Senate Growth and Development Committee 2015/2016

Meeting Minutes 4/29/16

10:00-11:15 am

Senate Conference Room, Hall Dorm

Present – Larry Renfro (Chair), Joseph Crivello, Andrew Moiseff, Maria Gordina, Michael Accorsi, Lyle Scruggs, Dave Benson, Greg Bouquot, Faquir Jain, Karl Guillard.
Missing – Suzanne Wilson, Alec Calva, Kristen Schwab, Kathy Hendrickson, Tracie Borden, Robert Bird, Larry Silbart

Guests – Beverly Wood, Director of PAES and Chief Architect and University Master Planner Laura Cruickshank

1. We accepted minutes of the last meeting and approved the amendment for Senate membership, and the draft annual report.
2. The remainder of the meeting was devoted to discussion of the University Master Plan with Laura Cruickshank and Beverly Wood. The Committee was provided with a copy of the Master Plan and the most recent updates. Architect Cruickshank discussed the factors driving growth, and pointed out that the assumptions at the start of planning had changed. The State political arena has changed as has the master plan as a consequence of lower than expected operating budgets. She now assumes that undergraduate students under Next Gen will increase only 2,000 to 2,500 students instead of 5,000. Because the plan was phased, these changes can be correlated with national metrics.
3. Architect Cruickshank noted capital deferments were necessary as a consequence of state budget challenges. At the request of the State legislature Bonding Sub-Committee, the University agreed to defer $26 million of bonding – hence the hold on the Gampel roof and ceiling dome, the fats, oils, and grease project to reduce its movement into the sewer system (50% of the system has been changed), slowing first phase of Gant and fine arts production facility. Leadership decided it was not possible to halt ongoing building construction. Apparently, the Science/Engineering Building is now considered part of NextGen bonding. It is unclear what will happen at Gant. Leadership hopes the slowdown will not be more than a year. Dr. Renfro noted that the Torrey building may become unsafe over the next 8-10 years. There have already been steam pipe ruptures and electrical and gas fires.
4. Torrey was discussed and what will be done will only be band-aides for emergency fixes.
5. A Final Draft "Review of Space Needs Assessment" was presented to the Committee (attached). There is a current shortfall in STEM space need of 360,000 sq. ft. 34,000 new sq. ft. are needed to properly offer beginning STEM undergraduate courses. It is important to note that these are current needs, and plans indicate that the need

cannot be met for 3-10 years. With the recent delay in Gant renovation, we must assume that there will be further State budget cuts and further delays caused by the next biennial budget.

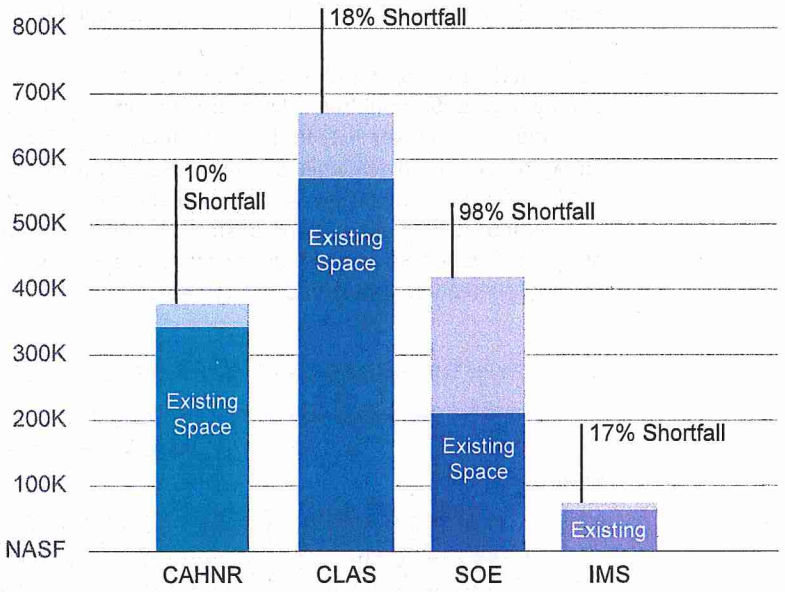
6. Meeting adjourned at 11:15

REVIEW OF SPACE NEEDS ASSESSMENT

Even using the more modest interim (2018) milestone of 2,500 additional students (of which 70% are enrolled in STEM disciplines), UConn's STEM space deficit is significant. Based on that enrollment scenario this study assesses a corresponding space deficit of more than 360,000 NASF not accounting for the quantity of space removed from the portfolio with the anticipated demolition of Torrey Life Sciences Building (TLSB). The chart below summarizes the breakdown of need by school or division.

UConn has proven to be a remarkably popular choice among students in recent years and has seen a dramatic increase in student enrollment within select disciplines. As a result UConn currently operates with a significant space deficit without accounting for potential future growth. For CLAS, this deficit will grow when TLSB is demolished. This existing space deficit is most acute within the School of Engineering which saw a 34% increase in students (headcount) between 2011 and 2014 as compared to about 7% for CLAS and CAHNR. In the case of Engineering, student enrollment has already surpassed the 2018 planning scenario. Due to the procedures and equipment found within engineering, these functions are perhaps the most space-intensive of all STEM disciplines. The increase in student enrollment coupled with the existing space deficit and the nature of the spaces required collectively translate to a need for 70% more space within the division, far more than in any other STEM component at UConn. Even as new space is allocated to Engineering in new construction underway, the School will continue to operate with a severe space deficit that will impact instructional delivery and research activities.

STEM SPACE NEED BY DIVISION



STEM Net Assignable SF Shortfall	Division
37,700	College of Agriculture, Health and Natural Resources
100,300	College of Liberal Arts and Sciences
208,000	School of Engineering
10,700	Institute of Materials Science
360,000*	**Target Additional Need (Shortfall)**

Note: all figures rounded

SUMMARY OF RESOURCES

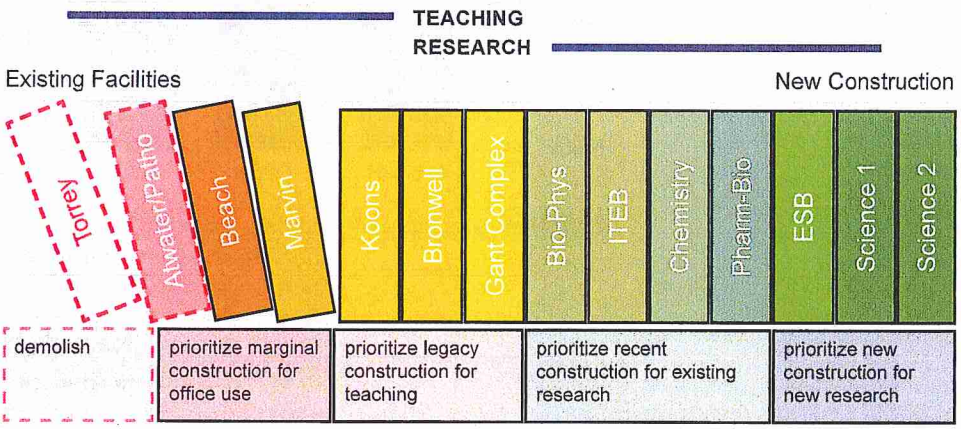
A diverse range of resources can be utilized to address the assessed space needs. New construction represents the best opportunity to provide facilities that do not currently exist at Storrs and that cannot effectively be supported through the renovation of existing facilities. New construction represents a "wild card" best played once UConn has exhausted other options and explored the appropriate use of existing facilities. By avoiding the creation of redundant facilities such as research cores and by carefully collocating similar research and teaching protocols so as to achieve an economy of scale, UConn can preserve this scarce resource for maximum impact.

UConn's existing portfolio of STEM spaces span the gamut from new state-of-the-art research laboratory buildings to aging facilities that have far outlived their useful lives. A key driver of the planning study and a core UConn planning principle has been to plan an expeditious way to locate appropriate functions in appropriate containers such that each building is being put to its "highest and best use."

At one end of the spectrum are facilities of recent construction that are well suited to a range of contemporary laboratory functions particularly fume-hood intensive protocols such as wet-bench chemistry and cellular / molecular research. UConn currently operates several such facilities such as the PharmBio, BioPhysics and Chemistry Buildings, which should be audited for space usage to ensure that UConn is receiving the maximum benefit from the high-quality infrastructure in which the institution has invested. The space deficit underscores the importance of extracting the maximum value from recently built laboratories, particularly if a modest investment in architectural reconfiguration (such as demolishing demising walls) will allow for more flexible use of laboratories at a higher rate of utilization. As is noted later in this report ("3.10 Concurrent Ancillary Projects") select space audits should be conducted to clarify research laboratory utilization rates within potential high-yield facilities.

At the middle-range are older facilities that have solid structural bones or are otherwise worthy of retention but that have obsolesced to a point where some degree of systems upgrade is necessary in order to maintain their viability as laboratory buildings. Further along the spectrum are facilities that are rapidly obsolescing or close to the ends of their useful lives. In many instances, it may make most sense to repurpose these buildings to accommodate less engineering systems-intense infrastructure such as offices or general purpose classrooms with simple mechanical systems and minimal plumbed services beyond building service and sanitary needs.

SPECTRUM OF HIGHEST AND BEST FACILITY USE



At the far end of the spectrum are buildings that have exceeded their useful lives and warrant demolition. The diagram below describes this spectrum using select facilities grouped into categories that were explored in greater detail in Chapter 1.

The total quantity of STEM facilities expansion will be the sum of existing facilities that are repurposed for STEM fields and the quantity of new construction that can be supported through NextGenCT funding, minus the total quantity of space that is demolished or otherwise divested from the STEM portfolio. To maximize the capacity of STEM expansion only the Torrey Life Sciences Building has been identified as worthy of divestiture and demolition. Any repurposing of existing STEM facilities such as Beach, Bronwell or Koons Halls to serve non-STEM functions would further diminish the capacity of new construction to provide much needed expansion of research facilities.

STEM FACILITIES EXPANSION TALLY

MONTEITH + IPB + ESB + SCIENCE 1 + SCIENCE 2 - TORREY

= UCONN STEM EXPANSION CAPACITY

Assignable SF	STEM Resource	Available
+19,000	Monteith Renovation	*2016*
+2,800	Innovation Partnership Building	*2017*
+58,000	Engineering Science Building	*2018*
+110,000	Science 1	*2020*
-68,000	Torrey Life Sciences Demolition	*2023*
+40,000	Science 2	*2025*
+161,800	**Net Increase in STEM Inventory**	

The area noted for Torrey Life Sciences demolition excludes the Torrey greenhouses at grade that will be replaced in connection with the Gant renovation.

PRIORITIZATION OF SPACE NEED

Given the limited resources available only a fraction of the required expansion capacity can be met. It is therefore essential for UConn to prioritize how to distribute expansion capacity so as to best support overall STEM objectives. As noted above, these objectives include the complete renovation of the Gant complex and the eventual demolition of the Torrey Life Sciences Building.

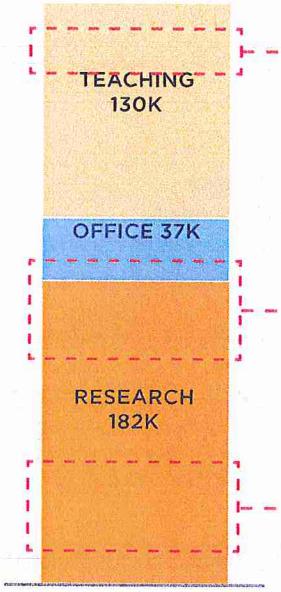
As a first priority the University decided to provide additional capacity to effectively move students through lower-division STEM coursework such as introductory biology and physics. This approach of "widening the pipeline" will reach a broad audience including majors in science and engineering disciplines as well as non-majors completing course distribution requirements. The current space shortfall and poor quality of instructional facilities in these areas has limited student access to STEM disciplines and, if not addressed, will present the most direct challenge to achieving NextGenCT goals.

These courses are foundational to programs that have seen explosive recent growth including engineering and health and life sciences. Based on the space assessment approximately 34,000 NASF of teaching laboratory capacity expansion is necessary to achieve these goals.

As a parallel effort UConn has decided to allocate sufficient space to support faculty in the same disciplines necessary to teach related coursework. This includes a blend of both research and some administrative/office space necessary to relocate faculty from outdated facilities such as the Torrey Life Sciences Building and Gant West and to recruit a sufficient quantity of faculty members to teach anticipated course loads.

Remaining STEM expansion capacity is allocated to future research initiatives and the recruitment of additional faculty. The University must retain flexibility to allocate this space by discipline but will locate this expansion capacity equally across existing and anticipated core support facilities such as the greenhouse and vivarium. In reducing the quantity of core facilities that must be duplicated or recreated the University will maximize the quantity of new research laboratory capacity created.

AGGREGATE STEM SPACE SHORTFALL: 2018 SCENARIO



360K TOTAL STEM SPACE SHORTFALL

34,000 NASF additional undergraduate teaching need has been prioritized to "widen the pipeline" and increase throughput

56,000 NASF of research and office space will address critical needs in the School of Engineering and disciplines fundamental to lower-division instruction

72,000 NASF of unallocated research space has been set aside for future use

360,000 NASF of total STEM space shortfall has been identified based on 2018 planning parameters

The diagram to the left organizes the 360,000 asf deficit in STEM facilities by typology, plots the aggregate space deficit against the 161,800 nasf net increase in STEM resources and maps how the proposed implementation strategy prioritizes select components of the overall space deficit.

Drivers of Campus Growth

Academics + Research

- Expanding science + research capacity
- Right-sizing classrooms + labs
- Creating new types of learning space
- Upgrading existing facilities
- Pioneering sustainability

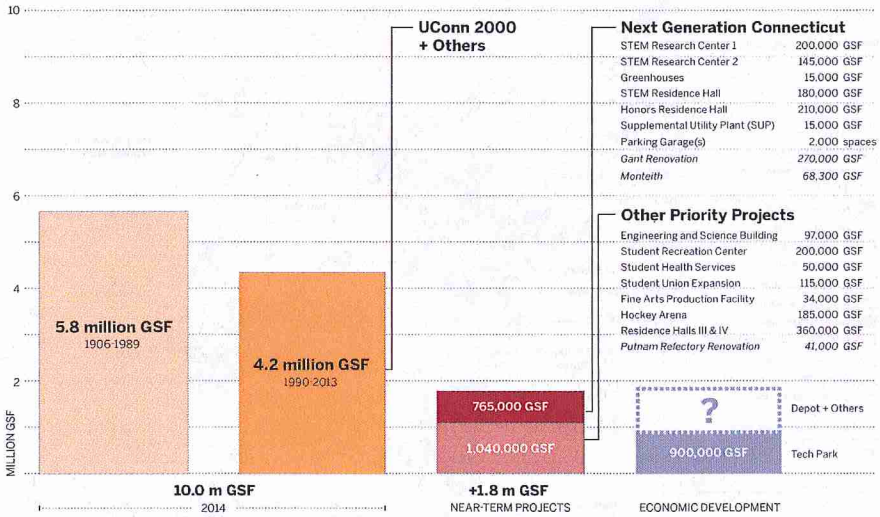
Campus Experience

- Fostering a mixed-use + collaborative environment
- Providing a higher level of services + amenities
- Prioritizing health and wellness
- Modernizing campus infrastructure

Enrollment Growth

- Enrolling 5,000 new undergraduate students
- Accommodating up to 3,500 new residents on campus
- Establishing live/ learn communities
- Upgrading existing facilities

University Growth (in gross square feet)



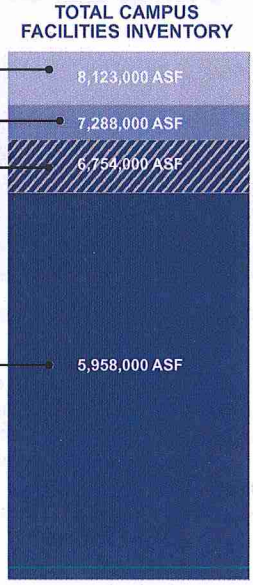
ESTIMATED SPACE NEEDS (in assignable square feet)

+4,000 Students (for a total enrollment growth of 5,000 students): **835,000 ASF** additional deficit

+1,000 Students: 534,000 ASF additional deficit

Current Space Deficit: 796,000 ASF
- Research and class labs
- Residential and student related facilities
- Recreation space
- Office and support space

Existing Space: 5,958,000 ASF



+ 2,165,000 ASF to accommodate +5,000 student enrollment

+1,330,000 ASF to accommodate +1,000 student enrollment

Capital Projects Planned Years 1-10:
- **NextGenCT funded: 560,000 ASF**
- **Other Sources: 755,000 ASF**

Total: 1,315,000 ASF

Note: Space needs are based on a quantitative assessment calculated using national space standards for various types of campus facilities. The space deficits will be adjusted to reflect actual physical condition, functionality, and quality of the space when on site condition assessments are performed as part of future project planning and on site space evaluations.