2019

FACILITIES MASTER PLAN
Cerritos College

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Cerritos College

PLANNING TEAM

GENSLER
Facilities Planning

INTEGRATED ACADEMIC SOLUTIONS
Education Planning

LANDLAB ENVIRONMENTAL DESIGN
Landscape Planning

S&K ENGINEERS
Infrastructure Planning

CONTENTS

1 PROCESS + PARTICIPATION

2 EMP | FMP LINKAGES

3

EXISTING CONDITIONS

4

RECOMMENDATIONS

5

APPENDIX

Letter from the President

The 2019 Cerritos College Facilities Master Plan (FMP) builds upon our tradition of excellence in education by establishing a long-term vision for facilities development. This vision recognizes the need to accommodate growth and change while aligning with themes in the college's Educational Master Plan, including highlighting clear educational and career pathways for all students, strengthening partnerships with our community, fostering a collaborative culture, and raising awareness about who we are and conveying that message effectively.

Due in large part to a mutually beneficial relationship with the communities we serve, Cerritos College is able to dream and achieve just as big as our students do. In 2004, voters passed Measure CC, providing $210 million in bond funds for facilities construction and renovation. Then in 2012, they overwhelmingly voted in favor of Measure G to provide $350 million to continue to revitalize our educational environment.

Continued investment into Cerritos College leads to significant returns for our community and students. We are the school of choice in the region because of environmentally conscious construction and new buildings that provide spaces where students may prepare for evolving workforce-training needs. Our safe physical environment allows students to thrive, as evidenced by record-breaking numbers of student graduates year after year. Increased educational attainment levels lead to a better quality of life in our region for generations to come.

As the next generation of students prepare for a brighter future, we too are preparing so that we may best serve them. As local and global economies continue to demand more of the workforce, Cerritos College will remain well positioned to provide excellent educational programs that serve our diverse student population.

Jose. L. Fierro, D.V.M., Ph.D.
President / Superintendent
Cerritos College

Philosophy

Cerritos College embraces community, diversity, innovation, and active learning. We strive for high academic and ethical standards, as well as academic freedom; we believe in the worth and dignity of all of our learners. In educating, we consider the learner's cognitive growth and emotional and physical well-being. The college prepares individuals for full participation in a complex democratic society as citizens and leaders, for the fulfillment of personal needs, and for the future. We believe that the purpose of education is to cultivate critical thinking skills and enhance the quality of life.

Mission

Cerritos College values its diverse student population and is committed to providing these students with high quality, comprehensive instructional programs and support services that improve student success and offer clear pathways to achieve personal, educational, and career goals. In doing so, the college develops in students the knowledge, skills, and values that prepare them to be productive participants in the global community.

Vision

Driven by the pursuit of unparalleled student success, Cerritos College will provide access to innovative learning opportunities that promote the power of learning.

Values

- Support and promote student success

- Promote excellence in teaching, learning, and service

- Support innovation and creativity to enhance and enrich learning

- Celebrate diversity in people, philosophies, cultures, beliefs, programs and learning

- Promote respect and trust in all people regardless of background, including students, community members and employees

- Foster integrity

- Develop nurturing and supportive partnerships with our educational, business and industry communities

- Support comprehensive curricular offerings

- Promote inclusiveness in a collaborative decision-making process

.1 Process + Participation

1 | Process + Participation

The development of the 2019 Cerritos College Facilities Master Plan (FMP) was developed through a highly participatory process involving the College's many constituencies. Throughout the design process, a series of meetings, campus forums and workshops were conducted to involve the many distinct and diverse voices of the Cerritos College community.

This chapter of the document outlines the following:

- Planning Process
- Campus Engagement
- List of Participants
- Campus Forum
- Online Experience Survey
- Sustainability Forum

Process + Timeline

The FMP was developed from August 2018 through May 2019 through a collaborative 5-step process. The planning team activities are described below and illustrated on the following page.

STEP 1: PREPARE

- Established the FMP Subcommittee, coordinated the timeline and scheduled activities

- Collected relevant planning information provided by the College

- Conducted campus vision sessions and on-line surveys

STEP 2: ANALYZE

- Analyzed EMP goals, data and trends to inform the facilities planning discussions

- Augmented the EMP with additional data analysis and interviews with instructional and student services divisions

- Conducted site visits with key personnel to observe existing conditions, patterns and uses

- Developed graphics to Illustrate patterns and identify key issues to address in the FMP

STEP 3: FRAME

- Clarified linkages from the EMP to the FMP

- Developed program forecasts and the FMP Space Program

- Established facilities planning principles to serve as a guide for exploring options

STEP 4: EXPLORE

- Explored campus development options for review and discussion with the subcommittee

- Developed preliminary recommendations for site and facilities development

- Strategized opportunities to maximize state funding opportunities

STEP 5: RECOMMEND

- Shared preliminary recommendations with the campus

- Developed a draft FMP document for College review

- Assisted the College in the approval process

2019 Facilities Master Plan | Cerritos College
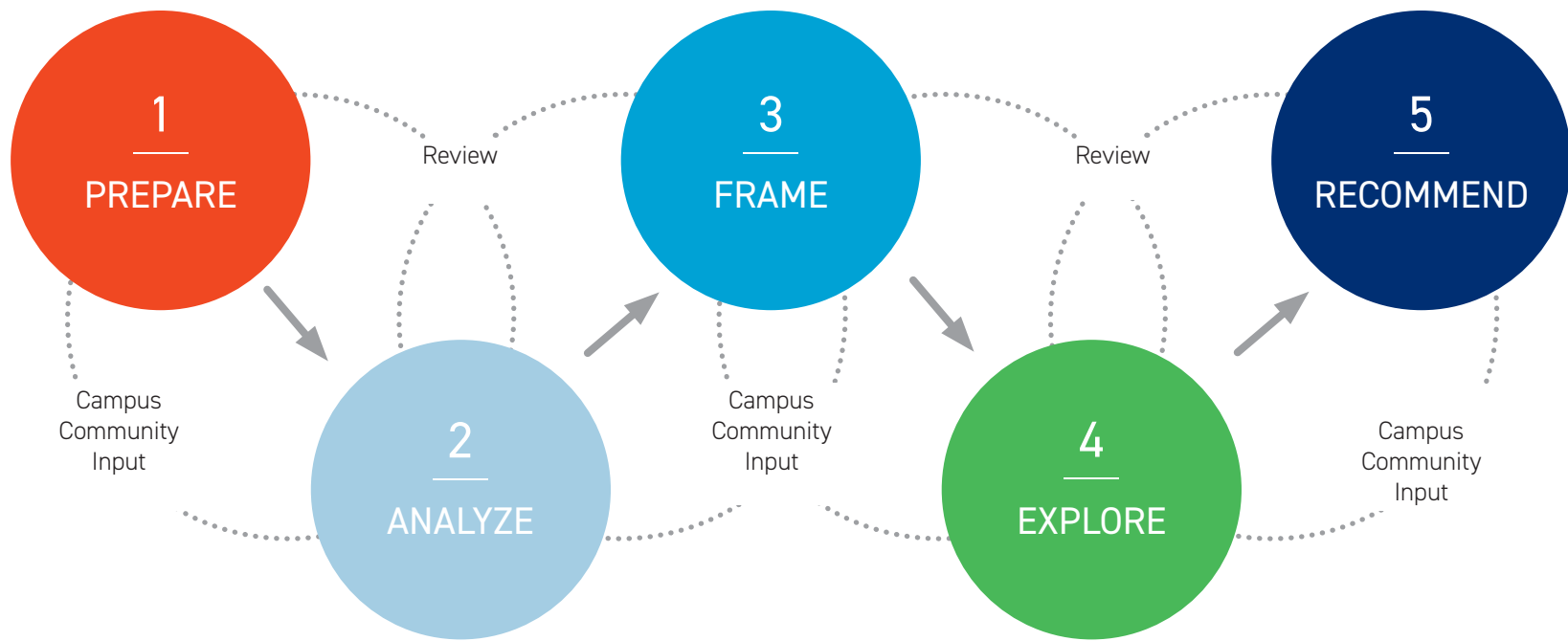
	2018					2019					
	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Prepare											
Analyze											
Frame											
Explore											
Reccommend											

Campus Engagement

Maximizing campus engagement was identified as one of the "keys to success" for the 2019 Facilities Master Plan. To support this goal, the Cerritos College leadership collaborated with the Planning Team at the start of the process to identify the many stakeholders, establish the FMP Subcommittee Task Force, and design a series of engagement activities.

The engagement activities included a series of meetings, presentations, workshops and discussions. These activities integrated into the planning process to include the many voices of Cerritos College, broaden the plan's perspective and enhance the acceptance of the recommendations.

A summary of this broad campus participation is included on the following pages.

Cerritos College Leadership

BOARD OF TRUSTEES	EXECUTIVE COUNCIL

CARMEN AVALOS
President

DR. JOSE FIERRO
President, Superintendent

MARISA PEREZ
Vice President

RICK MIRANDA
Vice President of Academic Affairs,
Assistant Superintendent

MARTHA CAMACHO-RODRIGUEZ
Clerk

FELIPE LOPEZ
Vice President of Business Services,
Assistant Superintendent

JAMES CODY BIRKEY

ZURICH LEWIS

DR. ADRIANA FLORES-CHURCH
Vice President of Human Resources,
Assistant Superintendent

DR. SHIN LIU

DR. SANDRA SALAZAR

DR. DILCIE PEREZ
Vice President of Student Services,
Assistant Superintendent

PHIL HERRERA
Student Trustee

FMP SUBCOMMITTEE

FELIPE LOPEZ
Vice President of Business Services,
Assistant Superintendent

PATRICK O'DONNELL
Director of Information Technology

TIM KYLLINGSTAD
Senior Accessibility
Compliance Specialist

DEBORAH BUFFINGTON
Administrative Clerk II,
Fine Arts & Communication

RICK MIRANDA
Vice President of Academic Affairs,
Assistant Superintendent

DAVID MOORE
Director Physical Plant & Construction
Services

SHANNON KAVENEY
Facility Manager

JIMMY RIORDAN
Tilden Coil Program Manager

DR. KRISTI BLACKBURN
Dean of Institutional Effectiveness,
Research and Planning

DR. APRIL GRIFFIN
Faculty Senate President

LYNN LAUGHON
Document Services Technician,
IT/Publications

PHIL HERRERA
Student Representative

DR. ANDREW MAZ
Music Department Faculty

LINDA KAUFMAN
Administrative Assistant,
Business Services

Campus Forum

At the start of the planning process, the Cerritos College community was invited to participate in an all-day Campus Forum. Students, faculty, staff and administrators engaged with the planning team through a series of interactive boards and conversations. Information was collected, analyzed and used to inform the facilities planning process.

The findings of these sessions are summarized on the following pages.

FAVORITE + LEAST FAVORITE

Participants were asked to identify their 'favorite' and 'least favorite' areas of campus. The results are summarized below. While some places are identified as both 'favorite' and 'least favorite', the following themes emerged.

- The highly active LRC and Student Center are favored by many

- The age and condition of buildings appear to be a direct factor - newer buildings are favored, and older buildings are not

- The parking lots were identified as 'least favorite' and most likely represent concerns about access and location

● Favorite

● Least Favorite
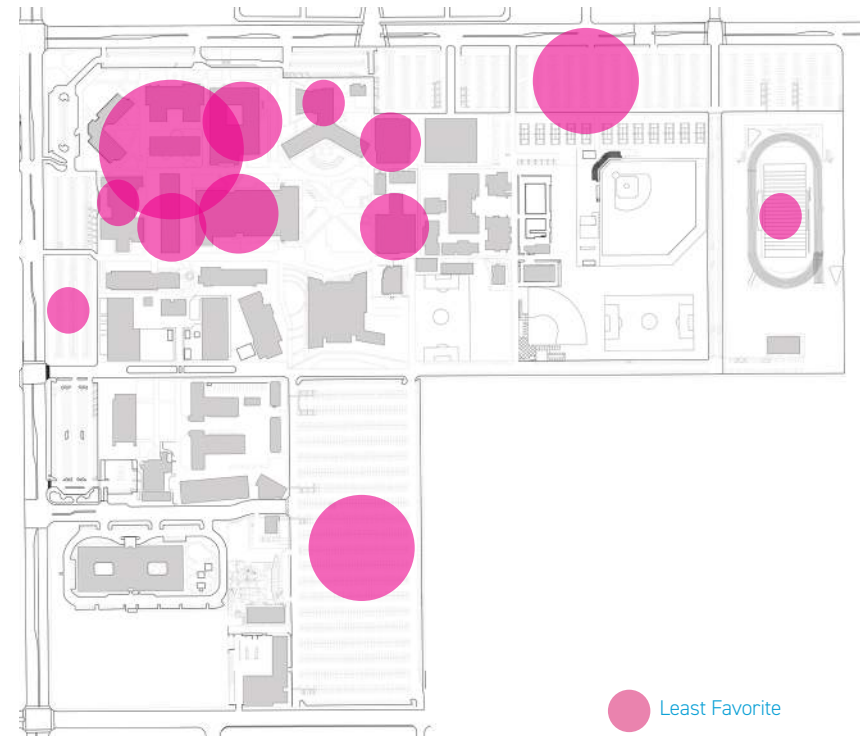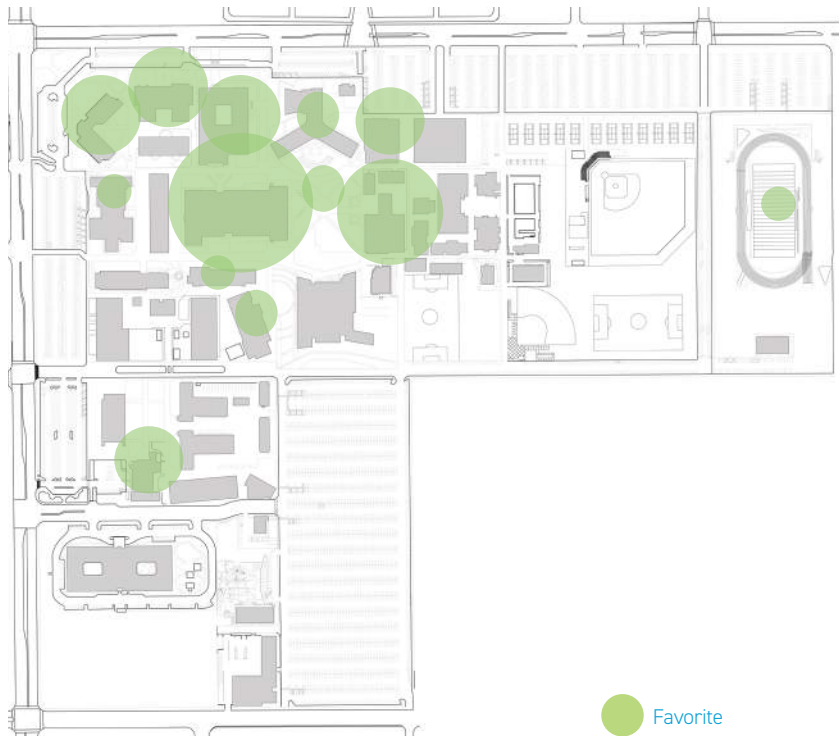
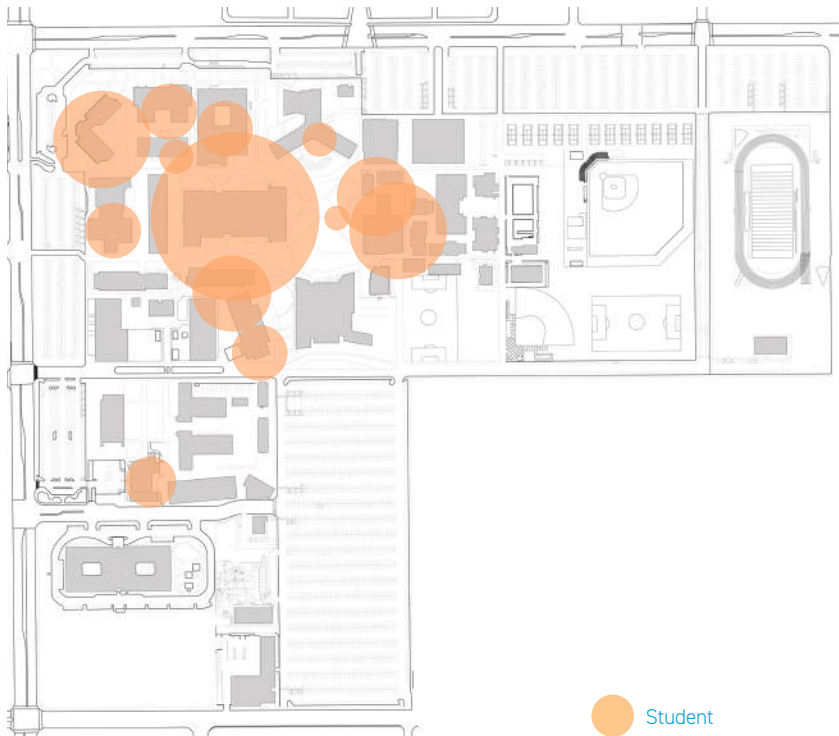## FAVORITE PLACE TO STUDY/FOCUS ON CAMPUS

Students were asked to identify their favorite place on campus to focus or study. The results are described in the graphic and illustrate the following themes:

- For the majority of students, the LRC was their favorite place, due to access to get help and quiet environment

- Many students identified the Student Center as their favorite place, preferring the more active environment

- Several students identified spaces in newer buildings, including lobbies and study areas

● Student

FAVORITE PLACE TO SOCIALIZE

Students were asked to identify their favorite place to socialize on campus. The results are described in the graphic and illustrate the following themes:

- The Student Center was selected by most students as their favorite place to socialize

- Many students selected the same places as their favorite to both study and socialize, stating that they socialize while they study in groups

- A variety of other locations were selected by students, including the Gym, Student Activities and outdoor spaces

● Student
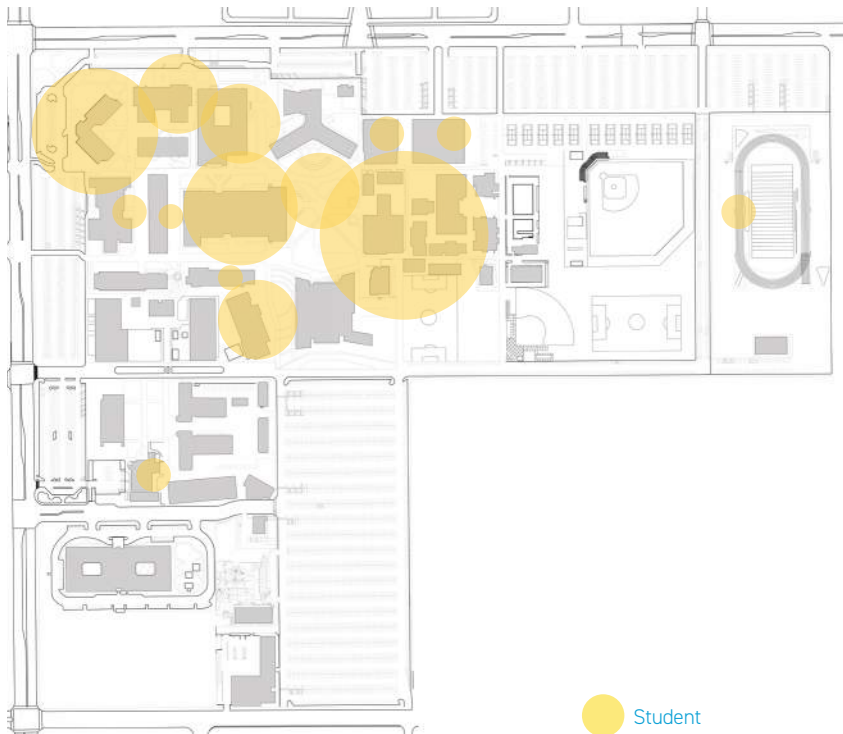
WHILE ON CAMPUS

Participants were asked how much time they spend on campus. The results are described in the graphic and illustrate the following themes:

- The majority of participants are on campus 4-5 days per week for 6 or more hours per day

- With the high number of hours spent on campus, Cerritos should invest in facility improvements to provide the most updated technology and support innovation

- It is also important to provide spaces for individual rest and relaxation

GETTING TO CAMPUS

Participants were asked to identify how they commute to campus. The results are described in the graphic and illustrate the following themes:
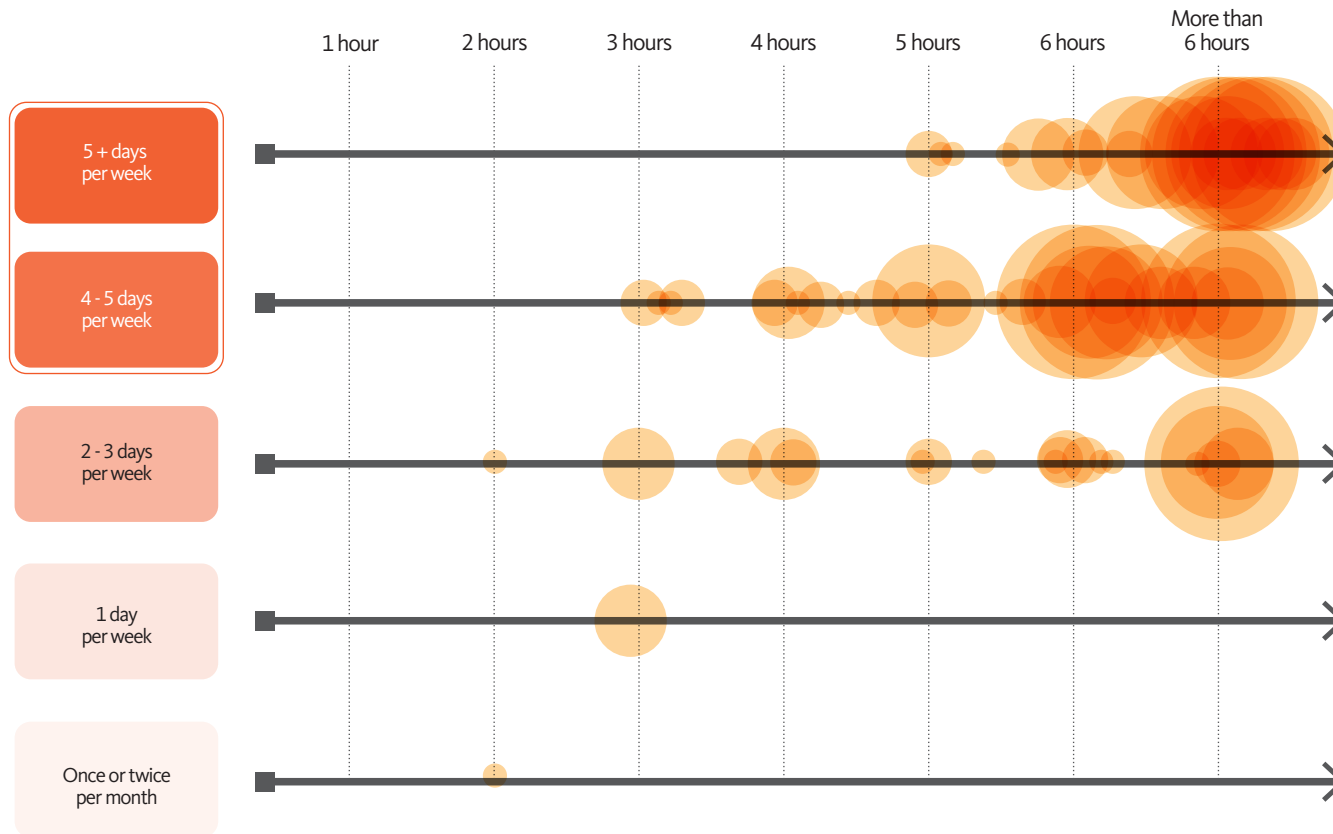
- The majority of participants drive alone
- Most people spend 30 minutes or less commuting to campus
- The number of participants using public transit continues to increase and could be incentivized
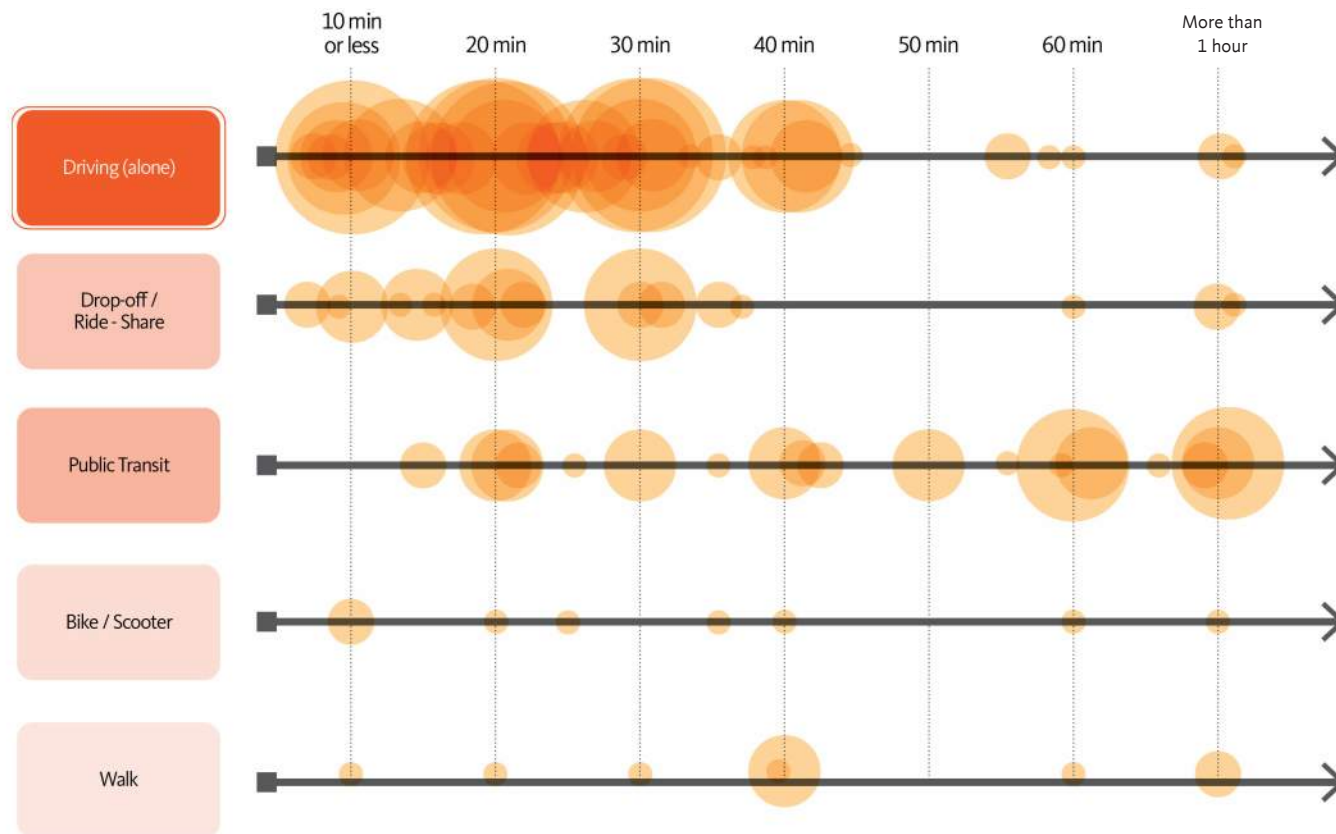
100 IDEAS

Participants were asked to share their ideas on how to make Cerritos College a better place. Over 500 responses were collected, analyzed and sorted to identify common themes. Common themes emerged and are highlighted on the following page.

COMMON THEMES

STUDENT + CAMPUS LIFE	STUDENT SUPPORT	FOOD + HEALTH
Integrate Community	Modern Technology + Equip.	Variety of Food Options
Brand + Identity	Accessible Technology	Coffee Carts + Cafes
Social Spaces	Open Communication	Food Trucks

CIRCULATION + PARKING	OPEN SPACE	FACILITIES
Improve Vehicular Circulation	Sidewalk Paths	Renovations of Existing Buildings
Free Parking	Gathering Spaces	Centralize Student Services
More Parking	Utilize Open Space	Large Multi-Purpose Quad
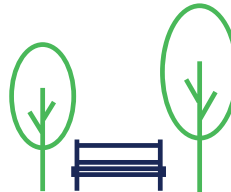
Online Survey

In order to maximize participation and provide the opportunity for the many voices of the Cerritos College community to engage in the planning process, an On-line Survey was conducted.

The invitation to participate in the survey was sent to the entire college community and a series of questions were designed to capture comments, thoughts and ideas related to facilities planning.

A summary of the participation and findings are included below and on the following pages.
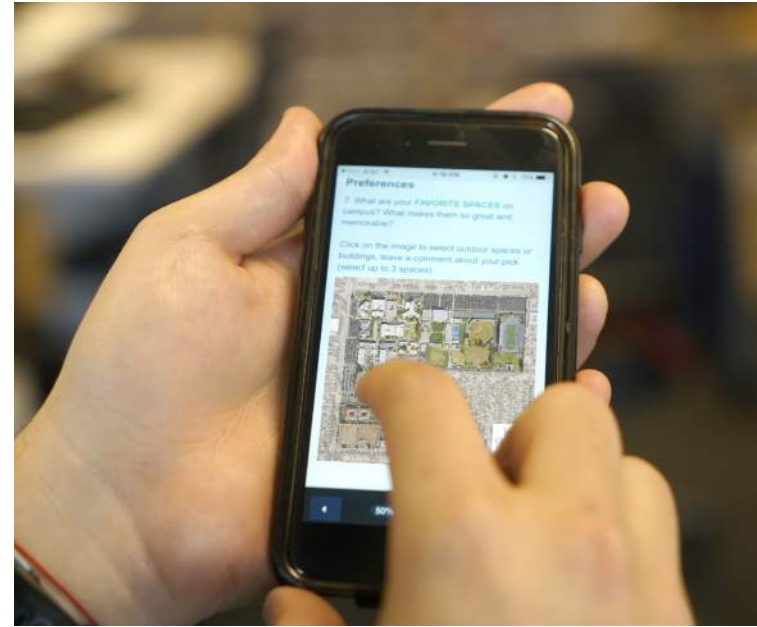
1,187 Completed Surveys

Students	**77%**
Faculty	**11%**
Staff	**8%**
Admin	**4%**

HOW DO YOU GET TO CAMPUS?

68% Drive Alone

10% Dropped Off

9% Take Bus

7% Car Pool

3%
LOT 2

21%
LOT 1

6%
LOT 6

15%
LOT 7

38%
LOT 10

● Student

PARKING ON CAMPUS

37 Mins
Average for Students

38 Mins
Average for Admin, Faculty & Staff

13%
LOT 4

16%
LOT 3

12%
LOT 5

18%
LOT 6

11%
LOT 10

● Admin, Faculty + Staff
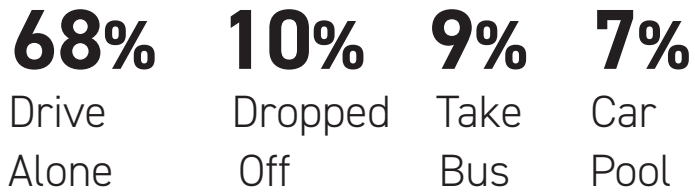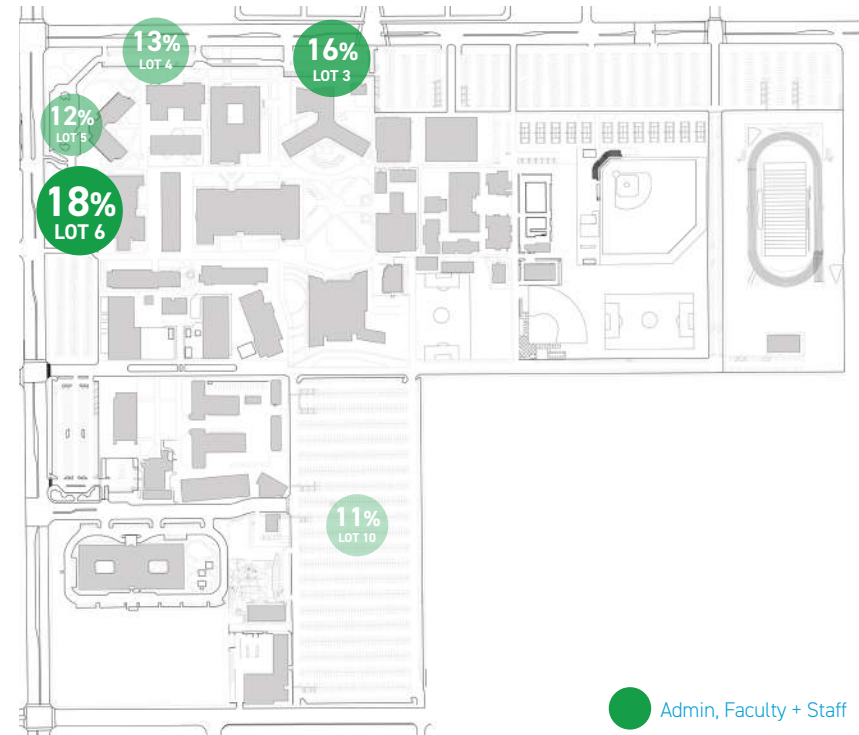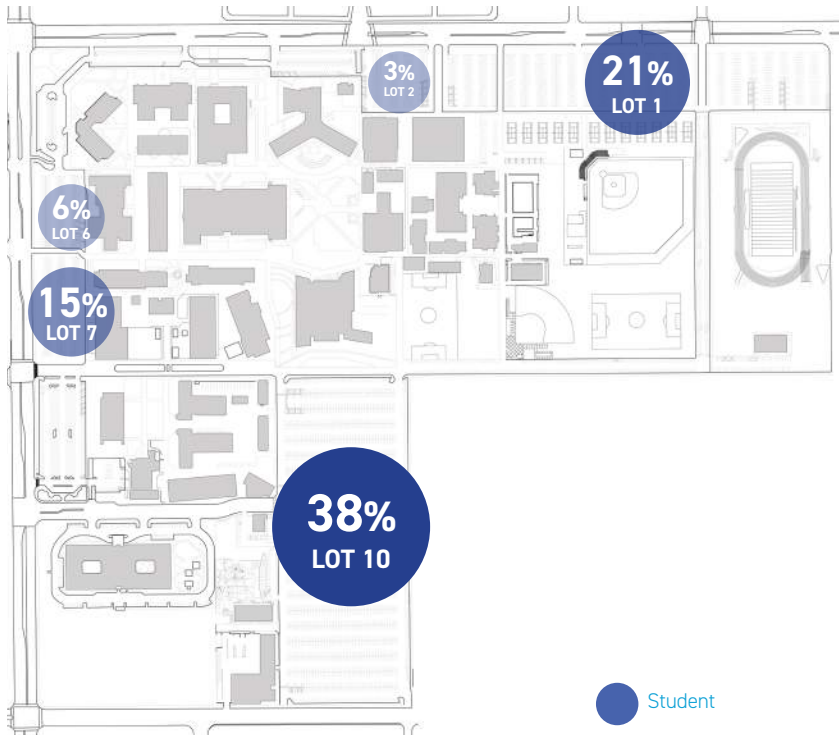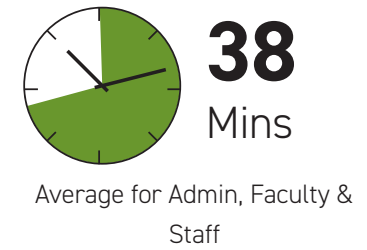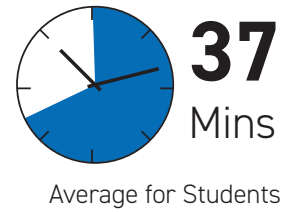
MOTIVATION TO ATTEND CERRITOS

Transfer to a 4-year college or university — 65%

Obtain an associate degree — 47%

Self-improvement — 25%

Complete a certificate program — 23%

Obtain or update job-related skills — 15%

Change careers — 7%

Other - Write In (Required) — 2%

65%
Transfer to a 4 - year college or university

47%
Obtain an Associate Degree

25%
Self - Improvement

23%
Complete a Certificate Program
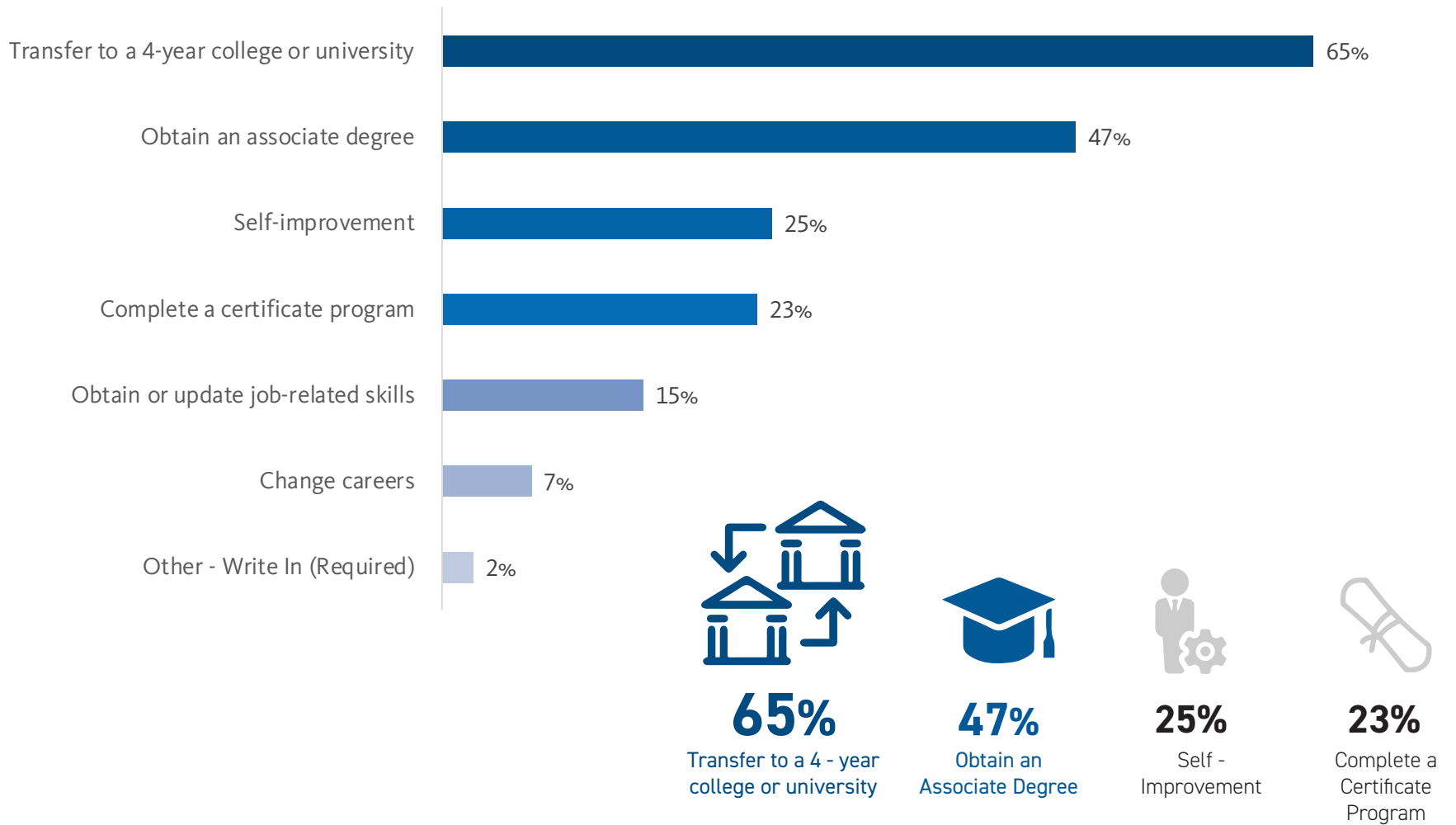
HOW STUDENTS SPEND THEIR TIME

Working or in a
lab/ studio
18%

Studying
off - campus
or at home
18%

Studying by
myself on
campus
10%

Attending a
Scheduled Class
43%
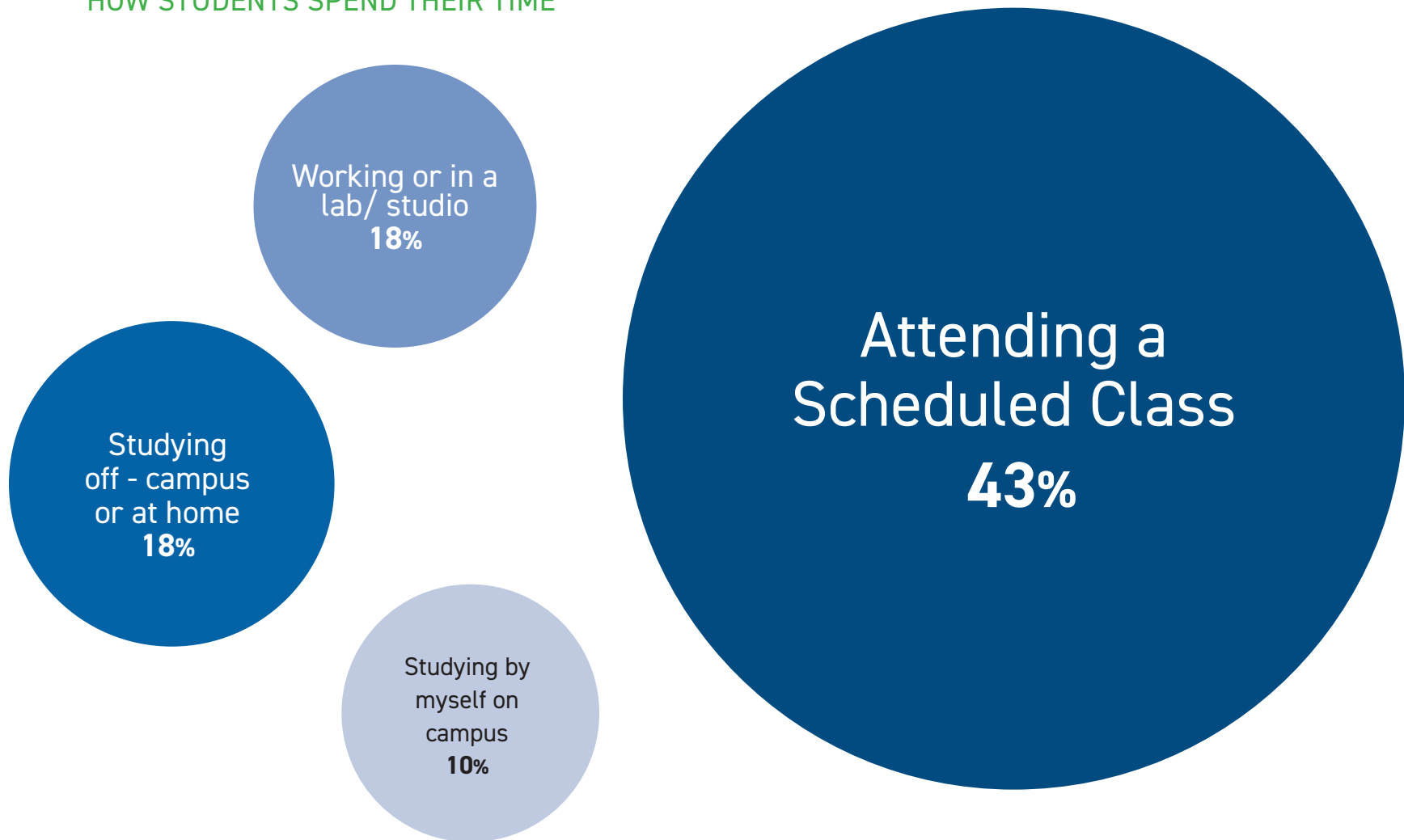
"My favorite space is the library because I get the quiet space I need to complete my work and the wifi is stronger if I choose to bring my own laptop or use my phone"

"The pool is one of my favorite spaces, always clean and looks so refreshing"

"The outdoor hangout areas are a nice addition to the campus and they provide a couple outlets to charge phones or computers, so you can be outside and do your homework if you want"

"The Fine Arts building is beautiful and the walkway just outside is a lovely space to enjoy a few minutes of quiet"

"The classrooms: I love all my professors and I learn something new each day I come to class. I have a passion for learning and never once does it feel like any of my professors are reading from the textbook"

"The learning center is one of my favorite spaces because it provides help for classes I struggle with. This is important because without the learning center, there is not many places I would be able to go for help"

"The LA building offers beautiful, useful classroom and offices for faculty, staff, and students. It also set a high standard that is offered to disabled students through the Disabled Students Programs and Services department"

CAMPUS CULTURE

Participants were asked to describe the campus culture based on where they view Cerritos today, and where they would like Cerritos to be in the future

The responses highlight a general desire to shift from the descriptive terms notes on the left to the words listed on the right. This represents an opportunity for a major shift that can inform the long range vision and related campus development recommendations.

Traditional — **Contemporary**

Fixed — **Flexible**

Dispersed — **Centralized**

Quiet — **Active**

Introverted — **Extroverted**

Today
Tomorrow
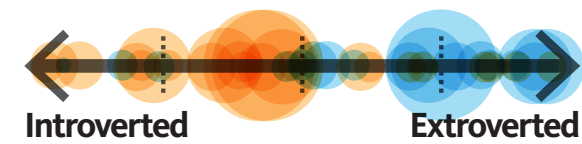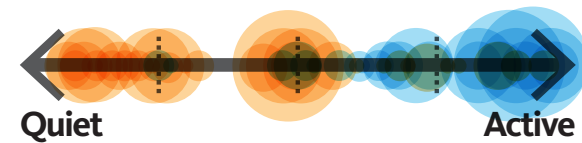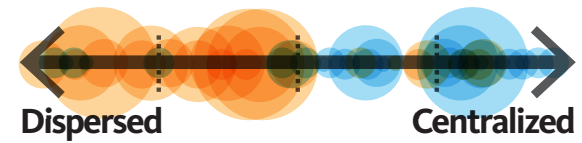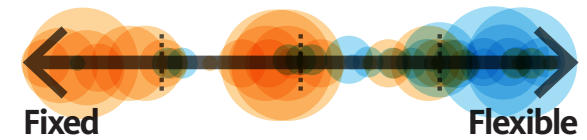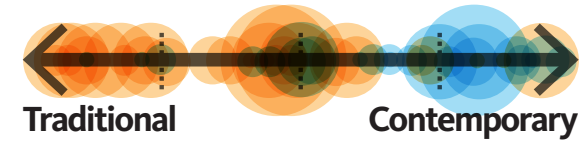
Sustainability Forum

An open sustainability forum was held during the planning process to engage with the campus community and discuss opportunities related to sustainability. To maximize participation, the forum was held in the Student Center and participants joined the planning team to interact in a series of activities.

Activities were focused on two key areas:

- Resource Stewardship, including energy, water, materials and greenhouse gases

- Social Responsibility, including health and well-being, mobility, community engagement and transparency

The following pages summarize the findings from the forum that helped form the Sustainability Goals for the FMP.

Students **89%**

Faculty, Staff + Admin **11%**

170 Participants

TRANSPARENCY

ANNUAL SUSTAINABILITY PERFORMANCE REPORT | ESTABLISH ONGOING SUSTAINABILITY COMMITTEE | REQUIRE GREEN BUILDING CERTIFICATION FOR ALL NEW BUILDING PROJECTS

WATER

USE NATIVE/DROUGHT TOLERANT LANDSCAPING | INSTALL ON-SITE GREY WATER/ BLACKWATER TREATMENT | ON-SITE STORMWATER CAPTURE + RELEASE

WELL-BEING

NATURAL DAYLIGHT/ VIEWS IN CLASSROOMS | HEALTHY INDOOR AIR QUALITY | INCLUSIVE/UNIVERSAL DESIGN PRINCIPLES

MATERIALS

INCREASE RECYCLING | INCREASE COMPOSTING | PROVIDE REUSABLE WATER BOTTLE + BAG

CLIMATE SMART

INCREASE ENERGY CONSERVATION + EFFICIENCY | CONVERT TO CERTIFIED CLEAN ELECTRICITY | MAXIMIZE ON-SITE ENERGY GENERATION

CLIMATE SMART

GO ALL ELECTRIC | INCREASE CLEAN/GREEN TECH IN CURRICULUM | PREPARE/IMPLEMENT A CLIMATE ACTION PLAN

● Student

● Admin, Faculty + Staff

WHERE SHOULD CERRITOS INVEST?

Participants were given two $500 bills to spend on six sustainability topics in order to identify where participants would like to see Cerritos College invest in the next five years.

The following areas for green investment were identified as a priority:

- Well-Being
- Climate Smart
- Transparency
- Mobility

Student   Faculty + Staff + Admin
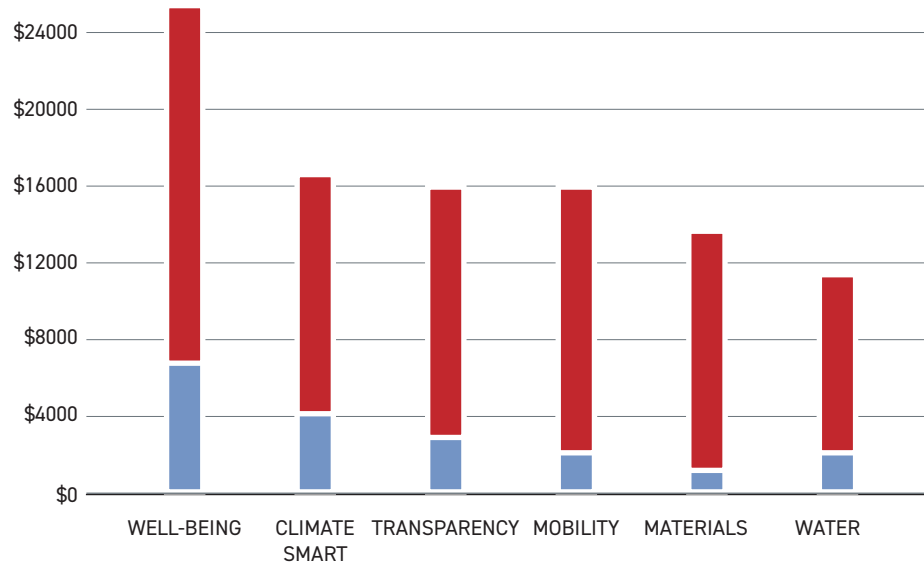
TOP FOUR AREAS OF GREEN INVESTMENT

Well-Being

- Design healthy interior environments that allow occupants to be more active and thrive

- Implement connections to nature for people to recharge, restore calmness and focus

Climate Smart

- Consider the following factors to design comfortable and energy efficient buildings:

1. Seasonality

2. Solar Position

3. Environmental Factors

4. Climate Data

Transparency

- Communicate openly about information related to sustainability

- Transform the global community into a truly sustainable society

Mobility

- Promote resilient communities

- Minimize vehicular-generated greenhouse gas emissions

- Provide infrastructure for the adoption of fossil-fuel free transit

.2 Planning Data

2 EMP | FMP Linkages

Integrated planning allows an institution not only to align and connect its plans in deliberate ways, but also to effectively prepare for changing environmental conditions while achieving key mission-critical outcomes. The information and analysis provided in this chapter reflects Cerritos College's integration of the 2017-2023 Educational Master Plan (EMP) with this 2019 Facilities Master Plan.

- Process Overview
- EMP Data + Trends
- EMP Goals
- External Data
- Internal Data
- Major Themes and Trends
- Enrollment Forecast
- Space Inventory
- Space Utilization
- FMP Space Program

Process Overview

GAP ANALYSIS AND DETERMINING ADDITIONAL DATA NEEDS

The Cerritos College 2017-2023 Educational Master Plan identified a number of significant external and internal factors that will shape the future teaching and learning environment.

However, as effective planning is a continuous process that requires the periodic re-evaluation of plans as well as underlying data, the alignment of the Educational Master Plan and the Facilities Master Plan called for an assessment and update of existing data to deepen the college's understanding of the current and future milieu.

Consequently, in light of recent system-wide initiatives and mandates, which impact current as well as future Cerritos students, the augmentation of existing EMP data emerged as a priority in the planning process.

OVERVIEW OF DATA AUGMENTATION: TYPES AND PURPOSES

A re-examination of EMP data revealed several areas where an augmentation of existing EMP data would be valuable to the assessment of current and future program needs.

Specifically, data related to changing demographics, economic trends, the regional labor market, and the impact of program goals and new college initiatives, such as Cerritos Complete and the expansion of non-credit opportunities, allowed for a more in-depth analysis of existing challenges and emerging opportunities, which is critical to informing facilities plans.

AUGMENTING DATA: EXTERNAL AND INTERNAL

Additional external data determined to be valuable to an environmental trend analysis is identified in the tables on the following page.

EXTERNAL TRENDS	PURPOSE
Population Growth: State, Counties, Service Area Cities	State data provides general overview of trends and comparison points for other population trend data. County and service area city data indicates possible changes in the number of future Cerritos students.
Age Demographics: Projected Changes	Indicates trends that potentially impact enrollment. Help guide decisions regarding program and course offerings.
K-12 Enrollment Trends	Indicates trends that potentially impact future enrollments.
Educational Attainment in Service Area	Indicator of potential future student interest/demand for courses and programs.
Projected HS Graduates	Indicates trends that potentially impact future enrollment.
Fastest Growing Occupations	Allows for an assessment of current program offerings and gap analysis to determine possible future curriculum.

INTERNAL TRENDS	PURPOSE
Quantitative (college and discipline): • Enrollment Headcount • WSCH by Method of Instruction • Number of Sections	Provides indicators of program growth, stability, or contraction, which carry implications for future space needs.
Qualitative (college and disciplines): • Student needs and expectations • Community and employer needs and expectations • Staffing • Information Technology • Emerging initiatives and partnerships • Program and department goals and priorities • Curriculum changes • Enrollment management strategies • Facilities	Provides contextualizing information, which informs the interpretation of data and helps define future needs and critical resources.

ADDITIONAL QUALITATIVE INFORMATION:
PLANNING SESSIONS WITH DIVISIONS, DEPARTMENTS, AND PROGRAMS

To provide the planning team with additional contextualizing information about the status of college programs, goals, current challenges, and evolving facilities needs, the planning consultants met with deans, department chairs, faculty, and other college leaders to learn more about academic and student services programs.

Meetings with instructional deans and faculty chairs occurred on September 25 and 26, 2018, and included representatives from:

- Health, Physical Education, Dance and Athletics
- Science, Engineering and Mathematics
- Fine Arts and Communications
- Liberal Arts
- Business/Humanities/Social Sciences
- Adult Education
- Health Occupations
- Academic Success
- Technology

Discussions with these college leaders focused on several central questions regarding departments' actions or planned initiatives in furtherance of the six EMP goals (e.g., equity, Guided Pathways), how current facilities help or hinder the accomplishment of these goals, the role of faculty collaboration in successfully implementing various initiatives, and program growth in their areas.

Additionally, the planning team inquired with representatives from career and technical programs about workforce needs and their efforts to meet industry demands. To obtain additional information regarding changes in students' needs and resulting changes in the delivery of services to students, the planning consultants met with leaders from the Guided Pathways Committee, Student Services, and the Enrollment Management Committee.

COMMON THEMES

Following the sessions, the planning team synthesized the findings and observed the common themes:

- Fostering Interdisciplinary and Interdepartmental Collaboration

- Increasing Access to Programs and Services

- Preparing for New and Future Program Opportunities

- Developing and Sustaining Pathways

- Supporting Instructional Innovation

- Partnering with K-12, Four-Year Colleges/Universities, Community Organizations, and Businesses

- Identifying New or Renovated Facilities Needed for Growth and Student Support

- Improving and Maintaining Existing Facilities

The tabled featured in the Appendix of this document (Planning Session Themes, Examples and EMP Correlations), includes additional detail

EMP Data ,Trends and Implications

SUMMARY

The environmental scan featured in the Educational Master Plan 2017-2023 incorporated key data and findings, which centered upon population and demographics, Cerritos College enrollment and student success, and area employment and workforce trends.

Specifically, the EMP details the most notable external and internal changes that will have a bearing on future students' access to and successful completion of Cerritos College's programs, including:

- a general population increase in the District's service area cities by an average of 4.5% over the 22-year time frame (2013 to 2035);

- an increase in the senior population (65 years and older) as well as a smaller percentage of children and younger adults;

- the continuation of a pattern of increasing ethnic diversity; and,

- disparities in both median incomes as well as educational attainment.

Consequently, the EMP identifies several major implications of these general trends, such as continuing the focus on the needs of an ethnically and socio-economically diverse student body, while also meeting demands for programs that serve older adult, non-traditional, and second-career students.

INTERNAL DATA

Internal data provided in the EMP points to additional implications for Cerritos College's future instructional and student support programs. Most notably, the majority of students attend part-time, come to the college from within the service area and the adjacent service area, and from high schools that are outside the service area. Increasingly, the majority of Cerritos College students identify as Hispanic and many are also economically disadvantaged. Additionally, the District serves many first generation, socio-economically disadvantaged students, the vast majority of whom (i.e., approximately 88%) are not college-ready and require important support services.

EXTERNAL DATA

In terms of employment and workforce trends, the EMP notes that while the area is expected to see strong job growth in health and education services, wholesale and retail trade, professional services, and government, construction, and professional and business services, the majority of occupations that will see projected job growth are low-skill, low-wage jobs that do not provide a living wage in the Los Angeles area.

However, developing industries such as advanced transportation and fuels and biosciences offer new opportunities for workers who are prepared with the requisite degrees and certificates. Therefore, the EMP makes clear that the District will need to strategically focus on providing instructional programs to prepare students for entry into occupational fields which afford living wages and opportunities for improved standards of living in this region.

EMP Goals

The general environmental factors synthesized on the previous page served as the foundation and rationale for the goals and objectives of the Educational Master Plan 2017-2023, which are delineated below.

These EMP goals and objectives provided the framework for additional inquiry and the augmentation of quantitative and qualitative information, which was deployed in the FMP planning processes.

GOAL A

STRENGTHENING THE CULTURE OF COMPLETION

Highlight clear educational and career pathways for ALL students and provide the programs, guidance, and support they need to achieve their educational goals in a timely manner.

GOAL B

ENSURING PROGRAM ALIGNMENT BY STRENGTHENING PARTNERSHIPS

Ensure all educational programs are aligned with industry trends and labor market needs. Strengthen partnerships with high schools, universities, and strategic business and industry to build a complete pathway to completion.

GOAL C

PROMOTING LEADERSHIP AND STAFF DEVELOPMENT

Develop an organizational culture for all employees that supports professional growth, intra and inter departmental collaboration, institutional memory, and leadership continuity.

GOAL D

IMPROVING INTERNAL AND EXTERNAL COMMUNICATIONS

Raise awareness about who we are and convey that message effectively, both internally and externally. Improve information transfer between all on-campus constituent groups as well as with our external community.

GOAL E

UPGRADING EDUCATIONAL INFRASTRUCTURE

Continue with the modernization of campus buildings and information technology to ensure all facilities and IT systems on campus meet industry standards.

GOAL F

ENHANCING ORGANIZATIONAL EFFECTIVENESS

Enhance organizational effectiveness by streamlining and simplifying College systems and processes. Diversify revenue sources to maximize discretionary funding opportunities.

Additional External Data

KEY FINDINGS AND IMPLICATIONS

In order to develop a deeper understanding of the external environment, which will impact Cerritos College and the communities it serves, the planning team examined additional demographic and labor market data.

The table on the following page provides an overview of the types of external data reviewed and the function each serves in the facilities planning process.

Following the analysis of these data sets, the planning team summarized the key findings and identified the most important implications related to facilities planning. The key findings are included in the Appendix B of this document and the implications are summarized below

ENROLLMENT IMPLICATIONS

- The traditional pipeline of future students coming from area high schools may be declining, but the population within Cerritos' service area will continue a pattern of modest growth.

- Demand for access to higher education will continue with renewed emphasis on completion and success.

- The increase in the number of older adults offers opportunities for non-credit courses for this population and programs with curriculum designed to serve the needs of this population.

- The majority of residents between 18 and 44 years-old have a high school diploma, but no degree, which represents an outreach opportunity for Cerritos.

LABOR MARKET TRENDS AND CERRITOS PROGRAM INTERSECTIONS IMPLICATIONS

Cerritos College offers programs which prepare graduates for employment in the region in:

- Many of the fastest growing occupations with projected openings requiring degrees or certificates in the sciences, mathematics, and engineering;

- Many industries with higher-than-average projected openings to 2024, particularly those related to health care industry, business/legal/administrative support the services, and culinary.

A number of Cerritos College programs which are growing faster than the District's 2.3% maximum participation rate for 2017-2018 (based on WSCH projections) are also among the cohort of programs related to the fastest growing occupations and/or industries with above average employment forecasts.

EXTERNAL DATA SET	INDICATOR OF:
Population. LA County, North Orange Cities, and In-District Cities	Overall trends, which may impact future enrollments.
Median Age. LA County, North Orange Cities, and In-District Cities	Changes in community needs according to age distribution of residents.
Median Household Income. LA County, North Orange Cities, In-District Cities	Future interest in and demand for Cerritos College courses and programs, including Cerritos Complete.
Poverty Rates - LA County, North Orange Cities, and In-District Cities	Future interest in and demand for Cerritos College courses and programs, including Cerritos Complete.
Unemployment - LA County, North Orange Cities, and In-District Cities	Future interest in and demand for Cerritos College courses and programs, including Cerritos Complete.
Educational Attainment by Age - LA County, North Orange Cities, and In-District Cities	Future interest in and demand for Cerritos College courses and programs, including Cerritos Complete.
K-12 Enrollment Projections and High School Graduates to 2026/2027: Los Angeles County and Orange County	Local school district enrollment trends, which will impact future high school capture rate.
Labor Market: • Fastest Growing and Largest Occupations in LA County • Long-Term Occupational Projection by Education (projected wages, educational attainment) – LA County, Orange County, Metro Areas	Occupations which are likely to be in high demand and which require some college, an AA/AS, or bachelor's degree, and thus, areas of potential program growth.

Additional Internal Data

ENROLLMENT AND PROGRAM TRENDS

In addition to examining external environmental data, the planning team also gathered and analyzed an array of internal enrollment data to update and augment that which appears in the Educational Master Plan.

It is important to note that a number of factors impact enrollments (e.g., local economic conditions, state funding, enrollment management strategies, the availability of qualified faculty, faculty workload, scheduling practices, class size maximums, safety considerations, available classrooms). This combination of variables contributes to uneven year-to-year changes in baseline enrollment data (e.g., headcount, weekly student contact hours, number of sections), which can also impact outcomes such as program completion rates.

Thus, while determining program trends is challenging, the planning team applied a comparative approach to assessing program growth offering useful baseline information that helps inform future facility needs.

Similarly, completion and award data for various programs are driven by an array of complex internal and external conditions. However, degree and certificate awards offer an indicator of student demand for courses and programs. Additionally, enrollments in Cerritos Complete, an award-winning California College Promise program, which the District has undertaken in partnership with six local school districts to provide high school seniors transition to college and complete degrees and certificates, portends a significant source of future enrollment growth for Cerritos College.

In sum, a variety of major program trends, which are described in Appendix C (Augmented Internal Data), provide useful information for planning purposes along with supporting data tables.

FUTURE ENROLLMENT GROWTH AND CURRENT SPACE LIMITATIONS

During Division/Department planning sessions, a number of programs reported limited opportunities to expand enrollments due to limitations in their existing facilities.

Information captured in Appendix A documents these described space limitations and future program needs.

Major Themes And Trends

EXTERNAL

The region and communities which Cerritos College serves will see the continuation of important trends over the next five to ten years – most notably

- a general population increase in the District's service area cities;

- an increase in the senior population (65 years and older);

- a pattern of increasing ethnic diversity;

- inequalities in wealth distribution, median household incomes, and socio-economic circumstances;

- disparities in educational attainment with a significant number of residents without college degrees;

- a gradual decrease in K-12 enrollments;

- system-wide policies and regulations, which are centered on student success, persistence, and completion; and,

- a regional labor market with projected job opportunity openings which require degrees or certificates, particularly in the sciences, mathematics, and engineering, the healthcare industry, business/legal/administrative support services, and culinary.

INTERNAL

The District is poised to capitalize on the significant foundations it has established, which directly address current and future environmental conditions, including most significantly:

- a highly successful promise program – Cerritos Complete – which will enable local high school seniors a seamless transition to college and the support they need to persist and complete degrees and certificates;

- a developing Guided Pathways program, which will provide students with clear, structured curricular avenues as well as the support they need to complete programs of study, transfer, or secure gainful employment;

- a growing and robust Adult Education program, which provides to a diverse array of area residents developmental skills, workforce preparation, and life-long learning opportunities;

- a variety of current and planned student support and equity initiatives designed to address the needs of all students by reducing or eliminating barriers, which impede access to, and the timely completion of, educational and career opportunities;

- partnerships with regional employers, four-year colleges and universities, local school districts, and non-profits – all of which offer an array of community connections that serve to support Cerritos College's mission, vision, goals, and objectives;

- an understanding of the critical role that state-of-the-art technology plays in the successful delivery of instructional and student support programs, and thus, a commitment to the continual improvement of information technology infrastructure; and,

- a commitment to interdisciplinary, cross-department, and cross-function collaboration to plan and implement instructional and student support initiatives.

Enrollment Forecast

The Long Range Enrollment and Weekly Student Contact Hours (WSCH) forecasts are issued by the California Community Colleges Chancellor's Office (CCCCO) each year and projects enrollment growth for the next 10 years. It includes historical data from the previous years and projects total enrollment and WSCH for the District using an average anticipated growth factor.

The base year used for this analysis is the fall semester of 2017 (the most recent complete year of data available at the start of this planning process), and the long range forecast is for fall semester of 2030.

CERRITOS LONG RANGE ENROLLMENT FORECAST

Year	Enrollment
2017	24,063
2025	28,864
2030	32,339
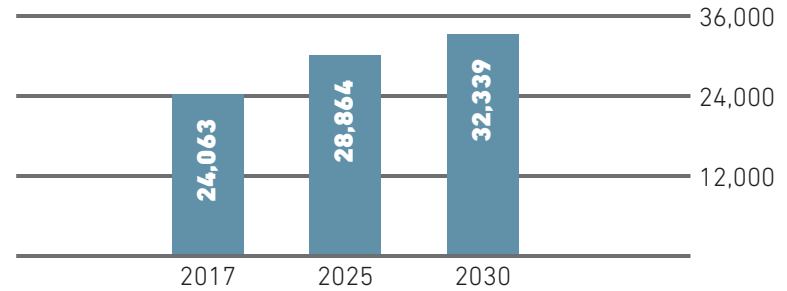
CERRITOS LONG RANGE WSCH FORECAST

Year	WSCH
2017	274,191
2025	328,896
2030	368,499
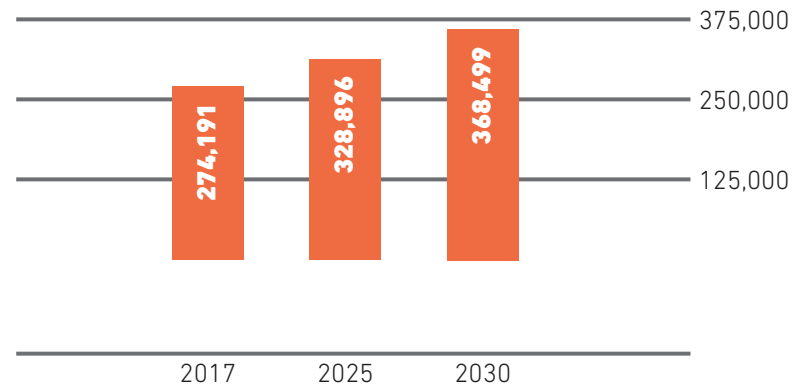
Space Inventory

The inventory of facilities is an important tool in planning and managing college campuses. The Facilities Utilization Space Inventory Options Net (FUSION) is a database maintained by the California Community Colleges Chancellor Office (CCCCO), and includes descriptive data on buildings and rooms for each college and district within the state. This information is essential for analyzing space utilization, projections, space needs and capital outlay planning.

Cerritos maintains a detailed Space Inventory of all buildings on the Campus according to the requirements of the State Chancellor's Office Space Inventory Handbook. As required by the state standards, it is updated and submitted to the State Chancellor's office annually. The Space Inventory contains data about every building and room per the State guidelines for space code, space type name, and assignable square footage.

ROOM USE CATEGORIES

LECTURE 100'S
Classrooms
Support

LAB 200's
Labs
Support

OFFICE 300'S
Offices
Support

LIBRARY 400'S
Library, Study, Tutorial, Support

INSTR.MEDIA 530'S
AV/TV, Technology, Support

OTHER 520-540-800'S
PE, Assembly, Food Service, Lounge, Bookstore Meeting, Data Process, Physical Plant, Health

SPACE INVENTORY REPORT

The 2018 Space Inventory Report was used as the basis for the analysis of space. This report is updated annually and reported to the Chancellor's Office to reflect the current usage of facilities and space on campus. The table on the right includes a summary of the categories of space at Cerritos College and their respective totals.

It is important to note that the Space Inventory report includes all facilities on campus that are in use, including temporary facilities.

CURRENT SPACE INVENTORY

2018 Space Inventory (ASF)

Category	ASF
LECTURE	74,885
LAB	166,577
OFFICE	77,804
LIBRARY	50,379
INSTRUCTIONAL MEDIA	4,704
OTHER	244,827
TOTAL CAP/ LOAD ASF	619,176

Space Utilization

To determine space capacity requirements for a college, the enrollment and program forecasts are applied to a set of standards for each type of space. Title 5 of the California Code of Regulations, prescribes standards for the utilization and planning of educational spaces on public community college campuses. These standards, when applied to the total number of students, or weekly student contact hours (WSCH), produce total capacity requirements that are expressed in assignable square feet (ASF, space available for assignment to occupants).

The ASF of a building is the total square footage of the building that is, or could be, assigned to an occupant. The gross square footage (GSF) of a building includes all areas within the outside faces of exterior walls, including circulation, stairs, elevators, restrooms, and building systems.

The Title 5 space standards used to determine future capacity requirements are listed in the table to the right. Each component of these standards is applied with an appropriate form of enrollment to produce a total (ASF) capacity requirement for each category of space. The sum of these categories represents the total building requirements for the College.

PRESCRIBED SPACE STANDARDS

CATEGORY	FORMULA	RATES
Classrooms	ASF / Student Station	15
	Station Utilization Rate	66%
	Average hours room/week	53
Labs	ASF / Student Station*	
	Station Utilization Rate	85%
	Average hours room / week	27.5
Offices / Conference	ASF per FTEF	140
Library / LRC	Base ASF Allowance	3,795
	ASF / 1st 3,000 DGE	3.83
	ASF / 3,001-9,000 DGE	3.39
	ASF / > 9,000 DGE	2.94
Instructional Media	Base ASF Allowance	3,500
	ASF / 1st 3,000 DGE	1.50
	ASF / 3,001-9,000 DGE	0.75
	ASF / > 9,000 DGE	0.25

* Varies per discipline

Source: Board of Governors of the California Community Colleges, Policy on Utilization and Space Standards, September 2010.

CAPACITY LOAD RATIOS

Capacity load ratios represent the direct relationship between the amount of space available, by type, which may be used to serve students, and the number of students participating in campus programs. The space type "other" includes a number of spaces on campus that are considered to be non-capacity load categories. These are spaces that are not analyzed by the CCCCO in relation to utilization and efficiency, but are important as part of the college's inventory related to maintenance and operations.

- The capacity/load ratio is the measure of the space utilization efficiency according to Title 5 standards.

- Assumed utilization for classrooms is 53 hours per week, utilization for labs varies per discipline.

- Capacity/load ratio's are rolled up and measured as an aggregate by room use category for each campus.

RIGHT-SIZED

# of seats **=** # of students

100% capacity / load

OVER CAPACITY

# of seats **>** # of students

over 100% capacity / load

UNDER CAPACITY

# of seats **<** # of students

under 100% capacity / load

FMP Space Program

The Facilities Master Plan Program summarizes the projected need for capacity load space categories as defined by state standards. The methodology for developing this program is summarized as follows:

- The 2018 Space Inventory was adjusted to reflect the proposed removal of several temporary and permanent buildings as identified in the Recommendations chapter. The space from these facilities were subtracted from the 2018 Space Inventory column (A) and reflected in the 'Adjusted Inventory' column (B),

- Enrollment forecasts and WSCH projections were applied in combination with appropriate space planning standards to result in a total space requirement in ASF listed as the FMP Program (C).

- The Adjusted Inventory (B) was subtracted from the FMP Program (C) to result in the Difference (D) that indicates the ASF need by types of space.

The FMP Space Program provides the basis for developing recommendations for future facilities. In order to accommodate the forecasted enrollment and program needs and replace functions that are housed in facilities to be removed, the FMP Space Program outlines the quantity of space needed in each of the capacity load categories.

The space needs are indicated as Assignable Square Feet (ASF) and divided by a grossing factor to arrive at gross square footage (GSF). The State Chancellor's Office recommends grossing factors for community college facilities which average approximately 65% for instructional facilities.

The FMP Space Program indicates that following the removal of several facilities, there is a need to replace and add space in the following capacity load categories: instruction (lecture + lab), office, instructional media. In addition, there is a need for more space in several non-capacity load categories shown as 'other'.

FMP SPACE PROGRAM

	A 2017 Space Inventory	**B** Adjusted Inventory	**C** FMP Space Program	**D**(C-B) Difference
LECTURE + LAB	241,462	187,996	267,412	+79,416
OFFICE	77,804	39,164	96,057	+56,893
LIBRARY	50,379	47,115	58,586	+11,471
INSTR. MEDIA	4,704	3,826	14,452	+10,626
OTHER	244,827	157,670	216,963	+59,293

.**3** Existing Conditions

3 | Existing Conditions

The planning process included the analysis of existing conditions in order to identify the key planning issues to address in the FMP. The information was based on meetings with college staff, campus tours, and discussions with the FMP subcommittee. The findings are summarized in a series of graphic plates that illustrate patterns and characteristics to guide future development.

This section consists of the following elements:

- Campus Context
- Transportation Network
- Land Use
- Campus Development History
- Existing Campus
- Facilities Condition
- Vehicular Circulation + Parking
- Landscape Typologies
- Sustainability

Campus Context

Cerritos College is located in the City of Norwalk within the County of Los Angeles; one of 58 counties in California. The county was established in 1850 and now has over 9.8 million inhabitants. Its population is larger than that of 41 individual U.S. states. The city of Norwalk is the 58th most densely-populated city in California. The area known as "Norwalk" was first home to the Shoshonean Native American tribe.

The 135-acres campus is located in the City of Norwalk, near the intersection of Interstates 605 and State Route 91. Founded in 1955, Cerritos College is one of the five largest community colleges in Los Angeles County.

Los Angeles County

City of Norwalk

LOS ANGELES

CERRITOS COLLEGE

ORANGE
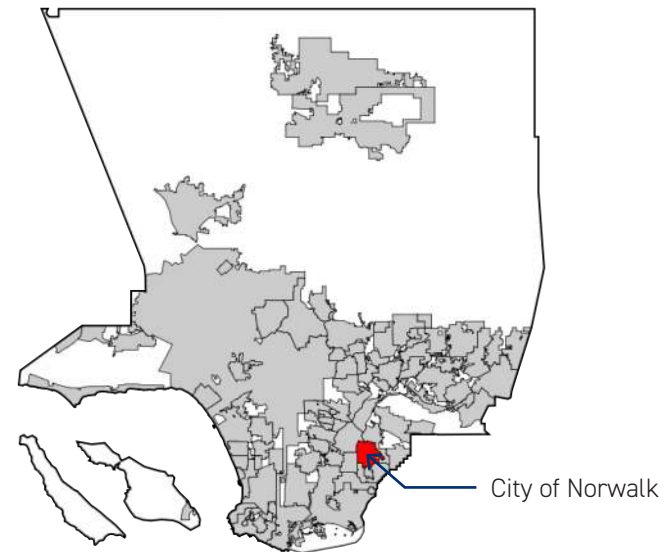
■ Cerritos Community College District

TRANSPORTATION NETWORK

The Cerritos College campus is located at the corner of Alondra Boulevard and Studebaker Road. It is 0.25 miles from Interstates 605 to the West and 0.75 miles from the State Route 91 to the South. Also, Norwalk Green Line is 2.5 miles from the campus.

This location makes the campus geographically convenient for students coming from Southeastern Los Angeles County and North Orange County. Students commute from Artesia, Bellflower, Buena Park, Cerritos, Cypress, Hawaiian Gardens, Lakewood, La Mirada, La Palma, Long Beach, Norwalk, Santa Fe Springs, and beyond.

Legend:
- Highway
- Primary Street
- EX. Bus Line
- Existing Rail
- Proposed Rail
- Station Area 1/2 mi Radius
- Station Area 1 mi Radius
- EX. Bike
- Proposed Bike

Map labels: FIRESTONE BLVD, IMPERIAL HWY, 105, ROSECRANS AVE, ALONDRA BLVD, 91, ARTESIA BLVD, SOUTH ST, DEL AMO BLVD, SAN GABRIEL RIVER, COYOTE CREEK, STUDEBAKER RD, 605, 5, 3 MILE, 2 MILE, 1 MILE, 1/2 MILE

LAND USE

The graphic to the right represents the current land use surrounding Cerritos College which is sited on the south east corner in the city of Norwalk. The uses surrounding the campus are a majority of single family neighborhoods with a mixture of multi-family residential and the College Square shopping center on the Northwest corner of Alondra Blvd and Studebaker Road.

Surrounding the major intersection of highways, there is some industrial land and a fair amount of green spaces, schools and public facilities sprinkled throughout. A strong commercial cluster is located just south of the college.

Residential Single Family   Residential Multi Family   Commercial   Mixed-Use   Industrial   Public Facilities   Open Space   Transportation + Facilities
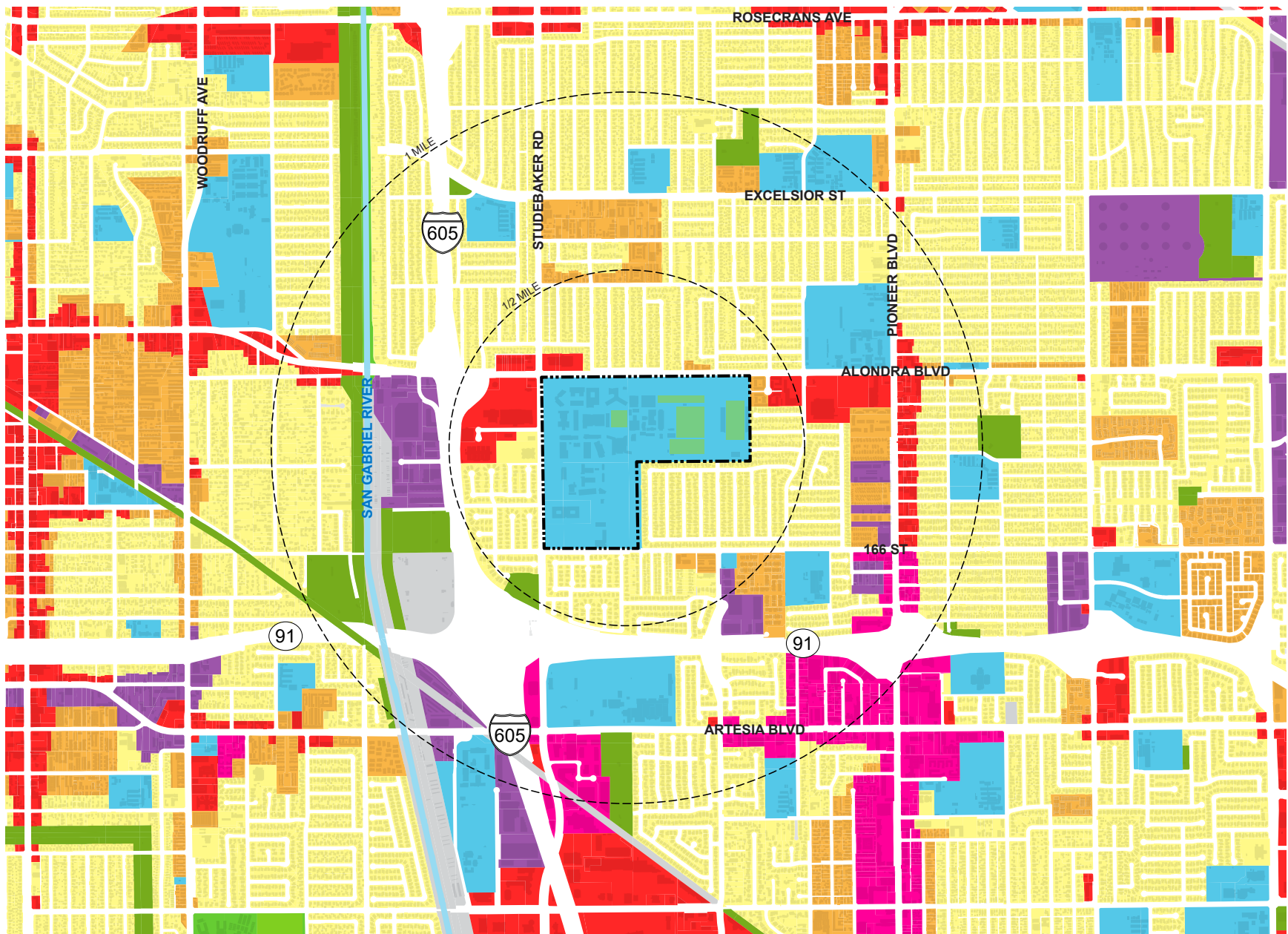
Campus Development History

The adjacent graphic illustrates the development of the campus with buildings color-coded based on the decade of original construction as noted below:

1950s
- Liberal Arts (LA)
- Business Education (BE)
- Child Development Center (CDC)
- Field House (FH)
- Physical Education (PE)
- Research and Development Center (RD)
- Technology (TE)
- Wood Manufacturing Technology (WD)

1960s
- Administration (AD)
- Burnight Center/Theatre (BC)
- Career Services (CS)
- EOPS/International Students (EO/IS)
- Facilities (FC)
- Facilities & Purchasing Complex (FFPC)
- Fine Arts (FA)
- Gymnasium (GYM)
- Instructional Support Center (ISC)
- Library (LB)
- Metals (ME)
- Purchasing/Warehouse (PW)
- Social Science (SS)
- Student Services Center (SSC)
- Student ID Center (ID)
- Student Center (SC)
- Stadium Bleachers

1970s
- Automotive Technology (AT)
- Bookstore (BK)
- Health Science (HS)

1980s
- Community Education (CE)
- Campus Police (CP)
- Learning Resource Center (LC)

1990s
- Academic Support Center (ASC)
- Student Health (SH)
- Santa Barbara (SB)
- SEM Storage (SEM)

2000s
- Aquatic Center (AQ)
- Classroom Building (CB)
- Central Plant (CPL)
- Public Affairs/Cerritos College Foundation (PA)
- Science/Project Hope (S)
- Skills Lab (SL)

2010s
- New Fine Arts Complex
- Math/CIS Building
- Child Development Center
- New Liberal Arts
- Automotive Partners (AP)
- Facilities & Purchasing Complex (FPC)
- Physical Science Technology (PST)

IN CONSTRUCTION
- Performing Arts Center
- Health and Wellness Center

1950-60
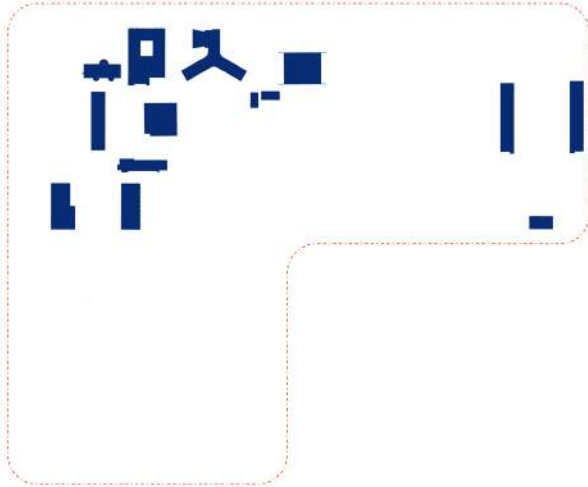
1970
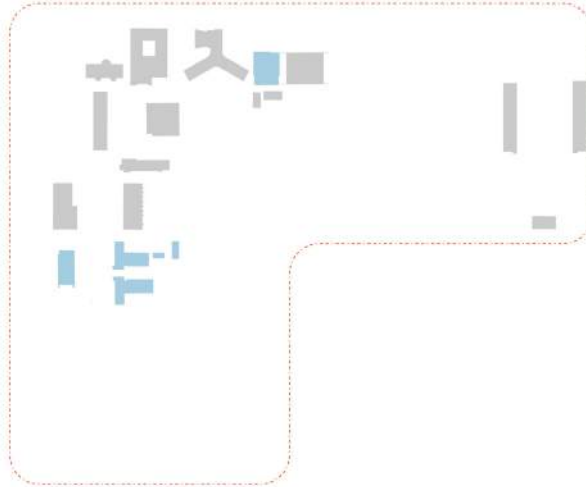
1980
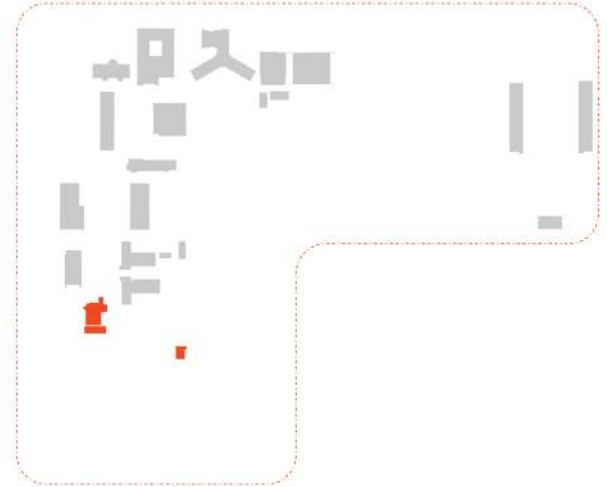
1990
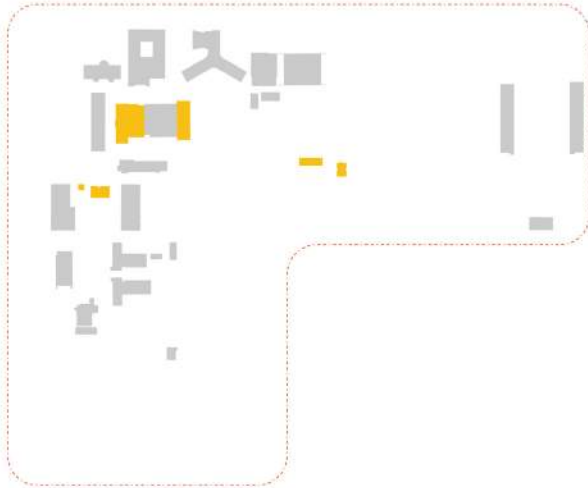
2000

2010-20

Existing Campus

Founded in 1955, Cerritos College is a comprehensive community college located in Norwalk, California. It was named after Rancho Los Cerritos, a ranch that served prominently in the region during the 19th century. The college served as part of the inspiration for the renaming of the neighboring City of Dairy Valley to Cerritos. On the adjacent graphic illustration of the existing campus, all existing facilities on campus are shown in grey; the buildings currently in design/under construction are shown in green and temporary buildings are highlighted in blue.

BUILDING KEY	ABBREV.
Aquatic Center	AC
Administration	AD
Auto Tech Center	AT
Bookstore	B
Burnight Center	BC
Business Science	BS
Child Development Center	CDC
Community Center	CE
Concession	CN
Central Plant	CP
Fine Arts	FA
Fieldhouse	FH
Purchasing Warehouse	PW
Gymnasium	GYM
Health Center	HC
Skills Lab	SL
Health Sciences	HS
Liberal Arts	LA
Learning Resource Center	LRC
Metals	ME
Multi Purpose	MP
Math, Computer and Information Sciences	MCIS
Campus Police	P
Public Affairs	PA
Performing Arts Center	PAC
PST Building	PST
Automotive Partners	AP
Student Activity Center	SA
Santa Barbara Building	SB
Student Center	SC
Science Math Complex	S
Social Science	SS
Stadium	ST
Veteran Resource Center	VRC
Woodworking Manufacturing Building	WM
Weight Room	WR

ALONDRA BLVD

LOT 4
LOT 3
LOT 2
LOT 1

SS
BC
PA

LA
MP
AD
BK
GYM
CN

S
BE
LRC
VR
SA
HWC
AC

SC

PST
MCIS
MC
WT
SH
CP

SB
CB

ME
WM
FA
PAC

FH

NEW FALCON WAY

STUDEBAKER RD

LOT 8
HS
AT

LOT 10

AT

LOT 9
CE
SL
AP

(OLD) FALCON WAY
P

SH
CDC

PW

166th ST

Existing

In Design / Construction

Temporary / Modular

Existing Campus Plan

Facilities Condition Index

The California Community Colleges Chancellor's Office (CCCCO) conducts surveys of college campuses at regular intervals and assigns FCI scores to buildings. The Facilities Condition Index (FCI) for a building is a ratio of deferred maintenance dollars to replacement dollars and provides a straightforward comparison of the campus' building assets. This diagram summarizes the scores as reported on FUSION.

The majority of original buildings on campus have FCI numbers greater then 50% indicating that cost to renovate would be very high and replacement should be considered. This information was used to inform the planning discussions related to renovating versus replacing buildings to support program needs.

Facilities Condition Index

Legend:
- > 50%
- 25-50%
- <25%
- No Data

Map labels:
ALONDRA BLVD, LOT 4, LOT 3, LOT 2, LOT 1, LOT 5, LOT 6, LOT 7, LOT 8, LOT 9, LOT 10, STUDEBAKER RD, NEW FALCON WAY, (OLD) FALCON WAY, 166th ST

Building labels: SS, BC, PA, LA, MP, AD, BK, S, BE, LRC, VR, SA, HWC, CN, SC, AC, PST, MCIS, MC, WT, SH, CP, SB, CB, ME, WM, FA, PAC, HS, AT, AT, CE, SL, AP, P, SH, PW, FH
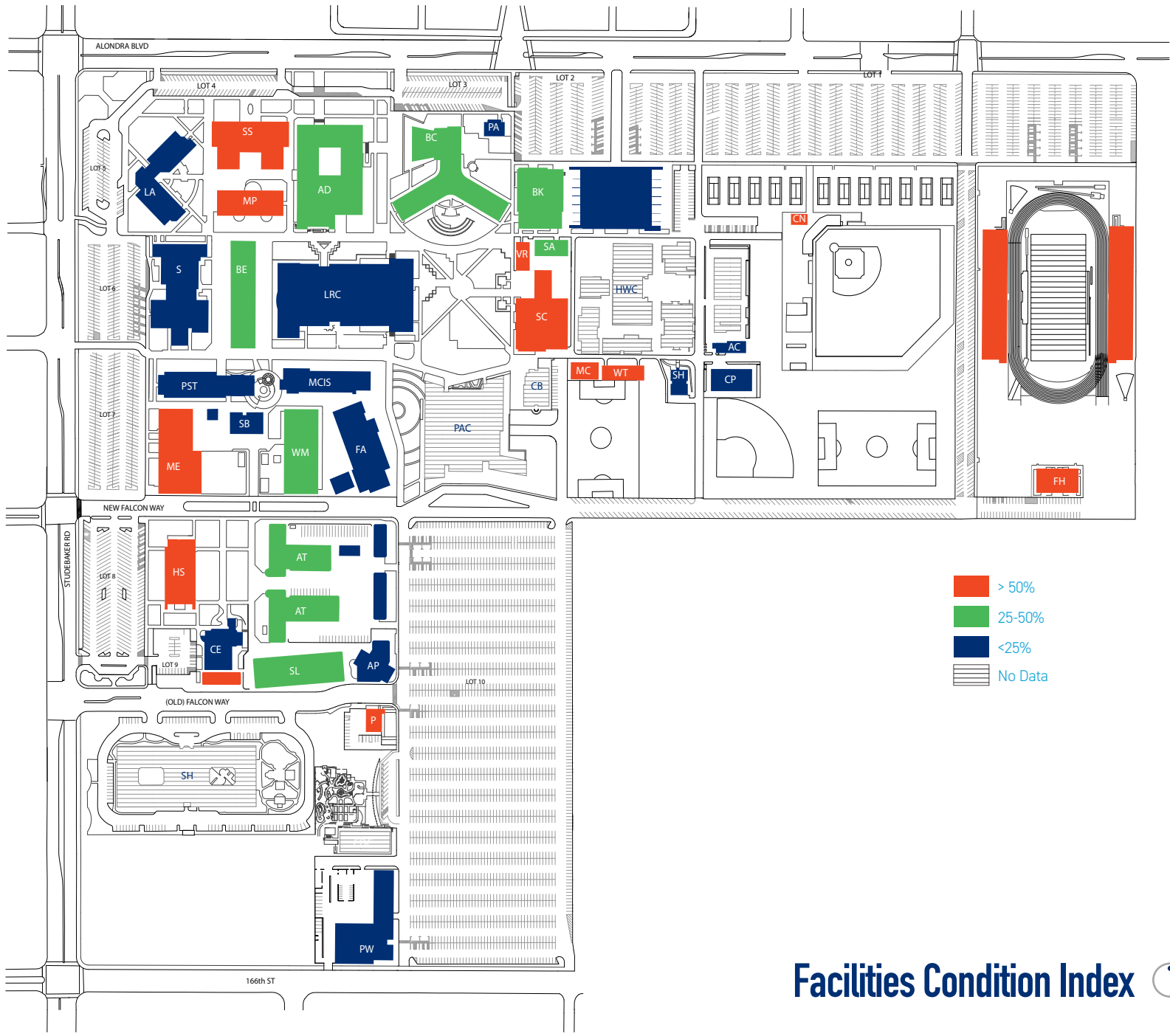
Vehicular Circulation + Parking

Vehicular circulation patterns are illustrated on the adjacent graphic. Campus entry points and major vehicular circulation routes are shown along with areas allocated for parking, public transit stops, and existing stoplights.

The parking analysis graphic highlights the existing parking areas of the campus and lists the total number of parking spaces. The current total of 4,295 spaces relates to the college's current enrollment of 23,513 and indicates a ratio of 1:5.4 (number of spaces to student enrollment). This ratio is within the typical standards for community colleges located in a suburban environment with access to public transportation.

The following issues and comments were discussed during the planning process:

- Visibility and access to the campus is limited and needs improvement

- Traffic patterns around the campus are difficult to navigate

- The primary vehicular circulation routes occur within parking lots and on surface streets

- It is difficult to navigate around the campus to find a parking space

- Additional drop-offs are needed to improve circulation

Vehicular Circulation + Parking

Parking
Vehicular Circulation
Secondary Circulation
Entrance
Existing Buildings
Pick Up/ Drop Off
Traffic Light
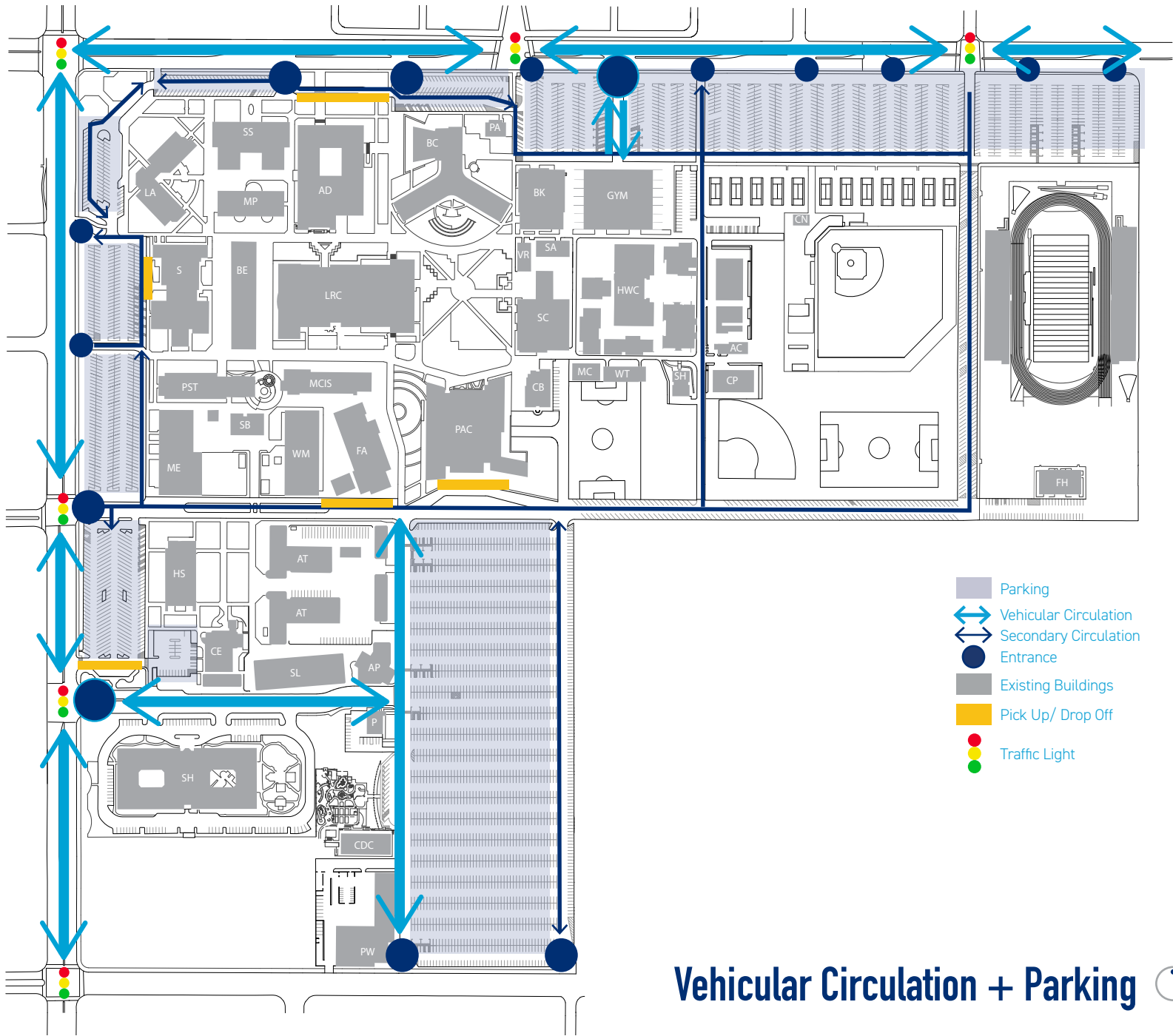
Pedestrian Movement + Open Space

Pedestrian circulation patterns and open space organization are illustrated on the following page. Zones of activity are highlighted based on use.

The campus is surrounded by public facing parking lots with very few trees. Parking lots provide access directly into adjacent buildings and to pedestrian paths into the campus core. Pedestrian corridors connect to parts of the campus, while some areas appear to be disconnected.

- Parking Lots 5, 6, 7 and 8 is confusing for the pedestrian to navigate

- The overall open space organization is not intuitive and does not support wayfinding

- Outdoor spaces on campus feel fractured and lack a distinctive hierarchy

- A number of outdoor areas of the campus are underutilized

- The south zone of the campus feels very separate from the north side of campus and does not support pedestrian movement back and forth

Legend
- Public Edge
- Physical Education Zone
- Campus Quad
- Pedestrian Connection
- Academic Plaza
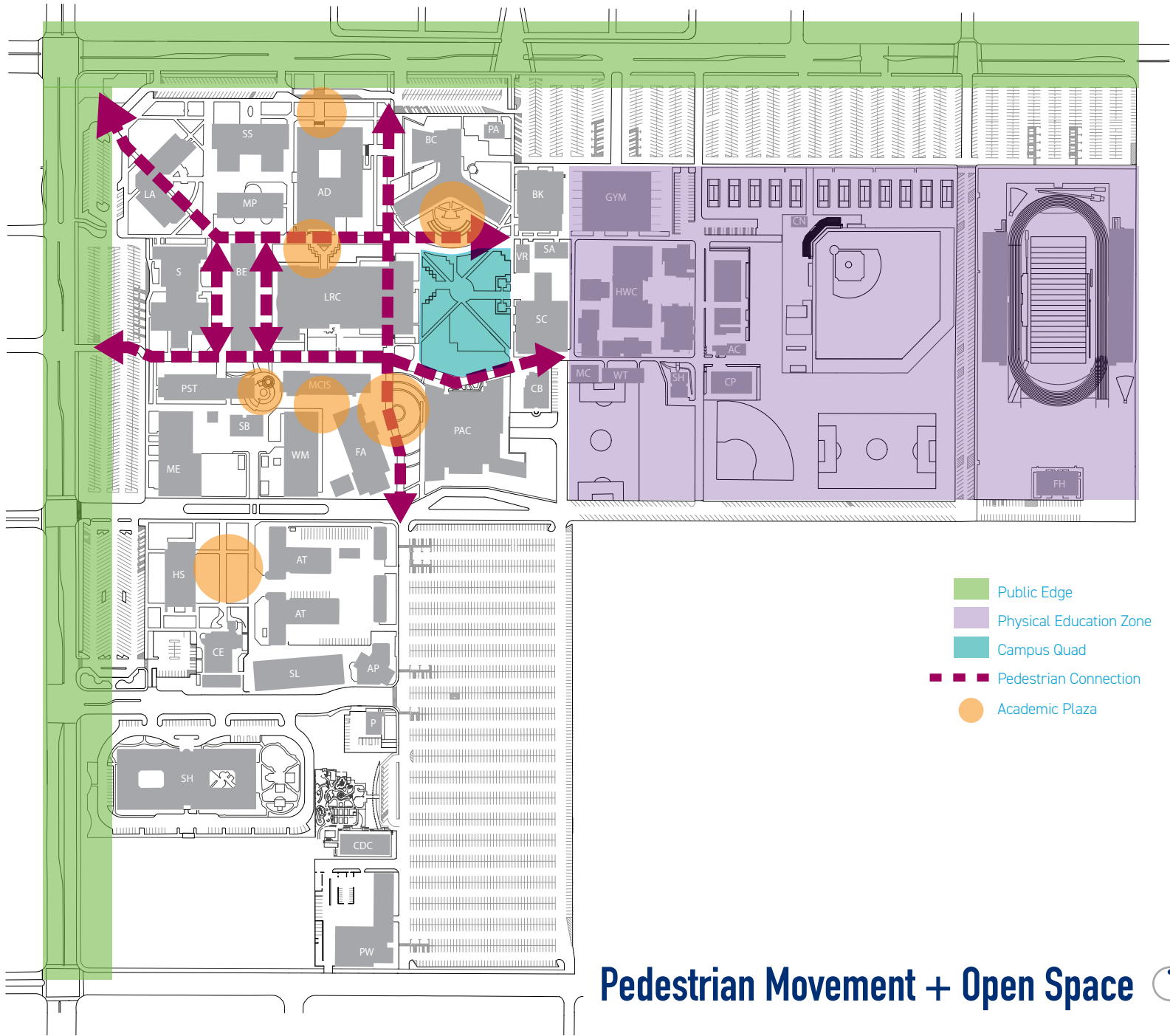
Pedestrian Movement + Open Space

Landscape Typology

WATER USE

In 2016, Cerritos College redeveloped the edge plantings along both Alondra Boulevard and Studebaker Road. These planting areas were updated to be irrigated through reclaimed water and now 95% of the campus irrigation is currently run on reclaimed water. Although reclaimed water is used, large areas of water-thirsty lawn surrounds buildings and uses higher amounts of water than low water-use/drought tolerant/native planting areas.

Outside of the high ratio of turf usage on campus, there are large swaths of concrete outside of buildings which create issues with water run-off and ponding during rain events. The vast use of lawn on campus could be updated to low water-use plantings and provide cost savings. Updating the lawn and landscape areas to native/low water use species could also provide viable open space for site stormwater solutions to capture the impermeable surface runoff.

New low-water use plantings have been installed near some newly built projects within the campus beginning the shift to a new sustainable campus plant palette.
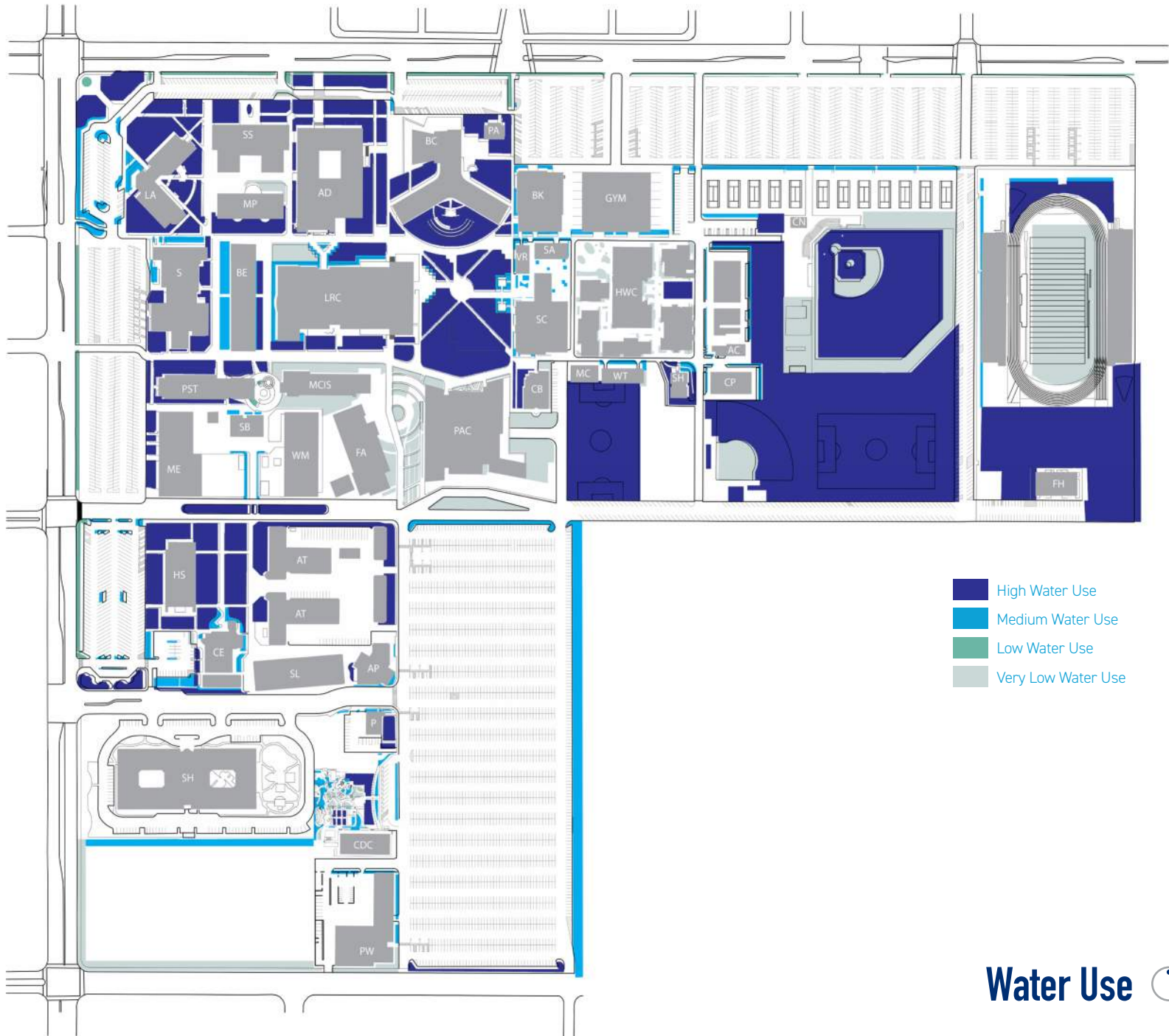
Water Use

Legend:
- High Water Use
- Medium Water Use
- Low Water Use
- Very Low Water Use

TREE CANOPY

The overall campus plan demonstrates the lack of a cohesive tree canopy in the campus core and surrounding areas. Water thirsty and non-native tree species cover most of the campus. The lack of trees in vast parking lots increase the Urban Heat Island Effect and the need for shade is exposed. Students complain of limited parking, rather than identifying the lack of close spaces due to the heat produced from asphalt parking lots.

The campus has a variety of palm trees, eucalyptus and other historic trees on campus that do not provide sufficient shade in the naturally warm climate. Many of the existing eucalyptus trees have reached the end of their life cycle and can become a maintenance and safety concern for the campus. The established tree roots of the eucalyptus species cause buckling and breakage of concrete flatwork, causing extensive repairs and safety issues.

Portions of the campus core are missing tree canopies for shade. The addition of appropriate plantings would support the identification of campus zones and pathways to enhance wayfinding.
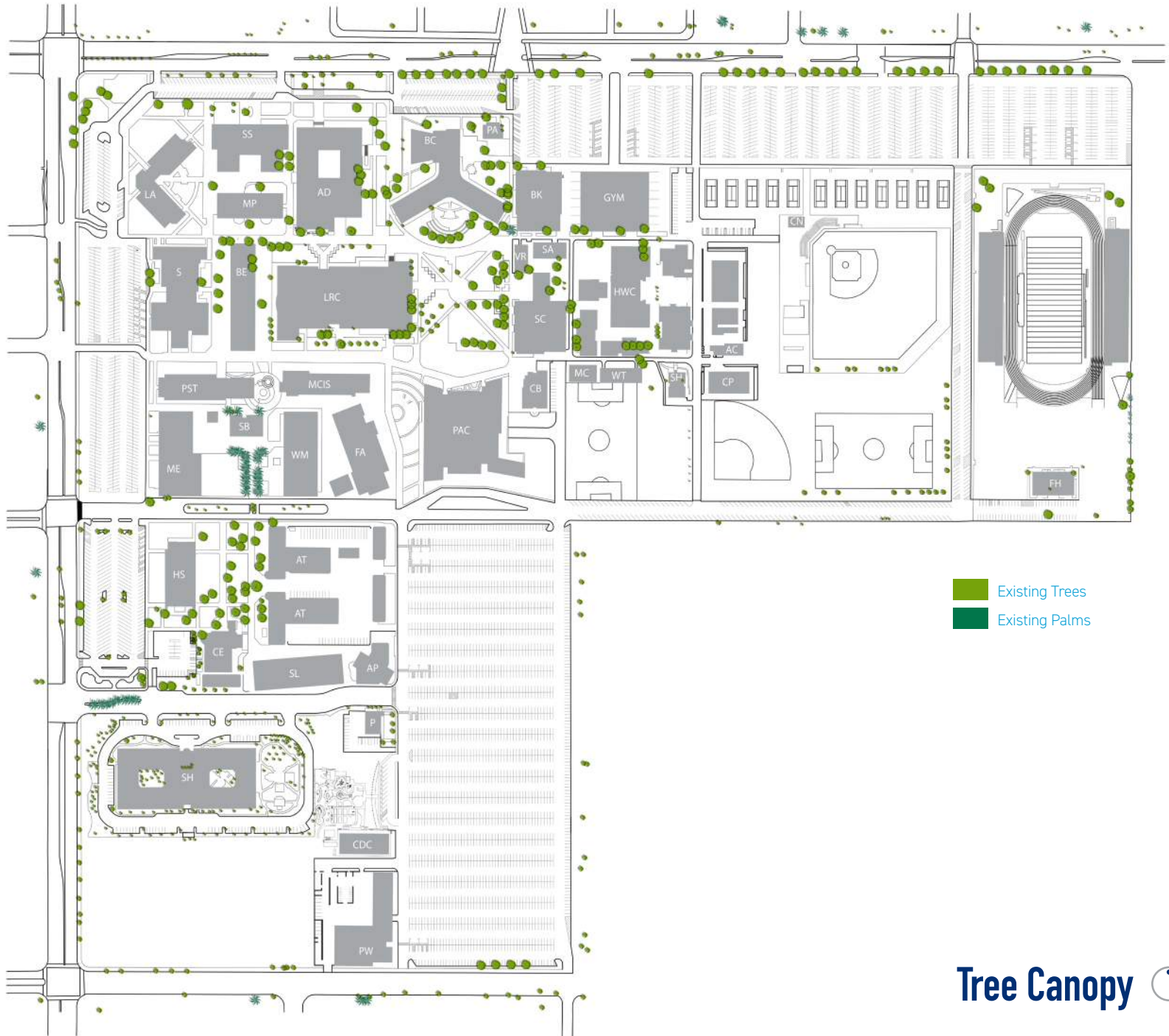
Tree Canopy

Existing Trees
Existing Palms

PLANT TYPOLOGIES

The overall campus plant palette demonstrates that the campus has been designed with a heavy emphasis on turf. There is only a small amount of native plantings seen at the campus edges along Alondra Boulevard and Studebaker Road and newer building/landscape construction.

The majority of campus plant species are adaptive, overused, and lack a variety of native/drought tolerant species. Many zones of the campus are devoid of planting and rely on vast heavy swaths of hardscape, creating uncomfortable vacant open space and a lack of areas for water infiltration. Campus planting doesn't support outdoor spaces for study, gathering, relaxing or support the campus curriculum and ecology programs.

Plant Typologies

Legend:
- Native Planting
- Ornamental Planting
- Artificial Turf
- Sports Field
- Turf
- Drought Tolerant Planting
- Decomposed Granite
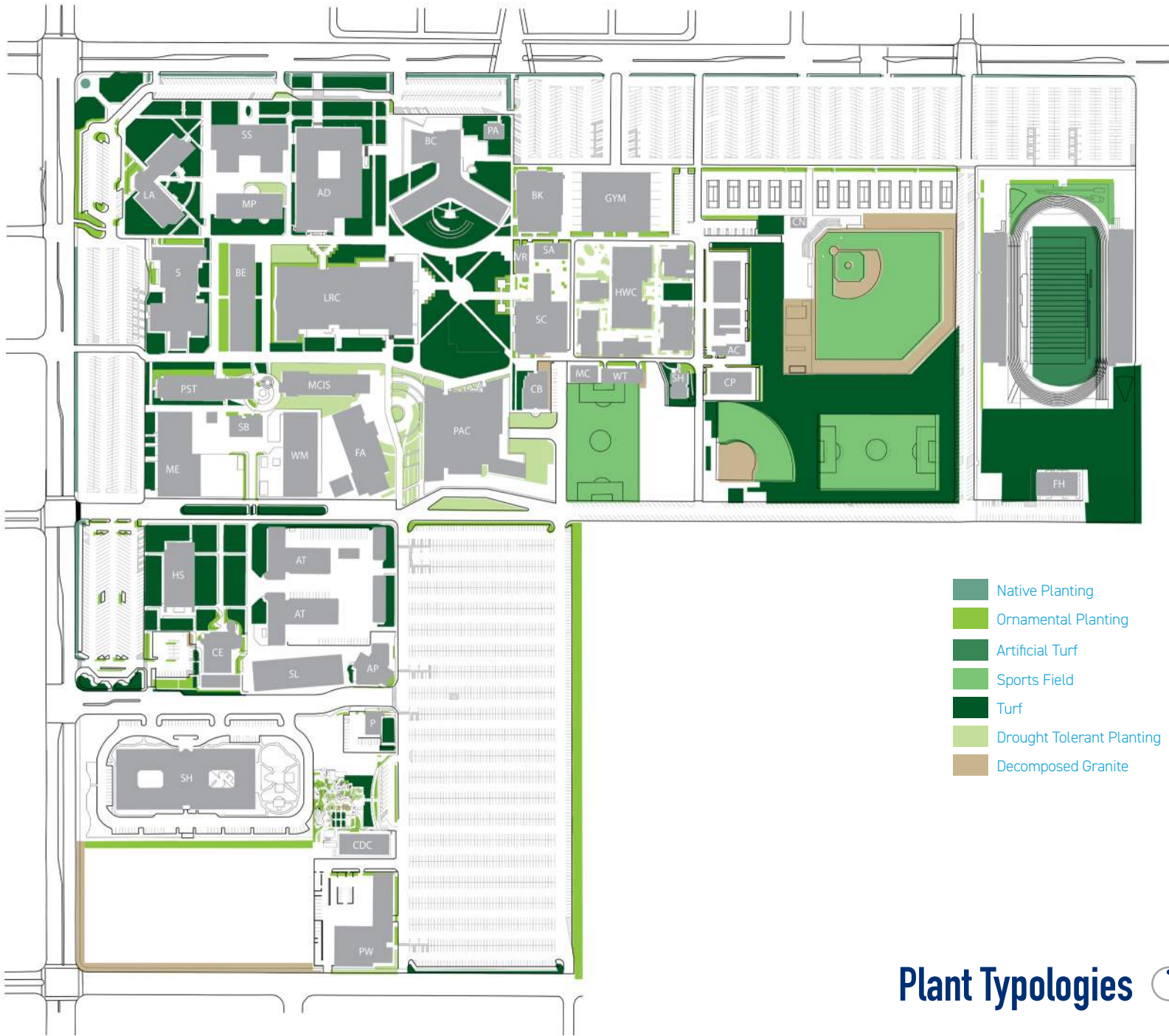
Sustainability

Having a common language to define a project's impact on the environment is a fundamental step in having a fruitful discussion about sustainability. Further, quantifying that impact through measurable metrics provides a feedback loop for the team through which they can measure the success of their respective design decisions and sustainable strategies.

Understanding how the built environment contributes to climate change requires the team to measure the associated energy demands of that development. Thereafter, the team can appreciate how design decisions directly affect the project's impact on the planet, or it's global warming potential.

These terms were reviewed during the Sustainability Workshop, establishing a common language for next level design integration.

For reference:

- 1 Therm (gas) = 100,000 btus, or 100 kbtus
- 1 Kbtu = 1000 btus
- 1 Kwh (electricity) = 3.412 Kbtu

EUI: Energy Use Intensity expresses a building's energy use as a function of its size or other characteristics. For most property, the EUI is expressed as energy per square foot per year. It is calculated by dividing the total energy consumed by the building in one year (measured in kbtu) by the total gross floor area of the building.

BTU: The British Thermal Unit is a traditional unit of work equal to about 1055 Joules. It is the amount of work needed to raise the temperature of one pound of water by one degree Fahrenheit (physical analogue: one four-inch wooden kitchen match consumed completely generates approximately 1 BTU).

GHG: Greenhouse Gas is a gas in an atmosphere that absorbs and emits radiation within the thermal infrared range. This process is the fundamental cause of the greenhouse effect.

GWP: Global Warming Potential is a relative measure of how much heat a greenhouse gas traps in the atmosphere. It compares the amount of heat trapped by a certain mass of the gas in question to the amount of heat trapped by a similar mass of carbon dioxide.

GROWTH IN GROSS SQUARE FOOTAGE

Cerritos College has grown 28% in square feet, from the 2001-2002 baseline.

ENERGY CONSUMPTION

As required by the Chancellor's office, Cerritos College has been collecting and reporting its energy consumption for many years. Prior to the workshop, an intensive discovery process occurred, including the analysis of existing historical energy consumption for each of the four campuses, and compiled as an average.

Total energy decrease at Cerritos College is 6.9% from 2001-2002 baseline, total at approximately 26,700 MBtu.

TOTAL GROSS SQUARE FOOTAGE (SF)

TOTAL ENERGY CONSUMPTION (MBTU)
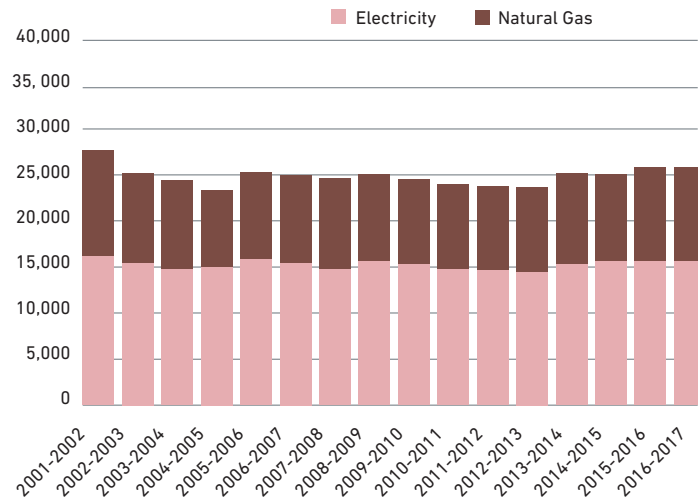
ENERGY USE INTENSITY

Energy Use Intensity has a 26.9% decrease from the 2001-2002 baseline. Currently, it is above 50 and it is lower than the California Energy Commission Average California Higher Education EUI* of 76.1.

ENERGY USE INTENSITY (KBTU/GSF/YEAR) AND PERCENT (%) CHANGE FROM 2001/02 BASELINE

ZNE ESTIMATE (BUILDING SCALE)

■ EUI (kBtu/gsf/yr)   ▬ % change from 2001/2 baseline
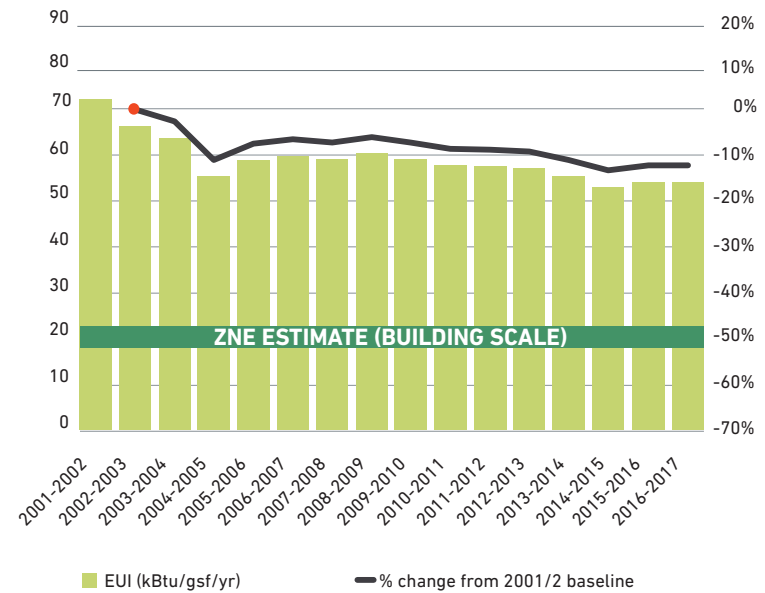
CARBON USE

California has set ambitious GHG reduction goals, first through the Greenhouse Gas Solutions Act of 2006, to reach 1990 emission levels by 2020 and next with the follow on SB32 (extension), to achieve 40% below 1990 by 2030. The state is on track to meet 2020 goals, and could achieve greater emission reductions by 2030, but the state will need to do more to reach its 2050 climate goals. The FHDA-CCD's energy transition plan will achieve reportable GHG emissions 80% below 1990 levels, at some point ~ 2025 (depending on funding), helping California reach these GHG reduction goals.

The FHDA-CCD currently has reportable GHG emissions at nearly 1990 levels, and with a stated goal of purchasing Renewable Energy (RE) at renewal of our Direct Access (DA) electricity contract in 2019, reportable emissions will be well below 1990. 2020 represents a "pivot point" for FHDA-CCD, with a stated goal to reduce, and eventually eliminate, natural gas from our (HVAC) energy systems. Our decarbonization goals commence with purchase of clean electricity, followed by electrification of HVAC systems, and eventual replacement of cogeneration of heat and power (CHP). The decade of 2020-2030 will begin the "era of decarbonization" for many buildings and college campuses, and eventually extend to electrification of transportation.

Carbon Use Intensity has been reduced 26% from the 2001-2002 baseline. Current Carbon Use Intensity is about 17.3 lbs CO_2e/gsf.

CARBON USE INTENSITY (LBS CO2E/GSF)
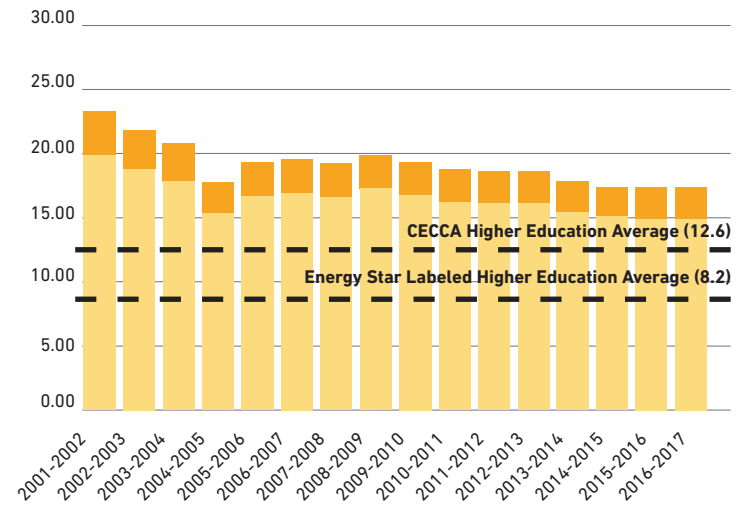
Zero Net Energy

Zero Net Energy (ZNE), or sometimes known as Net Zero Energy, is a building or community in which the total energy consumed is equal to or less than the amount of renewable energy it produces. ZNE can be achieved with an integrated design approach where lighting and other systems are selected for low energy use and by integrating photovoltaic panels or a battery storage device to harvest and use on demand as necessary.
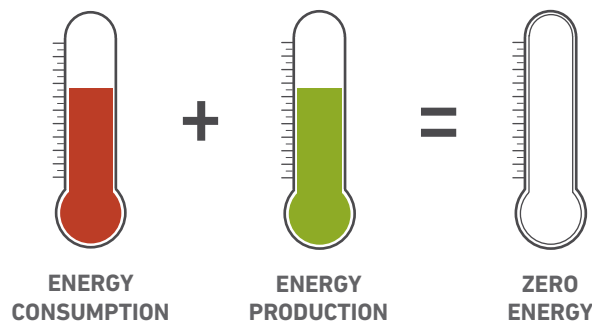
ZNE BUILDING

An energy-efficient building where, on a source energy basis, the actual annual consumed energy is less than or equal to the on-site renewable generated energy.

ZNE CAMPUS

An energy-efficient campus where, on a source energy basis, the actual annual consumed energy is less than or equal to the on-site renewable generated energy.

ZNE PORTFOLIO

An energy-efficient portfolio in which, on a source energy basis, the actual annual consumed energy is less than or equal to the on-site renewable generated energy.

ZNE COMMUNITY

An energy-efficient community where, on a source energy basis, the actual annual consumed energy is less than or equal to the on-site renewable generated energy

ENERGY CONSUMPTION + **ENERGY PRODUCTION** = **ZERO ENERGY**

As we look into the future and the threat of climate change, the building industry is challenged with bringing forth environmentally responsible designs. California's Public Utilities Commission has established a variety of regulations applicable to both new and existing buildings, targeting a strategy for net zero energy buildings: those which generate an equal amount or more energy than that which they consume.

The California Energy Efficiency Strategic Plan mandates:

- All new residential construction (low rise and single family) shall be designed to be zero net energy (ZNE) by 2020

- All new state-owned buildings, and 50% of state-owned existing buildings shall be ZNE by 2025

- All new commercial construction shall be designed to be ZNE by 2030

- 50% of all existing commercial buildings shall be retrofit to ZNE by 2030

" a building that makes as much energy as it uses "

REDUCE PLUG LOADS

RENEWABLE SOURCES

SYSTEM EFFICIENCY (HVAC)

PASSIVE DESIGN

INTEGRATED DESIGN PROCESS

BATTERY STORAGE

REDUCE LIGHTING LOADS

SOLAR PV

REGENERATIVE SYSTEMS
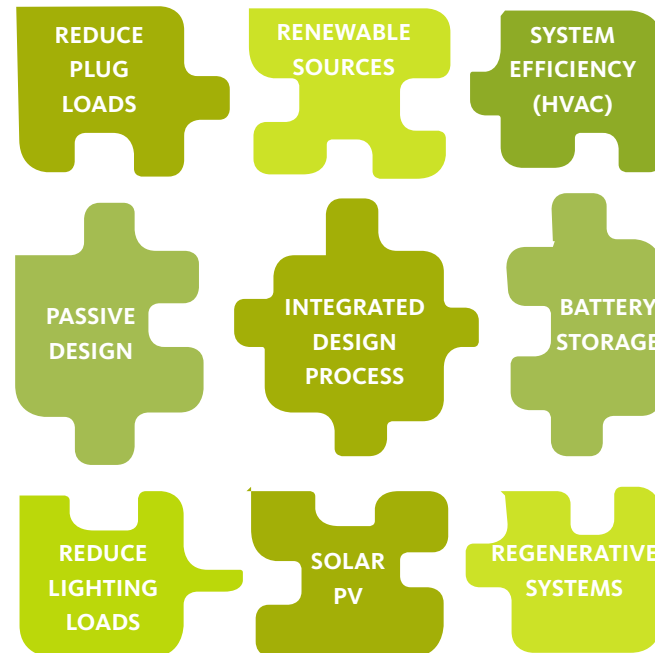
.**4** Recommendations

4 | Recommendations

The 2019 Facilities Master Plan recommendations present an overall picture of the proposed development that is designed to support Cerritos College's vision and goals. The recommendations meet the needs of the projected enrollment and program forecasts and are a translation of the Educational Master Plan into the future developed campus.

The recommendations for the future development of the campus are described in this chapter and grouped into a series of sections.

- Facilities Planning Principles
- Development Concepts
- Facilities Master Plan
- Project Descriptions
- Phased Development
- Site Development
- Sustainability

Facilities Planning Principles

The Cerritos College 2019 Facilities Master Plan (FMP) is an extension of the College's 2017-2023 Educational Master Plan (EMP). Chapter 2 of this document highlights the processes and information used to integrate these plans.

The long term recommendations presented in this chapter have been developed as a result of this integration.

The EMP Goals are mapped to a series of Facilities Planning Principles that form the basis for these recommendations. These principles were used as a guide for the development of early concepts that were developed into a series of recommendations described in this chapter.

EMP GOALS

A	B	C	D	E	F
Completion	Partnerships	Development	Communication	Infrastructure	Effectiveness
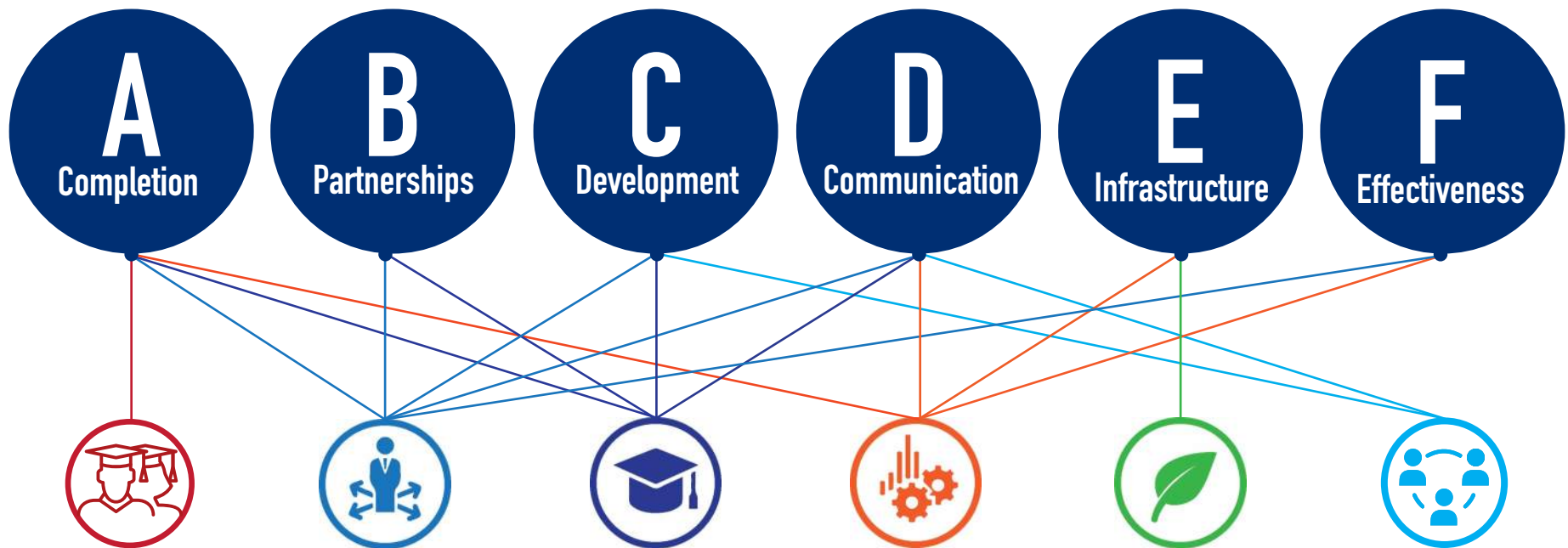
STUDENT SUCCESS

- Improve access to programs and services
- Develop pathways to support students' educational goals
- Provide spaces to support studying and collaboration
- Develop campus to enhance student engagement

AREAS + CONNECTIVITY

- Create welcoming + inviting campus entries
- Enhance connectivity + accessibility for all
- Create logical groupings of functions
- Improve connections to all areas of the campus

CULTURE + IDENTITY

- Develop a welcoming and inclusive campus environment
- Enhance outdoor spaces to support collaboration
- Create a sense of belonging + pride
- Integrate campus development with brand identity

EFFECTIVE + EFFICIENT

- Align facilities to support college priorities
- Replace temporary, inefficient and underperforming facilities
- Right-size facilities to support program needs
- Position to maximize state funding opportunities

RESOURCE STEWARDSHIP

- Optimize available resources
- Maximize land use to align with priorities
- Create a culture of sustainability
- Prioritize well-being, health and comfort in design
- Create a safe and comfortable campus environment

COMMUNITY ENGAGEMENT

- Develop campus to enhance community engagement
- Improve campus edges + image within community
- Strengthen connections with surrounding communities
- Improve access to college events and performances

Development Concepts
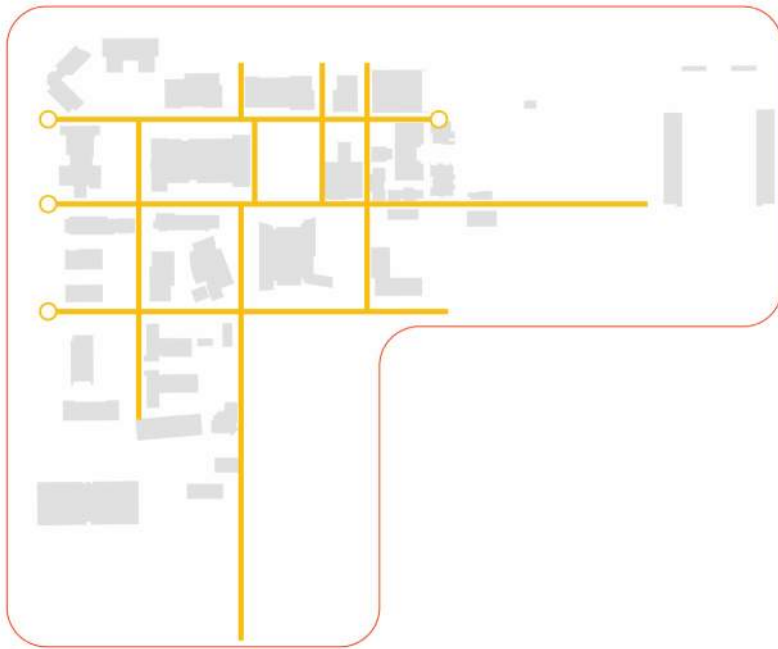
CONNECTIVITY

An expanded network of pedestrian corridors connects all areas of the campus, improves access to programs and services, and establishes the framework for logical groupings of functions.
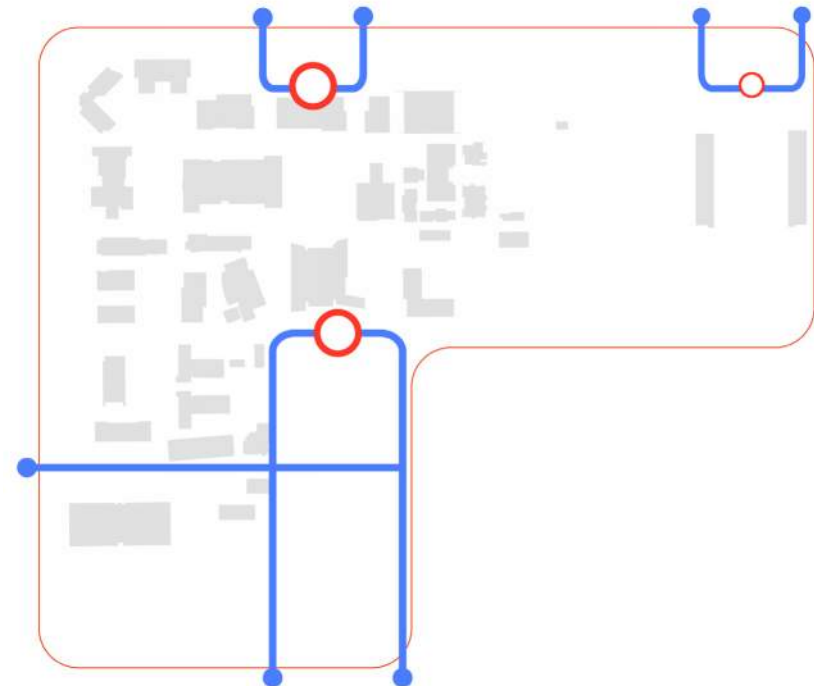
ACCESS

Campus entries are developed to welcome students and the community, clarify circulation patterns and create safe and accessible drop-off zones.

OPEN SPACES

A collection of open spaces are developed to support studying and collaboration, enhance student engagement and promote a culture of collegiality.
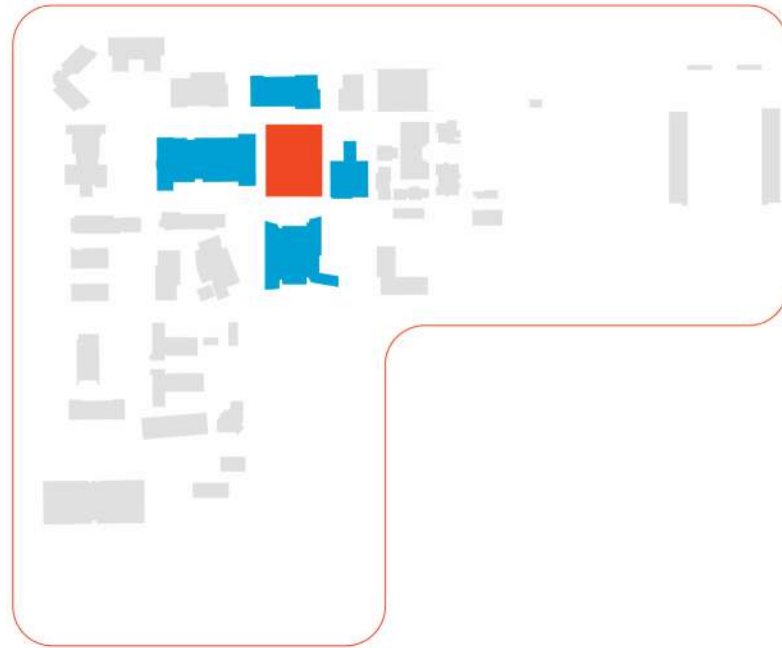
CAMPUS HEART

A new 'campus heart' will engage the entire campus community in a central zone surrounded by core support services and will enhance the sense of belonging + pride.

2019 Facilities Master Plan

The FMP establishes an overall picture of the future developed campus and includes recommendations for new construction, building renovations and site development projects. The drawings represent a conceptual layout of the buildings and their site surroundings that highlight the location and purpose for the proposed improvements. The project list to the right summarizes the major facilities projects identified in the FMP.

In addition to the buildings that have been identified for modernizations, many existing buildings on the campus require significant repairs. Although the buildings are well maintained and many are in good condition, a prudent planning process must anticipate the need for repairs and upgrades at some point in the course of the master planning horizon. Modernization work is recommended for all facilities for which a significant change in use is not planned. Through these projects, the College will accomplish the following objectives:

- Repairs and upgrades for safety and accessibility.
- Upgrades of technology systems.
- Refreshment of finishes and furniture systems.
- Upgrades for sustainability.

Facilities Projects

NEW CONSTRUCTION

- Student Services + Administration
- Instructional Building A
- Instructional Building B
- Instructional Building C
- Career Technical Education
- Cosmetology
- Community Ed/ Adult Ed
- Police
- Child Development Center
- Stadium + Field House

RECONSTRUCTION

- Health Science
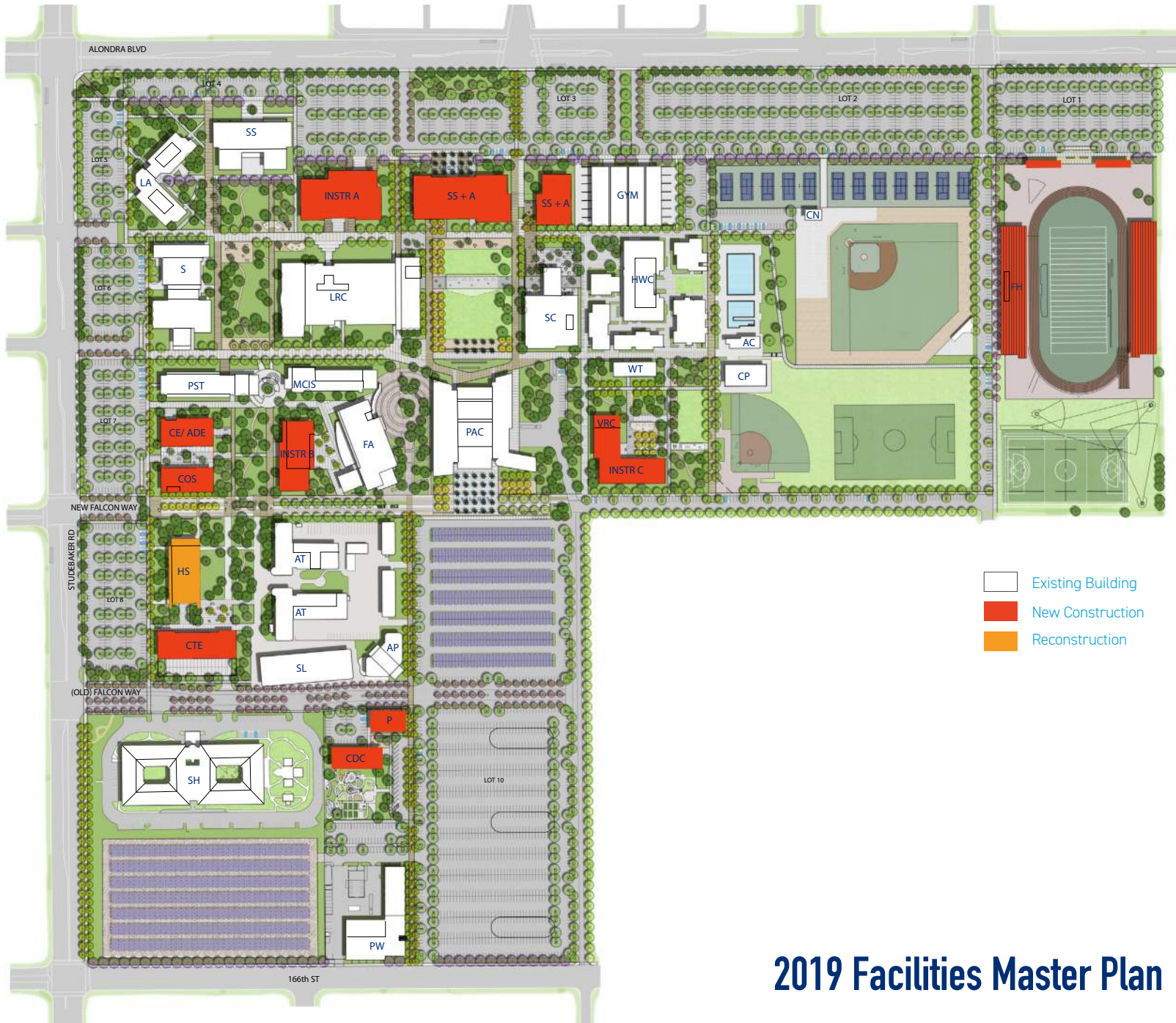
2019 Facilities Master Plan

FMP Project Matrix

	STUDENT SUCCESS	ACCESS + CONNECTIVITY	CULTURE + IDENTITY	EFFECTIVE + EFFICIENT	RESOURCE STEWARDSHIP	COMMUNITY ENGAGEMENT
NEW CONSTRUCTION						
Student Services + Administration	●	●	●	●	●	●
Instructional Building A	●	●	●	●		
Instructional Building B	●	●	●	●		
Instructional Building C	●			●	●	●
Career Technical Education	●			●	●	●
Cosmetology	●	●		●		●
Community Ed / Adult Ed	●	●	●	●	●	●
Police		●	●			●
Child Development Center	●	●		●		●
Stadium	●	●	●	●	●	●
RENOVATION						
Health Sciences	●	●		●		

Project Descriptions

Descriptions for each of the projects identified in the FMP are described on the following pages and grouped as illustrated in this key plan.

A Student Services + Administration

B Instructional Building A

C Community Ed / Adult Ed
Cosmetelogy
Instructional Building B

D Health Science
Career Technical Education (CTE)

E Police
Child Development

F Instructional Building C

G Stadium + Field House
+ Utility Field

A
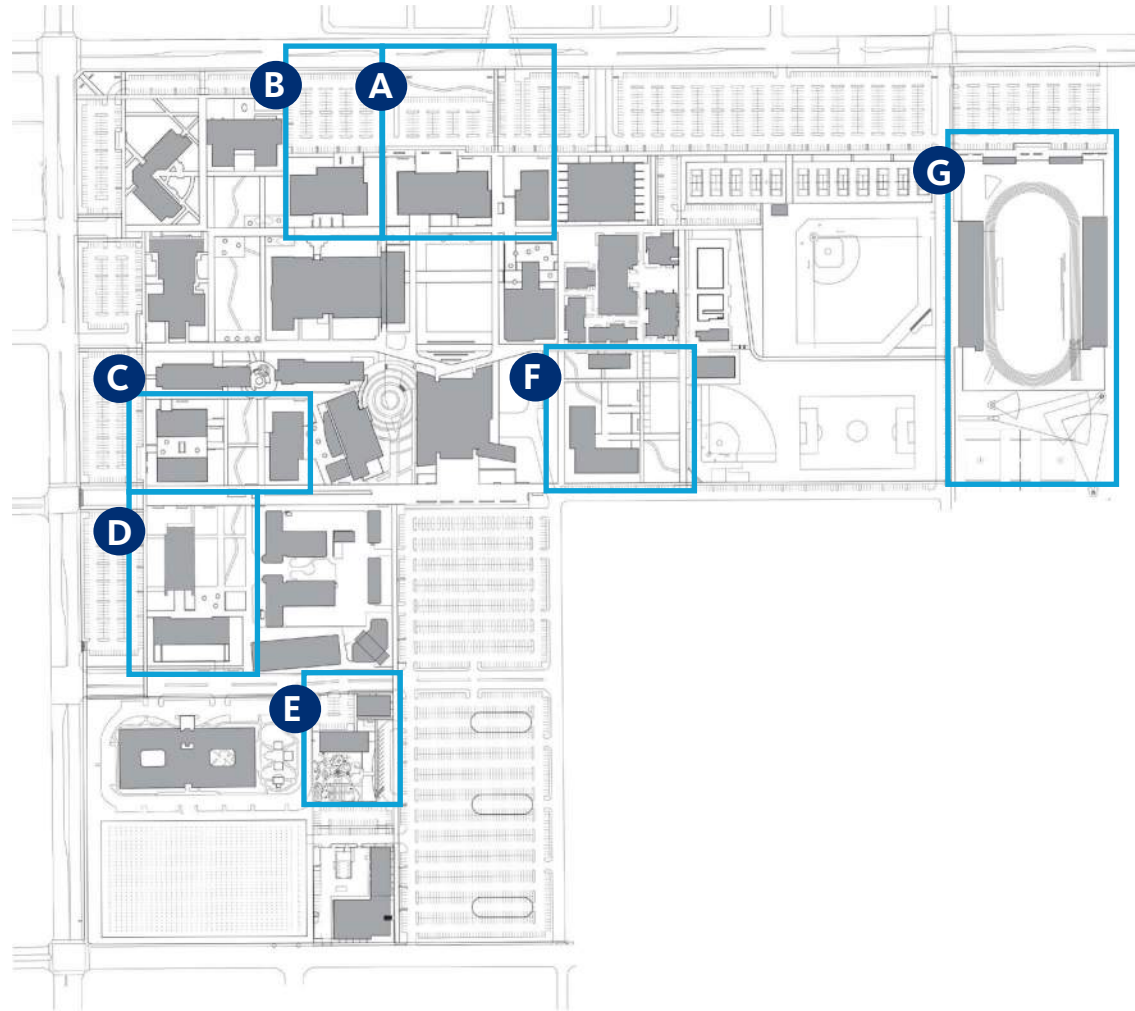
STUDENT SERVICES + ADMIN

The new Student Services + Administration Building Complex will welcome visitors to Cerritos College and create a visible 'front door' to the campus. The new building will be designed to accommodate Student Services, Administration, Bookstore and Student Activities space. The new complex will improves access to support services and help students as they begin their journey at Cerritos College.

The proposed location of the building complex is set back from Alondra Boulevard providing space for an improved entry and drop-off experience. A landscape buffer at the street edge provides an opportunity for new signage. A short term parking lot will improve access and a large drop-off zone will support rideshare drop-offs and pick-ups.

B

INSTRUCTIONAL BUILDING A

The new Instructional Building A will replace aging and underperforming facilities and be sized to support instructional program needs. The new building will include interdisciplinary classrooms, labs and offices to support a variety of instructional programs and improve the efficiency and utilization of space.

The placement of this new building will frame a key entry point to the east and the new outdoor plaza to the west. The plaza is created following the removal of buildings and will be developed to support collaboration and enhance student engagement.

INSTR A

C

COMMUNITY ED / ADULT ED

A new building is proposed to replace aging and underperforming facilities and support the Community Education and Adult Education program needs. The proposed location will strengthen connections to the campus core and provide easy access from Studebaker Road and the adjacent parking lot.

COSMETOLOGY

The Cosmetology Building project will create a new home for the Cosmetology program on the west side of the campus. The new building will be designed to support the unique Cosmetology program needs and will improve access for students and patrons.

INSTRUCTIONAL BUILDING B

The new Instructional Building B will replace aging and underperforming facilities and be sized to support instructional program needs. The new building will include interdisciplinary classrooms, labs and offices to support a variety of instructional programs and improve the efficiency and utilization of space.

D

CAMPUS POLICE

A new Campus Police building will be constructed to replace the existing facility that is underperforming and undersized. A number of locations were discussed during the planning process, and the existing location, along New Falcon Way and Parking Lot 10 was selected due to ease of access to all areas of the campus.

CHILD DEVELOPMENT CENTER

The modular building currently housing the Child Development Center will be replaced with a permanent facility. The existing playground and drop-off area will be preserved and the new building will be constructed on the north side, limiting the need for swing space.

E

HEALTH SCIENCE

A reconstruction of the Health Sciences Building is proposed to support the growing Allied Health programs and address a number of building deficiencies. The reconstruction will bring the instructional facilities up to date with technology, activate areas of the building, and update systems as needed. A Final Project Proposal (FPP) has been developed for this project, and is currently waiting for final approval and funding.

CAREER TECHNICAL EDUCATION (CTE)

A new Career Technical Education (CTE) Complex will replace the aging and underperforming Metals (ME) and Wood Manufacturing Technology (WD) buildings. The new complex will include specialized indoor and outdoor instruction areas to support the program needs and to enhance interdisciplinary collaboration. The proposed location provides opportunities to strengthen connections to other CTE programs through the development of outdoor collaboration spaces.
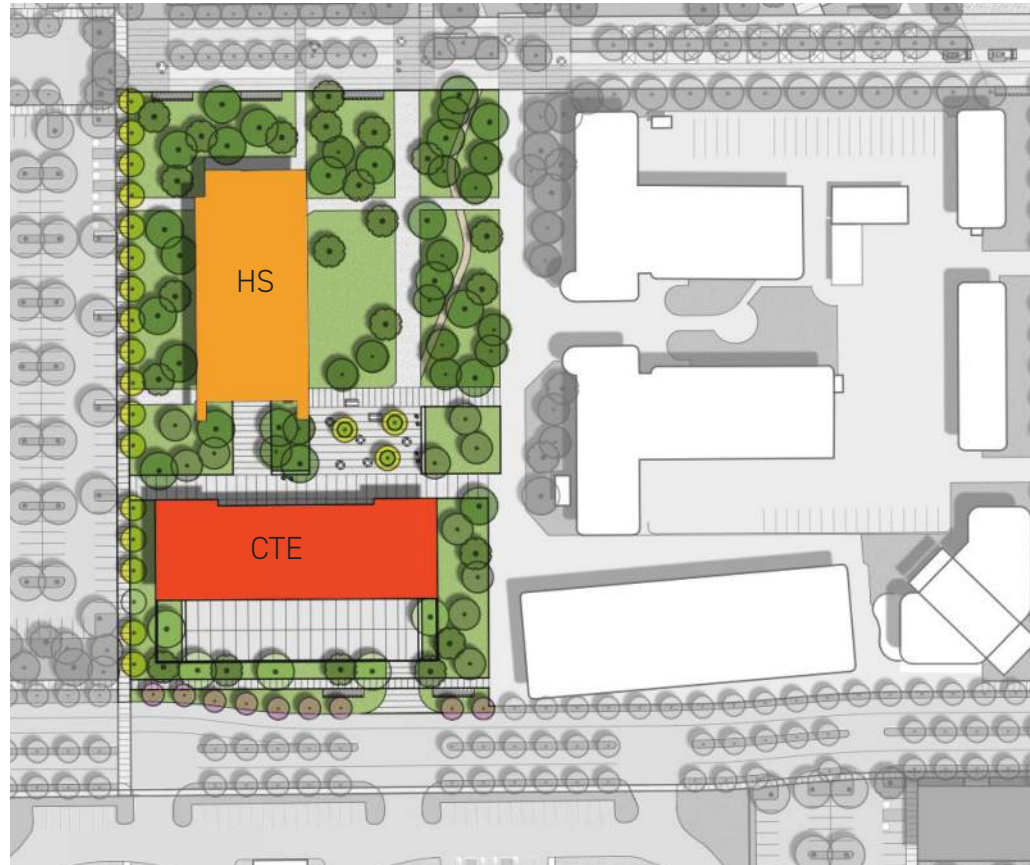
F

STADIUM + FIELD HOUSE + UTILITY FIELD

A new Stadium Complex will be constructed to address a number of issues identified during the planning process – the existing Stadium and Field House are in poor condition and lack the required spaces to support program needs.

The west side of the stadium complex will include a field house with team rooms, locker rooms, equipment storage and restrooms to support the multiple athletic fields. Seating above the field house and on the east side of the stadium will be sized to support the projected program need and include an integrated press box.

A new gateway on the north side will be developed to welcome visitors to events and include a ticket booth and concessions area. On the south side of the stadium, a new utility field will be developed following the removal of the existing field house. This will integrate all of the PE/Athletics fields and activities into a cohesive zone, maximize opportunities for sharing resources, and free up space in the campus core for other uses identified in the FMP.
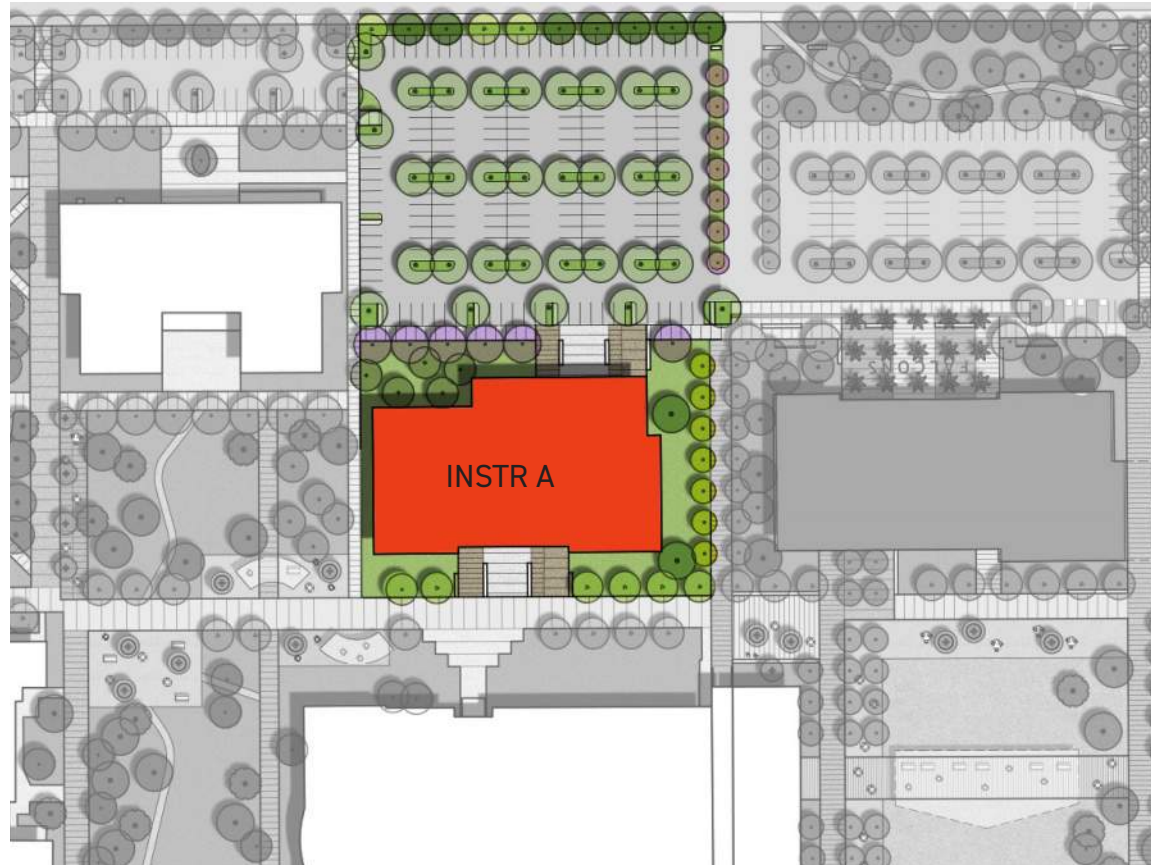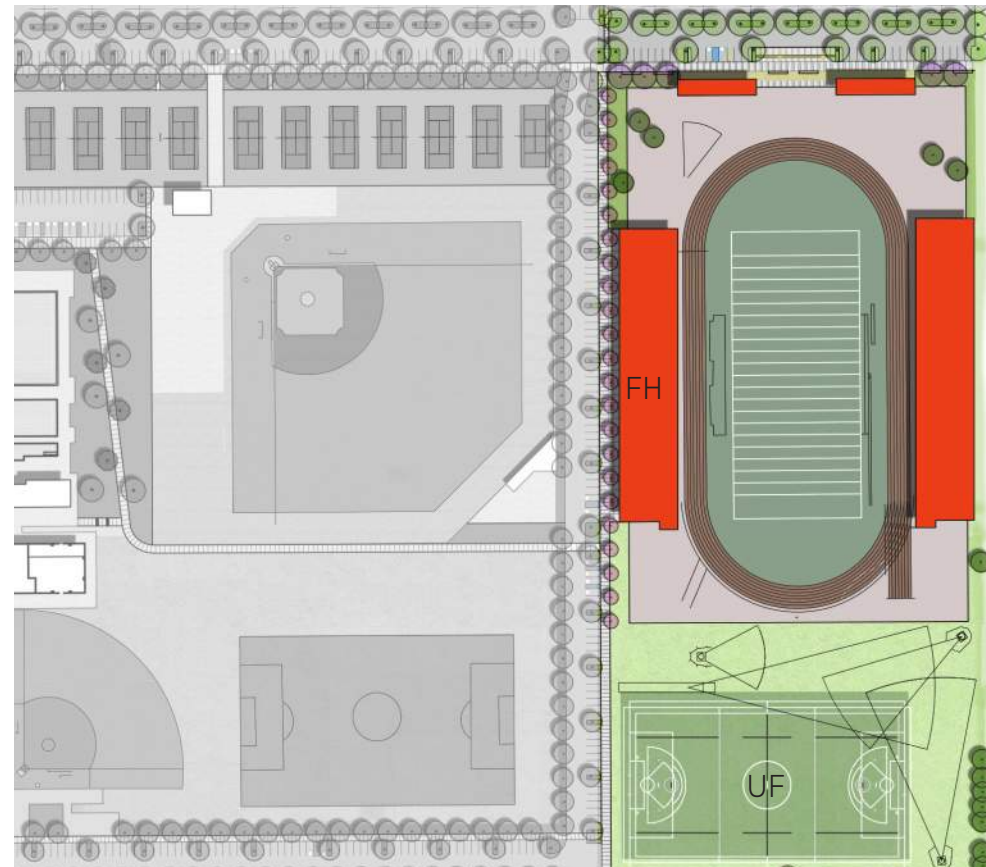
G

INSTRUCTIONAL BUILDING C

The new Instructional Building C will replace aging and underperforming facilities and be sized to support instructional program needs. The new building will include interdisciplinary classrooms, labs and offices to support a variety of instructional programs and improve the efficiency and utilization of space.

A new Veterans Resource Center (VRC) will be developed on the northwest side of the building, with a separate and identifiable entrance. This location will enhance connections to the Student Center and provide opportunities for indoor and outdoor programmed spaces.

A new plaza will be developed to enhance collaboration and support outdoor instruction.

FMP ALTERNATE

During the planning process, an FMP Alternate was developed for 3 projects identified in the 2019 FMP.

HEALTH SCIENCE

If the cost to renovate the existing Health Science Building is estimated to exceed the cost to renovate, the FMP recommends building a replacement facility on the site identified for Instructional Building C. This location provides opportunities to enhance collaboration and support synergies with the programs and activities in the Health and Wellness Complex.

CAREER TECHNICAL EDUCATION (CTE)

If the Health Science building moves to a new location, the CTE Complex will shift to the north. This location improves visibility of the CTE programs and enhances connectivity to the campus core. The outdoor instructional space is located to the south with a separate vehicular entry from New Falcon Way.

CAMPUS POLICE

If the CTE Complex shifts to the north, the FMP Alternate includes the development of additional parking and the potential to locate the Campus Police at the corner of New Falcon Way and Lot 8, with visibility from Studebaker.

Site Development
Landscape Plan

The site development recommendations create meaningful and memorable outdoor spaces for students , faculty and staff to connect and thrive. The recommendations are illustrated on the facing page and described on the pages that follow. The design of the open space of the Cerritos College Campus is guided by the Landscape Design Drivers

LANDSCAPE DESIGN DRIVER

· **IDENTITY**
The site improvements shall expand the experience of being at Cerritos College with its' outdoor spaces, districts, and distinctive open spaces as well as wayfinding, planting, site lighting and furnishings.

· **SUSTAINABILITY**
Site improvements shall incorporate integrated sustainability principles including: use of local and recycled materials, integrated stormwater management, reduction of urban heat island effect, increased habitat, minimizing impervious surfaces, and with the use of low-water and low-maintenance planting.

· **MOBILITY**
The site elements and spaces should create a memorable place for students, families and staff providing: Enhanced connections for pedestrians, cyclists and campus service vehicles to connect through and around the site.

· **LEGIBILITY**
Project boundaries shall respond to and incorporate existing open space, public edges as well as potential future improvement projects.

· **SOCIAL SPACE**
The site improvements shall create meaningful outdoor and open spaces for students and families to connect and thrive and provide gathering spaces in a variety of sizes to accommodate individuals, small group activities and large group events.

Alondra Blvd

Studebaker Rd

166th St

A | Campus Entry Plaza

B | Falcon Walk

C | Campus Core | The Green

D | Promenade Connection

E | Nature/Wellness Trail

F | Academic Courtyard

G | New Falcon Way Extension

H | Drop Off | Ride Share

I | Photo Voltaic Panels

J | Stadium Plaza

K | Reconfigured Parking
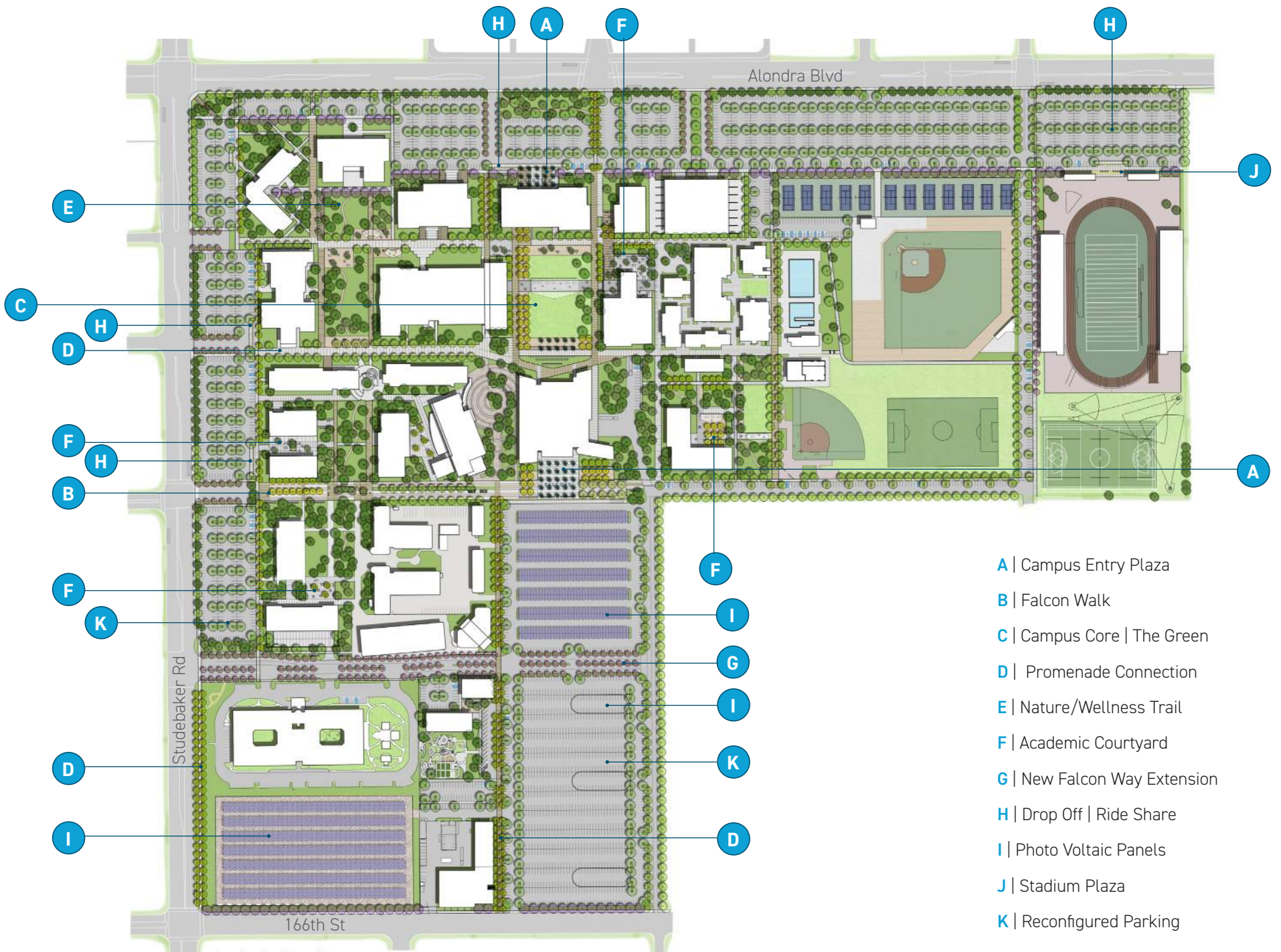
EDGES + PARKING

The campus edges are reconfigured the parking to minimize vehicular/pedestrian conflict while using different edge treatments of trees to define spaces. Multiple drop-off/ ride-share points have been added to allow for easier flow onto and off the campus

Entry points to the campus are improved with formalized rows of colorful Lagerstromea trees visible to both driver and pedestrian.

The perimeter buffer of trees will create a green edge surrounding the Cerritos campus and consists of an organic planting design with low water use sculptural trees such as Mesquites. Parking lots are shaded with the use of Elm trees to minimize the urban heat Island effect from asphalt and provide year-round shading from the elements.

The prominent corner at Studebaker Road and Alondra Boulevard allow for the native oaks to reach out and integrate the low-water, native and adaptive plantings to highlight the campus to the surrounding community.
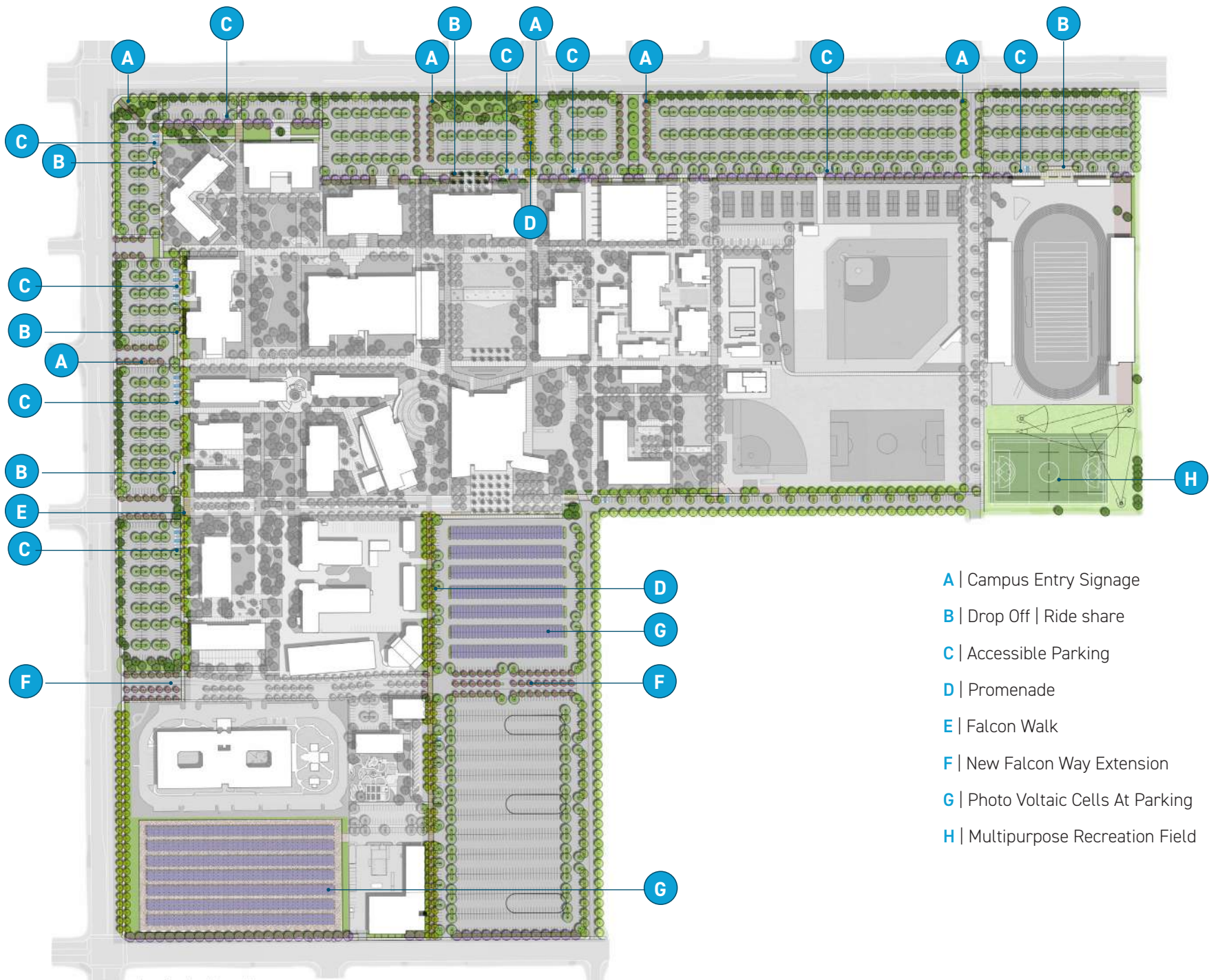
A | Campus Entry Signage

B | Drop Off | Ride share

C | Accessible Parking

D | Promenade

E | Falcon Walk

F | New Falcon Way Extension

G | Photo Voltaic Cells At Parking

H | Multipurpose Recreation Field

NEW FRONT DOOR

A new front door to the campus will be developed with the design of the new Students Services + Administration Building. Colorful Lagersoemia Indica are recommended to frame the main campus entry for vehicles.

The pedestrian entry into the campus core strenghtens connections on campus with the addition of grandiose scaled trees such as Phoenix dactylifera. They will act as a beacon for drivers to access the site and provide intuitive wayfinding for campus visitors to connect to the campus core.

The plaza at the front door creates a ceremonial entry campus and community. Colorful trees such as Jacarandas are proposed to provide vital shading in waiting zones.

A | Campus Entry Plaza

B | Promenade Connection

C | Academic Patios

D | Drop Off | Ride Share

E | Riparian Planting

F | Accessible Parking

G | Entry Garden
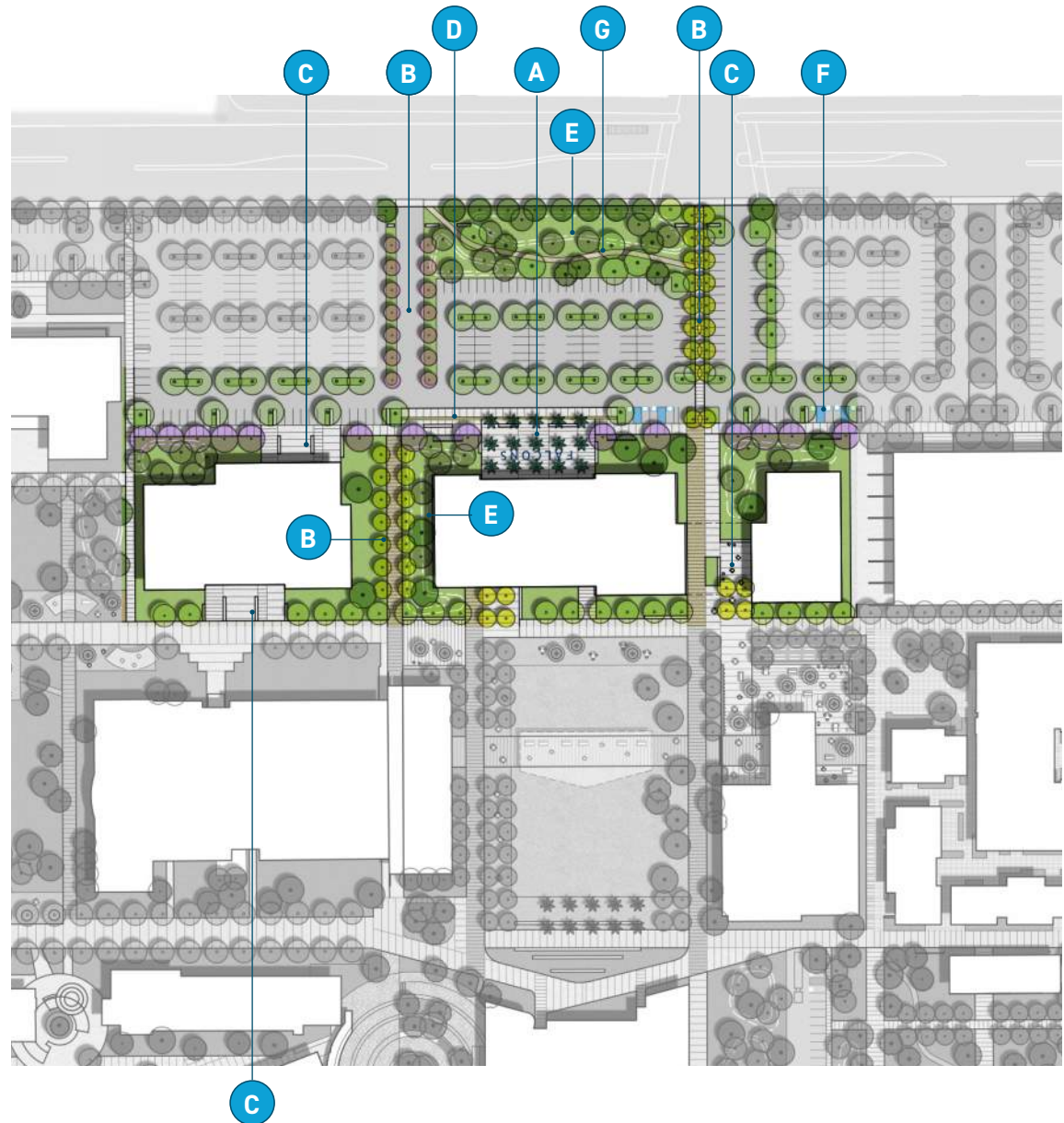
HEART OF CAMPUS

"The Quad", will be developed to create a new campus heart. Surrounded by core student support services, it will connect to pedestrian corridors leading to all areas of the campus. The space will be designed to support with a variety of uses and allows for gathering at the edges with a variety of quiet and active zones.

Active edges are developed adjacent to the Student Center with tree canopies of native trees for quiet collaboration. The north edge of the lawn includes a flexible area to support dining, studying or student events. The open lawn space is envisioned for large campus events, ceremonies or casual play.

A | Entry Plaza | Amphitheater

B | The Hangout

C | Outdoor Study

D | The Green

E | Shade Canopy | Dining Area

F | Promenade Connection
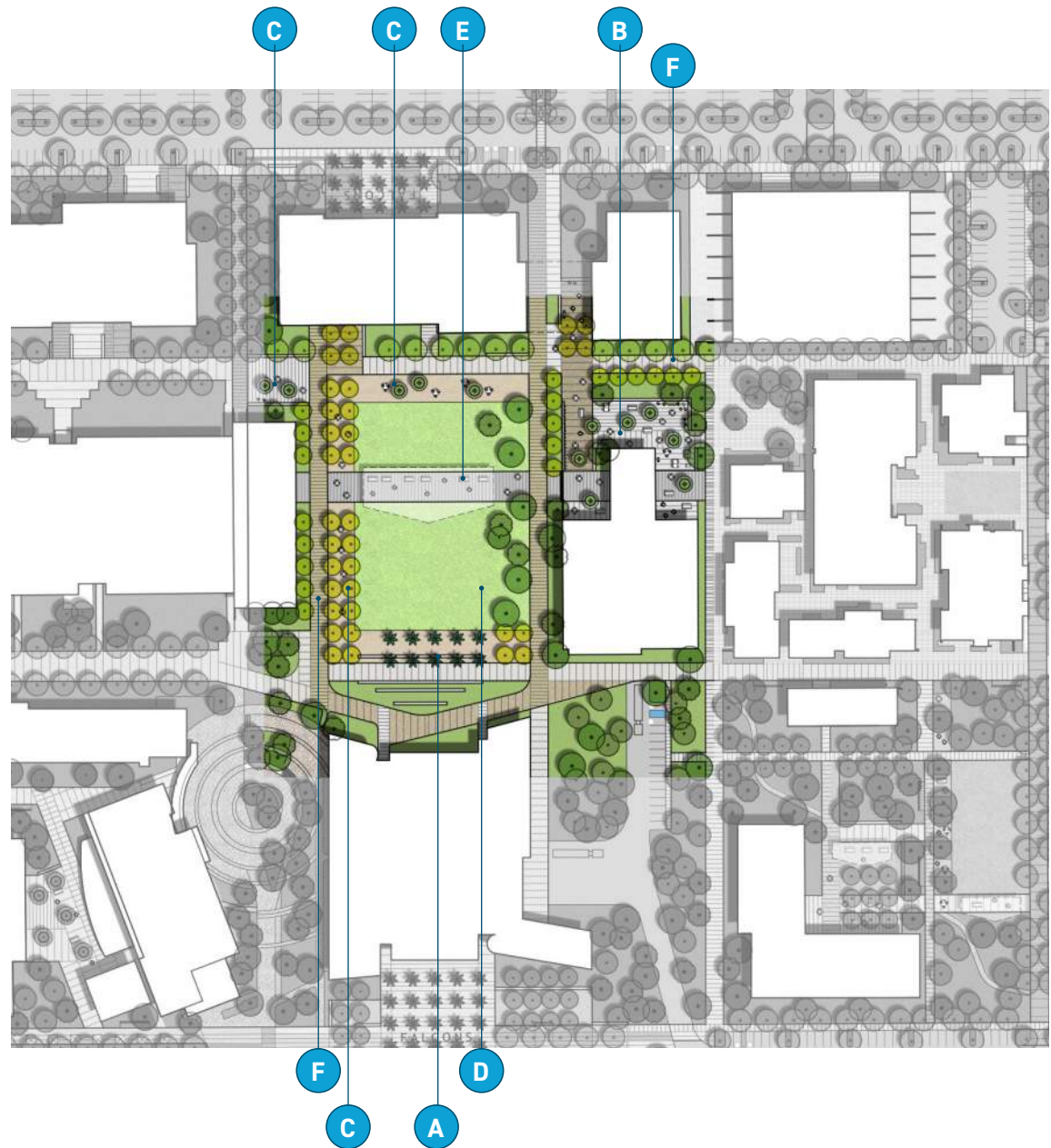
FALCON WALK

Falcon Way is transformed into Falcon Walk, creating a vibrant pedestrian linear park. Sycamores, Mesquite, or Palo Verde trees are recommended to frame the pedestrian zone, and enhance the user experience with unique and colorful shade. The walk will improve connections across the campus and include event and programmable outdoor rooms, a food truck area, and a bike path. It will create intuitive pathways that connect campus programs and core spaces with a hierarchy of concrete colors and surfacing. At the intersection of lot 10, the walk continues to the south of the Performing Arts Center and connects to the Athletics Zone.

A | Performing Arts Entry Plaza

B | The Market

C | Drop Off | Ride Share

D | Photo Voltaic Canopies At Parking

E | Hangout Gardens

F | Bicycle Parking

G | Pop-Up Food Vendors
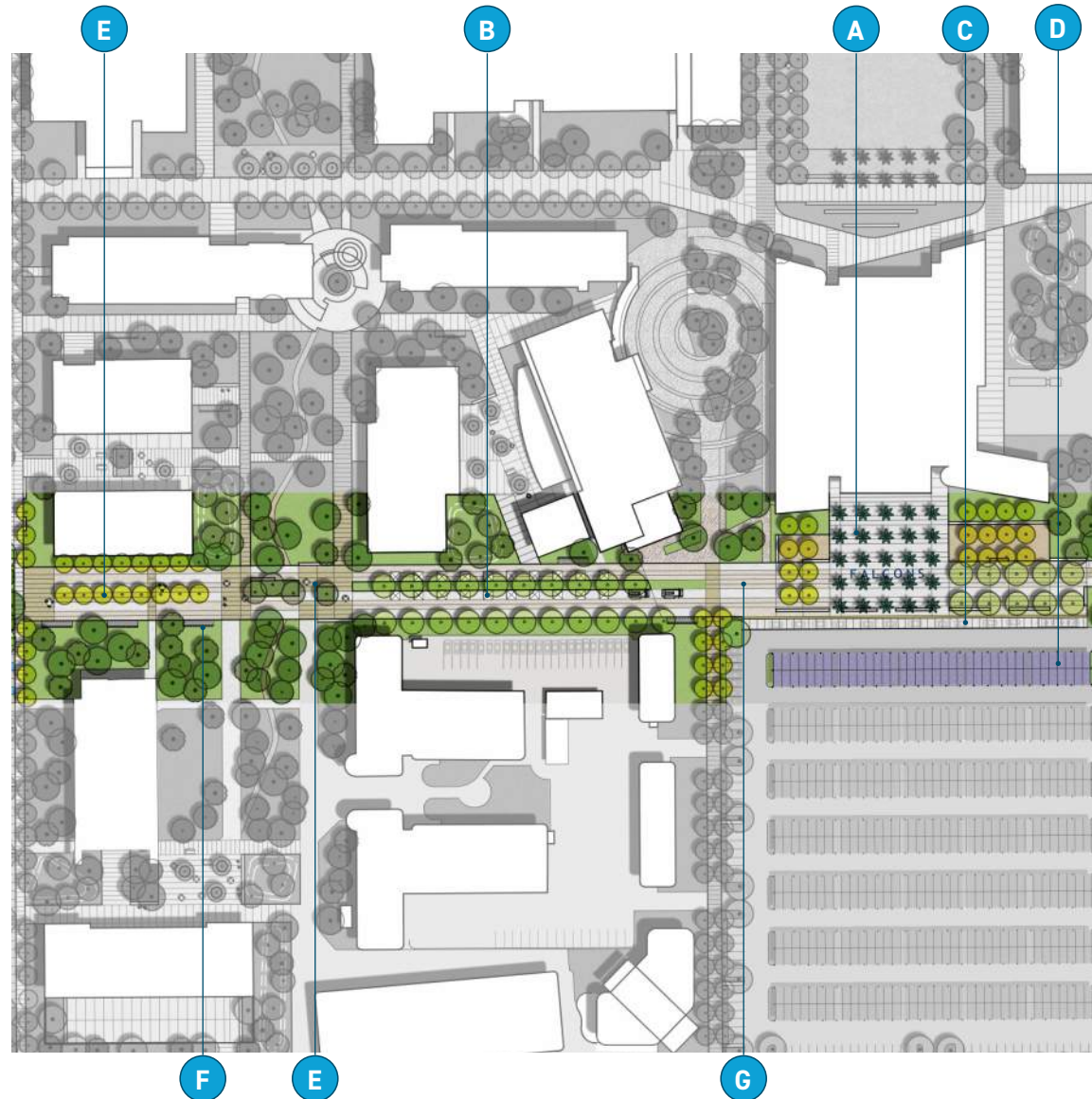
Planting Typologies

The plant typologies proposed for site development improvements focus on regional and climate appropriate plantings. An emphasis on low maintenance natural forms is recommended to create a well-managed landscape with native fauna.

- **Quad Turf**
  Low-water use, low maintenance turf in selected zone.

- **Sport Turf**
  Resilient turf and/or artificial turf.

- **Campus Planting**.
  Low water-use, low maintenance planting with tree canopy to support use of outdoor spaces.

- **Edge Planting**.
  Low-water use, low-maintenance screening to promote natural backdrop for neighbors.
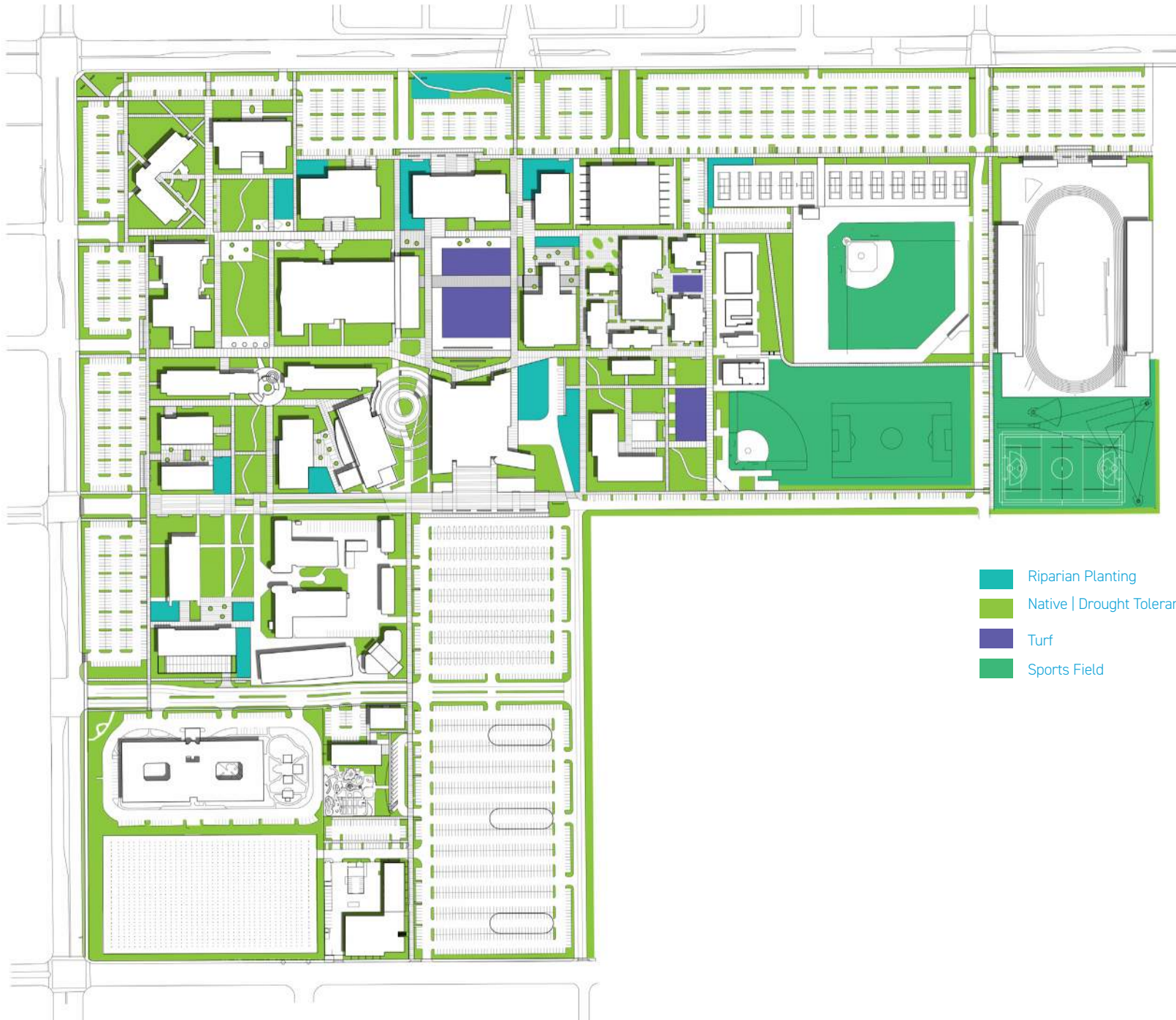
Riparian Planting

Native | Drought Tolerant | Adaptive Planting

Turf

Sports Field

Sustainability

Colleges are leaders in their communities. They are knowledge centers and provide opportunities for research and practice. They inform community education and provide positive opportunities for communities' sustainable futures.

As part of the FMP, the planning team conducted a study of energy and water use, as well as a carbon emission profile. This information was presented as part of the Sustainability Forum conducted on January 12, 2019. Participants included faculty, staff and students who engaged in a dialogue focused on sustainability at Cerritos College. The group reviewed current strategies and participated in a series of activities to establish the sustainability goals for the future.
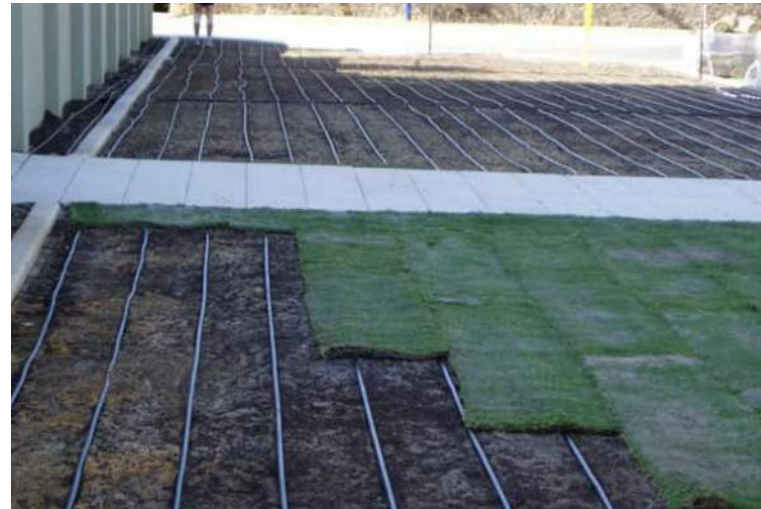
What is sustainability?

The term "sustainable" is most simply defined as being able to be maintained; to cause to continue; to prolong. Within the architectural community, sustainability has long been defined by developments which meet the needs of today, without compromising the needs of the future. However, the concept of sustainability has evolved.

Sustainability is not just about doing better for the planet; it is about maintaining balance in a triple bottom line approach that enhances society, the economy, and the environment. Where these strategies collide: sustainability can take root and prosper within a community. Where strategies support the needs of the individuals living, working and learning in that community, an equitable social economy thrives. Where the natural environment, both interior and exterior of the building are better served, the community further prospers. And when financially, the decisions made support further growth and prosperity, while respecting inhabitants and resources, those developments become the new standard.

Creating an equitable social environment leads to a more successful society which therefore leads to a thriving economy. Within these facets of life, is the desire to be true stewards of the earth and to protect it for future generations.

Sustainable Development Goals

Proposed sustainability actions are focused into eight categories

GOOD HEALTH & WELL-BEING

Promote healthy living culture, and provide a safe and healthy environment

- Provide Healthy Food & Beverages
- Ergonomic Furniture

QUALITY EDUCATION

Nurture environmental literacy across the campus, prepare students for the green workforce.

- Provide Student And Employee Orientation
- Promote Sustainability In Curriculum
- Develop Outreach Material And Publications
- Promote Community Service And Partnership

CLEAN WATER & SANITATION

Invest in operation to improve sanitation and access to drinking water

- On-Site Stormwater Capture and Release
- Campus-Wide Water Leak Detection System

AFFORDABLE CLEAN ENERGY

Become a leader in Energy Efficiency and increase the levels of on-and off-site renewable energy

- Reduce Energy Consumption / Increase Energy Efficiency
- Increase Self-generated Energy Capacity
- Provide Photovoltaic Arrays

SUSTAINABLE COMMUNITIES

Improve road safety and resource use,
reduce pollution and expand public transportation

- Provide events for social and environmental awareness
- Provide green and public spaces accessible to surrounding communities

RESPONSIBLE SOURCING

Promote a culture of reduce, reuse and recycle

- Increase Recycling - Make Recycling Easy
- Increase Composting

CLIMATE ACTION

Affordable and scalable solutions to reduce emissions and move toward a low-carbon life-styles

- Maximize On-Site Energy Generation
- Increase Energy Conservation and Efficiency
- Provide rooftop gardens to decrease greenhouse gasses

PARTNERSHIP FOR THE GOALS

Promote partnerships between campus users, the private sector and surrounding community

- Share visions and goals
- Include environmentally sound technologies
- Enhance policy coherence for sustainable development

Phased Development

The FMP recommendations for Cerritos College present an overall picture of the future developed campus and includes recommendations for new buildings, renovations, and campus-wide site improvements.

The transformation of the campus will occur in a series of phases and is described on the following pages. The sequence of projects has been developed based on the following parameters:

- Follow the logical movement of functions

- Limit disruption to the campus

- Limit the number of moves

- Reduce the need for swing space

- Position Cerritos College to maximize opportunities for state funding

Phase 1

PROJECTS

A | Student Services + Administration

B | Campus Police

C | The Quad
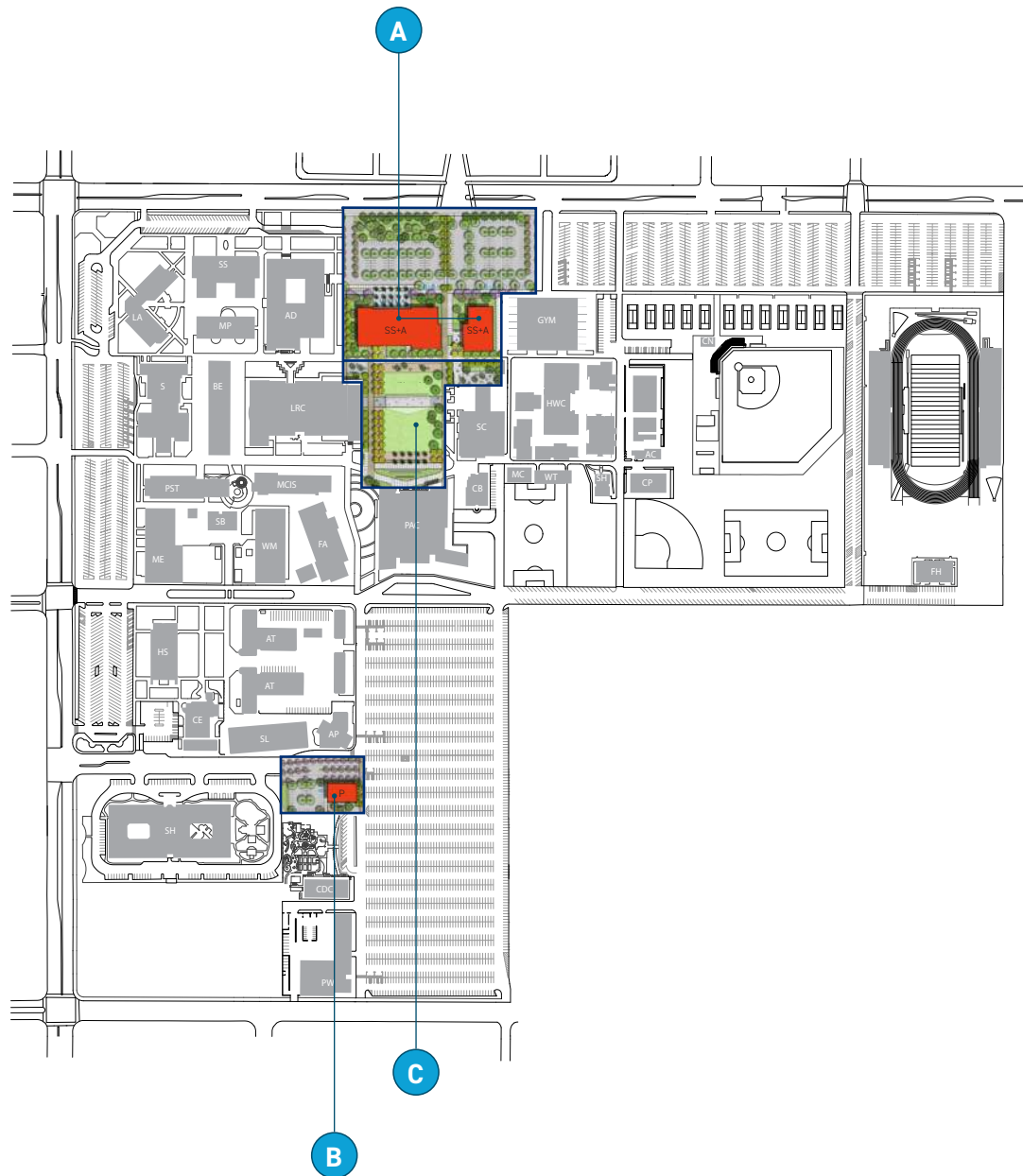
Phase 2

PROJECTS

A | Instructional Building A

B | Career Technical Education

C | Health Science

D | Field House + Stadium
+ Utility Field
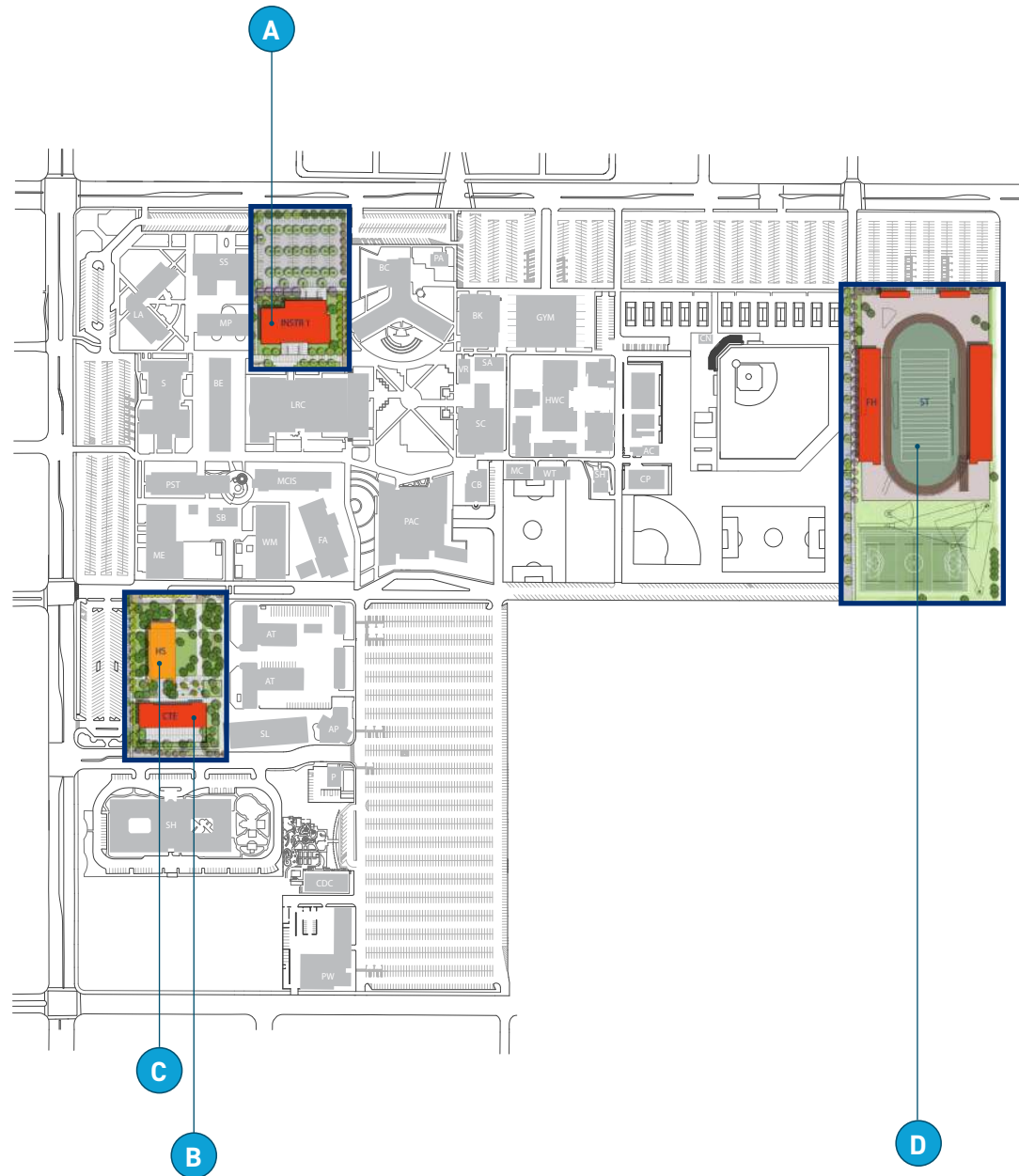
Phase 3

PROJECTS

A | Instructional Building B

B | Instructional Building C

C | Community Ed / Adult Ed

D | Cosmetology

E | Child Development Center
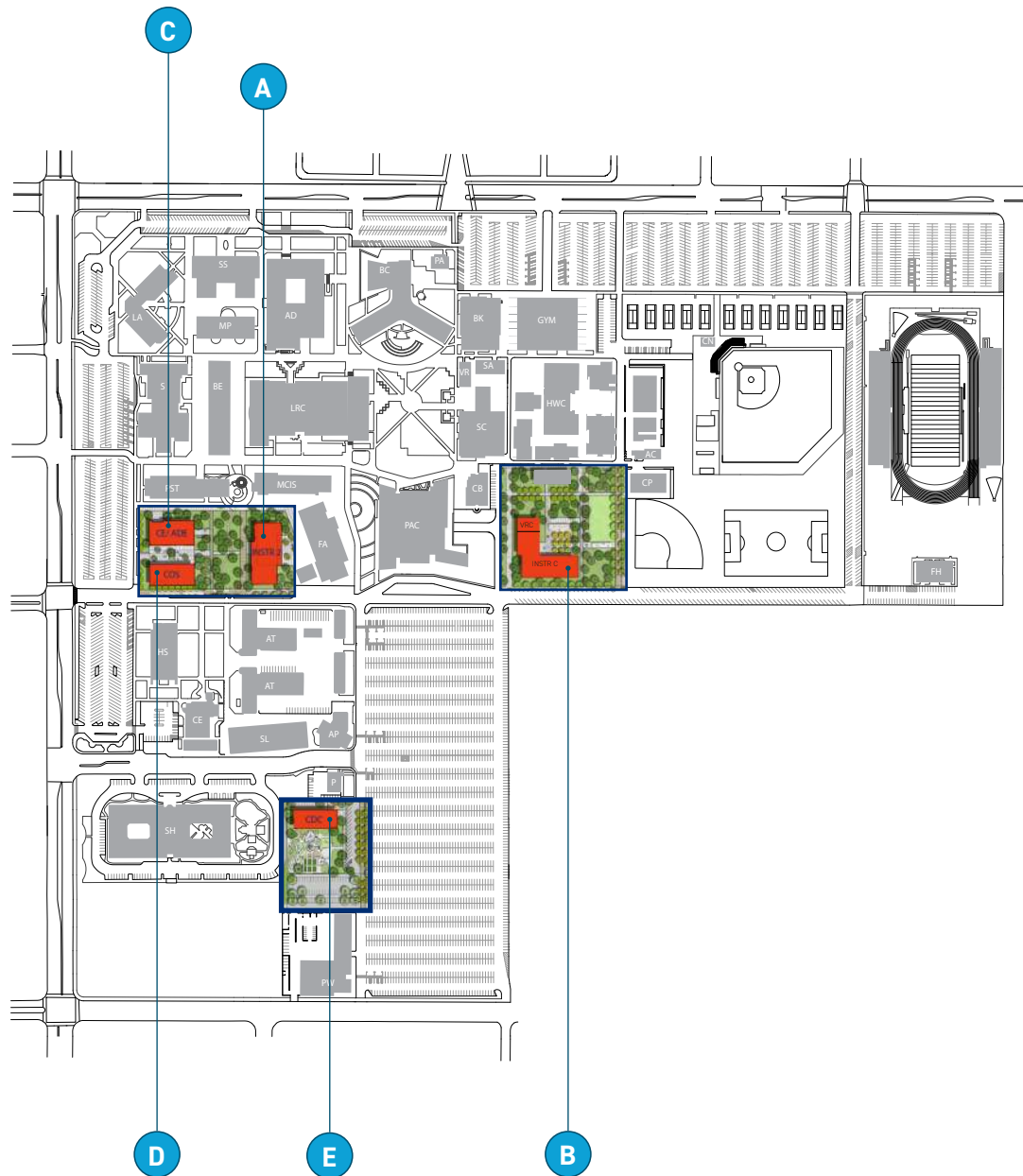
05 | Appendix

The Appendix of the Cerritos College 2019 Facilities Master Plan includes detailed information that was developed during the planning process. This information is included in the appendix for reference and is intended to be updated as needed to support the long range development recommendations described in Chapter 4.

The appendix is organized into three sections:

- **Appendix A:**
  Planning Session Themes, Examples, and EMP Correlations

- **Appendix B:**
  Augmented External Demographic Area

- **Appendix C:**
  Planning Session Themes, Examples, and EMP Correlations

Appendix A

PLANNING SESSION THEMES, EXAMPLES, AND EMP CORRELATIONS

The examples of identified themes from the planning session, which appear in the next few pages, are intended to capture a variety of remarks from representatives of different departments and disciplines. Each theme's alignment to specific goals of the Educational Master Plan appear in the third column.

THEMES	EXAMPLES	EMP ALIGNMENT
1 FOSTERING INTERDISCIPLINARY AND INTERDEPARTMENTAL COLLABORATION	Interdisciplinary: • Adaptive PE & Dance, DSPS, Counseling; • Engineering & Technology; • Fine Arts (e.g., music, theater) collaborating with CTE programs; • Health Occupations & Medical Assisting; • Cosmetology & Business Interdepartmental & Cross College: • Counseling & Success Support for student athletes; • Counseling & Financial Aid; • Adult Education & Student Services; • Academic Programs & Student Services collaborations re Guided Pathways	**GOAL C:** PROMOTING LEADERSHIP AND STAFF DEVELOPMENT Develop an organizational culture for all employees that supports professional growth, intra and inter departmental collaboration, institutional memory, and leadership continuity. **GOAL D:** IMPROVING INTERNAL AND EXTERNAL COMMUNICATION Raise awareness about who we are and convey that message effectively, both internally and externally. Improve information transfer between all of our on-campus constituent groups as well as with our external community.
2 INCREASING ACCESS TO PROGRAMS AND SERVICES	Educational Partnerships and Programs: high touch approach (face to face supports) from entry to completion with technology that supports access, persistence, success, & completion. Improve accessibility for disabled student population; make access to instruction and facilities "universal." Increase access to an array of counseling services for general academic & specialized counseling, including mental health services. Increase online course offerings and fully online degrees Increase students' sense of "belonging;" improve opportunities for students to meet, communicate, and collaborate. Student support services located in instructional areas ("satellite service areas") Provide resources needed to address food and housing insecurities	**GOAL A:** STRENGTHENING THE CULTURE OF COMPLETION Highlight clear educational and career pathways for all students and provide the programs, guidance and support they need to achieve their educational goals in a timely manner.

THEMES	EXAMPLES	EMP ALIGNMENT
3 PREPARING FOR NEW AND FUTURE PROGRAM OPPORTUNITIES	Certificate Programs: • Commercial Dance, Fitness Trainer • Plastics combined with chemistry (in development) • English Bachelor's Degree Programs • Nursing • Culinary	**GOAL B:** ENSURING PROGRAM ALIGNMENT BY STRENGTHENING PARTNERSHIPS Ensure all educational programs are aligned with industry trends and labor market needs. Strengthen partnerships with high schools, universities and strategic business and industry to build a complete pathway to completion.
4 DEVELOPING AND SUSTAINING PATHWAYS	High School • Course and Program Offerings: Dance; Psychology; Humanities; Math; Administration of Justice; Medical Assisting; Pharmacy Tech; Machine Tool Technology; Culinary • Adult Education and K-12 Bridge Guided • Areas of Interest: Social & Behavioral Sciences, STEM, Art/Humanities/Communications, Health Sciences, Human Services, Applied Technology/ Trade Skills, Business	**GOAL A:** STRENGTHENING THE CULTURE OF COMPLETION Highlight clear educational and career pathways for all students and provide the programs, guidance and support they need to achieve their educational goals in a timely manner. **GOAL B:** ENSURING PROGRAM ALIGNMENT BY STRENGTHENING PARTNERSHIPS Ensure all educational programs are aligned with industry trends and labor market needs. Strengthen partnerships with high schools, universities and strategic business and industry to build a complete pathway to completion.
5 SUPPORTING INSTRUCTIONAL INNOVATION	Teaching and Learning "group work" – CIS Contextualized learning Customized Reading courses - career or transfer pathway	**GOAL A:** STRENGTHENING THE CULTURE OF COMPLETION Highlight clear educational and career pathways for all students and provide the programs, guidance and support they need to achieve their educational goals in a timely manner.

THEMES	EXAMPLES	EMP ALIGNMENT
6 **PARTNERING WITH K-12, FOUR YEAR COLLEGES/ UNIVERSITIES, COMMUNITY ORGANIZATIONS, AND BUSINESSES**	K-12: Cerritos Complete with Local K-12 Districts Four Year: Transfer pathways with college and university partnerships (e.g., National University health occupations degrees) Employers: partnerships with JPL, Northrup Grummond) related to Science and Engineering Programs; Apple Certification Program Related to CIS Community: Service Agencies: mental health services, housing, CCFS, Cal Fresh	**GOAL B:** ENSURING PROGRAM ALIGNMENT BY STRENGTHENING PARTNERSHIPS Ensure all educational programs are aligned with industry trends and labor market needs. Strengthen partnerships with high schools, universities and strategic business and industry to build a complete pathway to completion.
7 **IDENTIFYING NEW OR RENOVATED FACILITIES NEEDED FOR GROWTH AND STUDENT SUPPORT**	Cross College: • Welcome Center (with ambassadors for personal communication & assistance) • Large spaces for orientations (60-70 student capacity) • Spaces for students' family interests (e.g., family members to attend orientations, children accompanying student parents to meetings) • Social gathering spaces for clubs, activities, events • Private spaces for confidential interactions, meditation, lactation • Facilities that provide "universal" access to all campus spaces • Adjunct Office Space • Spaces that foster interdisciplinary and interdepartmental collaborations PE/Health: • Adaptive PE - doubled in size in the last 2 years • Combat courses (e.g., taekwondo, Jujitsu) Psychology: Lab space for Research Methods	**GOAL A:** STRENGTHENING THE CULTURE OF COMPLETION Highlight clear educational and career pathways for all students and provide the programs, guidance and support they need to achieve their educational goals in a timely manner. **GOAL E:** UPGRADING EDUCATIONAL INFRASTRUCTURE Continue with the ongoing modernization of campus buildings and technology to ensure that all facilities and IT systems on campus meet industry standards.

THEMES	EXAMPLES	EMP ALIGNMENT
7 **IDENTIFYING NEW OR RENOVATED FACILITIES NEEDED FOR GROWTH AND STUDENT SUPPORT** **CONT.**	Sciences: • Anatomy, Physiology, Chemistry, Biology • Engineering Lab • Astronomy Dome	**GOAL A:** STRENGTHENING THE CULTURE OF COMPLETION Highlight clear educational and career pathways for all students and provide the programs, guidance and support they need to achieve their educational goals in a timely manner.
	Communication Studies: classroom and videotaping space	
	Administration of Justice: rooms for class size of 60	
	Adult Education: • Faculty Office Space • Instruction & Student Support combined, additional space • Testing Space (e.g., CASAS) • Classrooms with lecture & lab spaces • Community event & meeting spaces	**GOAL E:** UPGRADING EDUCATIONAL INFRASTRUCTURE Continue with the ongoing modernization of campus buildings and technology to ensure that all facilities and IT systems on campus meet industry standards.
	Nursing: • On-site nursing clinic • Skills lab • Simulation lab	
	Culinary: kitchens to support three business operations & specialties	
	CDFS: • Classroom and lab • Outdoor classroom for adult students	
	Library: • More space for current furniture • Dedicated spaces for different learning environments: "talking" space for collaboration; quiet space for individual study	
	Cosmetology: additional classrooms	
	Apprenticeship Program: • Large space(s) suitable for instruction in trades (e.g., carpentry, electrical)	

THEMES	EXAMPLES	EMP ALIGNMENT
8 IMPROVING AND MAINTAINING EXISTING FACILITIES	IT Infrastructure Upgrade Media Services & Academic Success Center: · Raw sewage back-ups issue · Rat infestation · Flooding · A/C problem Health Science Building: · Rats and mice infestation Cosmetology: · Plumbing/Hot Water needed · Electrical upgrades needed Machine Shop: facelift Library: electrical plugs (cords) on the floor; need long tables with center outlets.	**GOAL E:** UPGRADING EDUCATIONAL INFRASTRUCTURE Continue with the ongoing modernization of campus buildings and technology to ensure that all facilities and IT systems on campus meet industry standards.

Appendix B

AUGMENTED EXTERNAL DEMOGRAPHIC DATA

Key Findings

1

POPULATION TRENDS

- Population growth in Los Angeles and Orange Counties will outpace the state's rate (i.e., around 1%) with estimated increases of 4.64% for Los Angeles County and 5.5% for Orange County by 2030.

- Cerritos College's service area cities and those within North Orange County will see modest increases in population ranging between 0.1% and 0.7% annually.

- The fastest growing segment of the state's population is over 65 years (i.e., 19% of the state's total by 2030).

2

HOUSEHOLD INCOME

- Significant disparities exist in average median household incomes in Los Angeles County, the service cities in North Orange County, and In-District cities: average median household income for residents of North Orange County cities is significantly higher (i.e., $74,703) than average median household incomes in California (i.e., $67,739), Los Angeles County (i.e., $61,338), and In-District Cities (i.e., $66,408).

3 POVERTY AND UNEMPLOYMENT

- 14.3% of Californians lacked enough resources—about $24,300 per year for a family of four—to meet basic needs in 2016, not accounting for California's housing or other critical family expenses and resources.

- In 2016, 79.5% of poor Californians lived in families with at least one working adult, excluding families of only adults age 65 and older.

- Latinos experience dramatically higher poverty rates (i.e., 26.1% of Latinos lived in poverty, compared with 18.9% of African Americans, 17.6% of Asian Americans, and 13.5% of whites in 2016) and remain disproportionately poor (making up 52.8% of poor Californians but only 39.2% of Californian residents).

- More education is associated with strikingly lower poverty rates (i.e., 8.4% for adults age 25–64 with a college degree, but 34.5% for those without a high school diploma.)

- While Los Angeles County's poverty rate of 16.3% (2016) is below that of California's, stark disparities exist among the communities which the District serves (e.g., seven of sixteen cities In-District or North Orange County cities served by Cerritos CCD have poverty rates above that of California).

- Average unemployment rates for cities served by Cerritos CCD are within range of both California and LA County, although poverty rates suggest that residents of these cities are employed at similar rates but their incomes are notably lower.

- Because over 70% of Cerritos College students are Hispanic/Latino, serving the instructional and support needs of this population, as well as those of working adults in general, will remain a high priority for the District's instructional, support services, and facilities planning

4

K-12 TRENDS

- With a declining birth rate, K-12 enrollments and high school graduation rates are predicted to decline over the next ten years to 2027

  - Overall K-12 enrollments in California are expected to decline by 2.19%;

  - Los Angeles and Orange counties' enrollments are expected to decline by 7.89% and 8.61% respectively.

  - Los Angeles County is projected to see a 13.87% decrease in high school graduates, while Orange County will likely see an 8.24% decline.

- The lack of affordable housing in the Los Angeles area forces many families to migrate out of the region for more economical locales:

  - Out of 72 urban areas in the nation, the Los Angeles-Long Beach-Glendale metropolitan area ranked in 2018 as 71st in terms of affordability with only 7.7% of homes considered affordable for median income households.

  - Rents in the Los Angeles area are among the highest in the nation (e.g., average monthly rent for an apartment in L.A. in 2017 was $2,172 - 41% of the local median household income).

• While decreases in birth rates and the high costs of housing in the region may reduce the pool of future college students, as the Public Policy Institute of California notes, "further increases in per student aid as the state budget grows...[and demand] for higher education should remain strong as ...a greater share of students complete a college preparatory curriculum."

• The educational attainment levels of residents in the District's service area cities and in North Orange County also point to the presence of a pool of future students, as approximately 75% of residents between 18 and 44 years-old have high school diplomas but no college degrees.

5

REGIONAL LABOR MARKET

• The forecast for the Los Angeles-Long Beach-Glendale Metropolitan Division for 2014-2024 anticipates "approximately 608,800 new jobs from industry growth and more than 1,032,000 job openings from replacement needs for a combined total of approximately 1,640,800 job openings."

• Employment sectors which are forecasted to grow more significantly in the coming years include education and healthcare, leisure and hospitality, information, and professional and business services.

Note: Detailed information regarding regional occupational trends and Cerritos College's programs can be located in Appendix C (Labor Market Analysis and Cerritos College Program Correlations).

Section 1: Los Angeles County, North Orange Cities, In-District Cities

TABLE 1:

Median Age / North Orange County Cities, In-District Cities, and LA County (2016)

CITIES	MEDIAN AGE
North Orange Co, Cities	
Anaheim	34.1
Brea	37.9
Fullerton	34.6
Garden Grove	37.4
La Habra	34.2
Orange	35.1
Westminster	41
Yorba Linda	42.9
Average	37.15

In-District Cities	
Artesia	40.3
Bellflower	33.3
Cerritos	44.7
Downey	34
Hawaiian Gardens	31.2
La Mirada	39
Lakewood	38.3
Norwalk	34.9
Average	36.936

Los Angeles County	36.3 Average

TABLE 2:

2016 Median Household Income, Poverty Rates, and 2018 Unemployment Rates / North Orange County Cities, In-District Cities, and LA County (2016)

CITIES	MEDIAN HOUSEHOLD INCOME	POVERTY RATE	UNEMPLOYMENT (2018)
North Orange Co, Cities			
Yorba Linda	$119,697	3.8	2.9
Brea	$85,555	7.22	3.2
Orange	$79,192	12.8	2.9
Fullerton	$67,110	15.3	3.2
La Habra	$65,799	13.7	3.3
Anaheim	$64,464	15.0	3.2
Garden Grove	$60,522	16.2	3.4
Westminster	$55,287	17.9	3.6
Average	$74,703	12.74	3.2
In-District Cities			
Cerritos	$95,373	4.79	4.5
Lakewood	$82,175	7.47	4.9
La Mirada	$81,956	7.24	4.7
Downey	$65,332	11	4.9
Norwalk	$61,050	14.8	5.1
Artesia	$58,651	13.6	4.5
Bellflower	$50,704	17	5.9
Hawaiian Gardens	$36,026	29.6	(not available)
Average	$66,408	13.19	4.9
Los Angeles County	$61,338	16.3	3.21

TABLE 3:

Educational Attainment by Age (2016)
High School / Equivalent

	HIGH SCHOOL / EQUIVALENT				
AGE	18-24	25-34	35-44	45-64	65+
North Orange County					
Anaheim	32.7	22	24.4	23.2	24.4
Brea	18.5	8.4	13.6	15	23.5
Fullerton	21.6	15.1	17.8	19.7	21
Garden Grove	28.4	21.1	24.8	24.9	25.4
La Habra	33	25.4	20.5	24.3	28.9
Orange	23.9	19.5	17.3	28.8	22.8
Westminster	28.4	19.8	23.2	25.1	22.8
Yorba Linda	23.5	11	7.5	11.6	19.6
Average	26.3	17.8	18.6	20.3	23.6
In-District Cities					
Artesia	27.8	24	19.6	26.4	29.9
Bellflower	34.7	25.9	28.6	27.7	29.4
Cerritos	22.8	11.8	8.3	13.3	19.2
Downey	29.2	22.3	25.8	24.3	24.9
Hawaiian Gardens	33.9	35.5	27.4	26.7	26.5
La Mirada	21.3	20	19.4	24.2	25.4
Lakewood	27.6	21.9	18.3	21.6	29.7
Norwalk	36.1	27.9	27.6	27.9	26.5
Average	29.2	23.7	21.9	24.0	26.4
LA County	27	20.9	20.4	20.4	21.4

TABLE 3:

(Cont.)

Educational Attainment by Age (2016)
No High School / Equivalent

AGE	NO HIGH SCHOOL / EQUIVALENT				
	18-24	25-34	35-44	45-64	65+
North Orange County					
Anaheim	13.6	17.2	28.6	25.3	25.3
Brea	9.7	3.6	5.7	6.6	12.5
Fullerton	9.3	9.7	14.3	13.4	16.4
Garden Grove	11.6	16.7	26.6	28.3	30.4
La Habra	11.4	13.6	21.5	17.8	20.8
Orange	11.7	14.3	19.4	15.4	15.4
Westminster	9.9	11.1	20.5	24	33
Yorba Linda	6.4	4.2	3.9	2.9	7
Average	10.5	11.3	17.6	16.7	20.1
In-District Cities					
Artesia	11	7.7	17.3	19.5	41.6
Bellflower	10.3	12.9	19.9	24.5	32.1
Cerritos	7.2	1.8	3.9	5.3	14.8
Downey	14	12.8	19.3	25.8	37.7
Hawaiian Gardens	17.5	16.1	38.7	43.5	52.3
La Mirada	2.3	6.8	6.1	10.5	18
Lakewood	11.7	8.1	9	10.8	17.5
Norwalk	12.2	13.5	23.7	29.4	39.3
Average	10.8	10.0	17.2	21.2	31.7
LA County	14	14.5	22.1	24.3	28.4

Section 2: Regional K–12 Trends

TABLE 4:

K-12 Enrollment Projection Rankings
AY 2016-2017 to AY 2026/2027

RANK	COUNTY	PERCENT CHANGE
1	LAKE	13.84%
2	MARIPOSA	13.82%
3	TEHAMA	13.80%
4	BUTTE	11.26%
5	SAN FRANCISCO	10.84%
6	YOLO	10.68%
7	SUTTER	10.45%
8	PLUMAS	8.35%
9	ALPINE	6.10%
10	SISKIYOU	5.68%
11	MERCED	4.78%
12	PLACER	4.71%
13	KERN	4.64%
14	SIERRA	4.52%
15	IMPERIAL	3.77%

RANK	COUNTY	PERCENT CHANGE
16	INYO	3.76%
17	MADERA	3.68%
18	STANISLAUS	3.57%
19	SANTA BARBARA	3.44%
20	YUBA	2.95%
21	FRESNO	2.70%
22	MODOC	2.42%
23	CALAVERAS	2.10%
24	AMADOR	1.76%
25	TUOLUMNE	1.72%
26	SAN JOAQUIN	1.53%
27	RIVERSIDE	1.46%
28	SACRAMENTO	1.21%
29	MENDOCINO	0.84%
30	HUMBOLDT	0.76%

TABLE 4:

(Cont.)

RANK	COUNTY	PERCENT CHANGE
31	ALAMEDA	-0.04%
32	CONTRA COSTA	-0.27%
33	NEVADA	-0.38%
34	SAN DIEGO	-1.07%
35	SAN BERNARDINO	-1.31%
36	SAN LUIS OBISPO	-3.10%
37	SOLANO	-3.37%
38	TRINITY	-3.55%
39	TULARE	-4.01%
40	MONTEREY	-4.79%
41	MONO	-5.03%
42	KINGS	-5.11%
43	SANTA CLARA	-5.16%
44	SHASTA	-5.36%
45	EL DORADO	-6.13%

RANK	COUNTY	PERCENT CHANGE
46	SAN BENITO	-6.16%
47	GLENN	-6.77%
48	SAN MATEO	-7.71%
49	NAPA	-7.78%
50	LOS ANGELES	-7.89%
51	DEL NORTE	-8.10%
52	MARIN	-8.15%
53	LASSEN	-8.16%
54	COLUSA	-8.37%
55	ORANGE	-8.61%
56	SONOMA	-9.36%
57	SANTA CRUZ	-10.20%
58	VENTURA	-10.59%

Source: Department of Finance

TABLE 5:

High School Graduates to AY 2026/2027:
LA County and Orange County

	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	Net Change
Los Angeles	105426	101432	102394	99575	98627	98949	98676	98519	100081	97464	96157	90799	-13.87
Orange	37273	37437	38307	37678	37000	37666	37629	37604	37726	36499	36355	34200	-8.24

Beginning in 2017, the Department of Finance applied a new methodology for calculating 2017 high school graduation rates: (1) Students who receive an adult education high school diploma are no longer considered regular high school graduate; (2) students who pass the California High School Proficiency Exam (CHSPE) are no longer considered regular high school graduates; and, (3) students who transfer to adult education programs or a community college will remain in the denominator for the cohort calculation.

Source: Department of Finance

This reduced the overall number and percentage of those counted as HS graduates. However, students in Adult Education or community college are still in the denominator for the cohort calculation. DOF cites lower birth rates and people moving out of these counties, which is also a reason for decreased graduation rates in these SoCal counties.

Section 3: Labor Market Analysis and Cerritos College Program Correlations

TABLE 6:

Occupations with Greater than Average (14.5%) Projected Growth LA County – 2014-2024-
Correlated to Programs at Cerritos College

Occupational Title	Percent Change 2014 - 2024	Degree Type or Transfer Prep
Web Developers	36	Computer Science (or related program)
Barbers	27.3	Cosmetology
Manicurists & Pedicurists	26.4	Cosmetology
Medical Assistants	24.3	
Hairdressers, Hairstylists, & Cosmetologists	23.7	Cosmetology
Makeup Artists, Theatrical & Performance	21.8	Cosmetology
Skincare Specialists	17.4	Cosmetology
Agricultural & Food Science Technicians	16.3	Science/Engineering/Mathematics &/or Transfer Program
Life, Physical, & Social Science Technicians, All Other	15.5	Science/Engineering/Mathematics &/or Transfer Program
Cooks, Private Household	14.6	Culinary

TABLE 7:

Fastest Growing Occupations 2014-2024

(Los Angeles-Long Beach-Glendale Metropolitan Division) - Correlated to Programs at Cerritos

Occupational Title	Percent Change 2014 - 2024	Degree Type or Transfer Prep
Web Developers	36.0%	AA/AS Computer Science (or related program)
Operations Research Analysts	34.9%	AA/AS (e.g., Mathematics or related program)
Biomedical Engineers	31.1%	Science/Engineering/Mathematics &/OR Transfer Program
Agents & Business Managers of Artists, Performers, & Athletes	29.5%	Various General Education &/or Transfer Program
Physical Therapist Assistants	29.5%	AA/Certificate &/or Transfer
Forensic Science Technicians	29.4%	Science/Engineering/Mathematics &/or Transfer Program
Social Science Research Assistants	24.5%	AA/AS Social Science &/or Transfer

Source: California Employment Development Department

TABLE 8:

Ten Year Employment Projections 2014-2024

(Los Angeles-Long Beach-Glendale Metropolitan District)
Above Average Increase in Openings (8.71%) Correlated to Cerritos Programs

Industry Title	Percent Change 2014 - 2024	Annual Average Percent Change	Related Cerritos Program(s)
Restaurants/Other Eateries	28.1%	2.8%	Culinary
Ambulatory Health Care Services	27.8%	2.8%	Health Occupations
Food Services & Drinking Places	26.9%	2.7%	Culinary
Offices of Other Health Practitioners	26.4%	2.6%	Business Communications/Office Technology
Educational Services (Private)	25.3%	2.5%	Education/Elementary School Teaching; Child Development
Computer Systems Design & Related Services	23.3%	2.3%	Computer Science
Offices of Physicians	22.4%	2.2%	Business Communications/Office Technology
Radio & Television Broadcasting	21.0%	2.1%	Radio/TV
Nursing Care Facilities (Skilled)	21.0%	2.1%	Health Occupations
Nursing/Residential Care Facilities	19.8%	2.0%	Health Occupations
Performing Arts, Spectator Sports, & Related Industries	18.7%	1.9%	Dance, Theatre Arts, Music
Activities Related to Real Estate	18.1%	1.8%	Real Estate
Investigation/Security Services	17.1%	1.7%	Administration of Justice

Industry Title	Percent Change 2014 - 2024	Annual Average Percent Change	Related Cerritos Program(s)
Elementary & Secondary Schools	15.9%	1.6%	Education/Elementary School Teaching
Household & Institutional Furniture & Kitchen Cabinet Manufacturing	14.7%	1.5%	Woodworking Manufacturing Technologies
Administrative & Support Services	14.2%	1.4%	Business Communications/Office Technology
Offices of Real Estate Agents & Brokers	14.2%	1.4%	Real Estate;
Business Communications/Office Technology			
Special Food Services	14.0%	1.4%	Culinary
Real Estate	13.9%	1.4%	Real Estate
Broadcasting (except Internet)	12.9%	1.3%	Radio/TV
Offices of Dentists	12.1%	1.2%	Business Communications/Office Technology
Furniture & Related Product Manufacturing	10.6%	1.1%	Woodworking Manufacturing Technologies
Scientific Research & Development Services	9.1%	0.9%	Science/Engineering/Mathematics

Source: California Employment Development Department

Appendix C

PLANNING SESSION THEMES, EXAMPLES, AND EMP CORRELATIONS

The planning team selected the two years within the last five with the greatest range of growth in headcount, section, and WSCH: AY 2013-2014 as lowest year; AY 2015-2016 was selected as the highest. The team then compared program growth to District growth in headcount, sections, and WSCH in these same academic years to determine which programs grew faster, slower, or the same as the District. In addition, the planning team also examined overall increases in enrollments by discipline. Consequently, the following disciplines (grouped by Division) experienced an overall increase in enrollments over a five-year period from 2013-14 to 2017-2018:

- Adult Education & Diversity (AED)

- Business Education: Business Administration, Finance

- Counseling

- Fine Arts/Communications: American Sign Language/Sign Language, Art, Film, Theatre

- Health Occupations: Child Development, Culinary Arts, Dental Hygiene, Medical Assistant

- Humanities/Social Science: Economics, Education/Elementary School Teaching, History, Political Science, Women's Studies/ Women's & Gender Studies

- Science/Engineering/Math: Anatomy & Physiology, Botany, Chemistry, Earth Science, Engineering, Geology, Physics, Mathematics, Physical Science, Zoology

- Technical Education: Engineering Design Technology, Engineering Technology, New Product Development, Welding, Woodworking Manufacturing Technologies

Moreover, it is also important to note the impact of increased enrollments in distance education courses, which are notably significant among a number of disciplines. Overall, within a five-year span (AY 2013-2014 to AY 2017-2018) the number of disciplines offering online courses increased from 31 to 39 – 25.8%. In addition, distance education enrollments in this same time frame rose dramatically from 13,526 to 18,466 – an increase of 36.52%.

Therefore, while the amplified presence of online instruction is notable, the number of disciplines offering online courses remains relatively modest, which means that face-to-face instruction remains the dominant method of instruction. However, the overall increase in distance education enrollments can be attributed to a number of specific disciplines, which substantially grew online offerings between 2013-2014 and 2017-2018.

Data for some programs is missing or incomplete due to program changes, reporting changes, or unique variables associated with a program. N/A signifies unavailable data.

TABLE 1:

Program WSCH – AY 2013-14 TO AY 2017-18 –
Growth Compared to District (2.3%)

PROGRAM	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	COMPARISON WITH DISTRICT 2.3%
Adult Education	97568	27821	56810	55095	67599	FASTER
Political Science	11916	12822	13710	13620	13779	FASTER
History	11061	12153	12870	12810	13707	FASTER
Anatomy & Physiology	6012	6978	6642	6903	6945	FASTER
Economics	4643	5264	6265	6533	6297	FASTER
Welding	4668	3603	3840	4485	5414	FASTER
Child Development	3933	3903	4245	4596	5076	FASTER
Physics	3882	4104	4374	3936	4326	FASTER
American Sign Language	2888	4057	4062	4662	4620	FASTER
Counseling	2375	2703	3029	3441	3592	FASTER
Engineering Design Technology	2358	2865	3096	2795	2965	FASTER
Medical Assistant	2353	2511	2528	2681	2875	FASTER
Kinesiology		1930	2771	2956	3218	FASTER
Women's Studies	1425	1800	1509	2247	2328	FASTER
Geology	1452	1763	1812	1775	1676	FASTER
Chinese	1505	3444	1259	1042	1002	FASTER
Film	1327	1214	1651	1472	1993	FASTER
Finance	941	936	876	780	1107	FASTER
Physical Science	361	431	357	237	369	FASTER
Tech Training and Distance Ed				671	785	FASTER
New Product Development	168	645	222	111	291	FASTER
Zoology	432	472	496	464	472	SAME
Mathematics	49816	53680	59088	55858	58939	SLOWER

TABLE 1:

(Cont.)

PROGRAM	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	COMPARISON WITH DISTRICT 2.3%
English	51415	56910	57520	55282	49477	SLOWER
Business Administration	26711	25971	27203	25794	26043	SLOWER
Psychology	15867	17005	17461	15856	15191	SLOWER
Physical Education	24539	12181	11046	10027	9465	SLOWER
Computer & Information Sciences	14426	14488	14538	14505	14840	SLOWER
Art & Design	13693	14470	13666	13905	14256	SLOWER
Speech	12376	13499	13729	13077	12427	SLOWER
Accounting	10225	10345	11152	10182	10152	SLOWER
Music	10707	10614	10935	10288	9817	SLOWER
Chemistry	10945	9192	10979	10840	11145	SLOWER
Sociology	9930	11001	11487	9501	8736	SLOWER
Reading	10293	10210	10190	9994	9475	SLOWER
Cosmetology	13952	9774	6650	6152	6346	SLOWER
Health Education	9240	10761	10212	8823	7626	SLOWER
Automotive Mechanical Repair	9552	10555	10111	8722	8673	SLOWER
Biology	9117	9525	9141	9252	9065	SLOWER
Nursing	9014	8996	8908	8802	7595	SLOWER
Spanish	8417	8420	8686	8158	8140	SLOWER
Anthropology	7811	8037	8123	6939	6109	SLOWER
Athletics		9674	10751	10256	9145	SLOWER
Theatre Arts	6481	7028	5893	5409	5518	SLOWER
Philosophy	6141	6297	6333	5790	5826	SLOWER
Geography	6762	6522	6042	4965	5061	SLOWER
Administration of Justice	5928	5723	5793	5184	5457	SLOWER
Early Childhood	6005	5968	5578	5117	5097	SLOWER
Dance	5911	5321	5051	4923	5084	SLOWER
Woodworking Manufacturing Technologies	5003	5425	4728	4640	5118	SLOWER
Legal (Paralegal)	5641	5083	4643	4251	4392	SLOWER
Culinary Arts	4877	3874	4417	4264	4394	SLOWER

PROGRAM	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	COMPARISON WITH DISTRICT 2.3%
Astronomy	5244	4455	5322	3855	3513	SLOWER
Automotive Collision Repair	4206	3695	3714	3354	2913	SLOWER
Photography	3651	3969	3975	3609	3846	SLOWER
Business Communications Office Technology	3951	3467	3455	3248	2965	SLOWER
English As A Second Language	4004	3503	3104	3244	2854	SLOWER
Microbiology	2979	2961	3069	2862	2952	SLOWER
Earth Science	3009	2979	3108	3042	3057	SLOWER
Real Estate	2989	2478	2473	2487	2204	SLOWER
Architecture	2544	2897	2502	2384	1977	SLOWER
Pharmacy Technician	3201	2459	2178	1732	1717	SLOWER
Physical Therapist Assistant	2424	2298	2413	2305	2230	SLOWER
Dental Hygiene	2182	2133	2087	2004	2258	SLOWER
Dental Assisting	2269	2043	1595	1629	1663	SLOWER
Machine Tool Technology	2178	1832	1796	1844	1760	SLOWER
French	2085	2084	1954	1594	1294	SLOWER
German	2356	2136	1755	1094	952	SLOWER
Journalism	2469	1253	1141	850	932	SLOWER
Plastics/Composites Manufactur	1638	1262	1066	1036	868	SLOWER
Health Occupations	1084	961	969	947	997	SLOWER
Speech & Language Pathology Assistant	1103	1011	930	937	980	SLOWER
Humanities	1095	912	939	783	807	SLOWER
Japanese	1008	750	1032	894	852	SLOWER
Library Research	924	699	476	370	270	SLOWER
Engineering Technology	978	843	591	535	364	SLOWER
Radio - Television	708	695	612	477	405	SLOWER
Infant Toddler	591	573	549	552	486	SLOWER
Special Education	588	525	498	537	480	SLOWER
Interdisciplinary Studies	411	321	381	246	273	SLOWER
Japanese	1008	750	1032	894	852	SLOWER

TABLE 2:

Program Headcount – AY 2013-14 vs. 2017-18

PROGRAM	AY 2013-2014	AY 2017-2018	NUMERIC CHANGE	PERCENT CHANGE
Access Learning	N/A	N/A	N/A	N/A
Accounting	3217	3063	-154	-4.80%
Administration of Justice	2180	1928	-252	-11.55%
Adult Education & Diversity	16855	19699	2844	16.87%
Anatomy & Physiology	1171	1350	179	15.31%
Anthropology	2925	2180	-745	-25.47%
Architecture	680	605	-75	-11.03%
Art	3288	3424	136	4.14%
Astronomy	2053	1200	-853	-41.55%
Athletics [Note: used 2014-2015 baseline due to program change]	1508	1590	82	5.44%
Automotive Collision Repair	942	633	-309	-32.80%
Automotive Mechanical Repair	1932	1721	-211	-10.92%
Biology	1986	1963	-23	-1.16%
Botany	37	39	2	5.95%
Business Administration	1929	9591	7662	397.20%
Business Communications Office Technology	1371	1044	-327	-23.86%
Chemistry	1927	1938	11	0.57%
Child Development	1142	1864	722	63.22%
Child Development/Early Childhood	2092	1734	-358	-17.14%
Child Development/Infant Toddler	217	178	-39	-17.88%
Child Development/Special Education	216	176	-40	-18.52%
Chinese	320	218	-102	-31.88%

PROGRAM	AY 2013-2014	AY 2017-2018	NUMERIC CHANGE	PERCENT CHANGE
Computer & Information Science	3868	3767	-101	-2.61%
Cosmetology	1180	534	-646	-54.75%
Counseling	1660	2746	1086	65.42%
Culinary Arts	838	949	111	13.25%
Dance	1793	1686	-107	-5.97%
Dental Assisting	442	310	-132	-29.78%
Dental Hygiene	668	688	20	3.03%
Earth Science	786	830	44	5.60%
Economics	1382	1804	422	30.54%
Education/Elementary School Teaching	108	171	63	58.33%
Educational Technology	802	364	-438	-54.61%
Engineering [Note: 2014-15 used as baseline due to program changes]	77	250	173	224.68%
Engineering Design Technology	612	1036	424	69.28%
Engineering Technology	318	221	-97	-30.50%
English	15699	13897	-1802	-11.48%
English as Second Language	1256	782	-475	-37.78%
Film	311	415	104	33.44%
Finance	394	447	53	13.45%
French	451	258	-193	-42.79%
Geography	2495	1833	-662	-26.53%
Geology	337	357	20	5.95%
German	480	200	-280	-58.33%

TABLE 2:

(Cont.)

PROGRAM	AY 2013-2014	AY 2017-2018	NUMERIC CHANGE	PERCENT CHANGE
Health Education	3697	2805	-892	-24.12%
Health Occupations	552	524	-28	-5.07%
History	4237	5031	794	18.74%
Humanities	365	269	-96	-26.30%
Interdisciplinary Studies	151	100	-51	-33.71%
Japanese	201	170	-31	-15.42%
Journalism	448	312	-136	-30.36%
Law	2157	1704	-453	-21.01%
Library	568	144	-424	-74.65%
Machine Tool Technology	745	355	-390	-52.35%
Manufacturing Technology	108	24	-84	-77.78%
Mathematics	15537	16700	1163	7.49%
Medical Assistant	844	915	71	8.41%
Microbiology	438	417	-21	-4.79%
Music	3499	3233	-266	-7.60%
New Product Development	86	125	39	45.35%
Nursing	1999	1656	-343	-17.16%
Pharmacy Technician	1053	606	-447	-42.43%
Philosophy	2274	2053	-221	-9.73%
Photography	832	784	-48	-5.79%
Physical Education / Kinesiology	8053	1309	-6744	-83.74%
Physical Education/Adapted [Note: used 2014-2015 due to program change]	4477	3835	-642	-14.34%

PROGRAM	AY 2013-2014	AY 2017-2018	NUMERIC CHANGE	PERCENT CHANGE
Physical Science	119	102	-18	-14.69%
Physical Therapist Assistant	828	500	-328	-39.56%
Physics	554	839	285	51.41%
Plastics Manufacturing Technology	535	265	-270	-50.47%
Political Science	4569	4893	324	7.10%
Psychology	5415	4983	-432	-7.97%
Radio & Television	260	149	-111	-42.69%
Reading	3494	3162	-332	-9.50%
Real Estate	1122	854	-268	-23.89%
Sign Language / American Sign Language	870	1118	248	28.47%
Sociology	3861	3124	-737	-19.09%
Spanish	1810	1696	-114	-6.31%
Speech	4896	4675	-221	-4.52%
Speech-Language Pathology	310	244	-66	-21.29%
Theatre	1984	1942	-42	-2.12%
Welding	1060	1104	44	4.18%
Women's Studies/ Women's & Gender Studies	523	862	340	64.98%
Woodworking Manufacturing Technologies	999	1082	83	8.31%
Zoology	68	75	7	10.29%

TABLE 3:

Program Sections Offered – AY 2013-14 vs. 2017-18

DISCIPLINE	2013-2014	2017-2018	NUMERIC CHANGE	PERCENT CHANGE
Access Learning	N/A	N/A	N/A	N/A
Accounting	48	39	-9	-18.75%
Administration of Justice	18	19	1	5.56%
Adult Education & Diversity	504	955	451	89.48%
American Sign Language	22	27	5	22.73%
Anatomy & Physiology	21	24	3	14.29%
Anthropology	24	25	1	4.17%
Architecture	14	12	-2	-14.29%
Art & Design	102	104	2	1.96%
Astronomy	16	11	-5	-31.25%
Athletics	N/A	19	*	*
Automotive Collision Repair & Refinishing/Autobody	22	20	-2	-9.09%
Automotive Mechanical Repair Technology	27	33	6	22.22%
Biology	32	33	1	3.13%
Business Administration	22	13	-9	-40.91%
Business Communications Office Technology	5	3	-2	-40.00%
Chemistry	40	48	8	20.00%
Child Development	11	15	4	36.36%
Child Development/Early Childhood	20	18	-2	-10.00%
Child Development/Infant Toddler	2	2	0	0.00%
Child Development/Special Education	2	2	0	0.00%
Chinese	8	10	2	25.00%

DISCIPLINE	2013-2014	2017-2018	NUMERIC CHANGE	PERCENT CHANGE
Computer & Information Sciences	59	60	1	1.69%
Cosmetology	16	N/A	*	*
Counseling	9	11	2	22.22%
Culinary Arts	14	16	2	14.29%
Dance	43	45	2	4.65%
Dental Assisting	14	14	0	0.00%
Dental Hygiene	28	28	0	0.00%
Earth Science	15	11	-4	-26.67%
Economics	25	38	13	52.00%
Educational Technology	N/A	N/A	*	*
Education/Elementary School Teacher	1	1	0	0.00%
Engineering	N/A	3	*	*
Engineering Design Technology	12	14	2	16.67%
Engineering Technology	5	0	-5	-100.00%
English	171	184	13	7.60%
English as a Second Language	18	6	-12	-66.67%
Film	10	22	12	120.00%
Finance	2	1	-1	-50.00%
French	14	12	-2	-14.29%
Geography	19	15	-4	-21.05%
Geology	9	7	-2	-22.22%
German	15	12	-3	-20.00%

TABLE 3:

(Cont.)

DISCIPLINE	2013-2014	2017-2018	NUMERIC CHANGE	PERCENT CHANGE
Health Education	23	19	-4	-17.39%
Health Occupations	2	1	-1	-50.00%
History	33	35	2	6.06%
Humanities	5	N/A	*	*
Interdisciplinary Studies	2	2	0	0.00%
Japanese	6	6	0	0.00%
Journalism	13	11	-2	-15.38%
Kinesiology	N/A	N/A	N/A	N/A
Legal (Paralegal)	26	23	-3	-11.54%
Library	10	10	0	0.00%
Machine Tool Technology	23	14	-9	-39.13%
Manufacturing Technology	N/A	N/A	N/A	N/A
Mathematics	176	164	-12	-6.82%
Medical Assisting	5	13	8	160.00%
Microbiology	7	7	0	0.00%
Music	133	118	-15	-11.28%
New Product Development	2	2	0	0.00%
Nursing	N/A	N/A	N/A	N/A
Pharmacy Technician	15	11	-4	-26.67%
Philosophy	23	22	-1	-4.35%
Photography	24	25	1	4.17%
Physical Education	283	280	-3	-1.06%

DISCIPLINE	2013-2014	2017-2018	NUMERIC CHANGE	PERCENT CHANGE
Physical Education/Adapted	N/A	N/A	N/A	N/A
Physical Therapist Assistant	11	11	0	0.00%
Physical Science	1	1	0	0.00%
Physics	17	22	5	29.41%
Plastics/Composites Manufacturing Technology	15	7	-8	-53.33%
Political Science	30	29	-1	-3.33%
Psychology	48	52	4	8.33%
Radio & Television	3	3	0	0.00%
Reading	45	35	-10	-22.22%
Real Estate	12	4	-8	-66.67%
Sociology	23	22	-1	-4.35%
Spanish	43	45	2	4.65%
Speech	51	35	-16	-31.37%
Speech-Language Pathology Assistant	6	3	-3	-50.00%
Theatre Arts	31	21	-10	-32.26%
Welding	45	33	-12	-26.67%
Women's Studies	6	7	1	16.67%
Woodworking Manufacturing Technologies	46	48	2	4.35%
Zoology	2	2	0	0.00%