CalPoly Pomona

Campus Master Plan Update 2020-2040

California State Polytechnic University, Pomona

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Proposed Campus Master Plan 2020-2040.

Executive Summary

The 2020-2040 Cal Poly Pomona Master Plan Update is the result of a multi-year collaborative planning process, arising from the CPP strategic and academic plans. Planning started with the 2017-2021 Strategic Plan charting a new course for the future of the university and the physical campus plan. The 2018-2023 Strategic Plan developed this Vision with greater emphasis on the polytechnic mission guiding the master plan project priorities. This Campus Master Plan updates the 2000 Campus Master Plan to provide a road map for development of the physical facilities and infrastructure to support the strategic plan goals.

Campus Master Plan Fast Facts

- planning horizon through 2040
- 30,000 FTE est master plan capacity
- 1,165,369 gsf renovated academic facilities
- 260,000 gsf new academic facilities, resulting in 197,035 gsf net added & 2,524,551gsf total up-to-date academic facilities
- 107,800 gsf temporary academic facilities replaced and modulars removed or demolished
- 1,500 additional students housed on campus *(net added beds after replacement of the hillside dormitories)*
- 984,000 gsf total new construction
- 1,165,369 gsf total renovations
- 367,932 gsf total demolition
- $2.29 B planned total investment

Strategic Plan 2018-2023

Vision:

Cal Poly Pomona will be the model for an inclusive polytechnic university that inspires creativity and innovation, embraces local and global challenges, and transforms lives.

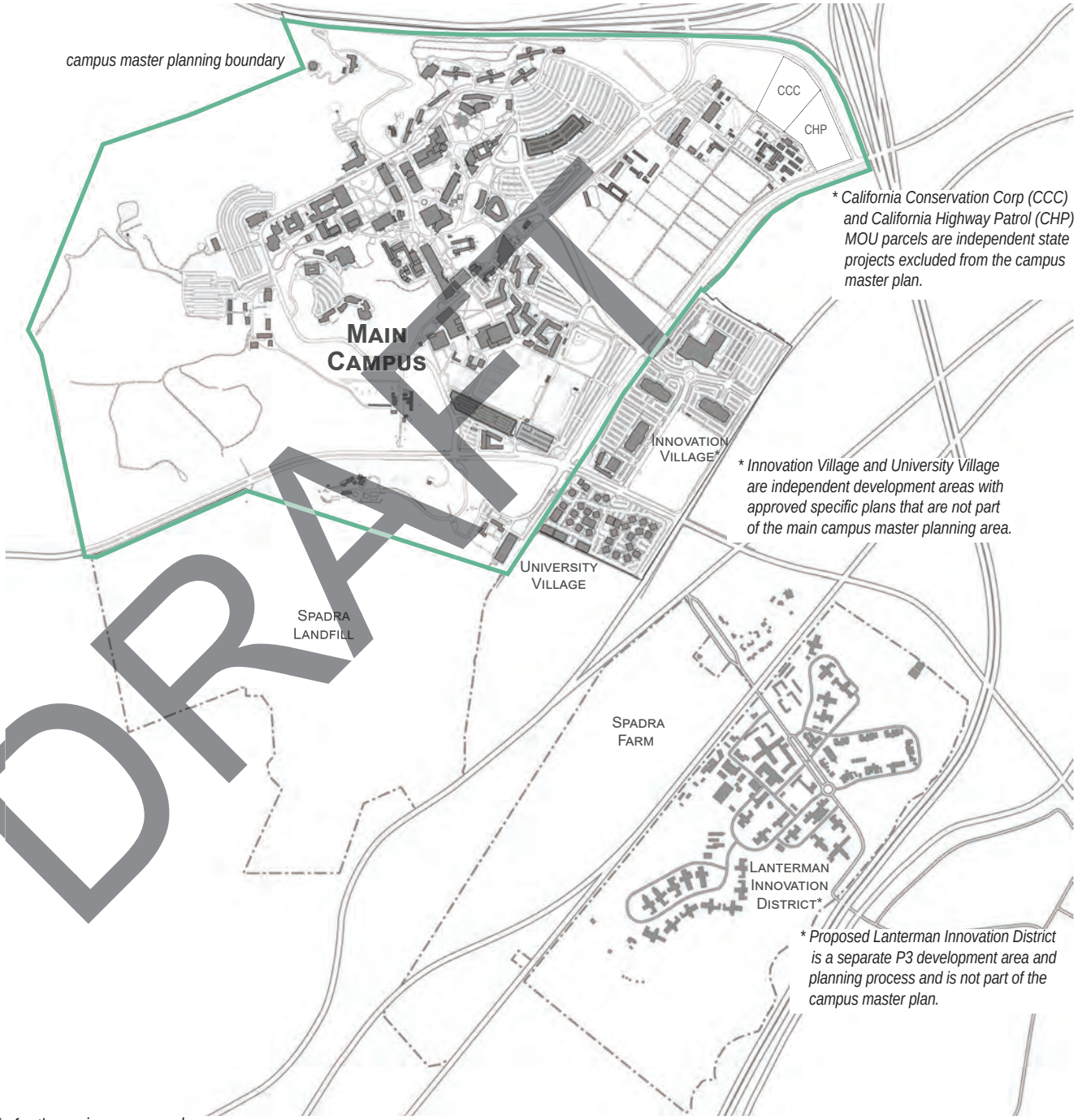
Values:

- Student Learning & Success
- Academic Excellence
- Experiential Learning
- Inclusive
- Community Engagement
- Social + Environmental Responsibility

Fall Conference 2017 Kick-off.

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

President Soraya M Coley



Cal Poly Pomona Campus is 1,438 acres, but the master plan is for the main campus only.

Campus Master Planning Process

The planning team worked with the Master Plan Advisory Committee and the President's Cabinet, serving as the Executive Committee. Over the course of two years, the plan was advanced through multi-day workshops, open campus forums and focused stakeholder meetings. The Executive Committee was briefed regularly, with working sessions to consider specific issues including instructional space utilization, student housing, proposed project sequencing, and the Capital Improvements Plan. In total, over 500 Cal Poly Pomona students, faculty, staff and community members participated in and contributed to, the master planning process. All presentations and workshop materials, with notes summarizing Q&A, discussion and feedback have been posted on the Cal Poly Pomona Campus Master Plan web page. Completion of the overall master planning process includes environmental review, a process that can take one or more years and must be completed prior to bringing the updated master plan to the California State University (CSU) Board of Trustees (BOT).

Campus Development since the 2000 Campus Master Plan

The campus has changed and grown substantially since the 2000 Campus Master Plan when the campus had a total student enrollment of 17,677 students or 14,378 full-time equivalent (FTES and was planning for growth in the decade to come. The 2000 Campus Master Plan raised the campus capacity target to 20,000 FTES to be supported by additional student housing, at least one new college building (College of Agriculture or College of Business), and the consolidation of academic programs in 'neighborhoods' with planned building improvements and expansions where needed.

Over the next two decades, implementation of the 2000 Campus Master Plan included the new Engineering Labs building, College of Business buildings, expansion of the Collins College of Hospitality Management and a major Library expansion. New parking structures consolidated parking and eliminated surface parking lots to create development sites for I-Poly High School, Residential Suites Student Housing, and the Student Housing & Dining Replacement Project Phase 1. The campus continued to grow, even with a downturn in the years after the 2008 recession. The Lyle Center lead the process to develop the 2009 Climate Action Plan (CAP), establishing Cal Poly Pomona as a sustainability leader within the CSU system. Cal Poly Pomona has made the Princeton's Review "Top 50" every year since 2011 maintaining a STARS Silver rating. A master plan update 'Campus Master Plan Revision 2012' was drafted but the approval process was stalled by System-wide CEQA issues and the plan was not adopted.

Strategic + Academic Planning

When the campus master plan update began, the Strategic Planning process had just been completed and Academic Planning was underway. One of the first master plan tasks was the analysis of instructional space (Fall Quarter 2017) an analysis that was repeated after the campus semester conversion (Fall Semester 2018). This comparative analysis showed high utilization, although short of the CSU Utilization Targets. Classrooms and instructional labs are fully scheduled, except for nights and Fridays, with classroom demand starting to outpace capacity (and spill over into lab rooms). The space evaluation also revealed the mismatch between the polytechnic 'active learning' and the CSU classroom space standards (last updated in 1973) and the quality of instructional space (mainly built between 1960-1990) which lack the capacity to support this project-based and technology supported pedagogical approach.

Campus Master Plan 2020-2040

The master planning open house identified five themes which align with the strategic plan and academic plan goals and initiatives.

Student Experience Above All
All decisions will put the student experience at the forefront, from improving the campus and facilities to accessibility (physically, virtually), to supporting student learning and success initiatives.

Polytechnic Approach
The campus will be a laboratory to support teaching and 'learning by doing', inside and outside of the traditional educational settings.

Connectivity is Critical
Improving connectivity is key to orientation, wayfinding and ease of circulation to ensure a safe, inclusive and universally accessible campus.

Pedestrian Campus In A Commuter Reality
Access has to be safe and convenient by all modes of transportation; and be a safe walkable/bikeable campus for students, faculty,/staff and visitors.

Sustainable in All Aspects
Decisions and improvements must be environmentally, economically & socially sustainable, consistent with Cal Poly Pomona values and commitments.

BSC student open house asked about space priorities, seating and shade. Students prioritized study space, especially outdoor seating with wifi and charging (solar powered).

Master Plan Themes + Projects

Five themes emerged from the planning input, aligned with the Strategic Plan and Academic Plan goals. Every campus improvement or development project included in the master plan supports at least one strategic plan goal and multiple master plan themes. Master plan projects are summarized here by their primary theme. More detail is provided in the Master Plan section of this document.

Student Experience Above All

The strategic plan puts the student experience at the forefront of decision-making, driving master plan priorities for improvements to physical facilities and the campus as a whole. Students who participated in planning workshops provided input on improvements needed, with study space and renewable energy as top priorities.

Master plan projects to add study space, improve instructional space and support student success include:

- Campus Center Replacement with Marketplace + Student Success Center on the lower floors, and the Interdisciplinary Academic Resources Building (IARB) on the upper floors. Project expands space for dining and seating *(indoor and outdoor)*, consolidates the expanded Career Center with other student support resources *(coaching, tutoring, etc.)*, and provides significant new study space in the heart of the academic core.
- Bronco Student Center Phased Renovation and Expansion projects:
  - Phased renovation and upgrade of building systems and restrooms
  - Terrace Addition with project-study space, club tabling support space, and study terrace with PV solar shade
  - Study Lounge Expansion with outdoor classroom + study 'rooms' *(after bookstore move + demo)*
  - Conference Center with expanded meeting room space and connecting bridge to the BSC
  - Connecting the mall in front of the BSC and University Park with the Commons *(after Bldg 66 demo)*

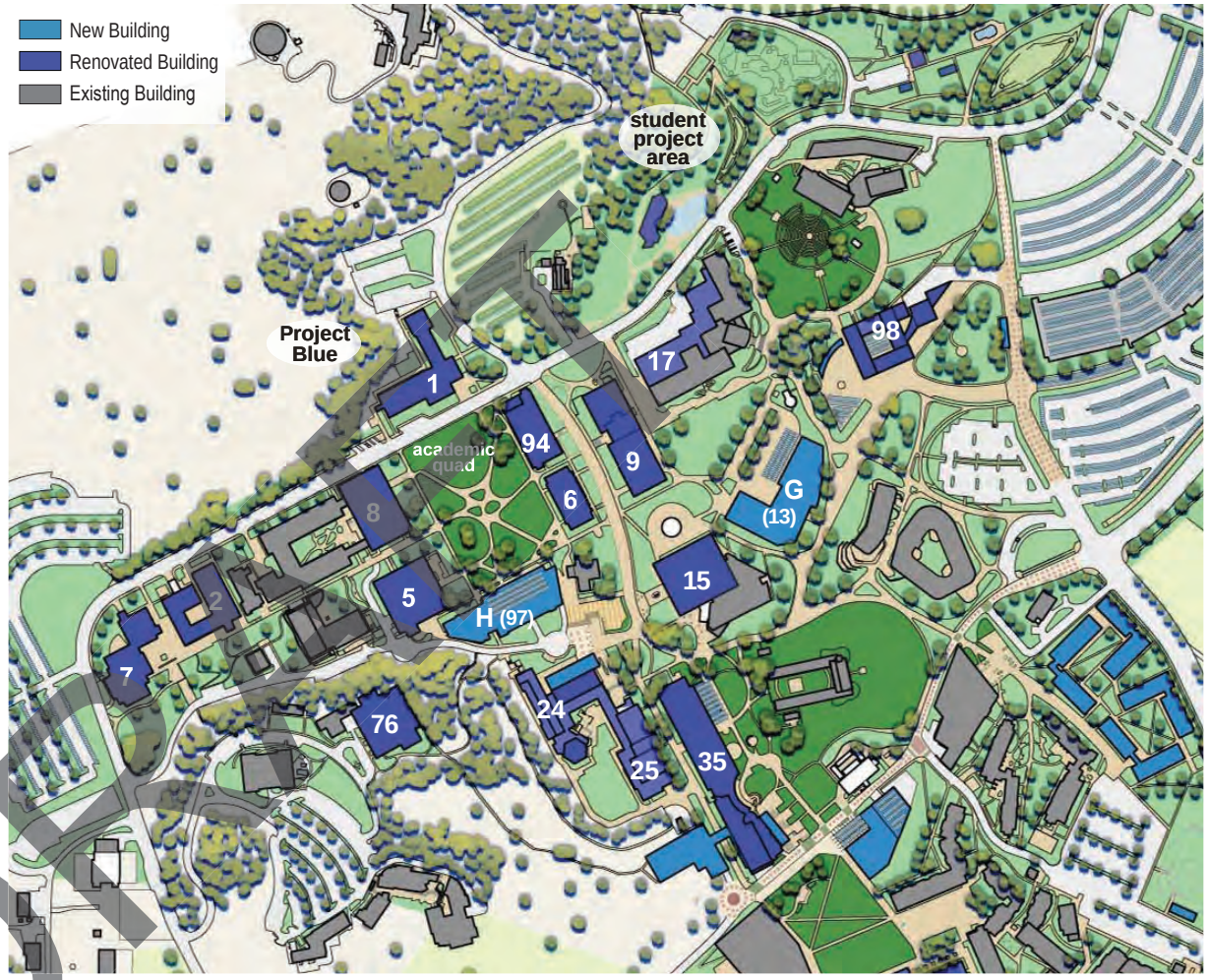
The student experience and campus engagement are also supported by the master plan with projects to enhance student life, including:

- Completing phased student housing plan to replace the original brick dorms on the hill
- Adding 1500 new student housing beds to expand campus housing capacity
- New Children's Center replacing the existing center and expanding capacity
- New Campus Health & Wellness Center close to housing and BRIC for integrated wellness programs (replaces the existing center and expanding capacity)
- Renovations in Kellogg and Darlene May Gymnasium buildings *(ADA, Title IX)*
- Expansion of the Bronco Recreation-Intramural Center *(BRIC)*
- Renovation of the BRIC multi-use fields and support facilities
- New competition venue for Track & Field and Soccer
- Future Softball facility *(Title IX)*

Polytechnic Approach

The campus as a living laboratory for learning by doing, teaching, and research is a theme expressed often by students and faculty. This approach is supported by developing academic spaces both inside and outside of the traditional educational settings and facilities. Projects for improving space for learning by doing, teaching and research include:

- Transformation of Bldg 98C - reinforcing, renovating and enclosing the structure to provide technology and maker-space for project-based learning and industry engagement *(will also provide academic surge space).*
- Interdisciplinary Academic Resources Building (IARB) (*with the Campus Center replacement Bldg 97)* will provide student success space and academic surge space to support the total renovation of larger college buildings including Science *(Bldg 8),* Agriculture *(Bldg 2)* and Engineering *(Bldg 9).* Longer term, the IARB will provide permanent instructional space to support projected demand for classrooms and labs.
- Engineering Graduate Building to support these growing engineering programs, and to replace the Art/Eng Annex*(Bldg 13)* and facilitate renovation of the College of Engineering *(Bldg 9)* and specialty lab expansion *(in Bldg 17).*
- Total or Major renovation of college buildings:
  - College of Letters, Arts & Social Sciences *(Bldg 5)*
  - College of Environmental Design *(Bldg 7)*
  - College of Science *(Bldg 8)*
  - College of Education & Integrative Studies *(Bldg 6)*
  - College of Agriculture *(Bldg 2)*
  - Music (Bldg 24 and Theater (Bldg 25)



Proposed Master Plan: Academic Core Improvements.

Students expressed their desire to be actively involved in projects which apply their knowledge on campus. The master plan identified the area where old dorm buildings will be demolished, as an opportunity for student projects. A prior project created a bio-swale for stormwater management and nearby, Project Blue has daylighted a natural springs. Students also asked for more trails (*hiking, biking)* and ropes/obstacle courses or other recreational and resident life/community building activity areas.

Existing stormwater project behind the red brick dorms.

Connectivity is Critical

Connectivity is key to wayfinding and ease of circulation within a campus. Students requested improvements that would reduce conflicts with vehicles, provide lighting along pedestrian routes, enhance wayfinding with marked accessible routes, and improve getting around the hilly campus efficiently. To meet these concerns the master plan is committed to a 'complete streets' approach which ensures safety no matter the transportation mode.

One of the first connectivity issues addressed in the master planning was transit within the campus, proposing a more efficient campus shuttle loop to move students from housing and parking on the southern edge, to the academic core on the northern edge of the campus. A dedicated lane will get the shuttle buses out of traffic and a limited number of stops will shorten the overall trip. Upgrading to larger buses with side exit doors will also add capacity and reduce travel time.

As the campus has grown, the pedestrian core of the campus has expanded, with streets inside the University Drive loop (Olive, Red Gum, Eucalyptus, and Camphor Lanes) closed by gates restricting vehicular access. Despite the gates, vehicles use these streets to access parking, loading docks and service areas. Despite the gates, these are still streets designed for vehicles and not for a mix of pedestrians, cyclists and skateboarders. Around the edges of the pedestrian zone, ad-hoc drop-off / pick-up locations have sprung up where vehicles idle just outside the access gates.

Redesign of these streets to multi-modal or pedestrian-only malls will prioritize pedestrians, expand accessible routes and improve safety. Thoughtful location of high-traffic uses and service entries can also reduce the number of vehicles that need to enter the pedestrian core. Designating a pick-up/drop-off zone will reduce the number of vehicles circulating around the campus.

Red Gum Lane, which was partially closed to traffic, will become a multi-modal pedestrian mall including a lane for the campus loop shuttle, and new bus shelter with PV solar shade, continuing the conversion of former streets to pedestrian malls.

Projects proposed to improve campus connectivity:

- Applying complete streets design to Kellogg Dr, East Campus Dr and South Campus Dr.
- Extending the Ped/Bike-way north to University Drive and south to connect to the Mobility Hub, the San Jose Creek Greenway bike trail and Valley Blvd protected bikeway.
- Converting Red Gum, Eucalyptus and Camphor Lanes to multi-modal malls with improvements which prioritize pedestrians and cyclists
- Converting closed streets to improved pedestrian malls including the south portion of Olive Lane, Voorhis Circle and west portions of Oak Lane + Magnolia Lane.
- Establishing a designated 'hub' for transportation connections, including transit, campus shuttles and ride-share pick-up / drop-off
- Creating a dedicated campus circulator shuttle on University Drive and the multi-modal malls.
- Developing a Campus Wayfinding Master Plan with new signage standards .

Eucalyptus Lane is the first multi-modal mall on campus, becoming an active pedestrian mall and bike route while maintaining necessary vehicular access (to the Childcare Center and service docks). The master plan relocate most of these uses to further reduce vehicular traffic on Eucalyptus.

Pedestrian Campus in a Commuter Reality

The reality is that everyone commutes to the campus, whether that's daily or just at the start of the semester. Alternative modes of transportation should be available to conveniently get to campus. CPP has partnered with Foothill Transit to provide students with a free Transit Access Pass (TAP) for unlimited rides on Foothill Transit local routes and the Silver Streak bus from downtown Pasadena or Los Angeles. The partnership includes establishing a transit hub to conveniently connect regional transit service to the campus shuttle.

The Bronco Mobility Hub will encourage a culture of transit use by providing information on using transit (Foothill Transit buses, shuttle to Metrolink rail) and navigating the campus. Adding Silver Streak service is being studied, from the same transit hub or from a new FT stop off Kellogg Drive, closer to the I-10 entry.

Proposed projects which support the CSU Policy on Alternative Transportation and CPP's climate action plan goals by encouraging alternative modes of transportation to commute to campus include:

- Bronco Mobility Hub at South Campus Drive and Temple Avenue which would include:
  - Foothill Transit route bus stops
  - MetroLink shuttle stop
  - Connections to all campus shuttle routes
  - Transit Center welcoming visitors with maps, guides and transportation resources
  - CPP Bookstore + Welcome Center with campus swag and Coffee Cafe.
  - Designated location for ride-share app pick-up and drop-off.
  - Spaces for share/loan programs for car-share, e-bikes, e-scooters and EV charging.
- User-activated High-intensity Activated Crosswalk (HAWK) beacon on South Campus Drive to facilitate bus turns in-out of the Hub and provide a safe crossing for the campus ped-bikeway.
- Campus-wide pedestrian improvements including 'Complete Streets' approaches to Kellogg Dr and East Campus Dr with sidewalks, enhanced crosswalks, bike lane/paths, lighting, landscaping. and other traffic calming features.
- New intersection at the I-10 Kellogg ramps and East Campus Drive to direct non-campus traffic around the campus on South Campus Drive; and adding a traffic signal at Kellogg and University Drives with crosswalks and pedestrian safety improvements including protected bike lanes where appropriate.
- Enhancing campus identity with gateway elements to mark the campus entries and edges, including lighting, banners, signage and landscaping.

Sustainable in All Aspects

The master planning integrated sustainability into every aspect of the work, understanding that all decisions must be environmentally, economically and socially sustainable to be consistent with Cal Poly Pomona's values and commitments.

Almost 50 students and faculty from twenty stakeholder groups participated in the Sustainability Open Forum and called for renewed leadership and commitment to meeting carbon neutrality goals. Students expressed a desire for sustainability to be more visible on campus. Ideas included more photo-voltaic (PV) solar panels, more electric vehicle (EV) charging stations, all-electric campus fleet vehicles and shuttles, rain water capture in bio-swales, sustainable landscaping and net zero buildings. All of these ideas have been integrated into the master plan.

The total building renovation of the College buildings offer opportunities to significantly reduce energy and water use, improve resiliency and preserve embodied carbon, including:

- replacing the exterior envelope with enhanced insulation, efficient glazing and PV where feasible
- efficient new HVAC systems and controls
- LED lighting with occupancy controls
- high efficiency fixtures to conserve water
- building meters for water and power
- applied standards for active learning classrooms
- achieving LEED EB or Net Zero certification

New buildings should be required to achieve Net Zero with rooftop PV. Proposed new buildings include:

- Engineering Graduate Building
- Campus Center Replacement + Interdisciplinary Academic Resources Building (IARB)
- Campus Health & Wellness Center
- Children's Center

Sustainability Open Forum.

The master plan proposes projects specifically to generate renewable energy on campus, including:

- replacing the Lyle Center PV array
- new parking lot shades with PV panels
- PV shade structure as part of the atrium roof/ skylight proposed for the Bldg 98C transformation

Several projects proposed include outdoor study or project areas with PV shade structures including:

- Tower Plaza (98 T-R demo) with Bldg 98C PV
- BSC Terrace addition
- Entry court at Campus Health & Wellness Center
- Engineering Graduate Building courtyard

EV charing stations.

Campus-wide Improvements

- **A** Entry-Kellogg w/E Campus Dr bypass
- **B** Campus Shuttle Lane + Stops
- **C** Bronco Mobility Hub
- **D** Transform interior streets to malls
- **E** Extend Ped-Bikeway
- **F** PV Solar installations

Academic New Buildings

- **G** Graduate Engineering Building
- **H** Interdisciplinary Academic Resources Building (IARB) & Campus Center
- **24, I** Music Renovation, Addition

Renovated Buildings

- **1** Administration
- **2** College of Agriculture
- **5** College of Letters, Arts & Social Sciences
- **6** College of Education & Integrative Studies
- **7** College of Environmental Design
- **8** College of Science
- **9** College of Engineering
- **17** Engineering Labs
- **15** Library
- **25** Theater
- **35** Bronco Student Center (phased)
- **43** Kellogg Gymnasium Addition-Renovation
- **59** La Cienega
- **76** Kellogg West
- **94** University Offices
- **98** Classroom

Student Life Projects

- **J** Student Housing Replacement Phase II
- **K** Hillside Rec, ROTC, TRIO Relocated
- **L** Student Housing Phase III
- **M** BSC Terrace Addition
- **N** BSC Study Lounge Expansion
- **O** BSC Mall (after Bookstore demo)
- **P** BSC Conference Center
- **Q** BRIC Expansion
- **R** Children's Center
- **S** Campus Health & Wellness Center
- **T** Softball Facility
- **U** Recreation Field Improvements
- **V** Soccer, Track & Field Stadium

The extensive campus engagement produced a wealth of input from students, faculty and staff, about existing campus conditions. Mapping exercises asked students to highlight special places on campus, and areas which need improvement. SWOT exercises (strengths, weaknesses, opportunities, threats) identified issues for resolution, and improvement opportunities.

Planning Process

The planning process was lead by Campus Planning and Facilities, working with a 28 member Master Plan Advisory Committee, representing the full range of campus stakeholders and the President's Cabinet serving as the Executive Committee. A series of workshops with the Advisory Committee advanced the planning effort, informed by open forums and focused stakeholder meetings. The Executive Committee was briefed regularly, with leadership work sessions focusing on specific topics including instructional space utilization, student housing and the Capital Improvements Plan.

The planning began with a leadership workshop in the summer of 2017 to align the strategic and master planning goals and priorities, and confirm the overall process and approach. The campus planning team was introduced during Fall Conference, holding an Open House which engaged over 100 participants around campus mapping exercises. Visioning exercises with leadership identified 'big picture' priorities for the planning process. University administration prioritized 'Attracting top quality faculty and staff', while the Academic Senate chose 'Quality facilities supporting active learning' followed closely by 'Attracting top quality faculty and staff'.

These ranking exercises showed a high degree of alignment identifying the top priorities in ranked order:

1. Attracting students & top quality faculty and staff
2. Quality facilities supporting active learning
3. Increasing enrollment & persistence
4. Supporting retention & student success
5. Campus that encourages collaboration
6. Optimizing alignment between programs & facilities

Campus Engagement

The master planning process was a year long intensive effort to encourage participation and input from diverse campus voices and to include all the stakeholder groups. These campus engagement sessions included:

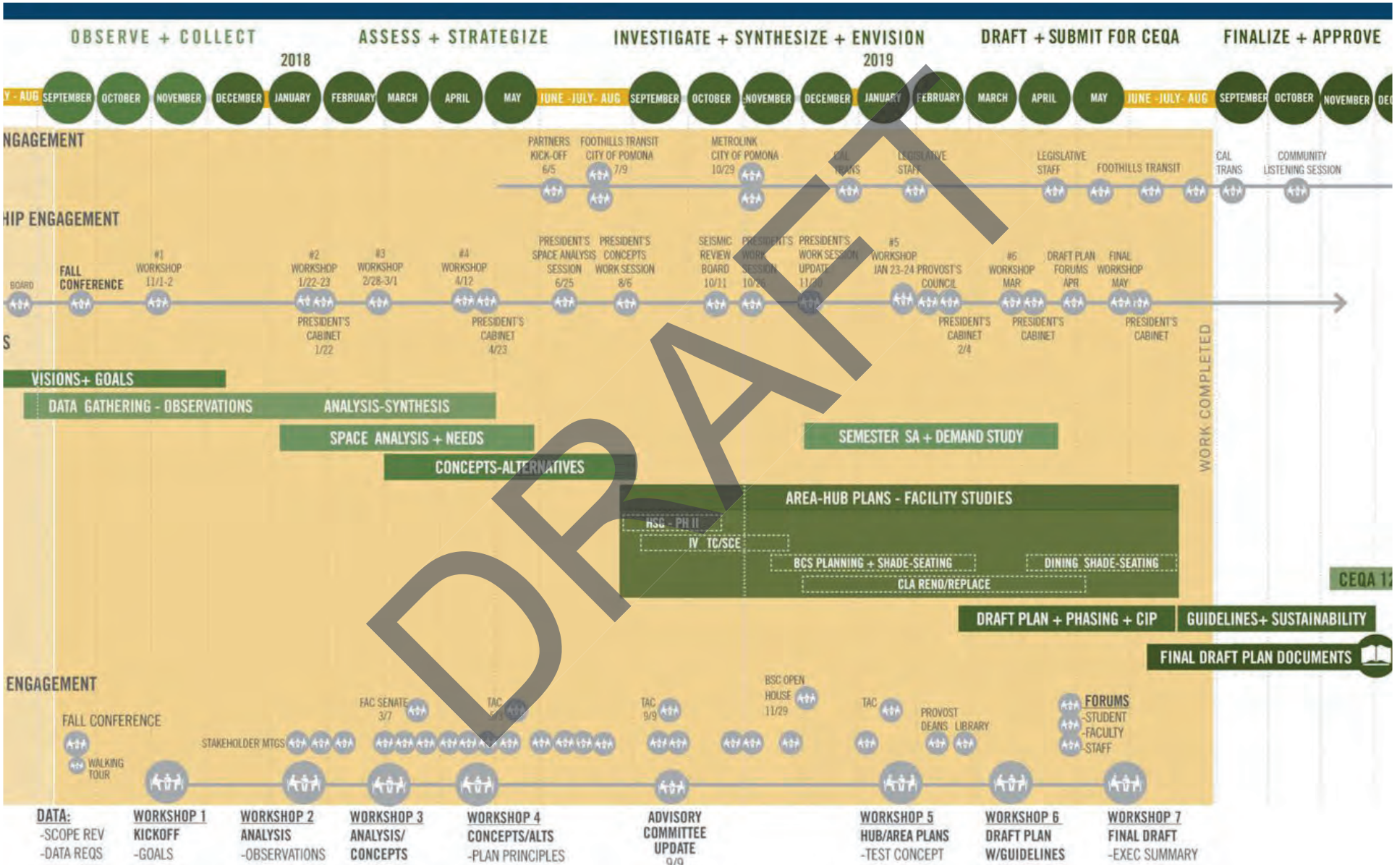
- five open campus-wide forums
- seven Advisory Committee workshops
- three Transportation Advisory Committee focus sessions
- 27 stakeholder group interviews
- in total over 400 individuals participated in this process

Community Outreach

A community partnership meeting kicked-off work with regional partners including:

- Mt San Antonio College
- City of Pomona
- City of Walnut
- Los Angeles County
- Foothill Transit
- Caltrans District 7
- Metrolink
- San Gabriel Valley Economic Partnership

PROCESS & SCHEDULE



Campus Engagement

The Campus Master Plan Advisory Committee Workshops were highly participatory working sessions. The committee was asked to engage in the planning, starting with developing principles to guide the process. They shared visions, identified priorities and used models and drawings to explore alternative solutions. These workshops extended over almost 18 months, with each workshop building on the effort in the prior session in order to advance the plan development.

Seven workshops included:

- Kick-off: Goals + Visioning
- Observations + Campus Analysis (including Space Utilization Analysis)
- Planning Principles + Concepts
- Concept Plan Alternatives
- Hubs-Areas + Facilities Studies (Bldg 98, BSC)
- Draft Plan + Priorities/Phasing
- Final Plan + CIP/Implementation Plan

Each workshop was a step forward and the discussions and working sessions built consensus for the developing plan. Decisions were informed by observation and analysis of campus organization and function with input from extensive engagement with campus leadership and stakeholders.

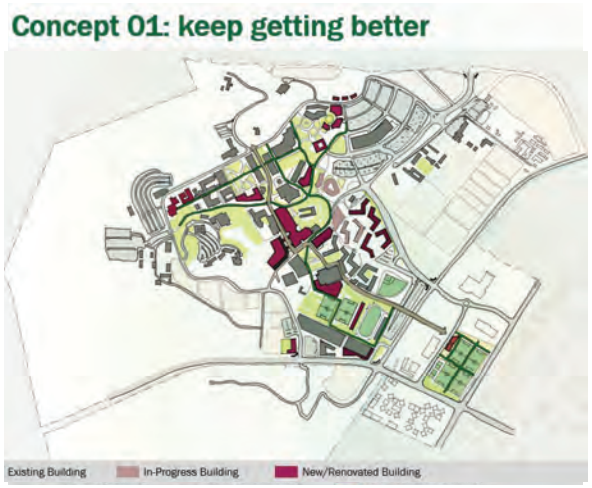
While on campus for workshops, the planning team also held focus meetings with students, staff and faculty stakeholder groups including: ASI, BSC, BRIC recreation, athletics, housing, dining, Foundation, Library, student clubs, Pride, Cultural Centers, Campus Health, Disability Resource Center, Children's Center, Lyle Center, Transportation Advisory Committee, Faculty Senate, Alumni Association and others.

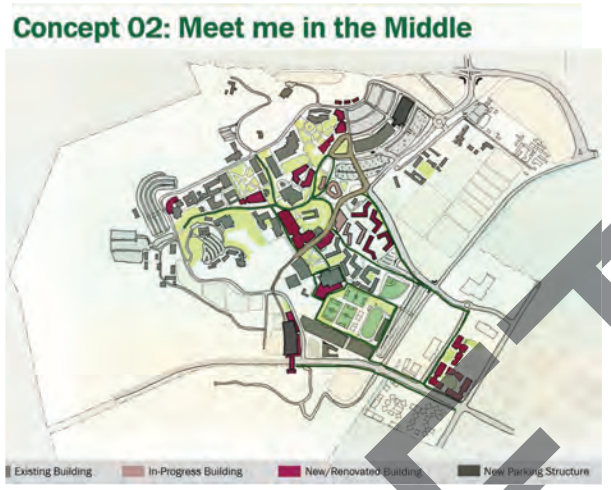
The space analysis started with data gathering on campus facilities, with an emphasis on instructional space and the CSU utilization targets for classroom (lecture) and class lab space and how Cal Poly Pomona's utilization aligned with those metrics. The campus was in the process of converting from quarters to semesters, and remapping the course schedule, so the initial analysis was done with data from the 2017 Fall Quarter, and repeated for the 2018 Fall Semester. The data showed that utilization trends continued, with even greater scheduling pressure and identified the need for a different type of space designed for active learning using integrated technology. The space analysis effort included multiple meetings with the provost, registrar, academic planning committee, deans, and presentations to the Academic Senate, Provost's Council, President's Cabinet and University Leadership Council.

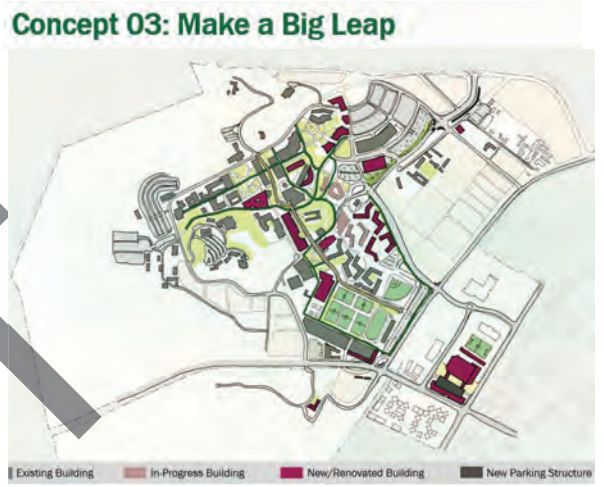
Fall Conference, 2017.

Planning Accessibility Walk, 2017.

Student input on campus conditions to be addressed in the master plan.







In the Concept workshop, the Master Plan Advisory Committee formed break-out groups to evaluate each alternative concept's strengths and weaknesses and present that analysis to the Committee.

Concept : Keep Getting Better

This alternative focused on smaller additions and major renovations to keeping existing uses in place, including the CLA building. No significant new plans or facilities were introduced, but accommodating future growth would displace existing athletic-recreational fields, moving them to the remaining undeveloped Innovation Village parcels.

Concept : Meet me in the Middle

This alternative focused on the center of the campus, turning Eucalyptus Lane into a multi-modal mall with an Autonomous Shuttle running between PS#1 and a new Transportation Hub connected to PS#2. The mixed-use Hub would include the Bookstore, Children's Center and bridges over University Drive and Temple Ave to enhance this campus gateway.

Concept : Make a Big Leap

This alternative used the undeveloped southwest corner of Innovation Village for a mixed-use development with a new Fieldhouse/Event Center. CLA would be demolished and new, smaller academic buildings were added around PS#1 with a Transit Hub at Temple Avenue and South Campus Drive. This concept was the most well received.

Conceptual Framework & Planning Principles

The concept synthesis was advanced in a working session with the Executive Committee, which confirmed the overall approach. A decision-making matrix was developed using the Strategic Plan and Academic Plan initiatives as the measure the set priorities for proposed projects and confirming that the Academic plan needs would be addressed. Leadership also identified several critical questions to be resolved in order to fully develop this concept into a master plan:

- Should Bldg 98-C structure be retained and reinforced with seismic buttressing, or replaced with a new building, and what would either choice mean for this very prominent site after the Tower/Registration structure was removed?
- Can the Bronco Student Center (BSC) be improved and expanded to meet student needs, or does the BSC need to be replaced with a new, larger facility to meet student needs?
- Can the I-10 Kellogg entrance be improved as the main campus entry while also routing non-campus traffic around the campus?
- Is a transportation hub with local and regional transit connections feasible and what is the right location?

Studies to answer these questions required additional research and stakeholder meetings, including the CSU Seismic Review Board, Associated Students, Inc., and the Transportation Advisory Committee (TAC). At the same time, the campus began community outreach to proactively engage a broader group of stakeholders. The President introduced the master plan at a community meeting held on campus, with representatives from local and regional partners including Mt San Antonio College, City of Pomona, City of Walnut, Diamond Bar, City of Industry, Fairplex, Foothill Transit, MetroLink, Cal Trans, Los Angeles County, and the San Gabriel Valley Economic Partnership. Follow-up meetings with Cal Trans District 7, LA County, City of Pomona, MetroLink and Foothill Transit started productive dialogues which resulted in the I-10 Kellogg entrance redesign for a new intersection with East Campus Drive and implementation of the Foothill Transit Class Pass program with a new Silver Streak stop and proposed Mobility Hub on campus.

Draft & Final Plans

The draft plan starts with a 5 year Capital Improvement Plan (CIP) with the first phase of projects for funding. Projects are prioritized and mapped in sequence in an implementation plan. The final documents include the master plan map and this report presenting the campus plan. The California Environmental Quality Act (CEQA) requires an Environmental Impact Report (EIR) and public review process. Then the master plan will be brought to the CSU Board of Trustees.

A campus model allowed Committee members to rearrange elements from the concept alternatives to produce a conceptual plan synthesis incorporating elements from all three approaches.

Planning Principles

to guide the concept planning

Start with Campus Places not Buildings

Focus on the space between the buildings, making places for active use for learning and engagement.

Make the Polytechnic Activity Visible

Academic buildings should activate the ground floor with space for 'learning-by-doing' that is visible from campus malls and quads

Close the Loops, Make the Connections

Support intuitive and convenient connectivity within the campus and to local and regional transportation

Shift the Center

As the campus grows southward, the center of campus activity also shifts and impacts circulation and land use

Transform College Neighborhoods

Consolidate and connect college 'neighborhoods' with collaborative spaces for student and faculty engagement

Expand the Plan

Consider all campus Assets (South Campus, Innovation Village, University Village, Spadra Farms) for both uses and campus connectivity

Pandemic Impact

"We were having these exact conversations before Covid was even a thing, but it has been an accelerant."

- Chronicle of Higher Education Trends Report 2022

Cal Poly Pomona home page celebrating 2022 graduation, with the ubiquitous "Safer Return to Campus'" banner.

At the start of 2020, the campus master planning process was largely wrapped up. Final decisions about projects and priority sequencing were being made and final plan maps were being drafted. In mid-March the "temporary pause of face-to-face classes" was announced and the campus switched to entirely online instruction on March 18, 2020. Long range planning was paused while attention turned to safely maintaining mission essential operations, and the challenges of creating effective virtual learning environments and safer physical spaces for in-person instruction. Over the next year, the planners answered questions about physical facility accommodations (HVAC, seating, and outside classroom and study spaces) and whether the pivot to online would impact the 'bricks and mortar' campus longer term. These concerns and questions were not unique to Cal Poly Pomona. The pandemic tested the resilience of all higher education institutions and changes made necessary by Covid-19 spurred a broad rethinking of campuses and physical space. Some of the discussion points and 'lessons learned' during this time include:

- Online and hybrid classes, in addition to distance-learning approaches were growing in popularity pre-pandemic, and are expected to increase going forward.
- Many of the students registering for online courses are also taking in-person classes on campus (this was also true before the pandemic).
- Both instructors and students expect 'in-person' classes to provide more engagement and project-based activities, with 'lecture' content accessed online, usually in advance of the in-person class.
- Hybrid classes (online + scheduled periodic in-person sessions) may free up needed lecture classroom capacity.
- Active learning and project-based activities require classrooms with flat-floors, flexible seating, multiple screens, more area per seat (NASF), technology for sharing work in a group, and robust data and power.
- Much like the classrooms, a hybrid faculty work environment will require changes in format, with fewer assigned offices, smaller 'hoteling' office/meeting rooms, and more informal workspaces spaces for collaboration with 'touch-down' areas to charge phones and laptops, do printing/copying and secure individual storage (locked cabinets take up less space than an assigned office). In some institutions, offices are nearly 40% of total space but CPP facilities data shows offices are only 23% of total area, suggesting changes in faculty workspace might not produce significant reductions in total space needs.
- The proven ability to 'work-from-home' (WFH) could reduce space needs for administrative (non-student facing) functions and reduce parking demand; WFH also offers a viable alternative to leasing 'surge space' when major building renovations are undertaken.
- Housing directors thought many of the pandemic added safety features would be permanent (enhanced ventilation and filtering, touch-less fixtures, dorms designed with options for isolating a potentially contagious student)
- Surprisingly, most housing directors reported little or no decline in housing demand even in the Fall of 2020 when students living on campus were taking most of their classes on-line.
- Replacement of 1960's-era dorms is a continuing trend, with campuses striving to reduce deferred maintenance backlog by replacing and removing inefficient older buildings (confirming that Phase 2 of the Housing Replacement Project should be a campus priority)

- Conversely investing in the sustainable transformation of major academic buildings is a growing strategy that preserves resources (embodied carbon) with total renovations costing less than new construction (or piecemeal renovation of an occupied building). The master plan aligns with this trend, with the sequenced total renovation of nine academic buildings offering opportunities to rethink both instructional and work space standards.
- Lack of child care has proven to be an obstacle disproportionately impacting women; expansion of the Children's Center was often mentioned by faculty and students even before the pandemic, and should be an even higher priority now.
- During the pandemic, technology either expanded access or became a stumbling block, with the digital divide that has been slow to close becoming even more evident. Strategies need to pursued to bridge this gap for students in need.

Students have returned to campus, but there is higher demand for courses in online or hybrid formats than before the pandemic.

Enrollment

Prior to the pandemic, based on trends and demographics, enrollment was projected to continue to grow steadily for 5 -10 years, then leveling off. At the start of the pandemic, with the shut-downs hitting the economy, predictions were that enrollment would hold steady based on typical recessionary trends (when unemployment is high, students opt to stay in college longer). But the last three years have been far from typical and college enrollment has dropped, especially for community colleges and state university systems across the nation. California community colleges have felt this impact the most, resulting in a significant drop in student transfers to Cal Poly Pomona. Enrollment FTE was also reduced by students switching from full-time to part-time course loads, reversing a 20 year trend. There is great uncertainty about when, or whether, the enrollment numbers will recover. As a result, Cal Poly has adjusted immediate enrollment projections to hold steady and more closely align with funding.

Campus Capacity Cap

After much discussion, university leadership is holding to the master plan recommendation to raise the campus master plan capacity cap (planned FTES* capacity) from 20,000 FTES to 30,000 FTES, to support the academic plan and potential program growth through 2040. While the master plan projects proposed are focused on meeting the critical need for renewal of academic facilities (seismic priorities, building condition), prioritizing the student experience and student success, and implementing the campus sustainability action plan goals, the demand for STEM majors is expected to continue to be high and supporting the academic plan will require both improved and increased instructional space and seat/stations. The plan which follows has not made dramatic changes in reaction to the pandemic, but where the pandemic has exerting an influence, the potential impacts are noted for consideration.

** FTES capacity is the instructional space capacity based on CSU standards, for seat/stations in permanent physical facilities on the main campus. This is not the same as the annual published Total student Head counts or FTES.*

Cal Poly Pomona Campus Existing Conditions 2019.

CAMPUS CONTEXT & EXISTING CONDITIONS

California State Polytechnic University, Pomona (Cal Poly Pomona) is one of 23 campuses in the California State University (CSU) System and one of just three polytechnic universities, and at 1,438 acres the campus is one of the largest in the system. The campus is located along the east-west I-10 corridor on the western edge of the City of Pomona in Los Angeles County, with a designated exit at Kellogg Drive which is one of the campus' main entrances.

CAMPUS HISTORY

The campus has a rich history prior to becoming the university it is today. In the fall of 1938, Cal Poly Pomona opened as the Voorhis Unit of the California Polytechnic School (Cal Poly San Luis Obispo), on the 150 acre site of the former Voorhis School for Boys in San Dimas, located just 3 miles north of the current campus. In 1949, breakfast cereal magnate W.K. Kellogg deeded his 813 acre winter ranch to the state of California to use as a public university on the condition that it care for his horse herd in perpetuity. Today the W.K. Kellogg Arabian Horse Center is a showcase facility that houses purebred Arabian horses with new foals born each year and includes five historic buildings, and numerous agricultural sheds and barns, that date back to the original ranch.

In 1956, the Voorhis Unit moved to the Kellogg campus with 550 students and 30 faculty members and in 1961 the school enrolled 320 women for the first time. Between 1956 and 1969 the University Quad with the major academic college buildings and the residential life facilities (dormitories, dining hall, health center) were constructed. In 1966, Cal Poly Pomona separated from the San Luis Obispo campus to become California's 16th state college. University status was granted in 1972.

CAMPUS HISTORY

1920	*W. K. Kellogg acquires 813 acres as his winter ranch for breeding prize-winning Arabian horses.*
1938	*Voorhis unit of the California Polytechnic School (in San Louis Obispo) opens in San Dimas*
1949	*Kellogg Ranch and Arabian horse herd is deeded to the state of California*
1956	*Voorhis Unit moves to the Kellogg campus, soon construction begins around the University Quad*
1961	*First women are enrolled*
1966	*Cal Poly Pomona separates from Cal Poly SLO to become the 16th state college*
1972	*University status granted*
1991	*Campus Master Plan*
2000	*Campus Master Plan Update*
	Innovation Village development starts
2009	*Climate Action Plan*
2015	*Lanterman property added*
2020	*Campus Master Plan Update*
2021	*Plan documentation*
2022	*EIR + CEQA begun*
2023	*Anticipated Board approval of EIR + Master Plan*

Cal Poly Pomona Total Campus Area and Context.

Campus Context

The Cal Poly Pomona campus, originally an isolated ranch in the San Jose Hills, has been overtaken by the growth of the greater Los Angeles metropolitan area. But the campus still feels isolated with rugged hilly terrain on the west, the San Bernardino Freeway (I-10) along the north, and the I-10 ramps to the Orange Freeway (57) on the eastern campus boundary. The campus hillside extends northwest abutting Forest Lawn Cemetery and the Spadra Landfill (LA County) and the Mt San Antonio Community College (Mt SAC) campus. But there is no direct physical connection between the two campuses. The southern edge of the main campus is defined by South Campus Drive and the San Jose Creek drainage channel and planned regional trail. This is the only edge where the campus abuts the community and a mix of commercial, industrial and residential neighborhoods. South of the campus on the east side, is the Kellogg Park neighborhood in Pomona, and on the west side are several small mobile home parks in the City of Walnut. Otherwise the existing land uses are small commercial and industrial and railroad R.O.W.

Today the campus extends beyond the original ranch and includes property south and west including: Innovation Village (formerly the CPP Technology Research Park), University Village housing, Spadra Farm used by the College of Agriculture, Lanterman Innovation District (formerly the State of California Lanterman Center for the Developmentally Disabled) and parcels along East Campus Drive designated for state projects for the California Conservation Corp and California Highway Patrol. While the master plan is only for the Main Campus, connectivity between all of the campus properties was considered during the planning process. Innovation Village and the Lanterman Innovation District are public-private partnership (P3) developments with independent planning for future use and development.

Access

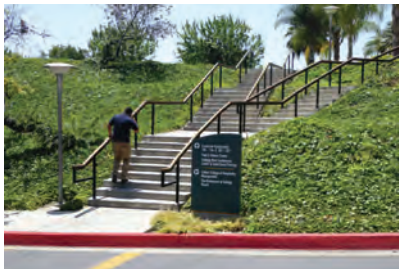
The campus is only 30 minutes west of the Ontario International Airport (ONT) but is easily reached from any of the four Los Angeles metro area airports. The campus has excellent access from the San Bernardino Freeway (I-10) via Kellogg Drive entering the east side of the campus. From the south, the campus can be reached via the Pomona Freeway (US 60) and the Orange Freeway (US 57) via W. Temple Avenue.

Foothill Transit and Metro buses have stops at the corner of Temple Avenue and South Campus Drive. Foothill Transit Bus Routes to Cal Poly Pomona include routes 190, 194, 195, 289, 480, 482, and 486. The campus is in close proximity to both the Metrolink San Bernardino Line and the Riverside Line, as well as the future extension of the Foothill Construction Authority L-Line (former Gold Line). Nearby Metrolink Stations include the Pomona Downtown Station, Pomona North Station and the City of Industry Metrolink Station. There is shuttle services from the Pomona stations to the campus at peak times.

Topography

While the campus is one of the largest California State University campuses, much of the 1438 acres is not suitable for development due to the topography and seismic faults. The topography of the campus ranges from lowland flood plain on the southeast, to rolling agricultural hillsides which rise almost 175 ft to the ridge line along the northwestern edge of the campus. Roughly 30% of the campus acreage has steep slopes with orchards or natural open space; 30% has moderate slopes and much of it is planted by the College of Agriculture; and the remaining 40% is mostly developed for campus academic, residential and administrative support uses. The dramatic topography makes it challenging for pedestrians and cyclists. The original Kellogg ranch residences were set high on the hillside for the views and security, while the lowland area made excellent pasture for the horses. Today much of the original pastureland is still reserved for the Kellogg Arabian horses.

Campus topography with terraced parking on the hillside above University Drive.



Campus topography presents challenges to connectivity and accessibility. Collins College and Kellogg West Conference Center are only ADA accessible by vehicles.

Cal Poly Pomona Campus Master Plan 2000.

2000 Campus Master Plan

The campus has grown since the 2000 Campus Master Plan Update (to the 1991 master plan) was approved. The 2000 master plan anticipated a capacity target of 20,000 FTES which anticipated the addition of at least one new college building (agriculture or business) and new student housing. One of the goals of the plan was to consolidate programs in academic 'neighborhoods' and reinforce the academic core. Implementation included the new College of Business buildings and two new parking structures which consolidated surface parking lots to make land available for the Residential Suites student housing project.

Some of the notable projects completed over the last 20 years include:

- Engineering Labs - Bldg 17 (2001)
- Collins College of Hospitality Management - Bldg 79A-B (2001)
- Residential Suites Phase 1 - Bldgs 60-61 (2003)
- Dorm Central Plant - Bldg 69 (2003)
- Medic One Building - Bldg 90 (2003)*
- Music Trailers - Bldgs 24A-F (2004)*
- Facilities Planning & Management Annex - Bldg 81A (2004)
- Fruit & Crops Greenhouse - Bldg 28 (2005)
- Public Safety & Parking Services - Bldg 109 (2006)
- Interim Design Center Addition - Bldg 89A (2007)
- Agriscapes Greenhouse - Bldg 213 (2007)
- Parking Structure #1 - Bldg 106 (2007)
- Residential Suites Phase 2 - Bldg 54, 52, 62, 63 (2010)
- Library Addition (2008)
- College of Business - Bldgs 162-164 (2012)
- International Polytechnic High School - Bldg 85 (2012)
- Bronco Recreation & Intramural Complex (BRIC) - Bldg 42 (2014)
- Marriott Learning Center - Bldg 80 (2015)
- Parking Structure #2 - Bldg 107 (2016)
- Relocation of Kellogg Drive *to make room for the Student Housing Replacement project* (2017)
- Student Services Building *to replace Bldg 98 T, R* (2018)
- Phase 1 Student Housing & Dining Replacement *to replace dorms in seismic zone Bldgs 57-58* (2019)

** denotes temporary or modular facilities*

Over the last 20 years there has been substantial additional planning done, including: multiple seismic fault investigations and evaluation of buildings within the fault zone; 2010 Housing Master Plan with market analyses; and the Campus Master Plan Revision 2012, which was not completed.

Engineering Labs Building, 2001.

College of Business, 2012.

Student Services Building, 2018.

Cal Poly Pomona Campus Existing Conditions 2019.

Campus Observations

Planning is based on observations, walking the campus, making notes, taking photos and marking up maps to document existing conditions. The master plan open houses also input from faculty and students about places on campus that need improvement.

Entry, Identity, Gateway & Circulation

Campus corners are marked with monument electronic signs highly visible to passing traffic, but there isn't a sense of 'gateway' entry. Entering the campus on Kellogg Drive from the freeway, you are driving through the campus before realizing you've entered the campus. The road feels like an extension of the freeway access, so cars move too fast. Students noted Kellogg needs safety improvements for pedestrians including continuous sidewalks, lighting and buffered landscaped edges. If non-campus traffic could be directed around the campus, Kellogg Drive could be put on a 'road diet', reducing vehicular speeds and improving safety.

As the campus grows circulation becomes more challenging. University Drive functions as the campus perimeter road but it's congested, with on-street parking and students streaming across from dorms or parking lots. Concerns were expressed about vehicle-pedestrian conflicts and lighting at night. The pedestrian zone has expanded but most of the internal streets are still in place with gates to limit access. The planning team walked with a faculty member who navigates with a cane and she demonstrated the challenges created by using a closed street as an unimproved mall.

Camphor Lane provides access to ADA parking and service docks for several college buildings and the Marketplace. This winding, narrow lane is used by the parking lot shuttles to get into the center of the campus, terminating in a circle too small for a bus turn around. A continuous stream of students traverse Camphor Lane and an ADA parking lot walking from the BSC to the Marketplace or the University Quad. As a true cross roads in the center of campus, this area was identified most often by students as needing significant improvements.

Open Space & Landscape

The University Quad is a classic collegiate quadrangle, ringed by shade trees and lined by college buildings with a 'California modern' character. The east-west college connectivity emphasized in previous campus plans is not evident on the ground. The sidewalks include multiple stairways and the accessible path detours into building elevator lobbies. The quad is quite large and hosts major events including graduation.

University Park with it's wide sloping lawn and shady courtyard makes this open space a favorite for student activities. But the lack of shade, seating and power/wifi drives students back inside the BSC. The Commons green space in front of the BRIC is where many res life events are scheduled. Students asked if the master plan could connect the Commons to University Park to create a larger space for student events.

Many of the historic Kellogg Ranch buildings house student organizations including the Pride Center, MASA and Cultural Centers.

Heritage Structures

Kellogg Ranch buildings are highly valued and many house student clubs and organizations. But these buildings were also built with minimal plumbing or HVAC systems (originally built as stables or barns). A heritage facilities study with building assessments would be helpful to identify which structures are significant to the campus heritage to preserve and improve, and which structures could be replaced in the future.

University Quad is the center of the academic core, with College buildings lining both sides (College of Science to the right).

The new housing precinct envisioned in the 2000 master plan, has grown with the Residential Suites (2010). The 2016 realignment of Kellogg Drive opened up a 13 acre site for the Student Housing Replacement project (opened late 2018). To achieve higher density on the limited land available, these mid-rise housing buildings are taller than the Suites but look very well scaled to the campus (especially with the hills as a backdrop). The project included a new dining Hall to replace Los Olivos.

Student Life District & Facilities

As the campus has grown to the south, student life facilities have also expanded southward, creating a vibrant student life district. The Campus Center which was the original dining hall (Bldg 97) is now the Marketplace and needs major renovation or replacement. Students love the variety of food options but asked for more seating and places to study together. Further south, the Bronco Student Center (BSC) was built in the 1970s and expanded almost 20 years later. Associated Students Inc.(ASI) requested a study of BSC expansion feasibility. At the BSC open house students were asked about how they use the BSC and what their priorities were for improvements. Study space was the #1 priority. Greater connectivity between inside and outside space and support for student tabling was also requested.

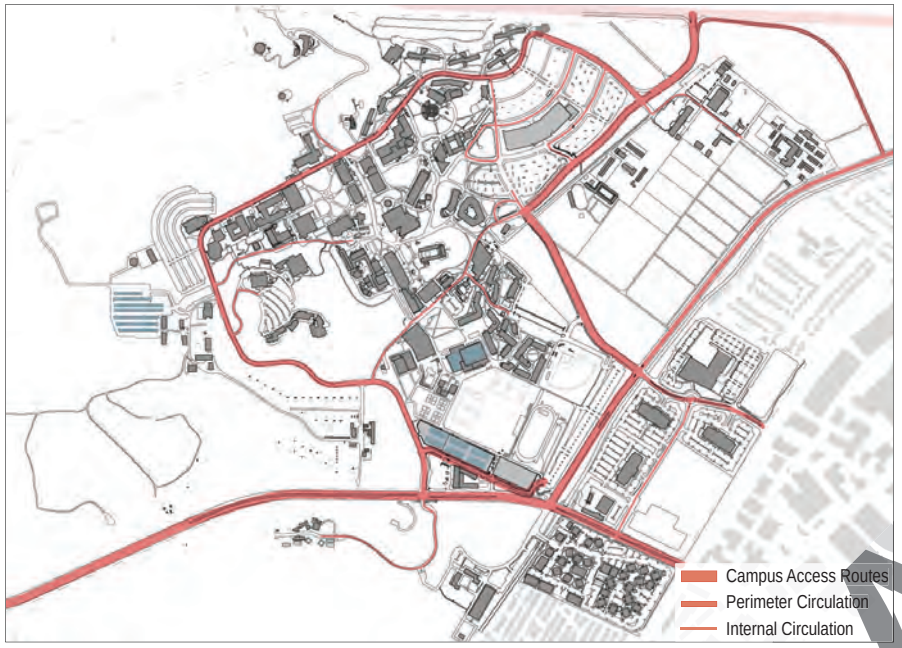
The 2000 campus master plan recommended moving the Health and Wellness Center, currently located on the hillside at the west end of University Drive, along with the replacement housing and dining hall. The existing Health Center is too small, in poor condition and cannot be expanded without costly seismic reinforcement. The Bronco Recreation & Intramural Complex (BRIC) planning originally included the Health and Wellness program, but that program was cut to keep the BRIC project on budget. The master plan was charged with identifying a site close to the BRIC and the student housing communities. One site suggested is the parking lot for the Bookstore and the Children's Center in the center of this district. Eucalyptus Lane was originally a service drive on the south edge of the campus, providing access to the BSC and Bookstore loading docks. Today, parents use the lane for pick-up and drop-off at the Children's Center which occupy a cluster of small buildings much too small for the program's needs, Center staff confirmed they have a 'wait-list' and are hoping to move to a larger, more functional facility with space for student interns from early education and child development programs. The Center would like a more visible location on the edge of campus, with easy access for parent pick-up and drop-off, and plenty of outdoor play space. Moving the Center would have the additional benefit of eliminating most auto traffic on Eucalyptus Lane, reducing the potential for conflicts between vehicles and the steady flow of pedestrians and cyclists through this area..

Athletics and Recreation

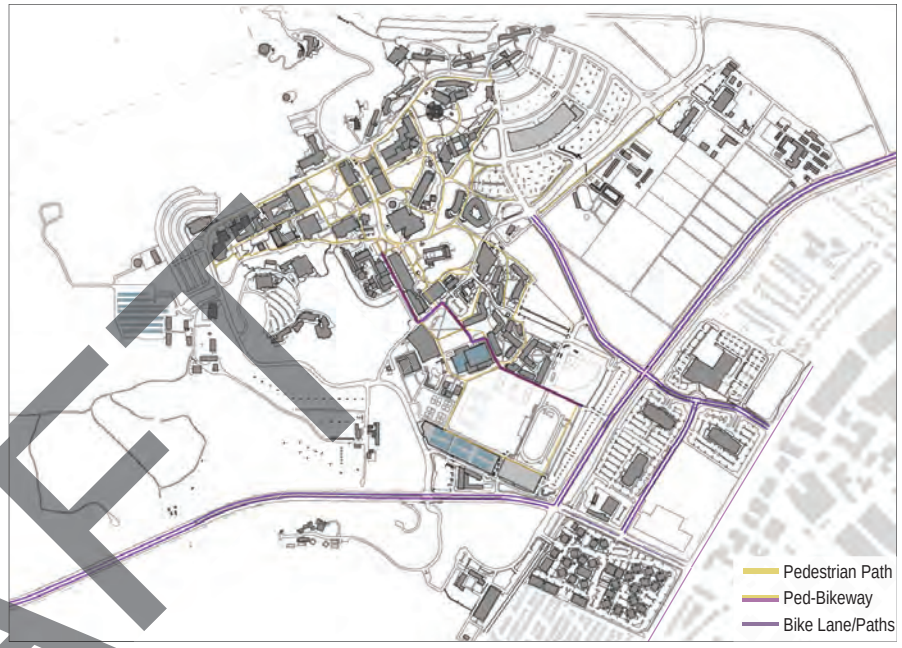
The Bronco Recreation & Intramural Complex (BRIC) is very popular and highly utilized. Almost ten years old, the master plan should identify options for expansion in the future. The existing recreation fields south of the BRIC are very popular, but in poor condition from overuse. A plan which defines a few recreational multi-sport fields (enclosed and scheduled) within the larger open space, leaving some field areas open for informal recreational use, would keep the rec fields in better condition and still be an amenity to the adjacent housing areas.

The campus has a very successful athletics program, but the existing facilities don't show that. Investment in these facilities has not been a high priority; the gymnasium buildings do not meet current accessibility requirements; and there is no fieldhouse on campus to attract alumni to campus for homecoming or graduation. The track and field stadium no longer meets competition requirements. The baseball facility is being upgraded (after a long fundraising effort) but there isn't a softball field which will be needed soon, based on the growing enrollment of female students (Title IX requirement).

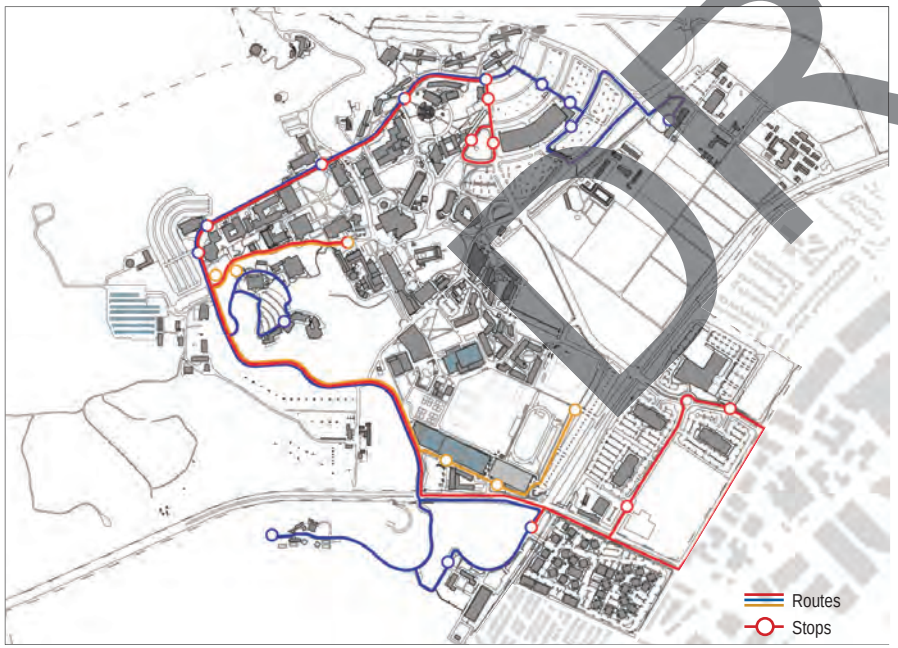
The Commons + the BRIC.



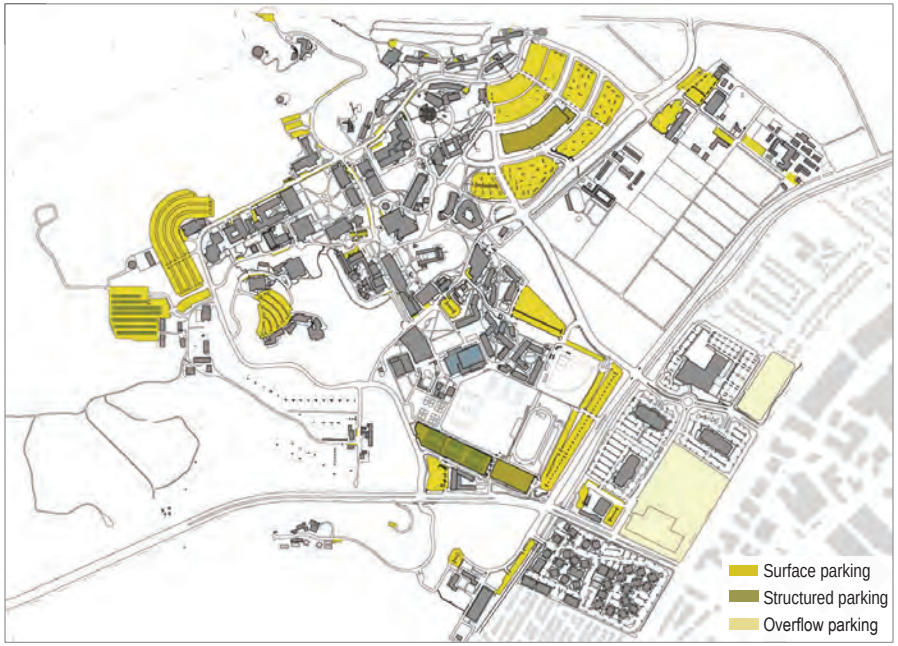
Campus Existing Access & Circulation Streets.



Campus Existing Pedestrian + Bike Paths.



Campus Existing On-Campus Shuttles.



Campus Existing Parking.

Campus Connectivity

Entries and Streets

The primary campus entrance is on Kellogg Drive, bringing traffic off the freeway and directly into and through the campus. Kellogg Drive continues through the campus to South Campus Drive, terminating at Valley Boulevard, the edge of Innovation Village. South Campus Drive is partially a campus perimeter road, connecting Temple Avenue on the west and the Pomona street grid on the east, but functions as more of a back door into the campus. University Drive is the original campus loop road and the only access to the hillside dorms, the Kellogg Mansion and several of the major parking lots, which causes traffic jams at peak times. All the major campus drives would benefit from 'Complete Streets' improvements. On the west side, Temple Avenue intersects University Drive, South Campus Drive and Innovation Way. The campus entrances are marked with monument signs and electronic message boards oriented to vehicles, which don't create a sense of 'gateway'. Smaller internal campus lanes almost all terminate in dead-ends or access control gates (used by service, delivery, and emergency vehicles). Only the southern portion of Olive Lane has been transformed into a true pedestrian mall. Eucalyptus Lane, the service access for the Bookstore, Student Center and Children's Center drop-off is now in the center of the campus with the ped-bike-way striped through it, creating conflicts between pedestrians, cyclists and vehicles which the master plan must address.

Pedestrian Paths

The central core of the campus is pedestrian dominated with an academic quad and robust network of sidewalks, paths and lanes *(limited access streets)*. But the hilly topography of the core of the campus presents accessibility challenges with stairways everywhere. The 'lanes' used by pedestrians and bikes are just closed streets with sidewalk gaps, and driveway cuts with curb and gutters which become rivers in a rainstorm. The campus has mapped accessible routes to every building, but transforming these closed streets into fully accessible malls would greatly enhance accessibility and improve the student experience.

Bike Paths

This campus hasn't had a strong bike culture (bikes were originally banned) and the hilly topography doesn't help. After a bike accident, the campus striped a Ped-bikeway through the center of campus from South Campus Drive to the Bronco Student Center. Bike lanes have been striped on South Campus and Kellogg Drives. The City has added a protected bikeway on Valley Boulevard and is planning to extend the San Jose Creek Greenway trail to the campus. The challenge will be connecting these bike paths around and through the campus to support biking as a healthy and safe transportation alternative.

Metro Transit

The campus is served by seven Foothill Transit (FT) routes but ridership to the campus has been surprisingly low *(based on FT passenger counts).* Stops are on Temple Avenue and South Campus Drive and the buses and students crossing the street impact traffic on these busy streets. The campus is also close to Metrolink Stations on the San Bernardino Line and the Riverside Line. Free shuttles to the stations are available but service is limited (hourly). Both Metrolink and Foothill Transit were eager to meet with the planning team about strategies for increasing ridership, including the FT Class Pass program, adding Silver Streak express service, and pursuing a transit hub to bring bus stops on campus and connect with Metrolink and CPP on-campus shuttles.

Campus Shuttle Buses

On campus bus ridership has also been low. One route serves all of the remote campus destinations, which means it's long and slow. Two shuttles run between parking lots on the edges of the campus and the academic core (Quad or BSC) and these get more ridership early in the morning, and at the end of the day. Campus shuttles use University Drive to go 'back and forth' between destinations, getting caught in traffic or with long waits to turn into the campus lane-malls. The current shuttle buses are small, single-entry types which are slow to load and unload, but improvements to the buses or routes are hard to justify given the low ridership. Investment in transit is required to provide an efficient way to get around the campus especially during the change of classes. Providing a transit hub to connect the campus shuttle to local and regional transit options will be critical to reducing the number of single-occupancy cars coming to campus.

Parking

Cal Poly Pomona has long been a commuter campus, with limited on-campus housing. Two parking structures have been built to consolidate surface parking and make land available for new student housing. But there still isn't capacity for even the full freshman class. At the start of planning, there were over 13,000 permitted parking spaces on campus, and almost 1000 additional spaces in overflow lots. These temporary parking lots, on undeveloped Innovation Village parcels, were created to meet high demand at the start of the academic year but by 2019 they were used year-round and expanded to over 1200 spaces. A campus shuttle runs from these lots to the main quad at peak times, but most students walk across South Campus Drive presenting safety concerns. Eventually the development of Innovation Village will eliminate these temporary lots. Transportation studies with parking utilization data will be critical to understanding parking needs and implementing demand reduction strategies that encourage use of alternative modes of transportation.

Cal Poly Pomona Campus Land Uses.

Campus Land Use

Land Use

The land use diagram shows the growth of the campus and the migration of the center of the campus southward over the years. Building 1, at the north terminus of the University Quad was the original main administration building, with the college buildings grouped around the quad. Sixty years later, the heart of the campus has moved south to University Park which is ringed by the Library, the Bronco Student Center (BSC) and the new Student Services Building (SSB).

Academic

The originally compact academic core has grown, becoming almost sprawling. With its polytechnic emphasis, the campus has always had a ring of unique academic facilities for animals, horticulture and agriculture programs, including land beyond the main campus like Spadra Farm and the College of Professional and Global Education (CPGE) (formerly College of Extended University (CEU)) and CTTI. But academic 'islands' have sprung up, such as the Interim Design Center (south of Kellogg Drive) and the English Language Institute modulars (next to the BRIC pool). Instructional space located outside the academic core is difficult for students to reach within the class change time so these facilities are underutilized.

The original college neighborhoods should be strengthened and space programming for the major renovation of the college buildings should strive for consolidation. Academic land uses which were deliberately located outside of the academic neighborhoods, such as the Collins College of Hospitality Management located with the Kellogg West Conference Center on Horse Hill, and the Lyle Center for Regenerative Studies still need enhanced connectivity to be well integrated into the academic core.

Student Services

The concentration of student service uses in the geographic center of the campus is reflective of strategic and planning goals to put the student experience first. The result is a compact hub that supports student success and engagement. The addition of the new dining hall further reinforces this hub and acts as a bridge to the housing precinct. Unfortunately Eucalyptus Lane is more of a divider than a connector in this area, providing access to the Children's Center and loading docks (dining hall, bookstore, BSC). The master plan will need to address the potential conflicts in land uses and circulation. There is one vital service student service use that remains disconnected - the Campus Health Center in the furthest northwest corner of the campus on University Drive. This was never an ideal location, but with all student housing moving off the hillside, this location is even more remote. The master plan should identify a site for the Health and Wellness Center that reinforces the student services hub.

Student Housing

Housing in the seismic zone on the north hillside is being replaced with new housing on the flats (1360 beds total). The rerouting of Kellogg Drive in 2016 expanded the student housing precinct and created a site for the phased housing replacement project. Phase I opened early 2020 (spring semester 2020) with 980 beds in two mid-rise residence halls. Phase II will add 840 beds to complete the housing replacement with a net gain of 460 beds after the demolition of the hillside dorms. The master plan should consider future student housing needs and reevaluate sites proposed in previous housing plans.

Recreation & Athletics

The recreational and athletic uses are appropriately located on the flats at the southern end of the campus alongside the student housing precinct. As the campus grows, there is increasing pressure on the use of this land. Expansion of the BRIC and Kellogg Gym buildings have both been proposed.

Orchards, Pastures & Arabian Horses

When Kellogg deeded his ranch to the state, it came with the stipulation that his beloved Arabian horses stay on this land. The Kellogg Arabian Horse Center and the horse pastures have a central place on the campus. The rerouting of Kellogg Drive for the student housing replacement project required some adjustments to the configuration of the pastures, which was sufficiently challenging to ensure it won't be undertaken again. More than 50% of the campus land area (much of it to the west, beyond the campus map diagrams) is unbuildable slopes and almost half of that area is planted by the College of Agriculture.

Cal Poly Pomona Agriscapes + Pumpkin Patch.

Academic Core & Colleges

The academic college buildings shape a traditional academic core quite successfully despite the challenging topography. Each college was intended to have it's own neighborhood with informal courtyard space and a face along the quad. But today students observed a lack of neighborhood cohesiveness, with classes in multiple buildings across the campus. A program migration space study inform program consolidation and class scheduling. The original college buildings around the University Quad were built in the 1960's before the seismic fault lines were identified, and can't be expanded or replaced within this zone. For these buildings, total building renovation is recommended (vacating the building for: structural seismic reinforcement, total building envelope and systems replacement, and interior renovation). Reconfiguring building floor plans can support program consolidation and addition of active learning classrooms, study and collaboration space, more flexible workspaces for faculty and staff.

A related issue for academic programs has been the use of 'temporary' modular facilities to meet immediate needs. Modular facilities are suitable for temporary surge space, but not for instructional space. The music trailers were installed in 2004 and need to be replaced with permanent space as does the English Language Institute (in modulars located near the BRIC).

Student practicing behind the Music trailers next to the loading dock.

Bldg 98 complex (foreground) with the Engineering buildings behind. During planning, the Tower and Registration structures were demolished.

The Engineering district is shaped by seismic faults limiting building sites to the perimeter of the engineering meadow. The Art + Engineering Annex (Bldg13) is last WW II era building, in poor condition and needing seismic reinforcing to remain. A graduate building was proposed to support program growth, but identifying a site for a new building, before removing the Annex, will be a challenge Students noted the engineering meadow lacks shade or usable space for working on group projects. When noting the need for more labs, students cited engineering labs most often. Engineering Labs (Bldg 17)

Bldg 98 (T, R, B, C, P)

The CSU Seismic Board rates Building 98 seismic priority #1 for Cal Poly Pomona. This campus landmark was extensively studied and a phased plan developed. Administration and registration space was moved into the new Student Services Building, opened in 2019. Bldg 98 T+R structures were then vacated and demolished. The master plan was charged with evaluating options for Bldg 98 Classroom, Basement and Podium structures to be replaced or reinforced and renovated.

College of Agriculture

An additional category of 'learning-by-doing' facilities that may need additional evaluation are agricultural and animal facilities (sheds, barns and pens) in the College of Agriculture. Some of these are on the seismic priority list and most are rated in 'poor' condition (although the lack of building systems always results in a low score. These facilities should be further evaluated for functionality and overall condition to identify DM needs and plan for reinvestment where needed.

College of Ag animal facilities need evaluation to identify DM needs.

HIGHEST FCNI BUILDINGS *(worst condition)*

7 College of Environmental Design
8 College of Science
25 Theater

TOTAL BUILDING RENOVATION

1 Administration
2 College of Agriculture
5 College of Letters, Arts & Social Sciences
7 College of Environmental Design
8 College of Science
9 College of Engineering
25 Theater
98 Classroom

MAJOR BUILDING RENOVATION

6 College of Education & Integrative Studies
24 Music
35 Bronco Student Center
43 Kellogg Gymnasium
59 La Cienega
76 Kellogg West
94 University Offices

Campus Existing Facilities Conditions from ISES 2018 Facilities Conditions Assessment.

Facilities Conditions Analysis

The comprehensive Facilities Conditions Assessment evaluated 115 existing buildings (4.8 million sq. ft.) on the campus for building condition and need for deferred maintenance (DM). The Facilities Conditions Needs Index (FCNI) averaged 0.30 or 'fair condition' which is the median for CSU campuses. But this rating is skewed upward by the new Student Services Building and new student housing (seismic replacement projects). The amount of deferred maintenance gives the campus a 'poor' rating with 57% of existing buildings in poor condition. The academic buildings comprise 32% of the total campus buildings and 60% of the buildings in the worst condition (reflecting age of buildings and lack of funding for upgrades). Comparisons show the campus is underfunded relative to the national average for university facilities. The assessment recommended Total Renovation or replacement all of the original College buildings. Total Renovation requires vacating the facility to replace all building systems and the exterior envelope (may include seismic reinforcing) since the DM projects to upgrade specific equipment or systems is not keeping up with the maintenance needs. Major renovation may be phased to avoid vacating the entire building, depending on which building systems need to be replaced.

Seismic Priority MP Projects

Seismic Priority #1 Buildings

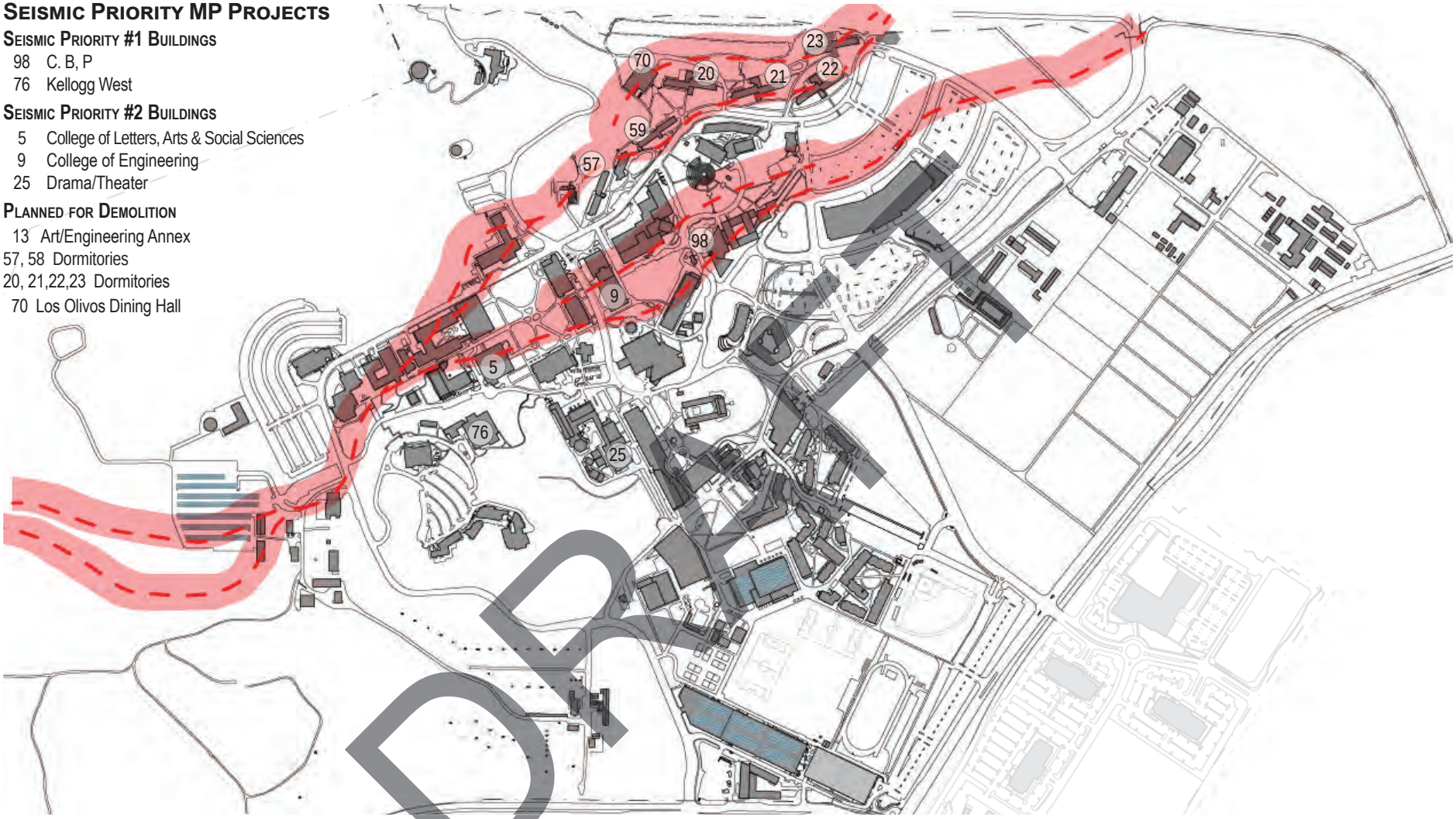
98 C. B, P
76 Kellogg West

Seismic Priority #2 Buildings

5 College of Letters, Arts & Social Sciences
9 College of Engineering
25 Drama/Theater

Planned for Demolition

13 Art/Engineering Annex
57, 58 Dormitories
20, 21,22,23 Dormitories
70 Los Olivos Dining Hall



Campus Existing Seismic Fault Zones.

Seismic Faults

In the late 1990s, evidence of ground movement on the San Jose fault east and west of the campus led to geotechnical studies mapping fault lines through academic core of the campus. The CSU Seismic Review Board (SRB) reviewed the potential impact on the existing campus in this seismic zone, mainly the original college buildings and the hillside dormitories and dining hall. Analysis showed some buildings can be seismically reinforced, while others cannot due to construction type or the fault line location relative to the structural foundations. The SRB prioritized buildings for seismic reinforcing or removal and Building 98 the #1 priority. New construction and additions are prohibited in the seismic zone, limiting building replacement sites. Two replacement projects were in progress prior to this master plan: the new Student Services Building replaced Building 98 Tower-Registration structures (demolished), with the 98-C structure to be seismically reinforced or replaced; and Phase 1 of the Student Housing-Dining Replacement project replaces the Los Olivos dining hall (Bldg 70) and two dorms (Bldgs 57, 59). The master plan must integrate Phase 2 which will replace the remaining hillside dormitories (Bldgs 20-23).

Instructional Space Standards

State requirements set CSU sets space standards. Lecture classroom standard is 15 NASF/ seat with tablet-arm chairs. Teaching lab standard is 20 NASF/ seat-station with tables and chairs /stools on one side.

Learning Environments

These are out-dated standards, even for more traditional classes. The typical tablet-arm is too small for most learners, with no area for reference materials. Tables have more work surface per student, and can be movable but requires more space to maintaining accessibility clearances. Analysis shows current classroom space averages 17 NASF per seat.

Student-centered active learning environments support problem-based learning shown to improve retention and critical thinking. Cal Poly Pomona's 'learning-by-doing' mission requires instructional space that supports active learning with multiple 'fronts', robust technology, movable seating, work surfaces designed for collaboration and a minimum of 24 NASF per student seat to accommodate these requirements.

Space Analysis

The space analysis focused on instructional space (classrooms, teaching laboratories) and utilization to support the academic goals and compare with CSU target utilization expectations. Meetings were held with campus leadership and various academic stakeholders, including the Provost, Registrar, Chair of the Academic Planning Committee. Campus facilities data and Fall Quarter 2017 course data were used to evaluate the efficiency of room scheduling and utilization. This analysis was repeated after the semester conversion in Fall Semester 2018. The study scope did not include an instructional space audit or physical inventory, but the team visited a sampling of classrooms to evaluate space quality and use (verifying room coding). A physical audit is recommended to confirm accurate room coding and seat/station counts and update the facilities database.

The master plan should address the quality of classroom facilities, with additional space per seat and technology to support active, project-based instruction and learning, and to provide capacity for hybrid (in-person/ online) instruction. More than two-thirds of all classrooms are in the original college buildings assessed for Total or Major renovation which should include reconfiguring floor plans to increase classroom space and power/data capacity to meet current instructional needs.

Classrooms

The campus facilities database has 165 rooms coded as classrooms with 7,972 seats, but only 158 rooms with 7,833 seats (-2% difference) were scheduled per the course catalogue. CSU reporting *(APD791 LAO Report)* shows 153 classrooms with 7,206 seats, excluding five rooms and 766 seats in 'temporary' facilities.

The State has established utilization targets for lecture classrooms to be scheduled 53 hours per week (out of 65 hours, 8AM to 9PM, M-F) with 66% seat fill for a total of 34.98 weekly seat hours.

Cal Poly Pomona's average classroom utilization:

	CSU TARGET	CPP AVG
Room Hours/Week	53 hrs	40 hrs
Seat Occupancy	66 %	77 %
Weekly Seat Hours	34.98	30.50 = *87 %*

CPP's classroom utilization aligns with peer institutions who have a similar technical emphasis. The typical standard for scheduling is 35 hours with a target seat fill rate of 70%. Cal Poly Pomona exceeds those standards. High seat occupancy is the most efficient use of space and faculty resources, and preferable to scheduling additional sections at less desirable times with lower enrollments. CPP already has very efficient scheduling on the core weekdays (M-W and T-Th) from 8am-7pm making it difficult to see utilization getting much higher.

Teaching Labs

The campus facilities database shows 156 teaching labs with 3,190 seats/stations, which higher than CSU reports. In 2018 all 156 labs were scheduled with an added 65 seat/stations.

State utilization expectations for labs are for lower scheduling, but higher seat fills, so lab sections tend to be matched with the lab stations available. Targets are also higher for lower division labs, and reduced for upper division and graduate labs.

Cal Poly Pomona's average lab utilization:

Lower Division Lab Averages

	CSU TARGET	CPP AVG
Room Hours/Week	27.5 hrs	28 hrs
Seat Occupancy	85 %	118 %
Weekly Seat Hours	23.38	30.70 = *131%*

Upper Division Lab Averages

	CSU TARGET	CPP AVG
Room Hours/Week	22 hrs	21 hrs
Seat Occupancy	80 %	113 %
Weekly Seat Hours	17.60	21.80 = *124%*

The teaching lab analysis confirms lab scheduling meets the target but occupancy exceeds station capacity, pushing overall utilization well beyond the targets.

Looking at the FTES actually taught reveals a different picture. Total FTES for lab courses taught is 83% of the physical lab capacity. Total FTES for lecture courses is 112% of the physical classroom capacity, even though classroom utilization is only 87%. Further investigation revealed that lecture courses (8% lecture FTES) were being taught in lab rooms contributing to the high lab utilization. While lecture courses may be scheduled in a lab to support an instructional purpose, faculty confirmed when a section needs to be added the lab may be the only room available at that time. This aligns with the reality of total FTES taught exceeding the total physical capacity. While there is no evidence that lecture classes are constraining lab scheduling, it does distort reporting metrics and makes it harder to project need/demand for both teaching laboratory and classroom space.

Lecture Capacity	Total Stations	FTE Capacity
FP_CAP_FAC_PT Permanent	7,206	16,790
FP_CAP_FAC_PT Temporary	766	1,785
CPP FTE Capacity	7,972	18,575
Actual Lecture FTES*		20,742
FTES as a % of capacity		*112%*

Lab Capacity	Total Stations	FTE Capacity
FP_CAP_FAC_PT Lower Division	1,132	589
FP_CAP_FAC_PT Upper Division	2,365	922
CPP FTE Capacity	3,497	1,511
Actual Lab FTES*		1,253
FTES as a % of capacity		*83%*

** APD53 PGM APD76 Course Section Report, Fall 2017*

Enrollment Projections + Space Need/Demand

The Space Utilization Study showed the campus is close to maxing out physical capacity, with 'temporary' facilities used to meet current classroom demand. The master plan will eliminate temporary facilities (also a CSU Board goal). Enrollment analysis was done to inform the planning for future space needs.

Since the 2000 Campus Master Plan, enrollment has grown steadily. From 2000 to 2019, headcount grew by 44% and FTE increased by 55%, reflecting a shift from part-time to full-time students and CSU initiatives to support on-time graduation. The 2009 recession caused an enrollment drop, with a rebound driven by a steady increase in college-readiness of California high school graduates and community college transfers, which have grown to almost half of CPP admissions. The continued demand for STEM graduates means the CSU Polytechnic campuses have the potential to outpace state demographics in demand with many programs impacted.

The enrollment study produced a conservative recommendation to plan for 1.5 - 2% annual growth, reaching 33,000 student headcount and 30,000 FTE by 2040. The master plan is guided by this projection to add 10,000 FTES of instructional capacity by 2040, while also implementing a new 24 NASF/seat standard for all new and renovated classrooms.

Note that even a conservative growth prediction can be impacted by unforeseen circumstances. The pandemic impacts, including a decrease in college enrollment, are still being felt by California community colleges and CSU campuses. Cal Poly Pomona has continued to offer more online and hybrid classes than before 2020, and has realigned admissions with reduced budgets to strategically flatten enrollment for the immediate future. It will take more time to understand the long term demand and trends for enrollment.

Campus Capacity

The annual State budget allocation to the CSU System sets a target expectation for California residents to be served. Each campus has a target for California Resident College Year (CY) Full-Time Equivalent Students (FTES). Students from out-of-state and other countries are added to reach the total FTES.

For space planning purposes, CSU calculates net Academic Year (AY) FTES, adjusted for FTES earned outside of main campus instructional space (travel study, internships, thesis and asynchronous online or hybrid classes), to estimate space and facility needs to support on-campus, face-to-face instruction. The existing capacity of instructional space is measured using the combined metrics of total seats/stations and the CSU targets for hours of use and seat occupancy, to arrive at an estimate of the potential total credit hours in FTES. The total campus capacity is the sum of the estimated capacity of all scheduled instructional spaces.

Cal Poly Pomona Campus Capacity:

Lecture	16,790 FTES
Teaching Labs	1,511 FTES
Total Capacity	18,301 FTES
2000 Master Plan Cap	20,000 FTES
Requested Increase	10,000 FTES
2040 Master Plan Cap*	30,000 FTES

** proposed projects are estimated to reach the capacity cap*

The Space Utilization Analysis noted not all rooms coded as instructional space had scheduled courses. The total seats matched the SFDB reporting, but seat capacity of specific rooms were often different than the reports. An audit of all instructional spaces is recommended to update room coding for use, and confirm actual area and seat/station counts.

Utilities & Infrastructure

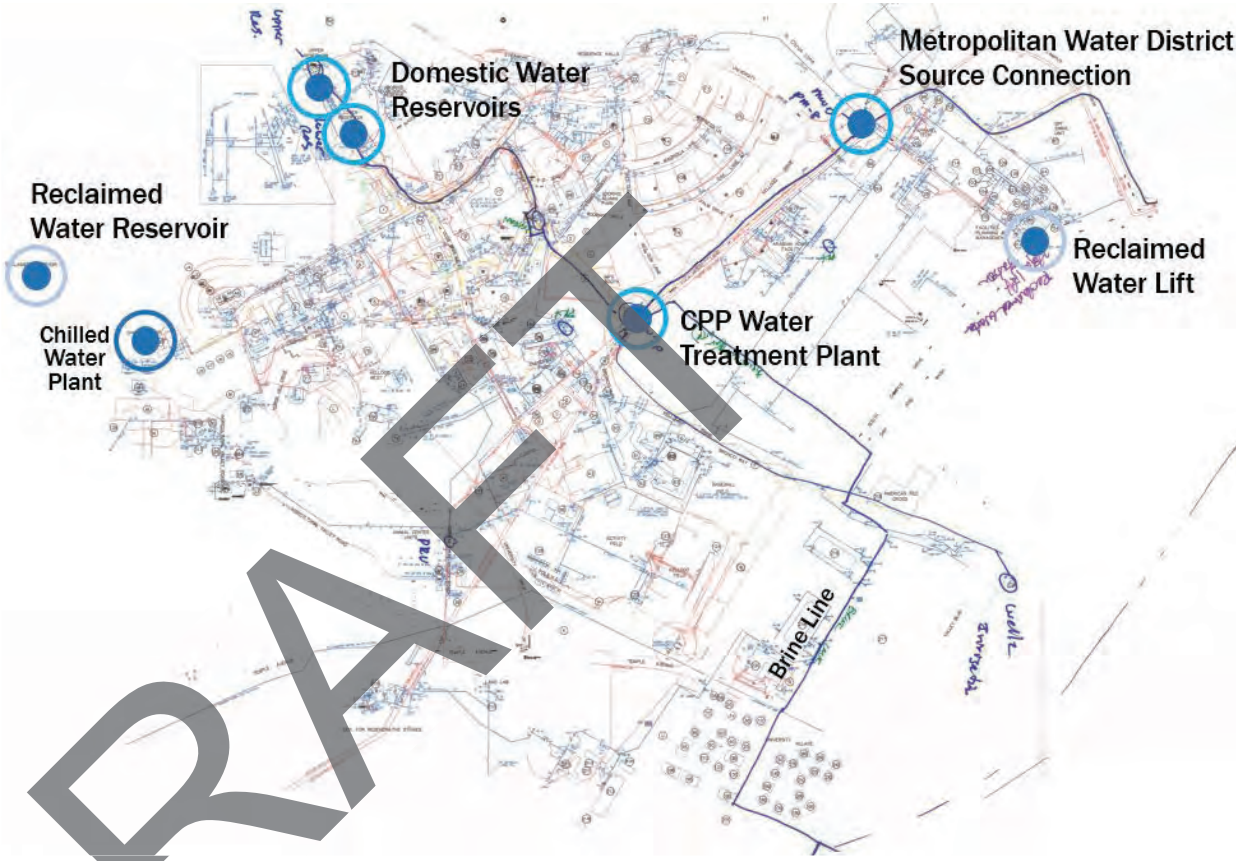
Infrastructure has to be prioritized to support campus facilities. But deferred maintenance (DM) is often the only funding and the CSU 2018 facilities conditions assessments noted that DM investment was not keeping up with maintenance needs.

Water

The water supply for the campus is local groundwater (from Cal Poly-owned wells) in combination with purchased water from the Three Valleys Municipal Water District (TVMWD), which is a part of the Metropolitan Water District (MWD) of Southern California. The campus holds a permit as a public water system. Well #1 serves the main campus, pumping water to the Campus Water Treatment Plan (RO-WTP) which is stored in the hillside reservoir above Building 1. An auxiliary water service connection from the Metropolitan Water District (MWD) can also add to the potable water system. The gravity-fed domestic water system serves all campus buildings and fire hydrants. Separating the fire protection water to create a fire loop could be a future sustainable infrastructure project (conserving potable water and improving resiliency).
Recycled/reclaimed water supplied by the city of Pomona meets 90% of the campus irrigation needs, including agricultural uses, and Well #2 can also pump water to the campus reclaimed water reservoir.

Sewer + Stormwater

The campus sewer system outfalls to the City of Pomona main sewer line. Removal of the hillside dorms and Los Olivos dining hall will reduce load on the older main, and Phase 1 of the housing replacement project included new sewer infrastructure with capacity for the total housing replacement. However, stormwater management infrastructure is minimal with capture basins on the upper slopes, piped to channels directed to the San Jose Creek/Wash owned by LA County Flood Control.

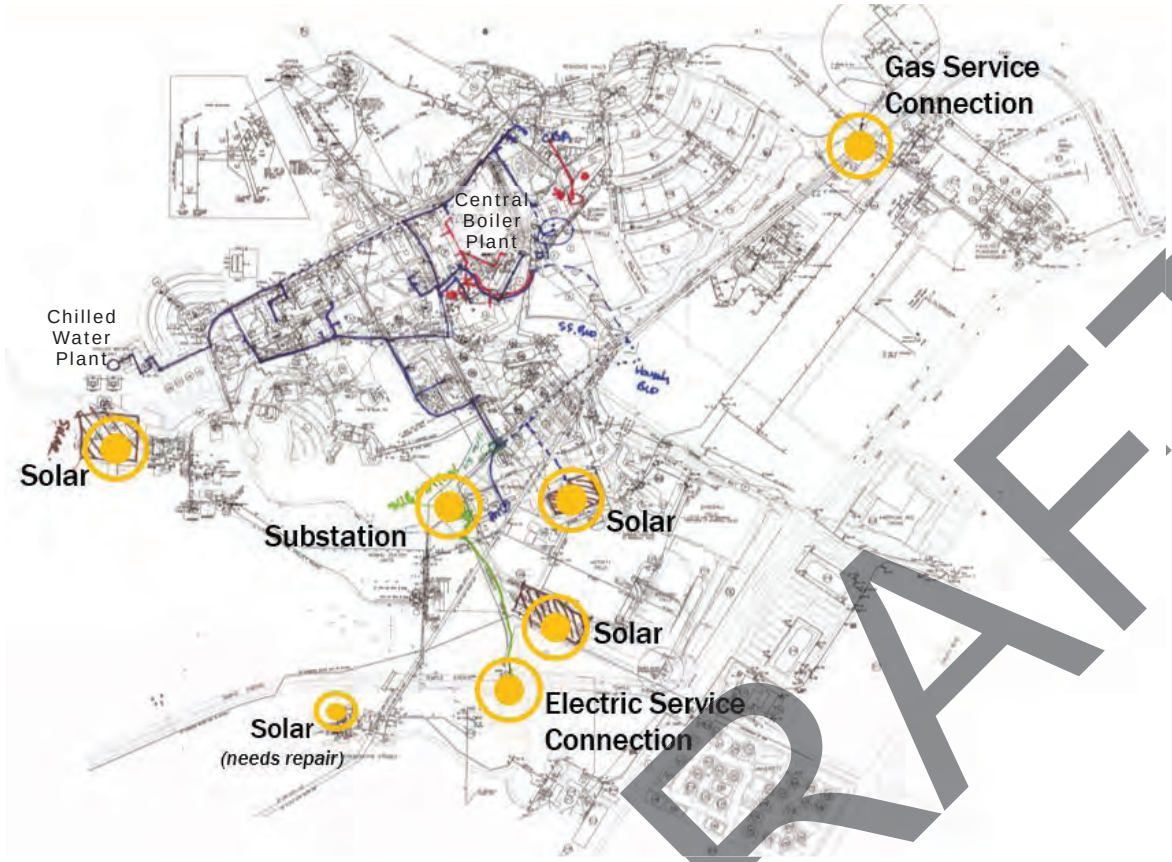


Campus Existing Water Infrastructure (reference 2015 Infrastructure Plan for greater detail).

Project Blue

A natural underground water system flows under the campus, feeding ponds at the La Cienega Center and the Aratani Japanese Garden. Cal Poly Pomona faculty studying campus hydrology proposed daylighting the Lower Kellogg Creek to create an outdoor learning environment. The result was a faculty generated interdisciplinary project which involved students from the colleges of science, agriculture and environmental design. Half an acre of native habitat was restored with 'Creek Cams' for wildlife observation.

Project Blue outdoor classroom.



Campus Existing Power Infrastructure.

Campus core is served by a new chilled water central plant with thermal energy storage saving money and energy.

Energy: Gas + Electric

The campus is served by SoCal Gas with a single-metered connection at University Drive (easement on Citrus). Natural gas is primarily used for heating buildings, commercial kitchens, and in laboratories. The campus maintains the distribution system which is challenging given the age of the facilities and relies on deferred maintenance funds. The CSU System is committed to reducing natural gas use, so the renovation of academic buildings will need to include conversion to all electric systems. Southern California Edison is the electrical service provider. The campus has been upgrading the electrical infrastructure with three loops, adding a substation and transmission line and seeking a secondary feed to provide redundancy. Over the last twenty years, electric power usage has been dramatically reduced by investments in the central plant, building upgrades and conservation from retrofits to controls and lighting. The new central chilled water plant with thermal energy storage has boosted energy efficiency for 18 campus core buildings. But the planned conversion from natural gas to all-electric systems will increase campus power demand.

Renewable Energy

Currently, the campus generates 2.434 MW of renewable solar energy with photo-voltaic (PV) arrays in parking lots, PS #2 and on the Kellogg Gymnasium roof. But a planned solar farm on the Spadra Landfill has yet to proceed due to the unexpectedly cost of connecting it to the campus. The original solar array at the Lyle Center has stopped functioning and will be replaced with a 185 kW system. A campus-wide study identified multiple sites for photo-voltaic (PV) shade structures, mostly in parking lots. The first phase project will provide 5.17 MW, est 20% of current energy usage. Battery storage is recommended for peak-shaving during peak rate hours. PV should also be integrated into future EV charging spaces.

Data + Communications

The new Modular Data Center, centrally located on the west side of the Bronco Student Center, anchors the campus technology infrastructure, although the Point of Service (POS) connection remains in Bldg 98C (basement) and must be maintained. The campus has upgraded data wiring in all buildings and invested in the expansion of wifi across the campus. But technology improvements are also constrained by available power and will require electrical service upgrades especially in the college buildings, the library and the Bronco Student Center.

Campus Climate Action Plan

Mission Statement

We hope to educate students, faculty, and staff about the various ways of embracing sustainability by incorporating it into the University's planning, policies, academics, operations, student activities and community engagement.

The 2009 Climate Action Plan set big goals to reduce climate change. 2020 CAP update provided new benchmarks. Highlights include:

2020 Climate Action Plan Targets

- 30% reduction in building energy demand
- On-site generated energy capacity increase
- Net Zero for new building construction
- 5% reduction in building plug loads
- 60% reduction in fossil fuel use for fleet/equip
- 50% reduced emissions from natural gas
- 50% increase in carbon sequestration
- 25% reduced emissions from Ag/LA practices
- 50% increase in carbon sequestration
- Zero emissions sources for all electricity
- 25% reduction in total water use
- Reduce commuters to 60% of student body
- 30% reduction in commuting trips to campus
- 50% of campus population using alternatives to single-occupancy vehicle to commute
- 100% offset of University air travel
- 80% waste diversion rate

Sustainability + Campus Action Plan

Cal Poly Pomona has been a leader in sustainability within the CSU system, making the Princeton's Review "Top 50" every year since 2011. The campus was the first public university in California to complete the Sustainability Tracking Assessment and Rating System (STARS) report and maintains a STARS Silver rating. CPP was an early signatory to the Presidents' Climate Commitment, with actions to eliminate greenhouse gas emissions over time, including:

- Forming a Climate Task Force to create a Climate Action Plan (CAP)
- Completing an Emissions Inventory
- Setting a target date and milestones to achieve climate neutrality
- Taking immediate steps to reduce greenhouse gas emissions
- Integrating climate neutrality and sustainability into the curriculum and educational experience for all students
- Making the Climate Action Plan and progress reports publicly available

The 2009 Climate Action Plan provided a road map to reducing greenhouse gas emissions (GHG) and achieving Climate Neutrality by 2030. The campus will reduce emissions over all sectors to a target emissions level of 20,500 metric tons. Emissions would be reduced to zero through partnerships and offsets that reduce emissions elsewhere. As part of the Climate Leadership Network CPP joined 9 CSU campuses in tracking and reporting carbon emissions through the Second Nature Reporting Platform. The campus has reduced GHG emissions per sq ft and per FTE significantly. But there is a concern about projected enrollment growth slowing progress to climate neutrality.

Energy

Currently, new buildings on campus are designed and built to meet Title 24 Energy Standard and LEED, striving for LEED Gold or Platinum. Cal Poly Pomona has an average energy use index slightly higher than most CSU campuses due to aging building stock, and the lack of individual building metering makes it difficult to manage building performance. CPP has made significant strides toward renewable energy production adding solar PV arrays on rooftops and parking lot shades. CPP generated 2,632,621 kWh of electricity from on-campus solar in the 2016-17 fiscal year, which along with other renewable strategies such as Thermal Energy Storage at the Central Plant, equates to roughly 2.6% of campus electricity. Cal Poly Pomona has recently adopted the use of a renewable-diesel formula that dramatically lowers greenhouse gases from campus vehicles and equipment.

Transportation

Transportation activities account for the majority of campus GHG emissions, so the climate action plan set aggressive benchmarks for reductions. Achieving these goals will require: electric vehicles and PV charging stations; more housing on and around the campus; increasing on-line, hybrid and distance learning courses and work-from-home options; more robust alternative transportation infrastructure to increase the use of transit (bus, rail) as well as carpooling, biking and walking to get to campus. During the planning process students requested improvements to enhance pedestrian and cyclist safety.

Water

Cal Poly Pomona has a unique water independence story, with campus-owned wells and water treatment plant providing potable water to buildings and the fire protection system. Separating the fire protection loop could reduce potable water use. Over 90% of water for landscape and agriculture irrigation is municipally supplied recycled water, CPP dining went trayless in 2008 significantly reducing water usage. Still, the lack of sub-metering by building or end use makes monitoring water conservation more challenging. Water independence may complicate achieving and documenting water reduction goals, but conservation strategies are vital for a resilient campus.

Waste

Waste services are provided by a third party hauler and processing facility, which provides data on waste diversion. CPP is successfully reducing overall waste and increasing the waste diversion rate. CPP dining is composting food waste and eliminating single-use plastics.

Health

Students expressed strong interest in health and wellness requesting more hillside walking and biking trails, increased healthy and affordable food options, healthy buildings with more daylight, more outdoor study space, and biophilic design. CPP supports health and wellness with programs run by the Campus Health and Wellness Center, the Bronco Recreation and Intramural Complex (BRIC), the healthy food initiatives from dining, the College of Agriculture, and the Lyle Center for Regenerative Studies.

The Lyle Center is a shining example of a Zero-Net-Energy (ZNE) and Carbon Neutral building.

Recommendations for Plan

- Reactivate the Sustainability Advisory Committee and expand the CAP to a full Sustainability Action Plan with goals and initiatives on equity and economy in addition to the environmental, climate neutrality and GHG goals
- Increase sustainability staff and consider creating an Office of Campus Planning, Transportation & Sustainability as a core function under Facilities Planning & Management
- Make sustainability more visible on campus
- Add EV chargers and integrate battery storage with PV shades in parking lots
- Install a network of PV shades over major unshaded campus walkways (along Engineering Quad, malls around PS#1, path from SSB to library), bus stops, and in all unshaded seating areas
- Integrate active transportation infrastructure by extending and connecting bike paths
- Create wellness activity areas and trails using the natural topography on un-buildable hillsides
- Require buildings identified for 'total renovation' to achieve LEED O+E certification
- Adopt the California proposed standard for all new buildings to be Zero-Net-Energy (ZNE)

SSB is the first LEED Platinum building on campus.

Proposed Campus Master Plan 2020-2040.

Master Plan

During the initial campus workshops five themes emerged, consistent with the strategic plan values, setting goals for improvements to the campus and facilities. These five themes guided the planning studies and served as a measure for evaluation of proposed campus improvements and facilities projects. The planning for new and improved facilities was focused on three major areas:

- Academic Core Improvements: to the oldest College buildings with a strategy that addresses seismic concerns and years of deferred maintenance with total building renovations sequenced over the 20 year planning window. Investment in these academic facilities is critical to improving instructional space to support the polytechnic mission, and will provide opportunities to consolidate programs and enhance the college neighborhoods.

- Student Life Improvements: to support engagement and the co-curricular student experience, including Bronco Student Center expansions, new Campus Health and Wellness Center, recreation-athletics facilities and more student housing.

- Campus-wide Improvements: which address campus entry, wayfinding, orientation and connectivity, accessibility, pedestrian safety, and active campus transportation. Improvements align with the CSU policy on Alternative Transportation and support more pedestrian-oriented development of the campus.

The Master Plan section presents each of these areas with a summary of challenges and strategies for addressing them. Project descriptions and plan enlargements provide more details of the improvements proposed. The phasing or sequencing is provided in the Implementation Section.

Campus Master Plan 2020-2040

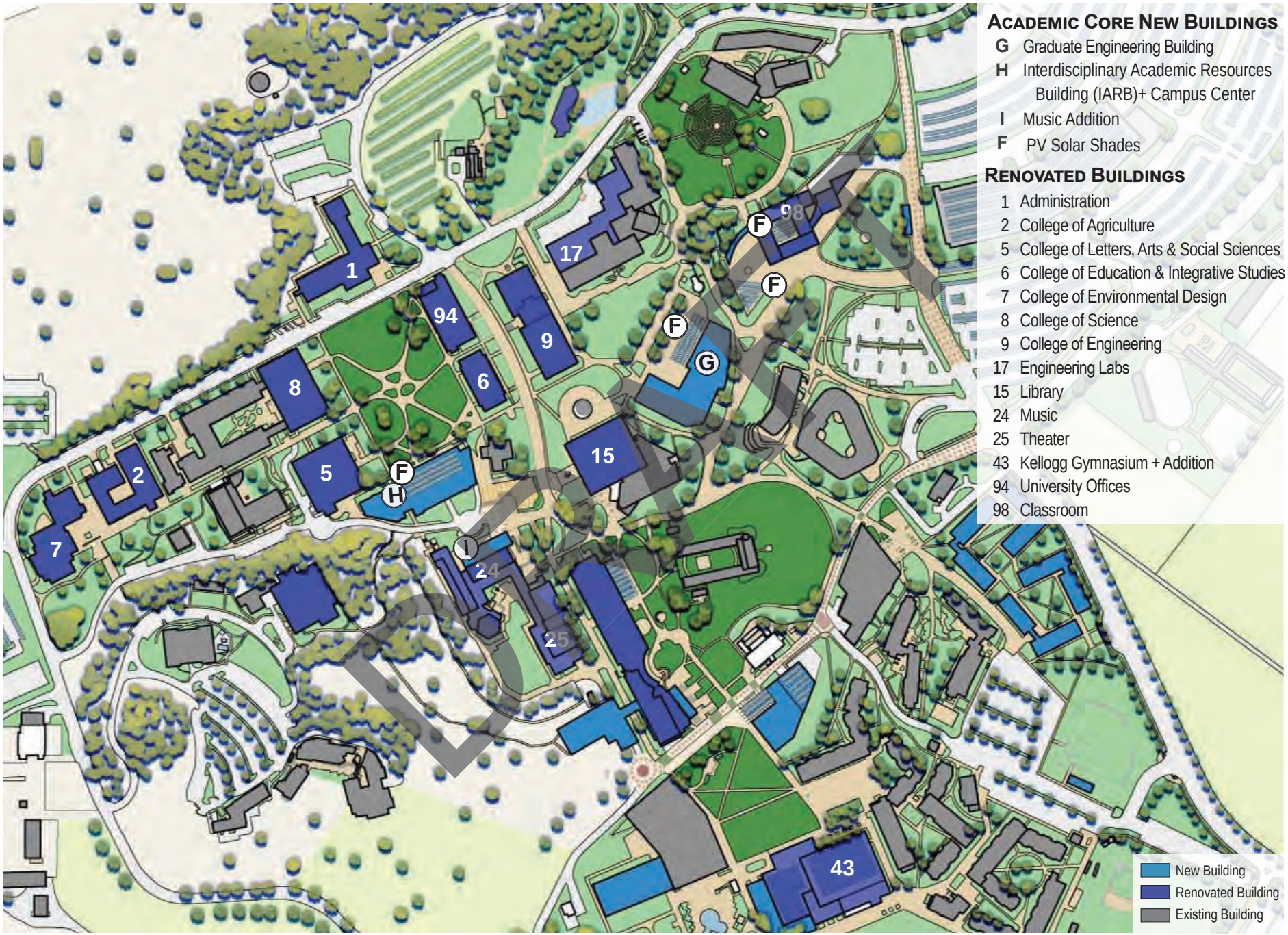
Student Experience Above All
All decisions will put the student experience at the forefront, from improving the campus and facilities to accessibility (physically, virtually), to supporting student learning and success initiatives.

Polytechnic Approach
The campus will be a laboratory to support teaching and 'learning by doing', inside and outside of the traditional educational settings.

Connectivity is Critical
Improving connectivity is key to orientation, wayfinding and ease of circulation to ensure a safe, inclusive and universally accessible campus.

Pedestrian Campus In A Commuter Reality
Access has to be safe and convenient by all modes of transportation; and be a safe walkable/bikeable campus for students, faculty,/staff and visitors.

Sustainable in All Aspects
Decisions and improvements must be environmentally, economically & socially sustainable, consistent with Cal Poly Pomona values and commitments.



Proposed Campus Master Plan 2020-2040 - campus core and the academic facilities improvements proposed.

Academic Core Improvements

The master plan prioritizes the goal to deliver quality programs and the polytechnic approach to integrative learning, discovery and creativity with a cohesive plan for the transformation and improvement of the academic facilities and core precinct.

Challenge:

Campus academic colleges buildings need significant capital investment to meet the strategic and academic plan goals for collaborative, project-based instruction, with 'total building' renovations to address seismic priorities and overall building and systems condition and years of deferred maintenance. The intent is to bring each College building into the 21st century with:

- adaptable, technology-supported active learning environments for all course modalities
- flexible, state-of-the-art work and collaboration spaces to support faculty and academic staff
- spaces that encourage student-faculty interaction and support student success (including study and group project workspace)

Strategy:

To accomplish the improvements to the academic colleges, the master plan charts a sequence of 'total building renovation' projects, relocating the college into 'surge space' to vacate a whole college building for 12-18 months, while maintaining all of the college programs and functions. If undertaken one building at a time, the timeline to complete all of the college building renovations required would extend well beyond the 20-year master planning horizon, suggesting multiple concurrent project tracks will be required. To accomplish this work, the implementation plan matched the priorities for improvement with the type and quantity of surge space needed. The plan proposes developing surge space which will eventually become permanent space to support campus growth. The transformation of each college building will include applying new active-learning classroom space standards, along with organizing and consolidating college programs and neighborhoods to further improve students' academic experience and success.

Surge Space

The college buildings requiring Total Renovation range in size and functionality from the College of Letters, Arts & Social Sciences (76,500 gsf) housing mostly classrooms, to the College of Science (136,000 gsf) with laboratories and associated support space as well as departmental space. Strategies will be needed to totally vacate each college building for construction, while maintaining all programs and functions. Planning will have to consider options (including 'work-from-home and on-line environments) for instruction, advising and student support, as well as faculty and departmental support. Modular temporary facilities are impractical given the amount of space needed and would conflict with the master plan goal to reduce or eliminate existing modular/temporary facilities. The recommended strategy is to invest in permanent but flexible space to serve as surge space during these renovations (along with the WFH and online options noted above) and become permanent space in the future to meet the campus capacity.

This strategy is applied in the approach to Building 98, the highest priority seismic remediation project on the campus. The Bldg 98C structure can be renovated and re-purposed to provide surge space, especially classrooms and class labs, appropriate for the total college renovation projects. But first, Bldg 98C has to be seismically buttressed and the facility and building systems brought up to code. During the construction, the building must be fully vacated including: IT staff, Faculty Senate, classrooms and teaching computer labs as well as resource labs (i-Lab, etc.). Staff and faculty may be able to work from home if supported by appropriate 'hoteling' space. On-line and hybrid classes could reduce the need for classroom space, but instructional computer labs are already highly scheduled and the 24 hr computer lab attached to the library is always full. Expanding the library's Learning Commons could provide the needed space but requires adding capacity to the Library building systems and transformation of the original stacks to more flexible space for study, group projects and even computer labs and classrooms.

Academic Master Plan 2018

Elements of the Inclusive Polytechnic Educational Experience

- Application of knowledge
- Critical thinking & problem solving
- Creativity, discovery & innovation
- Diverse & multi-disciplinary perspectives
- Integration of technology
- Collaborative learning
- Community and global engagement
- Career and professional readiness

Priority #1 Seismic Project:
Bldg 98 (T, R, B, P & C)

This multi-phase project began prior to this master plan to address the Building 98 seismic priority. The first step was the new Student Services Building (opened in 2019) to vacate the Administration Tower and Registration space. In 2022 the Tower and Registration structures were demolished and the site restored with new hardscape and landscape. The remaining Building 98 structure will require seismic buttressing, and new exterior envelope and total building renovation. Vacating Building 98 will require several computer labs (both instructional and resource labs, to be relocated. The Library renovation may be able to accommodate this type of space. When completed, Building 98 will provide surge space to facilitate the sequenced renovation of the college buildings.

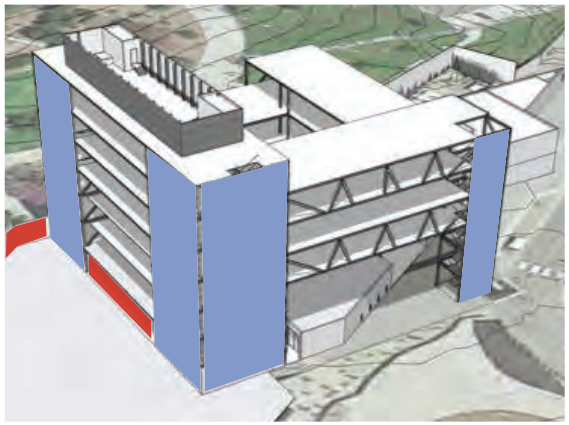
Bldg 98T, R Demolition & Site Restoration

As noted above, multiple studies were done before the master planning began, leading to the replacement and demolition of the Tower and Registration structures. The demolition logistics required protecting and supporting the Japanese Garden & Pond; and maintaining the occupancy of the 98C structure and the IT fiber MDF Room (in the basement). The demolition project was completed in 2022. While the seismic faults through the site prohibit new buildings, the prominent location requires quality landscape and hardscape, which maintains the Japanese garden and provides student gathering space. This is a good location for 'campus as living laboratory' projects. Site work related to the Bldg 98C transformation should also include simplifying access to the loading dock and turning the closed streets around Voorhis Circle into malls. Wherever possible, PV solar shade structures are desirable improving the walk from campus to student parking.

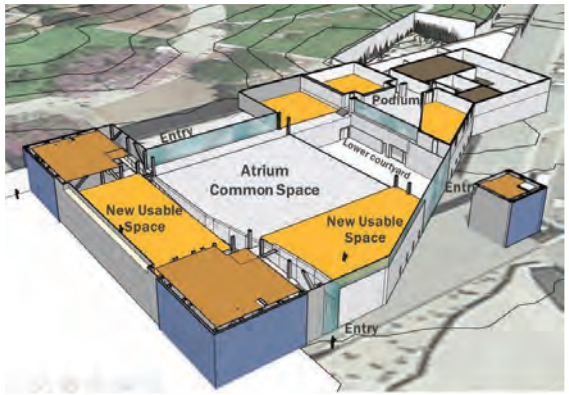
Bldg 98 was comprised of three structures (from left to right): the Tower and Registration building, Classroom building, basement (shared by all the structures)and the Podium. The Tower and Registration buildings have been demolished and the rest will be renovated.

Bldg 98 site restoration: Phase I is the demolition footprint that was restored for student use (completed). Phase II includes the original street and drop-off circle and loading/service areas.

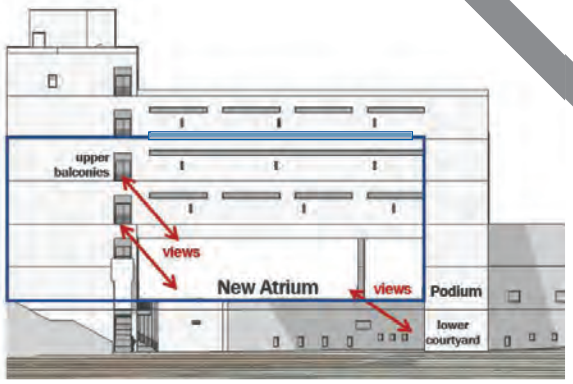
The master plan vision for this site includes a large plaza with a PV shade. providing study and project space, and converting the former streets into pedestrian malls for student use.



98C building envelope removed, seismic buttressing added.



Enclosing the central space reduces and simplifies the exterior envelope and adds significant flexible, usable floor area. Three upper floors would also open into the central atrium space.



Bldg 98C, B, P Transformation:
Seismic Reinforcing + Total Building Renovation

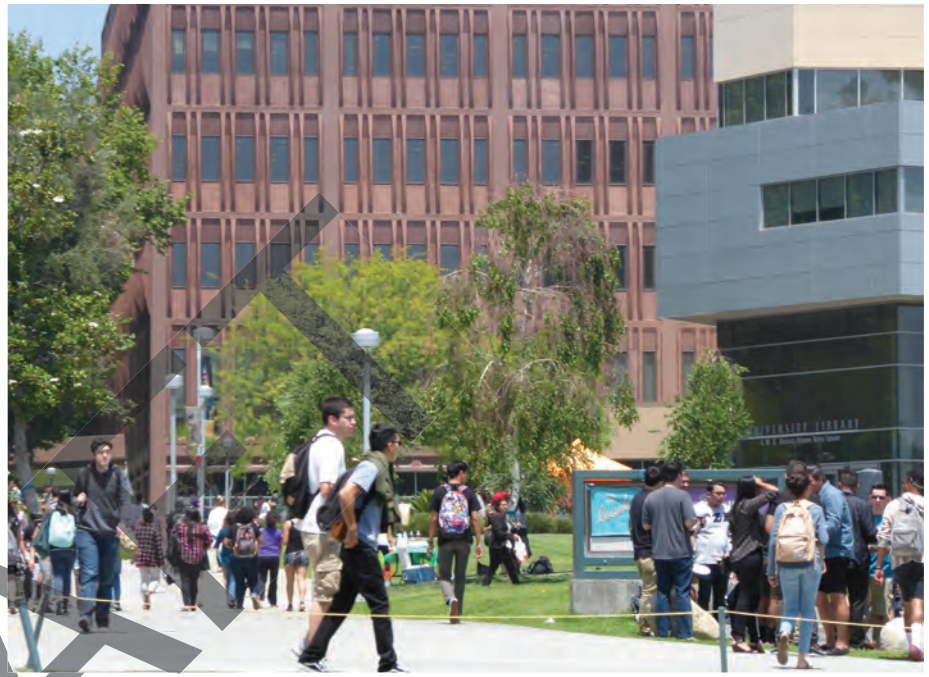
The Building 98 project requires vacating the structure (maintaining the IT MDF Room and fiber conduit). The academic labs (both instructional and resource labs) and the Academic Senate should relocate to the Shared Classroom Addition/ Library. The building will be stripped down to the structure, which will be seismically reinforced and buttressed at the corners. The new exterior envelope will be designed for enhanced energy efficiency with all new roofs to eliminate the ongoing water problems. By extending the exterior walls to grade and fully enclosing the building and plaza, the enclosure envelope is simpler and less prone to leakage due to movement. The new enclosure creates an atrium with new PV panels and skylights over the central space. The new enclosure adds significant usable space at grade and allows the next two floors above to be opened up as fully interior space that is more open and flexible. The vision for this new space includes exposing the concrete structure, ductwork, lighting and sprinklers to keep the space very flexible and the renovation cost manageable. The initial purpose for this building will be to provide surge space for the total renovation of the Colleges, starting with the College of Letters Arts and Social Sciences (Bldg 5) and the College of Environmental Design (Bldg 7). But the atrium space would be ideal for hosting college, university or industry events (job fairs, symposiums, etc.), and appropriate specialty spaces, such as engineering maker spaces (3D printing, etc.), labs or studios (from Bldgs 1, 7 or 13A) could find a permanent home here.

Bldg 98C exterior will be replaced with a new envelope, designed for enhanced energy efficiency and fully enclosing the raised plaza space.

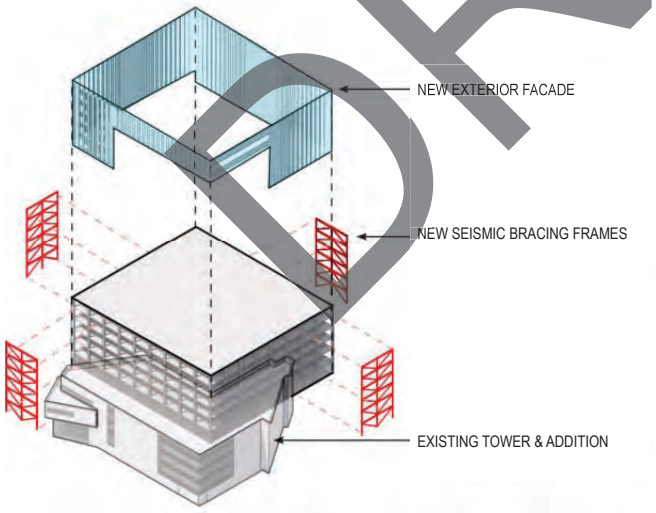
Priority Project:
Bldg 15 - Library Renovation

The library is proposed for major renovation to address the high demand for library services and study space and to support potential surge space need during the Bldg 98 C/B/P total renovation. This project will reinforce the Library tower structurally to meet seismic requirements and replace the exterior envelope with a lighter and more energy efficient walls and roof. This project also includes critical upgrades to infrastructure (fire & life safety systems, HVAC, electrical service, data/wifi capacity) and core facilities (restrooms, elevators, stairs).

Proposed interior library improvements will expand the Learning Commons with added computer stations and capacity for student laptops, expand the Writing and Resources Center, and add group study rooms with IT/AV capabilities and could include adding computer labs which could also serve as resources for testing or tutoring. Achieving this will require a library collection assessment to reduce stacks and to better utilize (or expand) the compact materials storage on the lower level. On the upper levels vacated stack areas could be used for temporary flexible surge space since the Bldg 98C renovation will displace several computer labs (teaching and resource labs) and the Academic Senate offices. On 2nd floor, space currently filled with microfiche and video tape cabinets could be better utilized to add computer labs, group study spaces and/or for the Writing Center and Learning Commons expansions..

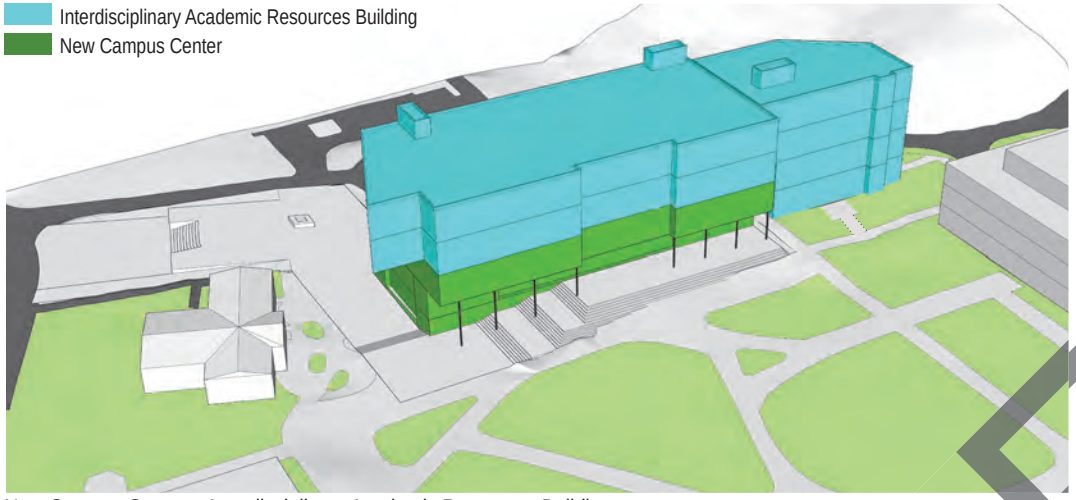


Library tower with the 2008 addition and new entrance (on the right).

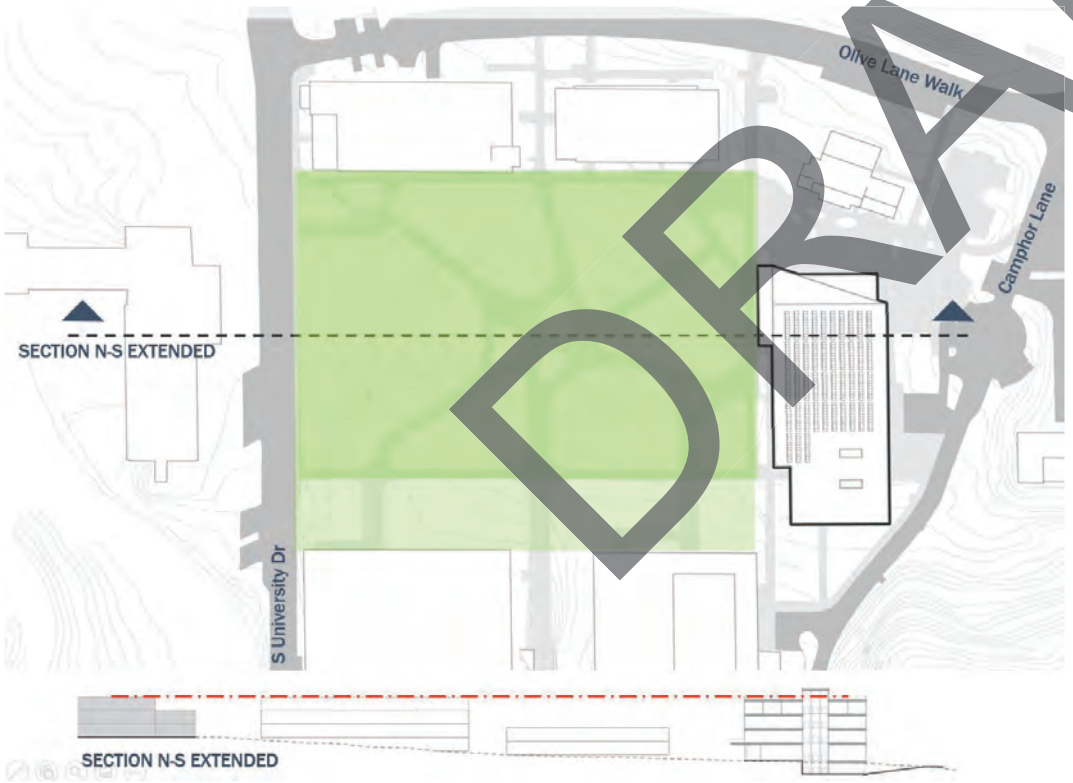


Library Seismic Reinforcing + Envelope Replacement

Main floor plan of the Library



New Campus Center + Interdisciplinary Academic Resources Building



Site Plan for University Quad with the proposed new CC + IARB; section shows the appropriate scale of the building.

New Campus Center (CC)+ Interdisciplinary Academic Resources Building (IARB)

The existing Campus Center is in poor condition and was proposed for major renovation and expansion. But this large site facing the University Quad (and outside of the seismic zone) could be better utilized by adding facilities to support student academic success and flexible academic space to meet projected academic needs. The master plan proposes demolition of the existing Campus Center building and replacement with a new, much larger facility.

The new building will have two 'front doors' and identities:

- Campus Center with the Marketplace and student success space.
- IARB providing flexible academic surge space to facilitate the sequential renovation of the existing college buildings.

The new Campus Center will occupy the first two floors and include: Marketplace with expanded retail food options and indoor/outdoor seating; and student success space including space for studying, tutoring resources, and the Career Center. The sloping site will accommodate a parking level tucked under the building to replace the existing ADA parking lot, as well as a service yard and loading dock off Camphor Lane. Site improvements will include expanding the terminus of Camphor Lane and a new landscaped plaza between the Campus Center and the Multicultural Center. Because the Marketplace will be closed for at least a year, planned improvements to the Bronco Student Center should be completed prior to the start of this project.

The proposed Interdisciplinary Academic Resources Building is four stories, with an entrance from the quad just south of the College of Letters, Arts and Social Sciences (Bldg 5). The first two floors occupy an open space just west of the Campus Center and frame a breezeway connecting the quad to Camphor Lane. The upper two floors extend over the Campus Center creating a large open floor plate for academic surge space. The plan will accommodate a variety of instructional spaces including flexible classrooms and computer labs, as well as faculty workspace and academic support space. To meet the surge space needs, this project must be completed prior to starting the renovation of the College of Science. As the College projects are competed, the IARB will become permanent instructional space

College of Letters, Arts & Social Sciences.

College of Environmental Design.

Science Buildings.

College of Education & Integrative Studies.

Bldg 5 - College of Letters, Arts and Social Sciences (CLASS) Total Renovation *(#3 seismic priority)*
The College functions will be relocated to 98C with some classes using the Shared Classroom Addition. The total renovation of Building 5 will address deferred maintenance and required code upgrades including seismic reinforcing, replacement of building systems and the exterior envelope for greater efficiency and sustainability. The interior will be reconfigured to meet strategic and academic plan goals with active learning classrooms, sticky spaces for study and collaboration, and shared faculty and departmental work spaces.

Bldg 7 - College of Environmental Design (ENV) Total Renovation *(#3 seismic priority)*
The College functions should be consolidated in Bldg 98 and the Interim Design Center during the renovation construction phase. The total renovation will address deferred maintenance and required upgrades for seismic, building systems and exterior envelope for efficiency and sustainability. The interior should be reconfigured to expand usable space and better utilize the courtyard for 'hands-on' project space.

Bldg 1 - Administration Total Renovation *(#3 seismic priority)*
Building 1 can be vacated using a number of strategies, including 'work-from-home' and relocating instructional space into surge space (Bldg 98 or Shared Classroom Addition). This major renovation will address deferred maintenance and required upgrades for seismic reinforcing and building systems. The interior should be reconfigured to meet strategic and academic plan goals with more efficient resources and work spaces.

Bldg 8 - College of Science (CS) Total Renovation (*#3 seismic priority)*
The total renovation of Building 8 will be challenging given the size of the building and the range of space types, including lab facilities with relatively recent equipment upgrades. The project could include repurposing space in the Science Labs Bldg 3 for instructional labs (currently architecture studios which should be consolidated with the rest of the program). Vacating the Science building will require using surge space in the IARB and Bldg 98. This major renovation will address deferred maintenance and required code upgrades for seismic, building systems and potential improvements to the exterior envelope (esp roof, windows) for efficiency and sustainability. Where needed, the interior should be reconfigured to meet strategic and academic plan goals and the needs of the College of Science.

Bldg 2 - College of Agriculture (AG) Total Renovation *(#3 seismic priority)*
The total renovation of Building 2 will require surge space in Bldg 98 and the use of the Shared Classroom Library Addition. The renovation will upgrade classroom and class lab space and address deferred maintenance, including required upgrades for seismic, building systems, and exterior envelope (esp roof, windows). The interior should be reconfigured to meet strategic and academic plan goals and the unique needs of the College of Agriculture.

Bldg 6 - College of Education & Integrative Studies (CEIS) Major Renovation *(#3 seismic priority)*
The total renovation of Building 6 will require IARB surge space and the use of the Shared Classroom Library Addition. The renovation work will address deferred maintenance, including required upgrades for seismic, building systems, exterior envelope (esp roof, windows) and interior reconfiguration to upgrade instructional and faculty spaces to meet the academic plan goals and needs of the College of Education & Integrative Studies.

Bldg 94 – University Office Building Major Renovation *(#3 seismic priority)*
The renovation of Building 94 will address deferred maintenance and include replacement of the major building systems, potential improvements to the exterior envelope (esp roof, windows) and interior reconfiguration for more efficient, flexible and collaborative faculty work and support space to meet strategic and academic plan goals.


Music Building.

Bldg 24 – Music Building Major Renovation & Addition
The Music Building addition, envisioned on the north side of the building with the existing ADA parking tucked under the building, will facilitate removal of the 'temporary' modular facilities which are in extremely poor condition. Renovation of Building 24 should address deferred maintenance including replacement of the major building systems, improvements to the exterior envelope (esp roof, windows) and some interior reconfiguration for improved instructional space, more flexible and collaborative faculty work-space, and practice space to meet student needs and academic plan goals. Site restoration after removing the modulars should consider creating an outdoor classroom, practice or project space to be shared by the music and drama programs.

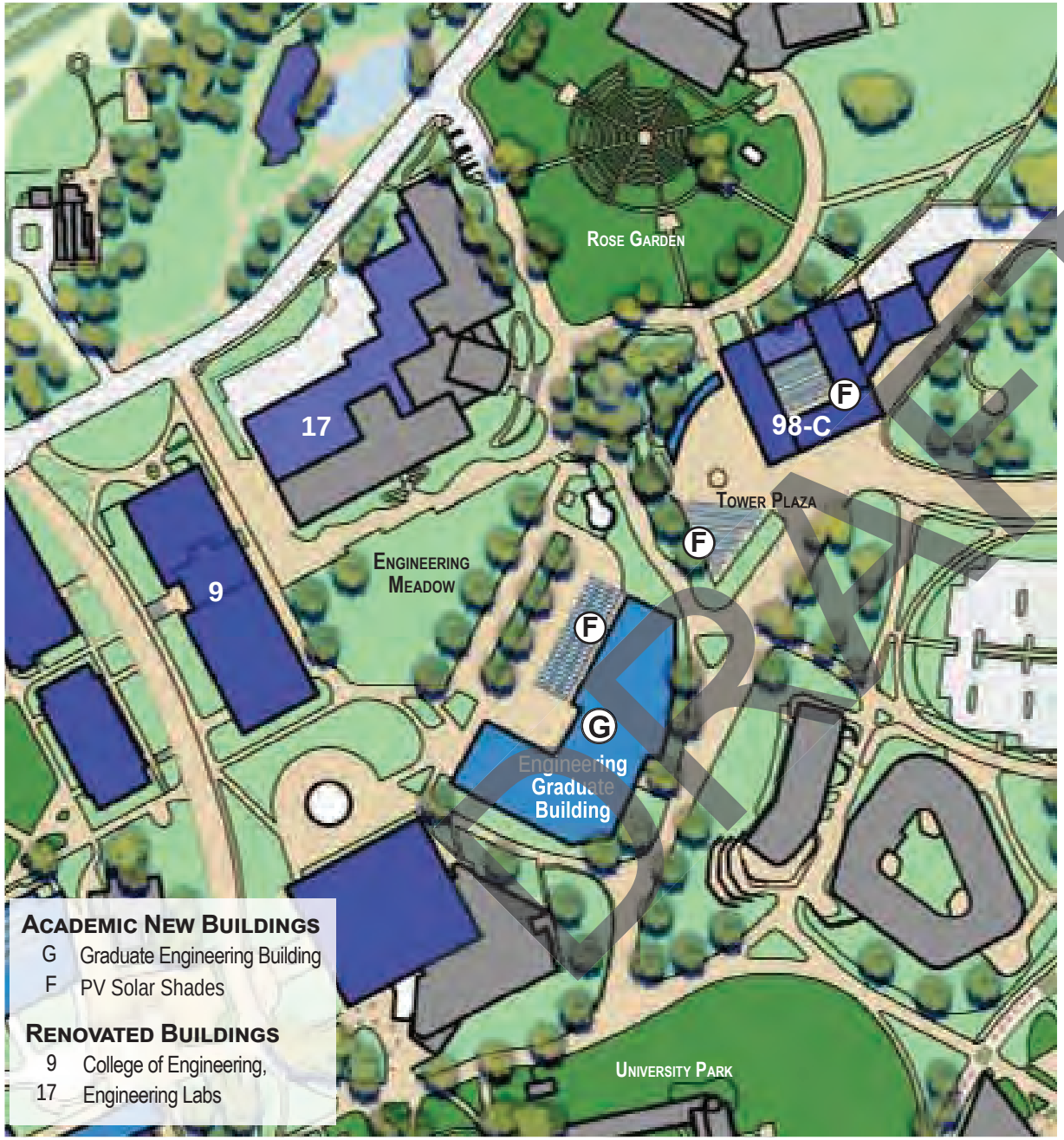

Recital Hall.

Bldg 25 – Drama Building & Theater Total Renovation or Replacement
The theater is a major facility that should be evaluated for total renovation or replacement, potentially in a different location. The performance venue could be separated from the academic space and could be included as a P3 project in the Innovation Village or Lanterman Innovation District. Building 25 if not replaced, requires a total renovation to address years of deferred maintenance, and would include the replacement of major building systems and interior upgrades to meet current performance venue standards as well as strategic and academic plan goals.

University Theater + Drama Building.

Bldg 41 - Darlene May Gymnasium Renovation
This 1958 women's gymnasium continues to house the women's facilities (lockers, restrooms) which do not meet the equity intentions of Title IX. The master plan recommends immediate targeted renovation of the restroom and locker facilities specifically to meet current code requirements for accessibility (ADA). Then locker and restroom facilities for female athlete-students should be carved out within the Kellogg Gymnasium facility. Longer term, the Darlene May Gymnasium should be demolished to accommodate the expansion of the BRIC to meet the needs of a growing student body.

Bldg 43 - Kellogg Gymnasium Major Renovation + Expansion
The master plan recommends immediate targeted renovation to provide locker and restroom facilities for female athlete-students to meet the intentions of Title IX. Longer range, the master plan includes major renovation and a small expansion of the Kellogg Gymnasium facility, including replacement of major building systems and accommodation of uses from the DM Gym (to be demolished for the BRIC expansion). This will be an opportunity to expand and improve academic programs which need gym space (PE, Kinesiology, etc.) to meet academic plan goals.



The Engineering Quad is the center of this college hub and the new building and courtyard should be designed to activate this space. PV solar shades are illustrated in the Graduate Building Courtyard along the quad edge, in the Tower Plaza, and above the 98C Atrium.

Engineering District

The College of Engineering is the largest and fastest growing program at Cal Poly Pomona. The master plan recommends developing a more detailed Engineering District Plan with more detailed space and lab facility analyses to better define current and projected space needs and improvement projects.

This plan should map out a strategy and migration plan to guide the sequence of moves and projects to better serve the existing programs and to provide for continued growth. This effort should also include long range planning for the use of space in the Classroom building (98C) as the need for surge space starts to wane. The added space on the podium level, but enclosing the atrium would be ideal for engineering fairs and industry events or symposiums.

Engineering Graduate Building

The new Engineering Graduate Building supports the continued growth of the College of Engineering with new facilities to consolidate the graduate programs and space for student research labs. The new building is sited to be out of the seismic fault zone and maintain occupancy of Bldg 13 and associated specialty labs (13A) during construction. When the Graduate Building is completed, Bldg 13 will be demolished to create a PV shaded courtyard for project-based learning. Art labs from the Annex can be relocated to the renovated College of Letters, Arts and Social Sciences (Bldg 5) or moved into Bldg 98B which would be a very suitable space.

Engineering Labs building 17 opened in 2001

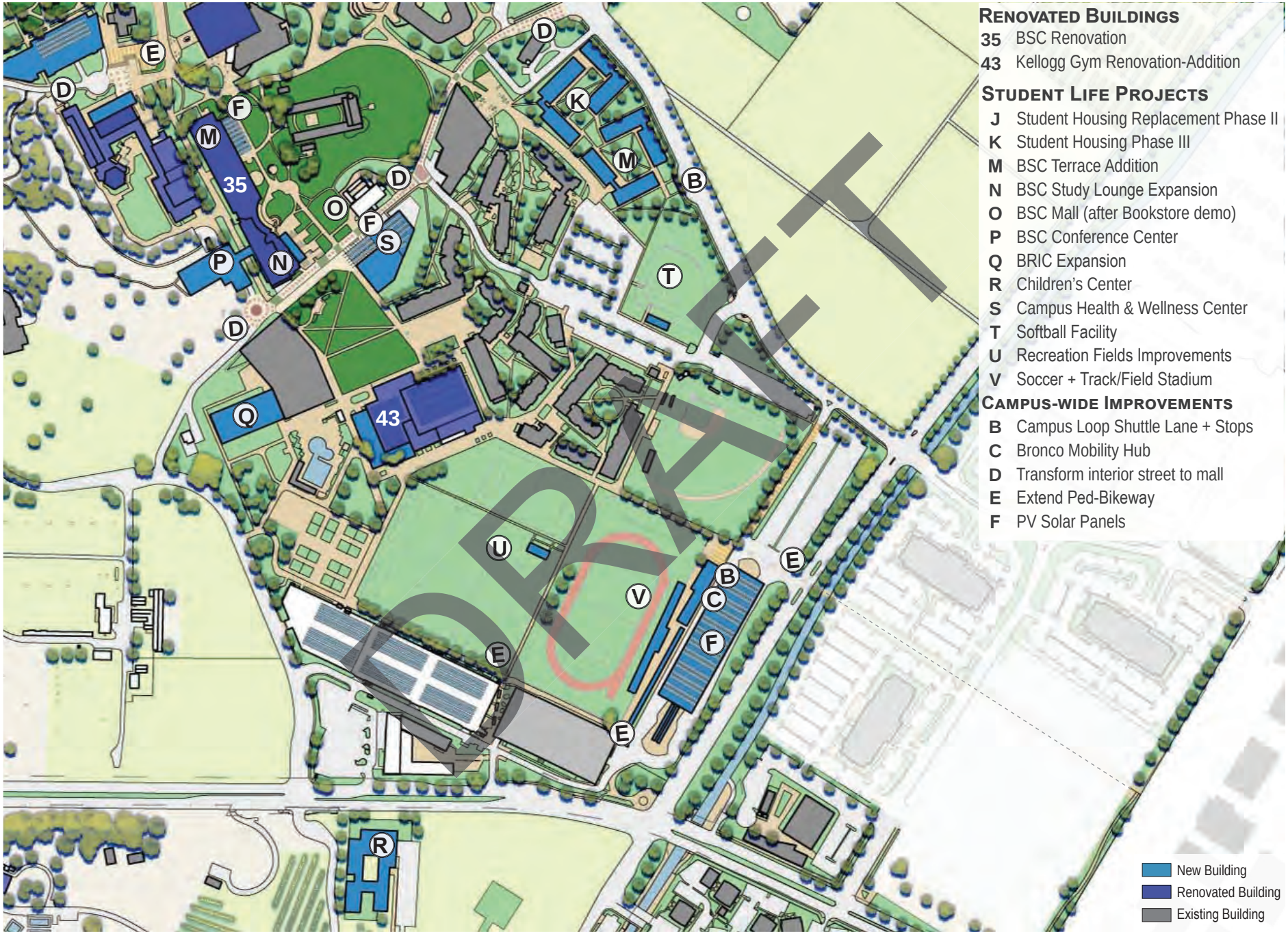
College of Engineering has more classrooms and teaching labs than any other building on campus.

Bldg 17 - Engineering Laboratories - limited renovation

The new Graduate building should create opportunities for lab expansions and improvements to accommodate increasing program demand. Specialty labs and equipment currently housed in temporary facilities associated with Building 13, including the wind tunnel, liquid rocket lab) will need to be relocated.

Bldg 9 - College of Engineering Total Renovation

The total renovation of the College of Engineering building will be challenging given the building size, and will likely require use of surge space in both Bldg 98C and the IARB. The renovation will address deferred maintenance and make required code upgrades including the total replacement of all building systems and improvements to the exterior envelope for efficiency and sustainability. The interior should be reconfigured to meet active learning space standards and to add lab capacity as needed to advance strategic and academic goals for the College of Engineering.



Proposed Campus Master Plan 2020-2040 (partial enlargement) - southern side of the campus and the student life, housing and recreation facilities and improvements proposed.

Student Life District + Improvements

The student experience is the planning theme for this master plan to guide improvements to the campus and student services with development to support student engagement and the co-curricular experience, including student housing, dining, recreation and athletics, the Campus Center, Bronco Student Center, Bronco Recreation and Intramural Complex and Campus Health and Wellness Center. Multiple challenges, strategies and projects follow.

Challenge:

The campus has been in the process of building new student housing on the south side of the campus to replace the original campus dormitories and dining hall built in the seismic fault zone above University Drive. These moves have concentrated student life uses on the south side of the campus in an area constrained by major roads and fast running out of new building sites. The increasing number of residents drives the need for more services (dining, health and wellness, recreation) and adds emphasis to safe pedestrian/bike circulation to reduce potential conflicts. Prior planning has suggested development on land used for recreation or by the College of Agriculture, but alternatives with this approach were rejected by the Master Plan Advisory Committee and Executive Committee.

Strategy:

The master plan will continue the consolidation of student housing in this student life district, by increasing the density of the replacement housing to optimize available land resources (including resident or temporary surface parking lots) and reserve land for future housing development. The plan will identify sites for new or expanded student services facilities (BSC, BRIC, SH&W) and circulation improvements to enhance pedestrian safety. Proposed campus-wide improvements, including the Eucalyptus Multi-modal Mall, the Bronco Mobility Hub, and the dedicated lane and new stops for the campus loop shuttle, will support this strategy.

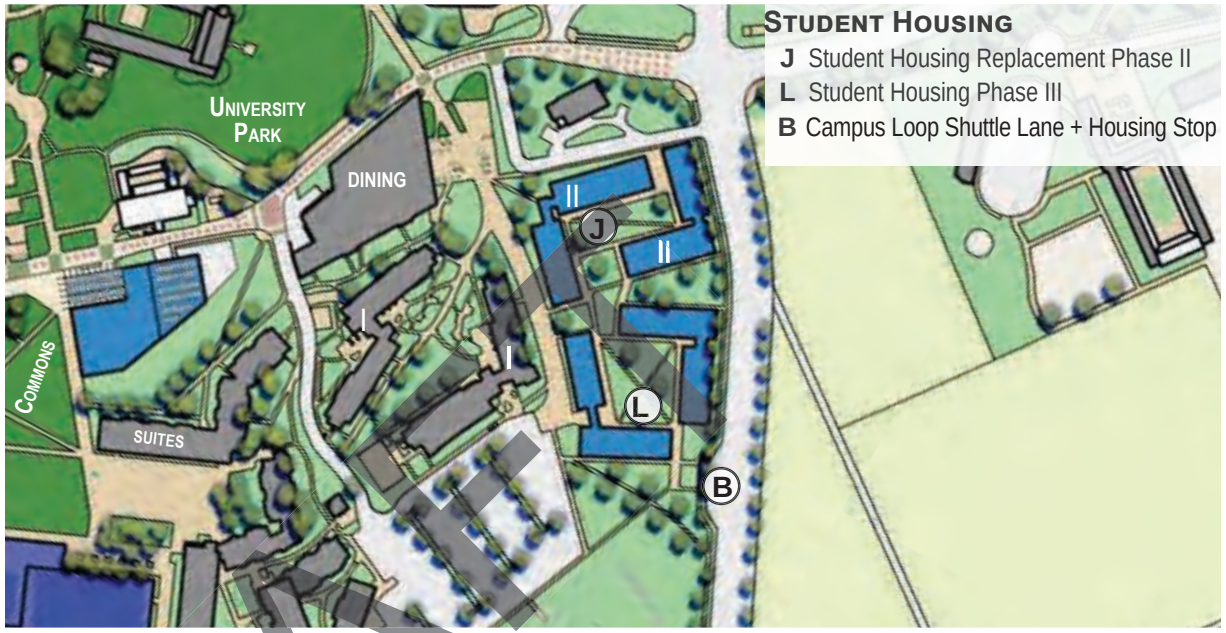
Student engagement on Olive Lane Mall during Welcome Week.

Ped-bikeway through the housing precinct.

Student Housing Replacement Project I-II-III

This project, begun prior to the master plan, replaces the 1360 beds in the original dorms, located in the seismic zone north of University Drive. Six residence halls and the Los Olivos Dining Hall will be demolished, and the site will be redeveloped for student recreation and wellness activities. Phase I opened in 2019 with two eight story freshman residence halls (980 beds) and a new dining facility, replacing dorms (Bldgs 57-58) and Los Olivos dining hall (Bldg. 70). Phase I replaced 660 beds and added 320 new beds.

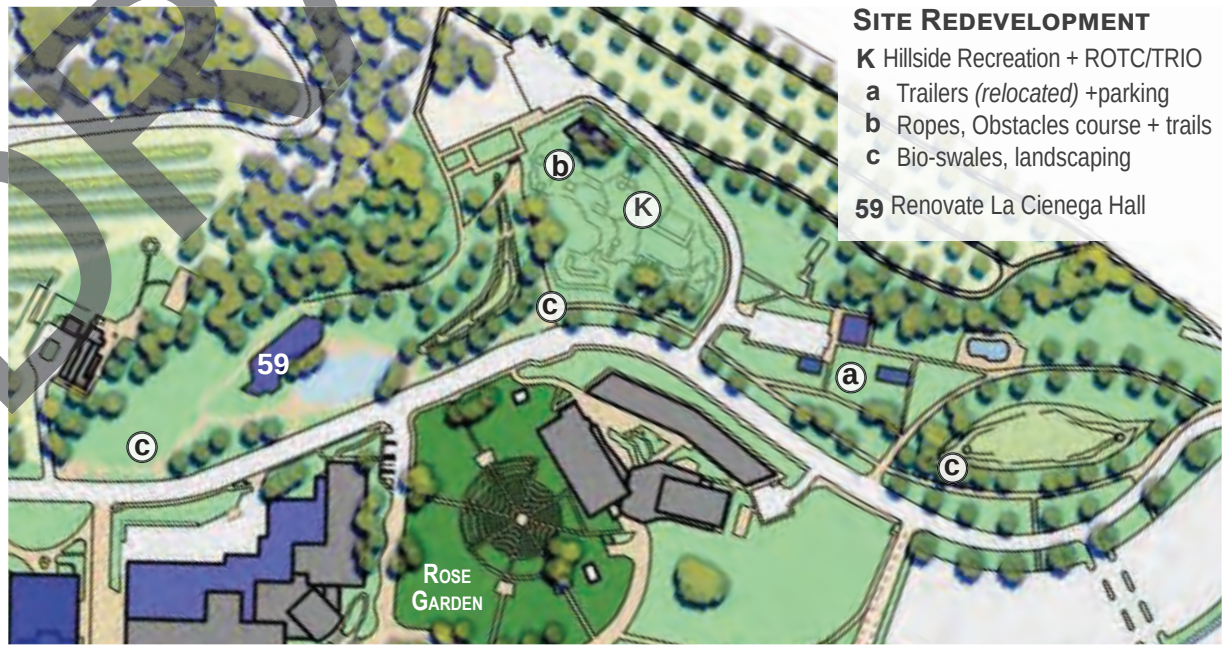
Phase II will add two mid-rise halls (840 beds), replacing 700 beds (Bldgs.20-23) and adding 140 net new beds. Phase III is all new beds, adding 1040 beds in two mid-rise buildings. This will bring the master plan total to 1500 net new beds providing residential capacity for freshman and continuing students. The plan proposes serving this area with new stop for the campus shuttle as part of the dedicated bus lane on Kellogg Drive, south of Red Gum Lane.



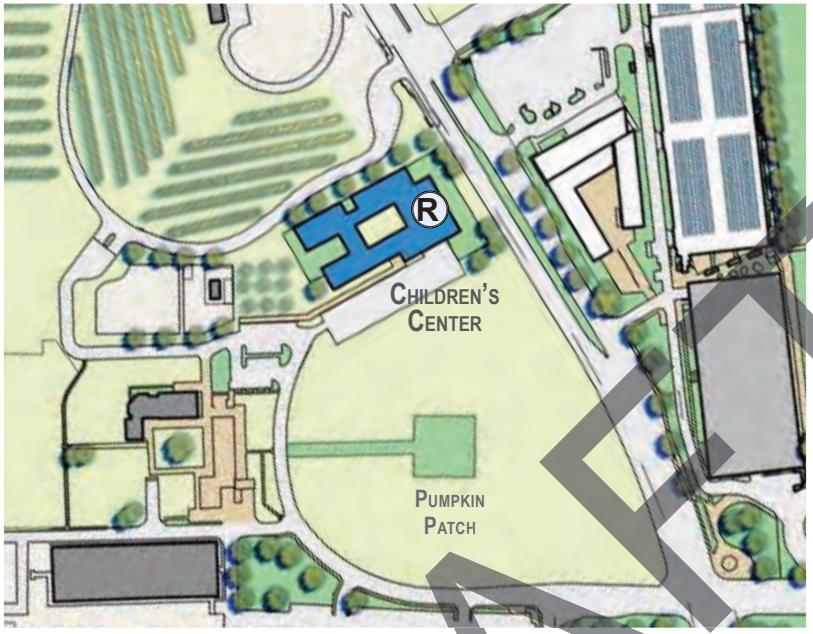
Proposed Phased Student Housing at completion will add 1500 beds to the total campus capacity.

Hillside Site Restoration + Repurposing

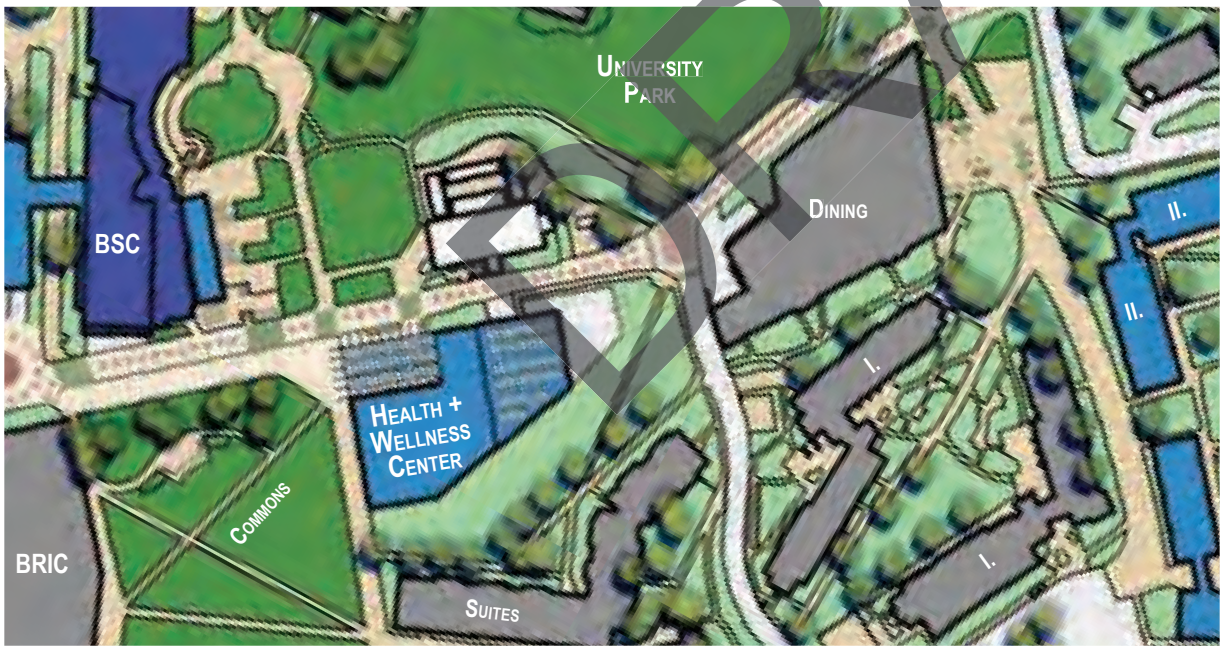
The planned demolition of the residence halls in the fault zone above University Drive will require restoration of over 8 acres of hillside and renovation and possible re-purposing of the La Cienega Rec Center (Bldg 59). The master plan responds to student requests to engage with the natural topography of the campus with various types of trails, including an accessible multi-purpose trail, running or biking trails, bouldering or climbing locations, ropes and obstacles courses, and possibly a zip-line or similar facilities for student recreation and wellness activities. The plan proposes to relocate the existing ROTC and TRIO trailers to this area with a small accessible parking area.



Housing demolition site restored and re-purposed for student recreation and wellness activities.



New Children's Center next to the Petting Farm and Agriscape Farm Store.



New Campus Heath and Wellness Center on the Commons reinforcing a student life hub.

New Children's Center

The master plan alternatives considered a variety of sites for a new, larger Children's Center looking for a location that is very visible and easy to access, with space to accommodate drop-off and pick-up parking. The selected site is on the west side of Temple Avenue, off University Drive, next to Agriscapes. The site plan reflects the Center's proposed program with childcare rooms organized around an internal courtyard, and academic space (classroom, observation) for early education practicum or interning. This location has room for outside play areas and walks to the adjacent petting farm, orchard and picnic area. The curving entry drive facilitates stacking at peak drop-off time and the parking area could be shared on weekends for Agriscape events. This is a high priority project because of the existing Center's space needs and because the demolition of the 116A-C buildings clears a site for the new Health and Wellness Center (replacing the existing facility).

Campus Health & Wellness Center

The Health & Wellness Center has been looking for a more central location since the 2000 Campus Master Plan. The master plan proposes building the new Health & Wellness Center on the Commons, directly across from the BRIC. The entry from the Eucalyptus Lane Multi-modal Mall includes a courtyard with a wellness garden and PV solar shade structure. The building footprint will require 2-3 stories to meet the programs needs. Emergency vehicular access is from the multi-modal mall into a covered drop-off and parking area. When the new Children's Center opens, Buildings 116A-C and the adjacent parking lot will be demolished to clear the site for construction of the new Health & Wellness Center.

Proposed Campus Master Plan 2020-2040 - center of the campus with the Bronco Student Center and proposed improvements.

Bronco Student Center

Challenge:

Associated Students Inc. (ASI) requested an expansion feasibility study for the Bronco Student Center (BSC) in late 2017, while the master planning was just getting underway. Campus leadership asked to delay an in-depth study until the master plan considered the longer term future of the BSC. The planning team investigated options for expansion, renovation or replacement of the facility. The BSC study showed the facility is highly utilized but inefficient with a lot of space dedicated to circulation. ASI has lined the primary circulation spaces with seating, but circulation space is better suited to socializing than studying, and the top ranked request from students was for dedicated study space. Over time, the facility has lost some student space (lounges, club and meeting space) to office functions, and there is minimal space for service and support (including undersized restrooms). It was surprising how the original building design cut off the interior space from the exterior space in terms of access, daylight and views. The southern addition with the rotunda space is much more open, with indoor and outdoor seating. But student activities tend to use space between the northernmost BSC entry and the library plaza, where tabling can engage the central mall, leaving the southern seating areas underutilized.

The facility evaluation showed that BSC expansion options are limited. The entire west side of the building is constrained by electrical transformers, building systems equipment, the ped-bikeway and the existing Theater building. An addition on the west side of the BSC is not feasible. The east side of the building faces University Park and the central mall, where student tabling and most activities take place. Significant encroachment into this space could be disruptive to campus circulation (much like the bookstore is) and could feel like an encroachment on University Park and the grounds around the historic Kellogg Stables. However, it is feasible and desirable to open up the east side of the BSC with more minor alterations and additions.

Strategy:

BSC renovation should be prioritized, upgrading the meeting spaces (technology, HVAC) and addressing service spaces, including substantially expanding the restrooms to meet the demand and ADA requirements. Minor additions, expanding the facility on the east side, can have a major positive impact. These should focus on study space, including enclosed group study or project rooms and on improving connections between interior and exterior, engaging the mall and supporting student activities in University Park. Longer term, space for student use could be reclaimed if a conference center was added to support meeting space needs for faculty, staff and events. This facility could act as an expansion of both the BSC and Kellogg West facilities, and the inclusion of some structured parking for visitors would make this a more desirable conference location.

Bldg 35 - BSC Phased Renovation

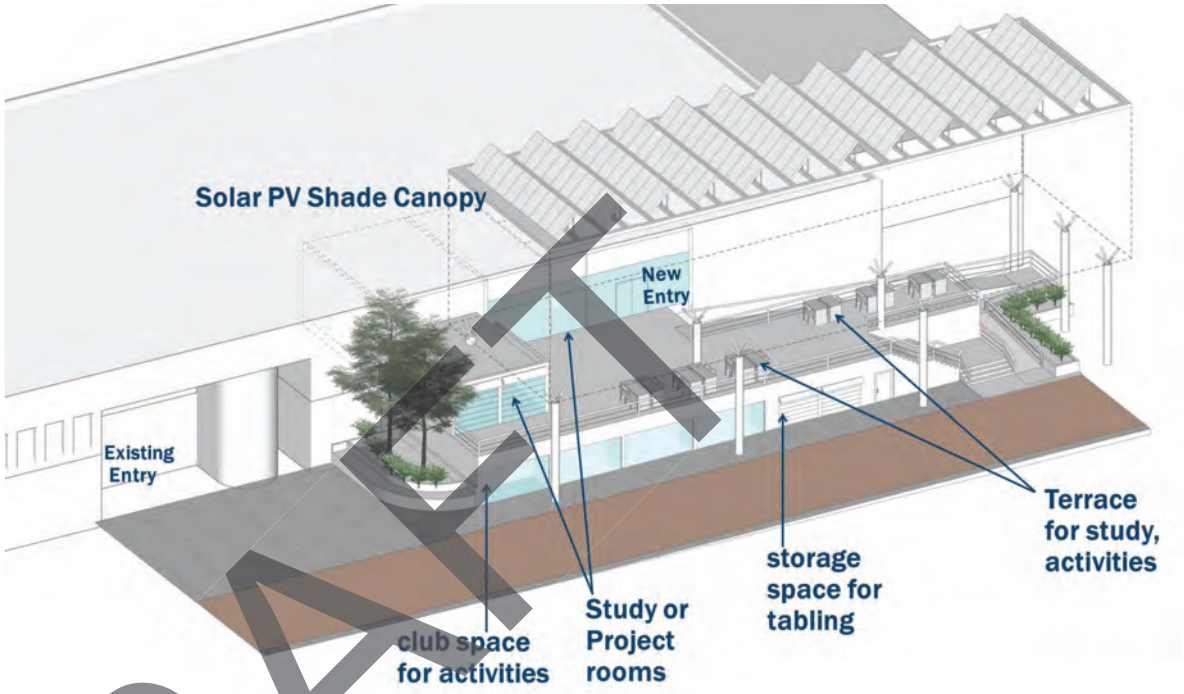
Phased renovations should be prioritized to upgrade HVAC systems, power, technology (AV, IT, WiFi), and address service space, including expanding and upgrading restrooms for ADA code, gender inclusivity and overall capacity. Meeting rooms should be upgraded with better audio visual technology, data connections, wifi, lighting and HVAC systems. Students would like to see more areas for study (including study space for groups) and better connectivity with the exterior, particularly the mall and University Park.

Students requested more outdoor shaded seating areas.

Student forum in the BSC rotunda on seating + shade needs.

BSC Terrace Expansion

The proposed Terrace Addition is on the east side of the building, north of the existing entrance, where the majority of student activities and tabling take place. The terrace concept takes advantage of the sloping ground plane in this area to engage the mall at the terrace's north end and open up the upper floor of the BSC at the southern end. The meeting space currently used for offices would be converted to student study spaces. The addition includes a group project space with an overhead door to allow the work to spill out onto the terrace. Below the terrace, the addition provides space to support student clubs with a 'meet-up' space and secured storage for student clubs to store tables and shades used for activities along the mall and in University Park. Shade is provided by a large PV solar canopy that extends out over the adjacent tabling areas.



The Terrace Addition adds space to support student activities and clubs, as well as study and project space with a PV canopy to shade the terrace and tabling area. This BSC addition will connect the interior and exterior, add study space, and support student engagement activities.

Popular student tabling area would remain, supported by the new Terrace Addition.

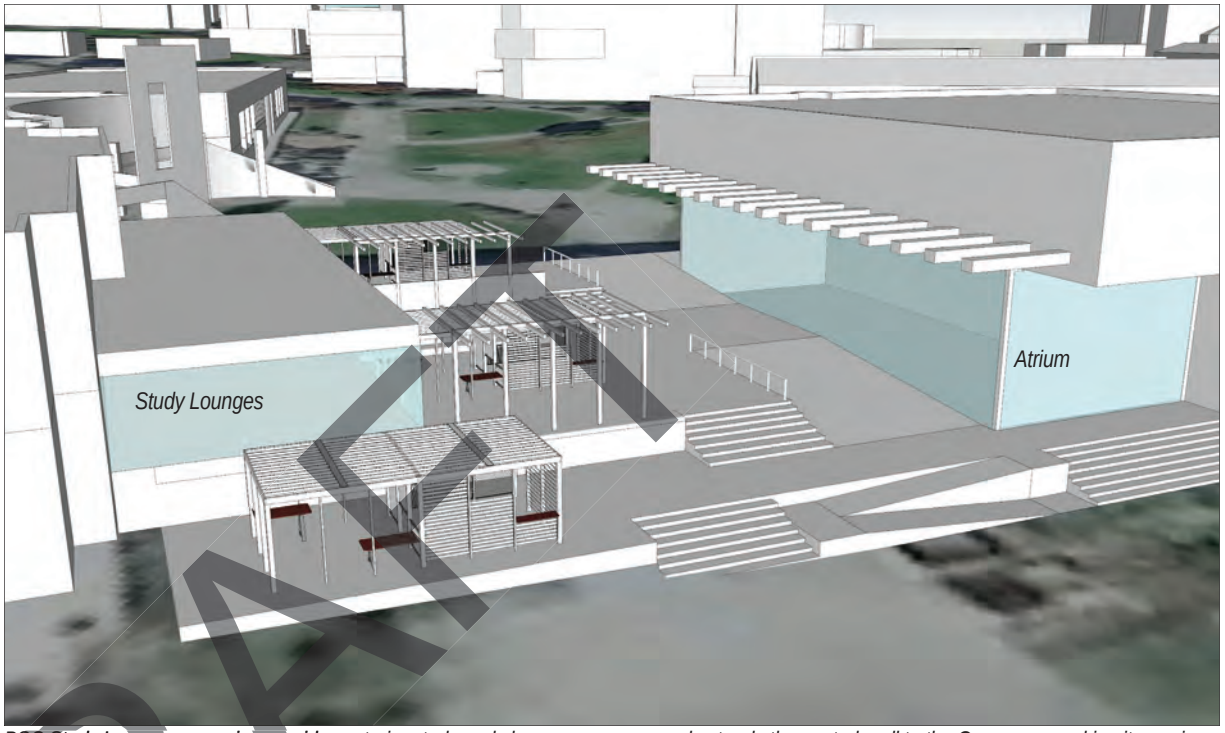
Proposed location of the Terrace Addition to expand the BSC while enhancing integration with the mall and University Park.

BSC Study Lounge Expansion

The two story Study Lounge expansion is proposed on the east side of the BSC building, south of the rotunda where the Bookstore building constrains BSC expansion and circulation. To accomplish this addition, the bookstore (book storage & loading dock portion of Bldg 66) would be demolished after the bookstore relocates to new space in the Bronco Mobility Hub. The project would expand the BSC's popular study lounges and add a quiet study room as well as individual and group study rooms. The project extends the study space outside, with several new 'outdoor classroom' spaces that open this area to the Eucalyptus Lane multi-modal mall. The existing building atrium, a popular study area and access to four classrooms would remain.

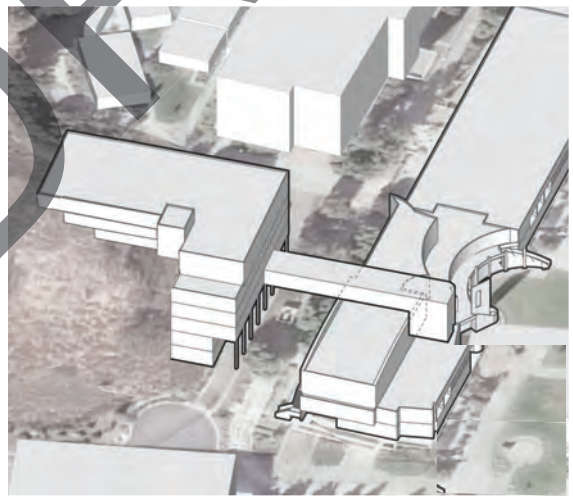
BSC Site Improvements

The last BSC phase extends the central mall in front of the center southward to the Eucalyptus mall (after demo of Bldg 66 and the non-operational fountain) to connect the University Park open space to the Commons.



BSC Study Lounge expansion provides exterior study and classroom spaces and extends the central mall to the Commons, making it a major improvement to campus connectivity.

BSC mall is interrupted by a fountain (under the box in this photo) and the Bookstore building which is proposed for demolition.



BSC Conference Center with bridge to the BSC upper level.

BSC Conference Center

The proposed Conference Center came out of the BSC Expansion Study and the Alumni Association request for a larger capacity banquet room. The project locates the new conference facility on Horse Hill on the west side of the BSC with a connecting bridge over the existing ped-bikeway and the service drive for the theater. The design takes advantage of the existing slope to provide service access and ADA parking under the center, accessed from the Eucalyptus multi-modal mall.

Proposed Campus Master Plan 2020-2040 - southern side of the campus and the student life, housing and recreation facilities and improvements proposed.

Student Recreation & Athletics

Challenge:

Engagement is vital to student success and to alums' support, and participation in recreational sports and athletics are proven paths to enhance engagement. These facilities can also provide co-curricular opportunities for learning by doing, supporting the polytechnic mission. But investment in these facilities has not been a high priority; the gymnasium locker rooms do not meet current requirements for accessibility (or Title IX); and there is no fieldhouse on campus to attract alumni to campus for competitions or events like homecoming or graduations. The track and field stadium no longer meets the NCAA competition requirements. The baseball facility is being upgraded (after a long fundraising effort), but there isn't a softball field and that will be needed soon, based on the growing enrollment of female students (to meet Title IX requirements). The large grassy recreation field area is used for all types of recreation, so it's often in poor condition from overuse.

Strategy:

Invest in multi-use athletic and recreational facilities designed to support student athletes, and attract alums to events for engagement and fundraising. This investment includes: a replacement soccer/track & field stadium, a new softball field, improving the recreation fields and the Darlene May and Kellogg gyms, and eventually expanding the Bronco Recreation & Intramural Complex (BRIC).

Soccer, Track & Field Stadium

Replace the existing Kellogg Stadium new competition venue for soccer, track & field. The new facility should meet all competition requirements but also be designed for flexibility to host a range of events, with gathering areas served by concession stands and restrooms. The stadium facility should include an alum terrace with box seating, a full press box, and athletic program support space (coaching staff, team training and locker facilities, and facilities for officials and visiting teams).

Recreation Fields Improvements

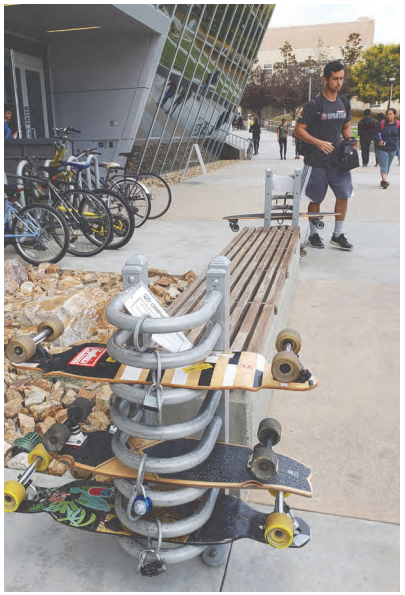
Improvements to the recreation fields should improve the entire field area, enclosing at least two multi-sport fields. Improvements would include lighting, sideline bleachers and new turf (consider artificial turf for the two enclosed fields) as well as a restroom and maintenance facility connected by accessible walkways.

Softball Facility

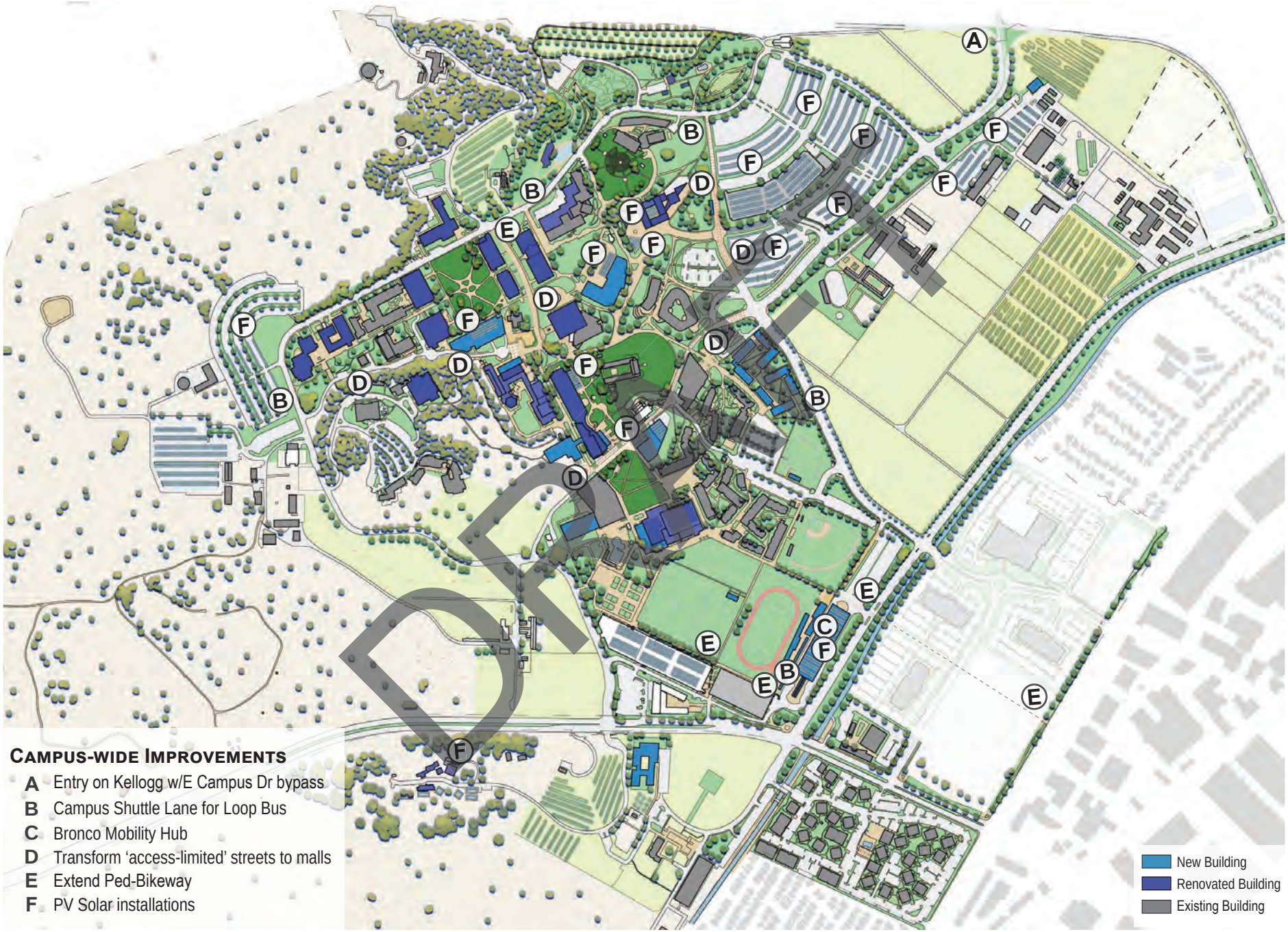
New softball field and facilities (concessions, restrooms, bleachers with alumni seating, press box, etc.). The proposed site for this facility is across from the baseball stadium with opportunities to share support space (coaching staff, training, team lockers, etc.).

Bronco Recreation & Intramural Complex (BRIC) Expansion

The expansion of the BRIC building is anticipated to meet the needs of the growing student body and campus. This addition will require demolition of the Darlene May Gym, which is possible after the renovation of the Kellogg Gym is completed.



Skate rack + bench in front of the BRIC.



Proposed Campus Master Plan 2020-2040.

Campus-wide Improvements

The Cal Poly Pomona campus has always had a unique character, with a traditional college campus core surrounded by orchards and grazing pastures reflecting campus roots and polytechnic mission. Over the years, growth has stressed campus connectivity. The pedestrian core has been expanded by closing internal streets, but much of the campus feels more auto-dominated than pedestrian-oriented. This plan prioritizes campus-wide improvements to enhance pedestrian safety.

Improve Campus Entrances starting with the Kellogg I-10 ramps

Challenge:

There are no true gateways to the campus. The primary entrance is via the Kellogg Drive exits on I-10, with all ramps directed onto Kellogg Drive and through the campus. At four lanes wide, this major arterial divides the campus and creates challenges for pedestrian safety. Campus police direct traffic at Kellogg and University Drive every morning to maintain safety and avoid tie-ups. Traffic counts show less than half the vehicles turn into campus, with more than half continuing through the campus to Temple Avenue. These vehicles should be driving around the campus.

Strategy:

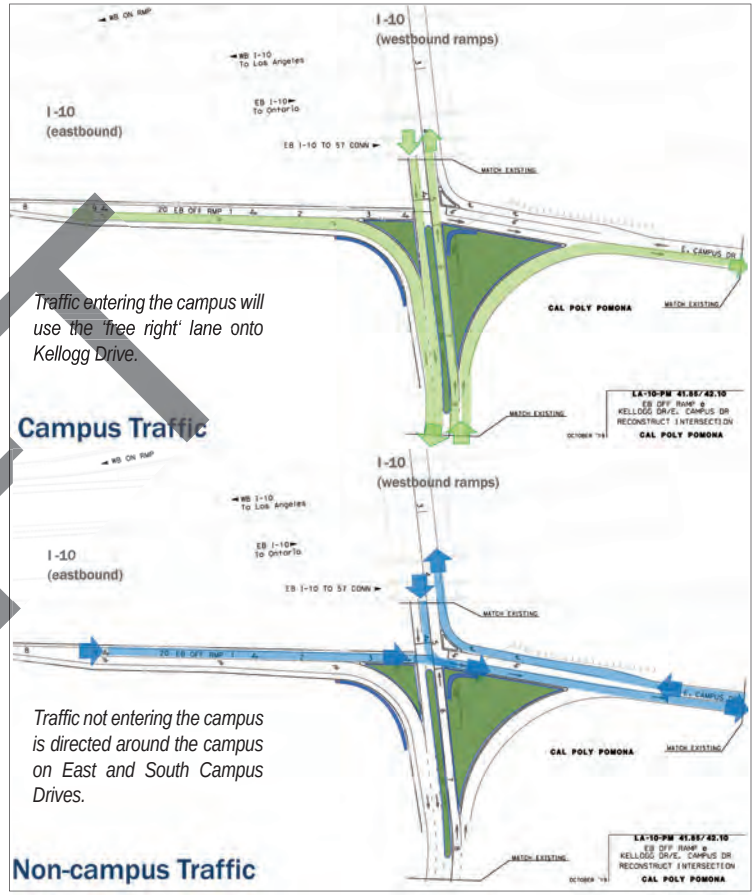
Create a new intersection with East Campus Drive, expanded for two-way traffic, to direct non-campus traffic to South Campus Drive and around the campus. Kellogg Drive and East Campus Drive should use a 'complete street' design approach that includes improvements to enhance safety and connectivity for pedestrians, cyclists, and vehicles.

I-10 & Kellogg Drive Campus Gateway Project

The Kellogg Gateway project is intended to enhance campus identity, entry, wayfinding and improve safety by steering traffic around the campus. The project includes:

- New controlled intersections on Kellogg Drive at East Campus Drive (2 way) and University Drive
- Intersection improvements at East Campus and South Campus Drive (with left turn added)
- Add new signage to direct traffic around the campus to access I-10 (on South Campus Drive at both Kellogg Drive and East Campus Drive)
- Enhance campus identity with signage and gateway elements including monument sign, landscaping and lighting with banners. The center landscaped boulevard is wide enough to accommodate a gatehouse booth for additional campus security in the future.
- Put Kellogg on a 'road diet', narrowing the roadway to reduce vehicular speed and enhance pedestrian safety with wider sidewalks, pedestrian scale lighting and enhanced crosswalks.

The plan recommends developing new campus design standards for 'gateways and edges' that are pedestrian-friendly and integrate directional and event signage. Consistency at the campus entry corners, combined with pedestrian-scale lighting with banners and landscaping along campus edges, will better define the campus perimeter and present a welcoming, student-friendly campus identity.



The planning team developed conceptual plans for the new intersection at Kellogg and East Campus , and met with Cal Trans District 7 staff to confirm feasibility.

Well defined campus entry welcomes both vehicles and pedestrians.

The HUB pilot would provide the basics with shelter-shades, FT bus pull-ins and a CPP shuttle stop until the full Mobility Hub is completed.

PILOT: Foothill Transit (FT) Class Pass

Foothill Transit and Cal Poly Pomona began discussions in 2018 about a transit hub on campus *(similar to the hub project at Mt SAC)* and a Class Pass pilot. CPP kicked-off the pilot in Fall 2021, providing all students with a free Transit Access Pass (TAP) for unlimited rides on Foothill Transit local routes and the Silver Streak bus from downtown Pasadena or Los Angeles. This initiative supports CPP goals for affordability and sustainability by encouraging transit as an alternative to bringing a car to campus. The Class Pass, Mobility Hub and campus circulating shuttle all work together to promote transit use as an alternative to single-vehicle commuting.

PILOT: Transit Hub

This proposal is to pilot the Hub concept by reconfiguring parking lot B for FT bus pull-ins to bring bus stops off the street and into the campus. A signal beacon (HAWK or PHB) will be needed on South Campus Drive, activated by FT buses making left turns in or out of the Hub. The campus shuttle loop will run along the north side of Lot B with a stop at the Hub so FT bus riders can quickly and easily get from the Hub to the academic core of the campus. The HUB pilot is proposed at the west end of Lot B, in advance of the Mobility Hub building funding, but will require careful planning to maintain operations while the full Bronco Mobility Hub project is under construction.

Campus-wide Improvements

Challenge: Connecting with Local & Regional Transit

Improve the use of local and regional transit by students, faculty and staff to commute to campus to meet CPP's sustainability goals and reduce demand for parking on campus. Ridership is critical to support transit service; but without strong ridership it's hard for FT to justify increased service, especially to add a stop to an express route. CPP will need to work with their transit partners to meet this challenge and also implement parking permitting strategies which discourage bringing a car to campus.

Strategy

Partner with Foothill Transit to provide students with a free transit pass, to expand service including Silver Streak service, and establish a Mobility Hub (phased implementation if necessary) to connect local, regional and campus transit. Partner with MetroLink to explore service closer to the campus, with a stop between the main campus and the future Lanterman Innovation District.

Bronco Mobility Hub

The Bronco Mobility Hub will be a central place to make transportation connections and access services and information. The proposed location is Parking Lot B-1 on South Campus Drive to minimize the impact on FT route schedules and connect with the campus shuttle loop. Existing FT bus stops on Temple Avenue and South Campus Drive will move into the Hub, reducing the number of pedestrians crossing these busy streets and reducing the traffic back-ups behind the buses. The Bronco Mobility Hub is envisioned as a 'front-door' to the campus with way-finding and transportation information to support alternative transportation modes including:

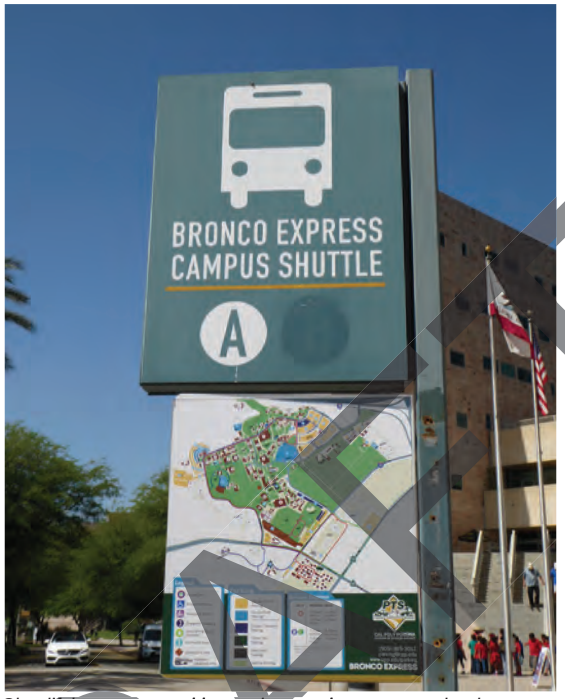
- carpooling and CPP ride-share programs
- car-share, bike-share, e-bike, e-scooters (partner with services)
- designated campus pick-up and drop-off location for parents or ride share services, including a waiting area *(reducing vehicles circulating around the campus)*
- student-operated bike facility *(bike storage, repair, sales and leasing, and shower and locker facilities for commuting cyclists)*
- campus bookstore with food/beverage options
- University Police satellite station

Since the Hub will displace most or all of the B-1 parking lot and the temporary lots on the southern edge of campus are not desirable, further analysis of parking utilization should be undertaken and demand management strategies implemented.

Challenge: Circulation & Campus Transit

Campus growth has expanded the academic core, beyond a 15 minute walk *(typical class change break)* and more classes are scheduled in locations outside the academic core. The hilly topography adds to the challenge, with few accessible walking or even biking routes to the more remote destinations *(Lyle Center, Collins College or the Interim Design Center).*

Shuttle buses were added with small buses, multiple routes, frequent stops, buses stuck in traffic jams and destination 'turn-arounds' not designed for buses, the ridership is very low. Investment in on-campus transportation infrastructure is critical to campus circulation and connectivity to support the master plan implementation.



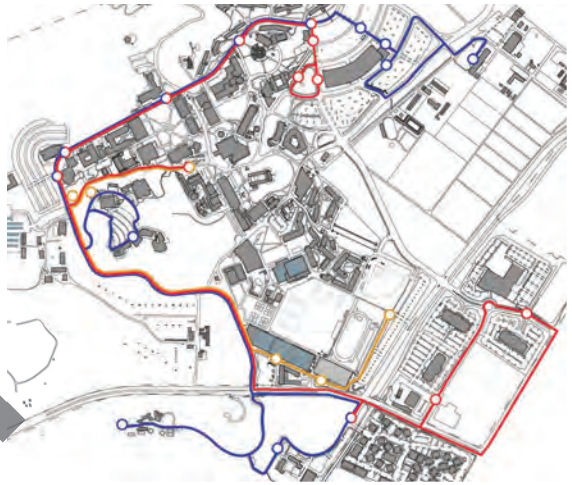
Simplifying routes and improving service campus shuttles

Strategies:

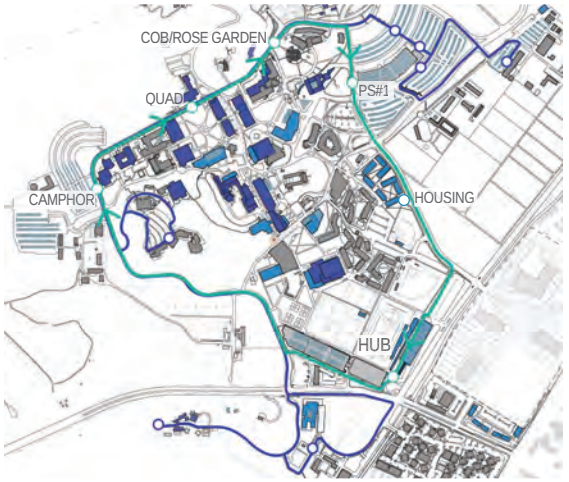
Start by getting the buses out of traffic by reducing the number of cars circulating on campus. Strategies include supporting alternative transportation, limiting pick-up/drop-off for ride-share apps to a designated location (Mobility Hub) and concentrating parking close to the campus entrances. Next, the elimination of on-street parking along University Dr to accommodate a dedicated transit lane for a new circulating shuttle bus that students can count on to get around the campus. The campus circulating shuttle will connect to other transportation options at the Mobility Hub, including other CPP shuttle routes to more remote destinations (Spadra Farm, Lyle Center, Interim Design Center, and the future Lanterman Innovation District).

Campus Loop + University Drive Shuttle Lane

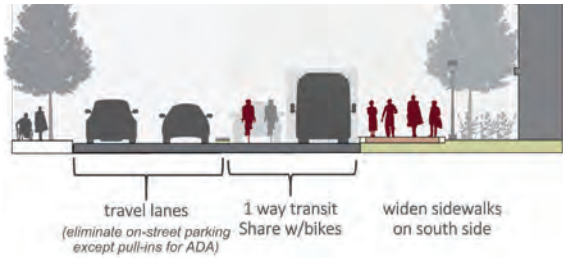
The proposed circulating shuttle will loop the core of the campus in a clockwise direction with limited stop proposed: Camphor Lane, University Quad, COB/Rose Garden, PS #1 and the Bronco Mobility Hub. Until the Mobility Hub project is completed, a temporary stop may be needed to serve the temporary/overflow parking lots. A future stop is planned along Kellogg Drive to serve future student housing projects. The required street and shuttle stop improvements will be phased, with Phase I resurfacing and striping the shuttle lane on University Drive between Camphor Lane and Red Gum Lane. This work will require widening the road in two places, adding lane markers and signage, and reducing/consolidating shuttle stops for improved headways. Later phases will extend the dedicated lane and improve the north end of Red Gum Lane, the west portion of University Drive (requires widening the road and adding curb and gutter), and connecting the shuttle lane along Kellogg Drive to loop through the Mobility Hub.



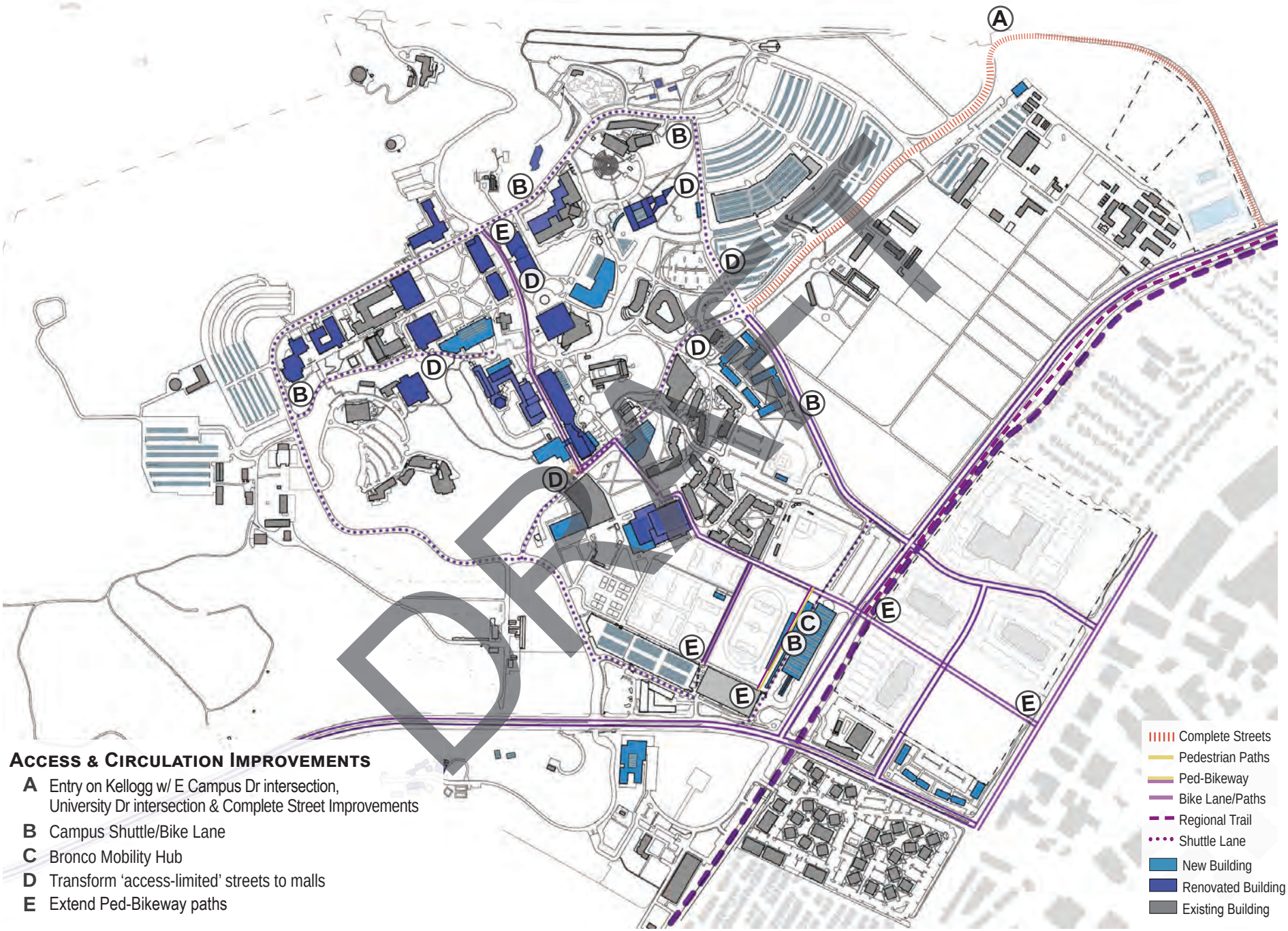
Existing bus routes and stops serving multiple destinations.



Proposed campus loop circulator and proposed bus stops.



University Drive street section with dedicated shuttle lane.



Access & Circulation Improvements

- **A** Entry on Kellogg w/ E Campus Dr intersection, University Dr intersection & Complete Street Improvements
- **B** Campus Shuttle/Bike Lane
- **C** Bronco Mobility Hub
- **D** Transform 'access-limited' streets to malls
- **E** Extend Ped-Bikeway paths

Proposed Campus Master Plan 2020-2040 - proposed pedestrian + bicycle path improvements.

Challenge: Closing the Loop by connecting bike routes and expanding the pedestrian core of the campus

At the start of the master planning, a ped-bikeway had just been striped to provide a safe route through the campus (except it only extended from the south parking lots to the back of the BSC). Bike lanes were being added on Kellogg Drive and South Campus Drive but only up to the campus perimeter. Bike riders who participated in workshops expressed concern about the lack of connectivity.

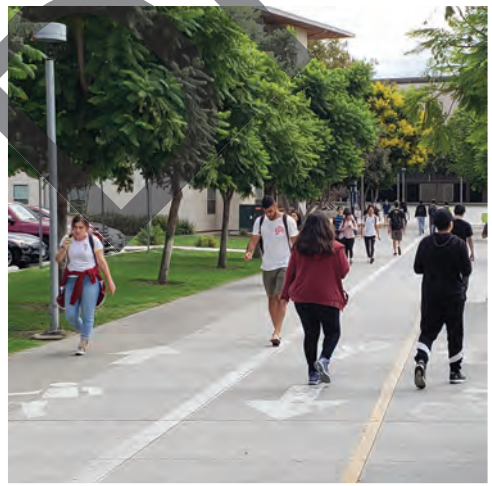
Strategies:

Develop a connected network of bike routes through and around the campus, separating bikes from vehicles as much as possible. Start extending the existing ped-bikeway north to University Drive and south to connect with regional and local bike paths.

Extend Campus Ped-Bikeway

The ped-bikeway will be extended north from the BSC to University Drive, with designated bike lanes down the center of the Olive Mall. On University Drive, the one-way transit lane is intended to be open to bikes, so signage and bike 'sharrows' should be provided on the east-bound transit lane and the west-bound traffic lane. This will provide a bike route around the perimeter of the campus core. The ped-bikeway will also be extended south to the edge of the campus (Valley Blvd). A new High-Intensity Activated Crosswalk (HAWK) Beacon or Pedestrian Hybrid Beacon (PHB) will be added to facilitate the crossing at South Campus Drive and connection to the San Jose Creek Greenway bike trail and Valley Blvd protected bikeway. This signal will also be used by Foothill Transit buses to access the Bronco Mobility Hub. After crossing South Campus Drive, a new bridge will be added to span the canal. The ped-bikeway will continue south through Innovation Village, along side the existing stormwater bio-swale, connecting to the east-west Valley Boulevard protected bikeway. Additional east-west connecting bike routes include the Eucalyptus Multi-modal mall and the South Campus Drive bike lanes.

Campus standards should be developed for the ped-bikeway, pedestrian malls and multi-modal malls, with lighting, signage and marked crossings (using color and texture) to enhance pedestrian and cyclist safety. The master plan also recommends improvements to support bicycle commuting including bike repair stations, secure storage (coop/corrals, racks, lockers) and shower and locker facilities. The BRIC, BSC and Bronco Mobility Hub are all suitable locations to host these uses.



Existing ped-bikeway, behind the Bronco Student Center (left) and through the housing precinct (right).

Example of multi-modal mall signage.

CSU Transportation & Parking Policy, March 2020

The CSU Transportation & Parking policy requires campuses to:

- Establish an Alternative Transportation Committee (ATC) to identify and recommend solutions to campus mobility challenges;
- Develop a Transportation Demand Management (TDM) Plan that establishes strategies to reduce demand for parking, through demand management and bicycle, pedestrian and transit investments;
- Pursue sustainable funding sources to support the implementation of transportation alternatives to parking facilities;
- Perform a Parking Feasibility Study that evaluates the need and cost-effectiveness of additional parking capacity when considering improving existing or construction of new parking facilities.

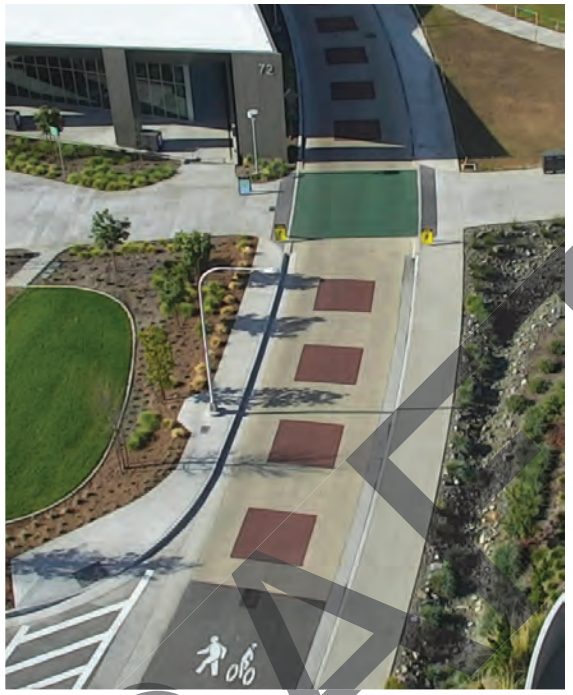
Challenge: Transform internal streets into malls

The campus has been expanding the pedestrian core by restricting vehicular access on interior campus streets. But card-controlled gate-arms are a temporary solution, and not always effective in keeping vehicles out. The limited-access streets are a poor pedestrian environment, are not well integrated with existing pedestrian paths, and are very challenging for people with disabilities to navigate.

Strategy:

Continue expanding the pedestrian core of the campus by converting streets which are closed or have access gates, into pedestrian malls. Malls should be designed to meet the Americans with Disabilities Act (ADA) accessible route standards, and structured for emergency vehicle access. Removal of curbs will require evaluation of storm water management solutions. Where limited vehicular traffic has to be maintained (campus shuttles, deliveries, access to a loading dock, etc.), a multi-modal mall is an option. The campus will need to develop new standards for mall design and materials, including the integration of the ped-bikeway and connections to bike lanes (using color and texture to identify lanes).

Red Gum Lane Mall with new loop shuttle stop.



Eucalyptus Lane Multi-Modal Mall completed in 2019.

Red Gum Lane Multi-Modal Mall

The transformation of Red Gum Lane from a limited-access street to a multi-modal mall for pedestrians, cyclists and campus shuttles will include a loop bus stop (with solar-powered shelter) at Voorhis Circle across from PS #1. Later phases will include new pavement coating to add texture and color (sim to the Eucalyptus Lane Mall) and additional sidewalks and crosswalks to connect Parking Lot C and F8 with safer pedestrian routes. The west portions of Oak Lane, Magnolia Lane and Voorhis Circle will become pedestrian malls fully closed to vehicular traffic.

Eucalyptus Lane Multi-Modal Mall

Originally a service drive on the south edge of the campus, Eucalyptus Lane is now the divider between the student housing precinct and the campus core. This narrow roadway provides access from Kellogg Drive to the Bookstore, a visitor parking lot and the pick-up and drop-off area for the Children's Center. Anticipating that the new dining hall would dramatically increase pedestrian traffic in this area, a pilot project was initiated to transform Eucalyptus Lane into the first multi-modal mall on campus. New standards were rolled-out to enhance pedestrian safety where vehicles, pedestrians and cyclists mix. The transformation to a multi-modal mall included:

- Applying texture and color surfacing with new mall signage to put drivers on notice that they have entered a pedestrian zone and must slow down and pay attention to safely navigate through.
- Identifying the main pedestrian crossing with a raised-table, paving color and signage
- Adding sidewalks and lighting on the north side of the street to connect the existing walkways around University Park and the Student Services Building

The immediate goal was to improve pedestrian safety by slowing vehicular traffic to the Children's Center and parking lot. Longer term, the master plan relocates the Children's Center and a new Campus Heath and Wellness Center is constructed on that site, eliminating most auto traffic. But the multi-modal mall format maintains vehicular access to existing service areas for deliveries (dining hall and BSC docks).

Camphor Lane Multi-modal Mall

Camphor should become a multi-modal mall (similar to Eucalyptus Lane) given the amount of vehicular access needed for science building docks, ADA parking and the Campus Center/BSC shuttle stop. This terminus circle will be reconfigured and enlarged with the Campus Center/IARB project, which will also move the ADA parking lot under the new building to expand the Cultural Center plaza.

Olive Lane, north of the library, still allows limited access to vehicles and has curbs and driveways that are challenging to navigate safely. The master plan extends the pedestrian mall north to University Drive.

Olive Lane, south of the library, continues past the BSC as a wide open, fully accessible pedestrian mall. The master plan extends the mall to connect with the Commons, removing the Bookstore building.

Olive Lane Pedestrian Mall

The transformation of Olive Lane from an interior campus street to a pedestrian mall will be completed from the Library north to University Drive. The vehicle access gates will be replaced by bollards to maintaining fire and emergency vehicle access *(and access to ADA spaces if necessary)*. The master plan recommends moving ADA parking into structures under new buildings wherever feasible, with direct access to elevators. Olive Lane should be resurfaced with the mall level raised. Curbs and redundant sidewalks should be removed except where required for storm water management. Connectivity to intra-campus paths must be considered in the redesign to maintain and expand the network of accessible routes.

The ped-bikeway extension from the Bronco Student Center north to University Drive, should be striped down the center of the mall to preserve access to the existing buildings on either side. Bikes will be able to use the dedicated transit lane on University Drive.

South of the Library, the Olive Pedestrian Mall extends east towards the Student Services Building and south past the Bronco Student Center. This is a popular mall for student activities and tabling and the master plan proposes extending the mall south, removing the bookstore building, to connect with the Commons. The result will be a more continuous central campus mall to be the central space of student life activities.

Olive Mall in front of the BSC and University Park.

Improve Wayfinding & Signage

The master plan recommends a campus-wide signage and wayfinding plan. This effort will build on the improvements made to the corners of the campus and the newer buildings. Signage standards should be updated to include standards for electronic signage and campus gateway and identity elements. New signage standards should be developed for the multi-modal and pedestrian malls, accessible sidewalks and paths, ped-bikeway, and the shuttle lane (for safety as well as identity and direction) and be integrated with mall design and materials standards.

Deferred Maintenance

It is critical that the master plan advances the backlog of deferred maintenance (DM) projects and integrate this work into the Capital Improvements Plan (CIP). Projects range from building system upgrades (fire alarm system, elevators, HVAC, etc.) to campus roadway and infrastructure repair and upgrades.

PV Solar Shades

Multiple sites have been identified for photo-voltaic (PV) systems to limit utility dependency, reduce energy costs, and cut greenhouse gas emissions. Sites are primarily in parking lots on new shade structures which will also reduce heat-island effects. The first phase installation will be in parking lots around PS#1 and include battery storage for enhanced resiliency. The PV array at the Lyle Center will be replaced (in the same location). Later phases will add PV shades in the lots south of Kellogg and on the west side of the campus. Several master plan projects include PV shade structures, including: shuttle stop shelters; Bldg 98 CLA (above the atrium and shading Tower Plaza); BSC Terrace Addition; BSC Conference Center expansion; Campus Health + Wellness Center entry court; Engineering Graduate Building courtyard and Engineering Quad; and at the Bronco Mobility Hub.

Cal Poly Pomona Proposed Campus Master Plan 2020-2040.

Campus-wide Improvements

- **A** Entry-Kellogg w/E Campus Dr bypass
- **B** Campus Loop Shuttle Lane + Stops
- **C** Bronco Mobility Hub
- **D** Transform Interior Street to Mall
- **E** Extend Ped-Bikeway
- **F** PV Solar installations

Academic New Buildings

- **G** Graduate Engineering Building
- **H** Interdisciplinary Academic Resources Building (IARB)+ Campus Center
- **24,I** Music Renovation, Addition

Renovated Buildings

- **1** Administration
- **2** College of Agriculture
- **5** College of Letters, Arts & Social Sciences
- **6** College of Education & Integrative Studies
- **7** College of Environmental Design
- **8** College of Science
- **9** College of Engineering
- **17** Engineering Labs
- **15** Library
- **25** Theater
- **35** Bronco Student Center
- **43** Kellogg Gymnasium Renovation-Addition
- **59** La Cienega
- **76** Kellogg West
- **94** University Offices
- **98** Classroom

Student Life Projects

- **J** Student Housing Replacement Phase II
- **K** Hillside Rec, ROTC, TRIO Relocated
- **L** Student Housing Phase III
- **M** BSC Terrace Addition
- **N** BSC Study Lounge Expansion
- **O** BSC Mall (after Bookstore demo)
- **P** BSC Conference Center
- **Q** BRIC Expansion
- **R** Children's Center
- **S** Campus Health & Wellness Center
- **T** Softball Facility
- **U** Recreation Field Improvements
- **V** Soccer, Track & Field Stadium

Implementation Plan

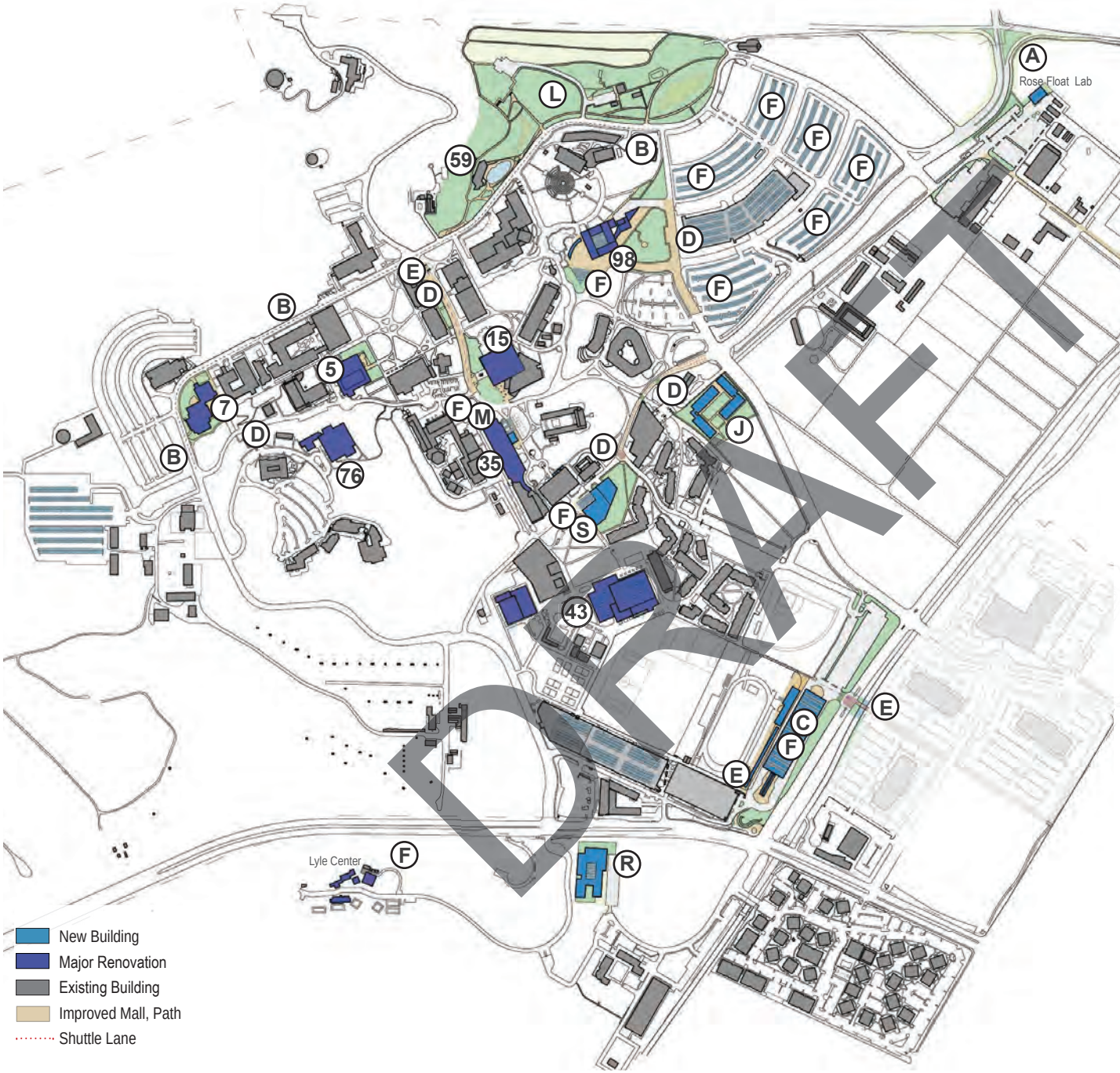
The master plan supports the strategic plan goals and values with proposed improvements to the campus and facilities. The draft master plan, with the projects proposed, was vetted using a matrix with the strategic plan, academic plan and master plan goals and initiatives. The matrix identified where physical facilities or campus improvements would be required and then projects needed to support the initiatives, prioritizing projects which would meet multiple goals or were critical enabling projects in the sequence of required improvements.

With projects established and prioritized, the planners identified requirements for surge space (critical with so many buildings requiring vacating for total renovation) or infrastructure sequencing. Projects were mapped across the 20 year planning timeline in three phases, reflecting the logistics of the implementation sequence and university priorities. The draft plan and timeline along with the decision-making matrix, facilitated reviews with the Master Plan Advisory Committee, Executive Committee (President's Cabinet) and the President to confirm the draft plan and the first phase of projects for the 5 year Facilities Renewal and Capital Improvement Plan (CIP). Prior to the CSU Board of Trustees (BOT) approval, the master plan must be reviewed for environmental impact and complete the review process required by the California Environmental Quality Act (CEQA).

The master plan, while providing an overall vision of campus development, is only a guide for implementation. Every capital improvement project will need a feasibility study, space programming (with a migration plan for renovations), a conceptual plan, a budget, and an approach to project delivery, including funding. Campus-wide improvements, especially around transportation and parking, will require additional planning and analysis critical to better defining and prioritizing projects.

Additional planning studies recommended by the master plan include:

- Engineering District Plan including a space migration plan for the new Graduate building
- Parking Utilization + Demand Management Plan including campus-wide commuter survey
- Active Transportation Plan
- Traffic studies including vehicular speed/volume counts, and pedestrian/cyclist safety studies
- Utility Infrastructure Master Plan
- Campus-wide Signage and Wayfinding Plan
- Sustainability Master Plan



Campus-wide Improvements

- **A** Entry-Kellogg w/E Campus Dr bypass
- **B** Campus Loop Shuttle Lane/Stops
- **C** Bronco Mobility Hub
- **D** Transform Streets to Malls
- **E** Extend Ped-Bikeway north + south
- **F** PV Solar installations

Renovated Buildings

- **5** College of Letters, Arts & Social Sciences
- **7** College of Environmental Design
- **15** Library
- **35** Bronco Student Center - Phase I, II
- **43** Kellogg + DM Gymnasiums (partial)
- **59** La Cienega (incl site restoration)
- **76** Kellogg West (seismic priority)
- **98** Classroom (seismic priority)

Student Life Projects

- **J** Student Housing Phase II
- **K** Hillside Rec + ROTC, TRIO Relocated
- **M** BSC Terrace Addition
- **R** Children's Center
- **S** Campus Health & Wellness Center

Cal Poly Pomona Proposed Campus Master Plan - Phase I - 2020-2030.

Phase I Immediate to 2030

Pilot projects, planned as the first small step in implementing a campus-wide improvement strategy. A pilot can be an excellent way to develop or test new standards, which can be refined based on the performance of the pilot and feedback from the campus community.

The first phase plan is based on the projects prioritized for the Facilities Renewal and Capital Improvement Plan (CIP) five year plan, including deferred maintenance work (DM). Phase 1 integrates planning and projects already underway, including the Lyle Center Renovation, University Drive repairs, and several pilot projects planned as the first small step in implementing a campus-wide improvement strategy. Pilots underway include:

- Eucalyptus Lane + Red Gum Lane multi-modal malls- *extend mall from Bronco Lane to Kellogg and north to Magnolia Drive*
- University Drive striped shuttle lane - *portion from Camphor to Red Gum Lane with University Drive repairs, completed January 2023*
- Expand EV charging spaces - *add chargers in PS#1, which also supports relocation of EV Lot prior to Bldg 98 site work*
- PV Solar Shades with battery storage - *initial installation in the lots around PS#1, potential to integrate additional EV chargers*

Each capital project requires a feasibility study and programming to confirm the project scope for awarding design and construction contracts. Planning is vital to keeping projects on track since some projects are inter-related and sequenced. Projects in this phase are listed by funding category and in the anticipated order of implementation.

Campus

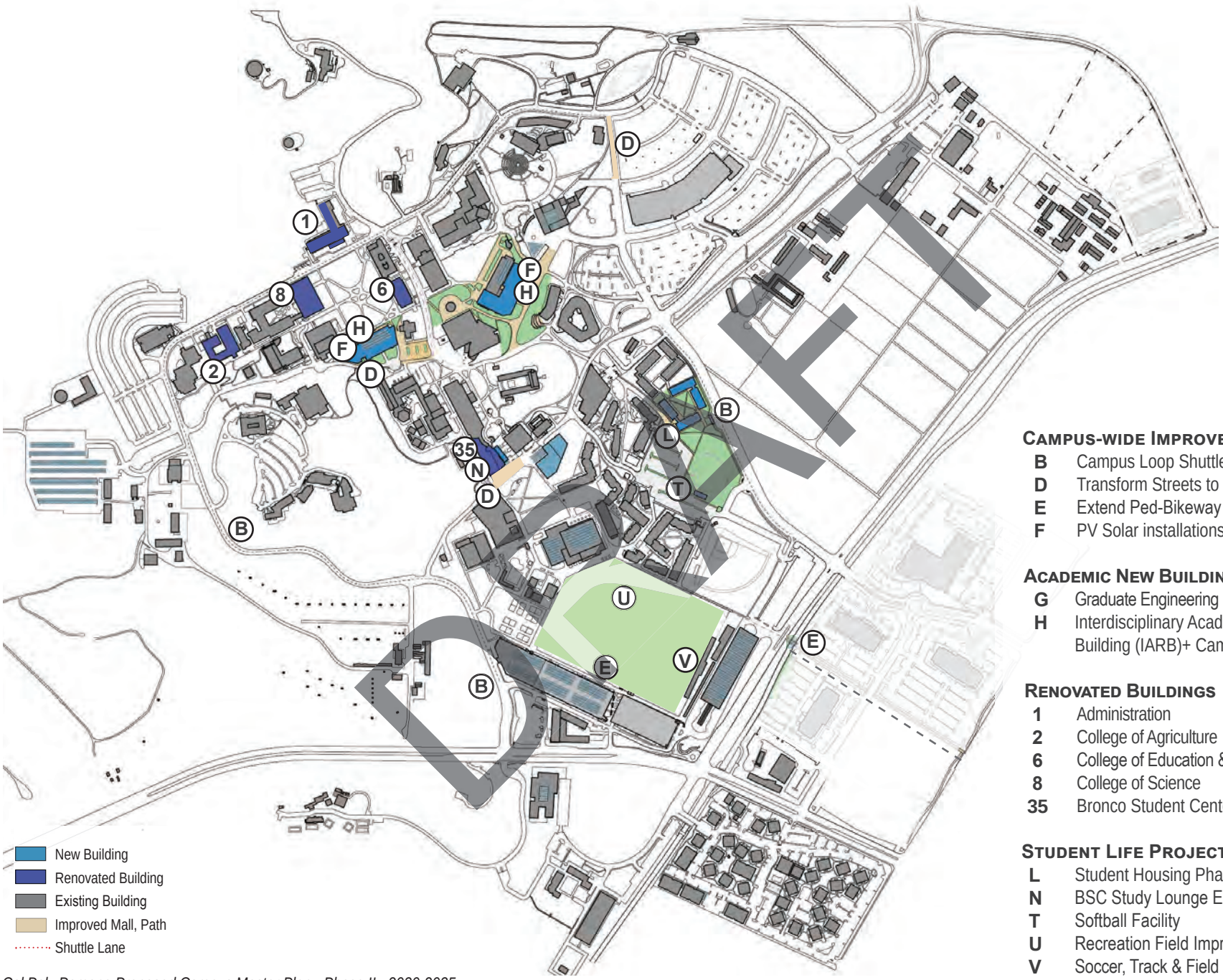
- Kellogg Drive campus entry - *new intersection with E Campus Drive, signal at University Dr; coordinate with Cal Trans*
- Extension of the Ped-Bike Lane + Olive Lane Pedestrian Mall Improvements - *extension north to University Drive coordinated with Olive Lane improvements; and extend south with HAWK signal crossing S Campus Drive, coordinated with Mobility Hub*

Academic

- Bldg 98T/R Demolition - *completed fall 2022 including demolition of Tower-Registration structures and new landscape and plaza*
- Library Renovation/Seismic - *phased renovation supporting expanded study space, Learning Commons and Writing Resource Center*
- Bldg 98C Seismic Reinforcing+ Renovation - *including enclosing plaza & atrium w/ skylight + PV panels over the central space*
- Bldg 5 College of Letters, Arts & Social Sciences Total Renovation
- Bldg 7 College of Environmental Design Seismic Reinforcing & Renovation
- Bldgs 43, 41 Kellogg Gymnasium + D. May Gym - *Women's RR & Locker Rms (ADA, Title IX) + HVAC upgrade*

Self-Support / Other

- Children's Center Replacement - *grant for program expansion to provide infant care adds urgency to the need for a new facility*
- Demolition of the Grey Residence Halls & Los Olivos - *including site restoration and landscaping*
- Bronco Mobility Hub - *feasibility study with Foothill Transit to confirm site and development program*
- Kellogg West - *needs feasibility study to define scope of seismic repair and reinforcing work*
- Student Housing Replacement Phase II (840 beds) - *need to update the Housing Replacement master plan*
- Campus Health & Wellness Center - *including demo of the old Children's Center*
- Bronco Student Center Phase I Renovation
- Demolition of the Red Brick Residence Halls + Site Re-purposing - *includes relocation of ROTC & TRIO trailers*



Campus-wide Improvements

- **B** Campus Loop Shuttle Bus Lane/Stop
- **D** Transform Streets to Malls
- **E** Extend Ped-Bikeway south
- **F** PV Solar installations

Academic New Buildings

- **G** Graduate Engineering Building
- **H** Interdisciplinary Academic Resources Building (IARB)+ Campus Center

Renovated Buildings

- **1** Administration
- **2** College of Agriculture
- **6** College of Education & Integrative Studies
- **8** College of Science
- **35** Bronco Student Center Phase III

Student Life Projects

- **L** Student Housing Phase III
- **N** BSC Study Lounge Expansion
- **T** Softball Facility
- **U** Recreation Field Improvements
- **V** Soccer, Track & Field Stadium

Cal Poly Pomona Proposed Campus Master Plan - Phase II - 2030-2035.

Phase II 2030-2035

The second phase will continue with sequenced projects, as prioritized for the Facilities Renewal and Capital Improvement Plan (CIP) five year plan, including deferred maintenance work (DM) which is not fully detailed here. Since many of the later phase projects are dependent upon completion of Phase 1 projects, any slippage in the schedule will impact the timing of projects in the later phases.

Campus

Campus-wide projects with multiple phases will continue, including:

- Extension of the Ped-Bike Lane - *south through Innovation Village to the Valley Boulevard protected bikeway*
- University Drive improvements - *west portion from Camphor to Temple Avenue*
- Red Gum Lane multi-modal mall - *north portion from University to Magnolia*
- Kellogg Drive improvements - *includes shuttle stop at the new housing w/striped shuttle lane from Red Gum Lane to the Lot B driveway*
- Eucalyptus Lane multi-modal mall - *portion from Bronco Lane west to the BSC, timing should be coordinated with the demolition of the Children's Center and construction of the Campus Health & Wellness Center*
- Camphor Lane multi-modal mall - *coordinate with the replacement of the old Campus Center and construction of the IARB + Campus Center with replacement ADA parking in the lower level; improve the turn-around circle and expand the Cultural Center plaza*

Academic

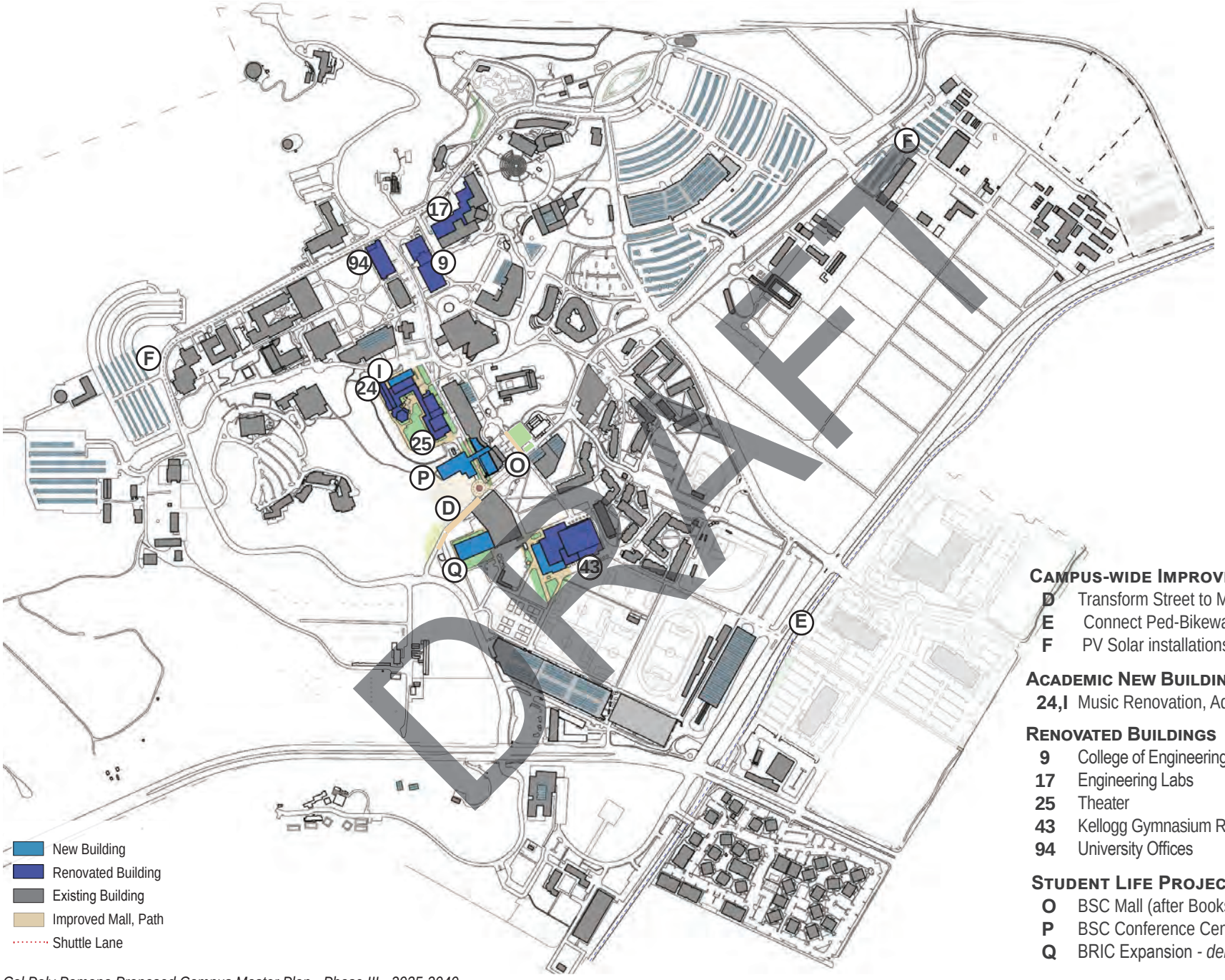
- Interdisciplinary Academic Resources Building (IARB) - *includes the Campus Center replacement, rooftop solar panels*
- New Graduate Engineering Building - *followed by the demolition of Bldg 13A Art & Engineering Annex and PV solar shade in courtyard*

The sequenced renovation of Colleges will continue using Bldg 98C surge space, and the IARB when completed, including:

- Bldg 1 Administration
- Bldg 8 College of Science - *Total renovation of the College of Science will require the additional IARB surge space*
- Bldg 2 College of Agriculture Classrooms
- Bldg 6 College of Education & Integrative Arts

Self-Support / Other

- Campus Center Replacement - *with the IARB (see above) and ADA parking below replacing the ADA surface parking lot*
- Bronco Student Center Phase III Renovation + Expansion - *continues renovation + study lounge expansion which includes outside study-classroom space and requires closing the bookstore and partially demolishing Building 66 (east side of the building remains functional); the next phase removes the rest of the building to extend the mall and connect University Park to the Commons.*
- Student Housing Phase III
- Improvement of Recreation Fields - *including new support facility with restrooms, equipment storage*
- Kellogg Track & Field facility - *with a new competition venue that accommodates soccer*
- New Softball Competition facility - *women's softball to maintain Title IX parity*



Campus-wide Improvements

- **D** Transform Street to Mall
- **E** Connect Ped-Bikeway east-west
- **F** PV Solar installations

Academic New Buildings

- **24,I** Music Renovation, Addition

Renovated Buildings

- **9** College of Engineering
- **17** Engineering Labs
- **25** Theater
- **43** Kellogg Gymnasium Renovation-Addition
- **94** University Offices

Student Life Projects

- **O** BSC Mall (after Bookstore demo)
- **P** BSC Conference Center
- **Q** BRIC Expansion - *demo DM Gym*

Cal Poly Pomona Proposed Campus Master Plan - Phase III - 2035-2040.

Phase III 2035-2040

The final phase is the most uncertain, subject to slippage in time and to changes in campus priorities or funding. Updating the campus master plan is recommended every 10 years, so the campus may update this plan before reaching this stage of implementation.

Capital Improvement Plan (CIP) priorities will continue to drive the third phase with sequenced projects, including necessary Capital Renewal projects and deferred maintenance (DM) projects. Specific details are not available due to this phase being too far out.

Campus

Campus-wide projects with multiple phases will continue, including:

- Connections to the Ped-Bike Lane - *to the San Jose Regional Trail along the canal (east and west)*
- Eucalyptus Lane multi-modal mall - *west portion from BSC to University Drive*

Academic

The sequenced Total Renovation of the College buildings will continue using Bldg 98C surge space and the Interdisciplinary Academic Resources Building (IARB), including:

- Bldg 17 Engineering Lab - *alterations after Graduate Building occupancy, improving & expanding labs*
- Bldg 9 College of Engineering Total Renovation - *may require alterations to Bldg 17 Engineering Labs*
- Bldg 94 University Offices Major Renovation
- Bldg 24 Music Building - *including an addition to enable the elimination of modulars (Bldg 24 A-F)*
- Bldg 25 Theater Building - *a facilities assessment is recommended to determine feasibility of renovation vs replacement on a new site*
- Bldg 43 Kellogg Gymnasium - *major renovation w/small expansion to absorb women's programs from the DM gym (demolished)*

Self-Support / Other

- Bronco Student Center Mall Site improvements - *completes BSC projects with the connection of the BSC mall and University Park to the Commons (after demolition of Bldg 66 and non-operational fountain); site improvements include an expanded stage platform and mall design.*
- BSC Conference Center - *includes a bridge connection to the upper level of the BSC*
- BRIC Expansion - *includes demolition of Bldg 41 Darlene May Gym*

Cal Poly Pomona Proposed Campus Master Plan 2020-2040.

Sustainability & Resilience

The campus master plan supports Cal Poly Pomona's leadership in sustainability by integrating sustainability into all aspects of the plan. In 2020, the Climate Action Plan was updated, setting new benchmarks and renewing campus commitment to achieving carbon neutrality.

Projects which will contribute to reducing carbon emissions include:

- *renewable energy from new parking lot shades with photo-voltaic (PV) panels and EV charging infrastructure*
- *parking lot shades reduce the heat island impacts of existing parking lots*
- *total renovation and renewal of 10 major academic buildings which will include seismic reinforcing, more energy efficient building systems, lighting, exterior envelope (better insulated exterior, windows, walls and cool roofs) and fixtures to reduce water use and better metering/monitoring systems for tracking and management*
- *demolition and replacement of aging academic, admin and support buildings (Bldgs 13, 41, 46, 66, 97, 98T-R, 116)*
- *elimination of nine temporary modular and less efficient buildings (Bldgs 24A-E, 86, 86A-C)*
- *demolition and replacement of aging dorms and dining hall (Bldgs 20, 21, 22, 23, 57, 58 and 70)*

The master plan expands on-campus renewable energy production, adding solar PV shades in all major parking lots with EV charging stations using the PV source. Smaller PV shades over exterior study and social areas are integrated into all new construction projects, including the BSC expansions, Student Health +Wellness Center, Engineering Graduate Building, and the 98 Classroom (over the atrium and the Tower plaza). While these projects will provide an increasing percentage of the campus energy needs, they will also be the visible expression of the campus commitment to sustainability that students have asked for.

All new buildings and total or major building renovations will be designed and built to meet Title 24 Energy Standard and LEED certification, striving for LEED Gold or Platinum. The intent is to add individual building metering and controls to better manage building performance to reduce carbon emissions (per sq ft and per FTE). Water meters for individual buildings, included in new construction and all major/total renovation projects, will allow monitoring of water usage and identify leaks or other issues. The replacement and demolition of temporary modular buildings and aging building stock will also bring down the average energy use index since these buildings are inherently inefficient.[1]

The master plan supports water conservation initiatives, including: separating domestic potable water to buildings from the fire protection loop; converting landscaping to native and drought-adapted species; and looking for opportunities to capture stormwater, and even greywater to expand the water recycling system.

Improvements to make the campus a more sustainable pedestrian-oriented environment include infrastructure that supports alternative modes of transportation to and from campus. These initiatives include: a partnership with Foothill Transit and the FastPass; the Bronco Mobility Hub to provide connectivity to the FT buses and Metrolink station shuttles; and the dedicated shuttle bus lane to improve on-campus bus service. The plan also expands infrastructure to encourage bicycle commuting with a 'Complete Streets' approach, adding bike lanes and extending the campus ped-bikeway to connect to local bikeways and regional bike paths.

Resilience

The County of Los Angeles Climate Vulnerability Assessment identified the East San Gabriel/Pomona Valley as one of the County's most vulnerable areas. At the Sustainability Open Forum, students cited campus resilience as a concern, identifying drought, wildfires, mudslides, extreme heat and earthquakes as potential threats to the campus.

Water is a growing concern, especially the availability of groundwater which the campus relies on (in addition to purchased water from Three Valleys Municipal Water District). The Walnut Valley Water District (WVWD) and the City of Pomona (Pomona) collectively formed a groundwater sustainability agency (GSA) for the Spadra Basin (Spadra Basin GSA) and decided to prepare and adopt a Groundwater Sustainability Plan (GSP) with the objectives of maximizing the beneficial use of the Spadra Basin while ensuring long term sustainability. Cal Poly Pomona is the biggest user of Spadra Basin groundwater and would have the greatest impact and risks on the development and adoption of the GSP and should consider becoming a voting member of the Spadra Basin GSA.

APPENDIX

The following documents informed the master planning (this is not a comprehensive list of all reference materials)

Past Strategic, Academic, Campus Plans + CIPs

- Strategic Plan 2017-2021, Strategic Plan 2019-2025
- Academic Master Plan, 2018-2023
- Campus Master Plan, 2000
- Campus Master Plan Revision, California State Polytechnic University, Pomona, February 21, 2012
- Campus Five-Year Plan CPDC1-1. yrs 16-17 through 23-24

Space Analysis, Enrollment Data

- Space Utilization Study 2017 -18, Campus Master Plan Update, by Ayers Saint Gross
- Headcount & FTES 2000-01 through 2017-18, Academic Research and Resources, California State Polytechnic University, Pomona
- PO-Utilization Report 2022 (permanent space only)

Facilities Assessments , Data Bases

- ISES Facility Condition Assessment, California State Polytechnic University, Pomona, June 2018
- COMET 4 Facility Report, California State Polytechnic University, Pomona, April 2010
- CPP SF-Data-Base_2015, PO-FAC_2016
- PO_sfdb_2016; PO_sfdb_2017; PO_sfdb_2017_Academic areas summed by Bldg

Facility Specific Plans/Studies

- Space Study, Interim Design Center Expansion, California State Polytechnic University, Pomona, January 2017
- Children's Center Feasibility Study, Cal Poly Pomona, February 27, 2012
- A Plan for Now, Lyle Center for Regenerative Studies, February 26, 2018
- Campus Center Marketplace Renovation-Expansion, Cal Poly Foundation, June 17, 2019
- Los Olivos Commissary Conversion, Cal Poly Foundation, October 2, 2019

Housing Plans/Studies

- Housing Master Plan, California State Polytechnic University, Pomona, March 5, 2010
- Student Housing Replacement Land Use Study, April 14, 2015
- Student Housing Market Analysis, California State Polytechnic University, Pomona, Final Report. December 2013
- Housing Demand Analysis Update, September 2016
- Student Housing Market Analysis, Cal Poly Pomona, August 28, 2019

Seismic Studies incl Bldg 98

- Geologic And Seismic Hazards Study Proposed Classroom Laboratory Administration Building, Ryland Associates, May 15 1989
- Amended Geotechnical Investigation Proposed Engineering Laboratories Replacement Building 17, PETRA, July 20, 1998
- Geologic Fault Map, California State Polytechnic University, Combined Campus Fault Study, Los Angeles County, May 31, 2001
- Geotechnical Investigation Parking Structure, GEOCON, May 21, 2003
- Seismic Reevaluation, Cal Poly Pomona CLA Building, Englekirk & Sabol, Inc. May 1, 2008
- Feasibility Study for CLA Building (98) Seismic Upgrade & Renovation at CPP, PCM, September 25, 2008
- Geologic Fault Investigation CLA Replacement And Master Plan Infill, GEOCON, September 12, 2011
- Seismic Priority List, CSU Seismic Review Board, 2022-23
- Bldg 98 Final Feasibility Study, HMC Architects, October 31, 2013
- CPP Master Plan, Building 98 Design Study Cost Model, Capital Projects Group w/Ayers Saint Gross, April 2019

Utility Plans, Energy Studies, Sustainability Plans

- Utility Master Plan,California State Polytechnic University, Pomona, December 2012
- Photovoltaic System Sites & Capacity, Cal Poly Pomona, July 9, 2021
- Climate Action Plan, California State Polytechnic University, Pomona, 2009
- Sustainability Action Plan, 2020

Transportation & Parking

- Pomona Active Transportation Plan, November 2012
- Cal Poly Shuttle Evaluation, Fehrs & Peers, October 31, 2013
- Parking Inventory June 20-21
- I-10-Kellogg-ECampusDr Intersection_ACT_Design-Cost-pkg

CSU, State

- CSU Academic Master Plan, All Campuses, 2019-10 through 2028-29
- CSU Five Year Plan, 2019-20 through 2023-24; Multi-Year Plan 2021-22 through 2025-26, CSU Five Year Plan, 2024-25 through 2028-29
- California Conservation Corp_Presentation_10-14-21

Acknowledgments

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Fehr & Peers
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KPFF
Civil Engineers

Capital Projects Group
Cost Estimators

** photos and graphics by Ayers Saint Gross or Cal Poly Pomona*

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VP Information Technology, CIO	John W. McGuthry
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