



Cornell University
Library

Report from the Cornell Library Annex Advisory Task Force

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Summary and Recommendations

Since its original construction, the Library Annex has served primarily as a secure storage facility for lesser-used material in the Cornell University Library (CUL) collections. The facility has grown significantly both in terms of physical storage capacity and service delivered to the Cornell community. In light of recent developments associated with providing improved access to CUL collections and facilities by such means as the Large-Scale Digitization Initiative (LSDI) and transfers of more print material offsite, expectations placed on the Library Annex have extended beyond its original purpose and have outpaced its resources.

The Cornell Library Annex Advisory Task Force was asked to consider the short- and long-term mission and role of the Library Annex to ensure its continued support of the overarching goals of Cornell University and CUL through 2015 and beyond. This report contains the group's findings and includes recommendations for the expansion of basic Annex services, a sustainable long-term staffing model for both routine and project-based work, regular assessment of Annex operations and service, better communication of policies and procedures associated with the offsite facility, and some thoughts on commissioning a study on the future use of the final storage bay that is projected to be needed by 2019 to maintain steady-state collections on central campus.

Specifically, the Task Force recommends the following:

1. Expand Library Annex hours from 9:00 AM – 4:00 PM to 9:00 AM – 6:00 PM on weekdays to improve document delivery speed and permit additional user service hours.
2. Increase document and print delivery service from five to six days a week by adding Saturday service most weeks of the year.
3. Define baseline service by capping the routine annual accession level for new material at 125,000 volume equivalents (VE) / monthly accessions at 10,500 VE (thereby balancing workflow and matching annual acquisitions to create steady-state collections on campus).
4. Increase the regular (i.e. non-project, non-temporary) staff at the Annex by 0.5 FTE (from 5.5 FTE to 6.0 FTE) to accommodate monthly/annual baseline service levels.
5. Ingest and other activities that exceed the baseline service levels need to be treated on a project basis, which will require additional one-time funding.
6. Conduct annual reviews and assessment of key Annex service tasks and labor effort to ensure accurate baseline data for future service, workflow, and staffing estimates for both routine and project work.
7. Re-explore the possibility of providing appropriate incentives to attract student help to the Annex.
8. Create a master list of relevant procedures and contacts, as well as an FAQ for the Library Annex to include, or provide easy access to, documentation regarding the facility's most important policies by April 30, 2011.
9. Create and implement tools to support a project planning protocol to manage CUL needs that exceed the key service levels for which the Library Annex is staffed (also to be completed by April 30, 2011).
10. Commission a study to examine the possible uses for the final Annex storage bay, taking into consideration the long-term needs of Cornell's physical collections, the potential impact of storing content from partner libraries, the impact of Google's digital initiatives (or similar ones), technical and cultural innovations, and other issues. Current estimates

project there is sufficient existing capacity to support transfers to the Library Annex through 2019. Before then, we'll need to raise funds and outfit the final warehouse.

11. Implement a procedure for the regular "repatriation" of items that have circulated three or more times in one year to central campus.
12. Investigate the feasibility of a print-on-demand service for books to complement our digital journal article / book chapter document delivery program, taking into account the impact of such initiatives as Google Books and the Hathi Trust.
13. Working independently or with another institution, design an assessment plan for user and stakeholder satisfaction with high density storage and related offsite services.

Apart from opportunity costs, we estimate the funding required to carry out these thirteen recommendations (including benefits) will be an additional \$31,500 per year, adjusted annually, chiefly to cover the cost of recommendations #1, #2, #3, #4, #5, #7, and #11. Annual one-time costs (including benefits) for transfer projects that exceed the 125,000 VE annual / 10,500 monthly accession cap described in recommendation #3 will require up to an additional \$32,800 (.8 FTE) per year in supplemental funding for each 75,000 VE accessioned. (We anticipate accessions for the next three years to be in the 175,000 – 200,000 range.)

1. Landscape Analysis¹

On behalf of the Task Force, the CUL Research and Assessment Unit (RAU) conducted a "landscape analysis" of remote storage facilities operated by research libraries in the United States to identify:

- Best practices in place at peer institutions, including appropriate staffing levels and technologies used in support of services;
- Service trends such as: expansion of digitization on demand; storing and serving newly purchased materials rather than exclusively older, low-use content; and services to external clients (libraries and non-libraries);
- Levels of user satisfaction / dissatisfaction
- Impact of digitization on the use of tangible material.

RAU based its analysis on a standard literature review and interviews with management personnel at seven remote storage facilities operated by peer academic institutions. The survey yielded the following information.

Best Practices

The literature review emphasized the predominant practices associated with the major storage facility model in use at research libraries today: the Harvard high-density, high-bay modular storage facility model, which is currently in use at Cornell. These practices are:

- Items stored by size, not subject classification, for maximum space utilization efficiency;
- Use of Generation Fifth Applications' Library Archival System (GFA LAS) software for barcoding and inventory control;
- Manual item retrieval using mechanical order pickers;
- Maintenance of an environment that is optimized for longevity of paper materials: temperature range usually 50-60 degrees Fahrenheit, humidity range 30-40%;
- Construction of additional modules as needed;

- Guaranteed turnaround time of 24 hours or less for all item requests, if delivered to one or more main campus library locations on weekdays;
- Close integration with interlibrary loan / document delivery operations, whether located onsite or not;
- Maintenance of a high-security environment, with no public access to storage areas;
- Priority storage of items: (1) with historically low circulation, (2) that would benefit from the environmental conditions of the facility, and (3) that are also available in digital form;
- Storage of bound volumes, microfilms, microfiches, maps, and archives;
- Rejection of items in very poor condition, especially if moldy or insect-infested;
- Convenient discovery of, and a request mechanism for, stored items via a link in the online catalog.

Common among storage facilities run by our peer institutions are:

- Cross-training of all primary staff;
- Minimal de-accessioning or “repatriation” of items from remote storage, except for large runs of duplicate serials and, more recently, other duplicates within the facility;
- In-person visits by patrons highly discouraged or not permitted;
- Minimal or no duplication of holdings in other libraries on campus;
- Use of some space for artifacts – everything from theatre props to dancing shoes and bicycles;
- Service objectives based on discussion and negotiation with members of the campus community;
- Offering space to new constituencies on a cost recovery basis;
- Limiting student staff to non-critical tasks.

Many of the facilities surveyed are full or close to full and are looking for ways to extend the life of existing modules until the budget situation improves. Aggressive de-duplication efforts are in effect at virtually all institutions interviewed. Specific de-duplication policies vary widely, but one example indicates that:

- Both monograph and serial holdings in the facility are seen as copies of record; project teams for central campus unit closures are urged to withdraw unwanted copies that otherwise meet the criteria for transfer to the storage facility;
- Material with low circulation that meets the criteria for transfer to the storage facility is either transferred to the facility or withdrawn, based on call number and projected acquisitions patterns in the relevant subject areas.
- Institutions are not withdrawing the last copies of serials available in JSTOR.

Staffing Levels

It is not easy to make meaningful comparisons of staff levels among facilities. Most storage facilities hire temporary staff when accession rates are high and do not count this staff among its regular FTE. Reported staff levels may or may not include students. Some facilities count interlibrary loan (ILL) and delivery staff as their own, others do not. Google partners typically hire temporary staff during scanning periods. Accession rates can rise steeply when unit libraries are being closed and fall dramatically as facilities reach capacity, skewing statistics for a particular year. Circulation volume and rates are changing as a result of increased transfer of higher-use materials to remote storage. There are no standards for measuring volume holdings

or accession counts. Circulation statistics may or may not include in-building use, interlibrary loan (ILL), internal projects, and Google scanning.

For this reason, we estimate an uncertainty factor of $\pm 50\%$ in the ratios of staffing level to productivity. With this caveat in mind, the staffing levels based on volume holdings among Cornell and the seven peer institutions surveyed varied from 1.6 FTE to 3.8 FTE per million volumes (existing literature shows an average of 2-4 FTE per million volumes nationally). The staffing levels based on number of transactions (accession, circulation, and document delivery) varied from 1.0 FTE to 4.8 FTE per 100,000 transactions. Further, there is a wide range in weekly hours of operation among the storage facilities, from a low of 42.5 hours (shared by three institutions) to a high of 83 hours. Staffing levels based on hours of operation varied from 1.1 FTE to 3.5 FTE per 10 hours of operation. If staffing levels based on volume holdings are adjusted for total weekly hours of operation, that range of comparison narrows to 1.6 FTE to 2.8 FTE per million volumes.

Cornell has the fourth largest annex holdings of the eight institutions (2.8M volume equivalents or VE), the second lowest number of total transactions (212,172 for 2009/10), and the smallest number of permanent staff at the time of the survey (4.5 FTE). This gives Cornell the lowest staff-to-holdings ratio, but about 0.5 FTE above the median staff-to-transaction ratio, *if CUL temporary staff are included*. As Cornell begins to move significant quantities of material into the Library Annex for reasons other than low circulation history, experience at other institutions interviewed for this report suggests that our transaction count will rise.

Technology

With one exception, patrons at all institutions interviewed can request items from the storage facility via the online catalog. Most use GFA LAS for inventory control – software that was designed for use in facilities built on the Harvard model – and mechanized order pickers. The literature review indicated that this is true nationally, as well, though HK Systems' robotic Automated Storage and Retrieval System (ASRS) is also commonly used, especially among non-ARL libraries.

One institution, whose storage facility does not follow the Harvard model, uses its ALEPH Integrated Online Library System (IOLS) to manage offsite material. That system generates simple labels that contain an A-D prefix denoting size, followed by an incremental number. They do not use barcodes, but store the offsite inventory codes in the bibliographic item records. They generate call slips through ALEPH.

Only one institution whose storage facility is built on the Harvard model does not use GFA LAS. Instead, they use Innovation Interface's Millennium IOLS for inventory control and generation of pick lists, based on a 14-digit barcode embedded in the bibliographic item record. They generate call slips through Millennium.

Another institution has built a custom interface to improve communication between their SIRSI IOLS and the GFA LAS. This interface is designed to improve the efficiency of the delivery process after items arrive at the pickup library from the storage facility.

Trends

In its analysis, the Research and Assessment Unit identified the following ongoing developments:

- Some facilities already store material from other institutions or departments in addition to their own; others are thinking about it. None of the institutions surveyed see this use of their storage facilities as an opportunity to generate additional income, but rather as a cost-recovery initiative.
- Use of offsite storage space for physical artifacts is apparently increasing, possibly an indication that archives are running out of secure space on central campuses.
- Transfer of material to storage facilities is no longer driven exclusively by low circulation, but by closure and consolidation of branch and unit libraries, as well as loss of stack areas to new study and instructional space and computer labs.
- Several institutions are enhancing bibliographic records to promote improved discovery of items stored offsite and to give users a better sense of their contents. These enhancements include: faceted searching and the inclusion of book cover images in the catalog, the scanning of front and back matter, and the inclusion of tables of contents. The aim of these enhancements is to decrease the circulation of offsite material for exploratory purposes alone.
- One institution is thinking of disallowing circulation of items from its storage facility whenever a digital equivalent is available and denying requests for items that are available at other libraries.
- De-duplication of items in storage facilities is increasing.
- Some institutions are transferring certain categories of newly cataloged material directly to the storage facility; one institution interviewed stores processing backlogs offsite and catalogers travel to the facility to do their work.
- Physical delivery of items requested within 24 hours on weekdays is a hallmark of all offsite service programs, but weekend delivery services are increasing. The availability of electronic document delivery (EDD) is also becoming more common.
- Virtually all institutions interviewed are looking to improve efficiency in their storage facilities in order to cope with rising service demands in an environment of budget constraints. For the most part, institutions are targeting internal operating procedures and physical space organization; no one is considering curtailment of services.
- No Harvard-model facility offers the same level of access to walk-in patrons that Cornell does, but some are considering a “third tier” collection that would keep more material on, or nearer to, central campuses and maintain the browsability of this part of the collection.

User Satisfaction

None of the institutions interviewed has a systematic means of evaluating user satisfaction with the level of service provided by their storage facility. Most rely on secondhand or anecdotal reports. All have a general sense that patrons appreciate the basic services the facility provides and that these services meet or exceed user expectations. None have plans for separate assessment programs for their storage facilities. Negative feedback is generally limited to late deliveries, which occur almost exclusively when the delivery location is an office rather than a library and the offsite staff is not responsible for the last leg of the delivery. Library users in the institutions surveyed have all voiced general dissatisfaction with the large number of titles transferred offsite.

One AUL interviewed expressed an interest in working with Cornell “to design an assessment plan for user satisfaction with high density storage and related services, e.g., delivery,

digitization from storage, ILL/DD, etc." and suggested that such a tool might also make an interesting SPEC Kit.

Impact of Digitization

In general, those institutions interviewed feel that it is too early to tell whether large-scale digitization initiatives are having an impact on the use of print material. Moreover, it is difficult to establish a cause-and-effect relationship between these two variables because: (1) print circulation at research libraries has been decreasing since 1995 – that is, since before significant digital content became available, and (2) metrics for the use of print and digital material are unreliable, inconsistent, and difficult to compare – for instance, how does the circulation of a print volume compare with a single-page view of a digital book?

Nonetheless, one study conducted in 2009 at the University of Michigan indicated that availability of digital versions increases discovery of the digitized titles, but has no impact on circulation of the print volumes. In addition, evidence suggests a fairly strong correlation between the decline in use of print serials and the increase in availability of equivalent content in electronic form. Further, industry studies suggest that print sales will decline as interest in e-books increases. At the Frankfurt Book Fair in 2008, 40% of industry professionals surveyed predicted that revenue from digital content sales would exceed that of print by 2018.

2. The CUL Annex: Mission and Key Services

“The challenge for academic librarians is how to reduce the size of onsite collections without either destroying the soul of their libraries or sending their faculty to the barricades” (Donald A. Barclay, “The Myth of Browsing”).²

The Cornell University Library Annex is a state-of-the-art, high-density, environmentally controlled facility that provides a clean, secure home for materials in a wide variety of formats. Located within two miles of central campus, the Annex is open Monday to Friday, 9:00 AM – 4:00 PM. The facility currently holds 2.8 million volumes, including more than 26,000 linear feet of archived manuscript material from RMC and the Kheel Center.

Patrons can check out Annex materials either onsite or through direct delivery to any central campus library. The usual delivery time is less than 24 hours, Monday through Friday. This means, however, that if patrons request an item between Friday afternoon and Sunday morning, their request will not be processed until Monday. Cornell students, faculty, and staff request material from the Annex via a form from the online catalog. In general, requests submitted prior to 7:00 AM on Friday are delivered to the patron-preferred unit library on Friday. Currently, there is no delivery or onsite access to materials after 4:00 PM on Friday through 9:00 AM on Monday.

With a suggested minimal lead time of two hours, patrons may request items to be held onsite for use in the Annex Reading Room, which is equipped with wireless access and a computer, printer, copier, and microfilm reader. Digital document delivery requests are managed through a form located on the library Web site. Library Annex documents are scanned free of charge and placed on a Cornell Web server for 30 days where Cornell patrons can access them via a link provided from the patrons’ MyDocumentDelivery account.

Although never intended as a circulation location for central campus holdings, the availability of “Annex Circulation” as a delivery point for CUL items and, in particular, the free and easily accessible parking next to the facility make the Annex an appealing location from which to charge central campus material on one’s way off campus. At the moment, this is not a labor-intensive service, though its cost should be monitored – especially if we expand service hours into the later afternoon or early evening. We believe that the central function of the Annex is, and should remain, that of a storage facility, not a full-service circulation library.

The landscape analysis reveals that the key services and operational philosophy of the Library Annex are chiefly in line with the best practices, choice and use of technology, and service trends of our peer institutions, with a few exceptions. The key services currently provided by the Annex are:

- Daily retrieval and refiling of material requested by patrons, including interlibrary loan requests;
- Daily fulfillment of document delivery requests;
- Immediate service provided to walk-in patrons, 9:00 AM – 4:00 PM, Monday-Friday;
- Accessioning new material, including new Cornell theses and archival and manuscript material;
- Processing of withdrawals and other regular collection, record, reports, space, and equipment maintenance;
- Support for special projects, with or without additional funding and staff (e.g., LSDI Google, Fine Arts Library renovation).

As the landscape analysis shows, our peer institutions tend to discourage or prohibit patron visits to their offsite facilities. And while the CUL Annex enforces a no-duplication policy within the offsite facility, it does accept duplicates of items held by central campus libraries – a practice not commonly shared by our peer institutions.

Pressure on the Annex operation is growing. Along with the consolidation of unit libraries and the repurposing of library space for academic collaboration, meetings, and additional study areas comes the need to move more collections from central campus to the Annex. Additionally, unit libraries are pressed to transfer more material offsite to create space for staff that are permanently relocated due to library consolidation, temporarily relocated due to library renovation, or to accommodate other surge needs. With the renovation of the Fine Arts Library and the need to transfer items with higher circulation rates to the Annex, we expect the offsite transaction rate for this material to rise – at least if the experience of our peer institutions is any indication. CUL’s Division of Rare and Manuscript Collections (RMC) is the official repository for university records and archival collections,³ and the Annex has become a pivotal storage and delivery point for users who wish to consult these records in RMC. Further, CUL has assured faculty that items which circulated three or more times from the Annex would be returned to central campus – a service that we have yet to implement.

Thus, the current pressures on the Library Annex include:

- An increase in the rate at which materials must be ingested;
- An increase in the circulation of items stored in the facility;
- User behavior and expectations that now require document delivery within 24 hours, 7 days a week;

- The need to implement a workflow to identify and return to central campus items that have circulated three or more times from the Annex;
- An increase in the number of special ingest projects that the Annex staff are being asked to complete, including some that are very large and/or driven by tight timelines.

CUL needs to address these issues facing the Annex as soon as possible. This will require adjustments to staffing and, to some extent, our operational philosophy in order not only to maintain our current key services, but to address the growing pressure to handle more material in a more timely fashion to meet changing user expectations.

Looking to the future, we recommend that CUL initiate a number of changes in the operation of the Annex that will insure its success between now and 2015. We note that although our peers have not viewed the storage of other institutions' material in their offsite facilities as a means to generate revenue, some have implemented these services on a cost-recovery basis. Sharing storage in this way and providing guaranteed speedy access to the material allows participating libraries to withdraw more content from their onsite collections. CUL has already begun discussing the possibility of sharing in offsite storage single copies of items made available digitally as part of our 2CUL initiative with Columbia University Libraries. Further, a print-on-demand service for books could effectively complement our digital journal article / book chapter document delivery program. We should explore these ideas.

As noted in the landscape analysis, use of offsite storage for physical artifacts is increasing at peer institutions. Before the construction of the final storage bay at Cornell, we may wish to consider a needs assessment with campus stakeholders to determine the feasibility of creating space for non-print objects at the Annex. We will need to explore preservation issues surrounding these items, if we begin to accession them into the Annex collection. Currently, the majority of these non-print items are stored in boxes or on the mezzanine in Kroch RMC, not at the Annex.

There have been no meaningful studies of the impact that digital copies have on the use of their physical counterparts. Some have assumed that increased discoverability and online access would increase demand for tangible material. Others believe that once items have been scanned, they serve as true alternatives to their print counterparts. However, technical, cultural, generational, legal, and financial issues lead us to believe that digital collections cannot replace print at this time. The materials in the Annex will continue to be used, even as digital versions of these materials become available. We do believe, however, that future reliance on digital copies, exclusively, is evolving and inevitable, and will have an impact on the use of the Library Annex collection within ten years.

As patron behavior has indicated, we expect the use of ebooks to increase in the near future. Although this shift in behavior is not likely to supplant the need for analog material within the next ten years, it will lead to a decline in the circulation of the physical volumes. In addition, future university record transfers and other archival acquisitions will arrive in electronic formats. While these records present their own unique preservation challenges, they will not require the extensive physical storage space currently needed for analog records. Thus, the need to store these collections at the Annex will not diminish, but the cubic footage required for storage should lessen within the next ten years, due to the increase in born-digital records and the expanding use of ebooks.

3. Special Projects

As noted in Section 2, there are a variety of factors that can lead to the transfer of central campus collections to the Library Annex, among them:

- Preservation emergencies;
- Pressure from a college or department, or decisions by the unit libraries themselves, to repurpose library space;
- Outgrown shelving capacity in units;
- Decisions to maintain steady state capacity in a given unit;
- Unit library closures or consolidations.

Further, there are circumstances that call for internal movement of material within the Annex on a project basis. Recent examples of this kind of project include Google digitization of CUL items stored in the Annex and the processing of material “temporarily” stored in the “Old Annex.”

Library Annex staff are currently working on, or have committed to, projects involving the following units:

- **Engineering Library** – Transfer of approximately 15,000 volumes late 2010. Planning underway for the transfer of 160,000 more volumes beginning in May 2011.
- **Fine Arts Library** -- Cleanup continues from Summer 2010 move of 78,000 volumes with a relatively high circulation rate to temporary storage.
- **Hotel Library** – Annex is currently ingesting 1-2 tubs of material per month.
- **ILR Library** – Annex is currently ingesting one Annex book truck monthly. Material from a previous temporary move, stored in the Old Annex, needs to be de-duped and accessioned into permanent storage.
- **Mann Library** – Transfer of approximately 30,000 items offsite to accommodate integration of collections from the Entomology Library into Mann (currently under discussion).
- **Kroch RMC** – Regular ingest of original drawings from the Department of Planning Design & Construction (PDC – one bin per month of approximately 500 drawings), the backlog of archival collections (up to 100 boxes per month) and Rare Annex transfers (1-2 boxes weekly).
- **Uris Library** – Duplicates weeded in Spring 2010 awaiting review, followed by processing by LTS; several hundred serial volumes to be transferred offsite to make room for Engineering material.
- **Vet Library** – All new senior seminar papers.

Within the Library Annex itself, there are three significant projects involving items currently housed in the original Library Annex, built in 1978. Although there is a certain amount of material stored permanently in the “Old Annex,” the facility is not climate-controlled for the preservation of its holdings and is used extensively as a staging area containing approximately 40,000 linear feet of shelving. The processing queue for material temporarily held in this facility includes:

- Withdrawal of State Library duplicates, requiring unit library assistance to compile lists for posting, boxing for book sale, and/or destroying serials.

- Disposition of the duplicate serials withdrawn from the Physical Science and Engineering libraries.
- Barcoding and transfer of newspapers formerly housed in B52 Olin Library for permanent storage in Rare Annex.

The Google digitization project includes much material currently housed in the Annex, which must be pulled from trays, then later reshelfed. This work will continue for the next few years. Discussions are also underway with the Kroch Asia curators regarding regular and project-based transfers of material to the Annex.

In order to maintain efficiency in Annex operations, manage expectations, and ensure that the needs of all stakeholders are met, it is essential to develop a project plan *in advance* with the Library Annex Administrative staff for transfer and ingest of material. Unit librarians or designated project managers must contact the Director of Preservation and Collection Maintenance, Barbara Eden, and the Administrative Supervisor for Annex Operations, Cammie Wyckoff, who will review and discuss special projects in consultation with the appropriate senior managers in Central Library Operations (CLO). In all cases, unit staff will be asked to provide minimally:

- A description of the material to be transferred, indicating at least the material type (e.g., bound volumes, serials, DVDs/CDs, microform, videos, film, archival boxes) and, if possible, basic size (e.g., oversized books, folios, letter boxes); because of their weight, oversized (heavy) volumes take longer to accession than average sized volumes.
- An estimate of the quantity of material in each medium, indicating whether the figures cited represent general estimates or are derived from a more accurate source such as pick lists or linear-foot (LF) measurements;
- Information regarding the bibliographic record maintenance that will be required for collection transfer, including whether all the pieces have been barcoded with item records in Voyager; CLO's Database Quality Unit can provide assistance with this requirement;
- Explanation of why the material needs to be transferred (e.g. preservation concerns, impending building renovations, maintenance of current shelf capacity levels) and a preferred timeframe, if applicable;
- Availability of project funding for the transfer of the collection – if funding is available, the work can be expedited; if not, processing speed will be limited by the availability of regular Annex resources.

All central campus libraries must adopt a steady-state model – that is, upon achieving shelving capacity, units will need to move something offsite for every new item added to the central campus collection. We anticipate that units will need to engage periodically in the kind of large project planning described above, which will necessarily include estimating their future annual acquisitions and growth numbers, determining what broad categories of materials they prefer to send offsite (i.e. to minimize title-by-title decisions), and working out policies and timing for how this material will be transferred according to the terms of the libraries' processing agreements with the Annex. As more and more material is transferred offsite in order to maintain steady-state collections on central campus, it is likely that items with higher circulation rates will end up in the Annex and increase the number of circulation requests Annex staff will have to handle.

For this reason, we recommend that unit libraries verify now that their collections have been completely barcoded and make arrangements well in advance of any move to clean up any

pockets of unbarcoded material. Picklists generated from Voyager will not include any material that lacks barcodes and item records. Moreover, items cannot be accessioned into the Annex without barcodes.

4. Staffing

Current Staff

- One full-time Payband F
- One full-time Payband C
- Three and one-half full-time Payband Bs
- One half-time, term Payband B
- One full-time and two half-time, term Payband Bs (project-funded)

As the landscape analysis affirms (see Section 1), it is not easy to make meaningful comparisons of staffing levels among offsite facilities, and the uncertainty factor recommended for such comparisons is $\pm 50\%$. That said, the analysis of our peer institutions suggests that between 4.5 FTE and 8.0 FTE of regular library staff would normally be allocated to an offsite facility holding 2.8 million volumes – that is, a facility the size of the Cornell University Library Annex. CUL’s current allocation of 5.5 FTE of regular staff to Annex operations positions us at the lower end of this range. However, based on transaction statistics – which include accessioning, circulation, and document delivery activity totaling 212,172 transactions in 2009/10 – CUL’s Annex staffing level now exceeds the estimated 1.1 FTE – 5.2 FTE range normally allocated to offsite facilities with Cornell’s level of annual transaction activity.

Key Services and Special Projects

In practice, our current staffing level is precarious. The 5.5 FTE of regular staff are supplemented by a net 0.40 FTE of Olin/Uris Collection Maintenance staff on temporary loan to the Annex, plus 2.5 FTE of temporary project staff, predominantly intended for the LSDI Google and Mann Transfer projects. In fact, however, the Annex Library has been meeting its commitments in part by skimming surplus hours not immediately required for LSDI Google work to support key services and unfunded special projects. The following table shows these key services and other essential activities performed by Library Annex staff:

Activity	Units processed in 2009/10 (when applicable)	FTE required in 2009/10
Retrievals and refiles	33,184	1.64
Document scanning	64,128	0.73
Accessioning	172,575	1.90
Transfers (from temp storage)	25,421	0.31
Withdrawals	3,737	0.09
Patron service (walk-ins & phone)	2,110	0.07
Processing Voyager reports	Daily	0.04
Location & planograph updates	Daily	0.31
Error reports, other troubleshooting	Daily	0.63
Tray space management	Monthly	0.29
Equipment maintenance & IT support	As needed	0.09
Building maintenance & security	As needed	0.06
Training	As needed	0.16
Administrative & supervisory tasks	As needed	0.08
TOTAL		6.40

As the table indicates, the Annex has been meeting its regular and non-funded project commitments only by “borrowing” staff from funded project efforts and with the help of staff loaned from central campus. Further, these duties – along with the effort devoted to picking, charging, discharging, and refiling associated with the LSDI Google Project – are performed using all eight regular and temporary staff members, plus the four staff members on loan from Olin/Uris Collection Maintenance. Everyone is cross-trained to distribute heavy lifting duties among all staff and to minimize individuals’ time spent on repetitive tasks. Cross-training also ensures adequate coverage for staff who are sick or on vacation. Ongoing small, non-funded projects include the periodic shipments from the Hotel and ILR libraries (see Section 3) and the 500 PDC drawings per month from RMC.

Increases to the key service workload (for example, an increase in circulation of Annex material, the transfer of frequently circulating titles back to central campus, weekend delivery, etc.) will require additional staffing. Moreover, the current trend of asking Annex staff simply to absorb the work generated by emergency and other large projects, including the often extensive cleanup associated with ingesting this material, is not sustainable with current levels of regular (i.e. non-project) staff. We recommend a cap of 125,000 VE on the annual routine transfer of material from central campus to the Annex, a number based on the estimated average annual Annex accession rate required for steady-state unit library collection size. Plans to transfer large numbers of titles to the Annex within a timeframe for which the facility is not adequately staffed may require additional funding. We recommend the following guidelines to be used in conjunction with the formal special project planning described and recommended above (in Section 3):

- Small projects: Annex transfer projects involving less than 3500 items, with a timeframe of two or more months for processing, can normally be handled by regular Annex staff.
- Large projects: Annex transfer projects involving 3500 or more items, even with a timeframe of two or more months for processing, may require additional, separately funded project staff.
- Other projects: Annex transfer project that don’t fit neatly into the small and large project categories above may or may not require additional, separately funded staff.

Service Hours

CUL can enhance document delivery turnaround and on-site service by extending regular Annex hours (on weekdays two hours (9:00 AM – 6:00 PM); on weekends by adding Saturday service) fairly easily and inexpensively by: (1) upgrading one of the B-level staff members to D-level and asking that person to work a later schedule, and (2) altering the work schedules of other Annex and Collection Maintenance staff to cover the expanded service hours. The Task Force recommends this expansion of service hours.

Staffing the Annex for a few hours on Saturday in order to provide delivery services to central campus six days a week, rather than the current five-day schedule, can also be managed by simply adjusting current work schedules and adding a couple of hours of weekly FTE effort to make the Saturday deliveries using the Library or Annex van. Recent statistics suggest that only a handful of requests would be more promptly fulfilled through the addition of a weekend delivery service, so we recommend adding a single day of service rather than guaranteeing the prompt delivery of material to central campus on both Saturday and Sunday. Since Annex staff can perform other routine work in a more relaxed atmosphere on Saturday, the cost of this

expanded service is easily outweighed by its benefits to both library patrons and Annex Library workflow.

Ergonomic Concerns

Although Annex staff is already cross-trained to permit distribution of heavy lifting duties among everyone and to minimize individuals' time spent on repetitive tasks, a recent ergonomic evaluation of the Annex Library's work environment recommends that staff pay even more attention to regular rotation of tasks in order to provide sufficient recovery time from physically demanding work. This evaluation,⁴ conducted by representatives from Cornell University's Musculoskeletal Injury Prevention Program, also counseled – among other recommendations – that staff not load the large Annex book trucks fully, that they move these trucks slowly, and that they perform regularly scheduled maintenance review of trucks to ensure optimal and safe performance.

The gist of the ergonomics report points to the need to reduce physical stress and, to some extent, stress related to the workload of the Annex staff. This pressure is further reflected in the constant demand on the Administrative Supervisor (a Payband F employee) to participate extensively in the routine tasks performed by her staff, leaving her less time for oversight and planning responsibilities. Moreover, the time-sensitive demands of the facility's ever increasing workload allow little time for Annex staff to take advantage of the employee growth and development opportunities offered to other CUL staff. Thus, the current level of staffing at the Annex is clearly insufficient to meet even CUL's current expectations for service and productivity at the offsite facility reasonably and safely.

Additional Staff Requirements

Given the factors and concerns outlined above, the Task Force recommends the addition of 0.50 FTE to the regular Annex workforce to increase its size to 6.0 FTE. This recommendation is based on the following:

- An estimated increase in circulation based on annual growth in Annex holdings;
- A decrease in the baseline, non-project-funded rate of accessioning (i.e. capped at 125,000 VE annually);
- Elimination of transfers from temporary to permanent Annex storage as a key service (i.e. to be done as time permits or with project funding);
- Introduction of Saturday document and print material delivery;
- An estimated increase in onsite patron service;
- Implementation of recommendations from the ergonomics report, including regular equipment maintenance and diminished physical strain on staff;
- A modest increase in time for the Administrative Supervisor for Annex Operations to engage in planning and other administrative work;
- A modest increase in time for staff to attend programs related to employee growth and development.

In addition, the Task Force recommends the assignment of an existing staff member at the D-level in order to staff the facility appropriately in the expanded, late-afternoon and Saturday hours. The estimated additional annual cost of implementing these recommendations is:

- Additional 0.50 FTE regular B-level Annex staff: \$20,500 (includes benefits)

- Upgrade an existing B-level line to D-level: \$11,000 (includes benefits)
- Total annual cost: \$31,500 (includes benefits)

While this increase is relatively modest, it is important to keep in mind that with this level of staffing, a certain number of large Annex transfer projects will, in the future, require supplemental funding for temporary Annex staff, since the key service level for accessioning will be capped at 125,000 volume equivalents. If CUL continues to transfer 170,000-200,000 VE to offsite storage over the next three years (see Section 6), **we estimate the cost for temporary project staff to handle this work (0.50-0.80 B-level FTE) at \$20,500 - \$32,800 annually.** CUL should continue to appoint temporary staff for the LSDI Google Project on an as-needed basis.

We also recommend that given the continually evolving role of the Library Annex within CUL, the Administrative Supervisor for Annex Operations, in consultation with the Director of Preservation and Collection Maintenance, should conduct annual reviews and assessment of key service tasks and labor effort to ensure accurate baseline data for future service, workflow, and staffing estimates for both routine and project work.

Finally, the Annex Library should re-explore the possibility of providing appropriate incentives to attract student labor to the offsite facility. Use of student staff would help either to reduce this increased cost of staffing the facility or further buttress the effort to meet increased demand for Annex services.

5. Policies, Procedures, and Communication

Because the Cornell University Library has been storing material offsite for over thirty years, we have long-established policies for its use, many of which are common knowledge. The “Cornell University Library Annex” Web page (<http://www.library.cornell.edu/annex>), which is oriented towards the public, contains considerable information about the facility. However, many of the staff-oriented policies governing the kinds of material that can and cannot be stored at the Annex, non-duplication of items within the facility, and similar collection management and processing concerns are not clearly available online.

Procedures covering the use, processing, and retrieval of Annex material are extensive and most are already available on the Web. The “Annex Requests” page (<http://www.library.cornell.edu/annex/services/requests.html>) on the Library Annex Web site provides complete information on requesting material through the catalog, electronic document delivery, and use of the Annex reading room. For selector use, the Annex provides a form to request the permanent return of items stored offsite to central campus units (<http://lts.library.cornell.edu/AnnexRequestForm>). There are no less than fifteen technical services procedures that address cataloging and catalog maintenance situations involving the Annex, all of which are regularly reviewed and available online via the LTS Web site. Internal guidelines for processing at the Annex are well-documented, but not readily available on the Web.

In addition to a master list of relevant procedures and contacts, we recommend the creation of an FAQ for the Library Annex to include, or at least point to, documentation regarding the facility’s most important (and often challenged) policies. The FAQ should provide links to

interactive staff forms, like the “Annex Transfer Form,” as well. We also recommend the creation and implementation of an online form and other tools, as appropriate, to support the project planning protocol outlined above in Section 3. The Director of Preservation and Collection Maintenance has agreed to create these lists, forms, and other documents by April 30, 2011.

Expanding the availability of online information regarding Annex-related policies and procedures, and reinforcing its use, will complement existing patterns of communication with stakeholders, which, in our estimation, are already reasonably good. It is important for stakeholders to understand the policies regarding the general purpose and use of Cornell’s offsite facility. For specific questions and special projects, it is important for users, unit librarians, selectors, and other staff to contact Annex personnel directly. Because of the variable nature of special projects, we recommend this kind of ad hoc communication, rather than the formation of an ongoing, representative Library Annex Advisory Council. The Library Annex Administrative Supervisor and the Director of Preservation and Collection Maintenance, in consultation with technical services managers and other stakeholders, are in the best position to appraise, plan, and prioritize large-scale Annex-related projects on a case-by-case basis.

6. Final Storage Bay (2019)

The Library Annex complex consists of: (1) the original Library Annex built in 1978, (2) three fully functioning, climate-controlled, high-density storage warehouses, and (3) a fourth, currently empty warehouse. As noted above in Section 3, the “Old Annex” provides approximately 40,000 linear feet of temporary storage capacity, or surge space, though the climate control in this building is not optimal for long-term storage. Each of the three more contemporary warehouses, or “bays,” has the capacity for long-term storage of 1.6 million volume equivalents (VE), and the fourth bay, when properly fitted, will provide space for another 1.6 million VE.

The Library Annex currently holds 2.8 million VE in long-term storage, leaving space for another 1.6 million to 2.0 million VE in the three fully functioning bays. We believe that the remaining capacity of these bays is closer to 1.6 million VE because of the need for special cabinets for certain material in lieu of shelving. We predict that these three bays will be sufficient to meet local library storage needs through 2019.

The rate at which CUL fills the remaining space in these bays will be affected by:

- Massive collection shifts to allow for the repurposing of library space on central campus;
- Consolidation of unit libraries;
- Ongoing acquisition of physical material by units with steady-state collections.

Based on these factors above, we anticipate that over the next three years CUL will need to transfer between 600,000 and 700,000 VE to the Library Annex. This estimate comprises:

- 160,000 volumes from the Engineering Library;
- 65,000 volumes from Mann Library;
- 75,000 – 125,000 volumes from the Hotel, JGSM, and ILR libraries (a preliminary estimate);
- 150,000 volumes from Olin/Uris libraries;

- 150,000 volumes from Kroch Asia;
- 1,800 cubic feet of new archival and manuscript material from RMC and the Kheel Center.

CUL currently acquires some 125,000 VE of physical material each year, but as usage continues to shift to digital formats, we expect this rate of acquisition to decrease. Still, in order to maintain steady state collections on central campus after the current three-year push, we must be prepared to accession between 75,000 and 100,000 VE annually into the Library Annex for up to another ten years. And these estimates assume no further erosion of existing shelf capacity in the central campus libraries.

Given the remaining capacity in the three fully functioning bays and taking into consideration the large collection moves we anticipate over the next three years, we project that existing storage capacity in the Annex will support CUL through 2019, at which time we will need to begin using the final storage bay. This means that we have about 8 1/2 years to: (1) raise funding to fit and equip the fourth bay, (2) develop a plan for the bay's configuration, and (3) complete construction.

Scenarios for Use of the Final Bay

If users' preference for digital over tangible formats for *all* material evolves at the same rate we've witnessed for that of journal literature, we can expect the majority of commercial content to be digital within a decade. While this shift in preferred format will have an impact on the rate of new acquisition of physical volumes, it will not directly affect the disposition of the physical collections already housed on central campus in 2020. Will we continue to retain a mostly static collection of 4.0 – 4.5 million VE in central campus libraries? We would guess no. Will we eventually – within the next thirty years, perhaps – transfer much of this material to an offsite facility managed by CUL? To do so would require the construction of two to three additional storage bays, fitted with compact, high-density shelving to augment the capacity of similar-sized facilities by 60%-75%. Further, we can expect to weed some of our print collections in collaboration with other library partners.

Between 2011 and 2019 there are a number of questions CUL needs to answer. Are there other Cornell campus parties who have an interest in storing tangible material for long-term retention? Are there other storage configurations we should consider when fitting the final bay, or do we simply extend the current model? Do we indeed wish to install compact shelving in the fourth bay? Do we create a hybrid interior that will support compact shelving, as well as secure and climate-controlled storage of non-book objects that defy conventional shelf configuration? Do we consider ingesting content from outside Cornell, even given our anticipated local storage needs? How do we balance Cornell needs with those of potential partners external to Cornell? Would the Provost support the ingest of content from partner libraries, given the existing storage challenges many Cornell departments already face? Do we reconfigure the Library Annex complex to incorporate a dark archive for content requiring preservation, but will likely never be used? Do we weed existing Annex content that is duplicated elsewhere in CUL, within Borrow Direct libraries, or beyond?

The Task Force recommends that CUL commission a study that will take these issues, and others, into consideration to plan for the long-term needs of CUL's physical collection and, consequently, the possible uses for the final Annex storage bay.

Notes

1. Thanks to Rich Entlich and his colleagues in the CUL Research and Assessment Unit (RAU) for executing the research and providing the conclusions presented in this section. RAU's full report, "CUL Annex Landscape Analysis" is available on request.
2. Donald A. Barclay, "The Myth of Browsing: Academic Library Space in the Age of Facebook," *American Libraries*, 41:6/7 (June/July 2010), 52-54.
3. Cornell University Policy Office, "Policy 4.7, Retention of University Records"
<http://www.dfa.cornell.edu/dfa/treasurer/policyoffice/policies/volumes/governance/retention.cfm>.
4. Cornell University, Division of Human Resources, "Departmental Ergonomics Report: Cornell University Library Annex," submitted to Barbara Eden, Oct. 11, 2010 – report available on request.

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