TEXAS
The University of Texas at Austin

UT AUSTIN SPACE ALLOCATION STUDY

MAXIMIZING SPACE EFFICIENCY

APPA 2019 ANNUAL CONFERENCE & EXHIBITION DENVER

JACOBS

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MAXIMIZING SPACE EFFICIENCY

Credit(s) earned on completion of this course will be reported to American Institute of Architects (AIA) Continuing Education Session (CES) for AIA members.

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Questions related to specific materials, methods, and services will be addressed at the conclusion of this presentation.

COURSE DESCRIPTION

- High quality, well performing buildings is critical to the pursuit of excellence.
- UT's Space Allocation Study (SAS) began May 2016 to determine if non-academic space could serve the academic mission, and in doing so, allow UT to improve operational quality and functional efficiency.
- The success of SAS has advanced excellence in education and research by directing repurposing and reinvestment in facilities to create more conducive environments for next generation learning, as well as enhanced and interdisciplinary research.

LEARNING OUTCOMES

1. Skill of understanding the dynamics of space efficiency as it relates to aging infrastructure and building condition.
2. Packaging a FACILITY-related data-driven space assessment and condition analysis to receive approval from ACADEMIC leadership.
3. Program-oriented approach within university setting requiring team-based project delivery.
4. Process for undertaking similar study – what should be included and what should be avoided, political challenges, cost, staffing issues (knowledge/skill gap).

This concludes
The American Institute of Architects
Continuing Education Systems Course

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WHAT

GOALS FOR THE
COMPREHENSIVE SPACE ALLOCATION INITIATIVE

- Return campus core to **academic mission**
- Improve student **success initiatives**
- **Improve operational** efficiency and effectiveness
- Implement **space standards**

WHY

PROJECT PURPOSE

RETURN THE CAMPUS CORE TO SERVE THE ACADEMIC MISSION

- Determine if **core** space was utilized efficiently
- In vacant spaces, **reinvest in facilities** to create next-gen space for academic research and student need
- As units relocate, create space that is **better aligned** to current need
- Cost **Savings** created through a best-value approach

HOW

STRUCTURED FOR

PROJECT SUCCESS

- Senior **leadership** support
- Centrally-led **communications**
- Clear **Governance** structure

PROCESS

EVALUATE
WHAT DO YOU HAVE

+

FORMULATE
WHAT DO YOU NEED

+

IMPLEMENT
HOW DO YOU GET THERE

PROCESS

EVALUATE

- Interviewed 47 units
- Develop space list/ program database for each unit
- Analyze existing space for utilization/ efficiency
- Identify facility condition issues
- Receive owner-provided information

PROCESS
EVALUATE

SAMPLE
PROGRAM DATABASE

Group Name	Group Name
Accounting	Office of Financial Aid
Admissions	Office of Facilities, Planning and Construction
Administrative Personnel Systems	Office of Graduate Studies
Administrative Systems Modernization Program	Office of Industry Engagement
Briscoe Center for American History	Office of Institutional Accreditation and Effectiveness
Business Contracts	Office of Research Support
Central Business Office	Office of Sponsored Projects
Campus Planning & Project Management	Payroll
Campus Real Estate	Plant Resources Center
Center for Transportation Research	Procurement (and Contracts)
Charles A. Dana Center	Project 2021
Diversity & Community Engagement	Registrar
Energy Institute	School of Undergraduate Studies
Human Resources	Student Success Initiatives
Hub & Small Business Program	Treasury
Internal Audit	University Compliance Services
Information Quest	University Development Office
Institutional Reporting, Research, and Information Systems	Vice President for Legal Affairs
Information Security Office	Vice President for Research
Information Technology Services	Vice President of Student Affairs

PROCESS
EVALUATE

EVALUATION PROCESS
OUTCOMES

Understanding of each unit's requirements

Familiarity with targeted space and condition

Schedule **alignment** with academic calendar

Uncovered risks and challenges

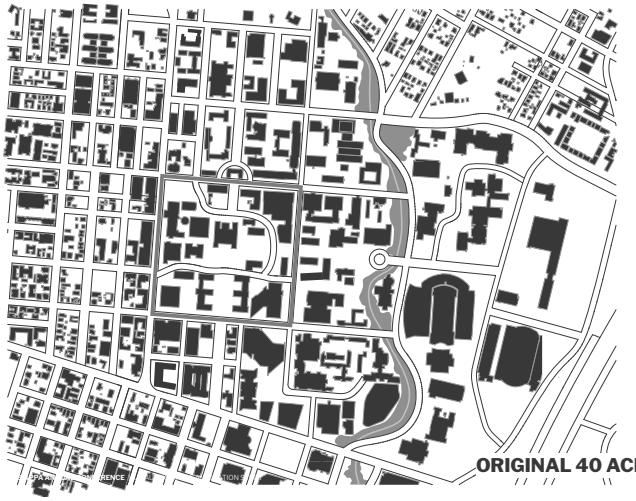
PROCESS
FORMULATE

Use data from peer institutions

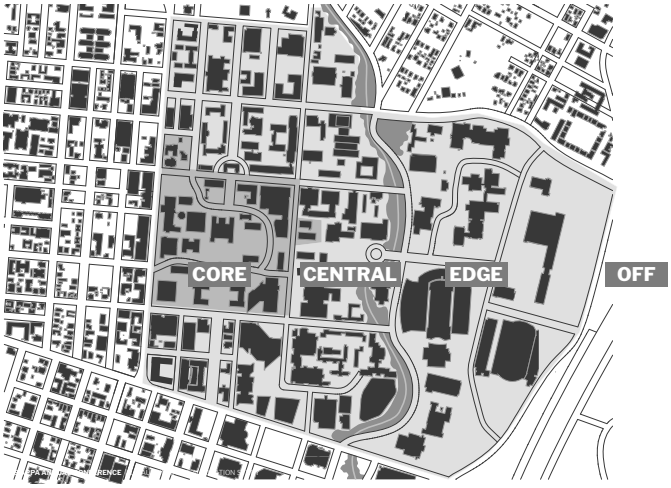
Minimize office types
•••
4 closed + 3 open

Apply office type **by job need** regardless of position

Compared existing 2015 space data with SAS proposed via location and calculated change



ORIGINAL 40 ACRES



PROCESS
FORMULATE

SPACE TARGETS

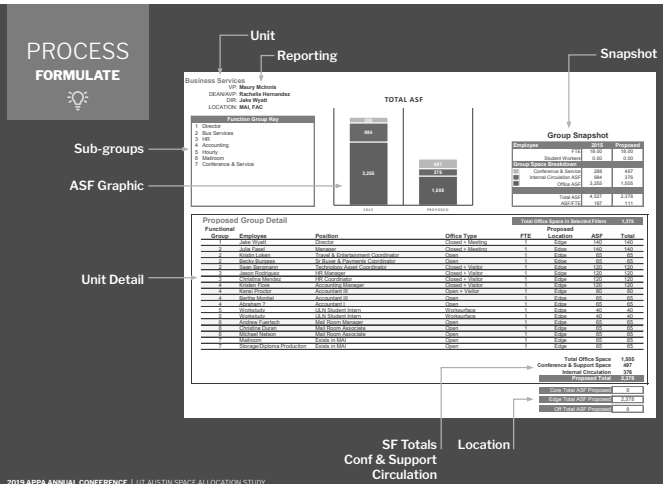
ADMINISTRATIVE SPACE

OFFICE TYPE	CORE	EDGE
VP/AVP	200-250	220
Closed + Conference	150-175	160
Closed + Meeting	125-150	140
Closed + Visitor	120-130	120
Open + Vistor	68	68
Open	56	56
Admin	49	49
Student/Work Study	40	40

CIRCULATION

FACTOR	CORE	EDGE
Conference + Support	.35	.32
Internal Circulation	.26	.24

PROCESS
FORMULATE



PROCESS
FORMULATE

WHAT WAS NEEDED

- Iterative process with buy-in from units and UT leadership
- Test-fits with approvals
- Phasing plan and sequence schedule
- Cost requirements
- Secure funding commitments

PROCESS
FORMULATE

WHAT WAS THE PROCESS

Create location matrix
•••
core, edge, or off-campus

Planning principles
•••
building, department, operation, adjacencies, access

Show vacated space attributes
•••
student-oriented, near transit, move-in ready

Group synergistic units or desirability for location

PROCESS
FORMULATE

RELOCATION COST & RISK MATRIX

LOCATION	STANDARDS	RENOVATION	COST
CORE 50-100 YEAR	Higher amount of legacy buildings	Most difficult to change or adapt	Highest cost and highest risk
EDGE 50 YEAR	Greater flexibility	Some flexibility	Less cost than Core
OFF 25 YEAR	Higher degree of flexibility	Easiest to renovate or change	Higher cost certainty

COMPLEXITY

RISK

PROCESS
FORMULATE

MIGRATION PLAN

Create heel-to-toe **move document**
•••
Migration Plan

Overview of planned relocations

Phasing options with key dates

Address resources required for implementation

Discuss/get **buy-in** for move plan

PROCESS
FORMULATE

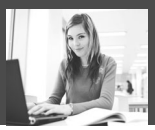
APPROVAL

Highly informed plan framework

Support from units and administration

Confident implementation approach
•••
Risks mitigated

Space Targets



PROCESS
IMPLEMENT

Mobilize PM core team
•••
Project Launch

Organize by unit type

Secure funding/ accounting interface

Confirm approach and create implementation schedule

PROCESS
IMPLEMENT

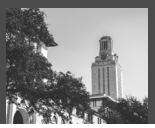
GETTING IT DONE

Secure CMR for multiple renovation activities

Engage design team in **program approach**

Move unit communication **from idea to reality**

Focus on **improving efficiency and operations**



PROCESS
IMPLEMENT

OUTCOMES

Phased implementation strategy

Quality delivery process and product

Maintained **mission-focus**

Created **low-risk** delivery profile

PROCESS
IMPLEMENT

MIGRATION PLAN

4 phases over 5 years

On schedule with projects added over time

47 departments interviewed

350K SF of space analyzed

4.5 months of test-fit/ concepts
•••
Option A-G

PROCESS
IMPLEMENT

SPACE TRANSFORMATION

BEFORE PROJECT MANAGEMENT & CONSTRUCTION SERVICES

AFTER PROJECT MANAGEMENT & CONSTRUCTION SERVICES

AFTER PROJECT MANAGEMENT & CONSTRUCTION SERVICES

BEFORE AEROSPACE ENGINEERING

AFTER AEROSPACE ENGINEERING

AFTER AEROSPACE ENGINEERING

BEFORE HUMAN RESOURCES

AFTER HUMAN RESOURCES

BEFORE CAMPUS PLANNING & CAPITAL PLANNING AND CONSTRUCTION (CPC)

AFTER CAMPUS PLANNING & CAPITAL PLANNING AND CONSTRUCTION (CPC)

BENEFITS

THE NUMBERS TO DATE ...

Touched over **250K GSF**

Spent **$24M** ••• $81/SF TPC

Vacated **three** buildings ••• Repurposed for academic use

Increased space for **academic** programs

BENEFITS

COST AVOIDANCE TO DATE ...

Space released from Core	250,000 ASF
Modify from ASF to GSF	410,000 GSF
Building Cost	$ 575 GSF TPC
Cost to construct released space	$ 236,000,000
Implementation Costs	($ 56,000,000)
UT AUSTIN COST AVOIDANCE	**$ 180,000,000**

OUTCOMES

SUCCESS MEASURES

- Improved space utilization
- Limited requirement for new building sites
- Match space with its operations
- Return **core campus** to direct **student use**
- Not just moving people, but **improving space** and **operations**

LESSONS LEARNED

WHAT WORKED

- Team-led effort moving quickly
- Early communication
- Each unit treated equally
- Units secured equal or better space
- Started with vacant space

WHAT COULD IMPROVE

- Things always take longer than required
- Broader/targeted communication during design and construction
- Pressure exerted from legacy or "connected" programs

NEXT STEPS

Planning/Set-up	2016
Phase 1	2017
Complete Phase 2	2018
Planning Phase 3 and 4	2019+

"ACADEMIC BACKFILL"

- New Welcome Center
- New Career Center
- New One-Stop Center
- New Entrepreneursip Center
- New Home Aerospace
- Building for Social Work
- Building for CNS Robotics Lab

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DISCUSSION

PROCESS

EVALUATE
WHAT DO YOU HAVE

- Communication Plan
- Interview/brief unit leadership
- Interview 45 units
- Plan review and confirmation
- Assess existing space (efficiency/utilization, front facing accessibility and location desirability)
- Develop space list
- Deliver complete package to units for acceptance

FORMULATE
WHAT DO YOU NEED

- Establish Space Standards
- Create program with current and proposed space
- Present location changes with evaluation criteria based on program/function/need
- Metric-based decision making (space savings, improved adjacency or program gain)
- Create move sequence schedule and budget
- Relocation test-fits for approval

IMPLEMENT
HOW DO YOU GET THERE

- Communication Plan for transparent process
- Mobilize core team
- Detailed planning with managers
- Select design and construction partners
- Refine cost estimates
- Confirm move schedules with operational realities

PROCESS
FORMULATE

BUILDING ANALYSIS (NEEDS A HEADING)

LOCATION	STANDARDS	RENOVATION	COST
CORE 50-100 YEAR	Higher amount of legacy buildings – more difficult to change or adapt	Most difficult to change or adapt because of construction/systems	Highest cost and highest risk due to age of systems and construction type
EDGE 50 YEAR	Greater flexibility with space standards – but many buildings not acceptable to change	Some flexibility in Edge because construction type may be more market-driven construction	Less cost than Core except building systems and condition may be equally challenging or sophisticated
OFF 25 YEAR	Higher degree of flexibility with space standards – easiest to implement (developer)	Generally, easiest to renovate or change and CMs tend to have higher knowledge base with off-campus buildings	Higher cost certainty about off-campus buildings (tend to be more developer driven)

COMPLEXITY

RISK