

California State Polytechnic University, Pomona Master Plan Overview

Academic Senate





AGENDA

Faculty Senate

Master Planning Team

Process + Engagement

Timeline

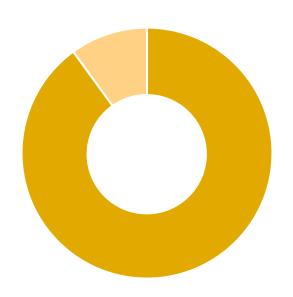
Goals – Strategic / Academic Plan Nexus

Overview of Planning Activities to date

Next Steps

team:

Ayers Saint Gross



90%

of our work is for higher education institutions

170

Professional Staff Members

75%

of our Staff Members are LEED Accredited



200+

completed unique master plans in the last 25 years

SPECIALIZATIONS

Architecture

Interior Design

Campus Planning

Urban Design

Landscape Architecture

Space Programming

Website & Graphic Design Accessibility

Communications

Workshop Facilitation

AREAS OF EXPERTISE

Open Space Planning

Sustainability Planning

Precinct Planning

Athletic / Recreational Planning

Residence Life Planning

Facility Assessments

New Program Development

Design Guidelines

Space Needs Analysis

Classroom and Laboratory Utilization

Classroom Mix Analysis

Pre-Architectural Program Planning

Comparative Analysis / Benchmarking

Space Guideline Establishment

Space Reallocation / Migration

Educational Adequacy Assessment

Inventory Development

"We engage people and places to create designs that enrich the world."

A Commitment to Higher Education

Workshop-Based

Process structure around intensive campus engagement

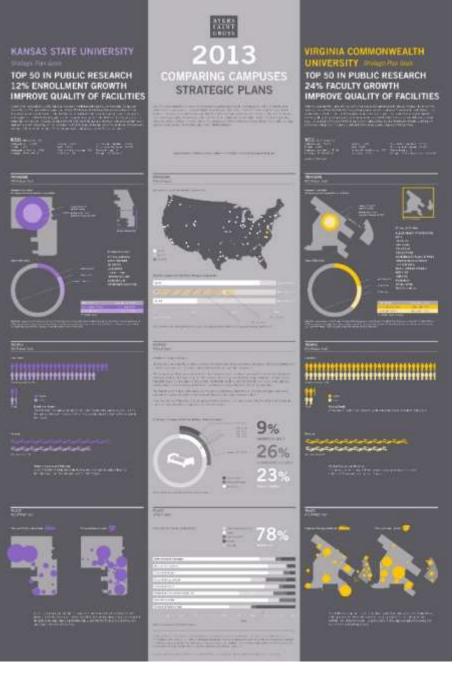
Research-Informed

Active research on higher education trends since 1998

Scenario-Tested

Campus Capacities explored via multiple development scenarios







Ayers Saint Gross Planning Philosophy

- Fact/Data and Research based
- Educational in process and approach
- Unique to Cal Poly Pomona's mission, vision, culture, and strategic plan
- Engaging and inclusive of multiple campus and community stakeholders
- Iterative, using analysis and planning to advance the plan and build consensus
- Narrative shapes the campus vision
- Supports informed decision-making
- Establishes the foundation for change





ADVISORY COMMITTEE

Chair

FP&M Staff Support

ASI and Student Government

Academic Planning & Student Success

Deans

Academic Senate Chair

Enrollment Mgmt & Services

Student Life & Housing

Dean of Students

Advancement

Campus Health & Wellbeing

ASI Executive Director

Disability Resource Center

Foundation

Police

Information Technology Operations

Institutional Risk & Emergency Mgmt

Transportation and Parking

Athletics

Facilities (Ops, Utilities, Landscape)

City of Pomona

Campus Consulting Architect

Danielle Manning, Vice President

Walter Marquez, Dan Johnson, Julie Tsang

Farris Hamza and Itzia Salinas

Sep Eskandari and Terri Gomez

Lisa Kessler and Joseph Rencis

Julie Shen

Meredith Kelley

Chris Chisler and Megan Stang

Thomas Cruz-Soto

Doug Nelson

Leticia Gutierrez-Lopez

Roosa Millar

Tracee Passeggi

Aaron Neilson

Chief Robinson

Peter Deutsch

Whitney Fields

John Lloyd and Mike Biagi

AD Swanson

George Lwin, Richard Farmer, Jesse Ochoa

City Planning Director

HMC (Jim Wurst)

team:

Steering / Advisory Committee

President's Cabinet (Executive Committee)

Provide Planning Direction Lead Decision-making

Master Plan Advisory Committee

Represent Stakeholders
Engage + Advise Planning Team
Become Plan Champions

Campus Stakeholders including Academics (Provost, Deans, Programs) and all aspects of Student Life and Success

Participate, Provide Input Be Plan Communicators

Facilities Planning

Orchestrate + Facilitate Process

Master Planning Consultant Team

(planners, architects, landscape architects, civil engineers, MEP systems engineers, transportation engineers, sustainability experts, cost estimators)

Provide Analysis, Expertise and Plan Content (analysis, studies, alternatives, plans)

Why master plan?

One of three planning tools:

What?

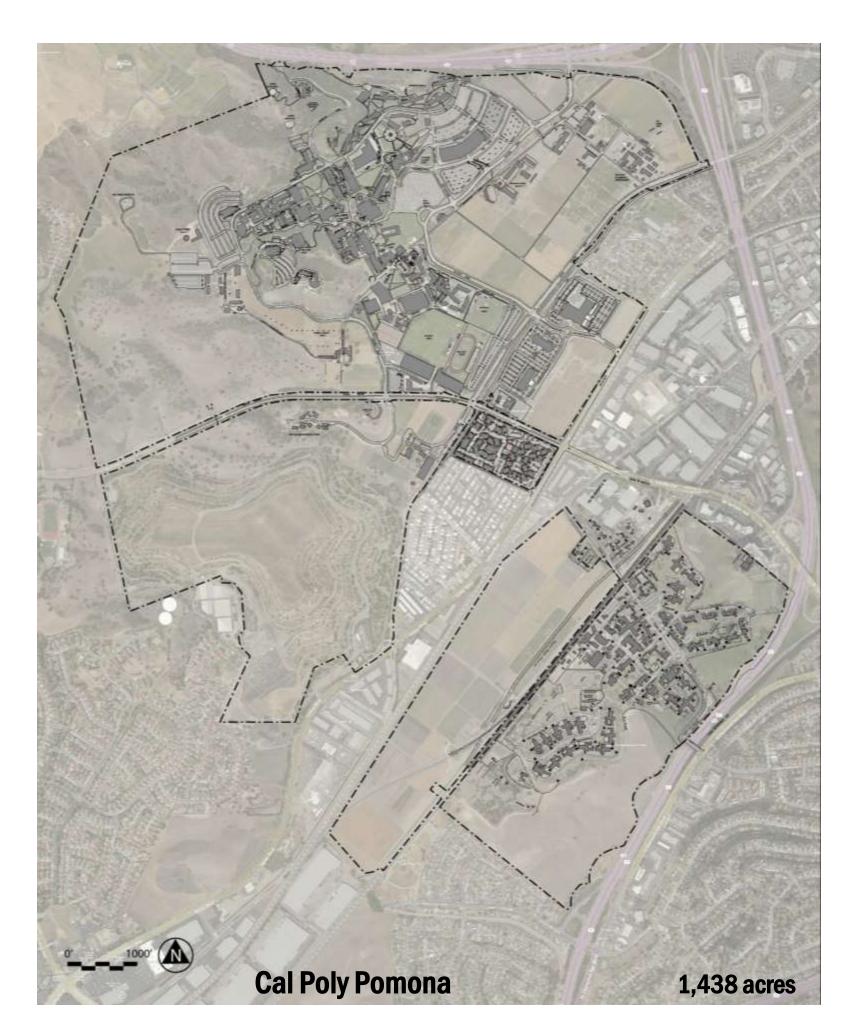
Strategic Plan establishes direction for needs, growth

Where?

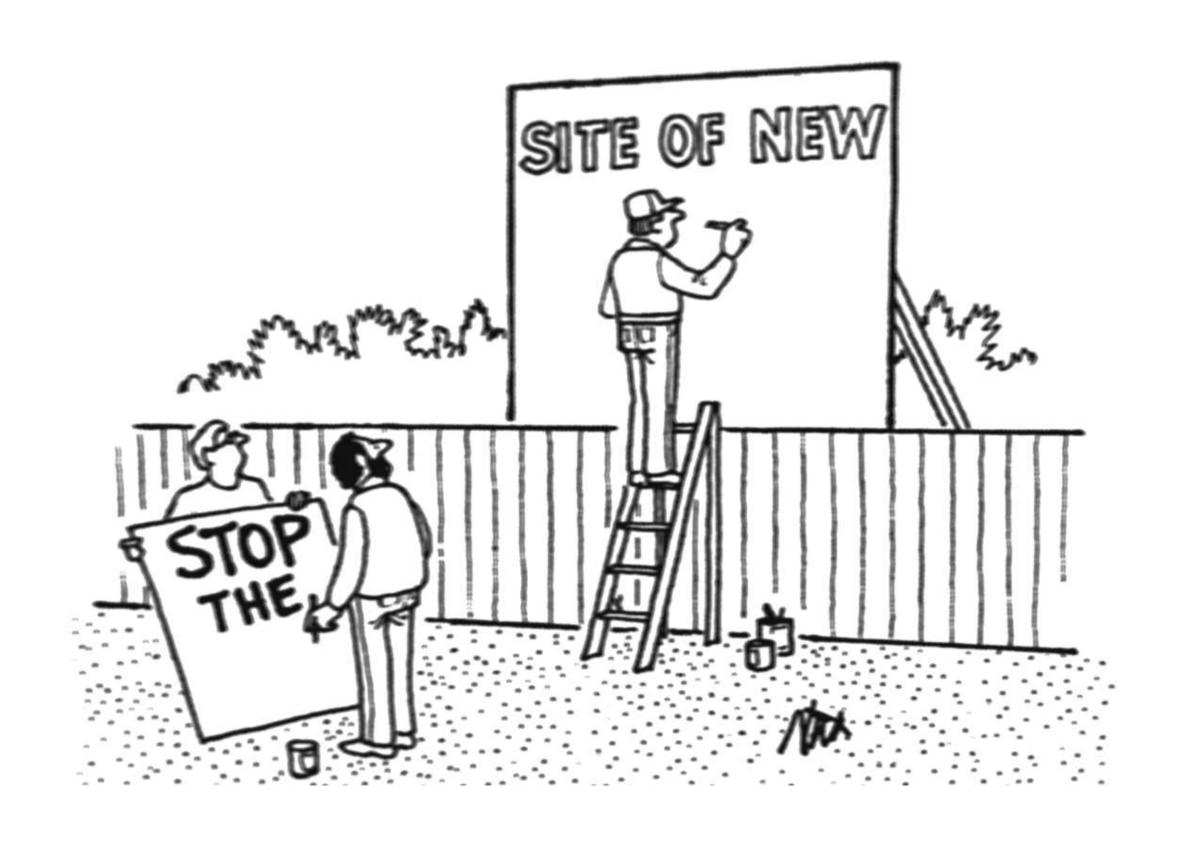
Master Plan guides the physical development to support direction and meet needs, growth

How?

Financial Plan facilitates implementation of these plans



The Process is as important as the Product



Steps in the Planning Process







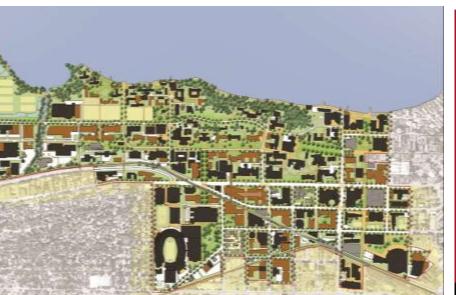
Observations & Analysis



Conceptual Plans



Precinct Studies / Alternates



Draft Plan + Phasing



Final Plan & Reports

process:

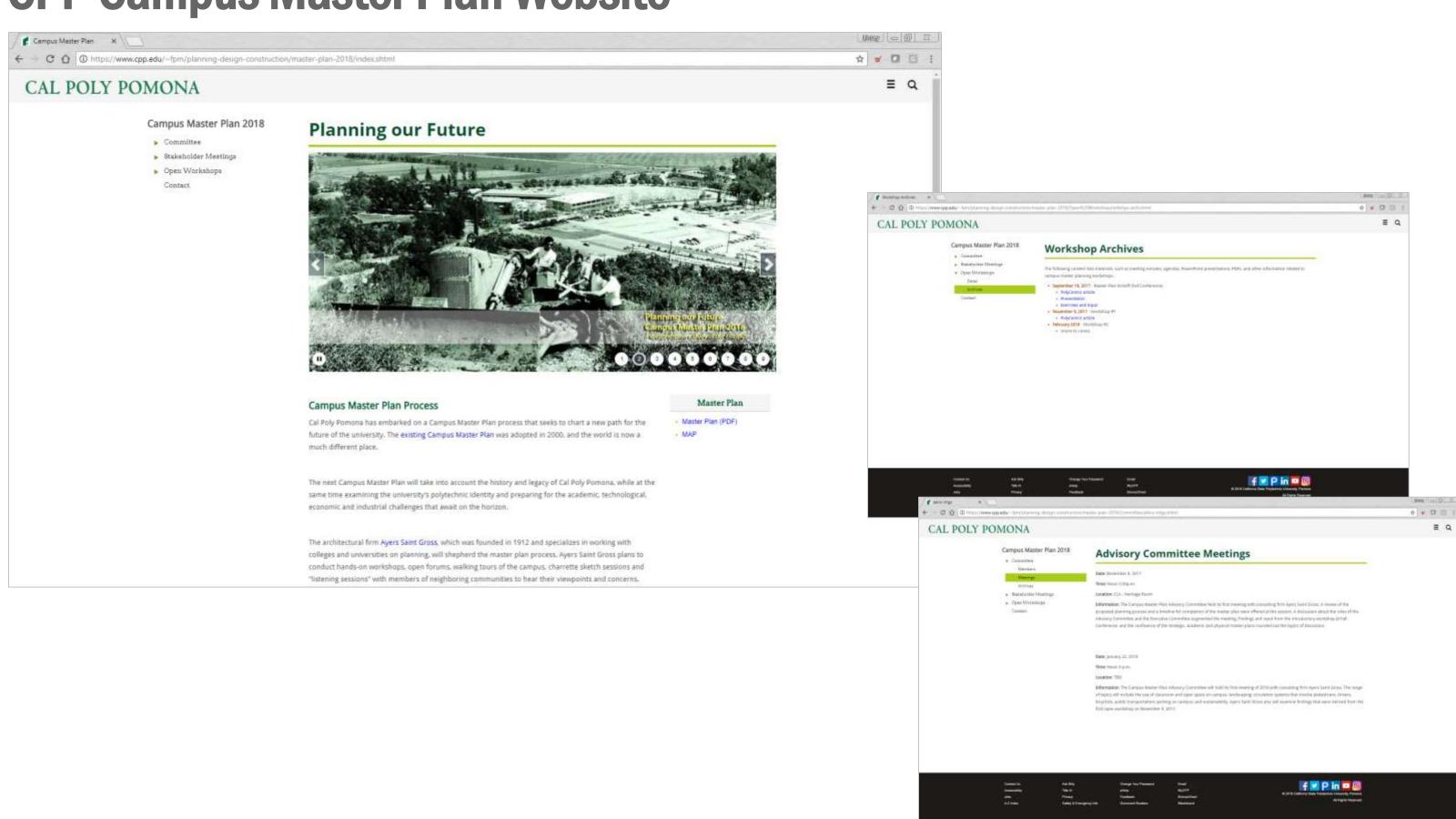
Iterative Process, not strictly linear



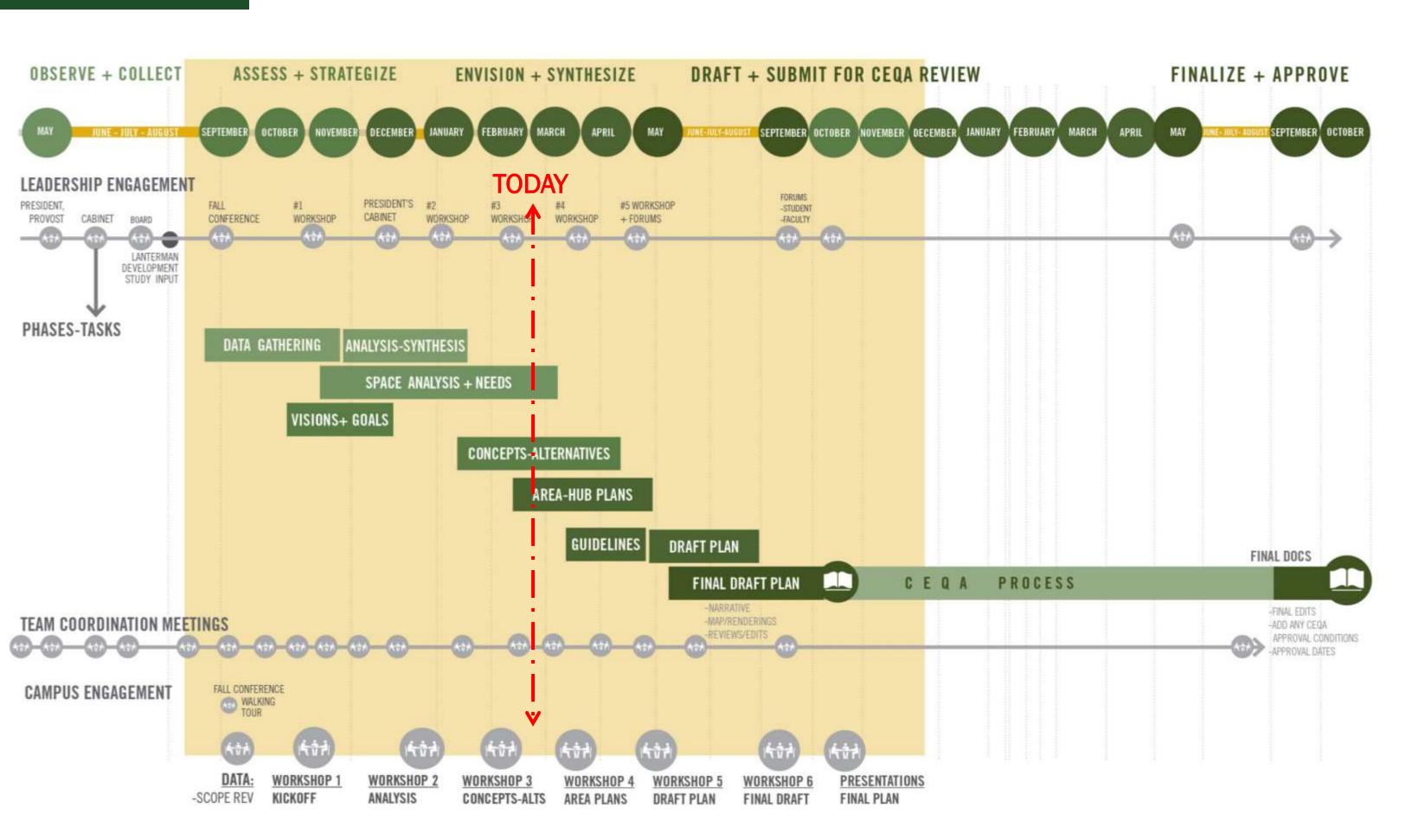
process:

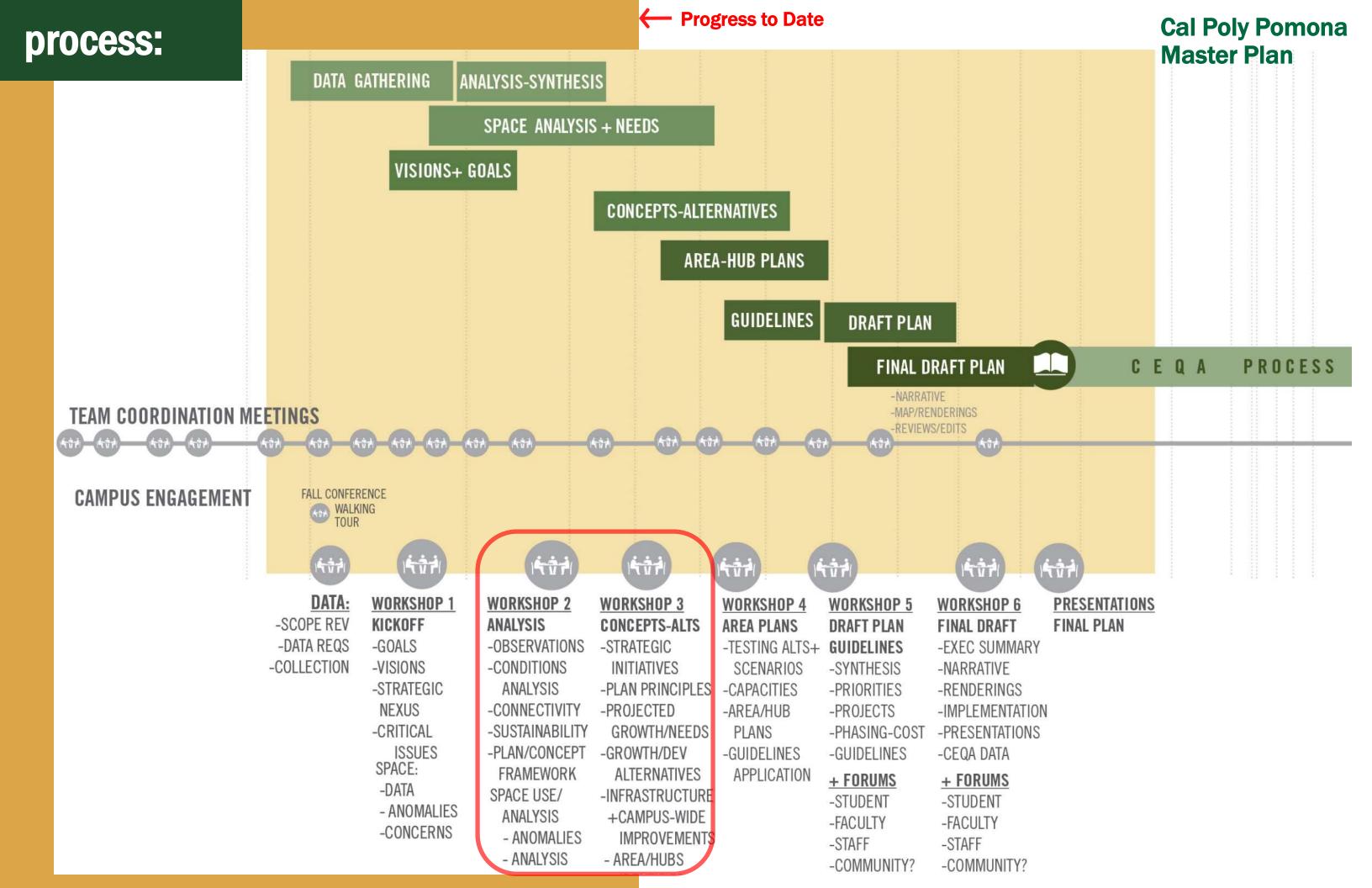
Web-Based Communication

CPP Campus Master Plan Website



Timeline - Fall 2017 to Fall 2018





Cal Poly Master Plans





2000 Campus Master Plan Goals

- 1) excellence in teaching, learning
- 2) effective acquisition, planning, management of resources
- 3) promote research, scholarly, professional, creative activities
- 4) enhance support for students
- 5) improve campus environment

2012 Campus Master Plan Revision Goals

- 1) concentrated academic campus
- 2) student engagement + campus experience
- 3) polytechnic university
- 4) pedestrian-oriented campus
- 5) identity
- 6) sustainability

MASTER PLAN GOAL

The 2018 Cal Poly Pomona Master Plan Update will be comprehensive, broad, and intentional about furthering Cal Poly Pomona's place in the future of the country.

goals:

Strategic Initiatives

Deliver quality programs that promote integrative learning, discovery, and creativity.

Enhance Student Learning, Development, and Success

Prepare our students for the future of work and civic engagement

Strengthen our Economic Vitality and Impact

Advance Organizational Development and **Employee Excellence**

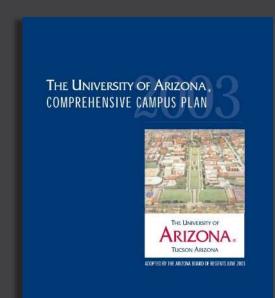


PROCESS + ANALYSIS

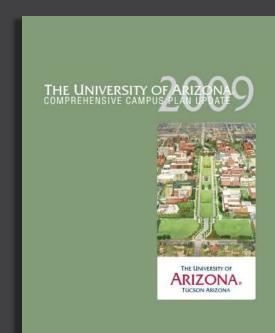
UNIVERSITY OF ARIZONA

NEXUS OF STRATEGIC PLAN + MASTER PLAN (case study)

UA PLANNING EFFORTS

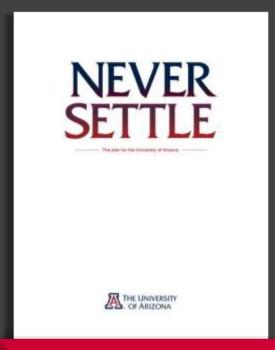


2003 MASTER PLAN



2009 PLAN UPDATE





2015 STRATEGIC PLAN









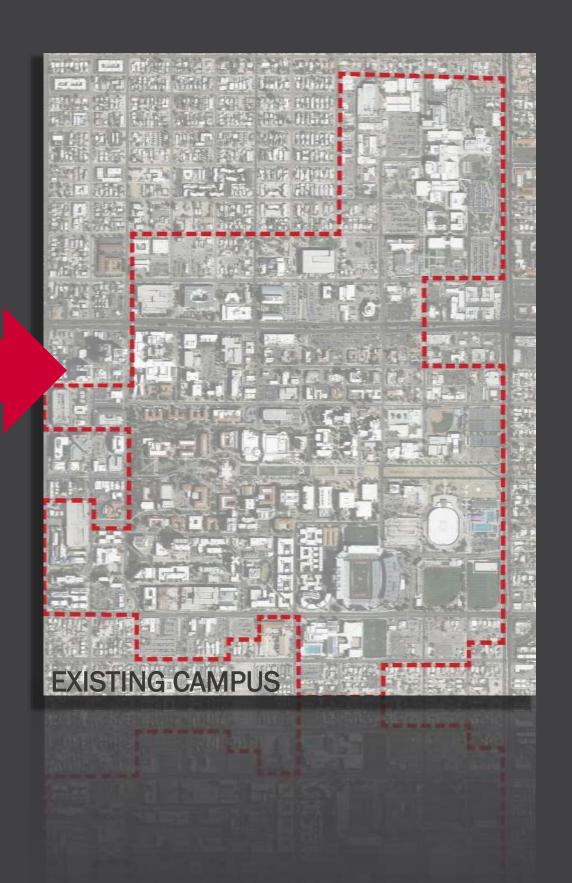
UA 2015 STRATEGIC PLAN to MASTER PLAN











CAMPUS DIAGRAMS (to overlay)

PARKING PLACES FOR TRANSIT **GATEWAYS** GREENSPACE **USE DISTRICTS** STRUCTURES COMMUNITY CENTRAL PLANT **NEIGHBORHOOD** HIGH DENSITY **HUBS BASED ON** NEIGHBORHOOD LOCATIONS HUBS **ZONES EDGE CONDITIONS** AFFILIATED USES **INTEGRATION**

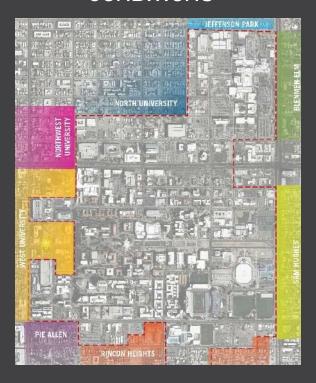


RELEVANT CAMPUS DIAGRAMS:

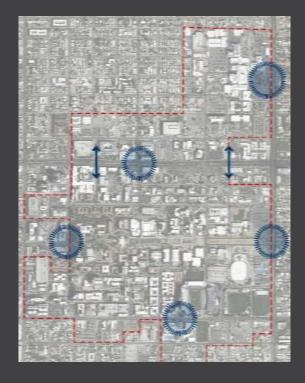
USE DISTRICTS



NEIGHBORHOOD EDGE CONDITIONS



CAMPUS GATEWAYS

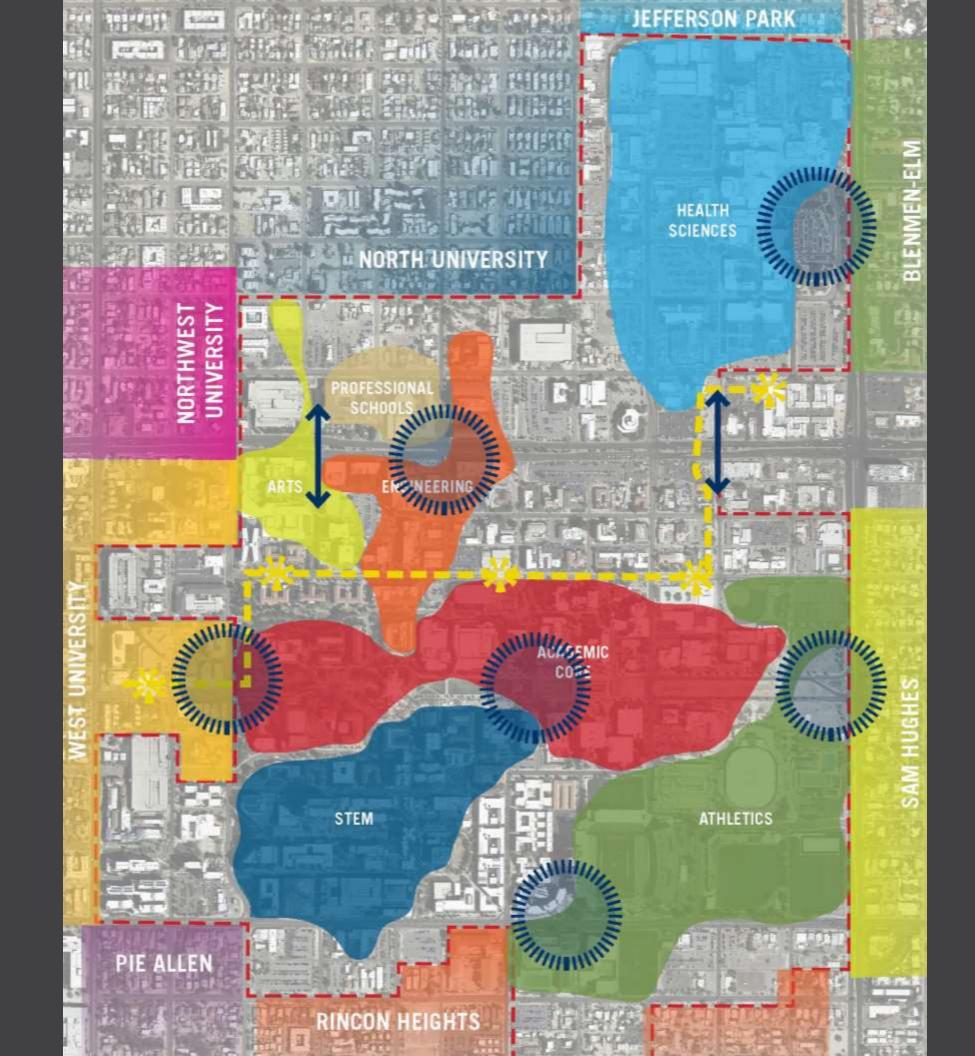


TRANSIT



STRATEGIES FOR ENGAGEMENT

- Dynamic learning environments
- Diversify space types
- Create more collaborative resources
- Change pedagogy and curriculum
- Display engagement





HIGH DENSITY ZONES

RELEVANT CAMPUS DIAGRAMS:



PARKING STRUCTURES



GREENSPACE



CENTRAL PLANT LOCATIONS

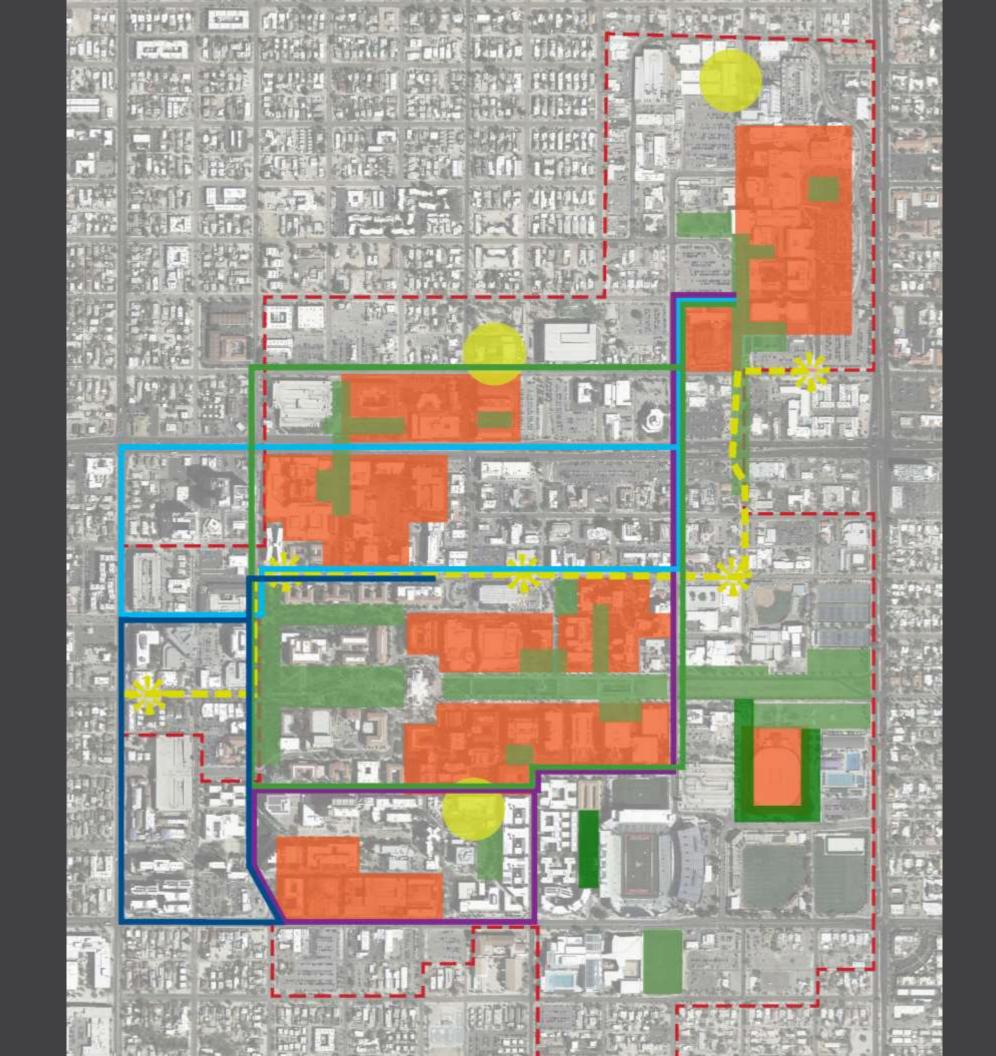


TRANSIT



SYNERGIESOF INFRASTRUCTURE

- Identify under utilized resources
- Broaden aspects of infrastructure
 - Alternative energy
 - Water management
- Update transportation at south end of campus
- Edge conditions with variability's of uses

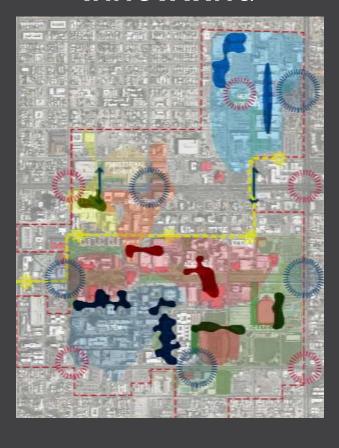


UA CAMPUS PLAN STRATEGIC INITIATIVES

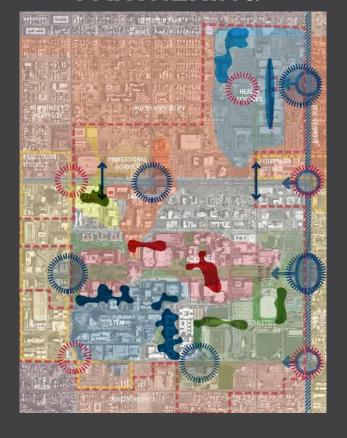
ENGAGING



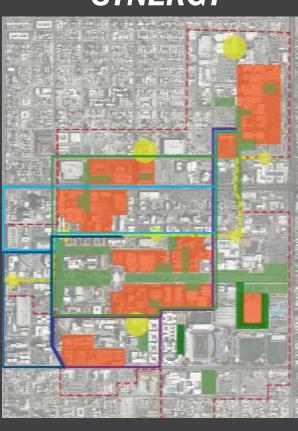
INNOVATING

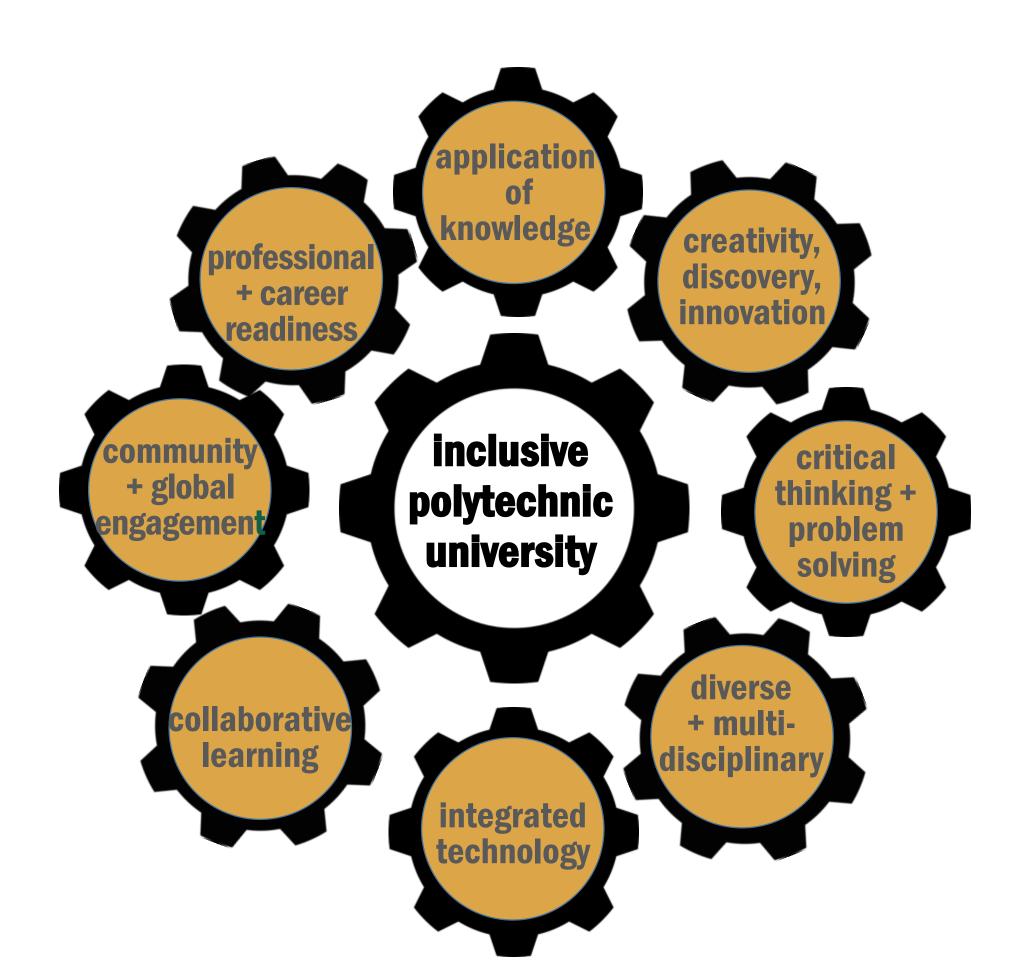


PARTNERING



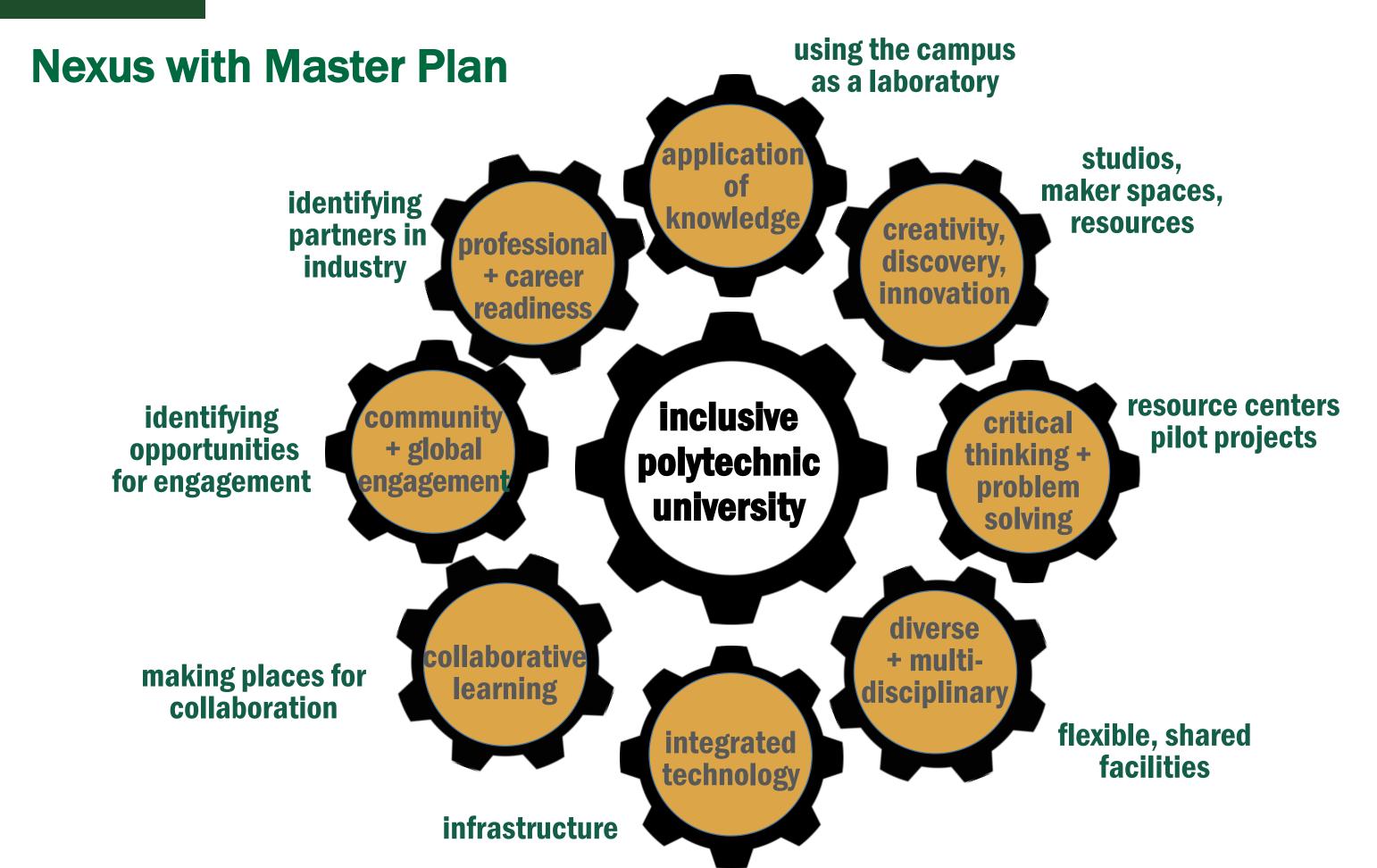
SYNERGY





Academic Plan Elements

Cal Poly Pomona



Space Analytics

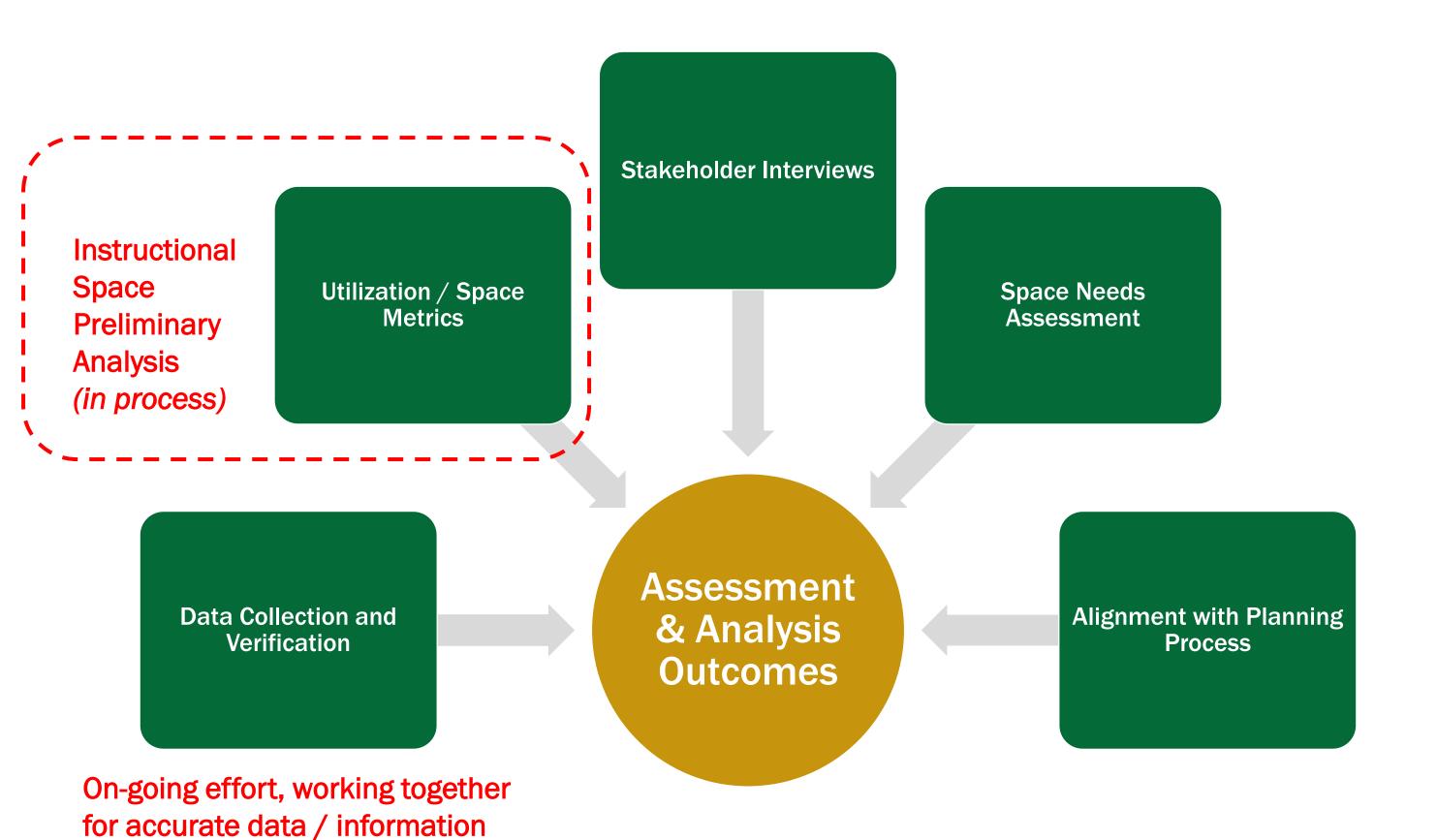
SPACE ASSESSMENT PROCESS

- Data collection + field verification
 - Facilities, enrollment, course schedule
- Existing space distribution + uses (incl land)
 - By program, use type
- Classroom + class laboratory utilization analysis
 - Type, size, seats, scheduling
- Demand Analysis, Space Needs Assessment + Prioritization
 - Baseline year + future scenarios
- Stakeholder meetings as needed for specific issues or follow-up
 - President, Vice Presidents, Deans, Directors
- Findings + outcomes
 - Utilize SAMi[™] to focus + prioritize critical needs



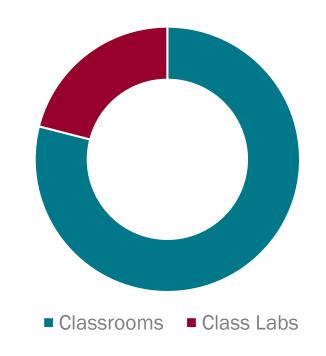
process:

Components of the Space Study



INSTRUCTIONAL SPACE UTILIZATION

Classrooms	Class Laboratories
42 Total Rooms	11 Total Rooms
79%	21%



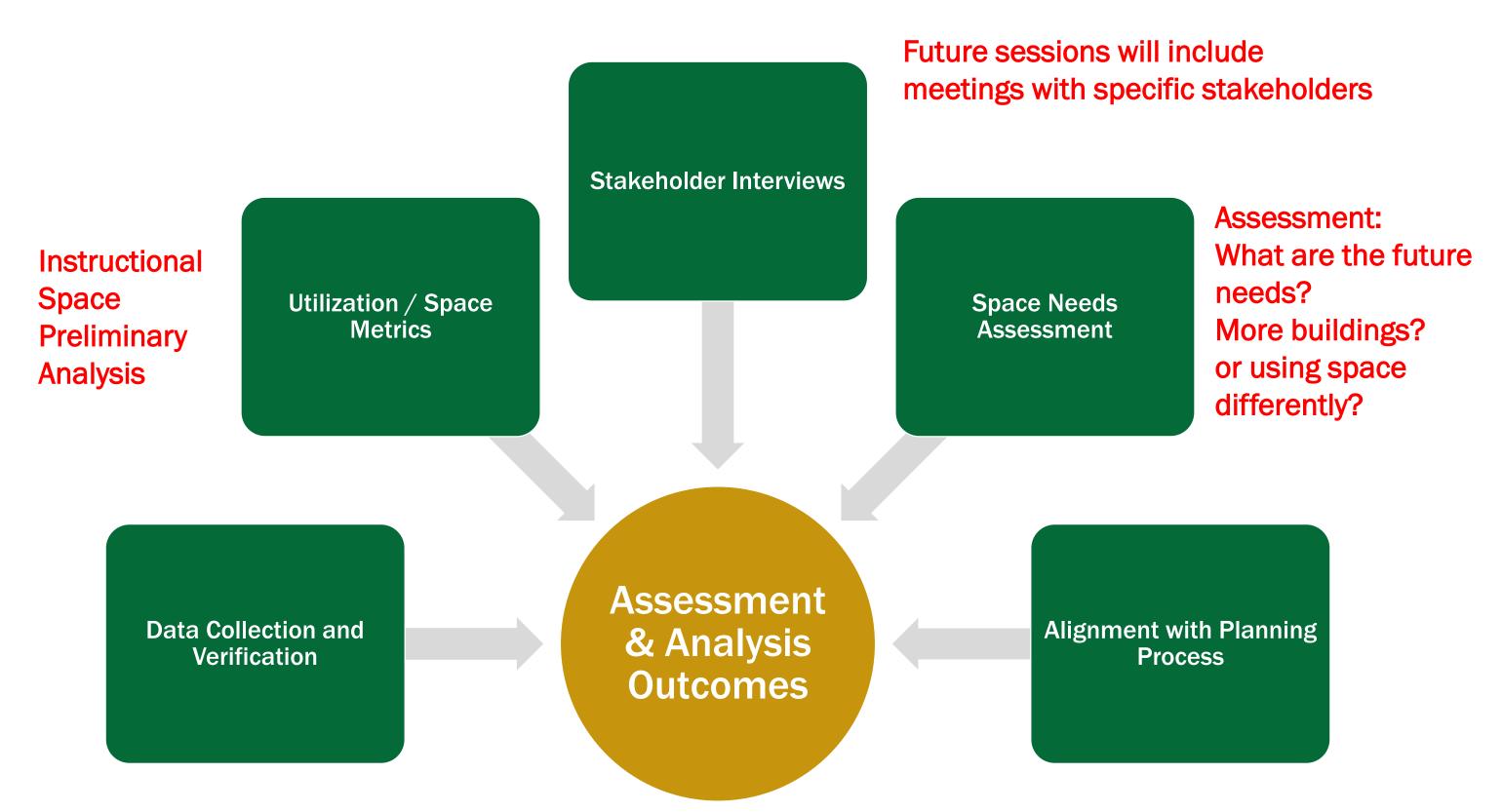
Utilization by Time of Day - Fall 2016

	The second second	The American Control of the Control	11000000	A Company of the Comp	1,1,000	1110100	
	Monday	Tuesday	Wednesday	Thursday	Friday	*Average	1
7:00 AM	5% 2 Rooms	17% 7 Rooms	5% 2 Rooms	19% 8 Rooms	5% 2 Rooms	10% 4 Rooms	
8:00 AM	7% 3 Rooms	19% 8 Rooms	7% 3 Rooms	21% 9 Rooms	2% 1 Rooms	12% 5 Rooms	
8:30 AM	57% 24 Rooms	88% 37 Rooms	55% 23 Rooms	88% 37 Rooms	24% 10 Rooms	62% 26 Rooms	
9:30 AM	69% 29 Rooms	88% 37 Rooms	67% 28 Rooms	86% 36 Rooms	38% 16 Rooms	69% 29 Rooms	
10:00 AM	76% 32 Rooms	95% 40 Rooms	74% 31 Rooms	95% 40 Rooms	40% 17 Rooms	76% 32 Rooms	
10:30 AM	81% 34 Rooms	95% 40 Rooms	79% 33 Rooms	93% 39 Rooms	52% 22 Rooms	81% 34 Rooms	
11:00 AM	64% 27 Rooms	86% 36 Rooms	62% 26 Rooms	83% 35 Rooms	40% 17 Rooms	67% 28 Rooms	
11:30 AM	86% 36 Rooms	93% 39 Rooms	88% 37 Rooms	93% 39 Rooms	40% 17 Rooms	81% 34 Rooms	
12:30 PM	88% 37 Rooms	93% 39 Rooms	88% 37 Rooms	88% 37 Rooms	2% 1 Rooms	71% 30 Rooms	
2:00 PM	90% 38 Rooms	79% 33 Rooms	86% 36 Rooms	74% 31 Rooms	14% 6 Rooms	69% 29 Rooms	
2:30 PM	93% 39 Rooms	88% 37 Rooms	88% 37 Rooms	86% 36 Rooms	12% 5 Rooms	74% 31 Rooms	'
4:00 PM	45% 19 Rooms	40% 17 Rooms	40% 17 Rooms	40% 17 Rooms	0% 0 Rooms	33% 14 Rooms	74 -
5:30 PM	17% 7 Rooms	17% 7 Rooms	14% 6 Rooms	17% 7 Rooms	0% 0 Rooms	12% 5 Rooms	0
6:00 PM	90% 38 Rooms	79% 33 Rooms	88% 37 Rooms	76% 32 Rooms	24% 10 Rooms	71% 30 Rooms	Classio
7:30 PM	62% 26 Rooms	62% 26 Rooms	60% 25 Rooms	60% 25 Rooms	26% 11 Rooms	55% 23 Rooms	
8:30 PM	50% 21 Rooms	45% 19 Rooms	48% 20 Rooms	43% 18 Rooms	26% 11 Rooms	43% 18 Rooms	100

^{*} The average is calculated on Monday through Friday use.

process:

Components of the Space Study



CPP has unique needs and polytechnic mission What space types are needed now and in the future?

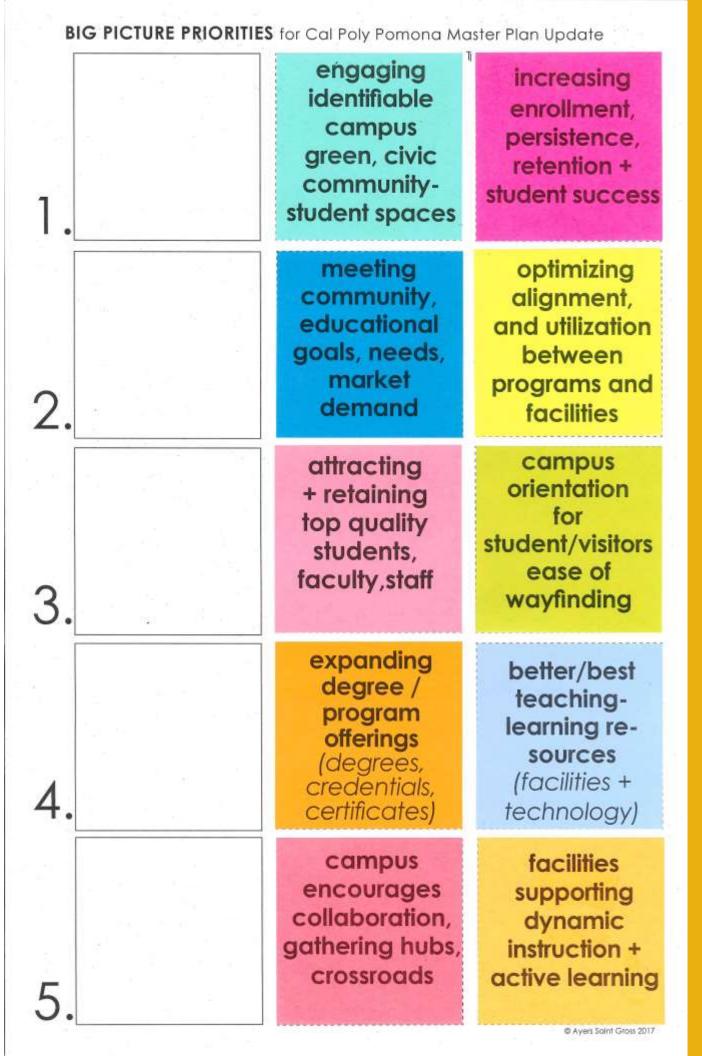
Cal Poly Pomona Visioning

EXERCISES

What are your TOP Five 'Big Picture' Priorities?'

Big Picture Priorities

What are your TOP 5?



Big Picture MP Priorities (President's Cabinet)



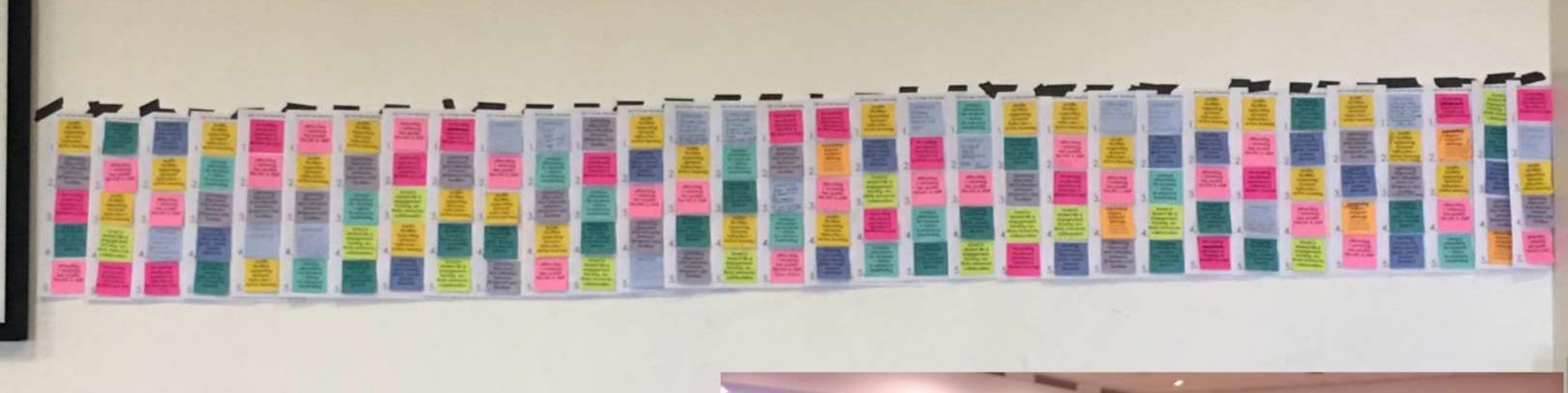
Pinks are Student-Oriented Yellow-Orange is Faculty/Staff + Supporting Facilities Green is Campus Blue is Community

Big Picture MP Priorities (President's Cabinet)

- 1. Attracting/retaining top quality faculty, staff
- 2. Campus encourages collaboration, gathering hubs and crossroads
- 3. Increasing enrollment, persistence, retention and student success
- **4.** Facilities supporting dynamic instruction and active learning
- 5. Optimizing alignment and utilization between programs and facilities



Exercise: Big Picture Priorities (Fall Conference)





EXERCISE: Priorities from the two groups

President's Cabinet

strongly aligned

- 1. Attracting/retaining top quality faculty/staff
- 2. Campus encourages collaboration, gathering hubs, crossroads
- 3. Increasing enrollment, persistence, retention, student success
- 4. Quality facilities supporting active learning
- 5. Optimizing alignment between programs and facilities

Fall Conference (faculty, students)

- 1. Quality facilities supporting active learning
- 2. Attracting/retaining top quality faculty/staff
- 3. Increasing enrollment, persistence, retention, student success
- 4. Wild Card!
- 5. Optimizing alignment between programs and facilities

Exercise: Big Picture Priorities

Responden	Quality facilities supporting dynamic instruction and active learning	Attracting and retaining top quality faculty and staff	Increasing enrollment, persistence, retention and student success	Wild Card!	Optimizing alignment, and utilization between programs and facilities	Engaging Identifiable Campus, Civic, Student and Community Spaces	Campus Orientation for Students and Visitors to Enhance Wayfinding	Meeting community, educational goals, needs, market demand	Invest in student life and engagement, housing, rec, student resources, collaboration	Expanding degree/progra m offerings
TOTAL	-									
VOTES	103	65	65	61	57	43	39	37	27	13
Percen	20%	13%	13%	12 %	11%	8%	8%	7%	5%	3%



#4 WILD CARDS:

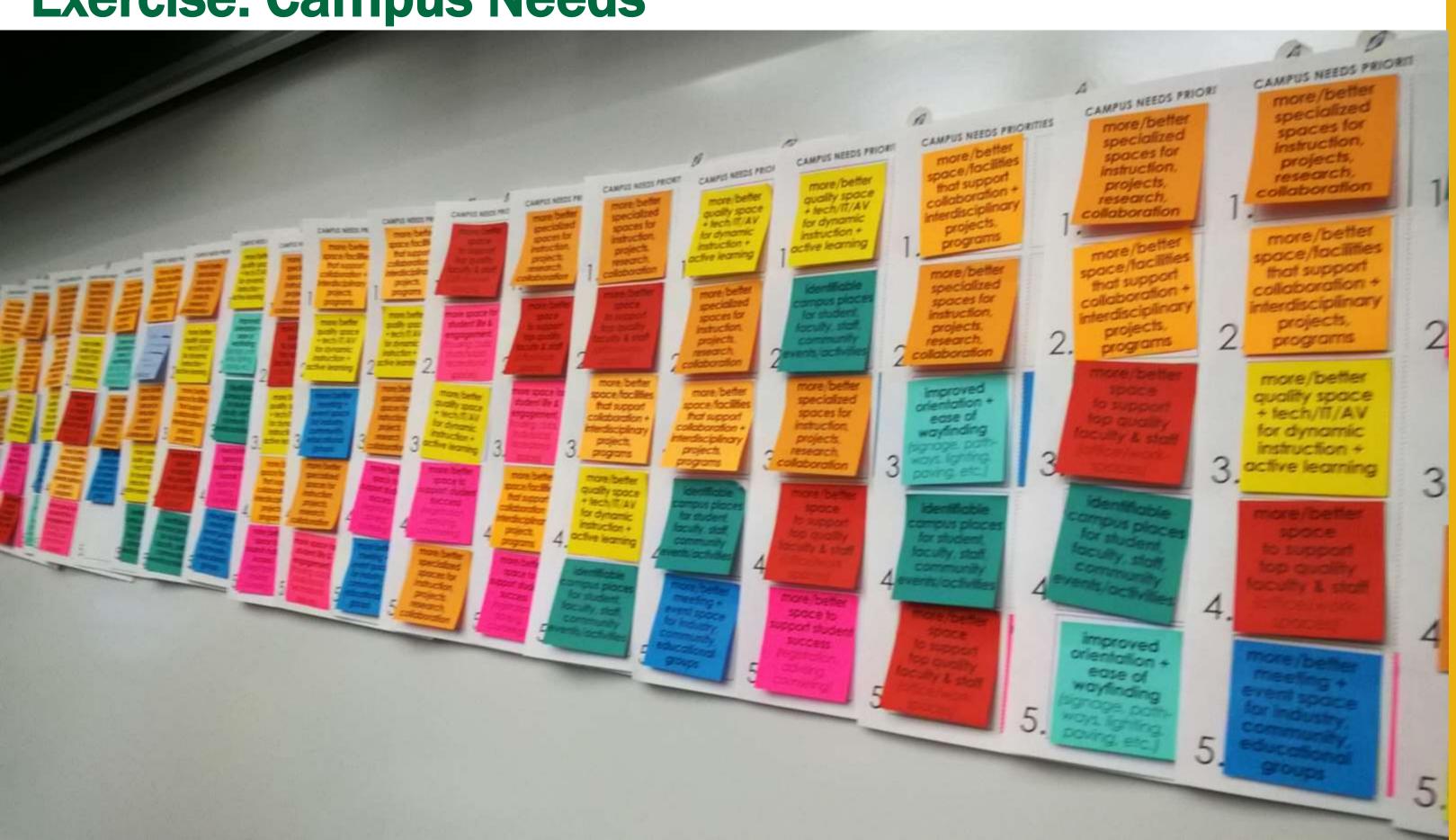
- Visibility of Artwork on campus
- Visibility of Student Work
- Demonstrate Sustainability
- Improve Access for Bikes
- Creation of Transit Hub/Stop

Cal Poly Pomona Visioning

EXERCISES

What are your TOP Five 'Campus Needs' Priorities?

Academic Senate Exercise: Campus Needs

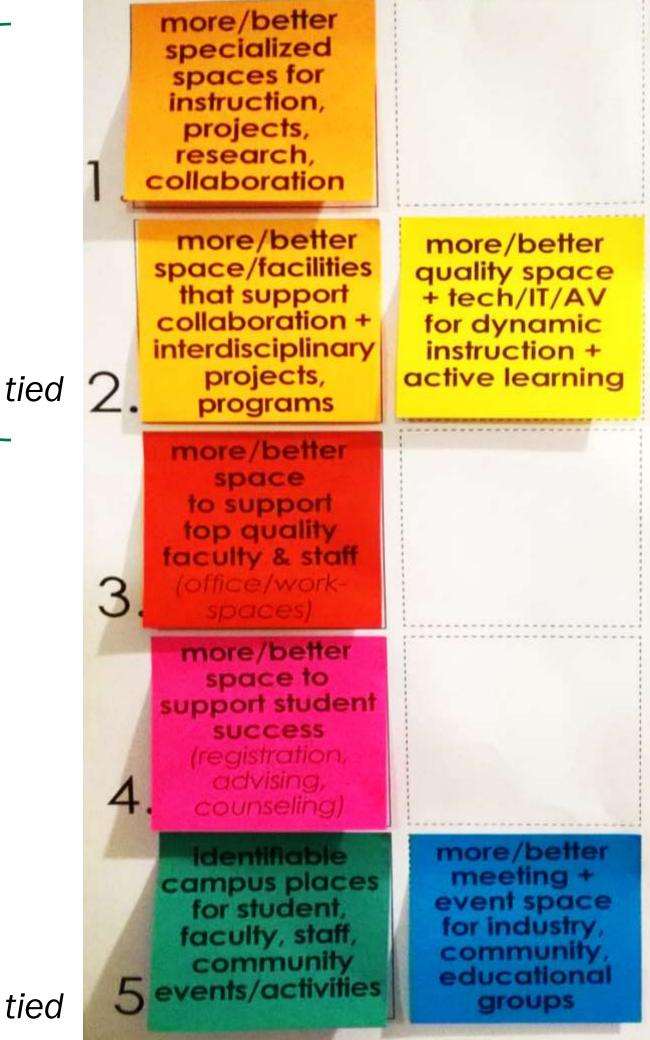


Academic Senate Exercise: Campus Needs

emphasis on the quality-quantity of instructional spaces

#4 WILD CARDS:

- better transportation and transit connectivity
- more efficient separation of vehicles and pedestrian/bicycle traffic
- faculty housing
- more/better space for poor students, vulnerable students, DACA students
- resources for students (CAPS, undocumented students)



Overview of Planning Activities

Fall Conference – Sept 19, 2017

- Overview + Exercises
- Walking Tour

Workshop 1: Kick-Off - Nov 8-9, 2017

- Advisory Committee Visioning
- Open Session
- Provost + Deans Overview

Workshop 2: Observations/Analysis - Jan 22-23, 2018

- Advisory Committee Observations/Analysis
- Stakeholder meetings

Workshop #3: Concepts, Feb 28-Mar 1, 2018

- Sustainability Open Forum
- Stakeholder meetings
- Advisory Committee Themes + Principles

Stakeholder Meetings

- Transportation Committee
- Transportation, Transit, Parking
- ASI, Student Organizations
- Bronco Student Center
- Campus Housing, Dining
- Health Services
- Childcare Center
- Recreation, Athletics
- Office of Student Life & Cultural Centers
- Pride Center
- Greek Life
- Foundation, Dining
- Police, Institutional Risk
- Library
- IT
- Lyle Center

Update on Process/Progress

Fall Conference

1) 30-min Presentation with Q/A

- 65 attendees signed-in
- over 100 participated in the exercises

2) Open Forum/Activities:

- Big Picture Priorities (post-its)
- SWOT Dot Maps
- Sustainability Table Topic
- Space Analytics Demonstration

3) Campus Walk

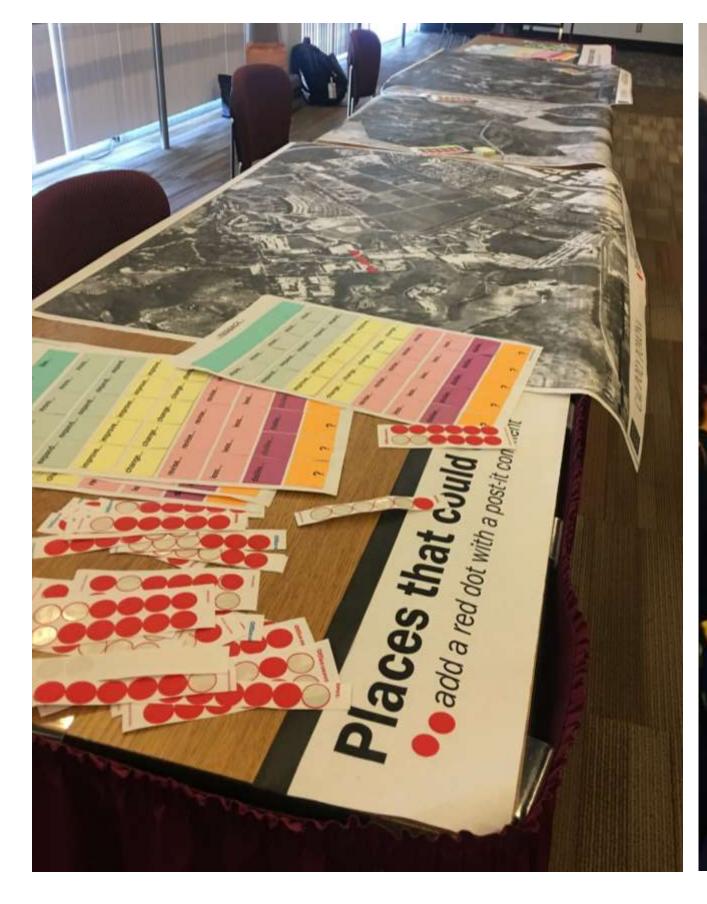
over a dozen walked with the planning team







SWOT Dot Maps





Exercise:

Synthesis

Campus love...

- university quad, open space, plazas
- views, natural areas, courtyards
- special places: Japanese Garden, gardens, Kellogg Arabian Center, Lyle Center, Ag Valley Drive and agricultural fields, orchards
- sustainable campus

Improve....

- bike lanes, transit access, pedestrian safety, street crossings, sidewalks, accessibility, lighting, signage/wayfinding, drop-off areas for destinations
- pedestrian mall + University Park
- sustainability: building materials, solar shading of parking, storm water runoff (capture, recycle water)
- art, galleries, sculpture garden

Specific Improvements

 BSS update; structural testing lab; classrooms in Bldg 2,4,7; relocate Student **Health Center, Children's Center**



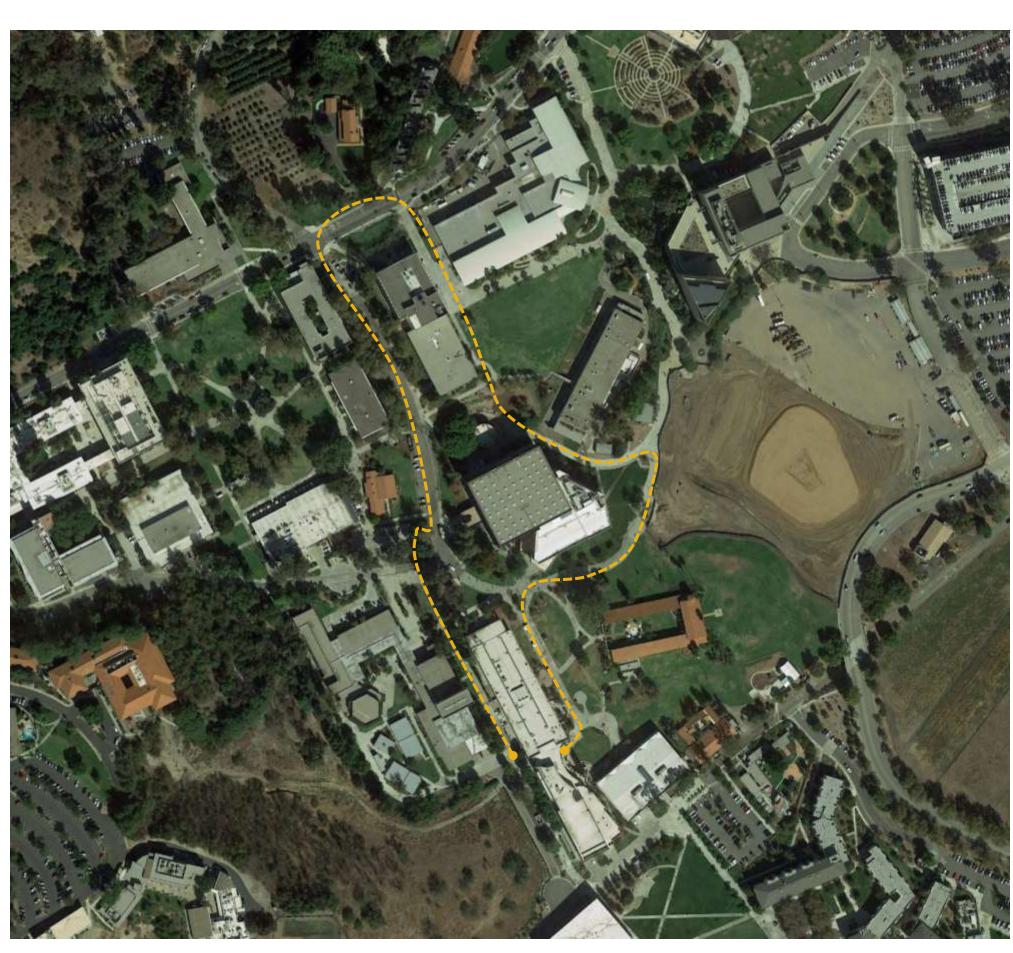
update:

Campus Tour









Update on Process/Progress

Workshop #1: Kick-off + Open Session

WHAT: MASTER PLANNING WORKSHOP

WHO: All students, faculty, staff are invited

WHEN: Thursday November 9, 9-11 am

WHERE: Bronco Student Center

Andromeda Suites, #2341-2345

Are you wondering about the campus master plan?

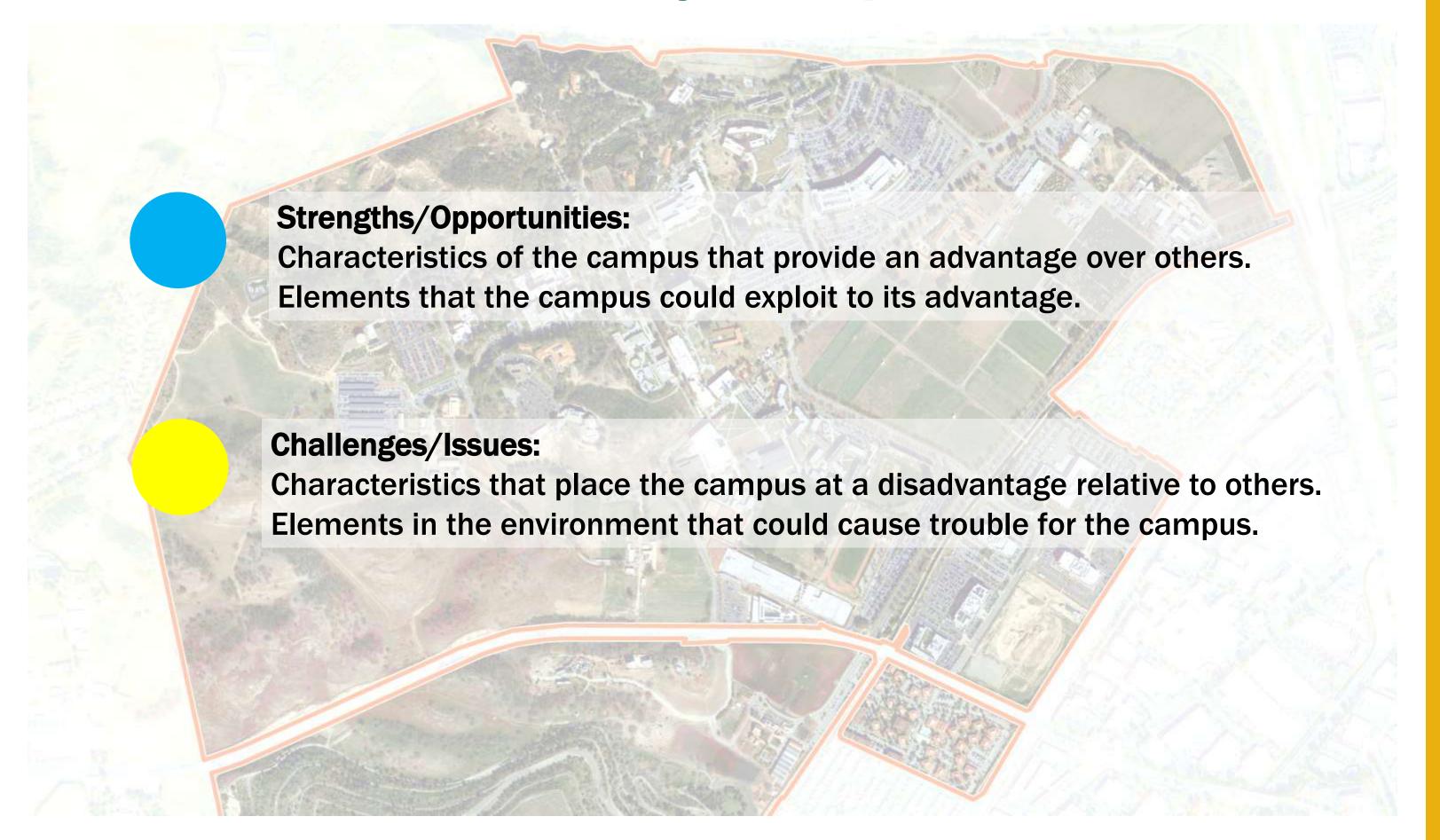
PLEASE join us in an ongoing conversation about the future of this campus. The master planning process is starting and we want to hear from YOU! The planning team will lead a workshop sharing observations about the campus and engaging in VISIONING for the future.







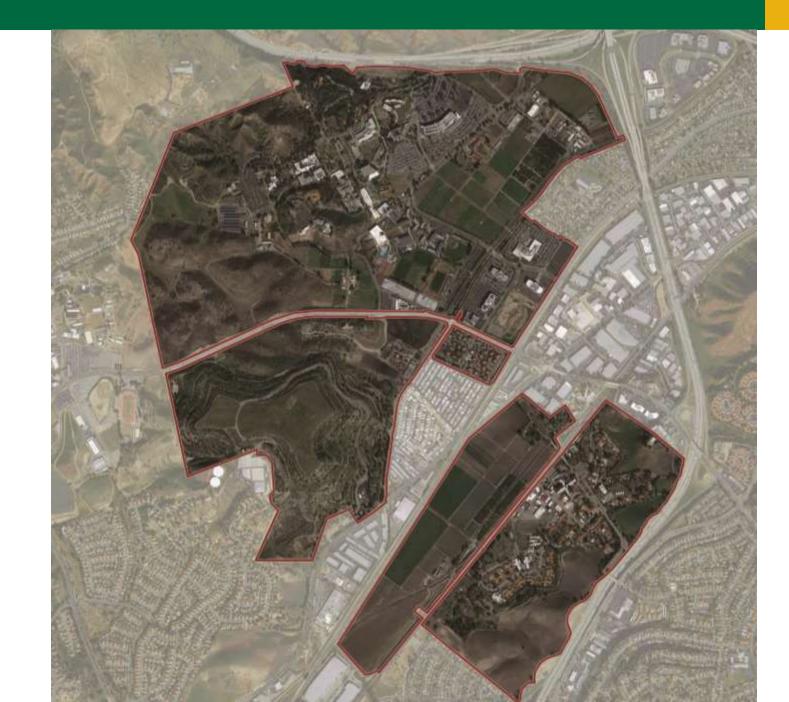
Exercises: SWOT Dot Analysis Map



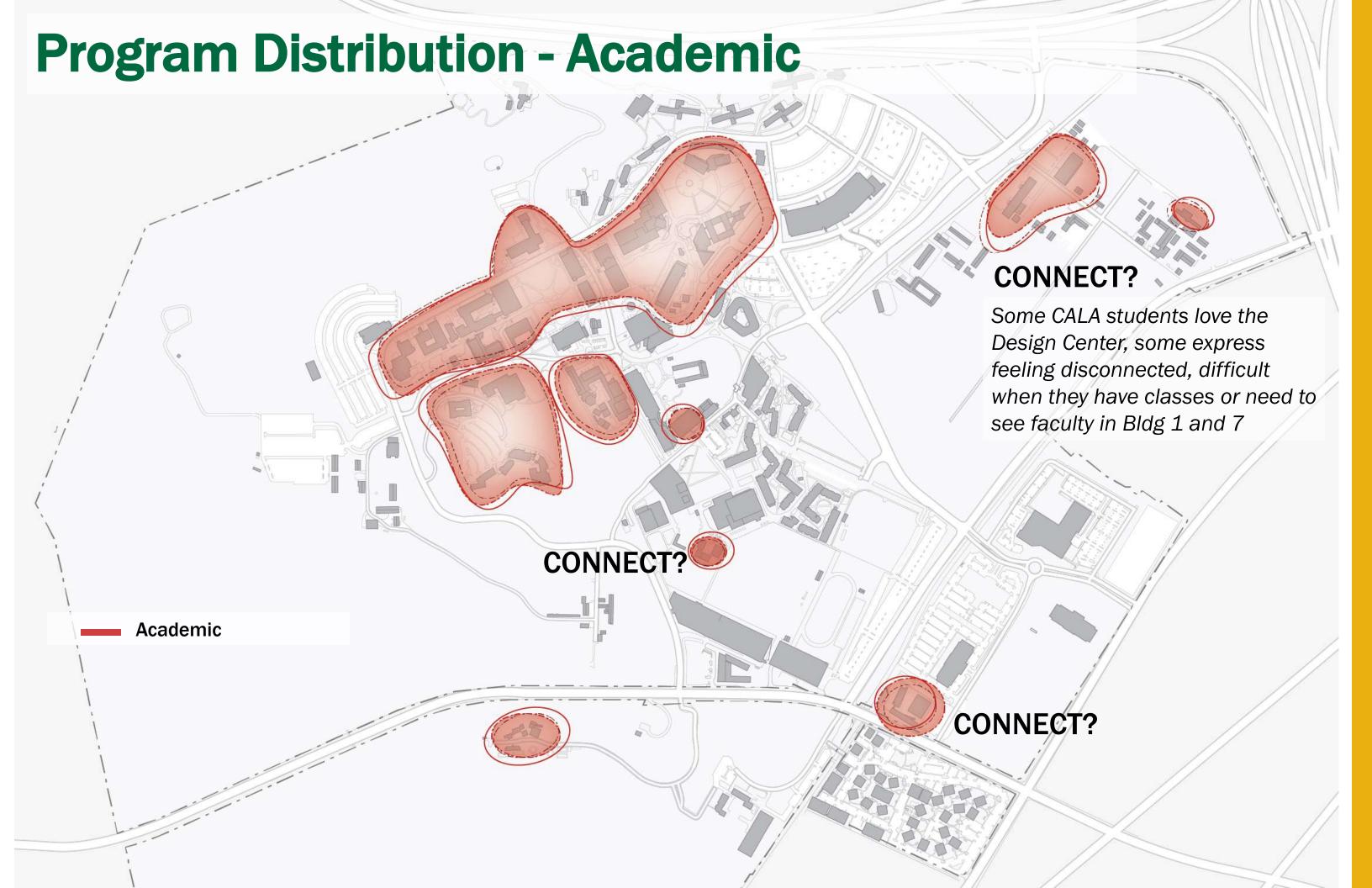


Update on Process/Progress

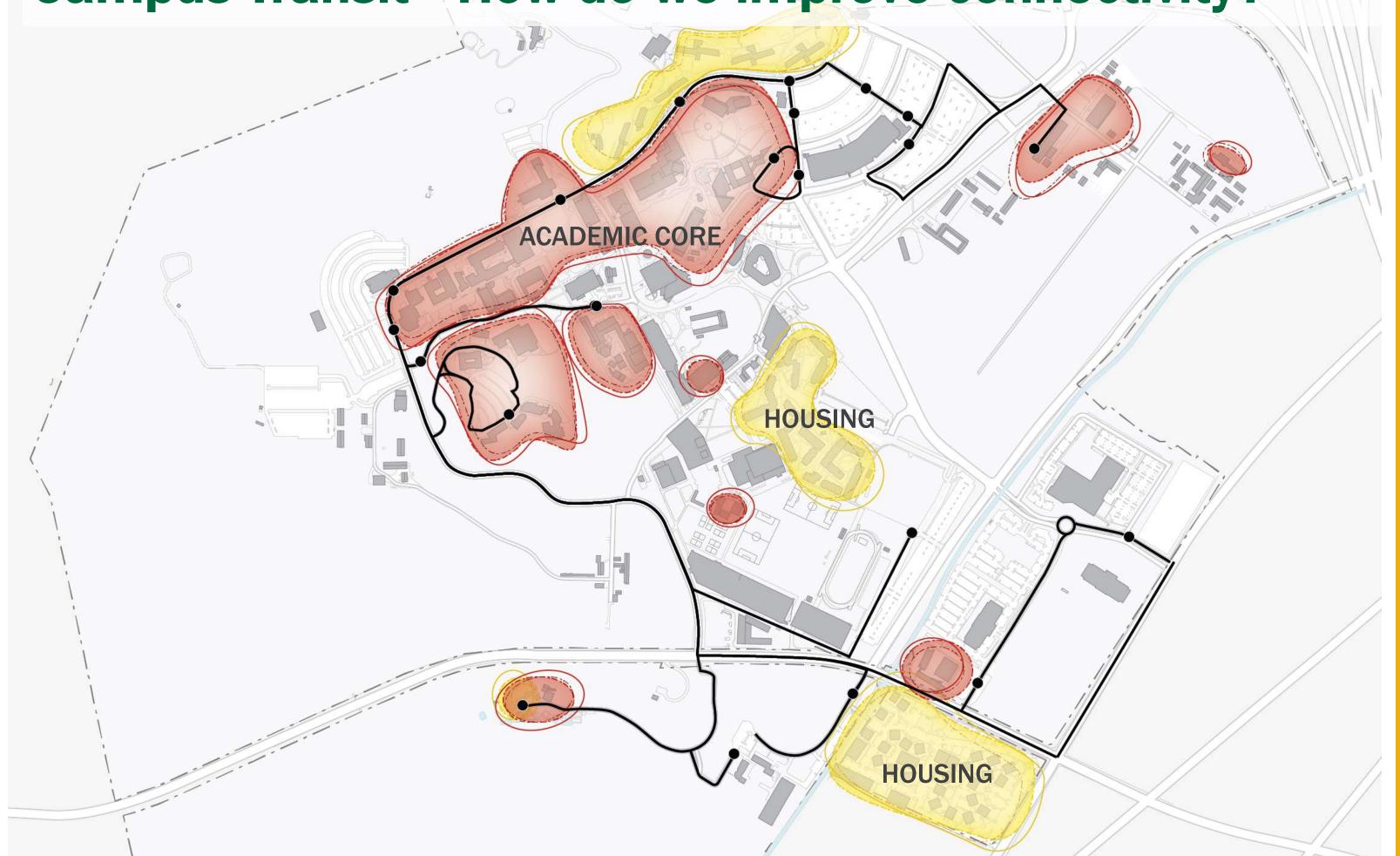
Workshop #2: Observations + Analysis

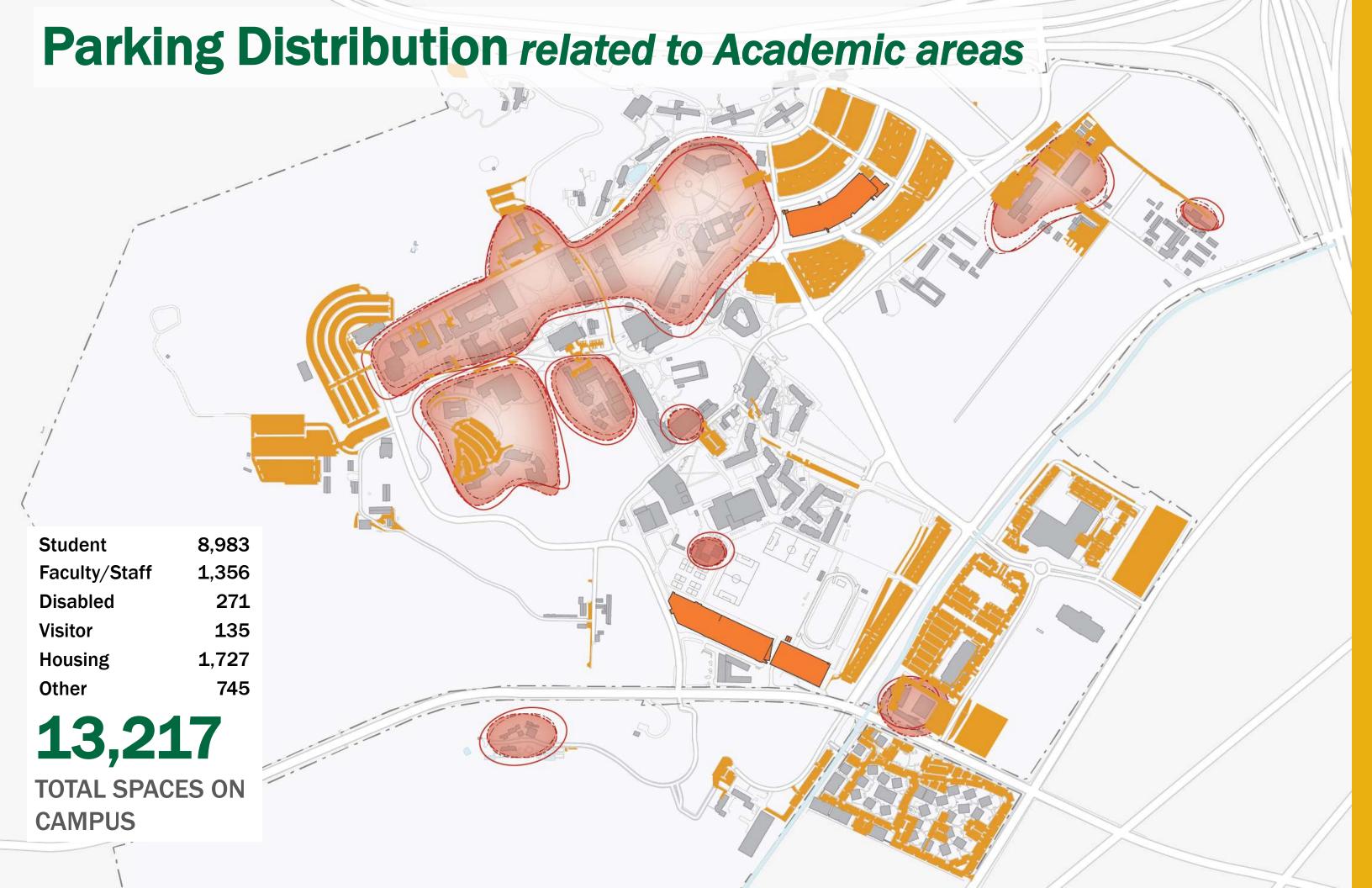


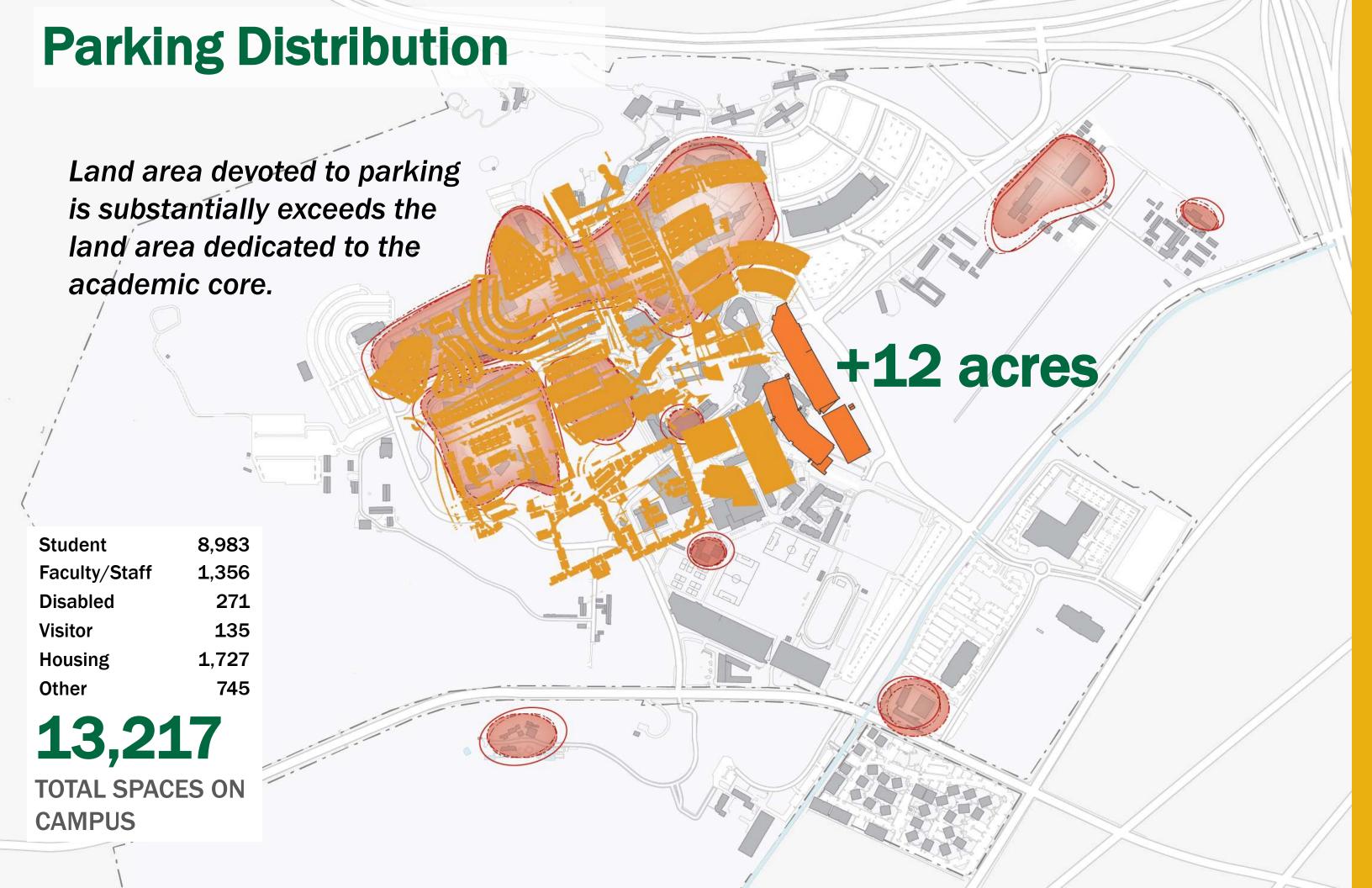
Cal Poly Pomona 1,438 acres 24,000 students

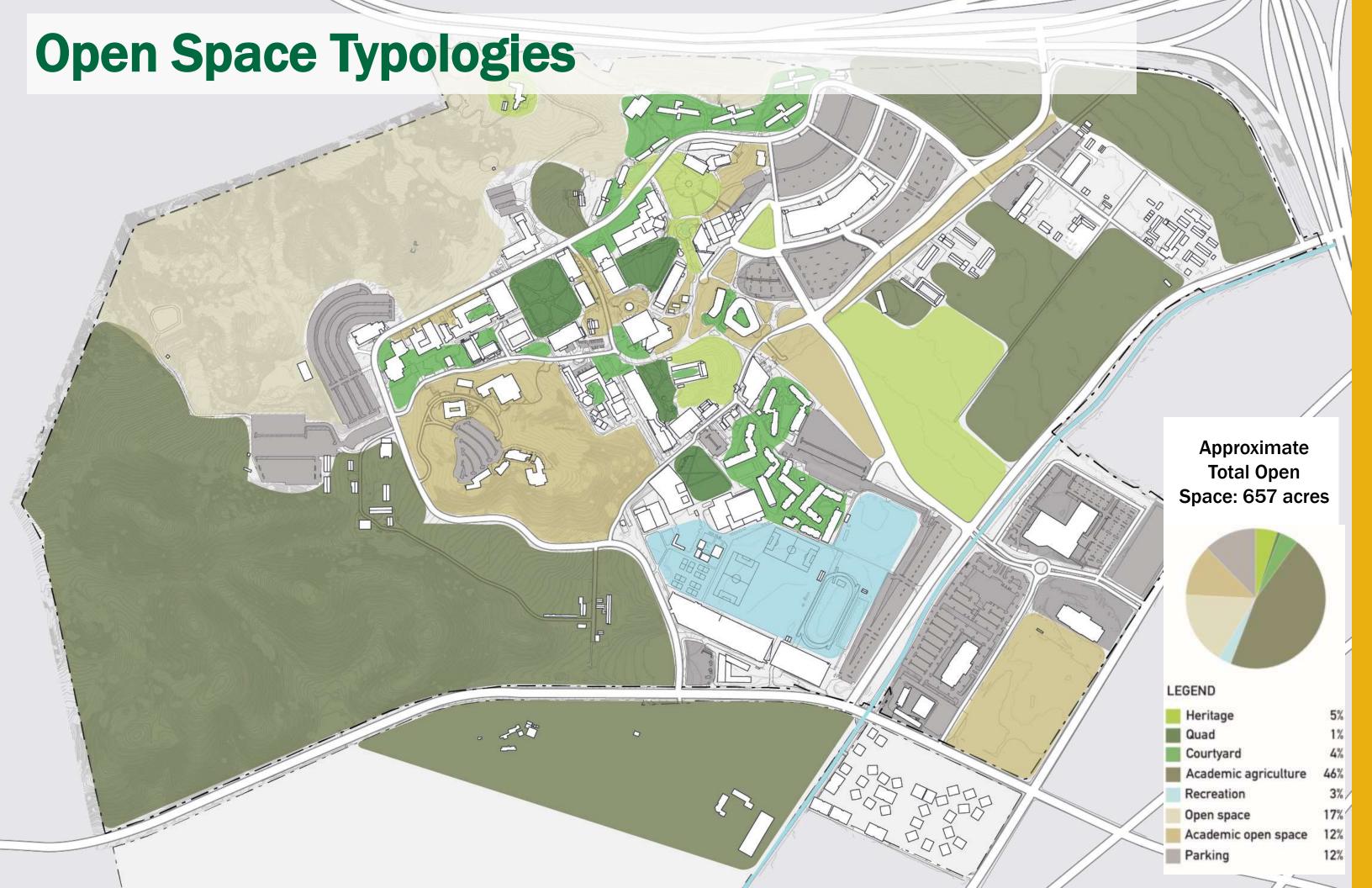


Campus Transit - How do we improve connectivity?









Open Space

Heritage



Quads

Courtyards & Plazas

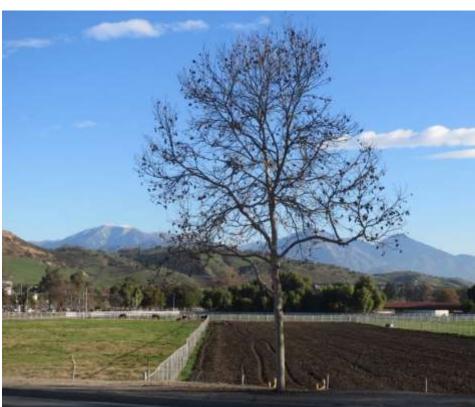


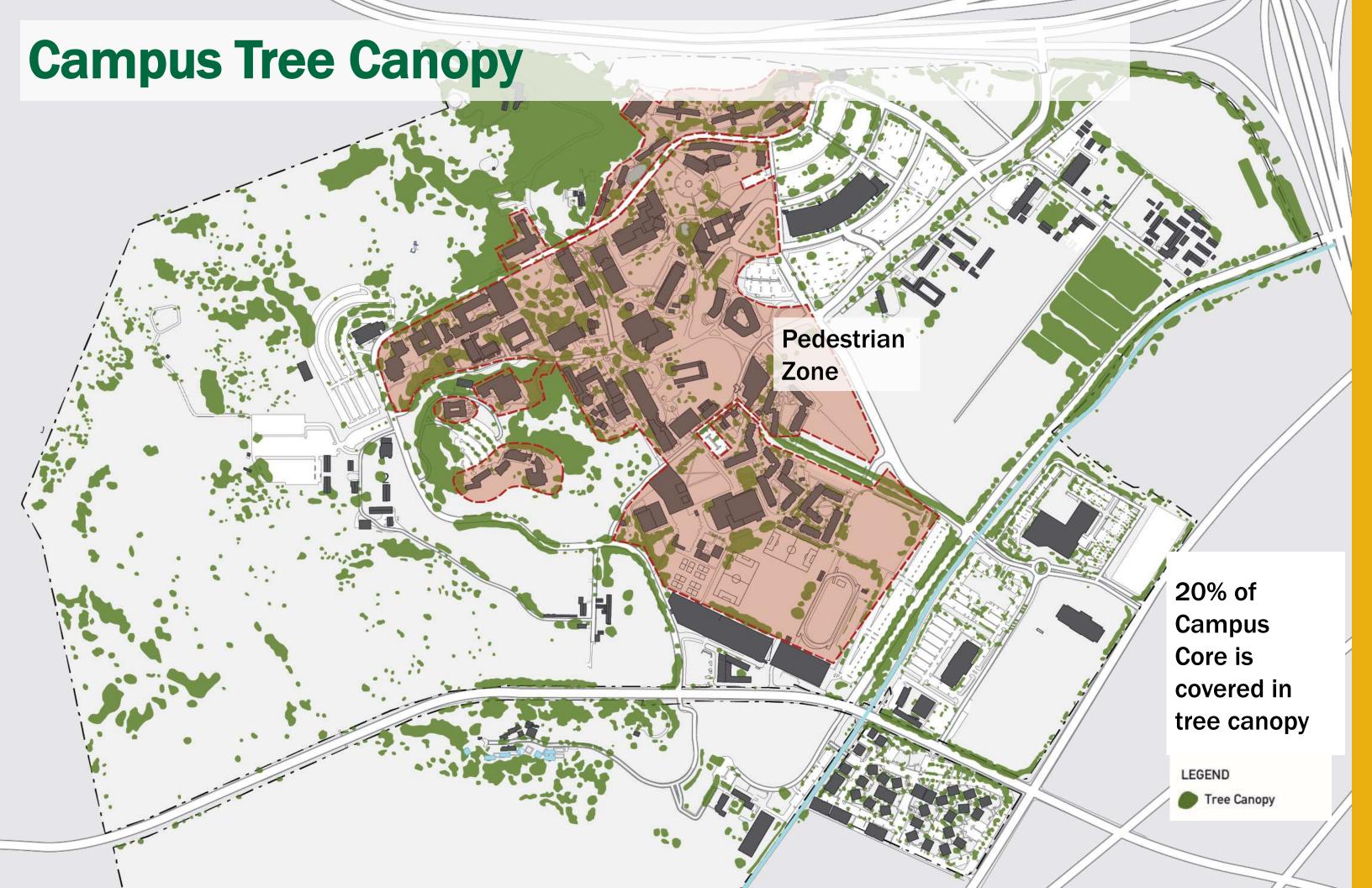




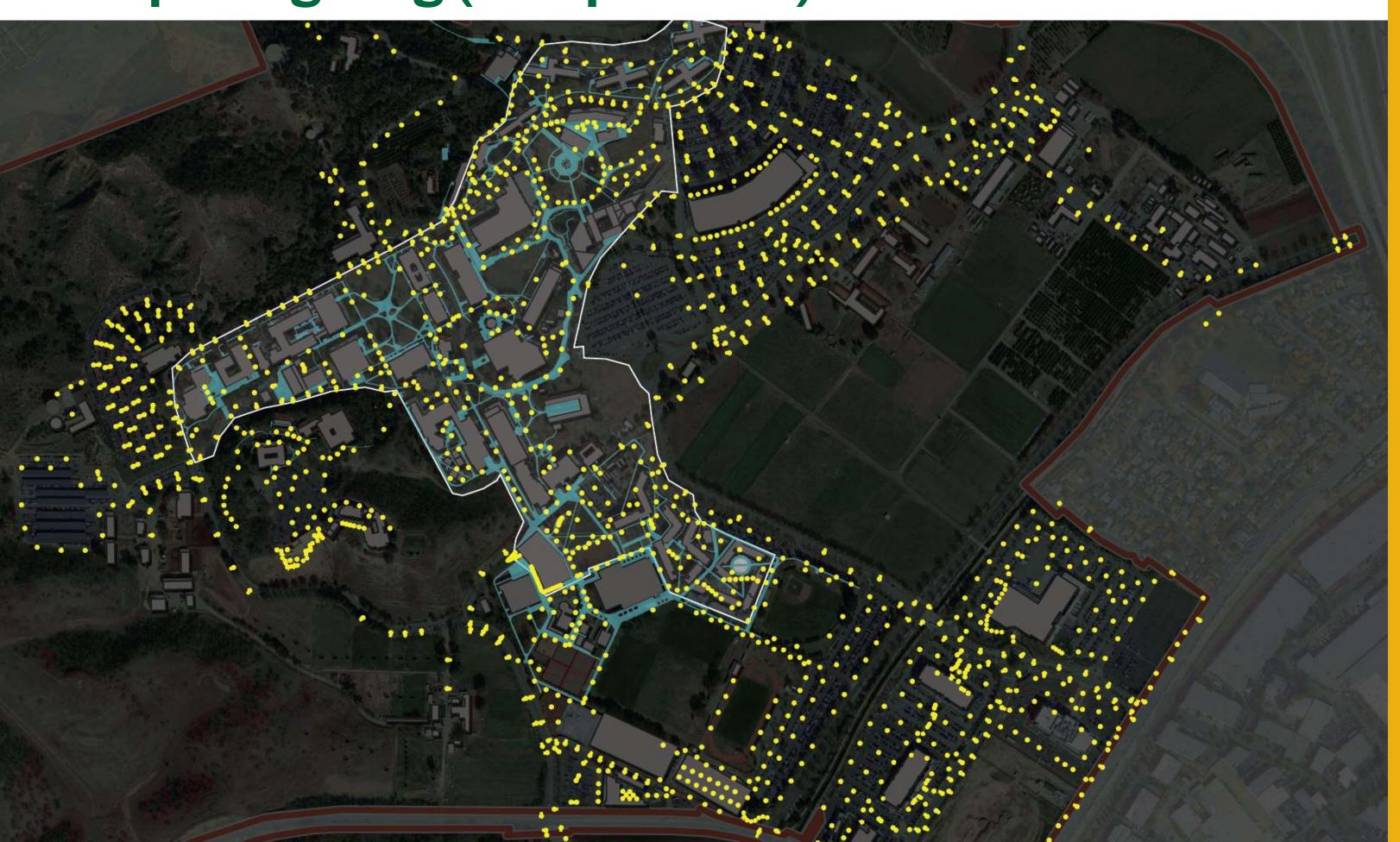


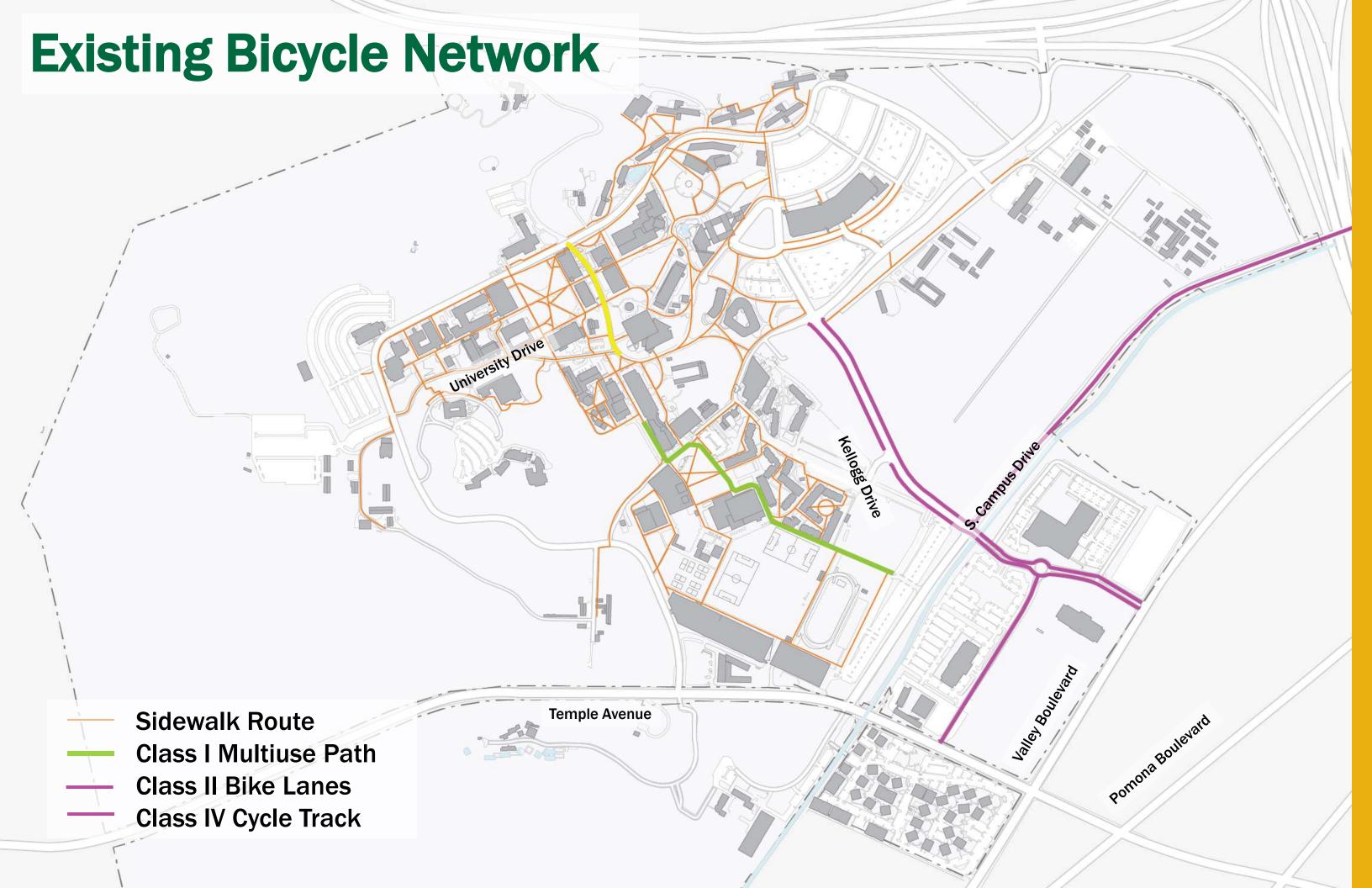


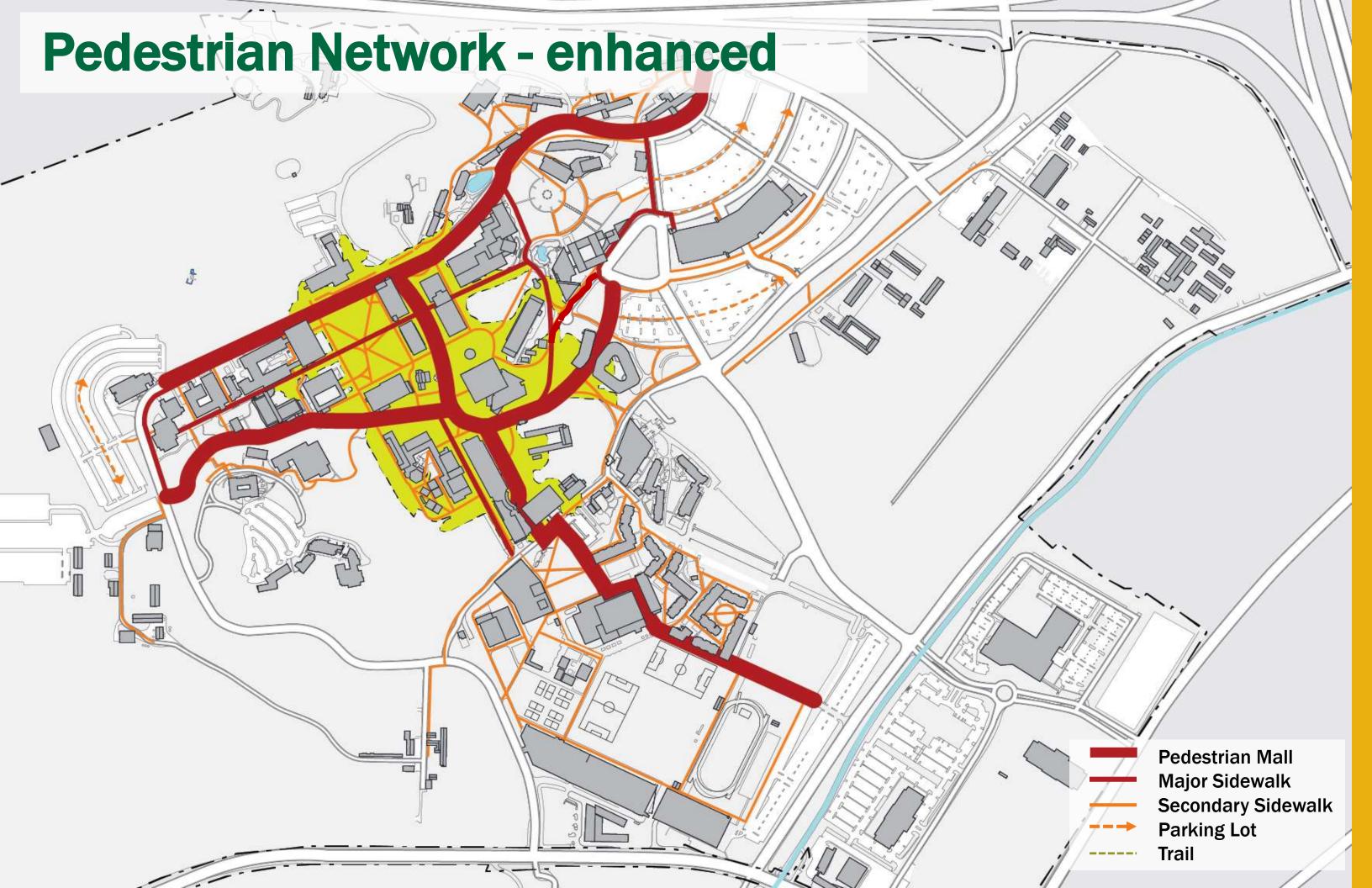




Campus Lighting (Campus Core)







Update on Process/Progress

Workshop #3: Conceptual Framework

activities

- Stakeholders: Cultural Organizations,
 Police, Safety + IRM
- Sustainability Open Forum
- Advisory Committee
- Space verifying instructional space use



Update on Process/Progress

Workshop #3: Conceptual Framework Advisory Committee

THE STRATEGIC VISION OF THE CAMPUS DRIVES PHYSICAL DEVELOPMENT

- broad themes reflecting mission and values
- emerged from engagement with campus stakeholders and leadership
- carried through all aspects of the planning

Student Experience Above All

All decisions put the student experience at the forefront, from physical space, facilities, and accessibility to programs and policies.



Polytechnic Approach

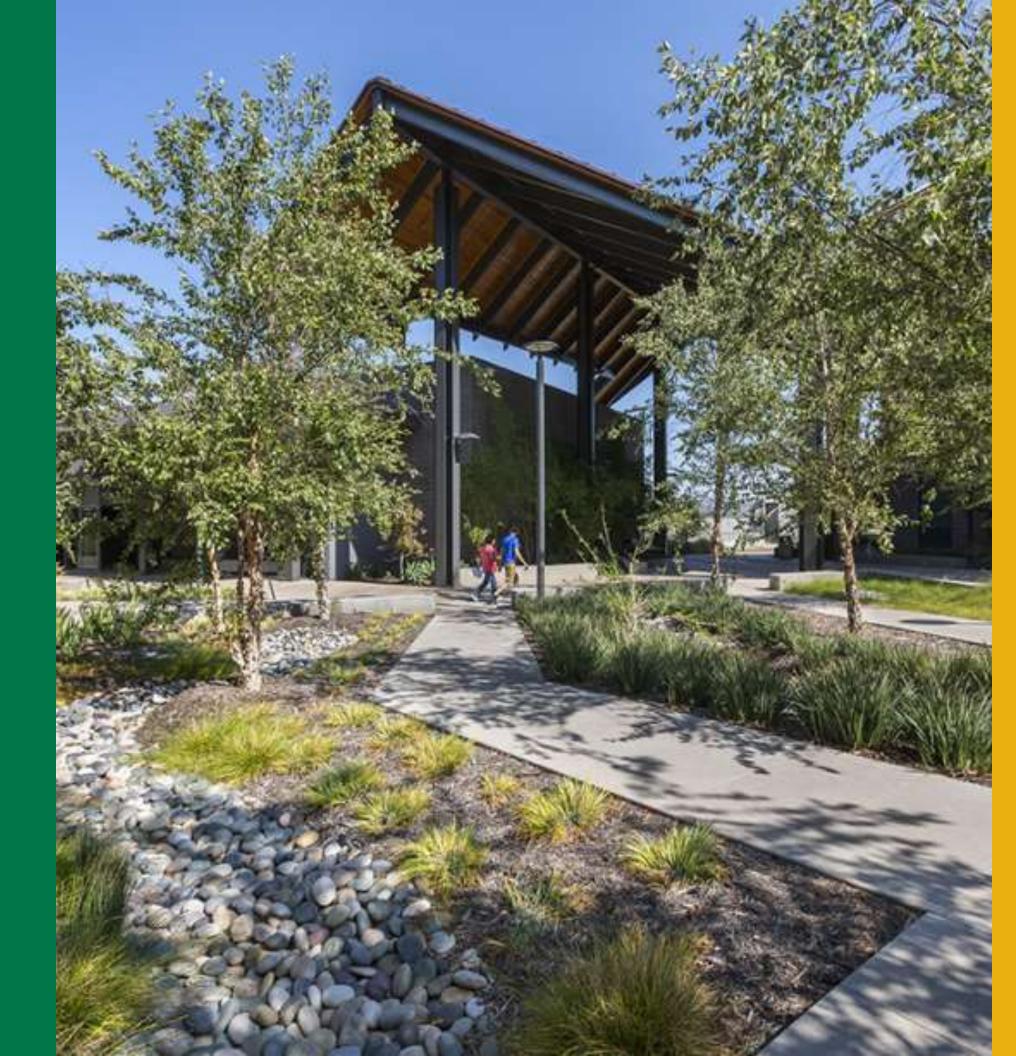
Campus is a laboratory which supports teaching and learning by doing, inside and outside of the traditional educational settings.



3

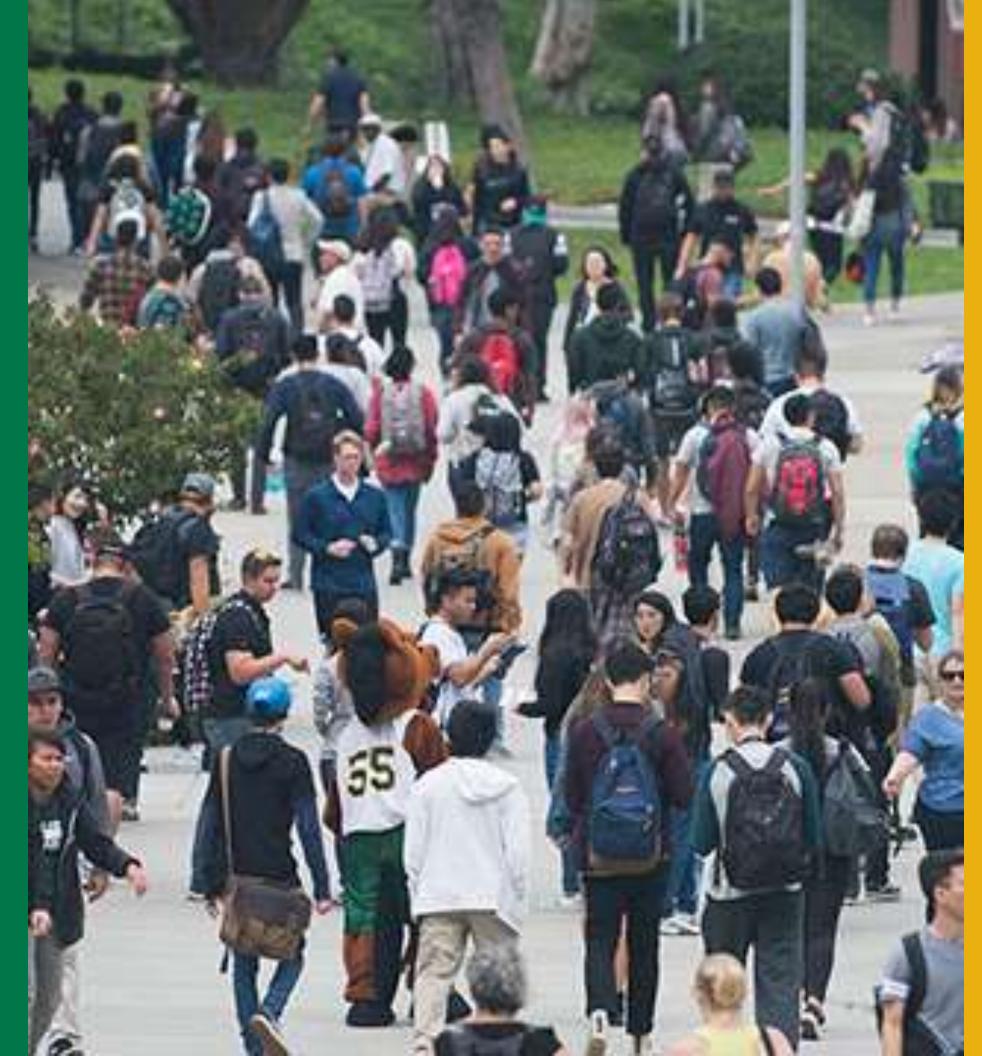
Connectivity is Key

Connectivity is key to orientation/wayfinding and ease of circulation for a safe, inclusive and fully accessibility campus.



Pedestrian Campus in a Commuter Reality

Campus must be walkable/bikeable, safe and accessible for all students, whether commuting or living on or near campus, as well as faculty, staff and visitors.



5

Sustainable in All Aspects

All decisions must be sustainable environmentally, economically, socially and consistent with Cal Poly's commitments and goals.



Five Themes

Five overlapping themes have emerged from a large cross-section of stakeholder engagement sessions and Cal Poly Pomona's Strategic and Academic Plans.

Student Experience Above All

All decisions put the student experience at the forefront, from physical space, facilities, accessibility, programs and policies.

Polytechnic Approach

Campus is a laboratory which supports teaching and learning by doing, inside and outside of the traditional educational settings.

Connectivity is Key

Connectivity is key to orientation/wayfinding and ease of circulation for a safe, inclusive and fully accessibility campus.

Pedestrian Campus in a Commuter Reality

Campus must be walkable/bikable, safe and accessible for all students, commuting and on-campus, and faculty and staff.

Sustainable in All Aspects

All decisions must be sustainable environmentally, economically, socially and consistent with Cal Poly's commitments and goals.

These 5 themes are expressed in 5 planning principles

1

Make the Active Visible.

Design facilities to be more visible and connected with campus spaces to actively engage students, faculty, visitors.

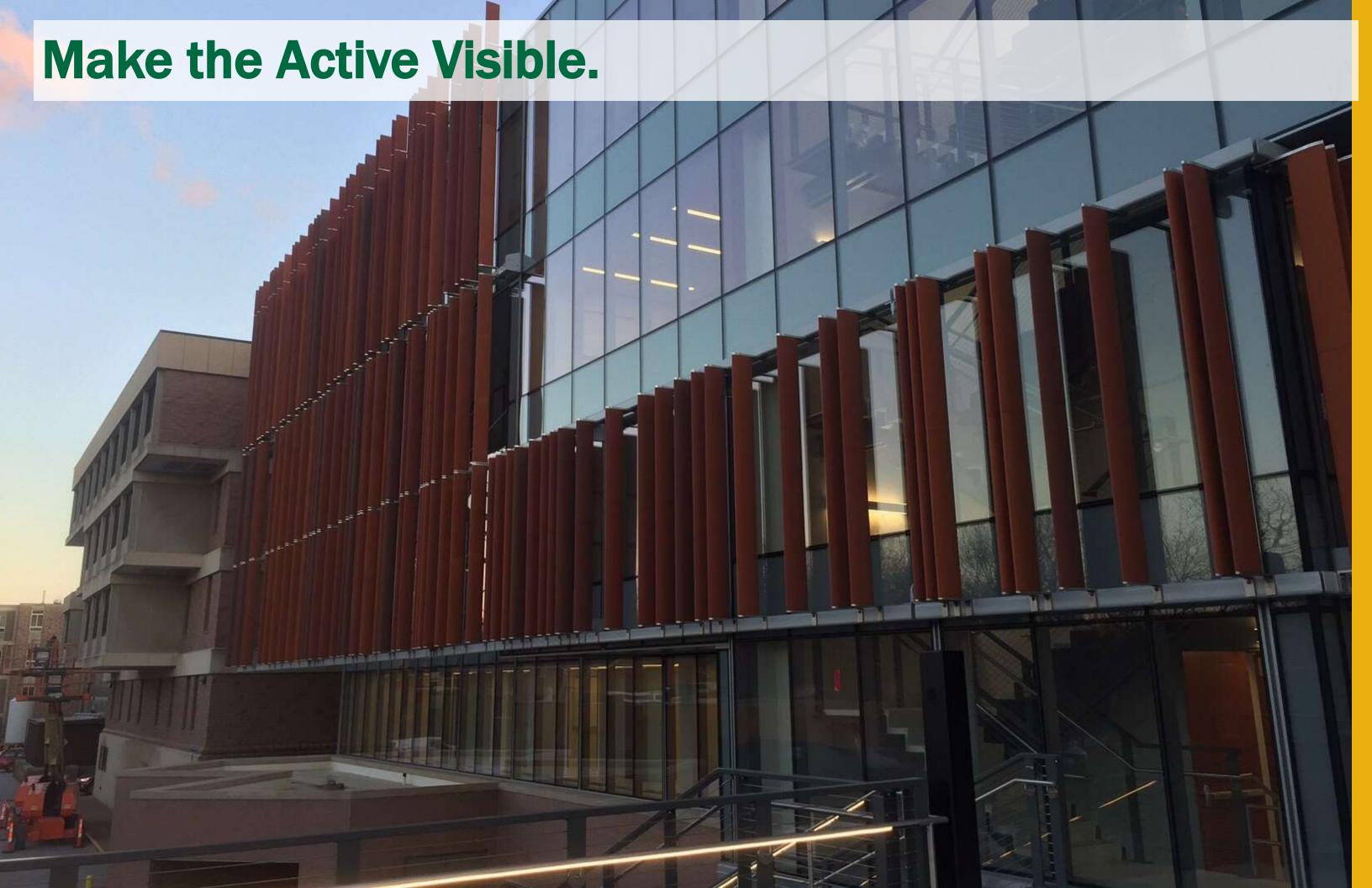






Make the Active Visible.



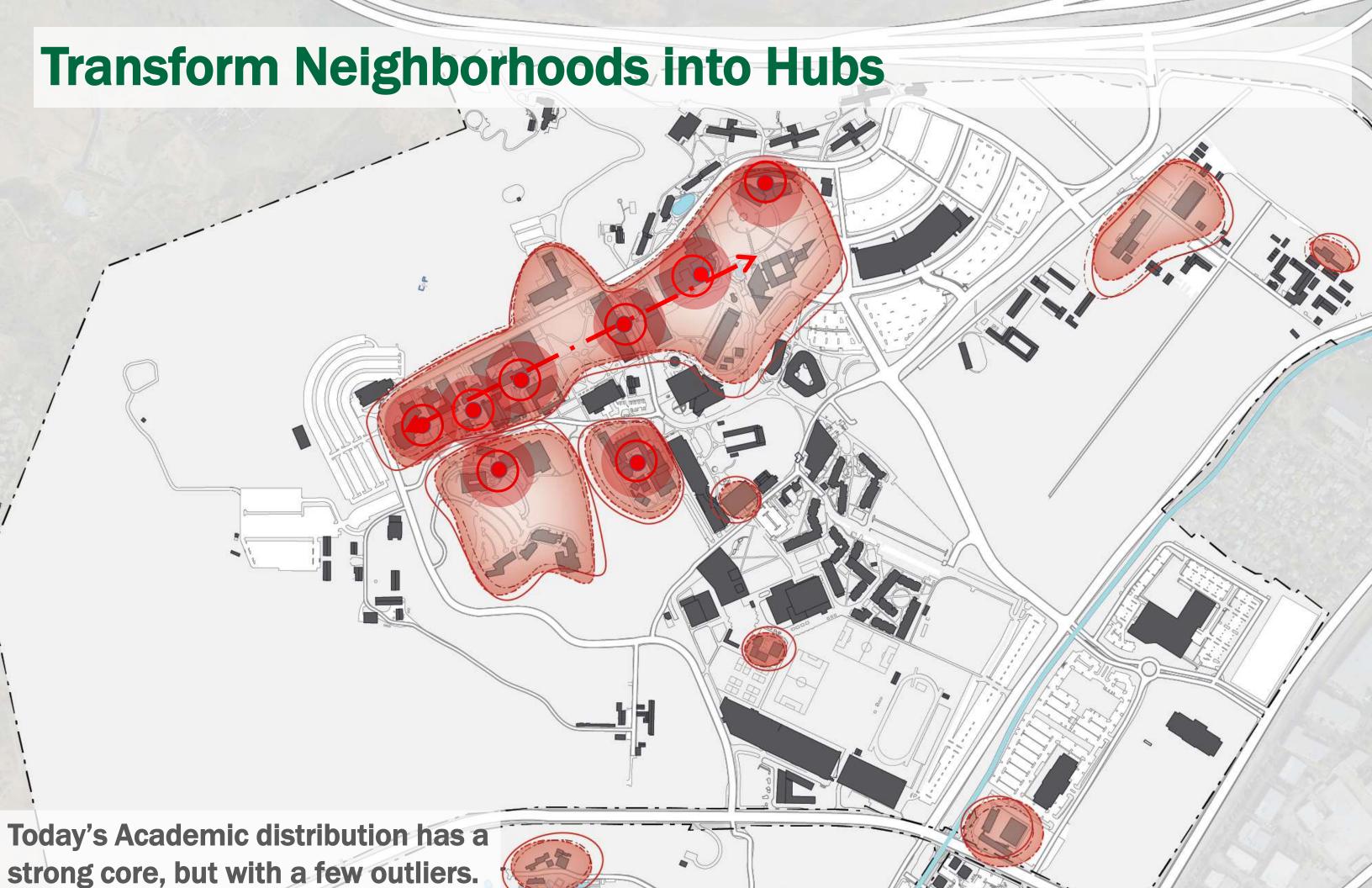


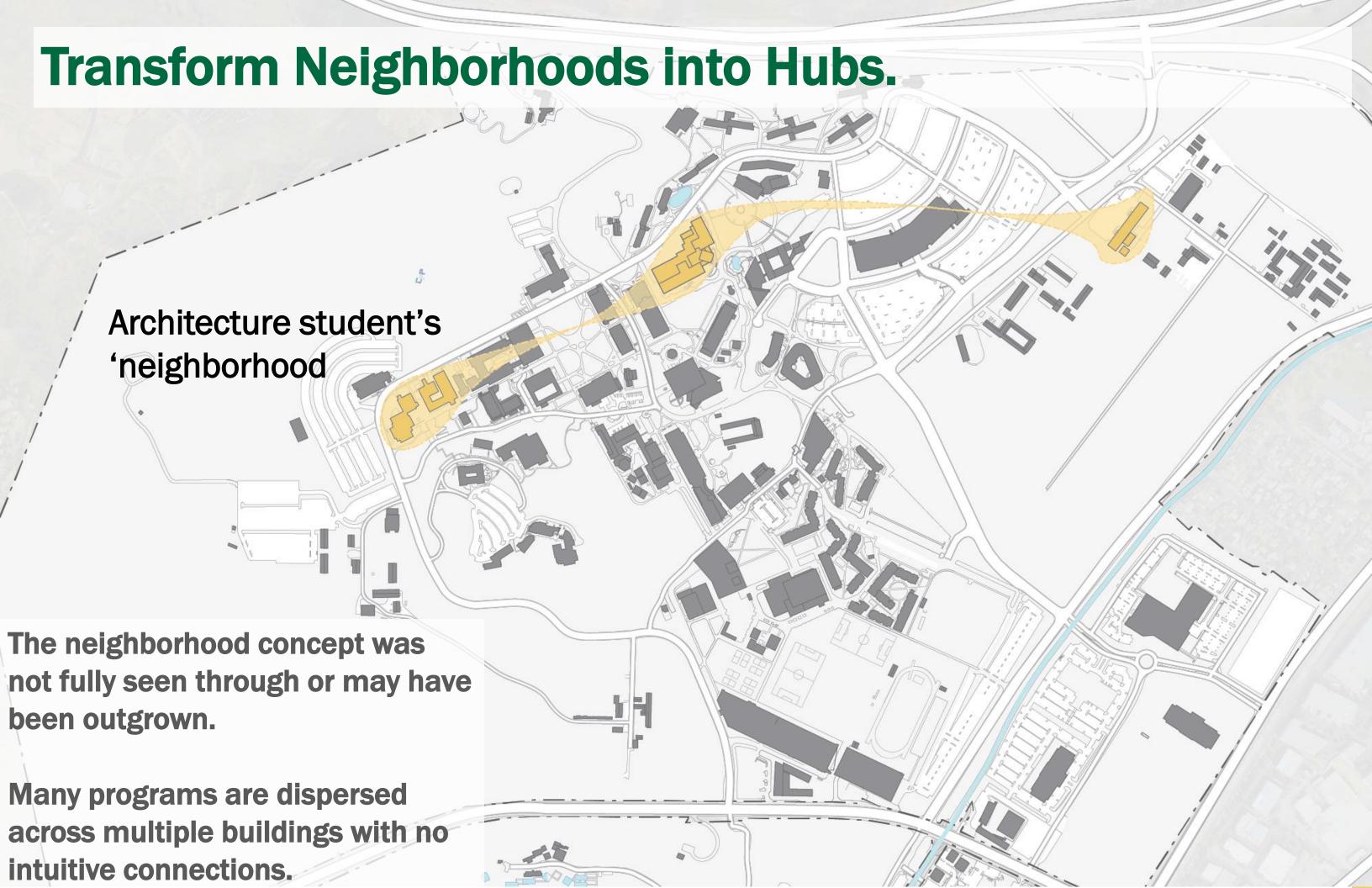
Transform Neighborhoods into Hubs.

With college neighborhoods as anchors, create interdisciplinary hubs and commons with opportunities for collaboration.

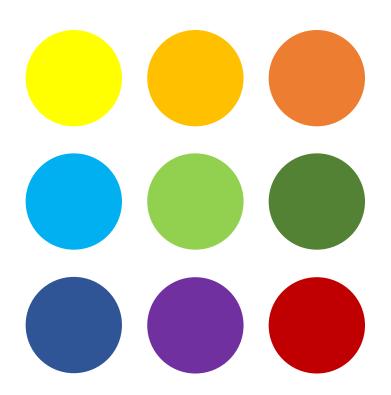








Transform Neighborhoods into Hubs.



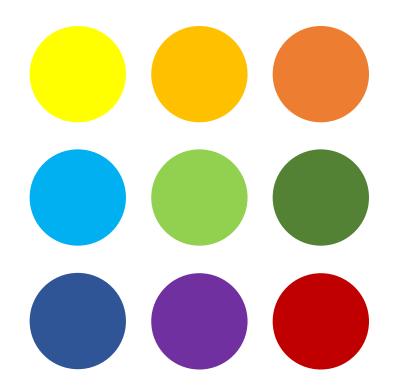
Neighborhoods

Organized by college

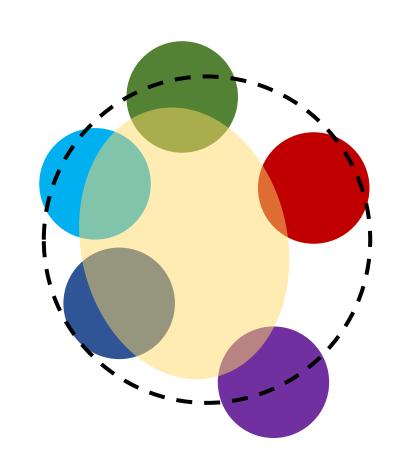
Concept: college identity w/collegial atmosphere

Reality: silos, unable to accommodate growth / change

Transform Neighborhoods into Hubs.







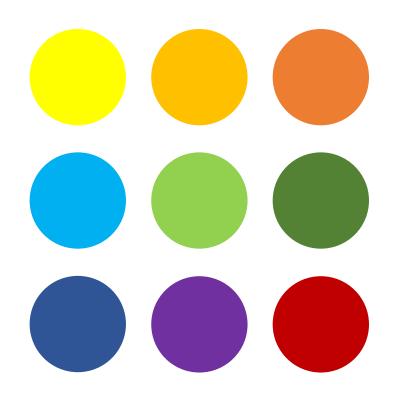
Hubs

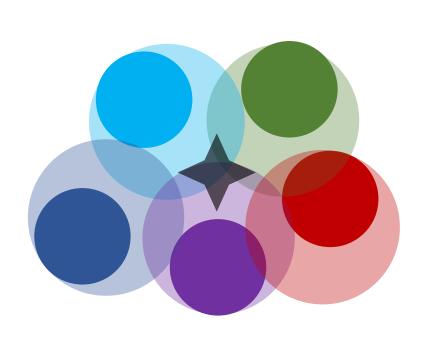
Organized around **common** areas.

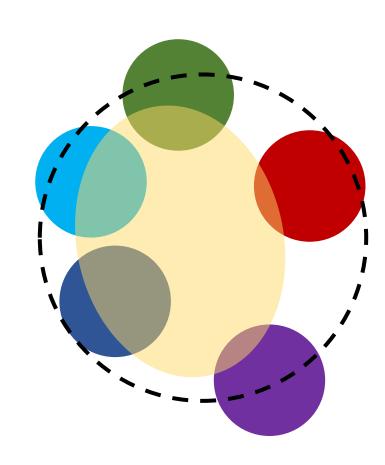
Motivated by problem solving.

Must be compact + engaging.

Transform Neighborhoods into Hubs.







Neighborhoods

IntersectionsSponsor interdisciplinary activity

Hubs

Physical Implications of Hubs + Commons







"Meet me in the Middle"

Ample interdisciplinary space is the key to making this work

- Interior, ground floor spaces
- Small study and gathering areas
- Large incubator/ collaboration spaces
- Open Spaces

Physical Implications of Hubs + Commons



Non Siloed Resources

Consolidated resources (academic and service) for students located at various hubs across campus

- Can eliminate redundancies
- Larger, more flexible, and better utilized space

Close the Loops. Make the Connections.

Improve connectivity
(physical, programmatic,
academic and social);
close loops in circulation,
infrastructure and campus
systems, including
accessible, convenient
connections to regional
systems like bike paths and
transit.

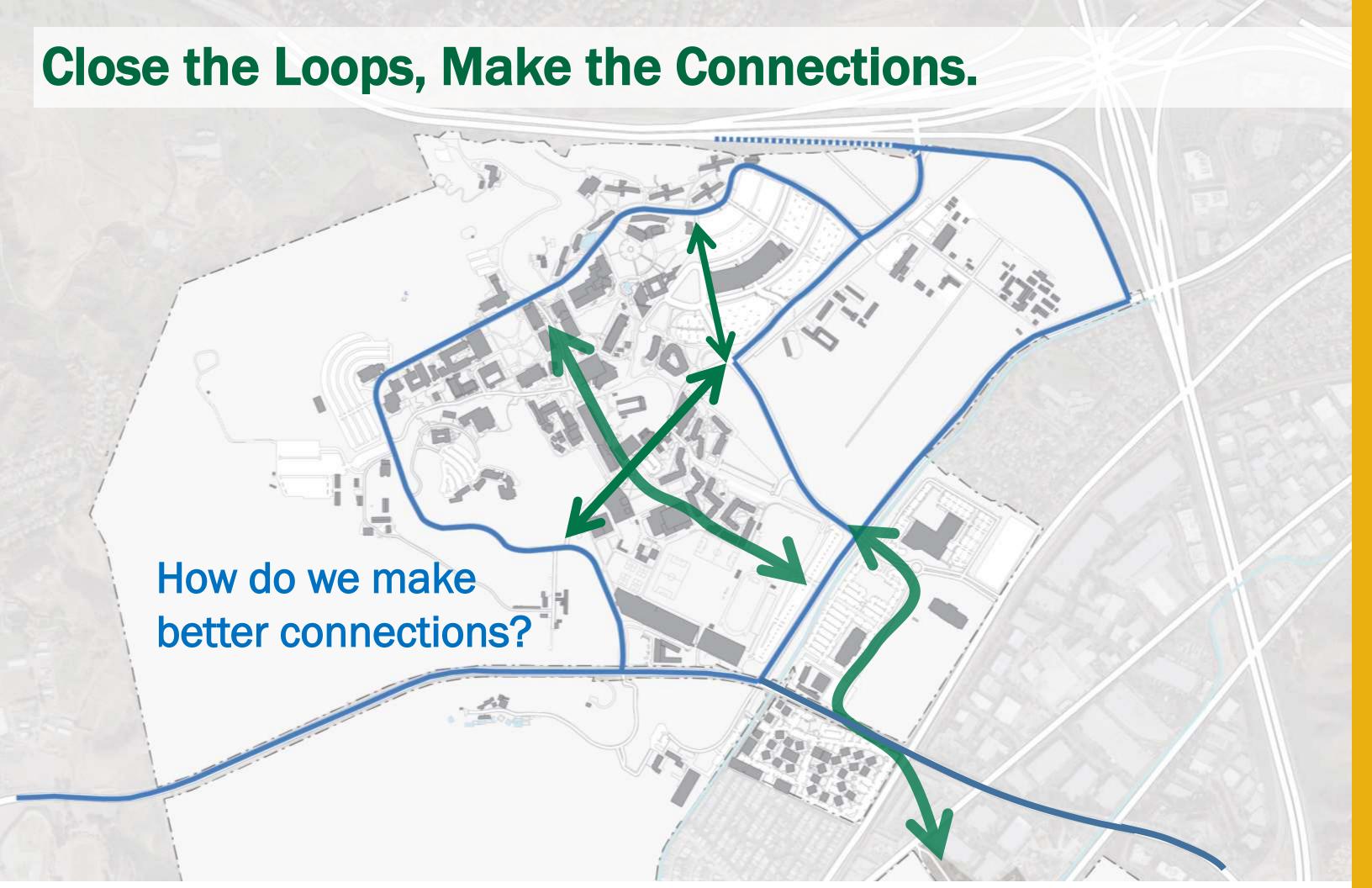


Close the Loops, Make the Connections. Kellogg

Close the Loops, Make the Connections. University

Close the Loops, Make the Connections. South **Campus Temple**

Close the Loops, Make the Connections. University South Kellogg Campus How do we make better connections? Temple



4

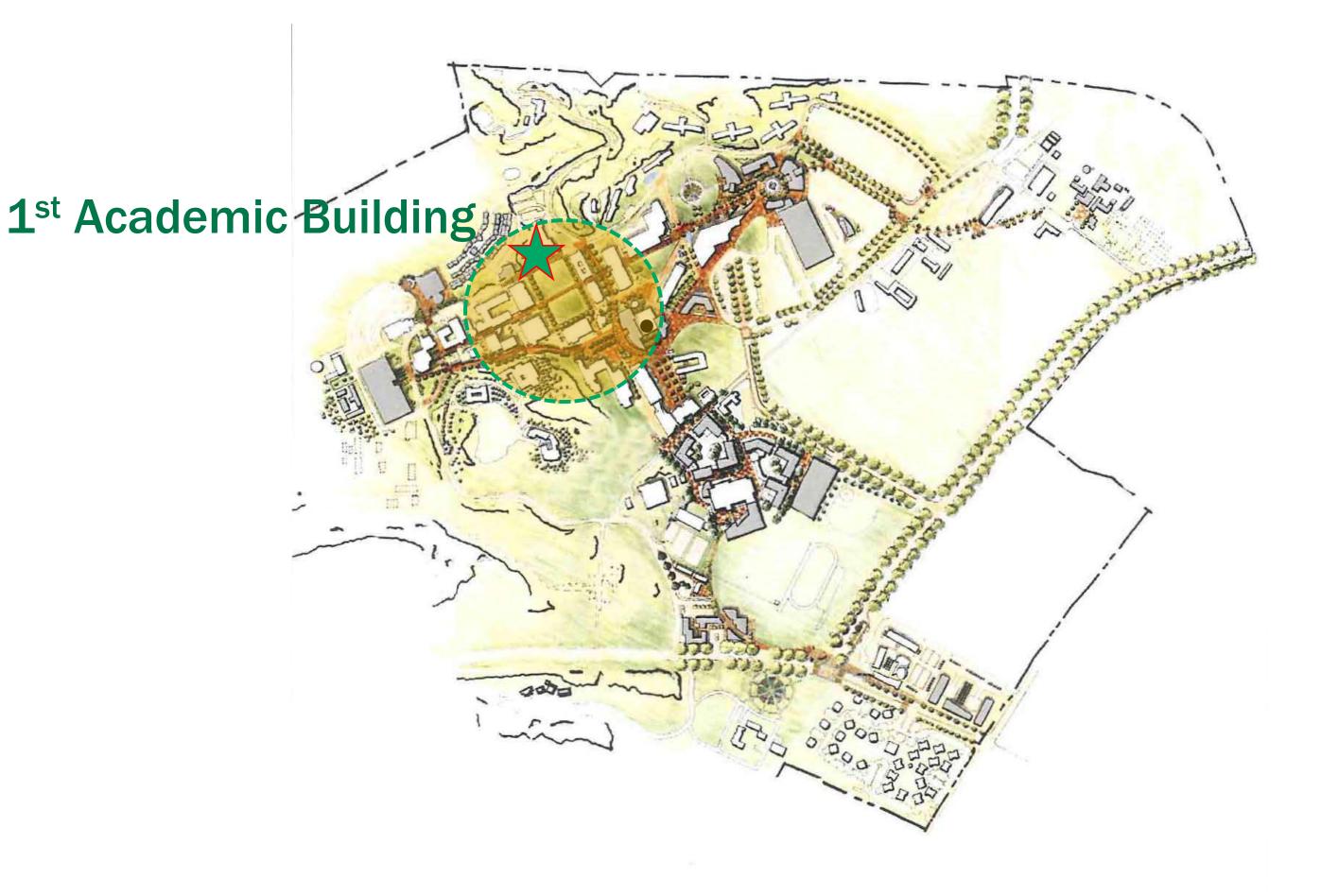
Shift the Center.

Understand that the center of campus continues to move southward with new facilities and housing.

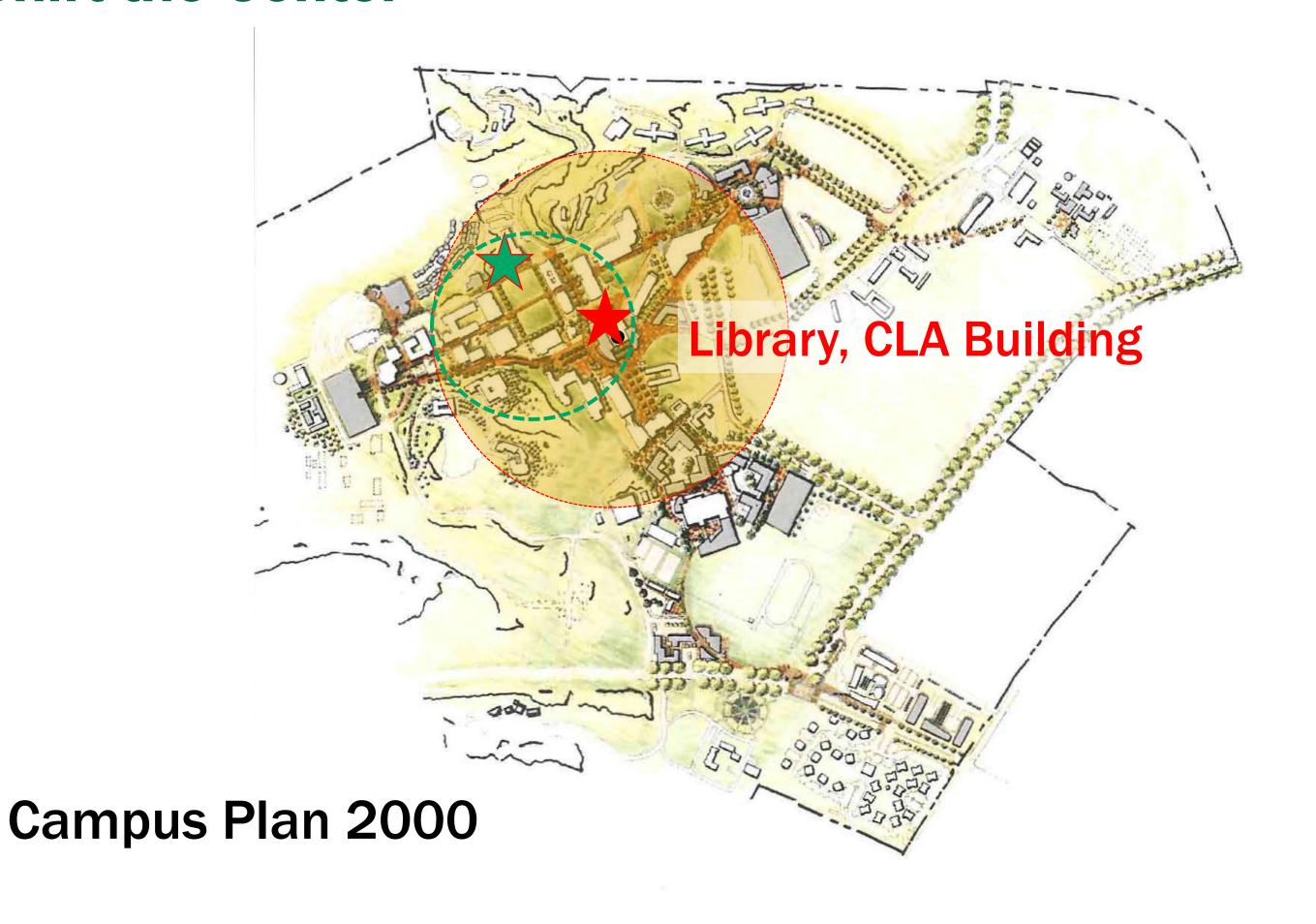
Campus circulation has to respond to the new center of the campus.

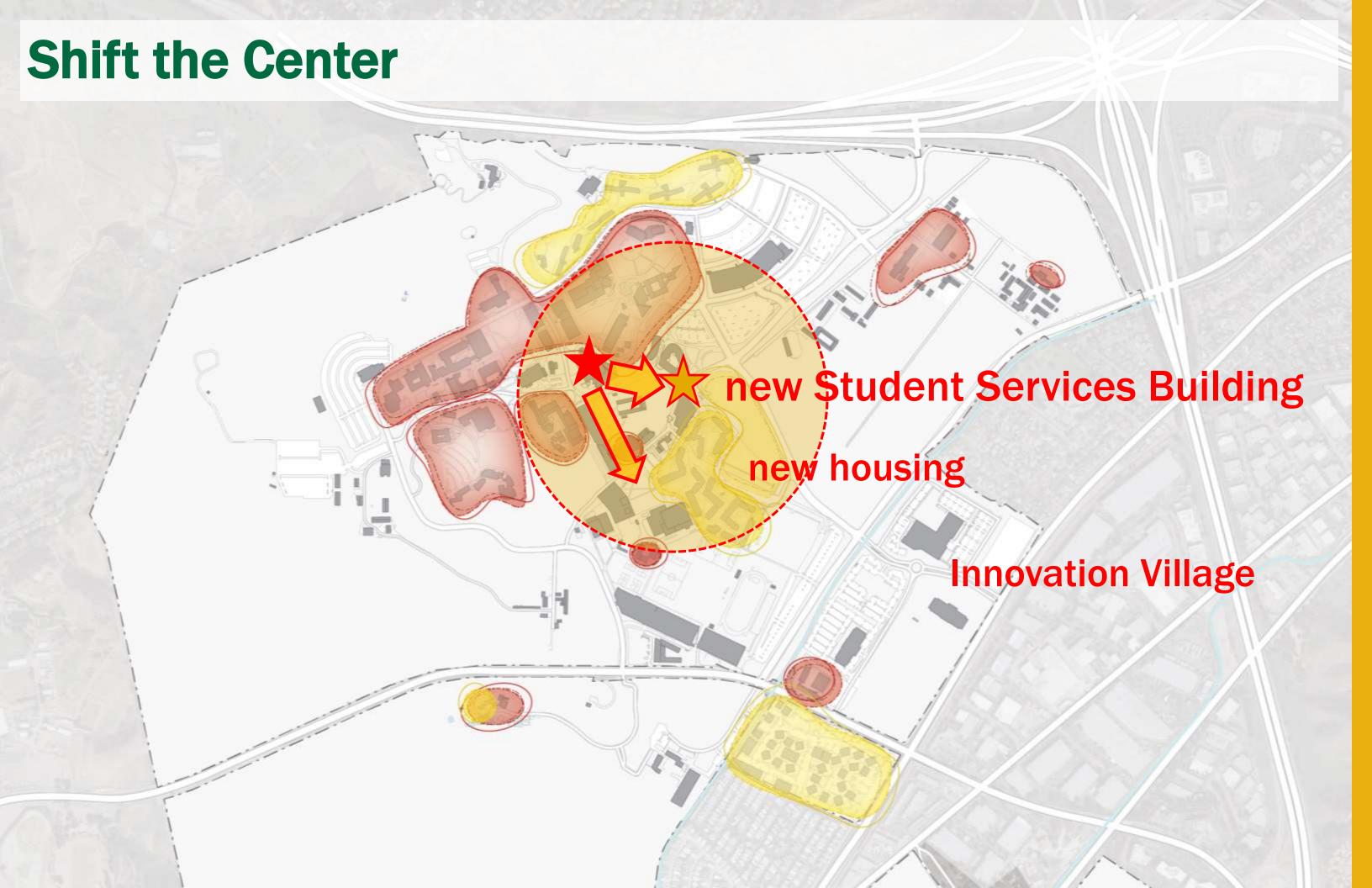


Shift the Center



Shift the Center





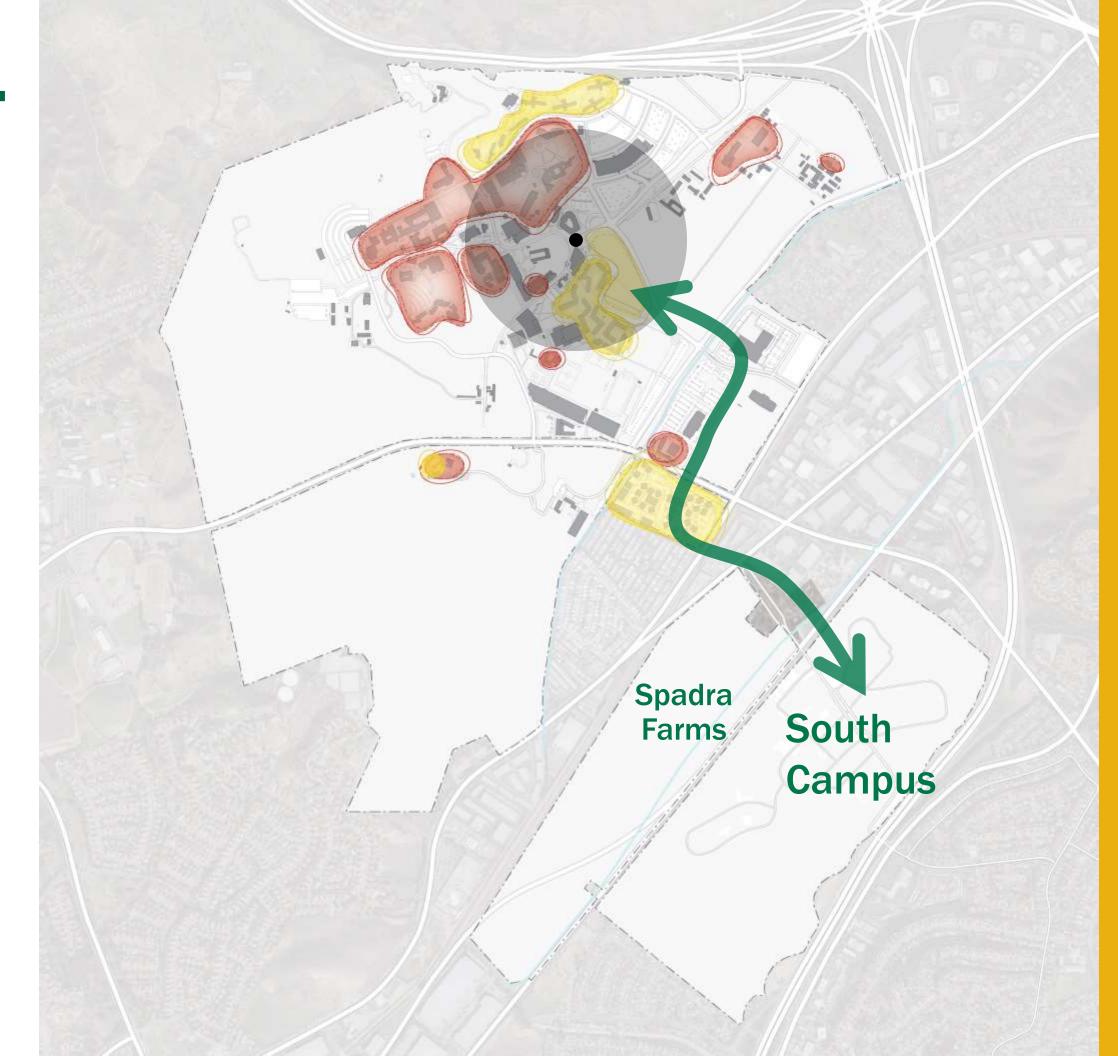


Expand the Plan.

Comprehensive planning has to extend to the whole campus and include all university programs, properties and assets.



Expand the Plan.



Planning Principles

Derived from:

- Previous planning studies
- Strategic initiatives
- Analysis of existing conditions
- Engagement and listening sessions with faculty, staff, and students

- Make Learning + Activity Visible.
 - Design facilities to be more visible and connected with campus spaces to actively engage students, faculty, visitors.
- Transform Neighborhoods into Hubs.

 With college neighborhoods as anchors, create interdisciplinary hubs and commons with opportunities for collaboration.
- Close the Loops and Make the Connections.

 Improve connectivity (physical, programmatic, academic and social); close loops in circulation, infrastructure and campus systems including connections to regional systems like bike paths and transit.
- **Shift the Center.**
 - Understand that the center of campus continues to move southward with new facilities and housing. Campus circulation has to respond to the new center of the campus.
- Expand the Plan.

 Comprehensive planning has to extend to the whole campus and include all university programs, properties and assets.

Q & A?

Will the master plan include a safety plan?

Safety is a significant consideration in the planning and the team met with Campus Police and Institutional Risk Management (IRM) who are responsible for operational safety plans (including fire drills, response to threats). Safety will be addressed in updating campus design standards.



How can new buildings be planned for when funding is stretched and existing buildings are in bad shape? Will the plan address the need for maintenance, repairs, renovation?

The master planning is about supporting the Strategic Plan goals and initiatives, not about new buildings (although there is a need to replace space in fault-line facilities and temporary/modulars). The space analysis will help identify instructional space needs to meet current and future needs. The plan will also include recommendations for existing building renovation or conversion/repurposing, including efficiency improvements to achieve LEED for Existing Buildings certification.

What about 'relics' – the buildings on the fault line being vacated?

The master plan will make recommendations for demolition of buildings which can't be repurposed, including a plan improvement or use of the former building site .

What about improvements to on-campus transit and connections to regional transit?

This is one of the most significant plan components. The team will present various models for successfully separating campus shuttle from vehicular traffic, and for connecting the campus shuttles to regional transit. These could include transitways, mall or hubs.

Next Steps:

Space Analytics

- verifying instructional space use-code - walk-throughs on Mar 2nd, 15-16th

Next:

- update Instructional Space Utilization Analysis
- understand CSU utilization and capacity analysis
- schedule reviews with Registrar, Provost, College Deans
- preliminary classroom demand analysis
- consider overall space distribution and space needs projections

Next Steps:

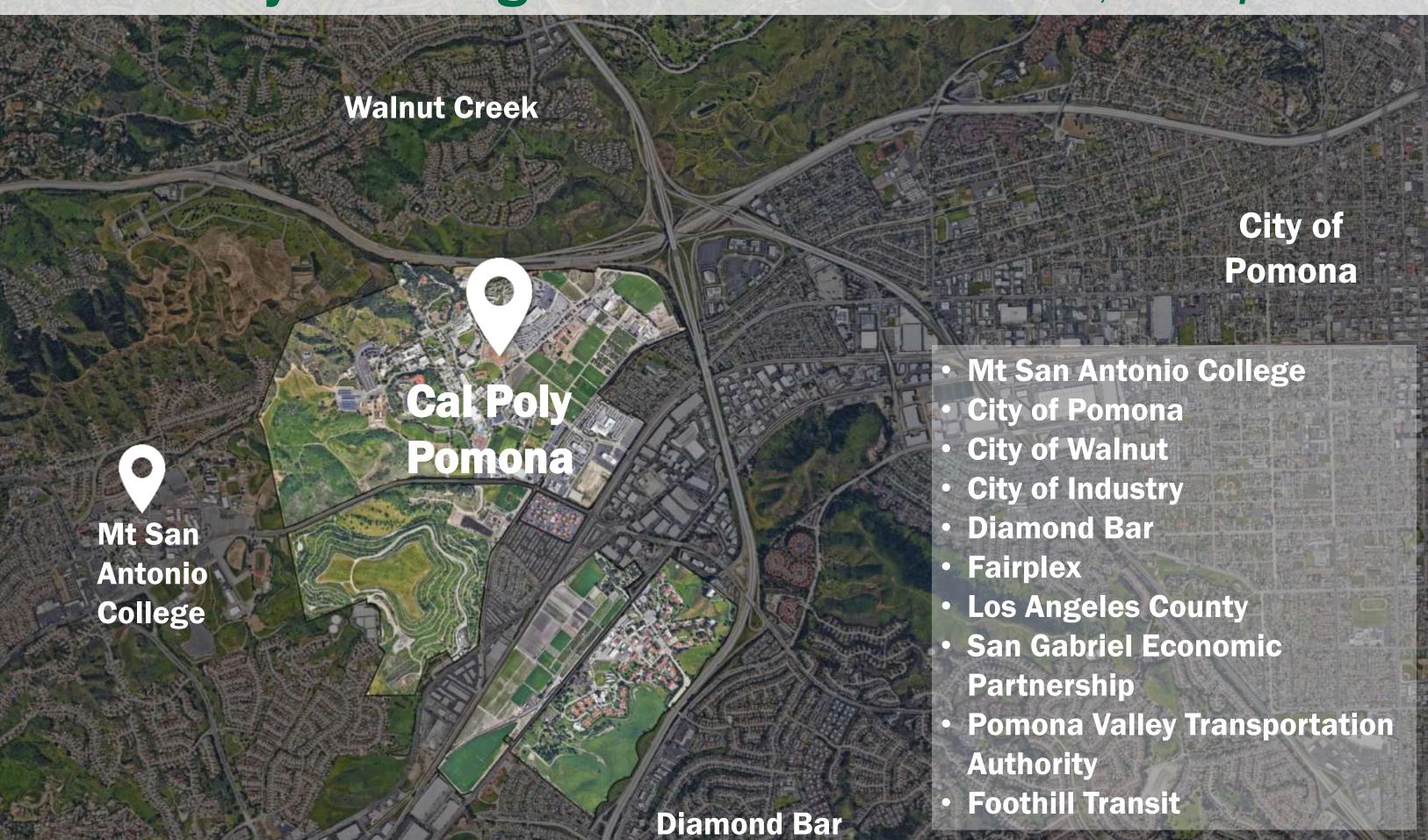
Master Planning

Workshop # 4 – to be scheduled mid-April

- strategies for supporting strategic directions + future growth
- connectivity studies-alternatives (all modes)
- ☐ hub / area studies
- ☐ facilities studies (CLA, BSC, Annexes?, Heath Services, Child Care Center)

Workshop # 5 - to be scheduled in early May

Community Listening Session - to be scheduled, late April?





Thank you!





track the master planning process at: www.cpp.edu/~fpm/planning-design-construction/master-plan-2018