



PERKINS+WILL

Master Planning and the Impact on Space: Processes
and Lessons Learned at Stanford School of Medicine
and The University of Tennessee Health Science
Center

August 12, 2015

Webinar

- 1** Stanford University School of Medicine's Space Master Plan
Flexible
- 2** Data Model
Based on faculty projections
- 3** Reporting
Continuous improvement
- 4** Space Master Plan Implementation
Changing



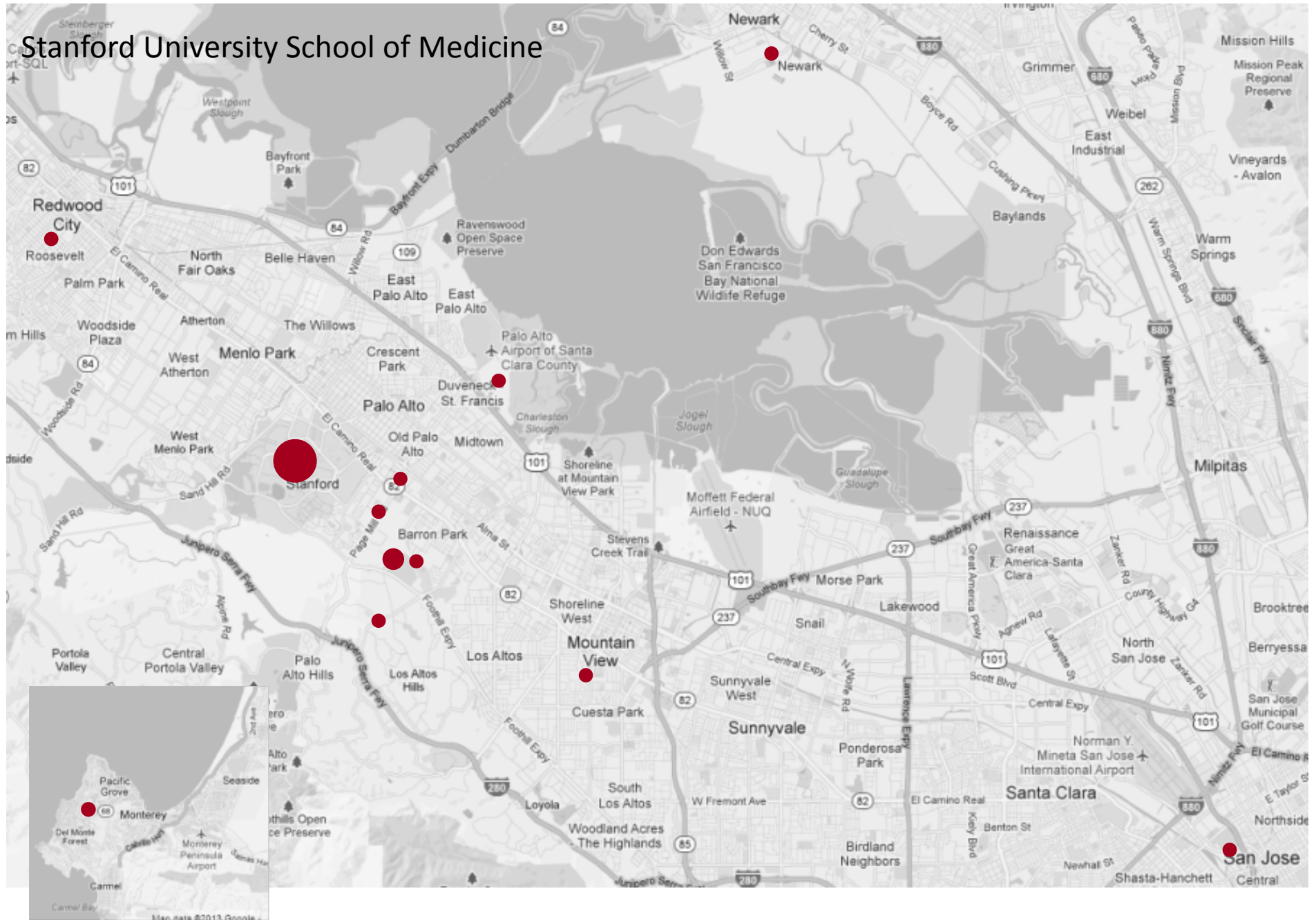
San Francisco

Stanford

San Jose



Stanford University School of Medicine





Flexible Master Plan

- faculty projections
- changing need of space types
- fluctuations in funding
- space restrictions





- # current faculty, staff, students,
- # departing faculty
- # future faculty, staff, and students
- # future faculty based on historic trends
- # faculty by type
- # faculty needing space
- Current buildings
- Current SF
- Current Building type use
- Average sf by faculty type
- SF for additional space types
- Future building use
- Year of new building
- Year of demolitions
- Year lease expirations
- Average cost per building type
- Annual cost escalation rate
- Future buildings per SF



Number of Faculty

x

Space by Phenotype

+

Additional Space

+

New Space Standards

=

Total Space Need



WET BENCH
SCIENTIST

DRY RESEARCH
SCIENTIST

CLINICIAN

LABORATORY
SCIENTIST

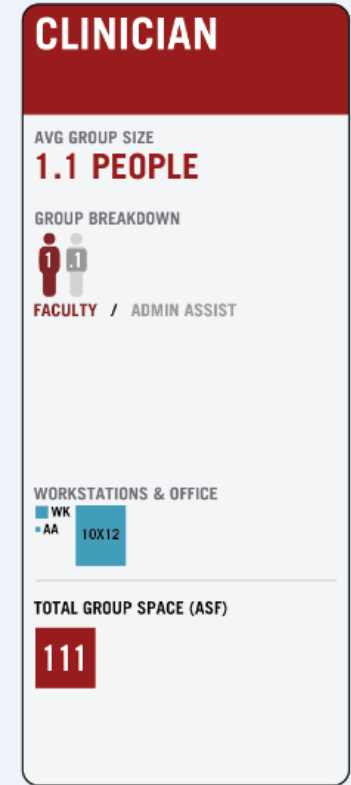
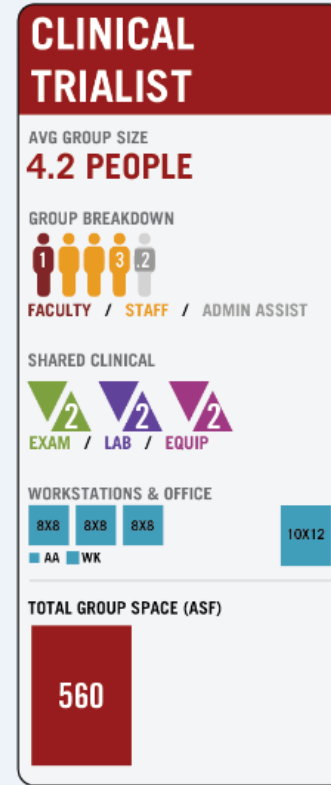
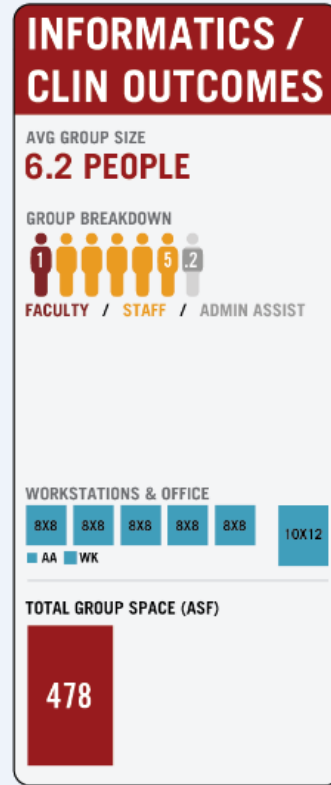
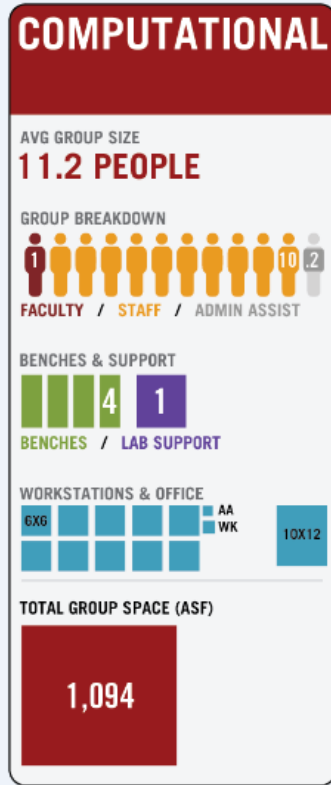
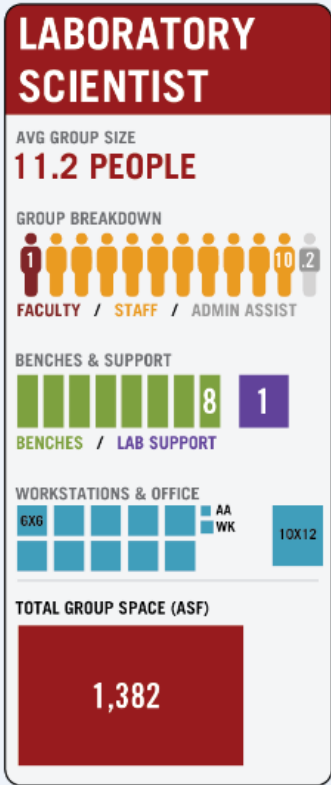
COMPUTATIONAL

INFORMATICS /
CLIN OUTCOMES

CLINICAL
TRIALIST

CLINICIAN

PROPOSED FACULTY PHENOTYPES



ADDITIONAL SPACE ATTRIBUTES

VET SVC, CORES, SERVICE CNTRS

RESEARCH FTE

2013: 5,113
2023: 7,445
2033: 10,960

VET SERVICE CENTER

2023: +76%
2033: +17%

OF RESEARCH FTE DRIVES GROWTH

EDUCATION

MD ENROLLMENT

2013: 461
2023: 536
2033: 611

TOTAL STUDENTS

2013: 3,348
2023: 5,595
2033: 7,910

LIBRARY

2023: +5%
2033: +15%

STUDENTS DRIVE GROWTH

ADMINISTRATION

TOTAL STAFF

2013: 1,137
2023: 1,251
2033: 1,376

BREAKDOWN

70% WORKSTATIONS
30% OFFICES

DEPARTMENT AND CENTRAL ADMINISTRATION

SHARED RESOURCES

HUDDLE SPACE FOR WORKSTATION OCCUPANTS

CONFERENCE ROOMS

INTERACTION

HOTELING

AMENITIES

BE WELL / LIFESTYLE

CAFE / COFFEE SHOP

FITNESS / GYM

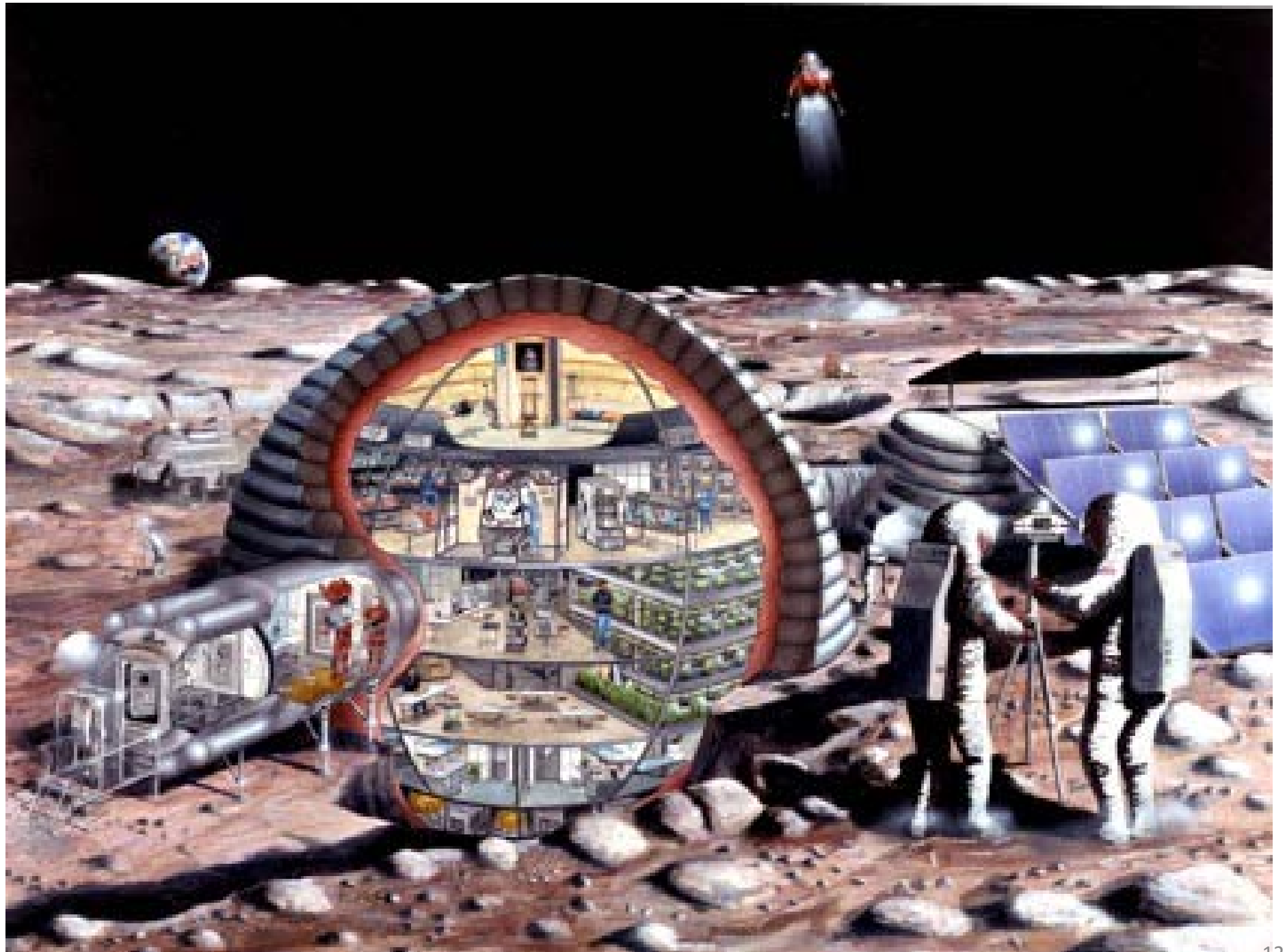
CHILD CARE

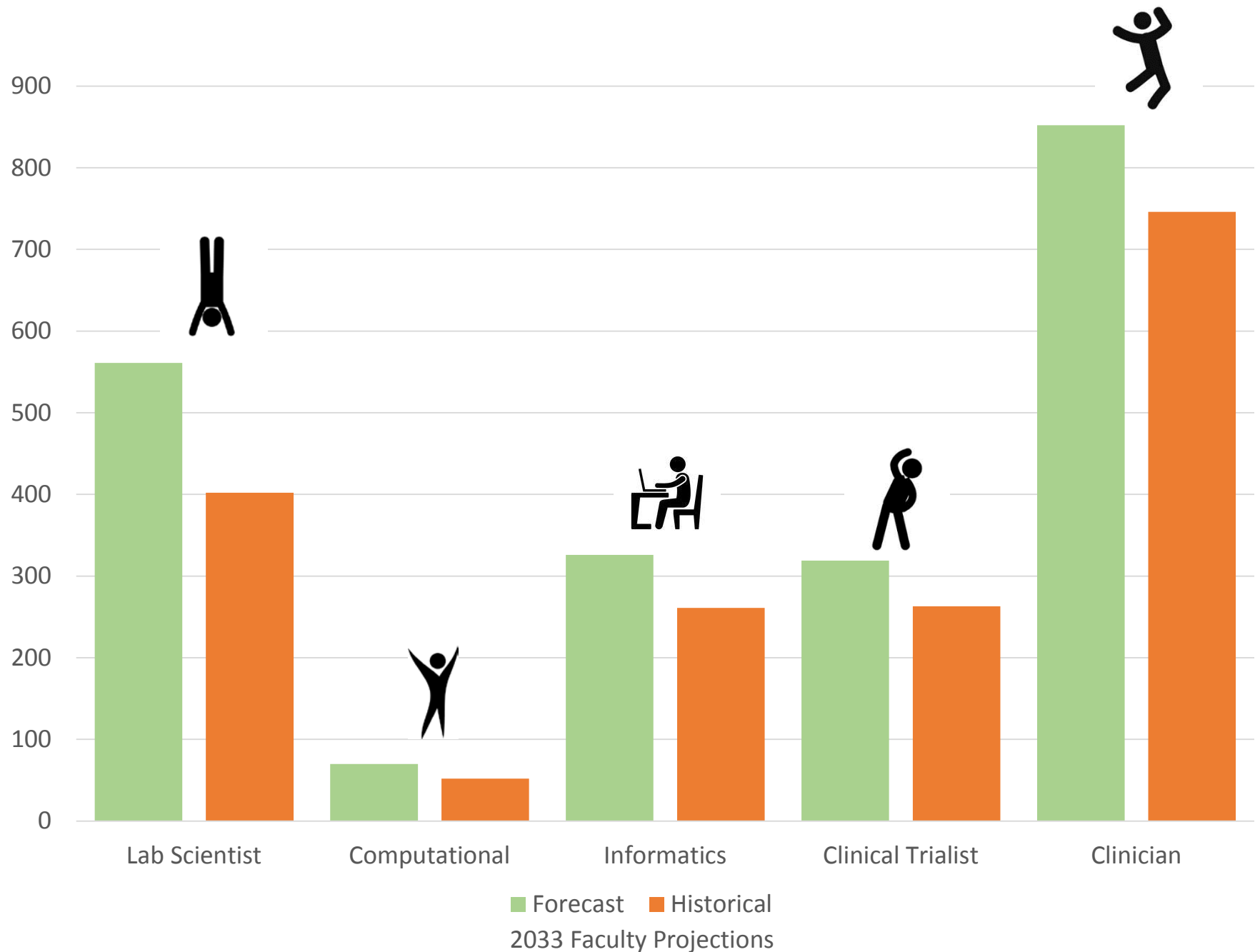
TOTAL PEOPLE

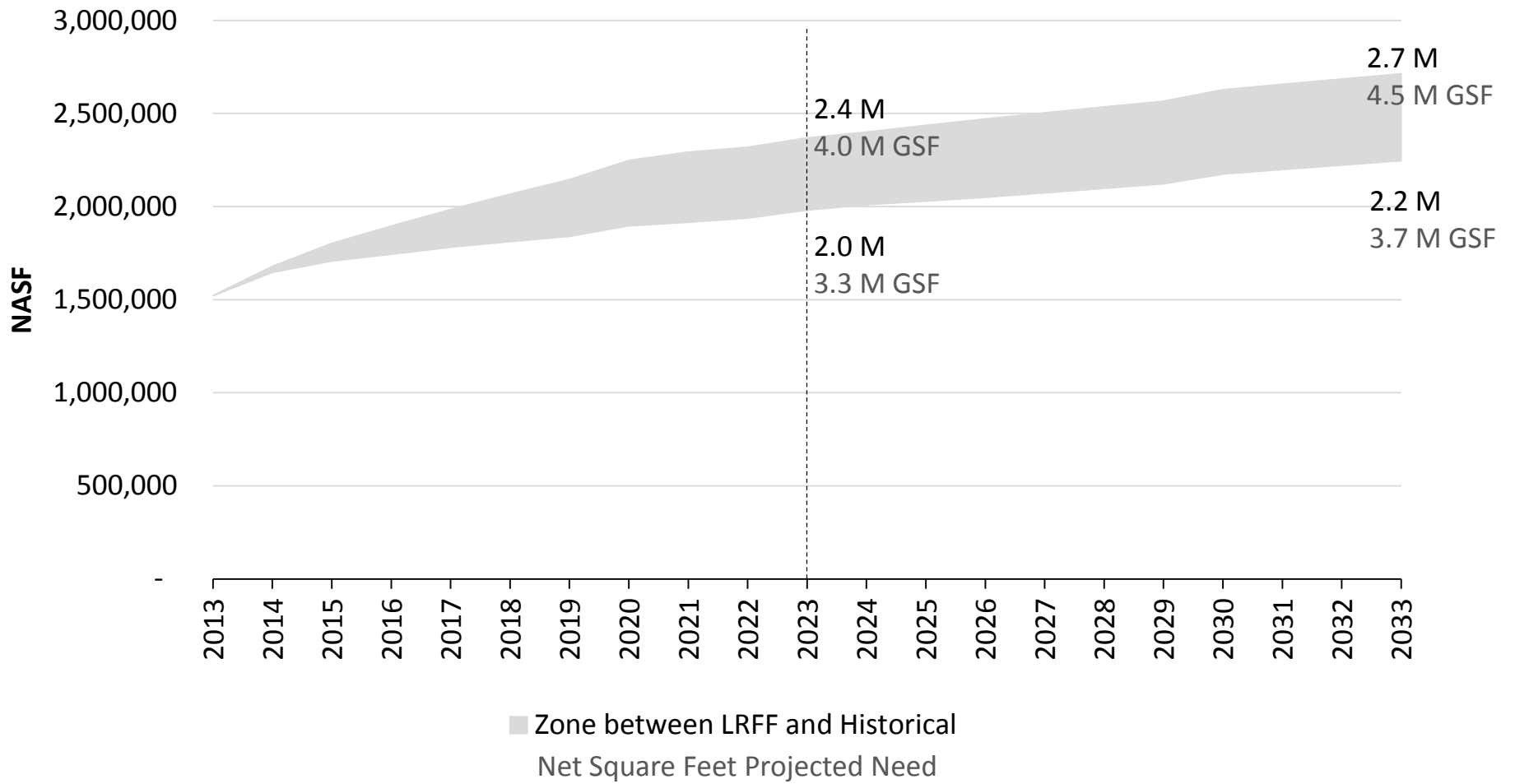
2013: 7,017
2023: 10,432
2033: 14,445

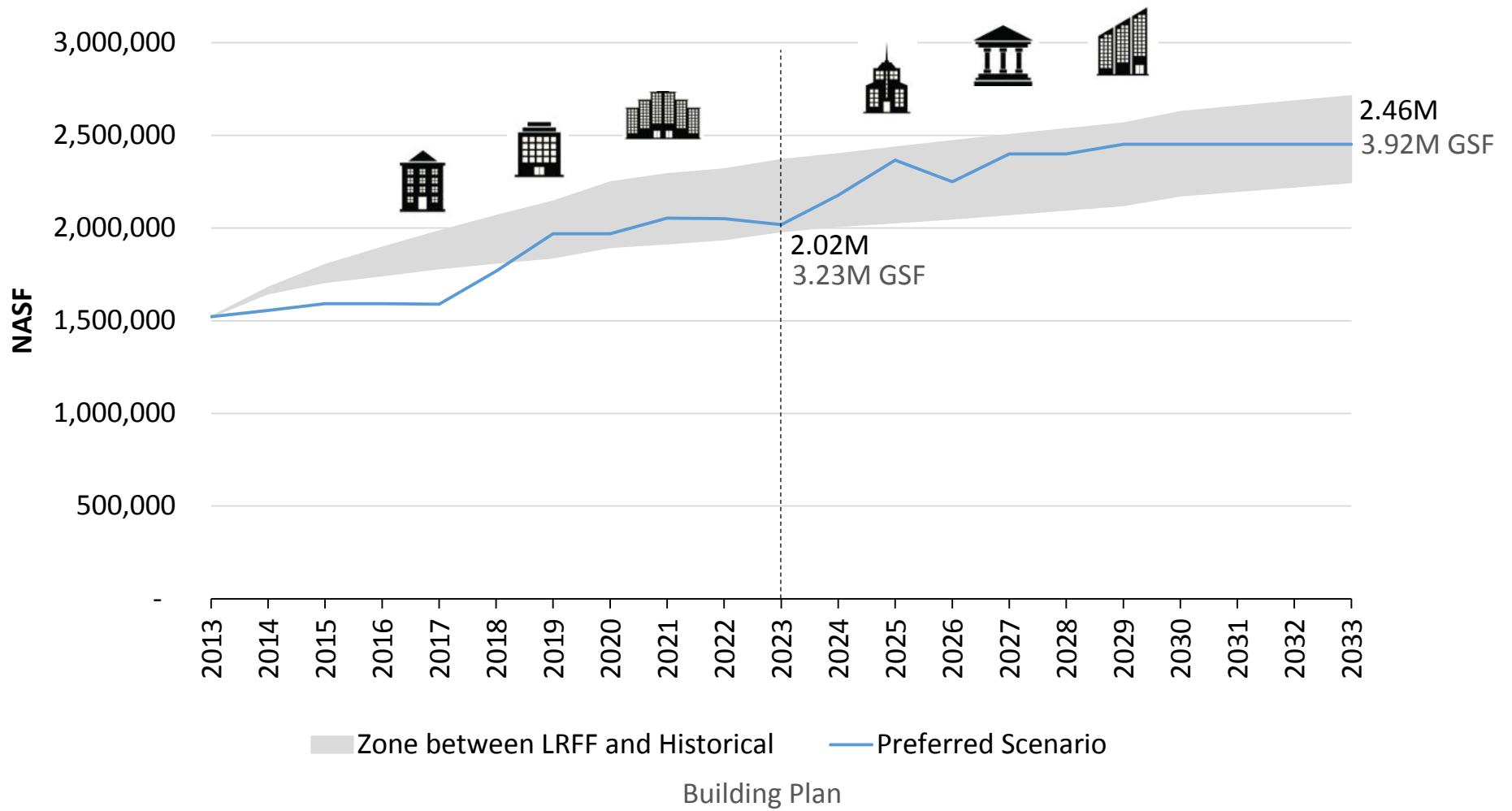
TOTAL # OF PEOPLE DRIVES GROWTH

Don't forget the contingency space

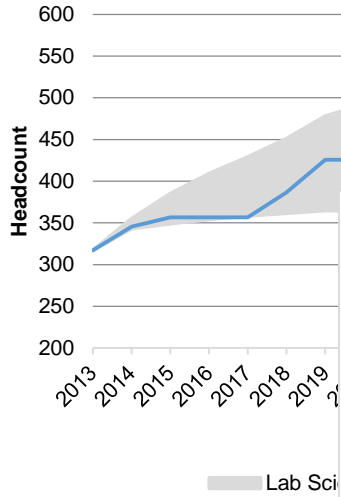




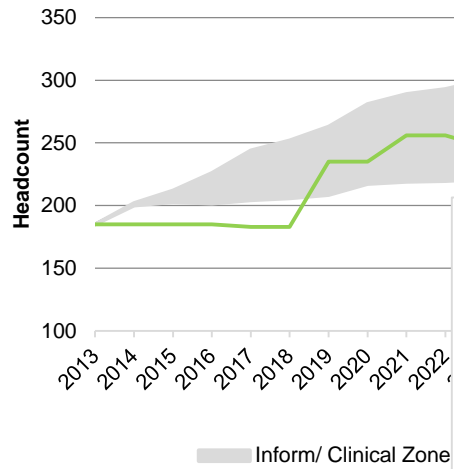




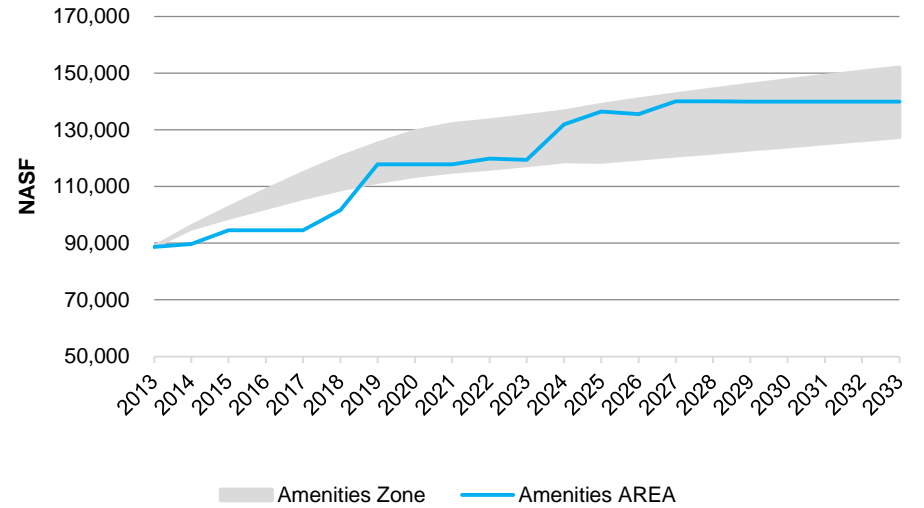
Lab Scientists



Informatics/ Clinical Outcomes



Amenities



CAMPUS



PORTER DRIVE



REDWOOD CITY





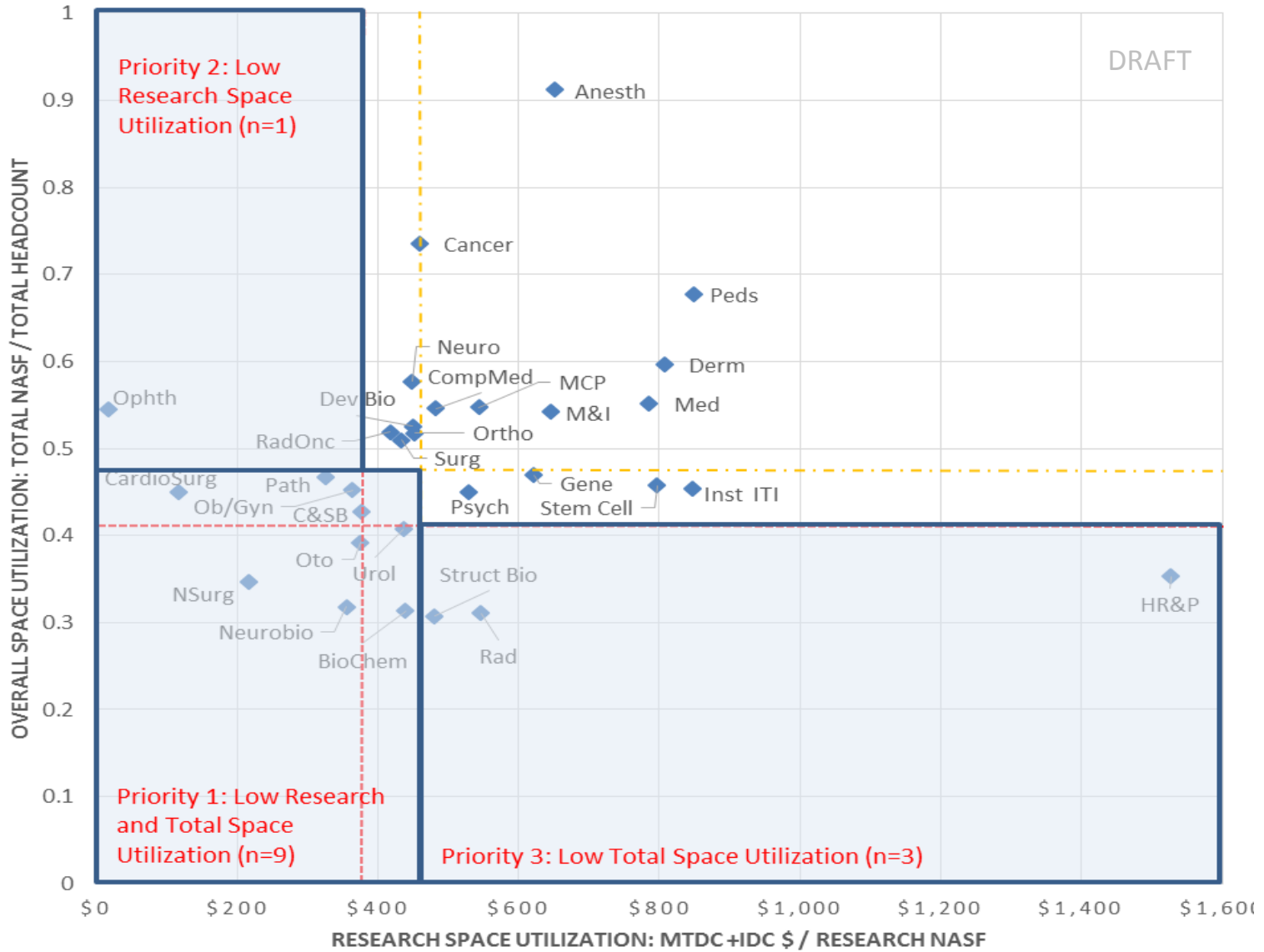
	STAGE 1	GSF	SOM	NASF SOM TOTAL	Pheno (Faculty)	Lab Scientist	Computations	Inform/ Clinical	Clinical Trialist	Clinician	Support (NASF)	Vet Serv, Service Centers, Cores	Administration	Education	Shared Resources	Amenities	Program / Vacancy / Costing / acy	
																		PH
PS	255,000	147,200	70,500	52,075	42,000	10,275	0	0	0	0	10,000	8,400	0	0	2,820	2,820	5,525	
OT	100,000	100,000	100,000	04,000	0	0	0	0	55,700	24,300	24,000	0	0	0	0	0	0	5,400
S2	100,000	100,000	100,000	04,000	58,320	0	0	0	0	0	32,000	15,400	0	0	5,400	5,240	5,240	00,000
S10	100,000	140,000	04,000	30,000	35,200	5,400	10,000	0	0	0	25,200	12,500	7,500	2,520	2,520	0	0	0,000
200W/Lab	24,070	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL SPACE GAIN ON-CAMPUS	079,070	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SHERMAN FAIRBANK	PHENOTYPES (FACULTY COUNT)					SUPPORT (NASF)					OTHER (NASF)		PHENOTYPES (FACULTY COUNT)					SUPPORT (NASF)	
	Lab Scientist AREA	Computational AREA	Inform/Clinical AREA	Clinical Trialist AREA	Clinician AREA	Vet Serv, Service Center, Cores AREA	Administration AREA	Education AREA	Shared Resource AREA	Amenities AREA	Other Program/ Vacancy AREA	Other Program/ Vacancy AREA	Lab Scientist LRF	Computational LRF	Inform/Clinical LRF	Clinical Trialist LRF	Clinician LRF	Vet Serv, Service Center, Cores LRF	Education LRF
2013	317	51	105	177	497	144,379	131,470	92,105	162,212	88,704	213,146	1,521,583	317	51	105	177	497	144,379	92,1
2014	346	51	105	177	532	146,044	135,642	92,105	167,140	89,730	193,146	1,555,762	355	53	202	193	500	150,156	93,
2015	387	59	105	177	532	151,044	134,705	92,105	172,005	94,515	190,146	1,591,917	385	53	212	213	626	177,069	94,
2016	387	59	105	177	531	151,044	134,093	92,105	172,515	94,515	190,146	1,589,476	409	55	226	229	669	179,261	95,
2017	387	50	103	175	531	151,044	134,093	92,105	172,515	94,515	190,146	1,589,476	429	57	244	247	700	181,113	97,

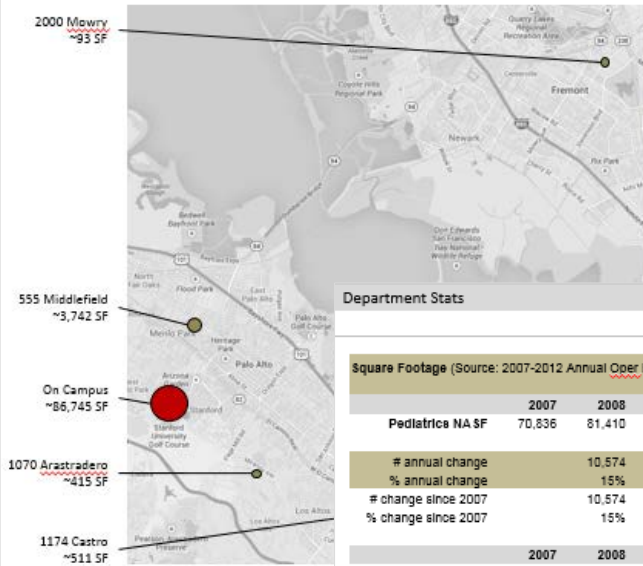
2013 or Future	Departure (not replace)	Headcount	Academic Line	Adjusted Academic Line	Rank	Prime	Pheno	Division	Wet Bench Research	RESEARCH: Research Program	Research Keyword(s)	Affinity
2013		1	CE	CE	Clin Professor	Clinician	Acupuncture		No	None.		Neurosciences
2014		1	CE	CE	Clinical Instructor	Clinician	Cardiac		No	None.		Cardiovascular
2015		1	CE	CE	Clinical Instructor	Clinician	Cardiac		No	None.		Cardiovascular
2015		1	MCL	MC	Professor	Laboratory Scientist	Cardiac		Yes	TBD		Cardiovascular
2017		1	MCL	MC	Asst P	Laboratory Scientist	Cardiac		Yes	TBD		Cardiovascular
2017		1	CE	CE	Clinical Instructor	Clinician	Cardiac		No	None.		Cardiovascular
2018		1	CE	CE	Clinical Instructor	Clinician	Cardiac		No	None.		Cardiovascular
2019		1	MCL	MC	Assoc P	Laboratory Scientist	Cardiac		Yes	TBD		Cardiovascular
2021		1	MCL	MC	Assoc P	Laboratory Scientist	Cardiac		Yes	TBD		Cardiovascular
2023		1	MCL	MC	Professor	Laboratory Scientist	Cardiac		Yes	TBD		Cardiovascular
2013		1	CE	CE	Clin Asst P	Clinician	Cardiac		No	None.		Cardiovascular
2013		1	CE	CE	Clin Asst P	Clinician	Cardiac		No	None.		Cardiovascular
2013		1	CE	CE	Clin Asst P	Clinician	Cardiac		No	None.		Cardiovascular
2013		1	CE	CE	Clin Asst P	Clinician	Cardiac		No	None.		Cardiovascular
2013		1	CE	CE	Clin Asst P	Clinician	Cardiac		No	None.		Cardiovascular
2013		1	CE	CE	Clin Asst P	Laboratory Scientist	Cardiac		Yes	Physiology		Cardiovascular
2013		1	CE	CE	Clin Asst P	Clinician	Cardiac		No	None.		Cardiovascular
2013		1	CE	CE	Clin Asst P	Clinician	Cardiac		No	None.		Cardiovascular
2013		1	MCL	MC	Professor	Informatics / Clinical Trialist	Cardiac		No	Anesthesia		Cardiovascular
2013		1	MCL	MC	Professor	Clinical Trialist	Cardiac		No	Anesthesia		Cardiovascular
2014		1	CE	CE	Clin Instructor	Clinician	General OR (Multispecialty Division)		No	None		General Medicine/General
2014		1	CE	CE	Clin Instructor	Clinician	General OR (Multispecialty Division)		No	None		General Medicine/General
2014		1	CE	CE	Clin Instructor	Clinician	General OR (Multispecialty Division)		No	None		General Medicine/General
2014		1	CE	CE	Clin Instructor	Clinician	General OR (Multispecialty Division)		No	None		General Medicine/General
2014		1	CE	CE	Clin Instructor	Clinician	General OR (Multispecialty Division)		No	None		General Medicine/General
2014		1	CE	CE	Clin Instructor	Clinician	General OR (Multispecialty Division)		No	None		General Medicine/General

DEPARTMENT SPACE UTILIZATION METRICS

CV Inst

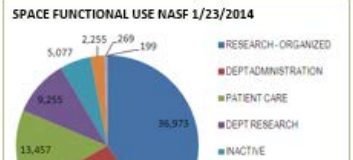


OVERVIEW



Space data 1/23/2014

On Campus	86,745
Off Campus	4,761
Total NA square feet	91,506

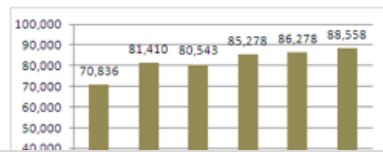


Department Stats

Square Footage (Source: 2007-2012 Annual Oper Budgets)

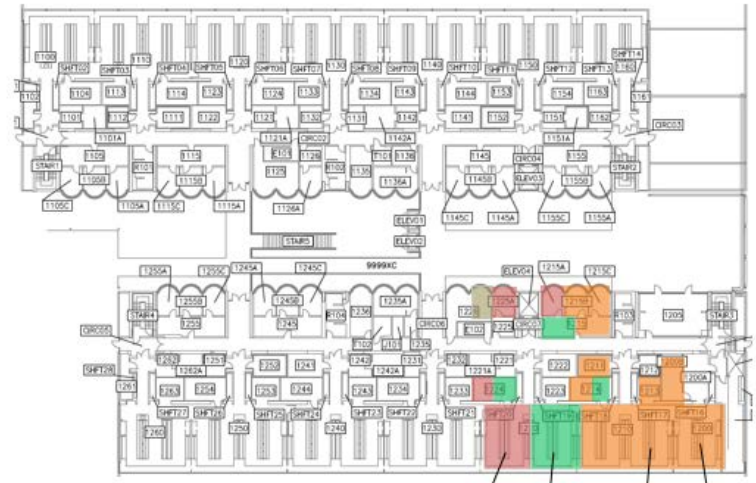
	2007	2008	2009	2010	2011	2012
Pediatrics NA SF	70,836	81,410	80,543	85,278	86,278	88,558
# annual change		10,574	-867	4,735	1,000	2,280
% annual change		15%	-1%	6%	1%	3%
# change since 2007		10,574	9,707	14,442	15,442	17,722
% change since 2007		15%	14%	20%	22%	

	2007	2008	2009	2010	2011
Space Cost Recovery	-287,040	-249,681	-634,466	-178,566	303,919



CCSR - Floor 1

- Peds/Hem Onc
- Peds/Neo
- Peds/Ops
- Peds/Wall



RABINOVICH	BLAND	NARLA	SAKAMOTO
# BENCHES	# BENCHES	# BENCHES	# BENCHES
RECOV \$xk	RECOV \$xk	RECOV \$xk	RECOV \$xk

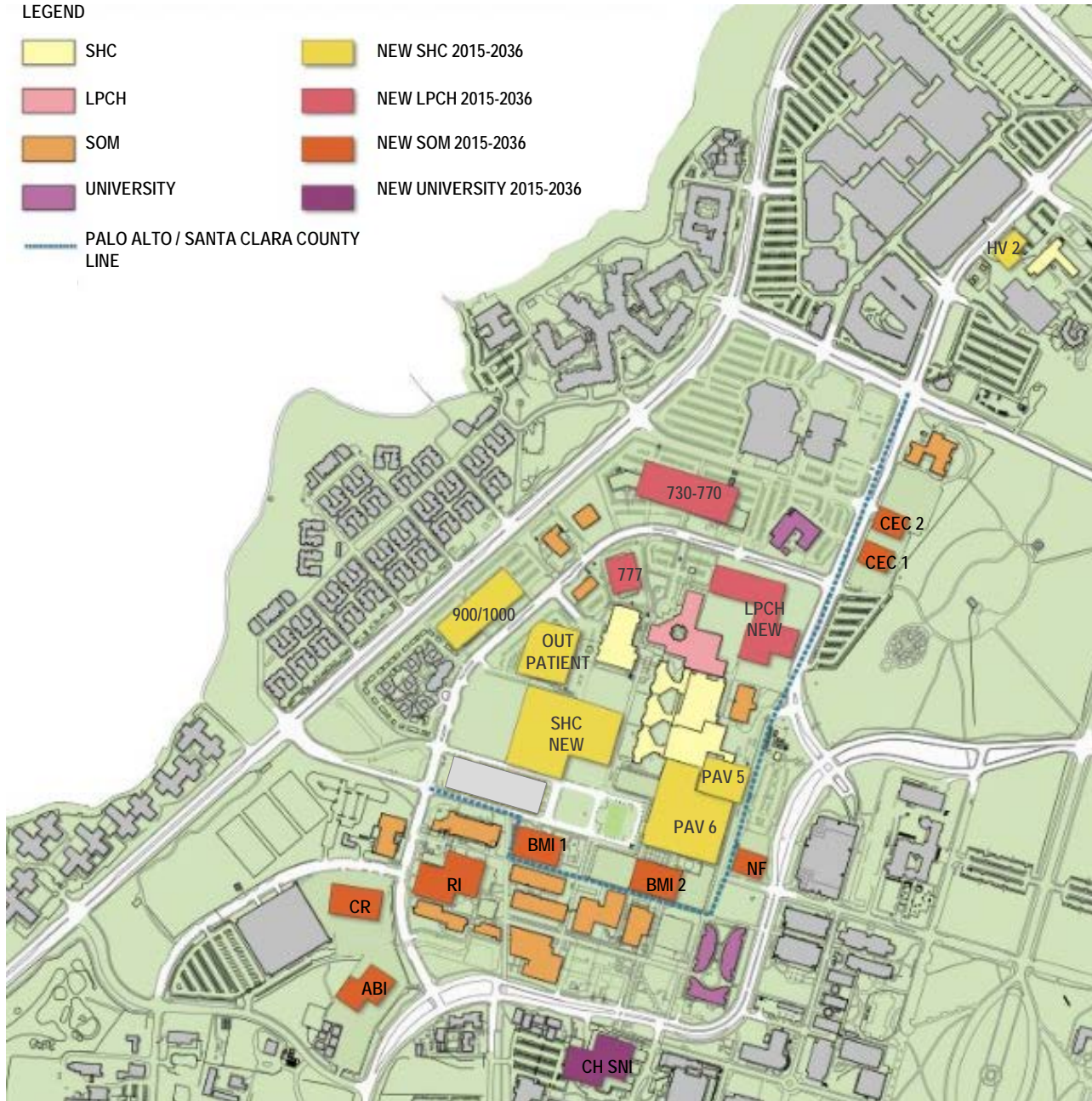
Headcount

(Source: 2007-2011 Stanford SoM 2012 Profile, 2012-2013 Academic Profile)

	2007	2008	2009
# Faculty	88	88	
# Clinician Educators	112	108	
Total # Faculty and CE	200	196	
# annual change		-4	
% annual change		-2%	
# change since 2007		-4	
% change since 2007		-2%	

LEGEND

 SHC	 NEW SHC 2015-2036
 LPCH	 NEW LPCH 2015-2036
 SOM	 NEW SOM 2015-2036
 UNIVERSITY	 NEW UNIVERSITY 2015-2036
 PALO ALTO / SANTA CLARA COUNTY LINE	



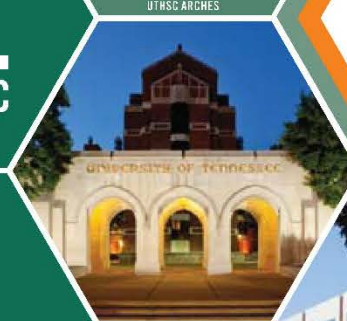


- 1** Stanford University School of Medicine's Space Master Plan
Flexible
- 2** Data Model
Based on faculty projections
- 3** Reporting
Continuous improvement
- 4** Space Master Plan Implementation
Changing



INCIDENTAL **2** INTENTIONAL

MOVING FROM AN INCIDENTAL CAMPUS TO AN INTENTIONAL CAMPUS FOR UTHSC



UTHSC ARCHES

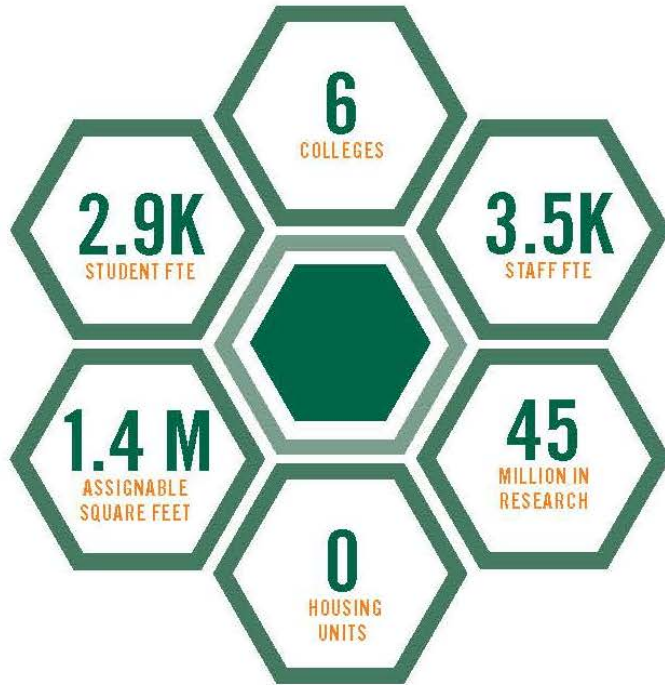


TRANSLATIONAL SCIENCE CENTER



SIM CENTER

GOALS AND OBJECTIVES



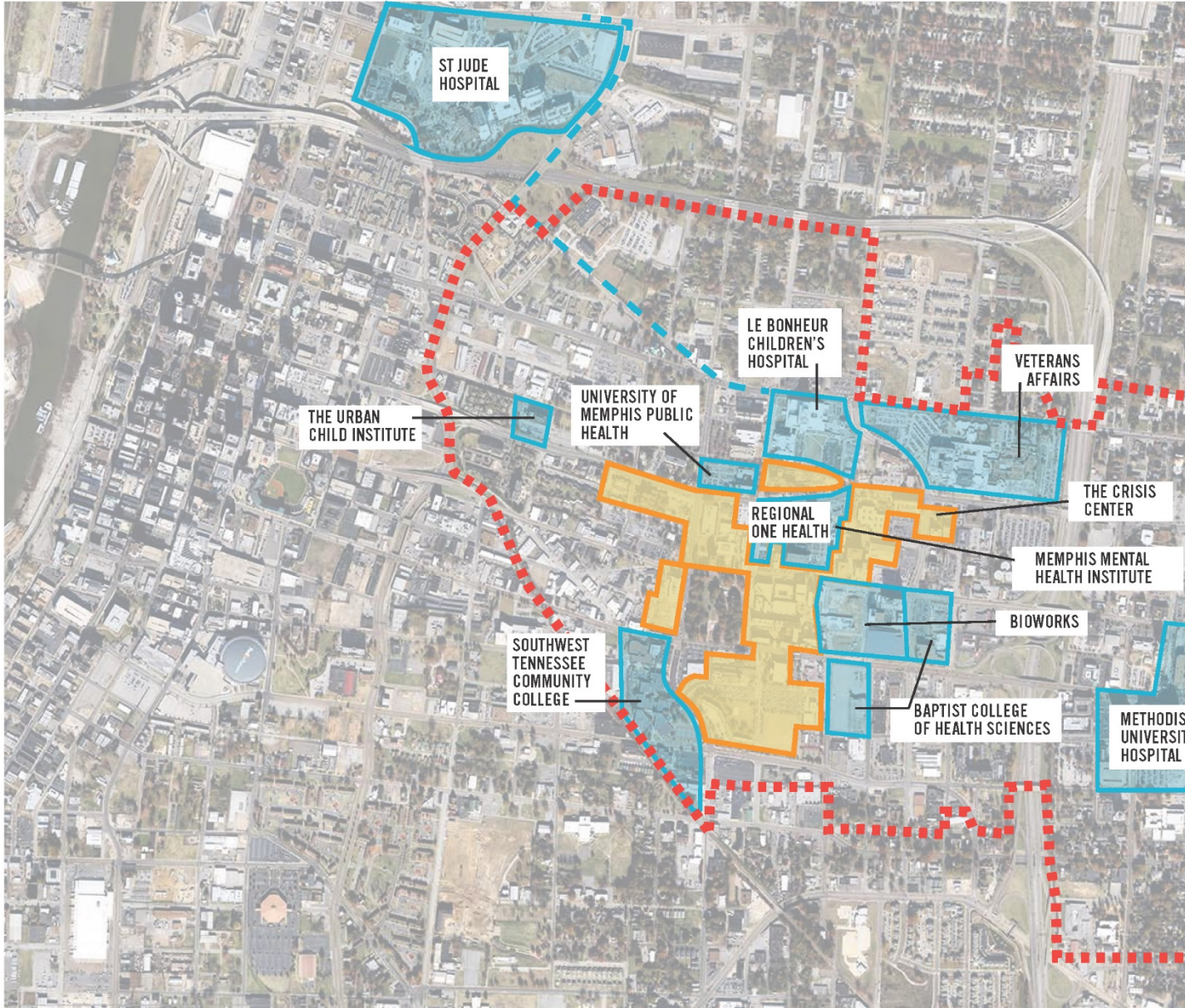
Existing Challenges:

- Aging and vacant buildings
- Poor student and staff experience
- Program and adjacency demands
- New Strategic Plan / SACSCOC Accreditation

Desired Outcomes:

- Coordinated on-going improvements
- Guidance for state-of-the-art facilities
- Engaged City, District, and private partners
- Integrated development framework

PARTNERS



LEGEND

- UTHSC
- PARTNERS
- MEDICAL DISTRICT
- MEDICAL DISTRICT

Professional Degree Program Sites:

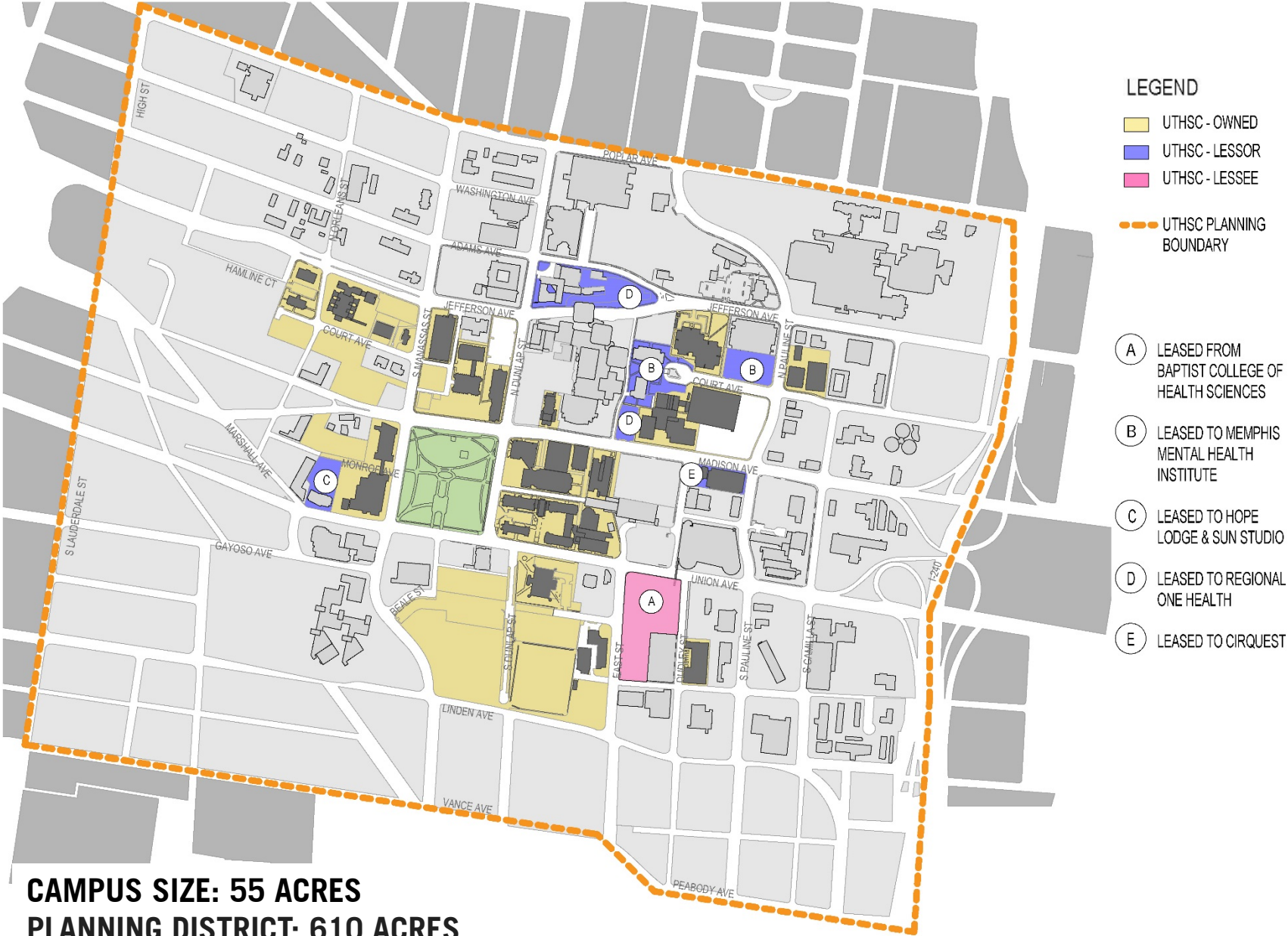
- Memphis
- Knoxville
- Chattanooga
- Nashville

Post Graduate Program Sites:

- 50 in Memphis
- 15 in Knoxville
- 10 in Chattanooga
- 1 in Nashville
- 1 Jackson

CEC throughout state

BOUNDARIES+ LAND OWNERSHIP



CAMPUS SIZE: 55 ACRES
PLANNING DISTRICT: 610 ACRES

CONTEXT



→ PROPOSED CAMPUS DEVELOPMENT

PROCESS AND TOOLS

Request for Information

Projection Matrices

- Student Enrollment
- Faculty and Staff
- Research Expenditures
- Patient Visits

State / National Standards

Dashboards

Facility Assessment

Revit Model

Vison Plan

UNIVERSITY OF TENNESSEE HEALTH SCIENCE CENTER			
Request for Information - Tracking			
Topic/Item #	Topic/Item Name	Date Received	Link to Location of Information (nternal P+W and external Web)
1	Institutional mission and vision		
Outstanding items in PURPLE	Information/Data Requested: all information should be Fall Semester 2013		
1.1	Strategic Planning		http://www.uthsc.edu/aboututhsc/UTHSC_StrategicPlan_Summary
	Academic Plan	11/19/2013	P:\Minneapolis\051482.001-UTHSC Campus Master Plan\DOCS\02_MP_Background Information\1.0 Institutional Plan\DOCS\02_MP_Background Information\1.0 Institutional Mission and Vision\1.1 STRATEGIC PLAN
	Research Plan	11/19/2013	P:\Minneapolis\051482.001-UTHSC Campus Master Plan\DOCS\02_MP_Background Information\1.0 Institutional Mission and Vision\1.1 STRATEGIC PLAN
	ITS Plan	11/19/2013	P:\Minneapolis\051482.001-UTHSC Campus Master Plan\DOCS\02_MP_Background Information\1.0 Institutional Mission and Vision\1.1 STRATEGIC PLAN
	Adminstrative Plan		1.0 Institutional Mission and Vision\1.1 STRATEGIC PLAN\Human Resources Assessment Plan Report Fall 2013.docx
	Clinical Services Plan		None available
	Sustainability Plan		1.0 Institutional Mission and Vision\1.1 STRATEGIC PLAN\Energy Management Assessment Plan Fall 2013.docx
	Video archives of the chancellor's town hall meetings	11/19/2013	http://www.uthsc.edu/chancellor/messages/
1.2	Mission, Vision and Values Statements	11/19/2013	P:\Minneapolis\051482.001-UTHSC Campus Master Plan\DOCS\02_MP_Background Information\1.0 Institutional Mission and Vision\1.2 MISSION VISION
			http://www.uthsc.edu/aboututhsc/utmision.php
1.3	Accreditation Self-Study and Reports		1.0 Institutional Mission and Vision\1.1 STRATEGIC PLAN\DRAFT Physical Resources 2-11-2 SACS Application 01-17-14.pdf
1.4A	Class schedule		1.0 Institutional Mission and Vision\1.4A CLASS SCHEDULE
1.4B	Class enrollment & projection matrix	11/19/2013	\\perkinswill.net\Projects\Minneapolis\051482.001-UTHSC Campus Master Plan\DOCS\02_MP_Background Information\1.0 Institutional Mission and Vision\1.4B CLASS ENROLLEMENT & PROJECTIONS MATRIX
1.4C	Current and Projected Faculty & staff count matrix	11/19/2013	1.0 Institutional Mission and Vision\1.4C CURRENT & PROJECTED FACULTY & STAFF MATRIX
1.5	Total student credit hours (by college if possible)		
1.6	Inventory of all degree programs	11/19/2013	P:\Minneapolis\051482.001-UTHSC Campus Master Plan\DOCS\02_MP_Background Information\1.0 Institutional Mission and Vision\1.6 INVENTORY OF ALL DEGREE PROGRAMS
1.7A	Future Colleges?	11/19/2013	Non due to SACS

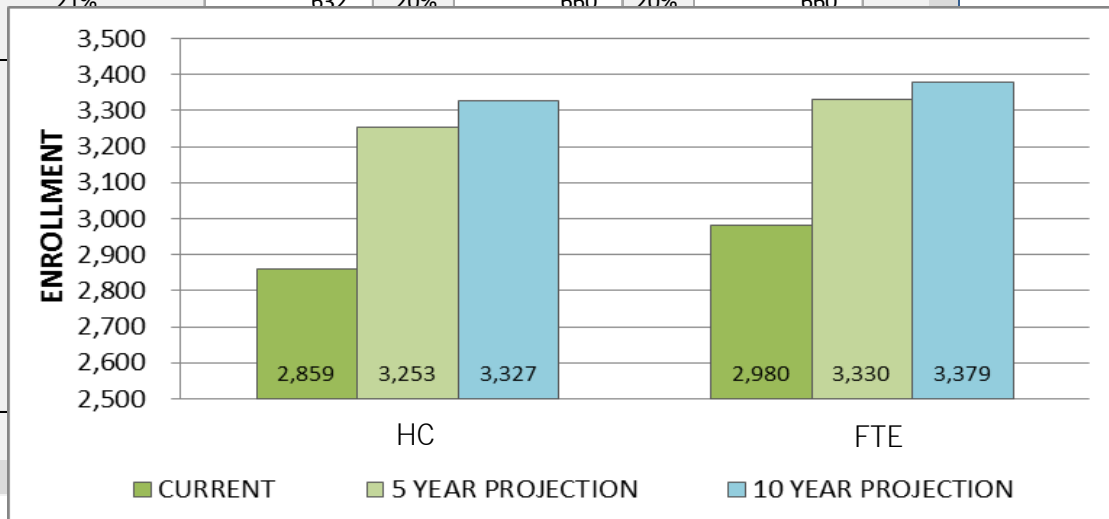
ENROLLMENT ASSUMPTIONS

Enrollment-Memphis Campus

Overall Medical Education Enrollment

Percent of overall pop.

			CURRENT	5 YEAR PROJECTION	10 YEAR PROJECTION
HC	College of Allied Health Sciences	17%	506	17%	566
	College of Dentistry	14%	425	15%	488
	College of Graduate Health Sciences	9%	270	9%	351
	College of Medicine	22%	664	20%	660
	College of Nursing	12%	362	17%	602
	College of Pharmacy	21%	632	20%	660
	Distance Learner (DL)		531		763
Total (excl DL)			2,859	3,253	3,327
FTE	College of Allied Health Sciences	22%	641	21%	704
	College of Dentistry	14%	412	14%	472
	College of Graduate Health Sciences	8%	225	8%	300
	College of Medicine	22%	664	20%	660
	College of Nursing	14%	407	17%	583
	College of Pharmacy	21%	632	20%	660
	Distance Learner (DL)				
Total (excl DL)			2,980	3,330	3,379
FTS	College of Allied Health Sciences (red box indicates use of FTS vs. FTE)				
	College of Dentistry				
	College of Graduate Health Sciences				
	College of Medicine				
	College of Nursing (red box indicates use of FTS vs. FTE)				
	College of Pharmacy				
	Distance Learner (DL)				
Total (excl DL)			2,859	3,253	3,327



FACULTY AND STAFF ASSUMPTIONS



UNIVERSITY OF TENNESSEE HEALTH SCIENCE CENTER FACULTY AND STAFF PROJECTIONS

please provide current and projected head counts and full time equivalents for both faculty and staff
please confirm the faculty and staff titles/ assignments

Note: fill in highlighted cells only- grey cells calculate automatically from highlighted cell inputs

	CURRENT (as of 11-01-2013)		5 YEAR PROJECTION		10 YEAR PROJECTION	
	Headcount	FTE	Headcount	FTE	Headcount	FTE
Overall Memphis Campus Staffing Total						
Administrative Faculty and Staff	1,118	883	1,210	985	1,246	1,023
Academic Faculty and Staff	4,655	2,700	5,342	3,129	5,890	3,442
Total Administrative & Academic Faculty and Staff	5,773	3,583	6,552	4,114	7,136	4,465

College of Allied Health Sciences							
Academic Faculty and Staff		164	96	217	173	253	199
Dean		1	1	1	1	1	1
Assoc. Dean, Dept. Chairs		9	9	8	8	9	9
Faculty -Professor, Assoc, Asst, Instr		40	35	101	80	128	97
Tenured/ Tenure Track		26	25				
Not on Tenure Track		14	9				
Professional Staff		49	4				
Clerical		10	10				
Staff, Technician		1	1				
GTA (Headcount)		0	0				
GRA (Headcount)		0	0				
Med Intern/Resident/Fellow/Train/Post Doc		0	0				
Student Clerical		0	0				
Other: Friends of UT, Visiting Scholars		54	36				

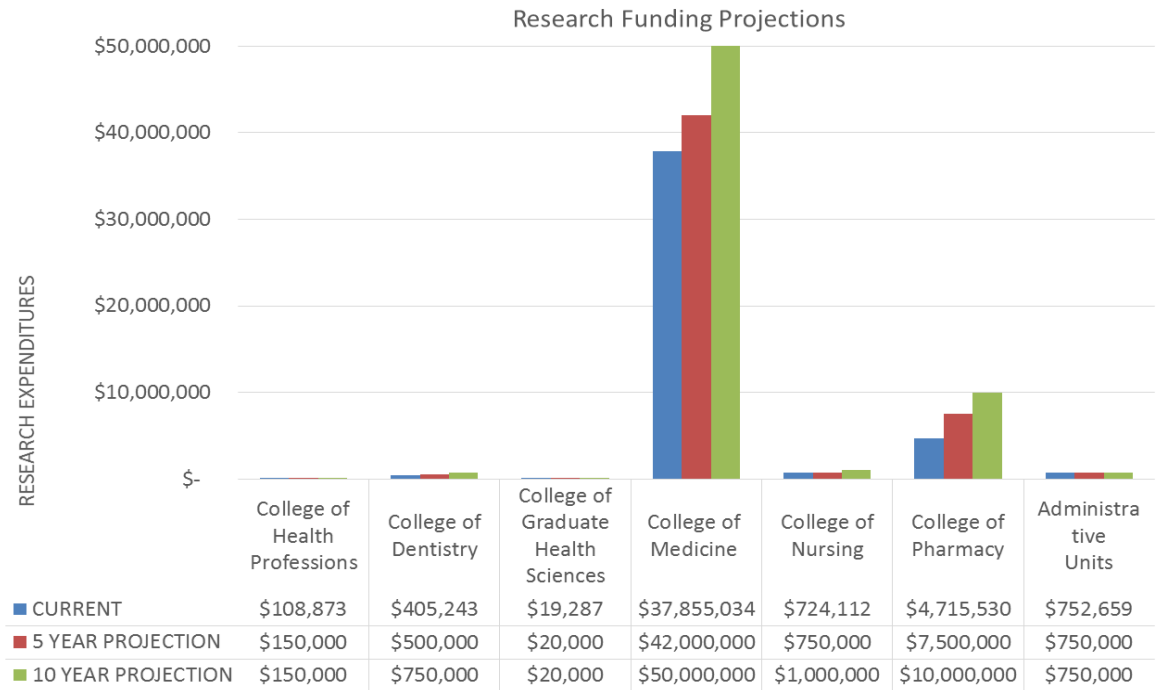
College of Dentistry							
Academic Faculty and Staff		431	282				
Dean		1	1				
Assoc. Dean, Dept. Chair		11	11				
Faculty -Professor, Assoc, Asst, Instr		142	84				
Tenured/ Tenure Track		41	40				
Not on Tenure Track		101	45				
Professional Staff		21	18				
Clerical		54	54				
Staff, Technician		40	40				
GTA (Headcount)		12	2				
GRA (Headcount)		0	0				
Med Intern/Resident/Fellow/Train/Post Doc		12	12				
Student Clerical		55	17				
Other: Friends of UT, Visiting Scholars		83	42				

College of Graduate Health Sciences							
Academic Faculty and Staff		36	16				
Dean		1	1				
Assoc. Dean, Dept. Chair		6	5				
Faculty -Professor, Assoc, Asst, Instr		0	0				

Staffing-Memphis Campus		CURRENT	5 YEAR PROJECTION	10 YEAR PROJECTION
FTE	Academic Faculty & Staff	2,700	3,129	3,442
	Deans	6	6	6
	Assoc. Dean, Dept. Chairs	59	71	75
	Faculty-	747	974	1,135
	Tenured/ Tenure Track	394	474	514
	Not on Tenure Track	353	500	621
	Professional Staff	300	342	374
	Clerical	219	256	289
	Staff, Technician	144	176	201
	GTA (Headcount)	3	4	4
	GRA (Headcount)	35	38	41
	Med Intern/Resident/Fellow/Train/Post Doc	819	865	909
	Student Clerical	61	63	64
	Other: Auditor, etc.	307	333	345
	Administrative Faculty and Staff	883	985	1023
	Chancellor	1	1	1
	Vice Chancellors	6	5	5
	Associate Asst. Vice Chancellors	10	10	10
	Professional Staff	245	317	329
	Clerical	127	134	138
	Staff, Technician	289	313	335
	Student Clerical	171	168	168
	Med Intern/Resident/Fellow/Train/Post Doc	2	2	2
	Other: Auditor, etc.	0	0	0
	Auxiliary Staff	32	35	35
	Total	3,583	4,114	4,465

RESEARCH ASSUMPTIONS

	CURRENT	5 YEAR PROJECTION	10 YEAR PROJECTION
Overall Health Science			
Research Principal Investigators	146	165	185
PI/ Staff Ratio	n/a	n/a	n/a
Research Expenditures	44,580,738	51,670,000	62,670,000
College of Allied Health Sciences			
Research Principal Investigators	5	5	5
PI/ Staff Ratio	n/a		
Research Expenditures	\$ 108,873.00	\$	
College of Dentistry			
Research Principal Investigators	4		
PI/ Staff Ratio	n/a		
Research Expenditures	\$ 405,243.00	\$	
College of Graduate Health Sciences			
Research Principal Investigators	0		
PI/ Staff Ratio	n/a		
Research Expenditures	\$ 19,287.00	\$	
College of Medicine (excluding Knoxville and Chattanooga)			
Research Principal Investigators	101		
PI/ Staff Ratio	n/a		
Research Expenditures	\$ 37,855,034.00	\$	
College of Nursing			
Research Principal Investigators	6		
PI/ Staff Ratio	n/a		
Research Expenditures	\$ 724,112.00	\$	
College of Pharmacy			
Research Principal Investigators	25		
PI/ Staff Ratio	n/a		
Research Expenditures	\$ 4,715,530.00	\$	
Other/ New College - Administrative Units			
Research Principal Investigators	5		
PI/ Staff Ratio	n/a		
Research Expenditures	\$ 752,659.00	\$ 750,000.00	\$ 750,000.00
Total By Intensity			
Space use intensity: A- PI Count	0	0	0
Space use intensity: A- \$ Count	0	0	0
Space use intensity: B- PI Count	135	150	170
Space use intensity: B- \$ Count	43,103,967	50,170,000	60,920,000
Space use intensity: C- PI Count	6	10	10
Space use intensity: C- \$ Count	724,112	750,000	1,000,000
Space use intensity: D- PI Count	5	5	5
Space use intensity: D- \$ Count	752,659	750,000	750,000
Total PI Count	146	165	185
Total \$ Count	44,580,738	51,670,000	62,670,000



CLINICAL SPACE ASSUMPTIONS

- Flexibility needed for varied activities, operational models, patients and practices
- Clinic modules: 9,000 sf / 12-15 patient encounter spaces
- Clinic neighborhoods: groups located with key diagnostics are more efficient than individual clinics
- Highly specialized clinics require unique equipment: e.g. Dental, Ophthalmology follow their own rules-of-thumb

CLINICAL – SIZING

COLLEGE OF DENTISTRY

	CHAIRS			NEW SPACE	
	Student	Faculty	Total	DGSF	BGSF
Existing 2013	264	8	272		
Projected 2023	330	12	342		
New			70	35,000	47,250

HAMILTON EYE INSTITUTE

	Visits (Cases)	Key Rooms	Utilization
Clinics			
Existing 2013	18,074	35	13%
Projected 2023	19,927	11	45%
Surgery			
Existing 2013	3,200	4	32%
Projected 2023	3,528	3.1	45%

UNIVERSITY HEALTH SERVICES

	Visits	Exam Rooms	Current Expansion
Existing 2013	21,038	9	
Projected 2023	22,658	11	19

UNIVERSITY THERAPISTS

	Visits	NSF
Existing 2013	522	1,700
Projected 2023	565	3,500

DASHBOARDS

110 - classroom	CURRENT	GUIDELINE	PROPOSED NEW PROJECTS	5 YEAR PROJECTION	POTENTIAL DEMO AT REDEV. SITES	10 YEAR PROJECTION
Total or Guideline ASF	95,355	37,014		41,357		41,967
Owned ASF <i>(input as [+])</i>	95,355					
Owned-Institutional Use ASF <i>(input as [+ or -])</i>	93,280		0	0	0	0
Owned-Leased/Shared out ASF <i>(input as [+ or -])</i>	0		0	0	0	0
Owned-Vacant ASF <i>(input as [+ or -])</i>	2,075		0	0	0	0
Leased ASF <i>(input as [+ or -])</i>			0	0	0	0
New Construction ASF <i>(input as [+])</i>			3,051	0	74,859	0
Demolition ASF <i>(input as [-])</i>			(3,736)	0	(25,544)	0
Reassigned ASF <i>(input as [+ or -])</i>	0		0	0	0	0
Surplus / Deficit ASF		58,341	(685)	53,314	94,671	52,703

* all areas include service space (FICM #5)

space guidelines		Space Variables	
Space Standard Used	ASF per FTE	Goal WRU (hr)	40.0
<ul style="list-style-type: none"> CEFPI THEC ALTERNATIVE BENCHMARK 	0.00	Goal SUR (%)	60%
	12.42	Seat Allocation (average SF)	25
	11.97	Weekly Student Contact Hours	0
the average of general classrooms space found across sample institutions			

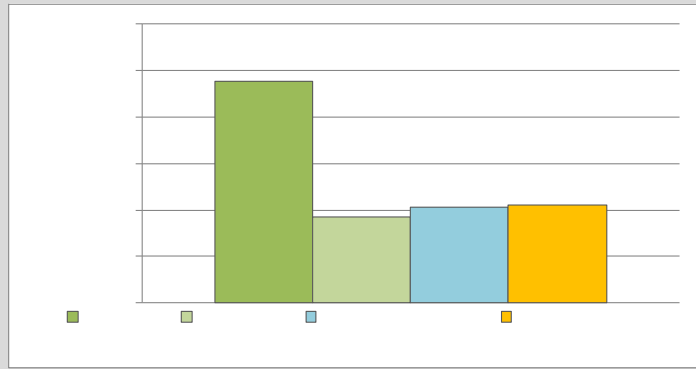
Academic Space Needs	Current	Guideline
ASF per FTE	31.99	12.42
% of total campus	6.6%	1.8%
notes		
<p>Current SF owned Vacant in the inventory is located in Boling Center For Developmental Disabilities, and Crow Research building</p> <p>Proposed projects include demolition of space in Mooney and Demo and Renovation in Crow Building.</p>		



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220 - open lab	CURRENT	GUIDELINE	PROPOSED NEW PROJECTS	5 YEAR PROJECTION	10 YEAR PROJECTION
Total or Guideline ASF	3,473	14,902		16,650	16,896
Owned ASF <i>(input as [+])</i>	3,473				
Owned-Institutional Use ASF <i>(input as [+ or -])</i>	3,375		0	0	0
Owned-Leased/Shared out ASF <i>(input as [+ or -])</i>	0		0	0	0
Owned-Vacant ASF <i>(input as [+ or -])</i>	97		0	0	0
Leased ASF <i>(input as [+ or -])</i>	0		0	0	0
New Construction ASF <i>(input as [+])</i>			1,612	0	0
Demolition ASF <i>(input as [-])</i>			0	0	0
Reassigned ASF <i>(input as [+ or -])</i>	0		0	0	0
Surplus / Deficit ASF		(11,429)	1,612	(11,566)	(11,812)

* all areas include service space (FICM ##5)

space guidelines

Space Standard Used

- CEFPI
- THEC
- ALTERNATIVE BENCHMARK

ASF per FTE

3.70

5.00

9.45

an average of open lab space found across sample institutions

Space Variables

Goal WRU (hr)

45.0

Goal SUR (%)

33%

Seat Allocation (average SF) 50 SF+1

55

$$S_f = \frac{\text{seat allocation}}{\text{WRU}(\text{SUR})}$$

Academic Space Needs



	Current	Guideline
ASF per FTE	1.17	5.00
% of total campus	0.2%	0.7%

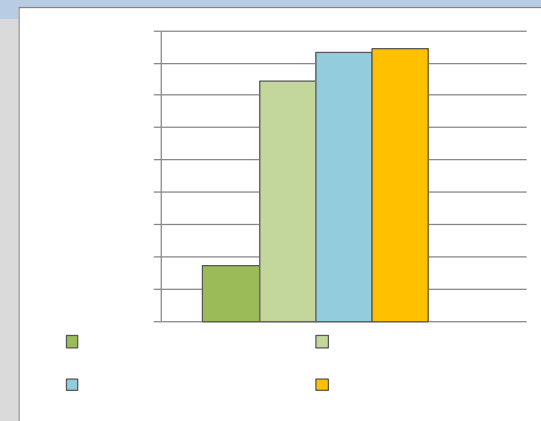
notes

Proposed new open lab space is planned in the Renovation of the Crowe Building.

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250 - research labs	CURRENT	GUIDELINE	PROPOSED NEW PROJECTS	5 YEAR PROJECTION	10 YEAR PROJECTION
Total or Guideline ASF	276,391	237,400	58,163	275,643	334,593
Owned ASF <i>(input as [+])</i>	276,391				
Owned-Institutional Use ASF <i>(input as [+ or -])</i>	221,579		0	0	0
Owned-Leased/Shared out ASF <i>(input as [+ or -])</i>	10,432		0	0	0
Owned-Vacant ASF <i>(input as [+ or -])</i>	54,812		0	0	0
Leased ASF <i>(input as [+ or -])</i>	0		0	0	0
New Construction ASF <i>(input as [+])</i>			136,457	0	0
Demolition ASF <i>(input as [-])</i>			(78,294)	0	0
Reassigned ASF <i>(input as [+ or -])</i>	0		0	0	0
Surplus / Deficit ASF		38,990		69,343	10,393

* all areas include service space (FICM #5)

space guidelines				THEC Space Variables	
Space Standard Used	ASF PER FTE	5 YEAR PROJECTION	10 YEAR PROJECTION		
● THEC CALC by PI	-	0.00	0.00	Quantity of PIs (A)	0
● THEC CALC by S	79.65	82.77	99.01	Quantity of PIs (B)	135
● CEFPI- CALC ASF/ FACULTY	101.98			Quantity of PIs (C)	6
Alternative Benchmark	81			Quantity of PIs (D)	5
an average of research lab space found across sample institutions				Module Size (A) [ASF]	600
				Module Size (B) [ASF]	450
				Module Size (C) [ASF]	300
				Module Size (D) [ASF]	50
				Research Expenditures (A)	\$ -
				Research Expenditures (B)	\$ 43,103,967
				Research Expenditures (C)	\$ 724,112
				Research Expenditures (D)	\$ 752,659

Academic Space Needs



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	Current	Guideline
ASF per FTE	92.74	79.65
% of total campus	19.2%	14.6%

notes

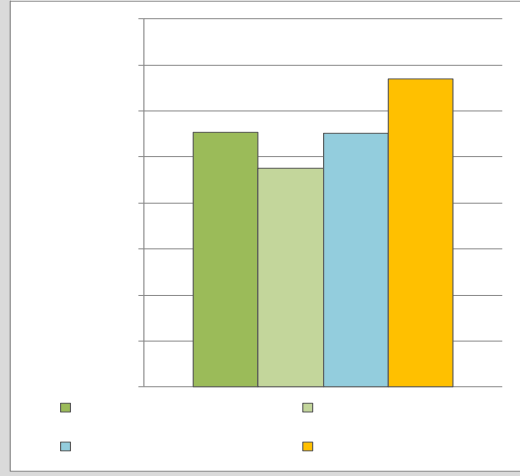
Overall Owned space does not include leased/ shared out space but does include vacant space.

The leased space is located primarily in the Van Vleet Cancer Center.

The Vacant space is currently distributed across multiple buildings on campus with the majority of the space (34,500 Sf) located in Molecular Sciences Building, Nash Research, Van Vleet building and Coleman College of Medicine building.

Proposed projects include Renovation of space in Crowe, Nash Annex and Nash buildings, Demolition of space in Mooney building and New construction including Translational Research building, 5th & 6th floor of the Pharmacy building and 4th floor of the Cancer Research building.

University of Tennessee Health Science Center



300 - office	CURRENT	GUIDELINE	PROPOSED NEW PROJECTS	5 YEAR PROJECTION	10 YEAR PROJECTION
Total or Guideline ASF	563,481	439,448		517,366	564,931
Owned ASF <i>(input as [+])</i>	563,481				
Owned-Institutional Use ASF <i>(input as [+ or -])</i>	450,121		0	0	0
Owned-Leased/Shared out ASF <i>(input as [+ or -])</i>	30,216		0	0	0
Owned-Vacant ASF <i>(input as [+ or -])</i>	113,360		0	0	0
Leased ASF <i>(input as [+ or -])</i>	0		0	0	0
New Construction ASF <i>(input as [+])</i>	0		103,908	0	0
Demolition ASF <i>(input as [-])</i>	0		50,488	0	0
Reassigned ASF <i>(input as [+ or -])</i>	0			0	0
Surplus / Deficit ASF		123,981	53,420	129,698	82,134

* all areas include service space (FICM #5)

space guidelines

Space Standard Used

CEFPI
 THEC
 ALTERNATIVE BENCHMARK

ASF per Student FTE

185.00

147.45

-

THEC Space Variables

Academic Faculty & Staff

ASF per President, Chancellor	350	ASF per Clerical	120
ASF per Provosts, Vice Chancellor	240	ASF per Staff, Technician	100
ASF per Assoc. Dean, Dept. Chair	180	ASF per Med Intern/Resident/Fellow/Train/Postdoc	40
ASF per Dean	180	ASF per GTA (Headcount)	60
ASF per Assoc. Dean, Dept. Chair	150	ASF per GRA (Headcount)	40
ASF per Professor, Assoc. Asst (tenured)	150	ASF per Student, Clerical	40
ASF per Other Faculty (untenured)	100	ASF per Other: Auditor, etc.	100
ASF per Professional Staff	130		

Academic Space Needs



	Current	Guideline
ASF per FTE student	189.06	147.45
ASF per FTE faculty/staff	157.26	122.65
% of total campus	39.2%	49.4%

notes

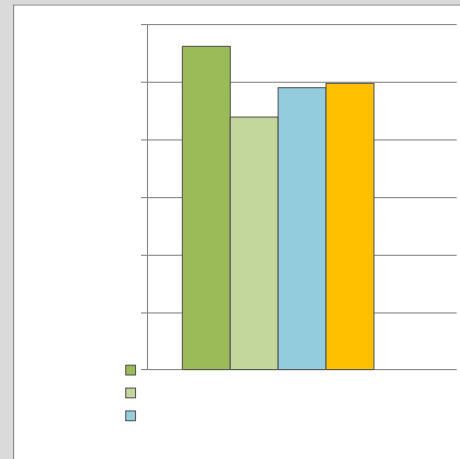
Overall Owned space does not include leased/ shared out space

See detailed break down by academic and administrative for further info

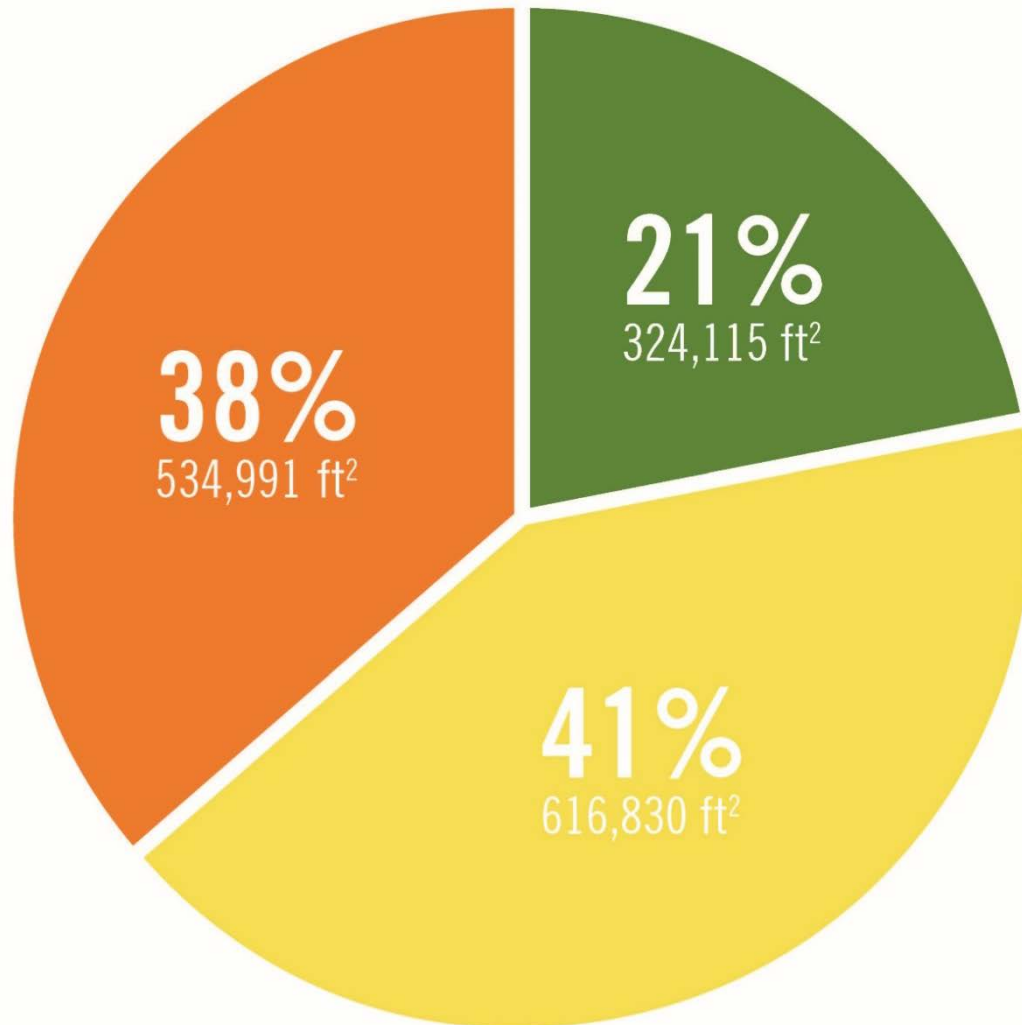
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FACILITY ASSESSMENT



SATISFACTORY, NEW, OR UNDERWAY

- Pharmacy Building: 62,835 ft²
- Alexander Building: 61,566 ft²
- Nash Research Building: 55,580 ft²
- Cancer Research Building: 40,363 ft²
- Crowe Research Building: 34,791 ft²
- Nash Addition: 33,465 ft²
- Mooney Building: 19,235 ft²
- Regional Biocontainment Lab: 16,010 ft²

REQUIRES UPGRADES

- 930 Madison Building: 117,915 ft²
- General Education Building: 116,147 ft²
- Coleman College of Medicine Building: 98,066 ft²
- Dunn Dental Building: 74,560 ft²
- Student-Alumni Center: 65,445 ft²
- Wittenborg Anatomy Building: 39,738 ft²
- Dudley Street Building: 29,733 ft²
- Hyman Administration Building: 28,899 ft²
- Purchasing and Physical Plant Building: 24,233 ft²
- Link Building: 22,094 ft²

CRITICAL

- 920 Madison Building: 89,140 ft²
- Boling Center for Developmental Disabilities: 81,394 ft²
- 910 Madison Building: 81,265 ft²
- Doctors Office Building: 62,400 ft²
- Molecular Sciences Building: 58,650 ft²
- Madison Avenue Plaza: 41,590 ft²
- Johnson Building: 41,376 ft²
- Van Vleet Cancer Center: 40,575 ft²
- Phi Chi Medical Fraternity House: 14,953 ft²
- Physical Plant Shops Building: 11,307 ft²
- 740 Court Avenue: 5,502 ft²
- 66 Pauline Annex Building: 3,188 ft²
- Variety Building: 2,542 ft²
- UT Doctors Pavilion: 1,109 ft²



**FACILITY
IMPROVEMENTS-
PHYSICAL AND
PROGRAMMATIC**

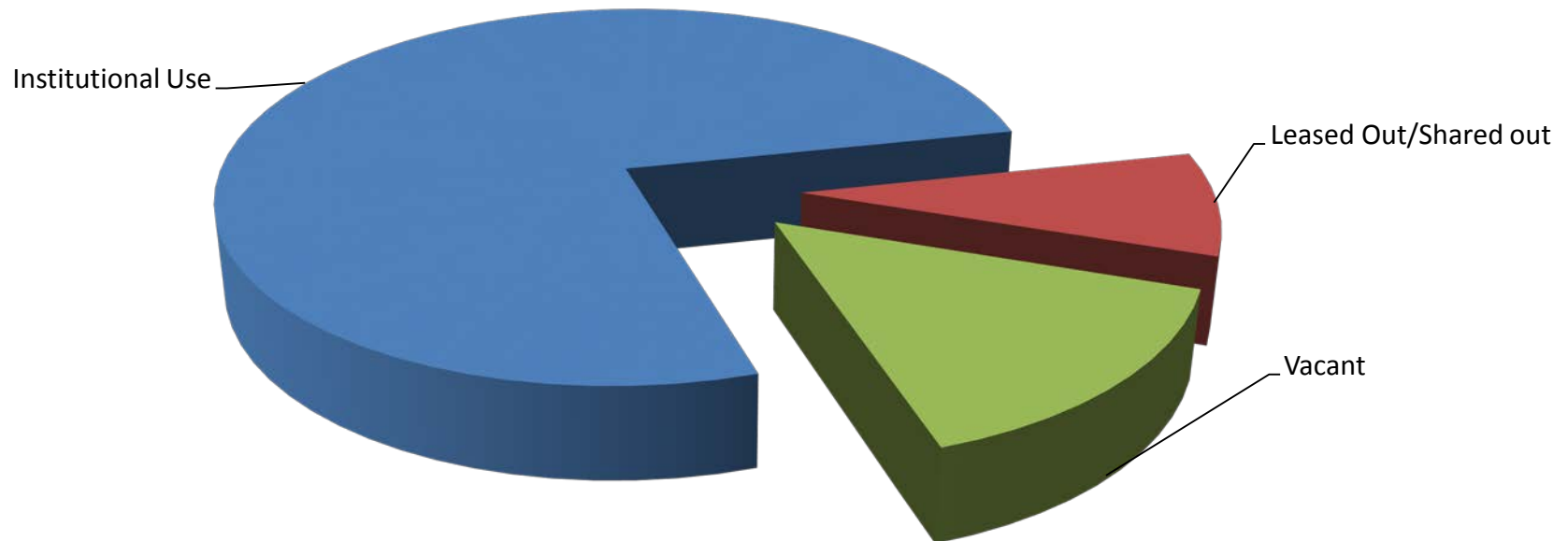
LEGEND

- SATISFACTORY,
NEW OR UNDERWAY
- REQUIRES UPGRADES
- CRITICAL
- DEMOLISHED
- PARKING/
INFRASTRUCTURE

**ESTABLISHED IN 1911
FIRST BUILDING CONSTRUCTED 1925**

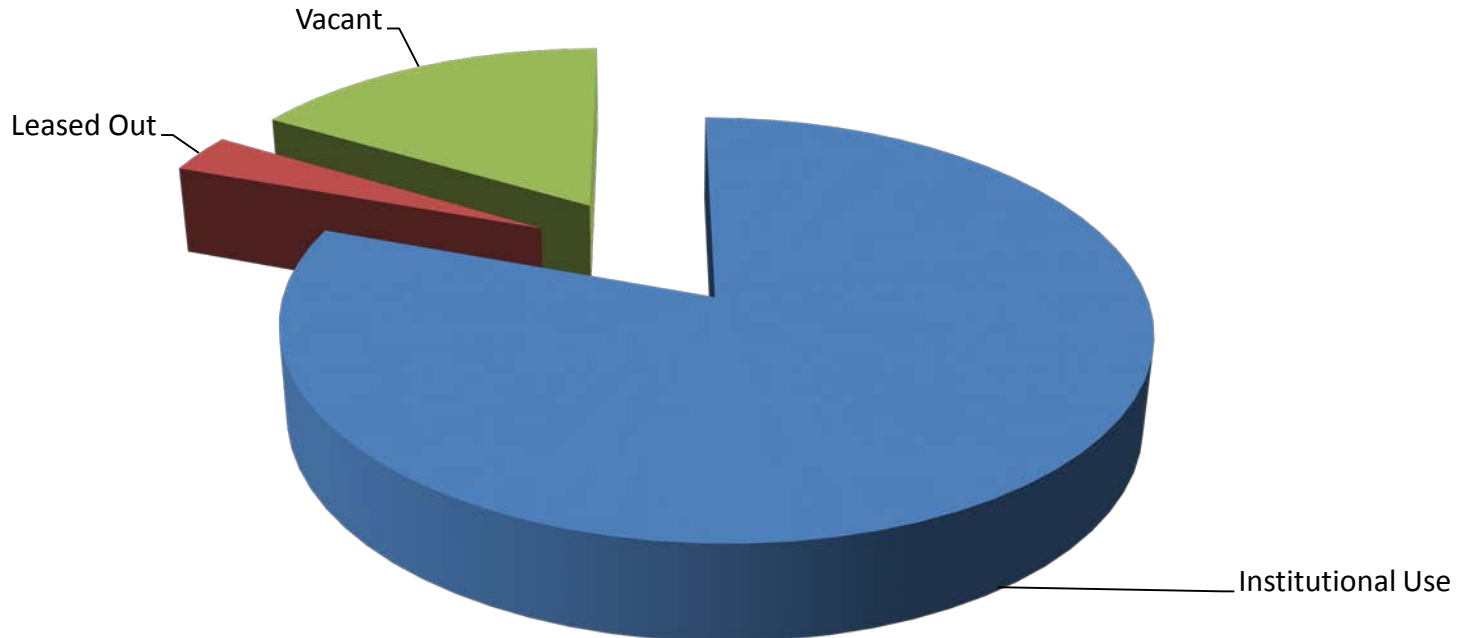
OVERALL SPACE IMPACT

- Over 940,000 asf (62%) requires renovation, repurposing or replacement
- Over 222,000 asf (15%) is vacant
- Nearly 126,000 asf (8%) is leased to tenants
- It is difficult to schedule and utilize space effectively

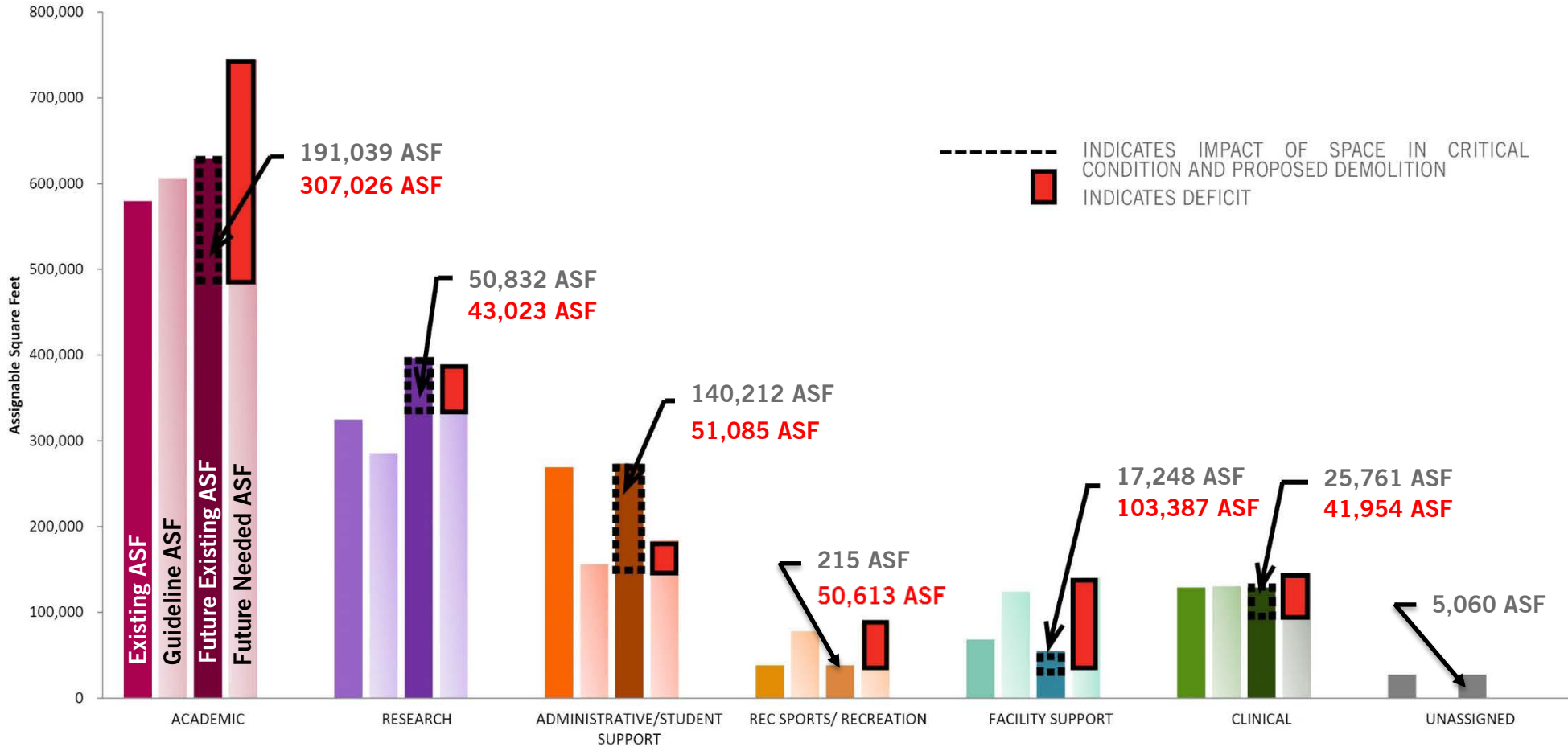


RESEARCH SPACE IMPACT

- Over 55,000 asf (16%) is currently vacant
- Vacant research space does not meet benchmarks and best practices
- Only 10,400 asf (3%) is leased to tenants

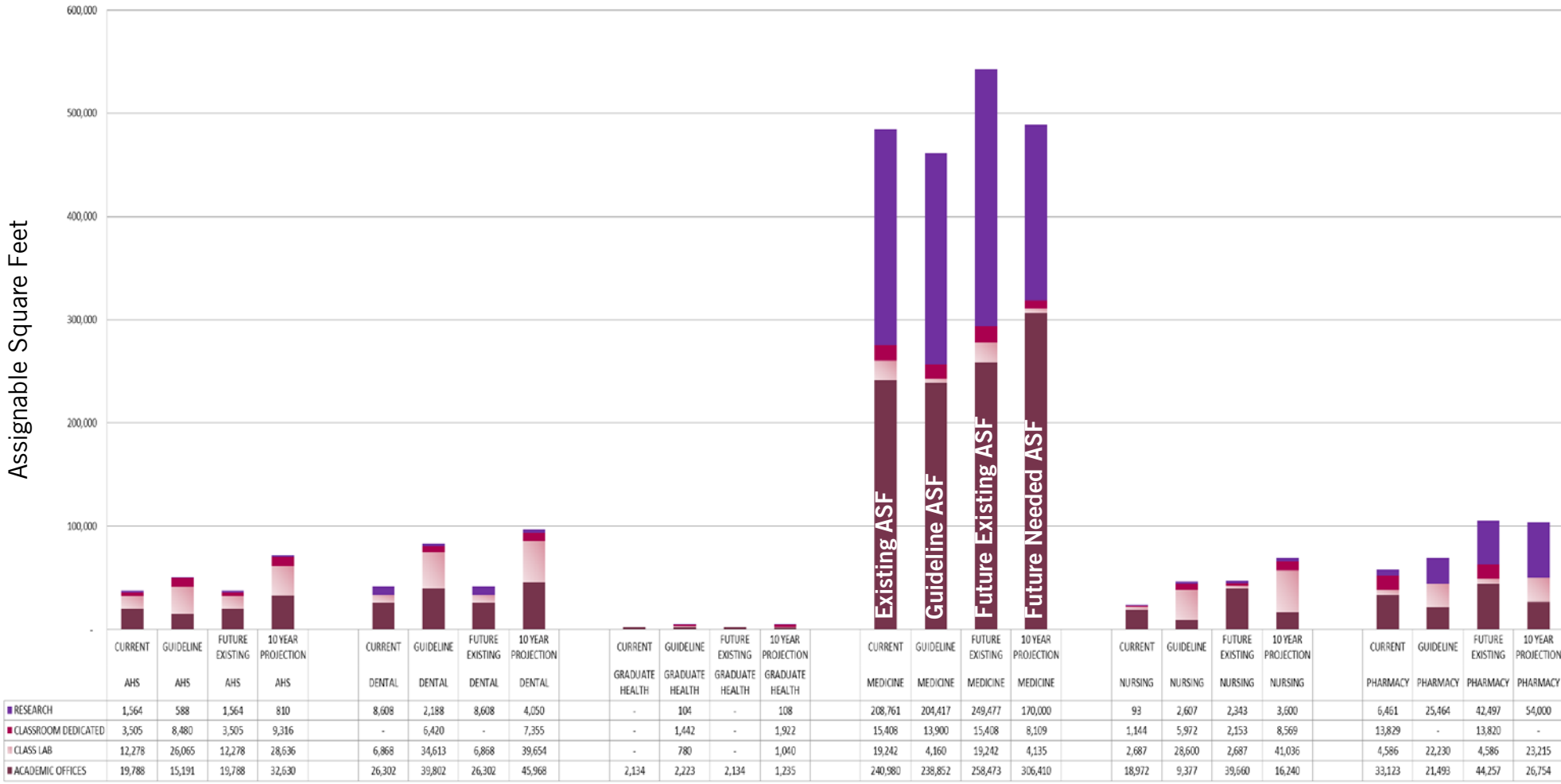


FUTURE FACILITY NEEDS



Total Projected Space Need: **574,872 ASF**
Total Sub-Standard Space Proposed for Demolition: **430,382 ASF**
Net Total Space increase: **144,490 ASF**

FUTURE COLLEGE NEEDS



College of Health Professions

College of Dentistry

College of Graduate Health Sciences

College of Medicine

College of Nursing

College of Pharmacy

FUTURE CAMPUS PRIORITIES

Academic Offices / Teaching Labs.....insufficient space and scattered sites

Research Labs.....match peers and opportunities

Clinics.....insufficient space for growing programs

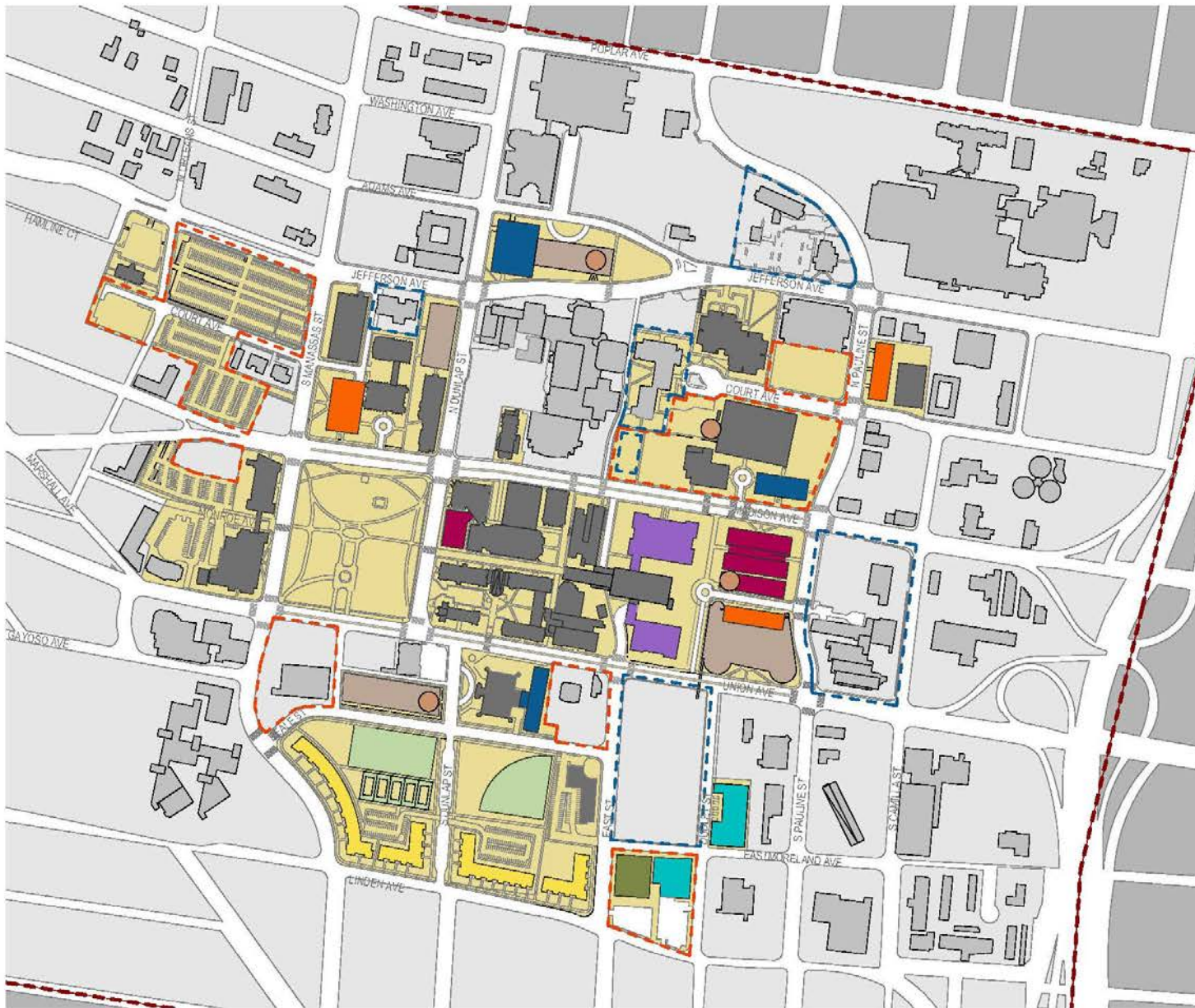
Partners.....flexible adjacencies for GMP / initiatives

Administrative Offices.....required when poor space is demolished

Dining / Auxiliary Services.....insufficient space, amenities, locations

Student Support / Wellness.....insufficient and outdated space

Facility Support.....insufficient space for growing enterprise



PROPOSED FACILITIES

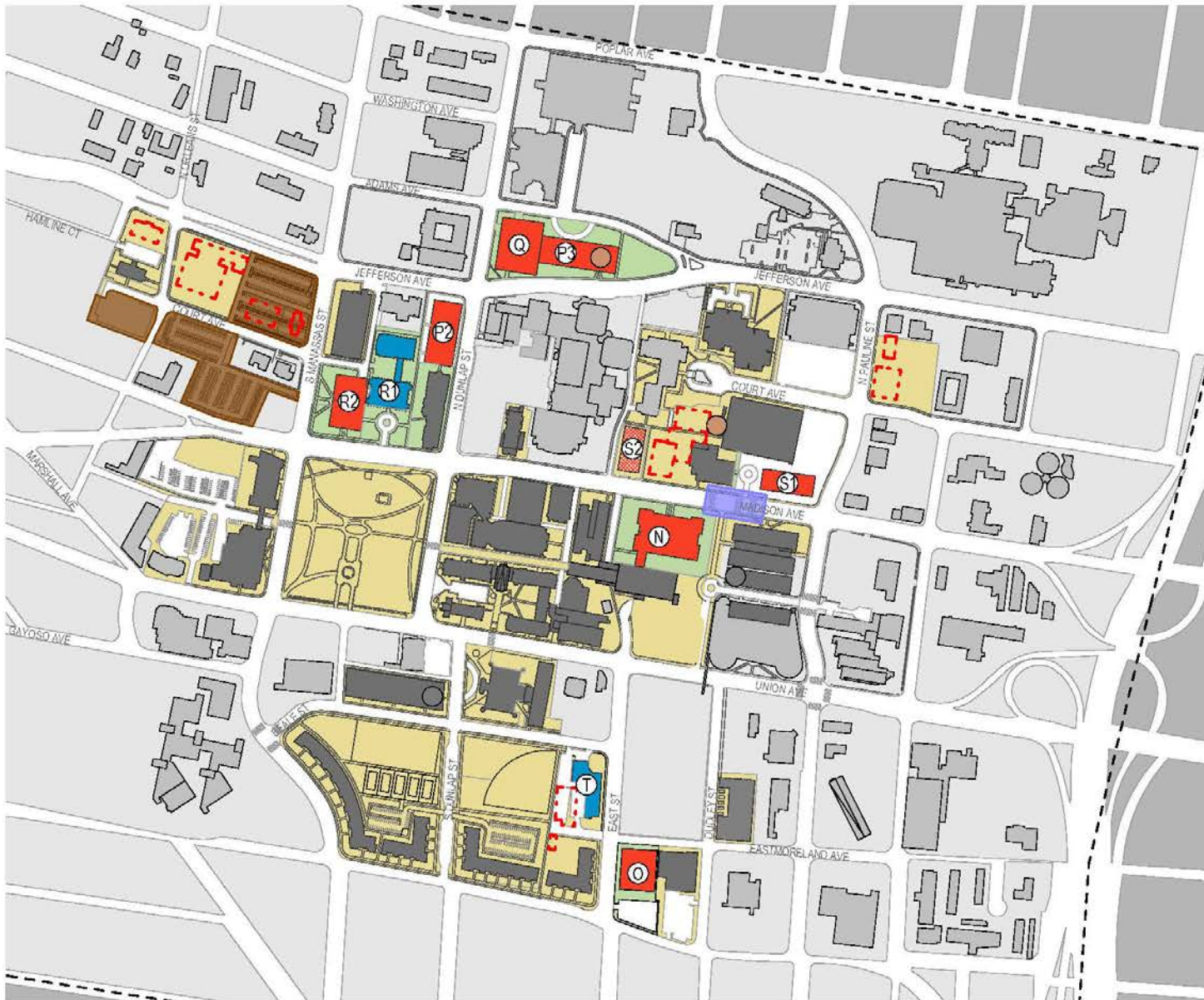
LEGEND

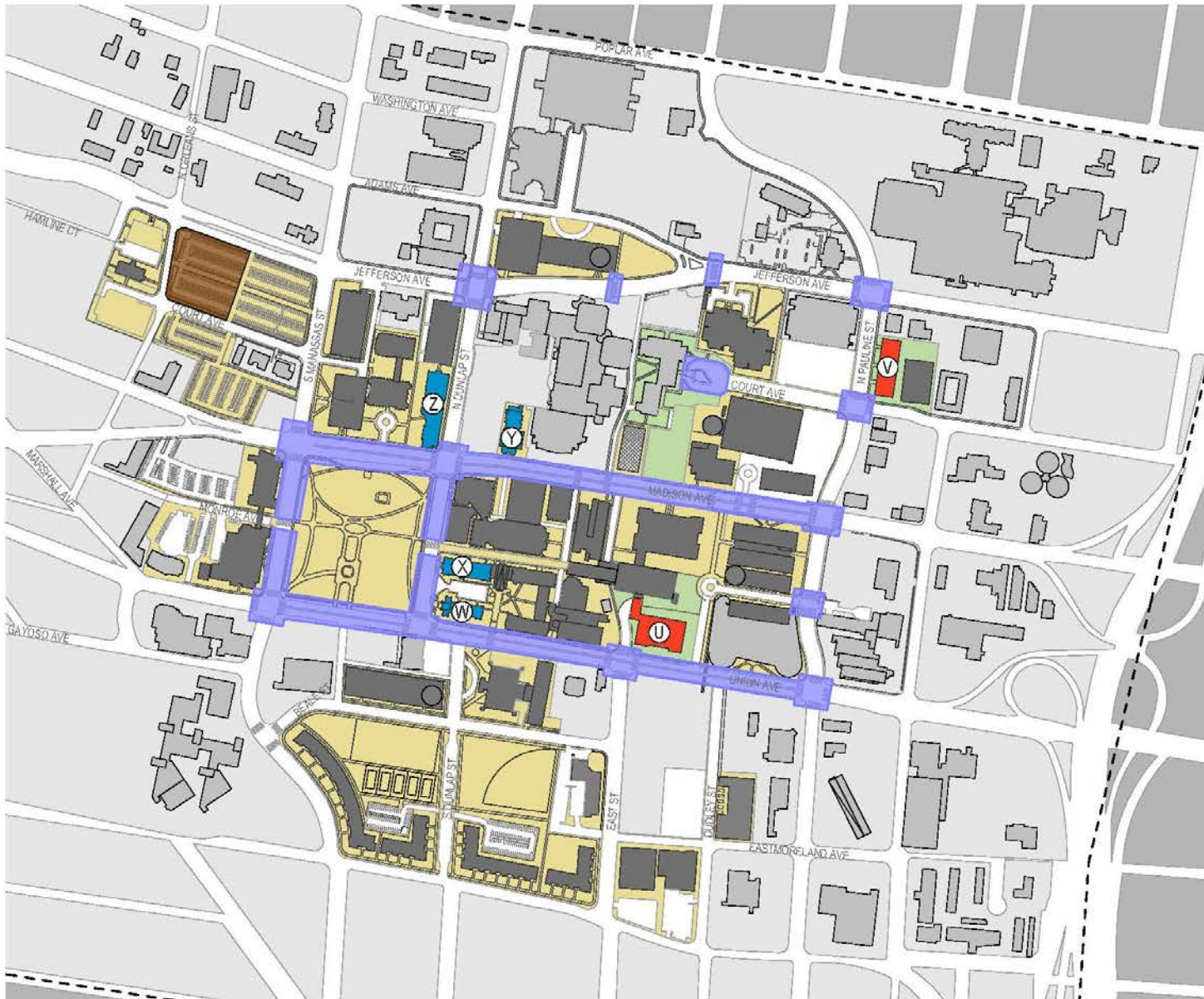
- EXISTING UTHSC BLDG
- ACADEMIC
- RESEARCH
- CLINICAL
- ADMINISTRATIVE / STUDENT SUPPORT
- FACILITY SUPPORT
- HOUSING
- REC SPORTS FACILITIES
- GMP
- PARKING STRUCTURE
- POTENTIAL UTILITY PLANT
- MASTER PLAN BOUNDARY
- INSTITUTIONAL PARTNERSHIPS
- MULTI PURPOSE EXPANSION

PHASE 2

5-10 years

- ⋯ DEMOLITION
- NEW CONSTRUCTION
- RENOVATION
- STREETSCAPE IMPROVEMENTS
- SURFACE PARKING
- OPEN SPACE/SITE IMPROVEMENTS
- RECREATION FIELDS
- POTENTIAL UTILITY PLANT





PHASE 3

beyond 10 years


- ⋯ DEMOLITION
- NEW CONSTRUCTION
- RENOVATION
- STREETSCAPE IMPROVEMENTS
- SURFACE PARKING
- OPEN SPACE/SITE IMPROVEMENTS
- RECREATION FIELDS
- POTENTIAL UTILITY PLANT



CHALLENGES

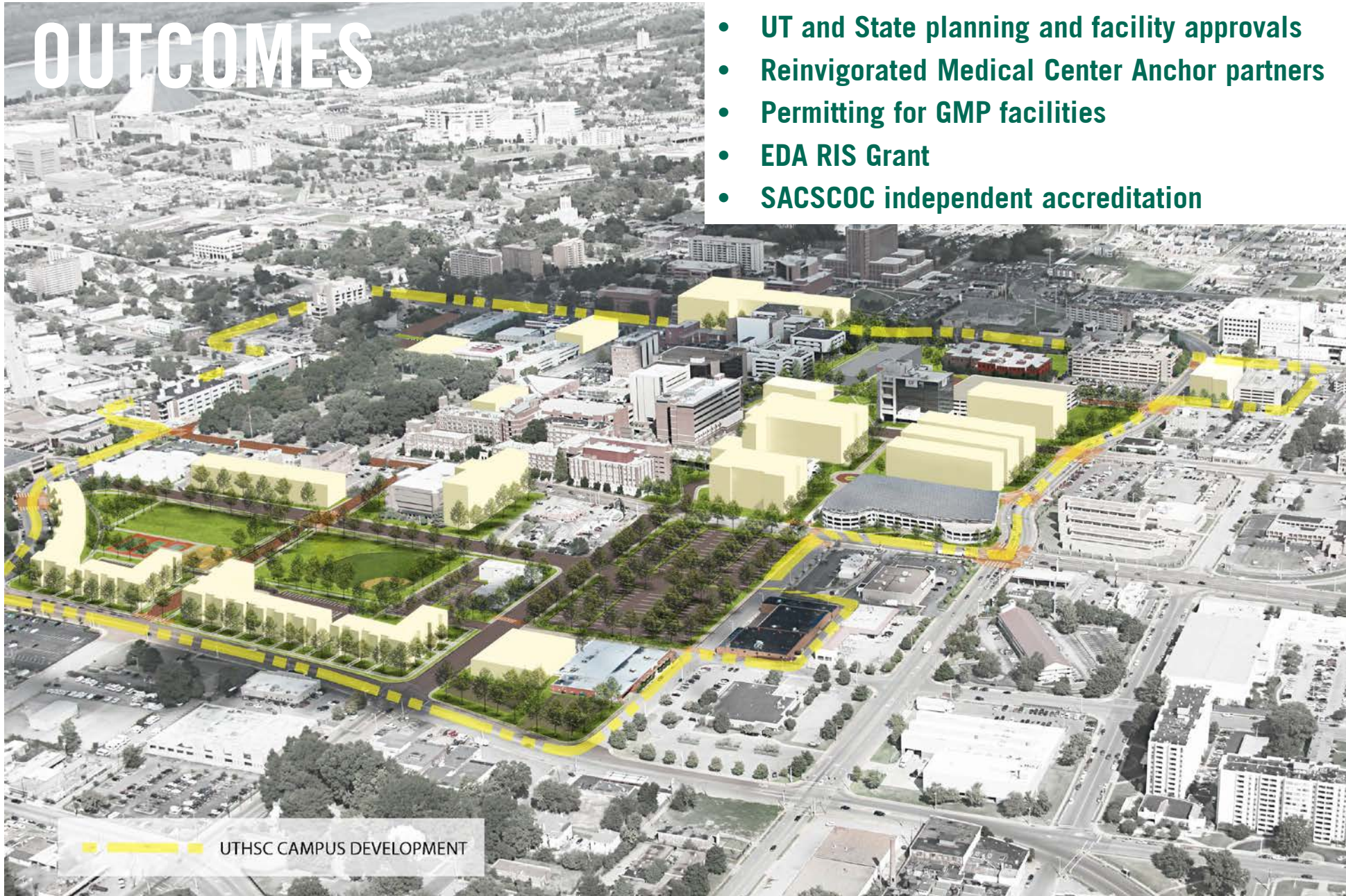
An aerial photograph of a university campus. A yellow dashed line is overlaid on the image, tracing a path through various buildings and parking lots, indicating areas for proposed campus development. The campus includes several large, multi-story buildings, parking lots filled with cars, and some green spaces. In the background, a body of water and a bridge are visible.

- Aging and vacant buildings
- Poor student and staff experience
- New program and adjacency demands
- Competitive urban environment

 PROPOSED CAMPUS DEVELOPMENT

OUTCOMES

- **UT and State planning and facility approvals**
- **Reinvigorated Medical Center Anchor partners**
- **Permitting for GMP facilities**
- **EDA RIS Grant**
- **SACSCOC independent accreditation**



UTHSC CAMPUS DEVELOPMENT