



MEDICAL EDUCATION
& DISCOVERY BUILDING

PRE-PROGRAMMING REPORT

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UNIVERSITY OF UTAH
SCHOOL OF MEDICINE

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We have reviewed the **University of Utah Medical Education and Discovery Building Pre-programming Study** and warrant that it adequately represents our request for a pre-programming study to fulfill our mission and programmatic needs. All appropriate parties representing the University have reviewed it for approval.

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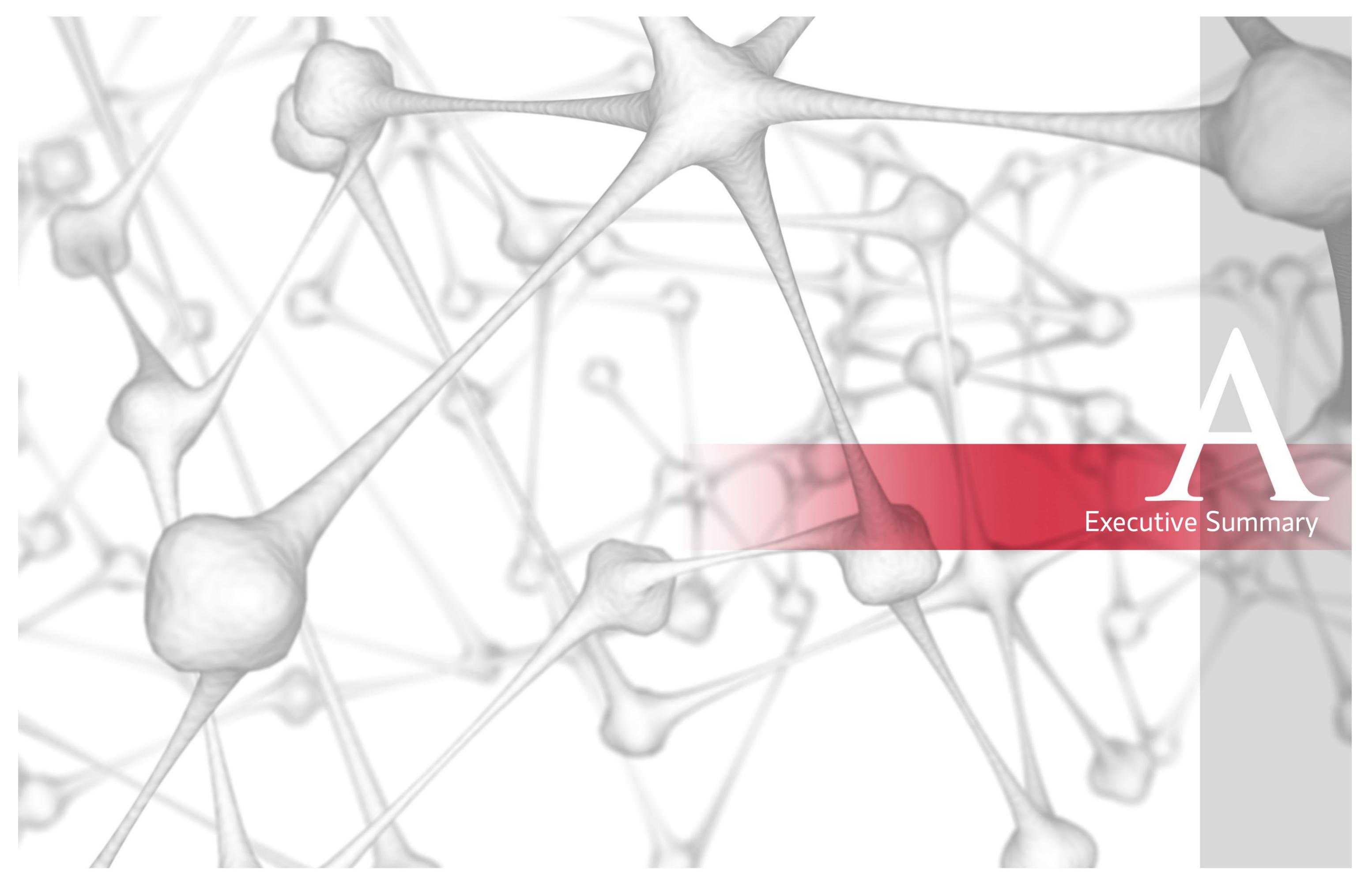
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A

Executive Summary

Medical Education and Discovery Building Executive Summary

Introduction

The SLAM Collaborative was engaged by the University of Utah to produce a pre-programming study for a proposed new Medical Education and Discovery Building that is to be known as the MED. Located on a site where the academic, research, and clinical sectors of the campus intersect, the MED will become the focal point and heart of the entire Health Sciences Campus, as well as the new home of the School of Medicine. This study initiates the process of defining the character of this crucial building, so that it can become everything that it aspires to be.

The University of Utah School of Medicine has been primarily housed in Building 521 since 1965. The University has concluded that Building 521 is obsolete, and replacement of Building 521 with a new facility is warranted. Although the existing Building 521 houses a wide range of functions, not all of them are candidates to be located in the new MED building. All clinical, wet bench research, and inpatient functions located in Building 521 will permanently move to other locations when Building 521 is demolished. The Health Sciences Education Building will remain the central facility for formal medical education. The MED building will be an inter-professional center that contains offices of the senior administration, academic and social spaces that are oriented to medical students, spaces for training and innovation, and office spaces for the clinical faculty.

This pre-programming study will initially define the program needs for the MED building, and will develop an initial scope and budget for the project. As the project develops further, a more detailed space program will be developed prior to the start of design work on the new facility.

The final outcome of this pre-programming study should include:

- An initial space program that allocates adequate space for each department, unit, and functional group to be located in the proposed MED building.
- Development of a space standard that allocates space fairly and appropriately according to need, looking beyond the tradition of large, underutilized private offices.
- An approach to projecting the growth that is likely to occur between the completion of this report and the construction and occupancy of the new MED facility.
- A prioritization of adjacencies that are required or desirable. Some adjacencies to the hospital are essential for quality of patient care. Other adjacencies may encourage collegiality, or innovation, or teamwork.
- A preliminary cost model that estimates the cost to implement the project scope defined by the pre-programming process.

Project Vision

The vision for the MED is threefold:

- Physical: The MED will be the flagship building that unifies the Health Sciences Campus and creates a clear heart or center of the academic campus.
- Functional: The MED will allow the Health Sciences Campus to lead the way in how health care is both “trained” and delivered.
- Cultural: The MED will reflect the values of the Health Sciences Campus.

This vision is further articulated in the form of master planning principles and decision driving principles:

Key Issues

1. One of the most critical issues is the disparity between the space required to fulfill all programmed needs and the amount of space that Health Sciences intends to build. Determining what to include in the MED and what to exclude will have a major impact on the character of the building and its ability to achieve the goals of becoming a heart of the campus and a true home for the Health Sciences.
2. The space required to house all of the clinical departments is more than 50 percent of the total space requirement. The total office space requirement approaches or even exceeds the amount of space that the School of Medicine intends to build. As Health Sciences does not want to build solely an office building (because this would not be a heart of campus or a home), it is essential to control how office space is allocated.
3. The center of campus is prime real estate and needs to be developed to its most effective purpose. The building should be substantial enough to maximize site utilization, while preserving an appropriate scale and preserving the open space that will make it the heart of the campus. As it is assumed that clinical office space is vacant much of the time, it is questionable whether clinical offices are the most effective use of the site.

Master Planning Principles

- Provide appropriate space for clinical departments currently located in 521 further prioritized by adjacency requirements to the hospital
- Provide space proximate to hospital for those departments with critical clinical adjacency requirements
- Locate leadership for all Health Sciences within the academic corridor
- Define the crossroads of the Health Sciences Campus with the MED complex

Decision Driving Principles: Education

- Support the inter-professional educational focus of University of Utah
- Be the “home” for the School of Medicine students and faculty
- Align learning environment with the School of Medicine Academic Strategic Plan

Decision Driving Principles: Innovation

- Support innovation in population focused research and interventions
- Lead in the practice and development of telemedicine
- Prepare practitioners to innovate in health care practice and delivery
- Encourage industry collaborations

Decision Driving Principles: Culture

- Enhance the culture and community of academic departments and integrated practice units (IPU's)
- Recognize that one size does not fit all
 - * Integrate the professionals and students
 - * Recognize the value of each individual to the institution and to his/her family and community
 - * Create a “home for life” for alumni



- Although the MED building cannot be constructed for several years, the Ambulatory Care Center (ACC) is proceeding in the near future. Two floors of the ACC will be allocated to house academic departments included in the MED program. Any space standards that will be established for the MED need to be identified in the near term and applied to the MED space in the ACC.
- With several years before the MED is constructed and a history of rapid growth, projection of future space needs is an important consideration. With the ability of the central campus to support future growth becoming more limited, and with the health sciences strategy to encourage off site growth, this study is based on an assumed growth rate of 2.5% per year in the center campus.

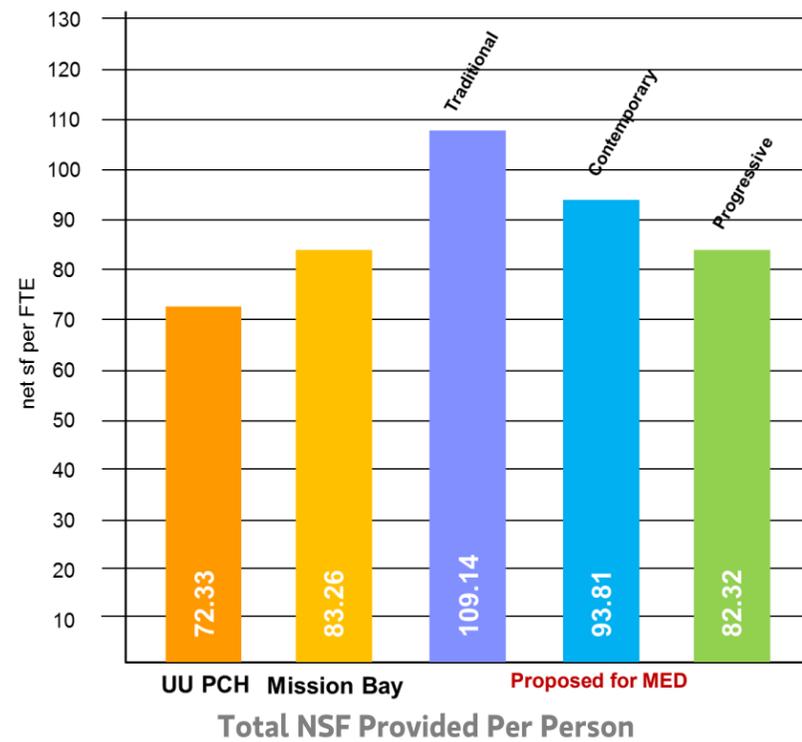
Programming and Space Allocation

The proposed space program is summarized to the right and further outlined in Section D and in the appendix. For office space, three sets of space standards were developed and applied.

- The **Traditional** space standard provides large private offices for most faculty and a mix of offices and open work stations for others.
- The **Contemporary** space standard is similar to the traditional standard, but with smaller space allocations per work setting.
- The **Progressive** space standard provides for limited private offices, more collaborative space, and numerous shared work stations. In this standard, approximately 65 to 70 percent of personnel do not have an assigned work space.

These standards were compared to benchmarks to confirm that adequate space was being allocated, as is indicated in the graph to the right.

For the academic, student and public space, as well as for the innovation center, the summary space program identifies a “must have” space allocation and an “ideal” space allocation. The “must have” allocation identifies the space that each respective entity requires in order to minimally achieve its mission. If the “must have” space cannot be provided for any program component, locating it elsewhere on campus may be a better option. The “ideal” space allocation is the preferred choice and is intended to provide enough space to fully accommodate the intended use without compromising functionality.



PROGRAM SUMMARY	TRAD	CONT	PROG
	TTL NSF (2.5% annual growth)	TTL NSF (2.5% annual growth)	TTL NSF (2.5% annual growth)
ACADEMIC DEPARTMENTS			
Anesthesiology	13,840	10,410	8,341
Dermatology	8,575	7,480	6,615
Family & Preventive Med	21,595	18,060	14,405
Internal Medicine	39,370	34,150	30,220
Obstetrics & Gynecology	17,025	14,805	12,575
Pediatrics	43,764	38,385	33,785
Physical Med & Rehab	5,075	4,370	3,700
Radiology	10,630	9,175	7,770
Surgery	33,920	29,300	24,135
SUBTOTAL CLINICAL DEPARTMENTS	193,794	166,135	141,546
Biomedical Informatics	9,678	8,570	7,337
Population Sciences	9,115	8,185	7,030
SUBTOTAL BMI & POP. SCI.	18,793	16,755	14,367
SUBTOTAL ACADEMIC DEPARTMENTS	212,587	182,890	155,913
ADMINISTRATIVE UNITS			
Health Sciences SVP Suite	7,428	7,428	5,571
School of Medicine Dean	15,050	15,050	11,610
College of Health Dean	2,500	2,500	2,500
School of Dentistry Dean	2,500	2,500	2,500
SUBTOTAL ADMINISTRATIVE UNITS	27,478	27,478	22,181
PROGRAMS & INITIATIVES			
	IDEAL	MUST HAVE	
Academic Classrooms & Support	6,790	0	
Human Anatomy & Support	13,605	7,475	
SoM Community Space			
LEARNING COMMUNITIES	3,840	2,880	
AUBERGE (DIST TOUCHDOWN MODULES)	3,200	3,200	
FITNESS AREA	4,556	2,180	
Public Space			
COMMON	4,990	4,990	
LARGE ASSEMBLY / MEETING HALL	7,240	7,240	
Future Programs	10,000	5,000	
Innovation Center	29,540	14,784	
SUBTOTAL PROGRAMS & INITIATIVES	83,761	47,749	



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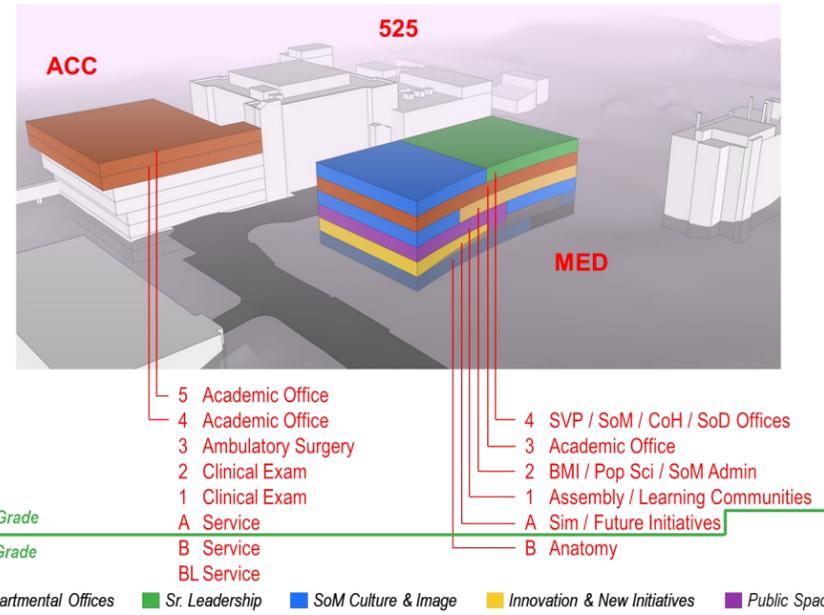
Medical Education and Discovery Building

Executive Summary

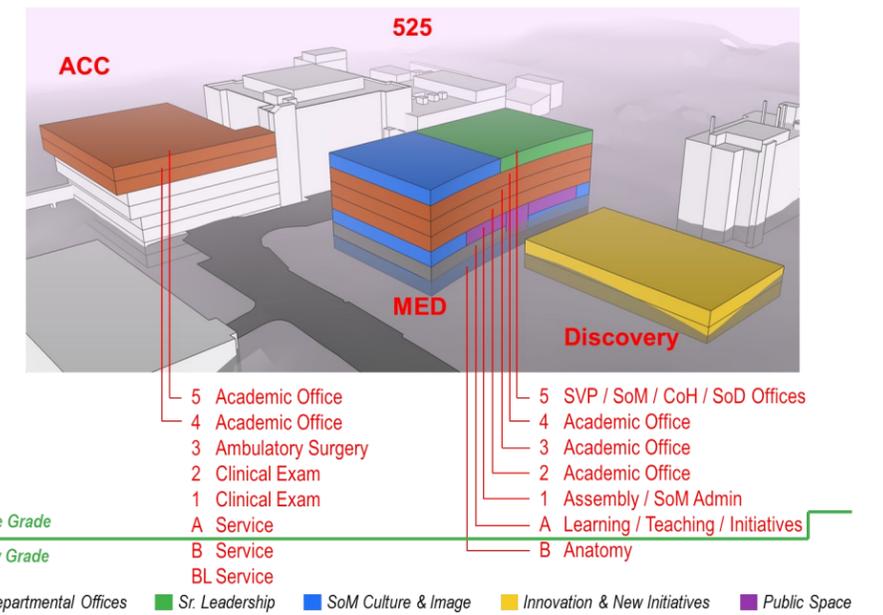
Planning Models

Recognizing that significant parts of the program cannot be accommodated in the MED building, it is necessary to develop priorities for inclusion or exclusion that are based on the key project drivers to provide a heart for the Health Sciences campus and to create a home for the School of Medicine. Numerous options with various combinations of program elements were modeled and tested for alignment with the proposed vision for the MED.

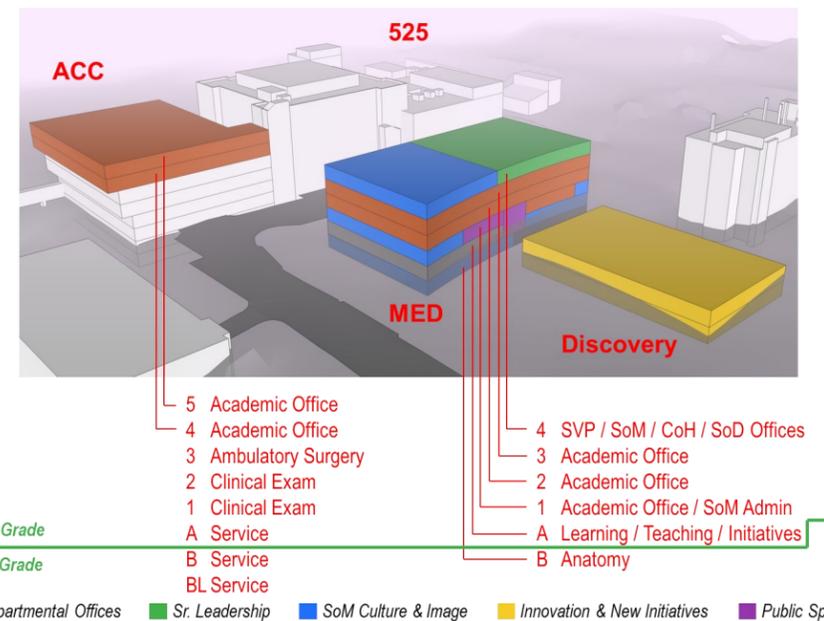
The initial set of options examined the impact of strongly prioritizing one part of the program while deprioritizing other parts. Analysis of this set of initial studies led to the conclusion that development of several “blended” models would yield a more successful outcome. The “blended” models all strive to achieve a balance among the competing program priorities, while remaining aligned with the broader vision for the MED. Each of the four models includes some variation in points of emphasis. The first two models work within the parameters of the program and project assumptions. The latter two models begin to challenge the assumptions, to study whether an alternative approach would be more advantageous. The features and characteristics of each model are summarized to the right and described in more detail in Section F.



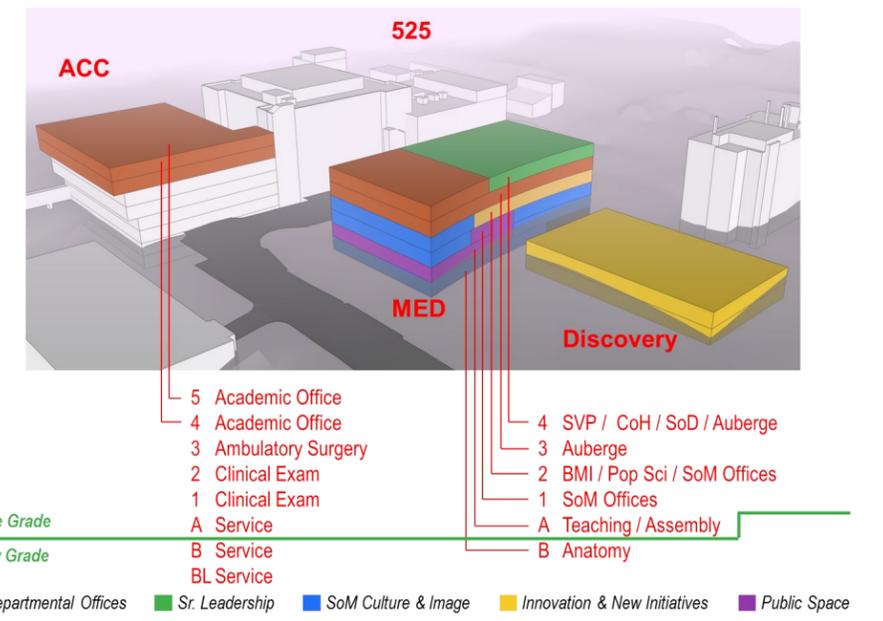
MODEL 1 This model prioritizes student and public space and assumes that construction of the Discovery Center will be deferred. This model provides the most limited office space for clinical departments.



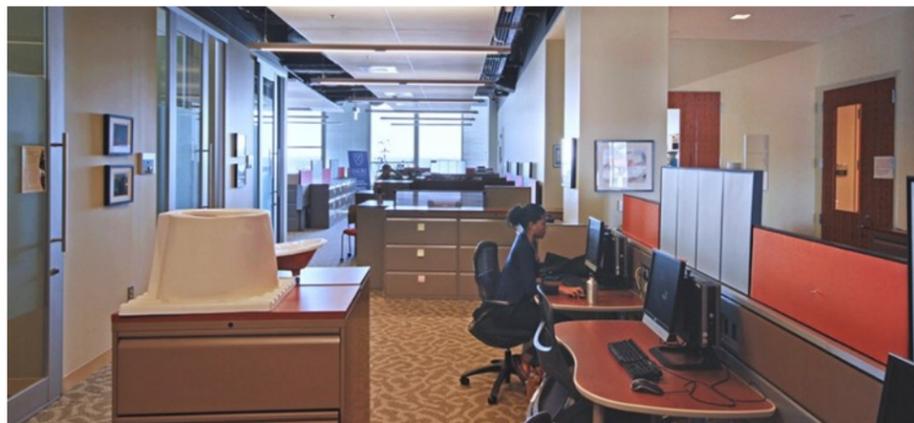
MODEL 3 This model is similar to Model 2, except that it assumes that the MED can be larger than the targeted size. Most of the additional space is allocated to the clinical departments for office use.



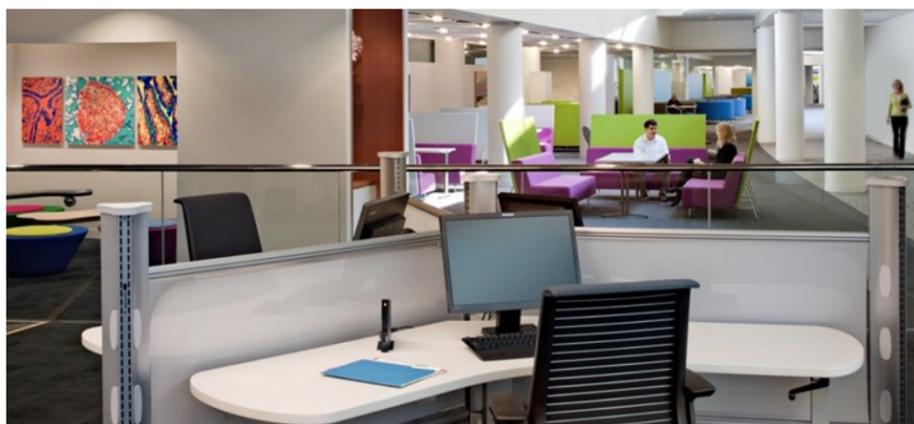
MODEL 2 This model includes less student and public space than Model 1, and assumes that the Discovery Center can be constructed concurrently with the MED. This model provides more office space for clinical departments than Model 1.



MODEL 4 This model includes an alternative, “auberger” concept for the clinical departments. It provides greater equality of office access among the departments, while incorporating student and public space similar to Model 1.



Emory University Rollins School of Public Health



Pfizer, Inc.



Duke University School of Medicine

Auberge

The fourth planning model introduces an alternative work space model called the Auberge. The Auberge concept recognizes the juxtaposed work activities of clinical faculty and staff. As care givers, clinicians spend much of their workday in the hospital interacting directly with patients and healthcare delivery teams. Faculty in academic medical centers also have the added responsibility of teaching and research, and frequently count the classroom and research lab among their disparate work settings. However, there are certain functions and interactions that are part the clinician's responsibilities that are not accommodated well, if at all, in the hospital (or classroom or lab) setting. These range from private spaces for focus and reflection to collaborative areas for exploration and socialization.

The Auberge concept accommodates departments not in dedicated space but rather shared places for people to work the way they need to when they need to. A shared departmental hub would provide space for chairs and some administrative staff but any additional dedicated space would be located elsewhere. In order for this model to work, it must be highly attractive to faculty and staff. That will be achieved by creating a workplace with three key features:

1. Direct access from the hospital
2. Elegantly appointed, beautiful views
3. Everything at your fingertips:
 - Academic office core to address organizational needs
 - Private places to make calls or catch a quick catnap
 - Staffed reading room for research and quiet work/study
 - Touchdown work places of a variety of shapes & sizes
 - Hi-tech consultation center with telemedicine core
 - Club/café for relaxation and socialization
 - Concierge services to meet needs of daily life
 - Fix your computer
 - Laundry/dry cleaning drop off
 - Travel services
 - Etc

A groundbreaking approach to workplace design specific to the needs of the academic medical center, the Auberge concept offers a number of crucial benefits:

- **Diversity of work environments-** While current clinical departmental work environments on the Health Sciences campus are limited to an office and a conference room, this concept offers a continuum of work settings from private and solitary to open and collaborative.
- **Collaboration-** Eliminating physical boundaries between departments enhances the ability to network and interact across disciplines.
- **Community-** concentrating faculty and staff in a single area justifies the addition of large scale meeting and event spaces offering the ability to participate and host a range of community functions.
- **Culture-** New faculty and staff can engage and connect with the whole community enhancing their ability to both assimilate and influence the Health Sciences community sooner.
- **Convenience and efficiency-** Expanded support services and resources can enhance individual productivity and effectiveness.
- **Technology and skill development-** Equal access to latest technology and immediate and continuous technical support may be achieved more effectively as "house" services.

Medical Education and Discovery Building Executive Summary

Schedule and Cost Overview

The anticipated cost to construct the new MED building is summarized below. The proposed budget includes:

- Contingencies for unforeseen design and construction issues, and an estimating contingency, at values appropriate to carry at this stage of the process.
- An escalation factor that is based on construction starting in the summer of 2018, and occupancy of the completed building approximately two years later.
- The conceptual construction cost includes all normally included construction trade costs as well as construction manager's fee general conditions (staff), general requirements, contractor bonds, general liability insurance, and building permit fees.
- This proposed budget does not include:
 - Costs to abate or demolish the existing buildings on the site (Building 521, Building 531, Dumke)
 - Any costs associated with design, construction, or fitout of the Ambulatory Care Center
 - Any renovation work in Eccles Library
 - Any bridge between the MED and the ACC

- Occupancy costs for swing space
- Costs associated with off site locations for program elements not accommodated in the MED Building

The proposed project development schedule below outlines the steps required to develop a new MED building on the site currently occupied by Building 521. The proposed schedule assumes a target completion date in 2020 and incorporates several key assumptions:

- The ACC must be completed and occupied before Building 521 can be vacated and demolished. Building 521 must be fully vacated immediately following ACC completion.
- It is assumed that the design process will include an initial master conceptual design for the ACC, the MED, and the Rehabilitation Hospital that will set an

overall design direction and confirm locations of all interfaces and connections.

- It is assumed that funding and necessary authorizations to proceed will be available when needed.
- This schedule also includes a schedule for the Rehabilitation Hospital and indicates that it will be constructed simultaneously with the construction of the MED building. This may or may not be necessary, depending on the eventual design direction.

Please refer to Section G for additional information.

Project Cost Summary

	MED at 190,000 gsf	MED at 223,500 gsf	Discovery Center 50,000 gsf
Construction Cost, unescalated	\$ 58,300,000	\$ 68,600,000	\$ 15,350,000
Site Development Allowance	5,800,000	5,800,000	3,000,000
Soft Cost Allowance	17,500,000	20,580,000	4,600,000
Total Project Cost, unescalated	\$ 81,600,000	\$ 94,980,000	\$ 22,950,000
Escalation Allowance	18,700,000	21,780,000	5,260,000
Escalated Total Project Cost	\$ 100,300,000	\$ 116,760,000	\$ 28,210,000

Cost summary above excludes:

- Ambulatory Care Center
- Eccles Library renovation
- Bridges between buildings
- Abatement and demolition of Buildings 521 and 531, and the Dumke Building

Project Development Schedule

	2015	2016	2017	2018	2019	2020
Master Design	█					
ACC Program / Design	█	█				
ACC Bid / Award		█				
ACC Construction		█	█	█		
ACC Occupancy			█			
521 / 531 Demolition				█		
MED Programming			█	█		
MED Design			█	█		
MED Bid / Award				█		
MED Construction				█	█	█
MED Occupancy						█
Rehab Hospital Programming			█	█		
Rehab Hospital Design			█	█		
Rehab Hospital Bid / Award				█		
Rehab Hospital Construction				█	█	█
Rehab Hospital Occupancy						█

Future Activities

In preparation for advancing the MED into final programming and design, some steps can begin now that will inform the future design process. It will be necessary to make some key decisions in the near term, as the ACC project will be initiated in early 2015. Planning for the MED, and for the ACC, should consider the key issues surrounding this project, summarized as:

1. Program needs exceed the capacity of the project, requiring decisions that will determine the character of the MED. The means to address the quantity of space required for clinical department office needs is the most critical component.
2. The proposed site is one of the most critical sites on the health sciences campus. The MED needs to be planned so that it maximizes the value of the site and creates a true heart for the health sciences campus.
3. Future officing will be very different. New facilities should incorporate new thinking about how work is done, and should be planned to be highly flexible and adaptable. Space standards should be developed around current and future work patterns rather than traditional ideas. The goal should be to give everyone the tools that enable them to be most successful in their daily activities.
4. The health sciences campus has seen significant growth for many years, but is now approaching capacity. Decisions about how to manage and channel growth are an important factor in understanding how the MED should be planned and designed.

Workplace Design Activities

Implementation of an alternative model for the workplace, such as the Auberge concept, will need to be carefully planned to maximize the chance that it will be successful. Steps might include:

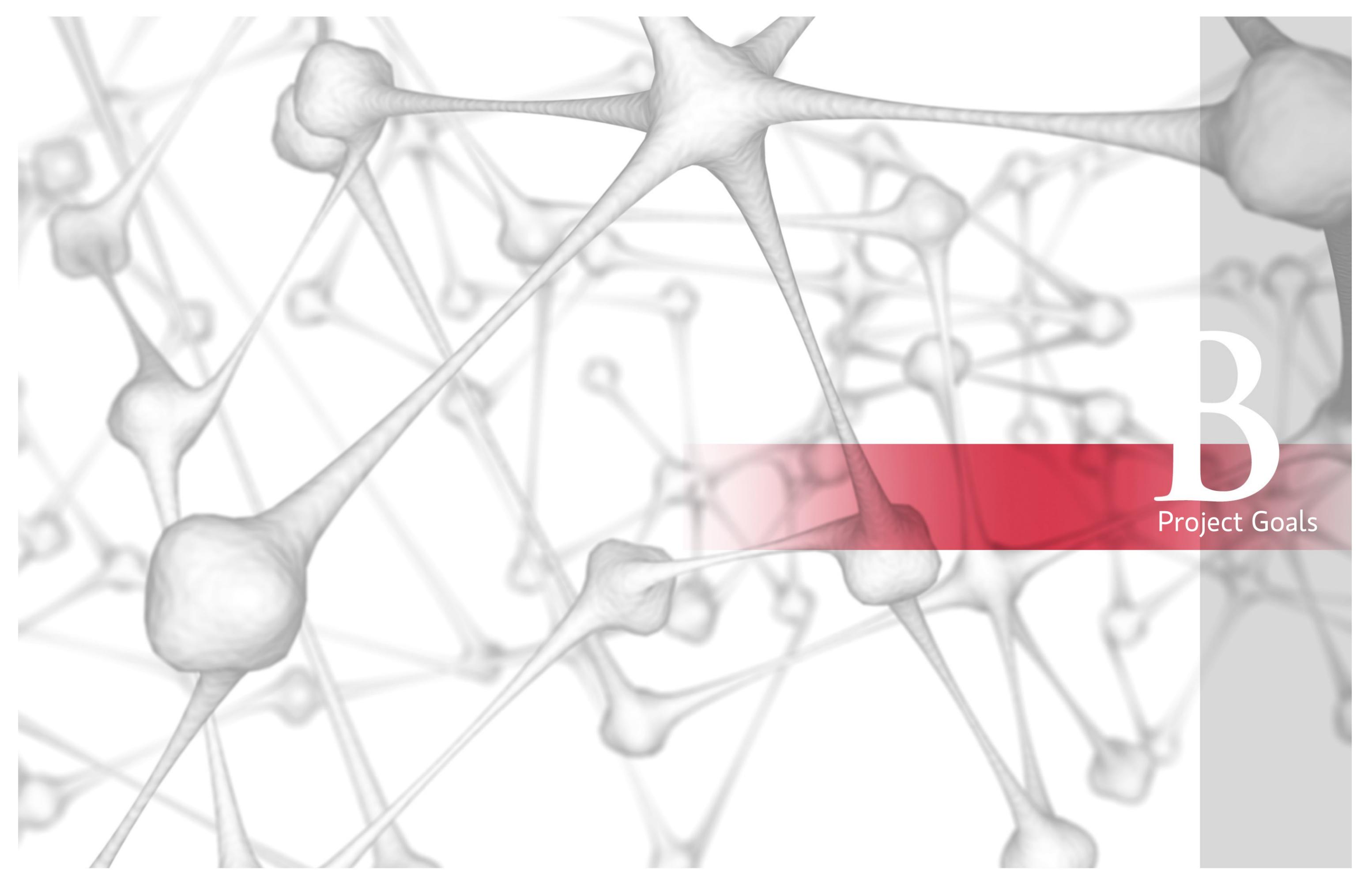
- **Visioning Session** Develop the vision and guiding principles with leaders and departmental representatives.
- **Opinion Leader Interviews** Engage and energize advocates and early adopters to build momentum for the concept.

- **Workplace Survey** Collect data on current space utilization and desired state.
- **Space Utilization Studies** Conduct actual utilization studies of existing space to confirm survey findings.
- **Living Mockups** Construct a prototype Auberge in existing space and solicit volunteers to work in the space for an extended period and measure outcomes (utilization, enhanced productivity, improved communication, innovation, etc.)

Engagement of a change management consultant should be strongly considered.

Other Activities

1. Tour successful workplaces, including those in other industries, to identify lessons and design ideas applicable to the MED.
2. Identify future trends in technology and connectivity and how they can be applied to enhance the effectiveness of the clinical faculty.
3. Assess the entire Health Sciences simulation program to determine how it can be optimized and how this affects the design of the MED and the Discovery Center.
4. Develop a framework plan for the redevelopment of the Eccles Library, and consider how this plan affects space allocation in the MED.
5. Confirm the impact on facilities of the vision for the future of telemedicine.



B

Project Goals

Medical Education and Discovery Building Project Goals

The University of Utah Health Sciences Center serves the people of Utah and beyond by continually improving individual and community health and quality of life. This is achieved through excellence in patient care, education, and research; each is vital to our mission and each makes the others stronger.

Purpose of Project and Desired Outcome

The University of Utah School of Medicine has been primarily housed in Building 521 on the health sciences campus since the building was completed in 1965. The University has, after a series of studies, concluded that Building 521 is obsolete, and replacement of Building 521 with a new facility is warranted. The new facility, to be known as the Medical Education and Discovery Building (the MED), will become the new home of the School of Medicine and the new heart of the health sciences campus.

The existing Building 521 houses a wide range of functions, but not all of them are candidates to be located in the new MED building. All clinical, wet bench research, and inpatient functions located in Building 521 will permanently move to other locations on or off campus when Building 521 is demolished. The Health Sciences Education Building will remain the central facility for formal medical education. The MED building will be an interprofessional center that contain offices of the senior administration, academic and social spaces that are oriented to medical students, training and innovation spaces, and office spaces for the clinical faculty.

The purpose of this pre-programming study is to initially define the program needs for the MED building, and to develop an initial scope and budget for the project. The final outcome of this pre-programming study should include:

1. An initial space program that allocates adequate space for each department, unit, and functional group to be located in the proposed MED building. As a pre-programming study, it will be oriented toward making appropriate space allocations and confirming overall project goals rather than definition of detailed room by room requirements.
2. Development of a space standard that allocates space fairly and appropriately according to need. New models that look beyond the tradition of large, underutilized private offices should be considered and evaluated.
3. An approach to projecting the growth that is likely to occur between the completion of this report and the construction and occupancy of the new MED facility. Given the logistics required to demolish Building 521 and rebuild on the same site, this interval could be several years in length. With recent growth rates averaging six percent per year, the impact could be significant.

4. A prioritization of adjacencies that are required or desirable. Some adjacencies to the hospital are essential for quality of patient care. Other adjacencies may encourage collegiality, or innovation, or teamwork that otherwise may not happen.
5. A review of the potential to relocate some desired functions elsewhere on or off campus. Space is at a premium in the heart of the campus. Space or budget limitations may require that a prioritization strategy be developed to identify candidates for relocation to another site.
6. A preliminary cost model that estimates the cost to implement the project scope defined by the pre-programming process.

Vision and Guiding Principles

The vision for the MED has three parts:

Physical: The MED will be the flagship building that unifies the Health Sciences Campus.

Functional: The MED will allow the Health Sciences Campus to lead the way in how health care is both “trained” and delivered.

Cultural: The MED will reflect the values of the Health Sciences Campus.

This vision is manifested in the master planning principles and decision driving principles outlined at right.

Master Planning Principles

PROVIDE appropriate space for clinical departments currently located in 521 further prioritized by adjacency requirements to the hospital

Space Strategies: consider solutions beyond the MED to optimize space

PROVIDE space proximate to hospital for those departments with critical clinical adjacency requirements

Space Strategies: consider solutions in MED and ACC

LOCATE leadership for all Health Sciences within the academic corridor

Space Strategies: provide space for School of Dentistry and College of Health Deans in MED along with Senior Vice President and School of Medicine offices

DEFINE the crossroads of the Health Sciences Campus with the MED complex

Space Strategies: optimize buildable area in MED complex

Decision Driving Principles: Education

SUPPORT the inter-professional educational focus of University of Utah

Space Strategies: provide additional learning and social space that engages all health sciences students

BE the “home” for the School of Medicine students and faculty

Space Strategies: provide learning, study and social space dedicated to medical students; plan and design accessible and visible School of Medicine leadership offices

ALIGN learning environment with the School of Medicine Academic Strategic Plan

Space Strategies: integrate instructional space into the MED (i.e. Gross Anatomy, PBL/small group rooms) while maintaining HSEB as the primary inter-professional education facility

Decision Driving Principles: Innovation

SUPPORT innovation in population focused research and interventions

Space Strategies: provide computational and dry-lab research space; simulation facilities; medical apps & device development

LEAD in the practice and development of telemedicine

Space Strategies: incorporate technologies that eliminate geographic barriers and improve access to expertise; telemedicine curriculum integration

PREPARE practitioners to innovate in health care practice and delivery

Space Strategies: simulation and conferencing facilities

ENCOURAGE industry collaborations

Space Strategies: simulation and conferencing facilities; sophisticated equipment/technology resources; prototyping facilities

Decision Driving Principles: Culture

ENHANCE the culture and community of academic departments and integrated practice units (IPU's)

Space Strategies: balance departmental continuity with flexibility & IPU initiatives; emphasize conference/meeting space and social space that encourages people to collaborate and work outside their office; provide touch-down space for off site faculty and staff

RECOGNIZE that one size does not fit all

Space Strategies: develop a planning module that allows departments to customize their space in alignment with specific needs

INTEGRATE the professionals and students

Space Strategies: large scale conference/event space; sim center

RECOGNIZE the value of each individual to the institution and to his/her family and community

Space Strategies: wellness/fitness center; "family friendly" spaces; child care center; convenience services

CREATE a "home for life" for alumni

Space Strategies: learning communities; event space

Project Approach and Process

The pre-programming approach to academic and department space planning was focused on maximizing efficiency, increasing productivity, preparing the workforce for the future, and supporting a collegial environment that attracts and retains high quality faculty. New standards for space allocation and organization were developed, modeled and evaluated. The approach to the space program identifies "must have" components in addition to first and second priority additions.

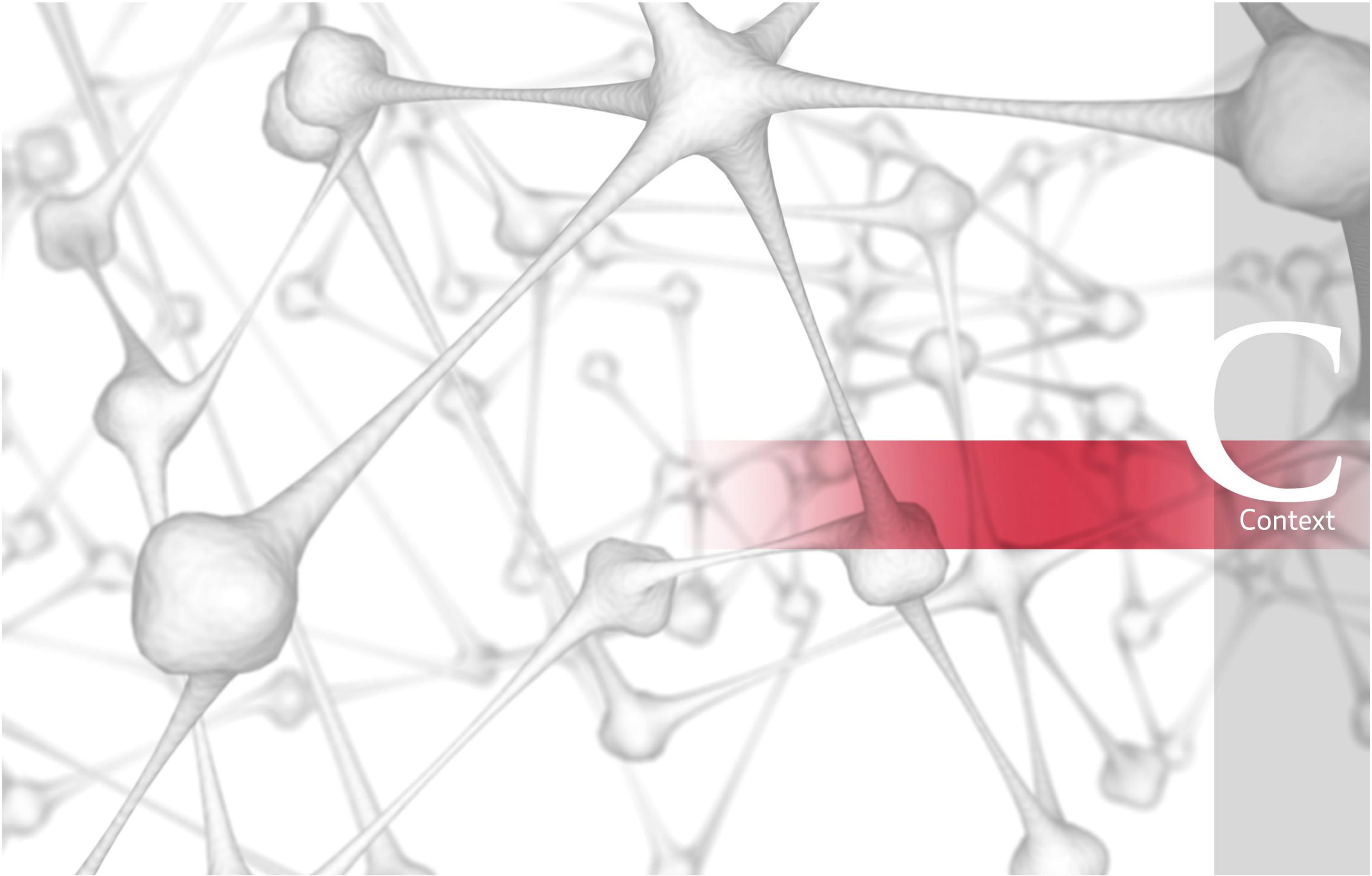
The process included regular interactions with a Steering Committee consisting of leadership from the Health Sciences Center and the School of Medicine, as well as the University Facilities Management Department. This group provided leadership and overall direction for the study at key intervals in the planning process.

A Working Committee consisting of representatives from Health Sciences and Facilities Management was responsible for oversight of the project and provided frequent input into the process.

Programming interviews with user groups and documents provided by Health Sciences and Facilities Management were the primary tools used to establish user needs for the proposed MED facility.

User Group Interviews

Anesthesiology	Psychiatry
Biomedical Informatics	Radiology
Dermatology	Surgery
Faculty Affairs	Telehealth / Telemedicine
Family and Preventive Medicine	Day Care
Human Anatomy	Simulation
Internal Medicine	Medical Library
Obstetrics and Gynecology	Student Focus Group
Pathology	Office of the Senior Vice President
Pediatrics	Dean's Office, School of Medicine
Physical Medicine & Rehabilitation	Dean's Office, College of Health
Population Science	Dean's Office, School of Dentistry



C

Context

Medical Education and Discovery Building Context

Campus Vision and Health Sciences Master Plan

The master plan for the Health Sciences campus was updated in 2013 to incorporate outcomes of the School of Medicine facility study that also took place in 2013. Unlike prior concepts for the campus, these plans concluded that a replacement facility for Building 521 should be located on the same site as Building 521. The studies advised that the campus needs a “heart” of the campus that is a clear center, and a vibrant, lively, social, active core area. The existing overall organization of the campus demands that this heart be located on the Building 521 site.

Numerous studies in recent years, including the 2013 School of Medicine facility study, have confirmed that the existing School of Medicine building, Building 521, has reached the end of his useful life and must be demolished and replaced. It is not the intent of this study to revisit that conclusion or to reiterate the reasons for it. This study is the next step in the process to redevelop the Building 521 site into a new home for the School of Medicine, and is intended to fit into the context of work previously completed.

Conclusions and recommendations from the master plan that are particularly relevant to the proposed MED building include:

1. The campus needs a center that provides a focal point and sense of place. The campus lacks amenity that will bring the campus together for casual and social purposes. The campus also lacks any attractive or welcoming outdoor space.
2. Pedestrian access needs to be improved and clarified. Connections to transit also lack definition. Bus shuttle options should be improved, as should access to and from the TRAX station on Mario Capecchi Drive.
3. An east-west vehicular connector extending from Medical Drive East to 1900 South on the west side of Building 521 is recommended. The drive is intended for shuttle use only.
4. The campus currently has an “academic corridor” on the west side of Eccles Library and a “research corridor” on the east side of the Eccles Institute of Human Genetics. Future development should reinforce these existing axes.
5. In addition to Building 521, Buildings 531 and the Dumke Building (Building 535) are proposed for demolition in the near term. The Wintrobe Building (Building 530) will also be demolished, although the timing is not yet determined.
6. The parking structure west of Building 521, on the opposite side of the service drive, will remain in the near term, but will eventually be demolished. The parking structure site will then be repurposed.
7. The Eccles Health Sciences Library is undergoing redefinition as the transformation to digitally accessed information continues. The future of this facility requires additional study.

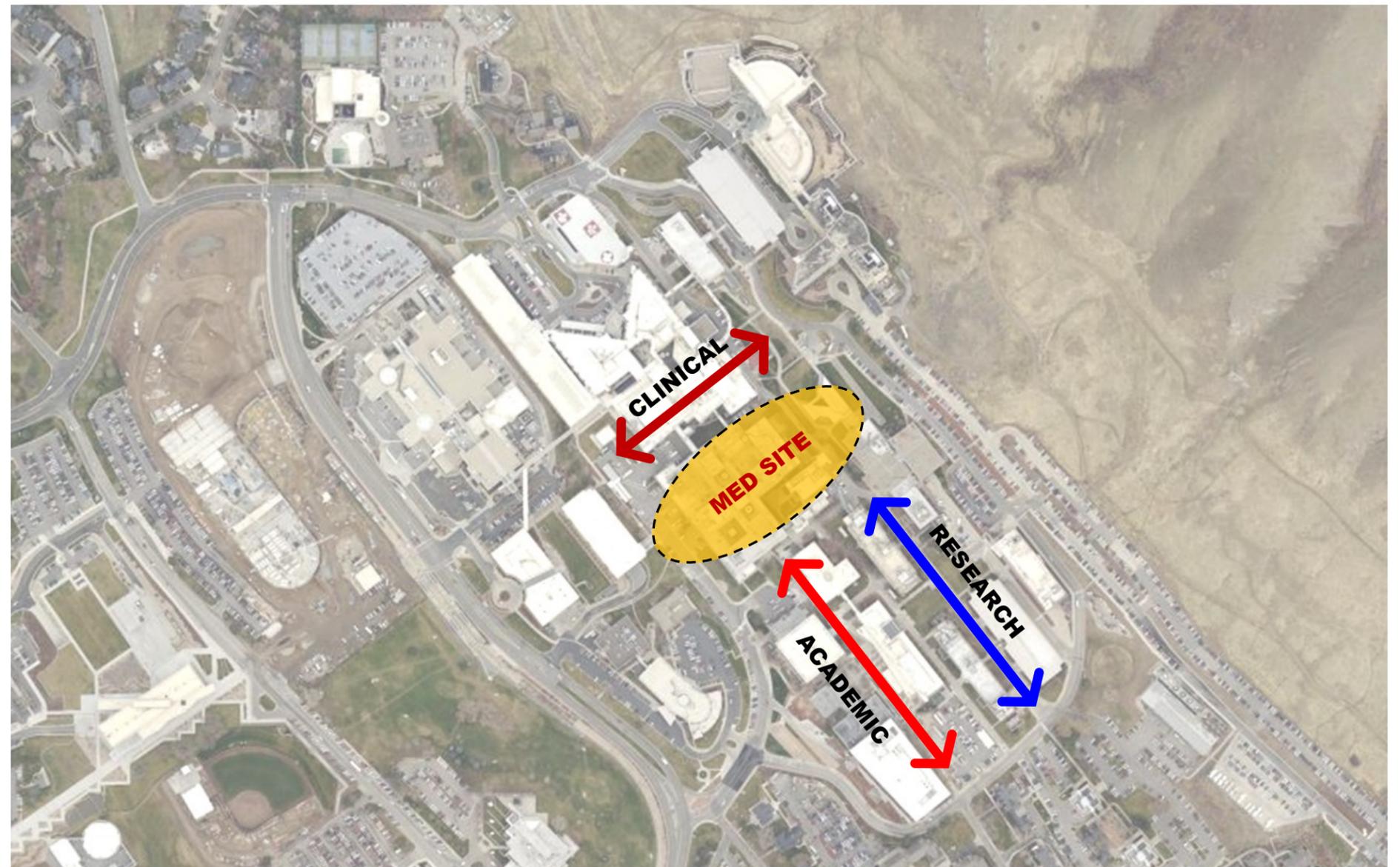
Since the master plan was completed in 2013, one key modification has emerged. The master plan proposes that the Rehabilitation Hospital displaced by the demolition of Building 521 be replaced with a new Rehabilitation Hospital east of Building 525. Current studies propose a different site, further to the south, that engages with the proposed MED Building and the heart of the campus.

Medical Center Development Timeline

Building 521, originally completed in 1965, was initially an integrated School of Medicine and county hospital facility. At the time of its construction, it was one of the first buildings on the current health sciences campus. In subsequent decades, the campus has evolved into the densely developed complex that exists to-

Previous Studies

- Master Planning Data for Removal of Building 521, Architectural Nexus, 2002
- Building 521 Feasibility Study, GSBS Architects, 2011
- School of Medicine Facility Study, MHTN Architects and Lee, Burkhardt, Liu Inc., 2013
- HSC Campus Master Plan Update, MHTN Architects and Lee, Burkhardt, Liu Inc., 2013



day, including multiple hospital buildings and clinics, research buildings, and academic facilities for the School of Medicine, the College of Nursing, the School of Pharmacy, and others. Building 521 has evolved away from inpatient hospital use to a facility housing primarily research space, office space, and outpatient clinics. Building 521 has been regarded as obsolete for more than a quarter of its 49 year existence.

Related Projects

Ambulatory Care Center

The proposed Ambulatory Care Center (ACC) is a critical enabling project for the MED project, as well as a location to house a part of the MED Building program. The ACC includes two stories below grade and six stories above grade, with a total



of three stories of service space, two stories of outpatient clinical space, one story of outpatient surgery, and two stories of office space for clinical departments.

The ACC must be constructed and occupied prior to demolition of Building 521. Much of the space is needed to decant current Building 521 occupants, most significantly the central receiving for the entire hospital complex. The top two stories are intended to house a part of the MED program. Other stories will likely be used as swing space in the interim period between the demolition of Building 521 and occupancy of the new MED facility.

Pedestrian connections between the ACC and the new MED are critical for several reasons:

- Clinicians and others need easy access between clinics in the ACC and offices and other spaces in the MED.
- Staff with office space on the top two floors of the ACC need to be as integrated into the activity in the MED as those who have office space in the MED.
- Access from the TRAX station to the MED and the heart of the campus will likely pass through the ACC.
- At a lower level, the MED will likely be serviced from the receiving facilities in the ACC.

Rehabilitation Hospital

Planning for the proposed replacement Rehabilitation Hospital is now in development for a site to the east of the proposed MED building. Siting considerations for the proposed hospital include:

1. The intent is for the primary vehicular access to occur via Medical Drive East.
2. Patient access to and from the acute care hospital is crucial, as many rehabilitation patients are transferred from acute care. The Rehabilitation Hospital will also rely on services provided in the acute care hospital including radiology.
3. The Rehabilitation Hospital will benefit from strong relationships with proposed outdoor space and proposed innovation spaces.
4. The Rehabilitation Hospital will be nearly as large as the MED building and will be located further up the slope to the east. The visual relationship will require careful consideration to maintain an appropriate relationship between the two, and to ensure that the goal to create a heart of the campus is achieved.
5. As funding for the Rehabilitation Hospital and the MED building may not be available in the same time frame, it may be necessary to plan the two facilities in a way that allows them to be constructed separately, recognizing that either could occur first.

Site Analysis

The proposed site is defined by University Hospital (Building 525) to the north, the hospital service drive (1900 East) to the west, Eccles Library to the south, and Medical Drive East to the east. The southeast corner of the site includes the existing Wintrobe Building and the Comparative Medicine Center (CMC). Both are slated to be demolished in the future, but no time frames have been established. This study assumes that demolition of Wintrobe and the CMC will not occur within the time frame of this project.

Demolition of Buildings 521 and 531 will expose substantial below grade space that is currently encompassed within the two existing buildings. This volume, which steps up along with the slope of the site, is typically between one and two stories deep depending on the exact location. The void is illustrated in the diagram on the following page.

The 2013 School of Medicine Facility Study considered a new building of up to 400,000 square feet on the site. The combined size of the three facilities currently under consideration for the site (MED Building, Rehabilitation Hospital, Discovery Center) is consistent with that assumption, at approximately 390,000 square feet.

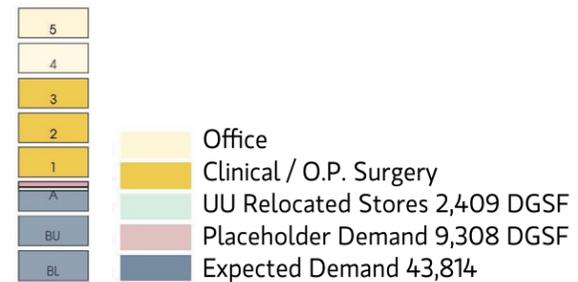
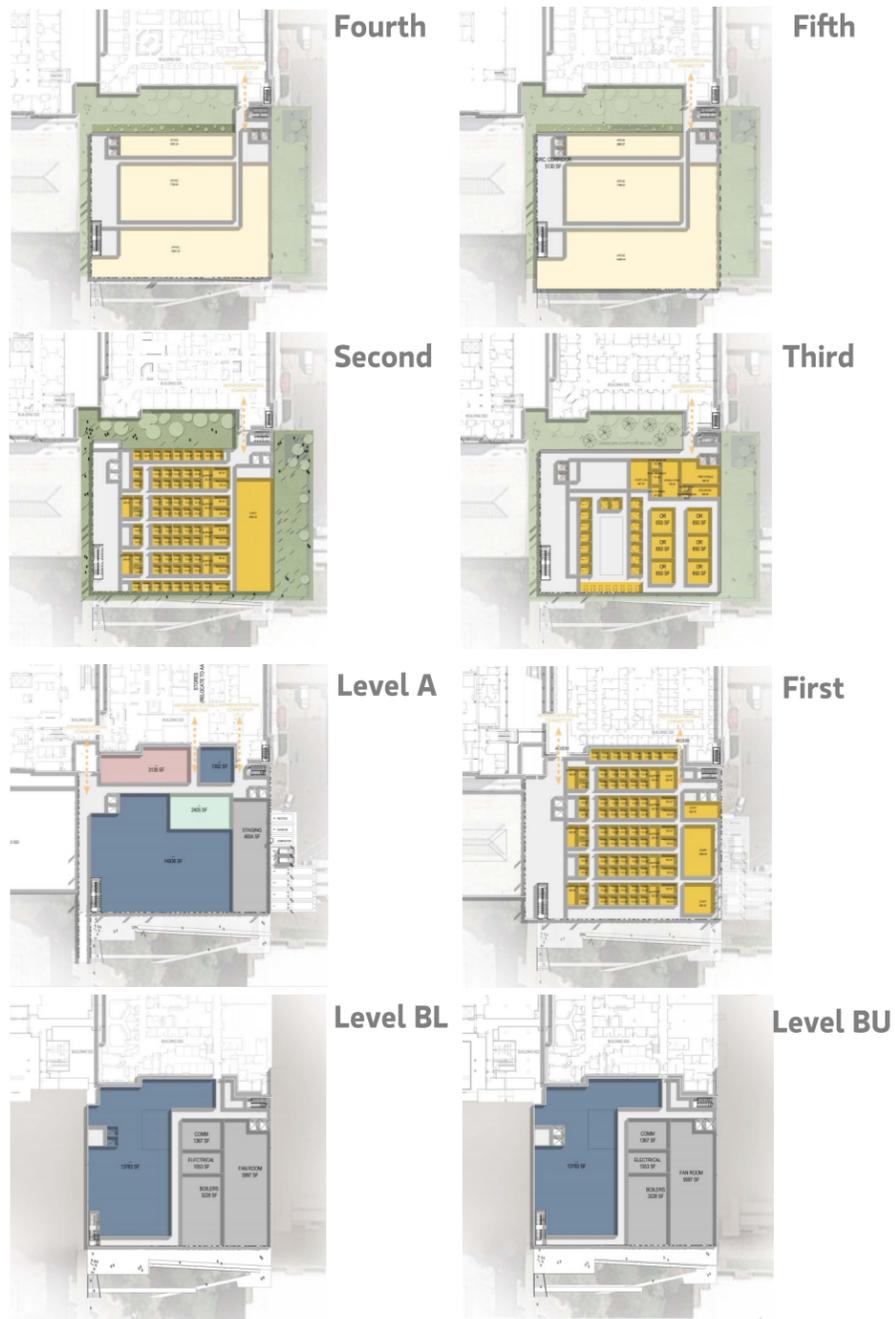
Capacity of Infrastructure

Previous studies have analyzed the capability of the campus utility and transportation infrastructure to support redevelopment of the Building 521 site. In general, the University believes that the high temperature hot water system and the chilled water system are nearing capacity and need to be upgraded as the health sciences campus evolves, although the demolition of Building 521 will return capacity to the system. Other systems are generally reported to have adequate capacity. Plans also call for upgrades to hot water distribution infrastructure to improve redundancy.

It is not yet determined whether any specific infrastructure upgrades will be required to accommodate this project. Please refer to the 2013 HSC Campus Master Plan Update for additional detail.

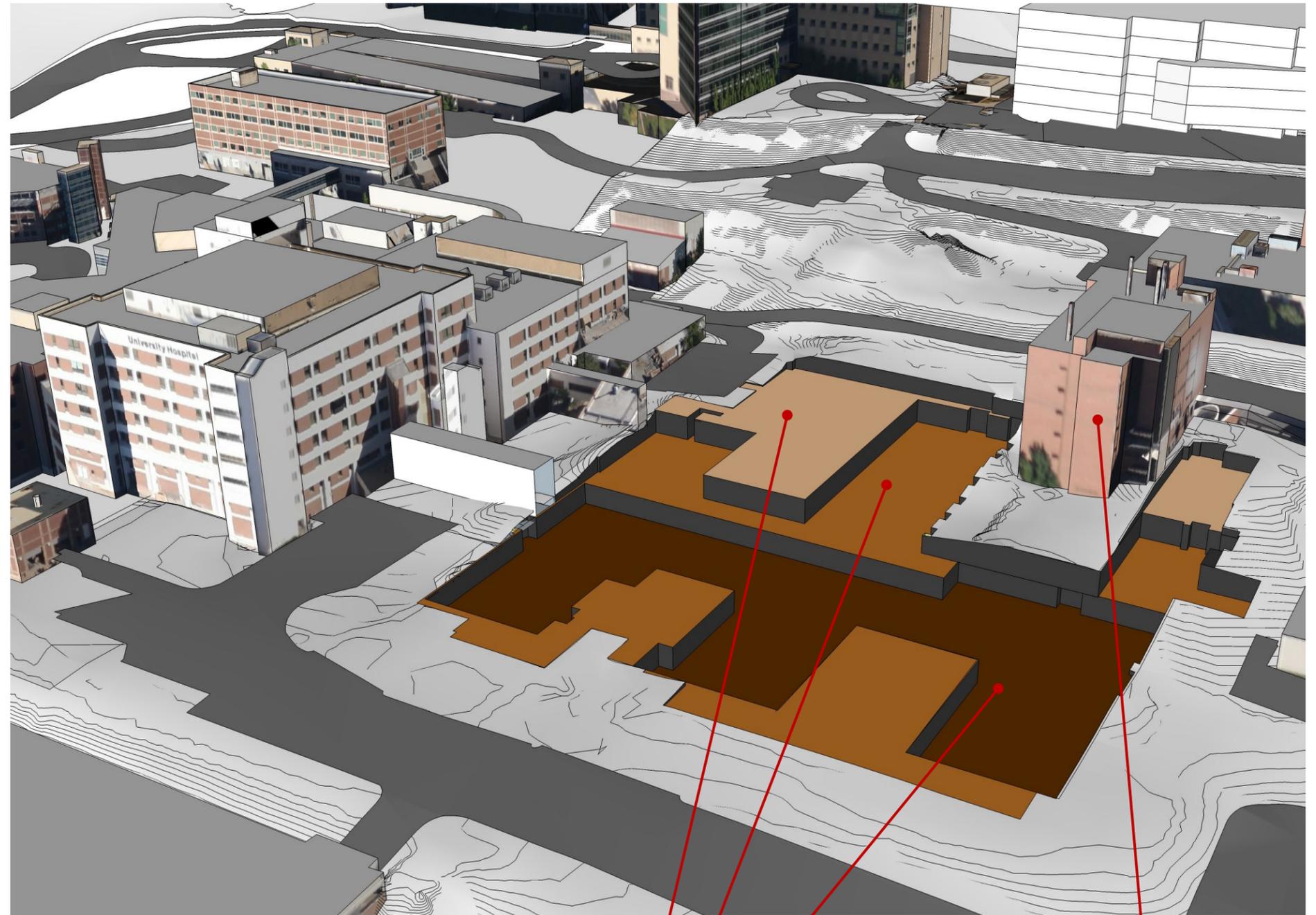
Medical Education and Discovery Building Context

ACC Floor Plans



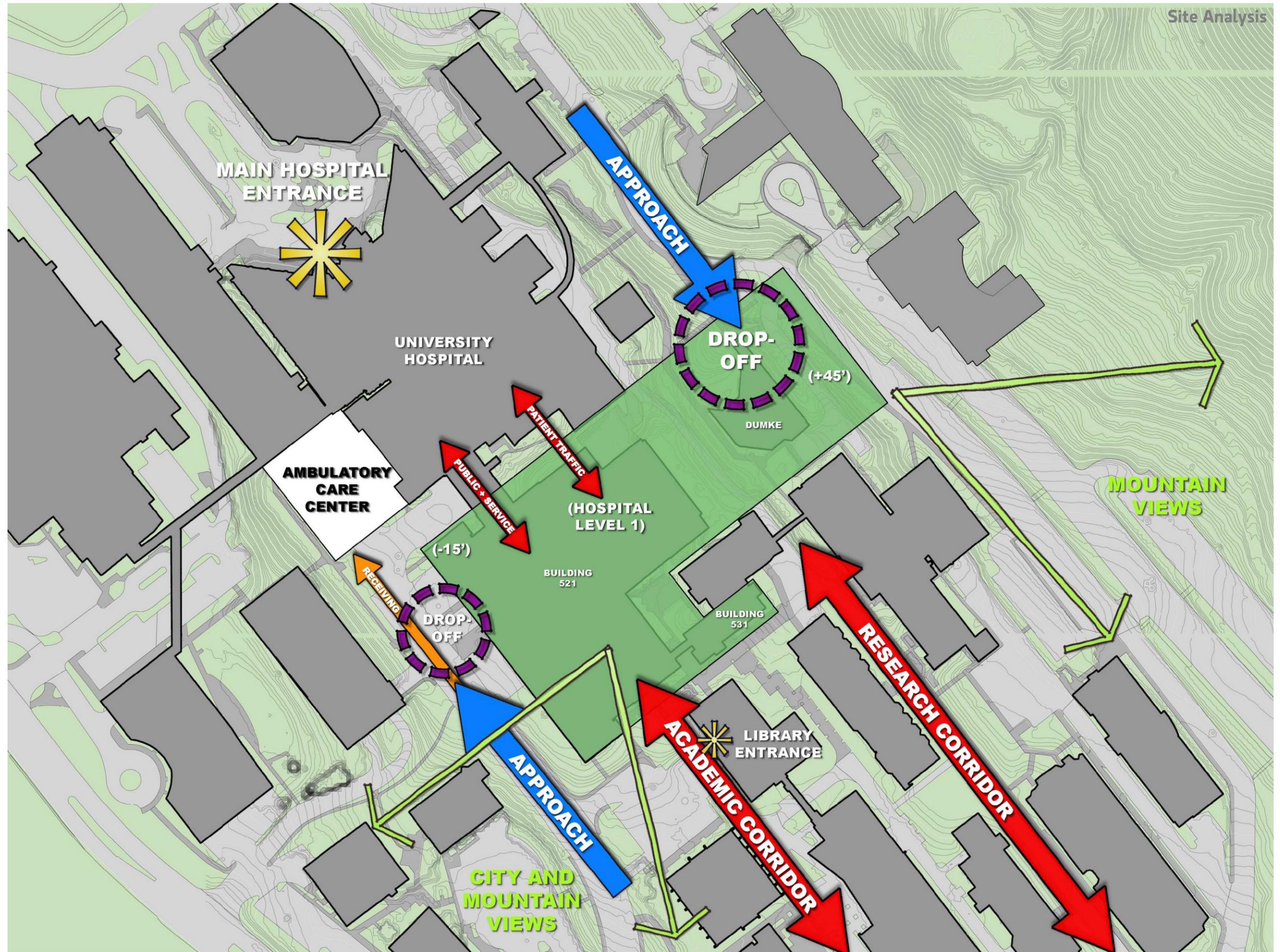
From:
Feasibility Study, June, 2014,
MHTN Architects and
Lee, Burkhart, Liu

Site with Buildings 521 / 531 Removed



Existing Excavation to Level 1
Existing Excavation to Level A
Existing Excavation to Level B

Wintrobe Building



A
B
C
D
E
F
G
H



D

Preliminary Space Program

Medical Education and Discovery Building Preliminary Space Program

Introduction

The primary missions for the MED building are to be a new home for the School of Medicine and to be a new heart for the health sciences campus. The key program elements include office space for the senior administration of the health sciences and the School of Medicine, office space for the clinical faculty, teaching and learning space for the School of Medicine, simulation and innovation space, and public and social space that will serve the needs of students, faculty, and others.

Of these major categories, the office space for the clinical departments is the largest by far, totaling more than 50 percent of the overall space need. The first key challenge of the programming and planning of the MED is creation of a facility that will be a “home” and a “heart” while accommodating a program that is primarily office space.

The second key challenge in programming and planning the MED is alignment of program needs with the intended size of the facility. The projected space need, based on the pre-programming process, requires a building that is significantly larger than the University anticipates building on this site, if the entire program is to be accommodated.

Future growth is a third factor that impacts the space program. As it will take several years for this project to reach fruition, and growth in recent years has been considerable, a reasonable growth projection is an essential component of the program.

Major Program Elements

Senior Administration

The office suite for the Senior Vice President for Health Sciences and other senior officers should ideally be located at the heart of the health sciences campus, as part of the overall strategy to locate all of the academic headquarters in close proximity to one another along the academic corridor.

The School of Medicine headquarters will be located in the MED and should be planned so that services that students need are readily available to them. The School of Dentistry and the College of Health will also have limited office space in the MED to accommodate their Deans, while their headquarters offices remain elsewhere on campus. The College of Nursing and the School of Pharmacy leadership do not require space in the MED, as their headquarters offices are already located on the academic corridor.

Clinical Departments

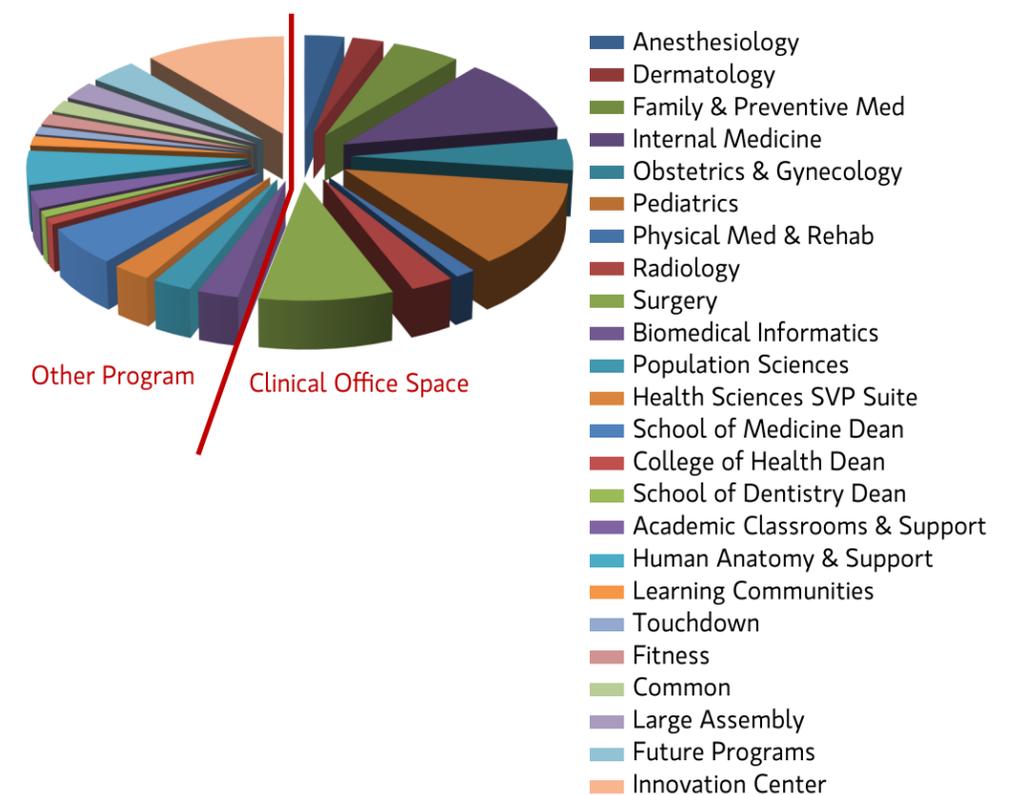
- **Anesthesiology:** Anesthesiology has faculty anesthesiologists, resident anesthesiologists and certified nurse anesthetists to provide anesthetic services and pain management for over 20,000 patients each year. Proximity to the hospital is critical for Anesthesiology.
- **Dermatology:** Dermatology includes faculty members in medical dermatology, dermatologic surgery, pediatric dermatology, and dermatopathology. The department is the largest clinical, research, and educational faculty of dermatology in the Intermountain West.
- **Family and Preventive Medicine:** Founded in 1970, the Department of Family and Preventive Medicine is one of the oldest and most established family medicine departments in the country. Family and Preventive Medicine has seven degree programs and has the largest graduate student population in the School of Medicine.
- **Internal Medicine:** Internal Medicine has 14 divisions and more than 300 faculty, in various locations. Some are appropriately housed elsewhere on campus and are not candidates to be located in the MED facility, such as oncology which is located at Huntsman Cancer Institute.
- **Obstetrics & Gynecology:** Obstetrics and Gynecology includes five divisions, 42 faculty and over 100 adjunct faculty. Hospital adjacency is critical.
- **Pediatrics:** Pediatrics is the second largest department in the School Of Medicine, and one of the largest pediatric departments in the country. The department is comprised of 22 medical divisions and programs operating in conjunction with four key enterprises: Education, Research, Clinical, and Academic. Divisions provide a full spectrum of specialty and subspecialty pediatric services for children throughout the Intermountain West. Pediatrics partners with Intermountain Healthcare.
- **Physical Medicine & Rehabilitation:** Physical Medicine & Rehabilitation has grown rapidly in recent years and expects growth to continue with the construction of a new, expanded rehabilitation hospital. Patients are currently turned away due to lack of capacity in the hospital.
- **Radiology:** Radiology offers every clinical imaging subspecialty with 44 faculty and more than 250 staff. The department performs and reads more than 250,000 exams each year.
- **Surgery:** Surgery includes eight divisions, some of which will remain located elsewhere, such as Pediatric Surgery at Primary Children’s Hospital. Proximity to operating rooms is critical for the Department of Surgery.

Biomedical Informatics and Population Science

The Department of Biomedical Informatics is internationally recognized as a leader in biomedical informatics research and education. The department has a National Library of Medicine training grant to support its educational programs. Master of Science, Non-Thesis Master of Science, Certificate and PhD degree programs are offered along with short-term traineeships for students and visiting fellows. As one of the largest biomedical informatics training programs in the world, the department's faculty and students are a diverse group with a wide range of experience and interests.

The Department of Population Science is still in development, and will be fully established once a founding chair is selected. The new department is intended to drive health care transformation and be a hub for education, investigation, and expertise in health services, cost, quality, outcomes, and health delivery systems research. Population Sciences will unify several existing programs such as the Health System Innovation and Research program into a single entity. The Cancer Population Sciences program will remain at Huntsman Cancer Institute but all other components are candidates to be located in the MED.

Space Allocation by Department and Function



Academic Space

Academic departments including Biomedical Informatics and Family and Preventive Medicine have identified a need for additional classroom space as well as a testing center. Classrooms in the MED are intended to supplement those in the Health Sciences Education Building, and not alter the HSEB's mission as the primary teaching facility for the School of Medicine. Classrooms in the MED would not be assigned to any department, and would be available to other health sciences users as well, such as the College of Health.

Human Anatomy

The human anatomy lab is currently located in Research Park, which is inconvenient for medical students. The current space is also too small and will become more cramped as class size increases. The lab would benefit from larger facilities that are more centrally located on the health sciences campus. In the future, it is expected that the anatomy lab will be increasingly used for advanced training and other activities that would benefit from proximity to the hospital.

The body donor program currently located adjacent to the human anatomy lab serves other human anatomy programs throughout Utah as well as University of Utah Health Sciences. It would benefit significantly from being co-located with the anatomy lab, as it is now. It is, however, possible to separate the two if necessary. The current body donor space in Research Park functions adequately.

Community Space

Students in the School of Medicine clearly lack space that they can call their own. This only becomes more critical as Learning Communities are established and as class size increases. Competition for space in the Health Sciences Education Building includes dental, nursing and pharmacy students as well as medical students. As a result, students find it necessary to study elsewhere, missing opportunities to learn together and to build relationships and community.

Public Space

Community is also built in casual and social encounters. Spaces for this are lacking in current facilities. A large, flexible assembly space could be used in many different ways, both formal and informal, to bring people together, and especially to encourage student-faculty interaction. Food and drink are another, extremely effective way to engage people and bring them together. A café, which should be placed in a highly visible, key crossroads location in the MED will become an important landmark and social hub.



Future Programs

The space program includes a reservation of 10,000 net square feet for future initiatives. As the MED project will take several years to reach fruition, and as the world is changing rapidly, it is prudent to allocate space for new programs that have not yet been conceived. The assumption, for the purpose of this pre-programming study, is that two new programs will develop before the MED is completed, and each may require approximately 5,000 net square feet of space.

Innovation Center

The innovation program includes the software developers currently located in the library, a fabrication area, and an advanced simulation center. Please also refer to additional discussion of the simulation program in the latter part of this section.

The innovation program is intended to be located in a separately funded facility to be known as the Discovery Center. If the Discovery Center is not funded, some limited parts of the innovation program must be accommodated in the MED. Other parts of the innovation program would likely be deferred.



Space Standards for Clinical Offices

The space program models three different options for each department requiring office space, each with its own set of space standards.

The *Traditional* model provides an assigned work space for everyone. Full time faculty have private offices; other faculty share offices with one other person. 30-50% of individual work space is open work stations. Collaborative space outside the office limited; primarily formal conference rooms.

The *Contemporary* model is similar to the Traditional model except that private office sizes are reduced to minimum, and 50-75% of individual work space is open work stations.

The *Progressive* model does not provide an assigned work space for 65-70% of personnel. 90-95% of individual work space is open, and available formal and informal collaboration space is double the previous models.

Please refer to Section E for more detailed information regarding the space standards associated with each model, as well as conceptual plan diagrams that illustrate how each might be arranged in practice.

In the planning options in Section F, the space allocations for the clinical departments are based on the progressive model.

Medical Education and Discovery Building Preliminary Space Program

Benchmarking

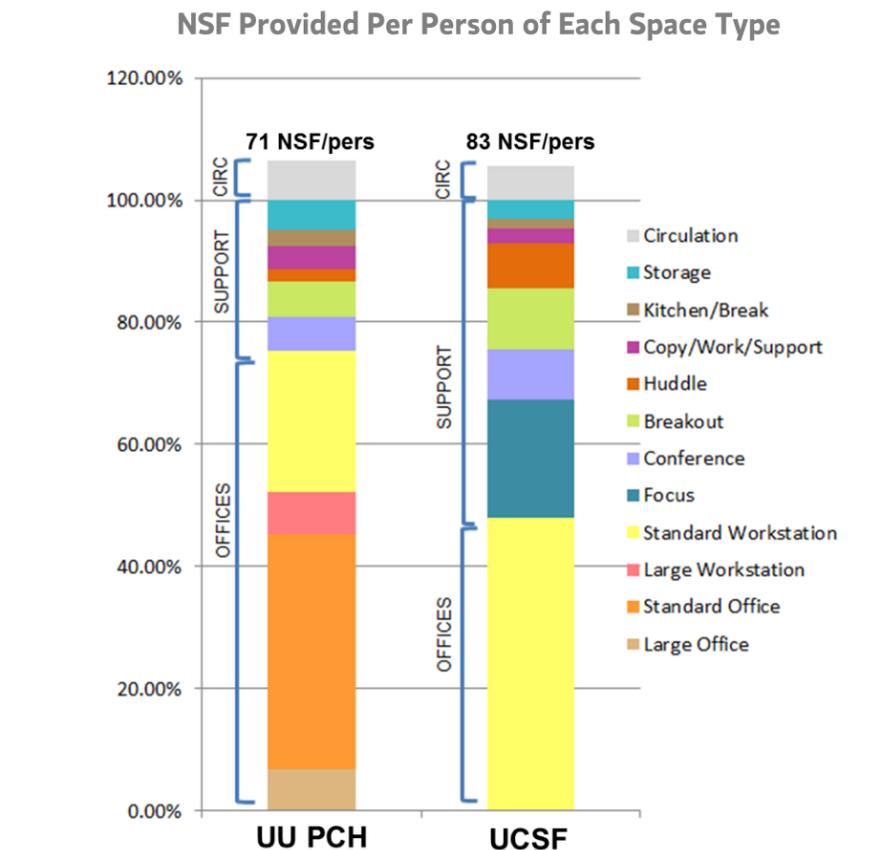
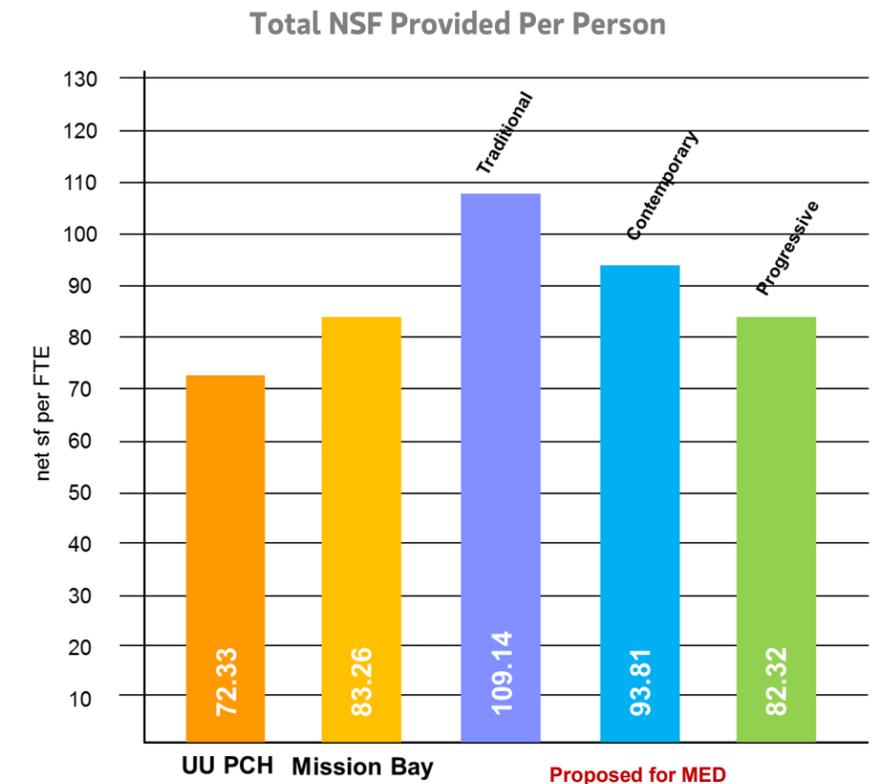
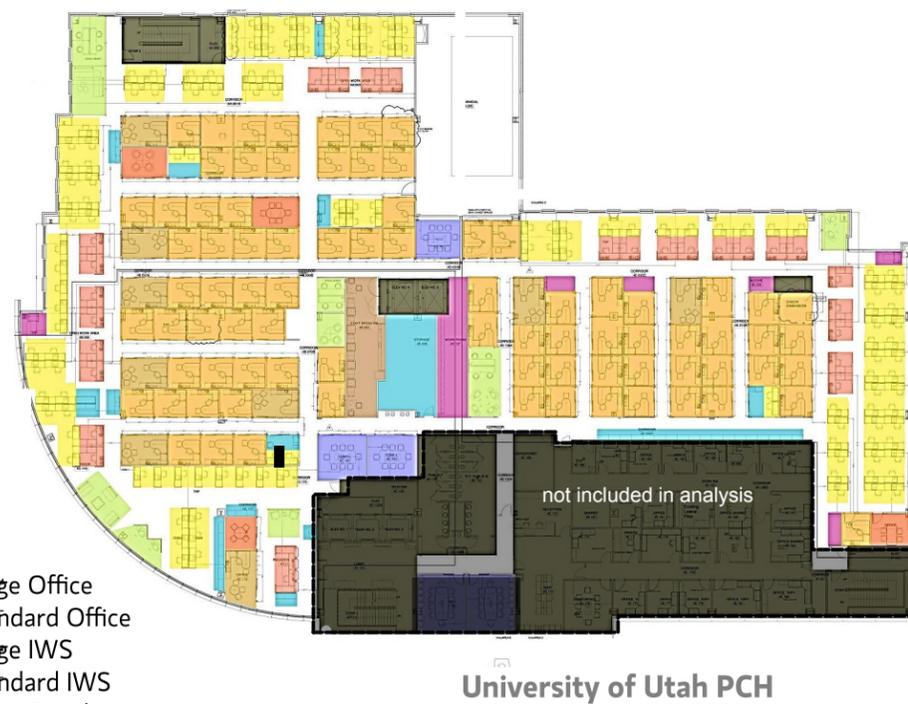
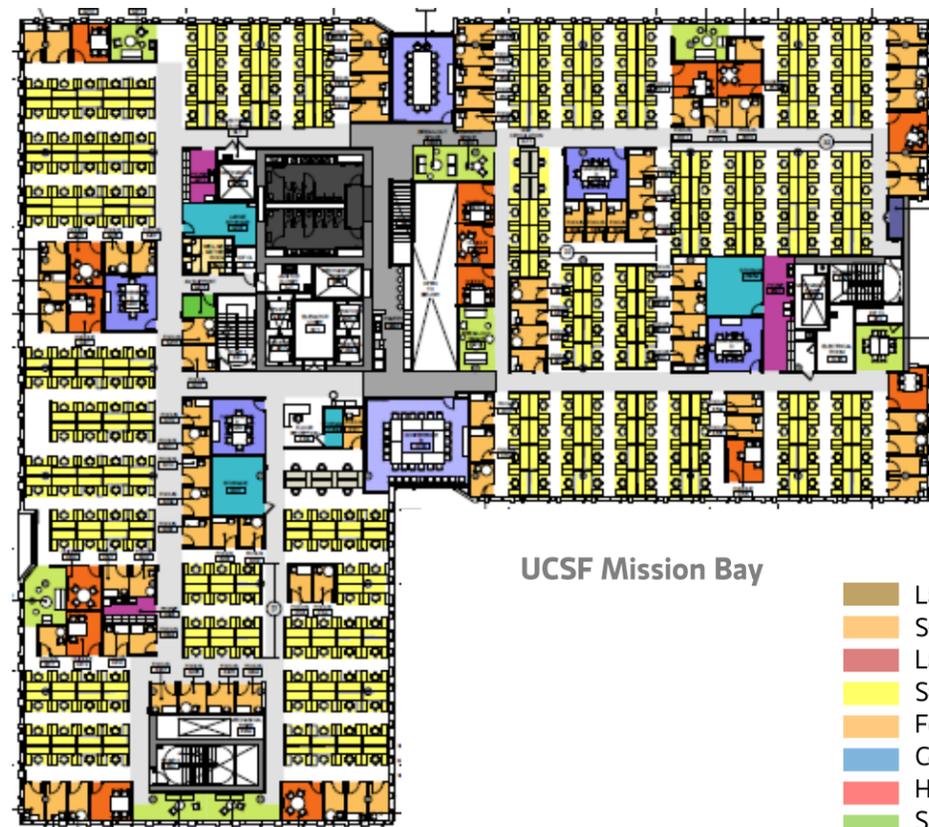
As the pre-programming process is not intended to produce a detailed room by room program, it is critical to test the overall quantity of space allocated, in order to confirm that it will prove to be adequate. For the clinical office space, the space allocation was tested against a benchmark of two other office layouts in academic medicine settings.

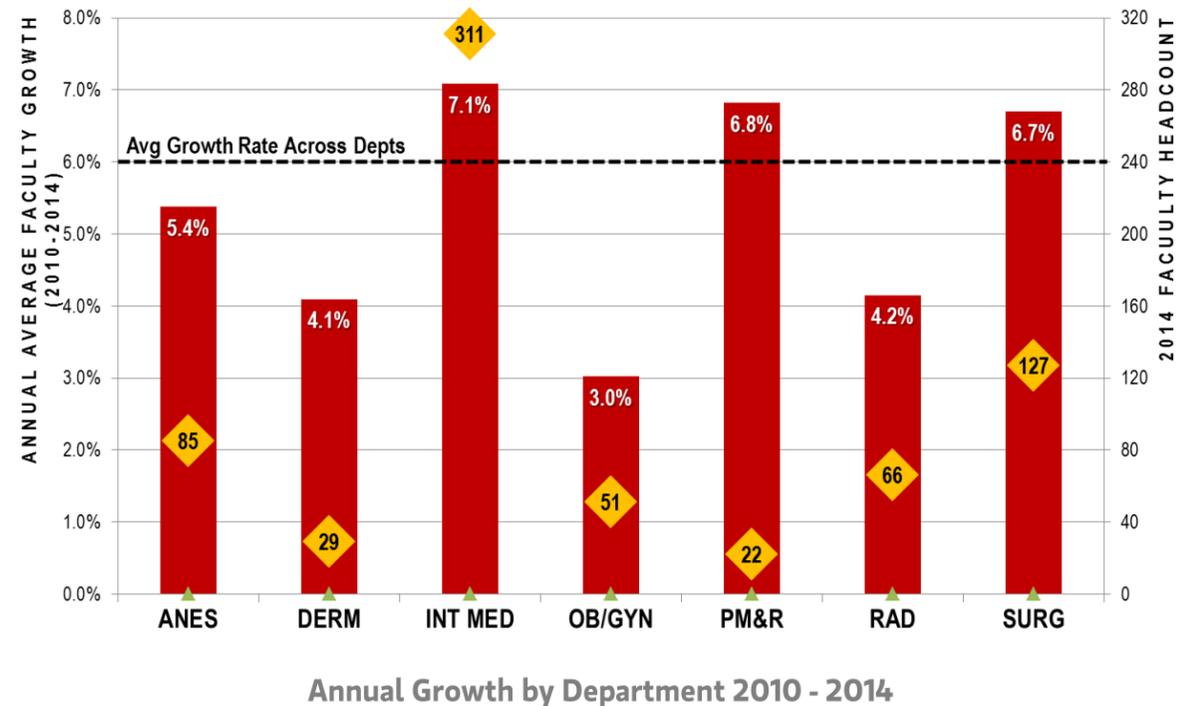
The UCSF Mission Bay facility is unique in academic medicine. It has no private offices, but has significant shared and collaborative space. Faculty and staff at all levels are assigned to open workstations that are equal in size. The analysis considers one typical floor of this multi story building.

The University of Utah PCH space locates more than one third of its occupants in private offices, with all others in open workstations. Most of the workstations are larger than the workstations provided at the UCSF facility. The PCH space has far less formal and informal collaborative space than the UCSF example.

The plans and graphs below and to the right are illustrative. The UCSF space, despite having smaller workstations and no private offices, ultimately allocates more net square feet per person than does the PCH space, with its private offices and large workstations. The aggregate share of space for common and collaborative use is much higher in the UCSF Mission Bay model.

The graph to the right measures the total space allocation per person in each of the two benchmark examples against the total space allocation per person in the three officing models considered for the MED building. The two benchmark facilities allocate 72 and 83 net square feet per person. The proposed MED program models all meet or exceed this benchmark standard. This provides an indicator that the quantity of space allocated for office use in the program will be adequate when the time comes for implementation.





Annual Growth by Department 2010 - 2014

Growth Projection

The number of faculty members in the School of Medicine has grown significantly in recent years. On average, over the most recent five years, the annual growth rate has been six percent per year in academic departments located in Building 521, as illustrated in the graph above. Growth rates have been similar in other academic departments. The pre-programming study evaluated historical growth patterns as well as other factors to produce three growth models for the projected growth for the period from 2014 to 2021.

These proposed growth models only project the growth anticipated through the intended date of occupancy of the new facility, and the year immediately following. They do not account for longer term growth.

Considerations

1. As illustrated in the graph above, historical growth has varied considerably among the academic departments. For purposes of a pre-programming study, however, an average rate was considered appropriate. It is not the intent of the study to predict growth on a department by department basis, but only to provide a reasonable allocation of space to account for the aggregate projected growth. Additional detail will be developed during future programming and design phases.

2. Data used to calculate historic growth rates only identifies the increases in faculty headcount. The data does not indicate the growth rate of support and administrative staff, and whether that rate is higher or lower than the rate of faculty growth.
3. Data used to calculate historic growth rates does not distinguish between clinical and research faculty. The wet bench research faculty are housed elsewhere on campus and are not candidates to be relocated to the proposed MED facility. It is not known whether the clinical faculty growth rate is greater than or less than the overall faculty growth rate.
4. The growth in the last ten years has been supported by over \$300 million in capital investment, resulting in approximately one million square feet of new space. This includes 220 new acute care inpatient beds.
5. University of Utah's current strategy includes an increased presence in the community. Much of the future growth should, therefore, occur in the community and not in the center of the health sciences campus.
6. The level of capital investment that has occurred in the center of the health sciences campus in the last ten years is not expected to continue.
7. Development in the center of the health sciences campus is approaching a practical limit. The site is nearing capacity, as is the utility infrastructure.

As the ability of the central campus to support future growth is becoming limited, and the health sciences strategy is to encourage off site growth, the pre-programming study modeled three potential growth rates:

- 2.5 percent per year
With compounding, the total increase by 2021 is 19 percent.
- 4.0 percent per year
With compounding, the total increase by 2021 is 32 percent.
- 6.0 percent per year
This is generally consistent with historic growth rates. With compounding, the total increase by 2021 is 50 percent.

The planning scenarios in the following section are based on the 2.5 percent per year growth model.

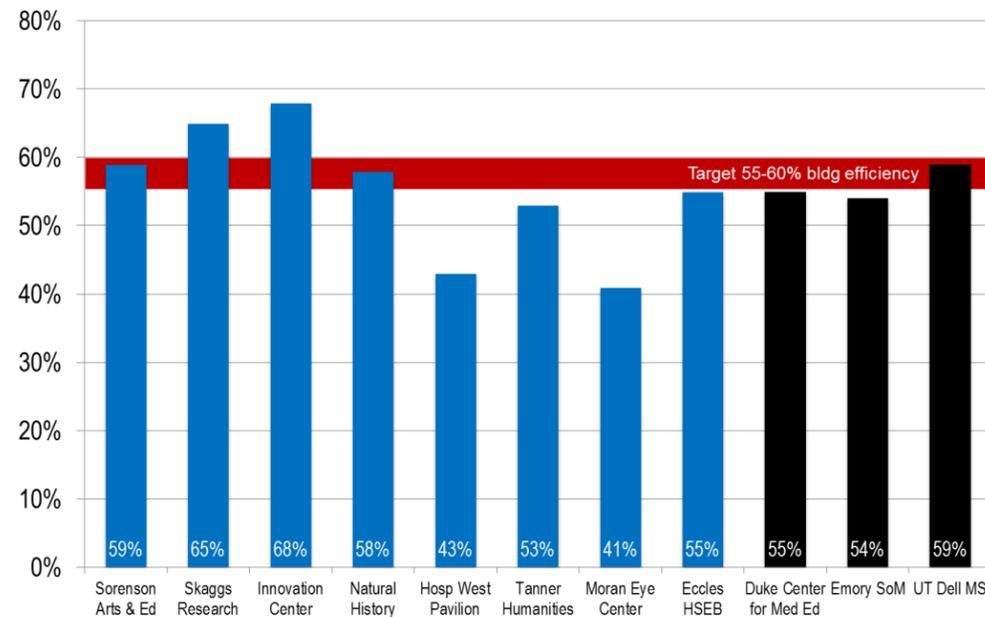
Building Efficiency

The proposed preliminary space program and the planning options in the next section are developed around an assumed net to gross ratio, or building efficiency, of 57.5%. This target was derived from analysis of several similar facilities, illustrated in the bar chart on the following page. The facilities used for benchmarking are located elsewhere on the University of Utah campus and at other Schools of Medicine at Duke University, Emory University, and the University of Texas. This ratio is a responsible allocation of resources, maximizing usable space while setting a target that will be achievable with a sound planning and design process.

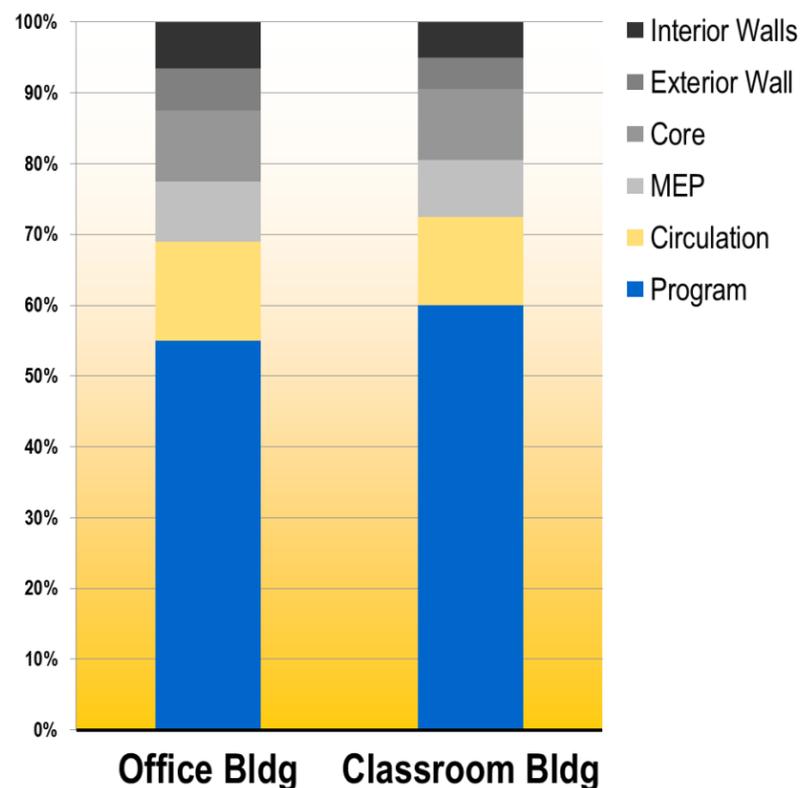
The second bar chart on the following page identifies the components that comprise the areas of the building that are not assignable, and makes reasonable allocations for each. The targeted ratio of 57.5% strikes a balance between a typical academic facility and a typical office facility. Office facilities in general can be expected to have more small spaces, thus requiring that more space be allocated for the area occupied by interior walls and the area occupied by aisles and corridors.

Medical Education and Discovery Building Preliminary Space Program

Building Efficiency Ratios of Similar Facilities



Space Allocation for Unassignable Areas



Approach to Simulation

Simulation is an increasingly important and growing component in the instruction, training and certification of medical students, residents and professionals. Therefore understanding future space requirements for simulation is an important consideration for the health sciences campus. For this study, the scope of simulation investigation was limited to quantifying the simulation facilities in Building 521 that required replacement, and assessing the benefit of consolidating existing facilities from the Health Sciences Education Building and the College of Nursing into a single simulation center.

Observations and Conclusions:

- The existing simulation facilities in the HSEB and the College of Nursing were recently developed and are in excellent condition. Current utilization of these facilities suggests that additional capacity to support other programs and future academic initiatives is available. A detailed utilization study and alignment with inter-professional education vision and goals were not part of this study and should be investigated in the future.
- There is 1,800 SF of simulation space embedded in the Anesthesiology, Surgery and OBGYN Departments currently in Building 521 that will need to be relocated. The pre-programming study identified 13,660 NSF as an "ideal" target for a comprehensive simulation / advanced surgical training center that would address departmental needs in a centralized manner.
- The existing cadaver lab/gross anatomy, currently remotely located in the Health Professions Education Building in Research Park, is inconvenient for medical students. Relocating this facility onto the main health sciences cam-

Current Simulation Spaces

Nursing Simulation Center

- Six bays high fidelity simulation
- Twenty bed nursing skills lab
- 11,380 nsf

HSEB Clinical Skills Center

- Eighteen exam rooms
- Twenty bed nursing skills lab
- 6,600 nsf

Building 521

- Anesthesiology sim lab (3rd floor)
- Scott Library (2nd floor)
- Surgery skills lab (3rd floor)

Other

- Pediatrics (Primary Children's)
- Pig Lab (Animal Research Center)
- Ophthalmology Lab (Moran Eye Center)
- DaVinci (Huntsman Cancer Institute)
- Temporal Bone Lab (Orthopedic Hospital)
- Cadaver Lab (Research Park)

pus would extend after class access for medical students and offers the potential to be expanded to support surgical training. The cadaver lab is currently collocated with the Body Donor program in a recently renovated facility. The cost to relocate both functions and the impact on operations to separate the functions requires additional study.

- Virtual simulation is rapidly expanding and will have a significant role in the instruction and training of medical students and professionals. The CMI facility (currently located in the Eccles Library), with its emphasis on gaming technologies and industry partnerships, would benefit from increased collaboration with the simulation programs. It is anticipated that the CMI facilities will be incorporated into the new Discovery building. The final functional profile and location of the Discovery Building will be determined during the detailed programming phase for the MED.
- The relocation of the existing facilities in 521 and the need to support the detailed programming for the MED and Discovery projects suggest that a comprehensive strategic plan establishing the future approach for simulation on the health sciences campus should be developed.

Please also refer to the summary of a recent self analysis below.

Key observations in a memorandum on the status of simulation at the University, from Greg Jones to Dr. Sean Mulvihill, dated September 20, 2013:

- The Accreditation Council for Graduate Medical Education (ACGME) has been advocating simulation exposure and simulation quality for residents and it is anticipated that there will be a movement to higher simulation requirements in the next couple of years. Although University of Utah's health sciences training is acceptable in the eyes of the ACGME today it is likely that current simulation programs would not hold up to increased ACGME scrutiny.
- Simulation for academic medical centers is receiving increased attention and is growing rapidly. Utah seems to be lagging behind in resident and physician simulation. The University of Utah does spend significant money on simulation, but it is focused in a few departments and is less accessible to many programs. Improved access simulation across the health sciences would yield better trained residents and practicing physicians that give better care and are trained more quickly.
- Given that there is some complexity in offering simulation training a centralized organization to help support and administrate simulation would help ensure proper training and access for the different departments and could help facilitate appropriate cost sharing between departments.

Summary Tabulation of Space Requirements

The space program to the right summarizes the space requirements for each academic department, each administrative unit, and each program or initiative. The summary program allocates office space based on the 2.5% per year growth model. Please refer to Appendix A for space allocations based on the 4.0% and 6.0% growth models, and for more detailed information for each department.

For the academic, student and public space, as well as the innovation center, the summary space program identifies a “must have” space allocation and an “ideal” space allocation. The “must have” allocation identifies the space that each respective entity requires in order to minimally achieve its mission. If the “must have” space cannot be provided for any program component, locating it elsewhere on campus may be a better option. The “ideal” space allocation is the preferred choice and is intended to provide enough space to fully accommodate the intended use without compromising functionality.

Offsite Space

Programs not intended for the MED

The pre-programming effort included identification of several specific programs and divisions within the academic departments that are currently housed appropriately in other locations, on or off campus. These programs and divisions are not considered candidates to occupy space in the MED building, other than touchdown space, and have not been studied. These include:

- All wet bench research space and research faculty office space
- Dermatology call center
- Internal Medicine Divisions of Epidemiology, Hematology, Oncology, and Pulmonary - these require touchdown space only
- Obstetrics and Gynecology Division of Oncology
- Pediatrics Clinical Enterprise and Inpatient Medicine

Overflow from the MED

To the extent that space in the MED building is inadequate to accommodate all of the required elements, prioritization will be required. Section F addresses this issue in further detail. Initial review indicates that some programs components have the potential to function effectively if located off site, whereas some others are only viable if located on site. The evaluation is outlined in the table at the far right.

The study also included an initial evaluation of office space for the clinical departments, to identify whether some administrative personnel that do not require clinical adjacency could be located off site. On initial review, it appeared that approximately 15% to 18% of the office space for the clinical departments was occu-

PROGRAM SUMMARY	TRAD	CONT	PROG
	TTL NSF (2.5% annual growth)	TTL NSF (2.5% annual growth)	TTL NSF (2.5% annual growth)
ACADEMIC DEPARTMENTS			
Anesthesiology	13,840	10,410	8,341
Dermatology	8,575	7,480	6,615
Family & Preventive Med	21,595	18,060	14,405
Internal Medicine	39,370	34,150	30,220
Obstetrics & Gynecology	17,025	14,805	12,575
Pediatrics	43,764	38,385	33,785
Physical Med & Rehab	5,075	4,370	3,700
Radiology	10,630	9,175	7,770
Surgery	33,920	29,300	24,135
SUBTOTAL CLINICAL DEPARTMENTS	193,794	166,135	141,546
Biomedical Informatics	9,678	8,570	7,337
Population Sciences	9,115	8,185	7,030
SUBTOTAL BMI & POP. SCI.	18,793	16,755	14,367
SUBTOTAL ACADEMIC DEPARTMENTS	212,587	182,890	155,913
ADMINISTRATIVE UNITS			
Health Sciences SVP Suite	7,428	7,428	5,571
School of Medicine Dean	15,050	15,050	11,610
College of Health Dean	2,500	2,500	2,500
School of Dentistry Dean	2,500	2,500	2,500
SUBTOTAL ADMINISTRATIVE UNITS	27,478	27,478	22,181
PROGRAMS & INITIATIVES			
	IDEAL	MUST HAVE	
Academic Classrooms & Support	6,790	0	
Human Anatomy & Support	13,605	7,475	
SoM Community Space			
LEARNING COMMUNITIES	3,840	2,880	
AUBERGE (DIST TOUCHDOWN MODULES)	3,200	3,200	
FITNESS AREA	4,556	2,180	
Public Space			
COMMON	4,990	4,990	
LARGE ASSEMBLY / MEETING HALL	7,240	7,240	
Future Programs	10,000	5,000	
Innovation Center	29,540	14,784	
SUBTOTAL PROGRAMS & INITIATIVES	83,761	47,749	

ped by staff that could potentially be located elsewhere. A more detailed review was considered beyond the scope of this study.

Other Sites

An initial inventory of off site space that is potentially available is summarized in the table to the right. This table is a snapshot of the market as of the autumn of 2014 and will evolve as properties are rented or vacated. It should be seen as a reasonable representation of the types and quantities of space that may be available when the time comes to pursue additional off site space.

Functions Compatible with an Offsite Location

Function	Y	N
Academic offices	✓	
Administrative offices	✓	
Simulation		✓
Software development	✓	
Industry collaboration	✓	
Data-based research	✓	
Anatomy	✓	
Student study & social space		✓
Meeting hall / conference center		✓
Cafe		✓
Fitness		✓

Partial Offsite Space Inventory, Autumn 2014

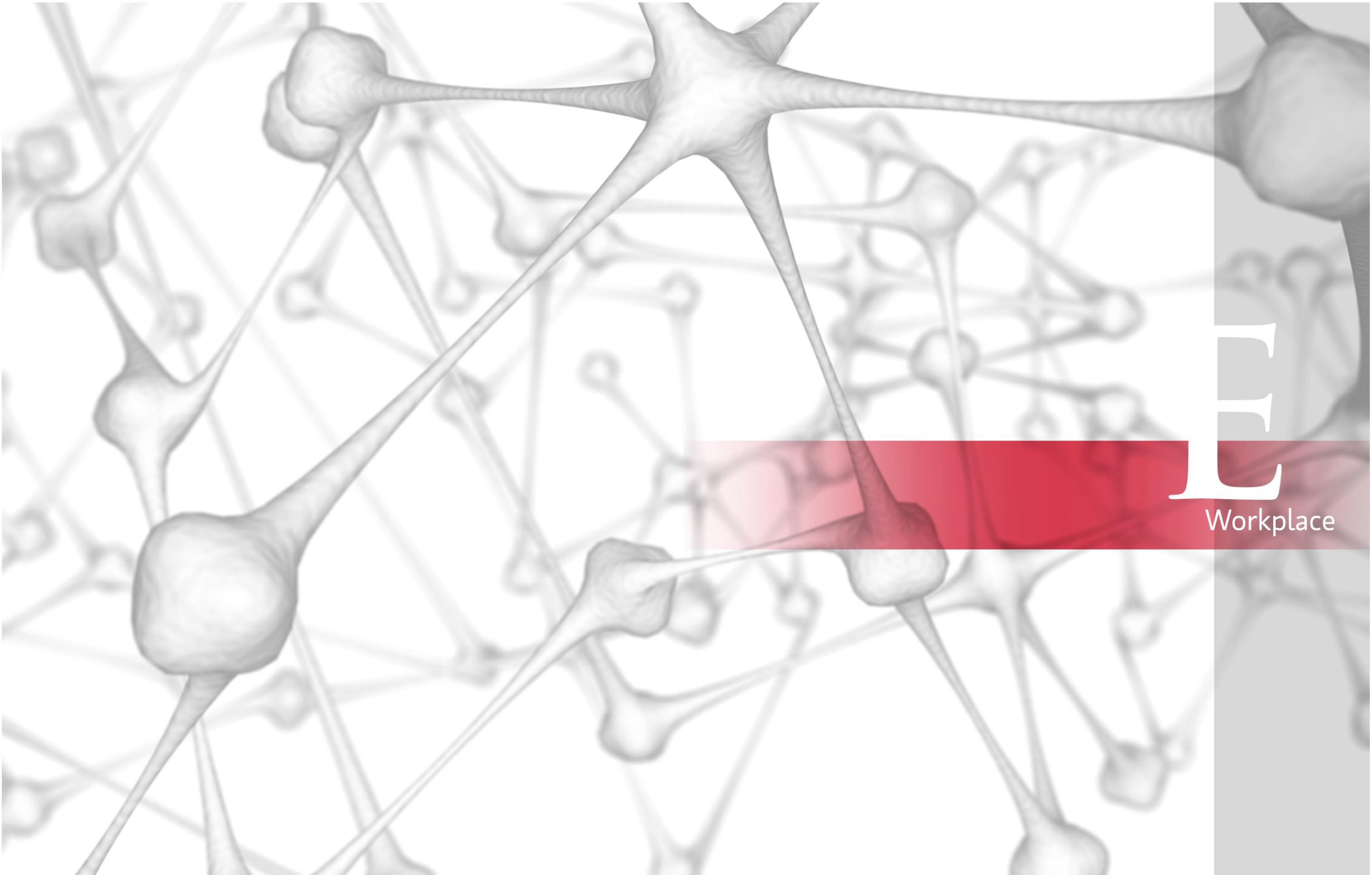
University of Utah Owned or Controlled Properties

Williams Building: 68,000 nsf
 Children's Center: 10,000 nsf
 417 Wakara: 11,000 nsf
 419 Wakara: 24,000 nsf
 525 East 100 South: 12,500 nsf
 515 East 100 South: 46,000 nsf

Third Party Landlords

391 Chipeta
 630 Komas
 615 Arapeen
 675 Arapeen
 505 Wakara

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Workplace

Medical Education and Discovery Building Workplace

Introduction

Space is at a premium in most academic medical centers and the University of Utah is not an exception. Office space for clinical departments is of growing concern as competition for space within the hospital has intensified with the expansion of services and increased patient volume. Contributing to the pressure have been high levels of departmental growth and low utilization of office space by faculty and staff, who spend much of their time in the clinic, the classroom or the research lab. School of Medicine clinical departments represent over 50% of the total identified space need associated with the MED building so this issue has significant impact. However, it also represents an opportunity to create a new benchmark for programming and designing academic medical office space in a world where open and flexible workplace environments remain rare.

Space Models

The MED pre-programming study projected departmental office space based on three distinct models:

Traditional: reflects the current approach to space allocation

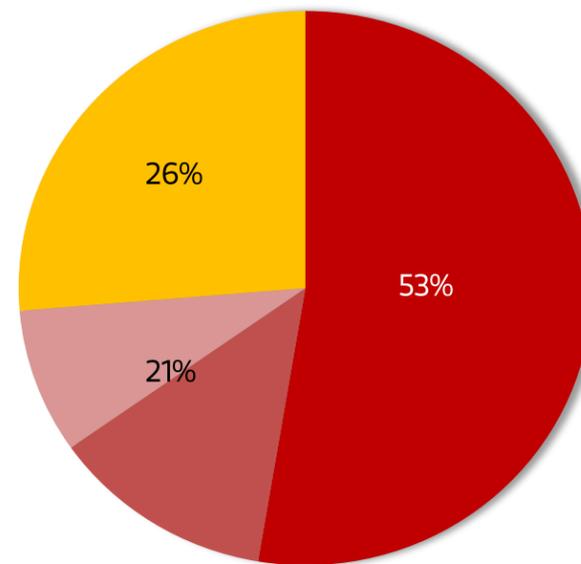
- Each faculty and staff have an assigned work space
- Full time faculty have private offices while other faculty share private office space with one other person
- 30-50% of individual work space is open (as opposed to enclosed offices)
- Collaborative space outside the office is limited to formal conference rooms

Contemporary: similar to the traditional model except size of work spaces (offices and workstations) is reduced and 50-75% of individual work space is in open work stations

Progressive: an activity-based model that provides a variety of work environments ranging from totally enclosed rooms and semi-enclosed work stations to collaboration theaters and internet cafes

- 65-70 % of faculty and staff do not have an assigned work space but can work from whichever area best suits their needs at any particular time
- 90-95% of individual work space is open
- Available formal & informal collaboration space is double the previous models

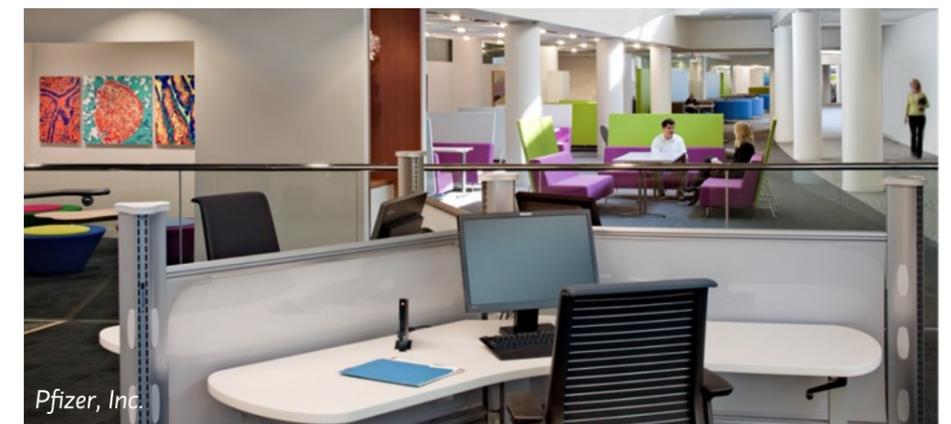
Identified Med-Related Space Needs



- Clinical Departments
- Administrative Departments
- Academic Departments
- Non-Office Spaces

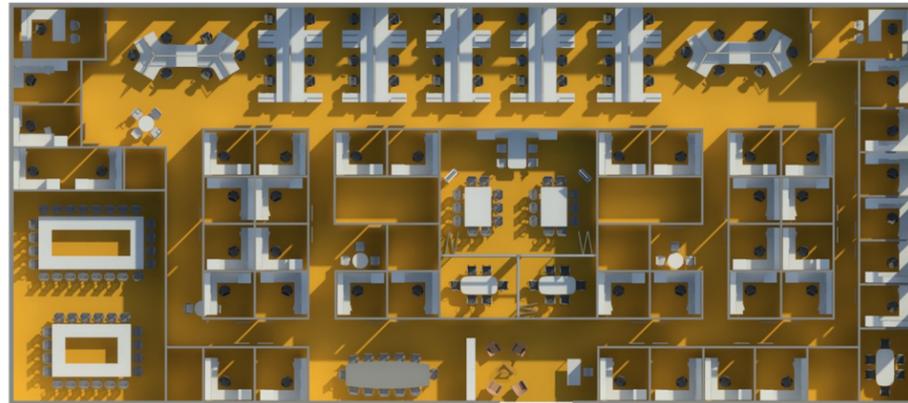


Emory University Rollins School of Public Health
The traditional and contemporary space models reflect the current approach to academic office space- assigned private offices and work stations, with limited space for collaboration space outside formal conference rooms.

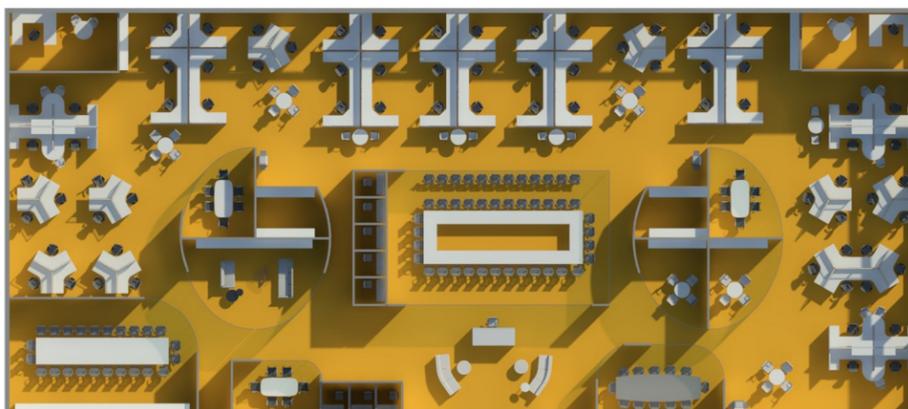


Pfizer, Inc.
The progressive space model utilizes an activity-based approach similar to the flexible workplace model found in corporations known for discovery and innovation.

	TRADITIONAL	CONTEMPORARY	PROGRESSIVE
NSF PER INDIVIDUAL WORK SETTINGS (IWS)			
Chair's Office	180	150	120
Faculty / Standard Office	120	90	n/a
Large Work Station	60	45	45
Small Work Station	30	30	30
COLLABORATION SEATS			
Conference Room Seats	1 per 10 IWS	1 per 10 IWS	1 per 5 IWS
Open Collaboration Seats	1 per 6 IWS	1 per 6 IWS	1 per 3 IWS



CONTEMPORARY MODEL: By utilizing a smaller office module and increasing the proportion of work stations to private offices, the contemporary model generates a wider variety of collaboration space than the traditional approach on the UU HSC campus and maximizes access to natural light and views for all occupants.

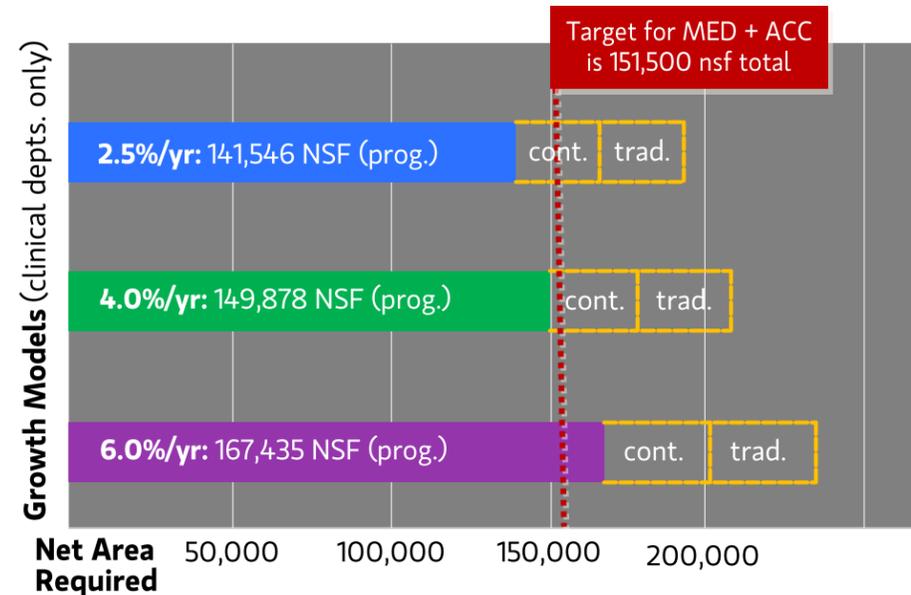


PROGRESSIVE MODEL: Unassigned and shared individual work spaces accommodates more people in less area increasing the amount and diversity of collaboration spaces in the progressive model

Contemporary and Progressive Model Comparison

	Contemporary	Progressive
Floor Plate	12,825 DGSF	
Office & Work Station Seats	75	75
Collaborative Seats	96	138
Total Seats	171	213

Impact of Growth on Clinical Department Office Space Needs



Clinical Faculty & Staff's Divergent Workplace



The Auberge Concept

Clinical departments with critical requirements for hospital adjacency represent more than 50% of the identified space need. When factoring in growth it becomes clear that the entire demand cannot be met with the MED project, without sacrificing strategic priorities critical to the growth and sustainability of the School of Medicine (see chart above). It is also clear that opportunities for future development directly adjacent to the hospital are finite. These conditions suggest the need

to evaluate the critical adjacency requirement by function as opposed to department. With this in mind an alternative space model emerged with the following drivers:

- **Strategic land utilization-** prioritizes the use of the center of the health sciences campus for critical clinical functions, recognizing that dedicating space in the campus core for office function will not be viable in the future.
- **Activity based clinical adjacency-** provides adjacency to clinical facilities based upon individual requirements and schedules, instead of by department. Adjacency to clinical facilities can be offered to a broader range of users by moving faculty and staff who do not need direct access to the hospital away from the campus core.
- **Leverage technology-** offers the potential to shift resource investment away from facilities and into leading edge technology to enhance user communication and access to data for all users equally. Provides an ideal platform for the exploration, testing and rollout of new technologies across departments.
- **Aggregate support services-** The consolidation of users in one central location allows for cost effective delivery of support services, permitting a suite of “executive services” to be offered. Since these services are not department based but “house” delivered, a broad range of services including IT, administrative and personal can be provided to support staff and improve individual effectiveness.
- **Alignment with healthcare practice-** This integrated model is reflective of a multidiscipline and team based health care delivery system and can facilitate the transition to an IPU model for the health system.
- **Innovation-** Opportunity to distinguish University of Utah Health Sciences as a thought leader through the deployment of a groundbreaking space model.

The auberge concept recognizes the juxtaposed work activities of clinical faculty and staff. As care givers, clinicians spend much of their workday in the hospital interacting directly with patients and healthcare delivery teams. Faculty in academic medical centers also have the added responsibility of teaching and research, and frequently count the classroom and research lab among their disparate work settings. However, there are certain functions and interactions that are part the clinician's responsibilities that are not accommodated well, if at all, in the hospital (or classroom or lab) setting (see diagram to the left). These range from private spaces for focus and reflection to collaborative areas for exploration and socialization.

The Auberge concept accommodates departments not in dedicated space but rather shared places for people to work the way they need to when they need to. A shared departmental hub would provide space for chairs and some administrative staff but any additional dedicated space would be located elsewhere. In order for

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Medical Education and Discovery Building Workplace

this model to work, it needs to be highly utilized. This means that faculty and staff must seek it out. That will be achieved by creating a workplace with three key features:

1. Direct access from the hospital
2. Elegantly appointed, beautiful views
3. Everything at your fingertips:
 - Academic office core to address organizational needs
 - Private places to make calls or catch a quick catnap
 - Staffed reading room for research and quiet work/study
 - Touchdown work places of a variety of shapes & sizes
 - Hi-tech consultation center with telemedicine core
 - Club/café for relaxation and socialization
 - Concierge services to meet needs of daily life
 - Fix your computer
 - Laundry/dry cleaning drop off
 - Travel services
 - Etc

A groundbreaking approach to workplace design specific to the needs of the academic medical center, the Auberge concept offers a number of crucial benefits:

- **Diversity of work environments-** While current clinical departmental work environments on the Health Sciences campus are limited to an office and a conference room, this concept offers a continuum of work settings from private and solitary to open and collaborative.
- **Collaboration-** Eliminating physical boundaries between departments enhances the ability to network and interact across disciplines.
- **Community-** Concentrating faculty and staff in a single area justifies the addition of large scale meeting and event spaces offering the ability to participate and host a range of community functions.
- **Culture-** New faculty and staff can engage and connect with the whole community enhancing their ability to both assimilate and influence the Health Sciences community sooner.
- **Convenience and efficiency-** Expanded support services and resources can enhance individual productivity and effectiveness.
- **Technology and skill development-** Equal access to latest technology and immediate and continuous technical support may be achieved more effectively as “house” services.

Auberge Space Model

The ultimate goal of the Auberge Concept is to provide workspace that supports all academic departments. However, a space model needed to be established in order to project the amount of academic work space needed in the MED. The table to the right describes current and projected staffing levels for the School of Medicine academic departments with critical needs for hospital adjacency. Of the 8 departments identified:

- Three (Anesthesiology, Obstetrics & Gynecology and Surgery) are anticipated to be located in the new Ambulatory Care Center (ACC) currently being planned.
- Physical Medicine & Rehabilitation is projected to move to the new Rehabilitation Hospital.
- Pediatrics may continue to occupy space adjacent to Primary Children’s Hospital and in Research Park.

Therefore, the Auberge space model is based on accommodating Dermatology, Internal Medicine and Radiology.

The target capacity for the Auberge floor(s) of the MED is based on the total projected staff for Dermatology, Internal Medicine, and Radiology and assumptions regarding utilization. An important next step in the process will be to understand actual utilization of departmental work spaces. However, for the purpose of this study, the Auberge Space Model applies the results of a similar space study of Obstetrics and Gynecology at Harvard Medical School. HMS studied the utilization of departmental office space over a period of five weeks. In that period the highest overall seat occupancy was 50% during mid day. In general office occupancy fell into 3 ranges:

1. 1/3 of space was utilized at least 50%
2. 1/3 of space was utilized 20-40%
3. 1/3 of space was utilized <10%

When these utilization percentages are applied to the projected staff levels of the three School of Medicine departments, a total of 374 individual work stations (IWS) would be needed (see table to the right).

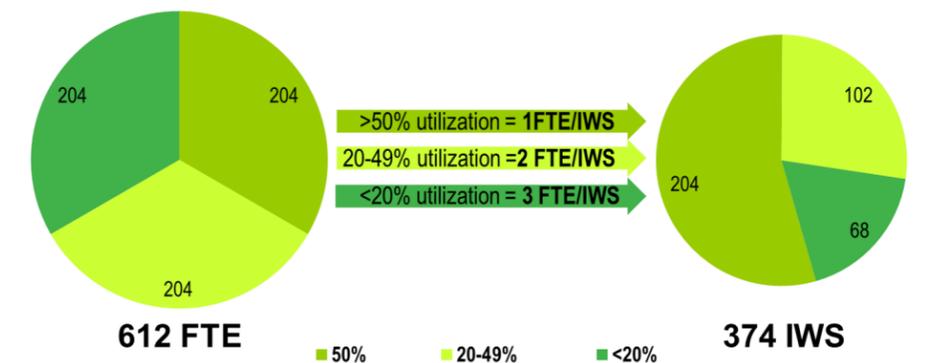
The Auberge space model is based on generating 350-400 IWS with an equal number of collaborative and social seats and a target of 80 NSF/IWS (30,000-33,000 NSF). These seats were distributed in a range of activity zones and would be arranged in neighborhoods with a diversity of work environments available in each (see graphic program and neighborhood diagram on the next page).

Personnel Projections for SoM Academic Departments

Department	2014 (current FTE)		2021 (2.5% growth)	
	Faculty (FAC)	FAC + STAFF TTL	Faculty (FAC)	FAC + STAFF TTL
ACADEMIC DEPARTMENT W/ HOSPITAL ADJACENCY NEEDS				
Anesthesiology	66	90	79	107
Dermatology	19	67	24	82
Internal Medicine	148	358	176	428
Obstetrics & Gynecology	33	96	39	137
Pediatrics (nic Clinical Ent, Cardio & Inpatient Med)	130	370	155	442
Physical Med & Rehab	19	39	24	50
Radiology	46	83	57	103
Surgery	101	261	119	301

Projected Capacity for Auberge Floor(s)

	FAC	ADM	AUX	RES	Totals
Dermatology	24	16	42	0	82
Internal Medicine	176	85	167	0	428
Radiology	57	18	18	10	103
Totals	257	119	227	10	613



- For workstations found to be occupied 50 percent of the time or more, one work setting per workstation is provided.
- For workstations found to be occupied between 20 and 49 percent of the time, one work setting per two workstations is provided.
- For workstations found to be occupied less than 20 percent of the time, one work setting per three workstations is provided.

Auberge Space Model — Graphic Program

touchdown stations
 100 semi enclosed
 100 bench stations
 72 team / collab. seats
200 IWS / 72 collaborative seats

common admin core
 (for up to 6 departments)
 2 private offices / dept.
 45 admin work stations
 central mail / copy
 workroom / holding
 reception / waiting / pantry
36 IWS / 18 collaborative seats

20 quiet rooms
 1-2 people each
20 IWS

club room / cafe
 36 seat living room
 36 seat dining room
 community kitchen
 12 seat private dining
84 collaborative seats

concierge services
 3-4 staff

board room
 40 seat meeting room
 pre-event
 service
40 collaborative seats

consultation suite
 8 small meeting rooms
 1 large meeting room
 b/o seats
76 collaborative seats

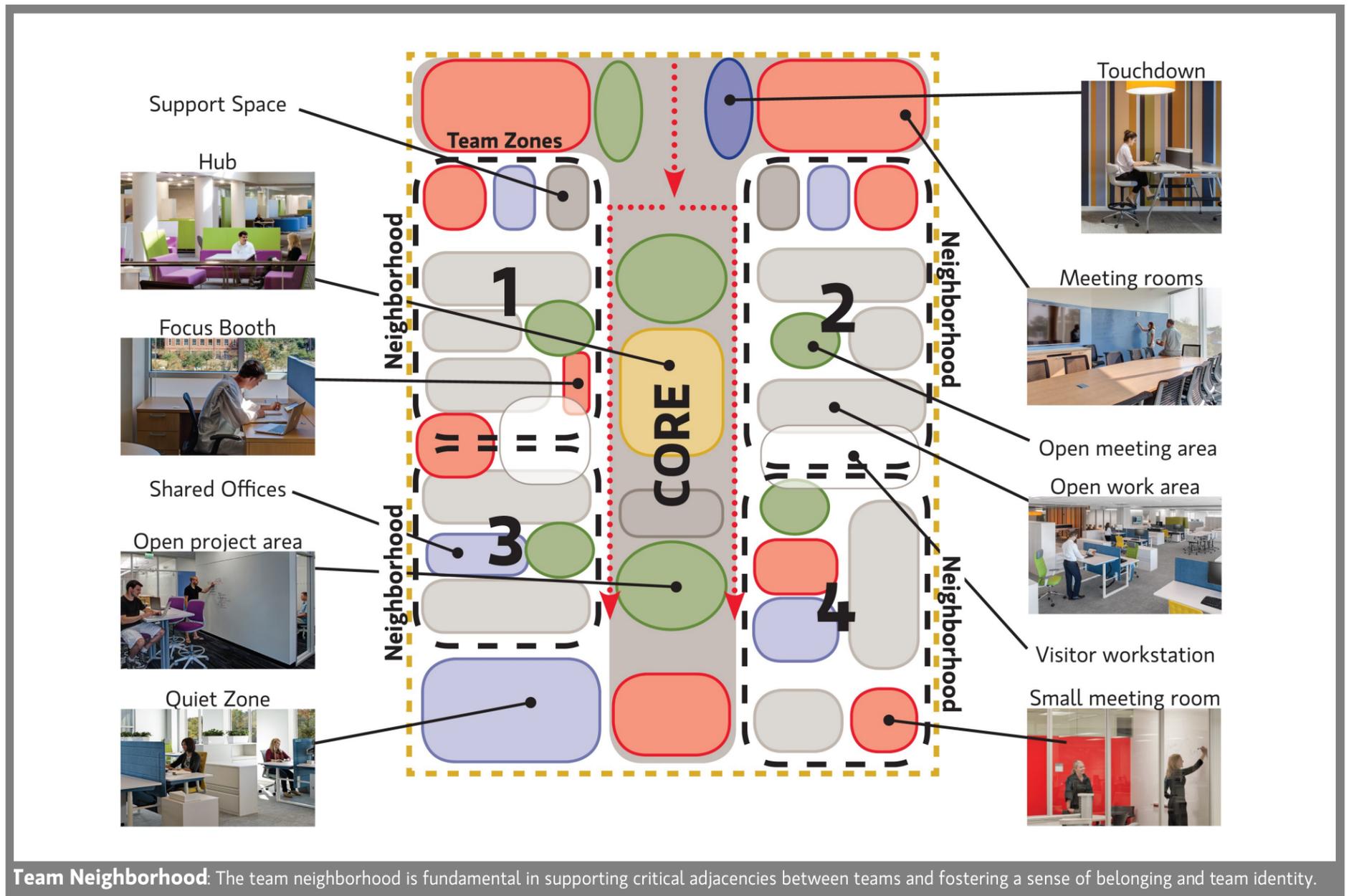
telemedicine core
 3 small meeting rooms
 1 large meeting room
 b/o seats
30 collaborative seats

Prototyping / Next Steps

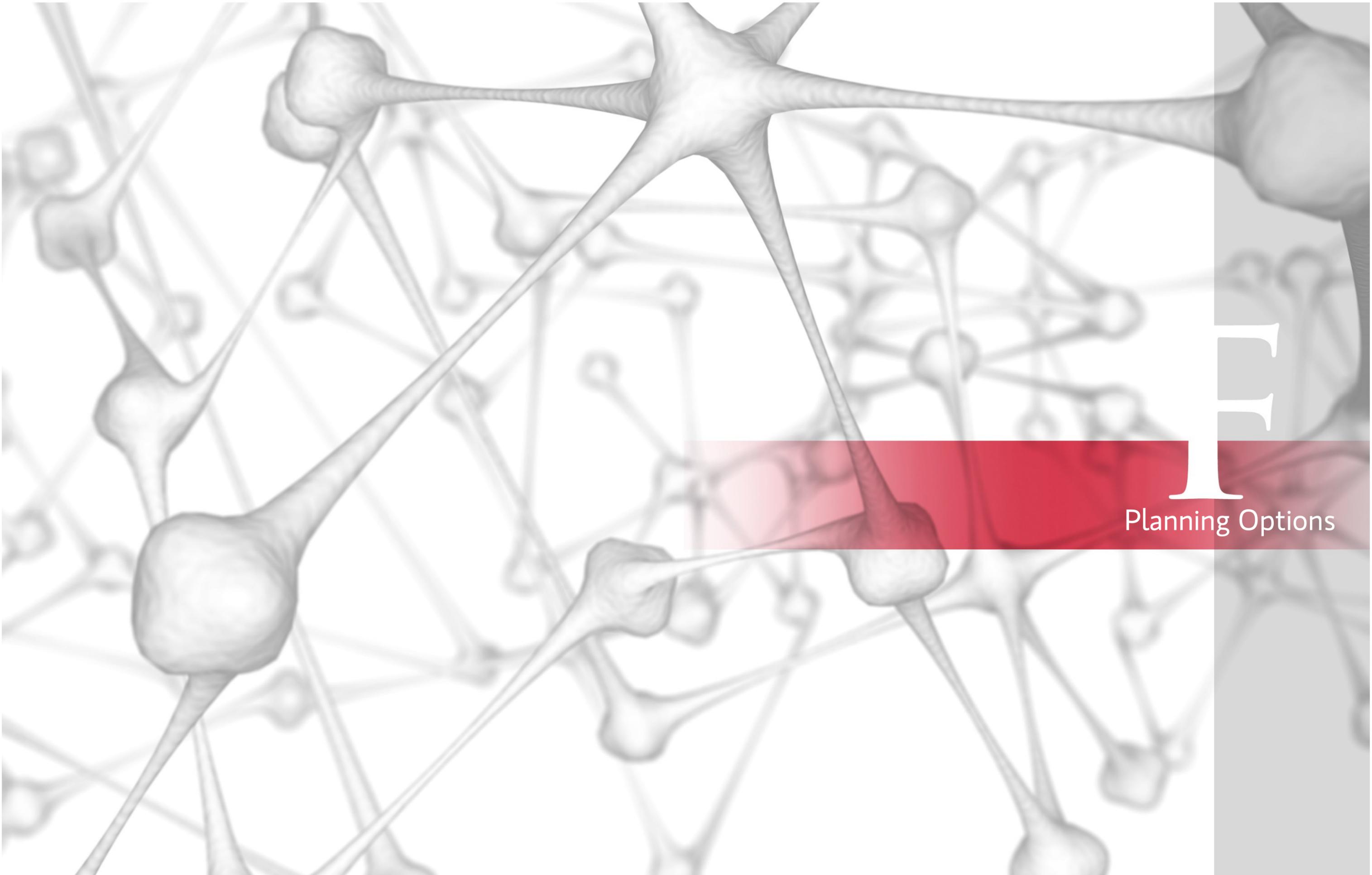
There are a number of important steps needed to move the Auberge idea forward as programming and planning for the MED proceeds. Many of these can begin now and will inform the future design process:

- **Visioning Session** Develop the vision and guiding principles with leaders and departmental representatives.
- **Opinion Leader Interviews** Engage and energize advocates and early adopters to build momentum for the concept.
- **Workplace Survey** Collect data on current space utilization and desired state.

- **Space Utilization Studies** Conduct actual utilization studies of existing space to confirm survey findings
- **Living Mockups** Construct a prototype Auberge in existing space and solicit volunteers to work in the space for an extended period and measure outcomes (utilization, enhanced productivity, improved communication, innovation, etc.)



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Planning Options

Medical Education and Discovery Building Planning Models

Introduction

The space program for the MED identifies an overall requirement of 266,612 net square feet to satisfy the program. Approximately 53 percent of the requirement is office space for the clinical departments. Since the overall space need identified in the pre-programming process significantly exceeds the targeted size of the proposed buildings, value judgments will be required. These value judgments will shape the character of the new MED building, and will have an impact on functionality as well. This report is not intended to make those judgments. That will occur at a later point in the overall project process. This report identifies several planning models, and analyzes the relative merits of each. Numerous variations on these models are possible and should be explored in more depth at the initiation of the design process for the proposed building.

University of Utah has identified a target of 250,000 gross square feet of new facilities for the proposed Medical Education and Discovery (MED) program. This targeted size is inclusive of space in the proposed MED building, and academic office space in the proposed Ambulatory Care Center (ACC) that will be dedicated to accommodating a part of the MED space program. The target does not include the area of the proposed Discovery Center or space in buildings such as Eccles Library that may be available to house parts of the MED program.

Planning Assumptions

For the purpose of developing planning models for the proposed MED building, several key assumptions serve to provide a common baseline:

1. The proposed MED building will contain 109,500 net square feet / 190,000 gross square feet, which reflects an assumed net to gross ratio of approximately 57.5 percent.
2. The proposed ACC will allocate 42,000 net square feet / 60,000 gross square feet on the fourth and fifth floors to accommodate MED program.
3. The proposed space in the ACC will house office space for clinical departments with critical requirements for hospital adjacency.
4. The proposed Discovery Center, if built, would provide an additional area of up to 34,500 net square feet / 50,000 gross square feet to accommodate program needs.
5. The Eccles Library has underutilized space that can be repurposed to accommodate MED program, supplementing the space in the MED building and the ACC. For the purpose of this study, 15,000 net square feet is assumed to be available, although the actual available space is likely greater.
6. The study assumes that the MED should include headquarters offices for University of Utah Health Sciences and the School of Medicine, and smaller suites for the Deans of the School of Dentistry and the College of Health. With the Deans of the College of Nursing and the College of Pharmacy already located

nearby, this ensures that all of the Health Sciences senior administrators are located along the academic corridor.

7. For the purpose of this study, clinical, administrative, and academic office space for the Department of Physical Medicine and Rehabilitation is assumed to be located in the proposed Rehabilitation Hospital.
8. The proposed Fitness Center is omitted from all options, as the general consensus of the team was that it should not be prioritized. The George S. Eccles Student Life Center immediately across Mario Capecchi Drive, which will open in January, 2015 provides a convenient alternative.
9. The average growth rate between 2014 and 2021, for program located in the center of the campus, is assumed to be 2.5 percent per year in the clinical departments and Biomedical Informatics.

Occupancy Goals

Several key space types were identified as components whose presence or absence would have a significant impact on the character and functionality of the MED building:

- *Health Sciences leadership that has no other space in the academic corridor:*
 - Senior Vice President's office
 - School of Medicine
 - School of Dentistry
 - College of Health
- *Academic departments with critical hospital adjacency requirements*
- *Meaningful medical student study and social space*
- *Space / environments that promote innovation:*
 - Simulation
 - Population Science / Biomedical Informatics
 - CMI / CTSA
- *Community space:*
 - Café
 - Meeting hall
 - Exhibit space
- *Teaching programs the benefit from adjacency to other academic and clinical endeavors:*
 - Biomedical Informatics
 - College of Health graduate programs
 - Department of Family and Preventive Medicine Physician Assistant and Public Health programs
- *Other clinical departments*

Overview of Models

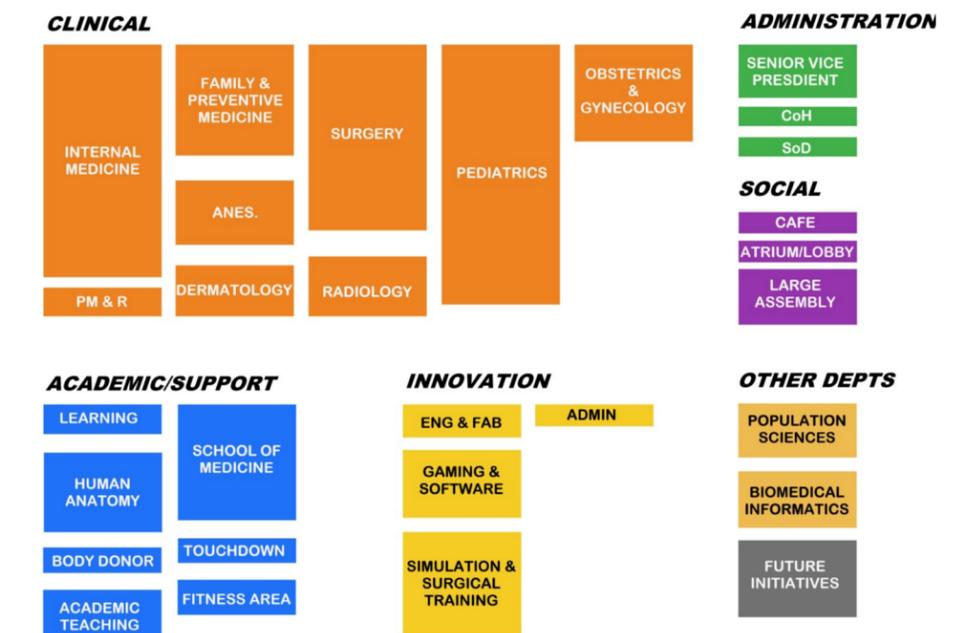
The key drivers for the MED project include the need to provide a heart for the Health Sciences campus and the need to create a place that will become a home

for the School of Medicine. Recognizing that significant parts of the program cannot be accommodated in the MED building, it is necessary to develop priorities for inclusion or exclusion that are based on these project drivers. Numerous options with various combinations of program elements were modeled and tested for alignment with the proposed vision for the MED.

The initial set of options examined the impact of strongly prioritizing one part of the program while deprioritizing other parts.

- A scheme that **prioritized office space** for clinical faculty with critical hospital adjacency was able to satisfy the clinical faculty's office space need. This scheme, however, had a significant shortfall in space for students and the public, and in space for new and innovative programs. This scheme made no provision for clinical departments that did not have a critical requirement for clinical adjacency.
- A scheme that **prioritized the innovation program** succeeded in satisfying that part of the program, and also was more successful in satisfying the space needs of students and the public, This scheme was significantly deficient in clinical office space.
- A scheme that **prioritized student and public space** succeeded in satisfying that part of the program, and was also somewhat successful in satisfying the innovation program. This scheme was also significantly deficient in clinical office space.

Program Components



UNIVERSITY OF UTAH SCHOOL OF MEDICINE
MED BUILDING PROGRAM SUMMARY

ACADEMIC DEPARTMENTS		
Anesthesiology	8,341	
Dermatology	6,615	
Family & Preventive Med	14,405	
Internal Medicine	30,220	
Obstetrics & Gynecology	12,575	
Pediatrics	33,785	
Physical Med & Rehab	3,700	
Radiology	7,770	
Surgery	24,135	
SUBTOTAL CLINICAL		141,546 <i>the MED/ACC does not accommodate all office needs in any option currently under consideration</i>
Biomedical Informatics	7,337	
Population Sciences	7,030	
SUBTOTAL COMPUTATIONAL		14,367 <i>computational researchers</i>
ADMINISTRATIVE UNITS		
Senior Vice President Office Suite	7,428	
School of Medicine Offices	15,050	
College of Health Dean's Office Suite	2,500	
School of Dentistry Dean's Office Suite	2,500	
SUBTOTAL		27,478 <i>included in the MED in all options currently under consideration</i>
ACADEMIC SPACE		
Academic Classrooms / Support	6,790	<i>includes 6 teaching spaces of varying sizes</i>
Human Anatomy	13,605	<i>program area can be reduced to 10,305 nsf if body donor program remains at its present location</i>
SUBTOTAL		20,395
SCHOOL OF MEDICINE COMMUNITY SPACE		
Learning Communities	3,840	<i>includes study spaces, student lounge, can be reduced to 2,880 nsf "must have"</i>
Touchdown Work Spaces ("Auberge")	3,200	
Fitness Area	4,556	<i>fitness is excluded in all options currently under consideration</i>
SUBTOTAL		11,596
PUBLIC SPACE		
Common	4,990	<i>includes atrium and café</i>
Large Assembly / Meeting Hall	7,240	<i>includes large subdividable meeting hall (cap. 400) and support spaces</i>
SUBTOTAL		12,230
FUTURE PROGRAMS		
Future Programs	10,000	<i>space allocated for new programs that are currently unknown but may be initiated before 2020</i>
SUBTOTAL		10,000
INNOVATION		
Engineering & Fabrication Suite	4,280	
Gaming & Software Development	8,780	
Simulation / Surgical Training	13,660	
Administration & Common Area	2,820	
SUBTOTAL		29,540 <i>innovation program to be located in Discovery Center (if funded and built)</i>
total nsf required		267,152 <i>109,500 nsf available in MED, 42,000 nsf available in ACC, 30,000 nsf potentially available in Discovery Center</i>

1. All Academic Department space allocations in this program are based on 2.5% annual growth 2014 - 2021
2. All areas above are net square feet and exclude departmental circulation
3. MED and Discovery Building net to gross is assumed to be 57.5%
4. It is assumed that 15,000 nsf in the Library may also be available to accommodate MED program
5. It is assumed that the space in the ACC will be entirely allocated to clinical office use

Analysis of this set of initial studies led to the conclusion that development of several "blended" models would yield a more successful outcome. The "blended" models all strive to achieve a balance among the competing program priorities, while remaining aligned with the broader vision for the MED. Each of the four models presented below includes some variation in points of emphasis. The first two models work within the parameters of the program and project assumptions. The latter two models begin to challenge the assumptions, to study whether an alternative approach would be more advantageous.

Model 1: This model prioritizes student and public space and assumes that construction of the Discovery Center will be deferred. This model provides the most limited office space for clinical departments.

Model 2: This model includes less student and public space than the first model, and assumes that the Discovery Center, while separately funded, can be constructed concurrently with the MED. This option provides more office space for clinical departments than the first model.

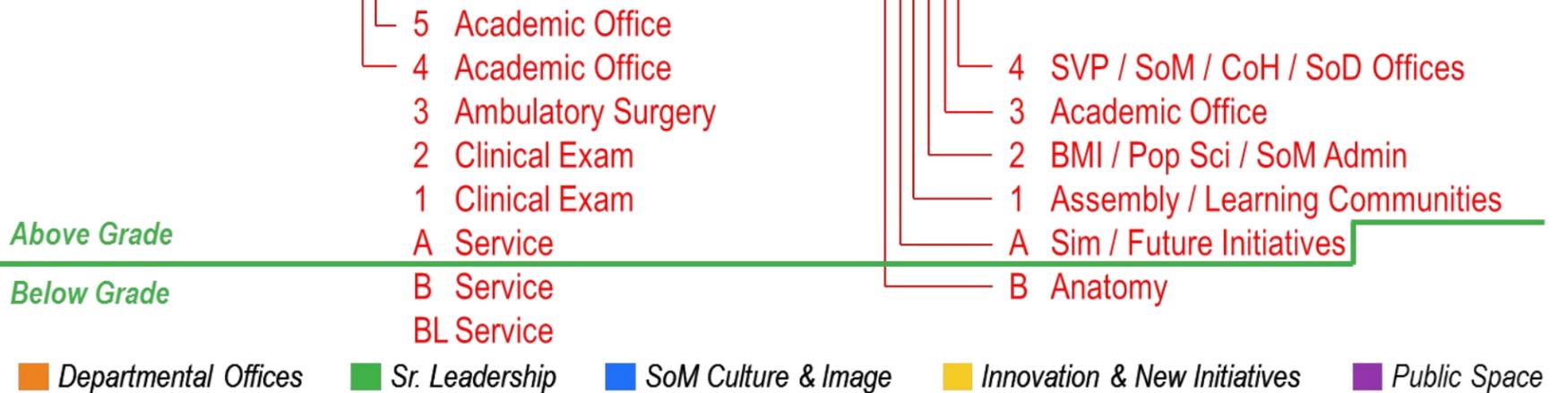
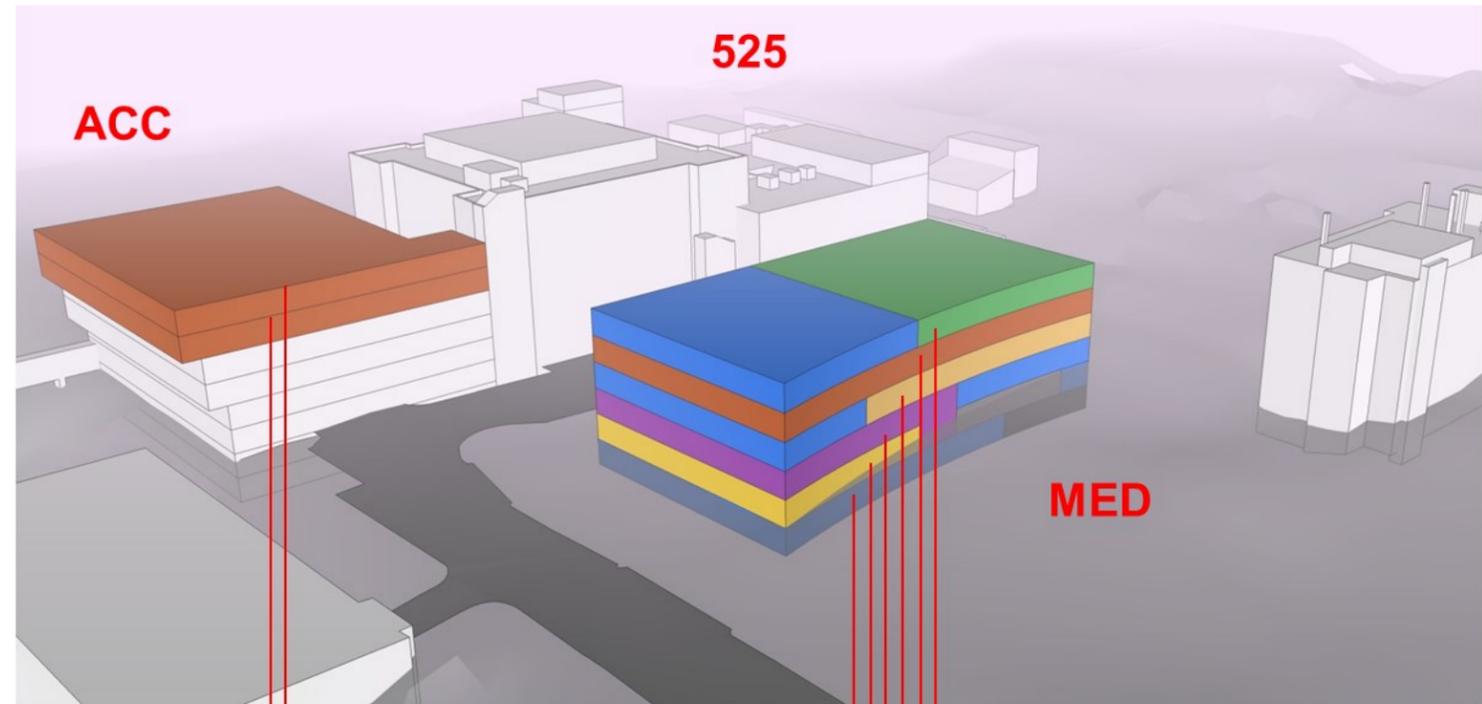
Model 3: This model is similar to the second model, except that it assumes that the MED can be larger than the targeted size. Most of the additional space is allocated to the clinical departments for office use.

Model 4: This model includes an alternative, "Auberge" concept for the clinical departments. It provides greater equality of office access among the departments, while incorporating student and public space similar to the first model. It also assumes that the Discovery Center, while separately funded, can be constructed concurrently with the MED.

Medical Education and Discovery Building Planning Models

MODEL 1: MED Building with no Discovery Center

1. The program does not locate any space in the Discovery Center. Construction of the Discovery Center is assumed to be delivered separately.
2. Academic, student and amenity spaces are prioritized in this model. All program elements in these categories have been included, with the exception of the fitness center.
3. The program includes a limited simulation space in the MED building, intended only to replicate simulation functionality that will be lost when Building 521 is demolished.
4. The program omits the entire Innovation scope, except for limited simulation space located in the MED building. The simulation space is intended only to replace the simulation activities currently located in Building 521.
5. If the Discovery Center is built at a later date, the simulation in the MED can be relocated to the Discovery Center and the simulation space in the MED can be repurposed.
6. The program includes relocation of the human anatomy lab to the MED building, as well as the body donor program.
7. Underutilized space in the library is allocated to address part of the academic program and part of the space allocated for future programs.
8. 68,000 net square feet is allocated for office space for clinical departments. This satisfies 48 percent of the programmed need for the departments, or 76 percent of the need if Family and Preventive Medicine, Pediatrics, and Physical Medicine and Rehabilitation are excluded.



MODEL 1: MED Building with no Discovery Center

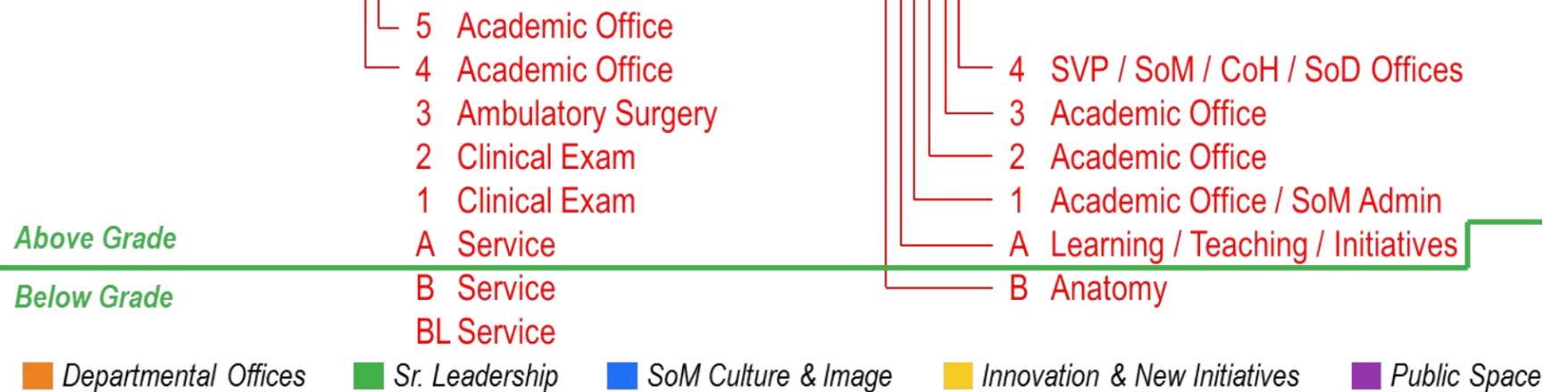
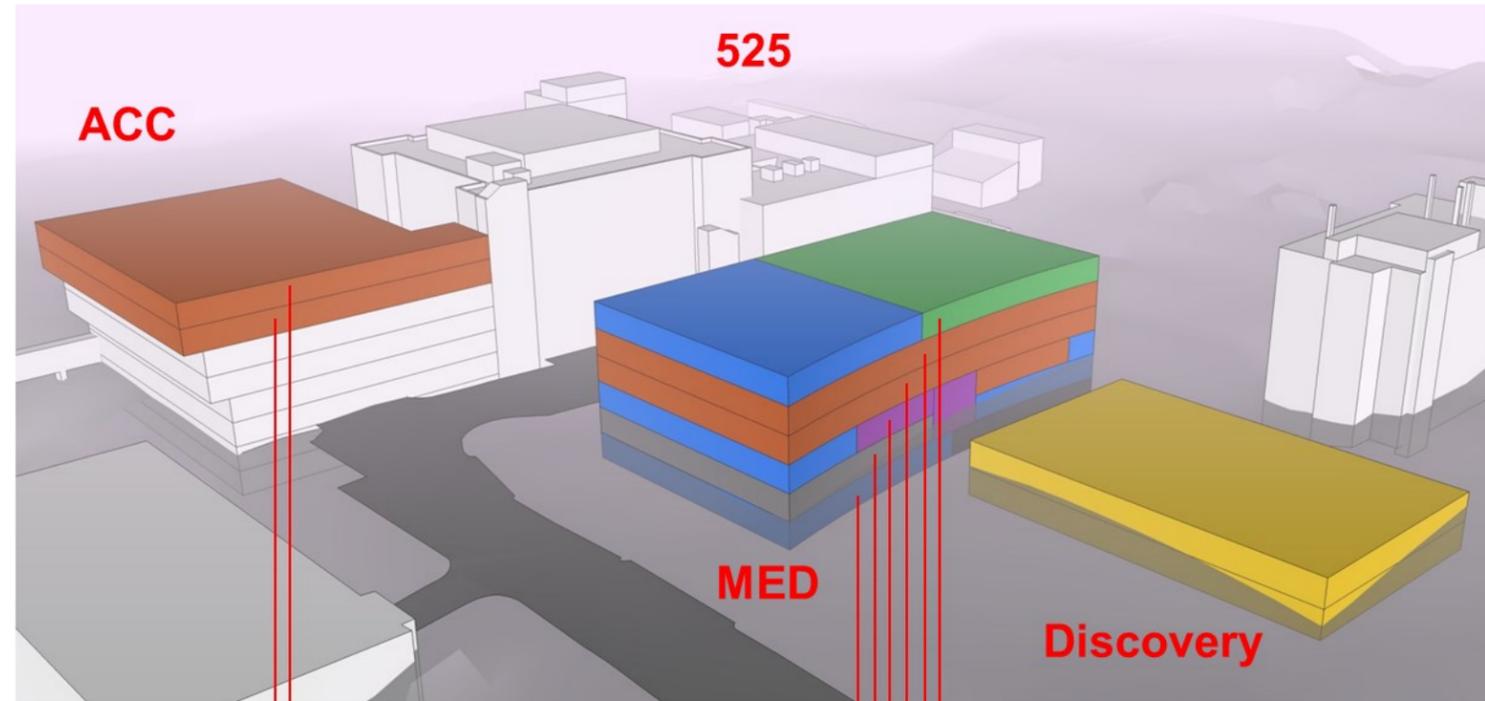
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	TRAD TTL NSF (2.5% annual grow th)	CONT TTL NSF (2.5% annual grow th)	PROG TTL NSF (2.5% annual grow th)	250,000						total assigned	unmet need	Disc. Center Building		
				56,000	GSF	134,000	GSF	60,000	GSF				30,000	GSF
				29,500	NSF	80,000	NSF	42,000	NSF				15,000	NSF
				MED (lvs A & B)	MED (flrs 1-4)	ACC (flrs 4-5)	Library (lv g,1,2)							
ACADEMIC DEPARTMENTS														
Anesthesiology	13,840	10,410	8,341											
Dermatology	8,575	7,480	6,615											
Family & Preventive Med	21,595	18,060	14,405											
Internal Medicine	39,370	34,150	30,220											
Obstetrics & Gynecology	17,025	14,805	12,575											
Pediatrics	43,764	38,385	33,785											
Physical Med & Rehab	5,075	4,370	3,700											
Radiology	10,630	9,175	7,770											
Surgery	33,920	29,300	24,135											
SUBTOTAL	193,794	166,135	141,546		26,000	42,000			68,000	73,546				
Biomedical Informatics	9,678	8,570	7,337		7,337				7,337	-				
Population Sciences	9,115	8,185	7,030		7,030				7,030	-				
ADMINISTRATIVE UNITS														
HSC SVP SUITE	7,428	7,428	5,571		7,428				7,428	-				
SoM DEAN	15,050	15,050	11,610		15,050				15,050	-				
CoH DEAN	2,500	2,500	2,500		2,500				2,500	-				
SoD DEAN	2,500	2,500	2,500		2,500				2,500	-				
PROGRAMS & INITIATIVES														
Academic Classrooms & Support		6,790	0					6,790	6,790	-				
Human Anatomy & Support		13,605	7,475		13,605				13,605	-				
SoM Community Space														
LEARNING COMMUNITIES		3,840	2,880		3,840				3,840	-				
TOUCHDOWN (DIST WORK HUB)		3,200	3,200		2,000	1,200			3,200	-				
FITNESS AREA		4,556	2,180						-	4,556				
Public Space														
COMMON		4,990	4,990		1,240	3,750			4,990	-				
LARGE ASSEMBLY / MEETING HALL		7,240	7,240			7,240			7,240	-				
Future Programs		10,000	5,000		5,000			5,000	10,000	-				
Innovation Center (Discovery)		29,540	14,784		3,000				3,000	26,540				
		subtotal assigned		28,685	80,035	42,000		11,790	162,510	104,642	0			
		total remaining		815	-35	0		3,210			0			

Medical Education and Discovery Building Planning Models

MODEL 2: MED Building with Discovery Center

1. The program locates the entire innovation program in the proposed Discovery Center, at the "ideal" level. The Discovery Center could reduce from 50,000 to 25,000 gross square feet and still accommodate the innovation program at the "must have" level.
2. Academic, student and amenity spaces are prioritized in this model, but not all program elements in these categories are included.
3. Omitted student and amenity spaces include the large meeting hall/assembly space, much of the classroom space, and the fitness center.
4. The program includes relocation of the human anatomy lab to the MED building, but assumes that the body donor program can remain at the present location on Wakara Way.
5. Underutilized space in the library is allocated to accommodate the Departments of Biomedical Informatics and Population Science.
6. If the Discovery Center cannot be built concurrently, the simulation that is relocated out of Building 521 will require an alternative location until the Discovery Center is built.
7. 89,656 net square feet is allocated for office space for clinical departments. This satisfies 63 percent of the programmed need for the departments, or 100 percent of the need if Family and Preventive Medicine, Pediatrics, and Physical Medicine and Rehabilitation are excluded.



MODEL 2 : MED Building with Discovery Center

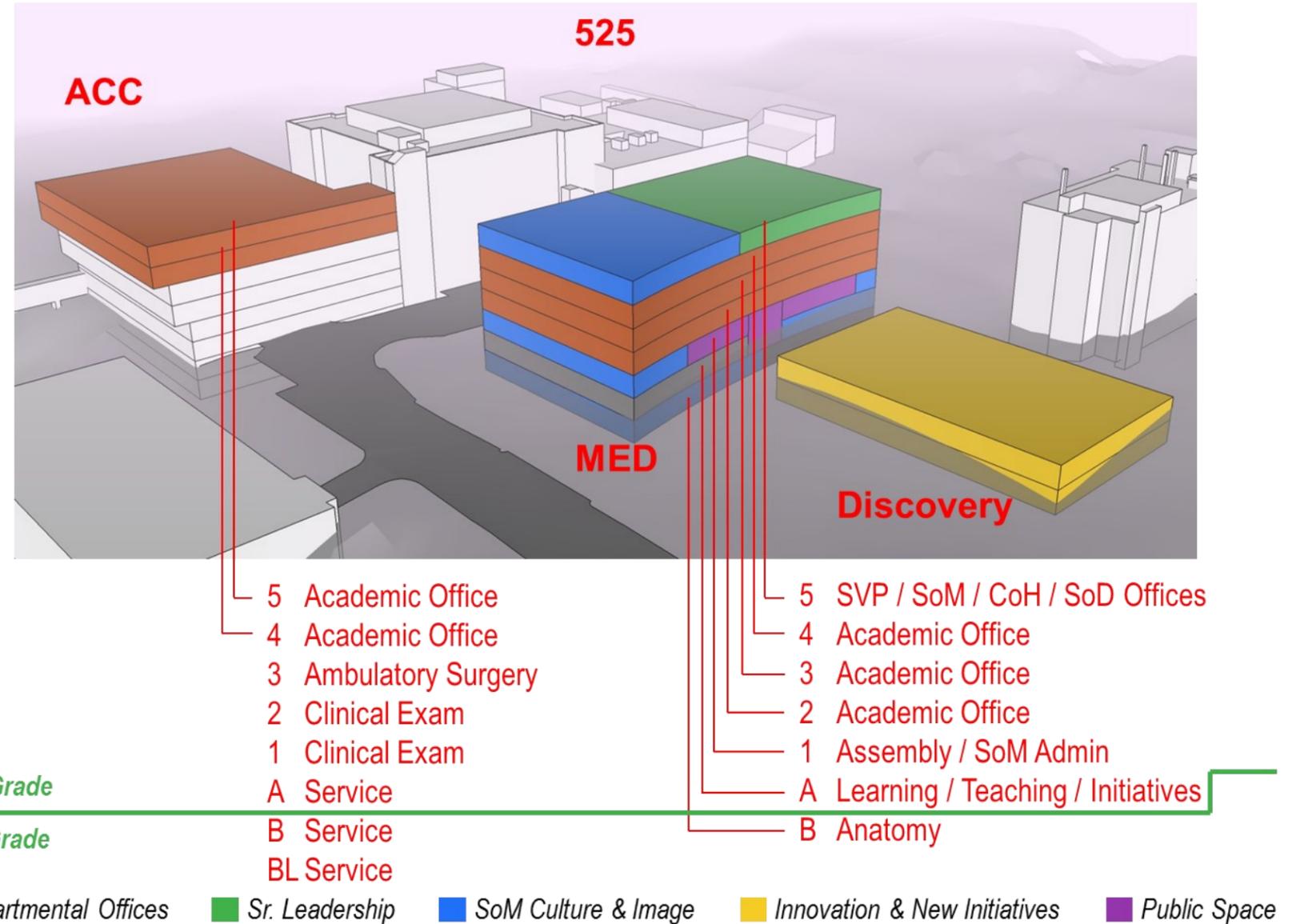
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				250,000										50,000 GSF	
	TRAD	CONT	PROG	56,000 GSF	134,000 GSF	60,000 GSF	30,000 GSF					50,000 GSF			
	TTL NSF (2.5% annual growth)	TTL NSF (2.5% annual growth)	TTL NSF (2.5% annual growth)	29,500 NSF	80,000 NSF	42,000 NSF	15,000 NSF					30,000 NSF			
			MED (lms A & B)	MED (flrs 1-4)	ACC (flrs 4-5)	Library (lmg, 1,2)	total assigned	unmet need			Disc. Center Building				
ACADEMIC DEPARTMENTS															
Anesthesiology	13,840	10,410	8,341												
Dermatology	8,575	7,480	6,615												
Family & Preventive Med	21,595	18,060	14,405												
Internal Medicine	39,370	34,150	30,220												
Obstetrics & Gynecology	17,025	14,805	12,575												
Pediatrics	43,764	38,385	33,785												
Physical Med & Rehab	5,075	4,370	3,700												
Radiology	10,630	9,175	7,770												
Surgery	33,920	29,300	24,135												
SUBTOTAL	193,794	166,135	141,546		47,656	42,000		89,656	51,890						
Biomedical Informatics	9,678	8,570	7,337				7,337	7,337	-						
Population Sciences	9,115	8,185	7,030				7,030	7,030	-						
ADMINISTRATIVE UNITS															
HSC SVP SUITE	7,428	7,428	5,571		7,428			7,428	-						
SoM DEAN	15,050	15,050	11,610		15,050			15,050	-						
CoH DEAN	2,500	2,500	2,500		2,500			2,500	-						
SoD DEAN	2,500	2,500	2,500		2,500			2,500	-						
PROGRAMS & INITIATIVES															
		IDEAL	MUST HAVE												
Academic Classrooms & Support		6,790	0	2,700				2,700	4,090						
Human Anatomy & Support		13,605	7,475	10,305				10,305	3,300						
SoM Community Space															
LEARNING COMMUNITIES		3,840	2,880	3,840				3,840	-						
TOUCHDOWN (DIST WORK HUB)		3,200	3,200	1,400	1,800			3,200	-						
FITNESS AREA		4,556	2,180					-	4,556						
Public Space															
COMMON		4,990	4,990	1,240	3,750			4,990	-						
LARGE ASSEMBLY / MEETING HALL		7,240	7,240					-	7,240						
Future Programs		10,000	5,000	10,000				10,000	-						
Innovation Center (Discovery)		29,540	14,784					-	29,540	29,540					
		subtotal assigned		29,485	80,684	42,000	14,367	166,536	100,616	29,540					
		total remaining		15	-684	0	633			460					

Medical Education and Discovery Building Planning Models

MODEL 3: Expanded MED Building with Discovery Center

1. This model considers the possibility of increasing the height of the MED building by one story. The total assignable area would increase by 20,000 net square feet.
2. The program locates the entire innovation program in the proposed Discovery Center, at the "ideal" level. The Discovery Center could reduce from 50,000 to 25,000 gross square feet and still accommodate the innovation program at the "must have" level.
3. Academic, student and amenity spaces are prioritized in this model, but not all program elements in these categories are included.
4. Omitted student and amenity spaces include the fitness center and much of the classroom space.
5. The program includes relocation of the human anatomy lab to the MED building, but assumes that the body donor program can remain at the present location on Wakara Way.
6. Underutilized space in the library is allocated to accommodate the Departments of Biomedical Informatics and Population Science.
7. If the Discovery Center cannot be built concurrently, the simulation that is relocated out of Building 521 will require an alternative location until the Discovery Center is built. The MED building may be the best opportunity, given the increased size of the building in this model.
8. 102,000 net square feet is allocated for office space for clinical departments. This would approximately equal the combined programmed needs for all clinical departments, if Pediatrics and Physical Medicine and Rehabilitation are excluded.
9. Alternatively, if two floors were added to the MED instead of one, 122,000 net square feet would be allocated for office space for clinical departments. This exceeds the programmed need if Family and Preventive Medicine, Pediatrics, and Physical Medicine and Rehabilitation are excluded, and satisfies 89 percent of the need if only Physical Medicine and Rehabilitation is excluded.



MODEL 3 : Expanded MED Building with Discovery Center

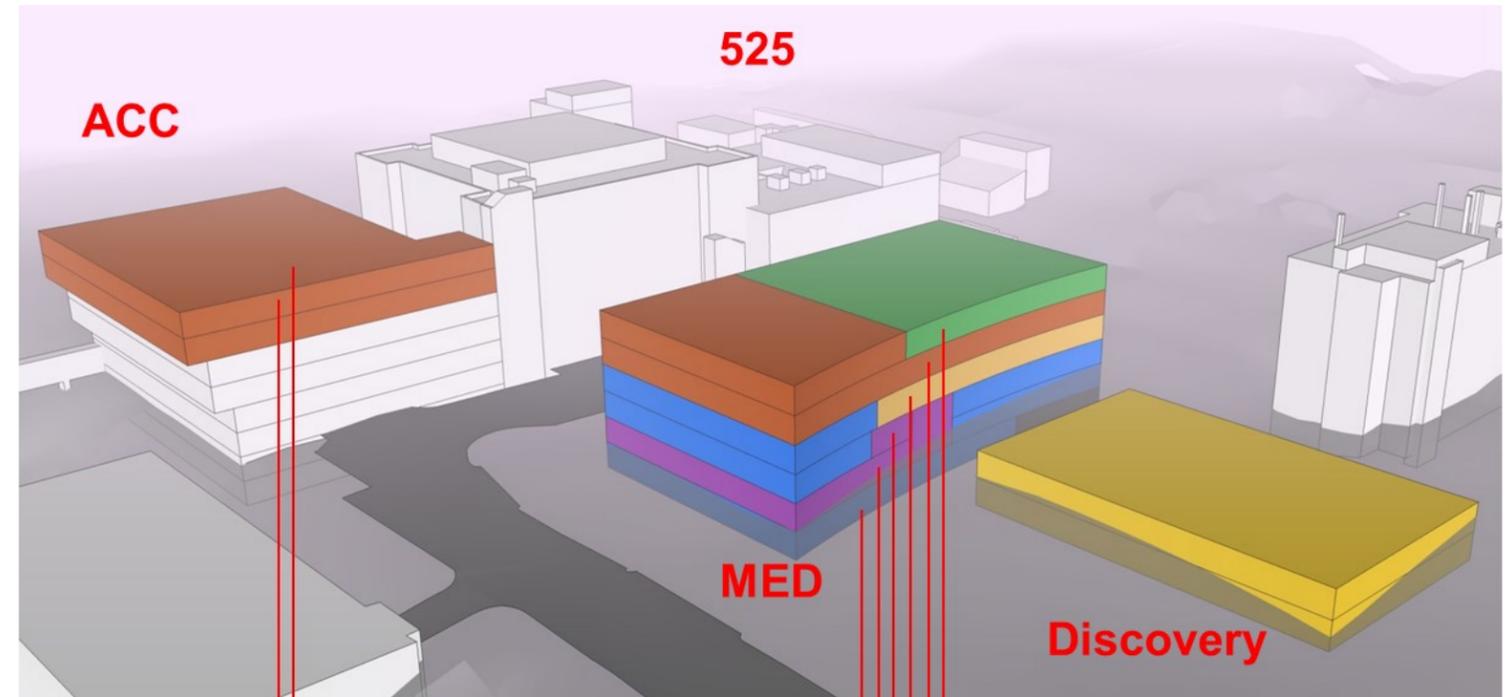
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				283,500										50,000 GSF	
	TRAD	CONT	PROG	56,000 GSF	167,500 GSF	60,000 GSF	30,000 GSF					50,000 GSF			
	TTL NSF (2.5% annual growth)	TTL NSF (2.5% annual growth)	TTL NSF (2.5% annual growth)	29,500 NSF	100,000 NSF	42,000 NSF	15,000 NSF					30,000 NSF			
			MED (lvs A & B)	MED (flrs 1-5)	ACC (flrs 4-5)	Library (lv g,1,2)	total assigned	unmet need			Disc. Center Building				
ACADEMIC DEPARTMENTS															
Anesthesiology	13,840	10,410	8,341												
Dermatology	8,575	7,480	6,615												
Family & Preventive Med	21,595	18,060	14,405												
Internal Medicine	39,370	34,150	30,220												
Obstetrics & Gynecology	17,025	14,805	12,575												
Pediatrics	43,764	38,385	33,785												
Physical Med & Rehab	5,075	4,370	3,700												
Radiology	10,630	9,175	7,770												
Surgery	33,920	29,300	24,135												
SUBTOTAL	193,794	166,135	141,546		60,000	42,000		102,000	39,546						
Biomedical Informatics	9,678	8,570	7,337				7,337	7,337	-						
Population Sciences	9,115	8,185	7,030				7,030	7,030	-						
ADMINISTRATIVE UNITS															
HSC SVP SUITE	7,428	7,428	5,571		7,428			7,428	-						
SoM DEAN	15,050	15,050	11,610		15,050			15,050	-						
CoH DEAN	2,500	2,500	2,500		2,500			2,500	-						
SoD DEAN	2,500	2,500	2,500		2,500			2,500	-						
PROGRAMS & INITIATIVES															
Academic Classrooms & Support		IDEAL 6,790	MUST HAVE 0	2,700				2,700	4,090						
Human Anatomy & Support		13,605	7,475	10,305				10,305	3,300						
SoM Community Space															
LEARNING COMMUNITIES		3,840	2,880	3,840				3,840	-						
TOUCHDOWN (DIST WORK HUB)		3,200	3,200	1,400	1,800			3,200	-						
FITNESS AREA		4,556	2,180					-	4,556						
Public Space															
COMMON		4,990	4,990	1,240	3,750			4,990	-						
LARGE ASSEMBLY / MEETING HALL		7,240	7,240		7,240			7,240	-						
Future Programs		10,000	5,000	10,000				10,000	-						
Innovation Center (Discovery)		29,540	14,784					-	29,540		29,540				
		subtotal assigned		29,485	100,268	42,000	14,367	186,120	81,032		29,540				
		total remaining		15	-268	0	633				460				

Medical Education and Discovery Building Planning Models

MODEL 4: MED Building with Discovery Center & Concierge Office Space

1. This model includes auberge work space in lieu of conventional office space for most clinical departments.
2. The available office space in the ACC is assigned to the Departments of Anesthesiology, Obstetrics and Gynecology, and Surgery for conventional office space. The available space is sufficient to accommodate 93 percent of the programmed need for these departments.
3. The space available to the clinical departments in the MED is 32,000 net square feet, or approximately 1-1/2 stories. This space will be developed as auberge work space.
4. One story of the MED is expected to be shared between auberge work space and the Senior Vice President's suite. Detailed programming may identify spaces that can be shared between them.
5. The program locates the entire innovation program in the proposed Discovery Center, at the "ideal" level. The Discovery Center could reduce from 50,000 to 25,000 gross square feet and still accommodate the innovation program at the "must have" level.
6. Academic, student and amenity spaces are prioritized in this model. All program elements in these categories have been included, with the exception of the fitness center and the touchdown spaces.
7. The touchdown spaces are omitted because they duplicate the functionality of the larger auberge office space.
8. The program includes relocation of the human anatomy lab to the MED building, as well as the body donor program.
9. Underutilized space in the library is allocated to accommodate the programmed space allowances for future initiatives.
10. If the Discovery Center cannot be built concurrently, the simulation that is relocated out of Building 521 will require an alternative location until the Discovery Center is built.
11. An alternative approach to the ACC space might include one floor of conventional office space and one floor of additional auberge space.



Above Grade

Below Grade

- 5 Academic Office
- 4 Academic Office
- 3 Ambulatory Surgery
- 2 Clinical Exam
- 1 Clinical Exam
- A Service
- B Service
- BL Service

- 4 SVP / CoH / SoD / Auberge
- 3 Auberge
- 2 BMI / Pop Sci / SoM Offices
- 1 SoM Offices
- A Teaching / Assembly
- B Anatomy

Departmental Offices

Sr. Leadership

SoM Culture & Image

Innovation & New Initiatives

Public Space

MODEL 4 : MED Building with Discovery Center & Auberge Office Space

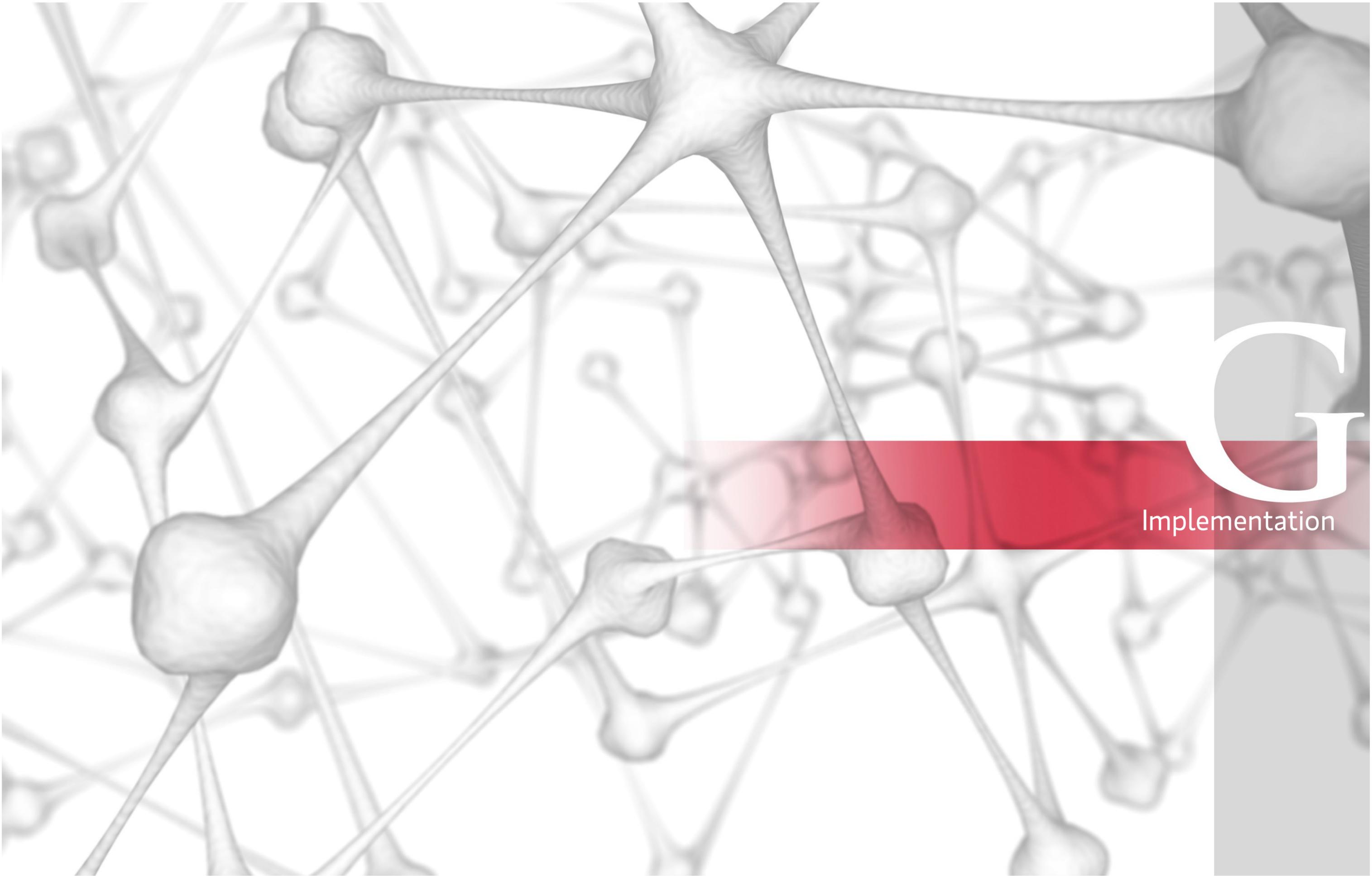
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				250,000												
	TRAD		CONT	PROG	56,000	GSF	134,000	GSF	60,000	GSF	30,000	GSF			50,000	GSF
	TTL NSF (2.5% annual grow th)	TTL NSF (2.5% annual grow th)	TTL NSF (2.5% annual grow th)		29,500	NSF	80,000	NSF	42,000	NSF	15,000	NSF			30,000	NSF
				MED (lvs A & B)		MED (flrs 1-4)		ACC (flrs 4-5)		Library (lvs g, 1,2)		total assigned	unmet need			Disc. Center Building
ACADEMIC DEPARTMENTS																
Anesthesiology	13,840	10,410	8,341					7,757				7,757	584			
Obstetrics & Gynecology	17,025	14,805	12,575					11,695				11,695	880			
Auberge Space for:						32,000						32,000	(32,000)			
Dermatology	8,575	7,480	6,615									-	6,615			
Family & Preventive Med	21,595	18,060	14,405									-	14,405			
Internal Medicine	39,370	34,150	30,220									-	30,220			
Pediatrics	43,764	38,385	33,785									-	33,785			
Radiology	10,630	9,175	7,770									-	7,770			
Physical Med & Rehab	5,075	4,370	3,700									-	3,700			
Surgery	33,920	29,300	24,135					22,446				22,446	1,689			
Biomedical Informatics	9,678	8,570	7,337			7,337						7,337	-			
Population Sciences	9,115	8,185	7,030			7,030						7,030	-			
ADMINISTRATIVE UNITS																
HSC SVP SUITE	7,428	7,428	5,571			7,428						7,428	-			
SoM DEAN	15,050	15,050	11,610			15,050						15,050	-			
CoH DEAN	2,500	2,500	2,500			2,500						2,500	-			
SoD DEAN	2,500	2,500	2,500			2,500						2,500	-			
PROGRAMS & INITIATIVES																
Academic Classrooms & Support		IDEAL	MUST HAVE													
Human Anatomy & Support		6,790	0	6,790								6,790	-			
SoM Community Space		13,605	7,475	13,605								13,605	-			
LEARNING COMMUNITIES		3,840	2,880	1,000	2,840							3,840	-			
TOUCHDOWN (DIST WORK HUB)		3,200	3,200									-	3,200			
FITNESS AREA		4,556	2,180									-	4,556			
Public Space																
COMMON		4,990	4,990	1,240	3,750							4,990	-			
LARGE ASSEMBLY / MEETING HALL		7,240	7,240	7,240								7,240	-			
Future Programs		10,000	5,000							10,000		10,000	-			
Innovation Center (Discovery)		29,540	14,784									-	29,540		29,540	
		subtotal assigned		29,875		80,435		41,897		10,000		162,208	104,945		29,540	
		total remaining		-375		-435		103		5,000					460	

Medical Education and Discovery Building Planning Models

Model Summary and Comparison

	MODEL 1 MED Building with no Discovery Center	MODEL 2 MED Building with Discovery Center	MODEL 3 Expanded MED Building with Discovery Center	MODEL 4 MED Building with Discovery Center & Auberge Office Space
Health Sciences leadership	Included	Included	Included	Included
Academic departments with critical hospital adjacency requirements	Of the models presented, this one has the least office space for the clinical departments	This model can accommodate office space at the progressive level for the departments requiring clinical adjacency, if PM&R and other non critical departments are excluded	This model can accommodate office space at the progressive level for the departments requiring clinical adjacency, if some other departments are excluded	This model assumes that equal access to the Auberge is provided for all clinical departments
Meaningful medical student study and social space	This model provides all programmed student space except for the Fitness Center	This model omits most classroom space and the Fitness Center	This model omits most classroom space and the Fitness Center	This model provides all programmed student space except for the Fitness Center
Space / environments that promote innovation	This model excludes the Discovery Center and therefore most innovation space Biomedical Informatics, Population Science and Future Initiative space are included	This model includes the Discovery Center and the full innovation program Biomedical Informatics, Population Science and Future Initiative space are included	This model includes the Discovery Center and the full innovation program Biomedical Informatics, Population Science and Future Initiative space are included	This model includes the Discovery Center and the full innovation program Biomedical Informatics, Population Science and Future Initiative space are included
Community space	This model provides all programmed public and common space including the large meeting room	This model provides most programmed public and common space but omits the large meeting room	This model provides all programmed public and common space including the large meeting room	This model provides all programmed public and common space including the large meeting room
Teaching programs the benefit from adjacency to other academic and clinical endeavors	Classroom space is available in this model	This model accommodates limited teaching space	This model accommodates limited teaching space	Classroom space is available in this model
Other clinical departments	Other clinical departments would most likely be omitted, as the programmed office space does not accommodate all of the departments requiring clinical adjacency	Other clinical departments would most likely be omitted, although the programmed office space does accommodate all of the departments requiring clinical adjacency	Other clinical departments could be partially accommodated, as the programmed office space exceeds the requirements of the departments requiring clinical adjacency	This model assumes that equal access to the Auberge is provided for all clinical departments
Other		This model omits the body donor program	Larger building, increased construction and operating cost This model omits the body donor program	



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Implementation

Medical Education and Discovery Building Implementation

Cost Model

An overall capital cost model for the construction of a new MED facility should include the anticipated construction cost, design and other professional fees, furnishings and equipment provided outside of the construction contract, moving costs, internal project management costs, escalation appropriate to the anticipated date for start of construction, and a contingency for unforeseen conditions.

For the proposed MED facility, no design work has been completed at this time. As such, the cost model is based on the preliminary space program, historical cost information for similar facilities, and appropriate allowances for unknown conditions. The budget developed to date assumes that there will be no inordinate costs for site preparation (such as rock removal or blasting) or for any environmental remediation on the selected site, but does anticipate that some level of utility relocation will be required.

The proposed budget to the right and on the following page projects a total cost of slightly over \$100 million dollars for the MED Building and approximately \$28 million for the Discovery Center. Adding 33,500 square feet to the MED Building (Space Model #3) would add approximately \$16.5 million to the anticipated cost.

The proposed budget includes:

- Contingencies for unforeseen design and construction issues, and an estimating contingency, at values appropriate to carry at this stage of the process.
- An escalation factor that is based on construction starting in the summer of 2018, and occupancy of the completed building approximately two years later.
- The conceptual construction cost includes all normally included construction trade costs as well as construction manager's fee for pre-construction services, estimating and design contingencies, builder's construction contingencies, general conditions (staff), general requirements, contractor bonds, general liability insurance, building permit fees, and construction manager's fee.
- The proposed budget does not include:
 - Costs to abate or demolish the existing buildings on the site (Building 521, Building 531, Dumke)
 - Any costs associated with design, construction, or fitout of the Ambulatory Care Center
 - Any renovation work in Eccles Library
 - Any bridge between the MED and the ACC or the hospital
 - Occupancy costs for swing space
 - Costs associated with off site locations for program elements not accommodated in the MED Building

Project: University of Utah Health Sciences - MED Building						November, 2014	
Estimate: Conceptual (benchmark) Cost Model						SLAM Construction Services	
Opinion of Probable Construction Costs						Summary	
Description	Percent of Construction Cost	Gross SF:	190,000		50,000		
			(MED)		(Discovery Ctr.)		
		Sqft Cost	Total	Total	Total		
Building Concrete Work / Building Earthwork	7.50%	23.00 \$	4,370,000 \$	5,140,500 \$	1,150,000		
Footings & Foundation			Included				
Foundation Walls			Included				
Concrete Slab (on grade & on deck)			Included				
Building Earthwork - Building Footprint Only			Included				
Building Structure	11.41%	35.00 \$	6,650,000 \$	7,822,500 \$	1,750,000		
Structural Steel			Included				
Floor / Roof Decking			Included				
Metal Stairs / Pipe & Tube Railings			Included				
Misc. Metals							
Exterior Closure	14.63%	44.88 \$	8,526,898 \$	10,030,325 \$	2,243,921		
Unit Masonry (exterior veneer)			Included				
Waterproofing / Dampproofing			Included				
Thermal Insulation			Included				
Exterior Metal Panel / Curtain Wall			Included				
Exterior Soffits			Included				
Spray Fireproofing			Included				
Doors and Windows			Included				
Moisture and Thermal Protection (roofing)	0.94%	2.87 \$	545,602 \$	641,800 \$	143,579		
Roofing			Included				
Roof Specialties			Included				
Interior Finishes	12.39%	38.00 \$	7,220,000 \$	8,493,000 \$	1,900,000		
Woods & Plastics (rough carpentry / finish carpentry)			Included				
Gypsum Systems (walls & ceilings)			Included				
Acoustical Ceiling / Acoustical Panels			Included				
Flooring			Included				
Painting			Included				
Specialties	1.63%	5.00 \$	950,000 \$	1,117,500 \$	250,000		
Equipment (fixed equipment only)	0.82%	2.50 \$	475,000 \$	558,750 \$	125,000		
Furnishings (excludes F F & E)	0.49%	1.50 \$	285,000 \$	335,250 \$	75,000		
Special Construction - Monumental Stairs	0.65%	2.00 \$	380,000 \$	447,000 \$	100,000		
Conveying Systems (elevators)	1.30%	4.00 \$	760,000 \$	894,000 \$	200,000		
Mechanical Systems	16.96%	52.00 \$	9,880,000 \$	11,622,000 \$	2,600,000		
Fire Protection Systems			Included				
Plumbing Systems			Included				
HVAC Systems & Equipment			Included				
Electrical Systems	11.41%	35.00 \$	6,650,000 \$	7,822,500 \$	1,750,000		
Trade Costs							
Subtotal	80.14%	245.75 \$	46,692,500 \$	54,925,125 \$	12,287,500		

Project: University of Utah Health Sciences - MED Building

November, 2014

Estimate: Conceptual (benchmark) Cost Model

SLAM Construction Services

Opinion of Probable Construction Costs

Summary

Description	Percent of Construction Cost	Gross SF: Sqft Cost	190,000	223,500	50,000	
			(MED)	(Enlarged MED)	(Discovery Ctr.)	
			Total	Total	Total	
Trade Costs	Subtotal	80.14%	245.75	\$ 46,692,500	\$ 54,925,125	\$ 12,287,500
Builder's Indirect Costs						
Contingencies (design & estimating) - 10% of Trade Costs	8.01%	24.58	\$ 4,669,250	\$ 5,492,513	\$ 1,228,750	
Owner's Contingencies (in Project Cost)			\$ -	\$ -	\$ -	
General Conditions	4.12%	12.63	\$ 2,400,000	\$ 2,823,158	\$ 631,579	
General Requirements	4.41%	13.52	\$ 2,568,088	\$ 3,020,882	\$ 675,813	
Bonds (subcontractor bonds in trade costs)			\$ -	\$ -	\$ -	
General Insurance	0.88%	2.70	\$ 513,618	\$ 604,176	\$ 135,163	
Building Permit (included in trade costs)			\$ -	\$ -	\$ -	
Escalation (in Project Cost)			\$ -	\$ -	\$ -	
Builder's PreConstruction Fee (in Project Cost)			\$ -	\$ -	\$ -	
Overhead / Profit Fee (builder's fee)	2.44%	7.48	\$ 1,421,086	\$ 1,671,646	\$ 373,970	
Subtotal Builder's Indirect Costs	19.86%	60.91	\$ 11,572,041	\$ 13,612,375	\$ 3,045,274	
Total Construction Costs (trade costs & builder's indirect costs)	100.00%	306.66	\$ 58,264,541	\$ 68,537,500	\$ 15,332,774	
Total Construction Costs, Rounded			\$ 58,300,000	\$ 68,600,000	\$ 15,350,000	
Site Development Allowance			\$ 5,800,000	\$ 5,800,000	\$ 3,000,000	
Soft Cost Allowance			\$ 17,500,000	\$ 20,580,000	\$ 4,600,000	
Furnishings, Fixtures and Equipment						
Audio Visual						
Telecommunications and Network						
Design and Other Professional Fees						
Moving Costs						
Construction Materials Testing						
Owner's Insurance						
Owner's Contingency						
Owner's Project Management Cost						
Escalation Allowance			\$ 18,700,000	\$ 21,780,000	\$ 5,260,000	
TOTAL PROJECT COST, ESCALATED			\$ 100,300,000	\$ 116,760,000	\$ 28,210,000	

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Medical Education and Discovery Building Implementation

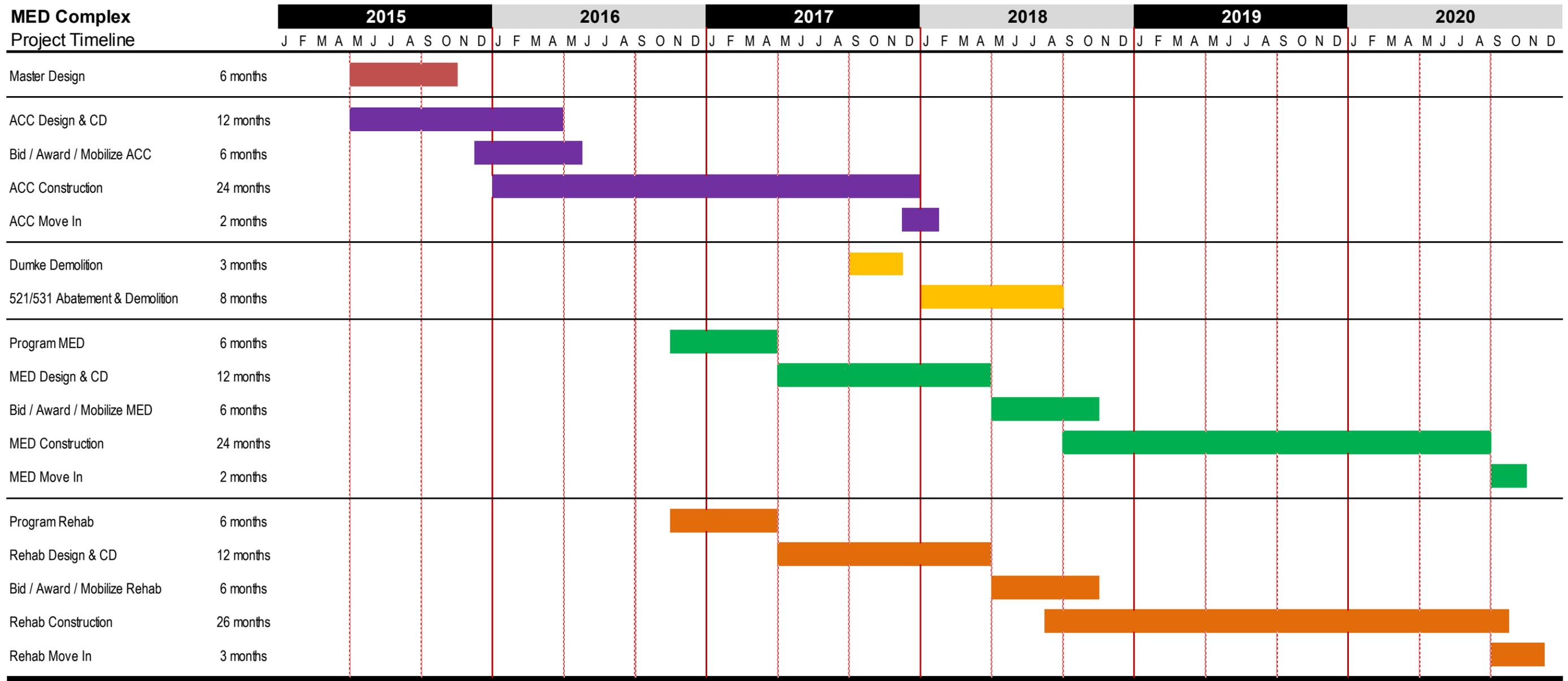
Project Schedule

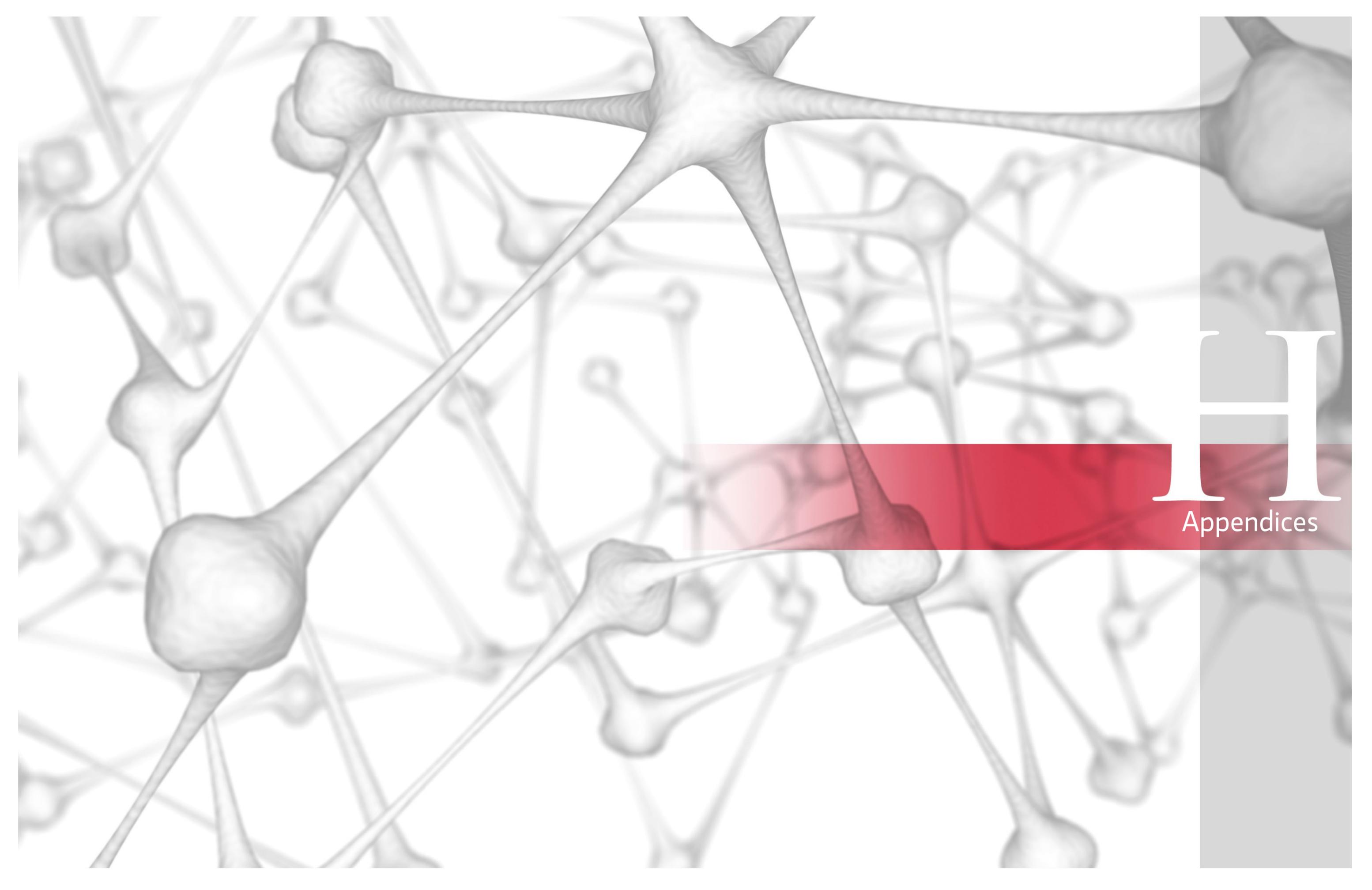
The proposed project development schedule below outlines the steps required to develop a new MED building on the site currently occupied by Building 521. The proposed schedule assumes a target completion date in 2020 and incorporates other key issues and assumptions as follows:

1. The ACC must be completed and occupied before Building 521 can be vacated and demolished.
2. It is assumed that the timeframe to relocate occupants of Building 521 who are moving to locations other than the ACC will not extend beyond the ACC occupancy date.

3. It is assumed that the design process will include an initial master conceptual design for the ACC, the MED, and the Rehabilitation Hospital that will set an overall design direction and confirm locations of all interfaces and connections.
4. It is assumed that funding and necessary authorizations to proceed will be available when needed.
5. It is assumed that the Dumke Building can be demolished at the same time as the demolition of Buildings 521 and 531, or sooner.
6. It is assumed that the ACC and the MED will be built using the construction management approach, facilitating fast tracking and/or early bid packages where necessary.

7. This schedule also includes a schedule for the Rehabilitation Hospital and indicates that it will be constructed simultaneously with the construction of the MED building. This may or may not be necessary, depending on the eventual design direction.
8. The proposed dates for the start of final programming and design for the MED and the Rehabilitation Hospital are the latest recommended dates based on the projected construction start date. Programming and design could start sooner if the projects are approved to proceed sooner.





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Appendices

Medical Education and Discovery Building

Appendix

A: Space Program Detail MED

	PRELIMINARY SPACE PROGRAM															notes	
	CAPACITY						IDEAL				MUST HAVE						
	WORK SETTINGS				SEATS		sta/	NSF/	Area	No.	TOTAL	sta/	NSF/	Area	No.		TOTAL
	stff sta	fac sta	stu sta	ttl pers	inst	collab	sts	station	NSF	Rms	NSF	sts	station	NSF	Rms		NSF
ACADEMIC CLASSROOMS & SUPPORT																	
SHARED CLASSROOM					0		30	25.00	750	2	1,500			750	0	0	
SoM TESTING CENTER							30	40.00	1,200	1	1,200			1,200	0	0	
CLASSROOM							40	25.00	1,000	1	1,000			1,000	0	0	
CLASSROOM							24	25.00	600	1	600			600	0	0	
SEMINAR / TRAINING							12		300	4	1,200			300	0	0	
COMPUTER LAB							30	35.00	1,050	1	1,050			1,050	0	0	
PROJECT STORAGE									240	1	240			240	0	0	
TOTAL CLASSROOMS & SUPPORT					-						6,790					-	
HUMAN ANATOMY & SUPPORT																	
HUMAN ANATOMY	3	1	0	4	212						10,305					7,475	
ANATOMY LAB					150		30	180.00	5,400	1	5,400	24	180.00	4,320	1	4,320	
ADVANCE ANATOMY SURGERY RESEARCH LAB					12		4	200.00	800	1	800	4	200.00	800	1	800	
ANATOMY LAB PREP									250	2	500			250	2	500	
MULTI-PURPOSE LAB					50		50	35.00	1,750	1	1,750	50	35.00	1,750	0	0	
EQUIPMENT STORAGE									150	2	300			150	2	300	
DIRECTOR OFFICE		1					1	120.00	120	1	120	1	120.00	120	1	120	
HEAD TECH OFFICE	1						1	80.00	80	1	80	1	80.00	80	1	80	
TECH ASSISTANT OFFICE	2						2	40.00	80	1	80	2	40.00	80	1	80	
BREAK ROOM									200	1	200			200	1	200	
WORK ROOM / FILE / STORAGE									200	1	200			200	1	200	
LOCKER ROOM - GROSS LAB (1F/1M)							75	2.50	188	2	375	75	2.50	188	2	375	
SHOWER / RESTROOM (1F/1M)									250	2	500			250	2	500	
BODY DONOR PROGRAM	3	0	0	3		6					3,300					-	
MAIN CADAVER COOLER									800	1	800			800	0	0	
SECONDARY CADAVER COOLER									260	1	260			260	0	0	
FREEZER ROOM									280	1	280			280	0	0	
PREP ROOM									250	1	250			250	0	0	
MORGUE									800	1	800			800	0	0	
STORAGE ROOM									150	1	150			150	0	0	
FILE ROOM									100	1	100			100	0	0	
IDENTIFICATION & VIEWING ROOM									150	1	150			150	0	0	
PUBLIC COUNSELING / CONFERENCE ROOM						6	6	25.00	150	1	150	6	25.00	150	0	0	
MANAGER OFFICE (FACULTY)	1						1	120.00	120	1	120	1	120.00	120	0	0	
ASSISTANT MANAGER OFFICE	1						1	120.00	120	1	120	1	120.00	120	0	0	
EMBALMER OFFICE	1						1	120.00	120	1	120	1	120.00	120	0	0	
TOTAL ANATOMY & SUPPORT	6	1	0	7	212	6					13,605					7,475	

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	PRELIMINARY SPACE PROGRAM															notes	
	CAPACITY						IDEAL				MUST HAVE						
	WORK SETTINGS				SEATS		sta/ sts	NSF/ station	Area NSF	No. Rms	TOTAL NSF	sta/ sts	NSF/ station	Area NSF	No. Rms		TOTAL NSF
	stff sta	fac sta	stu sta	ttl pers	inst	collab											
SoM COMMUNITY SPACE																	
LEARNING COMMUNITIES						112			960	4	3,840			720	4	2,880	
STUDY ROOMS						20	4	30.00	120	5	600	4	30.00	120	4	480	
SOCIAL LOUNGE						8	8	30.00	240	1.0	240	8	30.00	240	0.5	120	
STUDENT ORG OFFICE / STOR									120	1	120			120	1	120	
TOUCHDOWN (DISTRIBUTED WORK HUB)						104			800	4	3,200			800	4	3,200	
TECH MEETING ROOM						6	6	25.00	150	1	150	6	25.00	150	1	150	
COFFEE COUNTER									30	1	30			30	1	30	
WORK BENCH						12	6	25.00	150	2	300	6	25.00	150	2	300	
CASUAL WORK ZONE						8	8	35.00	280	1	280	8	35.00	280	1	280	
SERVICE CENTER									40	1	40			40	1	40	
FITNESS AREA	2	0	0	2							4,556					2,180	
EXERCISE MACHINES							16	64.00	1,024	1	1,024	6	64.00	384	1	384	
FREE WEIGHTS							8	64.00	512	1	512	4	64.00	256	1	256	
MOVEMENT STUDIO									600	1	600			600	0	0	
FITNESS CLASSROOM									600	1	600			600	0	600	
LOCKER ROOMS (1F/1M)							40	10.00	400	2	800	12	10.00	120	2	240	
FITNESS TOILET / SHOWER ROOMS									250	2	500			250	2	500	
OFFICE / WORK ROOM	1								200	1	200			200	0	0	
RECEPTION	1								120	1	120			120	0	0	
GENERAL STORAGE									200	1	200			200	1	200	
TOTAL SoM COMMUNITY SPACE	2	0	0	2	-	216					11,596					8,260	
PUBLIC SPACE																	
COMMON	2	0	0	2		90					4,990					4,990	
ATRIUM / LOBBY						40			2,000	1	2,000			2,000	1	2,000	
CAFÉ									1,500	1	1,500			1,500	1	1,500	
KITCHEN									600					600			
SERVERY									600					600			
STORAGE									300					300			
CAFÉ SEATING						50	50	25.00	1,250	1	1,250	50	25.00	1,250	1	1,250	
CONCIERGE / SECURITY	2								240	1	240			240	1	240	
LARGE ASSEMBLY FACILITY						412	0				7,240					7,240	
MEETING ROOM (divisible)						400		12.00	4,800	1	4,800	400	12.00	4,800	1	4,800	
PRE-FUNCTION LOBBY / EXHIBIT SPACE									1,000	1	1,000			1,000	1	1,000	
GREEN ROOM						12		25.00	300	1	300	12	25.00	300	1	300	
KITCHEN / CATERING									400	1	400			400	1	400	
COAT ROOM									100	1	100			100	1	100	
TABLE / CHAIR STORAGE									400	1	400			400	1	400	
PROJECTION ROOM									120	1	120			120	1	120	
AV CONTROL ROOM									120	1	120			120	1	120	
TOTAL PUBLIC SPACE	2	0	0	2	412	90					12,230					12,230	

w/kitchen (shared between 2 academies)

10% of office space pop.
high tables w/stools
printer / copy / supplies

(2) showers in each

5% of 30,000 SF footprint

TBL, lectures, recept: 400-500, SoM State of the Union

use table/chair storage for add'l coat stor for lg ev ents

Medical Education and Discovery Building

Appendix

A: Space Program Detail Discovery Center

	PRELIMINARY SPACE PROGRAM															notes	
	CAPACITY						IDEAL				MUST HAVE						
	WORK SETTINGS				SEATS		sta/	NSF/	Area	No.	TOTAL	sta/	NSF/	Area	No.		TOTAL
	stff sta	fac sta	stu sta	ttl pers	inst	collab	sts	station	NSF	Rms	NSF	sts	station	NSF	Rms		NSF
DISCOVERY CENTER																	
ENGINEERING & FABRICATION SUITE						120										4,280	
PROTOTYPING						24	24	50.00	1,200	1	1,200	12	50.00	600	1	600	reduced by 50% in must have
FABRICATION WORKROOM						24	24	25.00	600	1	600	12	25.00	300	1	300	reduced by 50% in must have
STORAGE ROOM									200	1	200			200	1	200	
MODELING & SIMULATION						48	48	35.00	1,680	1	1,680	12	35.00	420	1	420	reduced by 75% in must have
CONFERENCE ROOM						12	12	25.00	300	1	300	8	25.00	200	1	200	reduced by 33% in must have
COLLABORATIVE SPACE						12	12	25.00	300	1	300	8	25.00	200	1	200	reduced by 33% in must have
GAMING & SOFTWARE DEVELOPMENT	0	0	50	50		184										8,780	
GAMERS LAB			50				25	40.00	1,000	2	2,000	25	40.00	1,000	2	2,000	
TEAM AREAS						48	6	20.00	120	8	960	6	20.00	120	8	960	
VISUALIZATION STUDIO									150	2	300			150	2	300	
FLEX / SHARED LAB SPACE						48	48	50.00	2,400	1	2,400	24	50.00	1,200	1	1,200	Hoteling space
LAB SPACE						48	48	50.00	2,400	1	2,400	25	50.00	1,250	0	0	eliminated in must have
CONFERENCE ROOM						24	12	18.00	216	2	432	12	18.00	216	1	216	
CONFERENCE ROOM						16	16	18.00	288	1	288	16	18.00	288	1	288	
SIMULATION / SURGICAL TRAINING CENTER					130	0										13,660	
SURGICAL SKILLS LAB 1 (21 Stations)							21	100.00	2,100	1	2,100	12	100.00	1,200	1	1,200	reduce from 21 stations to 12 stations
SURGICAL SKILLS LAB 2 (7 Stations)							7	150.00	1,050	1	1,050	6	150.00	900	1	900	reduce from 7 stations to 6 stations
SURGICAL SKILLS LAB 1 (7 Stations)							7	150.00	1,050	2	2,100	6	150.00	900	0	0	reduce from 7 stations to 6 stations
BLACK BOX SIM THEATER									800	1	800			800	0	0	eliminated in must have
VIRTUAL SIMULATION					20		20	40.00	800	1	800	20	40.00	800	0	0	eliminated in must have
ROBOTICS OR									600	2	1,200			600	1	600	reduced by 50% in must have
CT SCAN									480	1	480			480	1	480	
TRAUMA OR									600	1	600			600	1	600	
DEBREIF / CLASSROOMS					60		12	25.00	300	5	1,500	12	25.00	300	2	600	1 per sim room
TRAINING ROOM					50		50	25.00	1,250	1	1,250	40	25.00	1,000	1	1,000	fit out for wet/dry
WOMEN'S LOCKER ROOM									240	1	240			120	1	120	reduced by 50% in must have
MEN'S LOCKER ROOM									240	1	240			120	1	120	reduced by 50% in must have
STORAGE ROOM									1,300	1	1,300			400	1	400	1/3 sim area
ADMINISTRATION & COMMON AREA	9	0	0	9	0	52										2,820	
DIRECTOR OFFICE	1			1			1	120.00	120	1	120	1	120.00	120	1	120	
ASSISTANT DIRECTOR OFFICE	1			1			1	120.00	120	1	120	1	120.00	120	1	120	
TECHNICIAN	4			4			4	80.00	320	1	320	4	80.00	320	1	320	
ADMINISTRATOR	1			1			1	80.00	80	1	80	1	80.00	80	1	80	
SCHEDULER	1			1			1	40.00	40	1	40	1	40.00	40	1	40	
RECEPTION	1			1			1	120.00	120	1	120	1	120.00	120	1	120	
LOBBY / LEARNER LANDING						40	40	40.00	1,600	1	1,600	24	40.00	960	1	960	reduced by 40% in must have
COPY / WORKROOM									120	1	120			120	1	120	
CAFÉ / KITCHENETTE						12	12	25.00	300	1	300	12	25.00	300	0	0	could use public café
TOTAL DISCOVERY CENTER	9	0	50	59	130	356					29,540					14,784	

A: Space Program Detail
Clinical, Academic, and Administrative Office Space Summary

The table below summarizes projected staffing levels and office space requirements for the three space standards (traditional, contemporary, progressive) and the three growth models (2.5% per year, 4.0% per year, and 6.0% per year).

- Space requirements for the office suite for Health Sciences Leadership and for the School of Medicine are consistent across all growth models, as growth in those areas is not related to the growth rate in clinical areas.
- As Population Science is a new department with a planned development trajectory over the next several years, that plan is identical in all growth models.

Please refer to the following pages for additional detail on staffing levels and space needs for each department at each growth level. The 2.5% per year growth model is presented first, followed by the 4.0% per year growth model and the 6.0% per year growth model.

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Department									2.5 % annual growth			4 % annual growth			6 % annual growth		
	2014 (current FTE)		2021 (2.5% growth)		2021 (4% growth)		2021 (6% growth)		traditional	contemporary	progressive	traditional	contemporary	progressive	traditional	contemporary	progressive
	Faculty (FAC)	FAC + STAFF TTL	Faculty (FAC)	FAC + STAFF TTL	Faculty (FAC)	FAC + STAFF TTL	Faculty (FAC)	FAC + STAFF TTL	TTL NSF	TTL NSF	TTL NSF	TTL NSF	TTL NSF	TTL NSF	TTL NSF	TTL NSF	TTL NSF
ACADEMIC DEPARTMENT OFFICES																	
Anesthesiology	66	90	79	107	86	115	99	132	13,840	10,410	8,341	14,640	11,030	8,653	16,700	12,655	9,615
Dermatology	19	67	24	82	26	91	30	105	8,575	7,480	6,615	9,195	7,980	7,155	10,325	8,915	7,795
Family & Preventive Med	84	161	101	198	112	217	128	249	21,595	18,060	14,405	23,195	19,390	15,420	25,930	21,615	17,015
Internal Medicine	148	358	176	428	194	474	220	539	39,370	34,150	30,220	42,515	36,725	32,215	47,050	40,510	35,090
Obstetrics & Gynecology	33	96	39	137	42	148	47	170	17,025	14,805	12,575	17,855	15,455	12,855	19,635	16,890	13,885
Pediatrics	130	370	155	442	170	489	230	644	43,764	38,385	33,785	47,401	41,285	36,065	59,084	50,695	43,230
Physical Med & Rehab	19	39	24	50	26	54	31	64	5,075	4,370	3,700	5,465	4,715	3,980	6,355	5,455	4,485
Radiology	46	83	57	103	61	112	71	131	10,630	9,175	7,770	11,165	9,605	8,085	12,770	10,925	9,045
Surgery	101	261	119	301	131	342	148	390	33,920	29,300	24,135	36,175	31,105	25,450	39,945	34,185	27,275
Biomedical Informatics	20	65	25	81	27	89	31	103	9,678	8,570	7,337	10,230	9,012	7,576	9,622	8,227	6,768
Population Sciences			13	89	13	89	13	89	9,115	8,185	7,030	9,115	8,185	7,030	9,115	8,185	7,030
ADMINISTRATIVE UNITS																	
HSC SVP SUITE		48		48		48		48	7,428	7,428	5,191	6,888	6,888	5,191	7,428	7,428	5,571
SoM DEAN		86		86		86		86	15,050	15,050	11,610	15,050	15,050	11,610	15,050	15,050	11,610
CoH DEAN									2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
SoD DEAN									2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
TOTALS	666	1,724	812	2,152	888	2,354	1,048	2,750	240,065	210,368	177,714	253,889	221,425	186,285	284,009	245,735	203,414

Medical Education and Discovery Building

Appendix

A: Space Program Detail Clinical and Academic Department Office Space

2021 GROWTH MODEL: N/A		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Population Sci															
FACULTY (FAC)															
	Faculty- Chair	1.0				1.0	180	180	1.0	150	150	1.0	120	120	
	Faculty- Tenure		12.0			12.0	120	1,440	12.0	90	1,080	8.0	60	480	
	Clinical Faculty, Lecturers			0.0		0.0	60	-	0.0	45	-	0.0	45	-	
	Adjunct / Visitor				0.0	0.0	30	-	0.0	30	-	0.0	30	-	13 FAC
ADMIN SUPPORT (SUP)															
	Admin Staff (standard office)		1.0			1.0	120	120	1.0	90	90	1.0	60	60	
	Admin Staff (large work station)			2.0		2.0	60	120	2.0	45	90	2.0	45	90	
	Admin Staff (small work station)				0.0	0.0	30	-	0.0	30	-	0.0	30	-	3 SUP
AUXILIARY SUPPORT (AUX)															
	Aux Staff (standard office)		2.0			2.0	120	240	2.0	90	180	2.0	60	120	Biostatistician
	Aux Staff (large work station)					0.0	60	-	0.0	45	-	-	45	-	
	Aux Staff (small work station)					0.0	30	-	0.0	30	-	-	30	-	2 AUX
RESEARCH (RES)															
	Research Staff (standard office)					0.0	120	-	0.0	90	-	-	60	-	includes 15 PhD + 15 GRA for
projected avg researcher/fac	Research Staff (large work station)		12.0	20.0		32.0	60	1,920	32.0	45	1,440	20.0	45	900	SDBS (6% growth to 2021)
projected avg researcher/fac	Research Staff (small work station)		24.0	15.0		39.0	30	1,170	39.0	30	1,170	24.0	30	720	71 RES
Current Personnel & Office Space		1.0	51.0	37.0	-		5,190	NSF		4,200	NSF		2,490	NSF	
		89					58.31	NSF/pers		47.19	NSF/pers		27.98	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					12	25	300	12	25	300	12	25	300	use shared conference
	Dept Reception					1	120	120	1	180	180	1	180	180	in dept office
	Mail / Copy					4	60	240	4	60	240	4	60	240	1 per 25 ppl
	File / Supply Storage (1/50 FTE)					2	120	240	2	120	240	2	120	240	in dept office
	Dept Library / "Living Rm"					12	30	360	12	30	360	12	30	360	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					2	180	360	2	180	360	3	180	540	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					15	25	375	15	25	375	30	25	750	
	Break Room / K'nette					1	180	180	1	180	180	1	180	180	
Specialty Space	Research Teaming Area					70	25	1,750	70	25	1,750	70	25	1,750	
MODEL NSF (Current Personnel)						9,115 NSF			8,185 NSF			7,030 NSF			
						102.42 NSF/pers			91.97 NSF/pers			78.99 NSF/pers			

2021 GROWTH MODEL: 2.5% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% MOBILITY FACTOR FOR NON-ADMIN			NOTES
Space User Name	Job Title	Large Office	Standard Office	Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Anesthesiology	FACULTY (FAC)														
	Faculty- Chair	1.0				1.0	180	180	1.0	150	150	1.0	120	120	
	Faculty- Tenure		9.0												
	Faculty- Tenure (Scientist)		0.0			63.0	120	7,560	63.0	90	5,670	38.0	60	2,280	
	Faculty- Tenure (Clinician)		54.0												
	Faculty- Clinical			6.0		8.0	60	480	8.0	45	360	4.8	45	216	
	Lecturer / Visitor			2.0											
	Adjunct / Visitor				2.0	7.0	30	210	7.0	30	210	5.0	30	150	79 FAC
	Visitor				5.0										
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		8.0			8.0	120	960	8.0	90	720		60	-	
	Admin Staff (shared office)			6.0		6.0	60	360	6.0	45	270	8.0	45	360	
	Admin Staff (open office)					0.0	30	-	0.0	30	-	6.0	30	180	14 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)					0.0	120	-	0.0	90	-	-	60	-	
	Aux Staff (large work station)			4.0		4.0	60	240	4.0	45	180	3.0	45	135	
	Aux Staff (small work station)				10.0	10.0	30	300	10.0	30	300	6.0	30	180	14 AUX
Current Personnel & Office Space		1.0	71.0	18.0	17.0		10,290	NSF		7,860	NSF		3,621	NSF	
		107					96.17	NSF/pers		73.46	NSF/pers		33.84	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					40	25	1,000	40	0	-	40	25	1,000	use shared conference
	Reception					1	180	180	1	180	180	1	180	180	in dept office
	Mail / Copy					7	60	420	7	60	420	7	60	420	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					3	120	360	3	120	360	3	120	360	in dept office
	Library / Resource Rm					12	30	360	12	30	360	24	30	720	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					2	180	360	2	180	360	4	180	720	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					18	25	450	18	25	450	36	25	900	
	Break Room / K'nette					1	180	180	1	180	180	1	180	180	
Specialty Space	Simulation Room					0	360	-	0	360	-	0	360	-	sim space in sim ctr
	Sim Control Rm					0	120	-	0	120	-	0	120	-	
	Changing Rms					2	120	240	2	120	240	2	120	240	
MODEL NSF (inc 2.5% annual growth)							13,840	NSF		10,410	NSF		8,341	NSF	
							129.35	NSF/pers		97.29	NSF/pers		77.95	NSF/pers	

of note: human subject and animal holding areas currently in bldg 521 will need a home (NOT in MED); work space for residents (39) is in the hospital

Medical Education and Discovery Building

Appendix

A: Space Program Detail Clinical and Academic Department Office Space

2021 GROWTH MODEL: 2.5% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% MOBILITY FACTOR FOR NON-ADMIN			NOTES
Space User Name	Job Title	Large Office	Standard Office	Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Dermatology	FACULTY (FAC)														
	Faculty- Chair	1.0				1.0	180	180	1.0	150	150	1.0	120	120	
	Faculty- Tenure		10.0			10.0	120	1,200	10.0	90	900	6.0	60	360	
	Clinical Faculty, Lecturers			11.0		11.0	60	660	11.0	45	495	7.0	45	315	
	Adjunct / Visitor				2.0	2.0	30	60	2.0	30	60	2.0	30	60	
	Faculty Touchdown (not in count)					0.0	30	-	0.0	30	-	0.0	30	-	24 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		6.0			6.0	120	720	6.0	90	540		60	-	
	Admin Staff (shared office)			10.0		10.0	60	600	10.0	45	450	6.0	45	270	
	Admin Staff (open office)					0.0	30	-	0.0	30	-	10.0	30	300	16 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)					0.0	120	-	0.0	90	-		60	-	
	Aux Staff (large work station)			18.0		18.0	60	1,080	18.0	45	810	11	45	495	
	Aux Staff (small work station)				24.0	24.0	30	720	24.0	30	720	15	30	450	42 AUX
Current Personnel & Office Space		1.0	16.0	39.0	26.0		5,220	NSF		4,125	NSF		2,370	NSF	
		82					63.66	NSF/pers		50.30	NSF/pers		28.90	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					25	25	625	25	25	625	25	25	625	
	Reception					1	180	180	1	180	180	1	180	180	in dept office
	Mail / Copy					6	60	360	6	60	360	6	60	360	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					2	120	240	2	120	240	2	120	240	in dept office
	Library / Resource Rm					12	30	360	12	30	360	24	30	720	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					2	180	360	2	180	360	3	180	540	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					14	25	350	14	25	350	28	25	700	
	Break Room / K'nette					1	180	180	1	180	180	1	180	180	
Specialty Space	Resident & Fellows Resource Room					14	50	700	14	50	700	14	50	700	
MODEL NSF (inc 2.5% annual growth)							8,575	NSF		7,480	NSF		6,615	NSF	
							104.57	NSF/pers		91.22	NSF/pers		80.67	NSF/pers	

of note: call center and clinical spaces in bldg 521 will need a home (NOT in MED); work space for residents (39) is in the hospital

2021 GROWTH MODEL: 2.5% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O; limited shared and TD space			B: Contemporary tenure faculty in small P.O; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
DF&PM	FACULTY (FAC)														
	Faculty- Chair	1.0				1.0	180	180	1.0	150	150	1.0	120	120	
	Faculty- Tenure		54.0			54.0	120	6,480	54.0	90	4,860	33.0	60	1,980	
	Clinical Faculty, Lecturers			15.0		15.0	60	900	15.0	45	675	9.0	45	405	
	Adjunct/ Visitor				31.0	31.0	30	930	31.0	30	930	19.0	30	570	101 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		15.0			15.0	120	1,800	15.0	90	1,350		80	-	
	Admin Staff (large work station)			20.0		20.0	60	1,200	20.0	45	900	15.0	45	675	
	Admin Staff (small work station)				0.0	0.0	30	-	0.0	30	-	20.0	30	600	35 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)		8.0			8.0	120	960	8.0	90	720	8.0	80	640	
	Aux Staff (large work station)			14.0		14.0	60	840	14.0	45	630	9.0	45	405	
	Aux Staff (small work station)				16.0	16.0	30	480	16.0	30	480	10.0	30	300	38 AUX
	RESEARCH (RES)														
	Research Staff (standard office)		2.0			2.0	120	240	2.0	90	180	2.0	80	160	
	Research Staff (large work station)			0.0		0.0	60	-	0.0	45	-	-	45	-	
	Research Staff (small work station)				22.0	22.0	30	660	22.0	30	660	22.0	30	660	24 RES
Current Personnel & Office Space		1.0	79.0	49.0	69.0		14,670	NSF		11,535	NSF		6,515	NSF	
		198					74.09	NSF/pers		58.26	NSF/pers		32.90	NSF/pers	
						sts, ppl,	NSF/	NSF	sts, ppl,	NSF/	NSF	sts, ppl,	NSF/	NSF	
						rms			rms			rms			
Office Support	Dept Conference Rm					40	25	1,000	24	25	600	24	25	600	
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office
	Div Conference Rm					4	300	1,200	4	300	1,200	4	300	1,200	
	Div Reception					4	120	480	4	120	480	4	120	480	
	Mail / Copy					10	60	600	10	60	600	10	60	600	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					4	120	480	4	120	480	4	120	480	in dept office
	Dept Library / Resource Rm					24	30	720	24	30	720	24	30	720	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					4	180	720	4	180	720	7	180	1,260	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					33	25	825	33	25	825	66	25	1,650	
	Break Room / K'nette					4	180	720	4	180	720	4	180	720	
Specialty Space	(1) 40-st Classroom					0	25	-	0	25	-	0	25	-	
	(1) 24-st Classroom					0	25	-	0	25	-	0	25	-	
	(4) 12-st Seminar/Training					0	300	-	0	300	-	0	300	-	
	(1) 30-st Computer Lab					0	35	-	0	35	-	0	35	-	
	Project Storage					0	240	-	0	240	-	0	240	-	
MODEL NSF (inc 2.5% annual growth)							21,595	NSF		18,060	NSF		14,405	NSF	
							109.07	NSF/pers		91.21	NSF/pers		72.75	NSF/pers	outlying Faculty FTE/4

Medical Education and Discovery Building

Appendix

A: Space Program Detail Clinical and Academic Department Office Space

2021 GROWTH MODEL: 2.5% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Internal Medicine	FACULTY (FAC)														
	Faculty- Chair	9.0				9.0	180	1,620	9.0	150	1,350	9.0	120	1,080	
	Faculty- Tenure		46.0			46.0	120	5,520	46.0	90	4,140	28.0	60	1,680	
	Clinical Faculty, Lecturers			60.0		60.0	60	3,600	60.0	45	2,700	36.0	45	1,620	
	Adjunct / Visitor				61.0	61.0	30	1,830	61.0	30	1,830	37.0	30	1,110	176 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		23.0			23.0	120	2,760	23.0	90	2,070		60	-	
	Admin Staff (large work station)			54.0		54.0	60	3,240	54.0	45	2,430	48.0	45	2,160	
	Admin Staff (small work station)				8.0	8.0	30	240	8.0	30	240	74.0	30	2,220	85 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)		5.0			5.0	120	600	5.0	90	450	5.0	60	300	
	Aux Staff (large work station)			68.0		68.0	60	4,080	68.0	45	3,060	41.0	45	1,845	
	Aux Staff (small work station)				94.0	94.0	30	2,820	94.0	30	2,820	57.0	30	1,710	167 AUX
Current Personnel & Office Space		9.0	74.0	182.0	163.0		26,310	NSF		21,090	NSF		13,725	NSF	
		428					61.47	NSF/pers		49.28	NSF/pers		32.07	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					24	25	600	24	25	600	40	25	1,000	use shared conference
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office
	Div Conference Rm					8	300	2,400	8	300	2,400	8	300	2,400	
	Div Reception					8	120	960	8	120	960	8	120	960	
	Mail / Copy					20	60	1,200	20	60	1,200	20	60	1,200	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					9	120	1,080	9	120	1,080	9	120	1,080	in dept office
	Dept Library / Resource Rm					24	30	720	24	30	720	24	30	720	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					8	180	1,440	8	180	1,440	15	180	2,700	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					72	25	1,800	72	25	1,800	143	25	3,575	
	Break Room / K'nette					6	180	1,080	6	180	1,080	6	180	1,080	
Specialty Space	Resident Lounge (distributed among Div)					40	40	1,600	40	40	1,600	40	40	1,600	125 residents currently + 25
	Faculty Touchdown Space					0	30	-	0	30	-	0	20	-	use dist. touchdown
MODEL NSF (inc 2.5% annual growth)							39,370	NSF		34,150	NSF		30,220	NSF	
							91.99	NSF/pers		79.79	NSF/pers		70.61	NSF/pers	outlying Faculty FTE/4

of note: clinical epidemiology, hematology, oncology, and pulmonary divisions remain in current location with touchdown space in the MED complex

2021 GROWTH MODEL: 2.5% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.				
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	NOTES	
OB / GYN		FACULTY (FAC)														
	Faculty- Chair	5.0				5.0	180	900	5.0	150	750	5.0	120	600		
	Faculty- Tenure		16.0			16.0	120	1,920	16.0	90	1,440	10.0	60	600		
	Clinical Faculty, Lecturers			15.0		15.0	60	900	15.0	45	675	9.0	45	405		
	Adjunct/ Visitor				3.0	3.0	30	90	3.0	30	90	2.0	30	60	39 FAC	
		ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		10.0			10.0	120	1,200	10.0	90	900	4.0	60	240		
	Admin Staff (large work station)			20.0		20.0	60	1,200	20.0	45	900	10.0	45	450		
	Admin Staff (small work station)					0.0	30	-	0.0	30	-	10.0	30	300	30 SUP	
		AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)		3.0			3.0	120	360	3.0	90	270	3.0	60	180		
	Aux Staff (large work station)			27.0		27.0	60	1,620	27.0	45	1,215	17.0	45	765		
	Aux Staff (small work station)				18.0	18.0	30	540	18.0	30	540	11.0	30	330	48 AUX	
		RESEARCH (RES)														
	Research Staff (standard office)		2.0			2.0	120	240	2.0	90	180	2.0	60	120		
	Research Staff (large work station)			14.0		14.0	60	840	14.0	45	630	9.0	45	405		
	Research Staff (small work station)				4.0	4.0	30	120	4.0	30	120	3.0	30	90	20 RES	
Current Personnel & Office Space		5.0	31.0	76.0	25.0		9,930	NSF		7,710	NSF		4,545	NSF		
		137					72.48	NSF/pers		56.28	NSF/pers		33.18	NSF/pers		
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF		
Office Support	Dept Conference Rm					40	25	1,000	40	25	1,000	40	25	1,000	use shared conference	
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office	
	Div Conference Rm					4	300	1,200	4	300	1,200	4	300	1,200		
	Div Reception					4	120	480	4	120	480	4	120	480		
	Mail / Copy					8	60	480	8	60	480	8	60	480	2 dept office + 1 per 25 ppl	
	File / Supply Storage (1/50 FTE)					3	120	360	3	120	360	3	120	360	in dept office	
	Dept Library / Resource Rm					24	30	720	24	30	720	24	30	720		
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl))					3	180	540	3	180	540	5	180	900	6-8 sts per room	
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					23	25	575	23	25	575	46	25	1,150		
	Break Room/ K'nette					2	180	360	2	180	360	2	180	360		
Specialty Space	Resident Lounge (distributed among Div)					24	40	960	24	40	960	24	40	960	125 residents currently + 25	
	Sample Holding (freezer room)					1	240	240	1	240	240	1	240	240		
MODEL NSF (inc 2.5% annual growth)							17,025	NSF		14,805	NSF		12,575	NSF		
							124.27	NSF/pers		108.07	NSF/pers		91.79	NSF/pers	outlying Faculty FTE/4	

of note: oncology remains in Huntsman, REI (from Research Park) included in MED space

Medical Education and Discovery Building

Appendix

A: Space Program Detail Clinical and Academic Department Office Space

2021 GROWTH MODEL: 2.5% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Pediatrics	FACULTY (FAC)														
	Faculty- Chair	6.0				6.0	180	1,080	6.0	150	900	6.0	120	720	
	Faculty- Tenure		49.0			49.0	120	5,880	49.0	90	4,410	30.0	60	1,800	
	Clinical Faculty, Lecturers			79.0		79.0	60	4,740	79.0	45	3,555	48.0	45	2,160	
	Adjunct / Visitor				21.0	21.0	30	630	21.0	30	630	13.0	30	390	155 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		37.0			37.0	120	4,440	37.0	90	3,330		60	-	
	Admin Staff (large work station)			107.0		107.0	60	6,420	107.0	45	4,815	62.0	45	2,790	
	Admin Staff (small work station)				0.0	0.0	30	-	0.0	30	-	127.0	30	3,810	144 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)		0.0			0.0	120	-	0.0	90	-	0.0	60	-	
	Aux Staff (large work station)			6.0		6.0	60	360	6.0	45	270	4.0	45	180	
	Aux Staff (small work station)				78.0	78.0	30	2,340	78.0	30	2,340	47.0	30	1,410	84 AUX
	RESEARCH (RES)														
	Research Staff (standard office)		0.0			0.0	120	-	0.0	90	-	-	60	-	
	Research Staff (large work station)			5.0		5.0	60	300	5.0	45	225	3.0	45	135	
	Research Staff (small work station)				54.0	54.0	30	1,620	54.0	30	1,620	33.0	30	990	59 RES
Current Personnel & Office Space		6.0	86.0	197.0	153.0		27,810	NSF		22,095	NSF		14,385	NSF	
		442					62.92	NSF/pers		49.99	NSF/pers		32.55	NSF/pers	
						sts, ppl,	NSF/	NSF	sts, ppl,	NSF/	NSF	sts, ppl,	NSF/	NSF	
						rms			rms			rms			
Office Support	Dept Conference Rm					40	25	1,000	40	25	1,000	40	25	1,000	use shared conference
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office
	Div Conference Rm					12	300	3,600	12	300	3,600	12	300	3,600	
	Div Reception					8	120	960	8	120	960	8	120	960	smaller divisions share
	Mail / Copy					20	60	1,200	20	60	1,200	20	60	1,200	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					9	120	1,080	9	120	1,080	9	120	1,080	in dept office
	Dept Library / Resource Rm					36	30	1,080	36	30	1,080	36	30	1,080	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					8	180	1,440	8	180	1,440	15	180	2,700	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					74	25	1,850	74	25	1,850	148	25	3,700	
	Break Room / K'nette					7	180	1,284	9	180	1,620	9	180	1,620	
Specialty Space	Resident Lounge (distributed among Div)					57	40	2,280	57	40	2,280	57	40	2,280	214 proposed residents
	Faculty Touchdown Space					0	30	-	0	30	-	0	20	-	use auberge
MODEL NSF (inc 2.5% annual growth)							43,764	NSF		38,385	NSF		33,785	NSF	
							99.01	NSF/pers		86.84	NSF/pers		76.44	NSF/pers	outlying Faculty FTE/4

of note: Pediatrics Clinical Enterprise and Inpatient Medicine Personnel are not included

2021 GROWTH MODEL: 2.5% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
PM&R	FACULTY (FAC)														
	Faculty- Chair	1.0				1.0	180	180	1.0	150	150	1.0	120	120	
	Faculty- Tenure		3.0			3.0	120	360	3.0	90	270	2.0	60	120	
	Clinical Faculty, Lecturers			17.0		17.0	60	1,020	17.0	45	765	11.0	45	495	
	Adjunct / Visitor				3.0	3.0	30	90	3.0	30	90	2.0	30	60	24 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		4.0			4.0	120	480	4.0	90	360	0.0	60	-	
	Admin Staff (large work station)			6.0		6.0	60	360	6.0	45	270	3.0	45	135	
	Admin Staff (small work station)				2.0	2.0	30	60	2.0	30	60	6.0	30	180	12 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)		0.0			0.0	120	-	0.0	90	-	-	60	-	
	Aux Staff (large work station)			8.0		8.0	60	480	8.0	45	360	5.0	45	225	
	Aux Staff (small work station)				6.0	6.0	30	180	6.0	30	180	4.0	30	120	14 AUX
Current Personnel & Office Space		1.0	7.0	31.0	11.0		3,210	NSF		2,505	NSF		1,455	NSF	
		50					64.20	NSF/pers		50.10	NSF/pers		29.10	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					20	25	500	20	25	500	20	25	500	use shared conference
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office
	Mail / Copy					2	60	120	2	60	120	2	60	120	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					1	120	120	1	120	120	1	120	120	in dept office
	Dept Library / Resource Rm					12	30	360	12	30	360	12	30	360	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					1	180	180	1	180	180	2	180	360	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					9	25	225	9	25	225	17	25	425	
	Break Room / K'nette					1	180	180	1	180	180	1	180	180	
Specialty Space															125 residents currently + 25
MODEL NSF (inc 2.5% annual growth)							5,075	NSF		4,370	NSF		3,700	NSF	
							101.50	NSF/pers		87.40	NSF/pers		74.00	NSF/pers	outlying Faculty FTE/4

Medical Education and Discovery Building

Appendix

A: Space Program Detail Clinical and Academic Department Office Space

2021 GROWTH MODEL: 2.5% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES	
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area		
Radiology		FACULTY (FAC)														
	Faculty- Chair	1.0				1.0	180	180	1.0	150	150	1.0	120	120		
	Faculty- Tenure		15.0			15.0	120	1,800	15.0	90	1,350	9.0	60	540		
	Clinical Faculty, Lecturers			27.0		27.0	60	1,620	27.0	45	1,215	17.0	45	765		
	Adjunct / Visitor				14.0	14.0	30	420	14.0	30	420	9.0	30	270	57 FAC	
		ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		8.0			8.0	120	960	8.0	90	720		60	-		
	Admin Staff (large work station)			10.0		10.0	60	600	10.0	45	450	8.0	45	360		
	Admin Staff (small work station)					0.0	30	-	0.0	30	-	10.0	30	300	18 SUP	
		AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)					0.0	120	-	0.0	90	-	-	60	-		
	Aux Staff (large work station)			12.0		12.0	60	720	12.0	45	540	8.0	45	360		
	Aux Staff (small work station)				6.0	6.0	30	180	6.0	30	180	4.0	30	120	18 AUX	
		RESEARCH (RES)														
	Research Staff (standard office)					0.0	120	-	0.0	90	-	-	60	-		
	Research Staff (large work station)					0.0	60	-	0.0	45	-	-	45	-		
	Research Staff (small work station)				10.0	10.0	30	300	10.0	30	300	10.0	30	300	10 RES	
Current Personnel & Office Space		1.0	23.0	49.0	30.0		6,780	NSF		5,325	NSF		3,135	NSF		
		103					65.83	NSF/pers		51.70	NSF/pers		30.44	NSF/pers		
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF		
Office Support	Dept Conference Rm					40	25	1,000	40	25	1,000	40	25	1,000	use shared conf	
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office	
	Mail / Copy					7	60	420	7	60	420	7	60	420	2 dept office + 1 per 25 ppl	
	File / Supply Storage (1/50 FTE)					3	120	360	3	120	360	3	120	360	in dept office	
	Dept Library / Resource Rm					12	30	360	12	30	360	12	30	360		
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl))					2	180	360	2	180	360	4	180	720	6-8 sts per room	
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					18	25	450	18	25	450	35	25	875		
	Break Room/ K'nette					4	180	720	4	180	720	4	180	720		
Specialty Space																
MODEL NSF (inc 2.5% annual growth)							10,630	NSF		9,175	NSF		7,770	NSF		
							103.20	NSF/pers		89.08	NSF/pers		75.44	NSF/pers		

2021 GROWTH MODEL: 2.5% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Surgery	FACULTY (FAC)														
	Faculty- Chair	9.0				9.0	180	1,620	9.0	150	1,350	9.0	120	1,080	
	Faculty- Tenure		53.0			53.0	120	6,360	53.0	90	4,770	32.0	60	1,920	
	Clinical Faculty, Lecturers			44.0		44.0	60	2,640	44.0	45	1,980	27.0	45	1,215	
	Adjunct / Visitor				13.0	13.0	30	390	13.0	30	390	8.0	30	240	119 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		14.0			14.0	120	1,680	14.0	90	1,260	6.0	60	360	
	Admin Staff (large work station)			24.0		24.0	60	1,440	24.0	45	1,080	15.0	45	675	
	Admin Staff (small work station)				0.0	0.0	30	-	0.0	30	-	10.0	30	300	38 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)		0.0			0.0	120	-	0.0	90	-	-	60	-	
	Aux Staff (large work station)			78.0		78.0	60	4,680	78.0	45	3,510	47.0	45	2,115	
	Aux Staff (small work station)				51.0	51.0	30	1,530	51.0	30	1,530	31.0	30	930	129 AUX
	RESEARCH (RES)														
	Research Staff (standard office)		2.0			2.0	120	240	2.0	90	180	2.0	60	120	
	Research Staff (large work station)			6.0		6.0	60	360	6.0	45	270	4.0	45	180	
	Research Staff (small work station)				16.0	16.0	30	480	16.0	30	480	10.0	30	300	24 RES
Current Personnel & Office Space		9.0	69.0	152.0	80.0		21,420	NSF		16,800	NSF		9,435	NSF	
		310					69.10	NSF/pers		54.19	NSF/pers		30.44	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					40	25	1,000	40	25	1,000	40	25	1,000	use shared conference
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office
	Div Conference Rm					8	300	2,400	8	300	2,400	8	300	2,400	
	Div Reception					8	120	960	8	120	960	8	120	960	
	Mail / Copy					15	60	900	15	60	900	15	60	900	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					7	120	840	7	120	840	7	120	840	in dept office
	Dept Library / Resource Rm					24	30	720	24	30	720	24	30	720	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					6	180	1,080	6	180	1,080	11	180	1,980	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					52	25	1,300	52	25	1,300	104	25	2,600	
	Break Room / K'nette					4	180	720	4	180	720	4	180	720	
Specialty Space	Resident Lounge (distributed among Div)					60	40	2,400	60	40	2,400	60	40	2,400	125 residents currently + 25
MODEL NSF (inc 2.5% annual growth)							33,920	NSF		29,300	NSF		24,135	NSF	
							109.42	NSF/pers		94.52	NSF/pers		77.85	NSF/pers	outlying Faculty FTE/4

Medical Education and Discovery Building

Appendix

A: Space Program Detail Clinical and Academic Department Office Space

2021 GROWTH MODEL: 2.5% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES	
Space User Name	Job Title	Large Office	Standard Office	Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area		
Biomedical Info																
FACULTY (FAC)																
	Faculty- Chair	1.0				1.0	180	180	1.0	150	150	1.0	120	120		
	Faculty- Tenure		16.0			16.0	120	1,920	16.0	90	1,440	10.0	60	600		
	Clinical Faculty, Lecturers			4.0		4.0	60	240	4.0	45	180	3.0	45	135		
	Adjunct / Visitor				4.0	4.0	30	120	4.0	30	120	3.0	30	90		
	Faculty Touchdown (not in count)					0.0	30	-	0.0	30	-	0.0	30	-	25 FAC	
ADMIN SUPPORT (SUP)																
	Admin Staff (standard office)		5.9			5.9	120	713	5.9	90	535		60	-		
	Admin Staff (shared office)		4.0			4.0	60	240	4.0	45	180	5.9	45	267		
	Admin Staff (open office)					0.0	30	-	0.0	30	-	4.0	30	120	10 SUP	
AUXILIARY SUPPORT (AUX)																
	Aux Staff (standard office)					0.0	120	-	0.0	90	-		60	-		
	Aux Staff (large work station)			12.0		12.0	60	720	12.0	45	540	8	45	360		
	Aux Staff (small work station)				12.0	12.0	30	360	12.0	30	360	8	30	240	24 AUX	
RESEARCH (RES)																
	Aux Staff (standard office)					0.0	120	-	0.0	90	-		60	-		
	Aux Staff (large work station)			8.0		8.0	60	480	8.0	45	360	5	45	225		
	Aux Staff (small work station)				14.0	14.0	30	420	14.0	30	420	9	30	270	22 RES	
Current Personnel & Office Space		1.0	25.9	24.0	30.0		5,393	NSF		4,285	NSF		2,427	NSF		
		81					66.63	NSF/pers		52.94	NSF/pers		29.99	NSF/pers		
Office Support																
	Dept Conference Rm					25	25	625	25	25	625	25	25	625		
	Reception					1	180	180	1	180	180	1	180	180	in dept office	
	Mail / Copy					4	60	240	4	60	240	4	60	240	1 per 25 ppl	
	File / Supply Storage (1/50 FTE)					2	120	240	2	120	240	2	120	240	in dept office	
	Library / Resource Rm					12	30	360	12	30	360	16	30	480		
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					2	180	360	2	180	360	3	180	540	6-8 sts per room	
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					14	25	350	14	25	350	27	25	675		
	Break Room / K'nette					1	180	180	1	180	180	1	180	180		
Specialty Space																
	Research Teaming Area					70	25	1,750	70	25	1,750	70	25	1,750		
	Classroom					0	30	-	0	30	-	0	30	-	in disc center ctr	
MODEL NSF (inc 2.5% annual growth)																
						9,678	NSF		8,570	NSF		7,337	NSF			
						119.57	NSF/pers		105.88	NSF/pers		90.65	NSF/pers			

of note: does not yet include CoN BMI personnel

2021 GROWTH MODEL: 4.0% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O; limited shared and TD space			B: Contemporary tenure faculty in small P.O; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Anesthesiology	FACULTY (FAC)														
	Faculty- Chair	1.0				1.0	180	180	1.0	150	150	1.0	120	120	
	Faculty- Tenure		9.0												
	Faculty- Tenure (Scientist)		0.0			68.0	120	8,160	68.0	90	6,120	41.0	60	2,460	
	Faculty- Tenure (Clinician)		59.0												
	Faculty- Clinical			7.0		9.0	60	540	9.0	45	405	5.4	45	243	
	Lecturer / Visitor			2.0											
	Adjunct / Visitor				2.0	8.0	30	240	8.0	30	240	5.0	30	150	86 FAC
	Visitor				6.0										
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		8.0			8.0	120	960	8.0	90	720		60	-	
	Admin Staff (shared office)			7.0		7.0	60	420	7.0	45	315	8.0	45	360	
	Admin Staff (open office)					0.0	30	-	0.0	30	-	7.0	30	210	15 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)					0.0	120	-	0.0	90	-	-	60	-	
	Aux Staff (large work station)			4.0		4.0	60	240	4.0	45	180	3.0	45	135	
	Aux Staff (small work station)				10.0	10.0	30	300	10.0	30	300	6.0	30	180	14 AUX
Current Personnel & Office Space		1.0	76.0	20.0	18.0		11,040	NSF		8,430	NSF		3,858	NSF	
		115					96.00	NSF/pers		73.30	NSF/pers		33.55	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					40	25	1,000	40	0	-	40	25	1,000	use shared conference
	Reception					1	180	180	1	180	180	1	180	180	in dept office
	Mail / Copy					7	60	420	7	60	420	7	60	420	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					3	120	360	3	120	360	3	120	360	in dept office
	Library / Resource Rm					12	30	360	12	30	360	24	30	720	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					2	180	360	2	180	360	4	180	720	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					20	25	500	20	25	500	39	25	975	
	Break Room / K'nette					1	180	180	1	180	180	1	180	180	
Specialty Space	Simulation Room					0	360	-	0	360	-	0	360	-	sim space in sim ctr
	Sim Control Rm					0	120	-	0	120	-	0	120	-	
	Changing Rms					2	120	240	2	120	240	2	120	240	
MODEL NSF (inc 2.5% annual growth)							14,640	NSF		11,030	NSF		8,653	NSF	
							127.30	NSF/pers		95.91	NSF/pers		75.24	NSF/pers	

of note: human subject and animal holding areas currently in bldg 521 will need a home (NOT in MED); work space for residents (39) is in the hospital

Medical Education and Discovery Building

Appendix

A: Space Program Detail Clinical and Academic Department Office Space

2021 GROWTH MODEL: 4.0% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Dermatology	FACULTY (FAC)														
	Faculty- Chair	1.0				1.0	180	180	1.0	150	150	1.0	120	120	
	Faculty- Tenure		11.0			11.0	120	1,320	11.0	90	990	7.0	60	420	
	Clinical Faculty, Lecturers			12.0		12.0	60	720	12.0	45	540	8.0	45	360	
	Adjunct / Visitor				2.0	2.0	30	60	2.0	30	60	2.0	30	60	
	Faculty Touchdown (not in count)					0.0	30	-	0.0	30	-	0.0	30	-	26 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		7.0			7.0	120	840	7.0	90	630		60	-	
	Admin Staff (shared office)			11.0		11.0	60	660	11.0	45	495	7.0	45	315	
	Admin Staff (open office)					0.0	30	-	0.0	30	-	11.0	30	330	18 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)					0.0	120	-	0.0	90	-		60	-	
	Aux Staff (large work station)			20.0		20.0	60	1,200	20.0	45	900	12	45	540	
	Aux Staff (small work station)				27.0	27.0	30	810	27.0	30	810	17	30	510	47 AUX
Current Personnel & Office Space		1.0	18.0	43.0	29.0		5,790 NSF			4,575 NSF			2,655 NSF		
		91					63.63 NSF/pers			50.27 NSF/pers			29.18 NSF/pers		
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					25	25	625	25	25	625	25	25	625	
	Reception					1	180	180	1	180	180	1	180	180	in dept office
	Mail / Copy					6	60	360	6	60	360	6	60	360	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					2	120	240	2	120	240	2	120	240	in dept office
	Library / Resource Rm					12	30	360	12	30	360	24	30	720	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					2	180	360	2	180	360	4	180	720	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					16	25	400	16	25	400	31	25	775	
	Break Room / K'nette					1	180	180	1	180	180	1	180	180	
Specialty Space	Resident & Fellows Resource Room					14	50	700	14	50	700	14	50	700	
MODEL NSF (inc 2.5% annual growth)							9,195 NSF			7,980 NSF			7,155 NSF		
							101.04 NSF/pers			87.69 NSF/pers			78.63 NSF/pers		

of note: call center and clinical spaces in bldg 521 will need a home (NOT in MED); work space for residents (39) is in the hospital

2021 GROWTH MODEL: 4.0% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
DF&PM	FACULTY (FAC)														
	Faculty- Chair	1.0				1.0	180	180	1.0	150	150	1.0	120	120	
	Faculty- Tenure		60.0			60.0	120	7,200	60.0	90	5,400	36.0	60	2,160	
	Clinical Faculty, Lecturers			16.0		16.0	60	960	16.0	45	720	10.0	45	450	
	Adjunct / Visitor				35.0	35.0	30	1,050	35.0	30	1,050	21.0	30	630	112 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		16.0			16.0	120	1,920	16.0	90	1,440		80	-	
	Admin Staff (large work station)			22.0		22.0	60	1,320	22.0	45	990	16.0	45	720	
	Admin Staff (small work station)				0.0	0.0	30	-	0.0	30	-	22.0	30	660	38 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)		8.0			8.0	120	960	8.0	90	720	8.0	80	640	
	Aux Staff (large work station)			15.0		15.0	60	900	15.0	45	675	9.0	45	405	
	Aux Staff (small work station)				18.0	18.0	30	540	18.0	30	540	11.0	30	330	41 AUX
	RESEARCH (RES)														
	Research Staff (standard office)		2.0			2.0	120	240	2.0	90	180	2.0	80	160	
	Research Staff (large work station)			0.0		0.0	60	-	0.0	45	-	-	45	-	
	Research Staff (small work station)				24.0	24.0	30	720	24.0	30	720	24.0	30	720	26 RES
Current Personnel & Office Space		1.0	86.0	53.0	77.0		15,990	NSF		12,585	NSF		6,995	NSF	
		217					73.69	NSF/pers		58.00	NSF/pers		32.24	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					40	25	1,000	24	25	600	24	25	600	
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office
	Div Conference Rm					4	300	1,200	4	300	1,200	4	300	1,200	
	Div Reception					4	120	480	4	120	480	4	120	480	
	Mail / Copy					11	60	660	11	60	660	11	60	660	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					5	120	600	5	120	600	5	120	600	in dept office
	Dept Library / Resource Rm					24	30	720	24	30	720	24	30	720	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl))					4	180	720	4	180	720	8	180	1,440	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					37	25	925	37	25	925	73	25	1,825	
	Break Room/ K'nette					4	180	720	4	180	720	4	180	720	
Specialty Space	(1) 40-st Classroom					0	25	-	0	25	-	0	25	-	
	(1) 24-st Classroom					0	25	-	0	25	-	0	25	-	
	(4) 12-st Seminar/Training					0	300	-	0	300	-	0	300	-	
	(1) 30-st Computer Lab					0	35	-	0	35	-	0	35	-	
	Project Storage					0	240	-	0	240	-	0	240	-	
MODEL NSF (inc 2.5% annual growth)							23,195	NSF		19,390	NSF		15,420	NSF	
							106.89	NSF/pers		89.35	NSF/pers		71.06	NSF/pers	outlying Faculty FTE/4

Medical Education and Discovery Building

Appendix

A: Space Program Detail Clinical and Academic Department Office Space

2021 GROWTH MODEL: 4.0% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Internal Medicine	FACULTY (FAC)														
	Faculty- Chair	9.0				9.0	180	1,620	9.0	150	1,350	9.0	120	1,080	
	Faculty- Tenure		51.0			51.0	120	6,120	51.0	90	4,590	31.0	60	1,860	
	Clinical Faculty, Lecturers			66.0		66.0	60	3,960	66.0	45	2,970	40.0	45	1,800	
	Adjunct / Visitor				68.0	68.0	30	2,040	68.0	30	2,040	41.0	30	1,230	194 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		26.0			26.0	120	3,120	26.0	90	2,340		60	-	
	Admin Staff (large work station)			60.0		60.0	60	3,600	60.0	45	2,700	51.0	45	2,295	
	Admin Staff (small work station)				8.0	8.0	30	240	8.0	30	240	80.0	30	2,400	94 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)		6.0			6.0	120	720	6.0	90	540	6.0	60	360	
	Aux Staff (large work station)			76.0		76.0	60	4,560	76.0	45	3,420	46.0	45	2,070	
	Aux Staff (small work station)				104.0	104.0	30	3,120	104.0	30	3,120	63.0	30	1,890	186 AUX
Current Personnel & Office Space		9.0	83.0	202.0	180.0		29,100	NSF		23,310	NSF		14,985	NSF	
		474					61.39	NSF/pers		49.18	NSF/pers		31.61	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					24	25	600	24	25	600	40	25	1,000	use shared conference
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office
	Div Conference Rm					8	300	2,400	8	300	2,400	8	300	2,400	
	Div Reception					8	120	960	8	120	960	8	120	960	
	Mail / Copy					21	60	1,260	21	60	1,260	21	60	1,260	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					10	120	1,200	10	120	1,200	10	120	1,200	in dept office
	Dept Library / Resource Rm					24	30	720	24	30	720	24	30	720	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					8	180	1,440	8	180	1,440	16	180	2,880	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					79	25	1,975	79	25	1,975	158	25	3,950	
	Break Room / K'nette					6	180	1,080	6	180	1,080	6	180	1,080	
Specialty Space	Resident Lounge (distributed among Div)					40	40	1,600	40	40	1,600	40	40	1,600	125 residents currently + 25
	Faculty Touchdown Space					0	30	-	0	30	-	0	20	-	use dist. touchdown
MODEL NSF (inc 2.5% annual growth)							42,515	NSF		36,725	NSF		32,215	NSF	
							89.69	NSF/pers		77.48	NSF/pers		67.96	NSF/pers	outlying Faculty FTE/4

of note: clinical epidemiology, hematology, oncology, and pulmonary divisions remain in current location with touchdown space in the MED complex

2021 GROWTH MODEL: 4.0% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
OB / GYN	FACULTY (FAC)														
	Faculty- Chair	5.0				5.0	180	900	5.0	150	750	5.0	120	600	
	Faculty- Tenure		18.0			18.0	120	2,160	18.0	90	1,620	11.0	60	660	
	Clinical Faculty, Lecturers			16.0		16.0	60	960	16.0	45	720	10.0	45	450	
	Adjunct / Visitor				3.0	3.0	30	90	3.0	30	90	2.0	30	60	42 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		11.0			11.0	120	1,320	11.0	90	990	4.0	60	240	
	Admin Staff (large work station)			22.0		22.0	60	1,320	22.0	45	990	10.0	45	450	
	Admin Staff (small work station)					0.0	30	-	0.0	30	-	10.0	30	300	33 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)		3.0			3.0	120	360	3.0	90	270	3.0	60	180	
	Aux Staff (large work station)			29.0		29.0	60	1,740	29.0	45	1,305	18.0	45	810	
	Aux Staff (small work station)				20.0	20.0	30	600	20.0	30	600	12.0	30	360	52 AUX
	RESEARCH (RES)														
	Research Staff (standard office)		2.0			2.0	120	240	2.0	90	180	2.0	60	120	
	Research Staff (large work station)			15.0		15.0	60	900	15.0	45	675	9.0	45	405	
	Research Staff (small work station)				4.0	4.0	30	120	4.0	30	120	3.0	30	90	21 RES
Current Personnel & Office Space		5.0	34.0	82.0	27.0		10,710	NSF		8,310	NSF		4,725	NSF	
		148					72.36	NSF/pers		56.15	NSF/pers		31.93	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					40	25	1,000	40	25	1,000	40	25	1,000	use shared conference
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office
	Div Conference Rm					4	300	1,200	4	300	1,200	4	300	1,200	
	Div Reception					4	120	480	4	120	480	4	120	480	
	Mail / Copy					8	60	480	8	60	480	8	60	480	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					3	120	360	3	120	360	3	120	360	in dept office
	Dept Library / Resource Rm					24	30	720	24	30	720	24	30	720	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl))					3	180	540	3	180	540	5	180	900	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					25	25	625	25	25	625	50	25	1,250	
	Break Room/ K'nette					2	180	360	2	180	360	2	180	360	
Specialty Space	Resident Lounge (distributed among Div)					24	40	960	24	40	960	24	40	960	125 residents currently + 25
	Sample Holding (freezer room)					1	240	240	1	240	240	1	240	240	
MODEL NSF (inc 2.5% annual growth)							17,855	NSF		15,455	NSF		12,855	NSF	
							120.64	NSF/pers		104.43	NSF/pers		86.86	NSF/pers	outlying Faculty FTE/4

of note: oncology remains in Huntsman, REI (from Research Park) included in MED space

Medical Education and Discovery Building

Appendix

A: Space Program Detail Clinical and Academic Department Office Space

2021 GROWTH MODEL: 4.0% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Pediatrics	FACULTY (FAC)														
	Faculty- Chair	6.0				6.0	180	1,080	6.0	150	900	6.0	120	720	
	Faculty- Tenure		54.0			54.0	120	6,480	54.0	90	4,860	33.0	60	1,980	
	Clinical Faculty, Lecturers			87.0		87.0	60	5,220	87.0	45	3,915	53.0	45	2,385	
	Adjunct / Visitor				23.0	23.0	30	690	23.0	30	690	14.0	30	420	170 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		41.0			41.0	120	4,920	41.0	90	3,690		60	-	
	Admin Staff (large work station)			119.0		119.0	60	7,140	119.0	45	5,355	66.0	45	2,970	
	Admin Staff (small work station)				0.0	0.0	30	-	0.0	30	-	139.0	30	4,170	160 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)		0.0			0.0	120	-	0.0	90	-	0.0	60	-	
	Aux Staff (large work station)			7.0		7.0	60	420	7.0	45	315	5.0	45	225	
	Aux Staff (small work station)				86.0	86.0	30	2,580	86.0	30	2,580	52.0	30	1,560	93 AUX
	RESEARCH (RES)														
	Research Staff (standard office)		0.0			0.0	120	-	0.0	90	-	-	60	-	
	Research Staff (large work station)			6.0		6.0	60	360	6.0	45	270	4.0	45	180	
	Research Staff (small work station)				60.0	60.0	30	1,800	60.0	30	1,800	36.0	30	1,080	66 RES
Current Personnel & Office Space		6.0	95.0	219.0	169.0		30,690	NSF		24,375	NSF		15,690	NSF	
		489					62.76	NSF/pers		49.85	NSF/pers		32.09	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					40	25	1,000	40	25	1,000	40	25	1,000	use shared conference
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office
	Div Conference Rm					12	300	3,600	12	300	3,600	12	300	3,600	
	Div Reception					8	120	960	8	120	960	8	120	960	smaller divisions share
	Mail / Copy					22	60	1,320	22	60	1,320	22	60	1,320	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					10	120	1,200	10	120	1,200	10	120	1,200	in dept office
	Dept Library / Resource Rm					36	30	1,080	36	30	1,080	36	30	1,080	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl))					9	180	1,620	9	180	1,620	17	180	3,060	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					82	25	2,050	82	25	2,050	163	25	4,075	
	Break Room / K'nette					8	180	1,421	9	180	1,620	9	180	1,620	
Specialty Space	Resident Lounge (distributed among Div)					57	40	2,280	57	40	2,280	57	40	2,280	214 proposed residents
	Faculty Touchdown Space					0	30	-	0	30	-	0	20	-	use auberge
MODEL NSF (inc 2.5% annual growth)							47,401	NSF		41,285	NSF		36,065	NSF	
							96.93	NSF/pers		84.43	NSF/pers		73.75	NSF/pers	outlying Faculty FTE/4

of note: Pediatrics Clinical Enterprise and Inpatient Medicine Personnel are not included

2021 GROWTH MODEL: 4.0% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
PM&R	FACULTY (FAC)														
	Faculty- Chair	1.0				1.0	180	180	1.0	150	150	1.0	120	120	
	Faculty- Tenure		3.0			3.0	120	360	3.0	90	270	2.0	60	120	
	Clinical Faculty, Lecturers			19.0		19.0	60	1,140	19.0	45	855	12.0	45	540	
	Adjunct / Visitor				3.0	3.0	30	90	3.0	30	90	2.0	30	60	26 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		4.0			4.0	120	480	4.0	90	360	0.0	60	-	
	Admin Staff (large work station)			7.0		7.0	60	420	7.0	45	315	3.0	45	135	
	Admin Staff (small work station)				2.0	2.0	30	60	2.0	30	60	6.0	30	180	13 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)		0.0			0.0	120	-	0.0	90	-	-	60	-	
	Aux Staff (large work station)			8.0		8.0	60	480	8.0	45	360	5.0	45	225	
	Aux Staff (small work station)				7.0	7.0	30	210	7.0	30	210	5.0	30	150	15 AUX
Current Personnel & Office Space		1.0	7.0	34.0	12.0		3,420	NSF		2,670	NSF		1,530	NSF	
		54					63.33	NSF/pers		49.44	NSF/pers		28.33	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					20	25	500	20	25	500	20	25	500	use shared conference
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office
	Mail / Copy					3	60	180	3	60	180	3	60	180	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					2	120	240	2	120	240	2	120	240	in dept office
	Dept Library / Resource Rm					12	30	360	12	30	360	12	30	360	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					1	180	180	1	180	180	2	180	360	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					9	25	225	9	25	225	18	25	450	
	Break Room / K'nette					1	180	180	1	180	180	1	180	180	
Specialty Space															125 residents currently + 25
MODEL NSF (inc 2.5% annual growth)							5,465	NSF		4,715	NSF		3,980	NSF	
							101.20	NSF/pers		87.31	NSF/pers		73.70	NSF/pers	outlying Faculty FTE/4

Medical Education and Discovery Building

Appendix

A: Space Program Detail Clinical and Academic Department Office Space

2021 GROWTH MODEL: 4.0% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Radiology	FACULTY (FAC)														
	Faculty- Chair	1.0				1.0	180	180	1.0	150	150	1.0	120	120	
	Faculty- Tenure		16.0			16.0	120	1,920	16.0	90	1,440	10.0	60	600	
	Clinical Faculty, Lecturers			29.0		29.0	60	1,740	29.0	45	1,305	18.0	45	810	
	Adjunct / Visitor				15.0	15.0	30	450	15.0	30	450	9.0	30	270	61 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		8.0			8.0	120	960	8.0	90	720		60	-	
	Admin Staff (large work station)			11.0		11.0	60	660	11.0	45	495	8.0	45	360	
	Admin Staff (small work station)					0.0	30	-	0.0	30	-	11.0	30	330	19 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)					0.0	120	-	0.0	90	-	-	60	-	
	Aux Staff (large work station)			14.0		14.0	60	840	14.0	45	630	9.0	45	405	
	Aux Staff (small work station)				7.0	7.0	30	210	7.0	30	210	5.0	30	150	21 AUX
	RESEARCH (RES)														
	Research Staff (standard office)					0.0	120	-	0.0	90	-	-	60	-	
	Research Staff (large work station)					0.0	60	-	0.0	45	-	-	45	-	
	Research Staff (small work station)				11.0	11.0	30	330	11.0	30	330	11.0	30	330	11 RES
Current Personnel & Office Space		1.0	24.0	54.0	33.0		7,290	NSF		5,730	NSF		3,375	NSF	
		112					65.09	NSF/pers		51.16	NSF/pers		30.13	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					40	25	1,000	40	25	1,000	40	25	1,000	use shared conf
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office
	Mail / Copy					7	60	420	7	60	420	7	60	420	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					3	120	360	3	120	360	3	120	360	in dept office
	Dept Library / Resource Rm					12	30	360	12	30	360	12	30	360	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					2	180	360	2	180	360	4	180	720	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					19	25	475	19	25	475	38	25	950	
	Break Room/ K'nette					4	180	720	4	180	720	4	180	720	
Specialty Space															
MODEL NSF (inc 2.5% annual growth)							11,165	NSF		9,605	NSF		8,085	NSF	
							99.69	NSF/pers		85.76	NSF/pers		72.19	NSF/pers	

2021 GROWTH MODEL: 4.0% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Surgery	FACULTY (FAC)														
	Faculty- Chair	9.0				9.0	180	1,620	9.0	150	1,350	9.0	120	1,080	
	Faculty- Tenure		59.0			59.0	120	7,080	59.0	90	5,310	36.0	60	2,160	
	Clinical Faculty, Lecturers			49.0		49.0	60	2,940	49.0	45	2,205	30.0	45	1,350	
	Adjunct/ Visitor				14.0	14.0	30	420	14.0	30	420	9.0	30	270	131 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		15.0			15.0	120	1,800	15.0	90	1,350	6.0	60	360	
	Admin Staff (large work station)			26.0		26.0	60	1,560	26.0	45	1,170	15.0	45	675	
	Admin Staff (small work station)				0.0	0.0	30	-	0.0	30	-	10.0	30	300	41 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)		0.0			0.0	120	-	0.0	90	-	-	60	-	
	Aux Staff (large work station)			86.0		86.0	60	5,160	86.0	45	3,870	52.0	45	2,340	
	Aux Staff (small work station)				57.0	57.0	30	1,710	57.0	30	1,710	35.0	30	1,050	143 AUX
	RESEARCH (RES)														
	Research Staff (standard office)		2.0			2.0	120	240	2.0	90	180	2.0	60	120	
	Research Staff (large work station)			7.0		7.0	60	420	7.0	45	315	5.0	45	225	
	Research Staff (small work station)				18.0	18.0	30	540	18.0	30	540	11.0	30	330	27 RES
Current Personnel & Office Space		9.0	76.0	168.0	89.0		23,490	NSF		18,420	NSF		10,260	NSF	
		342					68.68	NSF/pers		53.86	NSF/pers		30.00	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					40	25	1,000	40	25	1,000	40	25	1,000	use shared conference
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office
	Div Conference Rm					8	300	2,400	8	300	2,400	8	300	2,400	
	Div Reception					8	120	960	8	120	960	8	120	960	
	Mail / Copy					16	60	960	16	60	960	16	60	960	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					7	120	840	7	120	840	7	120	840	in dept office
	Dept Library / Resource Rm					24	30	720	24	30	720	24	30	720	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					6	180	1,080	6	180	1,080	12	180	2,160	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					57	25	1,425	57	25	1,425	114	25	2,850	
	Break Room/ K'nette					4	180	720	4	180	720	4	180	720	
Specialty Space	Resident Lounge (distributed among Div)					60	40	2,400	60	40	2,400	60	40	2,400	125 residents currently + 25
MODEL NSF (inc 2.5% annual growth)							36,175	NSF		31,105	NSF		25,450	NSF	
							105.77	NSF/pers		90.95	NSF/pers		74.42	NSF/pers	outlying Faculty FTE/4

Medical Education and Discovery Building

Appendix

A: Space Program Detail Clinical and Academic Department Office Space

2021 GROWTH MODEL: 4.0% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Biomedical Info	FACULTY (FAC)														
	Faculty- Chair	1.0				1.0	180	180	1.0	150	150	1.0	120	120	
	Faculty- Tenure		18.0			18.0	120	2,160	18.0	90	1,620	11.0	60	660	
	Clinical Faculty, Lecturers			4.0		4.0	60	240	4.0	45	180	3.0	45	135	
	Adjunct / Visitor				4.0	4.0	30	120	4.0	30	120	3.0	30	90	
	Faculty Touchdown (not in count)					0.0	30	-	0.0	30	-	0.0	30	-	27 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		6.6			6.6	120	790	6.6	90	592		60	-	
	Admin Staff (shared office)		4.0			4.0	60	240	4.0	45	180	6.6	45	296	
	Admin Staff (open office)					0.0	30	-	0.0	30	-	4.0	30	120	11 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)					0.0	120	-	0.0	90	-		60	-	
	Aux Staff (large work station)			14.0		14.0	60	840	14.0	45	630	9	45	405	
	Aux Staff (small work station)				14.0	14.0	30	420	14.0	30	420	9	30	270	28 AUX
	RESEARCH (RES)														
	Aux Staff (standard office)					0.0	120	-	0.0	90	-		60	-	
	Aux Staff (large work station)			8.0		8.0	60	480	8.0	45	360	5	45	225	
	Aux Staff (small work station)				15.0	15.0	30	450	15.0	30	450	9	30	270	23 RES
Current Personnel & Office Space		1.0	28.6	26.0	33.0		5,920	NSF		4,702	NSF		2,591	NSF	
		89					66.83	NSF/pers		53.08	NSF/pers		29.25	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					25	25	625	25	25	625	25	25	625	
	Reception					1	180	180	1	180	180	1	180	180	in dept office
	Mail / Copy					4	60	240	4	60	240	4	60	240	1 per 25 ppl
	File / Supply Storage (1/50 FTE)					2	120	240	2	120	240	2	120	240	in dept office
	Library / Resource Rm					12	30	360	12	30	360	16	30	480	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					2	180	360	2	180	360	3	180	540	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					15	25	375	15	25	375	30	25	750	
	Break Room / K'nette					1	180	180	1	180	180	1	180	180	
Specialty Space	Research Teaming Area					70	25	1,750	70	25	1,750	70	25	1,750	
	Classroom					0	30	-	0	30	-	0	30	-	in disc center ctr
MODEL NSF (inc 2.5% annual growth)							10,230	NSF		9,012	NSF		7,576	NSF	
							115.48	NSF/pers		101.74	NSF/pers		85.53	NSF/pers	

of note: does not yet include CoN BMI personnel

2021 GROWTH MODEL: 6% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O; limited shared and TD space			B: Contemporary tenure faculty in small P.O; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Anesthesiology	FACULTY (FAC)														
	Faculty- Chair	1.0				1.0	180	180	1.0	150	150	1.0	120	120	
	Faculty- Tenure		11.0												
	Faculty- Tenure (Scientist)		0.0			79.0	120	9,480	79.0	90	7,110	48.0	60	2,880	
	Faculty- Tenure (Clinician)		68.0												
	Faculty- Clinical				7.0										
	Lecturer / Visitor				3.0	10.0	60	600	10.0	45	450	6.0	45	270	
	Adjunct / Visitor														
Visitor					9.0	30	270	9.0	30	270	6.0	30	180	99 FAC	
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		10.0			10.0	120	1,200	10.0	90	900		60	-	
	Admin Staff (shared office)				8.0	8.0	60	480	8.0	45	360	10.0	45	450	
	Admin Staff (open office)					0.0	30	-	0.0	30	-	8.0	30	240	18 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)					0.0	120	-	0.0	90	-	-	60	-	
	Aux Staff (large work station)				5.0	5.0	60	300	5.0	45	225	3.0	45	135	
	Aux Staff (small work station)				10.0	10.0	30	300	10.0	30	300	6.0	30	180	15 AUX
Current Personnel & Office Space		1.0	89.0	23.0	19.0		12,810	NSF		9,765	NSF		4,455	NSF	
			132				97.05	NSF/pers		73.98	NSF/pers		33.75	NSF/pers	
						sts, ppl,			sts, ppl,			sts, ppl,			
						rms	NSF/	NSF	rms	NSF/	NSF	rms	NSF/	NSF	
Office Support	Dept Conference Rm					40	25	1,000	40	0	-	40	25	1,000	use shared conference
	Reception					1	180	180	1	180	180	1	180	180	in dept office
	Mail / Copy					8	60	480	8	60	480	8	60	480	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					3	120	360	3	120	360	3	120	360	in dept office
	Library / Resource Rm					12	30	360	12	30	360	24	30	720	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					3	180	540	3	180	540	5	180	900	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					22	25	550	22	25	550	44	25	1,100	
Break Room / K'nette					1	180	180	1	180	180	1	180	180		
Specialty Space	Simulation Room					0	360	-	0	360	-	0	360	-	sim space in sim ctr
	Sim Control Rm					0	120	-	0	120	-	0	120	-	
	Changing Rms					2	120	240	2	120	240	2	120	240	
MODEL NSF (inc 6% annual growth)							16,700	NSF		12,655	NSF		9,615	NSF	
							126.52	NSF/pers		95.87	NSF/pers		72.84	NSF/pers	

of note: human subject and animal holding areas currently in bldg 521 will need a home (NOT in MED); work space for residents (39) is in the hospital

Medical Education and Discovery Building

Appendix

A: Space Program Detail Clinical and Academic Department Office Space

2021 GROWTH MODEL: 6% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Dermatology	FACULTY (FAC)														
	Faculty- Chair	1.0				1.0	180	180	1.0	150	150	1.0	120	120	
	Faculty- Tenure		13.0			13.0	120	1,560	13.0	90	1,170	8.0	60	480	
	Clinical Faculty, Lecturers			14.0		14.0	60	840	14.0	45	630	9.0	45	405	
	Adjunct / Visitor				2.0	2.0	30	60	2.0	30	60	2.0	30	60	
	Faculty Touchdown (not in count)					0.0	30	-	0.0	30	-	0.0	30	-	30 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		8.0			8.0	120	960	8.0	90	720		60	-	
	Admin Staff (shared office)			13.0		13.0	60	780	13.0	45	585	8.0	45	360	
	Admin Staff (open office)					0.0	30	-	0.0	30	-	13.0	30	390	21 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)					0.0	120	-	0.0	90	-		60	-	
	Aux Staff (large work station)			23.0		23.0	60	1,380	23.0	45	1,035	14	45	630	
	Aux Staff (small work station)				31.0	31.0	30	930	31.0	30	930	19	30	570	54 AUX
Current Personnel & Office Space		1.0	21.0	50.0	33.0		6,690 NSF			5,280 NSF			3,015 NSF		
		105					63.71 NSF/pers			50.29 NSF/pers			28.71 NSF/pers		
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					25	25	625	25	25	625	25	25	625	
	Reception					1	180	180	1	180	180	1	180	180	in dept office
	Mail / Copy					7	60	420	7	60	420	7	60	420	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					3	120	360	3	120	360	3	120	360	in dept office
	Library / Resource Rm					12	30	360	12	30	360	24	30	720	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					2	180	360	2	180	360	4	180	720	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					18	25	450	18	25	450	35	25	875	
	Break Room / K'nette					1	180	180	1	180	180	1	180	180	
Specialty Space	Resident & Fellows Resource Room					14	50	700	14	50	700	14	50	700	
MODEL NSF (inc 6% annual growth)							10,325 NSF			8,915 NSF			7,795 NSF		
							98.33 NSF/pers			84.90 NSF/pers			74.24 NSF/pers		

of note: call center and clinical spaces in bldg 521 will need a home (NOT in MED); work space for residents (39) is in the hospital

2021 GROWTH MODEL: 6% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
DF&PM	FACULTY (FAC)														
	Faculty- Chair	1.0				1.0	180	180	1.0	150	150	1.0	120	120	
	Faculty- Tenure		68.0			68.0	120	8,160	68.0	90	6,120	41.0	60	2,460	
	Clinical Faculty, Lecturers			19.0		19.0	60	1,140	19.0	45	855	12.0	45	540	
	Adjunct / Visitor				40.0	40.0	30	1,200	40.0	30	1,200	24.0	30	720	128 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		19.0			19.0	120	2,280	19.0	90	1,710		80	-	
	Admin Staff (large work station)			25.0		25.0	60	1,500	25.0	45	1,125	19.0	45	855	
	Admin Staff (small work station)				0.0	0.0	30	-	0.0	30	-	25.0	30	750	44 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)		10.0			10.0	120	1,200	10.0	90	900	10.0	80	800	
	Aux Staff (large work station)			17.0		17.0	60	1,020	17.0	45	765	11.0	45	495	
	Aux Staff (small work station)				20.0	20.0	30	600	20.0	30	600	12.0	30	360	47 AUX
	RESEARCH (RES)														
	Research Staff (standard office)		2.0			2.0	120	240	2.0	90	180	2.0	80	160	
	Research Staff (large work station)			0.0		0.0	60	-	0.0	45	-		45	-	
	Research Staff (small work station)				28.0	28.0	30	840	28.0	30	840	28.0	30	840	30 RES
Current Personnel & Office Space		1.0	99.0	61.0	88.0										
			249				18,360	NSF		14,445	NSF		8,100	NSF	
							73.73	NSF/pers		58.01	NSF/pers		32.53	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					40	25	1,000	24	25	600	24	25	600	
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office
	Div Conference Rm					4	300	1,200	4	300	1,200	4	300	1,200	
	Div Reception					4	120	480	4	120	480	4	120	480	
	Mail / Copy					12	60	720	12	60	720	12	60	720	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					5	120	600	5	120	600	5	120	600	in dept office
	Dept Library / Resource Rm					24	30	720	24	30	720	24	30	720	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					5	180	900	5	180	900	9	180	1,620	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					42	25	1,050	42	25	1,050	83	25	2,075	
	Break Room / K'nette					4	180	720	4	180	720	4	180	720	
Specialty Space	(1) 40-st Classroom					0	25	-	0	25	-	0	25	-	
	(1) 24-st Classroom					0	25	-	0	25	-	0	25	-	
	(4) 12-st Seminar/Training					0	300	-	0	300	-	0	300	-	
	(1) 30-st Computer Lab					0	35	-	0	35	-	0	35	-	
	Project Storage					0	240	-	0	240	-	0	240	-	
MODEL NSF (inc 6% annual growth)							25,930	NSF		21,615	NSF		17,015	NSF	
							104.14	NSF/pers		86.81	NSF/pers		68.33	NSF/pers	outlying Faculty FTE/4

Medical Education and Discovery Building

Appendix

A: Space Program Detail Clinical and Academic Department Office Space

2021 GROWTH MODEL: 6% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Internal Medicine	FACULTY (FAC)														
	Faculty- Chair	9.0				9.0	180	1,620	9.0	150	1,350	9.0	120	1,080	
	Faculty- Tenure		58.0			58.0	120	6,960	58.0	90	5,220	35.0	60	2,100	
	Clinical Faculty, Lecturers			76.0		76.0	60	4,560	76.0	45	3,420	46.0	45	2,070	
	Adjunct / Visitor				77.0	77.0	30	2,310	77.0	30	2,310	47.0	30	1,410	220 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		29.0			29.0	120	3,480	29.0	90	2,610		60	-	
	Admin Staff (large work station)			68.0		68.0	60	4,080	68.0	45	3,060	54.0	45	2,430	
	Admin Staff (small work station)				10.0	10.0	30	300	10.0	30	300	88.0	30	2,640	107 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)		7.0			7.0	120	840	7.0	90	630	7.0	60	420	
	Aux Staff (large work station)			86.0		86.0	60	5,160	86.0	45	3,870	52.0	45	2,340	
	Aux Staff (small work station)				119.0	119.0	30	3,570	119.0	30	3,570	72.0	30	2,160	212 AUX
Current Personnel & Office Space		9.0	94.0	230.0	206.0		32,880	NSF		26,340	NSF		16,650	NSF	
		539					61.00	NSF/pers		48.87	NSF/pers		30.89	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					24	25	600	24	25	600	40	25	1,000	use shared conference
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office
	Div Conference Rm					8	300	2,400	8	300	2,400	8	300	2,400	
	Div Reception					8	120	960	8	120	960	8	120	960	
	Mail / Copy					24	60	1,440	24	60	1,440	24	60	1,440	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					11	120	1,320	11	120	1,320	11	120	1,320	in dept office
	Dept Library / Resource Rm					24	30	720	24	30	720	24	30	720	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					9	180	1,620	9	180	1,620	18	180	3,240	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					90	25	2,250	90	25	2,250	180	25	4,500	
	Break Room / K'nette					6	180	1,080	6	180	1,080	6	180	1,080	
Specialty Space	Resident Lounge (distributed among Div)					40	40	1,600	40	40	1,600	40	40	1,600	125 residents currently + 25
	Faculty Touchdown Space					0	30	-	0	30	-	0	20	-	use dist. touchdown
MODEL NSF (inc 6% annual growth)							47,050	NSF		40,510	NSF		35,090	NSF	
							87.29	NSF/pers		75.16	NSF/pers		65.10	NSF/pers	outlying Faculty FTE/4

of note: clinical epidemiology, hematology, oncology, and pulmonary divisions remain in current location with touchdown space in the MED complex

2021 GROWTH MODEL: 6% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
OB / GYN	FACULTY (FAC)														
	Faculty- Chair	5.0				5.0	180	900	5.0	150	750	5.0	120	600	
	Faculty- Tenure		20.0			20.0	120	2,400	20.0	90	1,800	12.0	60	720	
	Clinical Faculty, Lecturers			19.0		19.0	60	1,140	19.0	45	855	12.0	45	540	
	Adjunct/ Visibr				3.0	3.0	30	90	3.0	30	90	2.0	30	60	47 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		13.0			13.0	120	1,560	13.0	90	1,170	4.0	60	240	
	Admin Staff (large work station)			25.0		25.0	60	1,500	25.0	45	1,125	10.0	45	450	
	Admin Staff (small work station)					0.0	30	-	0.0	30	-	10.0	30	300	38 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)		4.0			4.0	120	480	4.0	90	360	4.0	60	240	
	Aux Staff (large work station)			34.0		34.0	60	2,040	34.0	45	1,530	21.0	45	945	
	Aux Staff (small work station)				23.0	23.0	30	690	23.0	30	690	14.0	30	420	61 AUX
	RESEARCH (RES)														
	Research Staff (standard office)		2.0			2.0	120	240	2.0	90	180	2.0	60	120	
	Research Staff (large work station)			17.0		17.0	60	1,020	17.0	45	765	11.0	45	495	
	Research Staff (small work station)				5.0	5.0	30	150	5.0	30	150	3.0	30	90	24 RES
Current Personnel & Office Space		5.0	39.0	95.0	31.0		12,210 NSF			9,465 NSF			5,220 NSF		
		170					71.82 NSF/pers			55.68 NSF/pers			30.71 NSF/pers		
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					40	25	1,000	40	25	1,000	40	25	1,000	use shared conference
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office
	Div Conference Rm					4	300	1,200	4	300	1,200	4	300	1,200	
	Div Reception					4	120	480	4	120	480	4	120	480	
	Mail / Copy					9	60	540	9	60	540	9	60	540	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					4	120	480	4	120	480	4	120	480	in dept office
	Dept Library / Resource Rm					24	30	720	24	30	720	24	30	720	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl))					3	180	540	3	180	540	6	180	1,080	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					29	25	725	29	25	725	57	25	1,425	
	Break Room/ K'nette					2	180	360	2	180	360	2	180	360	
Specialty Space	Resident Lounge (distributed among Div)					24	40	960	24	40	960	24	40	960	125 residents currently + 25
	Sample Holding (freezer room)					1	240	240	1	240	240	1	240	240	
MODEL NSF (inc 6% annual growth)							19,635 NSF			16,890 NSF			13,885 NSF		
							115.50 NSF/pers			99.35 NSF/pers			81.68 NSF/pers		outlying Faculty FTE/4

of note: oncology remains in Huntsman, REI (from Research Park) included in MED space

Medical Education and Discovery Building

Appendix

A: Space Program Detail Clinical and Academic Department Office Space

2021 GROWTH MODEL: 6% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Pediatrics	FACULTY (FAC)														
	Faculty- Chair	7.0				7.0	180	1,260	7.0	150	1,050	7.0	120	840	
	Faculty- Tenure		74.0			74.0	120	8,880	74.0	90	6,660	45.0	60	2,700	
	Clinical Faculty, Lecturers			121.0		121.0	60	7,260	121.0	45	5,445	73.0	45	3,285	
	Adjunct / Visitor				28.0	28.0	30	840	28.0	30	840	17.0	30	510	230 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		50.0			50.0	120	6,000	50.0	90	4,500		60	-	
	Admin Staff (large work station)			146.0		146.0	60	8,760	146.0	45	6,570	75.0	45	3,375	
	Admin Staff (small work station)				0.0	0.0	30	-	0.0	30	-	166.0	30	4,980	196 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)		0.0			0.0	120	-	0.0	90	-	0.0	60	-	
	Aux Staff (large work station)			23.0		23.0	60	1,380	23.0	45	1,035	14.0	45	630	
	Aux Staff (small work station)				118.0	118.0	30	3,540	118.0	30	3,540	71.0	30	2,130	141 AUX
	RESEARCH (RES)														
	Research Staff (standard office)		0.0			0.0	120	-	0.0	90	-	-	60	-	
	Research Staff (large work station)			7.0		7.0	60	420	7.0	45	315	5.0	45	225	
	Research Staff (small work station)				70.0	70.0	30	2,100	70.0	30	2,100	42.0	30	1,260	77 RES
Current Personnel & Office Space		7.0	124.0	297.0	216.0		40,440	NSF		32,055	NSF		19,935	NSF	
		644					62.80	NSF/pers		49.77	NSF/pers		30.95	NSF/pers	
						sts, ppl,			sts, ppl,			sts, ppl,			
						rms	NSF/	NSF	rms	NSF/	NSF	rms	NSF/	NSF	
Office Support	Dept Conference Rm					40	25	1,000	40	25	1,000	40	25	1,000	use shared conference
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office
	Div Conference Rm					12	300	3,600	12	300	3,600	12	300	3,600	
	Div Reception					8	120	960	8	120	960	8	120	960	smaller divisions share
	Mail / Copy					28	60	1,680	28	60	1,680	28	60	1,680	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					13	120	1,560	13	120	1,560	13	120	1,560	in dept office
	Dept Library / Resource Rm					36	30	1,080	36	30	1,080	36	30	1,080	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					11	180	1,980	11	180	1,980	22	180	3,960	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					108	25	2,700	108	25	2,700	215	25	5,375	
	Break Room / K'nette					9	180	1,624	9	180	1,620	9	180	1,620	
Specialty Space Space	Resident Lounge (distributed among Div)					57	40	2,280	57	40	2,280	57	40	2,280	214 proposed residents
	Faculty Touchdown Space					0	30	-	0	30	-	0	20	-	use auberge
MODEL NSF (inc 6% annual growth)						59,084 NSF			50,695 NSF			43,230 NSF			
						91.75 NSF/pers			78.72 NSF/pers			67.13 NSF/pers			outlying Faculty FTE/4

of note: Pediatrics Clinical Enterprise and Inpatient Medicine Personnel are not included

2021 GROWTH MODEL: 6% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O; limited shared and TD space			B: Contemporary tenure faculty in small P.O; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
PM&R	FACULTY (FAC)														
	Faculty- Chair	1.0				1.0	180	180	1.0	150	150	1.0	120	120	
	Faculty- Tenure		4.0			4.0	120	480	4.0	90	360	3.0	60	180	
	Clinical Faculty, Lecturers			22.0		22.0	60	1,320	22.0	45	990	14.0	45	630	
	Adjunct/ Visibr				4.0	4.0	30	120	4.0	30	120	3.0	30	90	31 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		5.0			5.0	120	600	5.0	90	450	0.0	60	-	
	Admin Staff (large work station)			8.0		8.0	60	480	8.0	45	360	3.0	45	135	
	Admin Staff (small work station)				2.0	2.0	30	60	2.0	30	60	6.0	30	180	15 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)		0.0			0.0	120	-	0.0	90	-	-	60	-	
	Aux Staff (large work station)			10.0		10.0	60	600	10.0	45	450	6.0	45	270	
	Aux Staff (small work station)				8.0	8.0	30	240	8.0	30	240	5.0	30	150	18 AUX
Current Personnel & Office Space		1.0	9.0	40.0	14.0		4,080	NSF		3,180	NSF		1,755	NSF	
		64					63.75	NSF/pers		49.69	NSF/pers		27.42	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					20	25	500	20	25	500	20	25	500	use shared conference
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office
	Mail / Copy					3	60	180	3	60	180	3	60	180	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					2	120	240	2	120	240	2	120	240	in dept office
	Dept Library / Resource Rm					12	30	360	12	30	360	12	30	360	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					2	180	360	2	180	360	3	180	540	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					11	25	275	11	25	275	22	25	550	
	Break Room/ K'nette					1	180	180	1	180	180	1	180	180	
Specialty Space															125 residents currently + 25
MODEL NSF (inc 6% annual growth)							6,355	NSF		5,455	NSF		4,485	NSF	
							99.30	NSF/pers		85.23	NSF/pers		70.08	NSF/pers	outlying Faculty FTE/4

Medical Education and Discovery Building

Appendix

A: Space Program Detail Clinical and Academic Department Office Space

2021 GROWTH MODEL: 6% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Radiology	FACULTY (FAC)														
	Faculty- Chair	1.0				1.0	180	180	1.0	150	150	1.0	120	120	
	Faculty- Tenure		19.0			19.0	120	2,280	19.0	90	1,710	12.0	60	720	
	Clinical Faculty, Lecturers			34.0		34.0	60	2,040	34.0	45	1,530	21.0	45	945	
	Adjunct / Visitor				17.0	17.0	30	510	17.0	30	510	11.0	30	330	71 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		10.0			10.0	120	1,200	10.0	90	900		60	-	
	Admin Staff (large work station)			13.0		13.0	60	780	13.0	45	585	10.0	45	450	
	Admin Staff (small work station)					0.0	30	-	0.0	30	-	13.0	30	390	23 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)					0.0	120	-	0.0	90	-		60	-	
	Aux Staff (large work station)			16.0		16.0	60	960	16.0	45	720	10.0	45	450	
	Aux Staff (small work station)				8.0	8.0	30	240	8.0	30	240	5.0	30	150	24 AUX
	RESEARCH (RES)														
	Research Staff (standard office)					0.0	120	-	0.0	90	-		60	-	
	Research Staff (large work station)					0.0	60	-	0.0	45	-		45	-	
	Research Staff (small work station)				13.0	13.0	30	390	13.0	30	390	13.0	30	390	13 RES
Current Personnel & Office Space		1.0	29.0	63.0	38.0		8,580	NSF		6,735	NSF		3,945	NSF	
		131					65.50	NSF/pers		51.41	NSF/pers		30.11	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					40	25	1,000	40	25	1,000	40	25	1,000	use shared conf
	Dept Reception					1	180	180	1	180	180	1	180	180	in dept office
	Mail / Copy					8	60	480	8	60	480	8	60	480	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					3	120	360	3	120	360	3	120	360	in dept office
	Dept Library / Resource Rm					12	30	360	12	30	360	12	30	360	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					3	180	540	3	180	540	5	180	900	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					22	25	550	22	25	550	44	25	1,100	
	Break Room / K'nette					4	180	720	4	180	720	4	180	720	
Specialty Space															
MODEL NSF (inc 6% annual growth)							12,770	NSF		10,925	NSF		9,045	NSF	
							97.48	NSF/pers		83.40	NSF/pers		69.05	NSF/pers	

2021 GROWTH MODEL: 6% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Shared Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Surgery	FACULTY (FAC)														
	Faculty- Chair	9.0				9.0	180	1,620	9.0	150	1,350	9.0	120	1,080	
	Faculty- Tenure		67.0			67.0	120	8,040	67.0	90	6,030	41.0	60	2,460	
	Clinical Faculty, Lecturers			56.0		56.0	60	3,360	56.0	45	2,520	34.0	45	1,530	
	Adjunct / Visitor				16.0	16.0	30	480	16.0	30	480	10.0	30	300	148 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		18.0			18.0	120	2,160	18.0	90	1,620	6.0	60	360	
	Admin Staff (large work station)			30.0		30.0	60	1,800	30.0	45	1,350	15.0	45	675	
	Admin Staff (small work station)				0.0	0.0	30	-	0.0	30	-	10.0	30	300	48 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)		0.0			0.0	120	-	0.0	90	-	-	60	-	
	Aux Staff (large work station)			98.0		98.0	60	5,880	98.0	45	4,410	59.0	45	2,655	
	Aux Staff (small work station)				65.0	65.0	30	1,950	65.0	30	1,950	39.0	30	1,170	163 AUX
	RESEARCH (RES)														
	Research Staff (standard office)		2.0			2.0	120	240	2.0	90	180	2.0	60	120	
	Research Staff (large work station)			8.0		8.0	60	480	8.0	45	360	5.0	45	225	
	Research Staff (small work station)				21.0	21.0	30	630	21.0	30	630	13.0	30	390	31 RES
Current Personnel & Office Space		9.0	87.0	192.0	102.0		26,640	NSF		20,880	NSF		11,265	NSF	
		390					68.31	NSF/pers		53.54	NSF/pers		28.88	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					40	25	1,000	40	25	1,000	40	25	1,000	use shared conference in dept office
	Dept Reception					1	180	180	1	180	180	1	180	180	
	Div Conference Rm					8	300	2,400	8	300	2,400	8	300	2,400	
	Div Reception					8	120	960	8	120	960	8	120	960	
	Mail / Copy					18	60	1,080	18	60	1,080	18	60	1,080	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					8	120	960	8	120	960	8	120	960	in dept office
	Dept Library / Resource Rm					24	30	720	24	30	720	24	30	720	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl))					7	180	1,260	7	180	1,260	13	180	2,340	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					65	25	1,625	65	25	1,625	130	25	3,250	
	Break Room / K'nette					4	180	720	4	180	720	4	180	720	
Specialty Space	Resident Lounge (distributed among Div)					60	40	2,400	60	40	2,400	60	40	2,400	125 residents currently + 25
MODEL NSF (inc 6% annual growth)							39,945	NSF		34,185	NSF		27,275	NSF	
							102.42	NSF/pers		87.65	NSF/pers		69.94	NSF/pers	outlying Faculty FTE/4

Medical Education and Discovery Building

Appendix

A: Space Program Detail Clinical and Academic Department Office Space

2021 GROWTH MODEL: 6% per yr		SPACE TYPE				A: Traditional tenure faculty in standard P.O.; limited shared and TD space			B: Contemporary tenure faculty in small P.O.; limited shared and TD space			C: Progressive 40% mobility factor for non admin.			NOTES
Space User Name	Job Title	Large Office	Standard Office	Office or Work Station	Touch Down Space	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	Total # People	NSF allocation	Program Area	
Biomedical Info	FACULTY (FAC)														
	Faculty- Chair	1.0				1.0	180	180	1.0	150	150	1.0	120	120	
	Faculty- Tenure		20.0			20.0	120	2,400	20.0	90	1,800	12.0	60	720	
	Clinical Faculty, Lecturers			5.0		5.0	60	300	5.0	45	225	3.0	45	135	
	Adjunct / Visitor				5.0	5.0	30	150	5.0	30	150	3.0	30	90	
	Faculty Touchdown (not in count)					0.0	30	-	0.0	30	-	0.0	30	-	31 FAC
	ADMIN SUPPORT (SUP)														
	Admin Staff (standard office)		7.5			7.5	120	902	7.5	90	677	6.0	60	-	
	Admin Staff (shared office)		5.0			5.0	60	300	5.0	45	225	7.5	45	338	
	Admin Staff (open office)					0.0	30	-	0.0	30	-	5.0	30	150	13 SUP
	AUXILIARY SUPPORT (AUX)														
	Aux Staff (standard office)					0.0	120	-	0.0	90	-	-	60	-	
	Aux Staff (large work station)			16.0		16.0	60	960	16.0	45	720	10	45	450	
	Aux Staff (small work station)				16.0	16.0	30	480	16.0	30	480	10	30	300	32 AUX
	RESEARCH (RES)														
	Aux Staff (standard office)					0.0	120	-	0.0	90	-	-	60	-	
	Aux Staff (large work station)			10.0		10.0	60	600	10.0	45	450	6	45	270	
	Aux Staff (small work station)				17.0	17.0	30	510	17.0	30	510	11	30	330	27 RES
Current Personnel & Office Space		1.0	32.5	31.0	38.0		6,782	NSF		5,387	NSF		2,903	NSF	
		103					66.16	NSF/pers		52.54	NSF/pers		28.32	NSF/pers	
						sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	sts, ppl, rms	NSF/	NSF	
Office Support	Dept Conference Rm					25	25	625	25	25	625	25	25	625	
	Reception					1	180	180	1	180	180	1	180	180	in dept office
	Mail / Copy					7	60	420	7	60	420	7	60	420	2 dept office + 1 per 25 ppl
	File / Supply Storage (1/50 FTE)					3	120	360	3	120	360	3	120	360	in dept office
	Library / Resource Rm					8	30	240	8	30	240	16	30	480	
	Small Conference Rms (1 st for every 10 ppl; C: 1 st for every 5 ppl)					2	180	360	2	180	360	4	180	720	6-8 sts per room
	Collaborative Sts (1 per 6 ppl; C: 1 st for every 3 ppl)					18	25	450	18	25	450	35	25	875	
	Break Room / K'nette					1	180	180	1	180	180	1	180	180	
Specialty Space	Research Teaming Area					1	25	25	1	25	25	1	25	25	
	Classroom					0	30	-	0	30	-	0	30	-	in disc center ctr
MODEL NSF (inc 6% annual growth)							9,622	NSF		8,227	NSF		6,768	NSF	
							93.86	NSF/pers		80.25	NSF/pers		66.02	NSF/pers	

of note: does not yet include CoN BMI personnel

**A: Space Program Detail
Administrative Office Space**

A
B
C
D
E
F
G
H

550 : Clinical Neurosci Bldg		EXISTING PROGRAM							PROPOSED PROGRAM											
Dept	Hegis Code	Room Description	Exist. Room No.	Capacity				CURRENT PROGRAM NSF	Capacity						per room		total			
				work settings			seats		WORK SETTINGS			SEATS			OCCUPANCY		AREA @	PROGRAM	No.	TOTAL
				fac sta	stff sta	stu sta	tll		instr	collab	fac sta	stff sta	stu sta	tll pers	instr	collab	sla	seats	NSF/sta	NSF
300 OFFICE & SUPPORT																				
SR VP'S OFFICE SUITE																				
ADM550	301	Office Pres-SVP (w/ff)	05201	1				331	1						1	360.00	360	1	360	
ADM550	301	Office Pres-AVP Clinical Affairs	05119		1			113		1				1	180.00	180	1	180		
ADM550	301	Office Pres-AVP Development	05203		1			113		1				1	180.00	180	1	180		
ADM550	301	Office Pres-AVP Finance	05207		1			113		1				1	180.00	180	1	180		
ADM550	301	Office Pres-AVP Strategy	05209		1			113		1				1	180.00	180	1	180		
ADM550	301	Office Pres-AVP Planning	05211		1			113		1				1	180.00	180	1	180		
ADM550	301	Office Pres-AVP Special Projects	05213		1			113		1				1	180.00	180	1	180		
ADM550	301	Office Pres-CMIO	05223		1			113		1				1	180.00	180	1	180		
		Office Pres-AVP Inclusion							1					1	180.00	180	1	180		
		Office Pres-AVP Communications								1				1	180.00	180	1	180		
ADM550	314	Office Director	05117		1			113		6				1	120.00	120	6	720		
		SVP Exec Asst								1				1	120.00	120	1	120		
		Exec Asst								4				1	80.00	80	4	320		
ADM550	308	Office Staff	05111		1			113												
ADM550	308	Office Staff	05113		1			113												
ADM550	308	Office Staff	05137		1			109												
ADM550	308	Office Staff	05215		1			113												
ADM550	308	Office Staff	05221		1			113												
ADM550	335	Admin Asst / Support Staff	05134		10			1,060		14				14	64.00	896	1	896		
ADM550	47	RR-Staff / Work Study	05201A					37			2			2	32.00	64	1	64		
		Reception / Waiting								1				1	4		220	1	220	
		Reception/Living Room													8					
ADM550	350	Board Room	05131					763						30	30.00	900	1	900		
ADM550	350	Conference Rm	05107				6	153						32	25.00	200	4	800		
ADM550	658	Kitchenette /Bdrm Service	05123					113								180	1	180		
ADM550	336	Workroom / Mail / Copy	05114					102								180	1	180		
		Files / Storage / Supplies														120	1	120		
ADM	Mission-Based Management Group							1,008												
		Director, Ops AMP Logistics			1					1				1	180.00	180	1	180		
		Manager, Accounting AMP Finance			1					1				1	120.00	120	1	120		
		Coordinator, Project			1					1				1	64.00	64	1	64		
		Executive Assistant			1					1				1	64.00	64	1	64		
		Accountant			1					1				1	64.00	64	1	64		
		Administrative Assistant			1					1				1	45.00	45	1	45		
		Analyst			3					3				3	45.00	135	1	135		
		Data Architect / Software Eng			4					4				4	64.00	256	1	256		
		Reception / Waiting														150	-	-		
		Conference Rm														300	-	-		
		Workroom / Mail / Copy														120	-	-		
		Subtotal			-	35	-	35	-	30				1	46	2	48	-	62	
		TOTAL NSF						7,969											0	
		TOTAL NSF w/o RESEARCH SPACE						4,988											0	
		total existing SoM Dean's Office						12,210												
		total SoM Dean Personnel																	86	
		Existing NSF/pers						141.98											142	
		Benchmark high						175.00											175	
		Benchmark low						135.00											135	
		Placeholder (high)																	15,050	
		Placeholder (low)																	11,610	

B: Steering Committee Meeting Minutes

Meeting Minutes

Project:	University of Utah Steering Committee	Issue Date:	August 18, 2014
		Meeting Date:	July 31, 2014
Project No.:	14020.00	Meeting Time:	9:00 AM
Present:	Dr. Vivian Lee David Browdy Steve Panish Jacquie Bernard Alison Plummer Mike Perez Dean Li Rena D'Sousa Wayne Samuelson John McNary Jay Vogelsang Dr. John Langell Bob Simonton Jean Shipman Jim Bardsley DFPM Admin Bob Pulito Mary Jo Olenick	University of Utah University of Utah The SLAM Collaborative The SLAM Collaborative	
Distribution:	Attendees Paul Rammelsberg	The SLAM Collaborative	

To All Present:

The following is believed to be an accurate representation of discussions and decisions made at this meeting on July 31, 2014. If any of the items are incorrect or fail to record discussions at the meeting, please notify the writer of these minutes, in writing, within 5 days of the issue date. Failing such notification, these minutes will be considered a matter of record.

2-1 Steering Committee Meeting - Goals:

- A. SLAM started the meeting by presenting Programming and Planning Assumptions, the Master Plan Principles and Decision-Driving Principles. There was general agreement on all the assumptions and Master Plan Principles including the general size of the building and the need to optimize the potential of this site at the crossroads of the academic, research and clinical zones of the medical center.
- B. The Decision-Driving Principles were also all accepted without modification:
 - 1. Support innovation in population-focused research and interventions.
 - 2. Lead in the practice and development of telemedicine.
 - 3. Prepare practitioners to innovate in health care practice and delivery.
 - 4. Encourage industry collaborations.

- 5. Enhance the culture and community of academic departments and integrated practice units (IPU's).
 - 6. Recognize that one size does not fit all.
 - 7. Integrate the professionals and students.
 - 8. Recognize the value of each individual to the institution and to his/her family and community.
 - 9. Create a "home for life" for alumni.
- C. The Building Target size of 250,000 SF and net area of 150,000 SF was agreed upon. It was made clear that the total target square footage included all space in the MED, the Discovery Center. If space was used in the AAB or library the size of the MED should be reduced.
- D. The Space Program and Space Model were presented including the basis for the Traditional, Contemporary and Progressive models and their corresponding space implications. The difference, when including growth, is approximately 50,000 Net SF and 90,000 Gross SF.
- E. SLAM presented an analysis of 2 projects that shared characteristics of the Contemporary and Progressive space models to help the group better understand each model. The UU Peds 4th floor and UCSF Mission Bay projects were studied. Mission Bay had no enclosed offices and Peds had smaller designated enclosed offices for all faculty. It was noted that the space allocation per person is not significantly different because with the introduction of less enclosed offices it is necessary to increase the informal work and collaborative areas for staff which will balance the square footage.
- F. The following comments were voiced with regard to the space program and models:
- 1. There was concern over the Contemporary and Progressive models and their impact on privacy and faculty need for discrete conversations.
 - 2. The growth projection of 6% was challenged and it was agreed that additional investigation by UU was required to determine how to validate that projection. The projected growth appears to be too aggressive especially when there is not expected to be a significant increase in beds on the Medical Center Campus.
 - 3. Additional investigation of the scope and growth projections for Population Science was required.
 - 4. Dr Lee expressed concern with maintaining the concept of the traditional space allocation for offices. It will be important to investigate new models that better reflect actual utilization and the work styles of the future. It is necessary to further explore the Contemporary and Progressive models to help manage the square footage requirement and allow for more groups to participate in the MED.
 - a. Dr. Lee asked SLAM to provide plans for options of different office configurations and images.
 - b. She requested that a survey be developed to determine faculty and staff mobility, utilization and work habits. SLAM is to assist with developing a survey and implementation schedule.
 - c. There was strong agreement on the need for physical mock-ups to help better understand these new models. SLAM is to assist UU with developing a



- mock-up strategy.
- d. UU would also study the new 4th floor Peds facility to determine how well it is working and to gather any lessons from that facility. The representative from Peds volunteered to monitor the space utilization of the new facility.
 - e. SLAM should target space model that achieves approximately 90SF per person as they explore options.
- G. The concept for the Simulation program was reviewed. SLAM indicated that the current facilities in HSEB and the Nursing facilities should be maintained with the new facility focused on innovation, surgery and gaming.
1. SLAM suggested that it would be appropriate to consolidate all the clinical simulation facilities that are currently dispersed throughout the Medical Center into one facility in the Innovation Center.
 2. Dr Lee indicated that simulation is continuously advancing and changing and it will be necessary to have a in-depth study of the Med Centers needs before we finalize the program. A further refined place-holder program will be used until a detailed program can be developed. This detailed program should include trends in simulation, explore what other institutions are doing and assess the future needs of all the departments.
- H. The potential relocation of Gross Anatomy was discussed. Relocating Gross Anatomy to the main campus would be more convenient for the students and increase their utilization of the facility. It would also allow for collaboration with the Innovation Center programs. SLAM suggested that separating the instructional component from the body donor program would reduce the square footage requirement while maintaining the utilization of the refrigeration facilities currently used for the body donor program.
1. Dr Lee indicated that relocating the instructional functions of Gross Anatomy had merit and additional investigation of how that could be best achieved was necessary.
- I. SLAM presented footprint analysis of the MED and Innovation Center and program distribution. The analysis indicated the following:
2. Between the MED and the Innovation Center there is significant available footprint that will accommodate more program than is currently targeted.
 3. There is approximately 150,000 GSF of space below plaza level available for program. Because that space will have limited exposure to natural light, it may be difficult to find appropriate program to occupy that space.
 4. If MED program is placed in the ABB and the library, it will significantly reduce the scale of the MED building, diminishing its impact as an iconic building.
 5. UU is to determine the status of the ABB and its approach to integration with the MED.
 6. Simulation and Gross Anatomy functions are well suited for the Innovation Center.
 7. The library has the potential to support at least 10,000 SF of program. A frame work space program for the library should be undertaken to determine how the library space should be utilized in the future.

- J. A parametric program that distributed space by department between the MED, Innovation Center, Library and AAB was presented. Dr Lee requested that we also provide a distribution by function so that she could understand the distribution of instructional space and other student functions. The following was observed:
8. It will be important to have student participation in the MED building; therefore SLAM will explore how to distribute student functions between the MED and the Innovation Center.
 9. The MED cannot be just an office building if it is to be the home of the School of Medicine.
 10. SLAM should investigate how the current facilities and the future planning for the MED support the strategic plan for the SoM. UU to schedule a meeting to discuss the SoM strategic plan.
 11. Food and event space will be important if the MED is to attract broad participation in the Med Center constituents. UU to determine how to study the food distribution throughout the Med Center and determine the appropriate venues for the MED.
- K. Several departments were not included in the parametric model because of the limited space. The programs currently housed in 521 and their functional adjacency requirements to the hospital were given priority in this initial modeling. It was determined that it would be necessary to broaden the modeling to accurately identify need and study all the possibilities. SLAM will add DFPM and specific pediatric divisions to the space model.

Respectfully submitted,

The S / L / A / M Collaborative



Mary Jo Olenick, AIA
Principal

B: Steering Committee Meeting Minutes

Meeting Minutes

Project:	University of Utah Steering Committee	Issue Date:	October 15, 2014
		Meeting Date:	October 9, 2014
Project No.:	14020.00	Meeting Time:	12:00 PM
Present:	David Browdy John McNary Richard Kendall Jean Shipman Catherine Coda Mike Perez Rena D'Souza Jim Bardsley Robin Marcus Wayne Samuelson David Entwistle Grant Lasson Sean Mulvihill Dean Li Allison Locatelli Bob Simonton Alison Plummer Dan Lundergan Steve Panish John Hoidal Bob Pulito Mary Jo Olenick Paul Rammelsberg	University of Utah University of Utah The SLAM Collaborative The SLAM Collaborative The SLAM Collaborative	

Distribution: Attendees
Dr. Vivian Lee University of Utah

To All Present:

The following is believed to be an accurate representation of discussions and decisions made at this meeting on October 9, 2014. If any of the items are incorrect or fail to record discussions at the meeting, please notify the writer of these minutes, in writing, within 5 days of the issue date. Failing such notification, these minutes will be considered a matter of record.

3-1 Steering Committee Meeting - Goals: The pre-programming process is nearing completion. The outcomes are being presented and reviewed in preparation for writing the final report. One more Steering Committee session is planned before completion of the study.

A. The character of the MED will be influenced by which parts of the space program are included. To clarify and assist in prioritization, the program elements that potentially require space in the MED were grouped into categories:

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- All HSC Leadership not currently in the academic corridor - School of Medicine, School of Dentistry, College of Health
 - Academic departments with critical hospital adjacency requirements
 - Meaningful medical student study and social space
 - Space / environments that promote innovation:
 - Simulation
 - Population Health / Biomedical Informatics
 - CMI / CTSA
 - Community space
 - Café
 - Meeting hall
 - Exhibit space
 - Teaching programs the benefit from adjacency to Rehab Hospital
 - CoH grad programs
 - DFPM PA and PH programs
 - Other departments
- B. The total space need identified during the pre-programming process ranges from 238,113 to 327,376 net square feet. The low end of the range includes the most progressive office space standards and the "must have" space requirements for other programs and initiatives. The high end of the range includes the most traditional office space standards and the "ideal" space requirements for other programs and initiatives.
- C. The target area for the MED building is 109,500 net square feet. With 42,000 net square feet allocated to the MED project on the top two floors of the Ambulatory Care Center (ACC), a total of 151,500 net square feet will be available to satisfy the program need. The combined size of the two buildings was established based on an anticipated budget of \$100 million.
- D. The proposed space allocation models are based on a program need of 270,702 net square feet, which was developed from combining the most progressive office space standards with the "ideal" space requirements for other programs and initiatives.
- The MED and ACC space can potentially be supplemented by 30,000 net square feet in the Discovery Center, if it is funded, and by at least 15,000 net square feet of repurposed space in the library.
 - Using current assumptions, the unmet need is:

Required Space	270,702 nsf
Available Space (109,500 MED, 42, 000 ACC, 30,000 Discovery Center, 15,000 Library)	196,500 nsf
Unmet Need	74,202 nsf
 - Off campus options in Research Park and elsewhere have been identified that are more than sufficient to satisfy the unmet need.
 - A preliminary analysis indicates that a plan to move "back office" functions of each clinical department off site would reduce the space need in the center of campus by approximately 25,000 net square feet.
- E. The space program currently does not include dedicated teaching space for the College of Health. CoH would have access to any teaching space provided, as it will not be assigned to any department. Space allocated for future initiatives could also

- potentially be utilized for the CoH.
- F. The current space allocation models are based on an anticipated growth rate in the center of campus of 2.5 percent per year. Comments included:
- Historic growth has been 6 percent per year, although it is not clear what the breakdown is between clinical, research, and other areas.
 - For several years it has been anticipated that growth would taper or plateau, but this has not happened yet.
 - Although the intent is to grow in the community, the current model is for most faculty to have a home base in the center of campus and be elsewhere less than 50 percent of the time.
 - Currently, primary office space is not typically being provided at outlying sites.
- G. SLAM presented four fit study options. The common assumptions underlying all of the options include:
- The MED Building + ACC = 250,000 gsf / 109,500 nsf (MED) + 42,000 nsf (ACC)
 - The area for the Discovery Building supplements the 250,000 gsf.
 - Administrative offices for HSC, SoM, SoD and CoH will be in the MED.
 - Space needs for Physical Medicine & Rehabilitation will be addressed in the Rehabilitation Hospital.
 - 15,000 nsf is available in the Library to address unmet space needs.
 - All options assume a 2.5 percent average annual growth rate through 2021 for the campus center location.
- H. The first three options test the impact of different combinations of program elements as follows:
- Option 1 assumes that the Discovery Center is deferred and therefore includes some simulation in the MED. Most of the innovation program is omitted. Student space is prioritized. Option 1 includes 63,656 nsf of office space for clinical departments.
 - Option 2 includes a Discovery Center of 42,000 gsf to accommodate the "must have" innovation program. Student oriented space is slightly reduced and the large assembly space is omitted. Option 2 includes 82,484 nsf of office space for clinical departments.
 - Option 3 includes a Discovery Center of 50,000 gsf to accommodate the "ideal" innovation program. Option 3 is similar to Option 2 except that Population Science and Biomedical Informatics are located in the library. Option 3 includes 89,656 nsf of office space for clinical departments.
- I. The fourth option proposes an alternative approach to office space for clinical departments. In lieu of departmental assigned space in the MED, 1.5 floors is dedicated to "conciierge" office space with a wide range of amenities and minimal permanently designated space. The calculation of the potential population is provisionally based on a model developed at Harvard. A careful study of actual usage patterns would be required in order to adapt this concept for the University of Utah. Peak utilization rather than average utilization needs to be the basis of design.
- J. A larger building, possibly funded in part by the departments, might cost approximately \$15 million per additional story for a building of the current size. The

- Department of Facilities Management is concerned about the impact on campus utility infrastructure. Facilities Management believes that current plans for the ACC, the MED, and the Rehabilitation Hospital are feasible without infrastructure expansion. Increased development beyond that level may be approaching limits. Facilities Management will review further and advise.
- K. The "conciierge" office model was seen as intriguing and potentially attractive to both faculty and residents. Critical issues include helping the leadership to know how to talk about it when discussing with faculty, and ensuring that faculty feel that their voices have been heard.
- L. The schedule affords significant time to work on cultural issues, and to build and analyze mockups before final programming and design decisions are necessary. Decisions on how big the building will be must occur in the near term.
- M. Locating parts of departments off site, whether faculty located at other clinical sites or administrators located at a consolidated off site administrative location, presents leadership challenges. The University needs to look further into technologies that will help to bridge the gaps that may develop.
- N. The College of Health would like to have some conciierge/touchdown space in the Rehabilitation Hospital.
- O. Functionally, the most critical connections between buildings are the ACC to MED connection, and the Rehabilitation Hospital to acute care hospital connection.
- P. The siting studies should include a scheme that preserves the possibility of a hospital expansion into the space between Building 525 and the MED.
- Q. Post Meeting Note - next steps include:
1. SHORT TERM (to inform report)
 - a. Develop additional options: - SLAM
 - academic office model that combines progressive and conciierge concept across the MED and the ACC and office site locations (Research Park, downtown, remote locations)
 - increase size of the MED by 1 and 2 floors to incorporate a modified progressive model accommodating more private offices
 - b. Study site alternatives that allow for hospital expansion with regard to impact on plaza and roadway - SLAM
 - c. Develop additional massing studies - SLAM
 - explore connection to the ACC and Rehabilitation Hospital
 - additional viewpoints of massing alternatives
 - d. Confirm campus infrastructure capacity to support expanded program – UoU (Mike Perez) to respond
 - e. Establish approach to College of Health graduate programs – verify classroom capacity - SLAM and UoU (Alison Plummer)
 - f. Draft report direction - SLAM
 - determine recommended and fallback options for inclusion in report
 - confirm approach to growth at the following levels: 2.5, 4, 6%
 2. LONG TERM (to prepare for detailed programming)
 - a. Engagement and change management – UoU currently addressing

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B: Steering Committee Meeting Minutes

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- stakeholder survey / mockups / tours
- b. Analyze current office space utilization- UoU to address
 - occupancy survey
- c. Identify technology and connectivity future trends – to be investigated during final programming
 - benchmark cross industry solutions
- d. Simulation assessment and conceptual program – TBD
- e. Telemedicine vision and physical manifestation – TBD
- f. Framework plan for library - TBD

Respectfully submitted,

The S / L / A / M Collaborative



Paul D. Rammelsberg AIA, LEED AP
Senior Associate

Meeting Minutes

Project:	University of Utah MED Building Preprogramming Steering Committee	Issue Date:	November 20, 2014
Project No.:	14020.00	Meeting Date:	November 18, 2014
Present:	Vivian Lee David Browdy Grant Lasson Dan Lundergan Sean Mulvihill Liz Winter Jay Vogelsang John Langell Jacquie Bernard Carrie Byington Wayne Samuelson David Perrin Jean Shipman Allison Locatelli Catherine Coda Jim Bardsley Steve Panish Alison Plummer Mike Perez John McNary Bob Simonton Nils Eddy Mary Jo Olenick Bob Pulito Paul Rammelsberg	Meeting Time:	3:00PM

Distribution:

To All Present:

The following is believed to be an accurate representation of discussions and decisions made at this meeting on November 18, 2014. If any of the items are incorrect or fail to record discussions at the meeting, please notify the writer of these minutes, in writing, within 5 days of the issue date. Failing such notification, these minutes will be considered a matter of record.

1. SLAM initiated the meeting with a brief review of guiding principles that had been discussed at prior meetings, and a summary review of the gap between the proposed quantity of space and the quantity required to fulfill all program needs that have been

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2. Growth has been modeled at three rates, 2.5% per year, 4% per year, and 6% per year. Although historic growth has been 6% per year, the breakdown of that growth between research and clinical, and between on site and off site is not known. The planning options are based on future growth on the center campus site being limited to 2.5% per year. The planning options only map growth through 2021, shortly after the MED would be completed.
3. Review of the office space needs, at each growth rate and each space standard that was studied, reveals that the office program in all cases could fill or nearly fill the entire planned space. Determining the preferred approach to office needs will be a defining issue as the project moves forward.
4. Four models for space allocation were presented to illustrate how the character of the MED could vary depending on how space allocation is prioritized. The first two models allocate space to program needs based on variations in priorities. The third model does this as well, but presents the impact of adding a story to the proposed building. The fourth model presents an alternative approach to office needs, which has been named the Auberge.
5. The anticipated cost for the MED building is approximately \$100 million, or \$116 million if an additional story is included. A Discovery Center of 50,000 square feet is anticipated to cost approximately \$28 million. These costs include escalation of 3.5% per year to the expected construction date.
6. Any design scheme is to be based on the assumption that the Wintrobe Building will remain in place, at least in the near term.
7. SLAM presented two initial approaches to the design of the new MED building and Rehabilitation Hospital.
 - The Waltz scheme places the two buildings side by side with a space in between that could be developed as the Discovery Center. The two primary concerns expressed about this scheme were the distance between the rehabilitation hospital and the main hospital, and the appearance that the open space to the south was becoming too small.
 - The Falling Water scheme was initially conceived as a means of providing space for a third building on the site. This would require demolition of Wintrobe. It is currently being reconceived as two buildings to preserve Wintrobe.
 - The Falling Water scheme also needs to be manipulated to create a closer relationship between rehabilitation hospital and hospital. The new version locates the MED close to the ACC, which was not the case in the original version.
 - The schemes may be more easily understood if a drawing that overlays them on the Building 521 footprint is included.
8. The Rehabilitation Hospital may affect view from the lowest floors of Huntsman Phase IV. This may not be critical as this is research space.
9. Some concern was expressed that curved forms would be too foreign to the campus. As these are conceived as centerpiece buildings, some distinction should be considered justifiable.
10. It was noted that a floor plan that is triangular works well for patient rooms.
11. The Rehabilitation Hospital should have two floors of patient rooms.
12. The Discovery Center needs a cool vision that can be used for fundraising.
13. Locating the Discovery Center above ground can facilitate construction at a later date, if funding is not initially available. Locating the Discovery Center to take advantage of the hole created by demolishing Building 521 is not economical if the hole has to be filled in



B: Steering Committee Meeting Minutes

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- the short term and then excavated again at a later date. A fundraising deadline should be identified for the underground scheme, to identify the date beyond which it becomes less economical.
14. The general intent of the Auberge approach to the workspace is to provide a variety of work settings that will provide all of the support and amenities needed to enable users to do their work effectively. Careful analysis during the programming phase will identify specifically what those needs are.
 15. The intent of the Auberge is that proximity of work space to the hospital is not based on departmental needs but on individual needs.
 16. Delivering support services more efficiently will make it possible to deliver more comprehensive support services.
 17. The intent is to create an environment in which a clinician can do everything that he or she needs to do that cannot be done in the clinical space. It is intended to be more team based than departmentally based, and to create a community of academic medicine. It should be a place that is always occupied, that is equally accessible to all departments, and that facilitates assimilation of newcomers.
 18. A feeling of eliteness similar to that found in an airport lounge should contribute to the success of the Auberge.
 19. As the Auberge is developed, a means to give each department some cohesion and identity needs to be included.
 20. The current vision for the Auberge assumes an administrative hub that includes office space for department chairs.
 21. Effective programming of the MED will also rely on engaging people to think about what will make them more effective in their roles.
 22. One key to success will be development of a clear understanding of what the doctors actually do during the times that they are in their offices. This understanding should include a recognition that the current usage is only a starting point that may not look forward to how they will do their work in the future.
 23. Another key to success will be mastering the paperless office.
 24. A written survey and observational monitoring will be forthcoming in the near future to begin the process of gathering the required data.
 25. A mockup will be constructed in the coming months as well. This will be a living mockup that will be used and evaluated. Volunteers to relocate to the mockup are needed.
 26. Since some groups such as oncology are staying in present locations and will not utilize the new facilities, some cultural issues should be anticipated.
 27. University of Utah has the opportunity to be a leader in reimagining workspace in the academic medical center.

Respectfully submitted,

The S / L / A / M Collaborative

Paul D. Rammelsberg AIA, LEED AP
Senior Associate

Meeting Minutes

Project:	University of Utah Working Group	Issue Date:	June 30, 2014
		Meeting Date:	June 19, 2014
Project No.:	14020.00	Meeting Time:	3:00-4:00PM
Present:	Jim Bardsley Dean Li Carrie Byington Grant Lasson David Browdy John McNary Dan Lundergan Steve Panish Matt Yurick Bob Pulito Mary Jo Olenick	University of Utah University of Utah The SLAM Collaborative The SLAM Collaborative	
Distribution:	Attendees Paul Rammelsberg		The SLAM Collaborative

To All Present:

The following is believed to be an accurate representation of discussions and decisions made at this meeting on June 19, 2014. If any of the items are incorrect or fail to record discussions at the meeting, please notify the writer of these minutes, in writing, within 5 days of the issue date. Failing such notification, these minutes will be considered a matter of record.

- 1-1 Purpose and protocols for the Working Group were discussed:
- A. All communications will go through Jim Bardsley.
 - B. A project website will be used; UoU to provide information for future website access.
 - C. The Working Group is to be a resource to the planning team and should be used to guide the process and lay the foundation to enable efficient decision making by the Steering committee.
 - D. The Working Group is to review and approve options before they are presented to the Steering Committee. This will help ensure that the Steering Committee's time is well structured and will avoid options that have very limited potential.
 - E. SLAM will provide a one to two page Weekly Status Report to the Working Group. This Weekly Report will focus on key issues that require additional information and upcoming critical decisions required of the Steering Committee. The Working Group will use the document to help determine the preferred approach to be presented to the Steering Committee. It should be noted that weekly status report may be too frequent and should be limited to a report immediately following each planning boot camp and an interim report between planning boot camps.
 - F. SLAM will schedule interim conference call with Jim Bardsley between workshops.



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- 1-2 SLAM presented the findings from previous workshop meetings with the departments for review with the group:
- A. Steering Committee- There was concern that the Steering Committee mtg. did not result in definitive guidance. It was explained that the initial meeting was to focus on a dialogue about the project and was seeking the group's vision for the project and to identify any concerns that the Planning Team should be aware.
 1. The purpose of the Steering Committee session was also to allow each Steering Committee member to express their expectations for the project this will help Leadership understand all the issues. It helps to prepare Leadership for future sessions and in developing their strategy for consensus building.
 2. SLAM presented the project vision and the project challenges that were expressed by the Steering Committee:
 - a. MED should promote an engaged and connected community.
 - b. Reflect the changes in health care delivery .
 - c. It should redefine the model of a 'Home'; one that promotes a healthy work environment and has space that is dedicated for faculty to gather and connect.
 - a home for departmental and administrative offices.
 - d. It should support innovations and start-up programs.
 - e. Office space standards will need to be evaluated and new models explored with the intention of moving to a more efficient and effective space model.
 - f. Support work styles of the future workforce while also supporting needs of current faculty and staff.
 - g. Development of a space model for clinical faculty with remote locations.
 - h. Tenure vs. clinical track faculty office standards may be different.
 - i. Mock-ups to test options and facilitate change should be considered.
 - j. Need for flexibility that will accommodate future change.
 3. There have been changes to the campus plan that will affect circulation patterns and space allocation and, therefore, MED programing/planning. UU will provide additional information regarding these initiatives:
 - a. 1000 space parking structure
 - b. Rehab Hospital
 - c. AAB
 - B. Future Steering Committee agenda will be focused on obtaining the required decisions.
 - C. Preliminary Steering Committee agenda items may include the following:
 1. Simulations status – collected model or distributed model
 2. Dentistry Dean location in the MED or touchdown space
 3. College of Health – all of the department or partial in MED
 4. Populations Health – all of the department or partial in MED
 5. Family and Preventative Medicine - all of the department or partial in MED
 6. Location of Gross anatomy
- 1-3 Preparation for next meeting:
- A. Identify and schedule interviews for any departments that are not currently in the 521, if not already scheduled.
 - B. SLAM to begin to develop peer tour options.
 - C. Schedule meeting with NHTM to discuss interface with the Rehab Hospital.
 - D. Schedule focus group meeting with students.

Medical Education and Discovery Building Appendix

C: Working Committee Meeting Minutes

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- E. Collect data to validate planning approach to gross-to-net SF allocation.
- F. Schedule an interim webex to review program development.
- G. Schedule tour of simulation sites on campus.

Respectfully submitted,

The S / L / A / M Collaborative

Mary Jo Olenick, AIA
Principal

Meeting Minutes

Project:	University of Utah Working Group	Issue Date:	August 18, 2014
		Meeting Date:	July 29, 2014
Project No.:	14020.00	Meeting Time:	8:30 AM
Present:	Jim Bardsley Alison Plummer Allison Locatelli David Browdy John McNary Dan Lundergan Steve Panish Matt Yurick Bob Pulito Mary Jo Olenick	University of Utah University of Utah The SLAM Collaborative The SLAM Collaborative	
Distribution:	Attendees Paul Rammelsberg	The SLAM Collaborative	

To All Present:

The following is believed to be an accurate representation of discussions and decisions made at this meeting on July 29, 2014. If any of the items are incorrect or fail to record discussions at the meeting, please notify the writer of these minutes, in writing, within 5 days of the issue date. Failing such notification, these minutes will be considered a matter of record.

- 2-1 Alignment with the SoM Strategic Plan and academic program should be explored. UU will determine the current status of the SoM Strategic Plan and determine how to include that information in the discussion. The current assumption about HESB being maintained as the center for inter-professional education should be tested to determine if it is in alignment with the SoM Strategic Plan.
- 2-2 The cost models for the proposed future projects will need to be carefully considered. The campus is currently experiencing spikes in inflation of construction cost by 10-15%. It is expected that this condition is temporary and over a span of several years it will normalize.
- 2-3 The space model will need to be validated to assure that personnel projections only include the staff and faculty anticipated on the main campus. The historical, average annual growth rate of 6% reflects only staff and faculty on the main campus.
- 2-4 Concern was expressed as to how to best represent the outlier departments such as Peds and DFPR. It was determined that we proceed as planned with the Steering Committee meeting and allow that forum to inform the issue.



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- 2-5 The Steering Committee will need to consider if the SoM is to be an iconic building and how it is to relate to the Rehab Hospital and the AAB.
- 2-6 The guiding principles were reviewed and modified to categorize them as master plan guidelines and decision driving principles.
- 2-7 Issues that will need further investigation include:
 - A. The importance of including population science initiatives in the MED.
 - B. Since there is a significant disparity between the office space requirement and the ability for this project to accommodate that scope it will be important to prioritize what Health Science faculty need for office space and where it should be located.
- 2-8 Developing options that have limits but allow flexibility for departments to develop their space suitable for their particular needs is important. The message that one size does not fit all departments needs to be clearly stated.

Respectfully submitted,

The S / L / A / M Collaborative

Mary Jo Olenick, AIA
Principal

Meeting Minutes

Project:	University of Utah MED Building Preprogramming	Issue Date:	August 27, 2014
Project No.:	14020.00	Meeting Date:	August 21, 2014
Present:	David Browdy Grant Lasson Dan Lundergan Andy Weyrich Andrew Burkhardt Mark Liddle Jim Bardsley Steve Panish Alison Plummer John McNary Harry Corsi Peter Timmons Mary Jo Olenick Bob Pulito Paul Rammelsberg	Meeting Time:	8:30AM
			University of Utah Health Sciences University of Utah Facilities University of Utah Facilities University of Utah Space Planning The SLAM Collaborative The SLAM Collaborative The SLAM Collaborative

Distribution:

To All Present:

The following is believed to be an accurate representation of discussions and decisions made at this meeting on August 20, 2014. If any of the items are incorrect or fail to record discussions at the meeting, please notify the writer of these minutes, in writing, within 5 days of the issue date. Failing such notification, these minutes will be considered a matter of record.

1. The key issues to be reviewed are the approach to prioritization for inclusion of program elements in the new building, the approach to growth projections, and the impact of the three office space allocation options.
2. Students in general are pleased with the HSEB but find that the quantity of study space is inadequate. Additional student study space has been included in the MED program. It was questioned whether there could be a solution to the insufficient study space within HSEB.
3. SLAM presented a first pass at establishing priorities for inclusion in the MED facility:
 - 1) HSC leadership not currently located in the Academic corridor
 - 2) Academic departments with critical hospital adjacency
 - 3) Meaningful student study and social space
 - 4) Spaces that promote innovation

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- 5) Community space
- 6) Academic departments benefitting from AAB or Rehab adjacency
- 7) Other departments

With a 2.5 percent per year growth rate, only the first three priorities can be accommodated. With a 6 percent per year growth rate, only the first two priorities can be accommodated.

4. The general concurrence was that each major category should be reviewed in finer detail to determine which subcomponents should be prioritized and deprioritized.
5. The draft prioritization scheme was seen as hierarchical. This is to be avoided.
6. The innovation spaces are seen as the aspect of the program that will make the project distinctive.
7. The decision to include or exclude the human anatomy program will be significant. The space requirement for anatomy can be reduced by approximately one third if the body donor program remains at its present location.
8. The Steering Committee has advised that Biomedical Informatics and Population Sciences are critical program elements that must be included.
9. The target net area for the new space is 144,000 net square feet, inclusive of the space to be allocated in the AAB.
10. Growth has been modeled with an assumed rate of 2.5 percent per year and an assumed rate of 6 percent per year. The 6 percent per year growth rate is based on actual growth over the last twelve years.
11. The growth scenarios, as presented, only account for growth up to the anticipated occupancy date or slightly beyond. Additional growth beyond that date needs to be considered.
12. The program should allocate space for two additional academic departments that do not yet exist.
13. The growth projections assume that the administrative staff growth rate is identical to the faculty growth rate. This assumption should be scrutinized.
14. The growth assumption will be reviewed by the HSEC.
15. Growth of clinical faculty may also be affected by the availability of clinical space. The hospital has no plan to expand any further.
16. A hybrid office scheme should be developed that includes some aspects of the contemporary model and some aspects of the progressive model.
17. A permanent solution needs to be identified for any needs unmet as part of the MED project. This is underway but not part of the preprogramming scope.
18. The possibility of locating back office functions for all departments at a single remote location should be evaluated. Other subcomponents of the departmental office space should also be studied to determine how much of the space really needs hospital proximity.
19. It was suggested that the quantity of office space could be controlled by requiring each department to bear a cost proportionate to the amount of space occupied.
20. To ensure that enough non office functions are included in the MED, it was suggested that a cap on the quantity of office space be adopted, followed by a decision on how that space would be allocated.
21. The progressive office model allows for growth without physical expansion. With work spaces not permanently assigned, growth is accommodated in an increased utilization rate for the touchdown stations.
22. It was questioned how much clinical faculty actually interact within the office setting. The interaction is more likely to occur in the clinical space. A model with improved touch

- down spaces in the clinical space may lead to less time spent in the office space.
23. A recent observational study indicates that clinical faculty offices are occupied no more than 30 percent of the time.
 24. In all program models, any office currently programed at 90 sf should be reduced to 80 sf.
 25. In the Auberge layout and the student study space layout, more individual work settings should be provided.
 26. A model should be developed that illustrates how an office suite of constant size can evolve over time to accommodate growth.
 27. A workshop session should be scheduled prior to the next Steering Committee meeting to work through scenarios for MED space allocation. One or more proposed solutions should be developed for presentation to the Steering Committee.
 28. It is anticipated that there will be a separate fundraising effort for the Discovery Center.

Respectfully submitted,

*The **S / L / A / M** Collaborative*

Paul D. Rammelsberg AIA, LEED AP
Senior Associate

Meeting Minutes

Project:	University of Utah MED Building Preprogramming	Issue Date:	September 25, 2014, <i>Revised September 26, 2014</i>
Project No.:	14-020.00	Meeting Date:	September 10, 2014
Present:	David Browdy Grant Lasson Dan Lundergan Jim Bardsley Steve Panish Alison Plummer John McNary Bob Simonton Mary Jo Olenick Bob Pulito Paul Rammelsberg	Meeting Time:	12:00PM

Distribution:

To All Present:

The following is believed to be an accurate representation of discussions and decisions made at this meeting on September 10, 2014. If any of the items are incorrect or fail to record discussions at the meeting, please notify the writer of these minutes, in writing, within 5 days of the issue date. Failing such notification, these minutes will be considered a matter of record.

1. The key issue is to identify a preferred characterization of the MED facility, as the currently projected available space will not accommodate all needs. To initiate discussion on priorities, SLAM has developed scenarios built around four potential planning themes:
 - Critical clinical adjacencies
 - Innovation centered
 - Student centered
 - Rehabilitation Hospital synergyThe four themes are not intended as options from which one is to be chosen, but as a framework for discussion of prioritization.
2. It was noted that another potential theme could be ability to attract funding. It was thought that the areas of medical education, population science, and simulation would be the most likely to attract support from the state.
3. It was noted that Population Science and Biomedical Informatics need to be proximate to the clinical departments, so that the clinical departments utilize them as a resource rather

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- than attempting to duplicate their efforts.
4. The faculty growth in recent years has not all occurred in space in Building 521, and thus may not be a reliable predictor of future growth in the center of the campus. Growth in the last decade was also influenced by the addition of 220 beds in the hospital.
 5. It was generally agreed that the historic overall growth rate should not be seen as a predictor of future growth in the MED facility. Growth projections for the MED should clarify that they are projecting growth in the center of the campus and are not projecting total growth.
 6. A preliminary projection has been developed of back office staff that can be readily relocated off site if appropriate. This analysis, based on job titles only, suggests that up to 18 percent of staff could be remotely located.
 7. It was generally agreed that it would be reasonable to assume that Pediatrics can remain off site.
 8. It may be desirable to locate some parts of the Department of Family and Preventive Medicine in the MED facility, especially those related to the Public Health program. The number of students seeking the joint MD/MPH degree should be confirmed.
 9. An initial review of the library indicates that a minimum of 15,000 net square feet of space is available to be repurposed. A more comprehensive study is needed to identify the full extent of available space.
 10. If the Discovery Center is not built, it should be assumed that the innovation program would be smaller.
 11. For any MED programming theme, it would be helpful to know how much of the space is dedicated to office use, regardless of which program category it falls under.
 12. It is generally assumed, but not confirmed, that the Department of Physical Medicine and Rehabilitation will be located in the Rehabilitation Hospital.
 13. In general, it was thought preferable to present the total area allocated to clinical office space in each option, and to avoid prioritizing among departments.
 14. Going forward, it should be assumed that office space allocations will be developed from the progressive model. This should be confirmed with the Steering Committee.
 15. SLAM presented a map slide showing off site space availability. In future presentations, the off site locations should be identified at an earlier point in the presentation. The map may not be appropriate for sharing with a wider audience.
 16. In the rehabilitation hospital synergy scenario, population science and biomedical informatics should both be prioritized over obstetrics and gynecology.
 17. The prioritization of critical clinical adjacencies was seen as based on current and past ways of doing business, and not on future care delivery models and work styles.
 18. It was noted that some functions would not be able to exist at all in an off site location. Those functions need to be accommodated on site or omitted from the program.
 19. Given the challenges of prioritization, it was questioned whether the vision of the new building was too small.
 20. SLAM will model the currently envisioned building on the site to confirm how substantial it appears to be. There is concern that a building of four stories and 190,000 gross square feet will not be large enough to be the centerpiece of the site.
 21. One or two departments could be studied more deeply as test cases, to better understand patterns of use, work habits, etc. This could inform ultimate design decisions about

workplace design and space allocation.

22. The ideal space for office use will be as flexible as possible to adapt to evolving work styles and technologies. Technology should facilitate shared, hoteling work settings that can be immediately personalized for each individual using them.
23. It was noted that the current organization of administrative work has room for improvement.
24. It was noted that any officing solution that is dependent on technology must be carefully planned so that technical problems do not undermine it in the eyes of the users.
25. The time between the present and the initiation of the MED building design process needs to be used to build momentum for change, and to test potential models. The library potentially has the space to be used for prototyping.
26. The final preprogramming report may contain a preferred and a fallback option for the development of the MED building.

Respectfully submitted,

The S / L / A / M Collaborative

Paul D. Rammelsberg AIA, LEED AP
Senior Associate

