

Design L A B

DesignLAB

University of Houston **System**

Introduction ::

This University of Houston System Master Plan Executive Summary is the work of DesignLAB-Houston. As the professional research arm of the University of Houston Gerald D. Hines College of Architecture, DesignLAB generates preliminary design studies and research and development work across the disciplines of architecture, planning and industrial design. DesignLAB's approach to this master planning effort is to make seamless the academic, fiscal and land use plans of each University of Houston System campus.

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Dean of the Gerald D. Hines College of Architecture

:: CAMPUS TARGETS & GOALS

	Enrollment (BOR Retreat)	On Campus Enrollment	Research Dollars	Housing Beds
UHV				
2015	4,901	1,691	2,748,950 ¹	940
2020	6,571	2,606	4,123,425 ¹	1,200
UHCL				
2015	8,399	5,375	3,613,150	497
2020	9,820	5,990	4,588,700	683
UHD				
2015	11,949	9,169	2,200,000	100
2020	14,962	11,086	5,000,000	200
UH				
2015	39,960	24,361	150,000,000	7,500
2020	43,450	31,368	200,000,000	9,000
UHSSL				
2015		916 ²		
2020		1,098 ²		

¹Reflects sponsored programs, not research expenditures

²Reflects UHS institutions only and does not include Wharton County Junior College

:: MASTER PLAN DECISION MATRIX

	EXISTING			PROPOSED								RESOURCES
	Infrastructure	Deferred Maintenance	Renovation	Classroom Instructional Space	E&G Support Space	Research Space	Housing	Parking	Athletics	Recreation	Student Support	Land Purchase
UHV	2012	N/A	N/A	2013	2012	2013	2011	2011	2012	2012	2012	2011
UHCL	N/A	2012	2012	2013	2014	2011	2011	2018	N/A	2012	2012	— ³
UHD	N/A	2012	2012	2014	2012	2018	2018	2012	N/A	2014	2014	— ³
UH	2012	2012	2012	N/A	N/A	2012	2011	2011	2011	N/A	2011	— ³

³Land purchase locations and timing dependent upon availability of key adjacent properties

:: ACADEMIC SPACE PROJECTIONS

	Total SCH	On Campus SCH	Predicted Teaching Space	Predicted Library Space	Predicted Research Space	Predicted Office Support	Predicted Support Space	Total Predicted Space	Total Current Space
UHV									
Current									140,316
2015	57,027	21,848	66,337	33,620	12,156	96,510	14,222	222,845	
2020	77,007	30,997	118,500	47,699	18,234	114,520	20,178	319,131	
UHCL									
Current									498,473
2015	92,333	64,077	212,241	89,959	40,814	202,495	45,812	591,321	
2020	108,218	68,180	225,831	95,719	51,834	229,399	48,745	651,528	
UHD									
Current									467,762
2015	155,598	109,063	366,350	91,166	108,402	241,562	60,875	868,355	
2020	202,035	112,786	378,856	94,278	246,369	283,363	62,953	1,065,819	
UH									
Current									3,770,728
2015	458,494	356,207	1,226,480	486,054	857,593	872,006	291,300	3,733,433	
2020	493,509	360,466	1,241,144	491,866	1,143,457	882,432	294,783	4,053,682	

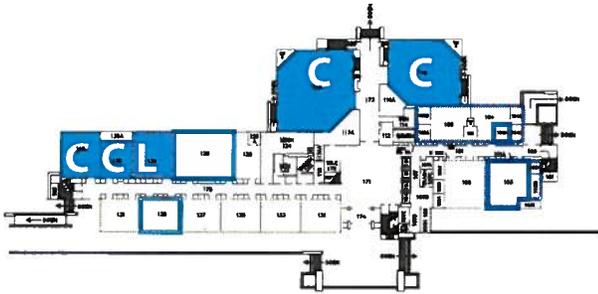
:: PROJECTED REVENUE/EXPENDITURE SCENARIOS

Based on Campus Master Plan Enrollments
FY2021 Revenue Increase (vs FY2010 Revenue) **FY2021 Expense Increase *** (vs FY2010 Expense)

		Annual Change in State-wide GR		Increased Faculty Appointments				
		Low (-2%)	High (0%)	Low	High			
UH	Annual Tuition & Fee Increases	Low (0%)	\$20.8	\$48.6	Annual Salary Increases	Low (0%)	\$68.6	\$137.1
		High (2%)	\$99.0	\$125.0		High (3%)	\$162.2	\$230.7
UHCL	Annual Tuition & Fee Increases	Low (0%)	\$16.5	\$22.9	Annual Salary Increases	Low (0%)	\$20.2	\$40.2
		High (2%)	\$33.5	\$39.9		High (3%)	\$40.5	\$60.7
UHD	Annual Tuition & Fee Increases	Low (0%)	\$22.4	\$29.6	Annual Salary Increases	Low (0%)	\$25.1	\$50.2
		High (2%)	\$43.9	\$51.1		High (3%)	\$44.3	\$69.4
UHV	Annual Tuition & Fee Increases	Low (0%)	\$17.4	\$21.1	Annual Salary Increases	Low (0%)	\$14.1	\$28.3
		High (2%)	\$26.0	\$29.7		High (3%)	\$31.6	\$45.8

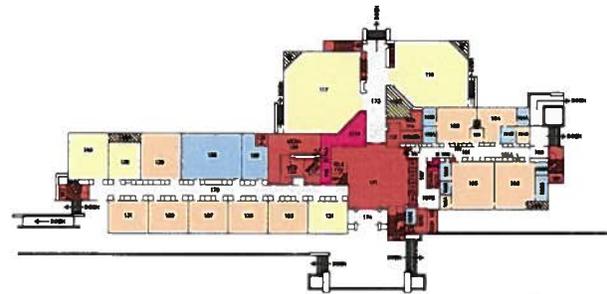
*Expense includes the cost of additional faculty appointments plus associated increases in academic, administrative, and plant infrastructure.

:: SAMPLE SPACE ANALYSIS



UTILIZED INSTRUCTIONAL SPACE: FALL 2010

SCIENCE AND RESEARCH BUILDING 1
FIRST FLOOR



THECB SPACE USE DISTRIBUTION: FALL 2010

SCIENCE AND RESEARCH BUILDING 1
FIRST FLOOR

- Classrooms with Scheduled Classes for Fall 2010
■ Special Use with Scheduled Classes for Fall 2010
■ Labs with Scheduled Classes for Fall 2010
■ Assignable Rooms without Scheduled Classes for Fall 2010
- Biology & Biochemistry
■ Chemistry
■ Earth & Atmospheric Sciences
■ Physics
■ NSM
- Supporting, Health Care & Residential
■ Non-Assignable Areas
■ Study Facilities
■ Special Use Facilities
■ General Use Facilities
- Classrooms Facilities
■ Laboratory Facilities
■ Circulation
■ Office Facilities
■ Unclassified Areas

Figure 1 :: Sample Analysis of Space Use

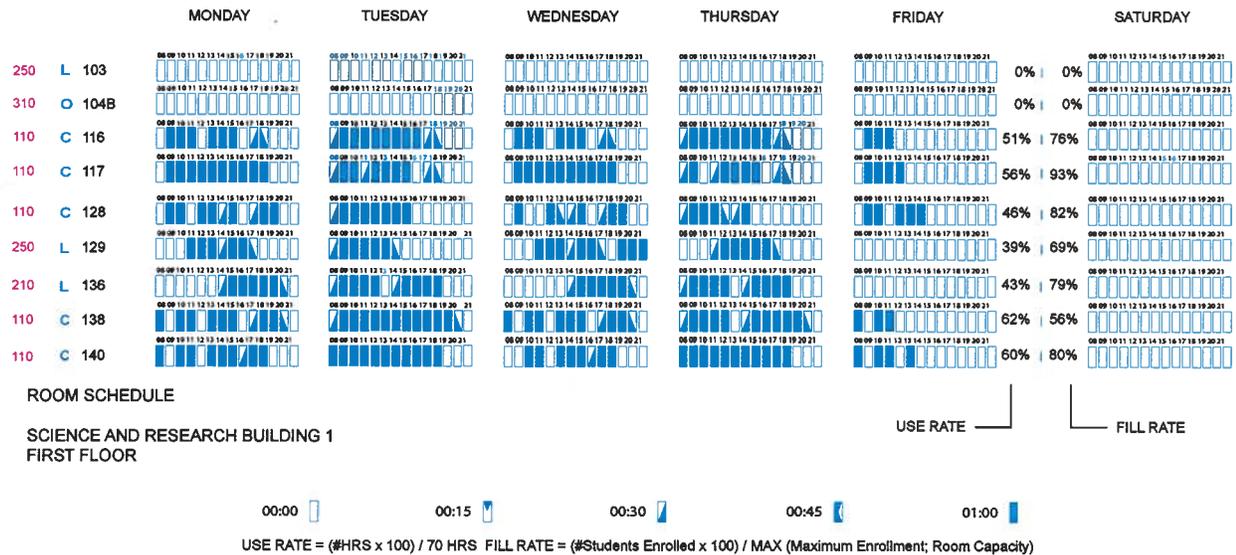


Figure 2 :: Sample Room Schedule

Process ::

The master plan process followed for each campus includes the documentation and analysis of current space utilization for each building and floor area within the project scope, mapping the reported utilization on current floor plans and then conducting in-person walkthroughs. (Fig.1) DesignLAB verified the utilization with the physical facilities conditions and determined additional capacity for teaching and other activities to accommodate growth within the existing facilities.

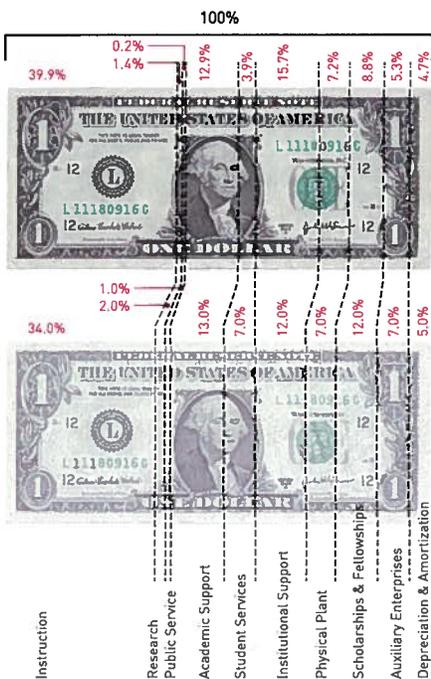
We also reviewed the academic course schedule for a snapshot semester (Fall 2010) to determine the fill rates for each existing course determining additional capacity within the existing teaching resources.

Once the space utilization of existing facilities was measured, we developed multiple scenarios for growth and expansion within the parameters of enrollment projections, revenue projections, and available resources. (Fig. 2)

For the investigation of research at UH, DesignLAB mapped the principal investigator space assignments onto the lab floor plans, verified these assignments with in-person walkthroughs, and mapped these assignments' square footage totals to develop a comparative productivity metric for the research space. Our goal was to identify additional research capacity, assess maintenance and operations concerns related to the flow of IDC support, and to assist in the development of campus research policy.

FY2010 Budget Breakdown

The foundation for all campus studies ties the business plan to the academic plan, yielding a financial analysis per the sample below.



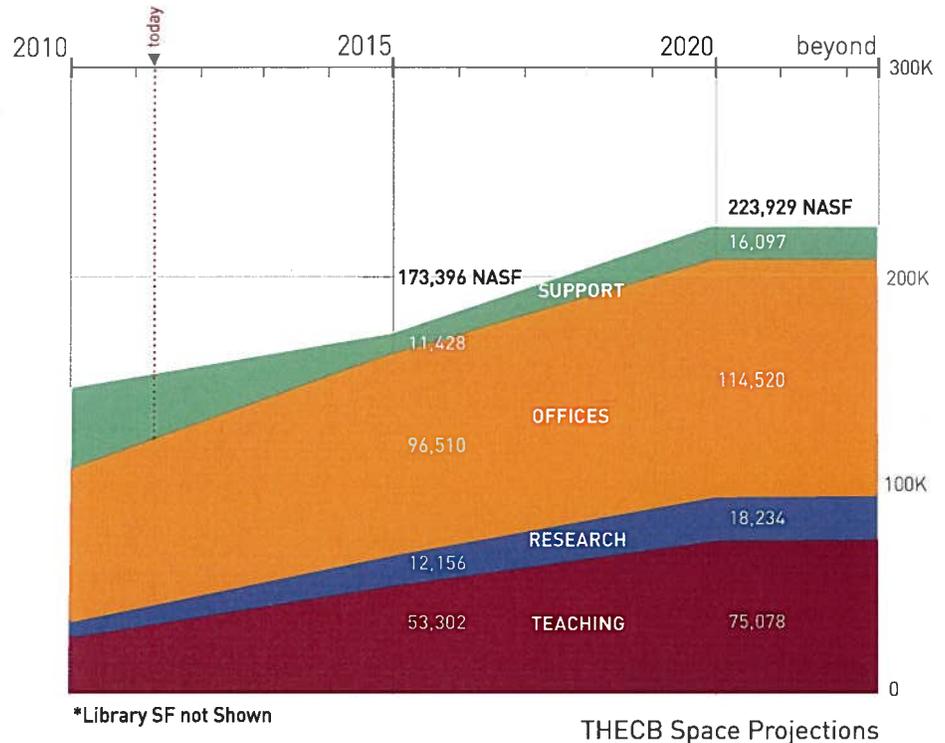
:: FY2010 Operating Expenses

Instruction	39.9%
Research	1.4%
Public Service	0.2%
Academic Support	12.9%
Student Services	3.9%
Institutional Support	5.7%
Physical Plant	7.2%
Scholarships & Fellowships	8.8%
Auxiliary Enterprises	5.3%
Depreciation & Amortization	4.7%

:: FY2014 Operating Expenses

Instruction	34.0%
Research	2.0%
Public Service	1.0%
Academic Support	13.0%
Student Services	7.0%
Institutional Support	12.0%
Physical Plant	7.0%
Scholarships & Fellowships	12.0%
Auxiliary Enterprises	7.0%
Depreciation & Amortization	5.0%

:: GROWTH PROJECTION DATA MODELING



- Findings ::**
- :: Improved utilization efficiencies allow for greenhouse programs and research incubation.
 - :: Texas State Model is not consistent with SUE efficiency scores and often overstates space needs.
 - :: UH System does not need to complete construction of general classroom space to accommodate growth projections prior to 2015.
 - :: Growth in online education is changing the amount and type of physical space needed on campus.
 - :: Each campus needs additional student support space to meet student success goals.
 - :: Each campus needs additional student recreational facilities.
 - :: There is need for additional research space within the UH System.
 - :: Each campus needs resources and attention to renovation and infrastructure.

Campus Master Plans ::

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:: EXISTING CAMPUS

--- Existing Campus Boundary

UHV Buildings

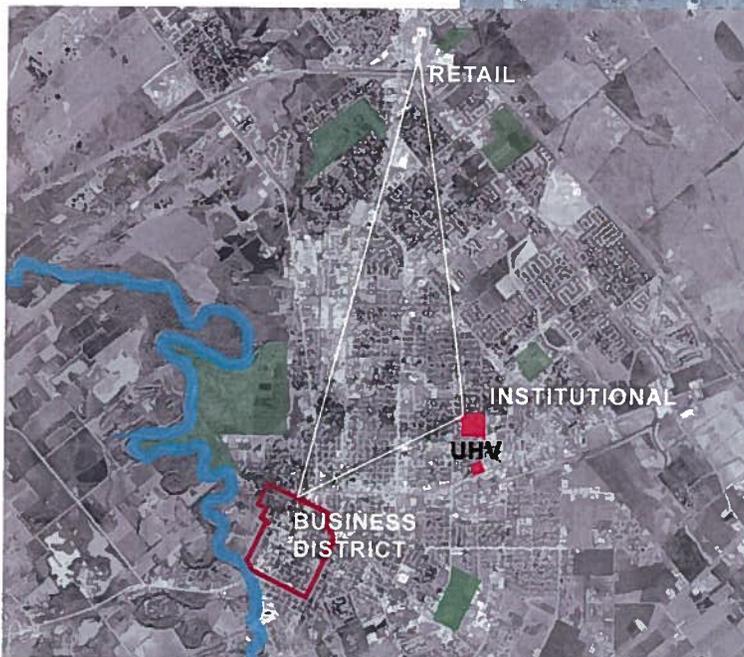
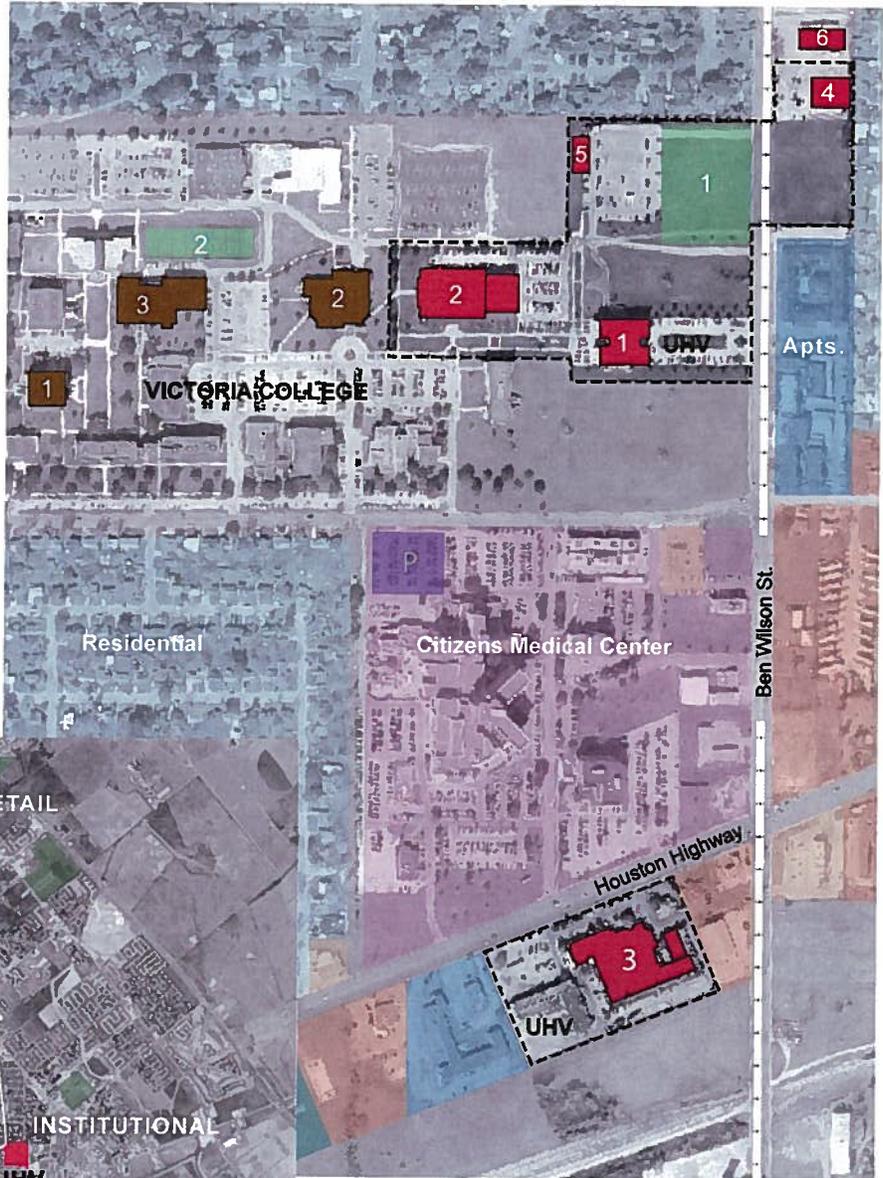
- ① Center Building
- ② West Building
- ③ Jaguar Hall
- ④ Totah Building
- ⑤ Facilities Shop
- ⑥ Leased Building

Victoria College Buildings Shared Facilities

- ① VC Library
- ② VC Student Center/Bookstore
- ③ VC Sports and Fitness

Shared Outdoor Athletics

- ① Soccer
- ② Tennis



:: Victoria Critical Activity Centers