

2022 CAMPUS MASTER PLAN RESTART (2020 CAMPUS MASTER PLAN)

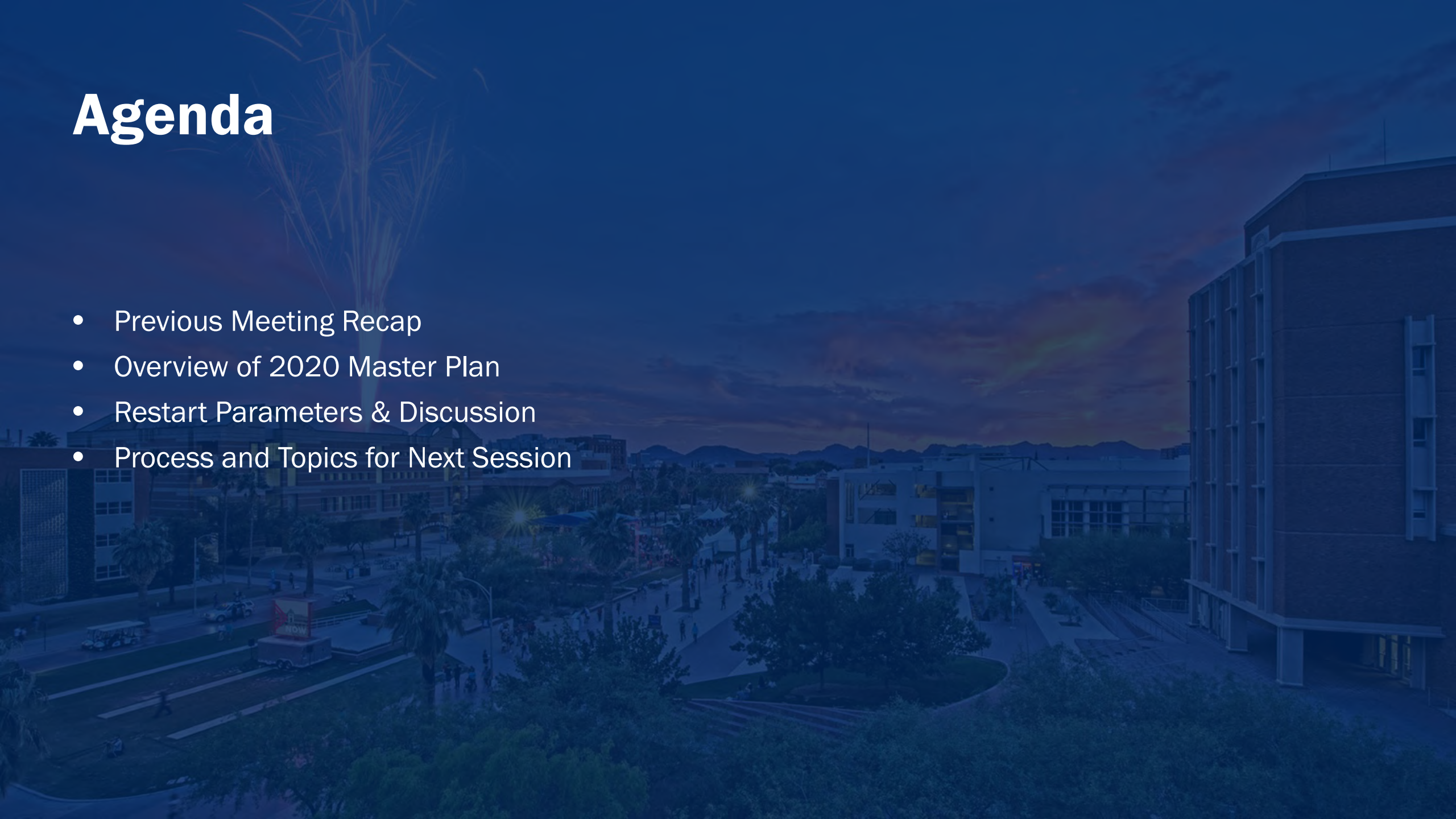
RESEARCH AND INNOVATION



AYERS SAINT GROSS
JUNE 28, 2022

Agenda

- Previous Meeting Recap
- Overview of 2020 Master Plan
- Restart Parameters & Discussion
- Process and Topics for Next Session



Workshop Takeaways

Research and Innovation

- College of Engineering research growth
- Plan to grow 3x by 2030
- Need space to display research in buildings
- No unique goal for sustainability on research
- Interdisciplinary and transdisciplinary buildings
- Collaboration spaces as big drivers for hubs
- Innovation as a campus driver



Space Metrics

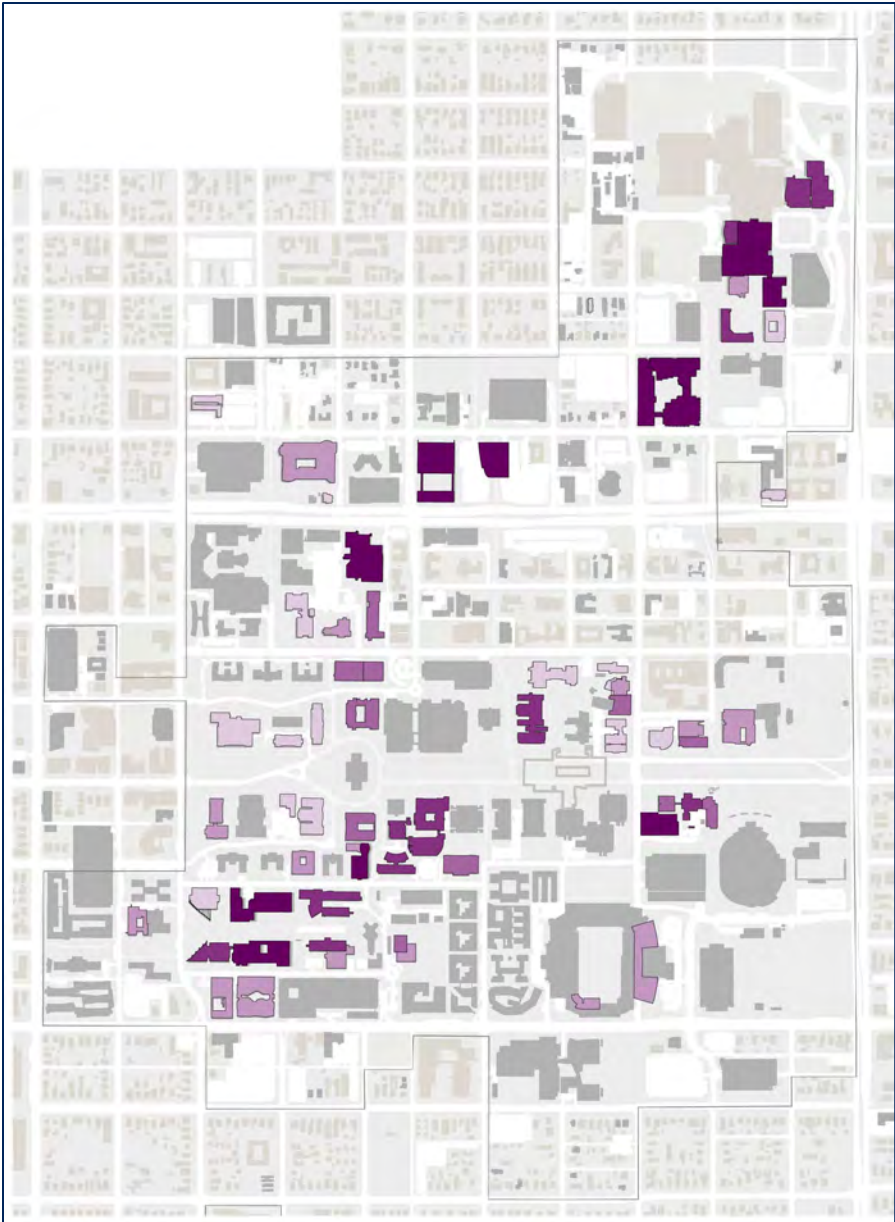
Need updated Space Metrics

Last data set from 2019

C	D	E	F	G	H	
Room Number	Room Area	Room Category	Room Category Description	Capacity	Department Code	
2	2,183	625	Exhibition Service	0	2201	Museum of
3	48	730	Central Storage	0	2201	Museum of
4	620	310	Office	5	2201	Museum of
4A	151	310	Office	1	2201	Museum of
5	819	030	Mechanical Area	0	9956	Unassignab
6	644	625	Exhibition Service	2	2201	Museum of
6A	200	310	Office	3	2201	Museum of
7	775	030	Mechanical Area	0	9956	Unassignab
8	1,324	625	Exhibition Service	0	2201	Museum of
8A	174	625	Exhibition Service	0	2201	Museum of
8B	40	030	Mechanical Area	0	9956	Unassignab
8C	213	625	Exhibition Service	0	2201	Museum of
8C1	107	625	Exhibition Service	1	2201	Museum of
9	65	225	Open Laboratory Service	0	3504	School of A
0B	325	030	Mechanical Area	0	9956	Unassignab
1	733	315	Office Service	20	3504	School of A
1A	124	310	Office	6	3504	School of A
1A1	10	315	Office Service	0	3504	School of A
1B	130	310	Office	1	3504	School of A
1C	251	310	Office	2	3504	School of A
1C1	76	315	Office Service	0	3504	School of A
1D	136	310	Office	2	3504	School of A
1E	266	350	Conference	12	3504	School of A
1F	53	030	Mechanical Area	1	9956	Unassignab
2	1,130	140	Computer Instructional	20	3504	School of A
2A	86	215	Class Laboratory Service	0	3504	School of A
0N	1,626	020	Circulation Area	0	9956	Unassignab
4B	147	310	Office	1	2201	Museum of
0E	558	030	Mechanical Area	0	9956	Unassignab
0N1	953	020	Circulation Area	0	9956	Unassignab
1	302	020	Circulation Area	0	9956	Unassignab
1A	255	310	Office	1	3504	School of A
1B	1,204	620	Exhibition	10	3504	School of A
1C	2,062	620	Exhibition	30	3504	School of A
1D	317	310	Office	3	3504	School of A
1D1	161	310	Office	1	3504	School of A
1D2	225	310	Office	1	3504	School of A
1D3	159	310	Office	1	3504	School of A
1D4	39	315	Office Service	0	3504	School of A
1E	48	030	Mechanical Area	1	9956	Unassignab
5	737	210	Class Laboratory	5	3504	School of A
5A	104	215	Class Laboratory Service	0	3504	School of A
7	55	030	Mechanical Area	1	9956	Unassignab
9	1,041	210	Class Laboratory	24	3504	School of A
9A	160	310	Office	5	3504	School of A
9B	111	310	Office	0	3504	School of A
9C	143	310	Office	2	3504	School of A
9D	373	210	Class Laboratory	25	3504	School of A
9E	191	215	Class Laboratory Service	0	3504	School of A
0A	1,017	210	Class Laboratory	25	3504	School of A
0B	916	210	Class Laboratory	25	3504	School of A
0B1	58	215	Class Laboratory Service	0	3504	School of A
0B2	39	215	Class Laboratory Service	0	3504	School of A
0N1	811	020	Circulation Area	0	9956	Unassignab
0N2	476	020	Circulation Area	0	9956	Unassignab
0W1	1,712	020	Circulation Area	0	9956	Unassignab
3	2,727	210	Class Laboratory	20	3504	School of A

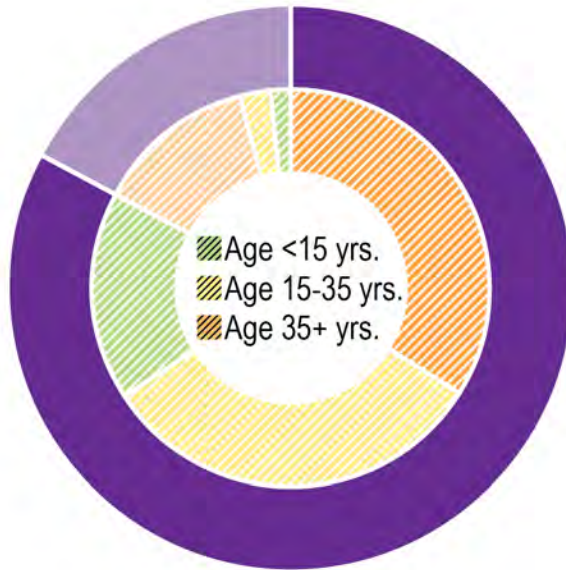
Research Space

CAMPUS LOCATIONS



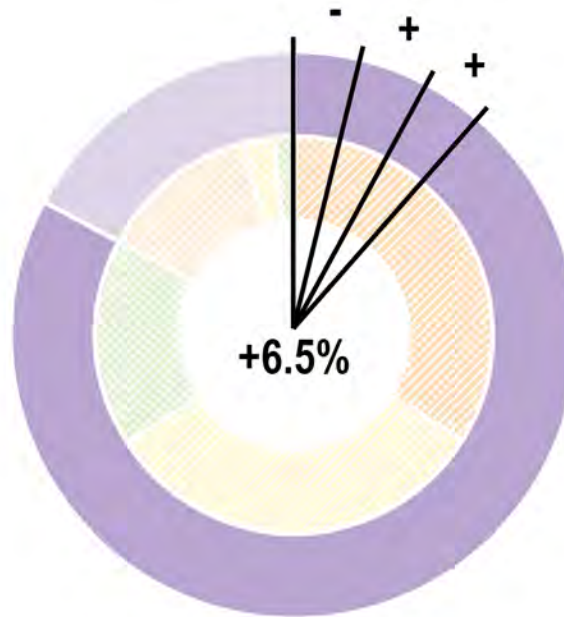
Research Space

WHERE WE LEFT OFF...



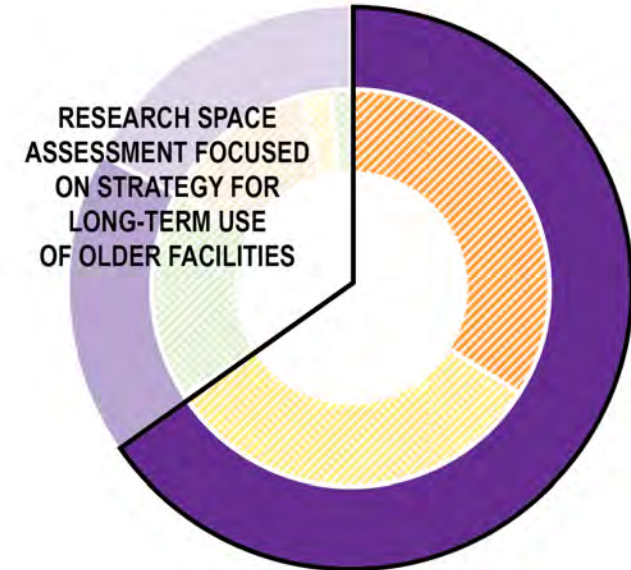
EXISTING
1,148,000 SF

Space Type	D-C
“Top 28” Research Bldgs.	955,500 sf
All other Research Bldgs.	192,500 sf



PLANNED
1,227,500 SF

- Under development projects that may impact
- Chemistry Renovations **(-29,000 SF)**
 - Grand Challenges Building **(+63,000 SF)**
 - Center for Integrative Medicine **(+1,500 SF)**
 - Applied Research Building **(+44,000 SF)**

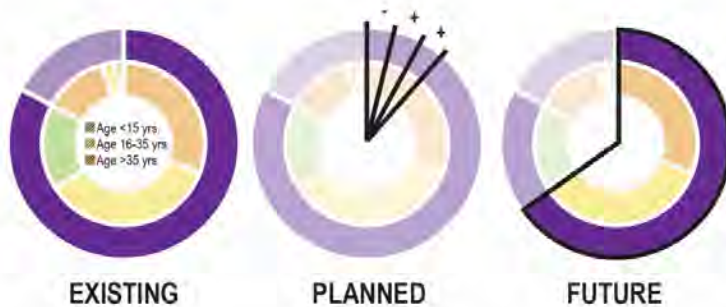


FUTURE
?????? SF

- Variable based on:
- Changing space types and support needs
 - Research profile & expenditure growth
 - Approach to New vs. Reno vs. Re-purpose

Research Space

WHERE WE LEFT OFF...



WORKSHOP 04 - FOCUS GROUP NOTES

- UA through master plan needs to be able to answer “3 Flags”
- (+) • If we get a \$100m program with 150 new faculty, where do we put it? New building? Lease space / at Bridges? What are our options?
- (+) • Innovation space in every building - takes many different forms
- (+) • If ARB + Grand Challenges are successful and create demand/yearning for more similar space, how do we do that?
- (+)(-) • Computational research space/facilities are critical to UA's future
 - Physical infrastructure (server) spaces & cloud spaces - different, both needed
- (+) • Specialty facilities/research also in future
- (o) • UA's model will not be a standardized “1 PI + 6 GA” type model
- (-) • 120 SF offices for PI's is too big - old school thinking
- (o) • UA hopes to focus on larger awards in the future
- (o) • Currently experiencing significant research expenditure growth
 - Growth programs/opportunities identified in strat plan plus others not included
- (-) • Would like greater centralized control of space - reclaim as renovations take place
- (+)(-) • Shared core model, innovation space, collaboration space, mixed-use buildings

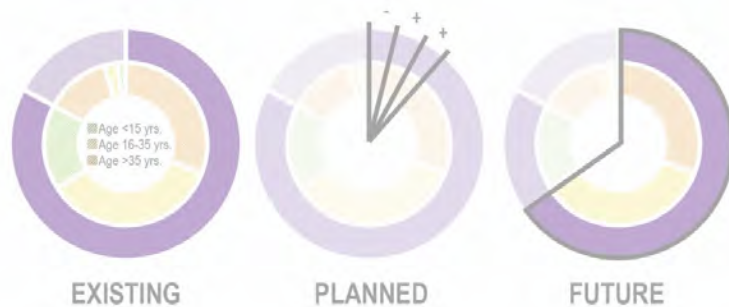
STRATEGIC PLAN ALIGNMENT - EXTRACTS

- (+) • Grand Challenges & the 4IR - space, earth, health, intelligent systems, data/computing
- (+) • Research enablers - graduate stipends, admin support, centers, collaboration redefined
- (+) • Graduate student experience

LEGEND: (+) Increases space or need (o) Neutral or undetermined (-) Decreases space or need

Research Space

WHERE WE LEFT OFF...



WORKSHOP 04 - FOCUS GROUP NOTES

- UA needs to be able to answer "3 Flags"
 - If we get a \$100m program with 150 new faculty, where do we put it?
New building? Lease space / at Bridges?
What are our options?
 - Innovation space in every building
 - If ARB + Grand Challenges are successful and create demand/yearning for more similar space, how do we do that?
- Computational research space/facilities are critical to UA's future
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POTENTIAL RECOMMENDATIONS

- Provide clear options to address the 3 flags
- Recommend deep-dive study into research space focused on "top 28" to better understand what spaces are viable for renovation, which need to be repurposed to other uses, and when do we build new space
- Define potential attributes and typologies for innovation and collaboration spaces and consider parameters for requirements in new/reno projects
- Define basic parameters for the integration of research space into the broader campus framework
- Identify potential locations for physical research components identified in the Strategic Plan (those not being located in Grand Challenges)
- All research building projects (new or reno.) include some instructional space
- Others TBD

Key Takeaways and Topics

RESEARCH AND INNOVATION

Space Needs

- General guiding proportion of future space for research and innovation
- Consider new models of use – shared through flex
- Parameters for Access and “Presence”
- Determine position on campus for next key projects and resources

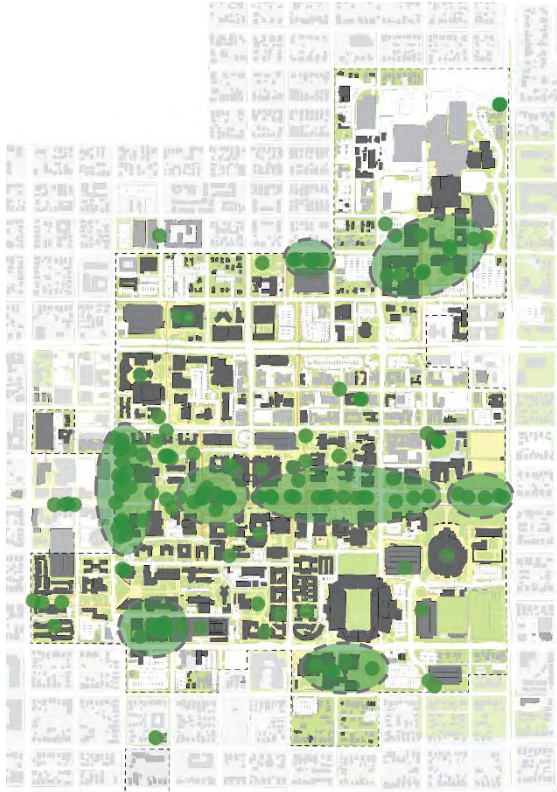
Typologies

- Balance the spectrum of uses near term and long term
- Determine typologies of research and innovation spaces for specific uses and emerging needs
- Consider flexible and adaptable typologies when possible
- Consider the “Practice of Research”

Attributes

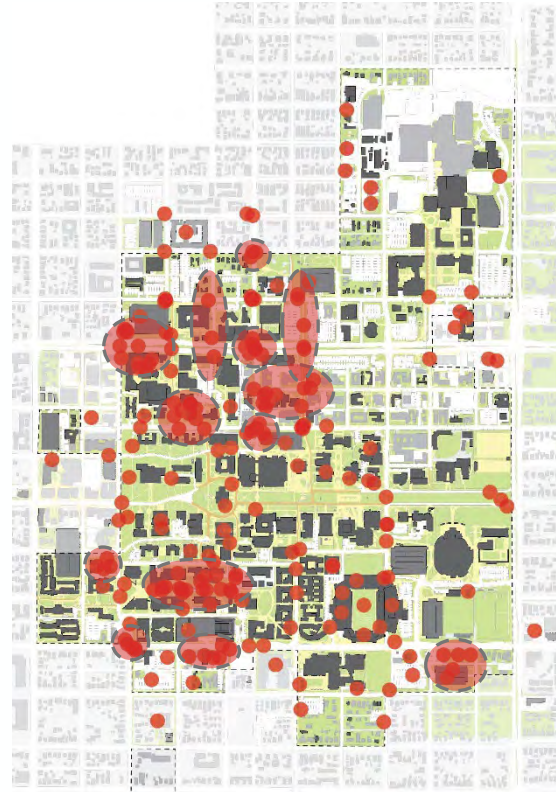
- Consider location, visibility and access
- Open Hub models for students
- Shared Core models for researchers
- Expand the presence of the activity
- Can we develop “Brand”

Steering Committee Suggestions – SWOT



Strengths

- West Gate – gateway and entry
- Old Main
- Research Facilities - ENR2/HSIB
- Main Mall
- Rec Center
- Community Garden



Weaknesses

- Gateway and Intersections along Speedway Blvd. & 6th St.
- North-South Connectivity
- Density & Infill along Speedway Blvd. & 6th St.
- Southwest Campus Quad



Opportunities

- Underutilized Parking Lots
- Gateways and Housing
- Land Use Synergies along Speedway Blvd. & 6th St.
- Open Space Improvements in Southwest Campus
- Southern Edge Land Uses



Threats

- Older Buildings on Campus
- Intersections and Bike/Pedestrian Pathways
- East Speedway Gateway
- Arizona Stadium – deferred maintenance

Topic: Enrollment

*Future enrollment
profiles and impact on
space and utilization*

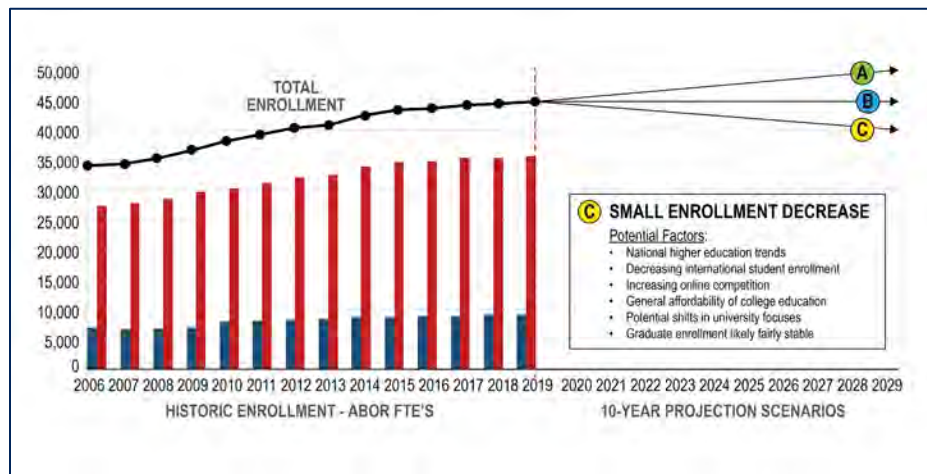
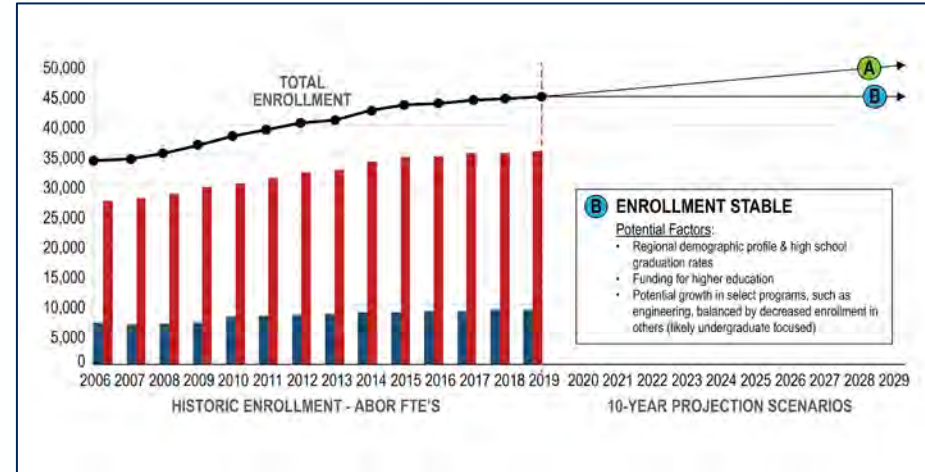
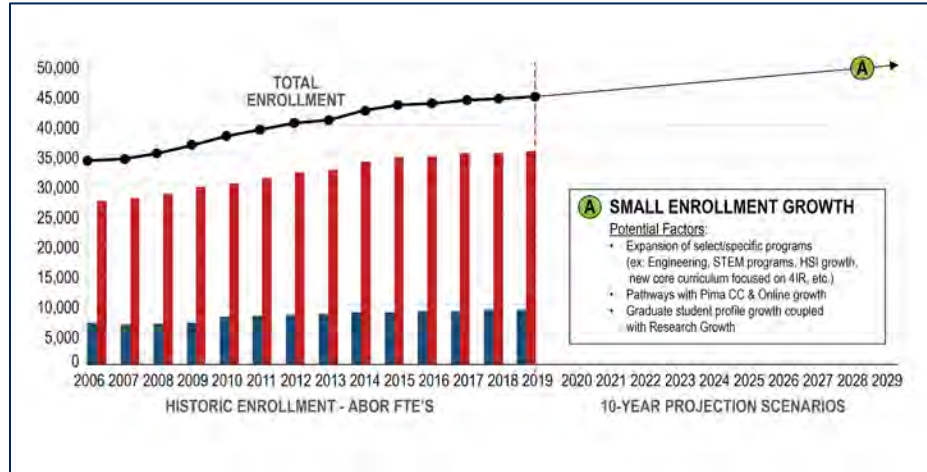
Steering Committee

SPECIFIC COMMENTS

- Analytics have captured the number of students on campus for the past 2 years
 - Based on Wi-Fi connections
 - This data will be informative
 - Already know how many people are coming to campus each day
- Physical vs online demographics, subsequent use patterns
- Decouple grad and undergrad growth patterns because they will be different
- Long-term graduate profiles to support Tier 1 research goals

Steering Committee Topic: Enrollment

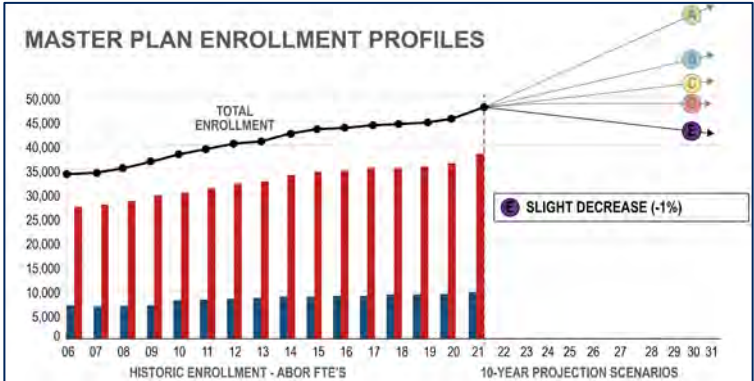
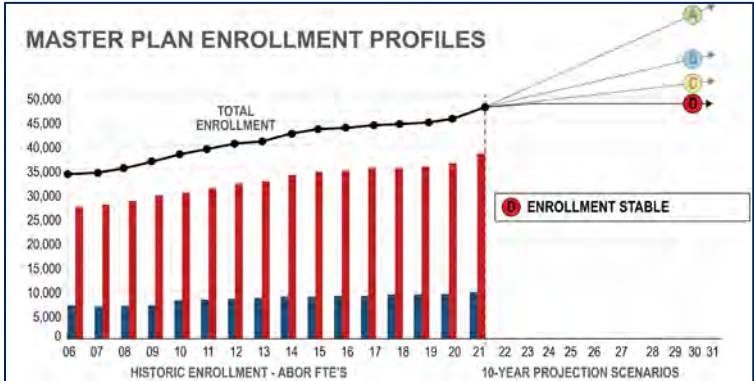
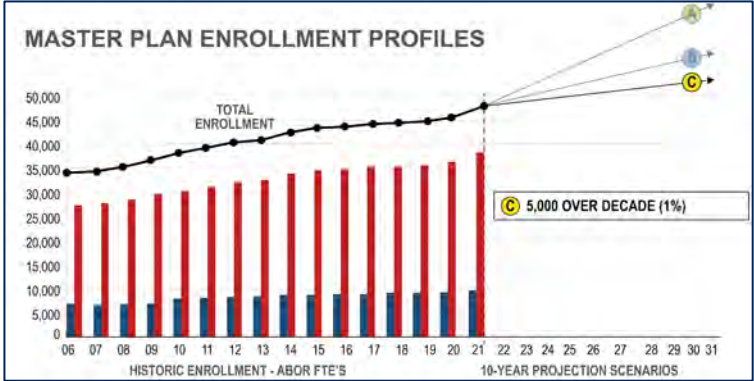
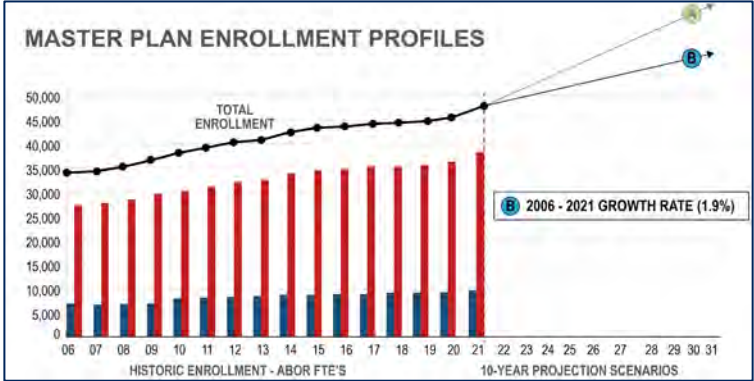
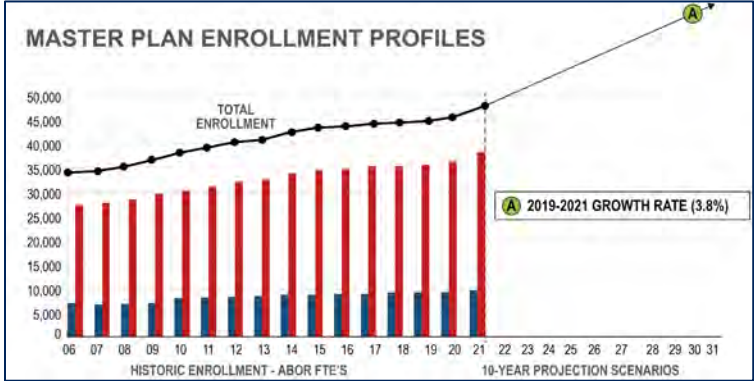
PREVIOUS ENROLLMENT PROJECTIONS (2019)



	Enrollment Profile	Graduate Enrollment	Undergraduate Enrollment	Total Enrollment	What This Means?
EXISTING (FALL 2019 ABOR FTE)	EXISTING PROFILE (FALL 2019)	9,094	35,620	44,714	
10-YEAR PROJECTION SCENARIOS (2020-2030)	A SMALL ENROLLMENT GROWTH Potential Factors: • Expansion of select/specific programs (ex. STEM programs, HSI/border, etc.) • Pathways with Pima CC & Online growth • Graduate student profile growth coupled with Research Growth	9,500 - 10,500	36,500 - 39,500	46,000 - 50,000	Strategic program growth (new & existing)
	B ENROLLMENT STABLE Potential Factors: • Regional demographic profile & high school graduation rates • Funding for higher education • Potential growth in select programs balanced by decreased enrollment in others	8,500 - 9,500	34,500 - 36,500	43,000 - 46,000	Enrollment shifts will take place to align with priorities, but net count will remain fairly stable
	C SMALL ENROLLMENT DECREASE Potential Factors: • National higher education trends • Decreasing international student enrollment • Increasing online competition • General affordability of college education • Potential shifts in university focuses	8,000 - 9,000	31,500 - 34,500	39,000 - 43,000	Overall enrollment figures return to ~2010 levels, but graduate FTE grows as a % of total

Steering Committee Topic: Enrollment

UPDATED ENROLLMENT PROJECTIONS (2021)

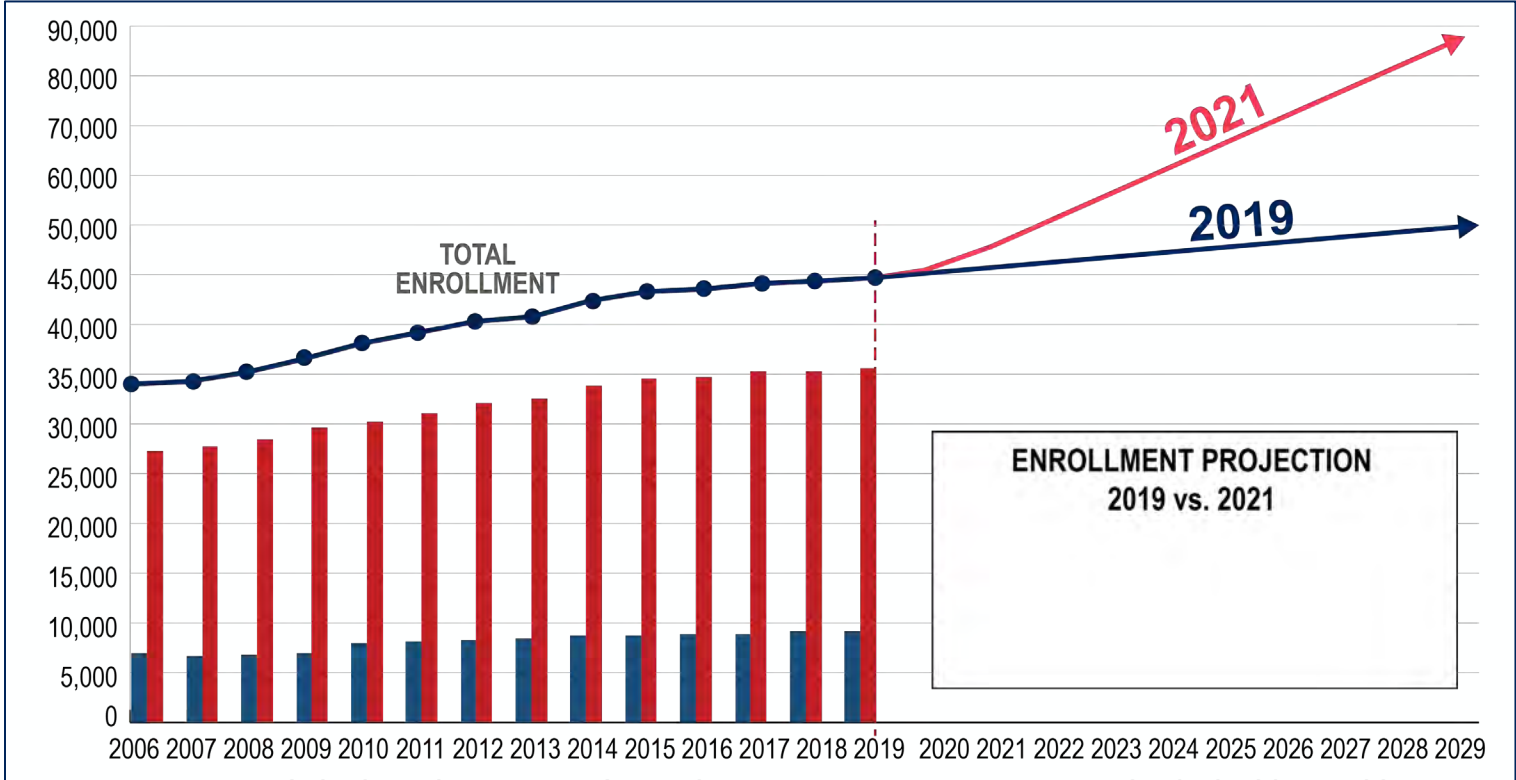


MASTER PLAN ENROLLMENT PROFILES

	Enrollment Profile	Graduate Enrollment	Undergraduate Enrollment	Total Enrollment	What This Means?
EXISTING (FALL 2021 AND/FTE)	EXISTING PROFILE (FALL 2021)	10,943	38,528	49,471	
10-YEAR PROJECTION SCENARIOS (2019-2021)	A 2019 - 2021 GROWTH RATE %	14,748 - 15,881	51,319 - 53,956	66,088 - 71,828	???
	B 2006 - 2021 GROWTH RATE %	12,716 - 13,203	44,786 - 46,503	57,506 - 59,711	???
	C 1% OVER DECADE	11,845 - 12,082	41,716 - 42,554	53,565 - 54,641	???
	D ENROLLMENT STABLE	10,943 - 11,162	38,528 - 39,302	49,471 - 50,464	???
	E SLIGHT DECREASE	10,093 - 9,892	35,547 - 34,839	45,646 - 44,737	???

Steering Committee Topic: Enrollment

2019 VS. 2021 PROJECTIONS (PROJECTION A 2019 VS. PROJECTION A 2021)



2021

EXISTING (FALL 2021 ABOR FTE)	Enrollment Profile	Graduate Enrollment	Undergraduate Enrollment	Total Enrollment
	EXISTING PROFILE (FALL 2021)	10,943	38,528	49,471
A	2019 - 2021 GROWTH RATE %	14,740 - 15,881	51,919 - 55,938	66,666 - 71,828

2019

EXISTING (FALL 2019 ABOR FTE)	Enrollment Profile	Graduate Enrollment	Undergraduate Enrollment	Total Enrollment
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A	SMALL ENROLLMENT GROWTH Potential Factors: • Expansion of select/specific programs (ex: STEM programs, HSI/border, etc.) • Pathways with Pima CC & Online growth • Graduate student profile growth coupled with Research Growth	9,500 - 10,500	36,000 - 39,000	46,000 - 50,000

Discussion Point

- Do you see the campus differently over the past 2 years?
- Do we have new programs or initiatives that impact the master plan?



Discussion Point

- What sustainability goals do the research initiatives currently follow? Are there any considerations for the future?
- Any general thoughts about how the campus functions today?
- What impacts and changes have occurred regarding providing work and services?



An aerial photograph of a university campus, likely the University of Arizona, showing numerous red-brick buildings, green spaces, and palm trees. In the background, a range of mountains is visible under a clear sky. The entire image is overlaid with a semi-transparent dark blue filter.

Process and Topics for Next Session

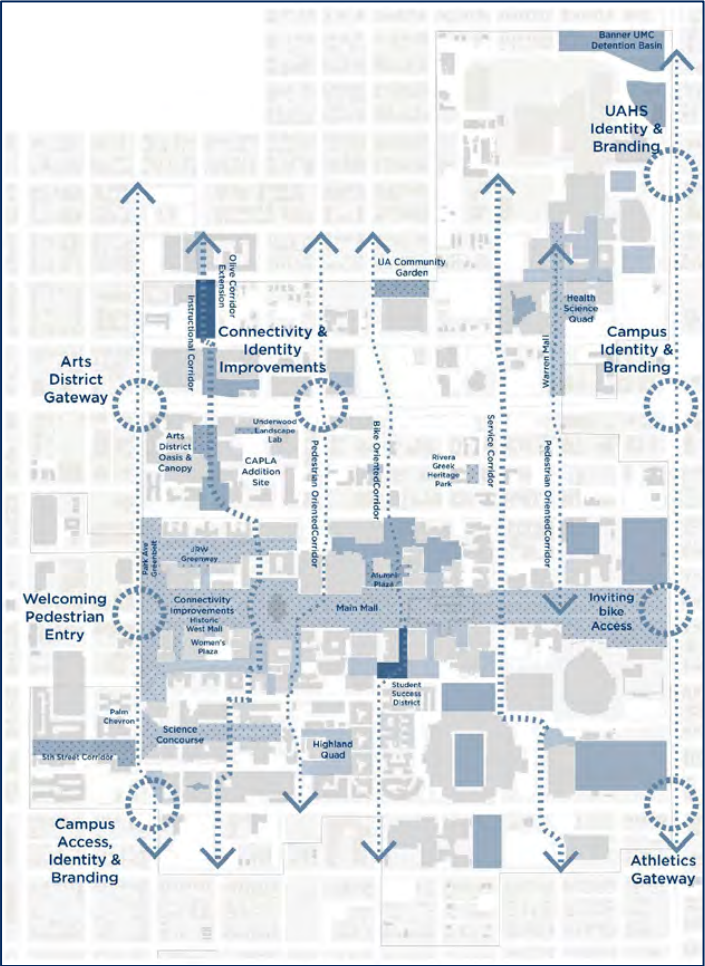
Site Plan Hubs

- 6th Street
 - 6th Street & Park Ave
 - 6th Street & Campbell Ave
- University Blvd
 - University Blvd & Park Ave
 - University Blvd & Campbell Ave
- Speedway Blvd
 - Speedway Blvd & Park Ave
 - Speedway Blvd & Mountain Ave
 - Speedway Blvd & Campbell Ave
- Adams St & Campbell Ave

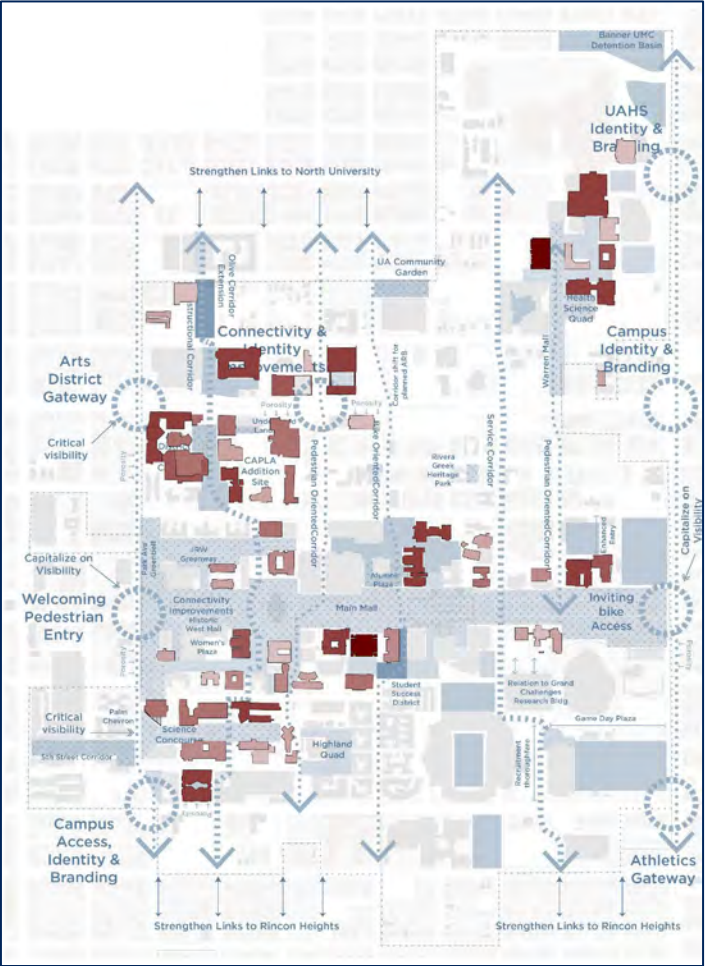


Site Plan Hubs

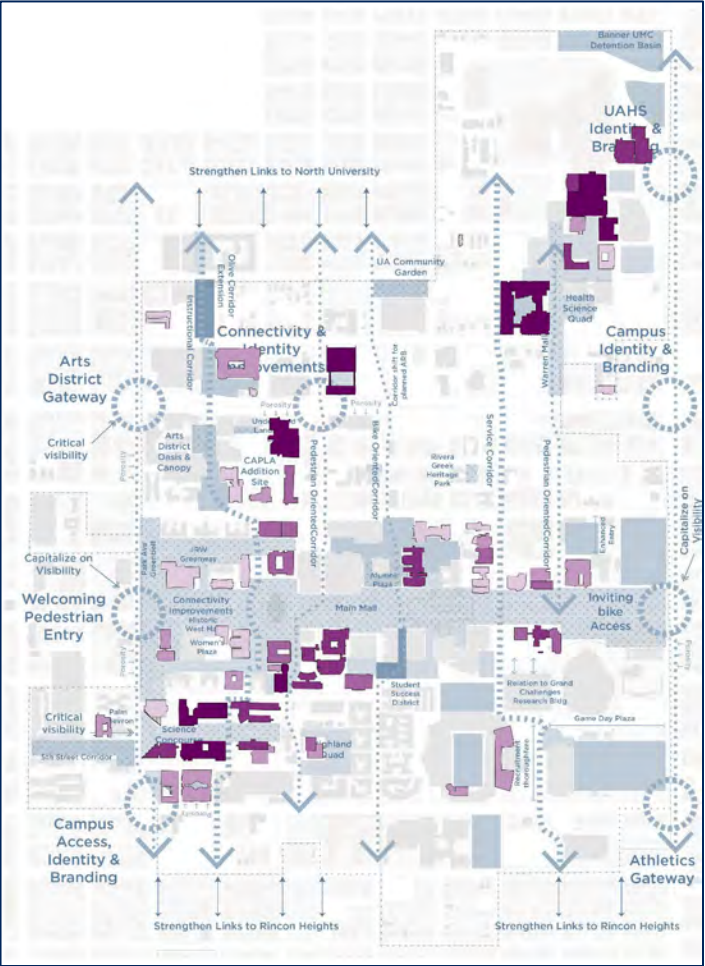
Gateways and Open Spaces



Instructional Hubs



Research Hubs



Next Steps

- Determine next workshop and format
- SWOT will be reassessed in next workshop
- Additional information



Next Steps

RESEARCH AND INNOVATION

Program

- Update the Campus Plan with recent completed projects and any proposed projects
- Update space utilization and operational perspectives
- Capture long-term view on space

Physical Planning

- Use Research and Innovation as a catalyst to activate the campus
- Synchronize types of uses with broader campus activities to create hubs

Data

- Determine critical paths for academic programs with allied research resources
- Develop **space** needs profile that synchronizes with campus holistically
- Determine how current research resources are impacted by facility condition or historic preservation goals

An aerial photograph of a city, likely Phoenix, Arizona, with a dark blue overlay. The city is densely packed with buildings, and mountains are visible in the background under a clear sky. The text "Thank You!" is centered in the middle of the image.

Thank You!