - Strong inverse correlation between classroom use and library use at Krannert School of Management (Parrish Library)

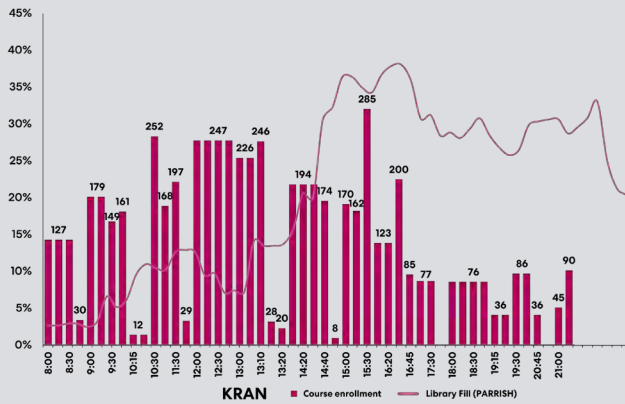
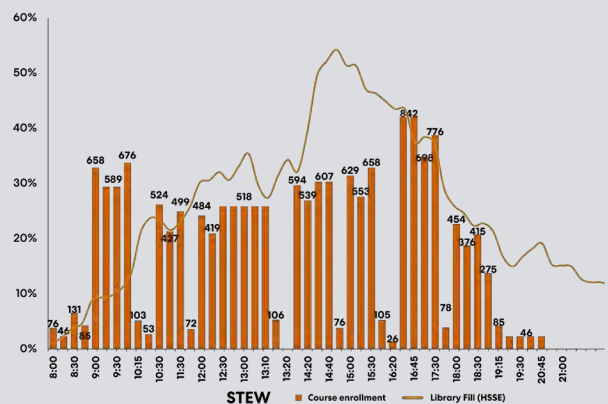


Figure 00.6 - Medium inverse correlation between classroom use and library use at Stewart Center (HSSE Library)



Embedded in larger academic buildings, Purdue Libraries are without a free-standing library presence on campus. Coupled with inconsistent identification signage, finding a library can be frustrating. Unifying brand development, simple wayfinding cues, and appropriate signage will go a long way in creating a stronger library presence. Similarly, online navigation to individual libraries is not always a user-friendly experience. Consideration should be given to rethinking digital information hierarchy, using inspiring subject-matter imagery to mitigate text heavy landing pages, and finding opportunities for Purdue storytelling to enhance the overall user experience. In the increasingly hybrid physical/virtual world in which we all now transact, deliberately connecting the online library experience with the physical library experience is important.

Lastly, as Purdue University academic programs continue to grow south of State Street and student housing continues to grow westward, the physical campus is expanding. With the exception of the specialized Aviation & Transportation Technology (TERM) and Veterinary Medical (LYNN) Libraries in remote locations at the south and east edges of campus respectively, the existing libraries are concentrated in Central Campus in and around the WALC / HSSE / HKS core. In just the last ten years, Purdue has invested nearly \$750M in South Campus buildings and infrastructure. These newly developing parts of campus are library deserts that could benefit from the scholarly support services libraries offer. When polled about where they would like to see expanded library services, students identified two distinct precincts: one on west campus near the undergraduate residence halls along Third Street, and the second on south campus in the vicinity of Lilly Hall of Life Sciences (see Figure 00.7 and 00.8).

Figure 00.7 - Existing locations of Purdue libraries.

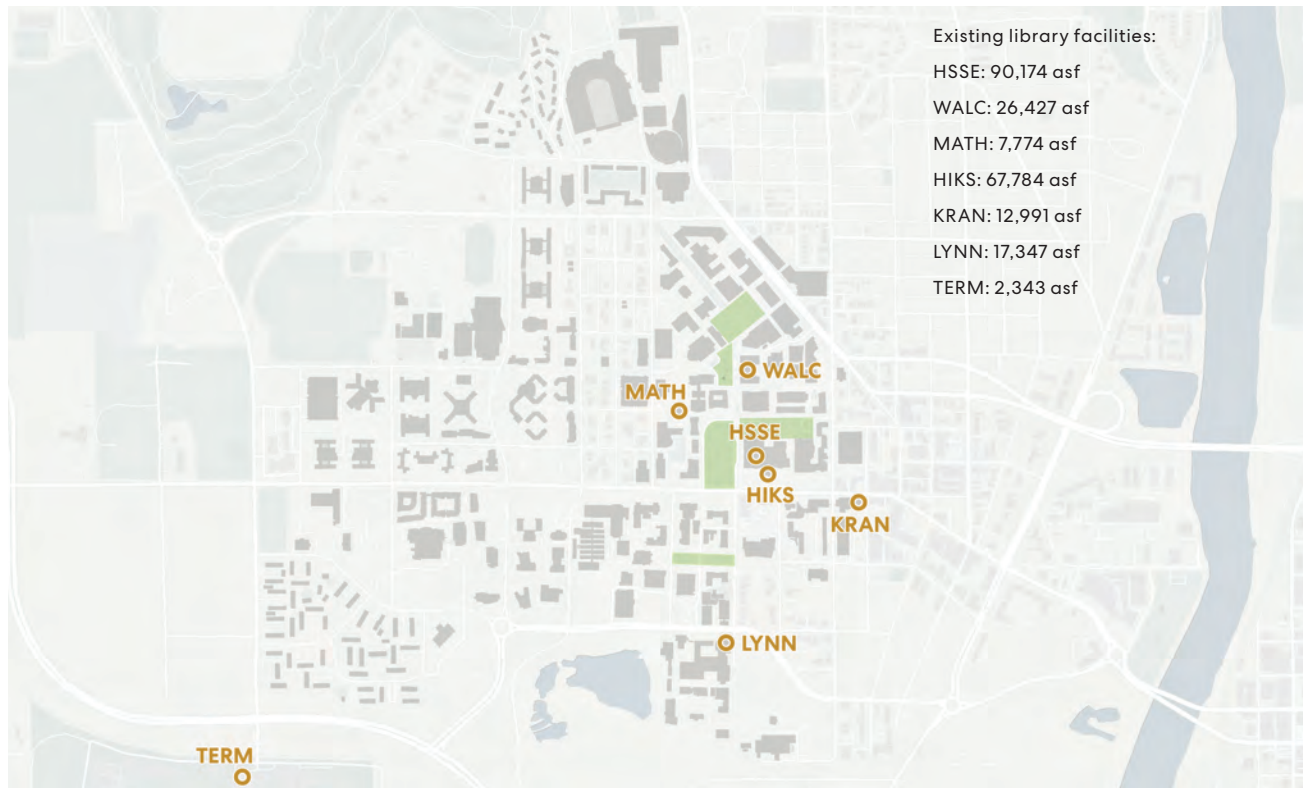
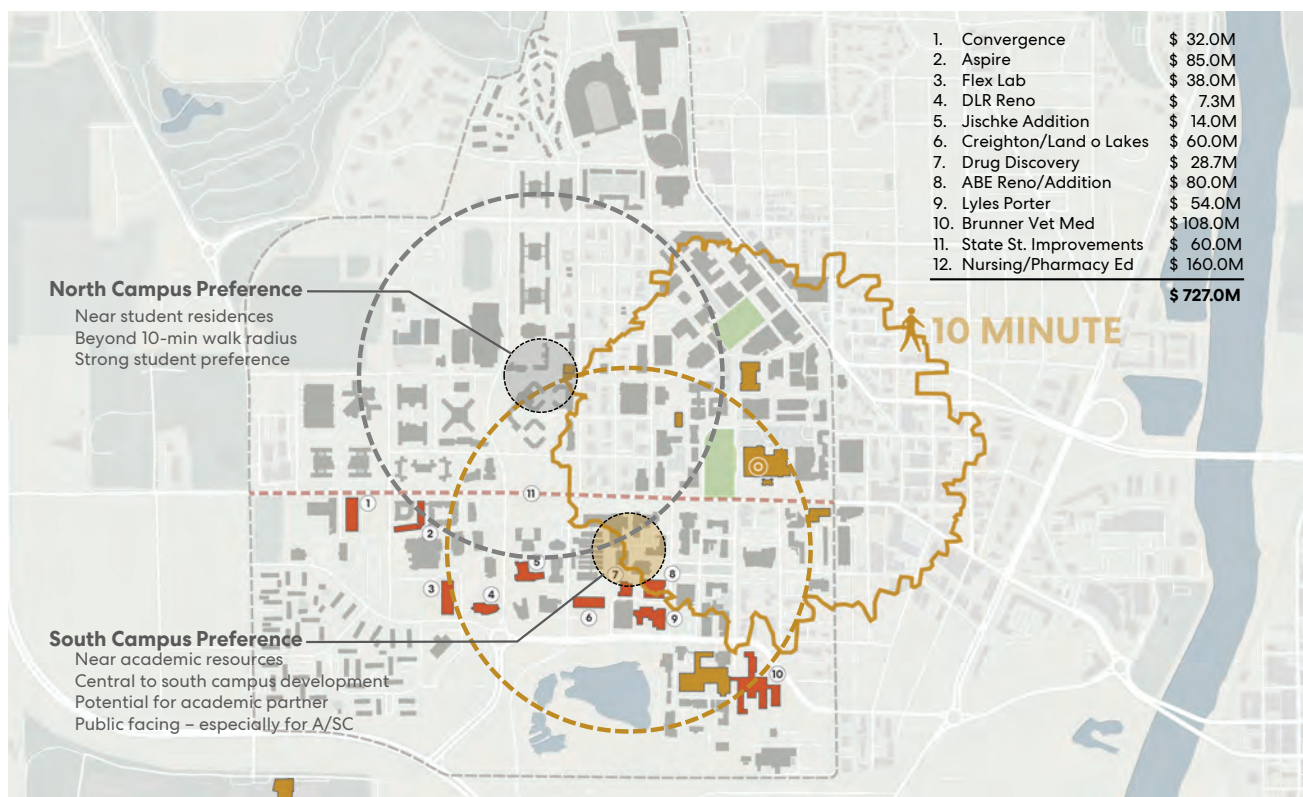


Figure 00.8 - Current investment in South Campus.



WHAT IS POSSIBLE

GENERAL PLANNING

Based on visioning and existing conditions assessments, four fundamental strategies emerged to improve the spaces for library services:

Reach – Improve the geographic reach and distribution of physical services across campus by planning two future library spaces: 1) a South Campus Hub serving the growing investments and academic programs south of State Street, and 2) a Residential Hub serving the needs of students in and around the residential precinct on west campus. These future library hubs would be integrated with partners (academic classrooms and residential life respectively) and would help mitigate the shortage of study seats across campus.

Capacity – Increase study seat count by +/- 3,000 seats by harvesting underutilized space in existing libraries and adding future hubs in underserved precincts.

Presence – Build awareness of library locations, services and programs through: more intentional branding of physical and virtual environments, visibly showcasing special programs, celebrating Purdue accomplishments, and increasing the permeability of libraries to welcome all students and improve ‘findability’ of resources. Phone apps and digital kiosks can utilize occupancy sensor

data to direct students to available seating across the library’s network of study spaces.

Success – Make the existing relationships between libraries and classrooms more direct. Cluster synergistic library/partner services to enhance cross pollination of resources and promote greater collaboration.

ARCHIVES AND SPECIAL COLLECTIONS

Archives and Special Collections (A/SC) contain some of the University’s most valuable assets and treasured stories. It is growing. It is uniquely Purdue. It is of intense interest to scholars, University Historians, Alumni, and Development. The A/SC gallery, reading room and collections are difficult to find with inadequate space to support the collections. Its current 4th floor location in the Stewart Center is far from serviceable loading docks and frequently subject to roof leaks. During the course of this study, there were at least four times when water penetrated collection storage areas threatening one-of-a-kind documents and artefacts with potential damage. A/SC is the one area of the library with significant physical collections growth. Currently, collections storage areas are beyond capacity with some collections relegated to sub-standard environments. Figure 00.9 and 00.10 illustrate the vision of a future Knowledge Gallery to exhibit Archives / Special Collections and other scholarly content at a busy entry point to HSSE Library.

Figure 00.9 - Future vision for a public-facing Knowledge Gallery to display special collections materials on the first floor of HSSE Library.





Figure 00.10 - Future vision for a Marketplace entry to HSSE Library. A generous 'learning landscape' stair leads students up to Access Services on the second level. The Knowledge Gallery is visible in the glass-enclosed space just beyond the stepped seating.

PLANNING FOR THE FUTURE

In collaboration with library leadership and the Steering Committee we identified existing services to be enhanced in both quantity and quality. The group also identified new programs and services that would fuel research goals and support student success. Enhancements include:

- Increased geographic reach by adding a new South Hub Library and a new Residential Hub Library
- Doubling the number of patron seats with improved quality and variety of seating options
- Distributed Virtual Learning Hubs
- New Center for Digital Scholarship
- Accessible, high-visibility Archives and Special Collections
- 10-year growth capacity for Archives and Special Collections
- New Experimental Teaching Lab
- New high-visibility Makerspace
- 85% more group study rooms
- New digital production spaces and tools
- Visible partner spaces for the Art Gallery, Café Services, Digital Scholarship, Classrooms and Conferencing
- Pop-up event space with tiered seating
- Blended Service Desk with adjacent Consultation Room
- Special Project Rooms
- Outdoor Reading Terrace overlooking Memorial Mall

EXISTING LIBRARIES

The Aviation and Transportation Technology Library (TERM) is remote, serves one specialized group of students, and experiences low use. The TERM building is also being considered for replacement. As such, we do not recommend further investment in this library pending clarification of building replacement details. Similarly, the Hicks Undergraduate Library (HIKS) suffers from a compromised building envelope and degrading building systems. Repairs will be costly and extremely disruptive. Moreover, the low-density building does not take advantage of its high-value site, nor does it lend itself to expansion. Based on Facility Conditions Reports, we do not recommend heavy investment in HIKS and believe it should be replaced in the medium term.

The challenge will be to realize the Library's vision within the envelope of the remaining five existing libraries and minimal new library construction. A primary strategy to maximizing existing library space

is to move MATH and HSE floor collections and scattered repository collections to a consolidated off-site repository situated in the available 42,500sf of the 2550 Building. Vacated stack spaces can then be converted to new program and enhanced study spaces. In HSE library, there is also the potential to replace some aging mechanical room equipment in a new rooftop penthouse thereby harvesting an additional 3,000 square feet for user focused program space.

Each of the five remaining libraries should receive new brand identity and varying levels of refresh and light renovation. HSE library, however, has the opportunity to transform services by leveraging its unique position on campus and increasing connectivity with other building partners including classrooms on Levels 1, 2 and 3. The combined refresh and renovations of existing libraries could add 1,550 seats or over half the targeted seat count growth.



Figure 00.11 - Future vision for a Marketplace entry to HSE Library, including a repositioned Art Gallery that flows into a welcoming cafe space.

HSSE LIBRARY

By virtue of its location next to Admissions, adjacent to major performance spaces, and between Memorial Union and Memorial Mall, HSSE library has the potential to showcase library resources to both the intentional user, the curious visitor and casual passer-by alike. The master plan recommends blurring the edges of the library to allow the blending of social, visitor, classroom and library spaces. HSSE is no longer defined by a solid boundary wall and dark glass security doors. Rather, it can be a welcoming space of hospitality and café culture that invites visitors and students into an open mix of social engagement, special events and collaborative study. A tiered learning landscape draws patrons to the upstairs floors to where the blended services desk and more traditional library tools and resources can be found. The double height arrival space can flex to support pop-up events, student orientation, tour groups, or smaller public presentations. With the adjacent Art Gallery on one side and the glass enclosed Knowledge Gallery on the other, this front entry is the place to showcase the richness of Purdue culture, including prospective students and their families waiting in the adjacent Admissions area (see Figures 00.11 and 00.12).

Archives and Special Collections are relocated to Level 1 for maximum visibility and protection of its collections. With direct adjacency to a proper loading dock, the risk of damage to collections in transit is minimized.

By eroding the south wall of the library on all floors, the library can more directly connected to conferencing and classroom activities. Much like the open relationship between classroom learning and library learning in WALC, the future HSSE experience can find similar synergies to promote student success across all modes of learning (see Figure 00.17).

On Level 3, a new reading room connects directly to an outdoor roof terrace overlooking the main academic quad. This not only adds an outdoor reading garden to the mix of spaces, it also creates a destination amenity like no other on campus. The combined reading room and outdoor terrace can be used for meetings, receptions, and special programs without disrupting other library spaces around it. New dormers and clerestory windows transform the dark and windowless Level 4 into a daylit space for quiet study (see Figure 00.13). See Figure 00.14 for a full set of blocking plans for the future HSSE Library.

Figure 00.12 - New vision for the HSSE Library entry for Memorial Mall.

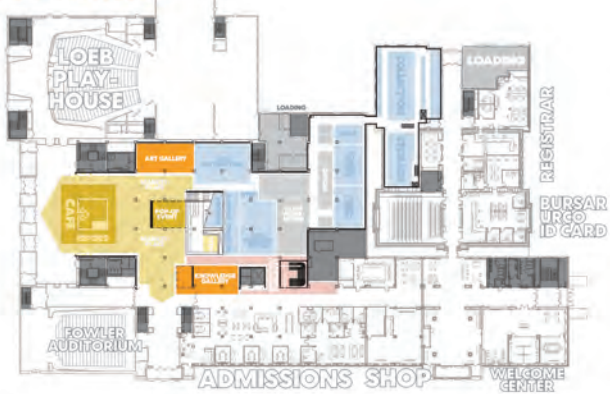




↑ Figure 00.13 - Proposed outdoor reading terrace and new dormer windows to flood the currently windowless Level 4 with natural light.

↓ Figure 00.14 - Proposed blocking plans for all levels of HSSE library.

First Floor



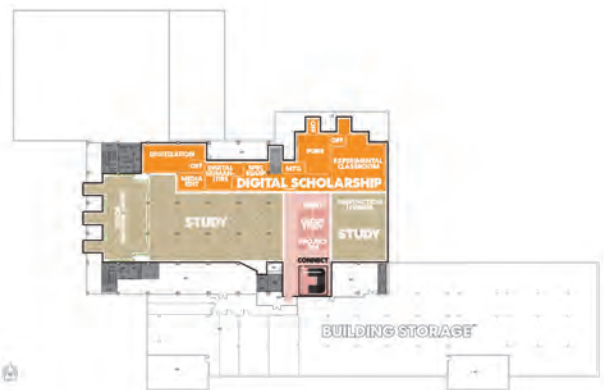
Second Floor



Third Floor



Fourth Floor



NEW LIBRARIES

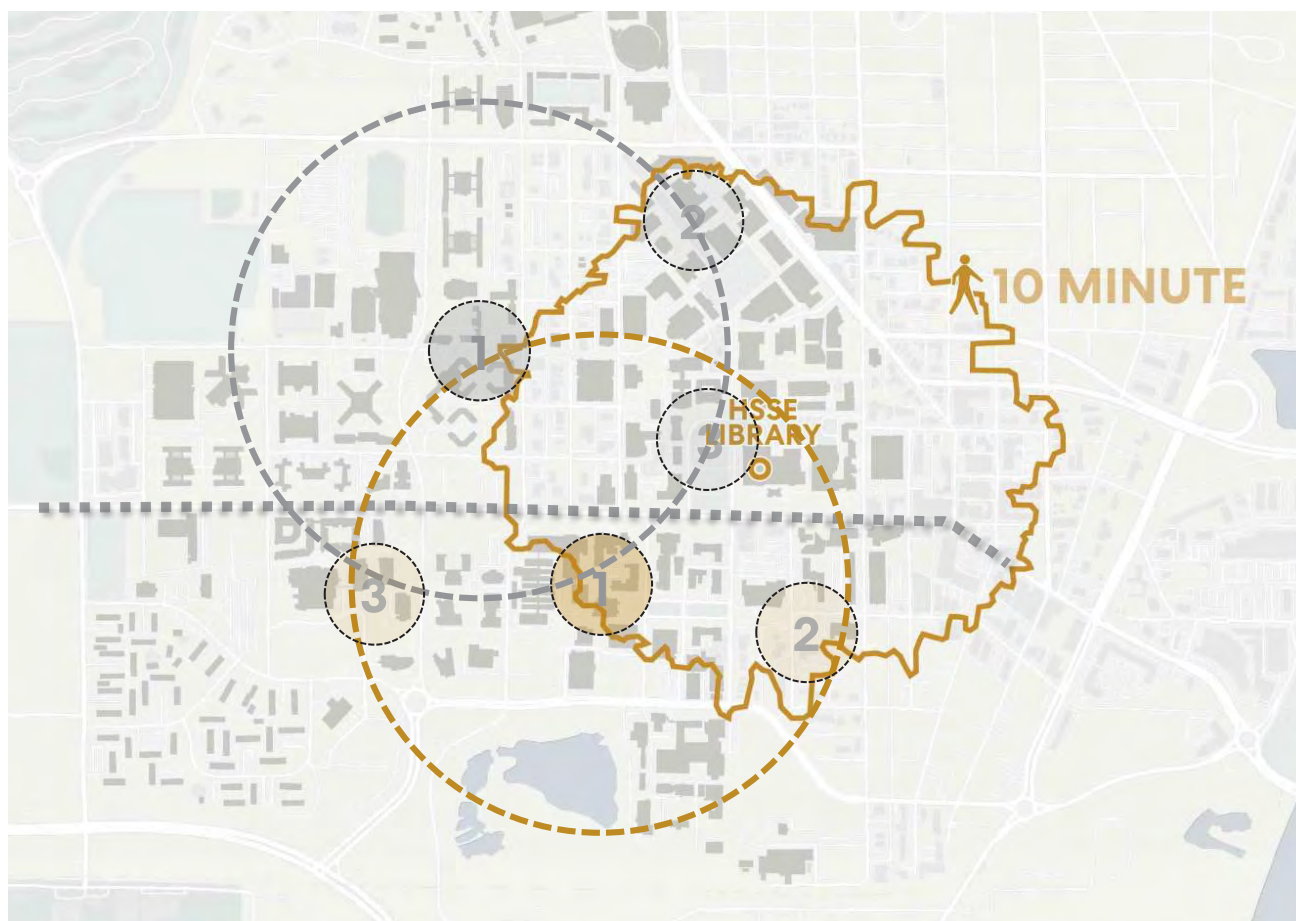
Two new libraries are proposed to improve geographic distribution of library resources and an additional 1,500 seats. Both libraries are envisioned to be developed in partnership with other academic and/or student life services. The +/- 51,000 gross square foot South Hub Library would host library research and reference services, Virtual Learning Hub, Graduate Commons, café service and about 1,000 study seats. In keeping with the Purdue Library model, the South Hub could share space with a specific academic building or a classroom building similar to WALC.

The +/- 24,000 gross square foot Residential Hub Library would similarly host research and reference services, a smaller Virtual Learning Hub, and about 500 study seats. The South Hub would be developed

in concert with new residential buildings and integrate with ground level amenity services: social gathering, food services, health, wellness, and etc. It will be important to plan the Residential Library Hub in a way that it serves all students and not just those who occupy the residential units direct above to next to it (See Figure 00.15).

Since neither precise partners nor exact sites have been identified for either of these new libraries, there is no detailed planning. However, a detailed Program and Program Map have been included to outline spaces and illustrate the preferred relationship between library spaces. A site criteria matrix has also been developed for the South Hub Library to facilitate future site selection.

Figure 00.15 - Student preference for location of new library services. The number (1) indicates most preferred precincts of South and West campuses.



PHASED IMPLEMENTATION

Perkins&Will worked with Library Leadership and Campus Planning, Architecture and Sustainability to balance programmatic priorities with technical sequencing requirements to develop a phasing strategy. This strategy includes five major phases of work and a few 'phase independent' projects that can take place at any time. Fortunately, the Purdue Library model is one of distributed facilities across campus. Provided capacity is built up elsewhere, individual libraries could come off-line for a limited period or refresh and renovation without negatively affecting library services in total. Please see Figure 00.16 for a graphic representation of the phasing described below.

PHASE 1

build high-density offsite collection storage in the 2550 Building.

PHASE 2

renovate and refresh MATH and HIKS libraries. Using spaces vacated by collections moved to 2550, MATH renovations will add +/-115 new seats. HIKS will include a Ground Floor finish refresh that improves the variety of seat types. Using space vacated by repository collections moved to the 2550 Building, a portion of the Basement Level of HIKS will be economically upfitted to add additional seats. Combined, the HIKS renovations will add +/- 368 seats. In total, Phase 2 adds about 483 seats.

PHASE 3

Is the full renovation of HSSE Library. This will happen over two sub-phases. The first will take Levels 1 through 3 off-line for renovation while A/SC operations are maintained on Level 4. Once A/SC relocates to its new home on renovated Level 1, Level 4 work can begin. Upon completion of Phase 3, the library system will have added 1,550 seats. During Phase 3 implementation, critical library services will be distributed to other libraries within the system.

PHASE 4

Includes the new construction of a South Campus Hub and a Residential Hub. These projects will be developed with yet-to-be-identified academic and residential life partners. Per program, they will add 1,000 and 500 seats respectively. Though these projects could happen at any time, they must happen before Phase 5 to ensure that there is not a significant loss of library seating. Upon completion of Phase 4, the library system will have added 3,050 seats.

PHASE 5

Is the eventual demolition of HIKS Library. Though this will remove just over 1,000 seats, it is sufficiently far into the future that conditions, use data, and/or new directions in higher education delivery trends may change targeted library study seat metrics.

PHASE INDEPENDENT

projects are a series of additional improvements that can be implemented outside of the above noted sequence of phases. This includes refreshes to the Veterinary Medical Library and the Roland G Parrish Library of Management & Economics Library. It also includes the creation of a new Maker Space in WALC.

Figure 00.16 - Phasing matrix





Figure 00.17 - Future vision for typical study floor of HSSE, including centralized vertical and horizontal circulation and 'Learning Commons' that links quiet study zones and active study zones. This view of Level 3 imagines how these crossroads can be used to showcase unique programs like the Idea Box and Visualization Lab.

NEXT STEPS

This report outlines the general design parameters for a series of future renovation and new building projects. Ideas and quantitative information herein should be used in conjunction with established qualitative drivers. The findings and vision represented in this study will serve as the starting point for detailed building program confirmation and building design processes to follow.

Immediate next steps should include the development and deployment strategy of a consistent Purdue Libraries Brand and the design and implementation of Phase 1 work described above. It is also recommended that the Libraries take advantage of the time between vacating HSSE floor collections (Phase 1) and implementing HSSE renovations (Phase 3) to test new furniture concepts and prototype Virtual Learning Hub options.

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