

**FY 2013 - 2014 Goals: Program Planning**  
**Develop an Enhanced Space Planning & Management Program**  
**Fall 2013 Benchmarking Phase**

**Summary of Findings**  
December 27, 2013 Version

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## Executive Summary

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This benchmarking exercise was completed during the Fall of 2013 in support of the FY 2013-2014 space planning and management goals for the Office of the Architect for the University (*Develop an Enhanced Space Planning and Management Program*) and for the Office of the Vice President for Management and Budget (*Strategic Space Planning and Optimization*). Its purpose was to identify the key elements of space planning and management programs at other institutions of higher education that could inform the development of a more comprehensive space planning and management program at the University of Virginia. The exercise focused on:

- 1) Impact of Responsibility Center Management (RCM) on Space
- 2) Space Governance Procedures (Administrative Oversight)
- 3) Space Principles, Policies and Guidelines
- 4) Space Request Procedures
- 5) Space Inventory Systems

Eight institutions of higher education and two private sector firms were benchmarked. The initial benchmarking selection criteria focused on public universities with similar enrollments, the same research classification, medical centers, and RCM budget models. After the completion of online research and consultant input, the final selection criteria focused on institutions that 1) have either implemented or are considering implementing a RCM budget model, 2) have established space planning and management systems, and/or 3) are developing new space planning and management procedures. As a result, the list of benchmarked institutions includes public and private institutions with a range of enrollments. Some have medical centers; others do not. Most use RCM. The private sector firms were benchmarked to get a feel for corporate space practices. One firm was recommended by a consultant currently working at the Darden School. The other is a commercial real estate services and investment management firm currently consulting at the Medical Center.

Space policies are used at a number of institutions to 1) create a governance structure, 2) define the extent of the space portfolio to be managed (*academic space, auxiliary space, administrative space, medical center space, etc.*), and 3) outline responsibilities and approval authorities. Most use a committee system led either by the Provost, Chief Operating Officer, or senior administrators (Associate Provosts and Assistant VPs). At those institutions where the Provost or a Provost Office representative is not the committee chair, the Provost Office maintains a decisive role on the committee with the committee chair and members deferring to the Provost Office representative on academic space issues. Given the importance academic space in supporting the institutional mission and given the percentage of institutional space devoted to academic functions, the role of the Provost Office in a space planning and management program is critical. Our observation is that space planning and management is most effective and efficient when it is informed by a strong central academic plan.

Committee membership varies. Some institutions have narrow memberships representing primarily the academic units; others have broader memberships representing academic and non-academic units, such as auxiliaries, athletics, administrative units, and medical centers. Our observation is that the latter model can help maintain an overall institutional perspective at the executive level. While the space management plans of the units are for the most part independent of each other, there are times when the business plans and space needs intersect. Individual committee members can include senior administrators, planning staff, facilities staff, faculty, and student representatives.

Committee responsibilities typically include approval of 1) space trades between the institution's schools/colleges, 2) requests for additional space that cannot be accommodated within the space portfolio of a school/college, and 3) requests to pursue leases. Schools/colleges are typically responsible for the management of their space portfolios. None of the committees is responsible for real estate acquisitions and sales. One institution, however, coordinates space and real estate activities by having overlapping committee memberships on its space and real estate committees. A few institutions use space planning to inform their capital planning efforts. Given that space needs drive real estate actions and capital planning, it is our observation that combining space planning and management with real estate activities and capital planning in a committee charge can be justified.

Space planning principles and policies are important features of space planning and management programs. Planning principles and policies set the overall framework with statements, such as 1) space is an institutional resource; it is not owned by the colleges and schools, 2) the right to manage academic space and administrative space is reserved to the Provost and Senior Vice President for Finance, and 3) units should not stockpile unused or underutilized space, nor may they unilaterally lease it to another department.

Space guidelines based on square footage standards are typical. Other factors, however, are now being taken into account. The private sector has come to realize that space efficiency needs to be balanced with the understanding that the space must effectively support productivity. Workplace standards are implemented to support company goals. Some corporations are moving towards simplified office standards that minimize the number of workstation and office sizes to increase flexibility. One company found that with one office standard there are no space issues when managers or leaders within the organization move from one department to another. The guidelines at one institution stress flexibility.

Space databases and inventories are key components of space planning and management programs. The benchmarked institutions see the need to upgrade their databases and inventory systems. A number of themes are apparent. Institutions are recognizing the benefits of including occupant data into the space databases and the value of coordinating space data with floor plans. To make its database more useful to its schools/colleges/ units, one institution has fields in its database where a unit can enter information specific only to the department. While many institutions require their schools/colleges/units to update their space data annually, they also encourage database updates on an ongoing basis. Data entry responsibilities vary, but schools or colleges are typically responsible for room data entries and facilities is responsible for the entry of floor plans and floor plan changes. A final theme deals with the impact of RCM. Since academic units are now paying for space, there is greater interest in having clean, accurate space data. With the exception of one institution, institutions do not have the staff to verify or audit the data entries. Spot checks are completed as needed, but the default assumption is that data entries are accurate.

To serve as a resource for the University's space planning and management program, the appendix in this document includes: 1) conference call notes and web-site materials from the benchmarked institutions, 2) the revised Executive Review Committee charge that proposed the addition of real estate and space oversight to the committee's responsibilities, 3) the 2013 Space and Real Estate Benchmarking Study by the Office of the Vice President for Management and Budget, and 4) the 2010 University of Illinois Space Utilization Report.

## Background Information

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The benchmarking exercise was led by Jennifer Heckman (Facilities Management), Joann Im (Facilities Management), and Tom Leback (Office of the Architect for the University). Guidance was provided by Luis Carrazana (Office of the Architect for the University), Charles Hurt (Real Estate and Leasing) and Dick Minturn (Office of the Executive Vice President and Provost).

Information was initially gathered through website research that identified 1) institutions that had either implemented or were considering implementing a responsibility center management model and 2) institutions that were developing new space management procedures.

The following institutions of higher education and private sector firms were chosen for this benchmarking exercise, which included a review of the space management information on their websites and conference calls with representatives who were either involved with RCM and/or space planning and management.

1. Cornell University
2. Dartmouth College
3. Duke University
4. University of Michigan
5. University of Minnesota
6. University of New Hampshire
7. University of Southern California
8. University of Toronto

1. Jones Lang LaSalle (1)
2. Microsoft

*(1) Specializes in commercial real estate services and investment management. Its scope of services includes: Facility Management, Property Management, Lease Administration, Occupancy Planning; Workplace Strategy; etc. Clients include: Government Agencies; Healthcare Institutions; Higher Education; etc.*

The information contained in this summary does NOT represent an endorsement by the core team. Its purpose is to give an overview of the different elements that the benchmarked institutions have incorporated into their space management programs. Data from some institutions is more heavily represented than from others. This is due to the fact that these institutions have more information available on their websites. Not all of the website information has been verified. The core team found a few instances where actual practice does not conform to the written policies or procedures.

## **Responsibility Center Management (RCM) - Impact on Space Utilization**

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### **Summary**

- General Observation: For the most part, the institutions believe that their schools / colleges are using space more efficiently as a result of responsibility center management, but they note that the implementation of RCM did NOT result in a significant decrease in existing space inventories.
  - Several institutional representatives noted that space at the college or school level **ONLY** becomes an issue when the unit is struggling financially.
- Specific Impacts: Five general areas of impact were noted:
  1. RCM has reduced the rate of new construction.
  2. There has been a slight increase in shared space.
  3. Schools / colleges are more interested in access to clean, accurate space data.
  4. There is a greater emphasis on energy efficiency.
  5. Michigan has actively pursued a reduction of general classroom space.
- Space Shortage: Representatives from Cornell, Duke, Minnesota, and USC note that they have a shortage of space. Cornell has witnessed instances of “bidding” on space that schools wanted to vacate.

### **Positive Impacts**

- Vacating Space: Cornell, Michigan, New Hampshire and Toronto report that some of their schools have given up space.
  - New Hampshire, Southern California, and Toronto have policies encouraging the return of space to the central administration. The representative from Southern California, who has been with the university for over 10 years, could not recall any space returns during her tenure. At New Hampshire and Toronto there was an initial wave of space returns when RCM was initiated, but very little has been returned since then.
  - New Hampshire and Toronto each have a school that has been struggling financially under RCM. This is primarily due to excess space.
    - Toronto took space back from its School of Forestry to help the school balance its budget.
    - The issue at New Hampshire has not been resolved.
  - Minnesota’s representative noted that there is a perception among its schools / colleges at that if they were to return space, the university would reduce the funding for the associated space costs resulting in no financial benefit.
- Monitoring of Space: Toronto noted that its schools monitor space and have been trying to eliminate inefficiencies, such as faculty having multiple offices.
  - Toronto’s School of Music pays close attention to its space utilization since it is partially subsidized by the university’s other schools. It is conducting a space audit this year.
- Slowing Space Growth Rates: Several institutions indicate that RCM has slowed the growth rate in the construction or acquisition of new space. (Michigan, Minnesota, and Toronto)

- Michigan’s December 2012 Cost Containment Efforts report notes that during the decade prior to 2007 there was an average annual growth in general fund space of nearly 2% and that the average annual growth for the five years since 2007 has been 0.35% (*The report does not mention the impact that the recession of 2008 may have had on new construction*).
- Our contacts confirmed that the construction of new academic buildings has slowed as schools try to use their existing space more efficiently before incurring the operating costs of new buildings.
- One of Minnesota’s colleges wanted to construct a new building, but decided against it when told that it would have to fund the building’s operating costs.
- Toronto’s School of Medicine reduced its space per FTE by 14%. While this was due in large part to the School moving from two old buildings with inefficient layouts to a new efficient building, the Toronto representative noted that RCM kept the building’s size in check because the school was aware of its responsibility to pay for the operating costs.
- Sharing of Space: While Toronto has NOT seen a significant increase in shared space between its schools, some existing space is shared, and some new projects have shared space. Michigan notes that there has been some sharing of space primarily been within a school. The 2012 report highlights space sharing in a number of high-tech facilities.
- General Purpose Classrooms: Michigan adopted utilization targets in 2008; they were 70% for time utilization and 65% for seat utilization. In 2008, time utilization was less than 50%. It is now in the low 60s.
  - Recently targets have been abandoned in favor of scheduling and distribution policies, which will be implemented with this winter. They require schools / colleges to share general purpose classroom schedules with the Registrar so that gaps can be filled with classes from other schools / colleges.
  - To deal with the oversupply of general purpose classrooms schools / colleges have converted some of these spaces to other uses.
  - The Provost Office is planning to repurpose a building that contains 40 classrooms. This effort in combination with the school actions will improve classroom utilization to a point where the Provost Office is prohibiting the repurposing of any additional general purpose classrooms.
- Space Data: Schools / colleges are paying more attention to space and are more interested in clean and accurate space data.
- Energy Efficiency: Toronto reports that with the advent of RCM its schools are more interested in:
  - energy efficiency upgrades in existing buildings
  - energy efficiency in renovation / new construction projects
  - reducing utility consumption
- Michigan also reports that there is more emphasis in energy efficiency in new and existing buildings.

## Negative Impact

- Three institutions (Cornell, Duke, and Minnesota) note that their schools / colleges tend to resist space utilization efforts by the central administration. The attitude is “*since we’re paying for space it shouldn’t concern the central administration how it is being used.*”

## Subsidies

- RCM Limitations: While the RCM model recognizes that functions, such as central administration, libraries, etc., need to be “subsidized,” there is at least one case where an academic unit is subsidized. Microsoft also has situations where its revenue drivers are subsidized.
  - The tuition revenue at Toronto’s School of Music does not cover operating costs, nor can it be raised to the level where the school would be self-sufficient.
    - The institution decided that the school was important to its mission and set up a system where the other schools subsidize the music school.
  - Microsoft has a business model where revenue drivers pay for space. It acknowledges, however, that some “potential” drivers, such as incubator projects, are not in a position to pay for their space and need to be subsidized.



## **Responsibility Center Management (RCM) - Composition of Space Charges**

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- Summary: Seven of the eight institutions charge for space. Dartmouth does not. Microsoft charges its business units (revenue drivers) for space. Jones Lang LaSalle's study of 11 corporations found that seven of the eleven use a space charge system.
- Typical Charge Components: Space charges typically include:
  1. O&M Costs
  2. Major Maintenance Costs
  3. Utility Costs
- Other Components: Space charges at a few institutions include:
  1. Debt Service (*Duke and Minnesota*)  
(for projects funded by debt)
  2. Renewal Fee (*Michigan*) (1)  
(to fund Renovation Projects)
  3. Facilities Asset Management Fee (*New Hampshire*)  
(*To fund capital project development, condition assessments, major repair and renovation planning*)  
  
(1) *The fee is based on a cost of \$2.70 per assignable square feet. The Provost Office oversees the allocation of the funds (\$90M +/- annually). The Office uses Facilities Condition Index (FCI) data to help with the allocation, but the FCI is not the sole determinant. Support of institutional needs and objectives are also factors.*
- Basis for the Space Charges: Space charges are levied on a NSF or NASF basis using averaged campus wide costs or on a building-by-building basis.
  1. When buildings are metered, utility costs are based on actual use.
  2. Michigan's O&M charges were set 15 (+/-) years ago on a building-by-building basis. Utilities are based on actual costs.
  3. USC charges vary depending on the type of building and its location.
- Inflation Adjustments: This issue was not discussed with all of the institutions.
  - Duke recalculates its charges once a year with July 1<sup>st</sup> as the effective date for the new charges
  - Michigan is in the process of updating its O&M costs that were established 15 (+/-) years ago.

## Space Program Elements - Space Governance

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- Summary: Except for Michigan, all of the institutions have, or are proposing, a space governance committee.
  - At Michigan the Provost Office is responsible for E&G space (academic and administrative) assignments.
    - This is handled by the Assistant Provost of Space Management, who has been delegated the authority to resolve space assignments.
  - Actual practice can differ from the written policy or charge. For example, USC's Space Planning and Management Policy establishes a University Committee on Space Planning, which is to be convened by the Provost and the Senior Vice President for Administration, and is to include representatives from the offices of Administration, Financial and Business Services, Budget and Planning, and the Provost.
    - Our conference call found that in practice the committee consists of a vice president and an associate provost with the referenced offices providing support as needed.
- Committee Responsibilities: Charters define the extent of the space portfolio managed by the committees and the extent of the committee responsibilities.
  - Space Portfolio: At most institutions responsibilities focus only on academic space. Sometimes this includes schools of medicine and nursing, but not always.
    - The responsibilities at Michigan include all state funded space.
    - At New Hampshire, the committee has oversight responsibility for the stewardship of auxiliary facilities and receives annual reports on the condition of the facilities and the deferred maintenance and major maintenance and repair projects planned for the upcoming year. (*The policy does not indicate if committee approval is required.*)
    - None of the committees have medical center oversight.
  - Space Responsibilities: Vary from institution to institution. Typically an institution's schools / colleges or units are responsible for the management of their own spaces.
    - Space Committees are typically responsible for:
      1. Approval of Requests for Additional Space
      2. Approval of Requests to Lease Space
      3. Approval of Swing Space Requests
      4. Oversight or Approval of Space Transfers between Schools / Colleges
    - New Hampshire's Committee also approves unit's plans for changing the functional use of a space or for any space repurposing.
    - Cornell's Committee charge also includes:
      1. Development of space management principles for allocation of space, planning for future space needs, and effective and efficient management of space.
      2. Development of the process for reallocation of space with supporting MOU templates and procedures.
      3. Updates of space guidelines related to the size of spaces, utilization rates, and building/space type efficiencies.

4. Development of procedures requiring accountability to space guidelines for capital projects that create new space or change use of existing space.
  5. Development of procedures that require units to update space plans during the annual capital plan development process.
  6. Development of standard reports to enhance transparency and consistency.
  7. Recommend improvements to the facilities inventory system and evolution toward a space management system.
  8. Advise Director of Space Planning, Manager of Facilities Inventory, Manager of Indirect Cost and others on the interpretation of policies.
  9. Serve as the executive group for space utilization studies.
  10. Development of mechanisms to share best practices within the institution, with academic peers, and within professional organizations.
- Other Committee Responsibilities: Some committee charges include:
    - Master Plan Implementation (New Hampshire)
    - Capital Projects Plan (Dartmouth)
    - Capital Projects (New Hampshire)
    - Annual Renewal and Adaption Fund (New Hampshire)
    - Auxiliary Enterprise Units Oversight (New Hampshire)
    - Infrastructure, Roads and Grounds (New Hampshire)
  - Real Estate Acquisitions and Sales: None of the space committees oversaw real estate disposals or acquisitions.
    - At New Hampshire continuity between space and real estate is maintained by overlapping committee assignments. Five of the ten members on the Real Estate committee are also on the Space Allocation, Adaption, and Renewal committee. These individuals constitute the senior leadership of both committees.
  - Committee Leadership: There were three models of committee leadership:
    1. The Provost
    2. The COO
    3. Senior Administrators (Associate/Assistant Provosts and/or a VP)
  - Committee membership: Membership varies and can include a wide range of campus constituents (*not all are voting members*).
    1. Administrators
    2. Provosts
    3. Deans
    4. Faculty
    5. Student Members
  - Committee Size: Varies from institution to institution.
 

USC	2
Duke	5

Cornell	9	
Dartmouth	11	(before finalized may expand to 16)
New Hampshire	13	(7 voting / 6 nonvoting)
Toronto	20	

- Committee Support: Support is provided either by a department or a subcommittee.

Cornell	Office of the Provost
Dartmouth	Space Management Subcommittee (1)
Duke	Assistant Director of Planning and Design
Michigan	Provost Office
New Hampshire	Facilities Division, Director of Finance & Administration
USC	Space Management Office
Toronto	Office of University Planning, Design, and Construction

*(1) Dartmouth's proposed governance structure has an executive committee supported by two subcommittees- one for capital and one for space. To maintain continuity, selected individuals serve on multiple committees.*

## Space Program Elements - Space Planning Principles

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- Summary: Two universities have broad space planning principles that provide the context, goals and responsibilities for the institution's space program.
- USC has eight space allocation principles that are to be considered together when making space decisions.
  1. Space is owned by the Trustees and allocation decisions are ultimately the President's responsibility.
  2. Donor restrictions on space usage will be honored.
  3. Academic activities, classrooms and research space, have priority over administrative activities such as offices.
  4. Space assignments that save money, enhance revenues or encourage interdisciplinary interaction will be given priority.
  5. Offices with high traffic from students, faculty or staff will be located as centrally and conveniently as possible.
  6. Space allocations that satisfy long-range plans take precedence over more temporary accommodations.
  7. Synergistic or like activities should be housed in proximity.
  8. The right to manage academic and administrative space is reserved to the Provost and Senior Vice President for Finance to assure that the university fully maximizes its resources.

Space assignments will be reviewed periodically to determine how well current usage serves a dynamic set of university needs and priorities.
- Michigan has guiding principles in its Research Space Guidelines. The following address space.
  1. As with all types of space on the Ann Arbor campus, research space belongs to the institution and is a valuable resource.
    - The Provost is ultimately responsible for the allocation of research space to schools/colleges/units.
  2. Research space is allocated based on programmatic needs and priorities as determined by the dean or director of a school/college/unit in consultation with his/her faculty and staff.
    - Decision-making authority may be delegated to chairs/directors for space that is assigned to their units to ensure that those with the most in depth knowledge of the activities and needs of subsets of researchers determine appropriate allocations.
  3. Schools/colleges/units should develop metrics to assist in the evaluation of research space utilization and periodically determine how the current allocation of research space meets their stated programmatic needs and priorities.
    - Although quantitative measures may not be the final determinant of space allocations, they provide an important step in the evaluation process.
  4. Research space assignments are not permanent. Space is assigned to activities and not individuals.

- As such, it may be reassigned as activities change.
- 5. Space that is vacant or deemed underutilized should be reassigned or repurposed.
  - A school/college/unit should have a defined plan to improve the utilization of this newly released space.
- 6. Optimal use of research space includes shared use of resources and facilities.
- 7. Research space allocations should be based on existing facilities, where possible, to ensure that current facilities are fully utilized before pursuing major construction or renovations.
  - Space renovations must follow school/college/unit approval processes to ensure that utilization meets the strategic needs of the unit.

## Space Program Elements - Space Policies

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- Summary: Institutions typically have space policies that define space goals and objectives, responsibilities for the management of space, procedures for the approval of space requests and leases, and space inventory requirements.
- USC's Space policy has what are described as General Space Guidelines:
  1. Vice presidents, deans and directors are responsible for managing the space occupied by activities under their control. Space administration may include redistributing, exchanging or improving space.
  2. As long as university offices are housed in off-campus leased space, there is potential saving in better use of on campus facilities. Units should not stockpile unused or underutilized space, nor may they unilaterally lease it to another department.
  3. As schools, departments, and administrative units identify space in excess of current needs, they will relinquish such unused space back into the university's general space pool for reassignment.
  4. As space is returned for reassignment, the indirect costs associated with it will be assigned to the new occupant. Space costs for mid-year adjustments in space assignments will be determined by the Office of Budget and Planning.
  5. Units may return unused space or request needed space on an ongoing basis. Underutilized space will be considered in the resolution of space needs.
  6. Although space may be returned whenever it is available, the annual space survey conducted by Financial Services will assist units in identifying unused or underutilized space each year.
  7. The reallocation and potential renovation of vacated space will be coordinated through the Division of Business Affairs.
  8. Space needs and the associated costs of space will be continuously reviewed by the Provost and Senior Vice President for Administration. Space needs will be analyzed in the context of:
    - a. Campus-wide priorities and applicable long-range space plans,
    - b. Program type (for example, institutional and non-institutional),
    - c. Type of space required (for example, office, storage or laboratory),
    - d. Length of need (temporary vs. permanent),
    - e. Ability of the unit to pay for the space, and
    - f. Interaction factors and the need for contiguous support facilities, or access to campus operations.
- Reallocation of Excess or Vacant Space: While schools / colleges at all of the institutions are responsible for the management of their space, including the reassignment of vacant space between their departments, at most institutions the reallocation of excess or vacant space between schools / colleges is approved by the central administration. Cornell and Michigan are exceptions.
- At Cornell the central administration will help a school / college find a new tenant for its vacant space, but finding a new tenant is the unit's responsibility and the unit is responsible for the costs associated with the space until a new "tenant" is found.

- This was also true at Michigan although the Provost Office has convinced the schools / colleges to use the office as a clearing house for interschool space transfers.
- Return of Space to the Central Administration: Three institutions (New Hampshire, Southern California, and Toronto) encourage the return of space not needed by their schools/colleges to the central administration.
- New Hampshire's Guidelines:
  - Units are able to give up space at any point during the year and receive financial relief after its space committee approval if there is another unit willing to acquire the space. At that point expenses associated with the space will shift from one unit to the other.
  - Units are also able to give up “usable” space (*space that can realistically be used by another unit*) when there are no units identified to acquire the space, subject to the space committee approval. In these cases, the unit would receive reduced NSF costs in the following fiscal year.
- USC General Space Guidelines:
  - As schools, departments, and administrative units identify space in excess of current needs, they will relinquish such unused space back into the university's general space pool for reassignment.
  - As space is returned for reassignment, the indirect costs associated with it will be assigned to the new occupant. Space costs for mid-year adjustments in space assignments will be determined by the Office of Budget and Planning.
  - Units may return unused space or request needed space on an ongoing basis. Underutilized space will be considered in the resolution of space needs.
  - Although space may be returned whenever it is available, the annual space survey conducted by Financial Services will assist units in identifying unused or underutilized space each year.
  - The reallocation and potential renovation of vacated space will be coordinated through the Division of Business Affairs.
- Toronto's Guidelines:
  - Units can return buildings and rooms to the central administration, but the space is to be in good condition and useable for other functions.
- Minnesota's Proposal:
  - The Assistant Vice President for Finance in the University Services Division proposed a space return program. Since there is such a high demand for space at the institutions, he felt that any returned space could be reassigned to another unit within a year.
    - He also proposed that the university fund any improvements that were needed while the space was unoccupied.
    - The proposal was not accepted by the University.



## Space Program Elements - Space Planning

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- Higher Education Summary:
  - Duke planning guidelines advocate for flexibility
- Microsoft Summary: Space needs are driven by employee headcount and the number of client visits. Microsoft considers:
  - Peak Headcount
  - Program Headcount
  - Unassigned Seating (1)
  - (1) *It is expected that units will have a certain amount of vacant space.*
- Projections: Space Needs Projections are made by Microsoft's Global Workplace Strategies office.
  - The office works with the business units to determine future space needs based on their hiring plans.
    - The office checks with the Finance Office to verify that the hiring plans have been approved.
  - The office also looks for trends in terms of a unit's space growth or decline, and tries to keep up with what is changing - conventional knowledge and unconventional knowledge.
- Jones Lang LaSalle: The firm conducted a study of the space practices at 11 corporations. The following are some of the highlights from the study's white paper.
  - Space Standards: When it comes to standards less is more. The more standards, the more complex it is to manage and plan space consistently across the portfolio. Fewer standards also allow for more flexibility.
    - A suggested best practice calls for 1 to 2 workstation sizes and 1 to 2 office sizes.
      - One company reported that with one office standard relocating managers or leaders between departments avoids having to reconstruct offices (*i.e. a manager or leader could always expect the same size office wherever he or she is located*).
  - Office Sharing: 9 to the 11 companies have adopted policies that include the sharing of offices or desks.
    - At this point this affects about 2% to 10% of the employees.
  - Workplace Performance Metrics: Many of the organizations track occupancy rate, reserved space and vacancy rate, but from an occupancy planner's perspective, most are interested in the occupancy rate.
    - Occupancy Rate: Three fourths of the companies track this as the key metric. It is the number of assigned occupants divided by the number of assigned spaces allocated to the department.
    - Reserved Space: The space reserved to the department but not assigned to an individual. This space is held for growth or special projects.
      - Ten out of the eleven companies track this metric.

- Vacancy Rate: The number of vacant assignable seats divided by the total assignable seats.
- Space Utilization: Seven of the eleven companies regularly track utilization via space walk-throughs.
  - “These typically consist of two walk-throughs (i.e. 10:00 am and 2:00 pm) every day for two full weeks executed every quarter or twice a year.”
  - The remaining 4 companies report that the drive for a space utilization study is a real estate event (a restacking or relocation project) where space usage information would help with the planning.
  - The white paper noted that a Knoll research study of forty companies reported that 60% conduct utilization studies and 40% do not.
    - Of the 60%, 4% conduct the studies annually, 8% quarterly, 29% monthly, 8% daily, 42% on an ad-hoc basis driven by project needs, and 8% follow other miscellaneous schedules.
- New Metrics: In addition to traditional metrics such as SF/person, occupancy rate, and cost/SF, new metrics have been identified to assess workplace performance. These are:
  - Space Sharing Ratios
  - Employment Growth without Space Growth
  - Collaboration Enablement
  - Retention Rates (role workspace plays in employee retention)
  - Customer and Employee Satisfaction
  - Workforce Productivity
  - Employee Engagement
  - Revenue Generation per Person
  - Enabling Flexibility and Choice
  - Work/Life Effectiveness
  - Wellbeing Strategies
  - Sustainability

## Space Program Elements - Space Guidelines

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- Higher Education Summary: Institutions typically have guidelines that define:
  - Size of faculty offices
  - Utilization Target (SF/FTE)
  - Responsibility for identifying unused space, both centrally and by the school/college level
  - Review of space needs and space costs
- Microsoft Summary: Microsoft has different space guidelines depending on nature of the business unit and company goals.
  - General Guidelines:
    - For research and development staff, Microsoft provides each employee with a workstation. It does not want research and development staff working from home, because it believes that formal and informal face-to-face meetings encourage collaboration and innovation.
    - For sales and marketing staff, on the other hand, Microsoft may only provide 1 workstation for every 1½ to 4 employees because their roles require them to be on the road meeting clients
    - Space efficiency is balanced with the understanding that the space must effectively support productivity. The goal is to create good space that is efficient and functional.
  - Office / Workstation Standards: These include per square foot space standards and standard furnishings.
    - Space Standards: The square foot targets for offices and workstations vary by business unit.
      - For research and development staff, it is 160 SF per seat. This includes support space, such as conference rooms, cafés, and circulation space. 88% to 92% of the space falls in this range; there have been instances where they have gone as low as 140 -145 square feet.
      - For sales and marketing staff, the target is in the 120 to 130 SF range. In some cases, it can be as low as 80 to 90 SF assuming the sharing of desks.
    - Furnishings: Microsoft has 8 different desk types.

## Space Program Elements - Space Request Process and Forms

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- Summary: All institutions have procedures for the submittal of space requests. The procedures typically outline:
  - the information that is needed
  - who must sign-off on the request for it to be considered
  - where the submittal is to be sent for review and approval
- Management of the Process: Most institutions have offices that are responsible for the management of the space request process.
  - The location of these offices in the organization varies.
    - Offices of Planning & Design & Campus Management (Dartmouth)
    - Associate Vice President for Administrative Services (USC)  
(*Space Management Office*)
    - Office of Space Management (New Hampshire)  
(*VP for Finance & Administration*)
    - Office of University Planning, Design, & Construction (Toronto)
    - Director of Space Planning (Cornell)  
(*Office of the Provost*)
    - Assistant Provost for Academic & Budget (Michigan)  
(*Office of the Provost*)
  - Typically the office is responsible for:
    - validating the details of the request
    - forwarding it to the approval authority
    - notifying the requesting unit of the approval authority's decision
    - initiating the follow-up action needed to implement approved requests
- Space Request Forms: Most institutions have space request forms.
  - USC does not, but its guidelines define the requirements for a space request.
    1. Internal space audit verifying that adequate space does not exist within the resources already available to the school, program or department.
    2. Justification for the requested space (new or expanded program)
    3. Schedule
    4. Temporary or Permanent need
    5. Fund Source
    6. When a new building comes on line, justification needs to include release or reallocation of existing space.
  - Cornell has two forms: a Notice of Programmatic Space Need and a Request for Allocation of Space. The information requested on its forms is typical.
    - Notice of Programmatic Space Need form is used when a unit is aware of a space need but does not have many details. This form provides early notification to the Space Use Advisory Committee and the Space Planner of an impending need for space.

- Request for Allocation of Space form is used when sufficient detail is available for the unit to request approval.
- New Hampshire's and Toronto's forms handle multiple types of space requests.
  - New Hampshire's Space Transfer Request Form is used for requests for additional space and for requests to transfer space to another unit.
  - Toronto's space form is used for requesting additional space from the central university, returning space to the central university, leasing off campus space, and leasing on campus space to an external client.
- Space Audit Procedures: USC's space request procedures require a detailed inventory of the department or division's space.
- Leasing: All of the schools require committee or administrative approval before a unit can lease off campus space. Once the approval has been obtained the requester is referred to the real estate office.

## Space Program Elements - Space Inventory System and Process

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- Summary: Databases serve a variety of functions, contain a wide range of data, and are typically maintained by more than one unit.
  - Users include the schools / colleges, facilities, and the administration.
  - Medical Centers may or may not be part of the database. Michigan's Medical Center maintains its own database.
- Uses: Uses vary from institution to institution.
  - Michigan's database focuses on room data, although its Medical School uses it to track occupants and research data
    - Its Engineering School and College of Literature, Science and the Arts are also considering using the database to track occupants and research data.
  - Microsoft uses its database to link floor plans with occupants.
  - New Hampshire uses its database to track swing space and vacant space.
  - Cornell has a special section in its data base for departments to enter miscellaneous discretionary information.
- Typical Facilities Inventory Components: The following list is from Cornell's facilities inventory.
  - Facility Data (*Facility characteristics and location*)
  - Floor Plans (*Building plans that substantiate the room inventory*)
  - Physical Space Inventory: (*A reporting of all rooms and their characteristics*)
  - Organized Research Documentation: (*An in-depth documentation of all physical space used for organized research*)
  - Maximum Occupancy Data: (*Data collected to support code compliance for occupancy signage*)
- Space Data Updates: While most institutions allow for continuous updates, most also require annual updates. At New Hampshire complete updates are done every five years. Responsibilities are typically split between different departments.
  - Updates are typically coordinated by central unit.
  - Schools / Colleges / Departments are typically responsible for space use updates through the use of self-service features.
    - Institutions recognize that some departments will need help.
      - While the major schools /colleges at Duke and Michigan use the database on a frequent basis and are familiar with the system and how to enter data, Duke and Michigan understand that their smaller units use the system on infrequently and may need help with updates. At both institutions the department in charge of the database assists the smaller units.
      - Minnesota has an online training video that shows first time users or infrequent users how to enter data into the system step-by-step.
  - Identification of floor plan changes are either the responsibility of Facilities or the School / College / Department.

- Cornell’s Reporting the Use of Facilities Policy is a good example of the typical requirements, elements, and responsibilities for data updates:
  - Facilities Inventory Office will “On at least an annual basis, maintain an accurate / up-to-date inventory of space type, usage, and square footage”.
  - Schools/Divisions will “On no less than an annual basis, review the department room list for accuracy of the following:”
    - department code
    - locations
    - room listing, area, type
      - *(includes a section for discretionary departmental room information, room name, formal and informal room identifiers)*
    - unit proration
      - *(Measurement expressed as a percentage of time on an annual basis for rooms being used by more than one unit)*
    - functional coding
    - functional proration
      - *(Percentage of time on an annual basis for rooms being used for more than one function. Can track up to five functions in a room)*
    - station quantity”
  - For Organized Research units are to track in the inventory:
    1. Primary room occupants with one occupant designated as the PI.
    2. Identify the organized research projects that supported the activities contained in the room.
    3. All room functions defined by the activities that took place in the room should be listed and quantified as a percentage of total usage. The Inventory System does not allow for any room to be split into more than five functions.
- While schools and divisions can report renovations or changes, in writing, at any time to the Facilities Inventory department, the policy requires annual floor plan updates.
  - Floor plans are distributed to building coordinators by Facilities Inventory, renovations are noted on the drawings and returned to Inventory for updating.
- Database Maintenance: The maintenance of a database is often split between departments.
  - At Michigan it is managed by Architecture, Engineering and Construction and the Office of Space Analysis.
    - Architecture, Engineering and Construction maintains the database.
      - Answers user questions and helps the smaller schools with inventory questions. (The larger schools have the staff to handle questions.)
      - It verifies space use for the administration.
    - Office of Space Analysis oversees annual departmental space updates.
      - Departments can update database as needed. The Medical School, in fact, updates its database daily.

- Office signs off on changes and audits the data.
  - Office offers data input training and is considering an annual recertification process.
- At New Hampshire the database is maintained by IT (maintains the database) and Campus Planning (drawing and space management updates).
- Quality Control: Typically, there is no quality control, but spot checking is done on a case-by-case basis.
- A Brief Overview of Duke's Database:
  - The database is managed by Plant Accounting Department using Web Central.
  - Web Central provides departmental users, including the Health System, access to the institution-wide space accounting database so that they can update their space assignments on an ongoing basis. It provides the ability to view floor plans.
    - Space reports show how space is allocated to different departments and what functional activity is being conducted in that space.
    - The Space File contains every room in every building identified by room number, using department, functional activity, type of room, and size.
    - Additional information may include sub-department, faculty name, other occupants, etc.
  - Web Central is set up for two levels of users
    - The base level is often used by schools that have a small space portfolio, and provides basic data and reports.
    - The full program is used by the larger schools and administrative staff to extract more detailed data. There are about 20 of these hard core users.
  - Data input responsibilities are split:
    - Facilities Management is responsible for input of floor plan changes.
    - Schools are responsible for input of occupant and room use data.
      - Typically done by the school's business services representative. Plant Accounting will help the smaller schools with their data input.
  - Spot checking is done, but it is assumed that the data entries are correct and that the schools will keep their information up to date.
  - While departments can enter data as changes are made, departments are expected to review their space on a yearly basis for their space allocation, room by room. The results are used for not only year-end closing but also for analyses by senior management.



## Real Estate Leases, Acquisitions and Sales

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- Duke Process: Duke does not have a real estate foundation. Property leases, sales, and purchases are managed by the Duke Real Estate Office, which is headed by the Associate Vice President of Capital Assets and Real Estate.
  - The office is charged with:
    - overall real estate strategy for Duke and its Health System leases
    - asset management of the Washington Duke Inn
    - acquisition and disposition of lands in the Duke Forest.
  - Requests are submitted to the Associate Vice President, and are to include:
    - property address
    - a description of the property
    - aerial photo of the surrounding properties
    - current zoning
    - lease rates and/or purchase price
    - owner's name and contact information
    - representatives name and contact information
    - relevant demographic information
    - project timeline
  - There are administrative approval procedures for leases, which vary depending on the cost of lease. For example:
    - Leases with a present value of future lease payments and costs (tenant up-fit, leasehold improvements and fixed equipment) that are \$2.5M or greater, require approval by the Executive Vice President - Chair of the Capital project Executive Committee, the Trustee Business and Finance Committee, and the Trustee Building & Grounds Committee.
- New Hampshire Process: Real estate oversight is not a function of the University's space committee. The University has a Real Property Acquisitions and Disposals (RPAD) committee. To maintain continuity with the University's Space Allocation, Adaption and Renewal Committee (SAARC). Five members of RPAD are also on SAARC.
  - Mission Statement: To advise the President on the acquisition (by purchase or philanthropy) and disposal real property.
  - Responsibilities: The University Committee on Real Property Acquisition and Disposal (RPAD\*) will work jointly, as determined by the Chair of the RPAD, with the Advisory Committee on Land and Property Use (ACLPU\*\*) as well as, third parties external to the University community, regarding stewardship associated with the acceptance of potential gifts, acquisitions and or disposal of real property.
  - Membership:
    1. Vice President for Finance and Administration (Chair)
    2. Provost and Vice President for Academic Affairs
    3. Associate Vice President for Facilities
    4. President of the University of New Hampshire Foundation
    5. Chief Sustainability Officer of the UNH Sustainability Academy

6. Dean of the College of Life Sciences and Agriculture
  7. Chief of Staff, President's Office
  8. Chair of the Advisory Committee on Land and Property Use
  9. Faculty Senate Planning Committee Representative
  10. Town of Durham Director of Planning (or authorized delegate)
- Gifts and or Acquisition of Properties: The RPAD will thoroughly assess the costs, risks and benefits to the University of any proposed gift and or acquisition of real property. The issues to be evaluated include, but are not limited to:
    1. Environmental liabilities and impact.
    2. Acceptability of donor terms.
    3. Community and donor relations.
    4. Long term cost of ownership.
    5. Economic value of property.
    6. Relevance of the property to University programs.
    7. Relation of the property to the Master Plan.

If the RPAD recommends to the President that the University accept the gift, it will include in its recommendation a proposal as to whether the gift should be sold, held for at least some period of time and or be held by the University in perpetuity. If the recommendation is to hold the property, it will include a proposal as to how the property will be used (in consultation as appropriate with the Space Allocation and Repair and Renovation Committee (SARRC) and which department of the University shall be responsible for its management.

- Disposal of Properties: The RPAD will thoroughly assess the potential disposition of any property owned by the University. The issues to be evaluated in relation to any potential disposal include, but are not limited to:
  1. Assess the centrality of the property, or its current use, to academic programs.
  2. Assess environmental and conservation issues.
  3. Assess the role of the property within the context of the University's Master Plan.
  4. Research and review all deeds and gift covenants to ensure that the University has the legal right to dispose of the property.
  5. Obtain an independent market appraisal of the property consistent with University policy.
  6. Determine highest and best use of property in terms of leasing, timber valuation, exchange, partnership agreements, cash sales and or gifting.

Upon completion of this analysis and due diligence, the Committee will evaluate the extent to which the property or the disposal alternative would make a greater contribution to the mission of the University.

- Communications: The RPAD recognizes its responsibility to develop and deploy an effective communication program both internal and external to the University community. Interested parties would include local counties and communities, private environmental or conservation groups and historical societies. RDAP meeting agendas will be shared with members of SARRC.

## Capital Planning Notes

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- Summary: While the benchmarking exercise did not focus on the coordination of space planning and capital programs, this occurs at a number of institutions.
  - New Hampshire and Toronto have committees that oversee both space and capital planning.
  - Dartmouth is proposing a committee structure consisting of an Executive Committee supported by two subcommittees, a Planning Subcommittee (for capital projects) and a Space Management Subcommittee.
  - It is not clear, at this point which space responsibilities will reside with the Executive Committee and which will reside with the Space Management Subcommittee.
  - Cornell's Capital Program is broadly defined to include buildings, leases, equipment, and administrative systems.
  - Its Capital Funding and Priorities Committee (CF&PC) is responsible for the approval and oversight for capital transactions greater than \$250,000, and is supported by the Capital Planning Group (CPG) and the Space Use Advisory Committee (SUAC).
  - Space needs are compiled and evaluated by the Space Use Advisory Committee to provide opportunity for comprehensive space planning and potential use of leased space.

## Summary of Existing UVA Processes, Procedures, and Guidelines

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- **Space Committee Structure:** The Core Space Needs Committee is the only governance structure in place. Prior to the dissolution of the Executive Review Committee for Capital Projects this spring, there was a proposal to expand its role to include oversight of space management and real estate transactions.
  - **Core Space Needs Committee:** The charge of this committee is to review space requests and discuss recommendations for options; to review and manage swing space needs; and to discuss other space issues of interest. This committee meets on a monthly basis. Members include:
    1. Senior Academic Fac. Planner, Office of the EVP & Provost
    2. Associate Provost AS&CM, Office of the EVP & Provost
    3. Director of Space Mgmt., College of Arts & Sciences
    4. Director of Space Mgmt., School of Medicine
    5. Director FP&CD, Medical Center
    6. CFO, Facilities Management
    7. GES Manager, Facilities Management
    8. Assistant Dir. Space Mgmt., Facilities Management
    9. Director, Real Estate and Leasing Services
    10. Contract Administrator, Real Estate and Leasing Services
    11. Senior Program Manager, University Architect's Office
    12. Representative, University of Virginia Foundation
  - **Executive Review Committee for Capital Projects:** This committee was responsible for review and development of the University's capital planning process. Its role was to prioritize capital needs within the context of the University's mission and strategic initiatives. Membership consisted of:
    1. Executive Vice President and Provost
    2. Executive Vice President and Chief Operating Officer
    3. Senior Vice President for University Advancement
    4. Associate Vice President for Hospital and Clinic Operations
    5. Vice President for Management and Budget
    6. Architect for the University
    7. Chief Facilities Officer
    8. Chief of Staff for the President, Associate
    9. University of Virginia Foundation Chief Executive Officer

Staff was working on a proposal to expand its scope to include space management and real estate transactions. The DRAFT proposal called for:

Space Management: The Committee approves the initiation of major space plans for Agency 207 schools and units. These involve

- 1) proposals for space transfers between schools and units
- 2) transactions that may result in new construction either by the University or the commercial market

### 3) capital lease commitments.

The Office of Space and Real Estate Management staffs these efforts and makes recommendations to the ERC.

ERC reviews and approves the recommendations, and as needed recommends them for approval to the President and/or BOV.

Routine lease renewals and space requests are managed by the Office of Space and Real Estate Management.

Space reallocations within a School or unit's portfolio are managed by the School or unit.

Real Estate Transactions: The Committee approves the initiation of real estate transactions.

This includes property purchases, sales, auctions, and transfers for the Academic Division, Medical Center, and the College at Wise.

It includes requests to the University of Virginia Foundation for land acquisitions for immediate needs or for land banking.

The ERC reviews the final transaction proposals and recommends them for approval to the President and Board of Visitors.

Easements, rights-of-way, and facility use agreements are the responsibility of the Office of Space and Real Estate Management.

- **Transferring of Real Property Assets**
  - There is a policy for Transferring Responsibility for Real Property Assets.
- **Space Policies**
  - There is a policy for Space and Real Estate Transactions.
- **Space Guidelines**
  - There are Office Space Guidelines and Institutional Research Space Guidelines.
- **Space Request Process and Form**
  - There is a space request process and form.
- **Space Database** – The University uses AIM Asset Works for its database.
  - It consists of three modules:
    - Property Module (*physical characteristics of the buildings*)
      - This module needs to be expanded
      - Houses a specific set of institutional space data for all the Schools including VP Units, Auxiliary Units, and Medical Center
      - Maintained centrally by the Geo-Spatial Resource Center
    - Space Management Module (*occupant and grant info*)
      - Just started this module. It needs to be expanded.
      - Houses School specific data (current focus is on research space)
      - Maintained by the Schools
    - Plan Module

- Just started the conversion of AutoCAD to GIS. Needs to be expanded.
  - Design Guidelines need to include AutoCAD submittal requirements to ensure that firms use the same layering protocol for project drawings.
  - Enhanced review of AutoCAD submittal sign offs is needed.
- General Comments:
  - Updates for end users are difficult
  - Integration with graphics is limited and cumbersome
  - Need to provide more reporting options for users
- **Space Inventory Update**
  - Process has begun with the annual distribution of School Space Portfolios.
    - Updates by the schools are optional. Some school do it, others don't.
    - A&S is one of the constant users and tends to continually update its data.
    - Updating the portfolios is a paper process; it needs to be electronic.
    - SOM is on its 3<sup>rd</sup> update.
- **Annual Operating Budget Submittals**
  - The annual budget submittals require the major budget units to evaluate their projects in the Major Capital Projects Plan in terms of alignment with the University's strategic priorities and to indicate if additions, deletions, or modifications are anticipated for the next Capital Plan update.
- **Project Initiation Forms**
  - The project initiation forms for capital projects help identify long term and short term space needs by requiring that the following questions be addressed:
    - Who will use the building/space? (*new hires, relocated personnel?*)
    - If people will be relocated to a new or renovated space:
      - What space will be vacated?
      - Do you propose to back-fill the space?
      - Is any of the vacated space leased?
    - Will swing space be needed to execute the project?
      - If so, what type of space will be needed?
    - Do structures need to be removed or relocated for the project?
- **Space, Leasing and Real Estate Website**
  - In addition to office websites, such as the previous Space & Real Estate Management Office website and the new Real Estate and Leasing Services Office website, Facilities Management is developing a comprehensive Space@UVa website that will be a portal for units needing more space, wanting floor plan information, or wanting to know about leasing options. Rather than providing links to numerous procedures and guidelines, the website will direct people to the appropriate office and individuals.

## Space Optimization Observations

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- **Space Governance Process**

- **Charter:** A clear space governance process should be outlined by a charter that covers the following elements:

- 1) The extent of the space portfolio (academic space, E&G space, auxiliary space, administrative space, medical center, UVAF, etc.) to be managed
- 2) The governance structure
  - a. Is it managed by a committee or by an individual (s)
    - i. Membership
  - b. What are the supporting unit(s) and or committee(s)
    - i. Positions or Membership
- 3) The management responsibilities and approval authority

- Notes:

- *Charters: Cornell (Appendix G), Southern California (Appendix F), and New Hampshire (Appendices H and I) have concise charters that could be referred to during the development of an UVa charter.*
- *New Hampshire's is an example of a charter that may be a bit too brief. For example, it indicates that the committee:*
  - *"is a standing advisory committee to the university president," but doesn't spell out the committee's approval authority. As it written it appears that the committee makes recommendations to the President for his or her approval. In actuality, the committee has broad approval authority.*
  - *"oversees implementation of the approved campus master plan," but doesn't explain what implementation means.*
  - *"has oversight responsibility for the stewardship of facilities managed by auxiliary enterprise units," but doesn't explain if this includes approval authority.*
- **Space Portfolio:** The space portfolios for many of the benchmarked institutions focus only on academic or E&G spaces. Some medical schools and nursing manage their space portfolios separately. Medical Centers manage their space portfolios separately.

Consideration needs to be given to the extent of the space that is to be managed. For example:

  1. Is it to include the entire University space portfolio?
  2. Does it only focus on academic space?
  3. Does it focus on academic and administrative space?
  4. Does it focus on all Agency 207 space?
- **Responsibilities and Approval Authority:** At the benchmarked institutions these typically included 1) space trades between schools/colleges (1), 2) requests for additional space, and 3) requests to pursue leases.

*(1) Schools/colleges typically have the responsibility to manage the space within their own portfolios.*

- Other Space Responsibilities: Cornell's charge also deals with elements, such as space management principles, the process for reallocation of space, space guidelines, etc.
  - Cornell's charge is a good outline of the elements of a space management program and could be used a guide for distributing these responsibilities throughout the final UVa governance structure.
- Real Estate Acquisitions and Sales: While none of the space committees have responsibilities for acquisitions and sales, New Hampshire coordinates space and real estate activities by having overlapping membership of senior administrators on its space and real estate committees.

Since space needs drive real estate actions consideration should be given to including real estate transactions in the charter.

- Capital Plan Responsibilities: While many institutions do not link space management with the capital, several do.

Since space needs drive capital needs consideration should be given to including capital planning in the charter.

- **Leadership:** The benchmarking exercise revealed three different leadership models – Provost, COO, and senior administrators (Associate Provosts and Assistant VPs).
  - If space decisions are delegated by the President, COO, and Provost to senior administrators or to a committee, the decisions made by those with the delegated authority need to be supported by the President, COO or Provost if they are appealed.
    - Failure to do so can undermine delegated authority and create a situation where units will by-pass the individuals with delegated authority and go directly to the senior administrators for decisions.
      - The President, COO and Provost should agree on which space decisions can be delegated and the format of an appeals process.
  - While there are governance structures where the Provost or the Provost Office is not in charge, the individuals in charge defer to the Provost or Provost Office on academic space issues. They may question the financial sustainability of an academic proposal, or how it fits into the university's strategic plan, but they do not expect to have to choose between competing academic proposals.
- **Membership:** The participants in the space governance structures of the benchmarked institutions vary. Some institutions have a narrow membership; others have a broad membership.
  - Even if the space portfolio that is to be managed by the new governance structure at UVa does not include all institutional space, consideration should be given to having representatives from all entities with space portfolios. This will help maintain an overall institutional perspective and create opportunities where one entity can help another address its space needs either temporarily or permanently.
    - For example, the Medical Center may have space that will be vacant for a year or two that could serve as swing space for an academic unit.



- **Space Principles / Policies:** Several institutions have space principles and policies which set the framework for space planning. For example:
  - Space is owned by the Trustees and allocation decisions are ultimately the President’s responsibility. (Southern California)
  - Space is an institutional resource. It is not owned by the colleges and schools. (Michigan)
  - The right to manage academic space and administrative space is reserved to the Provost and Senior Vice President for Finance. (Southern California)
  - Units should not stockpile unused or underutilized space, nor may they unilaterally lease it to another department. (Southern California) (1)

(1) *Both Southern California and New Hampshire have requirements and expectations that units identify unused or underutilized space so that the central administration can use these spaces to meet other space needs in lieu of leasing space. New Hampshire’s space inventory has a category for vacant space where it is categorized either as useable or non-usable.*

Consideration should be given to the development of meaningful principles and policies.

- **Space Guidelines:** Several themes were identified that should be considered for inclusion in the University’s guidelines.
  - Assessing Workplace Performance: Microsoft strives to balance space efficiency with functionality. The Jones Lang LaSalle white paper of space practices in the private sector also indicated that corporations have come to realize that maximizing space efficiency can have negative impacts on employee performance. The whitepaper states that the traditional tactical metrics of SF/person, occupancy rate and cost/SF must be accompanied with strategic metrics of workforce productivity, collaboration enablement, etc.
  - Matching Workplace Standards to Goals: Microsoft has different space guidelines depending on nature of the business unit and company goals.
    - For research and development staff, Microsoft provides each employee with a workstation. It believes that formal and informal face-to-face meetings encourage collaboration and innovation, and, therefore, does not want these individuals working from home, because.
    - For sales and marketing staff, on the other hand, Microsoft may only provide 1 workstation for every 1½ to 4 employees because their roles require them to frequently be on the road meeting clients
  - Simplified Workplace Standards: The corporate world is moving towards simplified office standards.
    - The JLL Whitepaper notes that corporations are trying to minimize the number of workstation and office sizes to increase flexibility. One company noted that with one office standard there are no space issues when managers or leaders within the organization move from one department to another.
    - While Microsoft also tries to minimize the number of office and workstation sizes, its standards vary by business unit.
    - Microsoft also standardizes furnishings. For example, it has 8 standard desk types that employees can choose from.

- Flexibility: Duke’s Assistant Director of Planning and Design noted that the institution’s guidelines stress flexibility.
- Capital Projects: Involvement of space staff in the review of capital projects provides a higher level of adherence to the guidelines.
- **Space Request Process and Forms**
  - This is a common feature of all institutions.
- **Space Inventory**
  - Occupant Data: Institutions are moving to including occupant data into the space databases.
  - Coordination of Space Data with Floor Plans: Schools are moving to this model.
  - Annual Updates: While many institutions encourage database updates on an ongoing basis, they also require their schools / colleges / units to update their space data annually.
  - Assistance: Duke and Michigan acknowledge that while some users, typically their larger units, use the data base on a weekly or even daily basis, there are units with small space portfolios that use the data base infrequently and need assistance during updates. Even though they may have online instructions (Minnesota even has a web-based video), the space inventory staff is ready to respond to calls for help.
  - Unit Data: To make its Database more useful to the schools and college, Cornell has lines in the database where these units can enter information specific to their departments.
  - Data Verification: With the exception of the University of Southern California none of the schools have the staff to verify the data entries by their schools and colleges. They will do spot checks as needed.
  - Data Entry: This varies but often the school or college is responsible for space inventory data entries and Facilities is responsible for the entry of floor plans and floor plan changes.
- **Space Management System**
  - Accurate Space Data: The benchmarking exercise indicated that having accurate space data has become particularly important with the advent of RCM.
  - Right Database Application: Need to initiate a benchmarking exercise to identify an application that meets administrative and user needs.

# **Appendix**

## **Appendix A**

### **Contact List for Benchmarked Institutions and Firms**

<b>Cornell</b>	Mary Lynn Cummings	Director of Space Planning Budget and Planning Office of the Provost  607-255-2557
<b>Dartmouth</b>	Douwe Wieberdink	Space Planner Offices of Planning and Design and Campus Management  603-6465-3227
<b>Duke</b>	Adem Gusa	Assistant Director of Planning and Design Office of Project Management Facilities Management  (919) – 660-1483
<b>Michigan</b>	Mary Ellen Lyon	Business Operations Manager Office of Space Analysis Procurement Services Business and Finance Division  734-763-1197
	Mark Eboch	Manager for Real Estate and Space Information Architecture, Engineering and Construction Facilities and Operations Executive Vice President for Business and Finance  734-615-9023
	Frances Mueller	Assistant Vice Provost for Academic and Budgetary Affairs Provost Office  734-763-5942
<b>Minnesota</b>	Brian Swanson	Assistant Vice President for Finance University Services Division  612-625-6665
<b>New Hampshire</b>	Tracy Boyle	Director, Finance and Administration UNH Facilities Division  603-862-0894

	David T. Clark	Space Utilization Specialist Campus Planning Department 603-862-0161
<b>Southern California</b>	Evelyn Alva	Manager Space Management Financial & Business Services 213-821-2110
<b>Toronto</b>	Sally Garner	Executive Director, Planning and Budget 416-978-2819
	Gail Milgrom	Assistant VP for Campus & Facility Planning 416-978-6844
	Steven Bailey	Director of Space Management ( <i>Not contacted</i> )
<b>Jones Lang LaSalle</b>	Scot Latimer	Managing Director (Capital Asset Strategies)
	Tim Eachus	Regional Director
	Angie Earlywine	Vice President (Workplace Strategy)
	Michael Tiemann	Regional Oversight Manager (Occupancy Planning)
	Blake Layda	Managing Director (Life Sciences) 303-808-0012
<b>Microsoft</b>	Brian Collins	Director of Global Workplace Strategies (Used Conference Call-in Number)

## Appendix B

### Conference Call Notes with Supporting Web Search Information

*(Compiled by Tom Leback)*

#### Cornell University (1)

*(1) Supplemented by information from the Cornell website. Website information is in italics.*

Mary Lynn Cummings      Director of Space Planning  
    Budget and Planning  
    Office of the Provost  
    607-255-2557  
    *(October 1, 2013 Call)*

#### Background Data

Fall 2011 Enrollment	Ithaca Undergraduate	14,158
	<u>Ithaca Graduate / Professional</u>	<u>6,964</u>
	Total	21,122
	Medical / Professional (NYC and Qatar)	1,269
	Total University	22,391
Ithaca Physical Plant	GSF (with leased space*)	17.4 million
	Total Number of Buildings	986
	* Leased Space is 1.1 million (Net SF) in 130 buildings	

Note: Cornell has 4 state contract colleges at Ithaca plus 1 remotely located agricultural college.

#### RCM Notes (1)

1. Units are charged for space
2. There is no option of returning space to the central administration.
3. If a unit wants to give up space, it must find another unit that wants the space.
  - a. Central Administration will help with this effort.
  - b. There have been situations where there was bidding for vacant space.

*(1) The University is in the first year of its RCM program*

#### Impact of RCM on Space

1. There is more interest in clean, accurate space data.
2. RCH has generated an attitude among the schools that this is my space because I pay for it. Therefore, it is none of your business how it is used.

#### Space Governance

1. There is a Space Use Advisory Committee (SUAC) that has been in existence for 3 years.
2. It is the approving authority for the allocation process for all space except dorms.
  - a. Approves leases

- b. Approves swing space
- 3. It does not deal with a school's internal space changes.
- 4. *The Cornell Website provides the following information on the SUAC.*

*The Vice President for Planning & Budget charged the Committee with developing policies, procedures and other recommendations concerning:*

- 1) the use and renovation of space*
- 2) the allocation of existing space, and*
- 3) planning for future allocation needs.*

*SUAC makes recommendations on University space allocations, including off-campus leased space. The Committee is to:*

- 1) Develop space management principles to provide a consistent framework to:*
  - a. allocate space*
  - b. plan for future space needs of the organization, and*
  - c. manage Cornell space effectively and efficiently.*
- 2) Recommend a process for the reallocation of space and develop supporting MOU templates and procedures.*
- 3) Revise Policy 2.7, Reporting the Use of Facilities.*
- 4) Update space guidelines to reflect best practices in higher education related to the size of spaces, utilization rates, and building/space type efficiencies.*
- 5) Develop procedures that require accountability to space guidelines for capital projects that create new space or change use of existing space.*
- 6) Develop procedures that require units to update space plans during the annual capital plan development process.*
- 7) Develop standard reports to enhance transparency and consistency.*
- 8) Recommend improvements to the facilities inventory system and evolution toward a space management system.*
- 9) Advise the director of Space Planning, manager of Facilities Inventory, manager of Indirect Cost and others with regard to interpretation of policies.*
- 10) Serve as the executive group for space utilization studies providing uniformity in approach and interpretation.*
- 11) Develop mechanisms to share best practices within Cornell, with academic peers and within professional organizations.*

*Its membership includes:*

- 1. Vice-Provost for Undergraduate Education*
- 2. Senior Vice Provost for Research and Vice President for Technology Transfer, Intellectual Property & Research Policy*

3. *Direct of Space Planning, Budget & Planning (Office of the Provost)*
4. *Assistant Vice President and Budget Director, Budget and Planning*
5. *University Architect & Senior Director for Capital Projects & Planning; Facility Services*
6. *Director of Real Estate, Facility Services*
7. *Vice President for Student and Academic Services*
8. *Vice President for Human Resources and Safety Services*
9. *Associate Dean for Student Services, Graduate School*

*Its current meeting schedule is:*

<u>Meeting Dates</u>	<u>Deadline for Space Requests</u>
<i>September 9, 2013</i>	<i>September 2, 2013</i>
<i>October 14, 2013</i>	<i>October 7, 2013</i>
<i>November 12, 2013</i>	<i>November 5, 2013</i>
<i>December 9, 2013</i>	<i>December 2, 2013</i>
<i>January 13, 2014</i>	<i>January 6, 2014</i>
<i>February 10, 2014</i>	<i>February 3, 2014</i>
<i>March 10, 2014</i>	<i>March 3, 2014</i>
<i>April 7, 2014</i>	<i>March 31, 2014</i>
<i>May 5, 2014</i>	<i>April 28, 2014</i>
<i>June 2, 2014</i>	<i>May 26, 2014</i>

### **Space Request Procedures**

*A space request form is to be submitted when additional space is required. Requests will be reviewed by the Director of Space Planning and then directed to the Space Use Advisory Committee for final review, endorsement, and comment if warranted.*

*Two forms are available – a Notice of Programmatic Space Need and a Request for Allocation of Space.*

*Notice of Programmatic Space Need form is used when a unit is aware of a space need but does not have many details. This form provides early notification to the Space Use Advisory Committee and the Space Planner of an impending need for space. It addresses:*

<i>Reason:</i>	<i>Additional space to support a new or expanded activity</i>
	<i>Relocate to a new location</i>
	<i>Extension of an existing lease</i>
<i>Space Type</i>	<i>Cornell-owned, non-leased space</i>
	<i>Leased-space (even if Cornell-owned)</i>
	<i>An exchange of existing space with another college or division</i>
<i>Purpose:</i>	<i>Need. If the intent is to lease, why is a lease necessary or preferred.</i>

*Request for Allocation of Space form is used when sufficient detail is available for the unit to request approval. The form addresses:*

<i>Reason:</i>	<i>Additional space to support a new or expanded activity</i>
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	<i>Relocate to a new location</i>
<i>Space Type</i>	<i>Cornell-owned, non-leased space</i> <i>Leased-space (even if Cornell-owned)</i> <i>An exchange of existing space with another college or division</i>
<i>Purpose:</i>	<i>Need. If the intent is to lease, why is a lease necessary or preferred.</i>
<i>Space Info:</i>	<i>Intended use of each room, such as room use description, number and type of occupants (e.g. faculty, staff, etc.), and account for associated costs.</i> <i>If specific rooms are requested, provide facility codes, names, and room numbers, and indicate if requested area will require renovation.</i> <i>Special requirements (e.g., location, access, equipment, adjacencies, etc.).</i> <i>What space will be vacated if a new allocation is made?</i>
<i>Funding:</i>	<i>Provide grant information if the space is for a grant or award-funded program and/or costs are to be paid by the grant/award.</i> <i>If a donor will fund (all or in part), please describe circumstances:</i>
<i>Justification:</i>	<i>Why is your current space inadequate for the identified need?</i>
<i>Date Needed:</i>	<i>If space is needed on a temporary basis, when the space will be vacated. Identify any other timing needs (e.g., need to move during semester break, in coordination with another activity, etc.).</i>
<i>Impact:</i>	<i>How does your request fit with the role and mission of the unit, college/division, and University?</i> <i>What are the benefits (programmatic, financial, etc.) that will occur as a result of having our request granted?</i> <i>What will be the negative impact of not being assigned this request?</i>
<i>Moving:</i>	<i>How will moving and/or renovation costs be paid?</i> <i>Temporary arrangements to use any of your existing space for the requested purpose?</i>
<i>Alternatives:</i>	<i>Verify that this space requirement cannot be accommodated within existing space. List specific solutions explored and reason(s) for insufficiency. What possibilities for shared space have been explored?</i>
<i>Documentation:</i>	<i>Floor plans, functional spreadsheet (program template), organizational chart, and other documentation.</i>

## ***Leasing***

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*When the Space Use Advisory Committee approves a lease or a lease extension, the requesting school/division works with the Real Estate Department (in Facilities Services) to pursue a lease.*

*Note: Prior to approaching the Space Use Advisory Committee, it is not unusual for a school or division to contact the Real Estate Department to get an idea of what is available in the lease market and the anticipated lease costs.*

## ***Facilities Inventory***

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*The following are main components of a facilities inventory:*

- ***Facility Data:*** *Data collected that defines facility characteristics and location*
- ***Floor Plans:*** *Building plans that substantiate the room inventory*
- ***Physical Space Inventory:*** *A reporting to the Facilities Inventory department of all rooms and their characteristics, which is based on a July to June fiscal year*
- ***Organized Research Documentation:*** *A more in-depth documentation of all physical space used for organized research.*
- ***Maximum Occupancy Data:*** *Data collected to support code compliance for occupancy signage.*

## ***Space Data Updates***

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*Cornell has an Annual Physical Space Inventory update. It involves the Facilities Inventory Office and the schools/divisions. Cornell's Reporting the Use of Facilities policy stipulates:*

*The Facilities Inventory Office will “On at least an annual basis, maintain an accurate and up-to-date inventory of space type, usage, and square footage”.*

*Schools/Divisions will “On no less than an annual basis, review the department room list for accuracy of the following:*

*department code*

*locations*

*room listing, area, type (includes a section for miscellaneous discretionary departmental room information, room name, formal and informal room identifiers)*

*unit proration (Measurement expressed as a percentage of time on an annual basis for rooms being used by more than one unit)*

*functional coding*

*functional proration (Measurement expressed as a percentage of time on an annual basis for rooms being used for more than one function. The system may track as many as five functions in a room)*

*station quantity”*

*For Organized Research units are to track in the inventory:*

- 1. Primary room occupants with one occupant designated as the PI.*
- 2. Identify the organized research projects that supported the activities contained in the room.*
- 3. All room functions defined by the activities that took place in the room should be listed and quantified as a percentage of total usage. The Inventory System does not allow for any room to be split into more than five functions.*

*While schools and divisions can report renovations or changes, in writing, at any time to the Facilities Inventory department, the policy requires annual floor plan updates.*

*Floor plans are distributed annually to building coordinators by Facilities Inventory, renovations are noted on the drawings and returned to Inventory for updating.*

### ***Capital Program***

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*The Capital Program is broadly defined to include buildings, leases, equipment and administrative systems.*

*The Capital Funding and Priorities Committee (CF&PC) is responsible for the approval and oversight for capital transactions greater than \$250,000.*

*The CF&PC is supported by the Capital Planning Group (CPG) and the Space Use Advisory Committee (SUAC). The memberships of the first two committees are:*

#### *Capital Funding & Priorities Committee*

- 1) President*
- 2) Provost*
- 3) Senior Vice Provost*
- 4) Vice President for Finance & CFO*
- 5) Vice President for Budget & Planning (chair)*
- 6) Vice President for Alumni Affairs and Development*
- 7) Senior Vice Provost for Academic Affairs*
- 8) Vice President for Facilities Services*
- 9) Director of Capital Budget*

#### *Capital Planning Group (CPG)*

- 1) Vice President for Budget & Planning (chair)*
- 2) Vice Provost*
- 3) Vice President for Information Technology*
- 4) Senior Vice Provost for Academic Affairs*
- 5) President for Facilities Services*
- 6) Senior Director of Facilities Management*
- 7) Director of Capital Budget*
- 8) Director of Space Planning (Provost Office)*
- 9) University Architect*
- 10) Assistant Vice President for Budget & Planning*
- 11) Associate Vice President for Finance and Treasurer*

*The process is focused around the Annual Development of the 1-year Capital Budget and 5-Year Capital Plan.*

*Capital Planning Group (CPG) reviews potential capital projects and space needs against established parameters and develops a draft 1 year capital budget and 5 year capital plan for consideration by the CF&CP.*

*CPG meets with college, division and central facilities and IT personnel as necessary to understand project scope, priority, funding plan, and timing.*

*CPG has responsibility to critically review and challenge as deemed necessary unit planning assumptions, prioritization, timing, funding plans, etc.*

*Although CPG will develop a draft plan, CPG does not have the authority to make a final decision on unit capital submissions and therefore all unit capital submissions are provided to CF&PC for consideration.*

*Space needs are compiled and evaluated by the Space Use Advisory Committee to provide opportunity for comprehensive space planning and potential use of leased space.*

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## Dartmouth College

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Douwe Wieberdink	Space Planner Offices of Planning and Design and Campus Management 603-6465-3227 (September 11, 2013 Call)
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### Background Information on Dartmouth College

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Enrollment (Fall 2012)	Undergraduate	4,193
	Undergraduate	2,084
	Total	6,277

Physical Plant	GSF:	4.5 million and 5 million
	Buildings:	200 to 300* with 180 on the main campus.

\* Dartmouth is revisiting building definitions. For example, is each row house a building? Or, does a group of contiguous row houses constitute a building?

Dartmouth has a new president (former University of Michigan Provost) who is focused on space efficiency and has put a temporary hold on new construction.

Space management is currently an administrative function per an agreement between the president and provost.

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### RCM Status

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Dartmouth has not adopted RCM.

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### Space Planning and Management

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**Process Oversight:** The process for space requests are managed by the Offices of Planning and Design and Campus Management.

**Governance:** The college is moving towards a more formal space management process, which it will implement once the new president has developed a new long term strategy. The draft committee structure proposal follows. It is based on discussions with a number of other schools such as Michigan, Auburn, and Harvard.

Executive Committee (For Space and Capital Issues):

6. Provost (Chair)

7. Representative from the president's office
8. Executive Vice President
9. Senior Vice President, Advancement
10. Vice President for Campus Planning and Facilities
11. **Director of Campus Planning** (Secretary)
12. Dean of the Faculty
13. Dean of the College
14. Deans of all the professional Schools
15. Dean of Graduate Studies
16. **Provost Office representative** – TBD
17. Other potential members (?):
  - General Counsel
  - VP of Human Resources
  - VP of Communications
  - Chief Investment Officer
  - Athletic Director

Planning Subcommittee: (Capital Projects, site issues (lighting, walks), etc.)  
(Prepares briefing materials for the Executive Committee)

1. **Director of Campus Planning** (Chair)
2. **Provost Office representative** - TBD
3. Director of Campus Design
4. One representative from Dean of the Faculty
5. One representative from each professional school
6. Dean of the College representative
7. DCAD representative
8. Associate Vice President, Facilities Operations and Management
9. Director of Development, Capital Projects

Space Management Subcommittee (Space guidelines, Major Space Requests, etc.)  
(Prepares briefing materials for the Executive Committee)

1. Provost Office representative - TBD
2. **Director of Campus Planning** (Chair)(?)
3. Registrar
4. Space Planner (Chair)(?)
5. All 3 Associate Deans of the Faculty
6. Associate Dean representing each professional school

**Space Request Procedures:** The College does have a space request form, but given the small size of the school space requests are often handled by a call to the Space Planner if there is a small amount of space involved.

## Space Inventory System and Process

Dartmouth is switching to a new space management system (space database). Old system is no longer supported. It has selected Centerstone, which is used by Harvard, Columbia Medical Center, and the Bank of America. The space database has traditionally been used for:

### Planning, Design and Construction

- ☐ Capital planning decisions
- ☐ Space allocation

### Maintenance and Use of College Facilities

- ☐ FAMIS work order system
- ☐ Network Services
- ☐ Classroom, laboratory & event scheduling
- ☐ Manage delivery & loading dock locations

### Human Resources and Finance

- ☐ Payroll and employee work locations.
- ☐ Budget & depreciation information for fixed assets

### Real Estate Office

- ☐ Commercial leasing
- ☐ Graduate housing

### Residential Life Residence Hall Management & Accessibility

- ☐ Room assignments & billing
- ☐ ADA accessibility

### Research Grants

- ☐ Space survey
- ☐ Tracking of principal investigator

## Duke University (1)

(1) *Supplemented by information from the Duke website. The website information is in italics.*

Adem Gusa                      Assistant Director of Planning and Design  
Office of Project Management  
Facilities Management  
(919) – 660-1483  
(November 8, 2013 Call)

## Background Data

Fall 2013 Enrollment	Undergraduate	6,495
	Graduate / Professional	8,105
	Total	14,600

Physical Plant                      GSF \*                      14.2 million  
GSF (w/o Schools of Medicine and Nursing) \* 12.0 million

\* Does not include the hospital or leased space.

Number of Buildings (with SOM and SON) **	300
Number of Buildings (without SOM and SON)**	250

\*\* Does not include the hospital or leased space.

<i>Leased Space:</i>	<i>Number of Leases ***</i>	<i>200 +</i>
	<i>Square Footage</i>	<i>2.5 million</i>
<i>*** Includes office, medical, clinic, laboratory, and warehouse space</i>		

### **RCM Space Notes**

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4. Have had RCM for at least 6 years (as long as Adem has been with Duke)
5. Schools are charged for space. Charges include:
  - a. O&M (SF basis)
  - b. utility costs
  - c. building renewal (major maintenance) (SF basis)
  - d. debt service (if applicable)
6. Schools push costs down to the departmental level.
7. The rates are recalculated once a year (July 1<sup>st</sup>).

### **RCM Impact on Space**

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1. Does not seem to have had any impact on space.
2. Schools have a bit of an attitude - since we're paying for it, don't ask us how it is being used.
3. There are space wars

### **Space Governance**

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1. There are two committees – a “Senior Space Committee” and an Academic Space Planning Committee:
2. The “Senior Space Committee” consists of:
  - a. Executive Vice President
  - b. Provost
  - c. Facilities Management Vice President
  - d. Provost Representative
  - e. Assistant Director of Planning and Design
  - The committee has the final say on academic, administrative and student services space issues. It does not deal with the School of Medicine, School of Nursing or Medical Center.
  - While the EVP looks to the Provost to take the lead on academic issues, the final decision rests with the EVP.
  - It meets monthly and sometimes twice a month.
  - All space requests go it.
  - It is supported by \_\_\_\_\_.
3. Academic Space Planning Committee is comprised of the deans. It meets quarterly. It is used to inform the deans of the space decisions made by the Senior Space Committee.

## **Space Planning Guidelines**

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1. No vision statement.
2. Guidelines do advocate for flexibility.
3. Have guidelines for faculty offices.
4. Have utilization targets (SF/FTE).

## **Real Estate**

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1. *Property sales, leases and purchases are managed by the Duke Real Estate Office, which is headed by the Associate Vice President of Capital Assets and Real Estate.*
2. *The office is charged with:*
  - a. *overall real estate strategy for space leased by Duke and its Health System*
  - b. *asset management of the Washington Duke Inn*
  - c. *acquisition and disposition of lands in the Duke Forest.*
3. *Requests are submitted to the Associate Vice President, and are to include:*
  - *property address*
  - *a description of the property*
  - *aerial photo of the surrounding properties*
  - *current zoning*
  - *lease rates and/or purchase price*
  - *owner's name and contact information*
  - *representatives name and contact information*
  - *relevant demographic information*
  - *project timeline*
4. *There are administrative approval procedures for leases. These procedures vary depending on the cost of lease. For example, leases, which have a present value of future lease payments and costs (tenant up-fit, leasehold improvements and fixed equipment) that together are \$2.5M or greater, require approval by the Executive Vice President - Chair of the Capital project Executive Committee, the Trustee Business and Finance Committee, and the Trustee Building and Grounds Committee.*

## **Foundation**

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- Duke does not have a real estate foundation.

## **Space Inventory Database**

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1. The space database is managed by Plant Accounting Department using Web Central.
2. *Web Central provides departmental users, including the Health System, access to the institution-wide space accounting database so that they can update their space assignments on an ongoing basis. It also provides the ability to directly view facility floor plans.*



- a. *Space accounting documents and reports show how space is allocated to different departments and what functional activity is being conducted in that space.*
  - b. *The Space File contains every room in every building identified by room number, using department, functional activity, type of room, and size.*
  - c. *Additional information may include sub-department, faculty name, other occupants, etc.*
- 3. Web Central is set up for two levels of users
  - a. The base level is often used by schools that have a small space portfolio, and provides basic data and reports.
  - b. The full program, which is used by the larger schools and administrative staff, can be used to extract more detailed data. There are about 20 of these hard core users.
- 4. Data input responsibilities are split:
  - a. Facilities Management is responsible for input of floor plan changes.
  - b. Schools are responsible for input of occupant and room use data.
    - i. Typically done by the school's business services representative. Plant Accounting will help the smaller schools with their data input.
- 5. Spot checking is done, but it is assumed that the data entries are correct and that the schools will keep their information up to date.
- 6. *While departments can enter data as changes are made, departments are expected to review their space on a yearly basis for their space allocation, room by room. The results are used for not only year-end closing but also for analyses by senior management.*
- 7. The space inventory is not used to inform the capital plan.

### **Capital Planning**

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- 1. Capital Plan only includes projects that will most likely be funding in the next five years. It is updated once a year. The process is separated from the Space Management.
- 2. The longer term projects, up to ten years out, are included in the Master Plan (2000).
- 3. *The master plan is updated every two years through the use of Action Plans, which are used to monitor campus development by providing focus, refinement, and updates.*

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## **University of Michigan**

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Mary Ellen Lyon

Business Operations Manager  
 Office of Space Analysis \*  
 Procurement Services  
 Finance  
 Business and Finance Division  
 734-763-1197  
*(September 20, 2013 Call)*

\* Custodian of university space and location data. Oversees annual inventory and makes location, square footage, occupancy and utilization updates as changes occur throughout the year. Has a staff of 3.

Mark Eboch

Manager for Real Estate and Space Information  
Architecture, Engineering and Construction \*  
Facilities and Operations  
Executive Vice President for Business and Finance  
734-615-9023  
(October 1, 2013 Call)

\* Maintains GIS database.

Frances Mueller

Assistant Vice Provost for Academic and Budgetary Affairs  
Provost Office  
734-763-5942  
(October 15, 2013 Call)

Background Data		
Enrollment (Fall 2012)	Students	27,800
	<u>Undergraduate</u>	<u>15,500</u>
	Total	43,300
Physical Plant	GSF:	40.6 million ( <i>includes leased space</i> )
	Buildings:	1,100

### University Space Planning and Management

There is no university-wide space planning or management committee. The Provost handles academic space. Medical Center, Athletics, and Auxiliaries manage their own space.

### Academic and Administrative Space - Planning and Management

**Oversight:** The Provost Office is responsible for space funded by state general funds. This includes academic, research and administrative space.

All requests for new space and swing space are under the purview of the Assistant Provost of Space Management, who has been delegated the authority to resolve space assignments. This is done in consultation with the requesting units.

If a space need cannot be met from existing space, the Provost Office approves the option of leasing space and refers the requesting unit to the Real Estate Office.

The Office of Space Analysis in Procurement Services provides support.

The Provost Office (Frances and a colleague) have weekly coordination calls with staff from the office of Real Estate and Space Information.

**Policies/Procedures:** Space is an institutional resource. It is not owned by the colleges and schools.

Schools and colleges control their own space and handle space transfers between their departments and units.

Schools and colleges can elect to pass the space costs down to the departmental level. The School of Medicine has done this.

The Provost Office serves as the clearing house and approval authority for space requests and for space transfers between the University's school and colleges. This role enables it to understand the overall space needs and space availabilities and to make sure that space transfers between the schools and colleges are in the best interest of the University.

When a school or college wants to give up space, the Provost helps find another "tenant," but the unit is responsible for the space costs until a new tenant is found.

The Provost Office does not take space back space or maintain a pool of space for swing space.

**Space Costs:** Activity based units, those entities that have identified sources of revenue, are charged for space.

Non-activity based units, such as libraries, museums, and administration, are not charged for space. The cost of their space is funded by the Provost Office? By an assessment charged to the activity-based units?

Space charges include O&M costs, utility costs and a renewal fee.

O&M costs were set approximately 15 years ago on a building-by-building basis. These costs have been escalated for inflation (?). They cover building costs, landscape costs, Facilities Management overhead costs, etc. (?)

Utility costs are based on actual costs.

The renewal fee is based on a unit cost of \$2.70 per assignable square feet.

**Renewal Fund:** The Provost Office oversees the use of these funds (\$90M +/- annually)

The Office uses Facilities Condition Index data from Facilities Management to help with the allocation of the funds, but the FCI is not the sole determinant. Support of institutional needs and objectives are also a major determining factor.

**Impact of RCM on Space:**

Schools and colleges are using their space more effectively. Since the implementation of RCM the rate of new construction of academic buildings has slowed as colleges and schools now try to use their existing space more efficiently before incurring the operating costs of new buildings.

There is more emphasis on energy efficiency in new and existing buildings.

Individual schools have given up space.

There has been some sharing of space, but primarily within schools.

## **Capital Planning**

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**University Oversight:** There is no central committee that oversees and approves the University's capital program. The Provost Office, Medical Center, Athletics, Auxiliaries, etc. each prepare their own plans.

**Finance & Capital Projects Committee:** This committee manages the CFO construction fund, which is the primary source of central funding for major capital projects, and the

university's debt capacity. The committee determines appropriate timing of capital projects, regardless of how the project is funded, and discusses project status and issues. The committee does not approve or reject projects. The CFO makes recommendations to the President and Board of Regents. Committee membership includes:

1. Executive Vice President and Chief Financial Officer
2. Associate Vice President for Facilities & Operations
3. Director of Architecture, Engineering, & Construction
4. Associate Director of Architecture, Engineering & Construction –  
(Manages health systems projects & Real Estate)
5. Associate Director of Architecture, Engineering & Construction –  
(Manages academic affairs & housing projects)
6. Assistant Director of Architecture, Engineering & Construction –  
(Manages CFO construction budget (fund?))
7. Treasurer
8. Provost and Executive Vice President for Academic Affairs
9. Vice Provost for Academic & Budgetary Affairs
10. Assistant Vice Provost for Academic & Budgetary Affairs
11. Vice President for Development
12. Associate Vice President for Development
13. Vice President and Secretary of the University

Note: The CFO and Treasurer have the best understanding of the overall University capital plan.

**Academic /Administrative Projects:** Major capital projects (over \$5M) proposed by schools, colleges, and administrative units are reviewed and prioritized by the Provost's Capital Projects Review Committee. The committee makes priority recommendation to the Provost. Committee membership includes:

1. Vice Provost for Academic & Budgetary Affairs
2. Vice President for Research
3. Dean representing a large unit
4. Dean representing a smaller unit
5. Assistant Vice Provost for Academic & Budgetary Affairs

If the Provost concurs with the committee's recommendations, he/she forwards them to the Executive Committee for Capital Projects

The Provost Office requires annual updates from the schools and colleges.

### **General Purpose Classrooms**

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Utilization targets were adopted in 2008. At the time, time utilization for the general purpose classrooms was less than 50%. The targets were 70% for time utilization and 65% for seat utilization. Progress has been made. Time utilization is currently in the low 60s. The targets have recently been abandoned in favor of scheduling and distribution policies, which are to be implemented with the winter 2013 curriculum planning period. The policies require that schools and colleges to share the scheduling of their general purpose classrooms with the Registrar.

To deal with the oversupply of general purpose classrooms some schools and colleges have converted these spaces to other uses. The Provost Office is planning to repurpose a building that contains 40 classrooms. This repurposing along with the previous school actions will improve classroom utilization to such an extent that the Provost Office is prohibiting schools and colleges from any further repurposing of classrooms.

Each school and college is responsible for maintaining its general purpose classrooms and pays for their space costs. The schools and colleges are also responsible for the scheduling of these rooms. The registrar monitors the scheduling of these spaces and will fill in the gaps with classes from other schools and colleges.

### **Space Inventory**

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Inventory is managed by Architecture, Engineering and Construction and the Office of Space Analysis. Medical Center maintains its own database.

The database is primarily focused on room data. The Medical School also uses it to track occupants and research data. The College of Engineering School and the College of Literature, Science and the Arts are interested in this approach.

Architecture, Engineering and Construction maintains the database.

It answers user questions and helps the smaller schools with inventory questions. The larger schools have the staff to handle questions.

It verifies space use for the administration.

There is no quality control checking of the database.

Office of Space Analysis oversees the annual space updates completed by the departments.

The departments can update database as needed. The Medical School, in fact, updates its database daily.

The Office signs off on changes and audits the data.

The Office offers data input training, and is considering an annual recertification process.

### **University of Minnesota**

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Brian Swanson	Assistant Vice President for Finance University Services Division 612-625-6665 (November 5, 2013 Call)
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### **Background Data**

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Enrollment (Fall 2012) (Twin Cities Campus Only)

Undergraduate	30,375
Graduate	13,124
Professional	3,824
<u>Non-Degree</u>	<u>4,530</u>
Total	51,853

### **RCM Information**

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1. Instituted RCM in phases with the revenue component instituted first followed by the expense component several years later.
2. The University charges for space. The space assessment consists of:

Debt*	(prorated on a SF basis)
Actual Utility Costs	(prorated on a SF basis)
O&M Costs	(prorated on a SF basis using the University's average/SF costs)

\* (if the facility was built with debt that is not supported by the state)

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### RCM and Space

1. Units have not given up a lot of space. There is a perception that units won't receive the savings when space is given up.
2. RCM has enabled Minnesota to instill more discipline when it comes to space. For example:  
  
One college wanted to expand its space portfolio, but decided against it when it was told that it would not receive any additional funding to cover the costs associated with the space.
3. When a department wants to a new building that the state will not fund, it has to demonstrate that it can fund the project.
4. A unit can only give up space if another unit that wants it. Unneeded space is not returned to a central university pool.

Brian Swanson proposed a program where the central administration would take space back on the assumption that it could be reassigned to another unit within a year. He felt that the demand for space was so great that this was a reasonable expectation. He also proposed that the university fund make any needed improvements while the space was unoccupied. The proposal was not accepted.

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### Space Efficiency

Minnesota is initiating a pilot program called Work+ with a unit in its Human Resources Office. Instead of assigning individual offices or cubicles, most employees in this unit will not have a set work space. They will be assigned lockers for coats, laptops, supplies, files, etc. During the day they will move from individual workstations to group workstations, and to meeting rooms as needed. Work + is modeled on General Mills' Fuse Program and is expected to use 30% less space and avoid offices being empty during part of the day when the occupants are at meetings.

## University of New Hampshire

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Tracy Boyle                      Director, Finance and Administration  
   UNH Facilities Division  
   - Responsible for RCM budget model  
   - Supports Space Allocation, Repair & Renovation Committee  
   603-862-0894  
   *(September 12, 2013 Call)*

David T. Clark                      Space Utilization Specialist  
   Campus Planning Department  
   603-862-0161  
   *(September 12, 2013 Call)*

### Background Information on the University of New Hampshire:

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Enrollment (Fall 2012)	Undergraduate	12,000
	Undergraduate	2,500
	Total	14,500

Physical Plant	GSF:	5.75 million 60,000 of leased space
	Buildings:	350 total 180 are over 2,000 GSF Only 95 are considered to be major Accommodate 55% of their students

### RCM Status

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The University of New Hampshire switched to a RCM budget model in 2003 (?).

### RCM Impact on Space Utilization

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1. When the RCM budget model was implemented there was an initial return of space to the University. Some of this space was not in very good condition.
2. Since the initial round of returns, the amount of space returns has diminished.
3. Rarely does anyone turn space down.
4. One college is in financial trouble due to faculty and space costs.

### Space Return Guidelines

- 1) Units will be able to give up space at any point during the year and receive financial relief after SARRC approval **if** there is another unit willing to acquire the space.

Once SARRC gives its approval, expenses will shift from one unit to the other.

This transfer of expenses will be negotiated and processed at the BSC level; the current facilities allocation will not be modified.

- 2) Units will be able to give up “usable” space (space that can realistically be used by another unit) when there are no units identified to acquire the space, subject to SARRC approval.

In these cases, the unit would receive reduced NSF costs in the following fiscal year.

Unassigned space changes must be submitted to SARRC by January 31 for cost reduction consideration for the following year.

All costs for unassigned space will be absorbed by all units through the NSF rate as the costs to maintain that space remains.

- 3) In the event SARRC must obtain space from units for purposes of Facilities “swing” space (space needed on a temporary or permanent basis to accommodate construction projects), the unit providing the space would reduce its net square footage costs for that period of time.

## **7. Governance Structure**

- A. Space Allocation, Adaption and Renewal Committee (SAARC).** It is a standing presidential advisory committee.

**General Charge:** Oversee development, assignment, and stewardship of all University buildings, grounds, roads, and related infrastructure.

### **Specific Responsibilities:**

1. Campus Master Plan, Semi-Annual Five Year Capital Project Plan Update and Annual Capital Project Budget: Oversees implementation of the campus master plan. Approves Five Year Capital Project Plan updates and annual Capital Project Budgets. These plans include projects anticipated to cost in excess of \$2 million.
2. Space: Approves reassignment of spaces between Responsibility Center Units and any changes in functional use or repurposing of any space regardless of to whom the space is assigned.
  - a. Assignment and reassignments of space contained within a functional unit, and any attendant costs, is the responsibility of the administrator of that unit.
3. Leases: Reviews proposals to either out-lease University-owned space or in-lease space where the total expense or revenue of lease over the lease term exceeds \$50,000.
  - a. It may reassign other existing space to meet University needs or may direct that excess space be reassigned from one unit to another in lieu of leasing.
  - b. Leasing decisions are delegated to the Cooperative Extension for field offices, UNH Manchester and Facilities for Cell Phone systems.
4. Annual Renewal and Adaption (R&A) Fund: Manages the fund to sustain and improve the E&G campus and general campus infrastructure. The guidelines for the funds use are:
  - a. major repairs or replacements of systems and components to extend the life and/or restore systems to their intended function
  - b. compliance with externally imposed codes and requirements including life safety, building codes, ADA and environmental requirements;
  - c. adapt buildings and campus infrastructure to meet the institution’s evolving needs and standards including those that incorporate new technology or support new faculty/staff, classroom changes, or changes in disciplines or curricula.
  - d. preparation of master plans and similar studies
  - e. repayment of internal borrowing authorized for a project.
  - f. new construction



## Major Request Types:

Major Maintenance and Renewal: The AVP for Facilities is responsible for the annual preparation of a list of identified major maintenance and renewal needs necessary to address deficiencies in existing E&G facilities, systems and infrastructure. SAARC assigns R&A funds to address the highest priority needs.

Strategic Improvements: The AVP for Facilities is responsible for the annual preparation of a list of upgrades, alterations or improvements to E&G facilities, systems and infrastructure that will enhance the built environment so as to better support the teaching, research and public outreach missions. SAARC reviews the list and may authorize the use of R&A funds to address high priority needs.

Targeted Investments: SAARC may target specific investment of R&A funds to achieve designated purposes and may delegate responsibility for managing such funds to an appropriate campus official. An example includes funds to address Environmental Health and Safety issues. Management would be assigned to the EHS Director.

Unit Requests: E&G units may bring specific facility deficiency needs to SAARC via their respective VP for consideration and potential R&A funding. Such requests will first be reviewed by the AVP Facilities and the Facilities staff will assist the units by preparing supporting project scope development and cost estimates. All requests should be accompanied by:

- a) construction cost estimates
- b) identified sources of funds
- c) the amount of funds requested
- d) linkage to the Campus Strategic Plan or Master Plan as may be appropriate.
- e) any incremental operating costs to be incurred, inclusive of energy, maintenance, grounds and or housekeeping, are also to be identified.

5. Auxiliary Enterprise Units Oversight: Responsible for the stewardship of facilities managed by auxiliary enterprise units. The VPFA and the VPSA submit annual summaries of the condition of the auxiliary facilities for which they are responsible including the identified deferred maintenance and the major maintenance and repair projects planned for the upcoming year. Ordinary maintenance of buildings and related equipment is generally the responsibility of the Facilities Division.

6. Reporting:

- a. Provide an annual summary of committee activities to the President after the close of each fiscal year.
- b. Provide annual submissions to Trustees of a report summarizing R&A spending and the estimated deferred maintenance metrics and trends for the campus.

## Committee Membership

- 1. Vice President for Finance and Administration (Chair)
- 2. Provost and Vice President for Academic Affairs
- 3. Senior Vice Provost for Research
- 4. Vice President for Student and Academic Services
- 5. UNH Foundation President & Vice President for Advancement

6. Chief of Staff, President's Office
7. Director of Athletics

Ex Officio Non-Voting

1. Faculty Senate Representative
2. Dean's Council Representative
3. Student Senate Representative
4. Graduate Student Organization Representative
5. Associate Vice President for Facilities
6. Associate Vice President for Business Affairs

**B. Real Property Acquisitions and Disposals (RPAD):** Advises the President on the acquisition (by purchase or philanthropy) and / or disposal real property. Of the ten committee members, five are also on the Space Allocation, Adaption and Renewal Committee (SAARC).

1. Vice President for Finance and Administration (Chair) (SAARC)
2. Provost and Vice President for Academic Affairs (SAARC)
3. Associate Vice President for Facilities (SAARC)
4. President of the University of New Hampshire Foundation (SAARC)
5. Chief Sustainability Office of the UNH Sustainability Academy
6. Dean of the College of Life Sciences and Agriculture
7. Chief of Staff, President's Office (SAARC)
8. Chair of the Advisory Committee on Land and Property Use
9. Faculty Senate Planning Committee Representative
10. Town of Durham Director of Planning

**8. Space Request Procedures:**

1. RC units wishing to relinquish/acquire space will prepare a Space Transfer Request Form and submit it to the Space Management team in Facilities.

This will include a description of the space they intend to relinquish or specifying the amount of space (NSF) required and the type of space (lab, office, etc.) desired.

- a. A description of the space(s) involved (e.g. building name and room numbers)
  - b. A description of the proposed uses for those spaces
  - c. A description of the relevance of the transfer to University goals, as described in the Academic Plan and the Campus Master Plan
  - d. A quantitative and programmatic justification of the space that is needed
  - e. Explanation of how the transfers will increase the efficiency of utilization and quality of programs; should reference the unit's three-year space utilization and needs plan
  - f. A projected budget for the costs of occupying and renovating the space, including fund source and the estimated on-going facilities charges for the acquired space
  - g. A unit relinquishing space may have identified a potential new user of the space.
2. The Facilities Business Service Center will validate the details of the request and forward it to SARRC which will review and consider the request for approval.

SARRC evaluates requests based on condition of, potential use of, and access to the space.

3. If approved by SARRC, Facilities Business Service Center will be notified and will update the space file to reflect the change.
4. Facilities Business Service Center will notify the RC unit of the change.
5. If not approved by SARRC, Facilities Business Service Center will be notified of the reasons why and in turn notify the RC unit.

### **Space Inventory System and Process**

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1. Space Management reports to the VP for Finance and Administration. Institutional research reports to the provost
2. Database and space management program. Maintained by three staffers split between IT group who maintains the database, drawing updates (Campus Planning), and space management (Campus Planning). Understaffed.
  - a. Departments are responsible for updating the space information through self-service features.  
  
The RCM program requires annual space updates. It begins in the fall and is to be fully completed prior to January 31st for submission to SARRC. This process includes the preparation of an annual Space Utilization and Needs Planning report. This is coordinated by Campus Planning and the Facilities BSC through the business service centers of each RC Unit
  - b. VPFA group does a complete update every five years.
  - c. Information is used by schools, business service center, Facilities, and Finance and Administration.
3. Administration oversees space utilization. Provost oversees classroom utilization.
4. Vacant Space is categorized as useable and non-useable.
5. A swing space inventory is maintained.

### **University of Southern California**

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Evelyn Alva  
 Manager  
 Space Management  
 Financial & Business Services  
 213-821-2110  
*(August 8, 2013 Call)*

### **Background Information on the University of Southern California**

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Enrollment (2012 – 2013 Academic Year)	Undergraduate	18,000
	Undergraduate	22,000
	Total	40,000

### **RCM Status**

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The University of Southern California adopted the RCM budget model in the mid-1980s.

The RCM program charges units for space. Costs include building costs, maintenance costs, etc. Charges vary by building, and are based on net useable space.

## **Impact of RCM on Space Utilization**

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Evelyn Alva, who has been with the University, indicated that space is tight at the university and that units rarely relinquish space. When asked about space utilization, she guessed that less than 10% of the university's space is underutilized.

## **Space Planning and Management**

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**1. Space Planning and Management Policy:** The University has a Space Planning and Management Policy that addresses:

- b. Eight Space Planning Principles
- c. Discussion for Space Planning and Management (General Guidelines)
- d. Procedures for the Allocation of Space
- e. Guidelines for Space Needs Analysis, Assignment and Problem Resolution
- f. Procedures for Conduction a Space Audit

**2. Principles of Space Planning:** The University of Southern California developed eight space allocation principles in order to assess whether campus facilities are being used most efficiently and economically. The principles are interrelated and should be considered together.

- 1. Space is owned by the Trustees and allocation decisions are ultimately the President's responsibility.
- 2. Donor restrictions on space usage will be honored.
- 3. Academic activities, classrooms and research space, have priority over administrative activities such as offices.
- 4. Space assignments that save money, enhance revenues or encourage interdisciplinary interaction will be given priority.
- 5. Offices with high traffic from students, faculty or staff will be located as centrally and conveniently as possible.
- 6. Space allocations that satisfy long-range plans take precedence over more temporary accommodations.
- 7. Synergistic or like activities should be housed in proximity.
- 8. The right to manage academic and administrative space is reserved to the Provost and Senior Vice President for Finance to assure that the university fully maximizes its resources in providing top quality academic services to its students and a positive and productive working environment for its faculty and staff.

Space assignments will be reviewed periodically to determine how well current usage serves a dynamic set of university needs and priorities.

## **3. General Space Guidelines:**

- 9. Vice presidents, deans and directors are responsible for managing the space occupied by activities under their control, just as they are responsible for the management of staff and fiscal resources. Space administration may include redistributing, exchanging or improving space.
- 10. As long as university offices are housed in off-campus leased space, there is potential saving in better use of on campus facilities. Units should not stockpile unused or underutilized space, nor may they unilaterally lease it to another department.

11. As schools, departments, and administrative units identify space in excess of current needs (either through program expansion, reduction or redirection), they will relinquish such unused space back into the university's general space pool for reassignment.
12. As space is returned for reassignment, the indirect costs associated with it will be assigned to the new occupant. Space costs for mid-year adjustments in space assignments will be determined by the Office of Budget and Planning.
13. Units may return unused space or request needed space on an ongoing basis. Underutilized space will be considered in the resolution of space needs.
14. Although space may be returned whenever it is available, the annual space survey conducted by Financial Services will assist units in identifying unused or underutilized space each year.
15. The reallocation and potential renovation of vacated space will be coordinated through the Division of Business Affairs.
16. Space needs and the associated costs of space will be continuously reviewed by the Provost and Senior Vice President for Administration. Space needs will be analyzed in the context of:
  - a. Campus-wide priorities and applicable long-range space plans,
  - b. Program type (for example, institutional and non-institutional),
  - c. Type of space required (for example, office, storage or laboratory),
  - d. Length of need (temporary vs. permanent),
  - e. Ability of the unit to pay for the space, and
  - f. Interaction factors and the need for contiguous support facilities, or access to campus operations.

**6. Process Oversight:** The process for space requests is managed by the Space Management Office.

**7. Governance:** There is a University Committee on Space Planning, which according to the policy, is convened by the Provost and the Senior Vice President for Administration. The committee is to include representatives from the offices of Administration, Financial and Business Services, Budget and Planning, and the Provost.

In reality, space decisions have been delegated to an associate provost and an assistant vice president. They meet every two weeks. While they work together, the vice president tends to defer to the provost on academic matters and the provost tends to defer to the vice president on administrative matters. Representatives from the other offices provide supporting materials as needed.

## **8. Space Request Procedures and Forms:**

7. Requests for new or changed space must be submitted by the appropriate Dean or vice president in written form to the University Committee on Space Planning in care of the Associate Vice President for Administrative Services at least three months prior to the actual space being needed.
8. Requests must include an internal space audit that verifies that adequate space does not exist within the resources already available to the school, program or department.

- a. This audit must be rigorous and must include shared space, storage space, etc. If you require help to complete the audit, contact the Associate Vice President for Administrative Services.
9. Justification for the space requested must accompany the audit.
  - a. It must include information about the new or expanded program that requires the space, the schedule, whether the requested space is temporary or permanent and funding for additional space.
10. When a new building comes on line, justification needs to include release or reallocation of existing space.
11. Pro forma space adjustments of 500 sq. ft. or less will be handled in an expedited manner.

### **Space Audit Procedures**

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A detailed inventory of the department or division's space may be requested from Space Management.

1. This will include room use and the type of activity associated with the room as well as net square feet totals and occupants.
2. The department or division should perform a physical walk through of its space to make sure all current space is being fully utilized.
3. If the department or division needs assistance in performing the space audit, please call the Associate Vice President, Administrative Services who will arrange for a physical review of the space by her office and/or the Space Management Office.
4. Forward the results of the space audit with a detailed description of the department/division's space needs to the department/division's dean or vice president for approval prior to the request being forwarded to the Associate Vice President, Administrative Services.
5. Due to the shortage of space on campus, we may suggest the sharing of facilities or the reallocation of storage as an alternative to the allocation of new space.

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### **University of Toronto**

Sally Garner	Executive Director, Planning and Budget - Responsible for RCM program 416-978-2819 <i>(September 11, 2013 Call)</i>
Gail Milgrom	Assistant VP for Campus & Facility Planning - Responsible for space inventory, planning and approvals 416-978-6844 <i>(Margaret Robb(Gail's assistant) @ 416-978-5515)</i> <i>(September 18, 2013 Call)</i>
Steven Bailey	Director of Space Management <i>(Not contacted)</i>

## **Background Information on the University of Toronto:**

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The University has three campuses: St. George (Downtown Toronto)  
Mississauga (Western Suburbs)  
Scarborough (Eastern Suburbs)

Enrollment (Fall 2013)	Total	St. George
Undergraduate	67,339	43,000
Undergraduate	15,817	15,100
Total	83,156	58,100

Physical Plant (all 3 campuses)      GSF:      18,000,000  
Buildings:      252

## **RCM Status**

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The RCM budget model applies only to the St. George campus. The new budget model was implemented over a period of two years. The 2006/2007 fiscal year was a shadow year which had both the old and new budget models. For the 2007/2008 fiscal year, the campus was operating only under the new budget model.

Under its RCM program, academic units pay for space. Since buildings are metered utility charges are based on actual costs. Maintenance charges are based on an average campus cost. Utility savings are returned to the units.

## **Impact of RCM on Space**

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Comments by Sally Garner:

1. With onset of RCM, the university's 16 faculties (schools) monitor space very closely trying to eliminate inefficiencies, such as faculty having multiple offices.
2. When the program was first instituted, there was an initial wave of spaces being return to the central administration.
3. Ms. Garner attributes part of the intense scrutiny to two factors:
  - a. Construction costs for new buildings are high because of the university's location (urban and heritage zone).
  - b. Funding is tight. The Province of Ontario is running budget deficits and has cut higher education funding. For example, the university currently has to look to other fund sources for new construction projects.
4. Ms. Garner assumes that if funding was not so tight schools would not be as diligent in monitoring space utilization.

Comments by Gail Milgrom:

1. Faculties that have sufficient funding tend to hold on to space. The Faculty of Forestry which is in a budget crunch, is giving up space.
2. New buildings requests must include an O&M component.
3. RCM has not resulted in a significant increase in shared space between faculties. There is some existing space that is shared, and some new projects have shared space.
4. The recent improved space utilization efficiency by the Faculty of Medicine where it saw a 14% reduction in its space per FTE was due in large part to the fact that it moved from

two old buildings that did not have efficient layouts into a new building which has an efficient layout. But Gail believes that RCM helped keep the size of the new building in check since the Faculty was aware of the cost of space that it would have to pay for.

Comments by Ron Swail (*Assistant Vice President Facilities and Services*) - March 3, 2011  
Report - Review of The New Budget Model, (3 year review)

1. “Many schools have come to us asking how they can support reducing occupancy costs in their buildings and are extremely supportive of initiatives F&S has taken to reduce cost.”
2. “Capital Projects: we see a broad acceptance of planning for the most energy efficient standards for new buildings.” “This fundamental change has been pushed by Facilities and Services and the Real Estate Office for some time, but the new (budget) model provides divisions with incentives to creating buildings which are energy efficient, in turn reducing costs for the academic divisions.

### **Space Planning and Management**

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**1. Space Planning and Management Policy:** The University’s Governing Council has a policy that covers capital projects and space.

**4. Specific Space Policies:** The University has space policies for the assignment and use of academic offices, and permanent accommodations.

**5. Space Return Guidelines:** The RCM program allow units to return buildings and rooms to the Central University, but the space needs to be in good condition and useable for other functions.

When space is being released, the unit is to ensure that it is unoccupied and empty of furniture and equipment.

When appropriate, an Environmental Health and Safety assessment should be submitted to CaPS.

**6. Process Oversight:** The process for space and lease requests is managed by the Office of University Planning, Design, & Construction.

**7. Governance:** Responsibility for capital projects and space decisions is divided between:

- 1) Vice President University Operations
- 2) Capital Projects and Space Allocation Committee (CaPS),
- 3) Executive Committee of the Capital Projects and Space Allocation Committee
- 4) Planning and Budget, Academic Board, and Business Board of the University’s Governing Council.

Capital projects are defined as:

- (a) a new building
- (b) building alterations
- (c) infrastructure investment that involves more than system improvements, e.g.
  - space reorganization, expansion or conversion to new uses
  - Significant open space projects



VP University Operations: Space related duties include recommendation to the appropriate Boards and Committees of Governing Council for consideration and approval major reallocations of facilities or the purchase or sale of campus properties

Capital Projects and Space Allocation Committee (CaPS): Space related duties include review and assess all applications for space allocations, reorganization or change of use. Its specific space responsibilities are:

1. Reviews and approves all space allocations and changes of use. Reviews policy, proposals and priorities for allocation and management of space
2. Reviews policies and rate schedules for the commercial and other third party use of University space and facilities on the St. George Campus.
3. Reviews proposals, procedures, and systems for maintaining space inventories.

CaPS meets on a monthly basis from September to June and can approve projects with summer executive authority. Its membership consists of:

1. Director, Campus and Facilities Planning (Chair), or as designated by the Vice President, University Operations)
2. Director, Project Management
3. Associate Director, Project Management
4. Director, Design and Engineering
5. Director, Project Development
6. Director Utilities, Facilities and Services
7. Director Property Management, Facilities and Services
8. Director Environmental Health and Safety
9. Manager Ancillary and Capital Accounting
10. Senior Manager, Budget Administration and Institutional Planning, Planning and Budget Office
11. Director, Ancillary Services
12. Director Office of Space Management
13. Director Enterprise Infrastructure Solutions, Information & Technology Services
14. Director Institutional Initiatives, Research Services
15. Chief Administrative Officer, OISE/UT
16. Director Planning and Infrastructure, Faculty of Arts and Science
17. Director Facilities Management and Space Planning, Faculty of Medicine
18. Director Planning and Infrastructure, Faculty of Applied Science & Engineering
19. Chief Administrative Officer, Faculty of Kinesiology and Physical Education
20. Manager, Capital Projects, Rotman School of Management

Executive Secretary: Business Officer, Campus and Facilities Planning  
Representative from an unrepresented Faculty (School) with a CaPS application

Executive Committee - CaPS responsibilities focus on capital projects. It meets monthly or as required. Its membership is composed of the institutional offices responsible for the financing, planning, implementation and maintenance of facilities, as well as, the appropriate academic and divisional representation.

1. Assistant Vice President, University Planning, Design and Construction (Chair), (or as designated by the Vice President, University Operations)
2. Vice-Provost, Academic Programs
3. Assistant Vice President, Facilities and Services
4. Director, Campus and Facilities Planning

5. Director, Project Management
6. Director, Project Development
7. Executive Director, Planning and Budget
8. Chief Financial Officer
9. Executive Secretary: Business Officer, Campus and Facilities Planning
10. Dean of Faculty, or designate, as required
11. Principal, UTM, or designate, as required
12. Principal, UTSC, or designate as required

Planning and Budget, Academic Board, and Business Board of the University's Governing Council responsibilities focus on capital projects.

**8. Space Request Procedures and Forms:** The process for space and lease requests is managed by the Office of University Planning, Design, & Construction. There is a form for requesting additional space from the Central University, for requesting that unit space be returned to the Central University, for requesting the leasing of off campus space and for the leasing of University space to an external client. There is also a form for the change of use.

### **Space Standards**

The University uses the standards established by the Council of Ontario Universities as the basis for its space standards.

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### **Jones Lang LaSalle**

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Scot Latimer	Managing Director (Capital Asset Strategies)
Tim Eachus	Regional Director
Angie Earlywine	Vice President (Workplace Strategy)
Michael Tiemann	Regional Oversight Manager (Occupancy Planning)
Blake Layda	Managing Director (Life Sciences)
	303-808-0012
	<i>(October 17, 2013 Call)</i>

### **Notes**

The firm conducted a study of 11 corporations that looked at methods of allocating space, measuring workplace performance and charging for space. The companies consisted of a consumer products company, global finances companies, national financial services companies, industrial goods companies, a healthcare company, a life sciences company, and global technology companies.

7 of the 11 companies have space charges.

The decision to charge for space was based on a number of key factors:

1. How important is control and ownership of real estate?
2. How are finances managed within the organization?
3. What is the organization's tolerance for equitability?
4. How important is it to be able to determine who pays for vacant space?
5. Is real estate seen as a strategic asset or a tactical commodity?

Some of the identified advantages of a chargeback system are:

1. Business units are incentivized to maximize the use of their space.

2. Ability to proactively plan for space on an annual or semi-annual basis.
3. Charging for space uncovers useful occupancy information
4. Vacant space can be reduced.
5. Ability to have a “birds-eye” view of the entire portfolio and to align space surpluses and deficits.

Some of the identified disadvantages were:

1. The resources needed to maintain the program
2. Maintaining the chargeback system may distract the real estate and facilities team from more strategically focused activities.
3. Departments may be willing to pay for vacant space on the assumption that they may eventually need it and can avoid having to go through a central unit to get it.
4. It is easier to enact workplace changes when space is owned by the central versus a department that may feel entitled since it is paying for the space it occupies.

### **Microsoft**

Brian Collins	Director of Global Workplace Strategies (GWS) <i>(November 1, 2013 Call)</i>  Responsible for programming, space design, space planning, and space inventory. Has a staff of about 100 people.
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#### **Background Data**

Managed Space:	34,000,000 SF world wide 12,000,000 SF in Puget Sound
Number of Facilities:	525 (primarily leased except for Puget Sound, UK, & India)
Average Number of Occupants:	96,000 Employees <u>24,000 Visitors</u> 120,000 Total

### **Space Planning**

Space needs are driven by employee headcount and number of client visits. Microsoft considers:

Peak Headcount  
 Program Headcount  
 Unassigned Seating (1)

- (2) It is expected that units will have a certain amount of vacant space.

GWS works with the business units to determine future space needs based on their hiring plans. GWS check with the Finance Office to verify that the hiring plans have been approved.

GWS look for trends in terms of a unit’s space growth or decline, and tries to keep up with what is changing - conventional knowledge and unconventional knowledge.

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## Space Planning Guidelines

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Microsoft has different space targets depending on nature of a business units work and company goals.

For research and development staff, Microsoft provides each employee with a workstation because it wants to encourage face-to-face collaboration between researchers and developers.

For sales and marketing staff, Microsoft may only provide 1 workstation for every 1 ½ to 4 employees on the assumption that these individuals are frequently out of the office

Space efficiency is balanced with the understanding that the space must effectively support productivity. The goal is to create good space that is efficient and functional.

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## Sample Space Standards

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**Office / Workstation Standards:** These include per square foot space standards and standard furnishings.

Space Standards: The office / workstation target for square feet varies by business unit.

For research and development staff, it is 160 SF per seat. This includes all support space, such as conference, café, and circulation space. 88% to 92% of the space falls in this range, but have gone as low as a 140 -145 square foot range.

For sales and marketing staff, the target is in the 120 to 130 SF range. In some case it can be in the 80 to 90 range assuming the sharing of desks.

Some of the “legacy” space is in the 200 to 220 SF range.

Furnishing: Microsoft has 8 different desk types.

**Research Standards:** Research space is built from the bottom up using a kit of parts. For example, the standard size for a phone room for confidential calls is 6 x 9 feet.

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## Space Utilization Metrics and Assessments

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The basic metric is the average number of staff to the number of workstations over a 3 month period.

Microsoft conducts biennial headcounts that are compared to the approved staffing plans.

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## Space Governance

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Space decisions are made by a Steering Committee comprised of senior Microsoft leaders that represent the stakeholders and have the authority to make decisions. GWS supports this committee by providing space recommendations.

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## Space Data Base

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Microsoft maintains a central repository of floor plans; kept up to date by 6 +/-people.

Space data base links floors plans with occupants.

GWS has not linked 3d visualization with space data, but does use 3d modeling for space planning.

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## Space Costs

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Units pay for space.

Microsoft's business model acknowledges that some groups drive revenue and that others, such as administrative units, do not.

Microsoft also acknowledges that some "potential" revenue drivers, such as incubator projects, may not be in a position to pay for their space and need to be subsidized.

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#### **Space Resources** (Two Space Websites recommended by Brian)

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LinkedIn WORKPLACE EVOLUTIONARIES ("WE"): The website describes this as a global workplace community focused on increasing WorkPlace Innovation & Consciousness

Occupiers Journal: Its **aim** is to generate discussion and to share useful material and advice for and about the world of *occupiers* – the users of real estate (property) and workplace/facilities. The **Occupiers' focus** is on operational efficiency and effectiveness.

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#### **Post Occupancy Evaluation Surveys**

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These are conducted 6 months after occupancy, and typically consist of 36 to 38 questions. They try to determine workspace satisfaction, availability of space, convenience of space, customer impression, etc. They also include subjective questions to determine a project's impact on individual effectiveness and team work (informal and formal collaboration). Temperature and noise are issues that Microsoft pays particular attention and uses the surveys to assess their success. Surveys include open ended questions.

## Appendix C

### Composition of RCM Charges by Institution

**Cornell:** Charges for space, but we don't have a breakdown of the charges.

**Duke:** Schools are charged for space. Charges include:

1. O&M (SF basis)
2. utility costs
3. building renewal (major maintenance) (SF basis)
4. debt service (if applicable)

**University of Michigan:** Activity based units, those entities that have identified sources of revenue, are charged for space. Charges include:

1. O&M costs were set approximately 15 years ago on a building-by-building basis. These costs have been escalated for inflation. They cover building costs, landscape costs, Facilities Management overhead costs, etc.
2. Utility costs are based on actual costs.
3. The renewal fee is based on a cost of \$2.70 per assignable square feet (1).  
(1) The Provost Office oversees the use of these funds (\$90M +/- annually). The Office uses Facilities Condition Index data from Facilities Management to help with the allocation. Support of institutional needs and objectives are major allocation factors.

**University of Minnesota:** Charges for space. Charge includes:

Debt*	(prorated on a SF basis)
Actual Utility Costs	(prorated on a SF basis)
O&M Costs	(prorated on a SF basis using a campus average/SF costs)

\* *If a facility was built with debt that is not supported by the state*

**New Hampshire:** Space charges are assigned on a net-assignable square foot basis and include:

1. Facilities Operation and Maintenance (*management, supervision, housekeeping, grounds, etc.*)
2. Utility and Energy System Operation and Maintenance
3. Facilities Asset Management (*capital project development, condition assessment, major repair and renovation planning*)
4. Repair and Renovation Fund

**Toronto:** Charges for space. Utility and caretaking (housekeeping) costs are charged on a per building basis with utility charges based on actual metering. Regular and deferred maintenance costs are based on the wide campus cost on a SF basis.

**USC:** Costs include building costs, utility, maintenance costs, etc. Charges vary by building and location, and are based on net useable space.

**Jones Lang LaSalle:** This firm's study of 11 corporations looked at methods of allocating space, measuring workplace performance and charging for space. The firms consisted of a consumer products company, global finances companies, national financial services companies, industrial goods companies, a healthcare company, a life sciences company, and global technology companies. 7 of the 11 companies have space charges

**Microsoft:** Units pay for space. Microsoft's business model acknowledges that some groups drive revenue and that others, such as administrative units, do not.

Microsoft also acknowledges that some "potential" revenue drivers, such as incubator projects, may not be in a position to pay for their space and need to be subsidized.

## **Appendix D**

### **Space Governance by Institution** (Charge and Structure)

#### **Cornell**

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**Charge:** The University has a Space Use Advisory Committee (SUAC); it has been in existence for 3 years. It is the approving authority for the allocation process for all space except dorms. It approves leases and swing space. It does not deal with a school's internal space changes.

The Vice President for Planning & Budget charged the Committee with developing policies, procedures and other recommendations concerning:

- 1) use and renovation of space
- 2) allocation of existing space
- 3) planning for future allocation needs.

SUAC makes recommendations on University space allocations, including off-campus leased space. The Committee is to:

- 1) Develop space management principles to provide a framework for:
  - a. allocate space
  - b. plan for future space needs of the organization, and
  - c. manage Cornell space effectively and efficiently.
- 2) Recommend a process for the reallocation of space and develop supporting MOU templates and procedures.
- 3) Revise Policy 2.7, Reporting the Use of Facilities.
- 4) Update space guidelines to reflect best practices in higher education related to the size of spaces, utilization rates, and building/space type efficiencies.
- 5) Develop procedures that require accountability to space guidelines for capital projects that create new space or change use of existing space.
- 6) Develop procedures that require units to update space plans during the annual capital plan development process.
- 7) Develop standard reports to enhance transparency and consistency.
- 8) Recommend improvements to the facilities inventory system and evolution toward a space management system.
- 9) Advise Director of Space Planning, Manager of Facilities Inventory, Manager of Indirect Cost and others with regard to interpretation of policies.
- 10) Serve as the executive group for space utilization studies providing uniformity in approach and interpretation.
- 11) Develop mechanisms to share best practices within Cornell, with academic peers and within professional organizations.

#### **Membership:**

1. Vice-Provost for Undergraduate Education
2. Senior Vice Provost for Research and Vice President for Technology Transfer, Intellectual Property & Research Policy

3. Direct of Space Planning, Budget & Planning (Office of the Provost)
4. Assistant Vice President and Budget Director, Budget and Planning
5. University Architect & Senior Director for Capital Projects & Planning; Facility Services
6. Director of Real Estate, Facility Services
7. Vice President for Student and Academic Services
8. Vice President for Human Resources and Safety Services
9. Associate Dean for Student Services, Graduate School

### Meeting Schedule:

<u>Meeting Dates</u>	<u>Deadline for Space Requests</u>
September 9, 2013	September 2, 2013
October 14, 2013	October 7, 2013
November 12, 2013	November 5, 2013
December 9, 2013	December 2, 2013
January 13, 2014	January 6, 2014
February 10, 2014	February 3, 2014
March 10, 2014	March 3, 2014
April 7, 2014	March 31, 2014
May 5, 2014	April 28, 2014
June 2, 2014	May 26, 2014

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## Dartmouth

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**Governance:** The College is moving towards a formal space management process, which will be implemented after the new president develops a new long term strategy. The following governance structure was developed after discussions with a number of institutions, such as Michigan, Auburn, and Harvard.

The governance structure is led by an executive committee that oversees the College's space and capital programs. It is supported by two sub-committees: a Planning Subcommittee (capital projects) and a Space Management Subcommittee.

Continuity between the committee is maintained by the Director of Campus Planning and a representative from the Provost Office. These individuals serve on all three committees.

### **Executive Committee** (*Space and Capital Issues*)

1. Provost (*Chair*)
2. Representative from the president's office
3. Executive Vice President
4. Senior Vice President, Advancement
5. Vice President for Campus Planning and Facilities
6. **Director of Campus Planning** (*Secretary*)
7. Dean of the Faculty
8. Dean of the College



9. Deans of all the professional Schools
10. Dean of Graduate Studies
11. **Provost Office representative**

**Other Potential Members**

12. General Counsel
13. VP of Human Resources
14. VP of Communications
15. Chief Investment Officer
16. Athletic Director

**Planning Subcommittee** (Capital projects, site issues (lighting, walks), etc.)  
*(Prepares briefing materials for the Executive Committee)*

1. **Director of Campus Planning** (*Chair*)
2. **Provost Office representative**
3. Director of Campus Design
4. One representative from the Dean of the Faculty
5. One representative from each professional school
6. Dean of the College representative
7. DCAD representative
8. Associate Vice President, Facilities Operations and Management
9. Director of Development, Capital Projects

**Space Management Subcommittee** (Guidelines, major space requests, etc.)  
*(Prepares briefing materials for the Executive Committee)*

1. **Provost Office representative**
2. **Director of Campus Planning** (*Chair / TBD*)
3. Registrar
4. Space Planner (*Chair / TBD*)
5. Associate Dean of the Faculty (*first of three*)
6. Associate Dean of the Faculty (*second of three*)
7. Associate Dean of the Faculty (*third of three*)
8. Associate Dean representing each professional school

## Duke

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Duke has two space committees – a “Senior Space Committee” and an Academic Space Planning Committee. The Senior Space Committee has the final say on academic, administrative and student services space issues. It does not deal with the School of Medicine, School of Nursing, or Medical Center. All space requests go to the committee.

While the EVP looks to the Provost to take the lead on academic issues, the final decision rests with the EVP.

The committee meets monthly and sometimes twice a month.

The committee membership consists of:

- a. Executive Vice President
- b. Provost
- c. Facilities Management Vice President
- d. Provost Representative
- e. Assistant Director of Planning and Design

Academic Space Planning Committee is comprised of the deans. It meets quarterly. It is used to inform the deans of the space decisions made by the Senior Space Committee.

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### University of Michigan

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The University of Michigan does not have a university-wide space planning or management committee. The Provost Office handles space funded by state general funds, which includes academic, research and administrative space. Medical Center, Athletics, and Auxiliaries manage their own space.

The Provost Office does not have a space committee. Requests for new space and swing space are under the purview of the Assistant Provost of Space Management, who has been delegated the authority to resolve space assignments. This is done in consultation with the requesting units.

If a space need cannot be met from existing space, the Provost Office approves the option of leasing space and refers the requesting unit to the Real Estate Office.

Schools and colleges control their own space and handle space transfers between their departments and units.

The Provost Office serves as the clearing house and approval authority for space requests and for space transfers between the University's school and colleges. This role enables it to understand the overall space needs and space availabilities and to make sure that space transfers between the schools and colleges are in the best interest of the University.

When a school or college wants to give up space, the Provost helps find another "tenant," but the unit is responsible for the space costs until a new tenant is found.

The Provost Office does not take space back space or maintain a pool of space for swing space.

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### University of New Hampshire

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**Charge:** The University has a Space Allocation, Adaption and Renewal Committee (SAARC). It is a standing presidential advisory committee. The committee meets bi-weekly and is supported by the Director of Finance and Administration in the Facilities Division.

Its charge is to oversee development, assignment, and stewardship of all University buildings, grounds, roads, and related infrastructure. Specific Responsibilities include:

1. Implementation of the Campus Master Plan, Approval of the Semi-Annual Five Year Capital Project Plan Update, and Approval of the Annual Capital Project Budget: These plans include projects anticipated to cost in excess of \$2 million.
2. Space: Approves reassignment of spaces between Responsibility Center Units and any changes in functional use or repurposing of any space regardless of to whom the space is assigned.
  - a. Assignment and reassignments of space contained within a functional unit, and any attendant costs, is the responsibility of the administrator of that unit.
3. Leases: Reviews proposals to either out-lease University-owned space or in-lease space where the total expense or revenue of lease over the lease term exceeds \$50,000.
  - a. It may reassign other existing space to meet University needs or may direct that excess space be reassigned from one unit to another in lieu of leasing.
4. Annual Renewal and Adaption (R&A) Fund: Manages the fund to sustain and improve the E&G campus and general campus infrastructure. The guidelines for the funds use are:
  - a. major repairs or replacements of systems and components to extend the life and/or restore systems to their intended function
  - b. compliance with externally imposed codes and requirements including life safety, building codes, ADA and environmental requirements;
  - c. adapt buildings and campus infrastructure to meet the institution's evolving needs and standards including those that incorporate new technology or support new faculty/staff, classroom changes, or changes in disciplines or curricula.
  - d. preparation of master plans and similar studies
  - e. repayment of internal borrowing authorized for a project.
  - f. new construction

Major Request Types:

Major Maintenance and Renewal: The AVP for Facilities is responsible for the annual preparation of a list of identified major maintenance and renewal needs necessary to address deficiencies in existing E&G facilities, systems and infrastructure. SAARC assigns R&A funds to address the highest priority needs.

Strategic Improvements: The AVP for Facilities is responsible for the annual preparation of a list of upgrades, alterations or improvements to E&G facilities, systems and infrastructure that will enhance the built environment so as to better support the teaching, research and public outreach missions. SAARC reviews the list and may authorize the use of R&A funds to address high priority needs.

Targeted Investments: SAARC may target specific investment of R&A funds to achieve designated purposes and may delegate responsibility for managing such funds to an appropriate campus official. An example includes funds to address Environmental Health and Safety issues. Management would be assigned to the EHS Director.

Unit Requests: E&G units may bring specific facility deficiency needs to SAARC via their respective VP for consideration and potential R&A funding. Such requests will first be reviewed by the AVP Facilities and the Facilities staff will assist the units by preparing supporting project scope development and cost estimates. All requests should be accompanied by:

- f) construction cost estimates
  - g) identified sources of funds
  - h) the amount of funds requested
  - i) linkage to the Campus Strategic Plan or Master Plan as may be appropriate.
  - j) any incremental operating costs to be incurred, inclusive of energy, maintenance, grounds and or housekeeping, are also to be identified.
5. Auxiliary Enterprise Units Oversight: Responsible for the stewardship of facilities managed by auxiliary enterprise units. The VPFA and the VPSA submit annual summaries of the condition of the auxiliary facilities for which they are responsible including the identified deferred maintenance and the major maintenance and repair projects planned for the upcoming year. Ordinary maintenance of buildings and related equipment is generally the responsibility of the Facilities Division.

The Committee Membership consists of:

- 1. Vice President for Finance and Administration (Chair)
- 2. Provost and Vice President for Academic Affairs
- 3. Senior Vice Provost for Research
- 4. Vice President for Student and Academic Services
- 5. UNH Foundation President & Vice President for Advancement
- 6. Chief of Staff, President's Office
- 7. Director of Athletics
- Ex Officio Non-Voting
- 8. Faculty Senate Representative
- 9. Dean's Council Representative
- 10. Student Senate Representative
- 11. Graduate Student Organization Representative
- 12. Associate Vice President for Facilities
- 13. Associate Vice President for Business Affairs

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## University of Southern California

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**Governance:** The University has a University Committee on Space Planning. Its membership includes:

- 1. Provost (Co-Chair)
- 2. Senior Vice President for Administration (Co-Chair)
- 3. Representative from Office of Administration

4. Representative from the Office of Financial and Business Services
5. Representative from the Office of Budget and Planning
6. Representative from the Office of the Provost.

In reality, space decisions have been delegated to an associate provost and an assistant vice president. They meet every two weeks. While they work together, the vice president tends to defer to the provost on academic matters and the provost tends to defer to the vice president on administrative matters. Representatives from the other offices provide supporting materials as needed.

## **University of Toronto**

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**Governance:** The University has a Capital Projects and Space Allocation Committee (CaPS).

### **Space Duties:**

1. Approval of space allocations and changes of use.
2. Review of policy, proposals and priorities for allocation and management of space.
3. Review of policies and rate schedules for the commercial and other third party use of University space and facilities.
4. Reviews proposals, procedures, and systems for maintaining space inventories.

### **Other Duties:**

1. Approval of new construction and renovation projects costing between \$100,000 and \$3 million (An Executive Committee approves projects over \$3 million).
2. Recommending priorities for the annual allocation of the Facilities Renewal Funds for projects costing less than \$3 million.
3. Review of the annual infrastructure renewal report.
4. Establishing criteria and setting priorities for design
5. Review of signage proposals for buildings and grounds.
6. Review of policies for filming on University premises
7. Reviewing Project Planning Reports for projects costing over \$3 million. Provides comments to the Executive Committee.

CaPS meets monthly from September to June and can approve projects with summer executive authority. Membership consists of:

1. Director, Campus and Facilities Planning (Chair), or as designated by the Vice President, University Operations)
2. Director, Project Management
3. Associate Director, Project Management
4. Director, Design and Engineering
5. Director, Project Development
6. Director Utilities, Facilities and Services
7. Director Property Management, Facilities and Services
8. Director Environmental Health and Safety
9. Manager Ancillary and Capital Accounting
10. Senior Manager, Budget Administration & Institutional Planning
11. Director, Ancillary Services

12. Director Office of Space Management
13. Director Enterprise Infrastructure Solutions, Information & Technology Services
14. Director Institutional Initiatives, Research Services
15. Chief Administrative Officer, OISE/UT
16. Director Planning and Infrastructure, Faculty of Arts and Science
17. Director Facilities Management and Space Planning, Faculty of Medicine
18. Director Planning and Infrastructure, Faculty of Applied Science & Engineering
19. Chief Administrative Officer, Faculty of Kinesiology and Physical Education
20. Manager, Capital Projects, Rotman School of Management

*Executive Secretary: Business Officer, Campus and Facilities Planning*

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### **Jones Lang LaSalle**

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The firm's white paper indicated that responsibility for final space decisions varied from firm to firm. It ranged from the executive level, to the business unit to the real estate office.

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### **Microsoft**

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Space decisions are made by a Steering Committee comprised of senior Microsoft leaders that represent the stakeholders and have the authority to make decisions.

**Appendix E**  
**Space Request Forms**  
(Cornell University and the University of Toronto)

# Cornell University

## Notice of Programmatic Space Need

Project Name: \_\_\_\_\_  
[To Be Completed by Space Planner]

*Existing, Cornell-owned space must be utilized as effectively as possible in order to support desired growth. Any endeavors that require additional space should be addressed first within a unit's current allocation, then within the unit's lead college or division. This form should be used when space in addition to current college or division holdings is required. This request will be reviewed by the Director of Space Planning and then directed to the Space Use Advisory Committee for final review and comment if warranted.*

**About this Form:** Use this form to notify the University Space Planner of an impending space need. This form should be used as soon as a potential need is identified. More detailed information may be required as the need is developed. This form starts the process.

Send the completed form and any relevant attachments to: Mary-Lynn Cummings, Director of Space Planning, 453 Day Hall or spaceplanning@cornell.edu. Call (607-255-2557) or e-mail with questions.

### Part I: Requestor/Unit Contact Information

*[Person who should serve as primary contact for Space Planner]*

Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
Department/Unit; College/Division: \_\_\_\_\_ Email: \_\_\_\_\_

### Part II: Request is for:

Check one or more below:

- ☐ Additional space to support a new or expanded activity
- ☐ Relocate to a new location
- ☐ Extension of an existing lease

Check one or more below:

- ☐ Cornell-owned, non-leased space
- ☐ Leased-space (even if Cornell-owned)
- ☐ An exchange of existing space with another college or division

### Part III: Purpose of Request

*Briefly describe the need for space and the reason your unit is requesting space. If intent is to lease space, please elaborate as to why a lease arrangement is necessary or preferred.*

### Part IV: Approval of Request

*By signing, the dean/vice president/vice provost asserts that the need requested here cannot be met within existing space controlled by the College/Division.*

Signature of Dean/Vice President/Vice Provost: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Date of Approval: \_\_\_\_/\_\_\_\_/\_\_\_\_

### Part V: University Space Planning Action:

Received by University Space Planner; Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Disposition: [Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_]

Notes:



# Cornell University

## Request for Allocation of Space

Project Name: \_\_\_\_\_

[To Be Completed by Space Planner]

*Existing, Cornell-owned space must be utilized as effectively as possible in order to support desired growth. Any endeavors that require additional space should be addressed first within a unit's current allocation, then within the unit's lead college or division. This form should be used when space in addition to current college or division holdings is required. This request will be reviewed by the Director of Space Planning and then directed to the Space Use Advisory Committee for final review and comment if warranted.*

**Directions for Completing Form:** Respond to the requested information by inserting supporting text after each inquiry. Responses for each inquiry may use additional space as needed. Needs vary tremendously and a one-size-fits-all form will not work perfectly in all situations. Not every question may apply to every situation, and some questions require longer responses than others. The unit completing the form understands the need best, so do your best to record the need, and call for assistance if you have a question.

**Directions for Request Processing:** Requestor completes the space request form and submits it to Department Chair or Director. Department Chair or Director reviews the space request and submits to Dean or Vice President or Vice Provost. Dean/Vice President/Vice Provost approves and signs the space request and submits to the Director of Space Planning.

### Part I: Requestor/Department Contact Information

[Person who should serve as primary contact for Space Planner]

Name:

Phone:

Department/Unit; College/Division:

Email:

### Part II: Request is for:

Check one or more below:

☐ Additional space to support a new or expanded activity

☐ Relocate to a new location

Check one or more below:

☐ Cornell-owned, non-leased space already controlled & funded by Cornell

☐ Leased space (even if Cornell-owned)

☐ An exchange of existing space with another college or division

### Part III: Purpose of Request

*Briefly describe the need for space and the reason your unit is requesting space. If intent is to lease space, please elaborate as to why a lease arrangement is necessary or preferred.*

### Part IV: Space Request Information

- A. Describe the intended use of space for each room requested. Attach a spreadsheet or other supporting materials as needed. Helpful details include:
- Room Use Description (e.g. reception, faculty or staff office, workroom, conference room, storage, teaching lab, research lab, research or teaching support space, departmental classroom, etc.).
  - Number of Occupants.
  - Type of Occupants (e.g. faculty, staff, T/A, R/A, or other non-Cornell constituents, etc.; include occupant titles and whether new hire(s) or existing employee(s), etc.).
  - Account Code to be used for any potential associated costs.

- B. If specific rooms are requested: 1) Provide the official Cornell facility code, name and room number for each room and 2) Identify whether the requested area will require renovation.
- C. List any special requirements of the space requested (e.g., location, access, equipment, adjacencies, etc.).
- D. What space will be vacated if a new allocation is made?

#### **Part V: Space Needs Assessment**

- A. If space is to be used for a grant or award-funded program and/or costs are to be paid by the grant/award, please specify:

Grant/Award Agency: \_\_\_\_\_

Type of grant: \_\_\_\_\_

Name/Dept. of PI: \_\_\_\_\_

Amount of grant: \_\_\_\_\_

Duration: \_\_\_\_\_

Status: \_\_\_\_\_

If a donor will fund (all or in part) the space request, please describe circumstances:

- B. In what way is your current space inadequate for the identified need?
- C. Identify what date the requested space is needed. If the requested space is needed on a temporary basis, identify when the space will be vacated. Identify any other timing needs (e.g., need to move during semester break, in coordination with another activity, etc.).
- D. How does your request fit with the role and mission of the unit, college/division, and University?
- E. What are the benefits (programmatic, financial, etc.) that will occur as a result of having our request granted?
- F. What will be the negative impact of not being assigned this request?
- G. How will you pay for moving and/or renovation costs of the requested space?  
[Note: If using grant/award money, please confirm that this is an approved use of the funds and the maximum amount available]
- H. Have temporary arrangements been made to use any of your existing space for the requested purpose? If so, please explain.
- I. Provide assurance that all avenues to solve this space requirement within existing space have been explored. List specific solutions explored and reason(s) for insufficiency. For example, has the college/division considered maximizing under-utilized space to solve this need? Has the college/division re-evaluated the space

assigned to lower priority initiatives? What possibilities for shared space have been explored?

## Part VI: Supporting Documentation

\_\_\_ I have attached floor plans, a functional spreadsheet, organizational chart, and/or other documentation to support this request [If yes, please list briefly here]

## Part VII: Approval of Request

*By signing, the dean/vice president/vice provost asserts that the need requested here cannot be met within existing space controlled by the College/Division.*

Signature of Dean/Vice President/Vice Provost:

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Printed Name: \_\_\_\_\_ Date of Approval: \_\_\_\_/\_\_\_\_/\_\_\_\_

---

Send completed form and all attachments to: Mary-Lynn Cummings, Director of Space Planning, 453 Day Hall or [spaceplanning@cornell.edu](mailto:spaceplanning@cornell.edu). Call (607-255-2557) or e-mail with questions.

## Part VIII: University Space Planning Action:

Received by University Space Planner; Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_ Disposition: [Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_]

Notes:



**CAPITAL PROJECTS AND SPACE ALLOCATION COMMITTEE (CAPS)  
APPLICATION FORM #2**

**Space Occupancy (A)**

- ☐ Request for Occupancy of Central University Space  
☐ Return to Central University

**Site Licence (B)**

- ☐ Request to Lease Space Off Campus  
☐ Request to Rent UofT Space to an External Client

<b>A</b>	<b>PROJECT NAME:</b>		
<b>B</b>	<b>IDENTIFY THE SPACE</b>		
	Building Name and Address:	Room Number(s):	Total NASMs:
	Current Occupant (Department of Faculty)	Primary Contact Person:	Phone #:
	<input type="checkbox"/> Central University		
	What is the current use of the space?		
	Why is the space being released?		
	Requested Release Date:		
	What will the condition of the room/s be upon release? <input type="checkbox"/> Vacant, no occupant <input type="checkbox"/> Empty, no furnishings		
	Are there any environmental issues which must be addressed prior to the reallocation of the room? <input type="checkbox"/> Yes <input type="checkbox"/> No -> if so, please explain:		
<b>C</b>	<b>FUTURE OCCUPANT</b> – Please submit CaPS Form #1 if a project is required for the identified space		
	Department /Faculty OR External Client	Primary Contact Name:	Phone #:
	<input type="checkbox"/> Central University		
	Will the space continue to be used for its current purpose? <input type="checkbox"/> Yes <input type="checkbox"/> No		
	If not, please explain:		
	Occupancy Date:		
<b>D</b>	<b>INFORMATION FOR SPACE LICENCE AGREEMENT</b>		
	Annual rental cost: \$	Annual operating cost: \$	
	Rental period from:	Rental period to:	
<b>E</b>	<b>FINAL AUTHORIZATION &amp; SUBMISSION</b> (to be signed by Principal, Dean, Chief Librarian, Vice-President, designate)		
	I have reviewed the above request and have confirmed that the proposal is consistent with divisional and/or departmental plans		
	<b>(A) DIVISION RELEASING SPACE / (B) LICENSOR</b>		<b>(A) DIVISION OCCUPYING SPACE / (B) LICENSEE</b>
	Print Name:		Print Name:
	Position:		Position:
	Signature		Signature
	Date:		Date:
	<input type="checkbox"/> Approval Authority, or <input type="checkbox"/> Designate		<input type="checkbox"/> Approval Authority, or <input type="checkbox"/> Designate
<b>F</b>	<b>CaPS APPROVAL</b>	CaPS#:	Approval Date:

## Appendix F

### University of Southern California Space Policy

# USC Policy

#### Administrative and Business Practices

#### Space Planning and Management

Date issued: July 1, 2008

USC's physical facilities, like its personnel and financial assets, are resources to be planned, managed and maintained in a manner which most contributes to the university's dual missions of research and instruction. The goal of space planning, management and allocation is to make the best possible use of these physical assets and to plan for future needs. In order to assess whether campus facilities are being used most efficiently and economically, principles governing space allocation have been developed. The eight principles below are interrelated and should be considered together.

##### Principles of Space Planning

1. Space is owned by the Trustees and allocation decisions are ultimately the President's responsibility.
2. Donor restrictions on space usage will be honored.
3. Academic activities, classrooms and research space, have priority over administrative activities such as offices.
4. Space assignments that save money, enhance revenues or encourage interdisciplinary interaction will be given priority.
5. Offices with high traffic from students, faculty or staff will be located as centrally and conveniently as possible.
6. Space allocations that satisfy long-range plans take precedence over more temporary accommodations.
7. Synergistic or like activities should be housed in proximity.
8. Because of the finite nature of the physical plant, the right to manage academic and administrative space is reserved to the Provost and Senior Vice President for Finance to assure that the university fully maximizes its resources in providing top quality academic services to its students and a positive and productive working environment for its faculty and staff. Space assignments will be reviewed periodically to determine how well current usage serves a dynamic set of university needs and priorities.

##### Discussion for Space Planning and Management

Although facilities are managed by the Deans and vice presidents, the President retains ultimate responsibility for allocating and re-allocating space. In any space assignment, ownership is not implied by occupancy, nor should it be inferred.

The university has a fiduciary responsibility to respect a donor's wishes with regard to land and facilities acquired by gifts. General classrooms and donor-restricted facilities will be considered separately, but are not exempted from, the space review process.

Instruction and research are the main functions of the university. Space will be allocated to instructional and research functions of the university optimally by making specific space decisions within the context of serving these primary functions.

Since instruction and research activities in the college, schools and departments are continually being added, discontinued, expanded, and contracted-space needs will also change over time. As administrative departments take on new responsibilities, downsize or acquire technology with different space requirements, their needs too



are dynamic. This implies that no permanent optimal space allocation can be achieved.

Given the cost of remodeling and moving, it is not practical to attempt to maintain optimal space allocation at all times. Space should not be considered as available for reassignment, nor activities appropriate for moving, unless some minimum time commitment can be made; at least two year's occupancy if necessary. Exceptions might include displacement while space is brought up to code or safety problems are corrected (e.g., Bovard seismic retrofitting).

Because on-campus space is a relatively fixed resource in the short-run, periodic reviews of space will be made to ensure the best possible use of space. Leasing off-campus facilities should be a last resort.

Certain uses of space require specialized building systems. For example, computers and labs have special air conditioning requirements. Building occupants may have similar needs. For example, faculty requires support staff. It may be more cost-effective and make future reassignment of space easier if contiguous blocks of space are for the same purpose or program (e.g., a group of faculty offices with support staff space).

#### Procedures for Allocation of Space

The following procedures have been developed to assure that everyone knows where and how to make requests for space allocation needs and what the decision process entails.

1. Requests for new or changed space must be submitted by the appropriate Dean or vice president in written form to the University Committee on Space Planning in care of the Associate Vice President for Administrative Services at least three months prior to the actual space being needed.
2. Requests must include an internal space audit that verifies that adequate space does not exist within the resources already available to the school, program or department. This audit must be rigorous and must include shared space, storage space, etc. If you require help to complete the audit, contact the Associate Vice President for Administrative Services.
3. When a new building comes on line, justification needs to include release or reallocation of existing space.
4. Justification for the space requested must accompany the audit. It must include information about the new or expanded program that requires the space, the schedule, whether the requested space is temporary or permanent and funding for additional space.
5. All requests will be considered within the context of the Space Planning and Management policy and its eight principles by the University Committee on Space Planning which is convened by the Provost and the Senior Vice President for Administration. The committee includes representatives from the offices of Administration, Financial and Business Services, Budget and Planning, and the Provost.
6. Requests will be acknowledged upon receipt.
7. Pro forma space adjustments of 500 sq. ft. or less will be handled in an expedited manner.

Questions regarding these procedures should be directed to the Assistant Vice President for Financial Services at **(213) 821-2110**.

#### Guidelines for Space Needs Analysis, Assignment and Problem Resolution

Vice presidents, deans and directors are responsible for managing the space occupied by activities under their control, just as they are responsible for the management of staff and fiscal resources. Space administration may include redistributing, exchanging or improving space.

As long as university offices are housed in off-campus leased space, there is potential saving in better use of on-campus facilities. Units should not stockpile unused or underutilized space, nor may they unilaterally lease it to another department. As schools, departments, and administrative units identify space in excess of current needs (either through program expansion, reduction or redirection), they will relinquish such unused space back into the university's general space pool for reassignment. As space is returned for reassignment, the indirect costs associated with it will be assigned to the new occupant. Space costs for mid-year adjustments in space assignments will be determined by the Office of Budget and Planning.

Units may return unused space or request needed space on an ongoing basis. Underutilized space will be considered in the resolution of space needs. Although space may be returned whenever it is available, the annual space survey conducted by Financial Services will assist units in identifying unused or underutilized space each year. The reallocation and potential renovation of vacated space will be coordinated through the Division of Business Affairs.

Space needs and the associated costs of space will be continuously reviewed by the Provost and Senior Vice President for Administration. Space needs will be analyzed in the context of:

- ✧ Campus-wide priorities and applicable long-range space plans,
- ✧ Program type (for example, institutional and non-institutional),
- ✧ Type of space required (for example, office, storage or laboratory),
- ✧ Length of need (temporary vs. permanent),
- ✧ Ability of the unit to pay for the space, and
- ✧ Interaction factors and the need for contiguous support facilities, or access to campus operations.

Questions regarding these guidelines should be directed to the Assistant Vice President for Financial Services at **(213) 821-2110**.

#### Procedures for Conducting a Space Audit

1. A detailed inventory of the department or division's space may be requested from Space Management. This will include room use and the type of activity associated with the room as well as net square feet totals and occupants.
2. The department or division should perform a physical walk through of its space to make sure all current space is being fully utilized.
3. If the department or division needs assistance in performing the space audit, please call the Associate Vice President, Administrative Services who will arrange for a physical review of the space by her office and/or the Space Management Office.
4. Forward the results of the space audit with a detailed description of the department/division's space needs to the department/division's dean or vice president for approval prior to the request being forwarded to the Associate Vice President, Administrative Services.
5. Due to the shortage of space on campus, we may suggest the sharing of facilities or the reallocation of storage as an alternative to the allocation of new space.

Questions regarding these procedures should be directed to the Assistant Vice President for Financial Services at **(213) 821-2110**.

#### Responsible Office

Office of Assistant Vice President for Financial Services  
(213) 821-2110

---

#### Issued by

Chrysostomos L. Nikias, Provost and Senior Vice President, Academic Affairs  
Todd R. Dickey, Senior Vice President, Administration  
University of Southern California



## **Appendix G**

### **Cornell University**

### **Space Use Advisory Committee**

The Vice President for Planning & Budget charges the Space Use Advisory Committee (SUAC) with developing policies, procedures and other recommendations concerning the use and renovation of space, the allocation of existing space, and planning for future allocation needs. The SUAC will make recommendations on all allocations of University space, including off-campus leased space.

The Space Use Advisory Committee will:

- Develop space management principles to provide a consistent framework to (1) allocate space, (2) plan for future space needs of the organization, and (3) manage Cornell space effectively and efficiently.
- Recommend a University process for reallocation of space and develop memorandum of understanding templates and procedures to engender trust and transparencies for space transactions.
- Revise Policy 2.7, Reporting the Use of Facilities.
- Update the Cornell space guidelines to reflect current best practices in higher education related to the size of spaces, utilization rates, and building/space type efficiencies.
- Develop procedures that require accountability to the Cornell space guidelines for capital projects that create new space or change use of existing space.
- Develop procedures that require units to update space plans during the annual capital plan development process.
- Develop standard reports to enhance transparency and consistency.
- Recommend improvements to the facilities inventory system and evolution toward a space management system.
- Provide advice and counsel to the director of Space Planning, the manager of Facilities Inventory and the manager of Indirect Cost and others with regard to interpretation of policies.
- Serve as the executive group for space utilization studies, to provide uniformity in approach and interpretation.
- Develop mechanisms to share best practices within Cornell, with academic peers and within professional organizations



# Appendix H

## University of New Hampshire

### Space Allocation, Adaption and Renewal Committee



## Space Allocation, Adaption and Renewal Committee (SAARC)



### Charter

The Space Allocation, Adaption and Renewal Committee (SAARC) is a standing advisory committee to the President of the University of New Hampshire. It oversees the development, assignment, and stewardship of all University buildings, grounds, roads, and related infrastructure.

### Development of the Campus

SAARC oversees implementation of the approved campus master plan and approves the semi-annual Five Year Capital Project Plan update and the annual Capital Project Budget prior to their submission to the Systems Office. These plans incorporate all projects anticipated to cost in excess of \$2 million regardless of fund source or purpose, show the funding source(s) and the relative campus priorities.

### Space Assignment and Leasing

Space is a vital, high cost University asset. Assignment and reassignments of space contained within a functional unit, and any attendant costs, is ordinarily the responsibility of the administrator of that unit. SAARC approves all reassignment of space between RC Units and any changes in the functional use or repurposing of any space regardless of to whom the space is assigned or the funding source, if any, for such repurposing. Unless otherwise noted below, SAARC also reviews all proposals by any unit, to either out-lease existing University-owned space or in-lease space for University use regardless of purpose or fund source where the total expense or revenue of lease over the lease term exceeds \$50,000. SAARC may reassign other existing space to meet University needs or may direct that excess space be reassigned from one unit to another in lieu of leasing. Leasing decisions are delegated to the following units:

Cooperative Extension for field offices

UNH Manchester

Facilities for Cell Phone systems

### Stewardship

SAARC manages the annual Renewal and Adaption (R&A) fund and is responsible for the effective application of these funds to sustain and improve the E&G campus and the general campus infrastructure. SAARC is responsible to the President to insure that R&A funds are used for the purposes prescribed at BOT VI.A.2.6 summarized as follows:

- a. major repairs or replacements of systems and components to extend the life and/or restore systems to their intended function
- b. compliance with externally imposed codes and requirements including life safety, building codes, ADA and environmental requirements;
- c. adapt buildings and campus infrastructure to meet the institution's evolving needs and standards including those that incorporate new technology or support new faculty/staff, classroom changes, or changes in disciplines or curricula.
- d. preparation of master plans and similar studies
- e. repayment of internal borrowing when authorized for a project that meets the criteria in a through d above.
- f. new construction if approved by the Financial Affairs Committee of the Board of Trustees.

SAARC is responsible for the annual submission to Trustees of a report summarizing R&A spending and the estimated deferred maintenance metrics and trends for the campus.

SAARC also has oversight responsibility for the stewardship of facilities managed by auxiliary enterprise units. These units self-fund major maintenance, repair and improvement projects. Annually, the VPFA and the VPSA or their designated representatives will submit to SAARC a summary of the condition of the auxiliary facilities for which they are responsible including the identified deferred maintenance and the major maintenance and repair projects planned for the upcoming year. Ordinary maintenance of buildings and related equipment is generally the responsibility of the Facilities Division.

### Project Funding

Major Maintenance and Repair Projects & Strategic Improvements Projects. The AVP Facilities is responsible for preparation and updating of two sets of facility major maintenance, renewal and improvement needs:

Major Maintenance and Renewal: A listing of all identified major maintenance and renewal needs necessary to address deficiencies in

existing E&G facilities, systems and infrastructure. Annually SAARC will assign R&A funds to address the highest priority needs identified.

Strategic Improvements: A list of upgrades, alterations or improvements to E&G facilities, systems and infrastructure that will enhance the built environment of the campus so as to better support the teaching, research and public outreach mission of the University. Annually, SAARC will review the list and may authorize the use of R&A funds to address high priority needs.

Targeted Investments: SAARC may target specific investment of R&A funds to achieve designated purposes and may delegate responsibility for managing such funds to the appropriate campus official. Examples include funds to address Environmental Health and Safety issues assigned to the EHS Director, funds to improve emergency preparedness assigned to the Campus Chief of Police/Executive Director of Public Safety and funds to address accessibility barriers assigned to the Director of the UNH Accessibility Office. Where such funds are assigned to specific purposes and management of those funds delegated to specific campus officials, those officials will insure the R&A funds so assigned are used for purposes consistent with Trustee policy noted above and will provide an annual report to SAARC summarizing investments made.

Unit Requests: E&G units may bring specific facility deficiency needs to SAARC via their respective VP for consideration and potential R&A funding. Such requests will first be reviewed by the AVP Facilities and the Facilities staff will assist the units by preparing supporting project scope development and cost estimates. All requests should be accompanied by a) a construction cost estimates, b) identified sources of funds, c) the amount of funds requested and d) linkage to the Campus Strategic Plan or Master Plan as may be appropriate. In addition, any incremental operating costs to be incurred, inclusive of energy, maintenance, grounds and or housekeeping, are also to be identified.

#### Committee Membership

Vice President for Finance and Administration (Chair)  
Provost and Vice President for Academic Affairs  
Senior Vice Provost for Research  
Vice President for Student and Academic Services  
UNH Foundation President & Vice President for Advancement  
Chief of Staff, President's Office  
Director of Athletics

Ex Officio Non-Voting  
Faculty Senate Representative  
Dean's Council Representative  
Student Senate Representative  
Graduate Student Organization Representative  
Associate Vice President for Facilities  
Associate Vice President for Business Affairs

#### Reporting

In addition to the reports and plans noted above, SAARC will provide an annual summary of committee activities to the President after the close of each fiscal year.

# **Appendix I**

## **University of New Hampshire**

### **University Committee on Real Property Acquisition and Disposal**

**MISSION STATEMENT:** To advise the President of the University on the acquisition (by purchase or philanthropy) and or disposal of real property.

**RESPONSIBILITIES:** The University Committee on Real Property Acquisition and Disposal (RPAD\*) will work jointly, as determined by the Chair of the RPAD, with the Advisory Committee on Land and Property Use (ACLPU\*\*) as well as, third parties external to the University community, regarding stewardship associated with the acceptance of potential gifts, acquisitions and or disposal of real property.

#### **MEMBERSHIP**

Vice President for Finance and Administration (Chair)  
Provost and Vice President for Academic Affairs  
Associate Vice President for Facilities  
President of the University of New Hampshire Foundation  
Chief Sustainability Officer of the UNH Sustainability Academy  
Dean of the College of Life Sciences and Agriculture  
Chief of Staff, President's Office  
Chair of the Advisory Committee on Land and Property Use  
Faculty Senate Planning Committee Representative  
Town of Durham Director of Planning (*or authorized delegate*)

**GIFTS AND OR ACQUISITION OF PROPERTIES:** The RPAD will thoroughly assess the costs, risks and benefits to the University of any proposed gift and or acquisition of real property. The issues to be evaluated include, but are not limited to:

1. Environmental liabilities and impact.
2. Acceptability of donor terms.
3. Community and donor relations.
4. Long term cost of ownership.
5. Economic value of property.
6. Relevance of the property to University programs.
7. Relation of the property to the Master Plan.

If the RPAD recommends to the President that the University accept the gift, it will include in its recommendation a proposal as to whether the gift should be sold, held for at least some period of time and or be held by the University in perpetuity. If the recommendation is to hold the property, it will include a proposal as to how the property will be used (in consultation as appropriate with the Space Allocation and Repair and Renovation Committee (SARRC) and which department of the University shall be responsible for its management.

**DISPOSAL OF PROPERTIES:** The RPAD will thoroughly assess the potential disposition of any property owned by the University. The issues to be evaluated in relation to any potential disposal include, but are not limited to:

1. Assess the centrality of the property, or its current use, to academic programs.
2. Assess environmental and conservation issues.
3. Assess the role of the property within the context of the University's Master Plan.
4. Research and review all deeds and gift covenants to ensure that the University has the legal right to dispose of the property.
5. Obtain an independent market appraisal of the property consistent with University policy.
6. Determine highest and best use of property in terms of leasing, timber valuation, exchange, partnership agreements, cash sales and or gifting.

Upon completion of this analysis and due diligence, the Committee will evaluate the extent to which the property or the disposal alternative would make a greater contribution to the mission of the University.

**COMMUNICATIONS:** The RPAD recognizes its responsibility to develop and deploy an effective communication program both internal and external to the University community. Interested parties would include local counties and communities, private environmental or conservation groups and historical societies. RDAP meeting agendas will be shared with members of SARRC.

**Appendix J**  
**University of Virginia**  
**Executive Review Committee for Capital Resource Planning (1)**  
**Background and Charge**  
December 7, 2012

*(1) This was the new name proposed for the Executive Review Committee for the Capital Process to reflect the proposed expanded charge that was to include space and real estate responsibilities)*

***Background***

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The following outline provides recommendations to clarify the goals of the University's capital resource planning process and the Executive Review Committee's (ERC) charge. The recommended changes reposition the ERC as the strategic arm of the University's senior administration focused on space management initiatives, real estate transactions, and capital resource planning. The modifications align the ERC's charge and the capital resource planning process with the principles guiding the on-going development of UVA's new financial model:

- to allocate resources in a manner that is transparent and in support of the University's mission and goals;
- to provide incentives for academic excellence, collaboration, innovation and reduced consumption;
- to preserve the core identity and values of the University, and
- to protect core resources such as the libraries, the Grounds and its traditions.

These principles inform the capital resource planning process and its primary function of providing a framework to identify and to prioritize University academic, business, and related physical plans requiring capital investments.

***Executive Review Committee Charge***

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The Executive Review Committee is responsible for the review and approval of major space management initiatives, real estate transactions, and the University's capital development process. As a part of this process the ERC evaluates business / academic plans and related project initiatives developed by the University's schools, medical center, auxiliaries, and other academic and administrative units. The ERC ensures that relevant issues related to the sustainable growth are addressed; that adequate consultation with constituent groups and/or stakeholders takes place; and that appropriate standards for the use of University financial and facility resources are developed and applied.

***Responsibilities***

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1. *Space Management:* The Committee approves the initiation of major space plans for Agency 207 schools and units. These involve 1) proposals for space transfers between schools and units, 2) transactions that may result in new construction either by the University or commercial market, and 3) capital lease commitments. The Office of Space and Real Estate Management is responsible to staff these efforts and makes recommendations to the ERC. The ERC reviews and approves the recommendations, and as needed recommends them for approval to the President and/or Board of Visitors. Routine lease renewals and space

requests are managed by the Office of Space and Real Estate Management. Space reallocations within a School or unit's portfolio are managed by the School or unit.

2. *Real Estate Transactions:* The Committee approves the initiation of real estate transactions. This includes property purchases, sales, auctions, and transfers for the Academic Division, Medical Center, and the College at Wise. It includes requests to the University of Virginia Foundation for land acquisitions for immediate needs or for land banking. The ERC reviews the final transaction proposals and recommends them for approval to the President and Board of Visitors. Easements, rights-of-way, and facility use agreements are the responsibility of the Office of Space and Real Estate Management.
3. *Capital Development Process (See Attachment A)*
  - a. *Strategic & Capital Resources Planning:* The Committee identifies specific priorities for capital planning efforts and provides executive level oversight for the resultant studies. The planning efforts focus on the impacts of academic plans and program initiatives on the University's physical and financial resources. An example of a planning effort would be an impact assessment of the enrollment growth commitment on University facilities.
  - b. *Major Capital Projects Program:* The Committee approves updates and modifications to the University's Major Capital Program.
  - c. *Ongoing Capital Development Process:* The Committee provides regular oversight of the University's capital program through 1) the review and analysis of the capital project proposals from the initiation of feasibility studies to project approvals, and 2) approval of budget and scope changes that require Board of Visitors approval.

## ***Membership***

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1. *Permanent Members*
  - a. Executive Vice President and Provost
  - b. Executive Vice President and Chief Operating Officer
  - c. Senior Vice President for Development and Public Affairs
  - d. Vice President and Chief Financial Officer
  - e. Vice President for Management and Budget
  - f. Associate Vice President Hospital and Clinical Operations
  - g. Chief Executive Officer of the University of Virginia Foundation
  - h. Architect for the University (Chair and Secretary)
2. *Alternates*

Each permanent member may identify a representative from their areas of responsibility to attend ERC meetings when they cannot, and may bring 1-2 appropriate representatives to any given meeting, depending on specific agenda topics and related expertise.
3. *Administrative Functions*

The Office of the Architect for the University convenes the meetings, prepares meeting agendas and provides meeting notes.

## **Attachment A**

### **Executive Review Committee for Capital Resource Planning/ Capital Development Process**

November 9, 2012 Draft

The goal of the capital development process is to align capital resources with the University's strategic planning and overall goals, with an emphasis on programmatic justification and financial feasibility. The process involves: 1) Strategic Planning; 2) Project Approval, 3) Predesign Studies; 4) Design and Construction Phases; and 5) Post Occupancy Evaluations.

#### **1. *Strategic Planning (Ongoing Budgeting and Assessment)***

- a. Schools, academic units, auxiliary units, and the Health System are expected to have strategic plans that are reviewed regularly with their respective EVP and provide a framework for the annual budget process and discussions. The annual budget submittals are to include summaries of these plans. For schools and academic units these summaries should include plans for enrollment and/or program change, plans for faculty and staff allocation and hiring. For the Health System and auxiliary units the summaries should include business plans articulating priorities and plans for change in business practice, strategic clinical and academic directions, and new or discontinuing initiatives. All summaries for Schools, academic units, auxiliary units and the Health System are to include assessments of changing needs in space quantity, function, condition, and proposed projects.
- b. The ERC sponsors ongoing studies in the following areas:
  - 1) Academic needs based assessments utilizing peer benchmark data for enrollment and majors, faculty hiring and allocation, and space inventory; at the institutional, school, and discipline levels.
  - 2) Classroom inventory, physical condition, utilization, and alignment with curriculum and trends in pedagogy.
  - 3) Auxiliary programs, space inventory, and projection of space needs based on enrollment and benchmarks.
  - 4) Health System programs for relationship to approved strategic plan and utilization of overall UVa assets, including land and infrastructure capacity.
- c. The annual budget process will consider changing programs, business practice, census, and space needs.

#### **2. *Project Approval***

The Project Approval Process involves 1) the identification of capital needs, 2) feasibility studies, 3) project initiation, 4) business plans and 5) project approval.

- a. Capital Needs Identification: Potential capital needs are identified primarily through the annual budget process. The budget process participants, who include three members of the ERC, identify initiatives or proposals in the budget submittals, which may have a potential capital resources impact. Staff from the offices of 1) the Executive Vice

President and Provost (EVP/PO), 2) the Executive Vice President and Chief Operating Officer (EVP/COO), 3) University Budget Office (UBO), 4) Facilities Management (FM), and 5) Office of the Architect for the University (OAU) reviews the initiatives and proposals, and prepares briefing materials for the ERC. The ERC determines whether a proposal warrants further development. The offices of the EVP/PO and the EVP/COO notify the respective project sponsors of the ERC actions.

New capital initiatives or project proposals may occasionally be proposed off cycle by sponsors. The proposals go through the same ERC evaluation process.

During its evaluation the ERC may decide that a new capital project proposal is ready for project initiation, and does not require further study. In these cases, the project bypasses the feasibility study phase and moves directly to the initiation phase.

- b. Feasibility Study Phase: Feasibility studies analyze both capital and non-capital alternatives and recommend a preferred option. If the preferred option is a capital project, the study addresses scope, site, justification, budget range, finance plan, and schedule. The studies are conducted by the sponsor and staff from the offices of the 1) EVP/PO, 2) EVP/COO, 3) UBO, 4) FM, 5) OAU, 6) Office of Space and Real Estate Management, and 7) Office of Development. Staff from the offices of the 1) EVP/COO, 2) EVP/COO, 3) UBO, 4) FM, and 5) OAU prepares ERC briefing materials. If the ERC approves a capital outlay option, the project moves into the project initiation phase.
- c. Project Initiation: The project sponsor completes a Part 1 Project Initiation Form with input from the OAU, FP&C, and UBO as needed. Upon approval of the Part 1 Project Initiation Form (PIF) by the sponsors dean or vice president and executive vice president, a workgroup led by OAU and FP&C, UBO advances the PIF to the Part 2 stage where the budget range is verified.
- d. Business Plan Verification: Upon completion of the PIF Part 2 stage, the sponsor working with the UBO prepares a business plan, which can include the following assessments:
  - 1) If state funds are proposed, the project is prioritized on the University's six-year capital plan.
  - 2) If private funds are proposed, a Development Office assessment of the probability of raising the needed funds.
  - 3) If bond financing is proposed, a Treasury Operations assessment of the unit's ability to fund debt service and the impact of the debt service on the University's debt capacity.
  - 4) If an auxiliary enterprise project, a UBO assessment of any impact on student fees.
  - 5) Fund sources for operating costs.
- e. Project Approval: Upon completion of the business plan the project is ready for approval first by the ERC and then by the Board of Visitors. For details of this approval process refer to the Capital Project Approval Process on the UBO website.

## 5. *Predesign Study*



A predesign study is the first step that is to be taken after approval by the Board. It includes the following steps:

- a. Program Development: This is the development of specific program components, and includes detailed program breakdowns, adjacency, blocking and stacking diagrams, room detail/data sheets, and required infrastructure and systems criteria.
- b. Physical Planning: Siting, test fit, and massing studies using the initial building program are conducted by the OAU. If the project involves renovations, FP&C completes a thorough building assessment, and the OAU assesses historic fabric impacts.
- c. Budget: The budget range is refined and verified based on 1) the actual program, 2) physical planning studies, and 3) benchmark costs developed by FP&C.
- d. Financing: The business plan is updated by the UBO with the assistance of Development Office and Treasury Operations.

With the exception of programming consultants, predesign studies typically do not require the use of A/E consultants. If a project's complexity warrants architectural or engineering input, OAU through FP&C may use a term contract firm or advertise for an architect / engineer provided this action is approved by the ERC. While the RFQ must state that the scope of work is to be limited to a predesign study, it may include a provision for using the firm for design and construction phase services. Proceeding with the firm for these services, however, requires Board of Visitors' approval if the project budget is \$5 million or more. The study scope can include items, such as programming, siting and massing studies, conceptual floor plans and elevations, surveys, test borings, and cost estimates. The level of detail is significantly less than that required for schematic design.

ERC and Board of Visitors approval is required if upon completion of the predesign study, the project scope has to be reduced by more than 10% or the budget must be increased by more than 10%.

## 6. Design and Construction Phases

The design phase may begin only after 1) the project has been approved by the Board of Visitors (*and the State if the project involves state funds*), and 2) funding is available. If a project is not fully funded, the ERC may approve the initiation of the design phase upon verification by the Provost (*for academic projects*) or Chief Operating Officer (*for other projects*) that sufficient funding exist for this phase. For gift funded projects, the Development Office may be asked to complete a funding review at the end of design development to verify that fund raising is on schedule. At this point, a decision will be made to 1) stop the project, 2) continue the project as planned, or 3) reduce its scope. Projects are to be fully funded in accordance with Board of Visitors' October 2004 Policy for Involvement of the Board of Visitors in the Capital Planning Process prior to the initiation of the construction procurement phase.

- a. Budget and Scope Expectations: After a project has been released for design, the FP&C project manager in association with the Project Steering Committee monitors the project so that the budget and scope stay within the approved limits. Changes that reduce (net) program space by more than 10% or substantially alter / eliminate a major program element require ERC approval. Scope reductions in excess of 10% require Board approval. All budget increases must be approved by the administration through the use of decision briefs. While Board policy requires that budget increases in excess of 10% be

approved by its B&G and Finance Committees, budget increases in excess of 10%, but less than \$1.0M, do not require Board approval unless a project has had multiple budget increases and the proposed budget increase causes the sum of the increases to exceed \$1.0M

b. A/E Design Phase Services: Four steps must be completed prior to initiation of design services.

- 1) ERC approval of the project and the predesign study
- 2) Board of Visitors project approval (*and State approval if state funds are involved*)
- 3). Board of Visitors approval of Concept, Site and Design Guidelines
- 4). Board of Visitors approval of the A/E selection

#### 7. *Post Occupancy Evaluations*

Post Occupancy Evaluations are completed for major new buildings and renovation projects approximately 18 to 24 months after occupancy. Their purpose is to identify architectural, engineering, and functional building elements that have worked well, and those that are problematic. It is a “lessons learned” exercise to improve the design, operation, and user satisfaction of future buildings. It also supports the University’s sustainability program by meeting the criteria for the thermal comfort verification credit of the U.S. Green Building Council (“USGBC”) LEED certification process.

**Appendix K**  
**March 1, 2013 Vice President for Management and Budget**  
**Space and Real Estate Management Benchmarking Study**

**Space and Real Estate Management Benchmarking Study**  
**University of Virginia**  
**Clarence Odom**  
**March 1, 2013**

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## **Key Terms**

*Space Management and Planning Office (SMPO)* – The typical space management and planning office at those institutions we benchmarked serves as a resource for the primary stakeholders in the space allocation processes. The duties of this office are usually limited to data collection regarding space use, serving as traffic coordinator for space requests, and occasionally serving as a resource for space utilization best practices and assessment.

*Real Estate Office* – The typical real estate office at those institutions we benchmarked are similar to UVAs. These offices serve to procure and maintain space necessary to fill space requests that are unable to be fulfilled through the current space inventory. Rarely are these offices procuring property for future development. Instead, many of the benchmarked universities rely on the University Foundation to serve that purpose, similar to the function of UVA's Foundation prior to Restructuring.

*Campus Space Committee* – Committee tasked with decision making regarding space allocation and use. Rarely does this type of committee influence Capital Projects, but instead makes decisions regarding existing space or leased space.

## Structure

*This section details the overall structure of the typical Space Management and Planning Office, including roles and responsibilities, reporting structure, and financing of the departments.*

Of those institutions benchmarked, the office of space management and planning (SMPO) is typically located in a different department from that of real estate acquisition and maintenance. This is primarily a result of the mission of the typical space management and planning office in higher education. These offices are consistently relied on for record keeping and data analysis, while most decisions regarding space management and utilization are made outside the purview of the SMPO. Because of their nature regarding record keeping, SMPO's often serve as a resource for availability of open and swing space.

### 2.1. Major responsibilities/activities of the Space Management and Planning Office

#### *Space Analysis*

- *Record space inventory:* The SMPO serves as the repository of all space inventory for the institution. The office oversees the space database, providing information to units upon request. Some institutions train employees in various departments to utilize the database, but the SMPO maintains space information.
- *Record space utilization (globally), including open and swing space:* The SMPO is tasked with maintaining a current record of space utilization, allowing decision makers the ability to easily account for both open and swing space.

#### *Requests for Space*

- *Receipt of request:* SMPO serves as the initial contact for departments or schools wishing to request additional space.
- *Initial analysis of feasibility:* SMPO runs initial feasibility reports. These help underscore what the requesting organization truly needs and what can be supplied from existing resources.
- *Elevate needs to decision makers:* Those requests that demonstrate true need are elevated to the appropriate decision makers.

*Space Assessment/Audit and Advising* – Though no benchmarked institutions evidenced this practice, each representative expressed the desire/need for the office to regularly assess the efficiency and effectiveness of space utilization across campus. Knowledgeable of best practices, the SMPO could be called upon by schools or departments to share their expertise in the best utilization of space. Some institutions required space audits incrementally over time, yet this function served a reporting role only.

	Virginia Tech	UCLA	U. of Michigan	U. of Georgia	Duke
SMPO oversight of space inventory database?	No - Facilities	No - Facilities	✓	No - Facilities	No - Facilities
SMPO analyses space data and use?	✓	✓	✓	No - IR	No - Finance and Administration
SMPO serves as initial contact of space request?	✓	✓	✓	✓	
SMPO assesses feasibility?	✓	✓	✓		
SMPO audits space utilization?	x		✓	✓	✓
SMPO provides advising of space utilization?	x	x	x	x	x

## 2.2 Where are Space Management and Real Estate housed?

The SPMO is typically housed within the department that is responsible for the logistics of space allocation decision making. This structure allows decision makers ready access to the analysis provided by the SPMO. The locus of decision making is dependent on the institutional theory behind the why decisions are made.

- Office of VP Budget and Capital Projects: Decisions are made primarily regarding monetary and feasibility standpoint
- Provost Office: Decisions are made primarily regarding academic interest
- Facilities Management: Decisions are made primarily regarding facility need

Sometimes, the SMPO reports as a hybrid entity, such as at Duke university where the office reports to both the VP of Finance for assessment purposes and the Provost for decision making. Similarly, VT's SMPO responsibilities are bifurcated between the Provost's office (planning) and Facilities (management and assessment).

Real estate offices are typically located in either the VP of Budget's office or the VP of Administration. No real distinction exists between the philosophies of where this is housed. At UCLA, real estate is seen as an asset to support the ongoing services, whereas space planning is viewed as strategy for growth and development. This serves as a basis for the separation of the two groups.

Location of SMPO	Virginia Tech	UCLA	U. of Michigan	U. of Georgia	Duke
VP Budget/Finance		✓		✓	✓
Provost	✓		✓		✓
Facilities	✓				
Location of Real Estate					
VP Budget/Finance			✓	✓	✓
VP Administration	✓	✓			

## 2.3 Reporting Structure

Of the five institutions benchmarked, the responsibilities for the assignment, reassignment, and creation of new space all fell to the Senior Vice President of Academic Affairs/Provost. For some institutions, policies necessitate the involvement of the Office s of the VP Budget/Finance and/or the VP of Administration. Committees serve to either help make decisions or as a sounding board for advice, and may serve to mediate the information passed from the SMPO to the Provost (for more information on committees, refer to section 3.3, decision making).

Typically, the SMPO directly reports to an Associate Provost, VP of Budget/Finance, or VP of Administration. No departments report to the SMPO. Within the SMPO, there may be a Director, Assistant Director, or analysts. Of those institutions benchmarked, the average number of employees serving SMPO only (no real-estate efforts) is 2. (For primary roles, refer to section 2.5).

## 2.4 Funding

For each institution benchmarked, funding for SMPO services are directly tied to the office for which it is housed. No fees for services are charged as the function of the office is rarely utilized by outside parties. This funding structure is consistent between those schools with RCM budget models as well as those with centralized budget models.

## 2.5 Number of Employees/Primary Roles

Not every institution benchmarked has an established SMPO. Both UCLA and Duke each delegate many of the responsibilities of the typical SMPO to employees serving multiple functions. For those institutions that have an established SMPO, the number of employees is minimal. Some roles that could be associated with the SMPO may be elevated to senior level positions outside of the SMPO. This section defines the aggregated role of the employee as it relates to the institutional reporting structure.

---

### Director

- Oversees SMPO.
- Synthesizes space analysis.
- Serves as advisor for space allocation decisions (globally).
- Manages university-wide requests for space.
- Advises on swing space utilization.

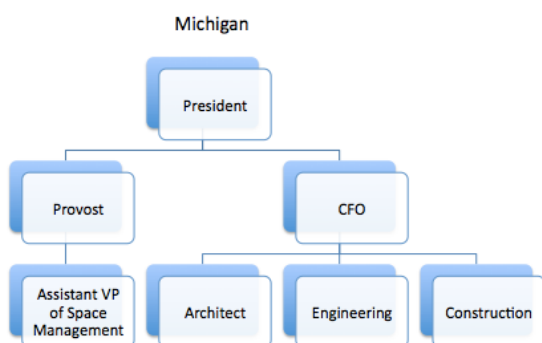
### Analyst

- Keeps track of space data and runs reports for analysis.
  - Space audit
- 

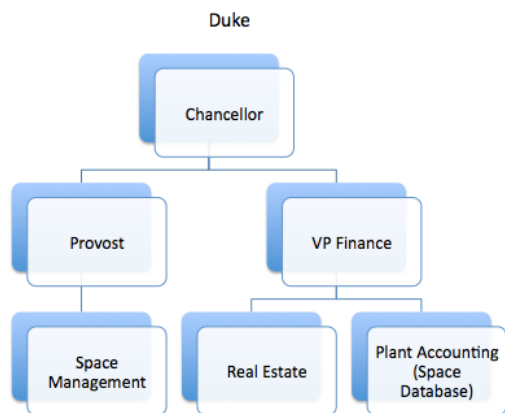
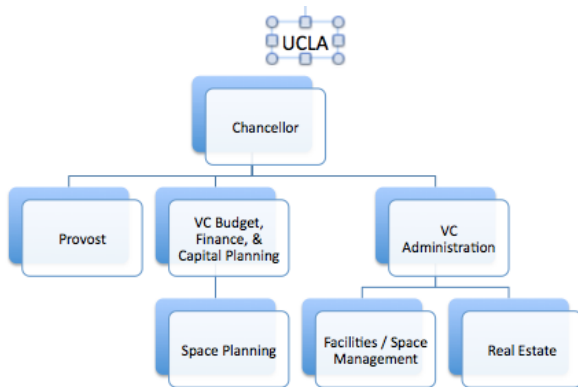
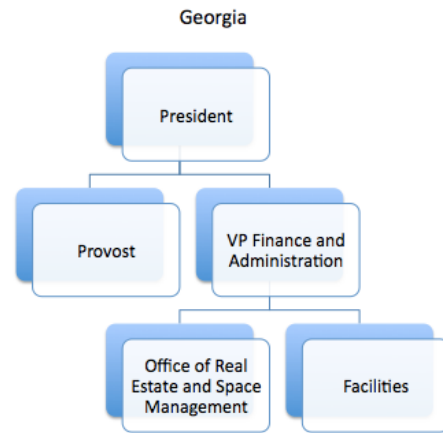
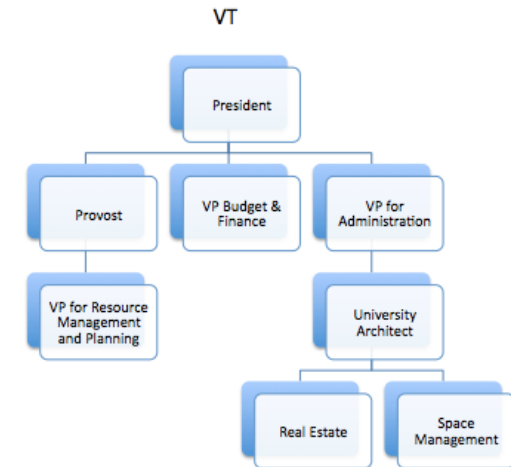
At several institutions, in lieu of a director, the office reported to an Assistant/Associate Vice Presidential position, either in the Office of the Provost or Office of the Vice President for Management and Budget. At this level, the “director” might have different responsibilities:

- Develop capital planning / Capital Outlay Plan
- Serve on campus space committees
- Responsible for strategy and land use recommendations
- Help establish space use standards
- Procure alternative financing

## 2.6 Reporting Maps for Benchmarked Institutions







## Decision Making

*This section details the space decision-making, allocation, and use processes at the benchmarked institutions.*

For the most part, space allocation decisions across the various institutions tend to be centered under the purview of the Provost while the Offices of the VPs for Management, Budget, and Administration provide advisory support. Decisions regarding Capital Projects are typically escalated to an Executive Committee which includes these executives. All institutions involve committees for the purpose of these decisions, with the expressed intent of giving the relevant stakeholders “a voice” in the process.

### 3.1 Within-Schools

Each institution delegates the Deans of the colleges and schools the authority to use their assigned space as they see fit. These schools are responsible for setting policies as to who will “own” research space, office space, etc. Classroom space cannot be usurped without the consent of the Provost’s office.

Most schools have a representative that analyses their use of space, searching for efficiencies where applicable. At the University of Michigan, these officials are able to access the space database and upload space use information.

#### Incentives

Institutions have little incentive for schools to effectively and efficiently use space.

- Schools must fund space required outside of assigned space (leased space, swing space)
- Interdisciplinary space is funded out of the Provost’s office
- Free consulting on behalf of SMPO.

#### Medical Schools/Health Systems

Medical schools/Health Systems are also given the autonomy to assign use of space. At the University of Michigan, a peer committee composed of faculty and researchers make decisions within each department to decide how space is to be assigned. Because two-thirds of the space is tied to research, research that is failing to bring in money or is in the final throws are replaced with new research opportunities. The peer review process works well in Medicine as it is mostly homogenous, and each colleague knows he/she must be responsible for bringing in money if they want to keep the space.

#### University of Michigan - RCM

The University of Michigan’s RCM budget model charges schools for space and utilities. This charge is based on per square foot of occupancy. This is one of the few true incentives for the parsimonious use of space.

#### Duke – RCM

At Duke, each building has its own cost (dollars per square foot). Schools are charged for this space and decide if this cost is to be disseminated to the department level. Quarterly snapshots of cost are provided by the SMPO to the departments so that they might better have a sense of billing and usage.

## 3.2 Between Schools

The way in which schools have been assigned space is more historic than methodological. Few metrics have been identified to equitably assign space. No benchmarked institution provided information regarding utilization goals.

### Some Identified Metrics

- Number of employees
- Credit hours conferred and contact hours
- Scientific Impact (e.g., number of citations) and \$\$\$ brought to the University
- Overhead/Indirect Recovery Cost per square foot

## 3.3 Decision Making Process

The decision making process for space allocation and capital projects, though varied between institutions, shares many common threads. This section briefly addresses the similarities in broad definition, then examines the specific decision making composition and processes at each benchmarked institution.

### Committees

Committees provide an avenue for all relevant stakeholders to take part in the decision process. There are a number of different committees across the benchmarked institutions.

- *Executive Space Committee*: These committees set policies and standards for space use. Issues that are unable to be resolved at a lower level of decision making may also be elevated to this committee. Members of this committee often involve the Senior Administration (Provost, VP Finance, VP Administration, Facilities, etc.).
- *Campus Space Committee*: This committee makes final recommendations to the Provost for consideration. These committees are typically staffed by Deans, one or two faculty members, administrative officials, and the director of the SMPO.
- *Project Development Committee*: This committee oversees the development of capital projects and includes administrative officials, Facilities Management, Office of the Architect, and other relevant stakeholders.

Currently, only Duke, UCLA, and Michigan utilize committees for all space decisions. Some schools choose to appoint employees of the SMPO to these committees, whereas others use the SMPO to inform the decision making without having a vote.

### Bifurcation of Space Assignment and Capital Projects

As one might imagine, the decision making process for space assignment and capital projects at each institution is bifurcated into two different processes. The first process is typically a needs assessment. The second process considers feasibility of a new capital project. At the benchmarked institutions, these decisions involved separate committees and constituents.

### The University of Michigan

All requests for new space, swing space, and capital planning are received by the Assistant Vice Provost of Space Management. The AVP of Space Management has the delegated authority to resolve space assignments regarding available space on campus. Space inventory is overseen by the CFO's office.

- A. New Space/Swing space
  1. Request sent to Provost's Office
  2. Provost's office discusses and validates need with unit budget administrator and determines funding source.
  3. Unit and Provost's office determine need and potential solutions and whether it should be addressed by University space or leased space. If leased, the process is handed over to the leased office.
- B. Capital Planning projects
  1. Request sent to Provost's Office
  2. Provost's office discusses and validates need with unit budget administrator and determines funding source.
  3. Recommendation is passed to Provosts' Capital Projects Review Committee
    - PCPR Committee review and prioritizes all capital project requests.
    - Membership includes:
      - i. Two deans
      - ii. Two professors
      - iii. Vice Provost for Academic and Budgetary Affairs
      - iv. Assistant Vice Provost of Space Management
      - v. Vice President for Research
    - This committee is designed specifically without the input of the CFO's office in order to ensure decisions have academic priority only.
  4. Recommendations by committee are made to Provost for final decision
    - These recommendations are rarely overturned
  5. After approval by Provost, Capital Project is escalated to Executive Committee for Capital Projects
    - Membership includes:
      - i. VP of Budget
      - ii. Treasurer
      - iii. VP of Facilities
      - iv. President

Once a week the AVP of Space Management is in contact with a committee in the CFO's office which includes members of the Office of the Architect, Engineering, Construction, and Real-Estate. This meeting seeks solutions to requested needs and recounts current available space on campus.

### *Virginia Tech*

All requests for new space and swing space are received by the Vice Provost for Resource Management and Planning. The Vice Provost and his team oversee the development and evaluation of the university's academic budget. They also develop strategies for improving academic space including capital planning and renovations. Recommendations made by VP for Resource Management and Planning are passed to the Provost for final approval.

1. Request sent to Provost's Office
2. VP for RM&P assesses need and feasibility. Tries to solve problems within existing inventory.
  - Conversations with VP for Administration and Associate VP for facilities
  - SMPO office in Facilities (space analysis)

- i. Inventory
  - ii. Advises on reassignment decisions
3. VP for RM&P and department come to conclusion and present final solution to Provost for approval. If issues cannot be resolved, process is elevated to Executive Space Committee
  - Includes VP of Administration, Provost, VP for Finance
  - This committee is also in charge of setting policies for space standards and use.

### ***UCLA***

UCLA utilizes two committees for space allocation and capital project decisions. The Campus Space committee (chaired by the Provost) makes decisions regarding space utilization. These decisions are reviewed by the Project Development Committee (chaired by VC for Budget, Finance, and Capital Programs) for feasibility. Capital Project plans and all strategic leasing activities are overseen by the Project Development Committee. The Executive Vice Chancellor and Provost is responsible for the final approval of all assignment and reassignment of space (Responsibility held by Chancellor but delegated to Provost).

#### **Campus Space Committee**

- Chaired by Provost
  - 5 Ex-officio Administrators (including VC of Budget, Finance, and Capital planning and VC of Administration)
  - 6 Deans
  - Faculty Senate Representative
  - 5 other Administrators (appointed by Provost)
1. Office of Space Management received request
  2. Affected units must justify current space deployment before reallocation is made
    - a. Units provide long-term space planning in annual academic and budgetary plans “Analysis of Academic Space”
  3. Office of Space Management analyzes need and feasibility, makes recommendations to Campus Space Committee
  4. Campus Space Committee makes final recommendations to Provost.
  5. Project Development Committee review recommendations
  6. Provost makes final decision.

Currently the Office of Space Management has been closed and responsibilities shifted to VC for Budget, Finance, and Capital Programs.

### ***Duke***

Space management and decision making at Duke is highly decentralized. Decisions regarding new space are all heard by the Academic Space Planning Committee. The ASPC is intentionally large, allowing each stakeholder to have a true voice in the decision. New space or space become available must come before committee – no side deals are permitted.

#### **Academic Space Planning Committee**

- Representatives from each school (Associate Dean)
- All Vice Provosts
- Representatives from Student Affairs and Facilities Management

The Academic Space Planning Committee hears all decisions regarding new space, the expansion of space, or interdisciplinary space use.

### **University of Georgia**

Similar to other schools, the University of Georgia collects all space requests in one central repository. Unlike other institutions, this repository is in fact the SMPO office. The Director of the SMPO also serves as the chair of the Space Allocation Advisory Committee who makes final recommendations to the Provost. Also unlike other institutions, the SAAC served in a more advisory role rather than a decision-making role. UGA also has a University Council Strategic Planning Committee which hears all Capital Planning projects.

1. Office of Space Management and Planning receives request.
2. Assessment of feasibility and need are performed by SMPO
3. Request is brought to Space Allocation Advisory Committee
  - Chaired by Director of SMPO
  - 3 representatives from Academic Affairs
  - 3 representatives from Finance and Administration
  - Committee chair of the University Council Strategic Planning Committee.
  - Representative from Presidents Office
4. SAAC makes recommendation to the Provost.

Currently, the SAAC is on hold. Members expressed dissatisfaction with the little influence the committee had on final decisions.

## **3.4 Foundations**

Each institution has a foundation that serves a similar function as to that of the University of Virginia Foundation. These foundations purchase real-estate, maintain the property, and are able to sell the property to the institution. The University of Georgia continues to rely most on the foundation for quick transactions. This is in response to the need to have all real-estate transactions approved by the Board of Regents.

### **Needs**

Across the board, each institution felt their SMPO offices were underfunded thus unable to be used to their full benefit. Several of the space management needs communicated by those institutions included:

- A mechanism for getting departmental space needs in front of decision makers
- Clear cut policies/regulations for the application of space standards and the reassignment of space (current decisions are made ad hoc)
- Forum for departments to request new space
- All stakeholders must have a voice at the table regarding space decisions
- Incentives for departments to reassign/optimize space
- Better Communication
- Best practices for efficiency and effectiveness
- Regular use assessment

### **Best Practices / Recommendations**

The recommendations in this section seek to summarize the best practices used at those benchmarked institutions that speak to the needs expressed by those involved.

1. *A forum for space requests.* Institutions should have policies and processes in place that create a clear and consistent avenue for schools/departments to request space. These requests should be handled by one department who can best assess the feasibility and true need of the request. The SMPO can serve in this capacity, provided it has the appropriate tools for such assessment.
2. *A repository of current space utilization and accounting.* Institutions must understand what space they currently have and how well the space is used. An office that is able to collect the appropriate data and provide analysis of the effectiveness and efficiency of use should help institutions better streamline their space utilization.
3. *Proper reporting structure.* The SMPO best serves the institution when it is able to provide assessment to decision makers. Decision makers must have the relevant data and analysis in order to make the right decisions regarding space allocation. Decision making is made easier at those institutions whose committees have access to assessment. This is complicated when the office that performs the assessment is housed in another department.
4. *Campus Space Committee.* Campus space committees allow the relevant stakeholders the opportunity to have a say in the space allocation decisions of the university. While these committees did not have final approval power, institutions that employed these committees confessed that the politics of decision making was made easier by giving people a seat at the table. Furthermore, many institutions included representatives from the SMPO on the committee to speak to the space analysis component of the decision.

*Audits and Advising.* While most institutions performed space audits annually or semi-annually, this data was rarely transformed into usable information. Each institution cited the need to have an office that could audit space use then make recommendations regarding efficiency and effectiveness. The SMPO might best serve the institution by understanding the best practices of space utilization and serving as a resource to schools/departments. Their use could be optional or mandatory, but the office serving as regular space auditors may condition the schools/d

**Appendix L**  
**2010 University of Illinois Space Utilization Report**



OFFICE OF THE PROVOST  
AND VICE CHANCELLOR FOR ACADEMIC AFFAIRS

**REVIEW OF SPACE UTILIZATION**

FINAL REPORT 2010



ILLINOIS  
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

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Cover photograph: Aerial view of the University of Illinois Urbana-Champaign campus in 1974.

## I. COMMITTEE CHARGE

### UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

Office of the Chancellor  
Swanlund Administration Building  
601 East John Street  
Champaign, IL 61820



May 10, 2010

**Project Team: Space Utilization**

Dale Van Harlingen, *Chair*, Department of Physics  
Van Anderson, Beckman Institute  
Simon Appleford, Graduate Student  
Jennifer Cole, Department of Linguistics  
Hadi Esfahani, Department of Economics and the  
Center for South Asian and Middle Eastern Studies  
Mike Gray, Department of Crop Sciences  
Steve Hesselschwerdt, Facilities and Services  
Jeff Schrader, University Library  
Siobhan Somerville, Department of English  
David Tewksbury, Department of Communication  
Jennifer Themanson, Office of the Registrar

Dear Colleagues:

As a campus, we are engaging in a thoughtful and thorough evaluation of how we use resources toward the broader aim of advancing excellence in our scholarship, education and outreach activities. In this context, we write to invite you to serve on a working team to review space utilization across the campus. The use and management of space historically has been very decentralized at this institution. This approach has been effective for the most part in helping units to deal with local and often idiosyncratic needs and issues. Yet the decentralized nature of our approach has hampered our ability to take a more systematic, broad-based view of the use and cost of space at an institutional level. As a result, our use of space appears often to be inefficient. For example, very little space is shared across units, many spaces are underutilized across time periods during the day, and some faculty members have multiple work spaces. Moreover, we are spending in excess of \$4 million on rental space off campus, including locations at the Research Park, on Green Street, and in Chicago.

Your team is asked to begin a review process that examines the current use and cost of space at Illinois. Once key issues are formed and data are gathered, your review may point to a need to bring in outside consultation on our use of campus space. Your working team is one of many that will be asked to review specific units or activities as part of the campus evaluation effort.

The financial context of the University and the state of Illinois is a catalyst for this review. Given a challenging financial climate, it is vital for the campus to carefully consider our expenses and the ways in which our investments contribute to our mission. At the same time, it is critical to emphasize that this review is a complete and open process that does not begin with a predetermined aim of withdrawing or reducing resources or concluding activities. Instead, we

telephone 217-333-6290 • fax 217-244-4121

Project Team: Space Utilization  
May 10, 2010  
Page 2

ask that the review openly examine the extent to which resources and policies pertaining to space utilization enhance the University and its missions.

As your team begins its work, we ask you to explore the following key questions:

- How much space do we have on campus and how is it allocated? How have space policies and assignments on campus changed over the past two decades? How often and in what ways do we determine if space is underutilized?
- Given the significant funds we are allocating for space rental off campus, are there ways we could reduce these expenditures without sacrificing quality of our core missions?
- Do campus and unit space policies support or hinder the effective use of space? How can we incentivize units to manage and share space more effectively?
- Are there creative ways we can better use and manage space? How can classroom space be managed more effectively? Can work stations or hoteling be used to increase office space efficiency and effectiveness? Are there ways to manage lab space more effectively? What are the barriers to these types of innovations? Are there upfront costs associated with such innovations?
- Are there models at other institutions for effective and creative use of space?

In conducting your review, we ask that your team devise a process that allows you to provide well-reasoned, comprehensive responses and recommendations on the key questions outlined above. It will be important for you to consult experts across campus who will have valuable insights on space utilization in departments, colleges, and other units. Members of the Provost's Office leadership team also will stand ready to assist you in this work. Please contact Stig Lanesskog (slanessk@illinois.edu) in the Provost's Office with questions or requests that emerge during your review.

We have invited Professor Van Harlingen, to serve as the chair of your working team, and he has graciously agreed to do so. Staffing for your team's work will be provided by Dr. Van Harlingen's office. We ask that you complete a written report summarizing your review by July 16, 2010.

We are deeply grateful for your time and expertise in this important review process, and look forward to your report and recommendations.



Robert A. Easter  
Chancellor and Provost (Interim)

Sincerely,



Richard P. Wheeler  
Vice Chancellor for Academic Affairs (Interim)

c: M. Andrechak  
S. Lanesskog

## II. COMMITTEE MEMBERSHIP

The following individuals served on the Space Utilization Review Committee:

Dale J. Van Harlingen	Head and Professor, Department of Physics ( <i>Committee Chair</i> )
Van A. Anderson	Associate Director, Beckman Institute
Simon J. Appleford	Graduate Student, Department of History
Jennifer S. Cole	Professor, Department of Linguistics
Hadi S. Esfahani	Professor, Department of Economics, and Director, Center for South Asian and Middle Eastern Studies
Michael E. Gray	Professor, Department of Crop Sciences, and Interim Assistant Dean, Agriculture & Natural Resources Extension
Steven P. Hesselschwerdt	Associate Director for Space Management, Facilities and Services
Jeffrey M. Schrader	Assistant Dean for Facilities, University Library
Siobhan B. Somerville	Associate Professor, Departments of English and Gender & Women's Studies
David H. Tewksbury	Associate Professor, Department of Communication
Jennifer A. Themanson	Associate Registrar for Facilities Management and Scheduling, Office of the Registrar

This committee included a cross-section of faculty from across campus, several unit heads, and directors who have been involved in space management in specific units and for the campus.

### III. ASSESSMENT OF THE SCOPE

#### Restatement of charge and discussion of what to address

Early in our deliberations, we noted the impracticality of attempting to assess all of the space issues at the university and make specific proposals for individual buildings and units. Rather, we interpreted the charge as asking us to gather information about long-term trends on campus and general patterns of space utilization. The information we obtained led us to formulate some basic principles and goals for how space may be managed today and developed for the future.

Perhaps foremost in our discussion was the question of the organization of space management on our campus. We sought to determine whether the management was as transparent as it could be and to identify how it might be improved. We also tried to focus on visible "pressure points" in campus space utilization, places where the available space was inadequate for people and units. Compact classroom scheduling and recent growth in off-campus leased space were two obvious signs of such pressure. Addressing these points may not result in immediate cost savings, but formulating a plan for their relief may reduce the need for future construction and/or save annual expenditures in the long run.

It is our collective vision that the highest priority should be given to the allocation of high quality, institutional grade classroom and teaching laboratory space in a more strategic and concentrated fashion on the primary quad complexes or as nearby as possible. Administrative functions (e.g. auditing, accounting, public relations, business, human resources) should be allocated space of commercial grade in more peripheral locations. We urge that greater care be made in decisions regarding the location of new facilities in terms of student and faculty accessibility. For instance, while the Illinois Conference Center offers some much needed space for certain meetings, it is largely removed from significant faculty and student use. We understand that the national and state economies are under extreme fiscal challenges; however, we believe it is prudent to develop a "Road Map" concerning the future construction and renovation of new facilities for all of our campuses. When we move into an economic resurgence period, the University of Illinois will be poised to move forward swiftly and strategically in securing the necessary resources to implement these construction projects.

#### IV. REVIEW PROCEDURES

##### Meetings

The committee met seven times during the summer in the Loomis Laboratory for Physics. Each meeting was two-hours long. Summer travel created difficulty in finding times when committee members could meet. The meeting dates, the major topics discussed, and the meeting guests are shown below:

Friday, May 21	Introductory meeting.  Discussed the knowledge and experience of committee members, the committee charge, space management on campus, peer institution websites, and developed plans for the review
Thursday, May 27	Discussion about the committee charge with <b>Stig Lanesskog</b> , Provost's Office  Presentation on the history of current space management policies by <b>Steve Hesselschwerdt</b> , Associate Director for Space Management in Facilities and Services
Thursday, June 3	Interview with <b>Matthew Tomaszewski</b> , Associate Dean of LAS responsible for Facilities and Space
Wednesday, June 9	Discussion of space management issues including leases
Wednesday, June 16	Interview with <b>Bill Goodman</b> , Assistant Dean for Administration & Technology in the College of Applied Health Sciences  Interview with <b>Dan Doolen</b> , Instructional Media Systems Engineer for CITES-Classroom Technologies
Thursday, July 8	Discussion of recommendations for the report
Tuesday, August 10	Discussion of recommendations for the report
August 11 – 27	Report writing
Friday, August 27	Report Submission

## Survey

We sent out a list of questions to campus personnel who have responsibility for space management in units or programs to solicit comments about how we manage space. This questionnaire very closely resembled the original questions that we asked in the charge to this committee. Out of approximately 100 requests sent out, we received responses from about 25 people, a fairly low response rate but not unexpected for summer. The responses ranged from brief comments on specific issues to extensive analyses of space utilization on campus. Since this survey was neither comprehensive nor scientific, we chose not to identify individual respondents or to present specific comments or statistics. However, we found this input to be very helpful in assessing the overall understanding and assessment of how we manage space at Illinois and for suggesting what needs to be changed from the broad campus community. This collective knowledge has helped to shape our report.

## Discussions

Informal discussions were held between individual committee members and many people across campus. Again, rather than report on specific input from individuals, we made use of these contacts to gain an overall picture of space availability and management on campus.

Within the committee, we carried out significant discussion and debate on the issues connected with space management and possible ways to both improve efficiencies and reduce costs. These discussions resulted in the answers to the charge questions and our recommendations.

## Documents

The committee reviewed the following space-related documents:

Campus Building List (Building Number, Name, Address, NASF, GSF, NASF:GSF Ratio, Date Built)

Aerial Views of Campus: May 1962, 1974 (Shown on report cover),, and 1995

Higher Education Facilities Management Association (HEFMA) Facilities Surveys: 2000 - 2009

Instructional Space documents

- Classroom Capacity, Sorted by Size (<http://www.fms.uiuc.edu/Facilities/ClassroomCapacities/index.asp?report=Classroom%20Capacity,%20Sorted%20by%20Size.xml>)
- Instructional Space Implementation Team – Final Report (2008-2009) ([http://www.provost.illinois.edu/committees/IS\\_implementation.html](http://www.provost.illinois.edu/committees/IS_implementation.html))
- Provost Scheduling Guidelines ([http://www.fms.uiuc.edu/provostletter/schedule\\_policies.pdf](http://www.fms.uiuc.edu/provostletter/schedule_policies.pdf))
- Proposal for General Assignment Classroom Oversight Structure (April 19, 2010)
- Fall 2008: Students Per Hour (8 AM – 5 PM, M – F)
- Fall 2009 Room Use 8 AM to 5 PM
- Spring 2010 Room Use 8 AM to 5 PM



## Campus Leases

- Local Leases
- Other Leases
- Illini Center, Chicago

Data Center Consolidation Committee – Final Report (February 12, 2010)

A Climate Action Plan for the University of Illinois at Urbana-Champaign (May 15, 2010)

## Campus Master Plan Documents

- Campus Master Plan Update – Executive Summary (March 2007):  
[http://www.uocpres.uillinois.edu/docs/UIUC/reports/UIUCmpu\\_execsum.pdf](http://www.uocpres.uillinois.edu/docs/UIUC/reports/UIUCmpu_execsum.pdf)
- Campus Master Plan Update – Full Technical Report (March 2007):  
[http://www.uocpres.uillinois.edu/docs/UIUC/reports/UIUCmpu\\_report.pdf](http://www.uocpres.uillinois.edu/docs/UIUC/reports/UIUCmpu_report.pdf)
- Information Sheets on approved plans:  
<http://www.uocpres.uillinois.edu/docs/UIUC/mastrpln/UIUCplan.pdf>
- Core Campus View (2007, University Ave. to St. Mary's Road):  
[http://www.uocpres.uillinois.edu/docs/UIUC/mastrpln/UIUCmp\\_Core.pdf](http://www.uocpres.uillinois.edu/docs/UIUC/mastrpln/UIUCmp_Core.pdf)
- Main Campus View (2007, University Ave. to Windsor Road):  
[http://www.uocpres.uillinois.edu/docs/UIUC/mastrpln/UIUCmp\\_Main.pdf](http://www.uocpres.uillinois.edu/docs/UIUC/mastrpln/UIUCmp_Main.pdf)
- South Campus View (2007, Kirby/Florida Ave. to Airport Road):  
[http://www.uocpres.uillinois.edu/docs/UIUC/mastrpln/UIUCmp\\_South.pdf](http://www.uocpres.uillinois.edu/docs/UIUC/mastrpln/UIUCmp_South.pdf)
- Entire Campus View (2007, University Avenue to Airport Road):  
[http://www.uocpres.uillinois.edu/docs/UIUC/mastrpln/UIUCmp\\_Entire.pdf](http://www.uocpres.uillinois.edu/docs/UIUC/mastrpln/UIUCmp_Entire.pdf)

Summary Report of an Inventory of Significant Architecture and Sites, University of Illinois at Urbana-Champaign, February 1987

## Space Related Documents from Other Universities

- CIC Academic Leadership Program, Purdue University, April 8-10, 2010
  - Space Management and Utilization: An Inside Story, Keith Murray, Purdue University
  - Tips for Managing Space Effectively, Frances Mueller, University of Michigan
- Cost Containment at the University of Michigan (CIC Provost's Meeting, June 7, 2010)
- Ben Huey and JoAnne Valdenegro. 2006. Improving Assessment of Space Utilization in a Transdisciplinary Research Environment. *Planning for Higher Education*. 34(4): 24-34.

## Benchmarking

Although we decided it is difficult to compare practices on other campuses with our situation at Illinois because of differences in the structure of administration and resource allocation at different institutions, we did review the space management websites and policies of some other institutions, including Purdue University and the University of Michigan.

## V. OUR FINDINGS

“Managing campus space is a lot like herding cats. The nature of academia and the distributed management of schools, colleges, departments, and campuses make measuring, planning for, and managing space a formidable task.”

*Managing Space on Campus Planning Resources,*  
Society for College and University Planning

### A. Overview

Space management is one of the most important, most challenging, and perhaps most contentious issues facing major universities. Although this did not come as a surprise to any of us on the committee, we were constantly reminded of this throughout the process. The core of the problem is the complexity of balancing the diverse interests of the many users of space on and off the campus and the diverse types and qualities of space on the campus.

We reached the following overarching impressions:

- The University of Illinois at Urbana-Champaign (Illinois) has an enormous resource in the amount of land and real estate space it possesses --- it is one of our greatest assets as an institution.
- In many cases, we have not been very good stewards of this space, favoring special opportunities for new buildings over an optimized campus strategy, deferring necessary maintenance far too long, and avoiding the implementation of policies that allow better utilization of the space we have. Here, “we” refers to the collective of people at the State, University, College, Department, and Faculty and Staff levels --- it is not appropriate nor productive to blame any particular group or decision over the years, but it is clear that we can make improvements in the creation and management of space on campus.
- In general, we endorse the basic philosophy of our current space management --- a system which distributes responsibility between the campus administration and the academic and research units. It is our perspective that significant local control at the department and college level is necessary to meet the needs of faculty and staff who are carrying out the missions of the University, but additional oversight and management at the campus level is needed to ensure optimal use of space and to promote the overall campus strategic plan. Neither a fully top-down nor bottom-up approach can achieve these goals. As a result, we support retaining elements of our existing, relatively decentralized structure while implementing some centralization of space planning and overall allocation. Every major academic unit should be assisted in the development of an academic master plan for its space --- these will be used to maintain and evolve the Campus Master Plan.
- A major challenge of space management is the pervasive view on campus that space is a commodity to be acquired and protected at all costs. Most of us never want to give up space once we have acquired it, perhaps for fear that we will never get it back or that we may need it someday. It is a natural tendency but one that inevitably leads to the inefficient use of some fraction of our space.
- Although this study was motivated largely to find ways to reduce costs on campus, we identified few obvious ways to do that in the short term. However, we did identify actions that we think will ultimately lead to a better use of space and an increase in the overall

quality of our space for the faculty, staff, and students at Illinois.

## B. Responses To The Key Questions Posed

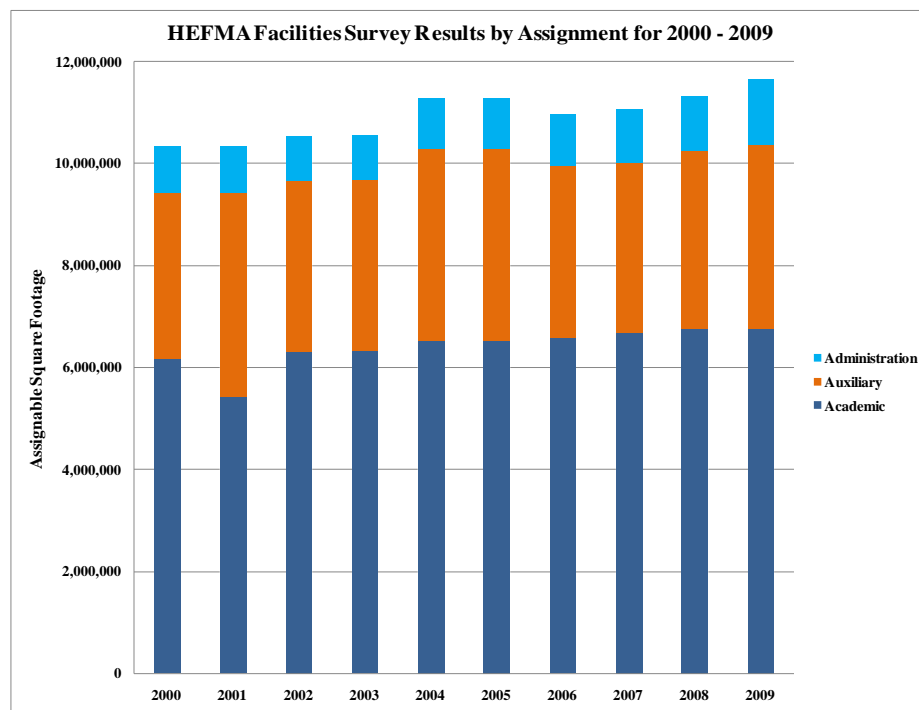
The charge letter for this committee identified a set of key questions to be explored by the committee relative to space utilization on campus. This section of the report provides the specific answers to the questions based on the information presented to and/or gathered by the committee.

### 1. SPACE ALLOCATION

#### (a) How much space do we have on campus and how is it allocated?

The Higher Education Facilities Management Association (HEFMA) Facilities Survey provides a standardized space summary for campus. Space allocations in the survey are divided into three major types: academic, auxiliary (i.e., units providing goods or services primarily to individual students, faculty, and staff), and administration (i.e., University and Campus Administration). The table and chart below show the survey results for the period 2000 – 2009, a period that saw an increase in the assignable square footage of 1,331,158 square feet or 12.9%.

Higher Education Facilities Management Association (HEFMA) Facilities Survey Results for 2000 - 2009											
Type	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Growth
Academic	6,164,693	5,426,463	6,312,841	6,334,830	6,516,335	6,521,962	6,570,522	6,685,594	6,744,160	6,765,057	9.7%
Auxiliary	3,250,604	3,988,888	3,339,621	3,334,355	3,763,606	3,763,606	3,362,632	3,330,908	3,501,720	3,600,954	10.8%
Administration	902,071	902,028	862,475	871,175	997,869	997,993	1,015,699	1,054,661	1,075,395	1,282,515	42.2%
Total	10,317,368	10,317,379	10,514,937	10,540,360	11,277,810	11,283,561	10,948,853	11,071,163	11,321,275	11,648,526	12.9%



The auxiliary units are comprised of Athletics, Recreation, Campus Parking, Illini Union, McKinley Health Center, Printing Services, Willard Airport, Housing, and Student Activities,

Programs, and Services. These units are self-supporting and were excluded from our study.

In this report, we focus on the **6,765,057** assignable square feet of academic space. This corresponds to approximately 536 square feet for each of the 13,852 faculty and staff employed by the campus. The assignable academic space has grown by approximately 9.7% over the past decade from 6,164,693 to 6,765,057 assignable square feet of academic space.

Within the academic category, space use is distributed as follows:

Office and Conference	2,126,943	31.44%
Research Labs	1,576,536	23.30%
Study Areas	773,377	11.43%
Teaching Labs	694,241	10.26%
General Use	370,976	5.48%
Special Use	358,731	5.30%
Classrooms	339,776	5.02%
Support	336,114	4.97%
Open Labs	99,741	1.47%
Health Care	72,289	1.07%
Residential	35,205	0.52%
Unassigned	21,129	0.31%

The major academic units on campus have been assigned 4,789,311 square feet of space or 70.8% of the academic space assignment. The following table shows the space assigned to the major academic units relative to the student headcount and the faculty and staff full-time equivalent (FTE) positions:

Academic Unit	Student Head-count	Faculty FTE	Staff FTE	Total	Percent of Total	Assignable Square Footage	Percent of Total
LAS	15,463	1,332	1,438	18,233	36.7%	1,139,169	23.8%
Engineering	7,781	751	622	9,154	18.4%	1,177,931	24.6%
Business	3,950	172	399	4,521	9.1%	119,829	2.5%
ACES	2,890	425	1,002	4,317	8.7%	914,550	19.1%
FAA	2,857	398	340	3,595	7.2%	547,865	11.4%
AHS	2,109	123	211	2,443	4.9%	135,334	2.8%
Education	1,854	174	273	2,301	4.6%	97,304	2.0%
Media	1,040	58	209	1,307	2.6%	54,146	1.1%
Law	624	89	109	822	1.7%	113,538	2.4%
GSLIS	605	44	54	703	1.4%	23,735	0.5%
Vet Med	517	121	294	932	1.9%	326,656	6.8%
Social Work	313	34	49	396	0.8%	24,296	0.5%
Aviation	209	12	61	282	0.6%	949	0.0%
LER	188	30	35	253	0.5%	13,078	0.3%
Grad College	4	1	53	58	0.1%	9,006	0.2%
Medicine	0	48	332	380	0.8%	85,114	1.8%
General Studies	0	0	40	40	0.1%	6,811	0.1%
Total	40,404	3,812	5,521	49,737	100.0%	4,789,311	100.0%

Source: 2009 HEFMA Facilities Survey

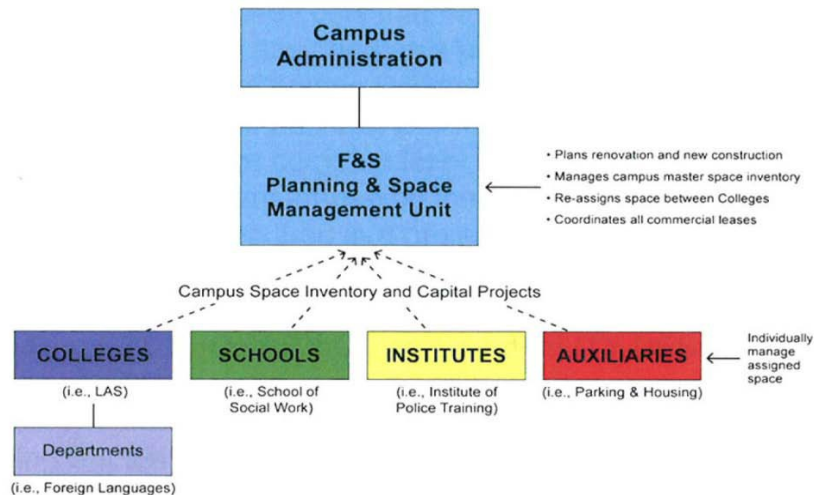
The other academic units and their total space assignment are shown in the following table:

Other Academic Unit	Assignable Square Footage	Percent of Total
Library	714,983	36.2%
General Classrooms	433,229	21.9%
Beckman Institute	188,906	9.6%
State Natural History Survey	146,751	7.4%
Institute for Genomic Biology	105,133	5.3%
State Geological Survey	104,825	5.3%
Supercomputing Applications	77,796	3.9%
State Water Survey	69,025	3.5%
Police Training Institute	47,521	2.4%
Fire Service Institute	30,539	1.5%
Waste Management Research	27,932	1.4%
ROTC	21,148	1.1%
Institute for Natural Resources	1,371	0.1%
UIC College	6,587	0.3%
Total	1,975,746	100.0%

Source: 2009 HEFMA Facilities Survey

The complete 2009 HEFMA Facilities Survey is provided in the Appendix.

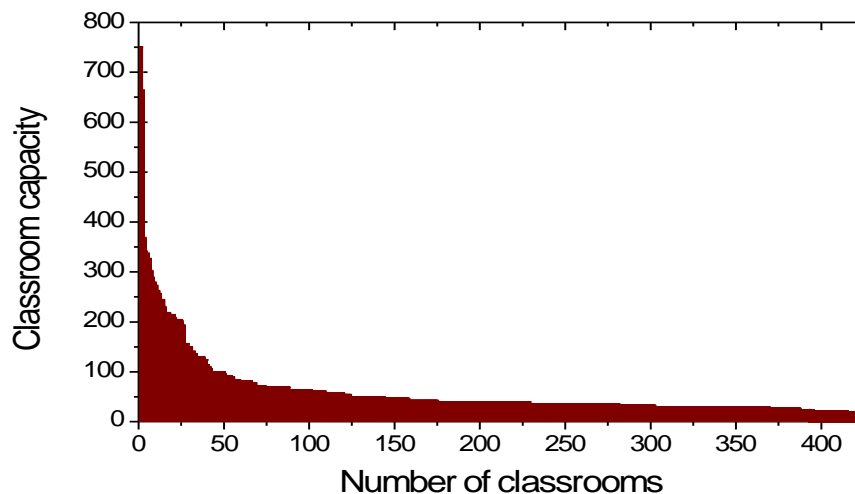
The method of space allocation of space has not changed greatly over the last few decades. Space is currently managed by a distributed system in which most of the space is occupied and controlled by the units at the college, school, department, institute, and auxiliaries level. The following schematic details the role of academic units, auxiliaries, and Facilities and Services, and Campus Administration in the management and oversight of space on campus.





Per the guiding principles for the scheduling of classes, the “Office of the Provost is responsible for setting policies and procedures for the management of all campus classroom and learning spaces.” There are approximately 400 classrooms (managed by the Office of the Registrar) in the general pool of classrooms on campus and approximately 380 additional departmental classrooms.

Of the general pool classrooms, only 8 have a capacity of 300 seats or more and only 40 have a capacity of 100-300 seats. Of the remaining classroom, 256 have a capacity of 25-99 seats and 38 have a capacity of 15-24 seats. The large classrooms are the most requested, as more units are creating larger sections of courses to handle increased demand, and in some cases, reduced numbers of instructors.



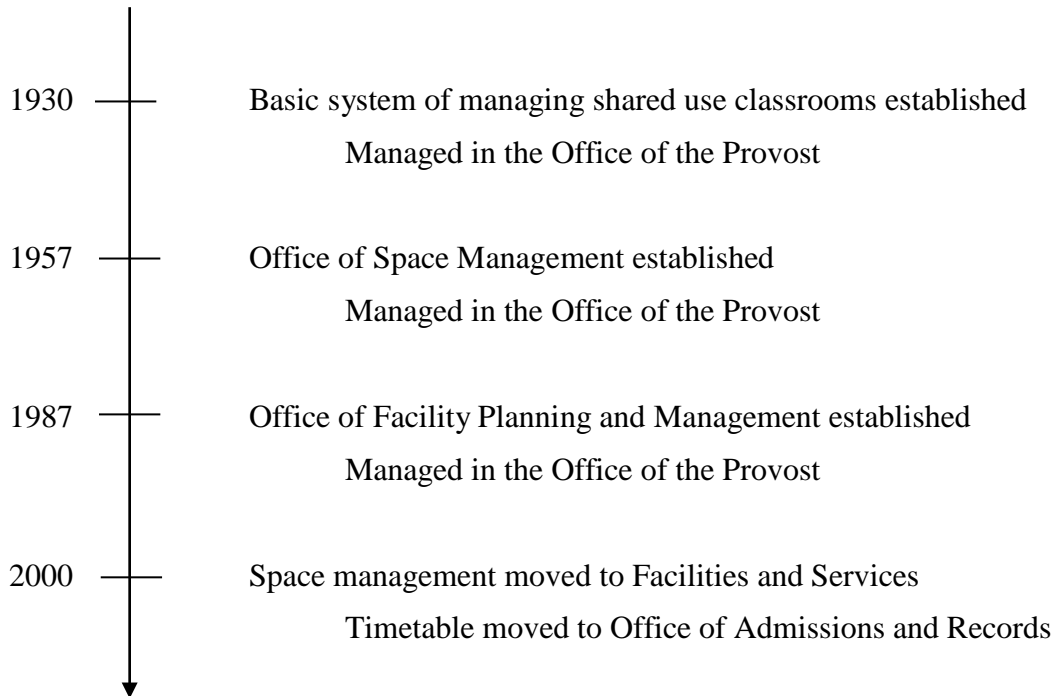
Currently 189 of the general pool classrooms are outfitted with basic classroom instructional technology that includes display/projection devices and sound capabilities for convenient use with laptops. This leaves approximately 210 of the general pool classroom with only overhead projectors for the instructor to use. The need for contemporary technology in classrooms is the number one request by units across campus and the lack of basic projection capabilities from laptops/computers often creates scheduling bottlenecks. Simply put, we do not have enough equipped classrooms to meet current demand. We believe that modern classroom technology should be made available within every general pool classroom on campus, and in fact, even in every departmental classroom.

In Fall 2009, the campus instituted scheduling guidelines that have resulted in increased efficiency in scheduling and use of instructional space. For example, priority scheduling is given to those courses that follow the standard teaching schedule (i.e., classes on MWF that begin on the hour and classes on TTh that are taught for 75 to 80 minutes beginning at 8 a.m., for instance 8 a.m.-9:20 a.m., 9:30 a.m.-10:50 a.m., etc). The next step in increasing use and improving utilization would be identifying the challenges (e.g., technology) in our space to further increase effectiveness and utilization.

There is currently no oversight committee for classroom use, technology, and overall facility needs.

*(b) How have space policies and assignments on campus changed over the past two decades?*

There have been some changes in the administration of space management. The following timetable provides an overview of the history of space management on campus:



However, it is our perception that the basic philosophy of space management has not significantly changed on campus, with most space being managed at the unit level with oversight from the campus.

*(c) How often and in what ways do we determine if space is underutilized?*

Like most space issues, this is primarily done at the department level. Some departments carry out formal space audits, often in response to new hires or new research directions creating pressure on existing facilities. Others rely on the department head and/or space committees to monitor space usage and assess how well space is being utilized.

Some Colleges have also carried out space surveys to determine how much space is assigned to departments and individual faculty. In some cases, research space has been correlated with research expenditures to assess how efficiently space is being used.

## 2. LEASED SPACE

*Given the significant funds we are allocating for space rental off campus, are there ways we could reduce these expenditures without sacrificing quality of our core missions?*

Prior to our study, most committee members were unaware of how much space is being leased and how much it is costing. We believe that this is in most cases not an efficient use of funds and that we own enough space to accommodate most of our operations in University-owned buildings, certainly within the Champaign-Urbana area. However, there are many reasons for leasing space so it is necessary to look at each case separately and determine where University space can be found and its relative merits as opposed to leasing.

We separated leased space into two categories, leases in the Champaign-Urbana area and leases outside of the area. We assumed that units renting space outside of the area did so out of a need to reach a particular audience or take advantage of some resource. As a result, we did not question whether these distant locations constituted an efficient use of space.

## 3. SPACE MANAGEMENT POLICY

*(a) Do campus and unit space policies support or hinder the effective use of space?*

We are not convinced that there is a serious flaw in the structure of space management on campus. The campus officials we interviewed and heard from through surveys and other means generally expressed satisfaction with their ability to identify and allocate space within their units (e.g., within colleges or schools). Many of them noted the importance of units being able to respond to changes in research and instructional needs through internal reallocation of space.

The one element of campus space management that needs to be reconsidered is the decentralized nature of the management of space that lies outside the colleges and other units (e.g., general assignment classrooms) and the allocation of space between colleges and units. It appears that the location of control of space in these cases in units outside the main office of the provost may be problematic. Decision-making spread across several areas of campus may hinder the ability of planners and users to make the most efficient use of space.

*(b) How can we incentivize units to manage and share space more effectively?*

The committee considered ideas for providing incentives to units. One idea involved the departmental classrooms. It would be ideal if those rooms could be scheduled as part of the general pool of classrooms once the departmental needs are met. The suggested incentive for department relinquishing some control was that the campus would provide and manage the standard technology installed in the classroom.

Another discussion centered on charging units for use of space. This idea was rejected as it seemed to reinforce the notion of space as a commodity to be traded. Instead, the committee embraced the notion that space on campus is a valuable common resource that needs to be distributed without being directly or strictly tied to the financial resources of individual academic units.

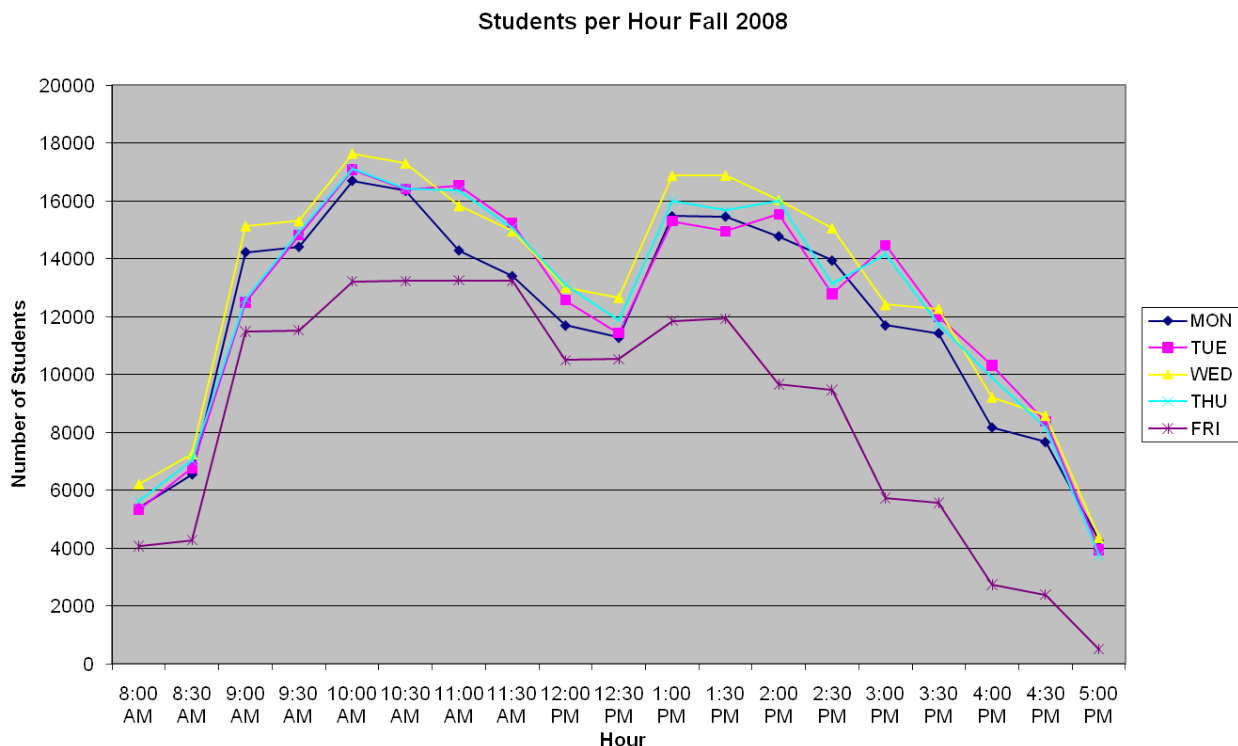
#### 4. IMPROVING SPACE MANAGEMENT

*(a) Are there creative ways in which we can use and manage space?*

Throughout our study, we considered many ideas for improving space management --- these form the majority of our recommendations. However, one general realization of our committee was the overall complexity of the space management problem. Most ideas that were good for one function would compromise others and we found it necessary to take a broad view of space allocation.

*(b) How can classroom space be managed more effectively?*

Although the campus maintains a large number (~400) of general pool classrooms and the units maintain an almost equal number in their buildings, there is a general feeling that we do not have enough classroom space. This stems from several basic problems. First, these rooms are distributed unevenly across campus. Second, the quality of classrooms differs greatly and many of the rooms have not been upgraded to include standard technology that all instructors now want and all students now expect. Third, many of these rooms are not fully utilized each day or across the week, although recent initiatives from the Provost's Office have helped to encourage more efficient scheduling and wider usage. The following shows a graph of classroom use across campus during the day and week:



Not surprisingly, peak usage occurs Monday through Thursday, between 9 and 11 in the morning and 1 and 3 in the afternoon. It is clear that we could relieve classroom scheduling pressure if we could determine ways to shift more classes to Friday and distribute them more evenly between 8 and 5 --- this approach would require a shift in the thinking of the faculty and students and/or incentives. However, whether such efficiency should be the primary

value in decision-making about space allocation is an open question.

*(c) Can work stations or hoteling be used to increase office space efficiency/effectiveness?*

Hoteling and hot desking (work stations) are two methods of accommodating workers using unassigned seating or workspaces. Hoteling involves a reservation-based system in which an individual can reserve an office or workspace for a period of time when they expect to be present in a facility. Hot desking involves work stations that are available on a first-come, first-served basis. Somewhat analogous in the academic setting were the library carrels that were available for walk-up use that may extend for several hours (hot desking) or that could be reserved for a semester or longer (hoteling).

In general, our committee does not think this is an approach that works in most cases. Although sharing of office space and computers has been effectively implemented for graduate students in some research units, most of faculty and staff have compelling needs for assigned desks (e.g., storage of books and documents relevant to their scholarship) and/or private offices. The Illinois campus culture generally values a sense that faculty and staff are resident in spaces where our students and fellow employees can find and interact with them.

However, there are some units on campus, e.g. the Beckman Institute and the Micro Nano Technology Laboratory (MNTL), that have begun to use hot desking as a method to increase the utilization of faculty office spaces that are secondary to their home department offices and used intermittently. At the Beckman Institute, up to four faculty members have been assigned to an office that has two desks. The limited use of hot desking in this case is too new to provide any insights into the long-term viability of using the concept to increase office space efficiency/effectiveness on campus or to determine whether it will aid or inhibit productive collaborations.

*(d) Are there ways to manage lab space more effectively?*

It is clear that there is lab space on campus that is not optimally utilized. However, it is our strong opinion that lab space can be managed only at the department or research lab level. Researchers have needs for space and services that are highly-specific to the task, quite different from the uniform requirements of an academic office. Only the unit administrators are in a good position to assess those needs and balance them with respect to costs and the need of other researchers. This is already done in most units, with the Unit Head or designees keeping track of the space allocated to the unit and monitoring its use and the needs of the personnel.

*(e) What are the barriers to these types of innovations?*

People are inherently resistant to change. Perhaps unintentionally, we have bred a culture of faculty and students who expect to teach when they want and take courses when they want. In some cases, there are good reasons why classes early in the morning and late in the day and on Fridays are not ideal, including family commitments, research obligations, and protection of time to think and study. However, in many cases, this is just an expectation and convenience.

In our internal discussions and in discussions with others, there is very clear resistance to movement away from the long-term, solitary occupation of office and laboratory space. Researchers value the continuity and convenience of office space and perceive laboratory

space as a valuable and scarce resource.

## 5. COSTS AND COMPARISONS

*(a) Are there upfront costs associated with such innovations?*

The innovations that we identified fall into two categories : 1) actions that require changes in the management and use of space on campus; and 2) actions that require adding or improving space. The first category requires little investment of funds but will require time and labor by faculty, staff, and administrators on committees to assess the space on campus and to restructure our management system. The second category will require a major commitment to new growth, remodeling, and continual maintenance of campus buildings. In the short term, this will be costly, but immediate savings will be realized in the decreased expenditure for leased space, only be seen with further savings in the long term as buildings become better utilized. However, the potential benefits are significant and will justify the investment.

*(b) Are there models at other institutions for effective and creative use of space?*

At the beginning of our study, we did look at many other institutions, especially peer public universities. Although we saw many interesting structures and systems, we did not find it useful to try to adapt any of those to our campus. The administrative and financial structures are so different and the campus geography so unique that we concluded that we have to create an approach to space management that works for us.



## VI. ADDITIONAL CONSIDERATIONS

In the course of our meetings and discussions, we touched on a number of subjects that we considered important but did not have time to address in sufficient detail. Here is a short summary of some of those topics:

Online education: We had an extensive discussion of what impact the increasing number of online courses and students would have on our need for campus space classroom space. Although we expect this trend to continue, we found it difficult to assess its effect. For the most part, these courses are designed to increase the total number of students taught, and to increase enrollments from non-traditional and non-local students, rather than switch student from classroom to online course delivery. Further, these courses still require studio space and interaction classrooms. We determined that this issue did not fall under the scope of this committee but should be revisited at some point.

Space allocated to athletic programs: We briefly discussed the expansion of athletic facilities and their impact on affecting academic space on campus, especially programs in ACES. We concluded that this issue, although critical for developing an overall campus space utilization plan, did not fall under the scope of our study.

Reserve space: When the Natural History Building needed to be vacated recently due to safety concerns and classes needed to be relocated, many units generously offered space. Although one might see this as an indication that space is not being efficiently utilized in many buildings, the committee generally viewed this simply as a positive willingness of units to help another department. We do not think it is unreasonable for some fraction of space in a building to be temporarily underutilized or saved for a new hire or program. This space provides flexibility to the unit for special events, new personnel, and new initiatives.

Records management: In our survey, several people commented that a significant amount of space in their buildings is occupied by the storage of paper records. In some cases, these are considered to create a fire hazard and staff costs to access and maintain. Although this issue is not directly relevant to our study, we do agree that a more efficient record management program would relieve pressure on space and have many other benefits. There was some support for an off-campus data record storage facility that would be compatible with the administration building we recommend. There was also wide support for moving more quickly toward a paperless environment.

## VII. RECOMMENDATIONS

Our committee proposes the following recommendations, divided into three categories:

- A) space management policies and procedures
- B) quality and utilization of existing space
- C) creation of new space on campus

### A. Space management policies and procedures

#### **1. Move space management to the Office of the Provost.**

Because space allocation is primarily an academic function, the Provost (rather than Facilities and Services) is in the best position to balance the needs of individual units with those of the broader campus community. As stated before, we support a model that provides some decentralized control by individual units to allocate and control space within their buildings. This includes both research and some educational space. Department heads are most aware of the needs of individual teachers and researchers and can assess and balance space requirements. Colleges are positioned to allocate spaces between units within their organization. However, in cases in which buildings are shared by units from different colleges, the Provost's Office is the optimum authority to help facilitate the allocation of space. That overview is also essential to campus-wide space planning.

The allocation of classrooms is perhaps the function most in need of Provost oversight. General assignment classrooms are shared by units across campus. Efficient use of these shared facilities is in the best interests of the university, as a whole.

#### **2. Maintain an accurate record of space usage.**

Although some auditing of space is carried out on campus and in specific units, we did not believe that enough information is collected or made available to get a full picture of space usage on campus. We propose that a database for space be established, a place where space allocation, occupation, and usage be documented and made available to appropriate administrators. A significant part of this challenge will be to determine procedures to poll space allocation and usage and to establish metrics for assessing its utilization. This must be done cautiously and thoughtfully since the space needs differ greatly between units and disciplines and among individual faculty.

#### **3. Create a plan for reducing, and eventually eliminating, the leasing of space off campus.**

The current costs of renting space off campus are prohibitive. It is also inefficient to lease space when the campus has the large space inventory described above. In the long term, the committee agreed that the campus would generally be better served by investing resources in upgrading or expanding existing facilities or building new ones, rather than leasing facilities off campus, except in emergency situations.

The case of the Illini Center in Chicago is a unique use of leased space. While the costs and benefits of the Illini Center deserve more study, the committee recommends that the campus find ways to better advertise and utilize this leased facility. Many on the committee were

totally unaware of the existence and capabilities of this valuable resource.

**4. Require that each College and campus Research Unit develop a master plan for new buildings and renovation projects.**

Academic goals should determine facility needs. If long-term plans are developed by every college for both academic goals and the resultant facility needs, it will be possible to prioritize maintenance, new construction and future energy needs. These plans can form the basis of decision-making within the Provost's Office, and the Provost's Office can in turn help F&S and the Colleges coordinate and develop these plans. Based on these College Facility Master Plans, the Provost's Office should then work to develop/coordinate Campus wide capital projects and funding.

It is particularly important to undertake this exercise now so that when the economy does improve, hopefully within the next few years, we will be ready to move forward aggressively. Historically, campus expansion and new building comes in spurts and we expect to enter one of these high growth phases at some point.

**B. Optimization of existing space**

**1. Make a campus commitment to upgrade all classrooms to a minimum level of instructional technology within the next five years.**

Basic instructional technology (such as projectors with a laptop connection) is not available in all classrooms on campus, with the result that some instructors cannot effectively employ new instructional methods and modes of engaging our students. Although many people might be surprised that a substantial number of classrooms at a top-caliber university like the University of Illinois are still outfitted only with a blackboard and chalk (the standard two centuries ago!), that is the case in some of our current classrooms. The quality of the classroom sends a concrete signal to the student of the university's commitment to a quality education, and creates a lasting impression. Our current students are the future alumni of this institution, and investing in ways to improve the students' educational experience at Illinois may pay off in the future in increased involvement and support for the university for our current classrooms.

We recommend that the campus invest resources in outfitting every single classroom on the campus, including those managed by individual units, with basic instructional technology, as soon as possible, to meet the current basic needs of students and faculty. This will require a substantial upfront investment. However, we believe it will dramatically improve teaching efficiency and creativity, boost morale for students and faculty, and make a strong statement that education of the students is our top objective. All of these are particularly important now to attract top students here and give them the training and student experience that will endear them to Illinois in the future.

**2. Appoint a standing committee to oversee classroom space, including maintenance, design, scheduling, and technology standards.**

The current planning, management and maintenance of general classroom space on Campus is performed by three Campus offices; the Office of the Registrar, Facilities & Services and CITES Classroom Technologies. Each office provides exceptional service in their respective areas of scheduling, maintenance and technology as their individual policies prescribes. The decentralized management structure affords each office the flexibility to manage their respective duties and responsibilities as they relate to the general classroom pool. However, the decision-making spread across several areas of campus may hinder the ability of planners and users to make the most efficient use of classroom space.

We recommend establishing an oversight committee for all classroom and instructional laboratories to review and update current policies and regulations governing those types of spaces. The way we teach and the way students learn have evolved dramatically since most of classroom and instructional laboratories were built. We need to stay at the cutting edge of these innovations if we wish to remain attractive and effective in our educational mission.

**3. Establish a committee at the Provost level to evaluate the needs of faculty and students for research space on campus and develop ways to utilize it more efficiently.**

Consistent with our recommendation that the Provost's office be ultimately responsible for space allocation, we see a need for a Provost-led effort to maximize the efficiency of research space. The creation of a committee to study how research space is created, allocated, and used may be able to identify ways to increase research productivity and maximize the instructional utility of research spaces without significant expenditures. At the very least, such a committee could be a conduit for sharing space allocation practices between units on campus.

**4. Weigh the costs and benefits of decommissioning and/or demolishing some buildings on campus to reduce maintenance burden and energy footprint.**

There is enormous resistance to tearing down existing buildings on campus but in the long run this would improve the look and efficiency of the campus. In some cases the costs of maintaining buildings outweighs the benefits of their usage. Further, it may be necessary to create space in parts of campus for new building initiatives (see Section C below).

The Space Management office has identified a number of buildings that could be removed, given the right circumstances. While such decisions need to be made carefully in full consultation with a variety of constituencies across the campus, the committee acknowledged that a campus-wide master plan should not rule out this option in some cases. Their list could be the starting point of campus discussions. The goal should be to emphasize function over emotional attachment to space that is outdated and inefficient.

One long-standing debate in space planning at all levels is the balance between preserving old buildings vs. creating new modern facilities. Our heritage is important, but the realities have to be considered also --- for the cost of renovating traditional buildings into "adequate" space, we can build new state-of-the art educational facilities that far better serve our students and faculty.

### C. Creation of new space

Looking at the big picture, we propose that the campus adopt a new philosophy for space creation. Despite many attempts at the campus and college level to plan for the future needs of the campus, the reality has been that new buildings have been constructed mostly as a result of research opportunities, donor wishes, and special commitments. Although this has brought some showcase programs and productive facilities to the campus, it has in some ways diverted our attention away from the core mission and constituents of the University. We propose a new approach for the next few years based on function rather than specific disciplines, addressing the need for new, modern, energy-efficient space that serves a large number of students and faculty. This means deciding what we need to make Illinois the model of a public university for carrying out our teaching and research missions and making this the best place to study and work for our faculty, staff, and students.

To achieve this goal, we propose formation of a campus planning committee to develop a master plan for the campus, in consultation with individual units. This committee would coordinate the strategic space plans of the Colleges and research units with a campus-wide perspective, preserving the balance between top-down and bottom-up control of space that we believe to be essential for meeting all of the campus objectives.

In the course of our discussions, the committee discussed a number of ideas that could be considered part of a campus master plan. These include:

#### **1. Constructing a series of dedicated classroom buildings on key locations on campus to provide central modern lecture halls and classroom spaces.**

One concept that we discussed is to design and build modern educational complexes with a series of large lecture halls on the ground level, with upper floors housing classrooms, flexible teaching spaces, and student learning spaces. Each building might include dedicated IT staff that can maintain and support teaching technology.

This plan will require substantial investment. However, this space is not nearly as expensive as research space (such as labs) and would make a transformative improvement in our teaching facilities. We note that this approach will not work for all of our classes, such as courses with substantial laboratory/lecture demonstration components (e.g. physics, chemistry), which are best left in discipline-specific buildings. However, for a substantial number of disciplines, this kind of building would provide an immediate improvement in the quality of classroom space and at the same time free up space in the unit buildings for research and offices. Some academic units currently housed in smaller buildings with little or no classroom space would be well-served by this kind of building, which would provide more stable access to higher quality instructional spaces.

## **2. Constructing an administrative building at the edge of campus.**

Much of the space currently being leased by the university is used for administrative support functions that do not need to be, and in some cases should not be, located in the central part of campus. We could greatly reduce our lease budget and gain benefits from consolidating these functions into a single location. The facility could be built in stages and would be relatively low-cost compared to research space. It could also serve as an ideal location for an off-campus records storage facility if this concept were adopted.

A plan for this building has already been developed by the Space Management office and could serve as a starting point for consideration by the campus planning committee.

## **3. Constructing a centrally-located building with flexible space that can be used for short- term, focused research projects.**

The idea of constructing a flexible building stems from the view of some committee members that one of the most effective ways to increase the productivity and visibility of our university research portfolio is to attract major federally-funded research centers. These centers, available through competitions sponsored by NSF, DOE, and various defense agencies, bring substantial funding and support for students, postdoctoral students, and faculty summer salaries. They also serve to promote creative and interdisciplinary approaches to challenging research problems and form a mechanism for developing central research facilities and capabilities. We already have a long tradition of such centers in campus labs such as the Beckman Institute and the Institute of Genomic Biology, and college centers across campus.

To encourage and increase the chances of attracting new programs, we propose a research building with flexible space that could house new centers, providing office, interaction, and laboratory spaces that would be occupied during the life of a center. It could also be used as temporary space during a building renovation, when units need to relocate for short-term periods.

As part of that concept, we could also create a space for holding academic and scientific workshops in the central part of campus. This could be modeled after, for example, the successful Kavli Institute for Theoretical Physics at UC Santa Barbara that holds workshops all year in a wide variety of topics. It consists of a series of seminar and workshop rooms, a block of shared offices to house participants, and offices for staff to organize and manage the workshops. The visibility and productivity gained from bringing top scholars and researchers to our campus would be immeasurable.

## VIII. EXECUTIVE SUMMARY

Space is one of the most valuable commodities that the University of Illinois at Urbana-Champaign possesses. Quality laboratory space enables the research that puts us on the map. Quality teaching space enables the training and learning of students at all levels. Quality office space and interaction areas energize the faculty, staff, and students and promote creativity and discovery. Our space overall defines us as an institution.

Managing space is a complex challenge, requiring weighing the needs of many people and diverse activities on campus. On our campus, it is compounded by many factors: significant growth in student enrollment, expansion of research funding and activity --- some requiring specialized lab space, the aging of our buildings and insufficient investment in maintenance, limited financial resources, and rising energy costs. Overall, it is our assessment that our current space management approach of sharing responsibility between the college and departmental units and the campus administration is an effective strategy. This approach places the primary control of space in the unit which best understands the space needs of the faculty and staff for meeting their research and teaching objectives. At the same time, it provides oversight from the campus necessary to coordinate strategic objectives and promote cross-disciplinary activities. However, the execution of our space management strategy can be improved.

In this report, we have proposed a series of recommendations that we think can focus our space management policies and practices. The overall theme of our recommendations is to address the critical functional needs on our campus for modern teaching and research space, looking forward to what we want to be as a major public university instead of holding on to what we have always done in the past. We propose that we set lofty and noble goals and then put our creative minds together to find a way to achieve them, something we are good at doing at the University of Illinois.

It is not clear that many, if any, of our recommendations will save money in the short term, one of the goals of the Sustaining Excellence exercise. In fact, what we have targeted is a longer term plan for redirecting the way we think about, use, and create space --- the benefits, improvement in services, and cost reductions will come farther down the road. Our overriding objective is to make the Urbana-Champaign campus the best place to work, study, learn, create new knowledge, and discover new things about our universe and our culture.