LETTER FROM THE PRESIDENT

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

President Soraya M Coley
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At the start of 2020, the campus master plan update was largely wrapped up and the final plan maps were being drafted and the sequencing of proposed projects confirmed. In mid-March the campus announced the “temporary pause of face-to-face classes” switching to an entirely virtual format on March 18, 2020. The priority was safely maintaining mission essential operations to serve students. Long range planning stopped while attention turned to the immediate challenges of creating effective virtual learning environments and safer physical spaces for in-person instruction. The pandemic disrupted the process of producing and reviewing final plan documentation and delayed the start of environmental impact analyses, extending the plan approval and implementation timeline. Changes in leadership, especially in campus facilities management, required revisiting some projects (including the planned demolition of the Bldg 98 Tower), consideration of pandemic impacts on capital budgets and timelines, and a concern that changes in the delivery of services and instruction might be permanent. These concerns were not unique to Cal Poly Pomona, the pandemic tested the resilience of all higher education institutions. Changes made necessary by Covid-19 have spurred a broad rethinking of instructional space. Hybrid classes, which were growing in popularity pre-pandemic, are expected to increase exponentially going forward. While classes that deliver ‘lecture-content’ on-line may free up large lecture classrooms for scheduling, both instructors and students expect ‘in-person’ classes to provide more engagement and project-based activities which require flat-floor classrooms with flexible seating and support from technology which requires more area per seat (NASF). The take-away? Classrooms need to change, but the overall space needed might not.

The proven ability to ‘work-from-home’ might have more a significant impact on the campus plan. Much like the classrooms, a hybrid work environment will require changes in format, with fewer assigned offices, smaller ‘hoteling’ office/meeting rooms, and spaces for collaboration with ‘touch-down’ areas to charge phones and laptops. 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 space configuration might not produce reductions. But the pandemic has provided an alternative to surge space when interior reconfigurations are implemented.

During the summer of 2020, Ayers Saint Gross planners reached out to colleges to ask about the pandemic impacts. Housing directors thought safety features would be permanent (touch-less fixtures, enhanced ventilation). But they didn’t see housing demand declining, even in the Fall of 2020 when students living on campus were taking most classes on-line. Replacement of 1960’s era student housing is a continuing trend, with campuses striving to reduce deferred maintenance backlog by removing inefficient buildings. Conversely investing in the sustainable transformation of major academic buildings is a strategy that preserves resources (embodied carbon) with total renovations costing less than new construction. The Cal Poly Pomona campus plan aligns with these trends, including the total renovation of nine major academic buildings and the opportunity to rethink both instructional and work space standards and configurations.

At the start of the pandemic, enrollment was expected to hold steady based on typical recessions (students stay in school when unemployment rises). But the last two years have been far from typical. Enrollment has dropped, especially for community colleges and state university systems. The digital divide that was evident pre-pandemic has been slow to close, and this must be a conscious effort since technology will either widen access or become a stumbling block. Lack of child care has proven to be an obstacle disproportionately impacting women (new Children’s Center is a campus plan high priority). With low unemployment and rising wages, disadvantaged students may choose work over school, especially with rising concerns around student loan debt. Projected enrollment and the campus plan capacity cap continue to be discussed, but the master plan was driven by the need for renewal of academic facilities (seismic priorities, building condition), commitment to climate action plan goals, and prioritizing the student experience – not by enrollment growth. The plan which follows has not changed materially in response to the pandemic, but where the pandemic may be exerting an influence, the text has noted the potential impacts to be considered.
Proposed Campus Master Plan 2020-2040.
EXECUTIVE SUMMARY

The 2020-2040 Cal Poly Pomona Master Plan Update is the result of a four-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 emphasis on the polytechnic mission which guided master plan project priorities. The 2020-2040 Campus Master Plan updates the 2000 Campus Master Plan adopted in 2002, to provide a road map for development of the physical facilities and infrastructure to support achievement of the strategic plan goals.

CAMPUS MASTER PLAN FAST FACTS
- planning horizon 2020 through 2040
- 30,000 FTE plan capacity
- 239,000 gsf new academic facilities with an estimated 120,000 nasf additional instructional space
- 865,700 gsf renovated academic facilities
- 107,800 gsf temporary academic facilities (replaced and modulars removed or demolished)
- 1,500 additional students housed on campus plus 1,360 beds replacing hillside dormitories (to be demolished)
- 1.06 M gsf new buildings
- 1 M gsf renovated buildings
- $1.6 B total investment over the 20 year plan
“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
EXECUTIVE SUMMARY

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.

The campus master plan will move forward with the required Environmental Impact Report (EIR). The California Environmental Quality Act (CEQA) requires state agencies to inform decision makers and the public about the potential environmental impacts of proposed projects, and to reduce or mitigate those environmental impacts to the extent feasible. This process can take more than a year and must be completed prior to bringing the CPP Campus Master Plan Update to the California State University (CSU) Board of Trustees (BOT) for approval.

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 in Fall 2017, the Strategic Plan process has just been completed and Academic Master Planning was underway. One of the first campus master plan tasks was the analysis of instructional space for Fall Quarter 2017, an analysis that was repeated after the campus semester conversion in Fall 2018. This comparative analysis showed high utilization and efficient scheduling of classrooms and class labs with demand for instructional space starting to outpace physical capacity. The space evaluation also revealed the mismatch between the polytechnic ‘active learning’ approach and the majority of instructional space built between 1960-1990 to a traditional lecture space standard.
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. Projects to add study space, improve instructional space and support student success include:

- Shared Classroom Addition + Library Transformations adds classrooms, computer labs and upgraded building services capacity (power, data) to support expanding the Learning Commons + student study space.
- 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)

Additional projects to enhance the student experience and support campus engagement include:

- Replacing the 1360 beds in the original brick dorms on the hill
- Adding 1500 new student housing beds to 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 expands 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)*.

- **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)*

Students want to be actively involved in projects which apply their knowledge to enhance the campus especially in the area of sustainability. The master plan envisions student project opportunities on the hillside where replaced dorm buildings will be demolished *(reds and greys)*. This area is ideal for projects to engage this ecosystem including storm water management, extending the bio-swale below Los Olivos or daylighting of natural springs *(Project Blue)*, as well as building trails *(hiking, biking, horse riding)* and ropes/obstacle courses or other recreational and resident life community building activity areas.
CONNECTION 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.

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.

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.
EXECUTIVE SUMMARY

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 and the circulating campus shuttle. This hub will encourage a culture of transit use by providing information on using transit (maps and schedules) 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)
- CEU + CTTi Mixed-Use IV development
- Campus Health & Wellness Center
- Children’s Center

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 above the atrium skylight proposed for the Bldg 98C transformation

Several projects proposed include outdoor study or project areas with PV shade structures including:
- Tower Plaza (Bldg 98T/R site transformation)
- BSC Terrace addition
- Entry court at Campus Health & Wellness Center
- Engineering Graduate Building courtyard

Sustainability Open Forum.
EXECUTIVE SUMMARY

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  Shared Classroom Resources Addition
H  Graduate Engineering Building
I  Interdisciplinary Academic Resources Building (IARB) & Campus Center
24J 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
15  Library
25  Theater
35  Bronco Student Center
43  Kellogg Gymnasium Addition-Renovation
59  La Cienega (incl site restoration)
76  Kellogg West
94  University Offices
98  Classroom

STUDENT LIFE PROJECTS
K  Student Housing Replacement Phase II
L  Hillside Rec, ROTC, TRIO Relocated
M  Student Housing Phase III
N  BSC Terrace Addition
O  BSC Study Lounge Expansion
P  BSC Conference Center
Q  BRIC Expansion (demo DM Gym)
R  Children’s Center
S  Campus Health & Wellness Center
T  Softball Facility
U  Recreation Field Improvements
V  Soccer, Track & Field Stadium
W  Mixed-Use + CEU Expansion

Proposed Campus Master Plan 2020-2040.
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 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**

**2017**
- **Observe + Collect**
- **Assess + Strategize**

**2018**
- **Investigate + Synthesize + Envision**
- **Draft + Submit for CEQA**

**2019**
- **Finalize + Approve**

**Community Engagement**
- CPP Leadership Engagement
- Phases: Tasks
- Vision: Goals
- Data Gathering: Observations
- Analysis: Synthesis
- Space Analysis: Needs
- Concepts: Alternatives
- Semester SA + Gemba Study

**CPP Campus Engagement**
- Fall Conference
- Strategic Nexus Core Team
- Critical Issues
- Space Use
- CONCERNs

**Workshop 1**
- Kickoff
- Goals
- Vision: Strategic
- Critical Issues
- Space Use
- CONCERNs

**Workshop 2**
- Analysis: Observations
- Conditions
- Connectivity
- New Resource
- Space Use
- CONCERNs

**Workshop 3**
- Analysis: Strategic
- Connectivity
- New Resource
- Space Use
- CONCERNs

**Workshop 4**
- Concepts: Plan Principles
- Connectivity
- New Resource
- Space Use
- CONCERNs

**Advisory Committee Update 1**
- Workshop 5
- Hub Area Plan
- Program: Sustainability
- Infrastructure
- Facilities Needs
- Sustainability

**Workshop 6**
- Program: Sustainability
- Infrastructure
- Facilities Needs
- Sustainability

**Workshop 7**
- Program: Sustainability
- Infrastructure
- Facilities Needs
- Sustainability

**Finalization**
- CEQA 12-16 MO Process
- MFA Planning + Shared Seating
- 3D Riverfront Plan
- Draft Plan: Parking
- Final Approval
- Adopted
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 re-mapping 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.
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.

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.
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 of proposed projects, setting priorities and confirming that projected needs would be addressed. Leadership also identified several critical questions which would need to be resolved in order to fully develop the Concept Plan:

- Can the 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?
- Should Bldg 98-C structure be retained and reinforced or replaced with a new building, and what would either choice mean for this central site after the Tower structure is removed?
- Can the Bronco Student Center (BSC) be expanded in-place or does the BSC need to be replaced to meet student needs?

To answer these questions, the team began additional facilities studies, using previous analyses and meeting with the CSU Seismic Review Board. At the same time, the campus began a community outreach effort to proactively engage community stakeholders well ahead of the CEQA process. 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. Working with the transportation consultants, the planning team met with Cal Trans District 7, LA County, City of Pomona, Foothill Transit and MetroLink. These meetings were tremendously fruitful, starting dialogues which have lead to the further development of both the Kellogg entrance redesign with a new intersection with East Campus Drive, and the Bronco Mobility Hub and Foothill Transit Class Pass implementation. As the draft plan was being completed, the emphasis shifted to the 5 year Capital Improvement Plan (CIP) and identifying the first phase of implementation projects for approval and funding.

Adoption of the master plan requires taking the master plan, as described in the draft Master Plan documents, through the environmental review process required by the California Environmental Quality Act (CEQA). An Environmental Impact Report (EIR) will be scoped, analyses completed and the EIR drafted and posted for public review and comment. All comments will be responded to and appropriate mitigation measures will be considered to offset the impacts identified. This process must be completed before the master plan is brought to the CSU Board of Trustees for approval.
California State Polytechnic University, Pomona (Cal Poly Pomona) is one of 23 campuses in the California State University (CSU) System and one of two 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 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 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.
Master Plan for 20,000 F.T.E. Campus
AN ACADEMIC COMMUNITY
California State Polytechnic University, Pomona
- Existing Buildings
- Proposed Buildings

Cal Poly Pomona Campus Master Plan 2000.
2000 Campus Master Plan

The campus has grown substantially since the 2000 Campus Master Plan Update (of the 1991 master plan) was adopted. That 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.

Projects completed over the 20 year implementation of the master plan included:

- Engineering Labs - Bldg 17 (2001)
- Dorm Central Plant - Bldg 69 (2003)
- Medic One Building - Bldg 90 (2003)
- Fruit & Crops Greenhouse - Bldg 28 (2005)
- Public Safety & Parking Services - Bldg 109 (2006)
- Interim Design Center Addition - Bldg 89A (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 (2017) *(to make room for the Student Housing Replacement project)*
- Student Services Building (2018)
- Phase 1 Student Housing & Dining Replacement (2019)

Over the last 20 years there has been substantial additional planning done, including multiple seismic fault investigative studies and evaluation of the buildings within the fault zone; the 2010 Housing Master Plan with market analyses; and the Campus Master Plan Revision 2012, which was drafted but not adopted due to system-wide CEQA issues.
Cal Poly Pomona Campus Existing Conditions 2019.
Administrative Draft.v5
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 access 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 de-tours 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.

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.
Academic Core & Colleges
The academic college buildings shape a traditional academic core quite successfully despite the challenging topography. Each college was intended to have its 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 major space study is needed to determine how best to consolidate programs. Since many of these colleges were built in the 1960’s, and not designed to current seismic standards, total building renovation is recommended (vacating the building for structural reinforcement, total systems replacement and renovation). Reconfiguring building layouts will consolidate academic programs, add study and collaboration space for students, add active learning classrooms and create more flexible workspaces for faculty and staff.

A related issue for academic programs has been the use of ‘temporary’ modular facilities. The campus has over 100,000 GSF of instructional space coded as ‘temporary’. 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 near the BRIC).

An additional category of ‘learning-by-doing’ facilities that need additional analysis to support investment in facilities upgrades or replacements, is the agricultural and animal facilities. Almost all of the facilities in the College of Agriculture were rated in ‘poor’ condition. These facilities should be further evaluated for overall condition and functionality, identifying DM needs, since this type of facility typically lacks building systems which rate a low score even if the structure itself is in fair condition.

The Engineering district is shaped by seismic faults which limited the configuration of the Engineering Labs (Bldg 17) and the engineering meadow (quad) where several WW II era buildings were removed. The Art + Engineering Annex (Bldg13A), is last of these buildings, in poor condition and not worth the significant investment required for seismic reinforcing. Students noted the oversized open space lacks shade and areas for seating or working on group projects. A graduate building has been proposed to support the growth of this program, but identifying a site for a new building within this district, especially before removing the Annex, will be a challenge. When noting the need for more labs, students cited engineering labs most often.

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The Tower - Bldg 98 T, R, B, C, P
The CSU Seismic Board rated Building 98 seismic priority #1 for Cal Poly Pomona. This campus landmark has been extensively studied for faults under the Tower and persistent water problems with the exterior envelope. The phased plan for Bldg 98 started with replacing administration and registration space with the new Student Services Building, opened in 2018. The Bldg 98T+R structures have been vacated and planning for demolition of the Tower is underway.
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 1980s 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 activities were also requested.

In the middle of the student life precinct is the Children's Center on Eucalyptus Lane. This used to be the service drive on the edge of the campus, with access to loading docks for the Bookstore and the BSC. The Children's Center occupies a cluster of buildings with a central courtyard, which are too small for the program's needs. Meetings with the Center showed they are ready to move to a larger and more functional facility. They are looking for a more visible location with easier access for parent pick-up and drop-off. Moving the Center would eliminate most of the auto traffic on Eucalyptus Lane, reducing potential conflicts with pedestrians and cyclists.

Another student life use seeking a place in this part of the campus is the Health and Wellness Center currently located at the west end of University Drive on the hillside. The existing facility is too small, in poor condition and cannot be expanded or significantly renovated without seismic reinforcement. The 2000 campus master plan recommended replacing the facility. When the Bronco Recreation & Intramural Complex (BRIC) was being planned, there were discussions about including Health and Wellness as part of the complex. So moving the Center to this part of the campus, on a site close to the BRIC and to student housing would be ideal.

Athletics and Recreation

The Bronco Recreation & Intramural Complex (BRIC) is very popular and highly utilized. Now over 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).
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 rain storm. 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 is adding a protected bikeway on Valley Boulevard and extending 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. Stops are on Temple Avenue and South Campus Drive and students have to cross these busy streets to get to the bus stops. Ridership to the campus is surprisingly low (passenger counts provided by FT). The campus has been hoping for a Silver Streak stop (express service) which would work better for daily commuting. The campus is also close to Metrolink Stations on the San Bernardino Line and the Riverside Line. But this service has been one way, rush hour only and requires taking a shuttle to get to the campus. Both Foothill Transit and Metrolink were eager to meet with the planning team about strategies for increasing ridership, including the FT Class Pass program.

Campus Shuttle Buses
On campus bus ridership is also low. One route serves all of the remote campus destinations and two shuttles run between the campus core and parking lots on the edges of campus. Campus shuttles use University Drive to go ‘back and forth’ between destinations, often getting stuck in traffic. 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 infrastructure is needed to provide a simple and efficient way to get around the campus. Providing a convenient ‘hub’ between campus transit and the local and regional transit options is necessary for commuters to stop bringing a car to campus.

Parking
Cal Poly Pomona has long been a commuter campus, without 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. Today there are 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 now these lots are used year-round. A campus shuttle runs from these lots to the main quad at peak times, but most students walk across South Campus Drive presenting a safety concern. Eventually the development of Innovation Village will eliminate these temporary lots. Transportation studies including parking utilization data will be critical to ‘right-sizing’ parking 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 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 at the end of 2018 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.

Agriculture and 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 this map diagram) is unbuildable slopes and almost half of that area is planted by the College of Agriculture.
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 in ‘fair condition’ roughly the median for CSU campuses. But this rating is skewed by nearer housing the recent 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 only 32% of the total campus buildings but 60% of the buildings that are in the worst condition, reflecting building age and the lack of funding for upgrades. Comparisons show the campus is underfunded relative to the national average for university facilities. For all of the original College buildings, the assessment recommends Total Renovation, defined as requiring vacating the facility to replace all systems and the exterior envelope (may include seismic reinforcing) or Replacement with new construction, since the DM projects to upgrade specific equipment or systems is not meeting campus maintenance needs. Major renovation may permit phasing to avoid vacating the entire building, but that depends on which building systems have to be replaced.
Seismic Faults
In the late 1990s, the CSU Seismic Review Board (SRB) began reviewing the potential impact of the San Jose fault on the existing campus buildings. With evidence of ground movement east and west of the campus, geo-technical studies traced the fault lines through the campus. The mapped faults run through the original campus core, impacting the academic college buildings, hillside dormitories, and Los Olivos dining hall. While some buildings can be seismically reinforced, others cannot due to construction type or the fault line location relative to the structural foundations. The SRB prioritizes buildings to be seismically reinforced or removed, with Building 98 as the #1 priority. New construction and additions are prohibited in the fault zones, making it challenging to find sites for replacement buildings. Building 98 Tower and Registration have been replaced by the new Student Services Building and will be demolished, with 98-C to be seismically reinforced and renovated. The Student Housing-Dining Replacement project will facilitate demolition of the hillside dormitories and the Los Olivos dining hall (bldgs 57, 58, 70, 20,21,22,23).
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.

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.
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 1.7 MW of renewable solar energy with photo-voltaic (PV) arrays in Parking Lot M, 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, and 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 or 20% of the current energy usage. A battery storage system is recommended to provide power for peak-shaving during peak rate hours. PV should also be integrated with the expansion of EV charging spaces.

Data + Communications
The new Modular Data Center, centrally located just south of the theater, 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 constrained by available power and will require electrical service upgrades especially in the college buildings, the library and the Bronco Student Center.
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 single-use plastics will be eliminated on all CSU campuses by 2023.

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.

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)
Space Distribution by Type

The overall distribution of Cal Poly Pomona space meets expectations, given the polytechnic mission. Typically instructional space would be 33% of the total area and Cal Poly Pomona has 36% instructional space, with the laboratories being the larger use.

The library is a greater percentage of total space than is typical, and this suggests an opportunity to transform the library and create spaces for study and student support and resources. Office space is 23% of the total space (typically 25%). Overall this breakdown suggests the campus is using space efficiently and perceptions that space is very tight, as expressed by staff and faculty, are accurate.

<table>
<thead>
<tr>
<th>Category</th>
<th>NASF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>134,599</td>
</tr>
<tr>
<td>Laboratory</td>
<td>239,257</td>
</tr>
<tr>
<td>Other Instructional Space</td>
<td>200,886</td>
</tr>
<tr>
<td>Offices</td>
<td>375,582</td>
</tr>
<tr>
<td>Library</td>
<td>215,984</td>
</tr>
<tr>
<td>Other Non-Office Space</td>
<td>172,537</td>
</tr>
<tr>
<td>Special Instructional Support Space</td>
<td>130,723</td>
</tr>
<tr>
<td>Miscellaneous Space</td>
<td>150,466</td>
</tr>
<tr>
<td><strong>TOTAL NASF</strong></td>
<td>1,620,034</td>
</tr>
</tbody>
</table>

*NASF = Net Assignable Square Feet*
The efficient use of space is a critical topic of discussion at Cal Poly Pomona. As the University began the master planning process with schedule planning for the transition from quarters to semesters underway, it was critically important to understand the utilization of instructional spaces.

Ayers Saint Gross performed an instructional space utilization study, a classroom demand study and needs analysis.

The space analytics team utilized proprietary web-based software SAMI™ which stands for Space Analytics and Modeling interactive data visualization and the Cal Poly Pomona master planning committee and space analytics working group has access to this website.

The space analysis was focused on instructional space (classrooms, class labs) and understanding how these spaces are being utilized to support the academic goals and student success, and how this compares with CSU target expectations and space standards and guidelines.

**Data Gathering & Process**

The data used in the assessment was provided by the University using Fall 2017 as the snapshot in time. Cal Poly Pomona supplied data including Fall 2017 course data with enrollments; the campus space inventory and building floor plan pdfs; and space standards and coding for the CSU system. On-campus meetings and work sessions were held with campus leadership and various academic stakeholders, including the Provost, registrar, chair of the academic planning committee and schedulers working on the semester conversion (embarked Fall 2018). The study scope did not include an instructional space audit or physical inventory, but the team visited a large sampling of the instructional spaces that were not scheduled for classes to better understand the coding and actual usage of these rooms. The preliminary utilization analysis was presented in early 2018, which showed classrooms and class labs scheduled were highly utilized. Under pressure to fit course credits and weekly seat hours into the semester schedule, there was a sense that the space pressure was greater. So this analysis was repeated in Fall 2018 with the semester data. The results showed even higher classroom scheduling with an increase in average Weekly Room Hours.
Learning Environments

Factors that influence the learning environment include the physical space (size and configuration, lighting, acoustics), the furniture and technology provided (movable vs. built-in), and the pedagogical goals and instructional strategies which must be supported by the other two factors. The diagram above illustrates passive and active learning and how active learning including team collaborative learning, problem-based learning, Flipped Classrooms and SCALE-UP (Student Centered Active Learning Environments with Upside Down Pedagogies) support critical thinking, retention of information and student success and learning. Cal Poly Pomona’s polytechnic learning-by-doing mission requires all instructional space (not just class labs) be designed to support active learning with multiple ‘fronts, robust technology, movable seating, work surfaces designed for team collaboration and a minimum of 24 NASF per student seat to accommodate multiple active learning approaches.

Net Assignable Square Feet measures usable area inside the room. Lecture classrooms with improved NASF/seat support multiple seating configurations.
Classroom Space Standards

The CSU Office of the Chancellor maintains space standards and room use coding. Classrooms (lecture rooms) have only two formats:

- lecture front-facing layout with tablet armchairs = 15 NASF/student seat
- lecture or seminar layout with rows of tables with chairs on one side = 20 NASF/student seat

These are very traditional, passive learning environments. The typical tablet-arm is too small for most laptops, with no area for reference materials. The seminar tables have more space for the laptop and the tables can be reconfigured to work in groups (where the tables and chairs have wheels) but with 20 NASF/seat it's difficult to group tables while maintaining accessible aisles. Analysis of Cal Poly Pomona's current classroom capacity shows an average of 17 NASF per student seat, which is very low for technology supported classrooms. But it’s especially unworkable for active learning and collaborative problem-based pedagogies. Cal Poly Pomona’s high section occupancy (fill rate) with 77% of the seats occupied, further exacerbates the lack of space per seat. Because the scope of this study did not include a physical audit, we do not know if the class lab spaces are also undersized in NASF per station, but comments from students and very high lab occupancy suggest they may be. The master plan recommends creating additional room standards for collaborative multi-level or tiered lecture classrooms (24 NASF/seat), active learning classrooms (24 NASF) and collaborative or experiential learning studios (30 NASF/seat).
Analysis Methodology

Utilization is determined through the combined analysis of the course schedule, actual enrollment and room inventory data. Scheduled use of classrooms is analyzed by day and time as well as through average weekly room hours, average student seat fill percentage, and weekly seat hours. The analysis is built room-by-room and then averaged based upon a cluster of rooms, typically grouped by space type and seat capacity range, but may also be grouped by building or primary occupant or program. Calculations used the following data:

- Weekly room hours (WRH) are the number of days a course meets multiplied by the class duration in hours.
- Weekly student contact hours (WSCH) are the weekly room hours multiplied by the number of students enrolled in the class.
- Weekly student contact capacity is determined by the number of student seats or stations in the room multiplied by the weekly room hours.
- The percent of seats filled is determined by dividing the weekly student contact hours by the weekly student contact hour capacity.
- The weekly student contact hours are then divided by the number of student seats in the room to determine weekly seat hours.

To determine a room’s seat fill percentage, the weekly student contact hours are totaled for the room as well as the weekly student contact hour capacity, and the sums are then divided for a weighted average.

Likewise, to determine the weekly seat hour average for a room, the weekly student contact hours are totaled for the room and then divided by the number of student seats for the room. The best way to evaluate classroom utilization is to look at the weekly seat hours as this combines the two rates—weekly room hours and seat fill percentage.

CSU Utilization + Capacity Targets

CSU has established utilization targets across the system for lecture classrooms to be scheduled 53 hours per week (out of 65 weekday hours available for scheduling, 8AM through 9PM on 5 weekdays) with 66% seat fill for a total of 35 (34.98) weekly seat hours. Below is the Cal Poly Pomona’s utilization compared to the CSU target utilization and capacity:

<table>
<thead>
<tr>
<th>MEASURES</th>
<th>CSU TARGET</th>
<th>CPP AVG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Room Hours/Week</td>
<td>53 hrs</td>
<td>40 hrs</td>
</tr>
<tr>
<td>Seat Occupancy</td>
<td>66 %</td>
<td>77 %</td>
</tr>
<tr>
<td>Weekly Seat Hours</td>
<td>35</td>
<td>30.50</td>
</tr>
</tbody>
</table>
Instructional Space Capacity

The annual State budget allocation to the CSU System includes a target expectation for the number of 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. Current 5yr projections are for these targets to remain relatively flat.

The CSU recognizes that not all instruction is in scheduled classes on-campus (travel study, internships, thesis and asynchronous online or hybrid classes). So for space planning purposes, CSU calculates net Academic Year (AY) FTES, adjusted for FTES outside of campus instructional space, 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 actual seats (or lab 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 of the instructional spaces on the campus.
Instructional Space Coding

Maintaining accurate room coding is a continuing challenge, with some physical spaces not reclassified for the current use because it’s an arduous process to have coding changes accepted in the system. Spaces coded as instructional rooms (classrooms or class labs) contribute seats to the campus instructional capacity and reduce reported utilization if the space is not available for scheduled classes.

There would also be value in developing a strategy for coding of rooms which serve multiple uses to better capture utilization and capacity. This is primarily an issue for lab and studio spaces including: computer labs scheduled for classes during the day, but with open access in the evenings; and studios scheduled for one class and set up for project-based instruction where students come and go as they have time. Cal Poly Pomona has several large studio spaces which are divided into ‘sections’ on a floor plan (w/o walls) with an assigned capacity for class scheduling. But the actual studio layout and capacity may vary. These spaces are ‘labs’ but the studio class may be coded as a lecture, activity or lab.

This study was not charged with auditing the physical rooms but periodic audits are recommended to confirm primary and secondary uses and maintain accurate seat counts.

Classrooms

It is important to define instructional spaces correctly as coded by the campus and CSU and used in this analysis. The term “classroom” includes not only general-purpose classrooms for lecture-type classes, but also departmentally held classrooms, lecture halls, recitation and seminar rooms used primarily for scheduled instruction, but not coded as a lab space. A classroom may include instructional equipment and multimedia technology that is not specialized and does not restrict the room to the instruction of a specific subject or discipline.

Cal Poly Pomona has 158 classrooms in use (regularly scheduled per the course catalogue). This is seven fewer than the 165 rooms coded as classrooms in the facilities data base, and five more than the 153 classrooms shown in the campus capacity (APD791 LAO Report for 2017).

The lecture rooms not scheduled for both 2017 and 2018 are:
• Room 126 in Building 66 - Bronco Bookstore (coded as temporary space)
• Rooms 249 and 258 in Building 9 - College of Engineering,
• Rooms 101a, 102a and 103 in Building 209 - Center for Regenerative Studies
• Room 149 in Building 8 - College of Science

The three seminar rooms at the Center for Regenerative Studies were taken out of service until the mechanical systems repair/replacement was completed. But these spaces are located so far from the academic core, that it may be more appropriate to code them as remote facilities (like Spadra farm) rather than as general lecture classrooms. The current usage of the other unscheduled classrooms should be determined and the rooms re-coded if necessary.

Class Labs

Labs are defined by the specialized equipment and materials provided for a specific class and discipline. A lab space is coded as a “class lab” if it is regularly scheduled for course instruction. Because of the specialized equipment, these rooms are typically excluded from being utilized as a classroom and typically have very limited ‘open access’ time. Class labs are not research labs and are not reserved for long term experiments. Resource labs are set-up to accommodate student projects, where students come and go as they have time. The NASF per Seat column reflects only the space within the lab itself and does not include class lab service spaces such as prep areas and storage.

Classroom Scheduling

This analysis reviews the number of classrooms scheduled at typical start times, Monday through Friday. Cal Poly Pomona has traditionally reserved a U-hour (11:45AM-1PM) for student activities, but in recent years U-hour has been increasingly encroached into. With the change to semesters, campus U-hour (11:45AM-1PM) was shifted to Tuesday/Thursday/Friday with renewed commitment to reserve that time for student activities. Friday is not highly scheduled to provide back-up for M/W classes impacted by Monday holidays and to reserve capacity for make-up labs and to address any unexpected room or schedule challenges. Class sections scheduled at night, on Friday or on the weekend classes often won’t fill up, with students choosing on-line options instead.
The graphs below illustrate classroom usage. The percentages shown are total classrooms scheduled for classes in that hour. Peak hours are when over 80% of the rooms are scheduled. Full occupancy is considered reached when over 90% of the available rooms are scheduled, considering that some reserve is necessary for rooms unexpectedly out of service (HVAC not working, tech issues, etc.).

A comparison of Fall 2017 and Fall 2018 classroom utilization showed a continuation of classroom utilization trends driven primarily by enrollment increases. The same number of rooms were scheduled with similar average section enrollment (seat occupancy). Peak hours expanded (10am to 6pm) with the Monday/Wednesday schedule filled up to match Tuesday/Thursday. Over 70% of classrooms are filled starting at 8am and at 6-7pm with more evening classes added. This high level of utilization presents challenges for resiliency (such as when a room has to be closed for repairs) and accommodating continuing enrollment growth.
Classroom Utilization Analysis
Cal Poly Pomona has 158 classrooms scheduled at an average of 40 hours per week with an average seat fill rate of 77%. The weekly room hours and seat fill rate align well with peer institutions with similar technical programs. Typically 35 hours is the threshold for good scheduling with a typical seat fill rate target of 70%. Cal Poly Pomona exceeds both of those standards.

But the CSU Utilization Target is 53 hours per week with 66% seat fill for a total of 34.98 weekly seat hours and Cal Poly Pomona only achieves 89% of that target. The analysis shows that classrooms are actually very well-utilized since high seat occupancy is the most efficient use of both faculty and space resources, much better than scheduling more class sections with lower enrollments. This strategy already relies on very efficient scheduling of the core weekdays (M–W and T–Th, 8am-6pm) making it difficult to see utilization going much higher.
Classroom metrics stayed consistent, from Fall 2017 under the quarter system, to Fall 2018 under the semester system, with very little change in utilization.

### CSU Lecture Utilization Targets

|               | 53 | 66% | 34.98 |

<table>
<thead>
<tr>
<th>Term</th>
<th>No. of Rooms Scheduled</th>
<th>No. of Seats</th>
<th>Course Enrollment</th>
<th>Weekly Room Hours</th>
<th>Seat Occupancy</th>
<th>Weekly Seat Hours</th>
<th>Percent of Utilization Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2017</td>
<td>158</td>
<td>7,833</td>
<td>37</td>
<td>40</td>
<td>77%</td>
<td>30.50</td>
<td>87%</td>
</tr>
<tr>
<td>Fall 2018</td>
<td>158</td>
<td>7,833</td>
<td>37</td>
<td>39</td>
<td>76%</td>
<td>30.30</td>
<td>87%</td>
</tr>
</tbody>
</table>

Cal Poly Pomona has 766 classroom seats, over 10% of the total classrooms seats in space designated as 'temporary'. A number of these temporary classrooms are in modular buildings, some over 20 years old. These include Music/Drama and the English Language Institute. These buildings have limited building systems and technology and constrained room configurations making them less than ideal instructional environments. Replacing these facilities with appropriate permanent classroom space is a master plan objective.
Class Lab Utilization

Cal Poly Pomona has 156 labs and 3,110 seats/stations (per APD791PO-Utilization Report). In 2017 only 153 labs were scheduled, with 3,190 seats/stations but the utilization metrics were very close to the CSU report calculations. In 2018 all 156 labs were scheduled, but with an additional 65 seats/stations reported. Even with the additional stations, the occupied seat fill averaged 115% suggesting seats were added to some rooms to accommodate over-enrolled sections. A physical audit was recommended to confirm accurate lab seat/station counts.

There were also shifts in the lab classification, which would require a more detailed course analysis to determine if the lab assignments (lower or upper division and grad) need to be adjusted.

Weekly room hours (WRH) are very close to the CSU targets, suggesting the labs are being appropriately scheduled. But weekly seat hours (WSH) exceed the CSU Utilization Targets for both lower and upper division labs (see chart), driven by the high seat fill.

While it is possible the high utilization is the result of the polytechnic mission and programs with an emphasis on ‘learning by doing’ more detailed analysis is needed to understand these findings.

---

## Fall 2017

<table>
<thead>
<tr>
<th>Space Type</th>
<th>No. of Rooms</th>
<th>No. of Seats</th>
<th>NASF per Room</th>
<th>NASF per Seat</th>
<th>Course Enrollment</th>
<th>Weekly Room Hours</th>
<th>Percent of Seats Filled</th>
<th>Weekly Seat Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Laboratory</td>
<td>1</td>
<td>18</td>
<td>995</td>
<td>55</td>
<td>8</td>
<td>12</td>
<td>44%</td>
<td>5.3</td>
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<tr>
<td>Teaching Lab-Lower Div</td>
<td>50</td>
<td>1,059</td>
<td>1,092</td>
<td>56</td>
<td>22</td>
<td>26</td>
<td>113%</td>
<td>28.6</td>
</tr>
<tr>
<td>Teaching Lab-Upper Div</td>
<td>97</td>
<td>1,828</td>
<td>1,137</td>
<td>64</td>
<td>21</td>
<td>21</td>
<td>122%</td>
<td>24.4</td>
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<tr>
<td>Teaching Lab-Grad</td>
<td>5</td>
<td>104</td>
<td>845</td>
<td>39</td>
<td>15</td>
<td>18</td>
<td>75%</td>
<td>15.2</td>
</tr>
</tbody>
</table>

**Totals / Averages:** 153 3,109 1,112 61 21 23 117% 25.4

---

## Fall 2018

<table>
<thead>
<tr>
<th>Space Type</th>
<th>No. of Rooms</th>
<th>No. of Seats</th>
<th>NASF per Room</th>
<th>NASF per Seat</th>
<th>Course Enrollment</th>
<th>Weekly Room Hours</th>
<th>Percent of Seats Filled</th>
<th>Weekly Seat Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Laboratory</td>
<td>1</td>
<td>18</td>
<td>995</td>
<td>55</td>
<td>16</td>
<td>12</td>
<td>88%</td>
<td>10.3</td>
</tr>
<tr>
<td>Teaching Lab-Lower Div</td>
<td>52</td>
<td>1,076</td>
<td>1,081</td>
<td>57</td>
<td>22</td>
<td>28</td>
<td>118%</td>
<td>30.7</td>
</tr>
<tr>
<td>Teaching Lab-Upper Div</td>
<td>99</td>
<td>2,001</td>
<td>1,144</td>
<td>64</td>
<td>20</td>
<td>21</td>
<td>115%</td>
<td>22.1</td>
</tr>
<tr>
<td>Teaching Lab-Grad</td>
<td>4</td>
<td>80</td>
<td>781</td>
<td>37</td>
<td>13</td>
<td>21</td>
<td>71%</td>
<td>17.6</td>
</tr>
</tbody>
</table>

**Totals / Averages:** 156 3,175 1,113 61 20 23 115% 24.8

---

### LOWER DIVISION LAB

<table>
<thead>
<tr>
<th>Term</th>
<th>No. of Rooms Scheduled</th>
<th>No. of Courses</th>
<th>Course Enrollment</th>
<th>Weekly Room Hours</th>
<th>Seat Occupancy</th>
<th>Weekly Seat Hours</th>
<th>Percent of Utilization Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2017</td>
<td>50</td>
<td>1,059</td>
<td>22</td>
<td>26.0</td>
<td>113%</td>
<td>28.60</td>
<td>122%</td>
</tr>
<tr>
<td>Fall 2018</td>
<td>52</td>
<td>1,076</td>
<td>22</td>
<td>28.0</td>
<td>118%</td>
<td>30.70</td>
<td>131%</td>
</tr>
</tbody>
</table>

**CSU Lower Division Lab Utilization Targets** 27.5 85% 23.38

### UPPER DIVISION LAB

<table>
<thead>
<tr>
<th>Term</th>
<th>No. of Rooms Scheduled</th>
<th>No. of Courses</th>
<th>Course Enrollment</th>
<th>Weekly Room Hours</th>
<th>Seat Occupancy</th>
<th>Weekly Seat Hours</th>
<th>Percent of Utilization Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2017</td>
<td>103</td>
<td>2,050</td>
<td>20</td>
<td>21.0</td>
<td>119%</td>
<td>23.80</td>
<td>135%</td>
</tr>
<tr>
<td>Fall 2018</td>
<td>104</td>
<td>2,099</td>
<td>19</td>
<td>21.0</td>
<td>113%</td>
<td>21.80</td>
<td>124%</td>
</tr>
</tbody>
</table>

**CSU Upper Division Lab Utilization Targets** 22.0 80% 17.60
Classroom FTE + FTE Capacity
The classroom utilization analysis showed classroom utilization at 89% of the CSU targets and CSU reporting shows that the actual lecture FTES taught in classrooms are 92% of the total classroom FTE capacity. These measures show classrooms are highly utilized but there is still some available capacity.

However, the academic scheduling team expressed a very different experience even with the recent implementation of enhanced scheduling software. They find it very difficult to schedule an available classroom of the right size when another section has to be added. Analysis by course type (not room type) showed total lecture FTES actually taught exceeded the lecture classroom capacity, and this analysis was confirmed by system reports. How was this possible? Further analysis revealed 8% of lecture classes are scheduled in lab space, not in classrooms.

The available data does not provide information on why a ‘lecture’ course is scheduled in a ‘lab’ space, but discussion with academic leadership identified multiple reasons:
- interactive instructional format or use of specific software may benefit from a computer lab
- convenience and efficiency when the lecture is directly aligned with the lab course activity
- faculty reported scheduling a lecture class in a lab or studio space because it was the only room with the right seat capacity available at that time (based on the instructor’s availability); these comments point to the challenge in utilizing the last 8% of available classroom capacity when that’s only at night or on Friday.

Technology upgrades to existing classrooms including equipping some classrooms with computers, and implementing the recommended room standards for active learning classrooms and collaborative learning studios could address some of these lecture space needs and potentially free up lab space.

Class Lab FTE + FTE Capacity
The class lab utilization analysis showed lab scheduling at the CSU target but seat fill at 115% of seat/station capacity resulting in overall lab utilization exceeding 128% of capacity. Comments from both students and faculty expressed the need for expanded lab space, suggesting additional seats are squeezed into lab sections rather than adding lab sections. Data seems to support this, and it’s not surprising given the average Cal Poly Pomona lab has 20 stations (24 stations is more typical for public universities). However, CSU reporting shows the total lab FTES actually taught is 83% of the FTE capacity, suggesting significant available capacity.

So where is the disconnect? Are lecture classes scheduled in lab spaces constraining the scheduling of additional lab sections? It seems likely since the FTES from lecture classes taught in lab spaces are almost double the total lab FTES taught in lab space. Additional investigation and analysis will be needed to understand the true need for lab space, especially engineering labs. And while it is not clear whether lecture class demand is directly constraining the scheduling of labs, there is a clear impact on utilization metrics and reporting which distorts the actual need/demand for both lab and classroom space.
Classroom Demand Metrics

Classroom demand analysis seeks to better align the instructional need or demand and the physical facilities by optimizing classroom capacity and quantity. In short, to create the right number of classrooms at the right size-capacity to meet the utilization targets.

The classroom demand analysis uses Fall 2018 data, maintaining the existing student to faculty ratio and section sizes.

Key drivers for the analysis are:
- Seat Fill Rate Target which determines the courses that will be placed into each classroom capacity cluster or grouping (Classroom Fit Matrix shows how)
- Weekly Room Hour (WRH) Target which determines how many classrooms are needed in each classroom capacity cluster or grouping (Total Weekly Room Hours in each grouping divided by the WRH Target)
- WRH Target multiplied by the Seat Fill Average = Weekly Seat Hours Target

Section fill analysis shows that section fill is high, exceeding CSU targets.

Total sections included in analysis = 2,261
- 712 sections (31.5%) enrollment = capacity
- 585 sections (25.9%) enrollment > capacity
- 964 sections (42.5%) enrollment < capacity

Only 9.3% (210) of the sections have enrollment which is less than the room capacity by 40% or more. These significant mismatches typically indicate that the room choice was due to the lack of a more appropriately sized room in the desired time slot.

Classroom Demand Modeling

Two demand studies were modeled, one representing CSU Targets as shown above, and the other using alternative targets to achieve the CSU overall target for Weekly Seat Hours.

The alternate model is based on the way Cal Poly Pomona actually functions, with a relatively high (77%) seat fill rate. By increasing to a 75% seat fill rate the WRH target can be lowered to 47 WRH while still meeting the overall target for Weekly Seat Hours.

The proposed 47 weekly room hours are still substantially more than the current average of 39 WRH. In Fall 2018, only 2 classrooms in the College of Business Administration averaged 47 WRH. Achieving this increase will require more rigorous scheduling of classes between 8-10AM and after 5PM. Achieving the CSU target of 53 WRH would require dramatic increases in Friday classes. Experience has shown that it is difficult to fill sections on Fridays. Many students will choose an on-line class or postpone it by a semester rather than take a Friday class. Faculty tend to reserve Fridays as make-up days for Monday holidays and for students who missed a class lab.

Comparing these models, the Alternate @ 47 WRH fits larger class enrollments into the classroom capacity, and the total number of classrooms needed is higher, with lower ‘unmet need’. This is expected since the model is based on current usage patterns. The CSU Target at 53 WRH model shows a smaller number of rooms overall with more ‘unneeded’ rooms and also higher ‘unmet need’ for rooms. This model may require greater modification of existing facilities to ‘right-size’ these classrooms (see the charts at right and the graphs on the following page for comparisons).

The last column in the Classroom Demand Analysis charts shows the potential number of existing classrooms that are beyond the demand and could be re-purposed. If all the classrooms were in the same building the existing ‘unneeded’ rooms could be re-configured to provide the larger classrooms needed or to expand existing lecture rooms to support active learning instructional modes. A more detailed audit of all classrooms would be needed to develop a plan for ‘rightsizing’ and repurposing classroom space.
### Classroom Demand Analysis @ 53 Weekly Room Hours

<table>
<thead>
<tr>
<th>Classroom Capacity</th>
<th>Existing Room Count</th>
<th>Weekly Room Hours</th>
<th>Proposed No. of Rooms</th>
<th>Overage/ (Need)</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 and Under</td>
<td>2</td>
<td>575</td>
<td>11</td>
<td>(9)</td>
</tr>
<tr>
<td>25 - 30</td>
<td>15</td>
<td>233</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td>31 - 40</td>
<td>43</td>
<td>918</td>
<td>17</td>
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<td>41 - 50</td>
<td>57</td>
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<tr>
<td>51 - 60</td>
<td>19</td>
<td>1,124</td>
<td>21</td>
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<tr>
<td>61 - 70</td>
<td>6</td>
<td>761</td>
<td>14</td>
<td>(8)</td>
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<tr>
<td>71 - 80</td>
<td>4</td>
<td>442</td>
<td>8</td>
<td>(4)</td>
</tr>
<tr>
<td>81 - 90</td>
<td>6</td>
<td>197</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>91 - 100</td>
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<td>349</td>
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<tr>
<td>101 - 120</td>
<td>5</td>
<td>133</td>
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<td>2</td>
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<tr>
<td>121 - 160</td>
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<td>161 - 199</td>
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<tr>
<td>200 and Over</td>
<td>1</td>
<td>31</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>158</strong></td>
<td><strong>6,375</strong></td>
<td><strong>121</strong></td>
<td><strong>37</strong></td>
</tr>
</tbody>
</table>

| Enrollment Sizes  | 1 - 17 | 18 - 20 | 21 - 26 | 27 - 32 | 33 - 38 | 39 - 45 | 46 - 51 | 52 - 57 | 58 - 70 | 71 - 80 | 81 - 100 | 101 - 140 | 141 - 200 |

### Classroom Demand Analysis @ 47 Weekly Room Hours

<table>
<thead>
<tr>
<th>Classroom Capacity</th>
<th>Existing Room Count</th>
<th>Weekly Room Hours</th>
<th>Proposed No. of Rooms</th>
<th>Overage/ (Need)</th>
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</thead>
<tbody>
<tr>
<td>24 and Under</td>
<td>2</td>
<td>905</td>
<td>19</td>
<td>(17)</td>
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<tr>
<td>25 - 30</td>
<td>15</td>
<td>120</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>31 - 40</td>
<td>43</td>
<td>1,163</td>
<td>25</td>
<td>18</td>
</tr>
<tr>
<td>41 - 50</td>
<td>57</td>
<td>1,507</td>
<td>32</td>
<td>25</td>
</tr>
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<td>51 - 60</td>
<td>19</td>
<td>1,114</td>
<td>24</td>
<td>(5)</td>
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<tr>
<td>61 - 70</td>
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<td>184</td>
<td>4</td>
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<tr>
<td>91 - 100</td>
<td>0</td>
<td>109</td>
<td>2</td>
<td>(2)</td>
</tr>
<tr>
<td>101 - 120</td>
<td>5</td>
<td>91</td>
<td>2</td>
<td>3</td>
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<tr>
<td>121 - 160</td>
<td>0</td>
<td>107</td>
<td>2</td>
<td>(2)</td>
</tr>
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<td>161 - 199</td>
<td>0</td>
<td>112</td>
<td>2</td>
<td>(2)</td>
</tr>
<tr>
<td>200 and Over</td>
<td>1</td>
<td>31</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>158</strong></td>
<td><strong>6,375</strong></td>
<td><strong>136</strong></td>
<td><strong>22</strong></td>
</tr>
</tbody>
</table>

| Enrollment Sizes  | 1 - 21 | 22 - 23 | 24 - 28 | 29 - 35 | 36 - 43 | 44 - 51 | 52 - 60 | 61 - 69 | 70 - 77 | 78 - 86 | 87 - 110 | 111 - 150 | 151 - 200 |

| Overage/ (Need)    | (17)   | 12      | 18      | 25      | (5)     | (6)     | (4)     | 2       | (2)     | 3       | (2)     | (2)      | 0        |
| Unmet Need No. of Rooms | 2     | 15      | 21      | 21      | 5       | 4       | 4       | 2       | 2       | 3       | 2       | 2        | 0        |
| Potential No. of Rooms for Repurposing | 2     | 15      | 21      | 21      | 5       | 4       | 4       | 2       | 2       | 3       | 2       | 2        | 0        |
Comparing Existing Classrooms to Demand
Of the 158 classrooms, over 60% have 31-50 seat capacity, and these rooms along with some of the smaller classrooms, provide the most opportunity for ‘right-sizing’. Only 22 classrooms (14%) have more than 60 seat capacity, so unsurprisingly, the greatest need was for rooms with capacities from 51-80 seats and 121-199 seats. If classrooms were correctly sized, the total number of rooms could be reduced from 158 to 136, and reconfigured to better meet demand and utilization goals.

Classroom Demand Projection
The campus plan assumes a 20 year planning horizon with a projected increase of 10,000 FTES to reach 30,000 FTES by 2040. When this demand is added to the Alternative model, the overall classroom demand increases to 182 classrooms with room sizes needed staying roughly the same. The master plan proposes creating new shared classrooms to address the unmet need for larger classrooms and to serve as classroom surge space while Bldg 98 and the colleges are sequentially vacated and totally renovated. The required college building renovations also provide an opportunity to reconfigure and ‘right-size’ classroom resources to better meet the existing demand and projected program growth for each college. And eventually, these shared classroom resources will become permanent instructional spaces.
Class Lab Utilization

Three colleges have the majority of the lab space: Science, Engineering, and Environmental Design (although Agriculture would be the largest if outdoor facilities and fields were included).

Cal Poly Pomona has 156 scheduled class labs. Average weekly room hours are close to the CSU lab utilization targets, but the % of occupied seats/stations average 117% suggesting the seat/station counts may not be accurate (even though they match the CSU reports). Overall lab utilization averages 24.8 Weekly Seat Hours, which is 125% of the CSU lab utilization target for upper division labs (which are 2/3 of all Cal Poly labs). A more detailed analysis should look at the lab classifications (lower or upper division) and consider whether the assignment of these spaces needs to be adjusted.
Laboratory Demand Analysis

The laboratory demand analysis looked at the current lab utilization to assess the additional space needed to meet the current lab FTES. The College of Engineering shows the greatest shortfalls between existing use and actual need. Since Engineering is the largest college with the fastest growing programs, it is anticipated that demand will continue to exceed the facilities available. The new Engineering Graduate School Building will consolidate the graduate programs and provide new lab space (replacing the Art & Engineering Annex). Migration planning should be done to free up space in Building 17 for lab expansion and renovations and to support the required total renovation of Building 9, the original College of Engineering building.

Lab space is also needed for the College of Environmental Design and the much larger College of Science. During planning, it was noted that the ground floor of the Science Labs (Building 3) has space for future science labs but is currently used for architecture studio space. Consolidating the architecture program (in the Interim Design Center or CLA building) would facilitate the build-out of these science labs in advance of major renovations to the College of Science, Building 8.

<table>
<thead>
<tr>
<th>Primary Unit</th>
<th>Existing NASF</th>
<th>Proposed NASF</th>
<th>Overage/Need</th>
</tr>
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<tbody>
<tr>
<td>Agriculture</td>
<td>20,216</td>
<td>23,274</td>
<td>(3,058)</td>
</tr>
<tr>
<td>Business</td>
<td>2,753</td>
<td>5,151</td>
<td>(2,398)</td>
</tr>
<tr>
<td>Education</td>
<td>1,835</td>
<td>588</td>
<td>1,247</td>
</tr>
<tr>
<td>Engineering</td>
<td>67,943</td>
<td>155,101</td>
<td>(87,158)</td>
</tr>
<tr>
<td>Environmental Design</td>
<td>66,348</td>
<td>74,711</td>
<td>(8,363)</td>
</tr>
<tr>
<td>Letters, Art, Social Science</td>
<td>6,049</td>
<td>11,987</td>
<td>(5,938)</td>
</tr>
<tr>
<td>Science</td>
<td>71,551</td>
<td>94,688</td>
<td>(23,137)</td>
</tr>
<tr>
<td>Hospitality Management</td>
<td>2,562</td>
<td>5,448</td>
<td>(2,886)</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>239,257</strong></td>
<td><strong>370,985</strong></td>
<td><strong>(131,728)</strong></td>
</tr>
</tbody>
</table>

![Bar chart showing existing and proposed NASF for different primary units with overage/need values for each.](chart.png)
**Historical Enrollment**

Since the 2000 Campus Master Plan, Cal Poly Pomona’s enrollment has grown steadily and consistently. From 2000 to 2019 headcount grew by 44% and FTE increased by 55%. Note the 8% increase in the FTE to Headcount ratio, which is a significant increase in credit hours taught per student. This increase reflects Cal Poly Pomona initiatives to support student success and on-time graduation, as well as a continuing shift from part-time to full-time students. It’s anticipated that changes in course delivery, with more online and hybrid classes is likely to continue this trend.

For the ten years from 2000 through 2009, Cal Poly Pomona’s growth in headcount reflected local and regional demographics with California’s high school graduates growing at 2% annually (see the graph on the next page). The recession in 2009 had a brief impact, but enrollment since 2010 Cal Poly Pomona’s enrollment growth has outpaced regional and state demographics, driven by a steady increase in the college readiness of California high school graduates.

![California High School Graduate College Readiness 2012 - 2017](image)

**Enrollment Demographics**

Projections of future enrollment are informed by demographic analysis (general population growth, community development, etc.), especially the educational pipeline from high school to college which is based on current elementary and secondary school enrollment. This analysis considered the projected number of high school graduates as well as the percentage of graduates who are ready for college (see the chart on the opposite page). The number of California high school graduates grew steadily through 2013 but then declined. Looking forward, projections show a slight increase through 2024, followed by a similar decline. The greater western region and national demographics show stronger growth through 2026, with a slightly steeper decrease following. Offsetting this downward trend in the number of graduates, is the increasing percentage of California high school graduates who are ready for college and continue to drive freshman enrollment. Cal Poly Pomona also accepts a significant number of transfer students, almost as each year’s freshman class. So community college growth should be considered in pipeline projections. The adjacent Mt SAC completed their Educational and Facilities Master Plan (EFMP) in 2018, projecting 8.6% growth over the next ten years (+0.75% annual average increase). Finally Cal Poly Pomona is reaching a growing number of adult students returning to college to pursue advanced degrees or seeking new career paths. Programs for adult learners include credentialing and certificates, customized training programs, and graduate degree programs. While this represents a small percentage of the pipeline, the trend towards less traditional educational paths will be an increasing part of FTES overall.

![Cal Poly Pomona Historical Enrollment 2000-2018](image)
Enrollment Projection

The enrollment projection looked forward 10 years to 2028 (reflecting the data available and the difficulty of accurately projecting over the full 20 year planning horizon). The resulting analysis showed demand potential to grow enrollment by 2.5% annually, reaching a headcount of over 33,000 students and 30,800 FTES in ten years if there was the resources to support it (facilities, faculty and staff). After a robust discussion with leadership, the planners recommended a more conservative projection of 1-2% annual growth which would reach 30,803 FTES by Fall 2040 and require raising the campus capacity cap from the current 20,000 FTES to a recommended 30,000 FTES.

However, even a conservative growth prediction can be constrained by unforeseen circumstances. This point was brought home during the drafting of this document, when the Covid-19 pandemic shut down ‘in-person’ classes on California campuses. Two years later, the effects of the pandemic on college enrollment are still being felt with enrollment down at most CSU campuses. As a result, Cal Poly Pomona has realigned admissions and budgets, strategically flattening enrollment for the immediate future. Paradoxically, enrollment demand was expected to reach new highs with a peak in the number of California high graduates in 2024. Instead, the economic uncertainty and changing demographic suggests enrollment may be slow to rebound and could impact longer term enrollment projections.

Campus Capacity + Enrollment

Enrollment and campus capacity are both measured in FTES, with enrollment quantifying the total student credit hours for the semester or averaged for the year. Campus capacity quantifies the total FTES that can be offered in the existing instructional space. It’s estimated using the combined metrics of the actual seats (classroom seats and lab stations) and the CSU utilization targets (hours of use and rate of occupancy). It should be noted that enrollment FTES cannot be directly compared to campus capacity FTES without first adjusting for credit hours earned outside of the classroom, either off-campus (clinic, internship, etc.) or on-campus (Spadra farm, livestock barns, etc.).

Cal Poly Pomona campus capacity:
- Permanent Space: 18,301 FTES
- Temporary Space: 1,785 FTES
- Total Instructional Space: 20,086 FTES

The master plan increases both the quality and quantity of instructional space on-campus, including:
- Renovation of 98-C for academic surge space to facilitate phased renovation of the college buildings.
- Total or major renovation of the academic core college buildings, with significant reorganization to maintain or increase the number of classrooms while increasing the net sq ft per seat to accommodate technology and flexibility in classroom format.
- New additions to existing academic buildings targeted for classrooms, labs, study/project space.
- New Interdisciplinary Academic Resources Building (IARB) & Campus Student Center replacement
- New Graduate Engineering Building.
- Replacement of temporary space (modulars, trailers, etc.) with permanent instructional space that will better meet the polytechnic mission.
Proposed Campus Master Plan 2020-2040.
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:

- **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.

- **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.

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.
Proposed Campus Master Plan 2020-2040.

- Entry on Kellogg w/E Campus Dr bypass
- Campus Shuttle Lane for Loop Bus
- Bronco Mobility Hub
- Transform 'access-limited' streets to malls
- Extend Ped-Bikeway
- PV Solar installations
**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.
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 underway.

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.

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.
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.
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 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.
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 in 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.

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 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 Mall in front of the BSC and University Park.
Proposed Campus Master Plan 2020-2040 - campus core and the academic facilities improvements proposed.

**Academic Core New Buildings**

- G Shared Classroom Resources Addition
- H Graduate Engineering Building
- I Interdisciplinary Academic Resources Building (IARB)+ Campus Center
- J Music Addition
- F PV Solar Shades

**Renovated Buildings**

1. Administration
2. College of Agriculture
3. College of Letters, Arts & Social Sciences
4. College of Education & Integrative Studies
5. College of Environmental Design
6. College of Science
7. College of Engineering
8. Library
9. Administration
10. Kellogg Gymnasium + Addition
11. University Offices
12. Classroom
**Academic Core**

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
- 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 12-14 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 that 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 proposed strategies for providing 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 and consolidating and better organizing the college neighborhoods to further improve students’ academic experience.

**Surge Space**

The college buildings for Total Renovation range in size from the College of Letters, Arts & Social Sciences (76,500 gsf) to the College of Science (136,000 gsf) housing classrooms, class laboratories, departmental offices and support space. Multiple strategies will be needed to totally vacate a college building for construction while maintaining all programs and functions. Planning will have to consider options for instruction (including on-line), advising and student support, as well as departmental functions and faculty support. Modular temporary facilities are impractical given the high cost and the amount of space needed, and would conflict with the master plan goal to replace existing modular/temporary facilities with permanent space. The recommended strategy is to invest in permanent space that can serve as surge space for the near term, and in the future will provide needed 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, shared classrooms and computer labs, and specialty resource labs (i-Lab, etc.). IT staff could work from home with access to flex space in one of the admin buildings; and more on-line or 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 Learning Commons could provide the needed computer capacity but requires adding capacity to the Library building systems. The master plan proposes to achieve this capacity with the Shared Classroom Resources addition to the Library.
Enabling Project:
Shared Classroom Addition
Bldg 15 - Library Renovation *(partial)*

This small classroom/class lab building is proposed as an addition on a small site along the west side of the library, entered from Olive Mall, where the original library entrance was. This site was evaluated (seismic, geotech) as an option for the library expansion (2010) and found suitable for an addition. The new building will house class labs and resource labs (replacing labs in Bldg 98C to enable that project) with flexible, active learning instructional spaces (per the classroom demand study). The new building should be independent of the library in structure, building systems, exiting, elevator and restrooms, although connecting doors could be provided at the entry floor. Because the lower level opens directly onto the plaza outside Starbucks and the current library entrance, it would be suitable for a 24 hr computer lab (similar to the lab on the south side of the library entry).

This project will also provide the Library with critical infrastructure upgrades or expansion (HVAC, electrical service and data/wifi capacity). Proposed interior library improvements will: expand the Learning Commons with added computers; expand and potentially relocate the Writing and Resources Center; add group study rooms with IT/AV capabilities. A library collection assessment is needed to facilitate reducing stacks and to better utilize (and maybe expand) the compact storage on the lower level. The upper level vacated stack areas could be used for temporary flexible surge space (including housing the Academic Senate during Bldg 98C renovation). On the lower three levels, space currently filled with microfiche and video tape cabinets could be better utilized as student study space with appropriate furniture and expanded Learning Commons with new power/wifi capacity.
Priority #1 Seismic Project: Bldg 98 (T, R, B, P & C)
This project will continue the process of addressing the Building 98 seismic priority. The first step was the replacement of Administration and Registration space requirements, which was by demolishing the Tower and Registration structures, and buttressing and renovating the remaining structures (Classroom, Basement, Plaza). Vacating Building 98 will require the use of new classrooms and computer labs in the Shared Classroom Addition and Library Renovation project. When completed, Building 98 will provide surge space to facilitate the sequenced renovation of the college buildings, starting with the College of Letters, Arts and Social Sciences (Bldg 5).

Bldg 98T + Bldg 98R Demolition
Studies have been done to better define the demolition logistics, including how to support and protect the Japanese Garden & Pond, and requirements for maintaining the occupancy of the 98C structure and the IT fiber MDF Room. The project will address: maintaining major building systems equipment serving the 98C and 98P spaces; fire-life safety egress from 98C upper floors; controlled demolition including recycling of material wherever possible; and campus circulation around this site during demolition.

Bldg 98 Site Restoration
The seismic faults through the site prohibit new buildings, but the prominent location requires quality landscape/hardscape, which supports the Japanese garden and provides student gathering space with PV shading and space for ‘campus as living laboratory’ projects. Site work related to the Bldg 98C transformation should include simplifying access to the loading dock and turning closed streets around Voorhis Circle and PS#1 into malls. The Oak Lane mall would benefit from a PV shade structure, improving the walk to student parking.

The master plan vision for the site includes a large plaza with a PV shade, providing study and project space, and memorializing the Tower footprint. Reuse of the stone tile cladding, from Tower exterior, in the design of the plaza paving has been suggested.

Demolition of the Bldg 98 Registration and Tower structures will include protection and restoration of the Japanese garden and pond.
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 5 - College of Letters, Arts and Social Sciences (CLASS) Total Renovation** (#3 seismic priority)
The College functions will be relocated to Bldg 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 will be relocated to Bldg 98 and/or 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 studios). Vacating the Science building will require using surge space in the IARB, Shared Classroom Addition 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.
New Campus Center (CC)+
Interdisciplinary Academic Resources Building (IARB)

The existing Campus Center is in poor condition and was proposed for 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:
- Marketplace + space to support student success
- 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, indoor/outdoor seating; student success space (study, tutoring space, Career Center). The sloping site will accommodate a parking level tucked under the building to replace the existing ADA parking lot, and 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 flexible floor plate for academic surge space. The plan envisions faculty workspace and academic departmental support functions. But these floors could also accommodate larger multi-purpose spaces for instructional purposes if needed.

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

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 workspace, 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.

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.

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.
College of Engineering

Engineering Graduate Building
The new Engineering Graduate Building supports the continued growth of the College of Engineering by consolidating the graduate program space. This will free up space in Bldg 17 for lab improvements and expansions, including a strategy to accommodate specialty labs housed in Bldg 13A Art & Engineering Annex, which will be demolished. The new building is sited to be out of the seismic fault zone and maintain occupancy of Bldg 13A during construction. When the Grad Building is completed, Bldg 13A will be demolished to create a PV shaded courtyard space for project-based learning. Art labs from the Annex could be relocated to the renovated College of Letters, Arts and Social Sciences (Bldg 5) or Bldg 98C.

Engineering District Plan
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 sequencing of moves and projects that will better serve the existing programs and build capacity for the future.

Bldg 9 - College of Engineering Total Renovation
This total renovation will be challenging given the building size, requiring surge space in Bldg 98C and the IARB. The renovation will address deferred maintenance and required code upgrades with the total replacement of 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 advance strategic and academic goals for the College of Engineering.
COLLEGE OF EXTENDED UNIVERSITY + CTTi

Mixed-Use Development
The College of Extended University (CEU) is ideally located on the edge of the campus with easy access for working adults coming to classes on the weekend or evenings. Innovation Village*(IV) began with the entrepreneurial Center for Training, Technology & Incubation (CTTi) bringing business and industry to the campus to expand opportunities for ‘learning-by-doing’. The Innovation Brew Works is one of the most popular ventures, serving as a ‘learn-by-doing’ brewery laboratory for students. The master plan continues this concept along the rest of the Temple Avenue frontage, proposing mixed-use development to expand the CTTi concept including retail-commercial spaces and incubators for small to medium-sized businesses, and providing CEU classroom and project space, and collaborative work space for public-facing offices. This expansion could include the English Language Institute (currently in temporary modulars near the tennis courts and the BRIC). Upper floors could also provide space for offices that have moved into the original CTTi and CEU space *(such as University Advancement, Alumni Association, the Foundation, etc.)*.

*Innovation Village was developed with a public-private partnership (P3) approach and generates revenue through the ground lease of developed parcels. The Village is an independent development area with its own approved specific plan and EIR. Currently planning and market studies are underway to determine the full build out of or Innovation Village
Proposed Campus Master Plan 2020-2040 (partial enlargement) - southern side of the campus and the student life, housing and recreation facilities and improvements proposed.

Renovated Buildings
35  BSC Renovation
43  Kellogg Gym Renovation-Addition

Student Life Projects
K  Student Housing Replacement Phase II
M  Student Housing Phase III
N  BSC Terrace Addition
O  BSC Study Lounge Expansion
P  BSC Conference Center
Q  BRIC Expansion
R  Children’s Center
S  Campus Health & Wellness Center
T  Softball Facility
U  Recreation Fields Improvements
V  Soccer + Track/Field Stadium
B  Campus Loop Shuttle Lane + Stops
C  Bronco Mobility Hub
D  Transform interior street to mall
E  Extend Ped-Bikeway
F  PV Solar Panels

Legend:
- New Building
- Renovated Building
- Existing Building
**Student Life District**

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 Housing Replacement Project I-II-III
This project replaces the 1360 beds in the original brick dorms in the earthquake fault 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 to replace the dorms in the worst condition (Greys, Bldgs 57-58) and Los Olivos dining hall (bldg 70). Phase I replaced 660 beds and added 320 net new beds.

Phase II will add two mid-rise halls (840 beds), replacing 700 beds (Red bricks, Bldgs 20-23) and adding 140 net new beds. Phase III adds 1040 beds in two mid-rise buildings. This will bring the master plan total to 1500 net new beds, adding residential capacity for freshman and continuing students. The plan proposes adding a stop for the campus circulator bus and striping a dedicated bus lane on Kellogg Drive from Red Gum Lane to South Campus Drive (which should be feasible with the reduced traffic on Kellogg).

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.
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.

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

New Campus Health and Wellness Center on the Commons reinforcing a student life hub.
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.
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.
BSC Study Lounge Expansion
The two story Study Lounge expansion is proposed on the east side of the building, south of the rotunda, where the Bookstore building interrupts the central mall and constrains BSC expansion and circulation. To accomplish this addition, the bookstore retail area, former book storage and loading dock portion of Building 66 would be demolished after the bookstore relocates to new space in the Bronco Mobility Hub.

The proposed 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. The existing building atrium, which currently is a pedestrian circulation connection and a popular study area, would also be improved and upgraded as part of the project. With the transformation of this area, the central mall that runs the length of the BSC can be extended southward to connect to the Commons and the Eucalyptus Lane multi-modal mall.

BSC Conference Center
The proposed Conference Center came out of the BSC Expansion Planning Study and input from the Alumni Association about the need for meeting space and a larger capacity banquet room. The project locates the new conference facility on Horse Hill, west of the BSC and south of the Kellogg Hotel & Conference Center with a bridge connecting to the BSC over the existing ped-bikeway (and the service drive to the theater). The design takes advantage of the existing slope to tuck service access and accessible parking under the center with access from the west via the Eucalyptus Multi-modal mall.
Student Recreation & Athletics

- Q: BRIC Expansion (demo Darlene May Gym)
- T: Softball Facility
- U: Recreation Field Improvements
- V: Kellogg Stadium for Soccer, Track & Field
- E: Extend Ped-Bikeway across South Campus Dr
- F: PV Solar Shades.

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). A new event center and fieldhouse, with improved athletics support facilities, is proposed to complete the Innovation Village development.

**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.
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
- 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
Cal Poly Pomona Proposed Campus Master Plan - Phase I - 2020-2025.

92 Administrative Draft v5
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 ‘tweaked’ based on the performance of the pilot and feedback from the campus community.

**Phase I 2020-2025**

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
- 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 - demolition of Tower + Registration structures, keeping Bldg 98C open, maintaining Campus IT MDF Rm with optic fiber conduit to the new server; support the Japanese Pond, pave plaza with PV shade over student study-project space
- Shared Classroom Resources Addition + limited Library Renovation - provide classrooms + computer labs and invest in the Library for surge use + permanent investment in Library with expanded Learning Commons + Writing Resource Center
- Bldg 98C Seismic Reinforcing & Renovation including enclosing plaza level and skylight + PV panels over the central atrium
- 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 - 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
- Innovation Village Mixed-Use including CEU & CPELI - includes removal/demo of ELI modulars, P3 project
- Campus Health & Wellness Center
- Bronco Student Center Phase I Renovation
- Demolition of the Red Brick Residence Halls + Site Repurposing - includes relocation of ROTC & TRIO trailers
Cal Poly Pomona Proposed Campus Master Plan - Phase II - 2026-2030.

**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**
- H Graduate Engineering Building
- I 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

**Student Life Projects**
- M Student Housing Phase III
- O BSC Study Lounge Expansion
- T Softball Facility
- U Recreation Field Improvements
- V Soccer, Track & Field Stadium
Phase II 2026-2030

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) - with the Campus Center replacement; includes 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 the Shared Classroom Resources Addition/Library, 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 II 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)
- 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
Cal Poly Pomona Proposed Campus Master Plan - Phase III - 2030-2040.

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

ACADEMIC NEW BUILDINGS
24J Music Renovation-Addition

RENOVATED BUILDINGS
9 Engineering Labs/College of Engineering
25 Theater
43 Kellogg Gymnasium Renovation-Addition
94 University Offices

STUDENT LIFE PROJECTS
P BSC Conference Center
Q BRIC Expansion (demo DM Gym)
**Phase III 2030-2040**

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 the Shared Classroom Resources Addition-Library, Bldg 98C and the Interdisciplinary Academic Resources Building (IARB) surge space, including:

- 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 - facilities assessment recommended study of Theater to determine feasibility of renovation vs replacement
- Bldg 43 Kellogg Gymnasium - major renovation w/small expansion to absorb women’s programs from the DM gym (demolished)

**Self-Support / Other**

- BSC Conference Center
- BRIC Expansion - includes demolition of Bldg 41 Darlene May Gym
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.

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.

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.
Acknowledgments

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

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