



Campus Physical Master Plan and Capital Program Update

Spring 2023

Facilities Planning & Management Department
Campus Planning, Transportation & Sustainability

AGENDA

- 1. CPP Physical Master Plan Update**
- 2. Five-Year Capital Improvement Program**
 - A. Academic and Self-Support
 - B. Critical Facilities Renewal
 - C. Capital and Infrastructure Improvements
 - Energy and Utilities (CEOP)
- 3. Annual Campuswide Capital Budgeting**
- 4. Questions / Comments**

CPP Physical Master Plan Update

1. BOT Requires Master Plan Updates at Minimum Every 10 Years

- Guide the Physical Development of Facilities and Infrastructure to Support the University's Academic Vision and Enrollment Projections
- Critical step in the development of Academic Projects, Self-Support, Deferred Maintenance and Critical Infrastructure needs

2. Master Plan Last Adopted in 2000: Paused in 2005 due to CSU litigation

3. Key Components

- Major Master Plan Revision started in 2017 (paused in Dec. 2021)
- 2040 planning horizon
- Base funded 23-24 enrollment target increase from 20,100 FTES to **30,000 over 20 years**
- 1,440 net new on-campus beds
- Separate from Lanterman development

4. ADMINISTRATIVE DRAFT SPRING 2023

CPP Physical Master Plan Update

2017

2018

COMMUNITY ENGAGEMENT

PARTNERS
KICK-OFF
6/5

FOOTHILLS
TRANSIT
CITY OF
POMONA 7/9

CPP LEADERSHIP ENGAGEMENT

PRESIDENT,
PROVOST

CABINET

BOARD

FALL
CONFERENCE

#1
WORKSHOP
11/1-2

#2
WORKSHOP
1/22-23

#3
WORKSHOP
2/28-3/1

#4
WORKSHOP
4/12

PRESIDENT'S
SPACE
ANALYSIS
SESSION 6/25

PRESIDENT'S
CONCEPTS
WORK
SESSION 8/6

PRESIDENT'S
CABINET
1/22

PRESIDENT'S
CABINET
4/23

PHASES-TASKS

VISIONS + GOALS

DATA GATHERING - OBSERVATIONS

ANALYSIS-SYNTHESIS

SPACE ANALYSIS + NEEDS

CONCEPTS-ALTERNATIVES

CPP Physical Master Plan Update

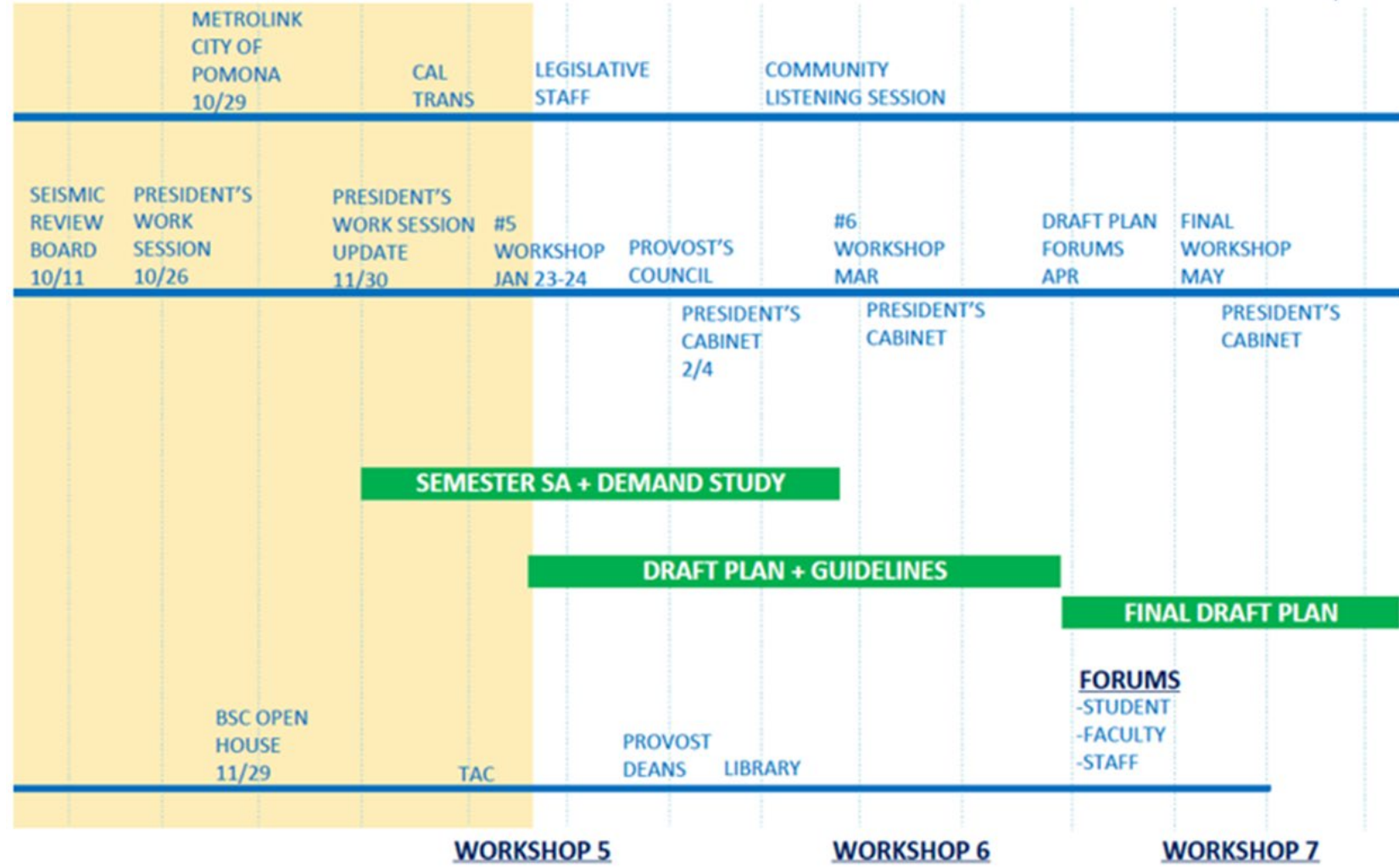
2019  2023

COMMUNITY ENGAGEMENT
(continued)

CPP LEADERSHIP ENGAGEMENT
(continued)

PHASES / TASKS
(continued)

CPP CAMPUS ENGAGEMENT
(continued)



CPP Physical Master Plan Update - CEQA Requirement

CEQA → California Environmental Quality Act

PURPOSE

- Disclose the potentially significant environmental effects of the proposed project
- Identify ways to avoid or reduce adverse environmental effects
- Consider feasible alternatives to proposed actions
- Foster interagency coordination in the review of projects
- Enhance public participation in the planning process

OUTCOME

- Preparation and completion of Program Environmental Impact Report (EIR)

CEQA – EIR PROCESS (approximately 18 months)

Lead Agency Circulates Notice of Preparation

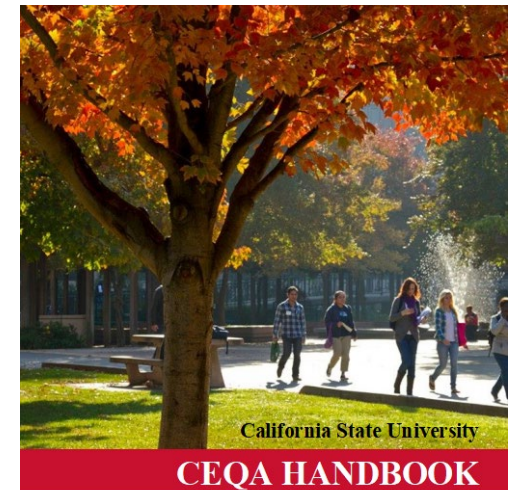
Lead Agency Prepares Draft EIR

Lead Agency Files Notice of Completion

Public Review Period (45 days)

Lead Agency Prepares Final EIR

Lanternman Development
will have separate EIR



CSU The California State University

APRIL 2019

COMPLETION DATE OF THE ENVIRONMENTAL IMPACT REPORT EXPECTED: (Winter 2024)

Polytechnic Classrooms of the Future Study

Addendum to the Master Plan underway:

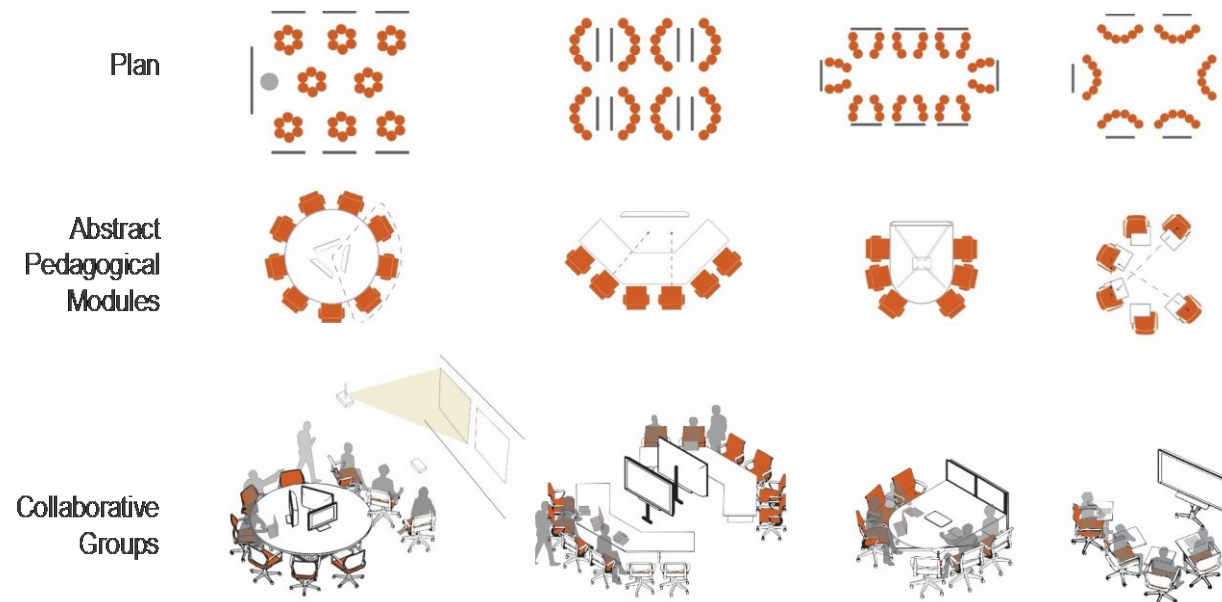
1. Develop prototypical space planning standards for academic instructional spaces
 - Focus on Active Learning and supporting the Learn By Doing philosophy
 - Support pedagogical needs and educational delivery methodologies
2. Establish guidelines to serve as a basis of design for future classroom renovations



Polytechnic Classrooms of the Future Study

Goal:

Develop prototypical classroom standards and layouts for small, medium and large classrooms to meet current and future pedagogical needs and input from faculty focus group.



Master Plan Implemented through Capital Improvement Program

Project Types and Sections

Deferred Maintenance – Facility Renewal and Critical Infrastructure

- Repair and replacement projects
- Critical infrastructure deficiencies

Capital and Infrastructure Improvements

- Increase capacity
- Improve building and utility systems
- Acquire or improve campus land

Academic Project

- Major capital projects (\$10-20M)
- New or replacement buildings

Self-Support Project

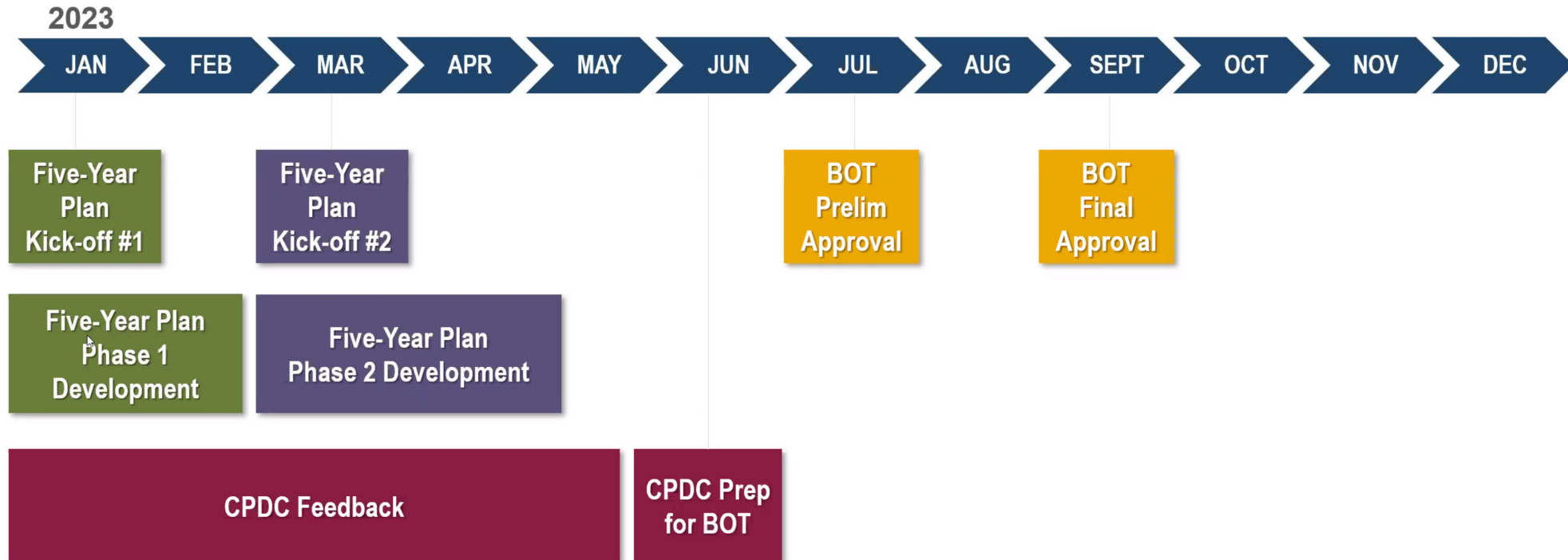
- Major capital project reliant to some degree on limited debt capacity
- Public-Private Partnerships



Capital Improvement Program Timeline

CSU The California State University

Timeline – 2024/25



2024-25 FIVE-YEAR CAPITAL PLAN – Deferred Maintenance (DM)

APPA Higher Education's Facilities Professional organization says:

“Deferred maintenance (DM) was defined as major maintenance or capital projects that had gone unfunded in previous budget cycles. Deferred maintenance became a universally adopted part of the vocabulary of higher education.”

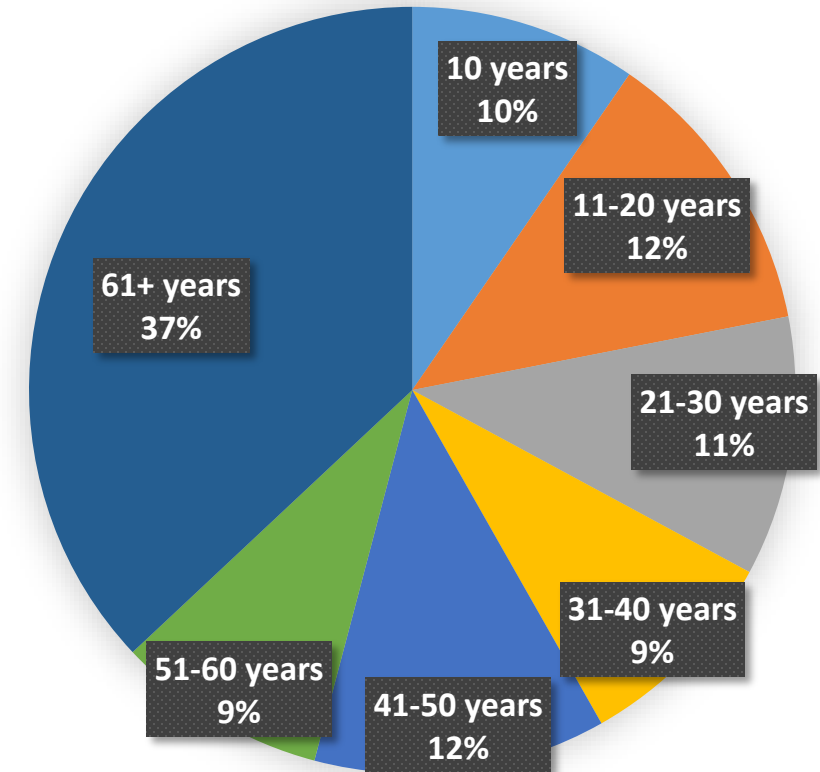
Two Deferred Maintenance categories:

1. Recurring
 2. Non-recurring
- The CSU has an estimated **\$6.5 billion critical capital renewal backlog** and accumulates approximately \$284 million of additional critical capital renewal costs per year.
 - CPP's last facility condition assessments were in 2023.

CPP Deferred Maintenance (DM) Inventory

- Main driver of DM is facility age
- **37% of CPP'S buildings older than 60 years** (compared to 24% for CSU) with 67% older than 30 years
- Over half of the buildings (62%) are rated below average to poor condition

Age of Cal Poly Pomona Facilities (2023)



CPP Deferred Maintenance Program

2023 10-Year DM Overview

Non-recurring needs:	\$106,332,467
Recurring needs:	<u>\$783,441,565</u>
Total DM backlog:	\$889,774,032

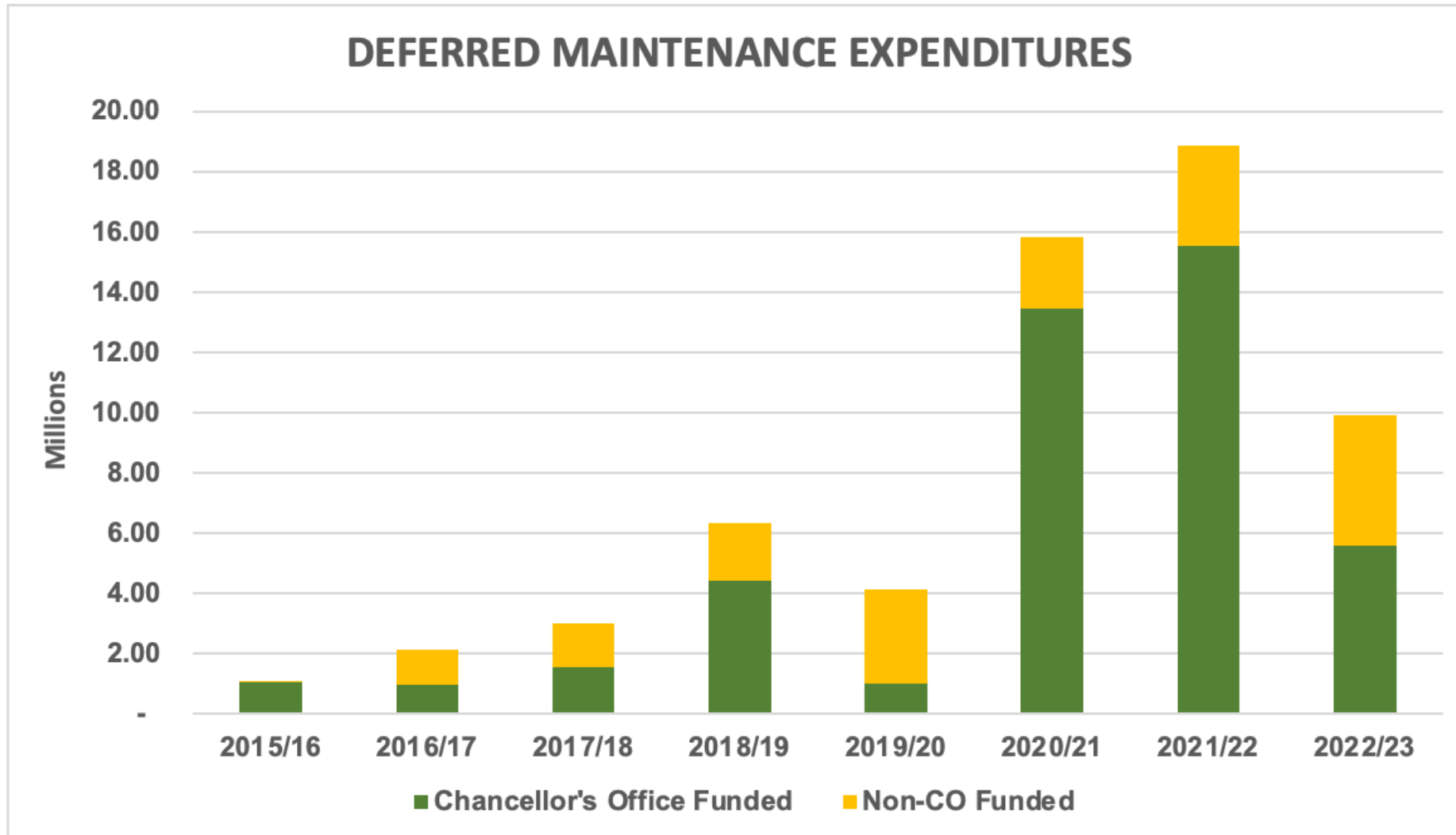
Includes \$436.5M of Current Deferred Maintenance Backlog (through 2022)

Current Replacement Value: \$2.64B

- Current FCNI – 0.34. In order to recover campus to Fair conditions (FCNI = 0.30 or below) we would need to annually invest ~\$50+M in DM



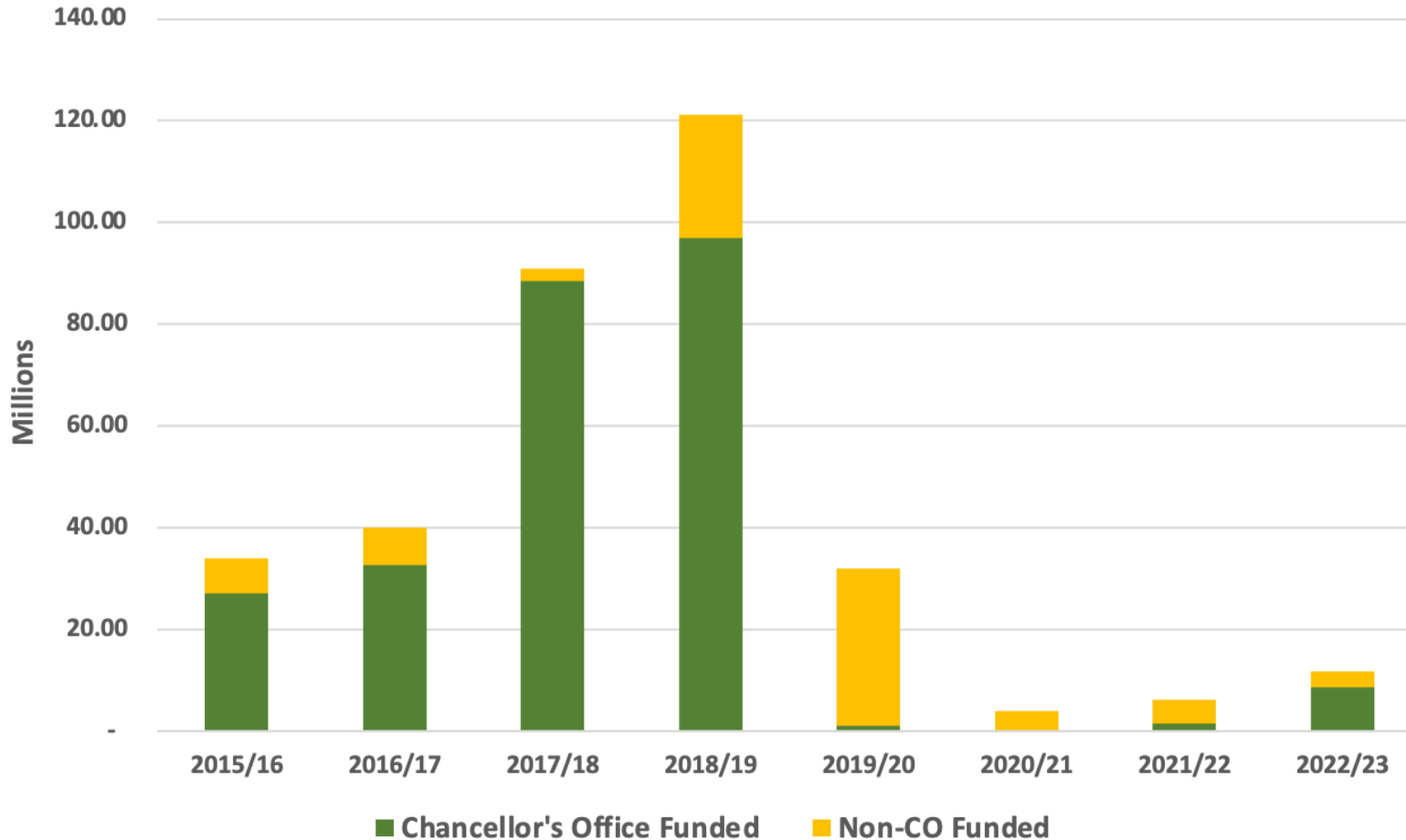
CPP Deferred Maintenance Program



Over 8 years, CPP invested a total of \$61.2M in DM (average of \$3.83M per year)

CPP Capital Improvement Program

CAPITAL IMPROVEMENT EXPENDITURES



Major Capital Projects:

- Parking Structure II – 2015/16
- Student Services Building – 2016/18
- Student Housing Ph II – 2016/19
- CLA Tower Demo/Restoration (seismic requirement) - 2022

Cal Poly Pomona 2024-25 to 2028-29 Five-Year Capital Improvement Plan (draft – March 1st Ph. I Submittal to CPDC)

Academic Projects

Project	2024/25	2025/26	2026/27	2027/28	2028/29
Library Building Seismic and Fire/Life Safety Retrofit / Bldg 15	PWCE 45,265				
Kellogg West Renovation and Fire/Life Safety Upgrades / Bldgs 76, 76A, 77, 78		PWCE 67,717			
Classroom/Lab Building Renovation (Seismic) / Bldg 98C		PWCE 72,332			
Interdisciplinary Academic Resources Building		PWCE 134,808			
College of Letters, Arts and Social Sciences Renovation (Seismic) / Bldg 5			PWCE 56,590		
College Environmental Design Renovation (Seismic) / Bldg 7			PWCE 37,222		
Old Administration Bldg Renovation (Seismic) / Bldg 1				PWCE 63,334	
College of Science Building Renovation (Seismic) / Bldg 8				PWCE 149,690	
Kellogg Gym Renovation / Bldg 43					PWC 63,114
Darlene May Gym Renovation / Bldg 41					PWC 23,121
Totals	\$713,193	\$45,265	\$274,857	\$93,812	\$213,024

Self-Support / Other Projects

Project	2024/25	2025/26	2026/27	2027/28	2028/29
Housing & Dining Demolition and Site Restoration (Greys & Los Olivos), Ph. I	PWC 17,184				
Children's Center Relocation/Replacement / Bldg 116		PWCE 21,102			
Innovation Village Mixed-Use Development (Phases 6 & 7)		PWCE 66,138	PWCE 197,257		
Bronco Mobility Hub (multimodal transportation center)				PWCE 68,400	
BSC Expansion and Renovation, Ph. I / Bldg 35					PWCE 50,300
Student Housing, Ph. II					PWCE 213,937
Health and Wellness Center Relocation/Replacement - Bldg 46					PWCE 58,492
Totals	\$692,810	\$17,184	\$87,240	\$197,257	\$68,400

Cal Poly Pomona 2024-25 to 2028-29 Five-Year Capital Improvement Plan (draft – May 5th Ph. II Submittal to CPDC)

→ Critical Facilities Renewal

Project	2024/25	2025/26	2026/27	2027/28	2028/29
Arabian Horse Center, Phase 2	PWC 14,600				
Roads Renewal, Phases 2 & 3	PWC 10,900				
Roof Renewal, Phase 3	PWC 6,900				
Elevator Renewal - Bldgs. 13, 15, 17, 24, 79A & B	PWC 3,900				
CRS Solar Thermal Replacement	PWC 3,200				
Central Chilled Water Plant Renovation	PWC 3,000				
Bldgs. 5, 7 & 43 Emergency Generator Replacement	PWC 2,570				
Transite Waterlines & Steel Gas Lines Replacement Phase 1	PWC 2,500				
Restrooms Renewal, Phases 1, 2 & 3	PWC 7,389	PWC 5,783	PWC 5,622		
Bldgs. 1, 24 & 25 Emergency Generator Replacement		PWC 3,000			
Secondary Electrical System Replacement Phase 1		PWC 3,000			
Secondary Electrical System Replacement Phase 2			PWC 3,000		
Roads Renewal, Phase 4			PWC 6,747		
Transite Waterlines & Steel Gas Lines Replacement Phase 2			PWC 3,000		
Electric Overhead Line Removal				PWC 1,700	
Secondary Electrical System Replacement Phase 3				PWC 3,000	
General Deferred Maintenance and Critical Infrastructure	PWC 5,000	PWC 57,747	PWC 58,847	PWC 72,747	PWC 72,747
Totals	\$59,959	\$69,530	\$77,216	\$77,447	\$72,747

→ **Capital and Infrastructure Improvements**

Project	2024/25	2025/26	2026/27	2027/28	2028/29
Kellogg Drive and East Campus Drive Roadway Reconfiguration	PW 3,855	C 15,420			
Water Treatment Plant Renewal & Expansion		PWC 3,500			
New Domestic Water Reservoir Tank			PWC 2,100		
Central Plant Thermal Energy Storage Expansion				PW 800	C 3,000
Spadra Well Waterline Extension				PW 1,000	C 2,600
Totals	\$3,855	\$18,920	\$2,100	\$1,800	\$5,600

2024-25 FIVE-YEAR CAPITAL PLAN – Infrastructure Program

INFRASTRUCTURE

Deferred Maintenance includes the category of **Infrastructure** that represents the backlog of utility infrastructure systems that have passed their useful life, plus the Capital Improvement projects that would expand the infrastructure to accommodate future campus buildings and programs demand.

2024-25 FIVE-YEAR CAPITAL PLAN – Energy Program

ENERGY

CSU Goal: Carbon neutrality by 2045 in alignment with existing campus plans and statewide goals.

CSU partnered with the University of California and Southern California Edison on a [Clean Energy Optimization Pilot \(CEOP\), a first-of-its-kind greenhouse gas \(GHG\) reduction program.](#)

Cal Poly Pomona and CSU Dominguez Hills were selected to participate in this CEOP pilot program. The goal is to incent and accelerate the implementation of variety of energy efficiency and GHG reduction solutions that can be studied to understand the effectiveness of the program for possible expansion for a statewide clean energy optimization program.

Program Results:

Year 1 – Reduced Electricity by 1,040,828kWh, Natural Gas by 10,679 therms, and annual CO₂ emission by 775 metric-tons. Avoided costs of \$138K and received \$426K incentives from SCE.

Year 2 – Projected to reduce additional 17,787 metric-tons of CO₂ and expected to receive \$1.66M in incentives.

Note: 1 metric-tons of GHG Carbon Dioxide (CO₂) is equivalent to burning 1,106 pounds of coal or 113 gallons of gasoline.

Cal Poly Pomona 2024-25 to 2028-29 Five-Year Capital Improvement Plan (draft)

Energy Projects (Page 1 of 2)

Project	Funds	2024/25	2025/26	2026/27	2027/28	2028/29
1.6MW Solar PV Expansion in Lot M	Eng	C PPA				
6.3MW Solar PV & 5MWh Energy Storage System	Eng	C PPA				
CEOP1 - Install 25 EV Chargers in PS1	SRB-AP	C 525				
CEOP2 Centralized thermostats on DX AC units at various locations	DM	PWC 150				
CEOP2 - Building 2 & 7 Heating Boiler Replacement	DM	C 850				
CEOP2 - Gas Heating DX units to Heat Pump Bldgs. 79A&B and 211	DM	C 850				
CEOP2 - Install 50 EV Chargers in Parking Lots A, J1, J5, KW, & Campus Center	DM	C 850				
CEOP2 - LED Troffer lighting retrofit - Bldgs. 9 & 13	DM		PWC 600			
Convert Gas Heating Units to Heat Pump at various locations - Phase II	Eng		PWC 850			
MBCx w/ EcoVox bldg. analytics implementation in various bldgs.	Eng		PWC 200			
CHW tertiary pump & VFD upgrade in various bldgs.	Eng		PWC 750			
LED Lighting Retrofit - Bldgs. 5, 24 & 25	Eng		PWC 1,000			

PPA – Power Purchase Agreement is a 25-year agreement with a Solar Provider for CPP to purchase onsite renewable electricity. Solar systems are constructed, owned and operated by the Solar Provider, with little to no initial investment from the university.

Cal Poly Pomona 2024-25 to 2028-29 Five-Year Capital Improvement Plan (draft)

Energy Projects (Page 2 of 2)

Project	Funds	2024/25	2025/26	2026/27	2027/28	2028/29
LED Lighting Retrofit - Bldgs. 2, 7 & 8	TBD			PWC 1,250		
Bldg. 4 Gas Boilers (2 ea) to Heat Recovery Chillers Replacement	TBD			PWC 2,000		
CHW delta T improvements at various bldgs	TBD			PWC 750		
Bldg. 8 Fume Hood Hi-Low Controls w/ Cypress Controls	TBD				PWC 800	
Bldg 4 Zone Pneumatic to DDC Upgrade incl. Smart Stack Exhaust & upgrade Phoenix Controls Valves	TBD				PWC 2,500	
Bldg. 6 Gas Boiler to Heat Recovery Chiller Replacement	TBD				PWC 950	
Improve HHW delta T - Bldgs. 9, 13, 15, 17 & 121	TBD					PWC 500
LED Lighting Retrofit - Bldgs. 29, 45, 46, 79, 79A&B, 81, 86, 92, 94, 95, & 109	TBD					PWC 1,370
Bldgs. 1 & 2 Pneumatic to DDC zone controls upgrade	TBD					PWC 5,000
Totals		\$3,225	\$3,400	\$4,000	\$4,250	\$6,870

CPP 2023-24 Divisional Minor Capital Requests

ANNUAL BUDGET PROCESS

- Through the annual budget process, divisions submitted **79 minor capital project requests** totaling \$11.4 million (see below)
 - 89% - costs have not yet been verified by Facilities
 - 11% - project costs not provided
- Auxiliaries (ASI and CPP Enterprise Foundation) also submitted requests but are not included in the totals

Division	Total Projects	Total Cost
Academic Affairs	54	\$8,900,000
Admin. Affairs	4	350,000
Office of the President	1	500,000
Student Affairs. **	18	1,600,000
University Advancement	2	29,000
TOTAL	79	\$11,400,000
** 15 projects are self-support student housing		

End of presentation