NORCO CAMPUS LONG RANGE FACILITIES MASTER PLAN

Riverside Community College District

Final Report

January 2008

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The Administration, Faculty, Staff & Students of the Norco Campus

And

RCCD Department of Facilities Planning , Design & Construction

With:

MDA Johnson Favaro

The Norco Campus Long Range Facilities Master Plan

In March of 2007 the Riverside Community College District and the Norco Campus administrative leadership initiated a Long Range Educational and Facilities Master Plan in anticipation of completion of both plans by the Fall of 2007. The educational master plan was facilitated by Stratus and the facilities master plan by MDA Johnson Favaro. Each plan was on its own schedule and time frame but the two informed one another at key milestones along the way in order that the educational component and facilities component yield a fully integrated picture of where the campus is today and where it wants to go in the future.

The facilities master planning effort was divided into three phases, Reconnaissance and Analysis, Option Development and Final Documentation. Upon submittal of a Draft Final Report at the conclusion of Option Development to and for review by campus administrative leadership, District administrative leadership and the RCCD Board of Trustees revisions were completed in preparation for the publication and distribution of this report, the Final Report. This report assembles the findings of all three phases, and it is arranged in ten chapters and two appendices summarized as follows:

The Education Master Plan

The Education Master Plan (EMP) establishes the initial conditions upon which the Facilities Master Plan (FMP) is based. The EMP is content driven and focuses on the educational mission and its programmatic implications The EMP is subject to revision every five years and is necessarily only loosely related to the FMP. The Facilities Master Plan is a permanent and lasting document, flexible but immutable as it guides physical development of the campus over the next two decades. Built into the framework of the FMP is the ability to absorb future revisions and/or iterations of the EMP for the life of the College.

The Education Master Plan provides insight into the programmatic content of the first phase of implementation--that is, the provision of facilities for those programs and services not currently accommodated on campus and which are of high priority in bringing the College to the next stage in its development as a fully functioning, free standing community college in its own right.

Executive Summary

This chapter provides an overview of the long range summarizing the highlights of the master plan described in more detail in subsequent chapters. Included in this chapter are a brief discussion of the campus

The Norco Campus Viewed from the South. *The core campus is bordered by parking lots, 3rd Street and residential neighborhoods on the south, steeply sloped hillsides to the north, residential neighborhoods to the west (out of view) and John F. Kennedy High School to the east (out of view).*

in context and the vehicular access challenges it faces, a description of the campus plan at 16,000 student capacity and a description of campus expansion as it reaches milestone capacities of 10,000 and 12,000 students. Also included is a detailed description of the first phase of implementation--that which will bring the campus to proper build out in support of 10,000 students.

Introduction.

This chapter summarizes the scope of the project, its work plan, and schedule and includes an outline of the program of outreach whose purpose is to integrate the entirety of the District and Campus community into a transparent and collaborative process. The Norco Campus is introduced with an overview of its history and transitional status within the District from a center into a full fledged college.

Fundamentals of Campus Planning.

This chapter introduces the principles of planning informed by the tradition of the college campus in America that gave guidance to the formation of the plan for the campus long into its future. These principles include the primacy of open space in the composition of a campus, the imperative of orthogonal geometry in both buildings and landscape and the qualitative techniques put to

use in creating buildings and landscape that promote collegiality and dignity in the educational experience. The chapter concludes with a vision statement--a narrative accompanied by an array of imagery that describes the campus of the future. It has been presented as a technique with which to focus the efforts of the campus community throughout the master planning effort.

Documentation and Analysis of the Existing Campus.

The existing campus is documented in two and three dimensions. Land-use, vehicular circulation and parking, landscape and open space, utilities infrastructure and other diagrams document and analyze each of the important existing characteristics and features of the campus from a global perspective.

Documentation and Analysis of Existing Facilities

An inventory of existing and planned buildings and facilities is documented with color coded floor plan diagrams and space inventories in the form of spreadsheets. The diagrams and inventories describe each room on campus by 1) room use type and 2) the taxonomy of programs that occupy each room according to the standards of the State of California Community College Office of the Chancellor standards. Also included is an informal assessment of which of the existing buildings are in need of renovation, expansion and/or replacement.

Initiating Parameters

This chapter begins with an accounting of the challenges and opportunities facing the campus in the immediate, short and long term as well as priorities and goals that will guide its development through the mechanism of the master plan. A rough order of magnitude building program is introduced to assist the College in understanding benchmarks it must meet in the development of buildings, parking and other facilities at key milestones in the future as its student population expands. Three such milestones or planning horizons are established: the student population at 10,000, 12,000 and 16,000 respectively. Diagrams illustrate the magnitude of the sizes of those buildings, parking and facilities in relation to the size of the existing campus and facilities.

The Long Range Plan.

In this chapter the long term future of the campus is laid out in detail. An illustrative plan and three dimensional illustrations depict a vision for the campus at full build-out when it will have reached full student capacity of 16,000 students. Diagrams and narratives describe the layout of buildings, landscape and open space, outdoor physical education, athletics and recreation facilities, the infrastructure of streets and parking and pedestrian circulation.

Implementation

This chapter describes the various phases of campus expansion showing snapshots of the campus as it reaches key planning horizons when student population reaches 10,000 students, 12,000 and 16,000. A phase I build out is described in detail outlining the first building projects to emerge from the master plan. This phase describes the building program necessary to bring the campus to a condition where it properly accommodates a student population of 10,000 students. The chapter concludes with an accounting of the overall project costs associated with the realization of the plan. Costs are broken down by component (buildings, parking and site work), phase (10,000, 12,000 and 16,000) and construction project.

Design Guidelines

This chapter begins with the regulating plan which delineates future building sites and key campus open spaces. The regulating plan is followed by diagrams and narratives that introduce a vision for an overall campus aesthetic including specific descriptions of key principles of character and identity that establish a unified yet varied campus environment. Also included are guidelines for the articulation of major open spaces. Graphic and narrative descriptions describe a flexible but well defined palette of living materials with which to give character and identity to a variety of kinds of open spaces including expanses of natural landscape at the perimeter of campus as well quadrangles, courtyards and gardens at the core of campus. The chapter concludes with an overview of the layout of utilities infrastructure on campus coordinated with each phase of implementation, focusing mainly on full campus build out at 16,000 student capacity.

Appendices.

Two appendices are included under separate cover. These are:

(I) *Phase I Cost Plan.* Under separate covered a detailed estimate of the cost of implementation of phase I expansion is provided. This plan describes associated with the provision of facilities for a student capacity of 10,000.

(II) *Preliminary Campus Designated Accessibility Plan.* This appendix establishes the existing conditions which are the point of departure for College and District in developing strategies for systematically bringing the campus into ADA and CBC accessibility compliance. The document is provided in digital format under separate cover.

DOCUMENTATION & ANALYSIS OF THE EXISTING CAMPUS

DOCUMENTATION & ANALYSIS OF EXISTING FACILITIES

DOCUMENTATION & ANALYSIS OF EXISTING FACILITIES, *Continued*

INITIATING PARAMETERS

INITIATING PARAMETERS, *Continued*

THE LONG RANGE PLAN

IMPLEMENTATION

IMPLEMENTATION, *Continued*

OVERALL COST PLAN

DESIGN GUIDELINES

DESIGN GUIDELINES, *Continued*

APPENDICES

The Norco Campus Education Master Plan (EMP)

In the Spring of 2007 Norco College began to develop an Educational Master Plan in conjunction with the Facilities Master Plan. The goal of the EMP was to develop a comprehensive plan that would guide the future direction of the College at a particularly important time in its history as it prepares to become an independent College as part of a multi campus district.

The Norco College Education Master Plan includes Goals which are consistent with the Riverside Community College District 2005-2010 Strategic Initiatives. These are:

1) Increase student retention, persistence and success
2) Improve the quality of student life
3) Increase student access
4) Enhance academic programs and the learning environment
5) Enhance institutional effectiveness.

The Norco Campus Curriculum

Norco offers courses that meet the transfer program requirements paralleling the first two years of university offerings, as well as pre-professional, career preparation, occupational and technical programs leading to the Associate of Arts and the Associate of Science degrees and a variety of certificates.

The curriculum and programs seek to create a learning environment that develops the learner's knowledge, critical thinking skills, independent though, cultural awareness, self-reliance, and personal growth. The Norco campus has been designated by the District to have a technology focus, hence its strong programs in technology and manufacturing.

Findings of the Strategic Research Component of the EMP

The planning implications identified below are the result of six months of meetings in 2007 with the Norco College administration, faculty, staff and students, the communities of Norco, Corona and Riverside County, corporate leaders and local school district representatives.

- The Norco campus enjoys a culture of caring--about student success, other members of the College community, the future of the college--that should be preserved as the institution grows.
- The technology focus needs to preserved, expanded to include design and better defined.
- Major changes are needed to all aspects of the physical environment to foster a sense of community and reflect the warmth of the College community.
- A major marketing plan is needed, particularly as the campus evolves into an independent college.
- Expanding the number and breadth of offerings so that students can complete their entire educational program at Norco College needs to be a priority.
- Programs that enhance student activity and engagement with the campus and college life and student support staff are important to the future of the College.
- The College should offer intellectual and cultural programs as a means of community outreach and enhancing the quality of life of the region.

Role of the Campus in Enhancing Student Retention & Success

Student success is a principal concern of the Norco community and according to the EMP the distinguishing feature of the College. The EMP studied ways that the environment of the campus itself contributed to a sense of belonging on the part of students, their participation in their own education and their desire, will and ability to persist in completing their education at Norco. Key findings with implications for the planning of the campus include the following:

- Cluster student support activities in a central, easy-to-identify area so that students know where to seek assistance.
- Provide adequate space for students to meet and study with other students.
- Provide students with access to computers and technology.
- Enhance campus life so that students feel that the College is a stimulating place to be.

Growth of Student Population Since the Founding of the Campus

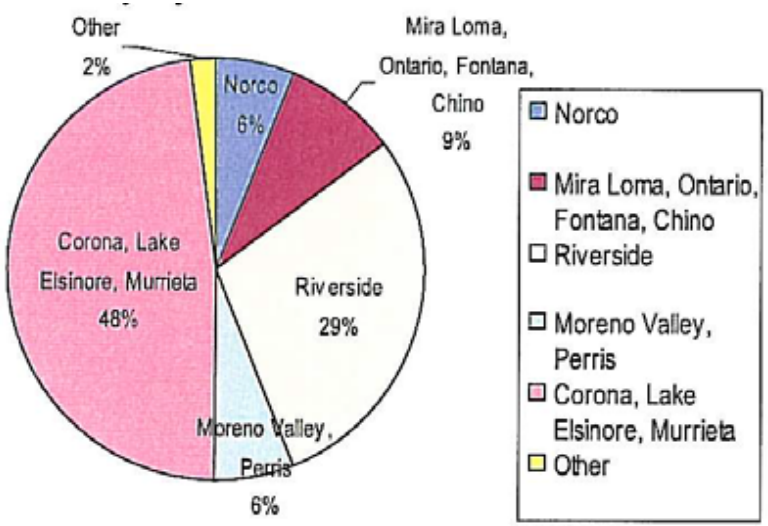
The enrollment at Norco College has grown substantially since the campus opened in 1991:

RCCD ENROLLMENTS BY STUDENT HEAD COUNT						
Campus	*Fall 1991*	*Fall 1995*	*Fall 2000*	*Fall 2006*	*% Change 91-06*	*% Change 00-06*
Norco	3755	3626	6681	8640	130.1	29.3
Moreno Valley	3,325	3,658	5,669	9,404	182.8	65.9
Riverside City College	16,809	14,361	18,037	17,656	5.0	-2.1
TOTAL:	**23,889**	**21,645**	**39,387**	**35,700**	**49.4**	**17.5**

Origination of Student Population Attending the Norco Campus

A majority of students who attended Norco College in the fall 2006 term resided in Corona, Riverside and Norco. Nearly 80% of students enrolled at the College travel to Norco from areas to the south and west of campus.

ORIGINATION OF STUDENT POPULATION AT NORCO CAMPUS		
City of Origin	*Number of Students*	*% of Total*
Corona	3,563	45
Riverside	2,294	29
Norco	482	6
Moreno Valley	350	4
Mira Loma	329	4
Ontario	199	2
Fontana	194	2
Lake Elsinore	171	2
Perris	143	2
Rancho Cucamonga	77	1
Chino	73	1
San Bernardino	71	1
Murrietta	37	1
TOTAL:	**8,640**	**100**



Origination of Student Enrollment by City

The 2007/2008 District Wide Overall Space Inventory

The Norco campus currently supports half the student population of the Riverside City College campus with less than 1/5 of the facilities.

RCCD FACILITIES INVENTORY 2007/2008			
Campus	*Student Head Count*	*ASF*	*GSF*
Norco	8640	97,076	141,342
Moreno Valley	9,404	109,746	155,012
Riverside City College	17,656	501,479	1,166,180
TOTAL:	**35,700**	**708,301**	**1,462,534**

The 2007/2008 Norco Campus Space Inventory

The Riverside Community College District Facilities Planning, Design and Construction Department has surveyed the Norco campus, documented its inventory of spaces and categorized them according to State standards. It is clear from the inventory that the campus is deficient in all space categories as measured by cap/load ratios indicated for each category. Areas most in need are laboratories (cap/load = 31%), which include all disciplines in the sciences, technology and arts. The "Other" category is not regulated by the State and includes spaces that are necessary for a fully functioning comprehensive community college--most of which the Norco campus lacks. These include a visual and performing arts center and a physical education center among others.

NORCO CAMPUS FACILITIES INVENTORY 2007/2008		
Space Type	*ASF*	*Cap Load*
Classroom	25,773	87%
Laboratory	18,947	31%
Office	15,940	70%
Library	13,956	67%
AV/TV	804	13%
Other	21,656	n/a
TOTAL:	**97,076**	n/a

Enrollment Projections and Overall Space Needs at the Norco Campus

Enrollment projections provided by the Education Master Plan are based on an overall average annual enrollment growth of 3.8% up to 2024 and a 3% enrollment growth between 2024 and 2038. The rates and patterns are based on the principles of planned, thoughtful growth, taking into account key factors such as needed facilities and the likely State support in the coming years. The Education Master Plan has in conformance with State of California Title V standards determined the overall space needs of the campus now and into the future related to student head count and associated Weekly Student Contact Hours (WSCH). This table is excerpted from the EMP and shows projections of space need on campus at key milestones when the student population is roughly 10,000, 12,000 and 16,000.

ENROLLMENT PROJECTIONS & SPACE NEEDS ON THE NORCO CAMPUS				
Year	*Student Head Count*	*WSCH*	*Justified ASF*	*Justified GSF*
2008	9,289	81,954	240,573	370,113
2010	9,992	94,785	252,810	388,938
2015	12,033	114,137	288,787	444,288
2024	16,989	161,148	376,297	578,919
2038	25,697	243,741	535,777	824,273

Space Needs on the Norco Campus Now and in the Future

The Education Master Plan has determined based on State of California Title V standards the justified space needs on the Norco campus by category.

ASF SPACE NEEDS AT NORCO BY CATEGORY OVER TIME					
Category	*2008*	*2010*	*2015*	*2024*	*2038*
Classroom	29,352	31,635	38,261	54,412	82,302
Laboratory	49,970	53,468	63,495	87,349	132,101
Office	23,028	24,774	29,832	42,119	63,706
Library	36,331	38,401	44,400	58,970	84,570
AV/TV	12,541	12,717	13,227	14,466	16,643
Other	89,351	91,815	99,552	118,981	156,453
TOTAL:	**240,573**	**252,810**	**288,787**	**376,297**	**535,777**

Space Deficit at the Norco Campus

This table demonstrates the space deficit on the Norco campus by comparing its current space inventory to that which has been shown in the EMP to be justified by California State Title V standards. For illustrative purposes only the chart assumes that no new facilities are built on campus and shows how the deficit grows as indicated at each key milestone.

It is clear from this determination that the campus is woefully behind the curve in providing adequate space on campus and will continue to be so for the forseeable future. This condition is further exacerbated by the fact that of the 97,076 ASF currently on campus almost 20% or 20,897 ASF are housed in substandard portable facilities which will have to be replaced within the next decade.

If, as the RCCD Department of Facilities Planning Design and Construction indicates, new buildings (beyond the Industrial Technology Building about to go under construction and the Student Success Center currently in design) will not, given current planning and design practices within the District, be complete and occupied on the Norco campus until 2015 when the campus will have reached a student population of 12,000 students the District and the College need minimally to begin planning now for a building program of 165,000 ASF. *(See column "2015", bottom row "Adjusted Total: 165,051)*

ASF SPACE DEFICIT AT NORCO BY CATEGORY OVER TIME					
Category	*2008*	*2010*	*2015*	*2024*	*2038*
Classroom	3,579	5,862	12,508	28,639	56,529
Laboratory	31,023	34,521	44,548	68,402	113,154
Office	7,088	8,834	13,892	26,197	47,768
Library	22,375	24,445	30,444	45,014	70,614
AV/TV	11,737	11,913	12,423	13,662	15,839
Other	67,695	70,159	77,896	97,325	134,797
Subtotal:	*143,497*	*155,734*	*191,711*	*279,221*	*438,701*
NEW BUILDINGS UNDER CONSTRUCTION OR IN DESIGN					
Industrial Technology	- (32,557)	- (32,557)	- (32,557)	- (32,557)	- (32,557)
Student Success	- (15,000)	- (15,000)	- (15,000)	- (15,000)	- (15,000)
Adjusted Total:	*95,940*	*108,177*	*144,154*	*231,664*	*391,144*
TEMPORARY BUILDINGS THAT NEED TO BE REPLACED					
Portables	20,897	20,897	20,897	20,897	20,897
Adjusted Total:	*116,837*	*129,074*	*165,051*	*252,561*	*412,041*

Immediate Facilities Needs at the Norco Campus

The mission of Norco College is to be a comprehensive community college with a specific focus on design and technology. The EMP calls for a 40-40-20 distribution of transfer--AA/AS/Certificate--personal/professional enrichment students, and preparing students for the growing number of regional jobs in health related fields, engineering and technology, education, business and the services sector. As the college develops AA/AS/Certificate and 2+2 programs to meet these opportunities, there is a significant need for additional space to support all disciplines. Classrooms and labs are thus an important priority in providing the curriculum offerings to support these programs. As a comprehensive community college with a strong desire to make authentic and permanent connections with the communities it serves the College needs two other key facilities: A physical education center with outdoor athletics facilities, and a visual and performing arts facility. Also important in order to support coming expansion of facilities on campus is a fully operating maintenance & operations and central receiving facility.The highest priority facilities needs for the campus in the short term are:

Student Services. With a rapidly expanding student population student services have outgrown their current facility and will quickly need significantly larger facilities. This is key to promoting and managing student attraction and retention.

Arts & Sciences Laboratories, classrooms, faculty offices and meeting rooms to support growth in the areas of biology, chemistry, physics, engineering and design technology, music and art, and other programs in career technical disciplines.

Visual and Performing Arts. Multi-media and film laboratories, classrooms, music rooms visual art studios, faculty offices and performing arts performance spaces.

Physical Education and Athletics. Gymnasium, training and fitness facilities, lockers, classrooms, faculty offices and outdoor instructional spaces to support both indoor and outdoor physical education and athletics.

Maintenance & Operations/Central Receiving. Warehouse, storage, carpentry, electrical, plumbing, HVAC shops, offices and support spaces.

The Education Master Plan identifies other long term facilities priorities for the campus. These include:

- A Norco College Learning Commons where all of the out-of-classroom learning and support functions are near one another. These functions include a student success center, student union, and other student services.
- A Center for Faculty and Staff Development that would include programs in instructional innovation and professional enrichment.
- An enhanced library.

The Norco Campus Service Area

The Norco campus lies at the far west end of the Riverside Community College District and serves the communities of Norco, Corona and unincorporated areas of the west side of Riverside County. Most of the students who attend the Norco campus are traveling to and from points south, west and east of campus.

The City of Corona and unincorporated areas of Riverside County south of Corona are experiencing and will continue to experience in the foreseeable future explosive population growth. Because of this and other factors such as the proximity of Orange County , the growing importance of both Hwy-15 (which lies to the east of campus) and Hwy-91 (which lies to the south of campus) as regional arterials student population growth on the Norco campus will continue to originate from the southwest corner of the District and beyond. These facts require two key policy and planning initiatives:

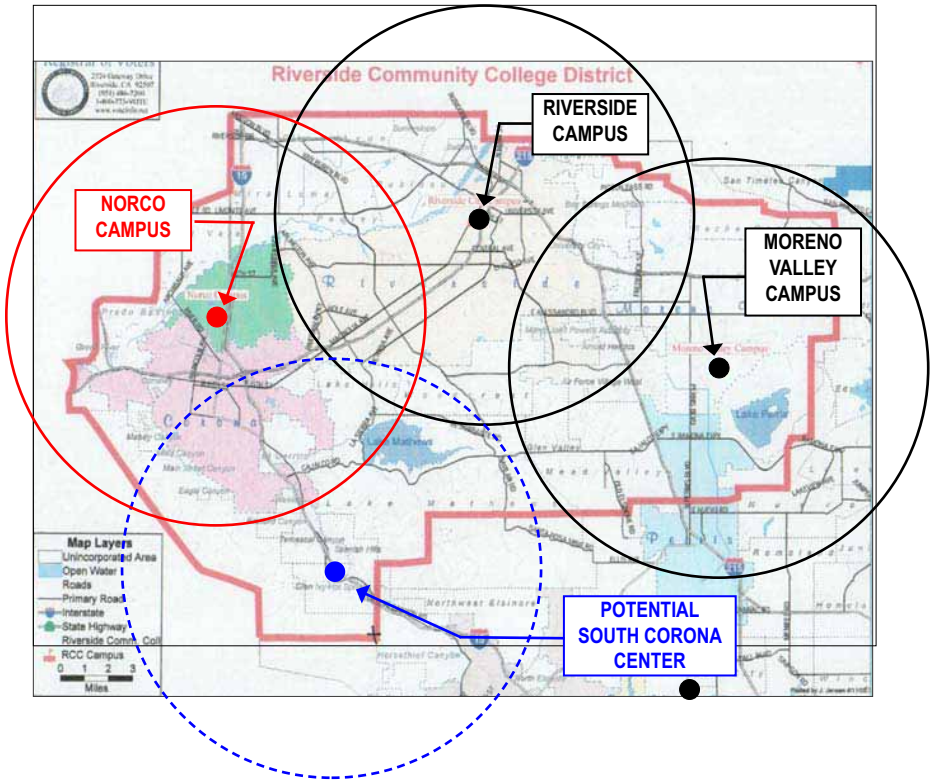
1. The opening up of a second means of vehicular entry and exit into and out of campus to and from the south with easy connecting routes to Hwy-15 and Hwy-91.

2. The founding of a new South Corona center south of the City of Corona, 13 miles from the Norco campus at the southwest corner of the District. This new center should be established on property acquired by the District within five years with the goal of achieving a student head count of 1,000 students within ten years.

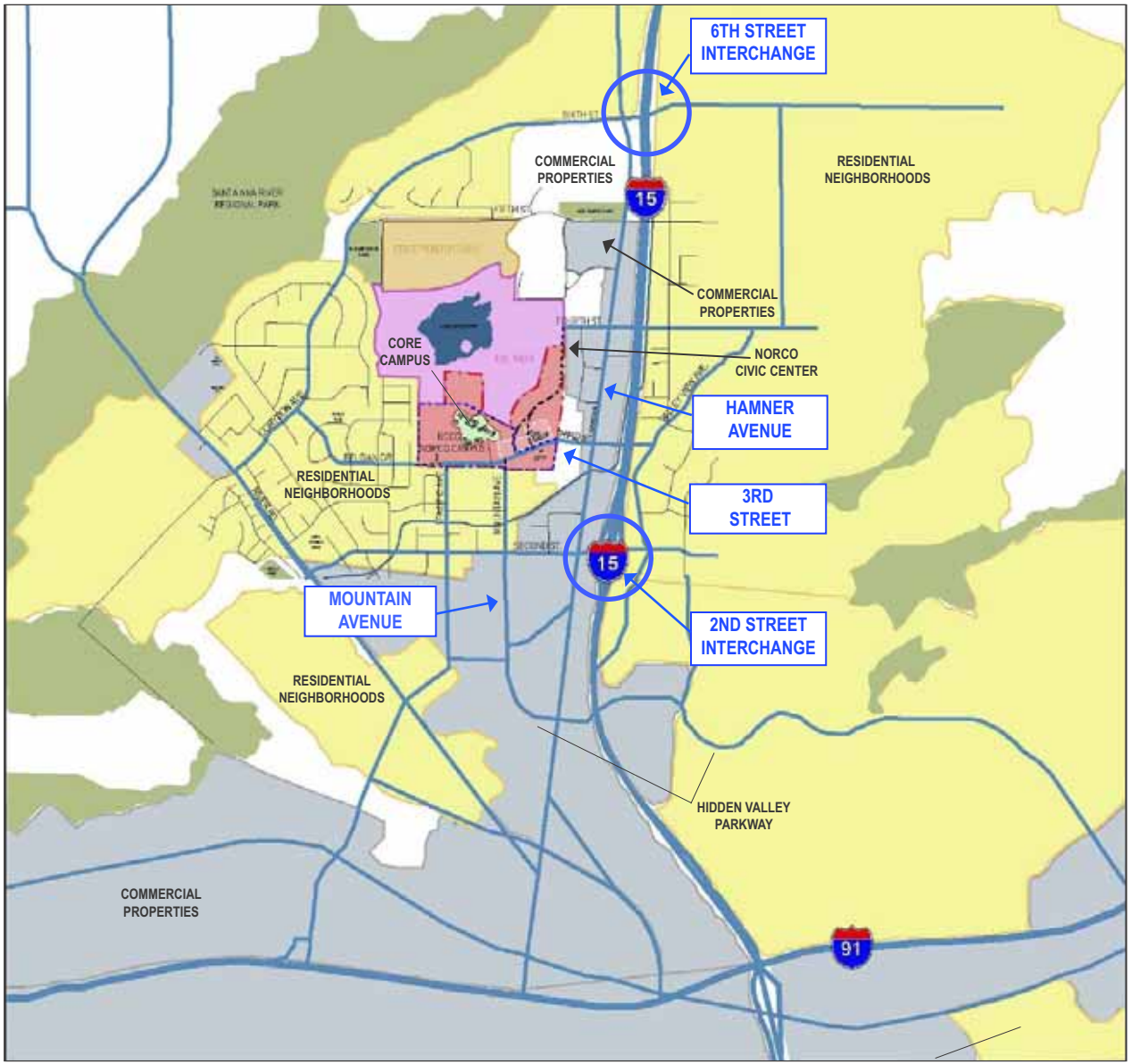
With the first of these initiatives, the second means of vehicular entry and exit to and from the south, the campus will be able to grow to a capacity of 16,000 students. Without it the campus will be limited to a capacity of 12,000 students.

With the second of the initiatives student population growth beyond 16,000 students at the Norco campus will be re-directed to a new South Corona center. If current trends continue it is anticipated that this new center could absorb as many as 8,000 to 10,000 students beyond the 16,000 student capacity of the Norco campus by the year 2038.

The second means of vehicular access is critical to the growth of the Norco campus, and the South Corona center is critical to maintain the District's ability to capture student population from its southwest region and points beyond.



The Norco Campus and Potential South Corona Center Within the RCCD



The Norco Campus in Context. *The campus lies near the important north-south regional arterial Interstate Highway I-15 which connects the San Gabriel Valley and San Bernardino County to the north with Interstate Highway I-91 and Orange County to the south. Access to the campus is currently limited to 3rd Street arriving from the east from Hamner Avenue. Expansion of student population (currently at approximately 9,000) beyond 12,000 will require a second access point via Mountain Avenue arriving from the south from Second Street and Hidden Valley Parkway.*

The Norco Campus at 16,000 Students

With the opening of a second vehicular entrance from the south via Mountain Avenue the Norco campus will grow to accommodate a total student capacity of 16,000. Twelve (12) new instructional and support buildings in two and three story formats will deliver approximately 600,000 GSF (or 400,000 ASF) at total build-out including existing buildings that will remain. The new buildings are:

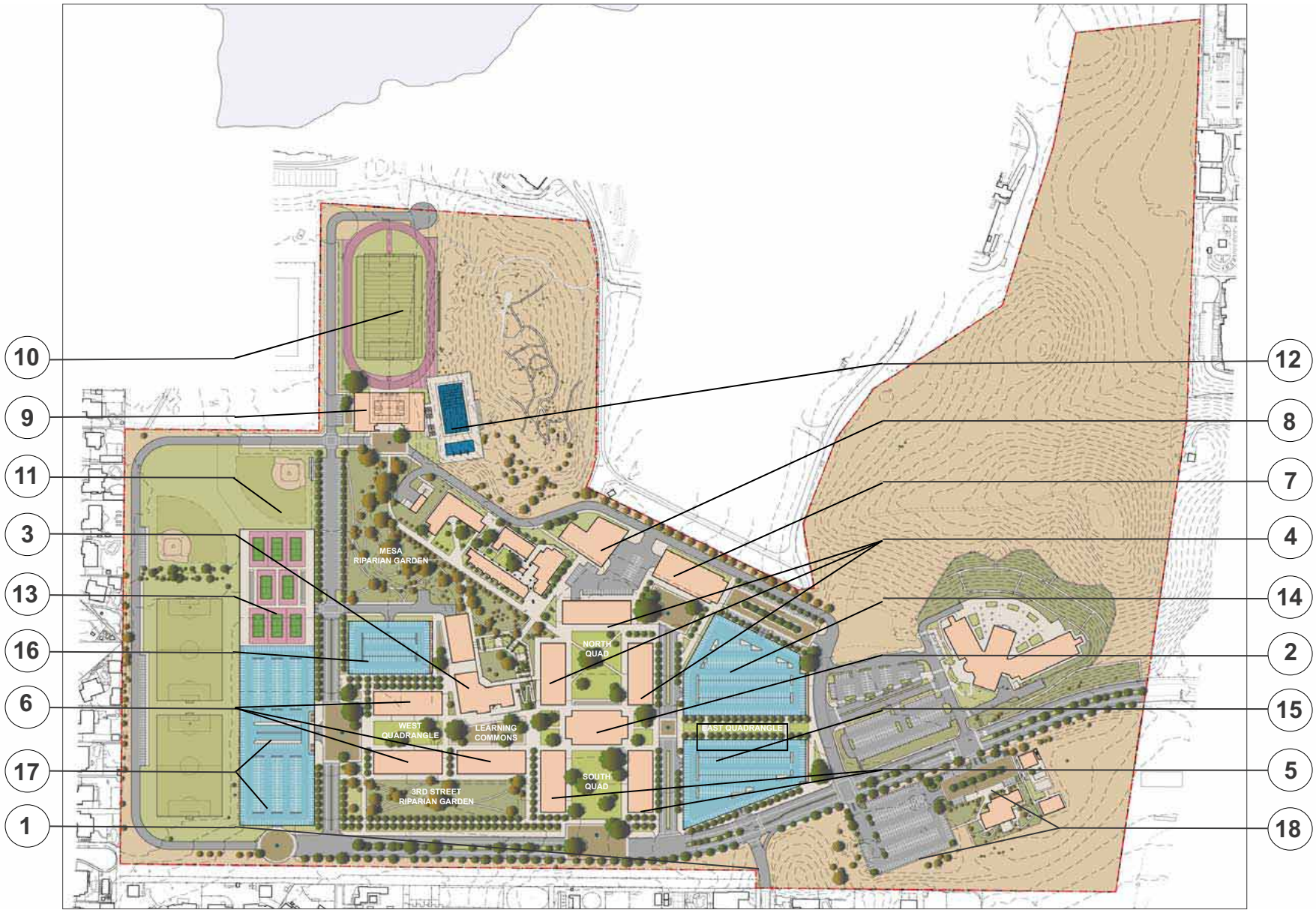
- Seven (7) new classroom and lab buildings accommodating arts, sciences and career technical disciplines.
- A new student center with a one-stop student services center and student success (skills/tutorial) labs
- A new visual and performing arts center with fully functioning sloped floor theater and fly tower
- A facility that brings together under one roof maintenance & operations, central receiving and a warehouse.
- A physical education center with a two-court competition caliber gymnasium with spectator seating
- An instructional facility combined with a faculty and staff development center

The campus plan includes one building about to begin construction, the Industrial Technology Phase III and another in the design stages, the Student Success Center that will be built just north of and adjacent to the existing library on the west side of the amphitheater. Of the buildings to be removed from campus and replaced with new ones either in the short term or long term are all of the portable classroom and office modulars, the bookstore, the CACT, the existing Student Services Building (Bldg A) and the Science & Technology/Little Theater/Humanities complex (Bldgs B, C, D). Of these the latter four (Student Services (A), Science & Technology (B), Little Theater (C) and Humanities (D)) will remain on campus well into the foreseeable future, as they serve vital current functions and will serve as valuable surge spaces in the staging of the construction of future new buildings.

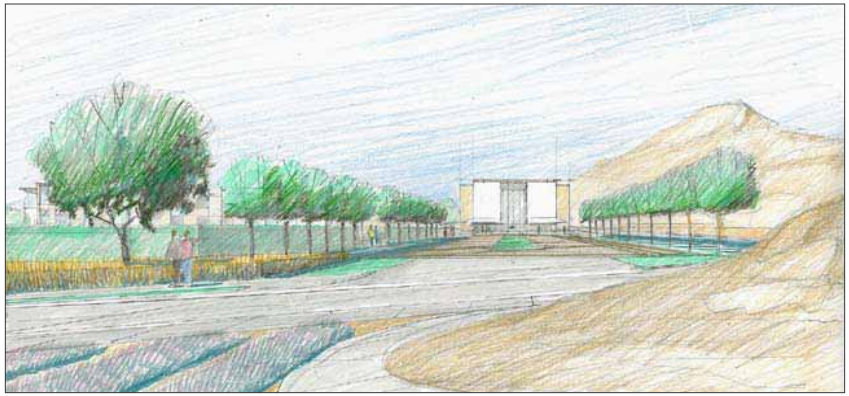
All of the new buildings consist of simple rectangular floor plates to maximize economy, efficiency and flexibility and most of them are arranged around simple rectangular quadrangles with grass and trees. The physical education center and track and field occupy the northwest corner of campus; and, the visual and performing arts center occupies the northeast corner of campus. Parking is arranged in four two and three level structures on the east and west sides of campus, close to the heart of campus in locations and configurations that do not adversely impact the quality of the environment of campus.

The Existing Norco Campus *The core campus occupies approximately 8 1/2 acres at the heart of a 141-acre property. The campus enjoys plentiful parking (approximately 1,800 spaces) provided in a vast lot along its south side.*

1.....Vehicular Entrance from Mountain Avenue
2.....Student Center
3... .....Renovated Library
4.....Classrooms and Labs around North Quad
5.....Classrooms and Labs around South Quad
6.....Classrooms and Labs around West Quad
7.....Visual and Performing Arts Center
8.....Facilities Warehouse, Central Receiving and Central Plant
9.....Physical Education Center
10.....Track and Field
11.....Women's Softball Field
12.....Aquatics Center
13.....Tennis Courts Over Parking
14.....Northeast Parking Structure
15.....Southeast Parking Structure
16.....Northwest Parking Structure
17.....West Parking Structure
18.....Early Childhood Education Vehicular Drop-off and Parking Lot



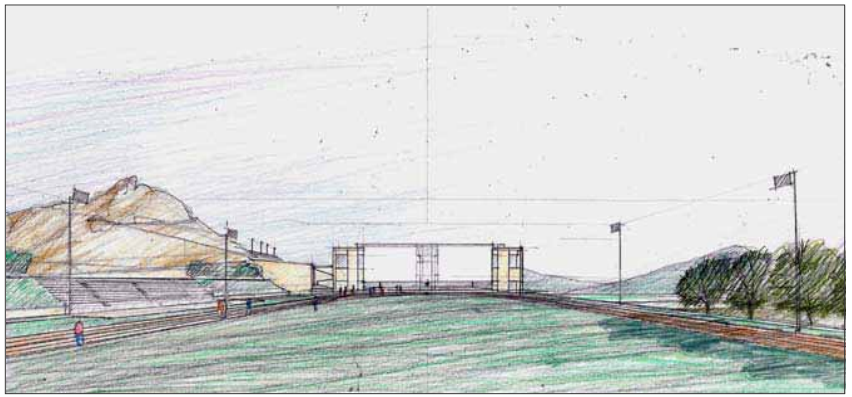
The Norco Campus at 16,000 Students. *Simple two and three story rectangular classroom and lab buildings are arranged around simple rectangular quadrangles with grass and trees at the heart of campus. Athletics occupies the west side and northwest corner of campus and visual and performing arts the northeast corner of campus. Two and three level parking structures are situated close to the campus core on its east and west sides.*



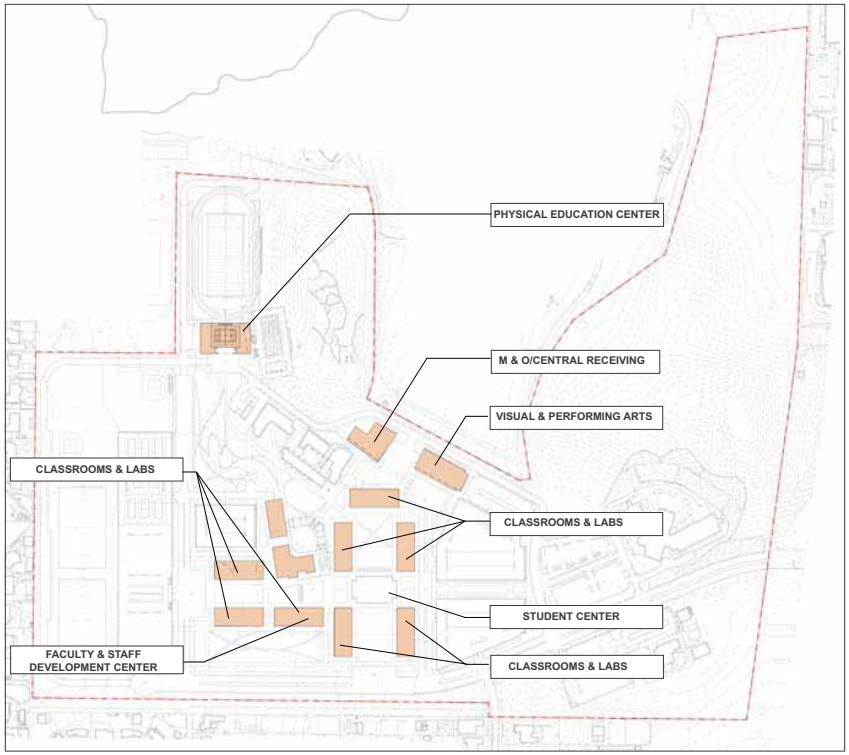
The Visual and Performing Arts Center. *Situated on a prominent site facing southeast toward the principle vehicular entry to campus from the east the visual and performing arts center sits adjacent to the core campus but looks outward to face the community. Its forecourt presents a gracious, dramatic and dignified foyer that invites the community to participate in the life of the college and vice-versa. .*

The South Quadrangle. *An auto court for vehicular pickup and dropoff sits at the foot of the south quadrangle at 3rd Street and forms the new formal campus entry. The student center sits at the head of the south quadrangle, with a new sciences building on the left (west side) and liberal arts building on the right (east side). The south quadrangle offers a glimpse into the heart of campus immediately upon entry to campus and provides a front door that communicates to the student that this is a place with purpose and dignity and that she is welcome and valued as a member of the Norco campus community.*

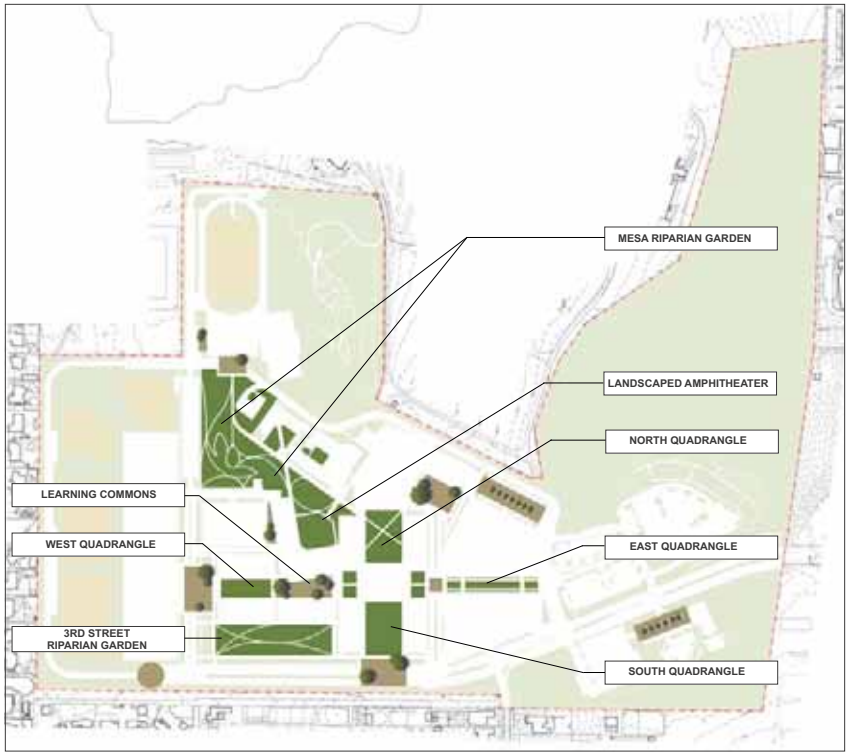
The Learning Commons. *The new student center, the library, the student union and the faculty and staff development center face onto this predominantly paved plaza at the heart of campus. It is here that the daily life of campus outside of the classroom plays out--where student activities and special events take place, where students socialize and where students and faculty interact in an informal setting.*



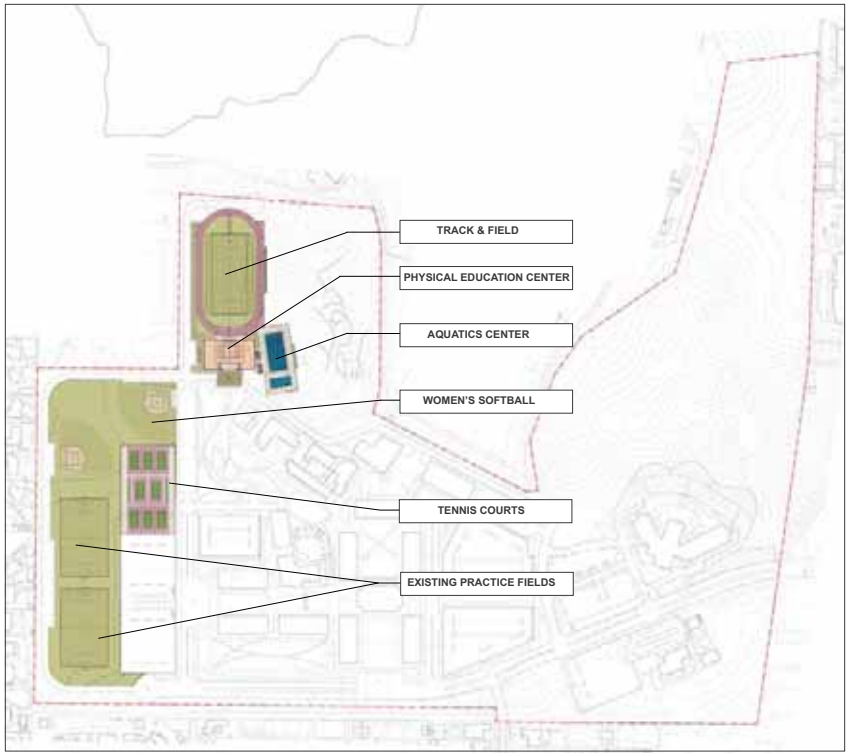
The Physical Education Center and Track and Field. *The track and field create another quadrangle on campus and a forecourt across which commands the new physical education center. This is a view looking south (Lake Norconian behind to the north). The heart of campus and the valley in which sits the City of Corona are beyond. This arrangement offers another possible front door were access to be made available from the northwest corner of campus across property currently owned by the United States Navy.*



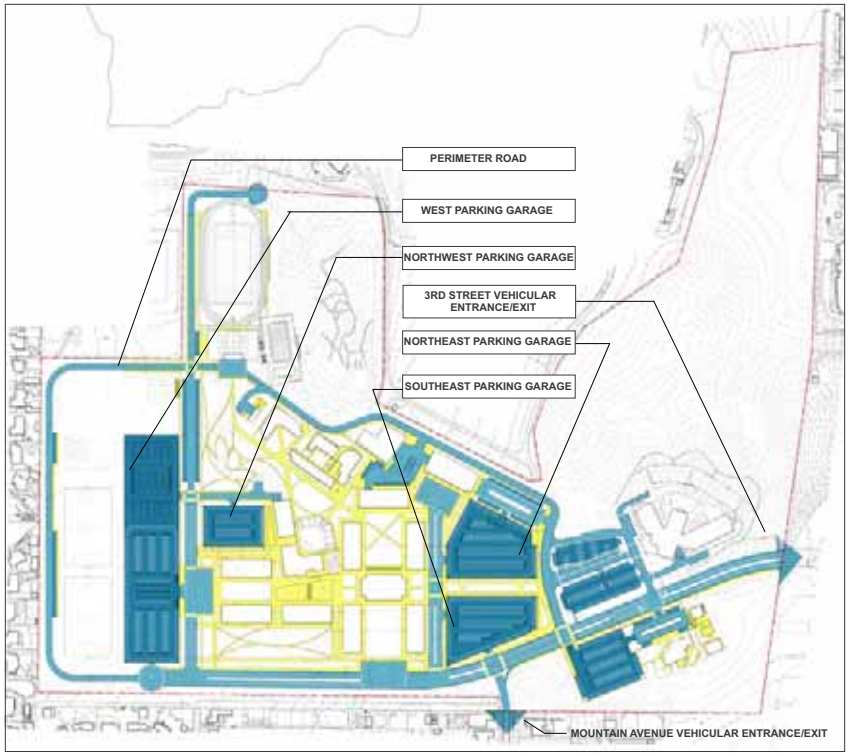
New Buildings. *The campus at full build-out includes twelve new buildings including seven classroom and lab buildings, a new student center, visual and performing arts center, physical education center, a classroom and lab building combined with a faculty and staff development center and a facilities warehouse/central receiving/central plant facility. All of these are two story buildings except for the new student center which will be three stories in height. With the completion of the new student center the existing library will be renovated and expanded in place.*



Open Space. *A network of simple rectangular quadrangles with grass and trees unifies the heart of campus. A native California drought tolerant riparian garden with wild grasses and flowers and indigenous species of trees links the amphitheater to the new physical education center along a meandering path that follows the natural topography of the southwest slopes of the mesa. The Learning Commons at the campus core just south of the library and west of the Student Center is a paved, shaded plaza where many of the daily activities of student life will play out.*



Athletics & Recreation. *The existing practice fields at the far west side of campus will remain in place as a buffer between the residential neighbors and campus. The physical education center will look onto a new track and field facing north toward Lake Norconian. A new women's softball field is situated between the soccer practice fields and the physical education center, and eight tennis courts on a deck over parking are located just south of the new women's softball field.*



Vehicular Circulation & Parking. *A perimeter road links points of entry, drop-off and pickup on the north, south, east and west sides of campus. The majority of parking is accommodated in four two and three level structures, two on the east side of campus and two on the west side of campus. Additional parking is provided in a lot adjacent to the Early Childhood Education Center on the south side of 3rd Street and in other lots in key locations at the campus perimeter.*

Campus Expansion

Illustrated here are three snapshots of the campus as it reaches student head count of 10,000 students, 12,000 and 16,000 respectively. Without the second means of vehicular access via Mountain Avenue from the south the campus will not expand beyond a maximum capacity of 12,000 students.

10,000 Students. The campus build-out in this phase includes the student center, and two arts and sciences buildings that form the south quadrangle and new campus front door. Two new parking lots are constructed to replace surface parking at the front of campus that is lost with the completion of the south quadrangle. This phase also includes the first phase of the new Learning Commons plaza just south of the existing library.

12,000 Students. In this phase campus build-out will include two additional classroom buildings, the visual and performing arts center, the two level west parking structure with the eight tennis courts at the far north end of its top level and completion of the vehicular drive that links 3rd Street to the physical education center. This phase encompasses significant site work and landscaping including the creation of the north quadrangle, the west quadrangle and the completion of the Learning Commons plaza.

The parking lots on the east side of campus are re configured to create the east quadrangle that forms the fore court to campus upon entry from 3rd Street and set the stage for the new structures that follow. In this phase the campus transitions from total reliance on surface parking lots to a mixture of surface and structured parking with the completion of the two level west parking structure.

Also in this phase the portable classroom and office modulars, the bookstore and CACT modulars are removed and replaced in new facilities. The bookstore will be relocated to an existing structure as part of the secondary effects of Phase 2 construction projects, and the existing Student Services Building (A) will be removed to make way for the north quadrangle. With the removal of the CACT modular the stage is set for the completion of the riparian garden that links the existing amphitheater along the slopes of the mesa to the physical education center.

16,000 Students. In this phase campus build-out includes three additional classroom and lab buildings, the west quadrangle, the three level northwest parking structure and the two and three level northeast and south east parking structures. With the completion of the west quadrangle the infrastructure of campus open space is complete. It is also in this phase that the campus completes the transition from its reliance on all surface parking lots to a condition where parking is consolidated into two and three level structures.

CAMPUS CAPACITY IN THE 10,000 STUDENT PLAN			
BUILDINGS & PARKING REQUIRED			
	ASF	GSF	Spaces
Buildings	252,810	388,938	n/a
Parking	n/a	n/a	2,000
BUILDINGS & PARKING PROVIDED			
Buildings	262,163	387,975	n/a
Parking	n/a	n/a	2,000

10,000 Students. *Five new buildings and one renovated one complete the first phase of build out that will bring the campus to its 10,000 student head count capacity. These are the student center, library renovation, two arts and sciences buildings, fa maintenance and operations/central receiving facility and the physical education center. Also included in this phase are the track and field, the women's softball field and two surface parking lots one on the west side of campus the other in the northeast corner of campus. The first of the major open spaces, the south quadrangle is completed in this phase.*

CAMPUS CAPACITY IN THE 12,000 STUDENT PLAN			
BUILDINGS & PARKING REQUIRED			
	ASF	*GSF*	*Spaces*
Buildings	288,787	444,288	n/a
Parking	n/a	n/a	2400
BUILDINGS & PARKING PROVIDED			
Buildings	312,640	473,253	n/a
Parking	n/a	n/a	2500

12,000 Students. *This phase includes three new buildings, extensive site and landscape work, the re-configuration of surface parking lots and the construction of the first of the parking structures--the two level west parking structure with the tennis courts at the far end of the top deck. During this phase the north, east and west quadrangles are initiated, and the first two career technical classroom and lab buildings flanking the north quad are completed. The existing student services center is removed to make way for the construction of the north quadrangle. The new visual and performing arts center is also completed in this phase as are the re configuration of the east parking lots and the two new vehicular drives and drop-offs on the east side of campus. During this phase the amphitheater is transformed into garden and linked via a meandering riparian garden along the southwest slopes of the mesa to the physical education center in the northwest corner of campus.*

CAMPUS CAPACITY IN THE 16,000 STUDENT PLAN			
BUILDINGS & PARKING REQUIRED			
	ASF	*GSF*	*Spaces*
Buildings	376,297	578,919	n/a
Parking	n/a	n/a	3200
BUILDINGS & PARKING PROVIDED			
Buildings	396,661	602,892	n/a
Parking	n/a	n/a	3,350

16,000 Students. *The career technical classroom and lab building that completes the fourth side of the north quadrangle is built on the site currently occupied by the Science & Technology/Little Theater/Humanities complex. The three classroom and lab buildings of the west quadrangle complete the ensemble of buildings arranged around the north, south and west quadrangles. It is also at this moment that the Learning Commons is completed and transforms into a fully functioning urban plaza at the heart of campus. Three additional parking structures, the two level northeast, three level southeast and three level northwest structures are completed in this phase.*

Phase I Building Program

		No. Flrs	ASF	GSF
1.	Student Center	3	32,000	48,000
2.	Arts & Sciences I	2	20,800	32,000
3.	Arts & Sciences II	2	20,800	32,000
4.	Facilities Warehouse/Central Receiving	2	10,400	16,000
5.	Physical Education Center	2	35,000	54,000
	New Buildings:		**119,000**	**182,000**
6.	Library Renovation	2	20,200	30,800
7.	Track & Field	n/a		
8.	Women's Softball Field	n/a		
9.	West Parking Lot	n/a		
10.	North Parking Lot	n/a		

Phase I Construction Projects

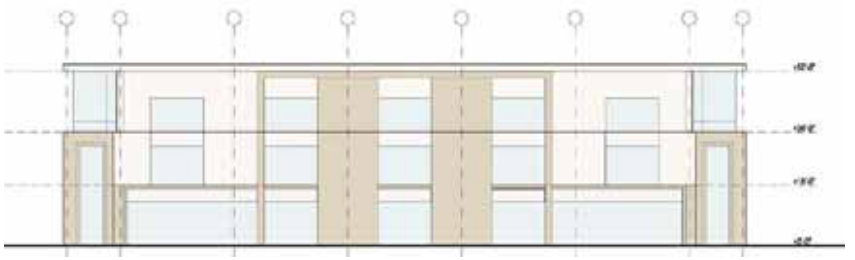
I. South Quadrangle & New Campus Entry. The student center, arts and sciences buildings, the south quadrangle, the first phase of the learning commons plaza and the west parking lot, approximately 500 spaces.

II. Maintenance &Operations/Central Receiving. Rerouting of a portion of the existing service road, the facilities warehouse/central receiving facility including electrical, HVAC, plumbing and carpentry shops, equipment and vehicle storage, central receiving loading dock and storage.

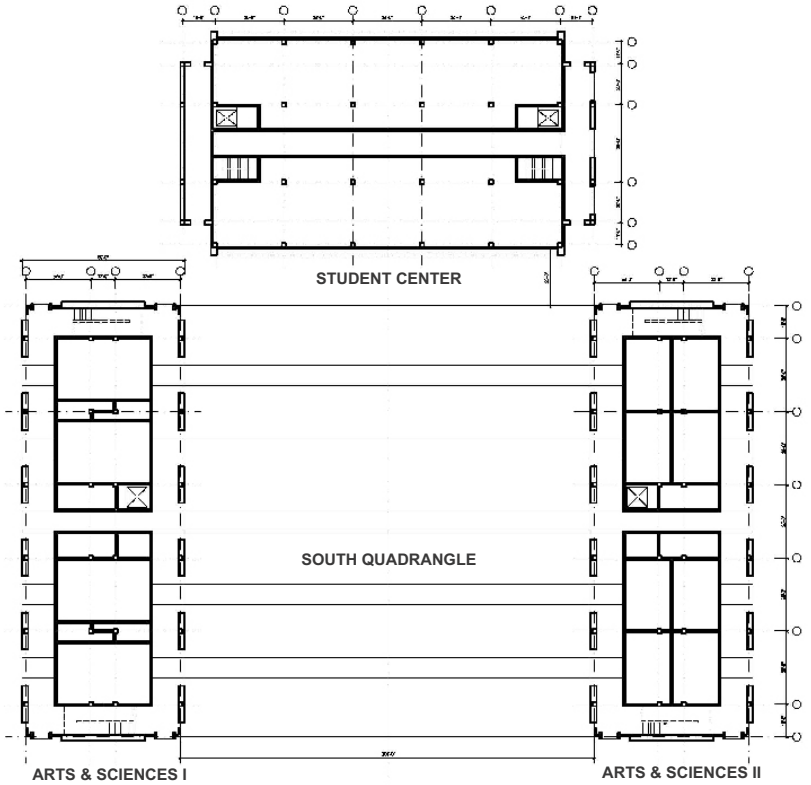
III. Renovation & Expansion of Library. Upon completion of the student center evacuation of all non-library uses from the existing library to allow for its expansion in place across both floors of the existing facility.

IV. Physical Education and Athletics. Physical education center including two-court gymnasium, fitness center, aerobics/exercise studios, training and locker rooms, classrooms and support spaces; track with competition caliber football and soccer field, women's softball field, new road extension and surface parking.

V. North Parking Lot. Approximately 250 parking spaces in a lot to be located in the northeast corner of campus behind the existing bookstore modular on the site of the future visual and performing arts center.



Student Center. *Preliminary layout of the south elevation of the student center overlooking the south quadrangle.*



The South Quadrangle. *Preliminary layout of the ground floor of the student center, arts and sciences buildings arranged to form the south quadrangle.*

Phase I Implementation. *Five construction projects when implemented will bring the campus to a student capacity of 10,000 and provide the framework for the development of a fully functioning comprehensive college campus. These include the south quadrangle, student center, science and liberal arts building, the library renovation, the physical education center, track & field and women's softball field, the facilities warehouse/central receiving facility and the west and north parking lots.*

The Purpose of the Long Range Facilities Master Plan

In anticipation of and preparation for the formal Western Association of Schools and Colleges accreditation process to take place in the fall of 2007, in light of the tremendous expansion of the Norco campus since its founding in 1991 and in the context of the current transformation of the Riverside Community College District from a single college district with two centers (Riverside City College, Moreno Valley and Norco) into a three college district (Riverside, Moreno Valley and Norco) the Riverside Community College District initiated a comprehensive planning effort whose principal purpose is to anticipate and plan for continued growth of the student population educational programs and services on the Norco campus as it transitions into a full fledged college campus and beyond.

The Norco Campus Long Range Facilities Master Plan is a ten month long effort beginning in March of 2007 and concluding in November of 2007. The plan establishes a vision for the campus when it will have reached an enrollment of more than 16,000 students assuming an annual rate of 3% growth beyond its current student population of 9,000 students. In addition comprehensive plans are illustrated for key milestones when the campus reaches a capacity of 10,000 and 12,000 students. The 16,000 student campus plan describes accommodations for classrooms and labs, student services and activities, visual and performing arts , athletics and recreation, parking and other facilities that make a comprehensive community college campus complete. A principal component of the master plan is to identify those projects to be constructed within the available Measure "C" funding and potential State funding as well as to determine a plan for the implementation of building projects for both the 10,000 student and 12,000 student planning horizons.

Relating the educational mission and the physical setting of the College.

The creation of the Norco Campus Facilities Master Plan effort was accompanied by parallel, separate and more accelerated Education Master Plan effort whose process and results informed the Facilities Master Plan and to a certain extent vice-versa. A final draft of the Education Master Plan was completed in August of 2007. The Education Master Plan focuses on planning for the core functions (curriculum, programs and services) of the College now and into future and necessarily therefore is founded upon, further elaborates and defines Norco's educational mission. The purpose of the Facilities Master Plan is to relate the educational mission identified and elaborated upon in the Educational Master Plan to the College's physical setting. This purpose is critical in creating a meaningful campus setting that strengthens the College's educational mission and supports the College's desire to create community, collegiality and a shared identity among its students, faculty and staff distinct from the other campuses and yet related to and in support of the District as a whole. A key attendant goal associated with this purpose is to create a place that will attract and retain new students—a place that is welcoming and communicates the institution's desire to both serve and respect the dignity of each of its students.

The existing campus is situated within a powerful and potentially beautiful physical setting in the heart of the Inland Empire at the eastern most end of the San Gabriel Valley. It sits on gently sloping land at the base of the steeply sloped hills to the north and commands views of the valley and hills that cradle the City of Corona to the south. Some of the area surrounding the campus remains visibly rural representing one of the last vestiges of the great agricultural, ranching and equestrian heritage of this area of the valley. The master plan capitalizes on these strengths and relates them by creating tangible relationships between the daily life of the College and its larger physical setting—past, present and future.

A sound foundation in documentation, analysis and outreach to the entirety of the College and District community as well as a healthy respect for the contingencies and circumstances of economic and institutional realities is crucial. Analysis and planning in the absence of a shared vision, however, lacks direction and is destined at best to dissipate and at worst to create conflict. This is, therefore, not an abstract or formulaic exercise, but rather one that requires creativity, imagination and flexibility of thought manifested through the use of a variety of visual tools (drawings and models) to arrive at a shared vision. It is a process of imagining, questioning and revising that will propel the campus community toward a shared vision for the future with the right balance of the ambitious, the wonderful, the pragmatic and the achievable.

Relating the short term to the long term.

The master plan structures thought and provides a framework within which decisions can be made about intended infrastructure, building and landscape projects now, and as they arise in the future. In the initial stages it is an exercise in imagining an ideal: **"***What would we do if we could control everything and had all the resources we needed at our disposal today?***"** This is a useful method in broadening horizons, creating possibilities where they were thought not to exist and nurturing the will to do better than what near-term concerns might ordinarily suggest. It is never intended that a master plan be considered a blueprint for one giant static project unto itself whose value is diminished by virtue of it not taking place all at once or ever being realized in its entirety. It's value lies in its ability to balance objectives and priorities from the long view and thus prevent short-term decisions from creating obstacles to the eventual completion of a coherent overall campus plan. A good master plan will allow for incremental execution of individual components as they arise while creating interim conditions that do not feel like incomplete fragments.

The tasks that are a part of the master plan.

The specific tasks of this planning effort are the following:

(1) Identify, locate and give definition to building sites for three planning horizons: 10,000, 12,000 and 16,000 student capacity.

(2) Identify, locate sites for and give definition to student services and activities facilities, visual and performing arts facilities, recreational/ athletic facilities and parking facilities for three planning horizons: 10,000, 12,000 and 16,000 student capacity.

(3) Create a comprehensive circulation plan including vehicular access and circulation, bicycles and pedestrians for three planning horizons: 10,000, 12,000 and 16,000 student capacity.

(4) Place, give definition to and create design guidelines for landscape and open space elements for three planning horizons: 10,000 12,000 and 16,000 student capacity.

(5) Create an outline program for the buildings and facilities to be built and funded with Measure "C" funds and/or State funding within the 10,000 student capacity planning horizon.

(6) Create design and technical guidelines for buildings and facilities within the 10,000 student capacity planning horizon.

(7) Develop an outline capital investment plan and cost plan for the 10,000 student capacity planning horizon including the construction of buildings, landscape and open space, parking, recreation and athletic facilities and utilities.

Tasks that are not a part of the campus master plan.

The campus plan does not:

(1) Develop detailed programs or design or technical guidelines for facilities beyond the 10,000 student capacity planning horizon.

(2) Design buildings, landscape and open space, student services and activity, visual/performing arts, athletics/recreation or parking facilities.

(3) Estimate project costs for facilities beyond the 10,000 student capacity planning horizon.

(4) "Lock-in" facilities or site designs beyond the 10,000 student capacity planning horizon.

(5) Prevent nor discourage intelligent incremental development of the campus over an extended period of time.

(6) Preclude varying interpretations of the plan in the long term arising out of unforeseen events, influences or requirements of the future.

Collaboration and process.

The discipline to abide by the framework of the campus planning process itself is the best way to avoid unnecessary conflict, the wasting of resources and the inefficient doubling of efforts. Within a college setting it is imperative that different user groups work together in the envisioning process and that one group understands the perspective of the other. More often than not a good plan will enhance the fortunes of all groups. Where before it may have seemed that interests were in conflict, a good plan will bring interests into alignment, such that the actions of one group will accrue benefits not just to itself but also to its neighbors. For the process to work best, it is critical to hear from as many constituents as possible as early as possible—that constituents voice their needs, desires and concerns in good faith, participate fully throughout the process with the goal to find solutions and in the process create the conditions for success. The following is a summary of the "ground rules" that all participants acknowledge and accept in the orderly unfolding of the collaborative process:

(1) Everyone recognizes that the campus is for everyone within the College and the District and therefore ultimately it will have to accommodate a wide variety of needs and desires.

(2) Participants are obligated to participate in good faith from the beginning, throughout and to the conclusion of the process; this means listening to others, understanding where others were coming from and an attitude of finding ways to say "yes".

(3) All participants are called upon to seek solutions. In making a demand or expressing a need participants are asked to simultaneously put forth solutions for such demands and expect to work with the needs of others in devising such solutions.

(4) Participants are prepared for compromise. Not every detail of every need is by definition to be met in the campus plan. Participants are to work together to prioritize shared needs and devise common goals that the College as a whole is able to embrace.

(5) Respect for the process is paramount. The organization of a process that is both structured and open-ended allows for the orderly unfolding of events, maximum participation and creativity.

The Four Phases of the Project

I. Mobilization. The purpose of this short first phase is devise a work plan and schedule for the master plan that works well with the schedules and work load of the District and College administration, faculty, staff and students. It details the tasks to be completed as a part of the orderly unfolding of the planning process and when they are to be completed. It lays out a structured and detailed program of outreach that includes the broad array of constituents, stakeholders and those with an interest in the outcome from District leadership to faculty, staff and students on campus. This phase of the project is designed to identify and promote understanding on the part of everyone in the College community what the College wants and needs from its master plan.

II. Reconnaissance and Analysis. This phase includes, data collection, documentation and analysis of the existing campus, evaluation and recommendations regarding the process of making the master plan and a work plan for achieving it. It includes a comprehensive and extensive program of outreach that entails a series of in-depth workshops with stakeholder groups: students, faculty, staff, College and District administration and the surrounding community. In these we gain an understanding of existing programs, needs and goals and the needs, desires and concerns for the expansion of programs and future programs and attendant facilities needs. This phase culminates in a consensus on what is good and bad about the existing campus, what the fundamental planning issues are for the campus and a preliminary idea of how they should be addressed.

III. Option Development. It is during this phase that the bulk of the work of developing the master plan takes place. The primary vehicle is typically a regular monthly series of meetings with the Colleges's master planning committee (in this case the Council of Co-chairs), which continues throughout the entire process. In these meetings, alternative schemes are presented, discussed and collaboratively winnowed down to preferred options, which then are expanded and developed for subsequent meetings. The goal in working with multiple stakeholder groups and the committee is to achieve consensus regarding complex issues and a shared vision for the campus' future. Convergence on a preferred scheme is achieved by clear graphic presentation of options and a thorough exploration of their ramifications.

IV. Final Documentation. The final master plan report is a bound volume codifying policies, principles and guidelines for landscape and architectural design; incorporating a long range illustrative plan setting forth a vision of the campus's future, architectural and landscape plans, phasing plans as appropriate, more detailed drawings regarding imminent crucial issues, utilities plans, perspectives and recommendations for the school's internal process of managing growth and change under the aegis of the master plan.

The Workplan

What follows is a detailed account of the tasks completed in each of the four phases of the project. Reconnaissance and Analysis began in April of 2007 and was approximately three months in duration (12 weeks) while Option Development which began in earnest in the middle of June of 2007 and was approximately four months (16 weeks). This allowed time to provide draft versions of the master plan for presentation to the College and the District in October of 2007. Every effort was made by the District, the College and the consultant team to ensure that the entirety of the College community was involved in the critical Option Development phase over the summer months of 2007 (June, July and August).

I. MOBILIZATION **Weeks 1-2**

1. Kick-off Meeting with College President & Senior Administration (February 6, 2007)
2. Identify User Groups, Stakeholders and Interest Groups
3. Create outreach and decision-making hierarchy organization chart
4. Finalize and distribute project schedule
5. Finalize and distribute work plan and outreach plan

II. RECONNAISSANCE & ANALYSIS **Weeks 3-14**

Assemble & Review Existing Documents

1. Review relevant existing County-wide City-wide, District–wide and College demographic data and projections as available. *(Including especially Norco Campus projections: Student head counts, FTES, WSCH, etc)*
2. Collect, review and assess existing RCCD data
   - *Riverside Community College District Academic Master plan 2005-2010*
   - *Riverside Community College District Facilities Master Plan , October 2001*
   - *Riverside Community College District Strategic Plan 2003-4*
   - *Riverside Community College District Strategic Initiative 2005*
   - *Program Review Documents*
   - *Measure "C" Bond Documentation*
   - *Internal Scan Prepared for Measure "C"*
   - *External Scan Prepared for Measure "C"*
3. Collect and Assess Existing Campus Data
   - *Inventory of Existing Facilities (Based on State of California Title V Standards: Instructional discipline classifications, room use standards, station occupancy standards, space classifications, TOP Codes, CaplLoad Ratios, etc)*
   - *RCCD 3D/International Facilities Assessment Report*
   - *Campus Land Survey (Property Boundaries Topography, Building Footprints, Pavement, Curbs and Ramps, Utilities, Trees, , etc)*
   - *Existing Facilities AS-Built Documents*
   - *Campus Planning History*
   - *Existing City/County Planning and Zoning (Codes, Covenants, Deed Restrictions)*
   - *Existing Geotechnical and Environmental Data*
   - *Existing Traffic and Parking Studies, Parking Inventory*

Document Graphically Existing Campus and Facilities

4. Photograph existing campus and facilities and assemble into coherent format
5. Create existing conditions campus base plan *(To include surrounding properties, open space streets and neighborhoods. Assemble and incorporate previously completed campus site documentation and adopted plans.)*
6 Create existing conditions 3-D computer generated site model *(To include surrounding properties, open space, streets and neighborhoods)*
7. Create existing conditions physical site model *(To include surrounding properties, open space, streets and neighborhoods)*

Analyze and Document Analysis of Existing Campus

8. Create campus existing conditions diagrams.
   - *Figure-ground*
   - *Vehicular traffic and parking*
   - *Service and emergency vehicle access*
   - *Bicycle and pedestrian circulation*
   - *Permeable and impermeable surfaces*
   - *Landscape and open space*
   - *Topography*
   - *Utilities (Based on District provided survey)*

9. Create campus analysis diagrams
   - *Land-use*
   - *Description of basic site physical features*
   - *Campus wide departmental program distribution*
   - *Site constraints and opportunities*
   - *Facilities opportunities*
   - *Basic observations on operation, adjacencies, etc.*
   - *Planning principles*

10 Create campus adjacent and nearby properties, open space, streets and neighborhoods existing conditions and analysis diagrams *(Same as items #10 and #11 above)*

Analyze and Document the Analysis of Facilities Use Patterns and Their Physical Status

11. Assemble inventory of facilities and relate to campus *(Building areas, heights, FAR's, massing, site coverage, service access and security requirements)*

12. Confirm physical status of all existing facilities: Removal and/or replacement, renovation and/or addition, repair and/or upgrade.
(Based on 3D/I Facilities Assessment Report, visual observation and District/College input)

13. Assemble preliminary inventory of existing facilities to remain, ones suitable for addition, renovation and/or replacement.

Document Near Term and Long Term Facilities Needs

14 Review, document graphically and analyze current use patterns of existing facilities.*(Describe how departments & programs fit or do not fit in their facilities, how they are used & relate one to another, circulation patterns, load capacity based on Title V State Standards, current & past educational master plan documentation, etc.)*

15. Summarize basic facilities assets and needs. *(Understand conceptually and record facilities needs for the future based on preliminary college educational plan findings)*

Consultant and Regulatory Coordination

16. Create " Existing Campus Designated Accessibility Plan" for submittal to DSA in March of 2007. *(Based on up-to-date College/District provided campus land survey with topography, building and parking lot footprints, paved and unpaved areas.)*

17. Coordinate with educational master plan on preliminary information regarding internal/external scans, future program development, enrollment projections, and preliminary read on facilities needs.

18. Coordinate with traffic consultant in the comprehensive assessment and documentation of campus access and on campus traffic, service and emergency vehicular circulation, parking conditions, candidate parking sites and the traffic circulation network and patterns of surrounding streets and neighborhoods.

19. Coordinate with District facilities management team, civil engineering and MEP consultants on understanding and documenting existing utility infrastructure, and challenges and opportunities for its future development *(Wet and dry utilities, sanitary sewer, storm sewer and site drainage)*

Summarize Findings

20. Articulate observations, opportunities and challenges for the campus and the facilities it must accommodate.

21. Conduct campus wide review of, articulate and illustrate graphically key campus planning principles guiding the future development of campus facilities and open space.

22. Assist the College in the creation of and articulate in written and graphic form a comprehensive long term vision for the campus and clearly stated goals for the the fulfillment of the vision.

23. Submit in the form of a Preliminary Report written and graphic summary of findings of Reconnaissance & Analysis phase. (May 16, 2007)

III. OPTION DEVELOPMENT **Weeks 15-32**

Site Capacity Studies , Preliminary Facilities Program Development and Distribution Alternates

1. Based on preliminary assessment of needs, facilities assets and their physical status and preliminary findings of the educational master plan assemble facilities summary outline program descriptions, including major components and their space needs into consolidated Excel spreadsheet format

2. Based on outline program spreadsheets create space metric diagrams illustrating preliminary floor area requirements of major high priority facilities.

3. Create Alternate campus-wide and site-specific program/departmental distribution diagrams (*Overall facilities dimensional & operational requirements; basic adjacency requirements; basic blocking and stacking)*

4. Alternate campus site capacity studies *(Building heights, footprint coverage including , performance venue(s) recreational and athletic outdoor courts and fields and parking)*

Facilities Site Area Needs and Configuration Alternates

5. Analysis of facilities area needs compared to site capacities
(The sizes of things : Site coverage, building massing, especially regarding footprint needs of department, administration, student community and services, performance venue(s) and indoor athletic/recreation facilities.)

6. Alternate departmental, student life and administration facilities location and configuration studies.

7. Alternate performance venue(s) outdoor athletic and recreation fields and courts location and configuration studies

8. Alternate parking facilities location and configuration studies; alternate vehicular access and circulation studies.

Master Plan and Master Plan Implementation Alternates

9. Create preliminary overall facilities master plan diagram based on previously completed plans and studies and analysis cited above.

10. Alternate 2-d site specific and campus wide regulating and illustrative master plan studies
Phase I, five year and thirty year plans.

11. Alternate site specific and campus wide circulation plan diagrams: auto, public transit, pedestrian, bicycle, service and emergency vehicles.
Phase I, five year and thirty year plans.

12 Alternate site-specific and campus wide landscape and open space studies
Phase I five year and thirty year plans. Same sites as #3 above.

13. Alternate 3-d site specific and campus wide computer generated massing diagrams
Phase I, five year and thirty year plans.

14. Alternate 3-d site and campus wide specific physical massing models
Phase I, five year and thirty year plans.

15. Alternate cost of construction and implementation scenarios
Phase I and five year plans only: Topography, site access, construction lay down and staging area, minimization of facilities surge space and/or temporary facilities requirements , construction phasing, etc.

Qualitative Matters and Design Standards

16. Compile imagery to assist the College in establishing overall character and aesthetic direction of future campus development.

17. Alternate perspective views with emphasis on open space and relationships with surrounding neighborhoods.
Phase I, five year and thirty year plans.

18 Prepare campus building and landscape design standards based on preliminary College consensus on desired overall campus character and aesthetic direction of future campus development.

Consultant & Regulatory Coordination

19. Create "Proposed Campus Master Plan Designated Accessibility Plan" for submittal to DSA in September, 2007.

20 Coordinate with City/County transportation department and traffic and parking consultant in assessment of traffic and parking impacts and site plan options to address parking and circulation needs..
Phase I, five year and thirty year plans.

21 Coordinate with sustainability consultant to develop campus wide sustainable design guidelines.

22 Coordinate with District facilities management team, civil engineering and MEP consultants on alternate plans for extension and expansion of existing utility infrastructure based on alternate campus master plans options developed above. *(Wet and dry utilities, sanitary sewer, storm sewer and site drainage)*

23 Coordinate with cost estimating consultant in the creation of alternate cost of construction and master plan implementation scenarios
Removal, replacement, renovation, repair, additions and new facilities and associated site development . Phase I and five year plans only.

24 Alternate Measure "C" bond project definition and State financing scenarios
Coordinate with Educational Master Planner, District and College on strategic funding plans for high priority projects using Measure "C", funds or State funding or both.

Summarize Findings

25. Written and graphic summary of results of "vision" sessions, retreats, workshops, meetings and interviews

26. Draft report summarizing in written and graphic form the findings and conclusions of this phase .
(*Including but not limited to: Facilities outline programs and program distribution plan , preferred master plan option, campus landscape and building design guidelines, assessment of project implementation and phasing for phase I, five-year and thirty-year plans; opinion of probable construction costs and strategic funding plan for phase I projects based on preliminary findings of updated Educational Master Plan.)*

IV FINAL DOCUMENTATION Weeks 33-36

Finalize and Document Master Plan Regulating & Illustrative Plans

1. Final campus facilities and open space illustrative master plan
(Phase I, Five-Year and Thirty-Year Plans)

2. Final campus facilities and open space regulating plan
(Phase I, Five-Year and Thirty-Year Plans)

3. Final campus landscape illustrative master plan.
(Phase I, Five-Year and Thirty-Year Plans)

4. Final campus circulation plan: auto, pedestrian, bicycle, public transit, service and emergency vehicles.
(Phase I, Five-Year and Thirty-Year Plans)

5. Facilities removal, renovation and repair plan
(Phase I, Five-Year and Thirty-Year Plans)

6. Campus master plan implementation and construction phasing plan
(Phase I, Five-Year and Thirty-Year Plans)

7. Pre-schematic plans and outline building programs for high priority Phase I Measure C and/or State funded projects.
(As supported by Educational Master Plan and opinion of probable construction costs)

Qualitative Matters and Design Guidelines

8. Basic illustrative 3-d computer generated model
(Phase I, Five-Year and Thirty-Year Plans)

9. Basic illustrative 3-d physical model
(Phase I, Five-Year and Thirty-Year Plans)

10. Perspective views
(Phase I, Five-Year and Thirty-Year Plans)

11. Prepare campus building and landscape design standards based on College consensus on desired overall campus character and aesthetic direction of future campus development.

12 Illustrative 3-d building typology & construction type diagrams for identified high priority projects.
(Phase I, and Five-Year plans only)

Consultant Coordination

13 Coordinate as needed with City/County transportation department and parking and traffic consultant in the documentation of a comprehensive circulation and parking plan

14 Coordinate as needed with District facilities assessment consultant in the documentation of a comprehensive facilities removal, upgrade and/or renovation and/or addition plan

15 Coordinate with District facilities management team, civil engineering and MEP consultants on final plans for extension and expansion of existing utility infrastructure based on alternate campus master plans options developed above. *(Wet and dry utilities, sanitary sewer, storm sewer and site drainage)*

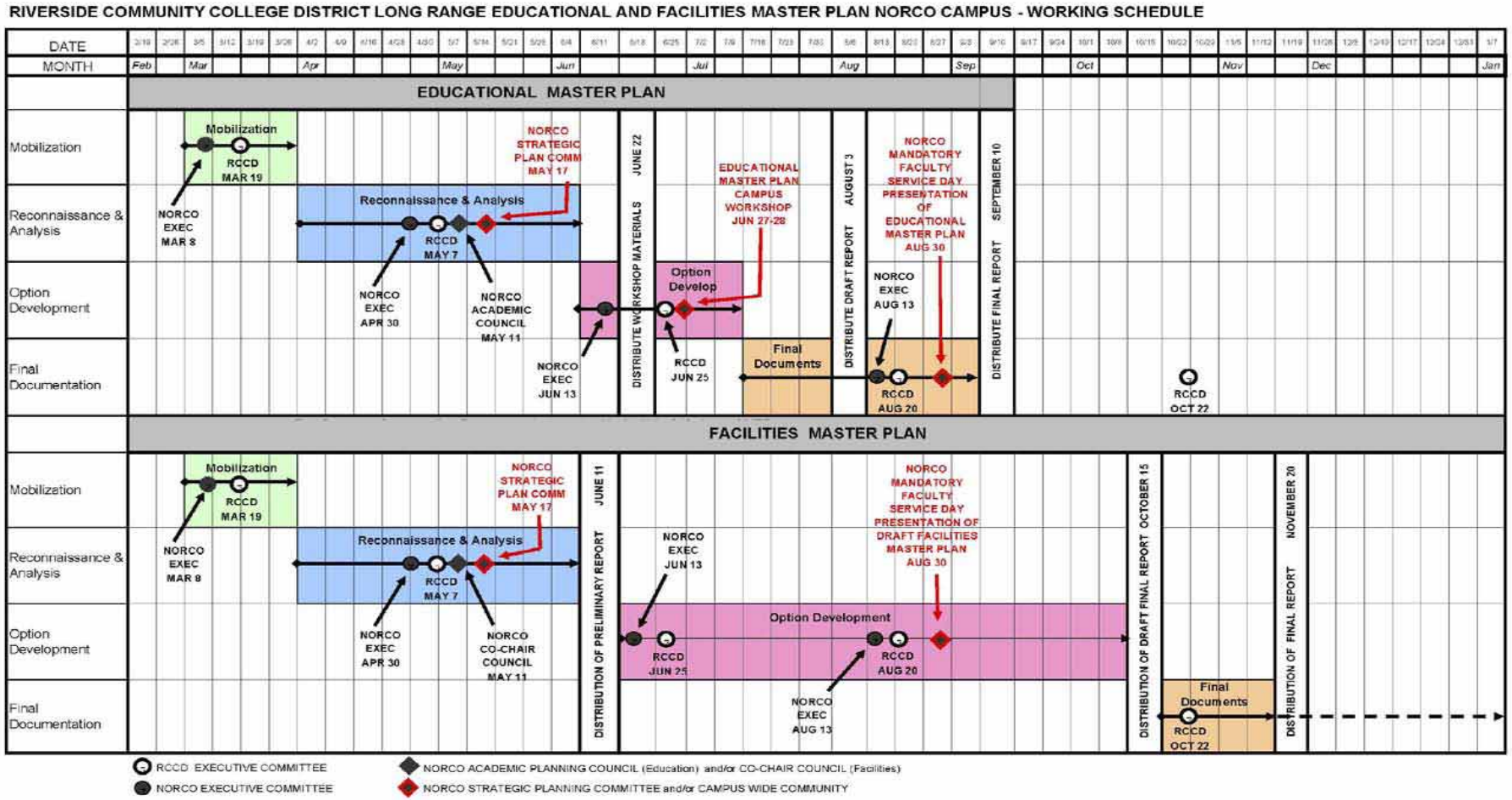
16 Coordinate as needed with cost estimating consultant in the documentation of a detailed opinion of probable construction costs of facilities in the Phase I and five year plan

17 Coordinate with Educational Master Plan in identifying high priority phase I and five year facilities construction projects and strategies to fund them, including Measure "C" and State funds.

18 Coordinate with sustainability consultant in the integration of sustainability concepts into the final campus master plan.

Summarize Findings

19 Final written and graphic summary of the campus master plan.
Including but not limited to: Final facilities outline programs and program distribution plan , final campus illustrative and regulating plan, campus landscape and building design guidelines, assessment of project implementation and phasing for phase I, five-year and thirty-year plans; opinion of probable construction costs and strategic funding plan for phase I projects in coordination with Educational Master Plan.



The Norco Long Range Education and Facilities Master Plan Schedule. *The schedule was arranged to capitalize on the mutually supportive relationship of the Education Master Plan and the Facilities Master Plan, each of which ran parallel and separately of the other and on a different time frame. The Education Master Plan came to substantial completion by August of 2007—about halfway through the "Option Development" phase of the Facilities Master Plan and in time to provide key information regarding facilities needs. This afforded ample opportunity to properly integrate the findings of the Education Master Plan in a way that both informed and shaped the short term and long term planning horizons of the Facilities Master Plan.*

Program of Outreach

Meetings with District and College administration, the Facilities Master Plan steering committee (Council of Co-Chairs), College faculty, staff, students and various stakeholder groups were conducted throughout the duration of the process to gather information and key insights as the project unfolded and to present and critique ideas as they developed. In addition, at significant intervals in the process, there were College wide presentations. In these we solicited ideas and information from the campus's broader constituency and built support for the plan.

An orderly program of outreach is critical and structured for a reason: it keeps the conversation moving forward without lapsing into chaos. It allows for the maximum participation of everyone in a stake of the outcome of the effort. Through its very structure a properly arranged program of outreach promotes spontaneity, creativity and enthusiastic involvement on the part of the entirety of the College community throughout the entirety of the process..

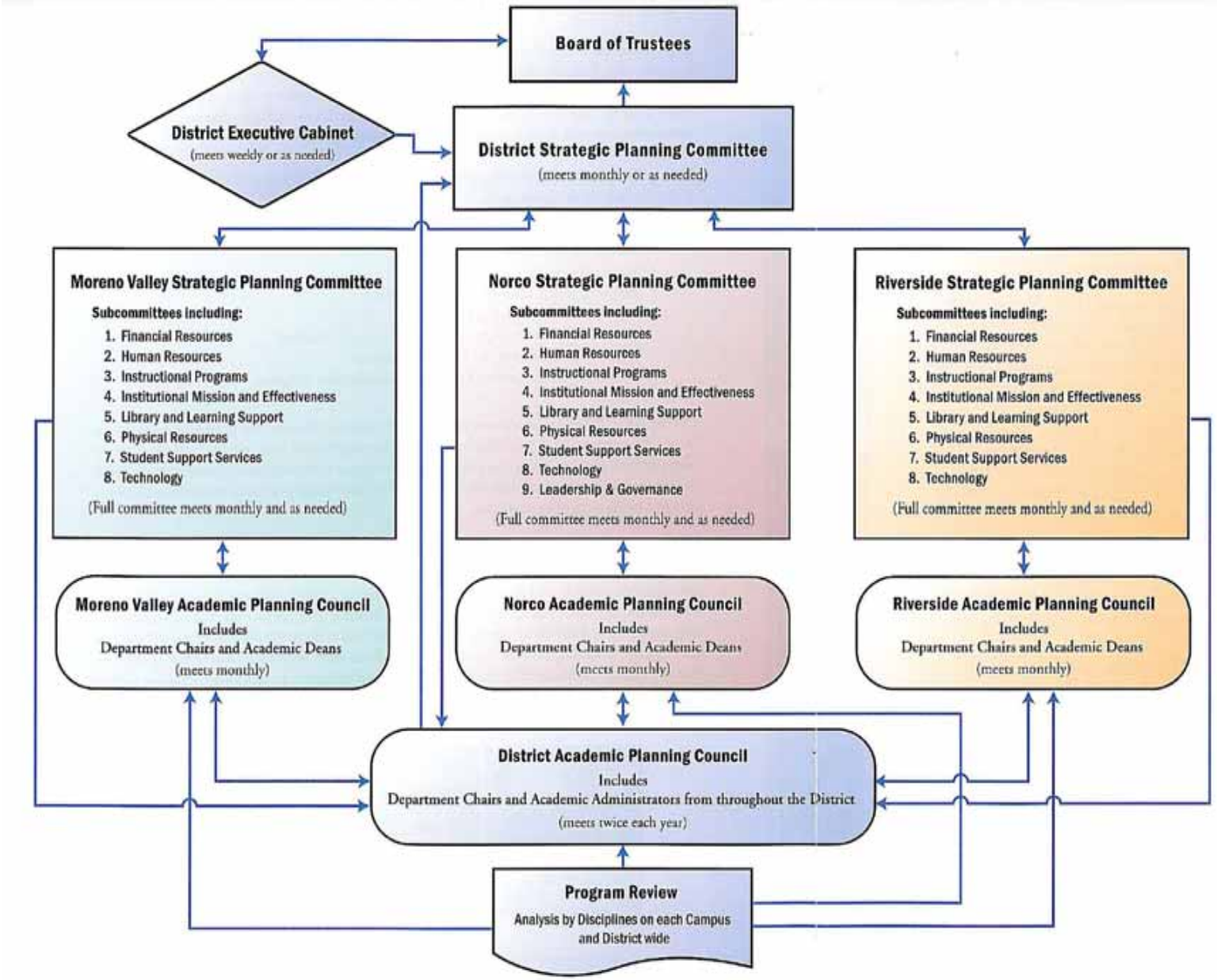
Not all meetings can or should be large meetings. Presentations and conversations in large group formats, community forums and workshops as well as presentations and conversations with regulatory agencies and administrative boards are most effective when preceded by a rigorous and thorough airing process in small groups and one-on-one interviews with the core users, the core College and District leadership and those regulatory agencies and stakeholders most closely affected by or influencing the outcome of the project.

This does not nor should it preclude transparency or a sense of collaboration. On the contrary an open dialogue is crucial. How that dialogue is structured is equally crucial. The goal is to build an on-going, frank and productive conversation that builds on itself in an orderly manner, creates common vision and a sense of ownership on the part of everyone involved.

Norco Campus Facilities Master Plan Program of Outreach
(MDA Johnson Favero)

	Project Orientation Weeks 1 -2	*Reconnaissance & Analysis Weeks 3 - 14*	*Option Development Weeks 15-32*	*Final Documentation Weeks 33-36*	*Meeting Subtotals Per Group*
RCCD Board of Trustees	0	0	0	1	*1*
District Administrative Leadership	1	1	1	0	*3*
District Strategic Planning Executive Committee	0	1	2	0	*3*
District Office of Facilities Planning and Construction	1	2	2	1	*6*
Norco Campus Administrative Leadership	1	1	2	0	*4*
Norco Campus Strategic Planning Committee and Council of Co-Chairs	0	2	3	0	*5*
Norco Campus User Groups, Stakeholders & Interest Groups[1]	0	9	9	0	*18*
City of Norco/County of Riverside Departments[2]	0	3	3	0	*6*
College Wide Community Forums/Meetings	0	1	1	0	*2*
Community of Norco Community Meetings[3]	0	1	1	0	*2*
Meetings Subtotal per Phase	*3*	*21*	*24*	*2*	***50***

[1] Academic Deans, Athletics and Recreation, Performing Arts, Maintenance and Operations, Student Services, Special Programs, Student Life/Activities & Organizations etc.
[2] Departments of Public Works, Transportation, Fire and Police, etc.
[3] Norco Neighbors , Community-at-Large and Service Area Constituencies



Existing District and College Planning Organizational Chart and Decision Making Hierarchy. *The core planning committee for the facilities master plan is the "Council of Co-Chairs" comprised of the co-chairs of each of the nine subcommittees of the Norco Strategic Planning Committee.*

Transitional Status of the Norco College Campus

The Norco campus is preparing to be an independent college and anticipating full college accreditation status after the ACCJC site visit scheduled for the fall of 2007. The preparatory work for this transition in status has been discussed in three recent documents: The Institutional Self-Study of 2001, the Interim Report of 2002 and the Mid-Term Report of 2003. On March 20, 2002 the Board of Trustees of the Riverside Community College District formally supported the move from a three-campus district to a three-college system. On March 26, 2004 the California Postsecondary Education Commission approved proposals from the District to convert the Norco educational center to full college status. This notice was sent to the Governor, Members of the legislature and other agencies. At its January 2005 meeting, the Accreditation Commission of Community and Junior Colleges approved the Eligibility Report for the Norco campus to become an independent college. The final step in the process to independent status will be the preparation and approval of an accreditation self study report which is planned for completion in Fall 2007.

The Norco College Campus Today

The Norco Campus, situated on a 141-acre site southwest of the City of Riverside at the western most edge of Riverside County, offers courses that meet the transfer program requirements paralleling the first two years of university offerings and pre-professional, career preparation, occupational and technical programs leading to the associate of arts and the associate of science degrees and a variety of certificates. The curriculum and programs create a learning environment that develops the learner's knowledge, critical thinking skills, independent thought, cultural awareness, self-reliance and personal growth. In support of this mission, Norco provides services required to maintain learning programs as well as the basic skills that equip students to complete transfer and/or occupational objectives. In response to changing needs, the Norco campus focuses on the theme of technology in the 21st Century and is best known for its cutting edge programs in technology and manufacturing, reflecting partnerships with industry and community groups.

The City of Norco has a population of 26,700 and the population of the nearby community of Corona is 148,000. Located in the most western tip of the Riverside Community College District, along the Interstate 15 and 91 freeway corridors, the Norco campus is a gateway to the engineering, manufacturing and warehousing companies serving the counties of Riverside, Orange, and San Bernardino. With its emphasis on academic programs that prepare graduates to work in the business sectors of manufacturing, technology and distribution, the Norco Campus has kept pace with the surrounding growth of its communities.

Learner Population

Norco is Riverside Community College District's fastest growing campus, offering students a dynamic, state-of-the-art learning environment. Its student body is culturally diverse, representing the communities of western Riverside county and commuters living in Orange County. Although a significant number of Norco's students are enrolled in less than 12 units, over a third are full-time and 70% take more than 6 units. As is true across the District, the majority of Norco students who took assessment tests between September 2004 and February 2005 placed into basic skills classes in reading, math and English. Thus, in addition to the general education/transfer classes and career-focused occupational programs, Norco offers classes to meet the needs of under-prepared students.

Mission Statement

"Today's students, tomorrow's leaders.

Norco College, located in western Riverside County, provides a range of high quality educational programs, services and learning environments that meet the needs of a diverse community. We equip our students with the academic and technological skills to attain their goals in higher, occupational, and continuing education, workforce development, and personal enrichment while they achieve established learning outcomes. Norco College fosters the development of technological programs to meet the needs of the growing business community. As a continuing process, we listen to our community and respond to its needs while engaging in self-examination and ongoing dialogue, planning, and improvement."

Organizational Status

Norco has been operational since April, 1991, when it opened for a concentrated short spring semester. By fall 1991 the enrollment was 3,755, in fall 1997 it was 5,012 and in spring 2002 it was 6,619. Current enrollment is over 8,500. All projections indicate that this area of the Inland Empire will continue to experience rapid growth from Orange county overflow and the I-15 corridor housing expansion. In fact, Norco is the most rapidly growing campus in the district, experience a 28.4% increase in enrollment since 2002. The staff has the appropriate professional preparation and experience needed to fulfill all responsibilities to oversee the operation of the campus. Currently, there are 60 full-time faculty and approximately 221 part-time faculty.

During the spring 2006 semester, and in preparation for the move to independent college status, the Provost for the Norco campus was promoted to President. This organizational change resulted in the creation of several new positions including the Vice President of Educational Services. The incumbent

will assume responsibility for accreditation and enrollment management and provide administrative support to the President.

Due to growth, Norco will start the fall 2006 semester with 11 new faculty members. Faculty has been hired to meet growth needs as well as bring discipline expertise to the campus. During the 2005-6 academic year the District recruited for the following disciplines and assigned them to the Norco campus: English, Journalism, Manufacturing, Anthropology, Biology, Physical Education, Speech and Arabic. All of the positions have been filled and Norco will welcome 11 new full time faculty in all 2006.

Department Configuration

In fall 2005 the Norco Campus reconfigured the departmental structure expanding from four to five departments. Disciplines are assigned to a department and Department Chairs are elected by the discipline to ensure shared governance and provide administrative support. Norco's current department structure is as follows (all disciplines are aligned with one of the following five departments):

- Arts, Humanities and World Languages
- Business, Engineering and Information Technologies
- Communications
- Mathematics and Science
- Social and Behavioral Sciences

Educational Programs

The educational program at Norco is designed to lead students to associate degrees, transfer to four-year institutions, attain program certificates and ensure course offerings for life long learners. In addition, the campus offers programs in pre-collegiate remedial or developmental improvement and for general education. Open Campus courses encompassing distance education, telecourses, hybrid and on-line courses are offered at Norco and are designed to provide alternative pedagogy. Workshop courses and cooperative work experience classes are also offered on an off campus. Norco's special programs focus in the areas of Engineering, Drafting, Architecture, Logistics, Manufacturing Technology, and the Competitive Applied Technology Center. Beginning fall 2006 Construction and Electrical Apprenticeship courses will be offered. In addition, Norco offers the "Weekend College" for 1,107 working adults who are able to complete certificate and general education requirements attending classes scheduled on Friday evening, Saturday and Sunday. With the opening of the John F. Kennedy High School the campus initiated an Afternoon College that started in fall 2006.

Current Certificate/Degree Programs
- Architecture
- Accounting
- Business Administration
- Computer Aided Production Technology
- Computer Information Systems
- Computer Applications
- Computer Programming
- Drafting Technology
- Early Childhood Studies
- Electronics Computer Systems
- Electronics Technology
- Engineering Aide
- Engineering Software Applications
- Engineering Technology
- Logistic Management
- Manufacturing Technology
- Mechatronics
- Marketing
- Office Administration
- Real Estate
- Visual Communication
- Certificate in Logistics Management
- A.S. Degree in Logistics Management
- Certificate in Business Administration w/ Concentration in Logistics Mgmt
- A.S. in Business Administration w/ Concentration in Logistics Mgmt

Programs Currently in Development
- Automated Systems Management
- Computer Numerical Control Programming
- Computer Information Systems
- Environmental Science
- Composite Materials Technician
- Manufacturing Management
- Human Resources

Programs Under Consideration
- Public Policy
- Teaching Paraprofessional
- Physical Therapy Assistant
- Exercise, Sports and Wellness Assistant
- French/Business International Program
- Model United Nations
- Real Estate Appraisal, Commercial Real Estate
- Basic Business Skills
- Small Business Operations

Fundamentals of Campus Planning: The Tradition in America

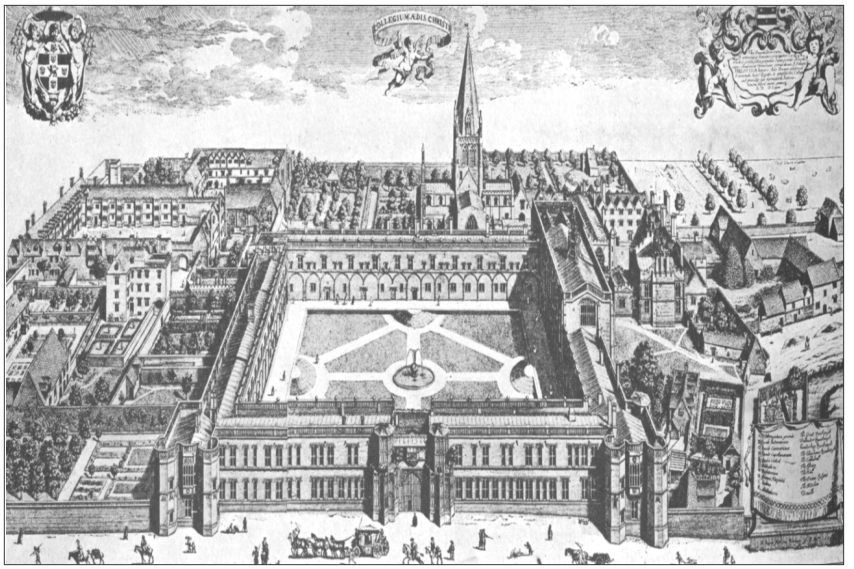
The community college in California historically developed in response to needs that were specific and of a different nature than universities or four year colleges in America:

- The community college serves a relatively small regional area.
- The community college appeals to specific local needs and interests.
- Community colleges introduced the concept of economically efficient delivery of education and training by allowing the student to live at home.
- A community college offers a wide range of adult education courses to local residents. In this way they function as community centers, and often became the venue of choice for local activities and organizations.

Nevertheless it is easy to understand why community colleges, particularly earlier ones, modeled themselves on the four-year and university model of the campus in America. These are powerful, productive places and they are conducive to the mission of learning and sense of community most would associate with the quality of "collegiality" that we cherish in the educational experience.

The American college campus is based on the English model of such universities as Oxford and Cambridge, although originally with a much more rural interpretation. The English model is itself based on the ideals of the monastery or cloister of the middle ages, seen at the founding of the English university as representative of the ideal place within which communities of learning flourish. Three interpretations of the tradition lead the American tradition in distinctly different directions. The first is most iconically represented with the model of the historic core of Harvard University in Cambridge, MA founded upon the unit of the yard surrounded by freestanding pavilion type buildings. Diagonal circulation patterns connect across yards to other yards. The second is represented by the neoclassical tradition of the University of Virginia and the great American Beaux-Arts campuses of the late 19th and early 20th centuries. Here buildings are more distinctly linked with secondary structures forming coherent outdoor rooms that are more than just yards such as at Harvard Yard, and rather more akin to the quadrangle model of Oxford University in Cambridge England.

As the campus tradition migrated westward courtyards and gardens became more prominent in the educational environment supplanting the simple landscape scheme of grass and trees with paved surfaces, Mediterranean plant life and water features. Stanford University, the University of Southern California and Occidental College are three examples of this third tributary of the tradition.The



Oxford University, Cambridge, England. *The courtyard is the fundamental building block of this most inaugural of university campuses in the Western tradition, itself based on the model of the cloister of the medeival monasteries of Southern Europe.*

yard, quadrangle and courtyard are first and foremost symbolic of the ideals of community of higher education: a shared place of tranquility and refuge where both the academic community and the community at large are able to meet, formally and informally, on purpose and by accident. The physical manifestation of these well defined open spaces as a prominent part of the learning environment integrated with the design of its buildings will best convey the image of the Norco Campus as an open and important institutional asset and civic landmark.

Along with these organizational and spatial attributes landmark features are important features of these traditions. These are bell towers (or campanile) and monumental walls and gates, both of which mediate the interior life of the campus with its exterior surroundings. How these elements are interpreted in the setting of a semi-rural campus within the language of building appropriate to our time and the context of what will soon be a suburban landscape is a key design challenge and one that the master plan will have address head on. No logo, signage or graphics can take the place or do the job of the functional and symbolic role that architecture plays in conveying the distinction of the College as a valuable institution and community asset.

University of Virginia, Charlottesville, VA

Stanford University , Palo Alto, CA

Harvard University, Cambridge, MA

Rice University , Houston TX

East *The American campus tradition is grounded in the English tradition of institutions such as Oxford and Cambridge Universities later transformed by a more rural mindset in such places as Harvard, Yale and Princeton—the "Ivy League."*

West *As the campus tradition migrated west, courtyards and gardens became more prominent in the educational environment supplanting the simple landscape scheme of grass and trees with paved surfaces, Mediterranean plant life and water features.*

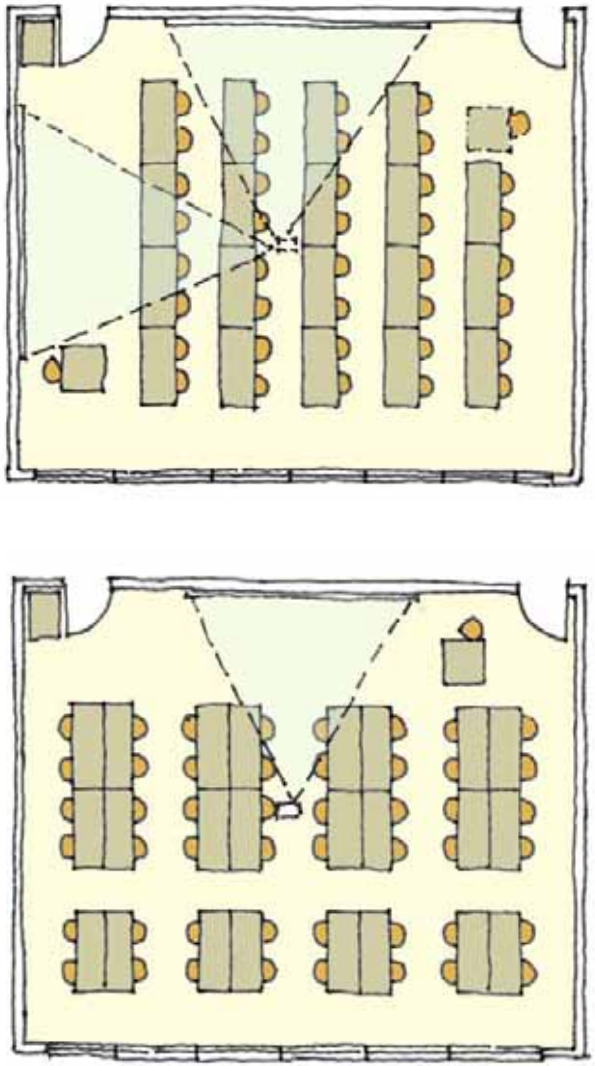
The Configuration of Buildings: Efficiency, Flexibility & Constructability

A certainty in the planning of community college buildings is that its buildings change function over time—continuously and often. Programs come and go, methods of instruction change, and technology evolves. Idiosyncracy in building configuration is antithetical to the principal of flexibility and therefore to be avoided community college setting. Elaborate and complicated buildings might fit the program like a glove on the day of move in, but restrict the possibility of change from there on out. A single building must accommodate many functions and purposes at one time and over time.

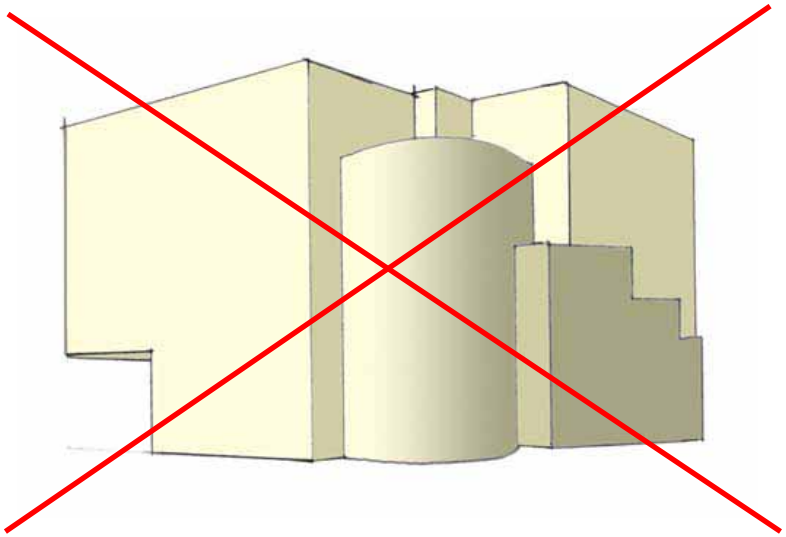
In the planning of any building or ensemble of buildings the starting point must be the classroom . It is the fundamental building block of any community college facility. Structural grids, floor plate size and relationships of circulation must be carefully coordinated with the size and shape of the classroom. Simply stated, classrooms are for the most part rectangular and fall within a certain size range based on the parameters of teaching methods, ergonomics, size of the human body, furniture and both the possibilities and limits of technology.

There is a relationship between flexibility, adaptability and constructability. Structural systems should be as simple and economical as possible so that college resources can be devoted to quality-of-life issues and pedagogic imperatives such as floor, wall and ceiling finishes, furniture, fixtures and equipment, technology, and lighting. Structural systems should be as simple as possible minimizing the costs of building components that are invisible to the eye and therefore impossible for the average person to appreciate. Reducing costs here allows expenditures in areas that you can see, feel, and touch. The simplest structural system that starts from reasonable spans that accommodate the basic classroom and office unit with minimum obstruction of columns and brace frames will result in lower quantities of construction materials and therefore lower costs.

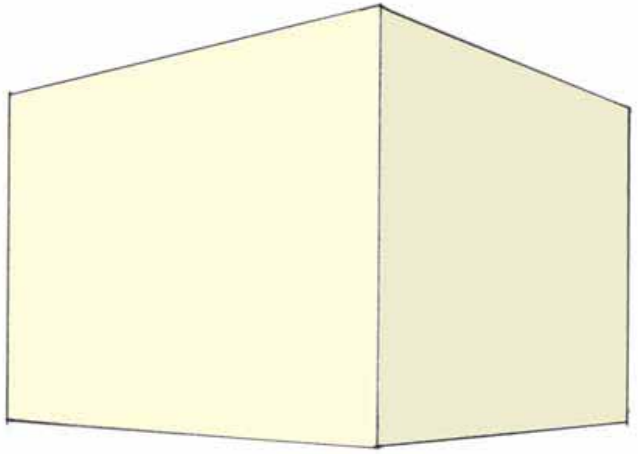
Economy of means also means efficiency in the relationship of assignable square footage to gross square footage. Complex geometries will necessarily result in inefficient use of space and therefore will increase cost relative to usable space delivered in the building. Flexibility and adaptability are most easily achieved from the starting point of simplicity in building configuration that maximizes usable floor area while minimizing floor area that counts toward a building's gross area (and therefore construction cost), but does not contribute to the building's use.



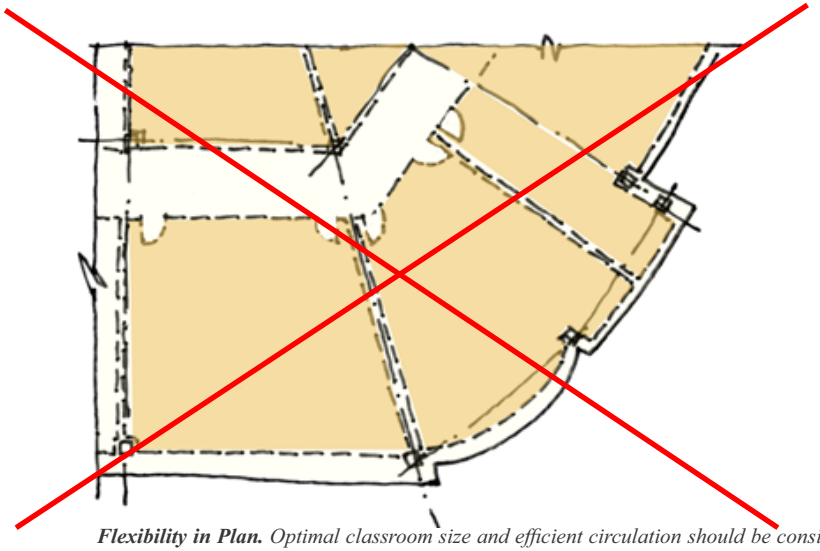
The Classroom. *With dimensions based on class size, teaching formats and technological parameters the classroom is the basic building block of any single facility on campus. How classrooms are assembled is the single most important factor in the configuration of buildings.*

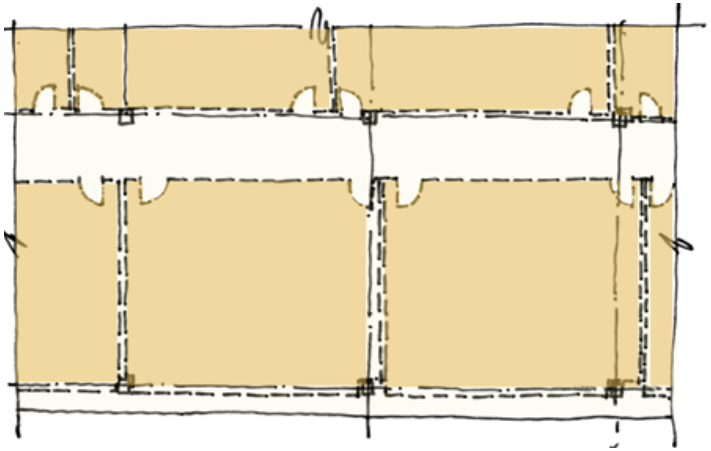


Complex Forms. *Complicated massing does not lend itself to future adaptation. Structural costs are increased at the expense of other building components*



Simple Forms*. Simple massing configurations accommodate multiple combinations of the classroom and office unit. Structural costs are reduced and resources can be devoted to better finishes and details as well as building technology.*





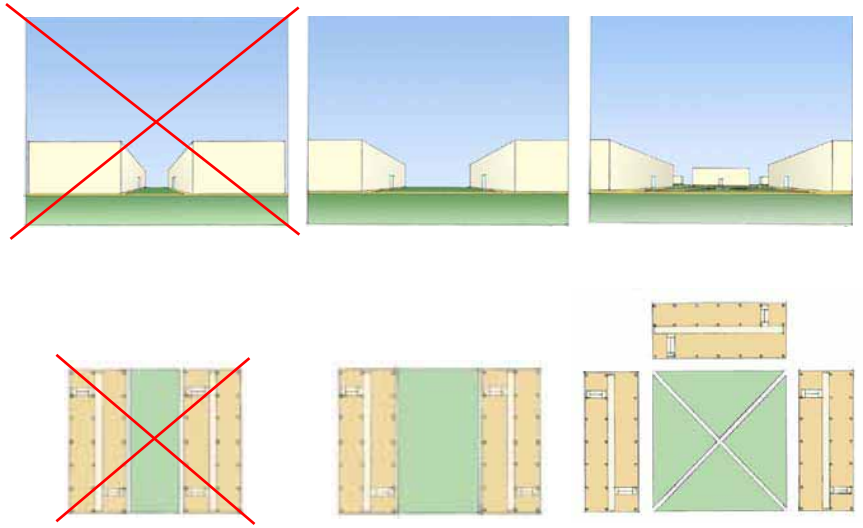
Flexibility in Plan. *Optimal classroom size and efficient circulation should be considered in the choice and configuration of the building floor plate and structural system. The primary structural frame should be straightforward and cost efficient eliminating costly structural gymnastics. For building shaping in specific areas, consider opportunities with lighter weight secondary structural systems tied to the primary structure that enables articulation of the building skin at important landmark conditions.*

The Primacy of Open Space on the American Campus: Yard & Quadrangle

Having established the primary building block of the efficient and economic instructional facility—the classroom—it is important to then look at how in their assembly buildings are created and in turn how buildings shape open space conducive to the educational environment. The rectangular floor plate with sufficient width to accommodate a corridor and classrooms and office space on both sides (double loaded) is the most efficient and economical way to arrange most of the instruction and instruction support space required of the community college curriculum. A "bar" approximately 72'-0" to 80'-0" in width, with a 10'-0" center corridor and in the range of 200'-0" to 250'-0" in length in a two story format contains the floor area necessary to sustain an instructional facility of about 30,000 to 40,000 GSF. Alternatively a single loaded configuration approximately 40'-0" to 45'-0" in width allows open air circulation along one side increasing the efficiency of the building by virtue of having minimal indoor conditioned space. Both configurations are efficient and amenable to the creation of open spaces which while rectangular (or nearly rectangular) in shape can be varied in both character and scale.

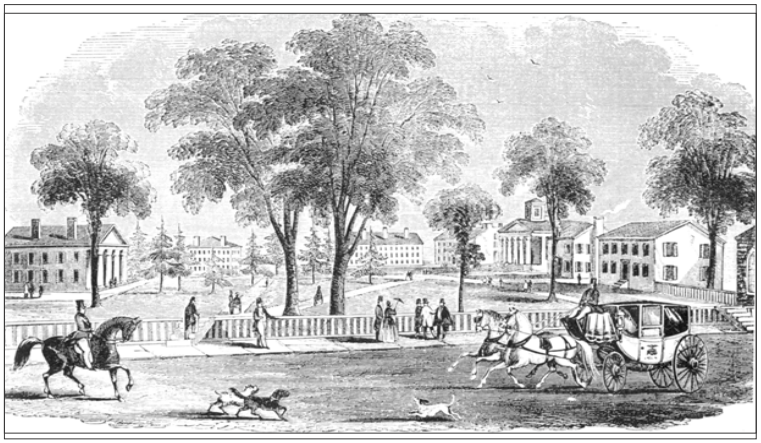
This series of diagrams illustrates how a typical community college in a suburban or rural location within California would best approach with minimal means the assembly of buildings into a coherent campus organization. With the addition of an identical bar at some distance from and parallel with the original the degree of separation determines the character of the space that is formed. With insufficient separation a gap is formed that while letting light and air into the buildings does not itself become a functioning, meaningful place. With further separation a kind of partially enclosed quadrangle is formed, large in size, with enough definition and proportion to function as an outdoor room—an extension of the indoor rooms. The envelope of the buildings are themselves the walls of this outdoor room. An interconnectedness is formed in which the environment becomes something more than the some of its individual components.

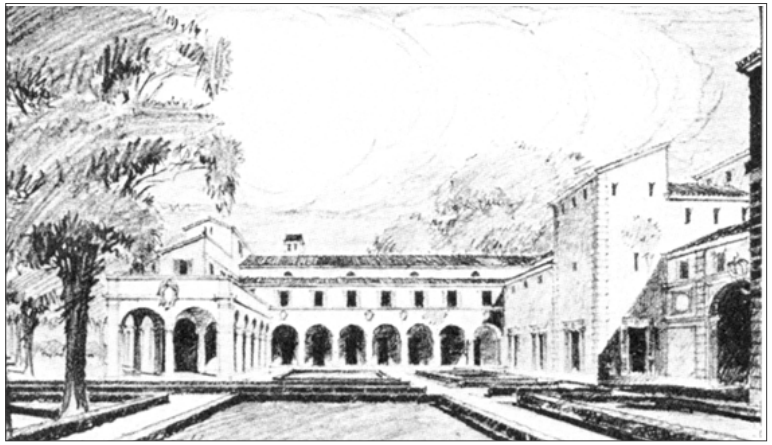
With further separation and the addition of new buildings a quadrangle or yard is formed and the kind of campus familiar to anyone who has attended colleges and universities throughout the United States emerges. Note that the relationship of building dimension, height and volume to the dimension of their separation is critical. With further separation the interconnectedness is undermined; the environment becomes something else—a neutral field with pavilions not necessarily in any particular relation to each other. The sense of collegiality is lost.

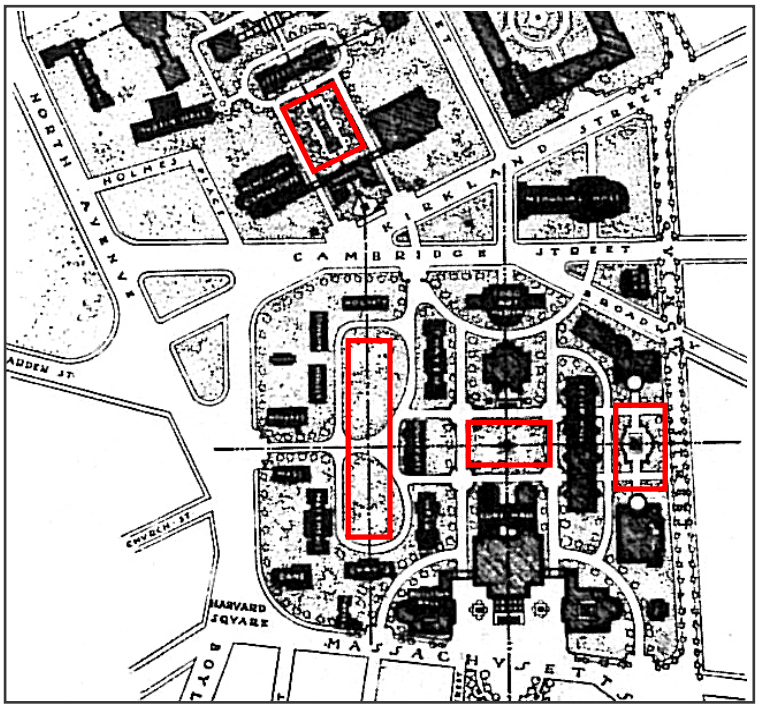


Buildings Form Open Space. *The configuration, height, scale and degree of separation of buildings are the most critical influences on the nature, character and quality of on campus open space.*

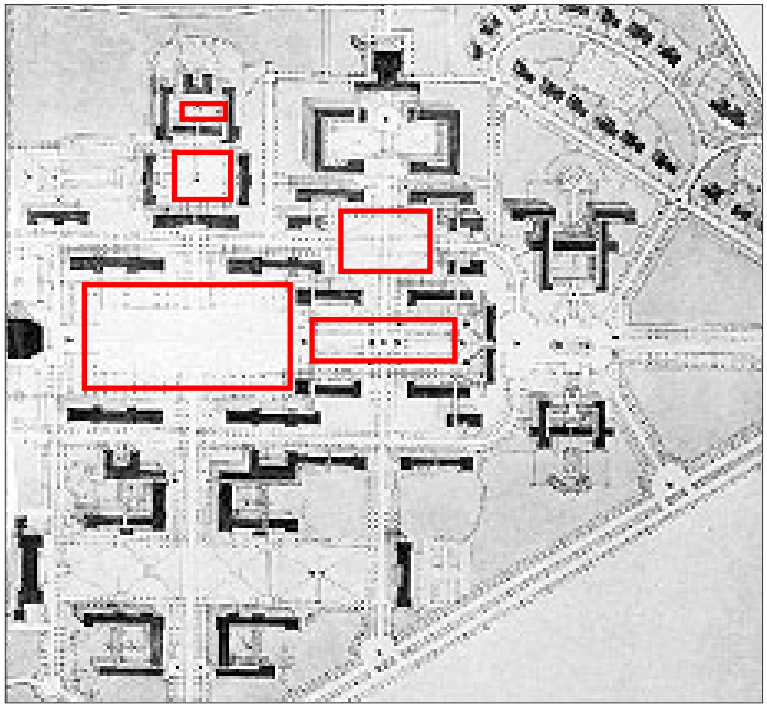
In the relatively mild climate of Southern California and certainly on a campus within an arid desert setting the use of courtyards at the heart of buildings and complexes of buildings is not only an amenity but a necessity. Courtyards if arranged efficiently can increase the amount of available public space in a sometimes inhospitable outdoor environment for essential interactions between students, faculty and staff that are part of the overall educational experience. The key in their viability is how they are situated within and between buildings, their dimension and scale, architectural character and the nature of the landscape within them.







Harvard University. *This campus originated on the yard model, built up gradually with the accumulation of free standing buildings spaced close enough to form meaningful, comprehensible spaces.*



Rice University. *This campus originated on the quadrangle model, with buildings that wrap entirely all four sides of a major open space. This is more akin to the original Oxford cloister model one of the oldest campuses in the world.*

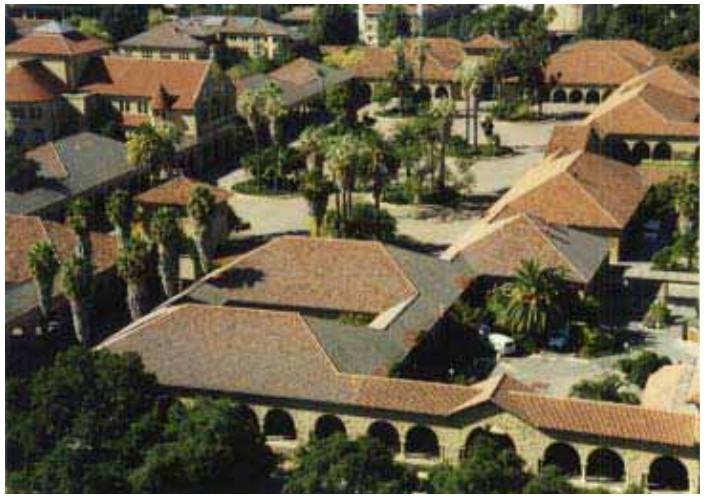
Syracuse University, Syracuse NY

University of Southern California, Los Angeles, CA

Syracuse University, Syracuse, NY

University of California at Los Angeles, Los Angeles, CA

The Yard*. The yard is the fundamental spatial unit of the kind of campus familiar to anyone who has attended colleges and universities in the United States. The relationship of building dimension, height and volume to the dimension of the buildings' separation is critical. With further separation the interconnectedness is undermined; the environment becomes something else—a neutral field with pavilions not necessarily in any particular relation to each other. The sense of collegiality is lost.*



Stanford University

Rice University, Houston, TX

Memorial Quad, Stanford University, Palo Alto, CA

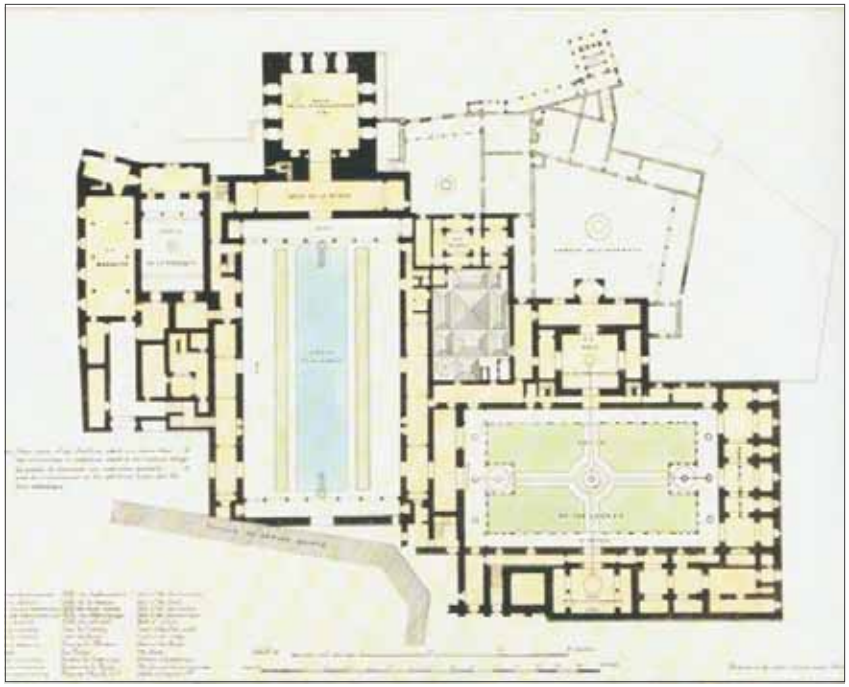
Mudd Hall, University of Southern California, Los Angeles, CA

The Quadrangle and the Courtyard*. The quadrangle is common to universities and colleges in the western United States. Vertical and horizontal dimensions are critical. Courtyards differ from quadrangles, in scale and the degree of enclosure and definition; and are often modeled on monastic and Mediterranean models of Southern Europe.*

Outdoor Space in a Semi-Arid Mediterranean Climate: The Role of the Courtyard

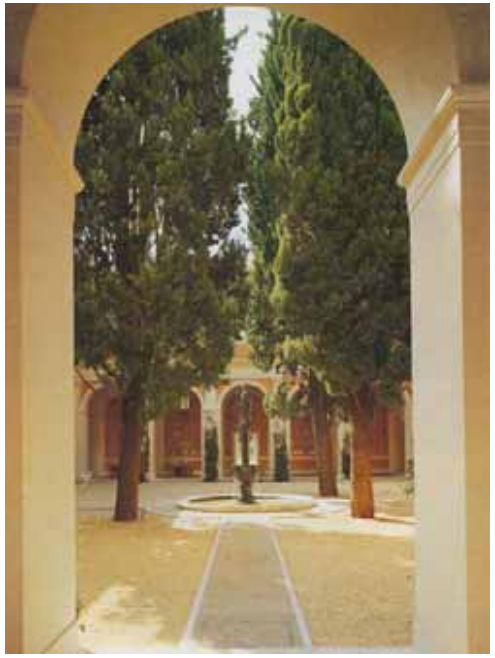
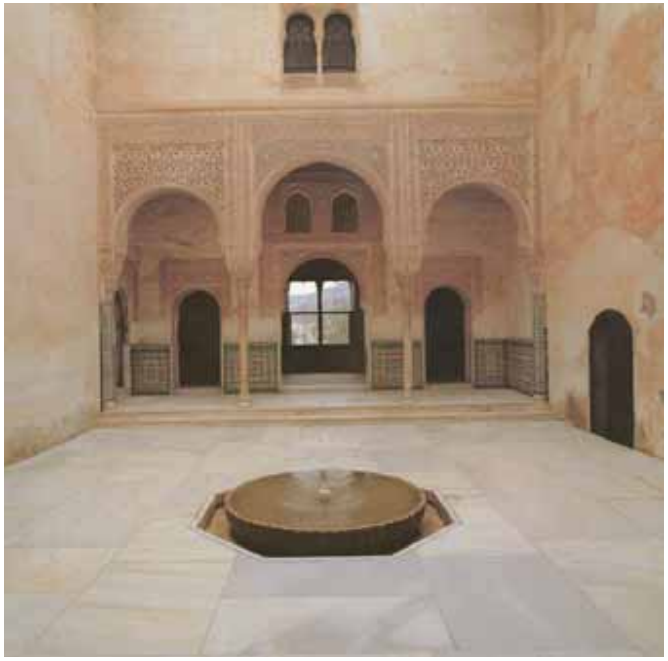
While a green lawn—the characteristic feature of the yard or quadrangle in the American campus tradition—in measured use could provide a kind of oasis in the desert it would be seen as a luxury and certainly something to be applied in moderation. The traditional American yard or quad is not necessarily then the model for the most desirable kind of open space for a campus in a desert setting.

Within the traditions of desert and Mediterranean architecture there are countless examples of courtyards and atria—"rooms without roofs"—in intimate relationship with indoor spaces that serve as cool places of refuge out of the direct sun, often aerated with water and trees. These spaces can be mostly paved (and thus appropriate in a climate with little available water) and hence quite useful as places to congregate. In the college setting they are potentially valuable communal spaces, a kind of glue that binds buildings together.



The Courtyards of Alhambra



Open Space in a Semi-Arid Mediterranean Climate: The Role of the Courtyard. *Courtyards can be landscaped or not, punctuated with fountains, austere or ornate. They afford a different kind of spatial experience than the quadrangle or yard in their intimacy of scale and potential to function as outdoor rooms.*

Institutional Presence

Building scale and mass should distinguish the college building from its built and natural surroundings as a place that matters. This may be accomplished by simplicity of profile and material. Materials should be restrained in color and texture. Addition of texture and surface articulation should be considered a foil to highlight smooth economically rendered surfaces. This balance will create a dramatic impact not dependent on volumetric acrobatics. Articulation of surface through the use of stone or patterned concrete or plaster may give weight to the building and can provide more durable surfaces at the building's base. Judicious use of substantial materials or surface articulation contrasted with light, smooth surfaces satisfy the eye for detail without overwhelming the senses. The combination of materials that mediate between the color and texture of the ground at the building's base and strong simple profiles against the sky will result in buildings that communicate longevity, dependability and permanence.

Key Principles

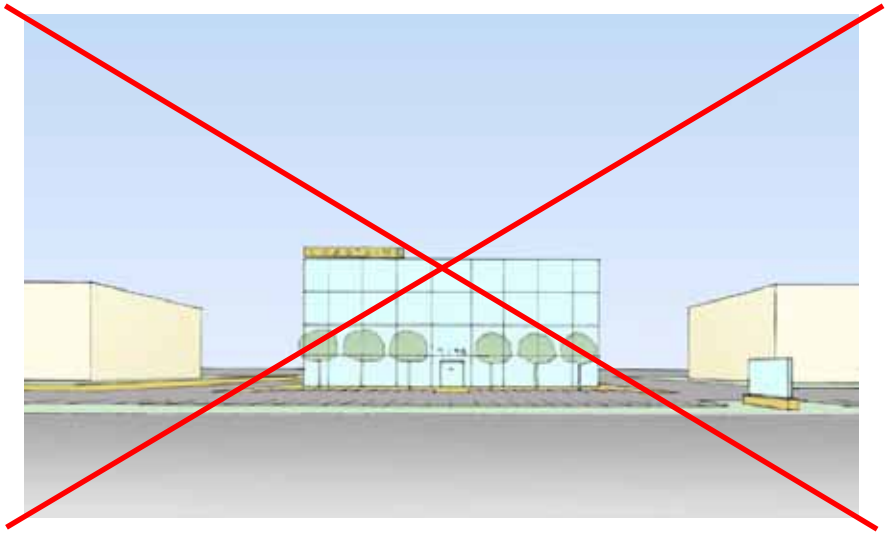
1. Strong, simple bold building massing. Use simplicity rather than complexity to convey permanence and stability.

2. Balance of surface articulation and smooth surfaces to introduce interest. The balance should be weighted in favor of greater amounts of smooth surfaces against articulated or textured surfaces, borders and outlines.

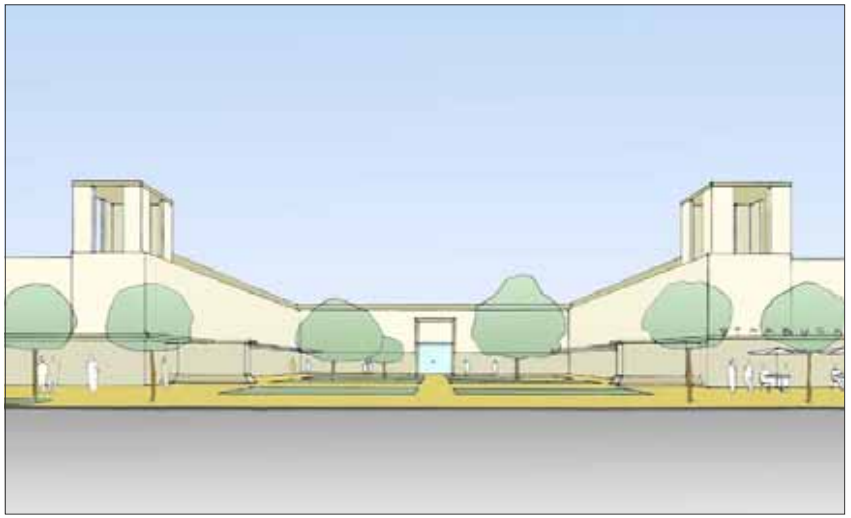
3. Use smaller amounts of quality, durable materials rather than large amounts of inexpensive less durable materials. Overextending in this area with inadequate or inappropriate residential or industrial materials counters the message of permanence, dignity and stability.

4. Detail should be focused on building entrances. This is the area that welcomes the community and the future student. Expenditures here will be most dramatically experienced to the benefit of all.

5. Openings should be generous as opposed to meager. This is a public building that should encourage entrance and access. Solid walls should be used as a foil against which entrances and openings are given drama.



Learning Center as Suburban Office Building *The economics of construction exert pressures on limited budgets of educational institutions manifesting in anonymous buildings surrounded by surface parking with minimal landscape and no sense of place, character or purpose. The result is dehumanizing. It diminishes the student's educational experience, and undermines the sense of shared purpose and collegiality.*



Learning Center as Microcosm of College Campus. *The college building that feels like a place of higher education takes its cues from the typical American college campus. Architecture and landscape combine to give the center a sense of place, identity and purpose in ways that enhance the educational experience and uplift the lives of students.*

Institutional Presence. *A building has institutional presence by virtue of its scale and mass, the dignity of its materials, restrained, carefully calibrated detail and an outward oriented and gracious entry. Scaling devices such as benches, lighting and articulation of edges and profiles mediate the potentially intimidating effects of a building's size.*

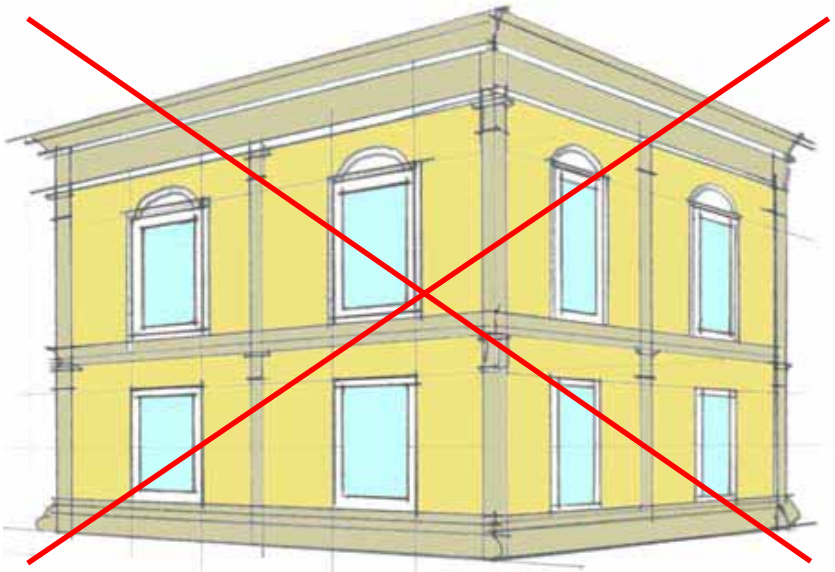
The Challenge of Tradition

The College and its design professionals can and should rely upon precedents from the vast history of the human experience of building. This experience is conveyed through imagery, and this imagery is inexpendable in the conveyance of design intent. Precedents may emerge from the full chronology of architectural expression from ancient to contemporary, but must embody unchanging underlying principles outlined in this narrative. Images communicate desired attributes in order that in a collaborative environment ideas are able to float to the surface in a clear and direct manner. Catchall phrases such as "Spanish Colonial" or "California Mission" or "Early California" are useful as emblems of the collective qualities that are desirable in achieving character; but in no way can or should design guidelines dictate or prescribe style.

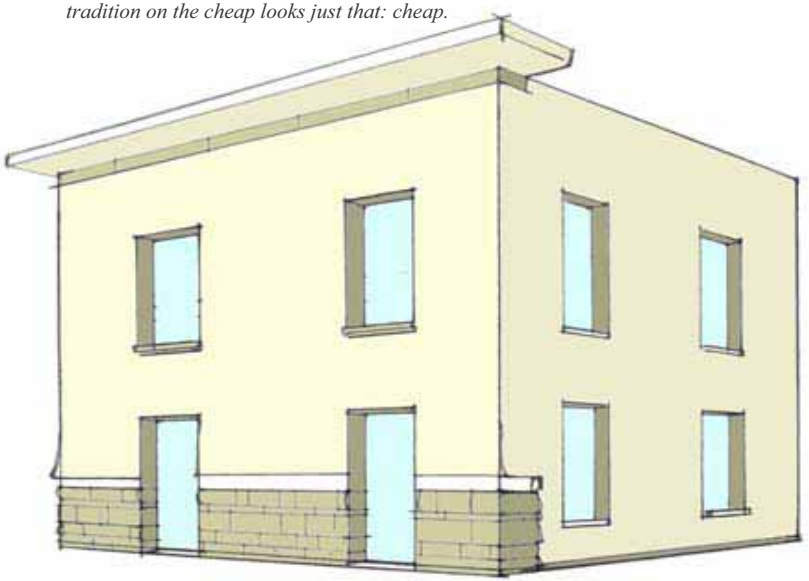
Extreme care must be taken with use of available materials and construction technology in evoking traditional precedents. EIFS is not adobe, and molded styrofoam cornices and window surrounds cannot take the place of stone. A drawing or model may convey a beloved style, but satisfactory results are dependent on correct material selection and detail execution. Dignity and substance may, therefore, come in the form of simple geometries and bold profiles. Simpler profiles allow for greater attention to quality of materials and the performance and appearance of details. This is the area of experimentation and advancement of the tradition.

Updating the tradition is not simply a matter of dropping the ornament or the details. In fact, even within the circumscribed tastes of the contemporary aesthetic, intensification of detail in some areas may and should occur. Articulation in the area where the building meets the sky, for example, where the eye is naturally drawn, is a particularly effective place to focus on—as is placing detail close to the eye in proximity to heavily trafficked areas accessible by the hand as well as the eye.

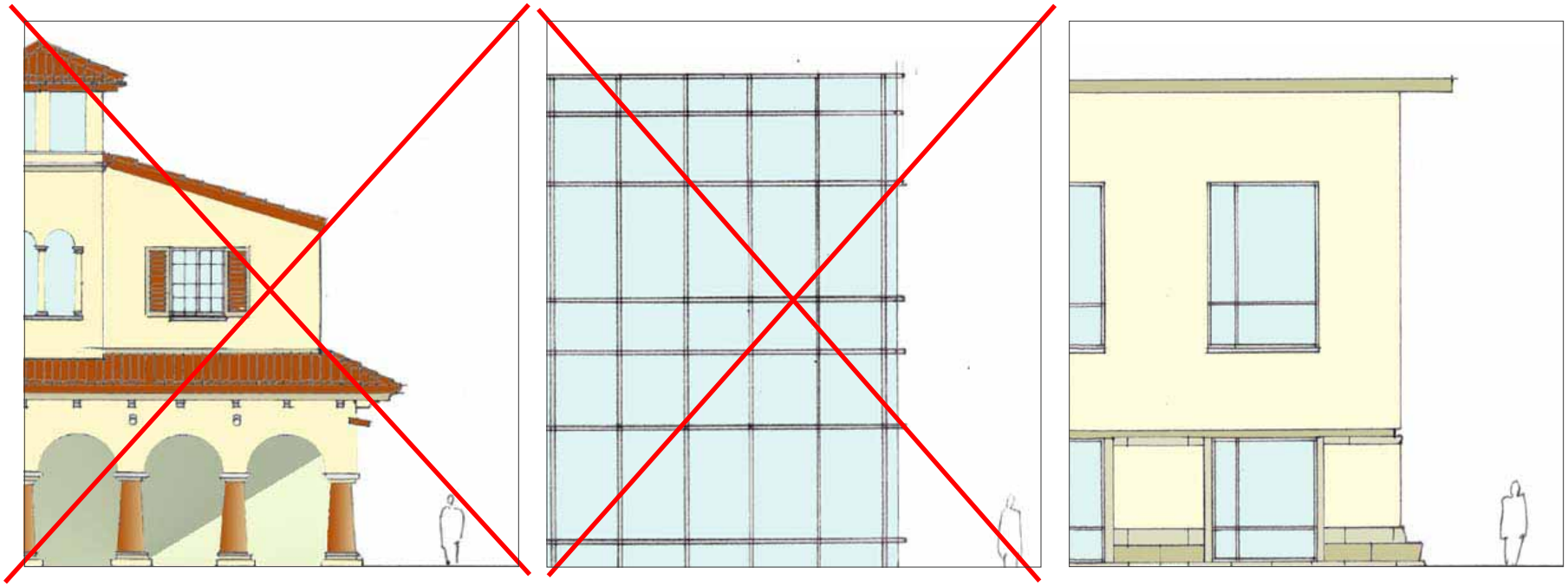
Detail is not as beyond reach as has been the case since the values of modernism first established themselves within the economy of building. While stone masons and craftsmen of the caliber that once built the monuments of America no longer are with us, new technologies have emerged (and investigation into them is encouraged) that use computer directed cutting tools for producing carved or complex shapes in a variety of materials. Ironically enough, technology in this case has revived the possibility of craft and attention to detail, filling a noticeable absence in the construction industry and architectural expression since the prewar era.



Cheap Tradition. *Inexpensive detailing and more of it does not result in quality buildings or reinforce the image of the college as a durable civic institution. Attempts to replicate tradition on the cheap looks just that: cheap.*



Tradition Reinterpreted*. Means and methods that typified buildings of a generation ago can be reinterpreted to meet today's building budgets through the judicious selection and placement of high quality materials and detail in key areas that articulate the building volume and its surfaces..*



Achieving Authentic Building Character. *Attempts to replicate traditional architecture within the limitations of contemporary construction, economies and methodologies inevitably lead to the devaluation of the traditions. Indiscriminate applications of available technologies such as curtain wall construction, while economical, are inappropriate in the institutional setting and devalue the learning environment. The balanced arrangement of apertures within surfaces with depth and integrity, articulated with judicious ornamentation at edges and profiles produces an architecture that is humanely scaled, gracious and dignified while achievable within today's economy and appropriate to contemporary tastes.*

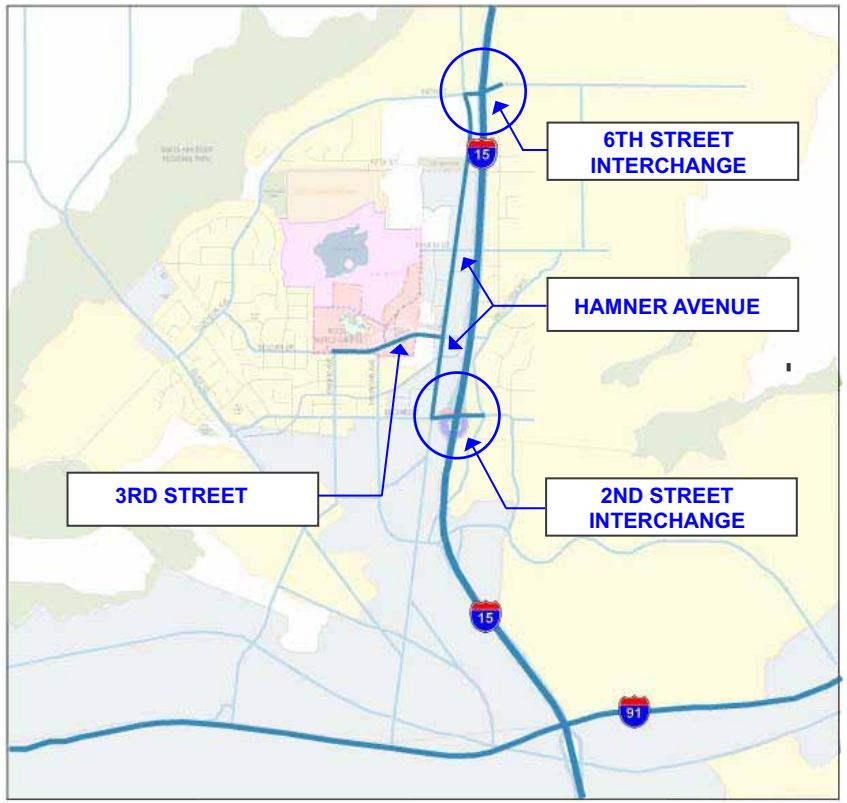
The Norco Campus in Context

The City of Norco has a population of 26,700 and the population of the nearby community of Corona is 148,000.

Located in the most western tip of the Riverside Community College District, along the Interstate 15 and 91 freeway corridors, the Norco Campus is a gateway to the engineering, manufacturing and warehousing companies serving the counties of Riverside, Orange and San Bernardino. With its emphasis on academic programs that prepare graduates to work in the business sectors of manufacturing, technology and distribution the Norco Campus is ideally located to serve the work force needs of the surrounding communities now and in the future. The Norco student body is culturally diverse, representing the communities of western Riverside County and commuters living in Orange County.

The Norco campus property is 141 acres in overall area on land formerly owned by the United States Navy as part of a still existing US Navy research and development campus that lies just to north of and uphill from campus. Just to the north of the Navy property is a California State prison with approximately 5,000 inmates. The Navy and the prison share frontage on an artificial lake known as Lake Norconian which together with a once magnificent hotel (previously known as the "Hotel California" and now occupied by prison administrative staff) was before WWII the centerpiece of a recreational resort frequented by the well-to-do and sometimes famous of the Los Angeles area. Modest residential neighborhoods border the property on its west and south sides. The neighborhood to the west is a typical, pleasant suburban neighborhood similar to those found across Southern California. The neighborhood to the south is more rural in feel and consists of homes on larger parcels typically with stables and grounds for horses—common of residential properties in Norco. The east side of campus is bordered by commercial properties and, significantly at the north east corner of the campus property by the City of Norco Civic Center and administrative headquarters of the Corona-Norco Unified School District. John F. Kennedy High School, a school within the Corona-Norco Unified School District occupies approximately 12 1/2 acres in a key location at the heart of the property and enjoys a 99-year lease with the Riverside Community College District for the right to occupy this location.

The campus lies west of Interstate Highway 15, a major north south regional artery that extends into Orange County to the south and as far as Victorville beyond the San Bernardino mountains to the north. Interstate Highway 91 is a major east west regional artery that also extends into Orange County, and even into Los Angeles County to the west. This freeway intersects the I-15 just a mile or so south of the campus. The campus is accessible via only one route, 3rd Street which enters from the east from its intersection with Hamner Avenue (a major north south arterial within the city of Norco) onto campus property terminating in a cul-de-sac at the far west end of campus. Hamner is reached via two principal freeway interchanges along I-15, one at 6th street to the north of campus and one at 2nd street to the south. Most students, faculty and staff arrive by auto via the I-15 and use either the 6th street or 2nd street freeway interchanges.



Vehicular Access to Campus. *The 2nd Street and 6th Street interchanges give access to Hamner Avenue from Interstate HWY -15. The 3rd Street entrance to campus arrives from the east via its intersection with Hamner Avenue.*

A serious challenge facing the campus—exacerbated by the construction of the high school—that it must address today is its single means of ingress and egress. Already the campus experiences back up at the 3rd Street Hamner intersection at peak hours. Previous planning studies have suggested alternative additional entrances and exits either from the north (extending down from 4th Street) or the south (extending up from 2nd Street) or both. It has been determined by this study that the only option that provides tangible benefits will be to open up access to the campus via Mountain Avenue from the south. Without this additional access the student population will necessarily be limited to a capacity of 12,000 students.

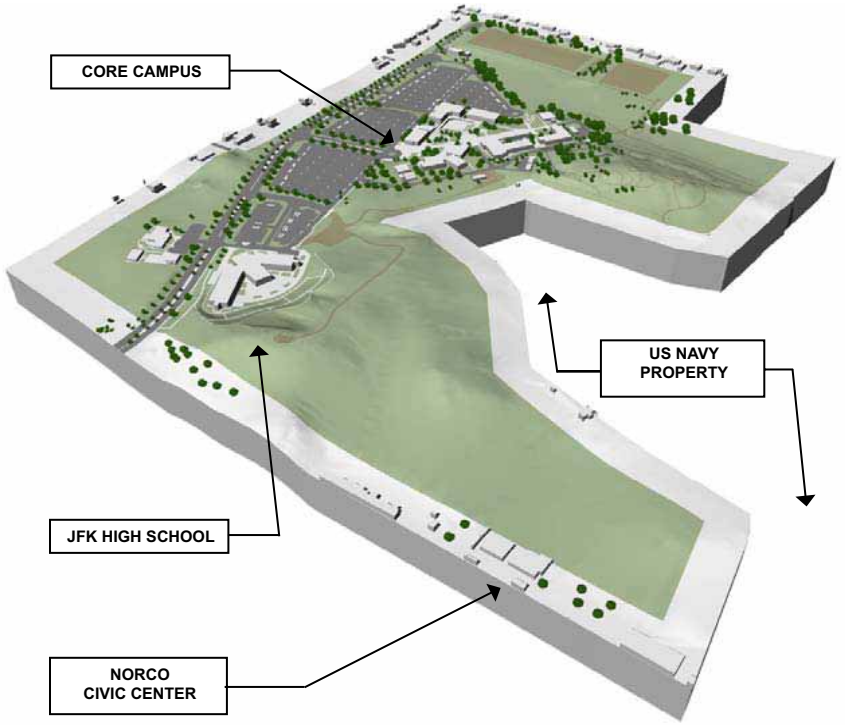
The Norco Campus in Context. *Interstate 15 runs north-south just east of the Norco campus; and, Interstate 91 runs east-west just south of campus. Third Street is the only means of vehicular access into and out of the campus. The campus is "landlocked" by residential and commercial properties on the east, south and west, and the US Navy property to the north.*

The Norco Campus Property in Three Dimensions: Lay of the Land

The campus is bordered on the south and west sides by residential neighborhoods. At the far east end of property just to the north and visible from 3rd Street as one approaches the core campus lies the John F. Kennedy High School. The high school sits on District owned property and is somewhat integrated into the Norco campus both physically and operationally. The Norco campus delivers programs and services through the high school facility on weekday evenings and weekends. While today the Norco campus considers its relationship with the high school an integral part of its overall educational operations it is likely that in the future the College will offer fewer and fewer courses through the high school facility. The high school and College share some parking facilities. A portion of the campus lies to the south of 3rd Street (on the left as one enters) where is currently located the College's Early Childhood Education Center; but, most of it and the core campus lies to the north of 3rd Street.

The core campus sits on land that is gently sloping up from 3rd Street in a north-northwest direction toward the US Navy property. The northern boundary of the core campus sits at the foot of steeply sloped hillsides. From here extend two steeply sloping "spurs" or "peninsulas", one just north of the existing Applied Technology Building and the Industrial Technology Building under construction. Much of this property is relatively unavailable for development due to its extreme topographical profile, although interestingly it terminates almost at the shore of Lake Norconian. The other "spur" or "peninsula" extends north from the northeast corner of the core campus steeply up to a plateau that extends as far as a quarter mile north of John F. Kennedy High School. The east side of this property butts up against the west side of Norco's City Hall. Although a good portion of this area of the property is relatively flat it is also relatively inaccessible due to the steeply sloping hillside and higher elevation that separates it from the core campus and its significant distance from the core campus.

The high school occupies approximately 12.5 acres, the area south of 3rd Street another approximately 10 acres and the two northern extensions together total approximately another 60 acres. Thus accounting for these areas of the property land actually available to the future College may be limited to less than sixty (60) acres. Further challenging is the fact that the campus is essentially "landlocked" on the north, west and south sides, there being only the one point of entry from the east along 3rd Street. The formerly proposed second entrance from 4th Street south presents serious challenges in two ways: 1) the extreme topography it would have to navigate to get to the core campus and 2) its potential redundancy given its termination in an area of campus where 3rd Street already serves.



The Norco Campus in Context View from the Northeast*. The 141-acre property includes two "spurs" or "peninsulas" that extend northward to surround the US Navy property (beyond the limits of the model to the right n this image). These extensions are cutoff somewhat from the rest of campus by steeply sloped hills. Discounting the area south of 3rd Street, the area occupied by the high school and the two north extensions that area realistically available to the campus for future development is limited to less than sixty (60) acres.*

***The Norco Campus in Context View from the Southwest**. Third Street forms the southern boundary of the campus (foreground). Residential properties surround the campus on the west and south sides (left and foreground). Commercial properties form the east boundary of campus and two steeply sloped hills form the northern boundary of campus. John F. Kennedy High School occupies over twelve (12) acres in a key location at the heart of campus.*

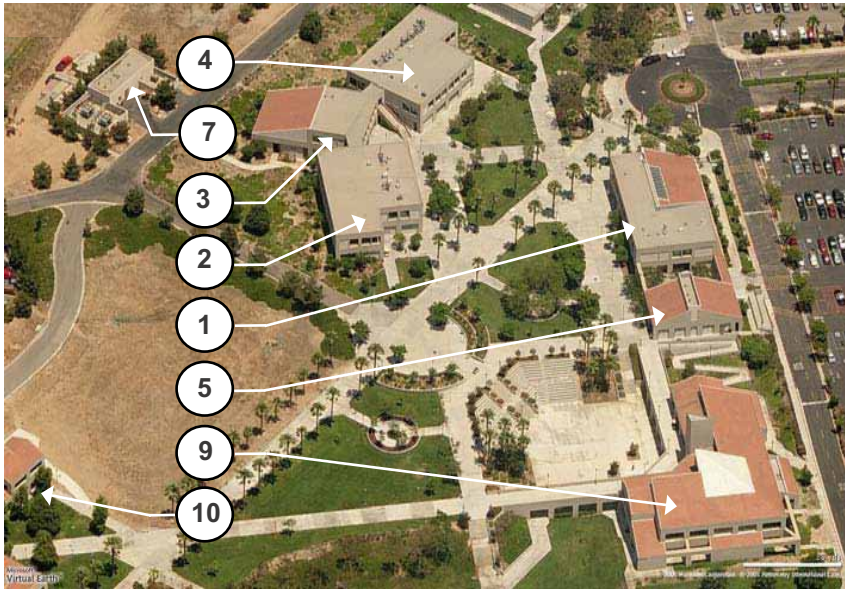
The Existing Campus

In discounting the two north extensions, the area south of 3rd Street and the high school property east of Campus Drive, usable available land for campus expansion consists of less than sixty (60) acres. Of this approximately 25 acres, or over 40%, is devoted to roads and parking. The heart of campus consists of an area of approximately 8 1/2 acres including buildings and core campus open space. Most of the campus buildings are located within this 8 1/2 acres precinct. Only the Early Childhood Education Center is located remotely (more than a quarter a mile away) on a portion of campus south of 3rd Street, south of the John F. Kennedy High School. One major building, the Industrial Technology Building (Phase III), is shown on the map but as yet does not exist—it is under construction. Another building, the new Student Center, also not shown on this map is in early stages of planning and design.

Existing Buildings on Campus

Existing buildings, buildings under construction, and those under construction and in design are the following:

1. Student Services (A)..... 1991
2. Science & Technology(B)..... 1991
3. Little Theater (C)..... 1991
4. Humanities (D)..... 1991
5. Tigers Den(E)..... 1991
6. Building F-1..... 1991
7. Building M-1..... 1991
8. Building M-2..... 1991
9. Library Building (G)..... 1995
10. Technology Building (N)..... 1995
11. Building F-2..... 1994
12. Bookstore..... 1999
13. CACT Building..... 1999
14 Multi-Purpose/Activity Center..... 2002
15. Early Childhood Education Center..... 2004
16. Portable-1..... 2005
17. Portable-A..... 2005
18. Portable-B..... 2005
19. Southwest Portables..... 2007
20. IndustrialTechnology..... 2008
21. StudentCenter..... 2010



Aerial View of the Core Campus Looking East. *The Library is in the lower right, the Humanities, Little Theater and Science and Technology complex at the top.*

Illustrative Plan of the Existing Norco Campus.

Land Use

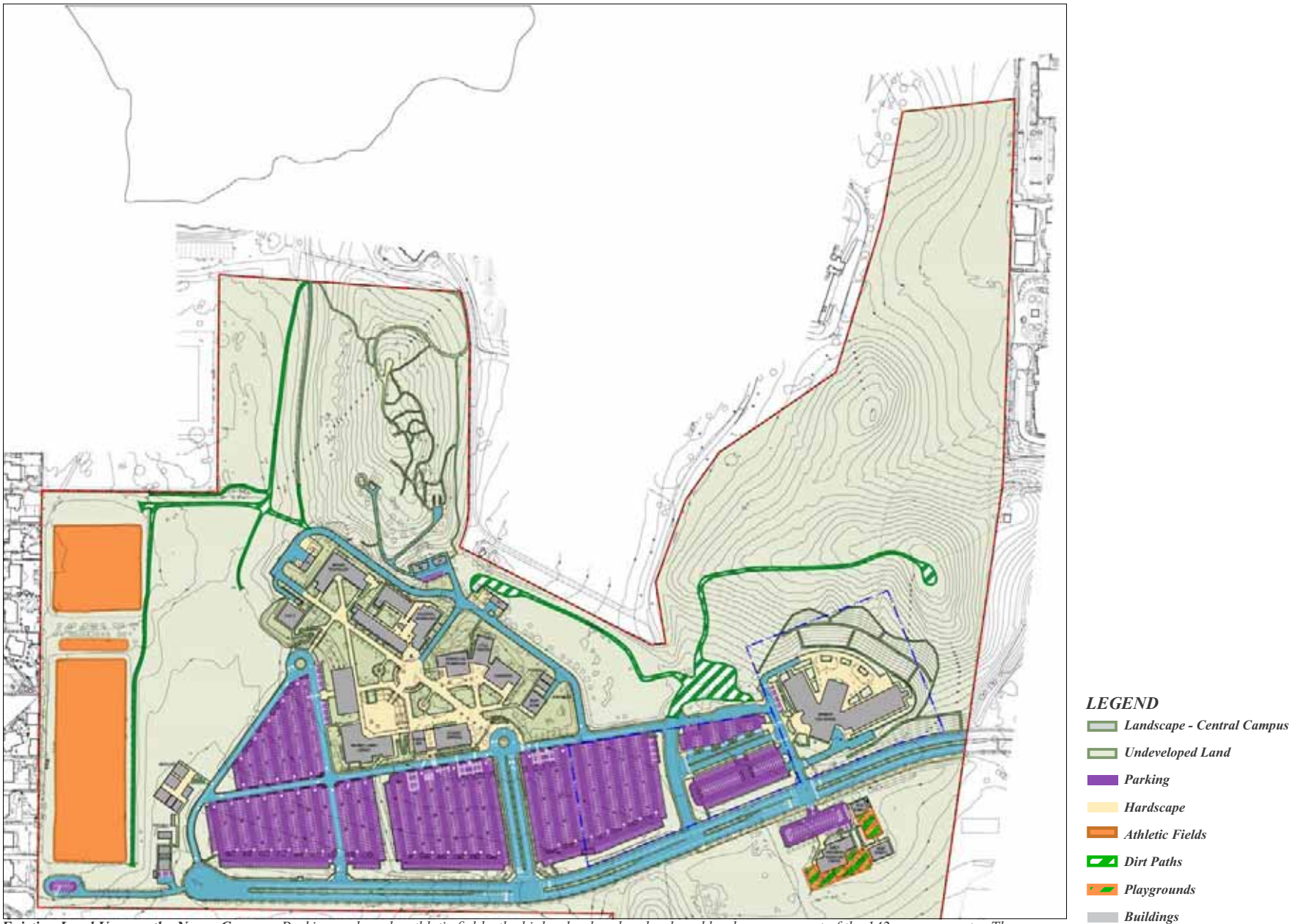
Approximately two thirds—just about 40 acres—of the sixty (60) acres or so available to the campus for future development is as yet undeveloped land. Most of this lies west of the parking lots in a depressed area just east of the soccer practice fields—where currently are under construction nine new modular classrooms. The other major area of undeveloped land lies south of 3rd Street, west of the Early Childhood Education Center—although it is doubtful that has much potential given its remote location relative to the existing core campus.

Roughly twenty five (25) acres almost forty-two per cent (42%) of the sixty (60) acres of the campus that could potentially be developed are already devoted to roads and parking. The existing core campus constitutes only 8 1/2 acres or just 6% of the total 142-acre campus property. Buildings occupy about 4 acres or 3% of the 142-acre campus property. John F. Kennedy High School including its parking lots occupies approximately 12 1/2 acres of the property in a key location adjacent to the 3rd Street entrance.

View of Parking Lots Looking East. *Parking lots consume 14 acres of the existing campus, 10% of the total 142-acre property and 50% more land than the 8 1/2 acre core campus. In this view the library is on the left, 3rd Street on the right.*

Inventory of Land Uses (SF & Acres)

USE	SQ. FT.	ACRES	%
Total:	**6,221,569**	**142.83**	**100**
Campus Landscape	254,985	5.85	04
Peripheral Landscape	3,935,824	90.35	63
Parking	636,672	14.62	10
Pedestrian Hardscape	333,612	7.66	05
Buildings	175,759	4.03	03
Athletic Fields	280,169	6.43	05
Dirt Paths	102,431	2.35	02
Vehicular Hardscape	482,207	11.07	08
Playgrounds	19,910	0.46	00



Existing Land Uses on the Norco Campus. *Parking and roads, athletic fields, the high school and undeveloped lands occupy most of the 142-acre property. The core campus itself occupies less than 10 acres.*

Vehicular Circulation and Parking

The existing campus enjoys a plentiful supply of parking with approximately 1,500 spaces devoted to College use and an additional 600 spaces that are shared with John F. Kennedy High School. At its current student population of 8,500 sudents and a rate of 1 space for every 4 students—a typical rule-of-thumb requirement calculating factor for suburban community colleges in Southern California—the College is well served by parking (8,500/4 = 2,125 spaces) assuming use of the high school lots.

All of this parking and of course the roads that give access to them are at grade and together they consume 25 acres of land or 18% of the +/- 142 acres of the entire property . Currently only one entrance to campus is given via 3rd Street from the east entering at the southeast corner of campus. Already reports are that back up and congestion occurs at the entrance to campus at peak hours. Previous agreements with the City of Norco and the Corona-Norco Unified School District stipulate that at some point a second entrance will be provided.

Inventory of Circulation Systems (SF & Acres)

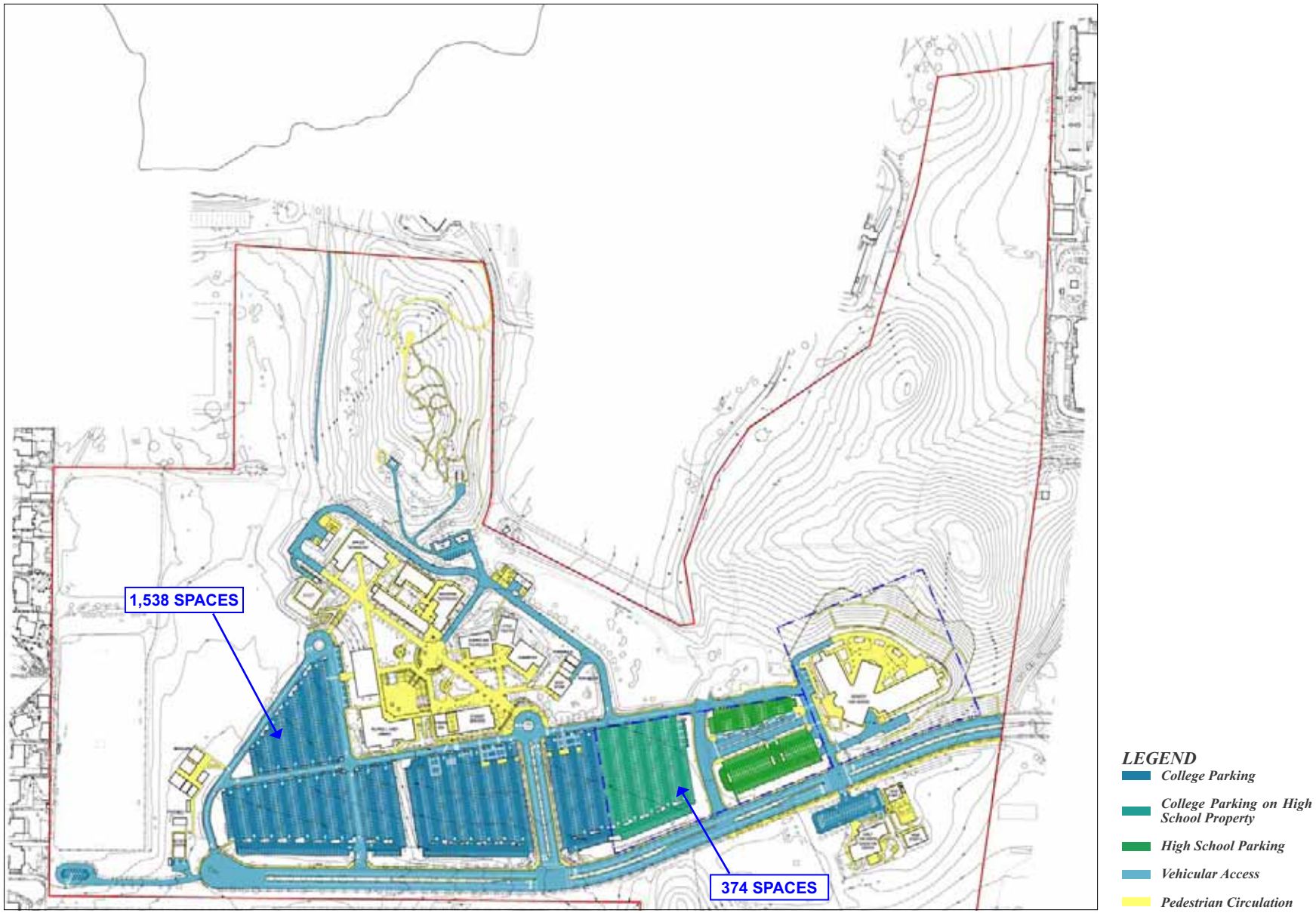
USE	SQ. FT.	ACRES	%
Total:	**6,221,569**	**142.83**	**100**
Parking	636,672	14.62	10
Pedestrian Circulation	353,522	8.12	06
Vehicular Circulation	482,207	11.07	08
Other	4,749,168	109.03	76

Inventory of Parking (No. of Spaces)

USE	STALLS
Total:	**2,197**
Central Campus Lots	1,538
Maintenance Lot	8
Athletic Fields Lot	13
Early Childhood Education Center Lot	37
High School West of Campus Drive	374
High School East of Campus Drive	227

Campus Entrance and Parking Lots. *Parking lots are presented at the main entry to campus and are the first impression of campus upon arrival.*

3rd Street Looking West. *3rd Street forms the southern boundary of campus.*



Existing Vehicular Circulation, Parking and Pedestrian Circulation on the Norco Campus. *Parking and roads occupy 25 acres, 18% of the 141-acre property. Approximately 1,900 spaces serve the core campus area of which about 375 spaces are shared with the high school. Another 37 spaces are provided south of 3rd Street at the Early Childhood Education Center and miscellaneous other areas around campus.*

Permeable and Impermeable Surfaces

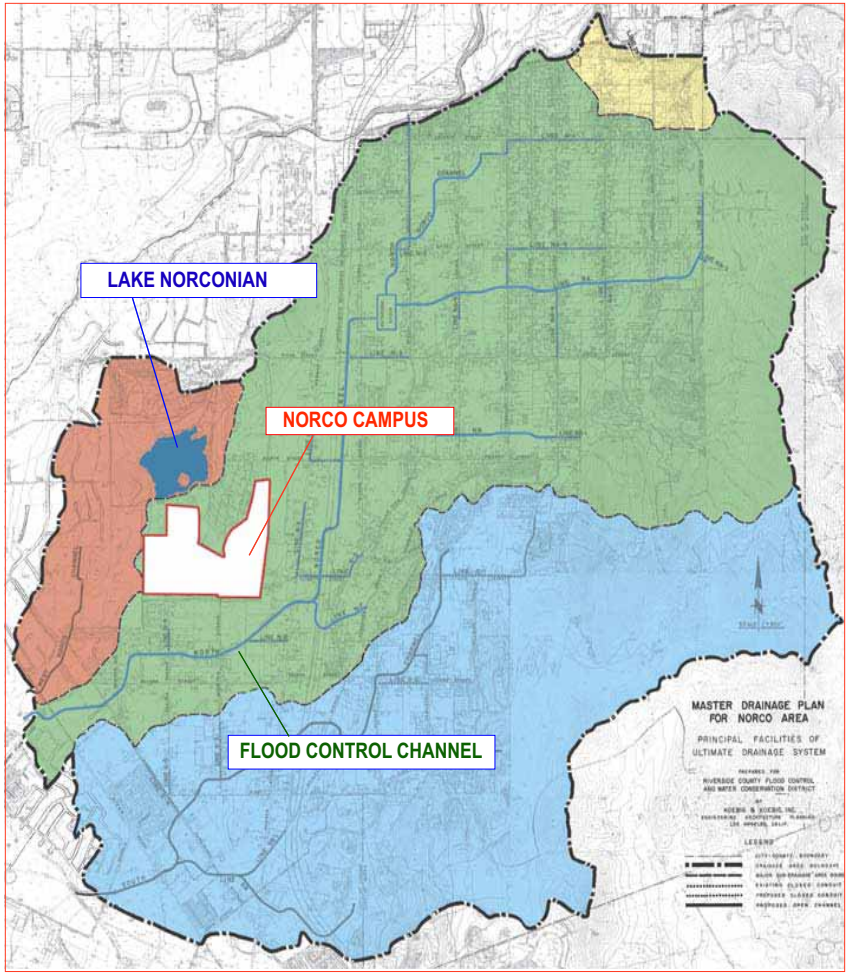
Storm water management is an important concern for any larger property owner. This is particularly true in this area of Southern California where while very little precipitation occurs annually there do occur on occasion torrential rains. Because of the steeply sloped terrain and the inability for the landscape to retain water (because of the perennial arid conditions) these rains can cause extreme flows of storm water.

With the rapid suburban development that has occured in the Corona-Norco area—residential tracts and commercial developments—many thousands of acres of land are increasingly paved over. This increases storm water runoff and taxes the storm water management system. Increasingly current practices require us to rethink our ethic of land development by consolidating buildings and paved surfaces as much as possible to allow for the natural landscape to absorb storm water, replenish the underground system of aquifers and prevent flooding.

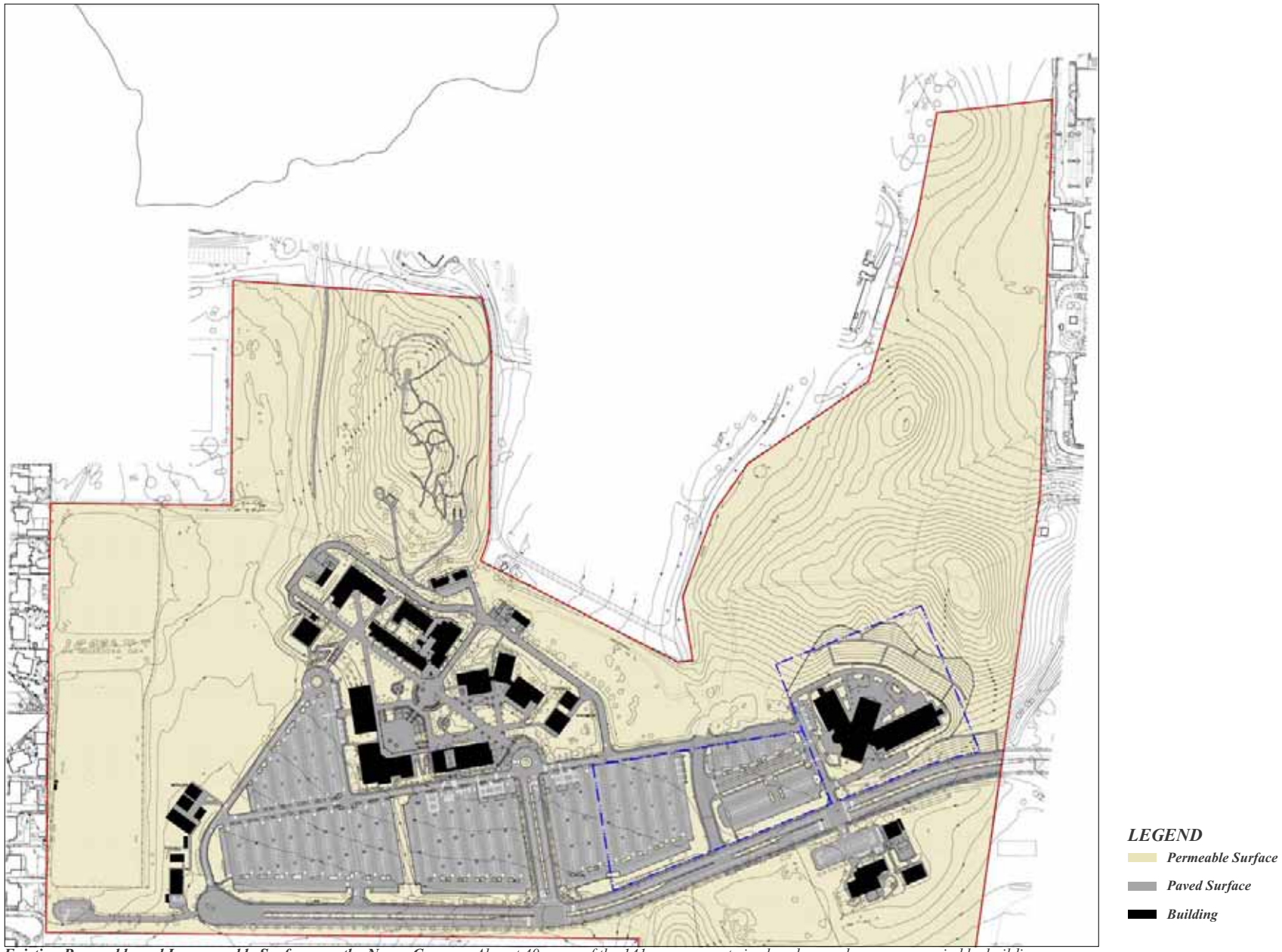
This diagram demonstrates what the current campus has built upon and paved over—almost forty acres, or two thirds of the land available to the campus for existing facilities and future development. It yields a clear point of departure for developing strategies for minimizing expansion and evening reducing the area of impermeable surfaces. Consolidating parking into structures, for example, may be one key component of such a strategy.

Inventory of Ground Plane Permeability (SF & Acres)

USE	SQ. FT.	ACRES	%
Total:	**6,221,569**	**142.83**	**100**
Permeable Surface	4,566,350	104.83	73
Paved Surface	1,479,460	33.96	24
Buildings	175,759	4.03	03



Norco Area Flood Control District. *The Norco campus sits near the base of an enormous tributary area of the Norco Area Flood Control District that is served by a network of concrete storm water channels. Much of the storm water that sheets onto campus from the north is taken into underground storm water conduits that take the water to a channel that lies south of campus. Given that the campus sits at the bottom of the tributary area it would be one of the first areas adversely affected in the case the system were overloaded and backed up. Thus every effort should be made to maintain as much permeable area on campus to avoid further exascerbating this condition and to create an adequate on campus storm water management system that is both self reliant and integrated with the existing Noroco Area Flood Control District's storm water system.*



Existing Permeable and Impermeable Surfaces on the Norco Campus. *Almost 40 acres of the 141-acre property is already paved over or occupied by buildings.*

Figure Ground

This diagram is an architect's tool used to yield a snapshot of how buildings are located, assembled and configured. It allows an at-a-glance look at the way the buildings do or do not create ensembles that together create a legible campus environment. In particular, it is critical always to think of buildings as tools with which to shape open spaces. The figure ground is an easy way to assess the success of any composition of buildings in achieving the definition of meaningful, well scaled and proportioned open spaces.

Successful open spaces in the tradition of the American campus are typically orthogonal in their overall geometry—rectangles and squares. Countless examples demonstrate the success of the simple rectangular open space in creating a campus environment that is collegial, dignified, open and welcoming. These open spaces come in a variety of types and sizes including malls (University of Virginia), yards (Harvard, Princeton and Yale Universities), quadrangles (UCLA, USC and Rice Universities) and courtyards (Stanford University and California Institute of Technology).

Aerial Overhead of the Existing Norco Campus. *The figure ground is an abstraction of an overhead view of campus—it yields specific information about how buildings are or are not composed with respect for their relationships with one another that are not necessarily clear in ,say, an overhead aerial view such as the one above.*

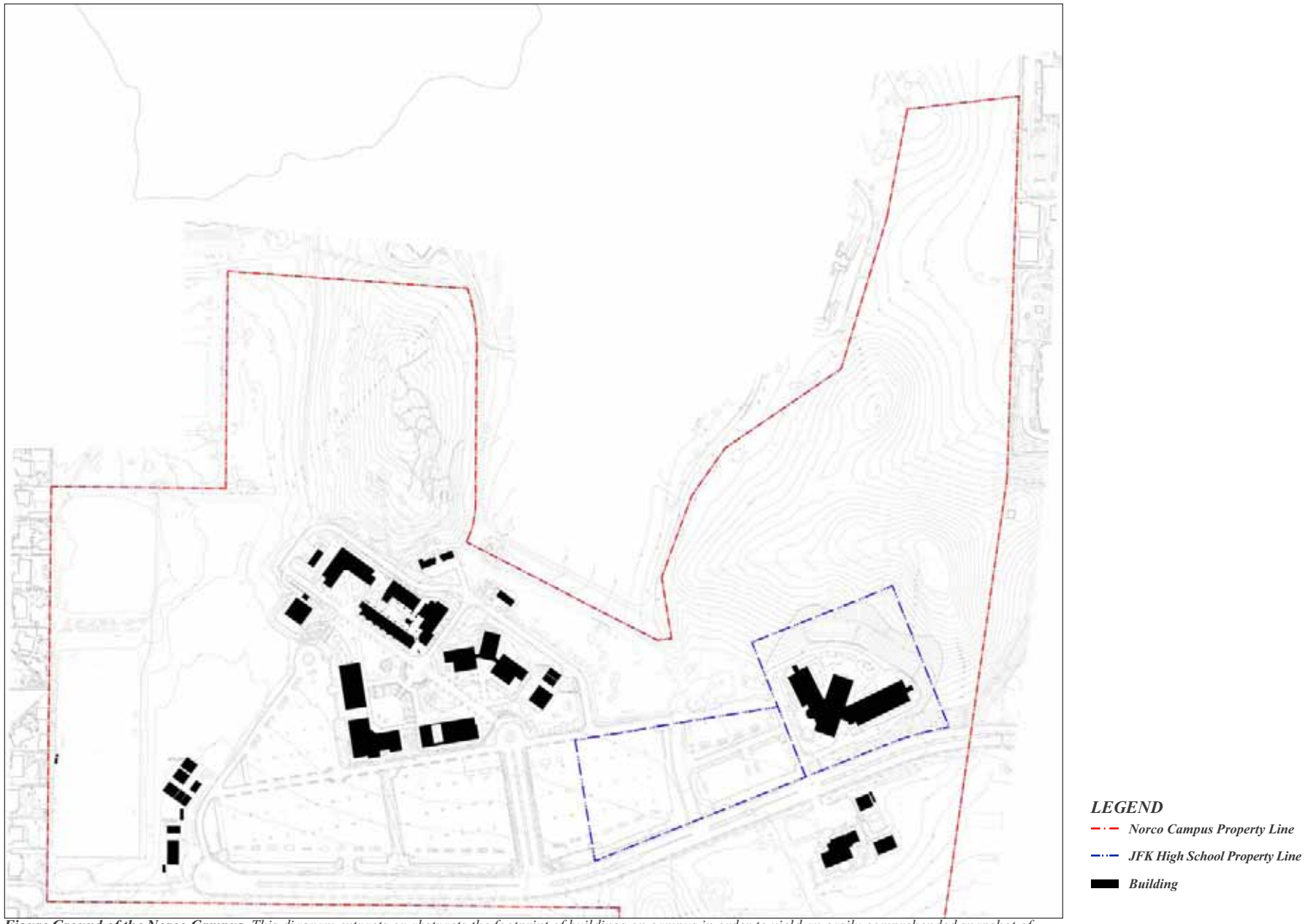


Figure Ground of the Norco Campus. *This diagram extracts or abstracts the footprint of buildings on campus in order to yield an easily comprehended snapshot of where buildings are, how they are assembled and configured. Its a tool to assess how buildings do or do not shape a legible overall campus environment.*

Campus Open Space

This diagram shows in two shades of green what is "left over" after buildings, sidewalks, roads and parking lots are accounted for. Compare this open space diagram with overhead aerials of two well known campuses, Rice University and the University of Southern California. The differences are difficult to miss.

Even highly compact and dense urban campuses in the American tradition have managed to create generously sized, gracious and legible open spaces that are the living rooms of campus and the heart of campus life. The open space diagram and the figure ground diagram are interrelated—buildings create open space and are themselves shaped in deference to the greater importance of the shape of campus open spaces.

Open spaces on campus should never be what is left over after facilities have been built. They are, rather, the prime generator of an overall campus environment within which the buildings are only one of many components that shape that environment.

Inventory of Campus Open Space (SF & Acres)

USE	SQ. FT.	ACRES	%
Total:	**6,221,569**	**142.83**	**100**
Athletic Fields	280,169	6.43	05
Landscape/ Undeveloped Land	3,985,224	91.49	64
Open Space	198,526	4.56	03
Other	1,757,650	40.35	28

Aerial Overhead View of Rice University.

Aerial Overhead View of The University of Southern California.

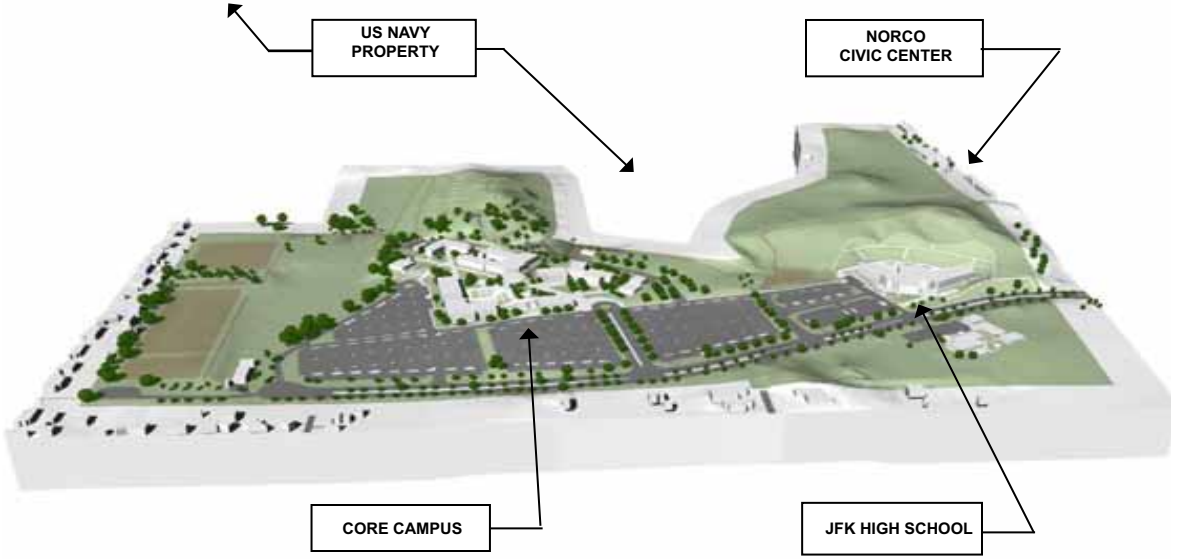
The Configuration of Open Space on the Existing Norco Campus. *No discernable, legible pattern or hierarchy of open space emerges from the open space analysis diagram. Where is the heart of campus?*

Topography

In this diagram the lighter shades are higher in elevation, the darker shades lower. Little of the campus property is flat or nearly flat. Only the area of the core campus (about 8 1/2 acres) and that of the existing soccer practice fields are relatively flat. The rest slopes either steeply—greater than 25% —or in most areas, such as the existing parking lots, at rates of around 5%.

Note that Lake Norconian sits at the top of the west north extension and were it to overflow water would run down the depressed area that runs north south across campus between the soccer fields and the parking lots. Note also the steeply sloped hills that occupy both north extensions.

The area of campus currently occupied by the parking lots slope approximately 1'-0" in 20'0"—the steepest that is feasible for reasonable pedestrian passage. This creates a condition where the southern boundary of campus is approximately 15 feet higher in elevation than the southern boundary of the parking lots along 3rd Street. This slope could be used to the campus' advantage if, for example, the lots were flattened and decked over to create semi-subterranean structures. This is a relatively economical and achievable way to provide more parking and in doing so the inventory of parking could be doubled without increasing the area of campus devoted to it.



Aerial Overhead View of the Campus from the South. *Note the extreme topography of the two hills behind the core campus and high school.*

Topographical Profile of the Existing Norco Campus. *Most of the core campus sits on gently sloping land. Steep hillsides form the north boundary of the core campus, one just north of the Applied Technology Building, the other north of John F. Kennedy High School.*

Logical Building Sites

The "mesa" is an artifically graded plateau on which the majority of the existing campus sits. It has been constructed through a combination of cut into the existing hillside to the northeast and a more or less equal amount of fill over the hillside to the southwest. The amphitheater negotiates the change in elevation from the ground plane of the mesa to that of the parking lots that slope gently toward 3rd Street at the southern boundary of the campus property.

The south and west parking lots and areas west--between the west portions of the west parking lot and the existing practice fields--constitute the major feasible building sites suitable for campus expansion. Other appropriate building sites include the depressed area between the mesa and Lake Norconian extending north toward the lake (the "north panhandle"), the eastern most part of the mesa itself, north and east of the existing bookstore modular and the area west of the existing Childhood Development Center south of 3rd Street.

Campus development on the site of the parking lots will require the development of building pads that following the slope of the existing grade with an eye toward negotiating grade elevations in compliance with ADA code requirements. Development on sites west of the parking lots and north will require a significant amount of land fill because these sites lie at a low elevation relative to the rest of campus and within a flood control plain. However imported fill will not be required as extensive earth is available on campus from the two hilly areas north of the mesa.

	Building Site	*Acres*
1A	Mesa West End	11
1B	Mesa East End	4
2	South Parking Lots	10
3	West Parking Lots	8
4	Area Between West Parking Lots & Practice Fields	10
5	North Panhandle	6
6	Early Childhood Development	3

The West Side of Campus *The area of campus between the soccer practice fields and the existing west parking lots is an ideal building site.*

Logical Building Sites. *The site of the core campus, its parking lots and practice fields experience significant re-grading with the development of the campus from its inauguration in 1991 and throughout that decade.Most of the campus buildings lie on the site referred to as the "mesa".*

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Existing Facilities on Campus

With the construction of the five (5) new modulars now underway at the southwest corner of campus, the new Industrial Technology Building (Phase III) about to begin construction and the new Student Success Center which is in the early stages of design the campus will host twenty-eight (28) buildings totalling approximately 153,854 (ASF) assignable square feet and 213,874 gross square feet (GSF). These buildings range in size from the 45,000 GSF (the new Industrial Technology Building) to as little as 750 SF (Building Maintenance M-1). Most buildings are two stories although a fair number are single story in height, most of these housed in temporary modular facilities.

Buildings Completed with the Founding of the Campus in l991

- Student Services (A)
- Science and Technology (B)
- Little Theater (C)
- Humanities (D)
- Tiger's Den (E)
- Building F-1 (Mechanical/Electrical Yard)
- Building M-1 (Maintenance and Operations)
- Building M-2 (Maintenance and Operations)

Buildings Completed in the Mid and Late 90's

- Library (G)
- Applied Technology (N)
- Building F-2 (Mechanical Yard)
- CACT
- Bookstore

Buildings Completed after 2000

- Multipurpose Athletics
- Early Childhood Education Center
- Portables 1, A & B
- Southwest Classroom Portables *(Recently Completed)*
- Industrial Technology *(Under Construction)*
- Student Center *(Design)*

Campus Wide Inventory of Rooms by Room Use Type

Designation of rooms by room use type indicates whether a room is a classroom a lab an office, storage space and the like. Not counting the as yet non existent new Industrial Technology Building (Phase III) and the new Student Center the campus inventory of major room use types is summarized as follows:

- Classrooms.....31
- Class Labs.....13
- Offices.....96
- Reading and Study Rooms.....09
- Demonstration Rooms.....04
- Assembly.....02
- Stacks.....01

A detailed inventory of rooms categorized by room use type is provided on page 37 of this report.

Campus Wide Inventory of Rooms by Taxonomy of Program (TOP)

Designation of rooms by which programs use the rooms (TOP) indicates how each of the room types are being used and whether they are dedicated to departments, divisions and/or program. Not counting the as yet non existent new Industrial Technology Building (Phase III) and the new Student Center the campus inventory of major room use types is summarized as follows:

- General Assignment.....81
- General Studies.....15
- Information Technology.....09
- Learning Center.....08
- CounselingServices.....03
- Drafting Technology.....05
- Sudio Art.....02

A detailed inventory of rooms categorized by taxonomy of programs (TOP) is provided on page 38 of this report.

EXISTING BUILDINGS & BUILDINGS UNDER CONSTRUCTION ON THE NORCO CAMPUS							
Building Number	*Facility*	*Construction Completed*	*Total Number of Rooms*	*Total Number of Stations*	*Total ASF*	*Total GSF*	*Building Efficiency*
EXISTING BUILDINGS							
1	Student Services (A)	1991	30	113	8,487	14,357	59.1%
2	Science & Technology (B)	1991	22	399	10,700	14,588	73.3%
3	Little Theater (C)	1991	17	330	4,920	9,277	53.0%
4	Humanities (D)	1991	17	361	9,559	14,496	65.9%
5	Tigers Den (E)	1991	5	3	2,209	2,785	79.3%
6	Building F1	1991	2	0	1,444	1,518	95.1%
7	Building M1	1991	5	2	676	996	67.9%
8	Building M2	1991	7	0	794	1,233	64.4%
9	Library Building (G)	1995	46	459	19,937	30,740	64.9%
10	Applied Technology (N)	1995	31	443	12,270	20,019	61.3%
11	Building F2	1994	2	0	1,444	1,518	95.1%
12	Bookstore	1999	4	1	2,992	3,600	83.1%
13	CACT Buildiing	1999	6	26	4,663	5,020	92.9%
14	Multi-Purpose Athletics	2002	9	2	2,972	3,360	88.5%
15	Early Chilhood Education Center	2004	12	301	5,209	8,235	63.3%
16	Portable -1	2005	1	40	900	960	93.8%
17	Portable -A	2005	1	40	900	960	93.8%
18	Portable - B	2005	1	40	900	960	93.8%
19	Southwest Portables	2008	13	240	6,100	6,720	90.8%
	Existing Buildings Subtotal:		*231*	*2,800*	*97,076*	*141,342*	
BUILDINGS IN DESIGN OR UNDER CONSTRUCTION							
20	Industrial Technology (Phase III)	2008	58	703	32,557	44,862	72.6%
21	Student Success Center 2	2010			15,000	22,000	68.2%
	Buildings in Design or Under Construction Subtotal:				*47,557*	*66,862*	
	TOTAL:				**144,633**	**208,204**	**69.5%**

ROOM USE CODE	Student Services		Science & Technology		Little Theater		Humanities		Tiger's Den		Buildings F1/F2		Buildings M1/M2		Library Building		Applied Technology		Bookstore		CACT Building		Multi-purpose		Childhood Education		Portables		TOTAL	
	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF
110 Classroom	—	—	4	2,830	1	785	5	4,407	—	—	—	—	—	—	5	3,585	5	4,026	—	—	1	750	—	—	1	1,180	9	8,100	31	25,663
115 Classroom Service	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	10	—	—	—	—	—	—	—	—	—	—	1	10
210 Class Lab	—	—	2	2,232	—	—	3	3,744	—	—	—	—	—	—	2	1,867	4	5,706	—	—	2	3,609	—	—	—	—	—	—	13	17,158
215 Class Lab Service	—	—	2	477	—	—	2	532	—	—	—	—	—	—	1	81	4	699	—	—	—	—	—	—	—	—	—	—	9	1,789
230 Indiv. Study Lab	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
235 Indiv. Lab Service	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
310 Office	20	4,095	12	1,157	8	870	5	410	1	97	—	—	2	354	19	2,499	12	1,231	1	63	3	304	2	180	4	603	7	700	96	12,563
315 Office Service	2	2,071	—	—	—	—	—	—	—	—	—	—	2	246	3	179	4	553	1	36	—	—	—	—	—	—	—	—	12	3,085
350 Conference Room	—	—	—	—	1	95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	297	—	—	2	392
410 Read/Study Room	—	—	1	3,428	—	—	—	—	—	—	—	—	—	—	8	9,210	—	—	—	—	—	—	—	—	—	—	—	—	9	12,638
420 Stack	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	800	—	—	—	—	—	—	—	—	—	—	—	—	1	800
440 Processing Room	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	318	—	—	—	—	—	—	—	—	—	—	—	—	1	318
455 Study Service	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	200	—	—	—	—	—	—	—	—	—	—	—	—	1	200
520 Athletics/PE	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1,326	—	—	—	—	1	1,326
525 Athletics/PE Svc	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	1,466	—	—	—	—	6	1,466
530 A/V, Radio, TV	1	448	—	—	—	—	—	—	—	—	—	—	—	—			—	—	—	—	—	—	—	—	—	—	—	—	1	448
535 A/V, Radio, TV Svc	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	356	—	—	—	—	—	—	—	—	—	—	—	—	3	356
550 Demonstration	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	2,728	—	—	4	2,728
555 Demonstration Svc	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	102	—	—	1	102
590 Other	1	690	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	690
610 Assembly	—	—	—	—	2	2,643	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	2,643
615 Assembly Service	—	—	—	—	5	527	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	527
630 Food Facilities	—	—	—	—	—	—	—	—	2	1,907	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1,907
635 Food Facilities Svc	—	—	—	—	—	—	—	—	1	144	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	299	—	—	2	443
650 Lounge	1	562	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	562
655 Lounge Service	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
660 Merchandise Facility	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2,451	—	—	—	—	—	—	—	—	1	2,451
665 Merchandise Facility Svcs	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	442	—	—	—	—	—	—	—	—	1	442
675 Recreation Service	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	636	—	—			—	—	—	—	—	—	—	—	1	636
680 Meeting Room	—	—	1	576	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	576
690 Locker Room	—	—	—	—	—	—	—	—	1	61	—	—	—	—	—	—	—	—			—	—	—	—	—	—	—	—	1	61
710 Data Processing/ Computer	—	—	—	—	—	—	2	466	—	—	—	—	—	—	1	206	—	—			—	—	—	—	—	—	—	—	3	672
720 Shop	1	176	—	—	—	—	—	—	—	—	—	—	2	157	—	—	—	—			—	—	—	—	—	—	—	—	3	333
730 Storage	2	157	—	—	—	—	—	—	—	—	—	—	6	713	—	—	1	45	—	—	—	—	—	—	—	—	—	—	9	915
770 Central Utility Plant	—	—	—	—	—	—	—	—	—	—	4	2,888	—	—	—	—	—	—			—	—	—	—	—	—	—	—	4	2,888
850 Treatment	2	288	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	288
880 Public Waiting	—	—			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			—	—
895 Health Care Service	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL	**30**	**8,487**	**22**	**10,700**	**17**	**4,920**	**17**	**9,559**	**5**	**2,209**	**4**	**2,888**	**12**	**1,470**	**46**	**19,937**	**31**	**12,270**	**4**	**2,992**	**6**	**4,663**	**9**	**2,972**	**12**	**5,209**	**16**	**8,800**	**231**	**97,076**

TAXONOMY OF PROGRAM (TOPS) CODE	Student Services		Science & Technology		Little Theater		Humanities		Tiger's Den		Buildings F1/F2		Buildings M1/M2		Library Building		Applied Technology		Bookstore		CACT Building		Multi-purpose		Childhood Education		Portables		TOTAL	
	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF	Rms	ASF
0099 General Assignment	4	854	9	3,789	12	4,335	10	5,123	—	—	—	—	—	—	10	4,012	18	5,019	—	—	1	750	—	—	1	1,180	16	8,800	81	33,862
0401 Biology, General	—	—	5	2,863	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	2,863
0602 Journalism	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	113	—	—	—	—	—	—	—	—	—	—	—	—	1	113
0701 Info Technology, Gen.	—	—	7	620	—	—	—	—	—	—	—	—	—	—	1	1,121	1	130	—	—	—	—	—	—	—	—	—	—	9	1,871
0835 Physical Education	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9	2,972	—	—	—	—	9	2,972
0953 Drafting Technology	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	4,464	—	—	—	—	—	—	—	—	—	—	5	4,464
0956 Mfg & Industrial Tech.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5	3,913	—	—	—	—	—	—	5	3,913
0999 Engineering & Related	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	611	—	—	—	—	—	—	—	—	—	—	3	611
1002 Art (Painting, Drawing, Sculpture)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1,017	—	—	—	—	—	—	—	—	—	—	2	1017
1030 Graphic Arts	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1,029	—	—	—	—	—	—	—	—	—	—	2	1,029
1101 Foreign Languages, General	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	827	—	—	—	—	—	—	—	—	—	—	—	—	2	827
1501 English	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	93	—	—	—	—	—	—	—	—	—	—	—	—	1	93
1507 Creative Writing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2,139	—	—	—	—	—	—	—	—	—	—	—	—	1	2,139
1701 Math, General	—	—	—	—	—	—	3	1,460	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	1,460
1901 Physical Sciences, General	—	—	—	—	—	—	3	2,868	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	2,868
1905 Chemistry, General	—	—	—	—	—	—	1	108	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	108
4930 General Studies	—	—	1	3,428	—	—	—	—	—	—	—	—	—	—	14	3,177	—	—	—	—	—	—	—	—	—	—	—	—	15	6,605
6010 Academic Admin.	2	276	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	276
6110 Learning Ctr (LRC)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	6,499	—	—	—	—	—	—	—	—	—	—	—	—	8	6,499
6120 Library	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	206	—	—	—	—	—	—	—	—	—	—	—	—	1	206
6130 Media Services	2	554	—	—	—	—	—	—	—	—	—	—	—	—	3	353	—	—	—	—	—	—	—	—	—	—	—	—	5	907
6210 Registrations, Transfers, Transcripts, Certs.	1	1,055	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1,055
6310 Counseling Services	3	253	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	253
6320 Placement Services	1	690	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	690
6420 DSPS	1	187	—	—	—	—	—	—	—	—	—	—	—	—	1	146	—	—	—	—	—	—	—	—	—	—	—	—	2	333
6440 Health Services	1	233	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	233
6450 Student Pers. Admin.	8	2,260	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	2,260
6460 Financial Aid	1	97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	97
6461 Financial Aid	1	92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	92
6510 Building Maintenance & Operation Support	—	—	—	—	—	—	—	—	—	—	4	2,888	12	1,470	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16	4,358
6770 Logistical Services	1	176	—	—	—	—	—	—	2	158	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	334
6791 General Admin. Svcs	3	1,705	—	—	5	585	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	2,290
6910 Bookstore	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	2,992	—	—	—	—	—	—	—	—	4	2,992
6920 Child Develop. Ctrs	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11	4,029	—	—	11	4,029
6940 Food Services	—	—	—	—	—	—	—	—	3	2,051	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	2,051
6960 Students & Co-curricular Activities	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	1,251	—	—	—	—	—	—	—	—	—	—			3	1,251
820 Patient Bath	1	55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—1	55
TOTAL	**30**	**8,487**	**22**	**10,700**	**17**	**4,920**	**17**	**9,559**	**5**	**2,209**	**4**	**2,888**	**12**	**1,470**	**46**	**19,937**	**31**	**12,270**	**4**	**2,992**	**6**	**4,663**	**9**	**2,972**	**12**	**5,209**	**16**	**8,800**	**231**	**97,076**

Campus Wide Designation of Rooms by Room Use Type

These maps show the distribution of rooms on campus on the ground floors and second floors of each of the buildings at the core campus color coded by room use type.

Classroom, Tutorial and Study Labs

Note the distribution of general purpose classroom and study labs throughout the campus located on the ground floors of:

- Science and Tecnology
- Humanities
- Library
- Applied Technology

One goal on campus might be to uinify these general purpose, skills, tutorial labs into a comprehensive student success center.

General Purpose Classrooms

Despite buildings having names—"Science and Technology", "Humanities", "Applied Technology"—most buildings are occupied with general purpose classrooms rather than specialized classrooms. This fact speaks volumes about the need on campus for general purpose classroom and lab buildings which are shared among departments and divisions.

Campus Wide Ground Floor Distribution of Rooms Color Coded by Room Use Type

Campus Wide Second Floor Distribution of Rooms Color Coded by Room Use Type

ROOM USE CODE

- *110 Classroom*
- *115 Classroom Service*
- *210 Class Lab*
- *215 Class Lab Service*
- *230 Individual Study Lab*
- *235 Individual Lab Service*
- *310 Office*
- *315 Office Service*
- *350 Conference Room*
- *410 Read/Study Room*
- *420 Stack*
- *440 Processing Room*
- *530 A/V, Radio, TV*
- *535 A/V, Radio, TV Service*
- *550 Demonstration*
- *610 Assembly*
- *615 Assembly Service*
- *680 Meeting Room*
- *630 Food Facilities*
- *635 Food Facilities Service*
- *660 Merchandise Facility*
- *665 Merchandise Fac. Svcs.*
- *730 Storage*
- *850 Treatment*
- *880 Public Waiting*

Campus Wide Designation of Rooms by Taxonomy of Programs (TOP)

These maps show the distribution of rooms on campus on the ground floors and second floors of each of the buildings at the core campus color coded by taxonomy of programs (TOP CODE).

General Assignment Rooms

Classrooms and labs assigned for general purpose use (color coded in yellow and orange) are limited to the Science and Technology, Little Theater and Humanities cluster, with the exception of the second floor of Applied Technology which is also occupied by some general assignment classrooms.

General Studies and Learning Center Uses

Rooms dedicated for learning resources and study uses are distributed to every corner of campus from the Library at the southwest corner of campus, Applied Technology at the northwest corner and Humanities at the east corner.

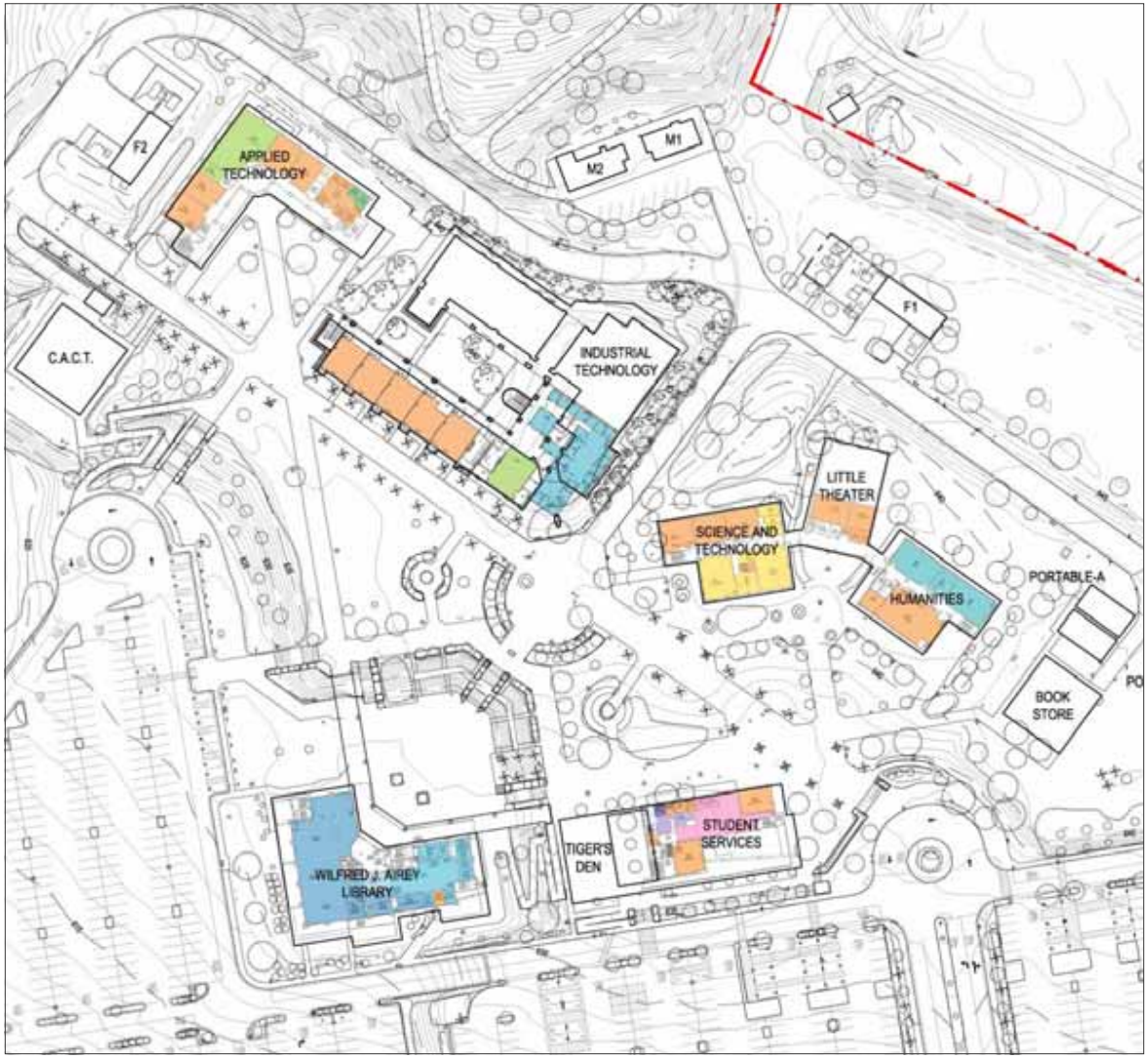
Studio Art Classes

The ground floor of the Humanities Building has one room dedicated for studio art (painting, drawing and sculpture). Art classes are also taking place in the Applied Technology Building.

Engineering and Technology

Despite Norco's moniker as the "Technology Campus" within the RCC District no rooms on this campus are dedicated for use by engineering and technology instructional purposes. With the exception of the CACT building and some rooms in Applied Technology.

Campus Wide Ground Floor Distribution of Rooms Color Coded by Taxonomy of Programs (TOP)



TAXONOMY OF PROGRAM (TOP) CODE

- *0099 General Assignment*
- *0701 Information Technology, General*
- *0835 Physical Education*
- *0953 Drafting Technology*
- *0956 Manufacturing & Industrial Technology*
- *0999 Eng. & Related Industrial Technology*
- *1002 Art (Painting, Drawing, Sculpture)*
- *1013 Commerical Art*
- *1101 Foreign Languages, General*
- *1501 English*
- *1507 Creative Writing*
- *1901 Physical Sciences, General*
- *1905 Chemistry, General*
- *4930 General Studies*
- *6110 Learning Center (LRC)*
- *6120 Library*
- *6130 Media Services*
- *6310 Counseling Services*
- *6440 Health Services*
- *6450 Student Personnel Administration*
- *6460 Financial Aid*
- *6510 Bldg. Maintenance & Operation Support*
- *6780 Management Info. Services*
- *6791 General Admin. Services*
- *6910 Bookstore*
- *6920 Child Development Center*
- *6940 Food Services*

Campus Wide Second Floor Distribution of Rooms Color Coded by Taxonomy of Programs (TOP)

Student Services Building (A)

This two story, 14,357 SF building was one of the first to be built on the new campus. It was completed in 1991. The building contains offices and lecture rooms and currently houses most of the existing student services and administrative offices.

The building is of poured-in-place and pre-cast concrete construction with some CMU wall construction finished in exterior plaster and a tar and gravel roof that is in good condition. Exterior doors are steel and windows are steel frame, double-pane units. Interior partitions are metal frame with painted drywall while most ceilings are suspended acoustical tile. Interior doors are solid wood and most floor coverings are carpet.

Student services is currently outgrowing the facility and now faced with either expanded this facility or constructing a new one. It is anticipated that the new Student Center currently in early stages of design will house some of the student services functions. In the near term, therefore, student services will be split among the two facilities.

The building features a large lobby with high sloped ceiling that prevents this space from being converted into two floors. This feature and others make this building an unlikely candidate for transformation into uses, such as classrooms and labs, that are a pressing need for this campus. As such, this facility is inadequate from the standpoint of the long term life of the campus.

Heating is provided by gas fired boilers. Cooling is supplied by air cooled chillers. The heating/cooling distribution system is a duct system and 4-pipe system using built-up air handlers. Fresh air is supplied by air handlers. The electrical system is fed from pad mounted transformers that deliver 120/208 volt 3 phase, 4 wire power to the facility. Lighting is typically fluorescent and adequate. Emergency lights are not present and emergency exit signs are not present. The building does not have an emergency generator but has a battery backup system for egress/emergency lighting.

The building received a Facilities Condition Index (FCI) rating of 10.64% (Fair) from the 2003 3D/I Facilities Assessment Report.

Existing Student Services. *Looking Southwest.*

Existing Student Services.

Existing Student Services Building Waiting Area.

Existing Student Services Building General Administration Offices.

Existing Student Services Building Student Computer Lab.

Existing Student Services Building Office Workroom.

Student Services Building (A) Room Classifications

Most of the ground floor is dedicated to a large lobby/waiting area, open office work stations and closed offices for senior administration. The ground floor also includes a media room (Room 101) and health services room (Room 122). The second floor houses a large area of open office cubicles and private offices for counseling and other uses. This floor also houses a classroom and lecture room. Of the 30 rooms and 8,487 assignable floor area contained in the building a majority of the rooms as classified by room use type and TOP Code are as follows:

Majority of Rooms as Classified by Room Use Type

Office & Office Service (22 Rms).....6,166 ASF

Treatment (2 Rms).....288

Storage (2 Rms).....157

Majority of Rooms as Classified by TOP Code

Administration Services (11 Rms).....3,965 ASF

General Assignment (4 Rms).....854

Counseling Services (3 Rms).....253

ROOM USE CODE

- *110 Classroom*
- *310 Office*
- *315 Office Service*
- *530 A/V, Radio, TV*
- *535 A/V, Radio, TV Service*
- *730 Storage*
- *850 Treatment*
- *880 Public Waiting*

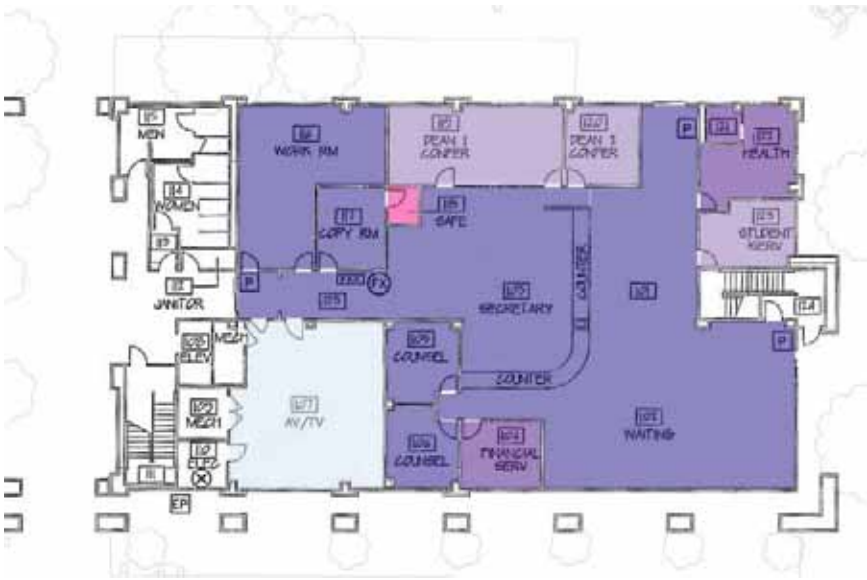
TAXONOMY OF PROGRAM (TOP) CODE

- *0099 General Assignment*
- *6130 Media Services*
- *6310 Counseling Services*
- *6440 Health Services*
- *6450 Student Personnel Administration*
- *6460 Financial Aid*
- *6780 Management Info. Services*
- *6791 General Admin. Services*

Student Services Second Floor. *Rooms color coded by room use type designation.*

Student Services First Floor. *Rooms color coded by room use type designation.*

Student Services Second Floor. *Rooms color coded by taxonomy of program (TOP) code designation.*



Student Services First Floor. *Rooms color coded by taxonomy of program (TOP) code designation.*

STUDENT SERVICES					
Room #	**Room Type**	**ASF**	**Stations**	**Prog**	**TOPS Code**
103	310 Office	1,055	7	53	6210 Registration, Transfers, Transcripts, Certifications
103A	310 Office	169	1		6010 Academic Adminstration
104	310 Office	97	1	54	6460 Financial Aid
105B	310 Office	92	1	53	6461 Financial Aid
106	310 Office	97	1	53	6310 Counseling Services
107	310 Office	551	1	43	6450 Student Personnel Administration
107A	310 Office	107	1		6010 Academic Adminstration
116	650 Lounge	562		64	0099 General Assignment
117	720 Shop	176		64	6770 Logistical Services
119	310 Office	463	1	53	6450 Student Personnel Administration
120	310 Office	157	1	53	6450 Student Personnel Administration
121	850 Treatment	55		55	820 Patient Bath
122	850 Treatment	233	1	55	6440 Health Services
123	310 Office	187	1	55	6420 DSPS
201	315 Office Service	1,490		41	6791 General Administration Svcs
202	315 Office Service	581		41	6450 Student Personnel Administration
203	310 Office	88	1	41	0099 General Assignment
204	310 Office	116	1	41	0099 General Assignment
205	310 Office	88	1	41	0099 General Assignment
206	530 A/V, Radio, TV	448		41	6130 Media Services
208	310 Office	105	1	41	6310 Counseling Services
212	310 Office	187	2	41	6450 Student Personnel Administration
212A	310 Office	109	1	41	6450 Student Personnel Administration
212B	310 Office	103	1	41	6450 Student Personnel Administration
212C	310 Office	109	1	41	6450 Student Personnel Administration
213	730 Storage	106		41	6130 Media Services
214	730 Storage	51	1	41	6310 Counseling Services
216	310 Office	120	1	46	6791 General Administration Svcs
217	310 Office	95	1	46	6791 General Administration Svcs
218	590 Other	690		46	6320 Placement Services
	TOTAL ROOMS = 30	**8,487**			

Science and Technology Building (B)

This two story, 14,588 SF building was one of the original buildings of the new campus and completed in 1991. It has received no major renovations or additions since that time. The building principally houses computer labs, general purpose classrooms and computer labs. The ground floor hosts a large open computer skills/tutorial lab, a meeting room and a few offices. The second floor consists of two science labs, several general purpose classrooms and offices.

The building is constructed of poured-place and pre-cast concrete and some concrete masonry unit walls sheathed in exterior plaster painted beige. The building rests on footings and foundations walls that show no signs of settlement or damage. The roof is tar and gravel and in good condition. Exterior doors are typically steel and windows are steel frame, double-pane units. Interior partition wall types include painted CMU and drywall. Ceilings are 2 x 4 suspended acoustical tile. Flooring in high use areas is vinyl tile and carpet. Interior doors are wood. Heating is provided by gas fired boilers. Cooling is supplied by air cooled chillers. The heating/cooling distribution system is a duct system and 4-pipe system using built-up air handlers. Fresh air is supplied by air handlers. The electrical system is fed from pad mounted transformers that deliver 120/208 volt 3 phase, 4 wire power to the facility. Lighting is typically fluorescent and adequate. Emergency lights are not present and emergency exit signs are not present. The building does not have an emergency generator but has a battery backup system for egress/emergency lighting.

The building received a Facilities Condition Index (FCI) rating of 10.12% (Fair) from the 2003 3D/I Facilities Assessment Report.

While the ensemble of facilities consisting of the three buildings, Science & Technology, the Little Theater and Humanities are laid out individually in a fairly efficient manner and while all three are in fairly good overall physical condition their composition and arrangement on campus relative to the geometry of the core campus is inefficient. This ensemble does not, in other words, make efficient use of valuable land resources at the heart of campus. Further, as an ensemble the facilities are inefficient in their excessive circulation relative to assignable space and their small floor plates rendering them less flexible for future uses other than their current uses. For these reasons these three buildings ought to live out their useful lives over the next 10 to 15 years and receive only minor repairs and upgrade to keep them reasonably functional with the idea that after fifteen years they will be replaced with a more efficient and efficiently sited new facility.

Existing Science and Technology Building. *Looking Northwest.*

Existing Science and Technology Building.

Existing Science and Technology Building Computer Center.

Existing Science and Technology Building Natural Sciences Lab.

Existing Science and Technology Building Second Floor Hallway.

Existing Science and Technology Building Conference Room.

Science and Technology Building (B) Room Classifications

Most of the ground floor is dedicated to a computer lab with a couple of offices a smaller lab space and a meeting room. The second floor houses several offices and classrooms and two science labs which share a lab preparation room. Of the 22 rooms and 10,700 assignable floor area contained in the building a majority of the rooms as classified by room use type and TOP Code are as follows:

Majority of Rooms as Classified by Room Use Type

Offices (12 Rms).....1,157 ASF

Classrooms (4 Rms).....2,830

Labs and Lab Related (4 Rms).....2,709

Majority of Rooms as Classified by TOP Code

General Assignment (9 Rms).....3,789 ASF

Information Technology, General (7 Rms).....620

ROOM USE CODE

- *110 Classroom*
- *210 Class Lab*
- *230 Individual Study Lab*
- *235 Individual Lab Service*
- *310 Office*
- *680 Meeting Room*
- *730 Storage*

TAXONOMY OF PROGRAM (TOP) CODE

- *0099 General Assignment*
- *0701 Information Technology, General*

Science and Technology Second Floor. *Rooms color coded by room use designation*

Science and Technology First Floor. *Rooms color coded by room use designation.*

Science and Technology Second Floor. *Rooms color coded by taxonomy of program use (TOP) designation.*

Science and Technology Second Floor. *Rooms color coded by taxonomy of program use (TOP) designation.*

SCIENCE AND TECHNOLOGY BUILDING					
Room #	**Room Type**	**ASF**	**Stations**	**Prog**	**TOPS Code**
101	410 Read/Study Room	3,428	32	12	4930 General Studies
102	310 Office	113	1		0099 General Assignment
103	310 Office	90	1		0099 General Assignment
103A	310 Office	90	1		0099 General Assignment
103B	310 Office	90	1		0099 General Assignment
107	680 Meeting Room	576	25	12	0099 General Assignment
108	110 Classroom	576	30	12	0099 General Assignment
112	310 Office	198	1	12	0701 Information Technology, General
201	110 Classroom	749	50	11	0099 General Assignment
202	110 Classroom	757	50	11	0099 General Assignment
203	110 Classroom	748	50	11	0099 General Assignment
204A	310 Office	70	1	11	0701 Information Technology, General
204B	310 Office	70	1	11	0701 Information Technology, General
205A	310 Office	70	1	11	0701 Information Technology, General
205B	310 Office	70	1	11	0701 Information Technology, General
206A	310 Office	72	1	11	0701 Information Technology, General
206B	310 Office	70	1	11	0701 Information Technology, General
207	210 Class Lab	1,120	49	11	0401 Biology, General
208	215 Class Lab Service	377		11	0401 Biology, General
209	215 Class Lab Service	100		11	0401 Biology, General
210	310 Office	154	2	11	0401 Biology, General
211	210 Class Lab	1,112	45	11	0401 Biology, General
	TOTAL ROOMS = 22	**10,700**			

The Little Theater (C)

This two story, 9,277 SF building was built in 1991 as one of the first buildings on the newly established Norco campus. It consists of principally a single large sloped floor auditorium with a modest stage, limited back stage area and no fly tower. Offices and support spaces flank the auditorium. On the second floor are located a multi purpose classroom and meeting room.

The building rests on footings and foundation walls that show no signs of settlement or damage. The main structure is poured-place and pre-cast concrete with some concrete masonry unit infill walls. The roof is tar and gravel and tile and in good condition. Exterior doors are steel and windows are steel frame, double-pane units. Partition wall types include drywall. The interior wall finishes are in good condition. Ceilings are 2 x 4 suspended acoustical tiles, that are in good condition. Flooring in high use areas is carpet. Interior doors are solid wood.

Heating is provided by gas fired boilers. Cooling is supplied by air cooled chillers. The heating/cooling distribution system is a duct system and 4-pipe system using built-up air handlers. Fresh air is supplied by air handlers. The electrical system is fed from pad mounted transformers that deliver 120/208 volt 3 phase, 4 wire power to the facility. Lighting is typically fluorescent and adequate. Emergency lights are not present and emergency exit signs are not present. The building does not have an emergency generator but has a battery backup system for egress/ emergency lighting.

The building received a Facilities Condition Index (FCI) rating of 13.51% (Poor) from the 2003 3D/I Facilities Assessment Report.

While the ensemble of facilities consisting of the three buildings, Science & Technology, the Little Theater and Humanities are laid out individually in a fairly efficient manner and while all three are in fairly good overall physical condition their composition and arrangement on campus relative to the geometry of the core campus is inefficient. This ensemble does not, in other words, make efficient use of valuable land resources at the heart of campus. Further, as an ensemble the facilities are inefficient in their excessive circulation relative to assignable space and their small floor plates rendering them less flexible for future uses other than their current uses. For these reasons these three buildings ought to live out their useful lives over the next 10 to 15 years and receive only minor repairs and upgrade to keep them reasonably functional with the idea that after fifteen years they will be replaced with a more efficient and efficiently sited new facility.

Existing Little Theater. *Looking North.*

Existing Little Theater.

Existing Little Theater Auditorium.

Existing Little Theater Procenium and Stage.

Existing Little Theater Changing Room

Existing Little Theater Lighting and Sound Board.

The Little Theater (C) Room Classifications

Most of the ground floor is dedicated to a sloped floor auditorium with some offices, a modest stage and stage support rooms. The second floor houses additional offices and a classroom and meeting room. Of the 17 rooms and 4,920 assignable floor area contained in the building a majority of the rooms as classified by room use type and TOP Code are as follows:

Majority of Rooms as Classified by Room Use Type

Offices (8 Rms).....870 ASF

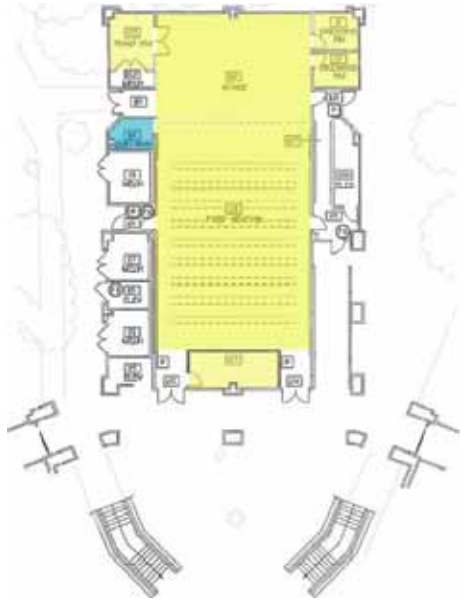
Assembly & Assembly Service (7 Rms).....3,170

Classroom (1 Rm).....785

Majority of Rooms as Classified by TOP Code

General Assignment (12).....4,335 ASF

Existing Little Theater. *Rooms color coded by room use designation.*



Existing Little Theater. *Rooms color coded by room use designation.*

ROOM USE CODE

- ***110 Classroom***
- ***310 Office***
- ***610 Assembly***
- ***615 Assembly Service***
- ***680 Meeting Room***
- ***730 Storage***

TAXONOMY OF PROGRAM (TOP) CODE

- ***0099 General Assignment***

Little Theater Second Floor. *Rooms color coded by taxonomy of program use (TOP) designation.*

Little Theater Ground Floor. *Rooms color coded by taxonomy of program use (TOP) designation.*

THE LITTLE THEATER					
Room #	**Room Type**	**ASF**	**Stations**	**Prog**	**TOP Code**
101	610 Assembly	1,610	230	11	0099 General Assignment
103	615 Assembly Service	171		11	0099 General Assignment
109	615 Assembly Service	125		11	0099 General Assignment
110	610 Assembly	1,033	52	11	0099 General Assignment
111	615 Assembly Service	85		11	0099 General Assignment
112	615 Assembly Service	80		11	0099 General Assignment
114	615 Assembly Service	66		11	0099 General Assignment
119	310 Office	100	1		0099 General Assignment
120	310 Office	100	1		0099 General Assignment
201	310 Office	90	1	11	0099 General Assignment
202	310 Office	90	1	11	0099 General Assignment
203	310 Office	160	1	11	6791 General Administration
203A	350 Conference Room	95	6		6791 General Administration
203B	310 Office	150	1		6791 General Administration
204	110 Classroom	785	32	11	0099 General Assignment
205	310 Office	90	1		6791 General Administration
206	310 Office	90	1		6791 General Administration
	TOTAL ROOMS = 17	**4,920**			

Humanities Building (D)

This two story, 14, 496 SF building was one of the first to be built on the new campus. It was completed in 1991. The building contains offices, classrooms and labs.

The building is constructed of poured-place and pre-cast concrete and some concrete masonry unit walls sheathed in exterior plaster painted beige. The building rests on footings and foundations walls that show no signs of settlement or damage. The roof is tar and gravel and in good condition. Exterior doors are typically steel and windows are steel frame, double-pane units. Interior partition wall types include painted CMU and drywall. Ceilings are 2 x 4 suspended acoustical tile. Flooring in high use areas is vinyl tile and carpet. Interior doors are wood.

Heating is provided by gas fired boilers. Cooling is supplied by air cooled chillers. The heating/cooling distribution system is a duct system and 4-pipe system using built-up air handlers. Fresh air is supplied by air handlers. The electrical system is fed from pad mounted transformers that deliver 120/208 volt 3 phase, 4 wire power to the facility. Lighting is typically fluorescent and adequate. Emergency lights are not present and emergency exit signs are not present. The building does not have an emergency generator but has a battery backup system for egress/emergency lighting.

The building received a Facilities Condition Index (FCI) rating of 12.84% (Poor) from the 2003 3D/I Facilities Assessment Report.

While the ensemble of facilities consisting of the three buildings, Science & Technology, the Little Theater and Humanities are laid out individually in a fairly efficient manner and while all three are in fairly good overall physical condition their composition and arrangement on campus relative to the geometry of the core campus is inefficient. This ensemble does not, in other words, make efficient use of valuable land resources at the heart of campus. Further, as an ensemble the facilities are inefficient in their excessive circulation relative to assignable space and their small floor plates rendering them less flexible for future uses other than their current uses. For these reasons these three buildings ought to live out their useful lives over the next 10 to 15 years and receive only minor repairs and upgrade to keep them reasonably functional with the idea that after fifteen years they will be replaced with a more efficient and efficiently sited new facility.

Existing Humanities Building. *Looking North.*

Existing Humanities Building.

Existing Humanities Building. *Learning Skills Center.*

Existing Humanities Building. *Typical Lecture Room.*

Existing Humanities Building. *Art Studio.*

Existing Humanities Building. *Typical Lecture Room Professor Desk.*

Humanities Building (D) Room Classifications

Most of the ground floor is dedicated to a several classrooms and offices. The second floor houses a learning skills lab and two science and engineering labs which which share a lab preparation room. Of the 17 rooms and 9,559 assignable floor area contained in the building a majority of the rooms as classified by room use type and TOP Code are as follows:

Majority of Rooms as Classified by Room Use Type

Classroom Labs (5 Rms).....4,276 ASF

Classrooms (5 Rms).....4,407

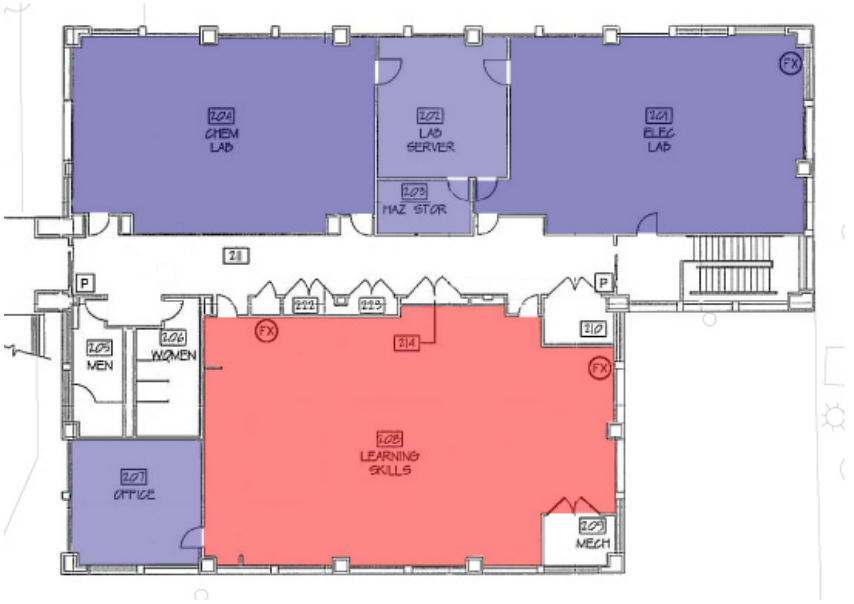
Offices (5 Rms).....410

Majority of Rooms as Classified by TOP Code

General Assignment (10 Rms).....5,123 ASF

Physical Sciences, General (3 Rms).....2,868

Math, General (3 Rms).....1,460



Humanities Building Second Floor. *Rooms color coded by room use type designation.*

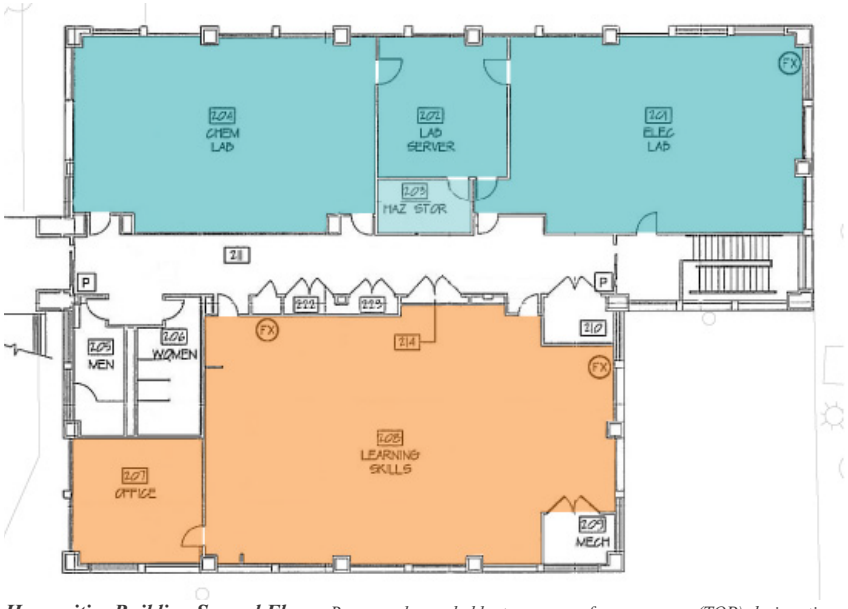
Humanities Building Ground Floor. *Rooms color coded by room use type designation.*

ROOM USE CODE

- *110 Classroom*
- *210 Class Lab*
- *215 Class Lab Service*
- *310 Office*

TAXONOMY OF PROGRAM (TOP) CODE

- *0099 General Assignment*
- *0701 Information Technology, General*
- *0953 Drafting Technology*
- *1002 Art (Painting, Drawing, Sculpture)*
- *1901 Physical Sciences, General*
- *1905 Chemistry, General*



Humanities Building Second Floor. *Rooms color coded by taxonomy of program use (TOP) designation.*

Humanities Building Ground Floor. *Rooms color coded by taxonomy of program use (TOP) designation.*

THE HUMANITIES BUILDING					
Room #	**Room Type**	**ASF**	**Stations**	**Prog**	**TOP Code**
101	110 Classroom	589	45	11	0099 General Assignment
102	110 Classroom	629	42	11	0099 General Assignment
103	110 Classroom	1,109	50	12	0099 General Assignment
105	710 Data Processing/ Computer	124		12	0099 General Assignment
106A	310 Office	90	1	11	0099 General Assignment
106B	310 Office	90	1	11	0099 General Assignment
107	310 Office	70	1	11	0099 General Assignment
111A	110 Classroom	1,040	50	12	0099 General Assignment
111B	110 Classroom	1,040	50	12	0099 General Assignment
201	210 Class Lab	1,216	57	11	1901 Physical Sciences, General
202	215 Class Lab Service	424		11	1901 Physical Sciences, General
203	215 Class Lab Service	108		11	1905 Chemistry, General
204	210 Class Lab	1,228	32	11	1901 Physical Sciences, General
207	710 Data Processing/ Computer	342		11	0099 General Assignment
208	210 Class Lab	1,300	67	11	1701 Math, General
208A	310 Office	80	1		1701 Math, General
208B	310 Office	80	1		1701 Math, General
	TOTAL ROOMS = 17	**9,559**			

The Tiger's Den (E)

This 1-story, 2,785 SF building contains food service and a dining area. Originally constructed in l991 it has received no major additions or renovations.The building received a Facilities Condition Index (FCI) rating of 10.75% (Fair) from the 2003 3D/I Facilities Assessment Report. As is the case with the existing Student Services Building to which this building is connected via a small courtyard, the Tiger's Den is a building that is of little use than for what it was originally intended. It is therefore not a building for the long term and ought to receive only minimal repairs and upgrade to keep it functioning until it can be removed from campus altogether. This building is fully dedicated to food services. Of the 5 rooms and 2,209 assignable floor area contained in the building a majority of the rooms as classified by room use type and TOP Code are as follows:

Majority of Rooms as Classified by Room Use Type

Food Facilities & Service (3 Rms).....2,051 ASF

Office (1 Rm).....97

Locker Room (1 Rm).....61

Majority of Rooms as Classified by TOP Code

Food Services (6 Rms).....2,395 ASF

ROOM USE CODE

- *310 Office*
- *630 Food Facilities*
- *635 Food Facilities Service*
- *730 Storage*

TAXONOMY OF PROGRAM (TOP) CODE

- *6940 Food Services*

THE TIGER'S DEN					
Room #	**Room Type**	**ASF**	**Stations**	**Prog**	**TOP Code**
101	630 Food Facilities	1,022		45	6940 Food Services
102	630 Food Facilities	885		45	6940 Food Services
103A	310 Office	97	1	45	6770 Logistical Services
103B	690 Locker Room	61		45	6770 Logistical Services
104	635 Food Facilities Service	144		45	6940 Food Services
	TOTAL ROOMS = 5	**2,209**			

Existing Tiger's Den. *Looking Northeast.*

Existing Tiger's Den.

Existing Tiger's Den. *Student Dining Hall.*

Existing Tiger's Den. *Rooms color coded by taxonomy of program use (TOP) designation.*

Existing Tiger's Den. *Food Preparation and Sales.*

Existing Tiger's Den. *Rooms color coded by room use type designation.*

The Library Building and Amphitheater

This two story, 30,740 SF building contains offices and study rooms. Originally constructed in l995 there have been no major additions or renovations.

The building is orests on footings and foundation walls that show no signs of settlement or damage. The main structure is poured-place and pre-cast concrete and CMU walls with exterior plaster painted beige. The roof is sloped with flat terra cotta tiles and is in good condition. Exterior doors are typically steel and windows are steel frame, double-pane units. Partition wall types include painted CMU and drywall. The interior wall finishes are in good condition. Ceilings are 2 x 4 suspended acoustical tiles and 2x2 glued on acoustical tile. Flooring high use areas is vinyl tile. Interior doors are solid wood. Heating is provided by gas fired boilers. Cooling is supplied by air cooled chillers. The heating/cooling distribution system is a duct system and 4-pipe system using built-up air handlers. Fresh air is supplied by air handlers. The electrical system is fed from pad mounted transformers that deliver 120/208 volt 3-phase, 4-wire power to the facility. Lighting is typically fluorescent and HID.

This building received a Facilities Condition Index Rating (FCI) of 3.2% (Good) from the 2003 3D/I Facilities Assessment Report.

This building is hampered by large double height spaces, a large central stair and overly wide circulation spaces that in terms of the ratio of usable space to gross building area make the building less efficient than it should be. Additionally the library functions themselves are limited to the second floor in cramped quarters with little opportunity to expand. Further exacerbating this problem is the fact that some study rooms and other areas on this floor have been appropriated for some non-library uses. In addition its proximity to the amphitheater creates acoustical conflicts creating either noise problems for the library or limited program uses for the amphitheater. Given the proximity of this building and the amphitheater a more appropriate future use of the library building might be a Student Active and Success Center, a Learning Commons, or Student Union. This seems particularly important given current plans for a new cafeteria (the new “Student Success Center”) just to the north.

The amphitheater suffers from other deficiencies. It is subject to intense solar exposure and winds, it lacks shade, tree canopy of any kind and landscape of consequence and its surfaces are almost entirely rendered in concrete rendering this potentially wonderful outdoor space inhospitable in almost every way.

Existing Library Building and Amphitheater. *Looking Southwest.*

Existing Library Building.

Existing Library Building. *Computer and Reference Desk and Book Stacks.*

Existing Library Building. *Media Services Storage Closet and Teleconferencing Studio.*

Existing Library Building. *Language Lab.*

Existing Library Building. *Book Processing Room.*

The Library (G) Room Classifications

Most of the ground floor is dedicated to a classrooms, open labs and classrooms. The second floor houses all of the library in an open floor format with a few study rooms and offices. Some of these rooms have been appropriated for non library use. Of the 46 rooms and 19,937 assignable floor area contained in the building a majority of the rooms as classified by room use type and TOP Code are as follows:

Majority of Rooms as Classified by Room Use Type

Reading/Study Rooms (8 Rms).....9,210 ASF

Stacks (1 Rm)..... 800

Classrooms (5 Rms).....3,585

Classroom Lab (2 Rms).....1,867

Offices (19 Rms).....2,499

Majority of Rooms as Classified by TOP Code

General Studies (14 Rms).....3,177 ASF

Learning Center (8 Rms).....6,499

General Assignment (10 Rms).....4,012

Languages and Writing (4 Rms).....3,059

ROOM USE CODE

- *110 Classroom*
- *210 Class Lab*
- *215 Class Lab Service*
- *230 Individual Study Lab*
- *310 Office*
- *315 Office Service*
- *350 Conference Room*
- *410 Read/Study Room*
- *420 Stack*
- *440 Processing Room*
- *535 A/V, Radio, TV Service*
- *550 Demonstration*
- *880 Public Waiting*

TAXONOMY OF PROGRAM (TOP) CODE

- *0099 General Assignment*
- *1101 Foreign Languages, General*
- *1501 English*
- *1507 Creative Writing*
- *4930 General Studies*
- *6110 Learning Center (LRC)*
- *6120 Library*
- *6130 Media Services*

Library Second Floor. *Rooms color coded by room use type designation.*

Library Ground Floor. *Rooms color coded by room use type designation.*

Library Second Floor. *Rooms color coded by taxonomy of program use (TOP) designation.*

Library Ground Floor. *Rooms color coded by taxonomy of program use (TOP) designation.*

THE LIBRARY BUILDING					
Room #	**Room Type**	**ASF**	**Stations**	**Prog**	**TOP Code**
101	310 Office	500	4	11	6960 Students and Co-curricular Activities
102	675 Recreation Service	636		11	6960 Students and Co-curricular Activities
102A	310 Office	115	1	11	6960 Students and Co-curricular Activities
108	110 Classroom	708	35	11	0099 General Assignment
109	110 Classroom	681	45	11	0099 General Assignment
110	110 Classroom	681	45	11	0099 General Assignment
113	410 Read/Study Room	2,139	51	11	1507 Creative Writing
114	310 Office	93	1	11	1501 English
115	210 Class Lab	1,121	50	11	0701 Info Technology, General
117	710 Data Processing/ Computer	206		11	6120 Library
117A	215 Class Lab Service	81		11	1101 Foreign Languages, General
119	210 Class Lab	746	30	11	1101 Foreign Languages, General
120	110 Classroom	798	30	11	0099 General Assignment
121	110 Classroom	717	47	11	0099 General Assignment
123	315 Office Service	50		11	0099 General Assignment
123A	310 Office	100	1		0099 General Assignment
123B	310 Office	113	1		0602 Journalism
124	310 Office	113	1	11	0099 General Assignment
125	310 Office	106	1	11	4930 General Studies
126	310 Office	81	1	11	4930 General Studies
127	310 Office	86	1	11	4930 General Studies
128	310 Office	86	1	11	4930 General Studies
129	310 Office	86	1	11	4930 General Studies
130	310 Office	86	1	11	4930 General Studies
131	310 Office	86	1	11	4930 General Studies
132	310 Office	82	1	11	0099 General Assignment
132A	315 Office Service	82			0099 General Assignment
202	410 Read/Study Room	118	2	11	4930 General Studies
203	410 Read/Study Room	127	2	11	4930 General Studies
204	535 A/V, Radio, TV Svc	127		11	4930 General Studies
206	535 A/V, Radio, TV Svc	119		11	4930 General Studies
208	310 Office	126	1	11	6130 Media Services
209	310 Office	117	1	11	6130 Media Services
210	535 A/V, Radio, TV Svc	110		11	6130 Media Services
215	410 Read/Study Room	1,800	57	11	4930 General Studies
216	410 Read/Study Room	135	2	11	4930 General Studies
217	310 Office	134	1	11	4930 General Studies
218	410 Read/Study Room	146	5	11	6420 DSPS
219	440 Processing Room	318		11	6110 Learning Center (LRC)
220	310 Office	198	2	11	6110 Learning Center (LRC)
221	455 Study Service	200		11	6110 Learning Center (LRC)
222	315 Office Service	47		11	6110 Learning Center (LRC)
223	310 Office	191	1	11	6110 Learning Center (LRC)
224	410 Read/Study Room	1,522	26	11	6110 Learning Center (LRC)
225	420 Stack	800		11	6110 Learning Center (LRC)
226	410 Read/Study Room	3,223	50	11	6110 Learning Center (LRC)
	TOTAL ROOMS = 46	**19,937**			

The Applied Technology Building

This two story 20,019 SF building contains offices, labs and classrooms. Originally constructed in 1995 there have been no additions or renovations.

The building tests on footings and foundations walls that show no signs of settlement or damage. The main structure is poured-in-place and pre-cast concrete. The roof is tile and tar and gravel and in good condition. Exterior doors are steel and windows are steel frame, double-pane units.

Partition wall types include drywall. The interior wall finishes are generally in good condition. Ceilings are 2 x 4 suspended acoustical tile. Flooring in high use areas is carpet.

Heating is provided by gas fired boilers. Cooling is supplied by air cooled chillers. The heating/cooling distribution system is a duct system and 4 pipe system using built-up air handlers. Fresh air is supplied by air handlers. The electrical system is fed from pad mounted transformers that delivers 120/208 volt 3 phase, 4 wire power to the facility. Lighting is typically fluorescent.

This building received a Facilities Condition Index Rating (FCI) from the 2003 3D/I Facilities Assessment Report of 2.66% (Good).

Existing Applied Technology Building. *Looking North.*

Existing Applied Technology Building.

Existing Applied Technology Building. *Shared Faculty Workroom.*

Existing Applied Technology Building. *Typical Classroom.*

Existing Applied Technology Building. *Typical Classroom.*

Existing Applied Technology Building. *Shared Faculty Workroom.*

Applied Technology (N) Room Classifications

Most of the ground floor is dedicated to a several labs and a few offices. The second floor houses labs, classrooms and offices. Of the 31 rooms and 12,270 SF in assignable floor area contained in the building a majority of the rooms as classified by room use type and TOP Code are as follows:

Majority of Rooms as Classified by Room Use Type

Classroom Labs & Service (8 Rms).....6,405 ASF

Classrooms & Service (6 Rms).....4,036

Offices and Service (16 Rms).....1,784

Majority of Rooms as Classified by TOP Code

General Assignment (18 Rms).....5,019 ASF

Art & Graphic Art (4 Rms).....2,046

Drafting Technology (5 Rms).....4,464

Applied Technology Building Second Floor. *Rooms color coded by room use type designation.*

Applied Technology Building Ground Floor. *Rooms color coded by room use type designation.*

ROOM USE CODE

- *110 Classroom*
- *210 Class Lab*
- *215 Class Lab Service*
- *310 Office*
- *315 Office Service*
- *680 Meeting Room*
- *730 Storage*

TAXONOMY OF PROGRAM (TOP) CODE

- *0099 General Assignment*
- *0953 Drafting Technology*
- *0999 Eng. & Related Industrial Technology*
- *1002 Art (Painting, Drawing, Sculpture)*
- *1013 Commerical Art*
- *4930 General Studies*

Applied Technology Second Floor. *Rooms color coded by taxonomy of program use (TOP) designation.*

Applied Technology Ground Floor. *Rooms color coded by taxonomy of program use (TOP) designation.*

APPLIED TECHNOLOGY BUILDING					
Room #	**Room Type**	**ASF**	**Stations**	**Prog**	**TOP Code**
102	310 Office	105	1	12	0099 General Assignment
102 A	315 Office Service	42			0099 General Assignment
103	315 Office Service	58		12	0099 General Assignment
104	310 Office	70	1	12	0099 General Assignment
105	315 Office Service	295		12	0999 Other Engineering & Related Industrial Technology
106	310 Office	105	1	12	0099 General Assignment
107	215 Class Lab Service	132		12	0953 Drafting Technology
108	310 Office	105	1	12	0953 Drafting Technology
109	210 Class Lab	1,929	36	12	0953 Drafting Technology
113	730 Storage	45		12	0999 General Assignment
114	110 Classroom	1,012	50	12	0999 General Assignment
117	215 Class Lab Service	160		12	1030 Graphic Arts
118	210 Class Lab	869	25	12	1030 Graphic Arts
119	210 Class Lab	867	24	12	1002 Art (Painting, Drawing, Sculpture)
120	215 Class Lab Service	150			1002 Art (Painting, Drawing, Sculpture)
126	115 Classroom Service	10		12	0099 General Assignment
204	110 Classroom	764	49	12	0099 General Assignment
205	110 Classroom	764	49	12	0099 General Assignment
206	215 Class Lab Service	257		12	0953 Drafting Technology
209	210 Class Lab	2,041	36	12	0953 Drafting Technology
210	110 Classroom	774	49	12	0099 General Assignment
211	110 Classroom	712	49	12	0099 General Assignment
212	310 Office	158	1	12	0999 Other Engineering & Related Industrial Technology
213	310 Office	98	1	12	0099 General Assignment
214	310 Office	100	1	12	0099 General Assignment
215	310 Office	100	1	12	0099 General Assignment
216	310 Office	130	1	12	0701 Info Technology, General
218	310 Office	92	1	12	0099 General Assignment
219	315 Office Service	158		12	0999 Other Engineering & Related Industrial Technology
221	310 Office	98	1	12	0099 General Assignment
	TOTAL ROOMS = 31	**12,270**			

The Bookstore Modular

This one story 3,600 SF building contains an office and retail space. Originally constructed in 1999 there have been no additions or renovations.

This building received a Facilities Condition Index Rating (FCI) of 2.97% (Good) from the 2003 3D/I Facilities Assessment Report.

This building is dedicated to the merchandising of books. Of the 4 rooms and 2,992 assignable floor area contained in the building a majority of the rooms as classified by room use type and TOP Code are as follows:

Majority of Rooms as Classified by Room Use Type

Merchandise Facility (1 Rm).....2,451 ASF

Merchandise Facility Service (1 Rm).....442

Office and Service (2 Rms).....99

Majority of Rooms as Classified by TOP Code

Bookstore (4 Rms).....2,992 ASF

THE BOOKSTORE MODULAR					
Room #	**Room Type**	**ASF**	**Stations**	**Prog**	**TOP Code**
101	660 Merchandise Facility	2,451		55	6910 Bookstore
102	660 Merchandise Facility	442		55	6910 Bookstore
103	310 Office	63	1	55	6910 Bookstore
103A	315 Office Service	36		55	6910 Bookstore
	TOTAL ROOMS = 4	**2,992**			

ROOM USE CODE

- *310 Office*
- *315 Office Service*
- *660 Merchandise Facility*
- *665 Merchandise Fac. Svcs.*

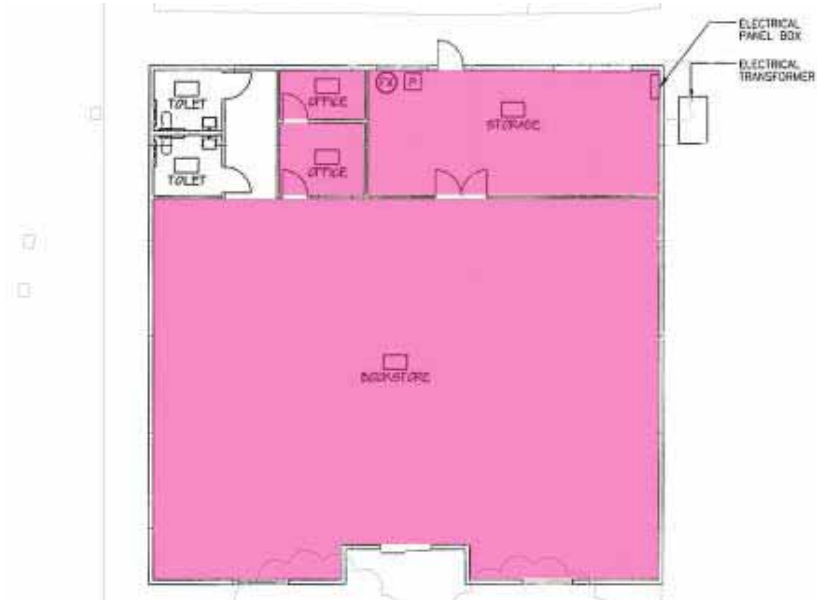
TAXONOMY OF PROGRAM (TOP) CODE

- *6910 Bookstore*

Existing Bookstore. *Looking North*

Existing Bookstore.

Existing Bookstore. *Checkout area*



Existing Bookstore. *Rooms color coded by taxonomy of program use (TOP) designation.*

Existing Bookstore. *Merchandising Shelves*

Existing Bookstore. *Rooms color coded by room use type designation.*

The Center for Applied Technology (CACT) Modular

This one story 5,020 SF building contains an office and retail space. Originally constructed in 1999 there have been no additions or renovations.

This building received a Facilities Condition Index Rating (FCI) of 2.49% (Good) from the 2003 3D/I Facilities Assessment Report.

This building is dedicated to manufacturing and industrial technology training and demonstration labs. Of the 6 rooms and 4,663 assignable floor area contained in the building a majority of the rooms as classified by room use type and TOP Code are as follows:

Majority of Rooms as Classified by Room Use Type

Classroom (1 Rm).....750 ASF

Classroom Lab (2 Rm).....3,609

Office (3 Rms).....304

Majority of Rooms as Classified by TOP Code

Manufacturing & Industrial Technology(5 Rms).....3,913 ASF

CACT MODULAR					
Room #	**Room Type**	**ASF**	**Stations**	**Prog**	**TOP Code**
100	210 Class Lab	2,734	25	12	0956 Mfg & Industrial Technology
101	110 Classroom	750	24		0099 General Assignment
102	210 Class Lab	875	24	12	0956 Mfg & Industrial Technology
103	310 Office	93	1	12	0956 Mfg & Industrial Technology
104	310 Office	100	1	12	0956 Mfg & Industrial Technology
105	310 Office	111	1		0956 Mfg & Industrial Technology
	TOTAL ROOMS = 6	**4,663**			

ROOM USE CODE

- *230 Individual Study Lab*
- *310 Office*
- *550 Demonstration*

TAXONOMY OF PROGRAM (TOP) CODE

- *0956 Manufacturing & Industrial Technology*

Existing Center for Applied Competitive Technologies (C.A.C.T.). *Looking North*

Existing Center for Applied Competitive Technologies (C.A.C.T.).

Existing Center for Applied Competitive Technologies (C.A.C.T.). *Main Studio*

Existing Center for Applied Competitive Technologies (C.A.C.T.). *Computer Studio*

Center for Applied Competitive Technologies (C.A.C.T.). *Rooms color coded by taxonomy of program use (TOP) designation.*

Center for Applied Competitive Technologies (C.A.C.T.). *Rooms color coded by room use type designation.*

The Early Childhood Education Center

This one story, 8,235 SF building was completed in 2004. It is a of type V-fully sprinklered construction, with wood stud bearing walls sheathed in exterior plaster. The roof is framed in a combination unistrut joist wood system. The roof is Class A built up over plywood sheathing. Interior partitions are wood stud sheathed in painted drywall. Most ceilings are suspended 2 x 4 acoustical tile with fluorescent lighting. Most floor surfaces are vinyl tile and carpet. The building mechanical and electrical systems are self contained with rooftop packaged units located in a well out of site. This building has not received a Facilities Condition Index Rating (FCI) as it was completed after the 2003 3D/I Facilities Assessment.

The building is dedicated to early childhood education classes and child care. Four medium size rooms are dedicated to the care and instruction of very young children. One large classroom is for adult education related to early childhood studies. The rest of the building consists of a wide corridor linking these rooms, a lobby, reception area, work room and front office.

Majority of Rooms as Classified by Room Use Type

Demonstration (4 Rms).....2,728 ASF

Offices (4 Rms).....603

Majority of Rooms as Classified by TOP Code

Child Development Centers (12 Rms).....5,209 ASF

EARLY CHILDHOOD EDUCATION CENTER					
Room #	**Room Type**	**ASF**	**Stations**	**Prog**	**TOPS Code**
102	310 Office	126	1	55	6920 Child Development Centers
104	310 Office	293	2	55	6920 Child Development Centers
105	310 Office	92	1	55	6920 Child Development Centers
106	310 Office	92	1	55	6920 Child Development Centers
107	350 Conference Room	297	1	55	6920 Child Development Centers
108	555 Demonstration Service	102		55	6920 Child Development Centers
110	635 Food Facilities Service	299	1	55	6920 Child Development Centers
115	110 Classroom	1,180	50	55	0099 General Assignment
116	550 Demonstration	682	60	55	6920 Child Development Centers
120	550 Demonstration	682	60	55	6920 Child Development Centers
121	550 Demonstration	682	60	55	6920 Child Development Centers
124	550 Demonstration	682	60	55	6920 Child Development Centers
	TOTAL ROOMS = 12	**5,209**			

The Early Childhood Education Center. *North Elevation and Main Entrance.*

Existing Early Childhood Education Center

Existing Early Childhood Education Center. *Adult Classroom*

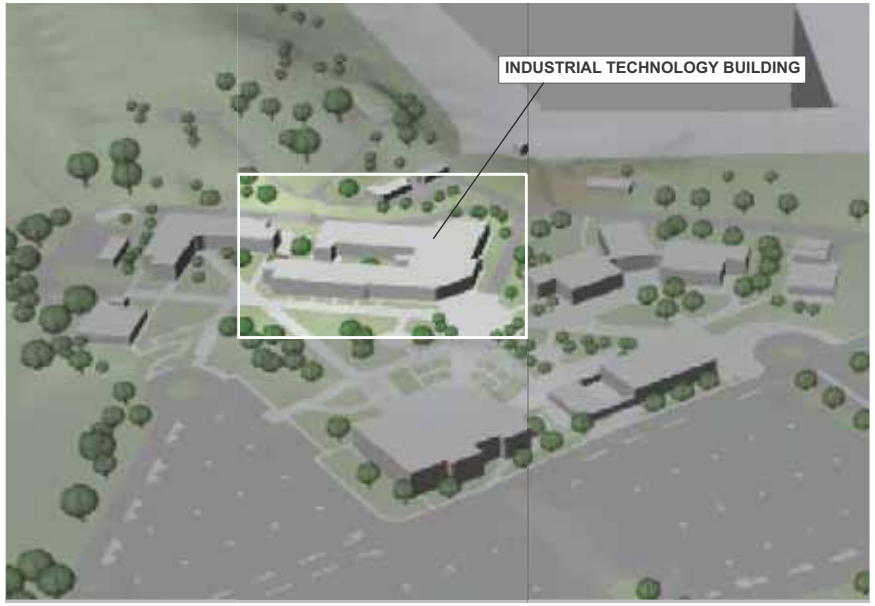
Existing Early Childhood Education Center. *Central Corridor*

Center for Early Childhood Education. *Rooms color coded by taxonomy of program use (TOP) designation.*

Center for Early Childhood Education. *Rooms color coded by room use type designation.*

The Industrial Technology Building (Phase III)

This two story 44,862 SF building is in the pre-bid preparation stages for construction. It is a type II one hour, fully sprinklered building of steel frame, concrete deck over metal pan second floor and roof with metal stud framing wall construction. The foundation system consists of pads underneath steel columns, and concrete slab and curbs. The exterior building envelope consists of a combination of pre-cast concrete panels and exterior plaster over metal stud framing. Doors and door frames are steel, window frames painted metal. Interior partitions are metal frame sheathed in drywall and most ceilings suspended acoustical tile. This building has not received a Facilities Condition Index Rating (FCI).



The Industrial Technology Building (Phase III).

The Industrial Technology Building (Phase III).

Rooms in the Industrial Technology Building (Phase III)

The building houses on the ground floor several multipurpose lecture classrooms and specialized classroom labs dedicated to instruction in commerce, logistics environmental studies CIS and AutoCad drafting technologies. It also includes a manufacturing lab and a choral rehearsal room as well as two sloped floor theater style lecture halls each accommodating approximately 70-75. The second floor houses five general purpose lecture format classrooms a telecommunications classroom lab, over twenty faculty offices, two meeting rooms and two faculty work rooms.

Majority of Rooms as Classified by Room Use Type

Classrooms (14 Rms)..... (?) ASF

Classroom Lab (7 Rms).....(?)

Offices (18 Rms).....(?)

Majority of Rooms as Classified by TOPS Code

General Assignment (33 Rms).....(?) ASF

Science, Technology & Engineering (13 Rms).....(?)

INDUSTRIAL TECHNOLOGY BUILDING					
Room #	**Room Type**	**ASF**	**Stations**	**Prog**	**TOP/Service & Support**
—	110 Classroom	—	1	—	0099 General Assignment
—	110 Classroom	—	1	—	0099 General Assignment
—	110 Classroom	—	1	—	0099 General Assignment
—	110 Classroom	—	1	—	0099 General Assignment
—	110 Classroom	—	1	—	0099 General Assignment
—	110 Classroom	—	1	—	0099 General Assignment
—	110 Classroom	—	1	—	0099 General Assignment
—	110 Classroom	—	1	—	0099 General Assignment
—	110 Classroom	—	1	—	0099 General Assignment
—	110 Classroom	—	1	—	0953 Drafting Technology
—	110 Classroom	—	1	—	0708 Computer Infra. & Support
—	110 Classroom	—	1	—	0708 Computer Infra. & Support
—	110 Classroom	—	1	—	0708 Computer Infra. & Support
—	210 Class Lab	—	1	—	0953 Drafting Technology
—	210 Class Lab	—	1	—	0956 Mfg & Industrial Technology
—	210 Class Lab	—	1	—	0399 Env. Sciences & Technologies
—	210 Class Lab	—	1	—	0109 Horticulture
—	210 Class Lab	—	1	—	0301 Environmental Science
—	210 Class Lab	—	1	—	0708 Computer Infra. & Support
—	210 Class Lab	—	1	—	0709 World Wide Web Admin
—	215 Class Lab Service	—	1	—	0999 Eng. & Related Ind. Tech.
—	215 Class Lab Service	—	1	—	0702 Computer Info Systems
—	215 Class Lab Service	—	1	—	0934 Electronics & Elec. Tech
—	530 A/V, Radio, TV	—	1	—	0099 General Assignment
—	530 A/V, Radio, TV	—	1	—	0099 General Assignment
—	310 Office	—	18	—	4930 General Assignment
—	350 Conference Room	—	1	—	4930 General Studies
—	350 Conference Room	—	1	—	4930 General Studies
—	350 Conference Room	—	1	—	4930 General Studies
	TOTAL ROOMS = 50	**28,817**			

The Industrial Technology Building (Phase III) Ground Floor. *Rooms color coded by room use type designation.*

The Industrial Technology Building (Phase III) Second Floor. *Rooms color coded by taxonomy of program use (TOP) designation.*

The Industrial Technology Building (Phase III) Ground Floor. *Rooms color coded by taxonomy of program use (TOP) designation.*

The Industrial Technology Building (Phase III) Second Floor. *Rooms color coded by taxonomy of program use (TOP) designation.*

Challenges Facing the Existing Campus and Its Expansion

1. **Landlocked.** The existing campus enjoys only one means of vehicular ingress and egress. It is bounded by residential neighborhoods on the west and south sides, prohibitive topography and federally owned property on the north side and challenging topography on the east side.

2. **The High School .** The District is bound by a 99-year lease to the Corona-Norco Unified School District in which the new John F. Kennedy High School is given full occupancy of 12.63 acres on prime property at a key location at the heart of the 142-acre property near 3rd Street the only existing entrance to the site.

3. **Entry.** Despite the controlled means of entry the experience of entry is dominated by parking lots, dry hills and sparse landscape and the high school that together frame the first views and create the first impression of campus upon approach.

4. **Topography**. Little of the property slopes at less than five degrees and much of what has not been built upon slopes at significantly more than five degrees—more than 25 degrees in some areas. Two hills in particular are located such that 30- 40 acres in two areas of the 141- acre property extending north are difficult to access and/or develop.

5. **Storm Water .** The area between the soccer practice fields and the western most parking lot is low lying and at the base of a natural course of storm water runoff from the Navy site (and specifically Lake Norconian) to the north. Other areas of the lower part of campus are subject to potentially heavy sheet flow of storm water runoff from the north.

6. **Remote and/or Inaccessible Facilities and Areas of Campus.** The area of the Early Childhood Education Center located south of 3rd Street constitutes approximately 10 acres and is located more than a 1/4 mile from the core campus. The area of the soccer practice fields was raised and leveled with artificial fill in a way that has proven difficult to maintain and in a location that is remote from core campus and available existing parking.

7. **Configuration of Open Space.** Open space on campus is fragmented, illegible and fails to promote a positive collegial environment for life outside of the classroom for students, faculty and staff.

8. **Room to Grow.** Future demands for additional parking, buildings and open space, visual/performing arts facilities and athletics/recreation facilities will require in the context of the limitations cited above consolidation strategies, including vertical integration (e.g. multi-level parking structures and buildings) to allow for expansion of the student body from its current 8,500 students to 20,000 students over a thirty year time frame.

Opportunities Facing the Existing Campus and Its Expansion

1. **Ownership of Third Street.** The District owns 3rd Street all the way to Hamner. This allows for enhancement of this entrance to campus at the prominent intersection of Hamner and Third Street.

2. **The Northeast Corner and Proximity of the Norco Civic Center.** The area at the far northeast corner of the 142-acre property is relatively flat (although not entirely flat) and easiest to access from a possible entrance coming in from 4th Street or some other location. Given its proximity to the Norco Civic Center this area may reasonably accommodate joint development with the City or some other public or private entity.

3. **The Northwest Extension and Proximity of the Lake**. The northwest extension reaches nearly to the shores of Lake Norconian and the west half of it is relatively flat allowing for development of future facilities.

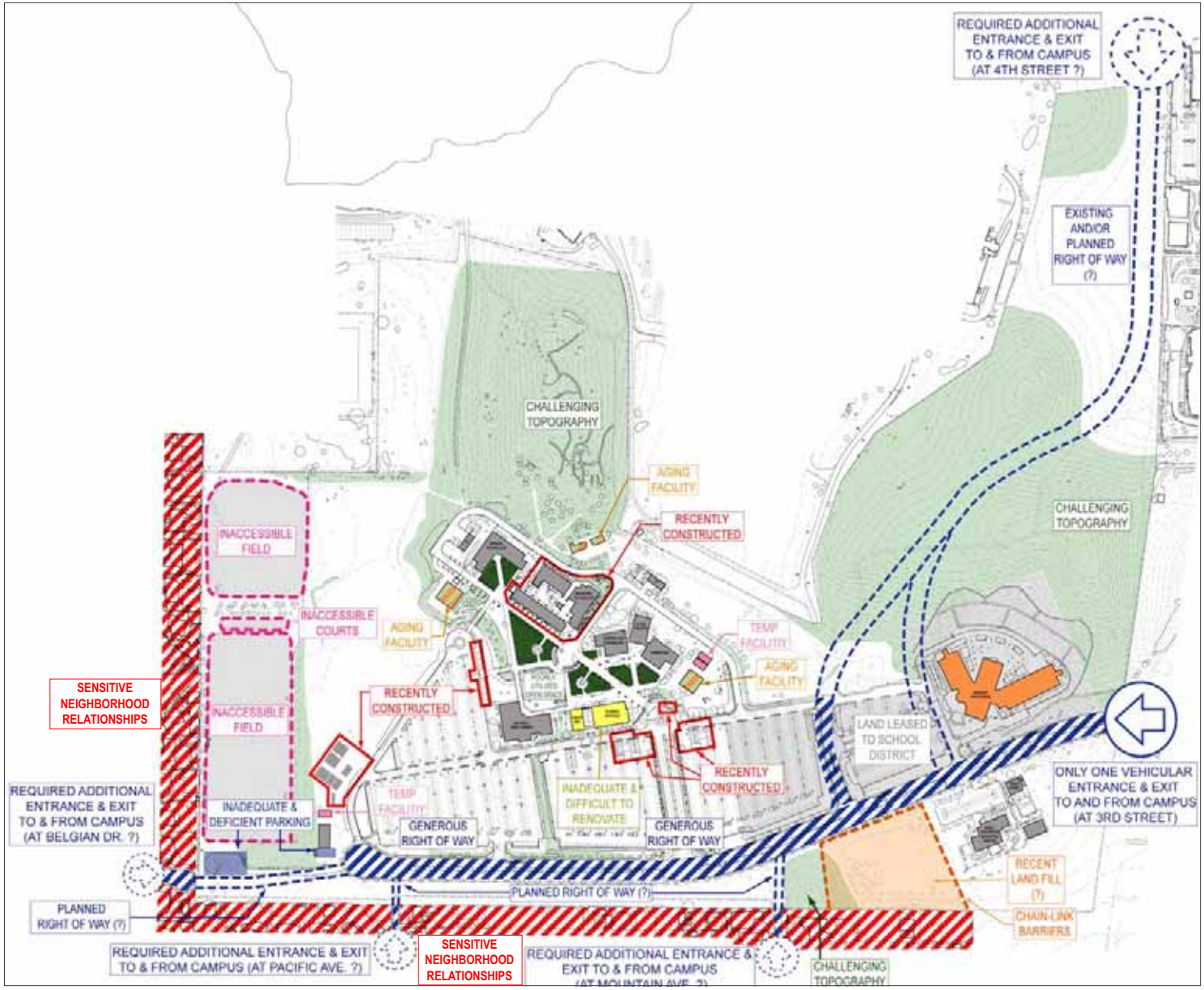
4. **Other Entrances to Campus.** It may be possible to gain access to the northeast corner of the site via the Norco Civic Center or Corona-Norco Unified School District properties. Access to the property from the south could be afforded via Mountain Avenue which has sufficient right-of-way, relatively few flanking residential properties and easy access to both 2nd Street and Hamner Avenue.

5. **Support of the City of Norco**. The City of Norco supports the existence of the campus within its boundaries, its transition to College status and future expansion. The City is motivated to assist the campus in addressing issues of access, relationships with the surrounding community and other potentially mutually beneficial measures.

6. **Prominence of the Early Childhood Education Center Site.** While remote from the existing core campus this site is visible from both Hamner and the I-15. Some facilities, such as a visual/performing arts facility or athletic/recreation facilities may appropriately locate here.

7. **Topographic Profile of the Parking Lots.** The existing slope of the parking lots may accommodate the decking over of these lots in ways that would not overly impact the campus—visually or otherwise.

8. **Potential Measure "C" Funding.** Should the District choose to appropriate funds to the campus pro-rated in proportion to the ratio of its student population relative to the District as a whole, approximately 25% or $90M may become available for expansion of facilities at the Norco campus. Of this approximately $15M have been appropriated to date. The remaining potential $75M in Measure "C" funding could be leveraged with State bond financing in a 1/3 RCCD- 2/3 State arrangement to create as much as $225M in overall funding.



Challenges and Opportunities Facing the Existing Campus. *A single point of entry, steep topographic profiles, remote building sites, fragmented open space and an underwhelming sense of entry are among the challenges facing the campus. The ownership of 3rd Street all the way to Hamner Avenue, the proximity of the Norco Civic Center and and the potential for a second entry to campus either from the north or the south fully suppported by the City of Norco are among the oppportunities facing the campus.*

Challenges Facing Existing and New Facilities on Campus

1. **Temporary Facilities.** Of the overall campus building area inventory of +/- 214,000 GSF approximately 26,000 GSF are contained within temporary modular structures. These include two maintenance buildings, the bookstore, the CACT facility and twelve (12) classroom portables, three in existence, another five under construction.

2. **Inadequate Facilities.** Programs and services housed in the existing Student Services Building and Tiger's Den, totalling 17,000 GSF are expanding beyond the ability of these facilities to accommodate them. These facilities are difficult to renovate in order to accommodate expansion of these or other programs and services. In addition—modular classrooms not withstanding—the campus lacks adequate general purpose, flexible classrooms and labs for basic instruction in the liberal arts and sciences.

3. **Remote and/or Inaccessible Facilities and Areas of Campus.** The area of the Early Childhood Education Center south of 3rd Street constitutes approximately 10 acres and is located more than a quarter of a mile from the core campus. The area of the soccer practice fields was raised and leveled with artificial fill in a way that has proven difficult to maintain and in a location that is remote from core campus and available existing parking.

4. **The Library.** The library is confined to the 2nd floor of its facility and is troubled by inefficient use of space, spaces that have been appropriated for non-library related uses and a lack of space to accommodate collections, programs and services it needs to provide.

5. **Configuration of the Existing Buildings.** The existing buildings are configured with small floor plates and in less than efficient relationships with each other creating disorientation and fragmentation in the students' daily classroom experience. The amphitheater is particularly problematic given is odd location relative to the core campus, its proximity to the library, lack of shade and extent of concrete pavement.

6. **Fragmentation of Student Success and Tutorial Labs.** Skills development and tutorial labs are scattered with locations in the Humanities, Science and Technology Buildings and the first floor of the Library.

7. **Fragmentation of Student Services and Student Life.** Student Services is outgrowing its facility and planned to split into several locations including the library and the new "Student Support Center". Facilities are generally lacking in supporting active student life outside of the classroom.

8. **Character of the Existing Buildings.** The existing buildings are overly uniform in character and lack identity generally associated with a college campus.

Opportunities Facing Existing and New Facilities on Campus

1. **Temporary Facilities.** The approximately 26,000 GSF contained within existing temporary modular structures or those under construction are easily relocated or removed in order to make way for new permanent facilities. Their existence allows the College to build FTES in order to support funding applications to the State based on cap/load ratios.

2. **Shared Use of the High School.** Use of high school classrooms in the evening hours and on weekends while not desirable in the long term allows the College in the short term to build FTES in order to support funding applications to the State based on cap/load ratios.

3. **The Library.** The large uninterrupted floor plate of the second floor of the library creates ideal conditions for its transformation into a multi-purpose classroom building, consolidated student success center (reading, writing and mathematics skills and tutorial labs) or student services center, thus relieving the pressure to improve it as an efficient, usable library.

4. **The Amphitheater.** The 3-dimensional form of the amphitheater could lend itself to transformation from an outdoor facility to an indoor facility in the form of, for example, a large multi-purpose lecture hall, or other flexible instructional space(s).

5. **Phase III.** The large number of multi-purpose classrooms and faculty offices in the new Industrial Technology Building will relieve pressure on campus to provide more general purpose classrooms in order to build FTES. Also it will provide faculty offices in a more prominent centralized location.

6. **Location of Existing Service Road.** The existing service road along the north side of the core campus is ideally located for accessible, centralized but out-of-view maintenance and operations facilities including a potential future central plant and facilities warehouse.

7. **Physical Shape of Existing Buildings.** While many of the existing buildings require deferred maintenance measures with few exceptions they are generally well built (poured-in-place and pre-cast concrete construction), solid and according to the 2003 3D/I Facilities Assessment able to stand for many years to come—certainly as far as the 2024 planning horizon—without requiring significant structural, seismic or other systems upgrades.

8. **Uniform and Understated Character of the Buildings.** While lacking in conveying a sense of dignity and community associated with college buildings in the American campus tradition the existing buildings in their uniformity and humility will provide a sympathetic background to new buildings that will assert an appropriate identity for the new College.

Student Services. *This building features odd interior spaces that do not accommodate transformation into multi-purpose classrooms or other flexible space for the delivery of programs and services.*

Humanites, Little Theater and Science & Technology Buildings. *The efficiency of these buildings is undermined by their small floor plates and excessive circulation.*

The Library. *Library functions are relegated to the second floor of this facility, some of which has been appropriated for other uses. This building could easily accept transformation into a multi-purpose classroom building, student services and/or skills/tutorial success center.*

Applied Technology Building. *Anchoring the northwest corner of the core campus this building is efficient, understated and in relatively fine physical shape.*

Gross and Net Existing Overall Building Area

An inventory of existing buildings on site shows that in all nineteen (19) buildings on campus accommodate an overall gross floor area of 141,342 SF including the Early Childhood Education Center but excluding the Head Start facility and John F. Kennedy High School.

However, of this total 23,809 SF are housed in temporary modulars. Another 55,503 SF are contained within buildings in which existing programs and services have or will outgrown them, and which because of their size and shape are inefficiently laid out and difficult to renovate to accommodate expanded or other uses.

Together temporary buildings and inadequate facilities total a net overall gross floor area of +/- 79,312 SF leaving only seven (7) buildings on campus totalling 62,030 SF that could be legitimately considered permanent in the long term future of the campus.

INVENTORY OF BUILDINGS BY STATUS		
Status	*ASF*	*GSF*
EXISTING BUILDINGS		
Permanent	40,304	62,030
Temporary (Portables)	20,897	23,809
Inadequate (To Be Replaced)	35,875	55,503
Existing Subtotal:	*97,076*	*141,342*
BUILDINGS IN DESIGN OR UNDER CONSTRUCTION		
Permanent	47,557	66,862
In Design Under Construction:	*47,557*	*66,862*
TOTAL:	**144,633**	**208,204**

The Bookstore.

Activity Center.

The C.A.C.T.

Maintenance Facility.

Temporary Facilities. *The bookstore, activity center, CACT building and the two maintenance facilities M-1 and M-2 are examples of modulars that house programs and services. Twelve additional modulars house classrooms and office. These include three existing ones and nine new ones currently under construction in the southwest area of campus.*

STATUS OF EXISTING BUILDINGS & BUILDINGS UNDER CONSTRUCTION ON THE NORCO CAMPUS							
Building Number	*Facility*	*Construction Completed*	*Total Number of Rooms*	*Total Number of Stations*	*Total ASF*	*Total GSF*	*Building Efficiency*
PERMANENT BUILDINGS							
6	Building F1	1991	2	0	1,444	1,518	95.1%
9	Library Building (G)	1995	46	459	19,937	30,740	64.9%
10	Applied Technology (N)	1995	31	443	12,270	20,019	61.3%
11	Building F2	1994	2	0	1,444	1,518	95.1%
15	Early Chilhood Education Center	2004	12	301	5,209	8,235	63.3%
20	Industrial Technology (Phase III)	2008	58	703	32,557	44,862	72.6%
21	Student Success Center 2	2010			15,000	22,000	68.2%
	Permanent Buildings Subtotal:				*87,861*	*128,892*	
TEMPORARY BUILDINGS							
7	Building M1	1991	5	2	676	996	67.9%
8	Building M2	1991	7	0	794	1,233	64.4%
12	Bookstore	1999	4	1	2,992	3,600	83.1%
13	CACT Buildiing	1999	6	26	4,663	5,020	92.9%
14	Multi-Purpose Athletics	2002	9	2	2,972	3,360	88.5%
16	Portable -1	2005	1	40	900	960	93.8%
17	Portable -A	2005	1	40	900	960	93.8%
18	Portable - B	2005	1	40	900	960	93.8%
19	Southwest Portables	2008	13	240	6,100	6,720	90.8%
	Temporary Buildings Subtotal:				*20,897*	*23,809*	
INADEQUATE BUILDINGS TO BE REPLACED IN THE LONG TERM							
1	Student Services (A)	1991	30	113	8,487	14,357	59.1%
2	Science & Technology (B)	1991	22	399	10,700	14,588	73.3%
3	Little Theater (C)	1991	17	330	4,920	9,277	53.0%
4	Humanities (D)	1991	17	361	9,559	14,496	65.9%
5	Tigers Den (E)	1991	5	3	2,209	2,785	79.3%
	Inadequate Buildings Subtotal:		*91*	*1,206*	*35,875*	*55,503*	
	TOTAL:				**144,633**	**208,204**	**69.5%**

Establishing the Point of Departure for the Master Plan

These three diagrams illustrate how when considering plans for the future of the campus it is—in order to widen our options—fruitful to identify those buildings whose future is not long on campus and those which are not configured to accept renovations in the future and whose life span are therefore limited. These facilities are those which we have identified as "temporary", indicated in yellow in Diagram "B" or "inadequate", indicated in green in Diagram "B".

Of the three diagrams the first, "A", shows the campus in its existing condition. Diagram "A" shows one building under construction (Industrial Technology) and another in design (Student Success Center).

The second "B" identifies permanent, temporary and inadequate facilities and the third "C" shows the campus without the temporary and inadequate facilities.

Diagram "C" operates as a kind of fictitious point of departure for the master plan, imagining a condition where only those buildings whose life spans are greater than the 12,000 student planning horizon are accounted for in the imagining of a long term vision for the campus.

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Diagram "A": Existing Facilities. *This diagram shows all existing buildings on campus including temporary facilities and inadequate facilities. The diagram includes one building under construction (Industrial Technology) and another in design (Student Success Center).*

Diagram "B": Permanent, Temporary and Inadequate Facilities. *This diagram shows temporary facilities in yellow, inadequate facilities in green and permanent facilities in blue..*

Diagram "C": Fictitious Campus Diagram. *This diagram shows the campus after having removed all temporary and inadequate facilities leaving only those buildings classified as permanent and creating a fictitious point of departure for the development of the campus master plan.*

Campus Expansion Over Time

The spreadsheet on the facing page lays out in numerical terms gross order of magnitude projects of facilities and parking needs based on growth of the student body over thirty years from its current +/- 9,000 students to over 16,000 students by the year 2024. The chart tracks gross building area, parking space requirements, building foot print area and parking foot print area.

Assumptions made in the devising of the chart include the following:

- Student population will expand at a rate of 3.09 % to 3.5% per year.
- GSF required = +/- 38 SF, ASF required = +/- 25 SF/Student.
- Building efficiencies (ASF/GSF) are held to a standard of 65%.
- Parking spaces required = 1 space for every 5 students.
- Each parking space and attendant circulation requires 350 SF.
- Most buildings are two stories, some are three stories.
- All parking is at grade.
- An acre = 43,560 SF.

Key Milestones

The chart indicates in gray the existing condition—2008, over 9,000 students—and three key planning horizons when the campus reaches a student population of:

- 10,000
- 12,000
- 16,000

At the projected growth rate a population of 10,000 students wil be reached roughly in 2010, 12,000 in 2015 and 16,000 in 2023 or 2024. The year 2024 was the original planning horizon of the General Obligation Bond Measure "C".

Maximum Student Population and Campus Build Out

Demographic analysis and regional population growth projections indicate that most expanding student population within Norco's service area will occur south of Corona where a new center and possibly even a new campus should be established within the next decade. Given this probability and the limitations of the existing Norco campus and access to it, it is envisioned that the campus will cease to expand at 16,000, students.

Additional growth which as shown in the projections could exceed 25,000 students by the year 2038 will be directed to the new South Corona Center which by 2038 could support a student population as high as 9,000 to 10,000 students.

Building & Open Space, Streets & Parking

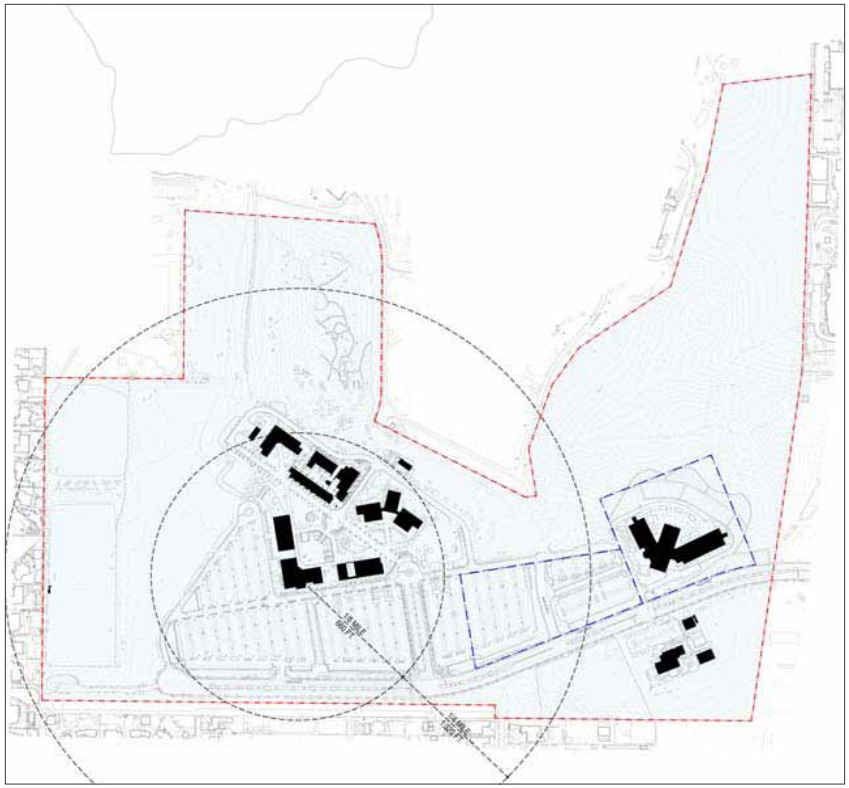
The diagrams on the following pages show the magnitude of building fabric and parking required to fulfill the requirements for each of the three key planning horizons as the student population expands.

The first set of diagrams lays out the area requirements of buildings and open space to support student populations of 10,000, 12,000 and 16,000, assuming that most buildings are two stories. The area required for buildings and open space in the 16,000 student plan is roughly equivalent to that which is covered by the core campus in the existing condition.

The second set of diagrams lays out the area requirements of parking to support student populations of 10,000, 12,000 and 16,000 assuming that all parking is at grade. The area requirements for parking for 16,000 students approaches twenty (20) acres placing spaces as far as 1/4 mile away from the core campus. These diagrams illustrate the imperative to deck parking in order to minimize walking distances and the excessive paving over of permeable land surfaces. The transition to structured parking should occur as the campus reaches 12,000 students.

PROJECTED EXPANSION of STUDENT POPULATION & SPACE NEEDS AT THE NORCO CAMPUS						
Year	*Student Head Count*	*Typical Building ASF*[1]	*Typical Building GSF*[2]	*Parking Requirement*[3]	*Parking Area Requirements (Acres)*[4]	*Building Footprint (Acres)*[5]
2006	8,640	229,575	353,192	1,728	13.88	4.77
2007	8,958	235,548	362,382	1,792	14.40	4.89
2008	**9,289**	**240,573**	**370,113**	**1,858**	**14.93**	**5.00**
2009	9,633	246,609	379,398	1,927	15.48	5.12
2010	**9,992**	**252,810**	**388,938**	**1,998**	**16.06**	**5.25**
2011	10,367	259,180	398,738	2,073	16.66	5.38
2012	10,758	266,799	410,460	2,152	17.29	5.54
2013	11,166	273,561	420,863	2,233	17.94	5.68
2014	11,590	281,059	432,398	2,318	18.62	5.84
2015	**12,033**	**288,787**	**444,288**	**2,407**	**19.34**	**6.00**
2016	12,495	297,378	457,504	2,499	20.08	6.18
2017	12,977	305,612	470,173	2,595	20.85	6.35
2018	13,479	314,070	483,184	2,696	21.66	6.52
2019	14,004	323,486	497,671	2,801	22.50	6.72
2020	14,551	333,224	512,653	2,910	23.38	6.92
2021	15,122	343,262	528,096	3,024	24.30	7.13
2022	15,717	353,643	544,067	3,143	25.26	7.35
2023	16,340	364,380	560,584	3,268	26.26	7.57
2024	**16,989**	**376,297**	**578,919**	**3,398**	**27.30**	**7.82**
2025	17,498	384,961	592,248	3,500	28.12	8.00
2026	18,023	394,708	607,243	3,605	28.96	8.20
2027	18,564	405,621	624,032	3,713	29.83	8.43
2028	19,121	415,877	639,811	3,824	30.73	8.64
2029	19,694	425,400	654,461	3,939	31.65	8.84
2030	20,285	437,147	672,534	4,057	32.60	9.08
2031	20,894	448,172	689,496	4,179	33.58	9.31
2032	21,521	459,465	706,870	4,304	34.58	9.55
2033	22,166	471,033	724,666	4,433	35.62	9.79
2034	22,831	482,881	742,893	4,566	36.69	10.03
2035	23,516	496,191	763,371	4,703	37.79	10.31
2036	24,222	508,655	782,546	4,844	38.92	10.57
2037	24,948	521,420	802,184	4,990	40.09	10.83
2038	**25,697**	**535,777**	**824,273**	**5,139**	**41.29**	**11.13**

(1) EMP ASF Calculations (2) ASF/GSF = .65 (3) 1 Space/ 5 Students (4) 350 SF/Space (5) (GSF/1.7)/43,560 SF/Acre



Buildings and Open Space Diagram "A": Existing Facilities. *This diagram shows all existing buildings on campus except temporary buildings. The two radii circumscribe distances from the library, 1/8 mile and 1/4 mile.*

Buildings and Open Space Diagram "B": 10,000 Students. *This diagram shows approximately 160,000 SF in five new buildings, 32,000 SF each in double loaded two story formats that would on a rough order of magnitude be required to support a student population of 10,000.*

Buildings and Open Space Diagram "C": 12,000 Students. *This diagram shows the addition of 96,000 SF in three new buildings, 32,000 SF each in double loaded two story formats that in addition to existing buildings and those that would come on line to support 10,000 students (Diagram "B") would on a rough order of magnitude be required to support a student population of 12,000.*

Buildings and Open Space Diagram "D": 16,000 Students. *This diagram shows the addition of 128,000 SF in five new buildings, 32,000 SF each in double loaded two story formats that in addition to existing buildings and those that would come on line to support 10,000 and 12,000 students (Diagrams "B" and "C") would on a rough order of magnitude be required to support a student population of 16,000.*

Parking Diagram "A": Existing Facilities. *This diagram shows all existing parking on campus including the two lots on the John F Kennedy High School property. Including the high school parking +/- 2,100 spaces are accommodated on campus in about 17 acres. Without the 300 spaces on high school property east of Campus Drive approximately 1,800 spaces are available to the campus. At a ratio of 1 space for every five students this inventory supports a student population of 9,000.*

Parking Diagram "B": 10,000 Students. *This diagram shows the addition of approximately 500 spaces when the student population will have reached 10,000 and assuming that the high school lots will no longer be available for College use.*

Parking Diagram "C": 12,000 Students. *This diagram shows the addition of approximately 400 new parking spaces when the student population will have reached approximately 12,000. Assuming it was all provided at grade 2,400 parking spaces in this scenario would consume 20 acres of land surrounding the core campus.*

Parking Diagram "D": 16,000 Students. *This diagram shows the addition of approximately 800 parking spaces when the student population will have reached over 16,000. Assuming it was all provided at grade 3,200 parking spaces in this scenario would consume 27 acres of land surrounding the core campus.*

Physical Education, Athletics and Recreation

Physical education, athletics and recreation programs are a key component of a fully comprehensive community college and often an important link with the communities that the College serves. They also require flat land and consume large amounts of it. The following facilities have been preliminarily identified as necessary to provide the full array of activities for a comprehensive physical education, athletics and recreation program :

- 400-meter track with football and soccer field
- Four (4) baseball fields and two (2) soccer practice fields
- Eight (8) tennis courts
- An aquatics facility with 50-meter pool and diving tank
- Two-court gymnasium

Together if arranged in as compact an efficient mannger these facilities will require at minimum 12-16 acres of land not including parking and vehicular access. There are three locations on the 142-acre property that are realistic possibilities:

- West campus where currently are located the soccer practice fields
- South campus on the site of the Early Childhood Education Center
- Northeast campus adjacent to the Norco Civic Center

The west campus location makes sense because of the pre-existing condition of the soccer practice fields currently in place. However, this location would require a fair amount of fill in the area between the existing soccer practice fields and the west parking lot and access road; and it is remote from the only access to campus at the opposite side of campus more than a half a mile away. The south campus location is a possibility in so far as it is a prominent site overlooking the valley to the south and it provides for convenient joint use opportunities with JFK High School. However, it requires the relocation of the Early Childhood Education Center and the Headstart facility, it is not clear that all of the facilities would fit in this location and it lies south of 3rd Street along a particularly busy stretch of that street. The northeast campus location is remote from both the heart of the College campus and the high school but ajdacent to the Norco Civic Center. This option presents interesting opportunities for the joint development and funding of facilities for college, high school and community use.

Athletics and Recreation Diagram "A": West Campus Location. *This location has the advantage of the pre-existing condition of the soccer practice fields in place. It is remote from the 3rd Street entrance and would require a significant amount of fill to accommodate facilites in the depressed area between the existing soccer practice fields and the west parking lot.*

Athletics and Recreation Diagram "B": South Campus Location. *This location has the advantage of easy access to 3rd Street and proximity to the high school for shared use. It is unlikely that all of the facilities will fit on this site, and it requires the removal and relocation of the Early Childhood Education Center and the Headstart facility.*

Athletics and Recreation Diagram "C": Northeast Campus Location. *This location is remote from both the core of the college campus and from the high school. It is adjacent to the Norco Civic Center and could be accessed via that site or 4th Street. This option presents interesting joint development opportunities with both the City of Norco and the Corona-Norco Unified School District for the shared use of facilities by the college, the high school and the community.*

Priorities and Goals of the Campus Master Plan

1. **Easy Access and Meaningful Entry.** Circulation into and out of the campus should be convenient and easy to navigate. Rather than parking lots creating the first impression of campus the campus itself—dignified buildings and gracious open spaces—should present itself upon entry. The entry to campus should be visible, iconic and remarkable in its presence.

2. **Classrooms and Labs.** In order to realistically serve the kind of student the campus attracts and improve student retention facilities that accommodate remedial and general instruction in the liberal arts and sciences in order to prepare students for advanced vocations and/or continuing higher education in the arts, sciences and technology more multi-purpose classrooms and dry and wet computer and science labs are a necessity.

3. **Athletics & Recreation and Visual & Performing Arts.** The future campus should accommodate the full array of facilities that promote a well rounded college experience, student loyalty and strong linkages with the community by providing for robust programs in athletics and the arts.

4. **Consolidation and Prominence of Student Services.** Student Services should in the long term be unified in one place and placed at the entry to campus. It should be designed to set the tone for the student's entire college experience. Student Services facilities should be designed to accommodate the philosophy of the student as valued customer and customer satisfaction as a value.

5. **Heart of Campus**. The campus should have a heart—a place where students, faculty and staff encounter one another on an informal basis, where student activities are anchored and the social life of the campus unfolds. Here food services, student activities and other support programs and services should be concentrated.

6. **Coherent and Gracious Open Space.** The campus should focus on creating at least one major well defined graciously landscaped, shaded open space in the form of a quadrangle or yard with grass and trees.

7. **Joint Use of the Land.** The College and the District should continue to forge mutually beneficial relationships with the City of Norco and the Corona-Norco Unified School District in order to plan, design and construct facilities that could be shared among the College and District, the high school and the community of Norco.

8. **Total Use of the Land.** Areas of campus that remain undeveloped should be planned for other uses such as demonstration landscape restoration areas, citrus groves and/or vineyards, community gardens, botany , archaeology and/or veterinarian technology classes or any number of other uses.

Principles Guiding the Development of the Master Plan

1. **Campus Porosity.** At least one new entrance and preferably three new ones—from the south, west and north should be accommodated in the long term plan in order to maximize accessibility of the campus from all sides and to minimize impacts on surrounding neighborhoods.

2. **Primacy and Hierarchy of Open Space.** Buildings and facilities are to be considered as tools with which to shape open space and to the maximum extent possible defer to the primacy of open space in the creation of a comprehensive, legible campus environment. A variety of sizes and kinds of open spaces are to be provided, linked together yet distinguished in character and scale These should include yards and quadrangles as well as courtyards and gardens.

3. **Consolidation and Compaction**. Facilities should be concentrated in focused areas of campus to prevent further sprawl and unchecked consumption of virgin land. Parking where possible should be decked into at least two story formats. No buildings should be less than two stories , nor more than three stories in height.

4. **Appropriate Locations for Parking.** Parking should be both central and out of sight, in the vicinity of the core campus yet easily accessed via peripheral points of entry onto campus. Parking in no way should dominate the look and feel of the campus environment particularly at its core.

5. **Appropriate Locations for Buildings**. Buildings should be located in a manner consistent with their role in the life of the campus: the library in a prominent position, student services at the front door, food services and student activities at the heart of campus, athletics and recreation, visual and performing arts in areas with maximum availability to the community.

6. **Rectilinear Building Configuration.** Buildings are to be afforded foot prints that allow for and require simple, orthogonal floor plates with maximum flexibility and adaptability.

7. **Selection and/or Creation of Pragmatic Building Sites**. Sites for future buildings should be flat or nearly flat to the maximum extent possible, and in the event they require grading be configured to equalize cut and fill.

8. **Centrifugal Phasing of Building Construction.** Building sites should be located and configured to accommodate feasible construction phasing and staging. Construction of new buildings should to the maximum extent possible begin at the heart of campus with newer buildings coming on line at ever increasing distances from the center.

Point of Departure: Fictitious Representation of the Existing Campus Without Temporary and Inadequate Facilities. *This plan shows the campus as if the temporary facilities (bookstore, classroom modulars,) and the inadequate facilities (Student Services, Tigers Den) were removed. It represents a fictitious starting point for the revisioning of the future of campus.*

Establishing a Geometry for Campus Expansion.

Future campus development will shortly expand the limits of the mesa--and most likely will migrate south toward 3rd Street where currently are located the campus parking lots. The geometry of this expansion and its orientation are critical in creating beneficial and harmonious relationships with the existing campus and in particular the following of its key features:

- Existing topography
- Existing street grid and property lines
- Permanent buildings of the existing core campus
- Existing high school

Of the many possibilities three stand out. Diagram “A” shows a geometry based on the diagonal of the promenade and north buildings of the mesa. Diagram “B” shows a geometry based on the existing library, Tigers Den, Studen services, south parking lots and existing main vehicular entrance. Diagram “C” demonstrates that a more fruitful geometry might be found in considering that of 3rd Street, the south and west property lines and the street grid of the surrounding neighborhoods and the City of Norco.

Of the three geometries the first, “A”, would create the most conflict at the perimeter of campus, even though it is most in alignment with the existing natural topography of the site. Buildings and open space in alignment with this geometry expanding toward the perimeter would leave irregular and therefore inefficient spaces at the perimeter where parking lots and structures will be established.

Diagram “B” has the advantage of alignment with the buildings that currently define the south “front” of the core campus and all of its parking lots. This geometry improves upon option “A” in its relationship with the campus perimeter, but it would set up major spaces in odd orientation relative to the street grid and the views of the valley to the south and it would emphasize an unwanted visual relationship with the high school.

Diagram “C” offers the most regularity vis-a-vis relationships with the campus perimeter and the most opportunities to capitalize on the views to the south and southwest. The challenge of this option is how to arrange buildings and open spaces in a way that seamlessly and effortlessly relates to the two geometries of the existing core campus.

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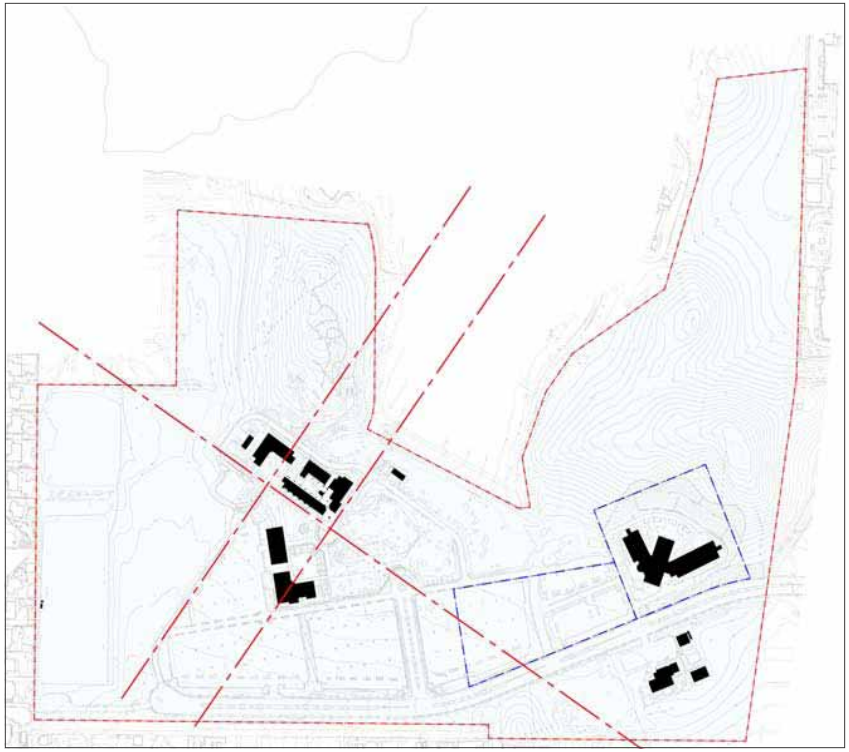


Geometry “A”: In Alignment with the Central Promenade and North Buildings of the Mesa. *The buildings at the far north side of the mesa are oriented in a SW-NE alignment roughly parallel to the slope of the natural topography. Extending this geometry south and east toward 3rd Street would create awkward intersections an inefficient shapes for parking lots at the perimeter of campus*

Geometry "B": In Alignment with the Library, Student Services, Tigers Den, South Parking Lots and Existing Main entrance. *This geometry has slightly better relationship with the core campus perimeter but would orient buildings and open spaces in odd ways, focusing too much toward the southeast (the views are better to the southwest) and northeast (toward the high school).*

Diagram "C": In Alignment with 3rd Street and the Norco Street Grid. *This geometry provides the best relationship with the perimeter of core campus, nearly aligns with the natural topography, minimizes visual relationships with the high school to the east and provides the most opportunities for buildings and open spaces to capitalize on views of the valley and hills to the south and southwest.*

Options Considered in Establishing a Geometry for Campus Expansion.

The framework for the placement and configuration of . buildings and open space should assume a consistent and overall uniform geometry that fits best with existing conditions on the ground including existing buildings, topography, utilities infrastructure and surrounding streets.Three alternatives were considered in understanding how best to shape the campus at its maximum capacity of 16,000 students.

Option A.

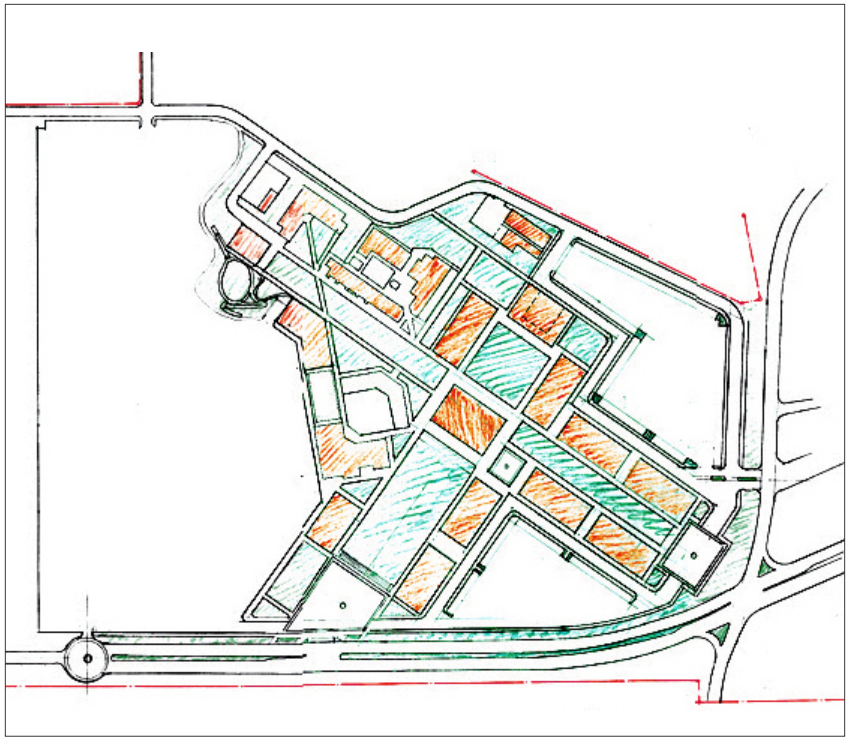
This alternative establishes a geometry that aligns with the buildings of the upper mesa--the Applied Technology and Industrial Technology buildings. It has the advantage of aligning with the natural topography, although this topography was obscured with the planning and construction of the original campus, most acutely in how the plateau of the mesa was established and the parking lots configured.

Option B.

This alternative establishes a hybrid geometry in three parts. One part aligns with the Library and future Student Success Center as well as the parking lots. Another with the buildings of the upper mesa and existing topography, and a third with the orientation of 3rd Street. It creates an unnecessarily complicated set of internal relationships among buildings and open spaces on campus.

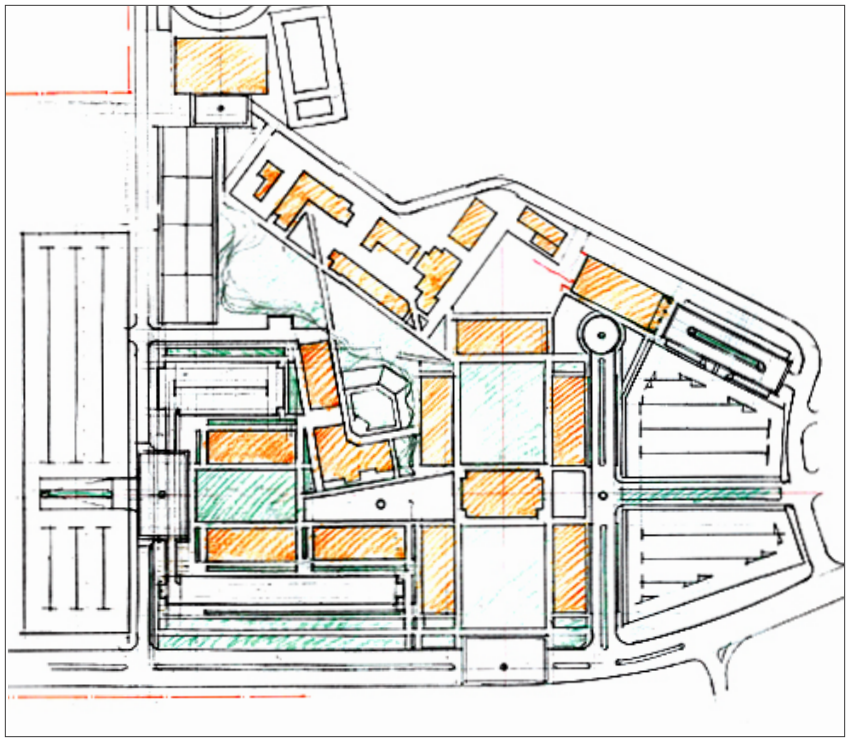
Option C.

This alternative aligns with 3rd Street and the larger street infrastructure of Norco. It directly aligns neither with existing buildings of the core campus nor most of the existing topography but does align with the property lines and some of the existing topography particularly in parts of the west campus area.



Option "A". *Alignment with the Central Promenade and North Buildings of the UpperMesa.*

Option "B". *Alignment with the Library, Student Services, Tigers Den, South Parking Lots and Existing Main entrance.*



Option "C". *Alignment with 3rd Street, the Norco Street Grid and Campus Property Lines.*

Considerations of Parking in Establishing a Geometry for Campus Expansion.

The framework for the placement and configuration of buildings and open space on campus should assume a geometry that leaves logical building sites for rationally configured parking facilities. Of the three alternatives considered in understanding how best to shape the campus at its maximum capacity of 16,000 students the third, Option C best configures parking within reasonable walking distances at the perimeter of the core campus in rectangular or nearly rectangular configurations properly related to surrounding streets and intersections.

Option A.

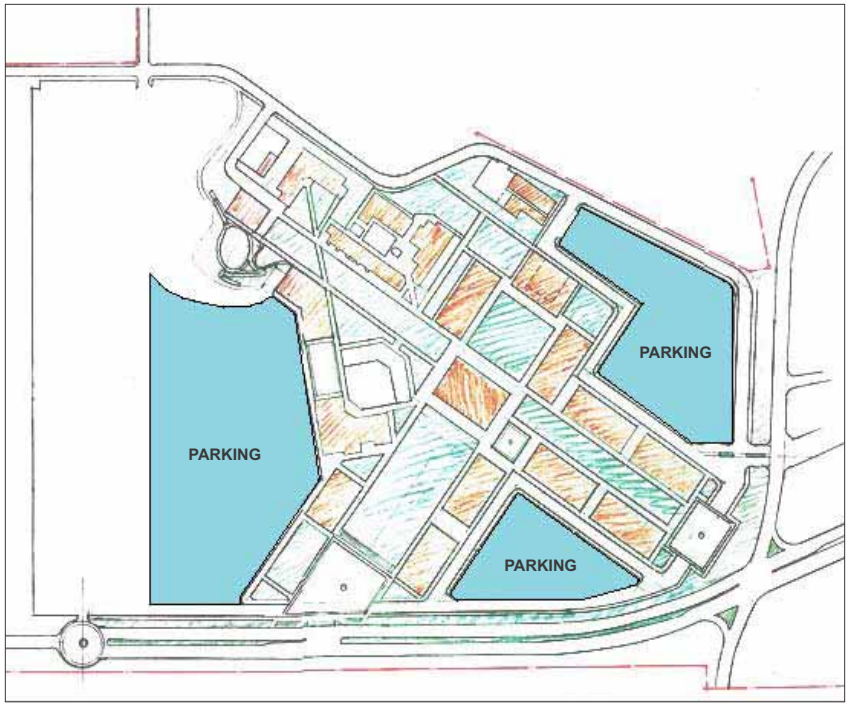
This alternative creates triangles, L-shapes and otherwise limited areas for parking in odd relationship to the key intersection of 3rd Street and Campus Drive. It places parking in a prominent position along 3rd Street in ways that create a negative first impression of campus upon arrival there.

Option B.

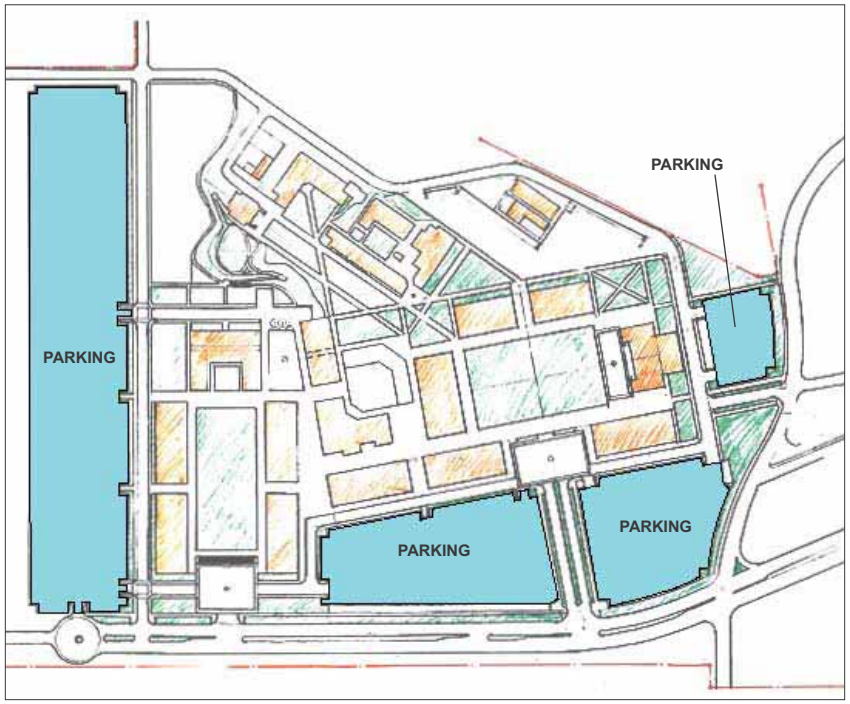
This alternative improves upon Option "A", but places and configures parking in odd relationship to 3rd Street and its intersection with Campus Drive.It places parking in a prominent position along 3rd Street in ways that create a negative first impression of campus upon arrival there.

Option C.

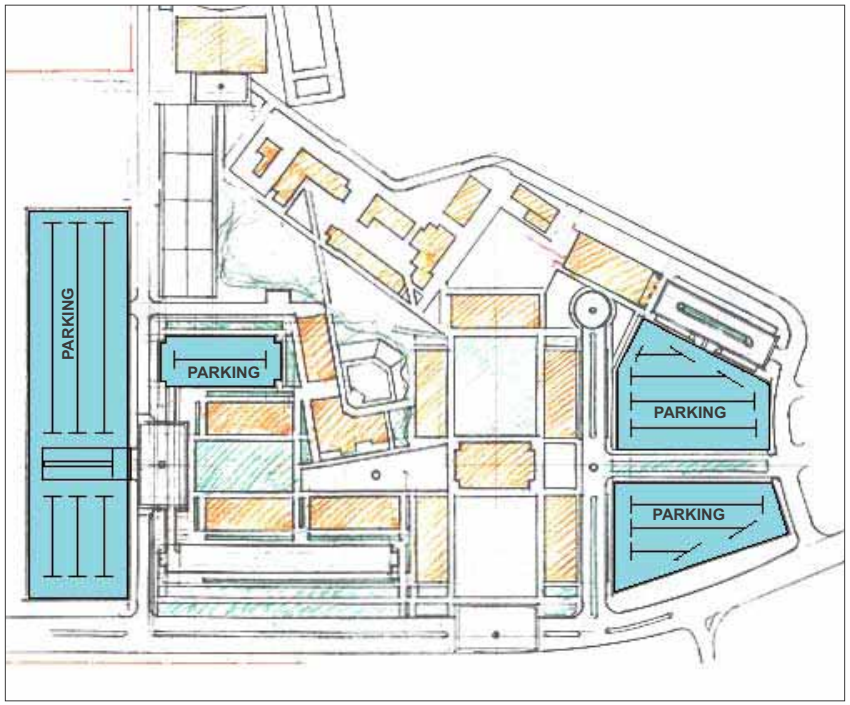
This alternative aligns with 3rd Street and Campus Drive and places parking in reasonable relationship with the core campus--within walking distance, but not so close as to negatively impact on the visual experience of the core campus.



Option "A". *Alignment with the Central Promenade and North Buildings of the Mesa.*



Option "B". *Alignment with the Library, Student Services, Tigers Den, South Parking Lots and Existing Main entrance.*



Option "C". *In Alignment with 3rd Street and the Norco Street Grid.*

Vision Statement

A vision statement gives narrative body and dramatic impact to a set of criteria that form the basis for the creation of a comprehensive master plan. Its purpose is to memorialize and synopsize a shared vision for the new campus. It creates a foundation for and sets the direction of the next phase, Option Development in which alternatives for the layout and articulation of the future campus are worked out. The vision statement accounts for not only functional and pragmatic matters, but also importantly qualitative matters. Hence imagery is an essential accompaniment . In working with the College across a period of weeks during the critical first phase of the master plan --the Reconnaissance & Analysis phase-- the following was prepared as a comprehensive vision in narrative form for the campus of the future. It was offered as a point of departure, a basis from which to begin to articulate a common vision that will transform and mature over the course of the implementation of the plan.

"Approaching the new campus is like happening upon an oasis--an island of green in the large expanse of the semi-arid Mediterranean geography and landscape of the valley that cradles Norco and Corona. The mountains that form the south rim of the valley are dramatically lit throughout the day and evening hours and provide a stunning backdrop upon approach to and exit from the campus as well as from the heart of campus. The horse trails that run along the south side of 3rd Street and unfurl around the perimeter of campus are a vestige of and evoke the great 19th century agricultural and ranching heritage of this part of the Inland Empire.

At the perimeter of campus rows of trees buffer the campus and the surrounding neighborhoods one from the other.The hills on campus are draped in native landscape, demonstration gardens--citrus groves and vineyards. They are outdoor classrooms where students learn about the unique natural environment of this area of Southern California, the diversity of the plant and animal life here, its delicate balance and our ability to cultivate and support the environment.

As one turns onto campus a large grove of date palms or olives or oaks presents itself setting up a dramatic axis of approach toward the buildings that form the gate to campus and occupy the heart of the 141 acre property. The buildings are commanding, yet gracious and welcoming. They offer respite from the often unforgiving heat and dry winds of the valley. Through them one sees a lush green lawn with large canopy shade trees, students walking gathering, studying and relaxing.

Upon arrival at the front door a tall open ended courtyard with a fountain provides a welcoming gracious entry to campus. Through this courtyard one glimpses the luxurious central quadrangle with acacia, jacaranda, pepper trees and sycamores, a shocking blast of relief, a tranquil and cool foreground to the dramatically sunlit sparely vegetated hills of the surrounding valley. Students and faculty crisscross this lawn with purpose, focus and collegiality. It is the heart of campus.

In contrast to the green lawn other kinds of landscape extending laterally to the horizon visually and aesthetically linking the environment of campus with the naturally occurring landscape of the surrounding desert valleys. There are arroyo landscapes in which flowering desert ground covers, borego palms, chaparral and cactus flourish. The distinction of this landscape and the green lawn at the heart of campus highlights the important role of water in bringing life to the valley and its precious role in sustaining life. Thus students are never unaware our role as stewards where they live in sustaining an environment that provides both comfort for our occupation of it and respect for the naturally occurring ecologies of plant and animal life.

Two level parking structures offer plentiful adjacent parking. They are sensitively situated to take advantage of the topography--slid into the hillside to minimize their bulk. They are designed to compliment the environment of campus as inconspicuous as they can be and yet easy to find . Their geometry and layout are inspired by the grid of agricultural fields that once covered the Inland Empire; they are planted with tightly packed shade trees whose rectilinear layout recalls the disciplined beauty of the orchards that filled the San Gabriel valley floor not too long ago.

The buildings of the campus are tightly arranged to maximize interior volume while minimizing exterior surface area exposed to the sun and winds. The two and three story buildings together form a continuous fabric with atria and courtyards to let in light and air. These are shaded rooms without roofs with places to sit, socialize and linger. The buildings' arrangement allows the entirety of campus to occupy the heart of the site conserving land, maximizing the benefits of shade and wind protection and enhancing the social life of the college. They are solid in composition and weight enclosed in earth colored stone and white plaster.

Classrooms, labs and offices are embraced in thick walls with lots of natural light but no direct sun. They are painted in light colors, spacious, easy to navigate and flexible in use. Some classrooms look out onto the atria and courtyards, others to the central lawn, still others to the natural landscape and mountains beyond. Outfitted with all the latest audio visual and information technology infrastructure the classrooms are a model of cutting edge instructional methodologies and formats. At the same time they are pleasant places to be so that students who not only have to be there want to be there."






A Vision for the Campus. *Imbedded within the naturally occurring environment of this semi-arid Mediterranean climate and rolling landscape that characterizes the Inland Empire and the disciplined grid of the agricultural fields, ranchlands and now vast tracts of single family homes that have so dramatically transformed this place, the campus is a study in contrasts. A composition in which swaths of judiciously arranged green grass and shade trees are placed in harmonious contradistinction with carefully composed vignettes of restored indigenous landscape creates variety and interest and instills respect for both the power and fragility of this most unique and fragile of environments. Buildings with strong massing and dignified profiles form generously scaled open spaces creating a sense of community, purpose and respect for the shared experiences of learning and formation that takes place here.*

The Norco Campus Long Range Plan

The long range plan for the Norco campus achieves a capacity to sustain a comprehensive community college serving a student population of 16,000. The plan allows for the College to grow from its current student population of approximately 9,000 to its maximum capacity over time in an orderly manner that 1) creates interim conditions that feel complete and whole unto themselves rather than fragments of some as yet unrealized finished state and 2) minimizes impacts on the day to day life of the campus as new facilities come on line.

Context of the Plan

Of the 142 + acres owned by the RCCD and known as the Norco Campus only little more than half are for all practical purposes buildable. The other 1/3 to 1/2 of the property especially in the northern reaches is steeply sloped and for the foreseeable future impractical for campus expansion. Another 12+ acres located on the east side of the existing core campus were turned over to the Corona-Norco Unified School District in a long term lease arrangement and are no longer available to the College. Sites available and appropriate for campus expansion are limited to areas south, west and northwest of the core campus.

Access to the College is limited to one vehicular entrance and exit along 3rd Street which intersects with Hamner Avenue the major north south surface arterial in Norco that leads to interchanges with Highway 15, the major regional arterial. This single means of access is already proving to be a problem causing congestion and delays for all those who arrive by car to campus especially at peak times. Student population will not be able to expand beyond 12,000 students without a second means of access, which has been identified as Mountain Avenue arriving from the south. Mountain Avenue connects to 2nd Street and Hidden Valley Parkway, both of which in turn connect with Highway 15.

Most students originate in cities that lie to the south of campus notably Corona from which almost 50% of the students come. Student population within the District is expected to expand at an accelerated rate in Corona, south of Corona and areas further south within the southwest quadrant of the District. The capacity of the Norco campus is set at 16,000 students even though projections show that at a modest growth rate of 3% to 3.5% that capacity will be reached by 2024 and that student population served by Norco will reach well over 25,000 by the year 2038. This plan therefore assumes that the District will in the period between 2008 and 2024 identify a site in South Corona or vicinity in order to direct student population from those areas to what will be a new "South Corona Center." Any growth beyond 16,000 will be absorbed by this new center allowing the capacity of the Norco campus to remain as shown in the long range plan.

Elements of the Plan

The plan is arranged into four principle components: 1) buildings, 2) open space, 3) physical education, athletics and recreation and 4) vehicular circulation and parking.

Buildings. Building sites are distributed on flat or relatively flat sites mainly to the south, southwest, east and southeast of the core campus with the exception of three which are located on the upper mesa area north of the core campus. Building pads are approximately 80 FT by 200 FT to accommodate large, simply configured, orthogonal floor plates that are flexible and structurally efficient. These floor plates will accommodate any program or service Norco will ever offer including all areas of the arts and sciences and career technical services. Most buildings have been designated as two stories in height with the exception of four which are three stories. No buildings are one story nor exceed three stories in height.

Open Space. The long range plan places as much importance on the creation of substantial, meaningful open space at the heart of campus as any other element of the plan. Building sites are located and configured in order to give shape and definition to these spaces. The plan anticipates that buildings at the campus core will be built in groups of two or three and as new buildings come on line open spaces will be built along with them. Open spaces identified in the plan come in a variety of sizes and character and include traditional quadrangles with grass and trees, shaded paved courts, and riparian gardens with indigenous, native California plant materials.

Physical Education, Athletics and Recreation. Outdoor physical education, athletics and recreation facilities require extensive quantities of land and therefore must be carefully planned. Placement of these facilities must be sensitive to land use efficiency and relationships with the core campus focusing on locations that are buildable and near the core campus but not within the core campus or prominent locations otherwise best suited for other uses.

Vehicular Circulation and Parking. Accommodations for the vehicle require extensive quantities of land and therefore must be carefully planned. Placement of parking facilities must be sensitive to land use efficiency and relationships with the core campus balancing proximity to the core campus with the imperative that parking not in any way detract from the quality of the environment in the core campus. Vast tracts of surface lots while less expensive than structures require the paving over of land, they increase loads on the regional storm drain system, and can lead to excessive walking distances from the car to the classroom. The long range plan balances the use of lots and structures configured and distributed to maximize efficiency and convenience and minimize negative impacts.

Principles of Composition

Decorum and Grace at the Perimeter.

The plan provides multiple points of entry each of which looks and feels like welcoming and gracious front door. This is a key principle in recognition of the vital role that the college plays within the community it serves--the "community" in "community college." In the long range plan the visual and performing arts center and its fore court create a front door facing east, the south quadrangle and its fore court create a front door facing south, the west quadrangle and its fore court face west; and even the physical education center and the track and field have the potential to create a gracious point of entry from the north.

Consolidation at the Core

Buildings, parking and outdoor athletics and recreation facilities are organized to fit within walking distance of one another. Unchecked or unnecessary development of virgin land is discouraged. No buildings will be less than two stories nor more than three. Open space at the core of campus balances and makes possible increased density of building fabric in the core campus.

Primacy of Open Space.

From a global campus planning perspective buildings are seen as tools with which to create open space. Their locations and configurations are calibrated to give maximum definition to generously scaled, simply configured and memorable open spaces. Buildings are placed to maximize linkages among the open spaces, create identifiable precincts and a sense of place. Each open space is uniquely considered with an identity and character of its own while remaining a contributing partner in the creation of a unified, harmonious and integrated campus environment.

Minimizing the Impacts of Vehicles.

A perimeter road allows for easy access to all locations on campus by the full range of vehicles. Parking is arranged to minimize impacts on the natural environment, deleterious aesthetic impacts on the visual experience of core campus and excessive walking distances.

Phasing and Flexibility

The long range plan is crafted in a way that allows for incremental expansion of the campus in sync with growth of student population and the continuing development of existing and new programs and services offered by Norco as it transitions beyond its current "center" status to a full-on, comprehensive and independently functioning college. Three milestone phases of expansion have been identified to give guidance to the implementation of the plan over the next two decades: the campus at 10,000 students, 12,000 students and 16,000 students. They have been tied to student population rather than dates in recognition that while growth is inevitable and somewhat predictable growth projections are only ever at best guesses. It is more important to understand what the campus would and should look like at key milestones in its development more appropriately linked with how many students its serves. Principles guiding phased development are three fold:

- Each phase of expansion is to feel complete in order that every student's experience of the campus at every step along its growth curve is a positive one.

- Building projects are grouped in a way that integrates the creation of open spaces as part of bringing any new building on line. The plan encourages the grouping of buildings into larger planning , design and construction projects (than has traditionally been the case) in order to benefit from the economies of scale, to more efficiently make use of the shared governance process and to streamline project management.

- Phases of expansion are tied to the strategic management of construction impacts on the daily life of campus. Sites for construction projects are arranged so as to avoid imposition on areas of campus in operation and to allow for proper access and staging area for the construction itself. Sites for replacement facilities are chosen in order that new facilities be built while existing ones remain in operation avoiding the need to move occupants twice or reliance on expensive and cumbersome temporary facilities.

The long range plan is both immutable and flexible. It is structured enough to provide predictability and uniformity, and flexible enough to provide variety and spontaneity as circumstances allow and/or require. If conceived successfully there should be no need in the future to revisit, overturn or dramatically re-think the basic parameters and framework of the plan. The framework anticipates every possibility in program driven imperatives of space allocation and accommodation identified in the Educational Master Plan and expected subsequent revisions of the EMP at frequent intervals (usually every five years) indefinitely into the future..

The Long Range Plan

Buildings

Buildings are arranged into four main groups of three buildings each. The new student center is the focal point of three of these groups of buildings, one associated with the south quadrangle, another the north quadrangle and a third the west quadrangle. In addition to the student center two arts and sciences classroom and lab buildings flank the south quadrangle, three career technical services classroom and lab buildings the north quadrangle, and two arts and sciences and lab buildings and one hybrid building housing classrooms and labs and a faculty and staff development center face onto the west quadrangle. Another group of three buildings is distributed along the northern edge of the upper mesa, the visual and performing arts center, the maintenance and operations/ central receiving facility and the physical education center.

Open Space

The three quadrangles--south, north and west --articulated in the tradition of the American college campus in a basic palette of grass and trees form the heart of campus. The mostly paved, shaded learning commons sits at the heart of campus surrounded by the library to the north, the student center to the east, the faculty and staff development center to the south and the west quadrangle to the west. Other courts include two associated with the visual and performing arts center, the south quadrangle, the west quadrangle and the physical education center. Two other key open spaces are riparian gardens articulated with indigenous, native California plant materials and trees, one associated with the area of campus along 3rd Street west of the south quadrangle, and another laid down along the southern slopes of the mesa connecting the existing amphitheater along the hillside to the physical education center in the north. Most of the concrete surfaces of the amphitheater will be removed to form more gracious landscaped and shaded bowl.

Physical Education, Athletics and Recreation

Outdoor physical education, athletics and recreation facilities are consolidated in the northwest corner of campus. The existing fields remain in place and serve as a buffer between the campus and the residential neighbors immediately to the west. Lighted outdoor fields are limited to far north extension of campus away from nearby residential neighbors. The track and field sits in a currently under utilized area of campus and faces north onto Lake Norconian. Tennis courts sit over a parking structure, and the aquatics facility adjacent to the physical education center on a site cut into the hillside and perched overlooking the core campus to the south and the track and field to the north.

The Long Range Plan. *The core campus occupies not more than 2/3 of the total 142 acre property in the southwest corner of the property.*

Vehicular Circulation and Parking

A perimeter road links all sides of the campus and gives entry to parking in multiple locations throughout the perimeter. A road way links directly from 3rd street north to the physical education, athletics and recreation facilities in the far northwest corner of campus. Parking is arranged in a combination of surface lots and structures, all within reasonable walking distance of the core campus. Four structures, two on the west side, two on the east side are no more than three levels (two stories) in height and give easy pedestrian access to the heart of campus. Emergency and service vehicle access is provided to every building from multiple directions. Generously scaled courts along the perimeter road in key locations associated with important open spaces and buildings on campus provide gracious approach, drop-off and pick-up.

The Core Campus in the Long Range Plan . *Most buildings are arranged around major open spaces at the heart of campus. Multiple points of access are provided on all sides of the core campus.*

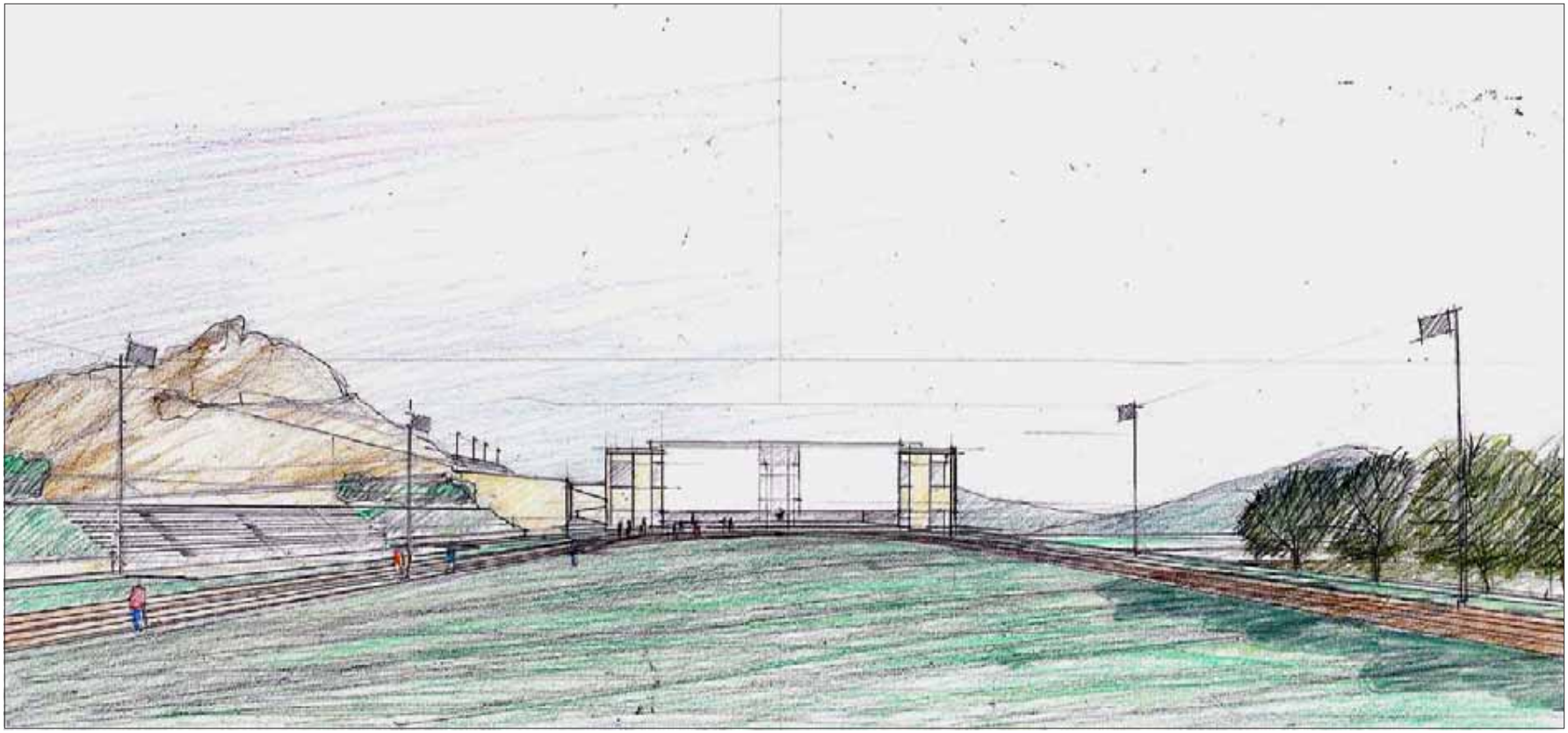
View from the Northeast Looking Southwest of the Long Range Plan . *Norco City Hall is in the foreground, the US Navy property off the model to the right, 3rd Street on the left and the outdoor physical education, athletics and recreation fields at the far end of the model.*

View from the Southwest Looking Northeast of the Long Range Plan . *3rd Street is at the bottom of the model, Norco City Hall in the far upper right corner, JFK High School to the right, the US Navy property off the model beyond, and the outdoor physical education, athletics and recreation fields to the left.*

The Visual and Performing Arts Center. *Situated on a prominent site facing southeast toward the principle vehicular entry to campus from the east the visual and performing arts center sits adjacent to the core campus but looks outward to face the community. Its forecourt presents a gracious, dramatic and dignified foyer that invites the community to participate in the life of the college and vice-versa. .*

The South Quadrangle. *An auto court for vehicular pickup and dropoff sits at the foot of the south quadrangle at 3rd Street and forms the new formal campus entry. The student center sits at the head of the south quadrangle, with a new sciences building on the left (west side) and liberal arts building on the right (east side). The south quadrangle offers a glimpse into the heart of campus immediately upon entry to campus and provides a front door that communicates to the student that this is a place with purpose and dignity and that she is welcome and valued as a member of the Norco campus community.*

The Learning Commons. *The new student center, the library, the student union and the faculty and staff development center face onto this predominantly paved plaza at the heart of campus. It is here that the daily life of campus outside of the classroom plays out--where student activities and special events take place, where students socialize and where students and faculty interact in an informal setting.*

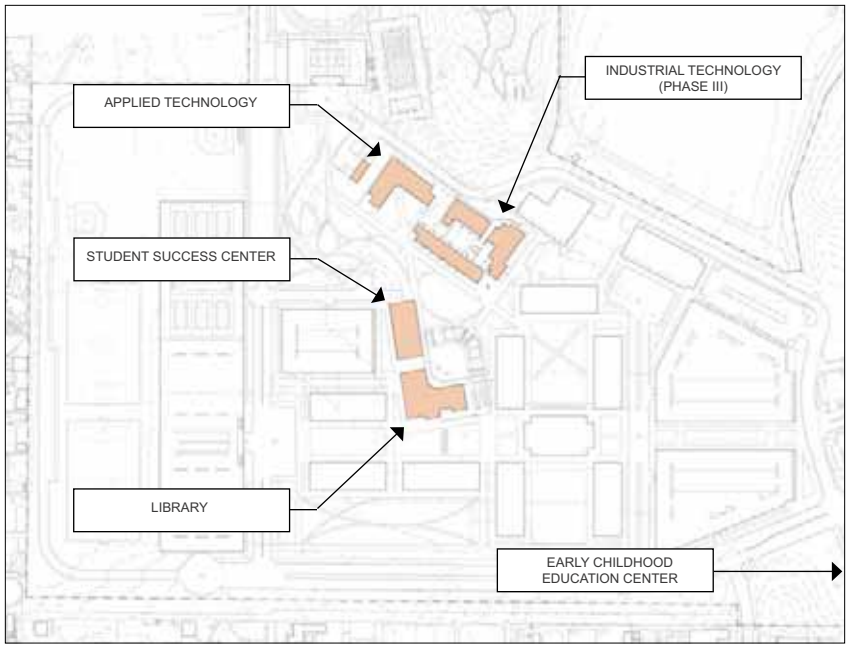


The Physical Education Center and Track and Field. *The track and field create another quadrangle on campus and a forecourt across which commands the new physical education center. This is a view looking south (Lake Norconian behind to the north). The heart of campus and the valley in which sits the City of Corona are beyond. This arrangement offers another possible front door were access to be made available from the northwest corner of campus across property currently owned by the United States Navy.*

Buildings in the Long Range Plan

Twelve new buildings and six (6) existing buildings deliver 400,000 ASF and 600,000 GSF in support of an overall student capacity of 16,000 students. Most buildings are two stories, some are three, none are one story in height except the existing F-1 and F-2. Building footprints are sized and configured to accommodate any envisioned or unforeseen program or service conceivably to be offered by the College for the life of the College. At 80 FT wide by 200 FT long on average each site is generous in size, neither too large nor too small and flexible.

EXISTING & NEW BUILDINGS IN THE 16,000 STUDENT PLAN				
EXISTING BUILDINGS TO REMAIN				
	Building	*Floors*	*ASF*	*GSF*
	Building F-1/F-2	1	2,888	3,036
	Library (G)	2	19,937	30,740
	Applied Technology (N)	2	12,270	20,019
	Early Childhood Education Center	2	5,209	8,235
	Industrial Technology (Phase III)	2	32,557	44,862
	Student Success Center	2	15,000	22,000
	EXISTING BUILDINGS TOTAL FLOOR AREA:		**87,861**	**128,892**
NEW BUILDINGS				
1.	Student Services & Support Center	3	32,000	48,000
2.	Arts & Sciences I	2	20,800	32,000
3.	Arts & Sciences II	2	20,800	32,000
4.	Maintenance & Operations/Central Receiving	1.5	10,400	16,000
5.	Physical Education Center	2.5	35,000	54,000
6.	Visual and Performing Arts	3	39,000	60,000
7.	Career Technical I	2	20,800	32,000
8.	Career Technical II	2	20,800	32,000
9.	Career Technical III	2	20,800	32,000
10.	Faculty & Staff Development Center	2.5	26,000	40,000
11.	Arts & Sciences III	3	31,200	48,000
12.	Arts & Sciences IV	3	31,200	48,000
	16,000 STUDENT PLAN NEW BUILDINGS TOTAL:		**308,800**	**474,000**
		TOTAL :	**396,661**	**602,892**



Existing Buildings to Remain in the Long Range Plan

Building Distribution

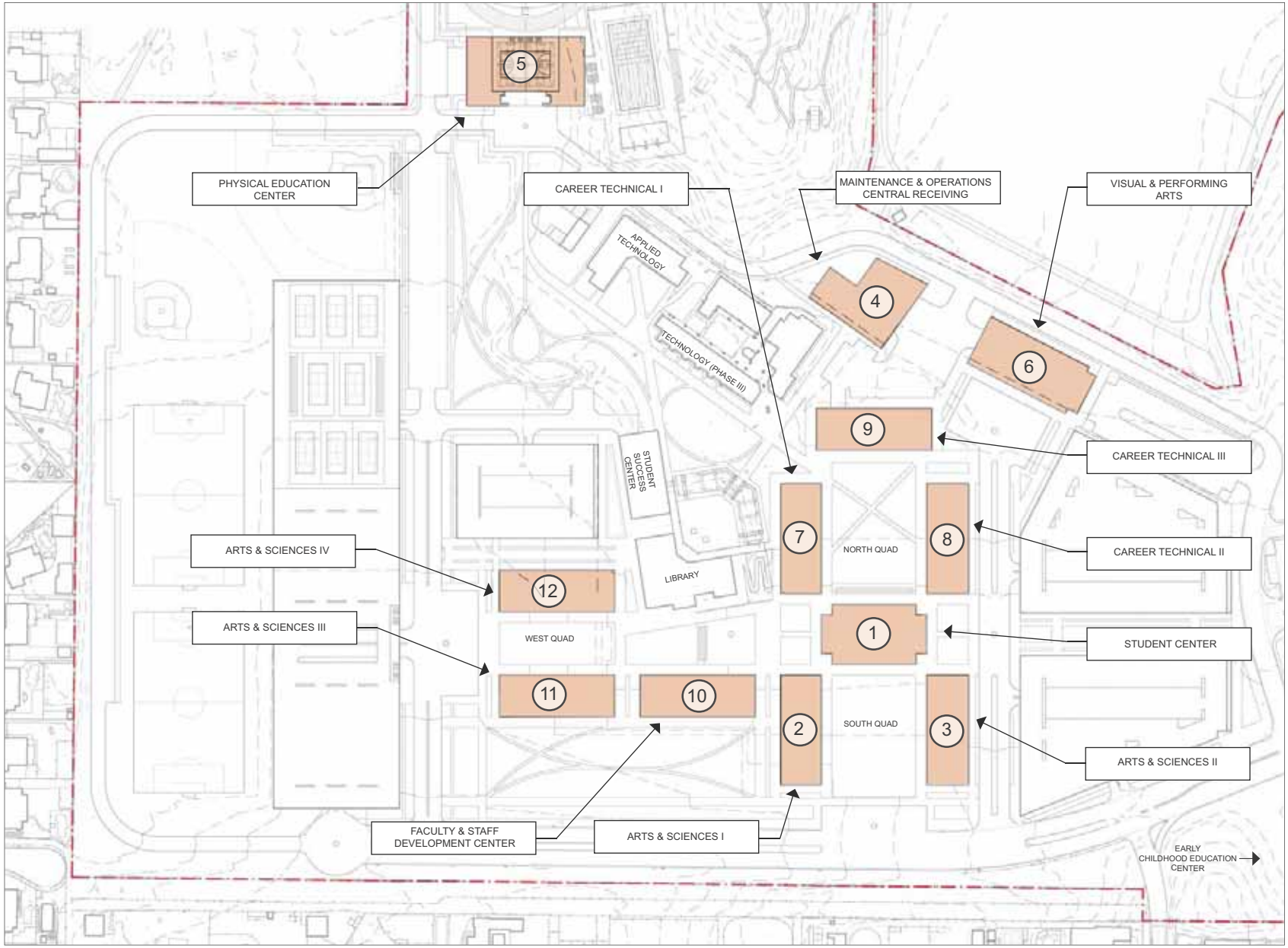
The twelve new buildings are arranged in four groups of three:

South Quadrangle:
- Student Center
- Arts and Sciences I
- Arts and Sciences II

North Quadrangle:
- Career Technical I
- Career Technical II
- Career Technical III

West Quadrangle:
- Arts and Sciences III
- Arts and Sciencves IV
- Faculty and Staff Development Center

Upper Mesa:
- Visual and Performing Arts Center
- Maintenance & Operations/Central Receiving
- Physical Education Center



New Buildings Within the Core Campus in the Long Range Plan . *New buildings are arranged into four groups of three. Three groups are each associated with one of the three major quadrangles, south, north and west. A fourth group consists of three special purpose buildings distributed along the north side of the upper mesa on the north side of the core campus.*

Open Space in the Long Range Plan

Land dedicated to open space within the campus core more than doubles from the 4.56 acres of the existing condition to 11.6 acres in the 16,000 student plan. Acreage used for outdoor physical education, athletics and recreation increases from 6.43 acres to 13.6 acres. Undeveloped land drops dramatically, but remains at nearly half of the area of the 142 acre property. Roads, building pads, and paved paths constitute the "Other" category in this analysis.

LANDSCAPE & OPEN SPACE			
EXISTING CAMPUS			
Status	*SF*	*Acres*	*%*
Open Space	198,526	4.56	3
Athletic Fields	280,169	6.43	5
Undeveloped Land/ Landscape	3,985,224	91.49	64
Other	1,757,650	40.35	28
TOTAL:	**6,221,569**	**142.83**	**100**
16,000 STUDENT PLAN			
Status	*SF*	*Acres*	*%*
Open Space	506,290	11.6	8
Athletic Fields	593,197	13.6	10
Undeveloped Land/ Landscape	2,867,847	65.8	46
Other	2,254,235	51.7	36
TOTAL:	**6,221,569**	**142.83**	**100**

OPEN SPACE

ATHLETICS FIELDS

UNDEVELOPED LAND

OTHER

Open Space in the Long Range Plan .

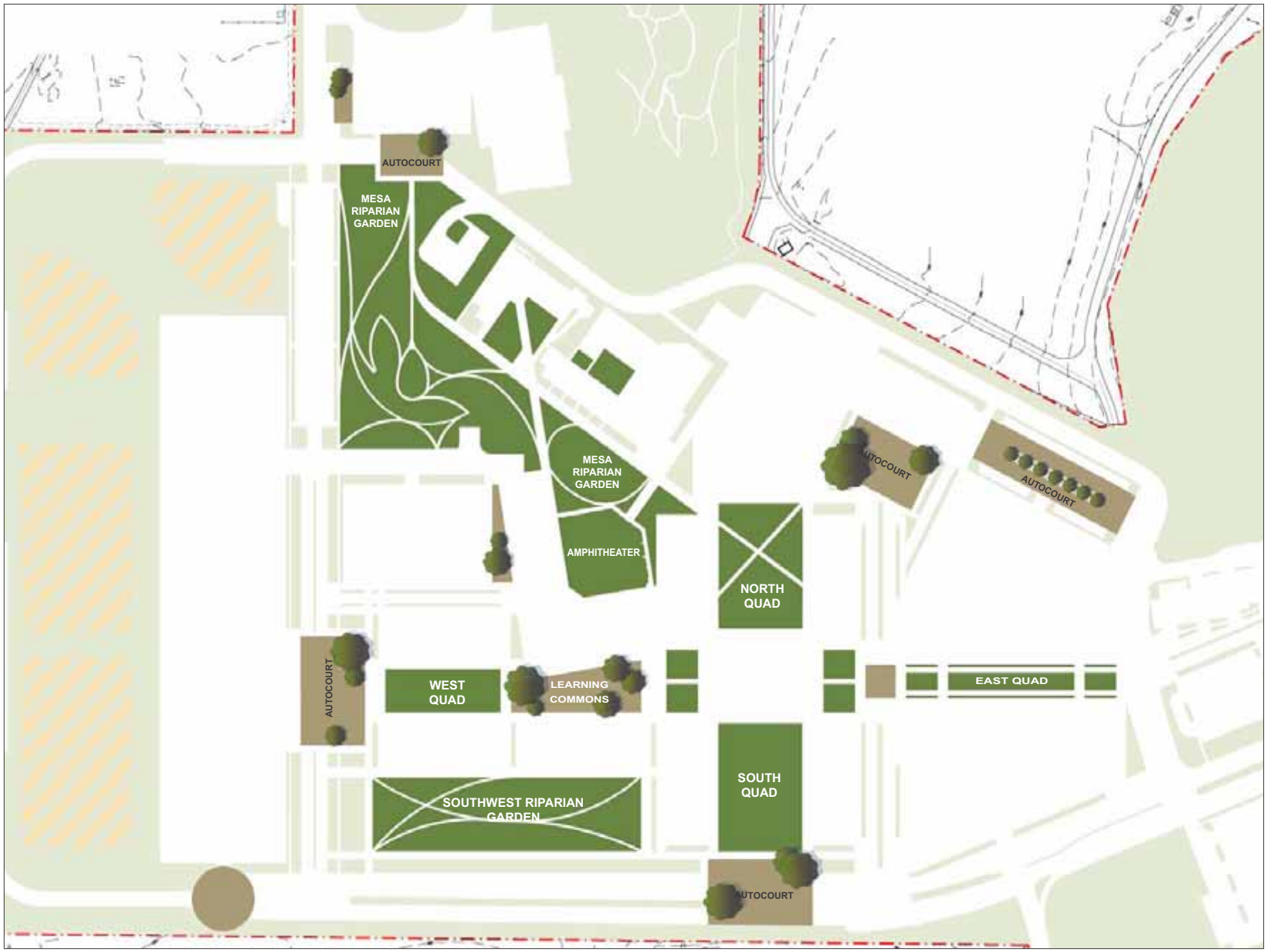
Major Open Spaces in the Long Range Plan

Major open spaces in the long range plan fall into three basic categories:

Quadrangles:
- South
- North
- West
- East

Gardens:
- Mesa Riparian
- Southeast

Courts:
- Learning Commons
- Visual and Performing Arts East and South
- Student Center
- South Quadrangle
- West Quadrangle
- Physical Education



Open Space Within the Core Campus in the Long Range Plan .

Physical Education, Athletics and Recreation in the Long Range Plan

New outdoor physical education, athletics and recreation facilities in the long range plan are:

- Track and Field
- Aquatics
- Softball Field
- Tennis Courts

Indoor facilities within the long range plan are:

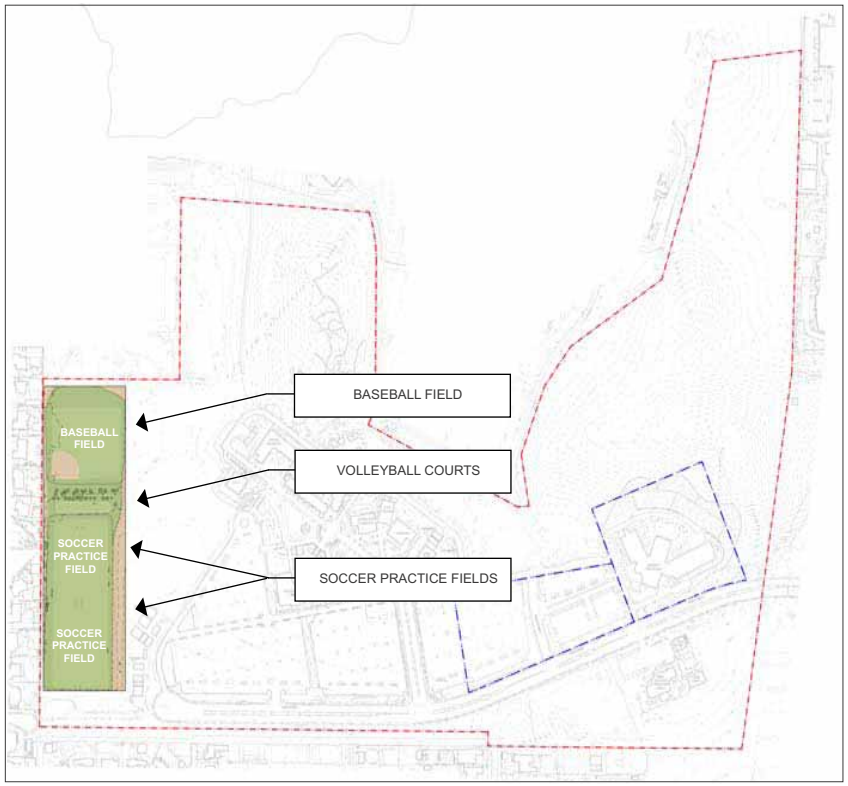
- Two-court competitive caliber gymnasium
- Weght Room
- Fitness Rooms
- Aerobics/Exercise Studios
- Team and Locker Rooms

Existing outdoor physical education, athletics and recreation facilities on campus are the following:

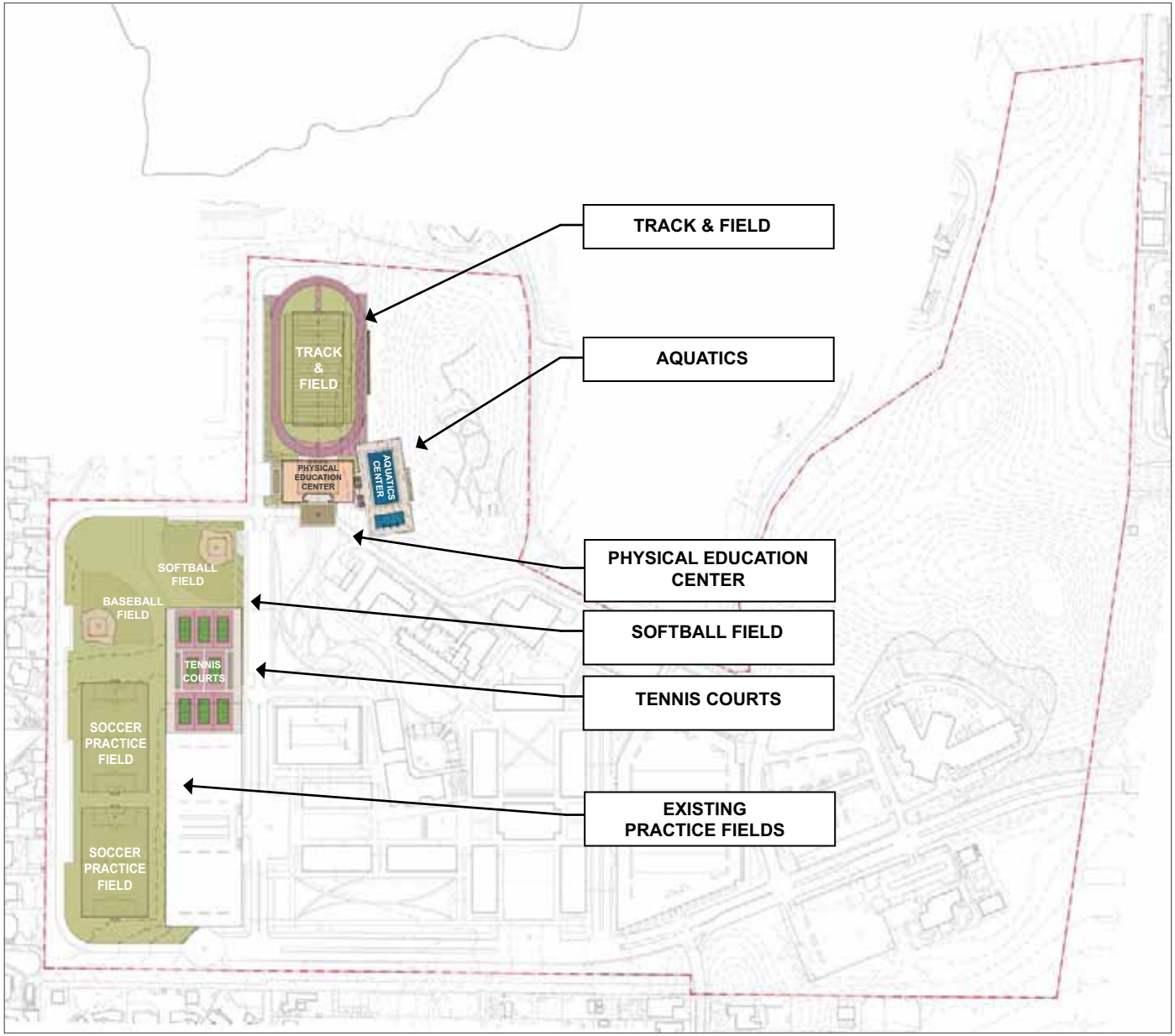
- Baseball Field
- Volleyball Fields
- Soccer Practice Fields

Distribution of Physical Education, Athletics and Recreation Facilities

New facilities are consolidated into an area in the far northwest corner of campus away from adjacent residential neighborhoods, yet within easy walking distance of the core campus.



Physical Education, Athletics and Recreation in the Long Range Plan .



Physical Education, Athletics and Recreationi Facilities Within the Core Campus in the Long Range Plan .

Vehicular Circulation and Parking in the Long Range Plan

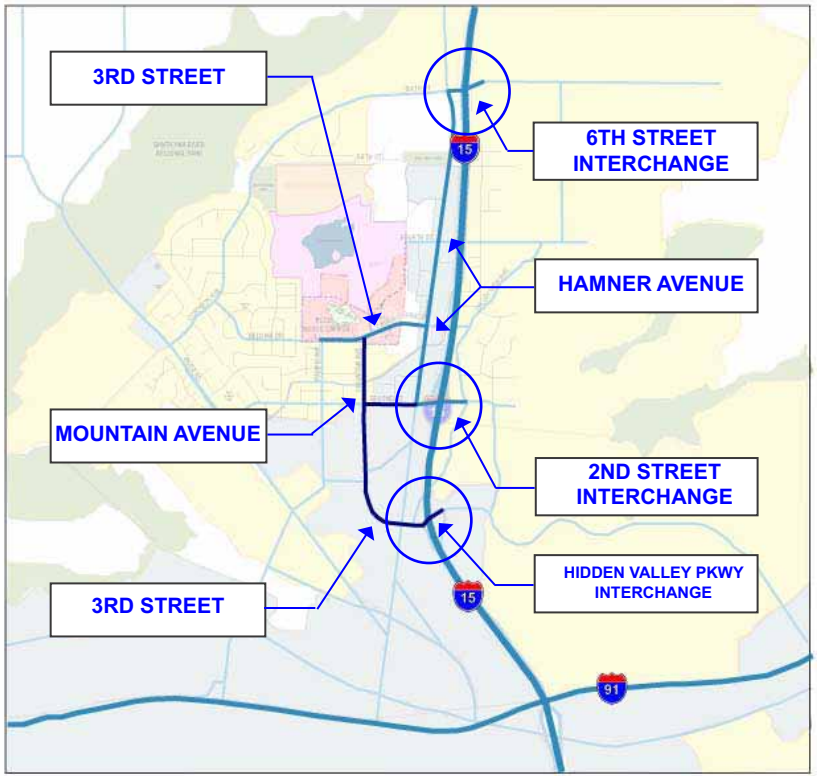
A perimeter road links 3rd Street, Mountain Avenue and Campus Drive with areas on the north and west sides of campus providing a continuous loop around the entirety of the core campus. Vehicular entry access points are afforded at many locations around the perimeter, at least one in each of the four major orientations of campus, north, south, east and west.

Parking is provided in a combination of surface lots and structures evenly distributed about the core campus. Two structures are located on the west side and two on the east side. A total of 3,350 spaces are provided--well over the required 3,200 for a student population of 16,000 assuming a rate of supply at one space for every five students.

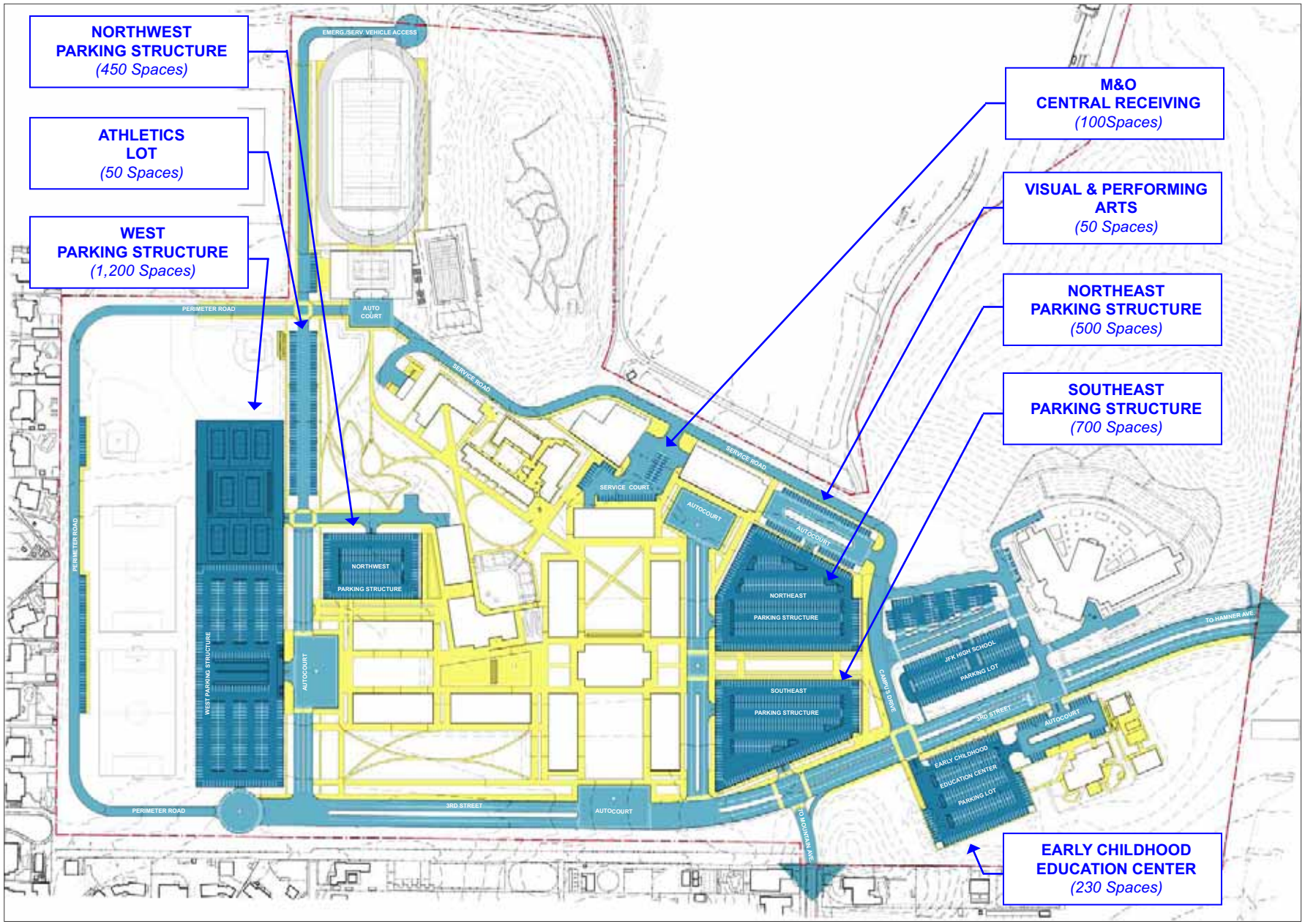
Regional Access to Campus

The opening of the Mountain Avenue access from the south connects 3rd Street to 2nd Street and Hidden Valley Parkway, each of which connect to the Interstate Highway I-15.

PARKING SPACES IN THE 16,000 STUDENT PLAN			
SURFACE LOTS			
	Location	*Levels*	*Spaces*
1.	Athletic Fields	n/a	110
2.	Maintenance & Operations/Central Receiving	n/a	100
3.	Performing Arts	n/a	50
4.	Early Childhood Education	n/a	230
5.	Miscellaneous	n/a	20
	TOTAL SPACES IN SURFACE LOTS:		**500**
STRUCTURES			
	Location	*Levels*	*Spaces*
1.	West	2	1200
2.	Northeast	1.5	500
3.	Southeast	2.5	700
4.	Northwest	3	450
	TOTAL SPACES IN STRUCTURES:		**2,850**
	TOTAL INVENTORY OF PARKING SPACES:		**3,350**



Vehicular Access to Campus.



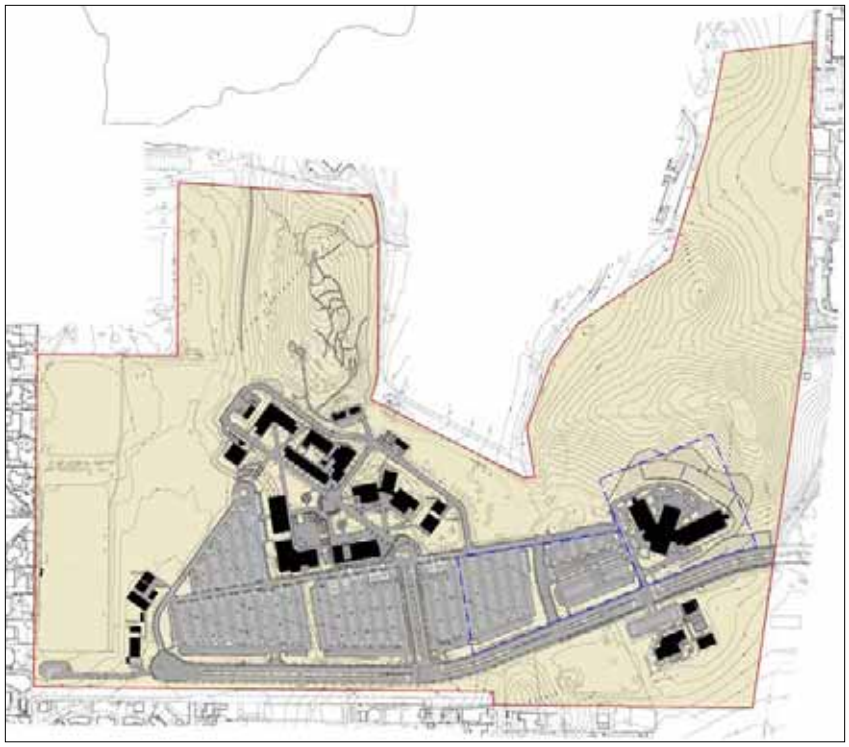
Physical Education, Athletics and Recreationi Facilities Within the Core Campus in the Long Range Plan .

Ground Plane Permeability

Permeable surfaces in the long range plan decrease by approximately 18 acres or 12% of the total acreage of the property, down from 105 acres to about 87 acres. This amounts to an decrease of less than 20%-- a remarkable achievement in doubling the capacity of the campus from its current 9,000 students to the 16,000 students.

Consolidating buildings into two and three story formats, parking into two and three level formats and placing facilities in close proximity to one another contributes to decreasing the rate of transforming the ground plane from permeable to permeable.

GROUND PLANE PERMEABILITY			
EXISTING CAMPUS			
Surface Type	*SF*	*Acres*	*%*
Permeable Surfaces	4,566,350	104.83	73
Paved Surfaces	1,479,460	33.96	24
Building Pad	175,759	4.03	03
Impermeable Surfaces	1,655,219	37.99	27
TOTAL:	**6,221,569**	**142.83**	**100**
16,000 STUDENT PLAN			
Surface Type	*SF*	*Acres*	*%*
Permeable Surfaces	3,810,69	87.48	61
Paved Surfaces	2,048,983	47.04	33
Building Pad	361,896	8.31	06
Impermeable Surfaces	2,410,879	55.35	39
TOTAL:	**6,221,569**	**142.83**	**100**



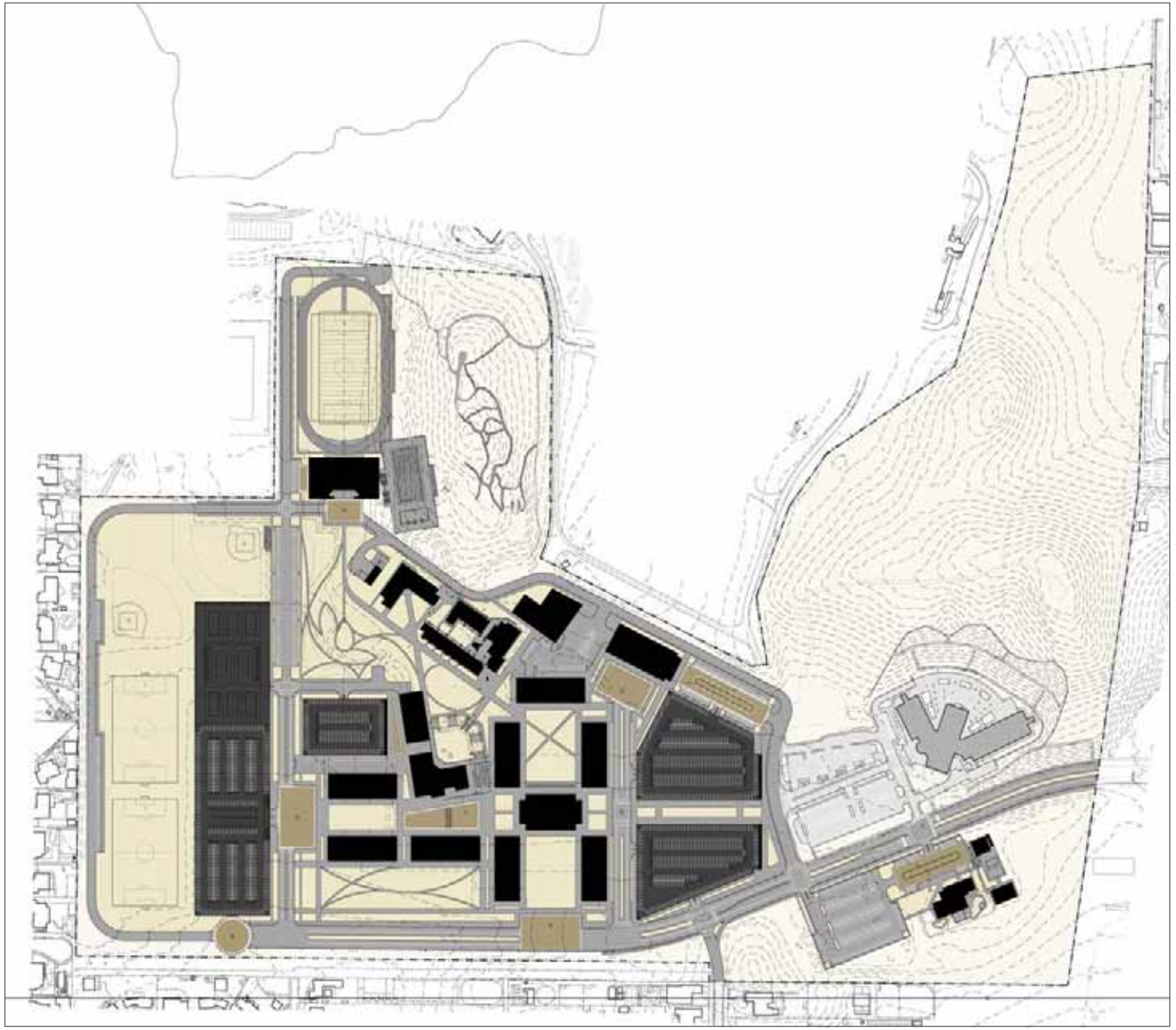
Ground Plane Permeability in the Existing Condition.

PERMEABLE SURFACES

PAVED SURFACES

PARKING STRUCTURES

BUILDINGS



Ground Plane Permeability in the Long Range Plan

Campus Transformation: Buildings

New buildings increase both the density of campus and the amount of open space on campus. New buildings are arranged to create simple orthogonal spaces. Their mass, breadth and height are calibrated relative to their separation from and relationship with one another. This creates spaces of a certain scale and proportion that associated with the yards, quadrangles and malls of the American campus tradition.

Increased density at the campus core increases the legibility of these open spaces and that of the campus as a whole.

Figure Ground in the Existing Condition.

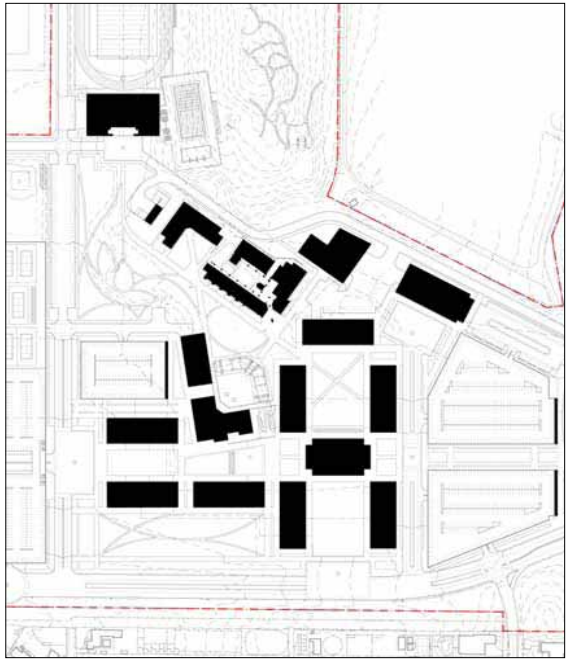
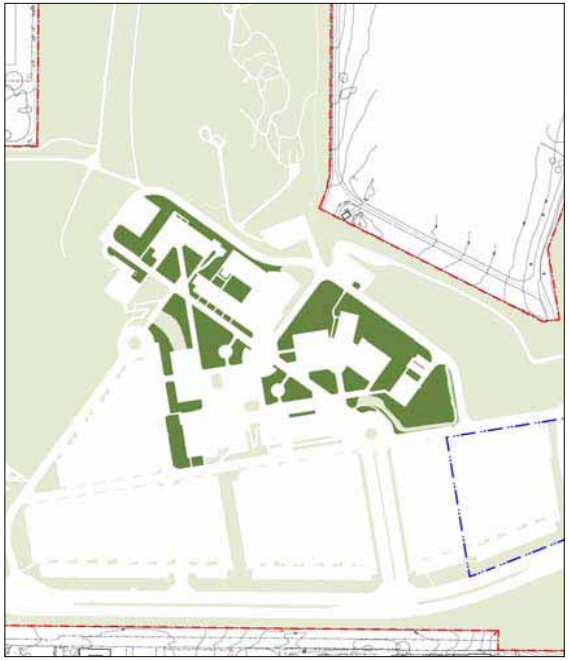


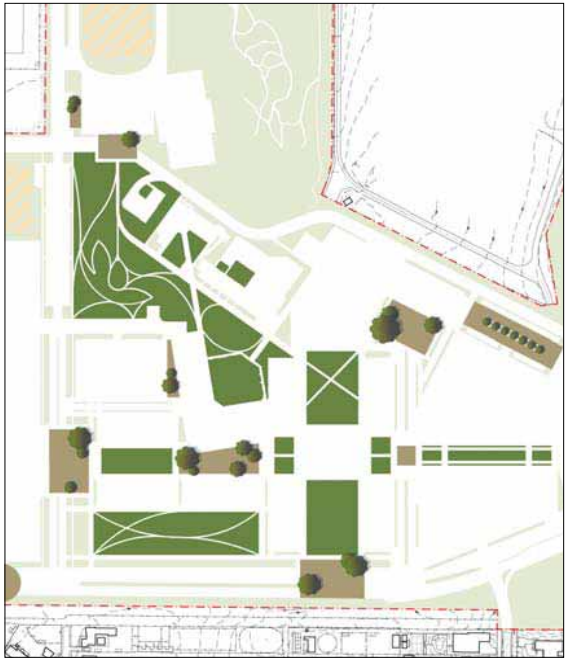
Figure Ground in the Long Range Plan.

Campus Transformation: Open Space

Open space on campus is more than the residual space that's a by-product of the placement of buildings. With the careful insertion of new buildings in key locations an infrastructure of well defined, meaningful and comprehensible open spaces--simple in shape and interrelated--is created. Instead of triangles, circles, crescent shapes and irregular fragments campus open space is transformed into a hierarchy of interconnected rectangular open spaces of a variety of type and character. This provides for a uniform and articulated overall campus environment and an easily apprehended sense of place.



Open Space in the Existing Condition.



Open Space in the Long Range Plan.

Expansion Over Time: Implementation of the Long Range Plan

The long range plan is crafted to allow for incremental implementation over an almost two decade period in which it is projected that the student population will expand from its current 9,000 students to over 16,000 students in the year 2024. In addition to the 16,000 student plan, two interim plans are shown correlating to two key milestones over the course of student population expansion, one at 10,000 students and on at 12,000 students. As justified in the Educational Master Plan and justified by Title V of the State of California Education Code target overall floor area benchmarks are identified for each of the three key milestones.

Indicated in each plan are new buildings and parking to come on line and existing buildings and parking to be taken off line. New buildings and parking that appear at each successive stage of development and indicated in each plan are:

New Buildings and Parking in the 10,000 Student Plan

- Student Center
- Arts & Sciences I
- Arts and Sciences II
- Physical Education Center
- Maintenance & Operations/Central Receiving
- West and North Parking Lots

New Buildings and Parking in the 12,000 Student Plan

- Visual & Performing Arts Center
- Career Technical I
- Career Technical II
- West Parking Structure

New Buildings and Parking in the 16,000 Student Plan

- Faculty and Staff Development Center
- Arts and Sciences III
- Arts and Sciences IV
- Career Technical III
- Northwest Parking Structure
- Northeast Parking Structure
- Southeast Parking Structure

Aerial View from the Southwest Looking Northeast of the Campus at 10,000 Students.

CAMPUS CAPACITY IN THE 10,000 STUDENT PLAN			
BUILDINGS & PARKING REQUIRED			
	ASF	*GSF*	*Spaces*
Buildings	252,810	388,938	n/a
Parking	n/a	n/a	2,000
BUILDINGS & PARKING PROVIDED			
Buildings	262,163	387,975	n/a
Parking	n/a	n/a	2,000

The Campus at 12,000 Students.

The Campus at 16,000 Students.

CAMPUS CAPACITY IN THE 12,000 STUDENT PLAN			
BUILDINGS & PARKING REQUIRED			
	ASF	*GSF*	*Spaces*
Buildings	288,787	444,288	n/a
Parking	n/a	n/a	2400
BUILDINGS & PARKING PROVIDED			
Buildings	312,640	473,253	n/a
Parking	n/a	n/a	2500

CAMPUS CAPACITY IN THE 16,000 STUDENT PLAN			
BUILDINGS & PARKING REQUIRED			
	ASF	*GSF*	*Spaces*
Buildings	376,297	578,919	n/a
Parking	n/a	n/a	3200
BUILDINGS & PARKING PROVIDED			
Buildings	396,661	602,892	n/a
Parking	n/a	n/a	3,350

OVERALL FLOOR AREA ON THE EXISTING CAMPUS

EXISTING BUILDINGS & BUILDINGS IN DESIGN OR UNDER CONSTRUCTION

	Building	Floors	ASF	GSF
1	Student Services (A)	1.5	8,487	14,357
2	Science & Technology (B)	2	10,700	14,588
3	Little Theater (C)	2	4,920	9,277
4	Humanities (D)	2	9,559	14,496
5	Tigers Den (E)	1	2,209	2,785
6	Building F-1	1	1,444	1,518
7	Building M-1	1	676	996
8	Building M-2	1	794	1,233
9	Library (G)	2	19,937	30,740
10	Applied Technology (N)	2	12,270	20,019
11	Building F-2	1	1,444	1,518
12	Bookstore	1	2,992	3,600
13	CACT	1	4,663	5,020
14	Multipurpose Athletics	1	2,972	3,360
15	Early Childhood Education Center	2	5,209	8,235
16	Portable -1	1	900	960
17	Portable -A	1	900	960
18	Portable - B	1	900	960
19	Southwest Portables	1	6,100	6,720
20	Industrial Technology (Phase III)	2	32,557	44,862
21	Student Success Center	2	15,000	22,000
	EXISTING BUILDINGS TOTAL FLOOR AREA:		**144,633**	**208,204**
	TOTAL :		**144,633**	**208,204**

OVERALL FLOOR AREA IN THE 10,000 STUDENT PLAN

EXISTING BUILDINGS TO REMAIN

	Building	Floors	ASF	GSF
1	Student Services (A)	1.5	8,487	14,357
2	Science & Technology (B)	2	10,700	14,588
3	Little Theater (C)	2	4,920	9,277
4	Humanities (D)	2	9,559	14,496
5	Tigers Den (E)	1	2,209	2,785
6	Building F-1	1	1,444	1,518
9	Library (G)	2	19,937	30,740
10	Applied Technology (N)	2	12,270	20,019
11	Building F-2	1	1,444	1,518
12	Bookstore	1	2,992	3,600
13	CACT	1	4,663	5,020
14	Multipurpose Athletics	1	2,972	3,360
15	Early Childhood Education Center	2	5,209	8,235
16	Portable -1	1	900	960
17	Portable -A	1	900	960
18	Portable - B	1	900	960
19	Southwest Portables	1	6,100	6,720
20	Industrial Technology (Phase III)	2	32,557	44,862
21	Student Success Center	2	15,000	22,000
	EXISTING BUILDINGS TOTAL FLOOR AREA:		**143,163**	**205,975**
	NEW BUILDINGS IN THE 10,000 STUDENT PLAN			
	SOUTH QUAD			
1.	Student Services & Support Center	3	32,000	48,000
2.	Arts & Sciences I	2	20,800	32,000
3.	Arts & Sciences II	2	20,800	32,000
	UPPER MESA			
4.	Maintenance & Operations/Central Receiving	1.5	10,400	16,000
5.	Physical Education Center	2.5	35,000	54,000
	NEW BUILDINGS TOTAL FLOOR AREA:		**119,000**	**182,000**
	TOTAL :		**262,163**	**387,975**

OVERALL FLOOR AREA IN THE 12,000 STUDENT PLAN				
EXISTING BUILDINGS TO REMAIN				
	Building	*Floors*	*ASF*	*GSF*
2	Science & Technology (B)	2	10,700	14,588
3	Little Theater (C)	2	4,920	9,277
4	Humanities (D)	2	9,559	14,496
6	Building F-1	1	1,444	1,518
9	Library (G)	2	19,937	30,740
10	Applied Technology (N)	2	12,270	20,019
11	Building F-2	1	1,444	1,518
15	Early Childhood Education Center	2	5,209	8,235
20	Industrial Technology (Phase III)	2	32,557	44,862
21	Student Success Center	2	15,000	22,000
	EXISTING BUILDINGS TOTAL FLOOR AREA:		**113,040**	**167,253**
NEW BUILDINGS IN THE 10,000 STUDENT PLAN				
SOUTH QUAD				
1.	Student Services & Support Center	3	32,000	48,000
2.	Arts & Sciences I	2	20,800	32,000
3.	Arts & Sciences II	2	20,800	32,000
UPPER MESA				
4.	Maintenance & Operations/Central Receiving	1.5	10,400	16,000
5.	Physical Education Center	2.5	35,000	54,000
	10,000 STUDENT PLAN NEW BUILDINGS TOTAL :		**119,000**	**182,000**
NEW BUILDINGS IN THE 12,000 STUDENT PLAN				
UPPER MESA				
6.	Visual and Performing Arts	3	39,000	60,000
7.	Career Technical I	2	20,800	32,000
8.	Career Technical II	2	20,800	32,000
	12,000 STUDENT PLAN NEW BUILDINGS TOTAL :		**80,600**	**124,000**
	TOTAL :		**312,640**	**473,253**

OVERALL FLOOR AREA IN THE 16,000 STUDENT PLAN				
EXISTING BUILDINGS TO REMAIN				
	Building	*Floors*	*ASF*	*GSF*
6/11	Building F-1/F-2	1	2,888	3,036
9	Library (G)	2	19,937	30,740
10	Applied Technology (N)	2	12,270	20,019
15	Early Childhood Education Center	2	5,209	8,235
20	Industrial Technology (Phase III)	2	32,557	44,862
21	Student Success Center	2	15,000	22,000
	EXISTING BUILDINGS TOTAL FLOOR AREA:		**87,861**	**128,892**
NEW BUILDINGS IN THE 10,000 STUDENT PLAN				
SOUTH QUAD				
1.	Student Services & Support Center	3	32,000	48,000
2.	Arts & Sciences I	2	20,800	32,000
3.	Arts & Sciences II	2	20,800	32,000
UPPER MESA				
4.	Maintenance & Operations/Central Receiving	1.5	10,400	16,000
5.	Physical Education Center	2.5	35,000	54,000
	10,000 STUDENT PLAN NEW BUILDINGS TOTAL :		**119,000**	**182,000**
NEW BUILDINGS IN THE 12,000 STUDENT PLAN				
UPPER MESA				
6.	Visual and Performing Arts	3	39,000	60,000
NORTH QUAD				
7.	Career Technical I	2	20,800	32,000
8.	Career Technical II	2	20,800	32,000
	12,000 STUDENT PLAN NEW BUILDINGS TOTAL :		**80,600**	**124,000**
NEW BUILDINGS IN THE 16,000 STUDENT PLAN				
NORTH QUAD				
9.	Career Technical III	2	20,800	32,000
WEST QUAD				
10.	Faculty & Staff Development Center	2.5	26,000	40,000
11.	Arts & Sciences III	3	31,200	48,000
12.	Arts & Sciences IV	3	31,200	48,000
	16,000 STUDENT PLAN NEW BUILDINGS TOTAL:		**109,200**	**168,000**
	TOTAL :		**396,661**	**602,892**

New Buildings in the Phase I Building Program

A Phase I building program consisting principally of five new buildings totalling 119,000 ASF or 182,000 GSF will bring the campus to proper capacity in service of a student population of 10,000 students .

		No. Flrs	ASF	GSF
1.	Student Center	3	32,000	48,000
2.	Arts & Sciences I	2	20,800	32,000
3.	Arts & Sciences II	2	20,800	32,000
4.	Maintenance & Operations/Central Receiving	2	10,400	16,000
5.	Physical Education Center	2	35,000	54,000
	New Buildings:		**119,000**	**182,000**

Other Projects in the Phase I Building Program

With the construction of the new Student Center programs and services located in the existing Library will relocated to the new building, allowing for the renovation of the Library for enhanced library and other uses. With the construction of the new physical education center will come the track and field and women's softball field, both of which, along with the new P.E. Center are considered facilities critical to initiating a comprehensive physical education and athletics program at Norco. The current parking supply is nearly sufficient to serve 10,000 students; however, areas of the south parking lot will be removed. This parking is to be replaced in other locations to the west and northeast of the core campus.

		No. Flrs	ASF	GSF
6.	Library Renovation	2	20,200	30,800
7.	Track & Field	n/a		
8.	Women's Softball Field	n/a		
9.	West Parking Lot	n/a		
10.	North Parking Lot	n/a		

Buildings Removed in the Phase I Building Program

Only modulars M-1 and M-2 will be removed in this phase and only upon completion of the new Maintenance & Operations/Central Receiving facility.

		No. Flrs	ASF	GSF
1.	M-1	1	676	996
2.	M-2	n/a	794	1,233

10,000 Student Plan Phase I Implementation Building Sites.

Building Sites in the Phase I Building Program

Sites have been chosen in compliance with basic principles of the long range plan. Most of the sites are currently undeveloped areas of campus at the perimeter of the core campus.

The Physical Education Center, track and field will occupy a key currently undeveloped parcel in the north east corner of campus. The South Quadrangle and three buildings, the Student Center and Arts and Sciences I and II will occupy areas of the south parking lot between the mesa and 3rd Street. The new Maintenance and Operations/Central Receiving facility will occupy a site where currently are located M-1, M-2 and F-1 adjacent to the existing service road that runs along the north side of the upper mesa. To replace the parking that is removed from the south parking lot two new parking lots are constructed both on currently undeveloped parcels to the west and northeast of core campus.

10,000 Student Capacity Phase I Implementation: New and Renovated Indoor and Outdoor Facilities, Parking and Roadways

Phasing of Construction in the Implementation of the 10,000 Student Plan

The phasing of construction in the first phase of implementation of the long range plan is designed to minimize impacts on the daily operations of the existing campus and to avoid having to move any program or operation twice. Construction is limited to areas at the perimeter of the core campus with the exception of the Library. The renovation of the Library does not occur until after the new Student Center is built and many of the programs and services currently housed in the Library can be moved. New parking is constructed to the west and northeast of the core campus before the removal of parking from the south parking lot to make way for the South Quadrangle project. Implementation is arranged into five distinct construction projects as outlined below:

Project I : South Quadrangle & New Campus Entry

IA:New Parking

- West parking lot (+/- 470 spaces)
- North-south access road

IB Demolition

- Remove existing campus vehicular entrance
- Remove flanking parking lots (+/-148 spaces)

IC New Buildings

- Student Center
- Arts & Sciences I
- Arts & Sciences II

ID Site Work

- Modified campus vehicular entrance
- 3rd Street autocourt
- Quadrangle paving and landscape
- Learning Commons Plaza
- Other paving and landscape

Project II : Maintenance & Operations/Central Receiving

IIA:Demolition

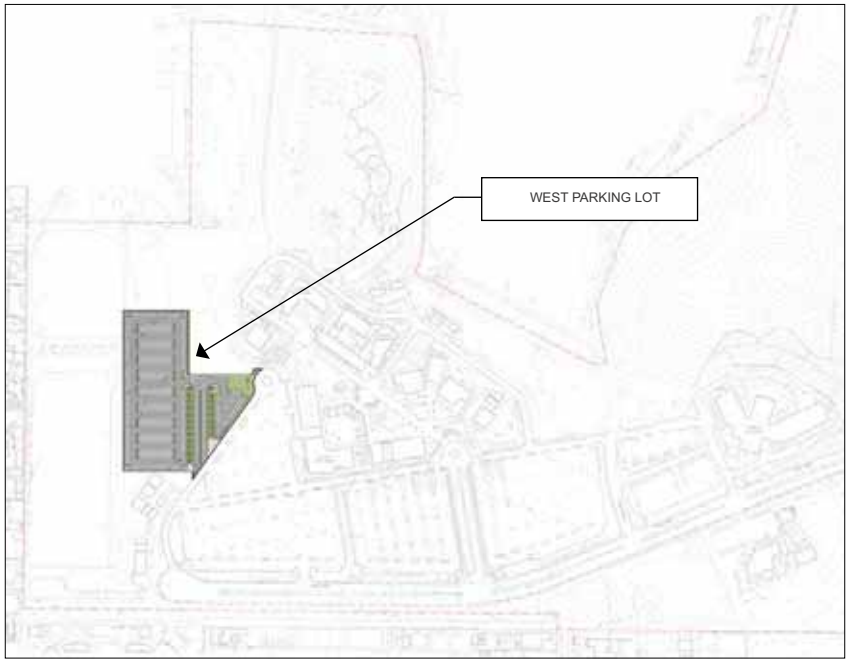
- Remove existing service road

IIB Demolition

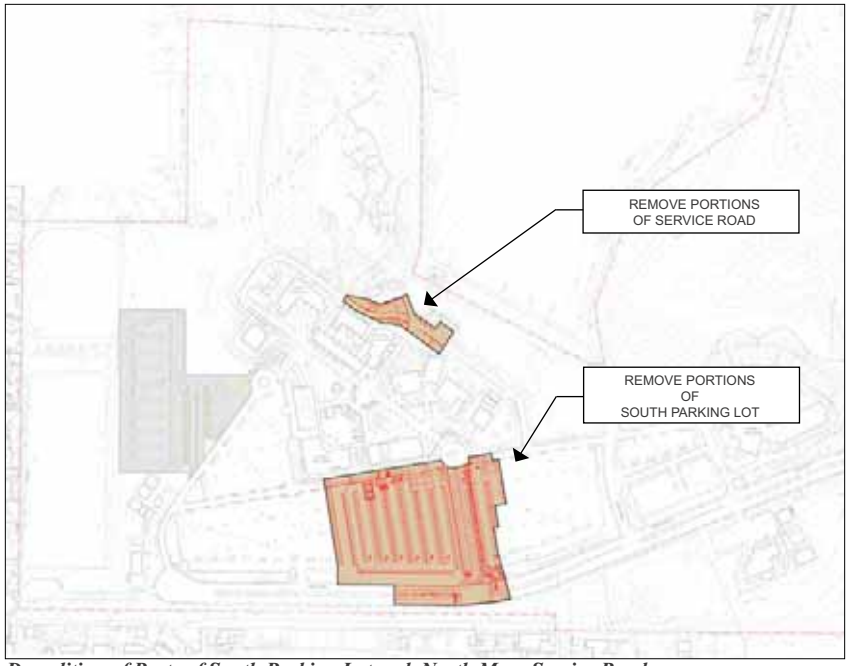
- Maintenance & Operations/Central Receiving

IIC New Buildings

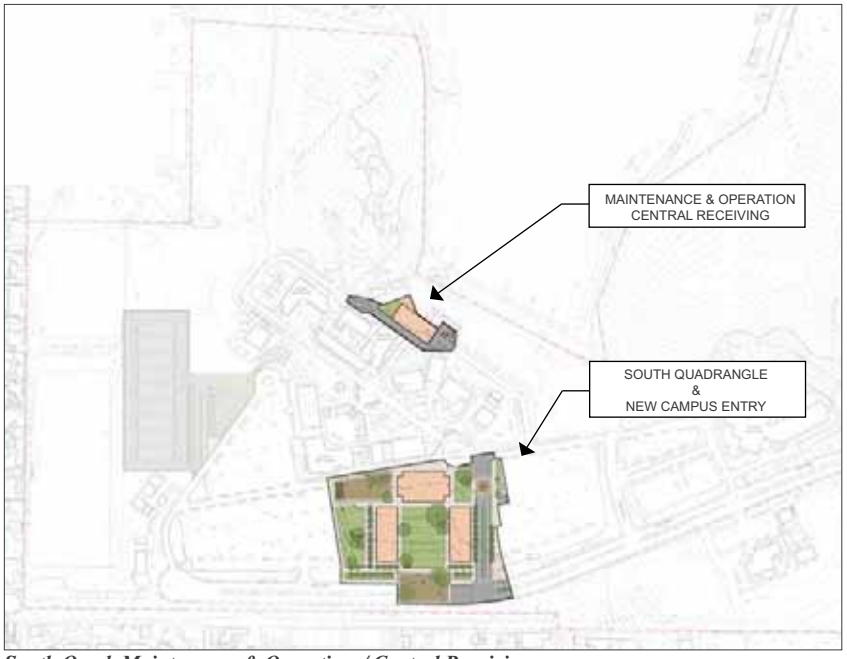
- Reconnect service Road



Construction of the West Parking Lot.



Demolition of Parts of South Parking Lot and North Mesa Service Road.



South Quad, Maintenance & Operations/ Central Receiving.

Project III : Renovation of the Library

IIIA:Demolition

- Remove student success related programs
- Remove non-library uses from 2nd floor

IB Renovation

- Expand library on 2nd floor
- Renovate ground floor for other uses

Project IV: Physical Education, Athletics and Recreation

IVA:Site preparation

- Grade work to prepare for track and field, roadway
- Extension of storm drain

IVB New facilities

- Physical Education Center
- Track and field
- Women's softball field

IVC Site work

- Roadway extension
- On street parking
- Emergency vehicle access road and turnaround
- Autocourt

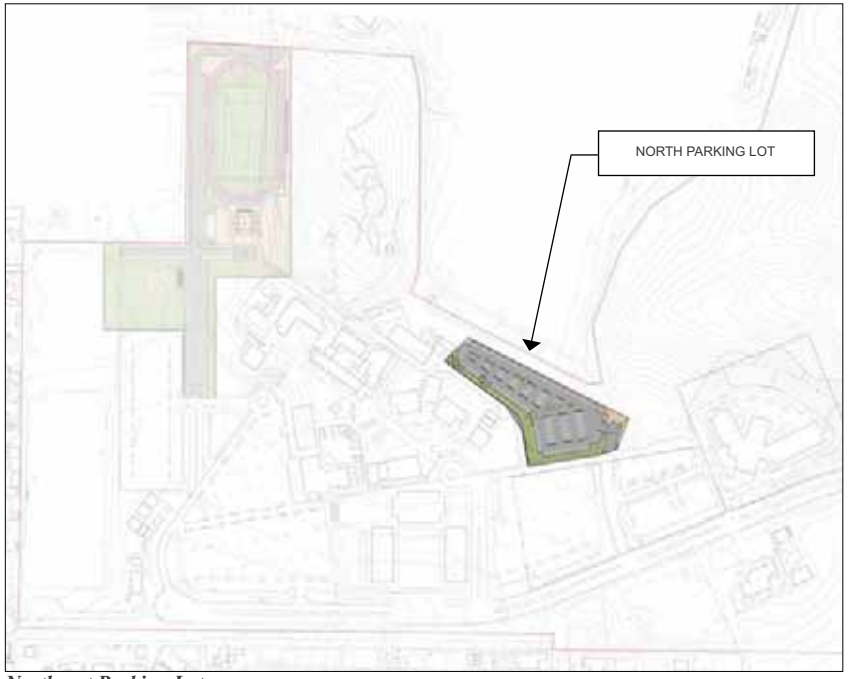
Project V : North Parking Lot

VA:New Parking

- Grade site in preparation for surface lot
- Pave surface lot (+/- 200 spaces)

Library Renovation and Expansion.

Physical Education Center, Track and Field, Softball Field.



Northeast Parking Lot.

The 10,000 Student Plan

Buildings

Three new buildings satisfy key immediate programmatic needs of the fledgling college. An expanded student services facility and consolidated student success centers and support facilities located in a three story Student Center at the heart of campus will provide vital services to students as the campus continues to expand. This facility will centralize programs and services that are currently delivered in three different locations. Two new classroom lab buildings, Arts and Sciences I & II will provide science, engineering, music and art laboratories and a few additional classrooms, along with faculty offices and meeting rooms. A new Maintenance & Operations/Central Receiving facility will replace functions currently run out of M-1 and M-2 and like the Student Center provide vital services in support of an expanding campus. A new Physical Education Center will provide a two-court competitive caliber gymnasium and other labs and classrooms associated with physical education as well as team rooms, locker rooms, faculty offices and meeting rooms.

Open Space

The Student Center, Arts and Sciences I & II are assembled around the first new major open space on campus, the South Quadrangle. This quadrangle faces south across the valley below to the city of Corona and the hills beyond. At its foot along 3rd Street lies a paved, shaded court for vehicular drop-off and pick-up. In addition, the first phase of the Learning Commons, south of the Library and east of the Student Center is initiated. Resources allowing, most of the paved surfaces within the amphitheater are to be removed to make way for landscaping as the first phase in the initiation of the Mesa Riparian Garden.

Physical Education, Athletics and Recreation

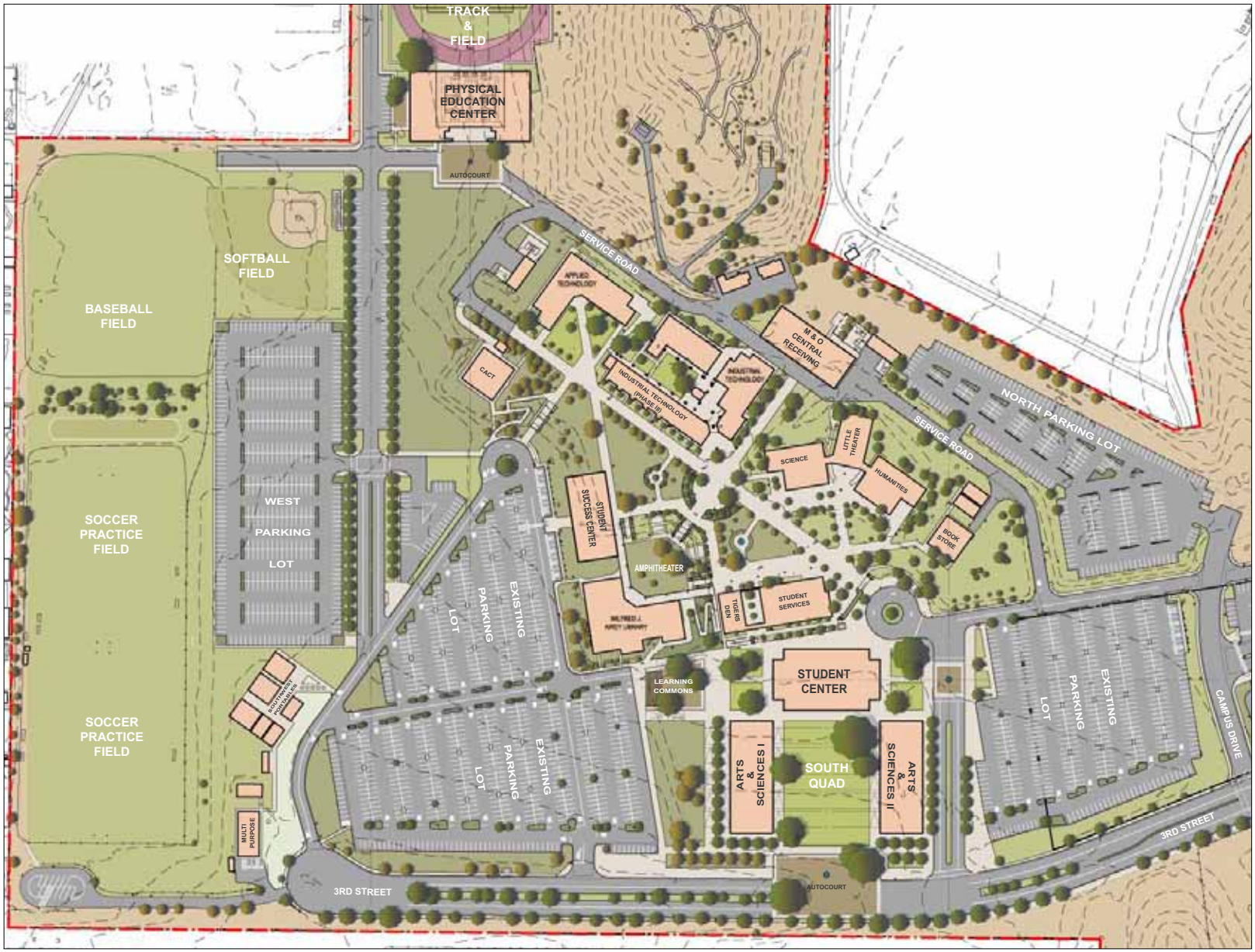
The new track and field provides vital competitive caliber outdoor facilities and is located away from residential neighbors to allow for competitive events and night lighting. The track and field provide a kind of fore court for the physical education center facing north toward Lake Norconian. A new softball field is built on a parcel southwest of the physical education center just north of the west parking lot.

Vehicular Circulation and Parking

The first leg of the new north-south drive that links 3rd Street to the physical education center, track and field is initiated in this phase. Along side of it is built a new surface parking lot, the west lot. In the area adjacent to and just northeast of the core campus another parking lot is built. Together with the existing lots parking is now arranged on three sides of campus within reasonable walking distances.

The Campus at 10,000 Student Capacity.

The existing front turnaround adjacent to the existing Student Services building is retained in this phasing allowing for convenient vehicular drop-off and pick-up adjacent to the heart of campus.



The Core Campus at 10,000 Student Capacity.

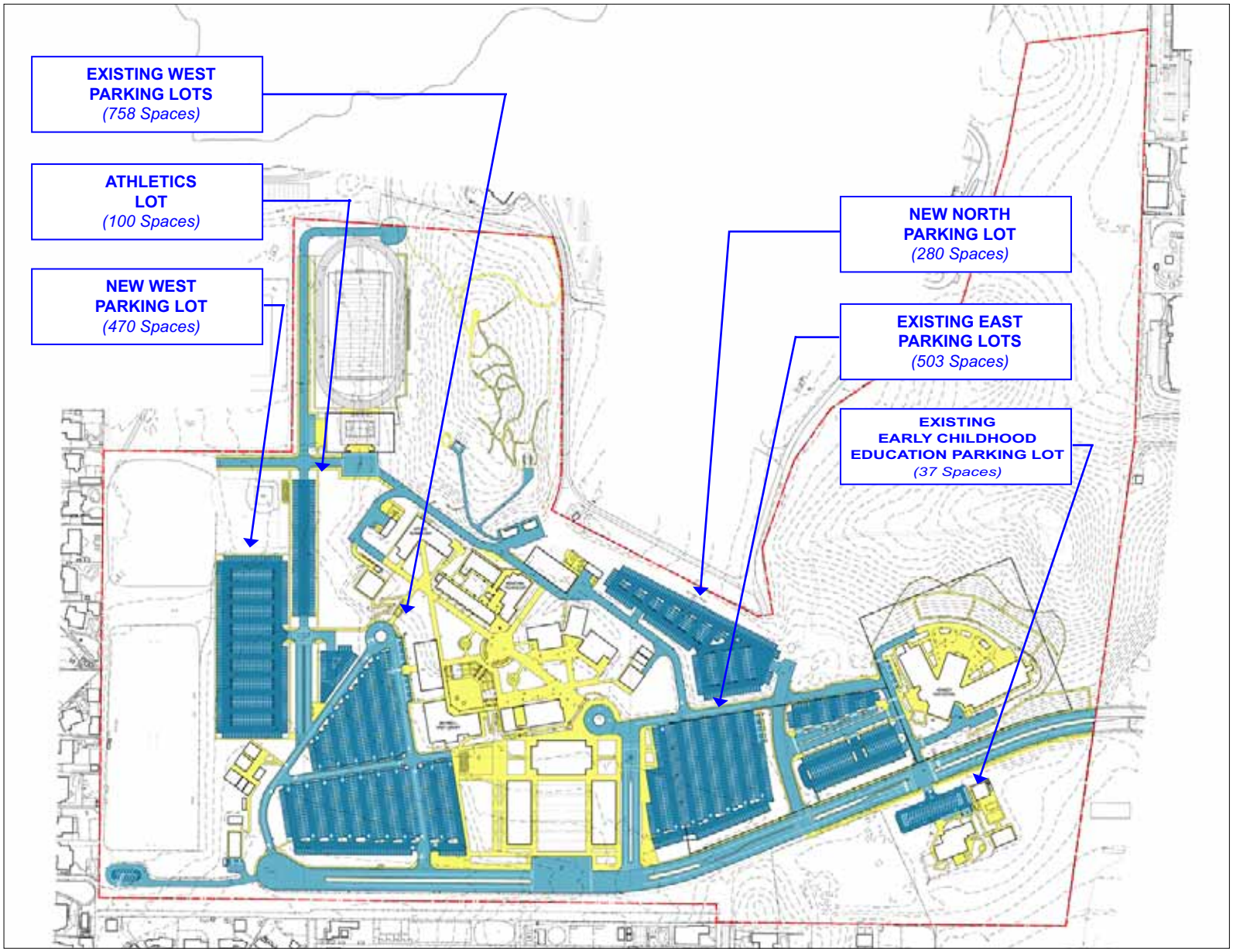
Vehicular Circulation in the 10,000 Student Plan

Loss of existing parking due to the removal of portions of the south lot are offset with the construction of the west and northeast lots as well as the modest at grade parking along the north south drive serving the physical education center, track and field. The high school will continue to share use of the parking lot just west of Campus Drive.

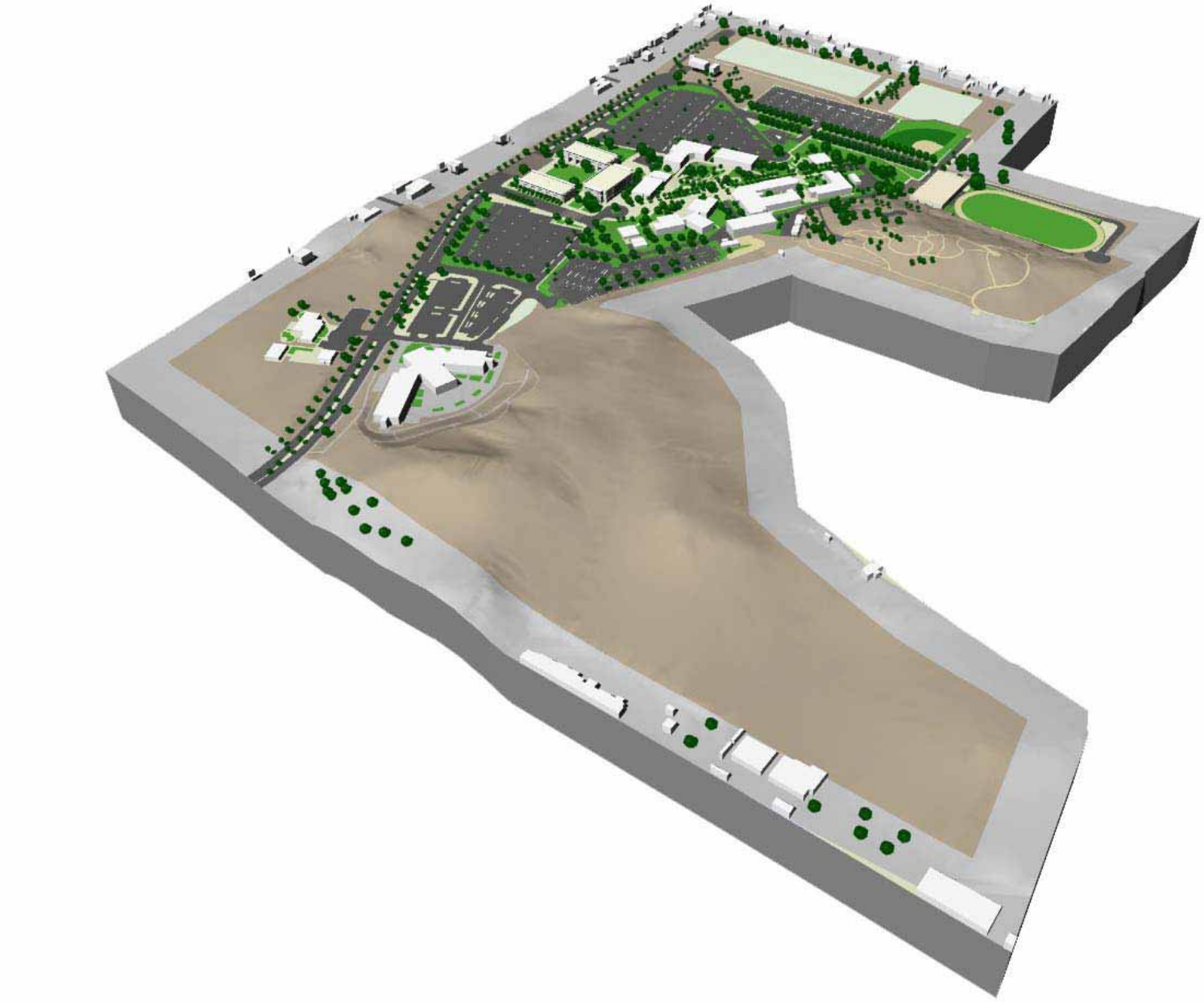
With the completion of the north south drive a complete perimeter road circling the core campus is put into place. Extension of the north south drive north along side of the track and field provides for emergency vehicle access for that facility and a potential future link to a new campus entry coming in from the north.

PARKING SPACES IN THE 10,000 STUDENT PLAN			
EXISTING LOTS			
	Location	*Levels*	*Spaces*
1.	Existing West Parking Lots	n/a	758
2.	Existing East Parking Lots	n/a	503
3.	Net Parking Removed From South Lots	n/a	- (148)
4.	Early Childhood Education	n/a	37
	TOTAL EXISTING SPACES IN SURFACE LOTS:		**1,150**
NEW LOTS			
	Location	*Levels*	*Spaces*
1.	West Parking Lot	n/a	470
2.	North Parking Lot	n/a	280
3.	Athletics Parking Lot	n/a	100
	TOTAL SPACES IN STRUCTURES:		**850**
	TOTAL INVENTORY OF PARKING SPACES:		**2,000**

Vehicular Circulation and Parking in the Existing Condition.



Vehicular Circulation and Parking in the 10,000 Student Plan.



Aerial View from the Northeast Looking Southwest of the Campus in the 10,000 Student Plan

Aerial View from the Southwest Looking Northeast of the Campus in the 10,000 Student Plan.

New Buildings in the 12,000 Student Plan

		No. Flrs	ASF	GSF
1.	Visual and Performing Arts	3	39,000	60,000
2.	Career Technical I		20,800	32,000
3.	Career Technical II		20,800	32,000
	New Buildings:		**80,600**	**124,000**

Other Projects in the Phase I Building Program

The first of the new parking structures is built, the west garage, with eight competition caliber tennis courts on the top deck at the far north end. The west quad is initiated and the learning commons completed to create a gracious pedestrian connection between the west structure and the core campus. Also part of this project are the re configuration of the west parking lots and the extension of the riparian garden from the amphitheater along the southwest slopes of the upper mesa north to the physical education center. The east parking lots are re configured and the east quad initiated as part of the site work associated with the visual and performing arts center. Also part of this phase is the completion of the perimeter road with its extension around the north, west and south sides of the practice fields at the far west end of campus.

4. West Parking Structure
5. West Quad, Learning Commons Extension & West Parking Lots
6. Mesa Riparian Garden
9. East Quad & Reconfiguration of East Parking Lots
10. Western Extension of the Perimeter Road

Buildings Removed in the 12,000 Student Plan

		No. Flrs	ASF	GSF
1.	Student Services (A)	2	8,487	14,357
2.	Tigers Den (E)	1	2,209	2,785
3.	Bookstore	1	2,992	3,600
4.	CACT	1	4,663	5,020
5.	Multipurpose Athletics	1	2,972	3,360
6.	Portables 1, A & B	1	2,700	2,880
7.	Southwest Portables	1	6,100	6,720
	Removed Buildings:		**30,123**	**38,722**

The Campus at 12,000 Student Capacity.

Open Space in the 12,000 Student Plan

Major open spaces are initiated in this phase establishing the open space infrastructure that is part of the 16,000 student plan. These include the north, west and east quadrangles and the mesa riparian garden. Paved courts, two associated with the visual and performing arts center, one with the student center and one with the west quadrangle and west parking structure are built in this phase.

Vehicular Circulation and Parking in the 12,000 Student Plan

Approximately 2,500 spaces are provided in this phase with the completion of the 1,200 space west parking structure. The campus perimeter road initiated in the 10,000 student plan is extended around the west side of the practice fields completing a loop that serves the entirety of campus.

The Campus at 12,000 Student Capacity.

Aerial View from the Northeast Looking Southwest of the Campus in the 12,000 Student Plan

Aerial View from the Southwest Looking Northeast of the Campus in the 12,000 Student Plan.

Overall Costs of Implementation

In today's dollars the overall cost of implementation of the 16,000 student plan approaches $500M, more or less evenly distributed across the three phases identified. Of this approximately $350M goes to the construction of new buildings, $75M toward parking and $75 for outdoor physical education, athletics and recreation facilities, site work associated with new buildings and parking and open space infrastructure. Costs identified are *total project costs* and include all costs associated with the realization of every project within the 16,000 student plan..

NORCO CAMPUS MASTER PLAN
CAPITAL PROJECT COST SUMMARY BY PHASE
(January 2008 Dollars)

	Project	Unit	Quantity	Cost
	10,000 STUDENT PLAN			
	Buildings	SF		130,759,000
	Parking	Spaces		8,500,000
	Site Work	SF		32,889,063
	10,000 Student Plan Subtotal:			$172,148,063
	12,000 STUDENT PLAN			
	Buildings	SF		87,600,000
	Parking	Spaces		31,552,750
	Sitework	SF		19,945,525
	12,000 Student Plan Subtotal:			$139,098,275
	16,000 STUDENT PLAN			
	Buildings	SF		117,760,000
	Parking	Spaces		34,650,000
	Sitework	SF		19,350,763
	16,000 Student Plan Subtotal:			$171,760,763
	TOTAL CAPITAL COSTS IN JANUARY 2008 DOLLARS:			**$483,007,100**

Cost Escalation

Costs in the last five years have escalated at an average of 5% , although some years costs have spiked unexpectedly and significantly higher. While it is impossible to predict and increasingly so beyond a five year planning horizon the Riverside Community College District believes that project costs will escalate at an average compounded rate of 5% per year over the next two decades.

Understanding overall cost of implementation of the 16,000 student plan must therefore account for the time frame in which it is realized. If as the Riverside Community College District Department of Facilities, Planning, Design and Construction has stated new projects on the Norco campus will not start construction until the year 2013, then cost planning for the first phase of implementation--those identified in the 10,000 student plan--must account for five years of compounded escalation between 2008 and 2013..

If the overall costs of implementation of the 10,000 student plan in today's dollars approach $175M they will in 2013 approach $220M. Costs associated with the implementation of the entirety of the 16,000 student plan estimated to be $500M in today's dollars will at a compounded rate of escalation of 5% exceed $800M over the course of the fifteen year period between now and the completion of the plan.

NORCO CAMPUS MASTER PLAN ESCALATION OF CAPITAL COSTS OVER TIME *(5% Per Annum)*			
Year	*10,000 Student Plan*	*12,000 Student Plan*	*16,000 Student Plan*
2008	$172,148,063	$139,098,275	$171,760,763
2009	$180,755,466	$146,053,189	$180,348,801
2010	$189,793,239	$153,355,848	$189,366,241
2011	$199,282,901	$161,023,641	$198,834,553
2012	$209,247,047	$169,074,823	$208,776,281
Cost of 10,000 Student Plan on January 1 ,2013			*$219,709,399*
2013		$177,528,564	$219,215,095
2014		$186,404,992	$230,175,850
2015		$195,725,242	$241,684,642
2016		$205,511,504	$253,768,874
2017		$215,787,079	$266,457,318
Cost of 12,000 Student Plan on January 1, 2018			*$226,576,433*
2018			$279,780,184
2019			$293,769,193
2020			$308,457,653
2021			$323,880,535
2022			$340,074,562
Cost of 12,000 Student Plan on January 1, 2023			*$357,078,290*
TOTAL COST OF IMPLEMENTATION OVER TIME:			**$803,364,122**

Cost Planning Assumptions

The State of California Chancellor's Office issues guidelines for the costs of buildings by building type within the entirety of the California community college system. These numbers are wildly out of sync with the reality of the costs of construction today, especially in the Southern California market. They do not include other costs associated with the development of a campus including for example, demolition, renovation, site preparation, parking and roads.

The Riverside Community College District Department of Facilities, Planning Design and Construction has therefore created its own guidelines to assist the District in establishing the true costs of implementation of the campus master plan.

It is important to acknowledge the existence of the State of California guidelines as these will determine the rate of funding available from the State for projects, the rest of which will have to be provided by the District. Understanding the difference between that which the State will fund and the reality of what projects cost will assist the District in understanding the requirements of its own capital projects funding stream.

The State will not fund parking, site work or landscape projects, and it is most likely that the State will realistically fund only 50% of the cost of building projects. Of the roughly $500M in today's dollars associated with the overall costs of implementation of the long range plan of which $350M goes to buildings the State will fund perhaps $175M and none of the $150M associated with parking, outdoor physical education, athletics and recreation facilities, sitework and landscape projects. The District therefore needs to plan for a capital projects funding stream of $325M in today's dollars escalated at a compounded rate of 5% per year and distributed over an approximately 15 year period when the campus will have reached full capacity at 16,000 students.

RIVERSIDE COMMUNITY COLLEGE DISTRICT CAPITAL PROJECTS COST GUIDELINES
UNIT COSTS IN DOLLARS AS OF JANUARY 2008

Building Type	*Unit of Measure*	*Construction Group 1*		*Construction Group 2*		***Total Construction Cost***	*Soft Cost*	***TotalCost***
		Building Construction	*Security, IT/AV (Group 1)*	*FFE (Group 2)*	*IT/AV (Group 2)*			
		Note (1)	*Note (2)*	*Note (3)*	*Note (4)*		*Note (5)*	*Notes (6 & 7)*
Classroom/Lecture	GSF	420.00	30.00	20.00	50.00	**520.00**	180.00	**700.00**
Student Services	GSF	410.00	30.00	20.00	35.00	**495.00**	176.00	**671.00**
Office/Administration	GSF	420.00	30.00	20.00	35.00	**505.00**	180.00	**685.00**
Fine and Applied Arts	GSF	440.00	30.00	20.00	30.00	**520.00**	188.00	**708.00**
Sciences Wet Lab	GSF	450.00	30.00	20.00	20.00	**520.00**	192.00	**712.00**
Sciences Dry Lab	GSF	445.00	30.00	20.00	20.00	**515.00**	190.00	**705.00**
Physical Education	GSF	425.00	15.00	15.00	15.00	**470.00**	176.00	**646.00**
Maintenance and Operations	GSF	235.00	15.00	15.00	15.00	**280.00**	100.00	**380.00**
Renovation and Modernization	GSF	300.00	30.00	20.00	20.00	**370.00**	132.00	**502.00**
Structured Parking	Space	15,000.00	0.00	0.00	0.00	**15,000.00**	6,000.00	**21,000.00**
Surface Parking	Space	2,000.00	0.00	0.00	0.00	**2,000.00**	800.00	**2,800.00**
Site Demolition	SF	3.00	0.00	0.00	0.00	**3.00**	0.75	**3.75**
Building Demolition	GSF	10.00	0.00	0.00	0.00	**10.00**	2.50	**12.50**
Site Preparation	SF	7.00	0.00	0.00	0.00	**7.00**	1.75	**8.75**
Site Work	SF	20.00	0.00	0.00	0.00	**20.00**	5.00	**25.00**
Utilities	LS	n/a	n/a	n/a	n/a	**n/a**	n/a	**n/a**

NOTES

Note (1) Construction Costs $ per GSF have been estimated based on the District's recent bid results for its Norco Phase III project, and current construction cost estimates provided by the District's Norco Phase III Construction Manager, ProWest Constructors, and the District's three Long Range Planning Consultants, Mass Companies, Steinberg Architects, and MDA Johnson/ Favaro Architects. Minimal site development and infrastructure costs outside of building footprint are assumed.

Note (2) Security, Instructional Technology (IT) and Audio Visual (AV) $ per GSF (Group 1) are projected based on recent District experience in providing the infrastructure for the Quad Modernization Project, Norco Phase III, and planning under way for the Norco Student Support Center, Nursing/Sciences and the District Modular Projects. This per square foot cost reflects the necessary infrastructure costs to provide for District IT/AV standards.

Note (3) Fixtures, Furnishings, and Equipment (FFE) $ per GSF (Group 2) are projected based on recent District experience in providing FFE for the Quad Modernization Project, Norco Phase III, and planning under way for the Norco Student Support Center, Nursing/Sciences and the District Modular Projects.

Note (4) Instructional Technology (IT) and Audio Visual Equipment (AV) $ per GSF (Group 2) are projected based on recent District experience in providing IT and AV equipment for the Quad Modernization Project, Norco Phase III, and planning under way for the Norco Student Support Center, Nursing/Sciences and the District Modular Projects.

Note (5) Soft Costs which include Architect Design Fees, Engineering Design Fees (A&E), A&E Reimbrusables, Special Consultants, Division of State Architect Fees (DSA), Other Permits and Fees, Engineering Tests, Inspections, Project Management, Construction Management, and Contingency – Total calculated at 40% of group 1 Construction Costs.

Note (6) Total Project Costs per GSF = Total of Construction Costs, IT/AV Construction Costs, FFE, IT/AV Equipment Costs, and Soft Costs. All estimates are in January 2008 Dollars no adjustment for escalation has been made.

Note (7) These planning costs figures reflect buildings up to 50,000 gsf. For buildings greater than 50,000 gsf, apply a 10% reduction in the total project cost.

CALIFORNIA STATE COMMUNITY COLLEGE CHANCELLORS OFFICE

COST GUIDELINES IN DOLLARS AS OF JANUARY 2008

Building Type	*Unit of Measure*	*Construction Cost*	*Group II Costs*	***Total Constrction Costs***	*Soft Costs*	***Total Costs***
Classroom/Lecture	GSF	260.00	13.09	**273.09**	95.58	**368.67**
Student Services	GSF	264.00	23.35	**287.35**	100.57	**387.92**
Office/Administration	GSF	260.00	22.00	**282.00**	98.70	**380.70**
Fine and Applied Arts	GSF	336.00	65.71	**401.71**	140.60	**542.31**
Sciences Wet Lab	GSF	386.00	66.53	**452.53**	158.39	**610.92**
Sciences Dry Lab	GSF	343.00	81.25	**424.25**	148.49	**572.74**
Physical Education	GSF	237.00	12.32	**249.32**	87.26	**336.58**
Maintenance and Operations	GSF	124.00	59.98	**183.98**	64.39	**248.37**
Renovation and Modernization	GSF	n/a	n/a	n/a	n/a	n/a
Structured Parking	Space	n/a	n/a	n/a	n/a	n/a
Surface Parking	Space	n/a	n/a	n/a	n/a	n/a
Site Demolition	SF	n/a	n/a	n/a	n/a	n/a
Building Demolition	GSF	n/a	n/a	n/a	n/a	n/a
Site Preparation	SF	n/a	n/a	n/a	n/a	n/a
Site Work	SF	n/a	n/a	n/a	n/a	n/a
Utilities	LS	n/a	n/a	n/a	n/a	n/a

Overall Costs of Implementation by Component

Almost 70% of the costs associated with the implementation of the long range plan are associated with the building of buildings. This amounts to approximately $336M in 2008 dollars distributed over 15 years of implementation However parking is the life blood of a community college and a key component of the plan. The long range plan requires the construction of four parking structures to accommodate parking for 16,000 students within reasonable walking distances of campus. The provision of parking therefore amounts to an overall cost of just over $72M in 2008 dollars distributed over fifteen years of implementation. Further, as has been amply described in this report a campus with just buildings and parking is not a campus. The costs associated with the creation of an infrastructure of open space as well as the site work and extension of utilities infrastructure associated with the building of each building as well as outdoor physical education, athletics and recreation facilities approach $75M in 2008 dollars distributed over 15 years.

Long Range Plan Capital Project Cost Summary by Component

Buildings.....	$336,119,000	69.6%
Sitework.....	$72,185,350	15.0%
Parking.....	$74,702,750	15.4%
Total:	**$483,007,100**	**100%**

NORCO CAMPUS MASTER PLAN
CAPITAL PROJECT COST SUMMARY BY COMPONENT
(January 2008 Dollars)

BUILDINGS

	Building	*$/GSF*	*GSF*	*Total Cost*
10,000 STUDENT PLAN				
1	Student Services & Support Center	671.00	48,000	$32,208,000
2	Arts & Sciences I	712.00	32,000	$22,784,000
3	Arts & Sciences II	705.00	32,000	$22,560,000
	Library Renovation	397.5	30,800	$11,704,000
4	Maintenance & Operations	380.00	16,000	$6,080,000
5	Physical Education Center	646.00	54,000	$34,884,000
	10,000 Student Plan Total:		*212,800*	*$130,759,000*
12,000 STUDENT PLAN				
6	Visual and Performing Arts	708.00	60,000	$42,480,000
7	Career Technical I	705.00	32,000	$22,560,000
8	Career Technical II	705.00	32,000	$22,560,000
	12,000 Student Plan Total:		*124,000*	*$87,600,000*
16,000 STUDENT PLAN				
9	Career Technical III	705.00	32,000	$22,560,000
10	Faculty & Staff Development Center	700.00	40,000	$28,000,000
11	Arts & Sciences III	700.00	48,000	$33,600,000
12	Arts & Sciences IV	700.00	48,000	$33,600,000
	12,000 Student Plan Total:		*168,000*	*$117,760,000*
	BUILDINGS TOTAL:			**$336,119,000**

NORCO CAMPUS MASTER PLAN CAPITAL PROJECT COST SUMMARY BY COMPONENT *(January 2008 Dollars)*		
SITE WORK		
	Project	*Cost*
10,000 STUDENT PLAN		
	South Quadrangle & Autocourt	$14,842,500
	M & O/Central Receiving Site Work	$781,250
	Physical Education Center Site work	$8,490,313
	Track & Field and Softball Field	$8,775,000
	10,000 Student Plan Total:	*$32,889,063*
12,000 STUDENT PLAN		
	North Quadrangle	$3,589,275
	Visual & Performing Arts Site Work	$6,343,750
	Learning Commons & West Quadrangle	$6,262,500
	Mesa Riparian Garden	$3,750,000
	12,000 Student Plan Total:	*$19,945,525*
16,000 STUDENT PLAN		
	Career & Technical III Site Work	$2,569,513
	West Quadrangle	$6,656,250
	Northwest Parking Structure Sitework	$3,125,000
	Northeast/Southeast Parking Structures	$7,000,000
	16,000 Student Plan Total:	*$19,350,763*
	SITE WORK TOTAL:	**$72,185,350**

NORCO CAMPUS MASTER PLAN CAPITAL PROJECT COST SUMMARY BY COMPONENT *(January 2008 Dollars)*				
PARKING				
	Project	*$/Space*	*Spaces*	*Cost*
10,000 STUDENT PLAN				
	West Parking Lot	n/a		$5,250,000
	North Parking Lot	n/a		$3,250,000
	10,000 Student Plan Total:			*$8,500,000*
12,000 STUDENT PLAN				
	Visual & Performing Arts Parking Lot	$2,800	50	$140,000
	West Parking Structure	$21,000	1,200	$25,200,000
	Early Childhood Education Center Lot	n/a	230	$6,212,750
	12,000 Student Plan Total:		*1,480*	*$31,552,750*
16,000 STUDENT PLAN				
	Northwest Parking Structure	$21,000	450	$9,450,000
	Northeast Parking Structure	$21,000	500	$10,500,000
	Southeast Parking Structure	$21,000	700	$14,700,000
	16,000 Student Plan Total:		*1,650*	*$34,650,000*
			PARKING TOTAL:	**$74,702,750**

Overall Costs of Implementation by Phase

To achieve proper capacity to support a student population of 10,000 students the District will need to invest over $172M in the Norco campus. To achieve capacity to support a student population of 12,000 students the District will have to plan for an additional investment of $139M or a total of $311M to bring the campus from its existing condition to athe 12,000 student capacity. Finally to achieve capacity in support of 16,000 students an additional $172M will be required for a total of $483M in today's dollars to bring the campus to full build-out between 2008 and 2024.

NORCO CAMPUS MASTER PLAN
CAPITAL PROJECT COST SUMMARY BY PHASE
(January 2008 Dollars)

	Project	*Cost*
	10,000 STUDENT PLAN	
	South Quadrangle & New Campus Entry	$97,644,500
	M & O/Central Receiving	$6,861,250
	Library Renovation	$12,243,000
	Athletics	$52,149,313
	North Parking Lot	$3,250,000
	10,000 Student Plan Subtotal:	*$172,148,063*
	12,000 STUDENT PLAN	
	North Quadrangle	$48,709,275
	Visual & Performing Arts	$48,963,750
	West Campus	$35,212,500
	ECEC Vehicular Entry, Autocourt, Parking Lot	$6,212,750
	12,000 Student Plan Subtotal:	*$139,098,275*
	16,000 STUDENT PLAN	
	Career Technical III	$25,129,513
	West Quadrangle	$101,856,250
	Northwest Parking Structure	$12,575,000
	East Campus Parking Structures	$32,200,000
	16,000 Student Plan Subtotal:	*$171,760,763*
	TOTAL CAPITAL PROJECT COSTS:	**$483,007,100**

NORCO CAMPUS MASTER PLAN COST PROJECTION: 10,000 STUDENT PLAN						
Project	*Unit of Measure*	*Construction Cost*	*Soft Cost*	*Total Cost*	*Quantity*	*Total Project Cost*
SOUTH QUADRANGLE & NEW CAMPUS ENTRY						
West Parking Lot & Access Road	SF	20.00	5.00	25.00	210,000	$5,250,000
Site Demolition	SF	3.00	0.75	3.75	356,000	$1,335,000
Student Services & Support Center	SF	495.00	176.00	671.00	48,000	$32,208,000
Arts & Sciences I	SF	520.00	192.00	712.00	32,000	$22,784,000
Arts & Sciences II	SF	515.00	190.00	705.00	32,000	$22,560,000
Site Work	SF	26.00	6.50	32.50	356,000	$11,570,000
Water Features	LS	n/a	n/a	n/a	n/a	$250,000
Utilities	LS	n/a	n/a	n/a	n/a	$1,687,500
				South Quadrangle & New Campus Entry Subtotal:		*$97,644,500*
MAINTENANCE & OPERATIONS/CENTRAL RECEIVING						
Site Demolition	SF	3.00	0.75	3.75	30,000	$112,500
M& O/Central Receiving	SF	280.00	100.00	380.00	16,000	$6,080,000
Site Work	SF	31.25	7.81	39.06	12,000	$468,750
Utilities	LS	n/a	n/a	n/a	n/a	$200,000
				Maintenance & Operations/Central Receiving Subtotal:		*$6,861,250*
LIBRARY RENOVATION						
Interior Demolition	SF	14.00	3.50	17.50	30,800	$539,000
Interior Renovation	SF	280.00	100.00	380.00	30,800	$11,704,000
				Library Renovation Subtotal:		*$12,243,000*
ATHLETICS						
Site Preparation	SF	7.00	1.75	8.75	437,000	$3,823,750
Physical Education Center	SF	470.00	176.00	646.00	54,000	$34,884,000
Track & Field	SF	27.00	6.75	33.75	220,000	$7,425,000
Womens Softball Field	SF	20.00	5.00	25.00	54,000	$1,350,000
Site Work & Surface Parking	SF	21.50	5.38	26.88	131,500	$3,534,063
Water Feature	SF	n/a	n/a	n/a	n/a	$250,000
Site Utilities	LF	n/a	n/a	n/a	n/a	$882,500
				Library Renovation Subtotal:		*$52,149,313*
NORTH PARKING LOT						
Site Preparation & Parking Lot	SF	20.00	5.00	25.00	130,000	$3,250,000
				North Parking Lot Subtotal:		*$3,250,000*
					TOTAL:	**$172,148,063**

NORCO CAMPUS MASTER PLAN COST PROJECTION: 12,000 STUDENT PLAN						
Project	*Unit of Measure*	*Construction Cost*	*Soft Cost*	*Total Cost*	*Quantity*	*Total Project Cost*
NORTH QUADRANGLE						
Site Demolition	SF	3.00	0.75	3.75	100,000	$375,000
Building Demolition	SF	10.00	2.50	12.50	17,142	$214,275
Career Technical I	SF	515.00	190.00	705.00	32,000	$22,560,000
Career Technical II	SF	515.00	190.00	705.00	32,000	$22,560,000
North Quadrangle & Misc. Site Work	SF	20.00	5.00	25.00	100,000	$2,500,000
Utilities	LS	n/a	n/a	n/a	n/a	$500,000
					North Quadrangle Subtotal:	*$48,709,275*
VISUAL & PERFORMING ARTS CENTER						
Site Demolition	SF	3.00	0.75	3.75	425,000	$1,593,750
Visual & Performing Arts Center	SF	520.00	188.00	708.00	60,000	$42,480,000
Site Work	SF	30.00	7.50	37.50	100,000	$3,750,000
Surface Parking	Parking Space	2,000.00	800.00	2800.00	50	$140,000
Utilities	LS	n/a	n/a	n/a	n/a	$1,000,000
					Visual & Performing Arts Center Subtotal:	*$48,963,750*
WEST CAMPUS						
Site Preparation	SF	7.00	1.75	8.75	150,000	$1,312,500
West Parking Structure	Parking Space	15,000.00	6000.00	21,000.00	1,200	$25,200,000
Learning Commons Extension	SF	40.00	10.00	50.00	30,000	$1,500,000
West Quadrangle & Misc. Site Work	SF	20.00	5.00	25.00	90,000	$2,250,000
Mesa Riparian Garden	SF	20.00	5.00	25.00	150,000	$3,750,000
Water Feature	LS	n/a	n/a	n/a	n/a	$200,000
Site Utilities	LS	n/a	n/a	n/a	n/a	$1,000,000
					West Campus Subtotal:	*$35,212,500*
EARLY CHILDHOOD EDUCATION CENTER VEHICULAR ENTRY, AUTOCOURT AND PARKING LOT						
Site Preparation	SF	7.00	1.75	8.75	165000	$1,443,750
Parking Lot	Parking Space	2,000.00	800	2800.00	230	$644,000
Site Work	Site Work	20.00	5.00	25.00	165,000	$4,125,000
				Early Childhood Education Center Vehicular Entry, Autocourt and Parking Lot Subtotal:		*$6,212,750*
					TOTAL:	**$139,098,275**

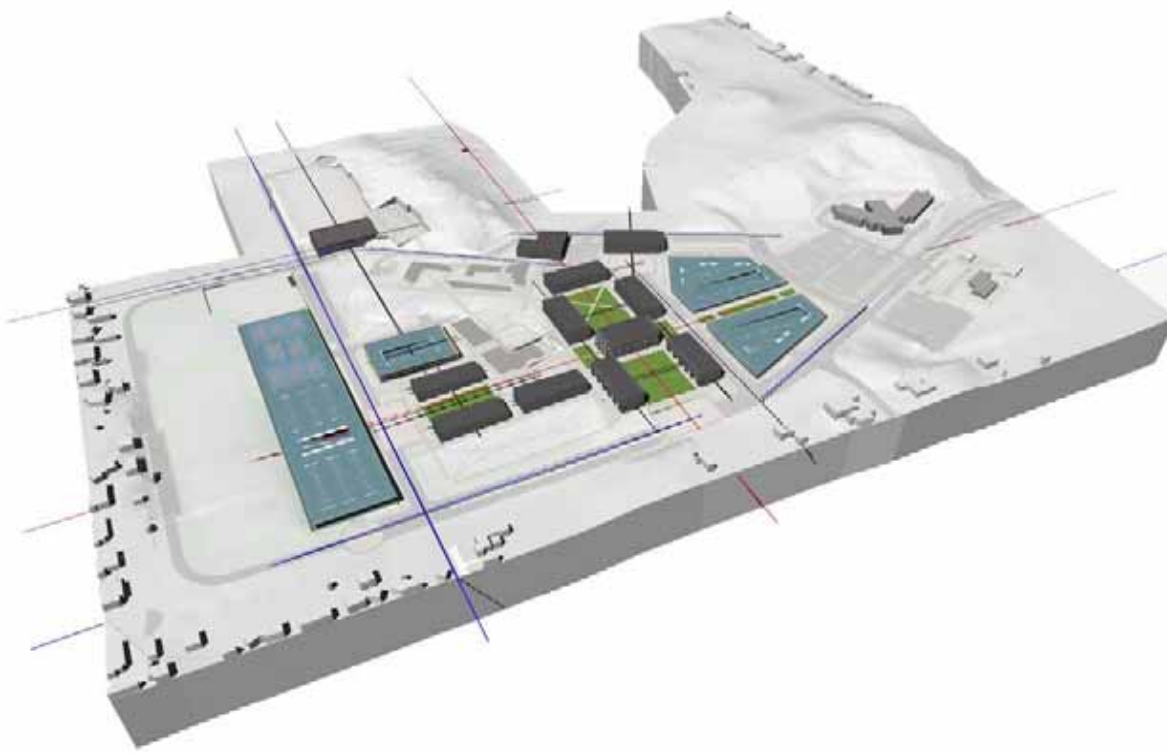
NORCO CAMPUS MASTER PLAN COST PROJECTION: 16,000 STUDENT PLAN						
Project	*Unit of Measure*	*Construction Cost*	*Soft Cost*	*Total Cost*	*Quantity*	*Total Project Cost*
CAREER TECHNICAL III						
Site Demolition	SF	3.00	0.75	3.75	64,000	$240,000
Building Demolition	SF	10.00	2.50	12.50	38,361	$479,513
Career Technical III	SF	515.00	190.00	705.00	32,000	$22,560,000
Site Work	SF	20.00	5.00	25.00	64,000	$1,600,000
Utilities	LS	n/a	n/a	n/a	n/a	$250,000
					Career Technical III Subtotal:	*$25,129,513*
WEST QUADRANGLE						
Site Demolition	SF	3.00	0.75	3.75	300,000	$1,125,000
Faculty & Staff Development Center	SF	520.00	180.00	700.00	40,000	$28,000,000
Arts & Sciences III	SF	520.00	180.00	700.00	48,000	$33,600,000
Arts & Sciences IV	SF	520.00	180.00	700.00	48,000	$33,600,000
Site Work	SF	21.50	5.38	26.88	150,000	$4,031,250
Utilities	LS	n/a	n/a	n/a	n/a	$1,500,000
					West Quadrangle Subtotal:	*$101,856,250*
NORTHWEST PARKING STRUCTURE						
Site Demolition	SF	3.00	0.75	3.75	100,000	$375,000
Northwest Parking Structure	Parking Space	15,000.00	6000.00	21,000.00	450	$9,450,000
Site Work	SF	20.00	5.00	25.00	100,000	$2,500,000
Site Utilities	LS	n/a	n/a	n/a	n/a	$250,000
					Northwest Parking Structure Subtotal:	*$12,575,000*
EAST CAMPUS						
Site Demolition	SF	3	0.75	3.75	340,000	$1,275,000
Site Preparation	SF	7.00	1.75	8.75	340,000	$2,975,000
Northeast Parking Structure	Parking Space	15000.00	6000.00	21,000.00	500	$10,500,000
Southeast Parking Structure	Parking Space	15,000.00	6000.00	21,000.00	700	$14,700,000
Site Work	Site Work	20.00	5.00	25.00	100,000	$2,500,000
Utilities	LS	n/a	n/a	n/a	n/a	$250,000
				Early Childhood Education Center Vehicular Entry, Autocourt and Parking Lot Subtotal:		*$32,200,000*
					TOTAL:	**$171,760,763**

The Regulating Plan

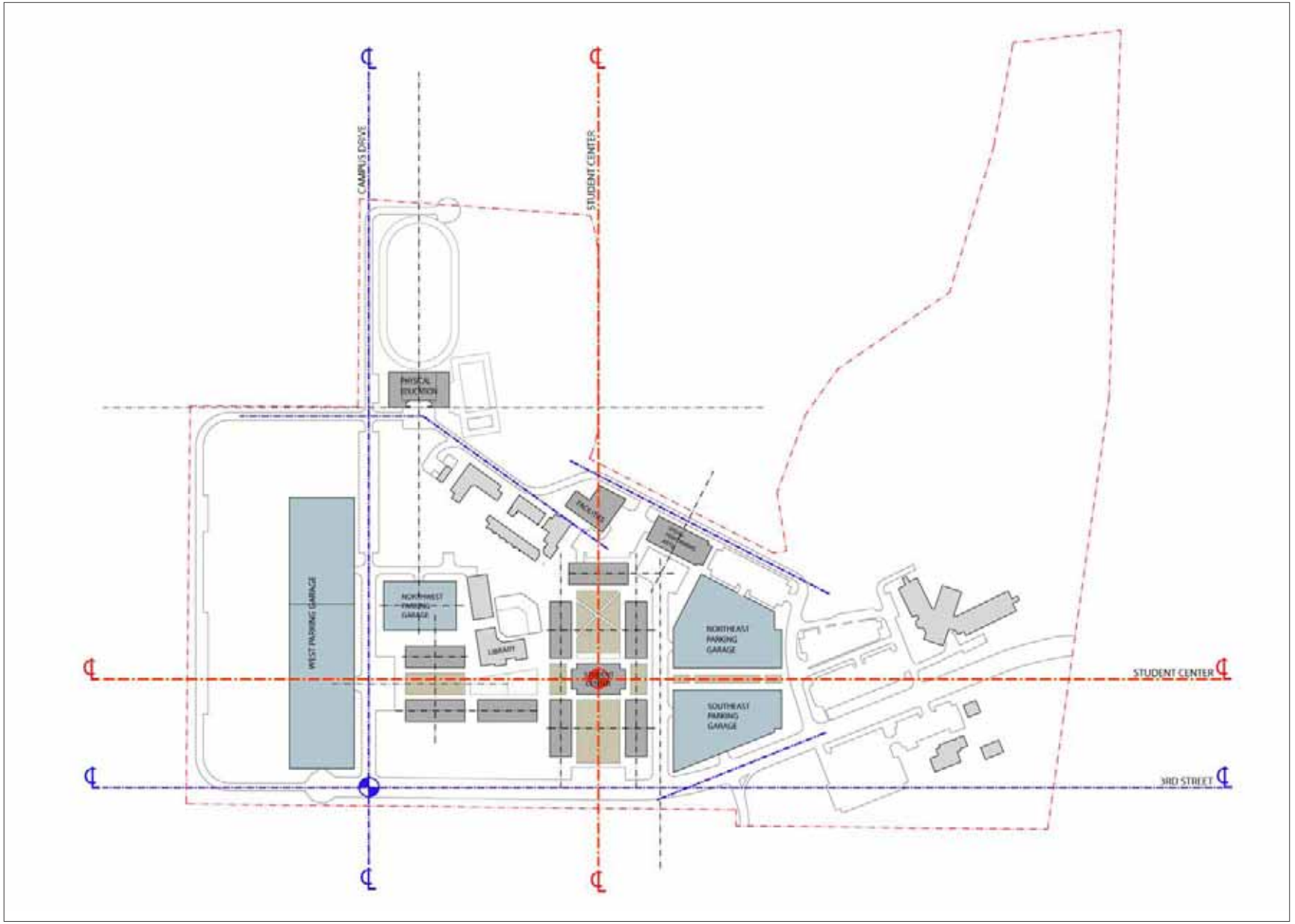
The regulating plan establishes the basic underlying geometric framework for the placement of buildings, parking and open space. Two sets of axes originate the geometry of the expanded campus.

The first is centered on the centerlines of the Student Center, whose precise location southeast of the existing Student Services building will determine the layout of all of the nine buildings associated with the south, west and north quadrangles. This geometry will additionally place the west, northeast and southeast parking structures as well as the east quadrangle.

The second important set of axes is centered on the intersection of 3rd Street and the new north south access road (that leads north to the physical education center, track and field) whose placement is given by a dimension measured off of the west property line of campus. These axes will form the basis for the positioning of the physical education center, track and field and the northwest parking structure.



3-Dimensional View of the Regulating Plan.



The Campus at 16,000 Students Regulating Plan

The South Quadrangle & New Campus Entry

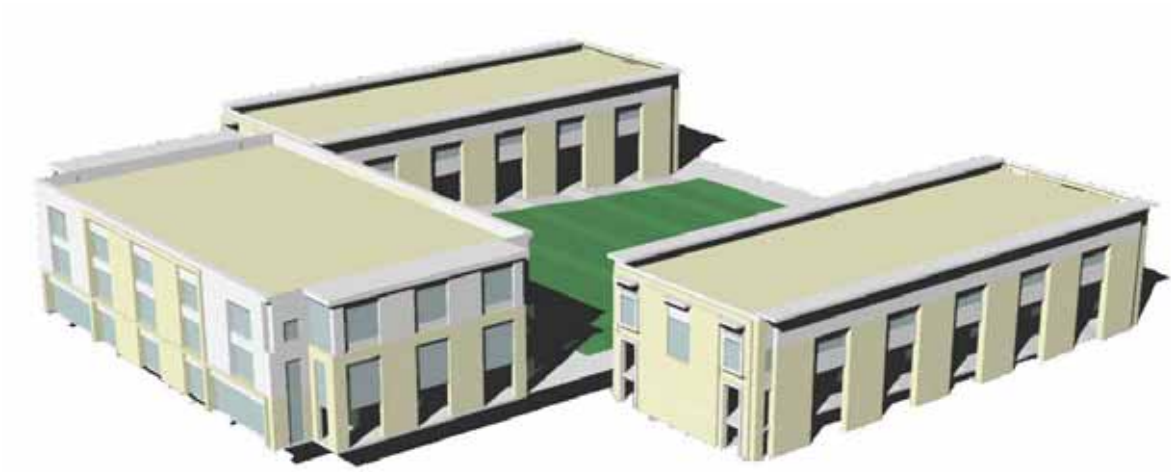
The first major project within the 10,000 student plan consists of three buildings and two major open spaces, the south quadrangle and phase I of the new learning commons. The programmatic content of the first three buildings will be determined in a subsequent pre-design/programming phase and FPP submission to the State for funding. Preliminarily the building program includes the following basic components:

Student Center

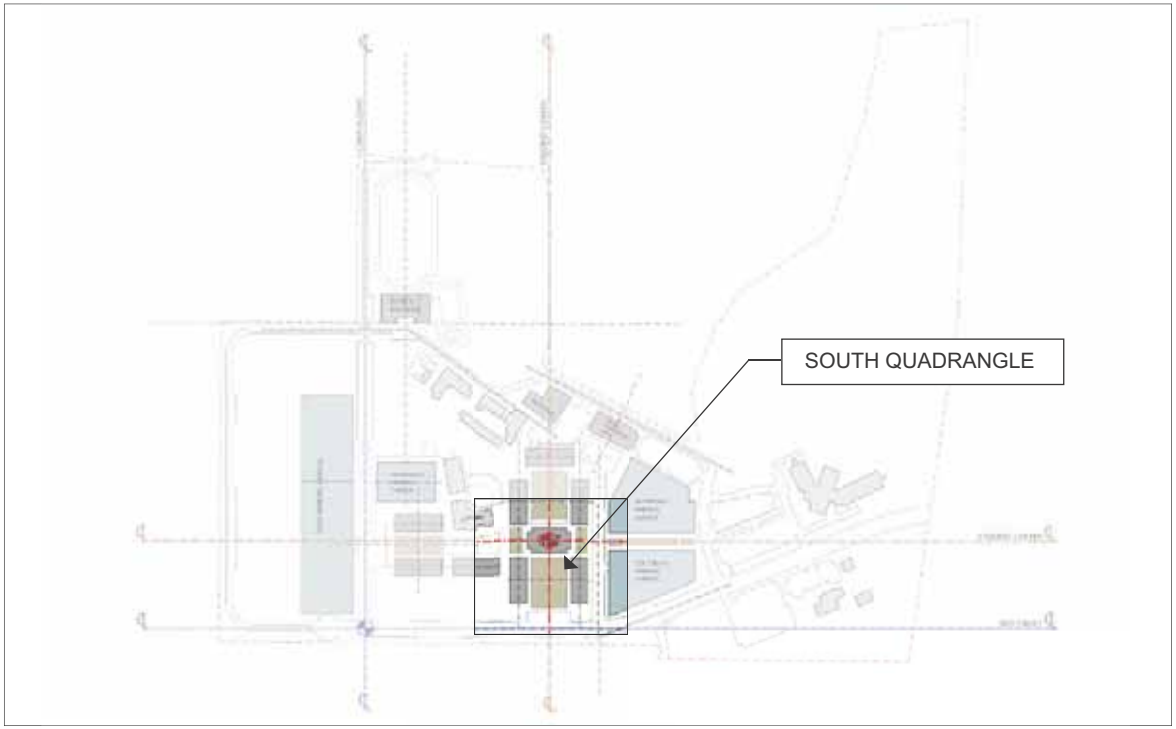
- One Stop Student Services
- Transfer/Career/Job Placement Center
- Experiential learning Program
- Disabled Student Services (DSPS)
- Employment Opportunities Programs & Services
- Puente Program
- Talented Tenth Program
- Trio Student Support Services
- First Year Experience Program
- Mentoring Program
- Student Success Workshops
- Writing, Reading and Math Success Centers.

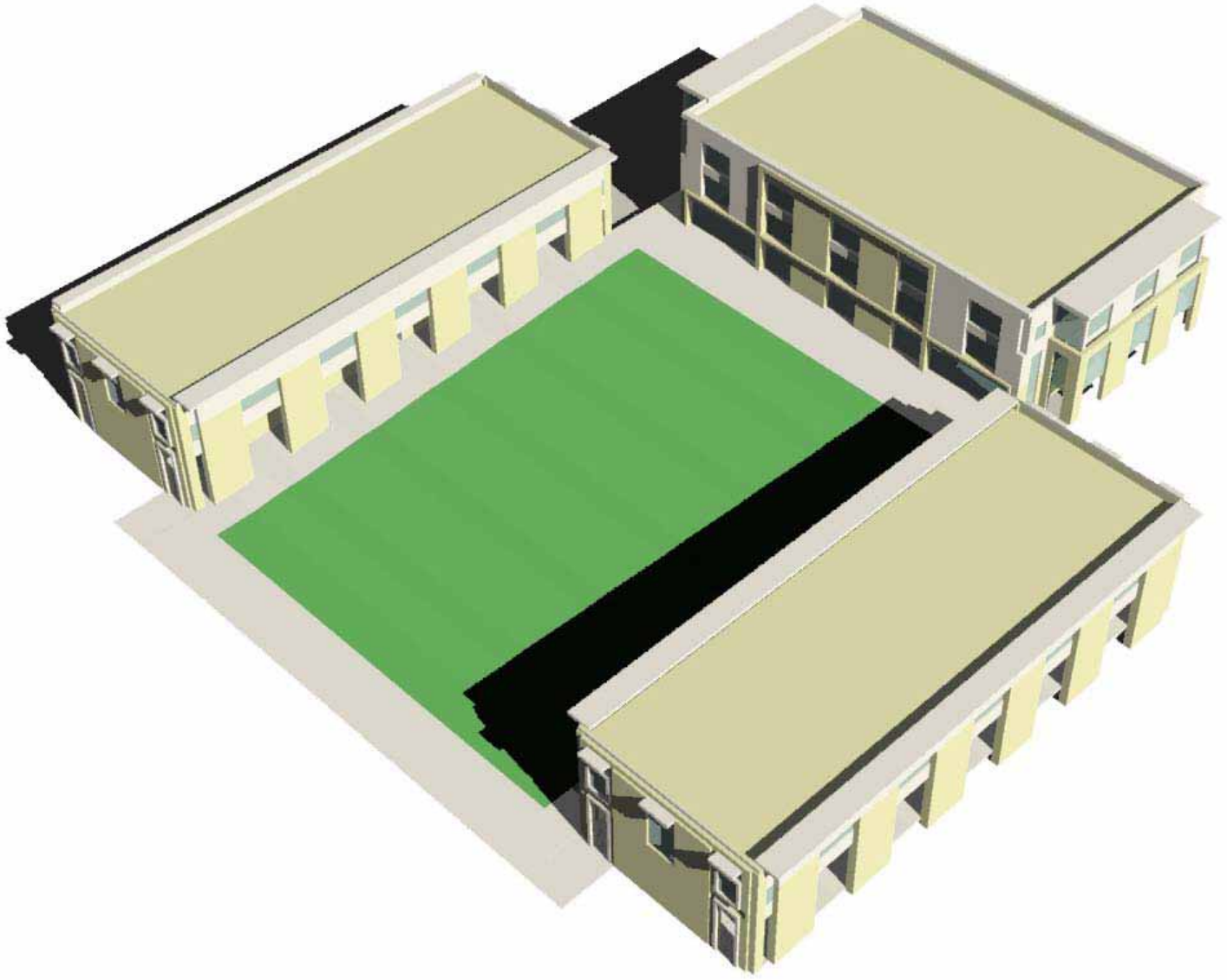
Arts & Sciences I & II

- Physics Labs
- Biology Labs
- Chemistry Labs
- Anatomy/Physiology Labs
- Earth Sciences Labs
- Engineering and Computer Labs
- Multimedia and Design Labs
- Visual Arts Studios
- Choral and Instrumental Rooms
- Classrooms
- Faculty Offices
- Meeting Rooms



The South Quad North and West Elevations





The South Quad South and East Elevations. *The South Quad is flanked on the east and west by the two story Arts and Sciences I & II and on the north by the three story Student Center*

Layout of the Student Center

The programmatic content of the student center consists of mainly open office space and large computer labs as well as a few private offices and meeting rooms.The three story building is arranged with two vertical circulation cores at its east and west ends with a corridor connecting them through the middle of each floor plate. This allows for flexible, open floors at all levels accommodating a variety of program types and the ability to reconfigure interior spaces as programs and services expand, come and go. The roof of this building could support mechanical equipment and/or photovoltaic panels for on site energy generation.

Floor Area of the Student Center

Assignable (ASF)..... 32,000

Gross (GSF)..... 48,000

Efficiency(ASF/GSF)..... 67%

Layout of Arts and Sciences I & II

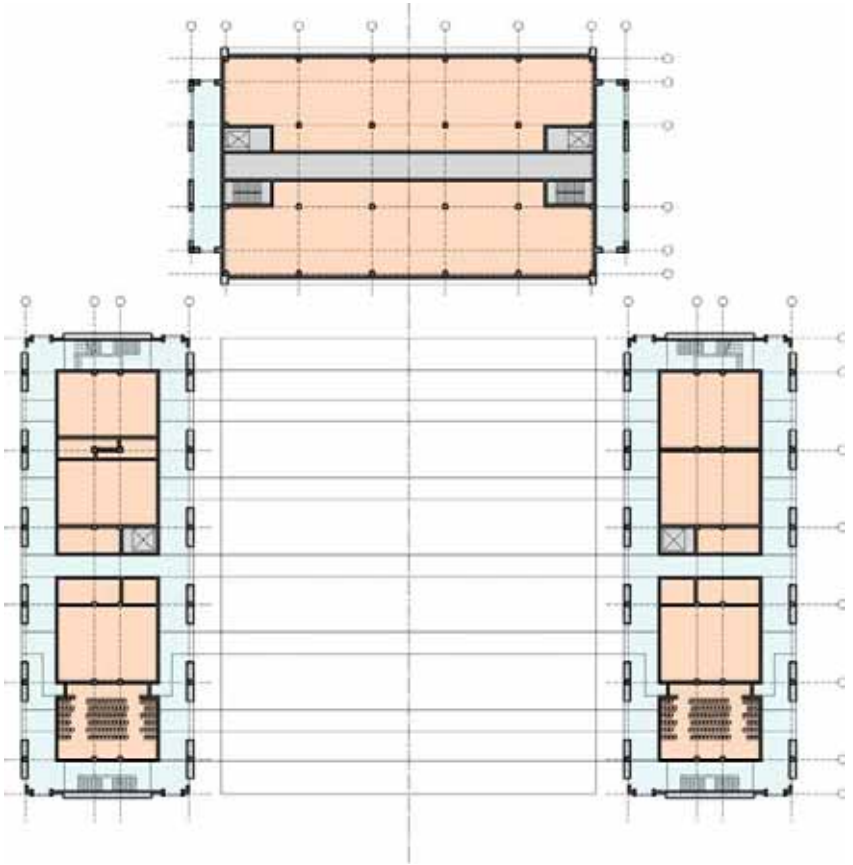
The programmatic content of Arts & Sciences I & II consists of mainly laboratories dedicated to the arts, sciences and engineering disciplines as well as a few classrooms, private offices and meeting rooms. The two story buildings are arranged with two vertical circulation cores at north and south ends with at the second floor a corridor connecting them through the middle of the floor plate. Ground floor circulation is provided with covered open air loggias that wrap the buildings on all sides. This allows for flexibility in the arrangement of doors and windows at ground floor labs. The roofs of these buildings will be visible from the taller student center, and therefore no mechanical equipment will be placed there. Potentially these roofs could be designed with vegetation as green roofs for insulation. These buildings are 32,000 SF each in overall gross floor area and 20,800 SF each in assignable floor area.

Floor Area of Arts and Sciences I & II

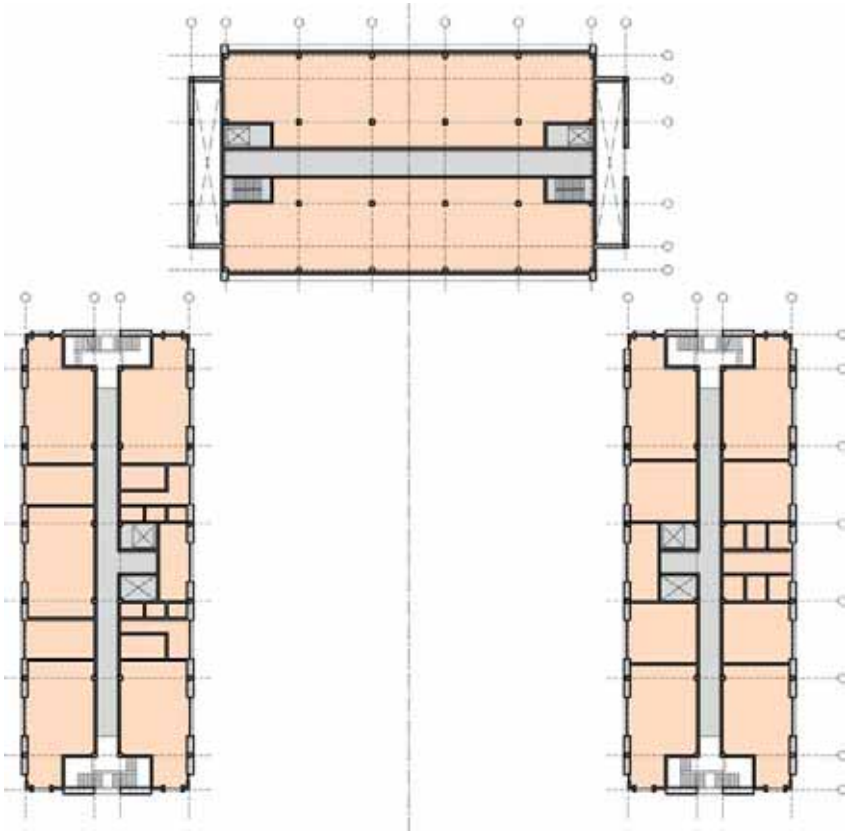
Assignable (ASF)..... 41,600

Gross (GSF)..... 64.000

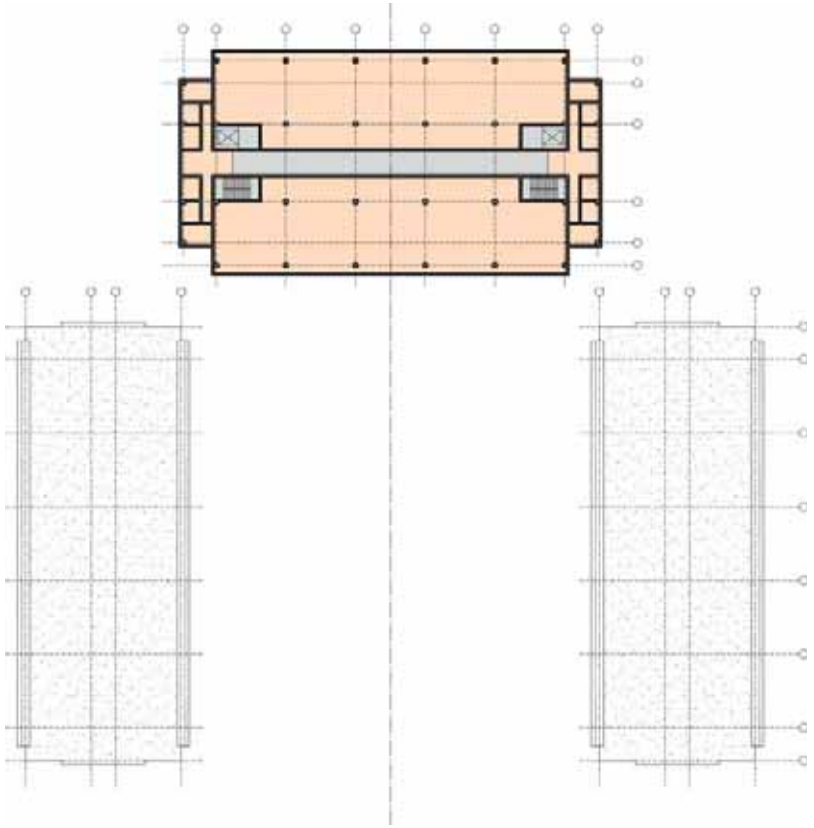
Efficiency(ASF/GSF)..... 65%



South Quadrangle Ground Floor



South Quadrangle Second Floor



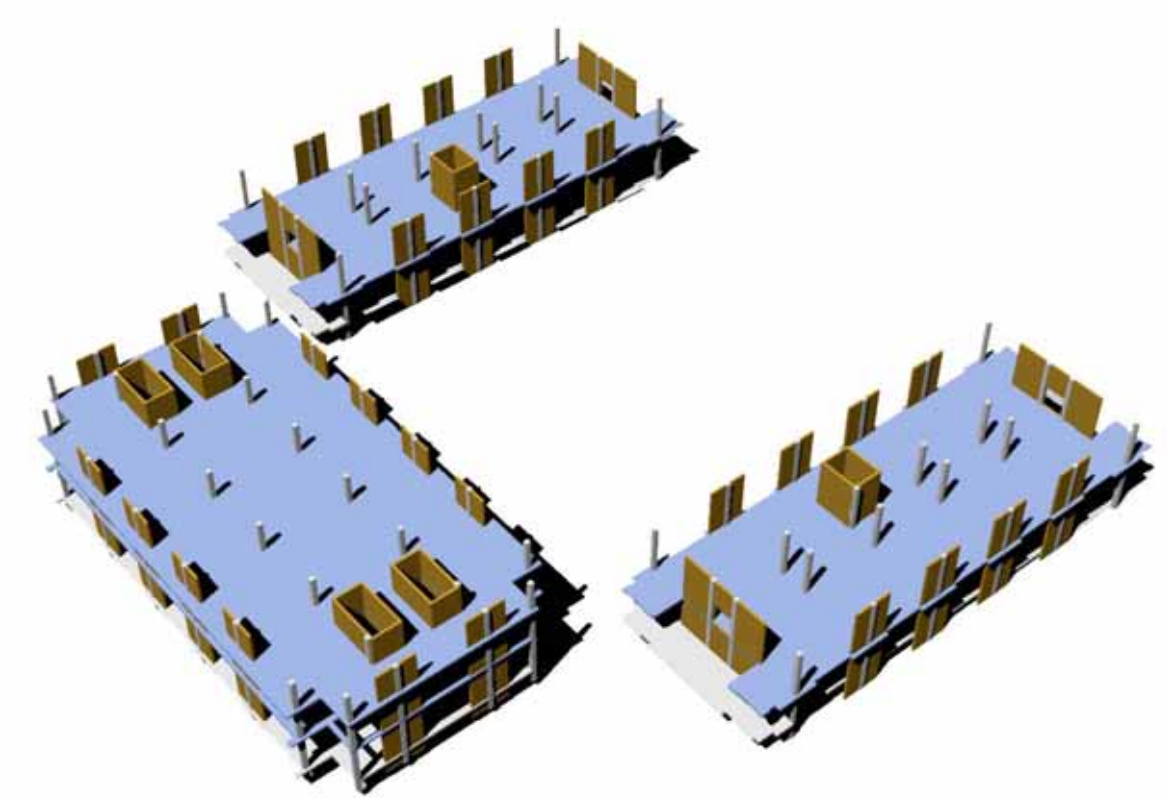
South QuadrangleThird Floor and Roof

Structural Systems of the South Quad Buildings

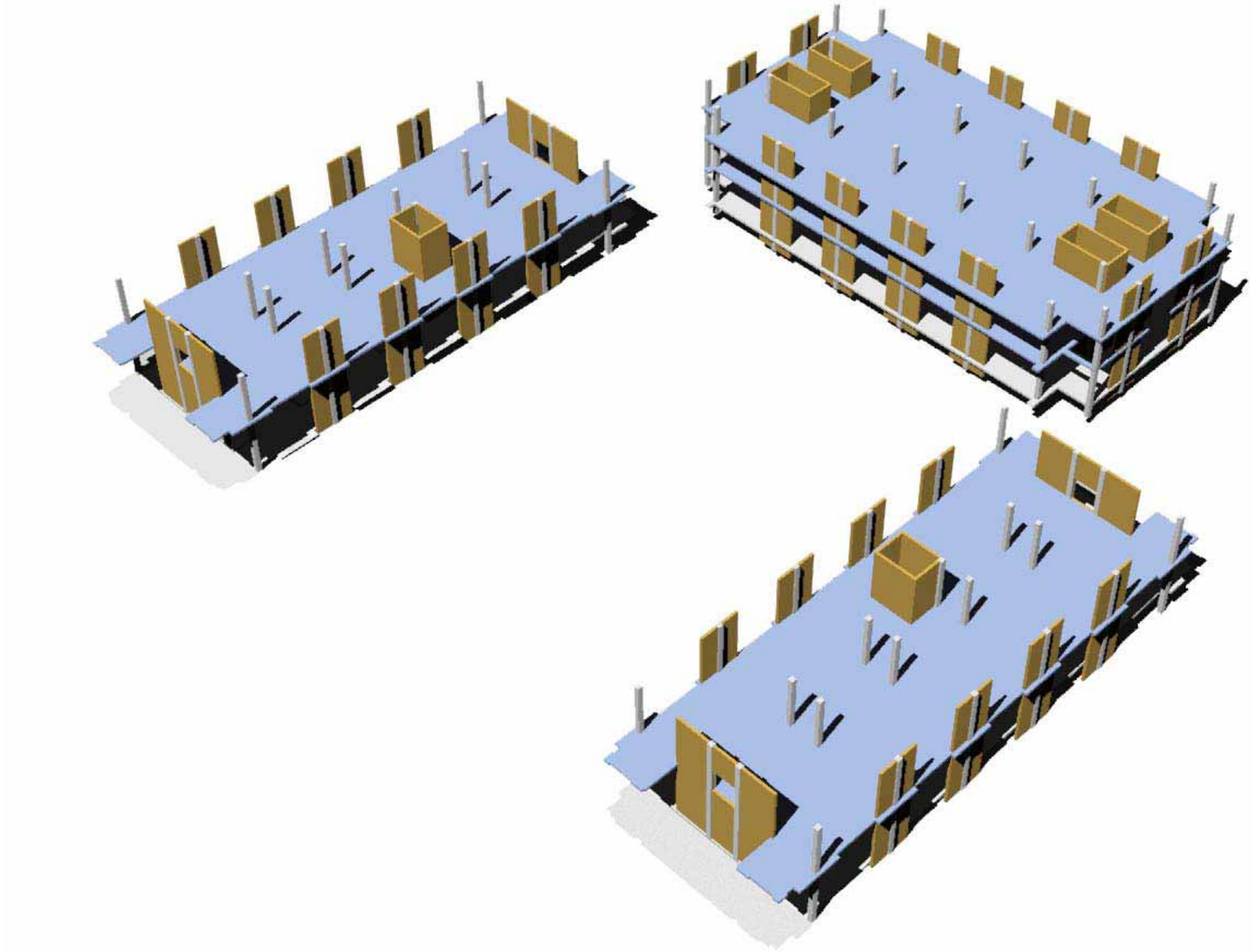
The recommended building type for all new buildings on campus is Type II One-Hour Fire Rated.

Foundations will consist of conventional shallow concrete footings, (geotechnical conditions allowing), with reinforced concrete slab-on-grade on compacted cut and fill. The second and third floor construction shall consist of concrete on metal decking supported by structural steel beams, girders and columns. The floor deck shall conform to the one-hour fire resistive requirement. The floor deck is recommended to be 3 1/2" normal weight concrete over 3" deep composite metal decking. The roof shall consist of lightweight roofing materials over light gage metal decking support by steel beams, girders, and columns.

Columns shall be placed on a grid of approximately 32-34 FT by 32-34 FT. The seismic bracing system of the structures shall consist of load bearing 12" concrete masonry unit walls centered on the columns at the perimeter of the buildings and wrapping the vertical circulation cores.



South Quadrangle Buildings Concept Structural Systems View from the Northwest



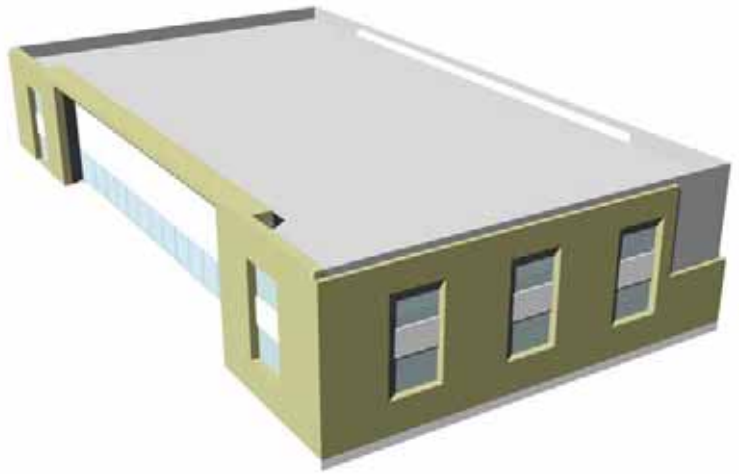
South Quadrangle Buildings Concept Structural Systems View from the Southeast

The Physical Education Center, Track and Field

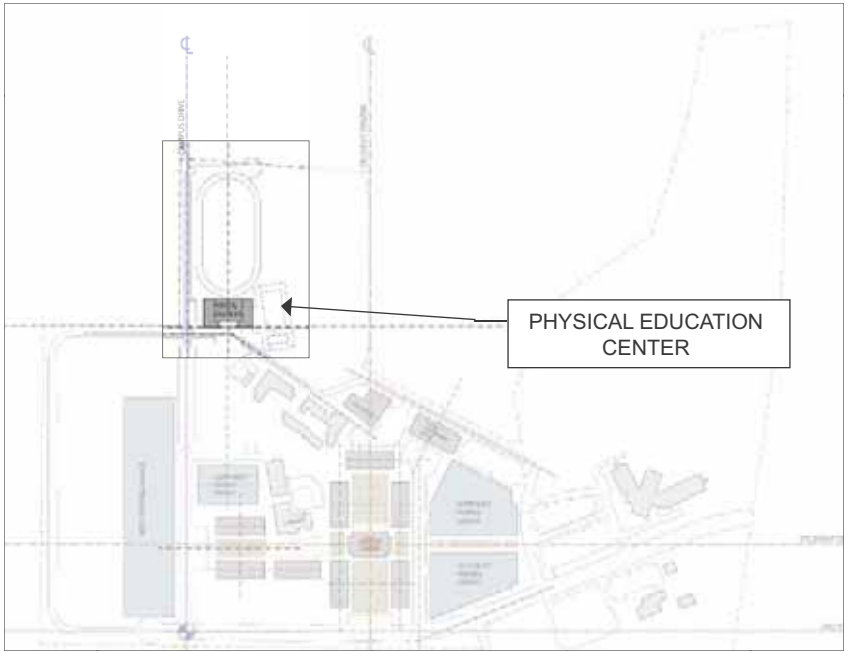
Another major project within the 10,000 student plan is the physical education center, track and field.. The programmatic content of the physical education center will be determined in a subsequent pre-design/programmingn phase and FPP submission to the State for funding. Preliminarily the building program includes the following basic comonents:

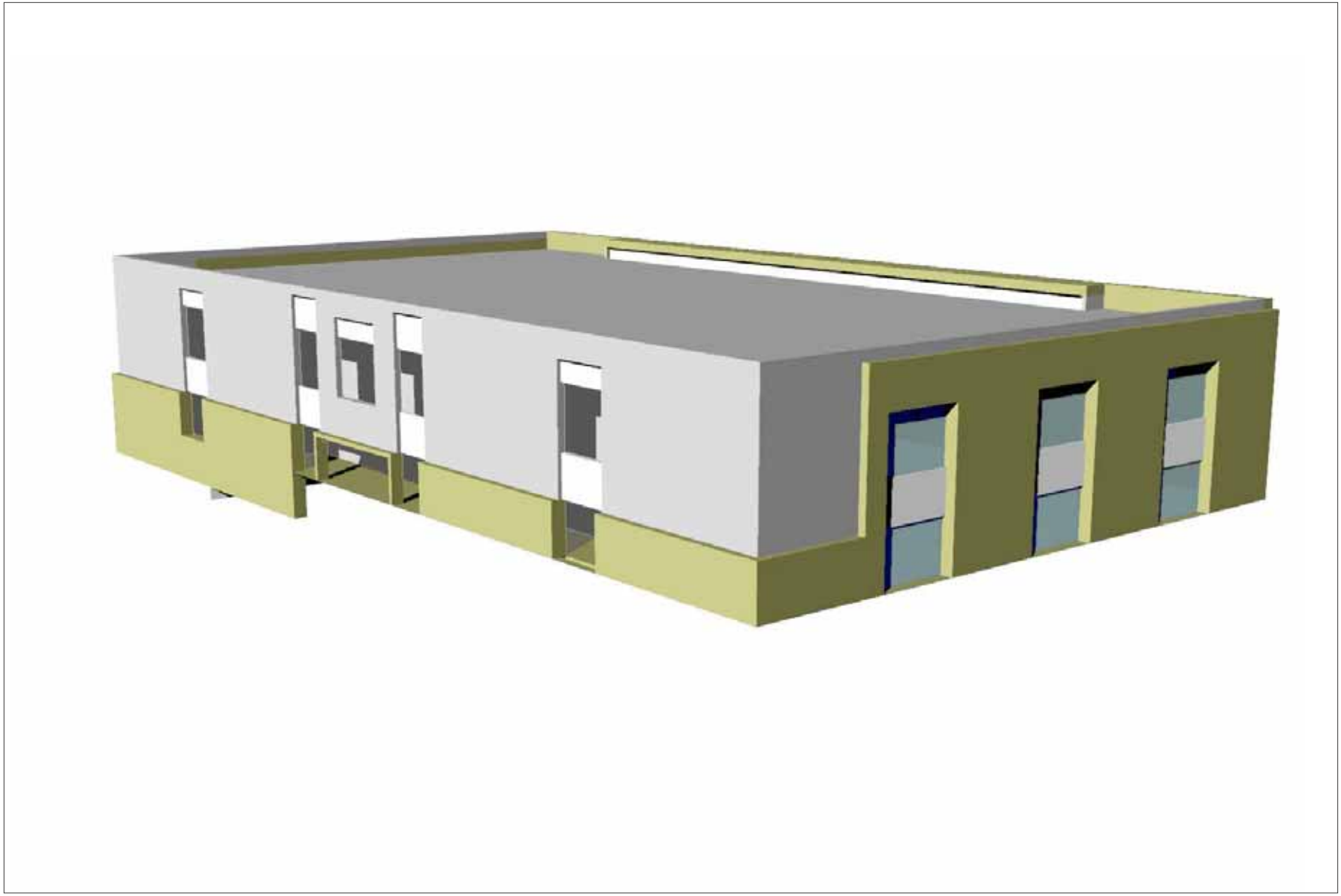
Physical Education Center

- Two-court gymnasium
- Fitness center
- Aerobics/exercise/dance studio
- Training rooms
- Team rooms
- Locker rooms
- Sloped floor theater style classrooms
- Faculty offices
- Meeting rooms



Physical Education Center North and West Elevations





Physical Education Center South and East Elevations

Layout of the Physical Education Center

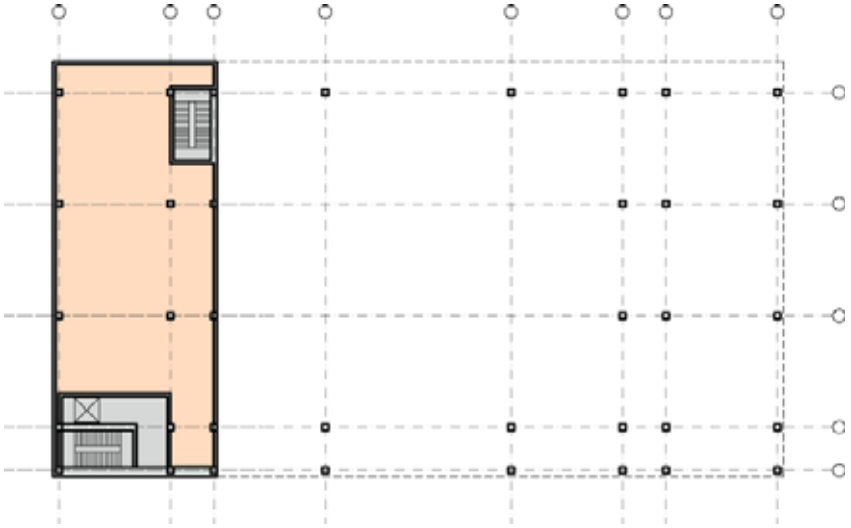
The programmatic content of the physical education center consists principally of a competition caliber two-court gymnasium as well as fitness and exercise studios, locker and team rooms and a few classrooms, private offices and meeting rooms.The three story building is arranged with two vertical circulation cores at its southeast and southwest ends with a corridor connecting them along the south side of each floor plate. This allows for the double height room of the gymnasium at the heart of the building flanked by flexible, open floors at all levels accommodating a variety of program types and the ability to reconfigure interior spaces as programs expand, come and go. The roof of this building could support mechanical equipment and/or photovoltaic panels for on site energy generation.

Floor Area of the Physical Education Center

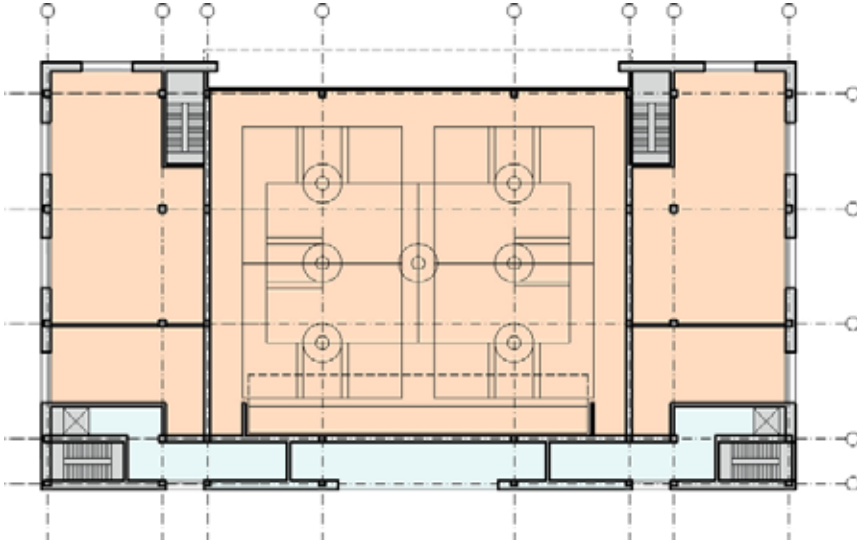
Assignable (ASF)..... 35,000

Gross (GSF).....54,000

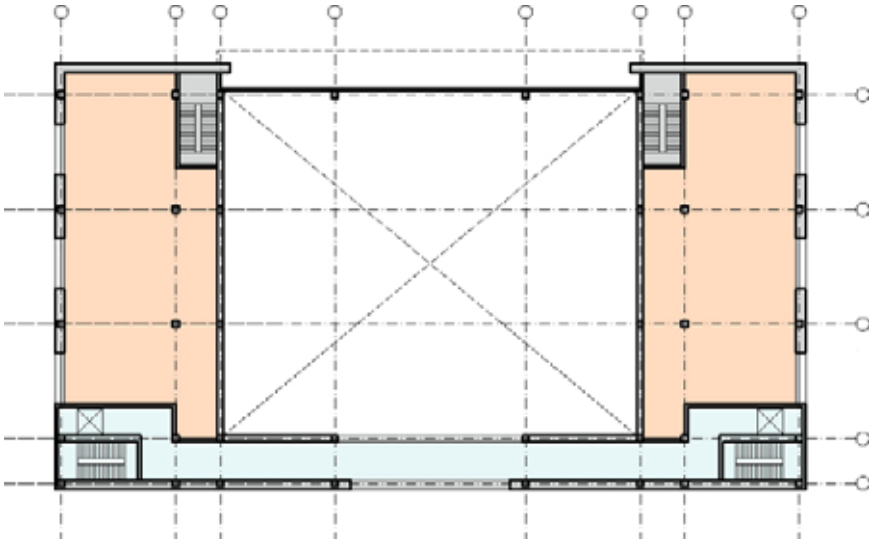
Efficiency(ASF/GSF).....65%



Physical Education Center Lower Level



Physical Education Center Main Level



Physical Education Center Mezzanine Level

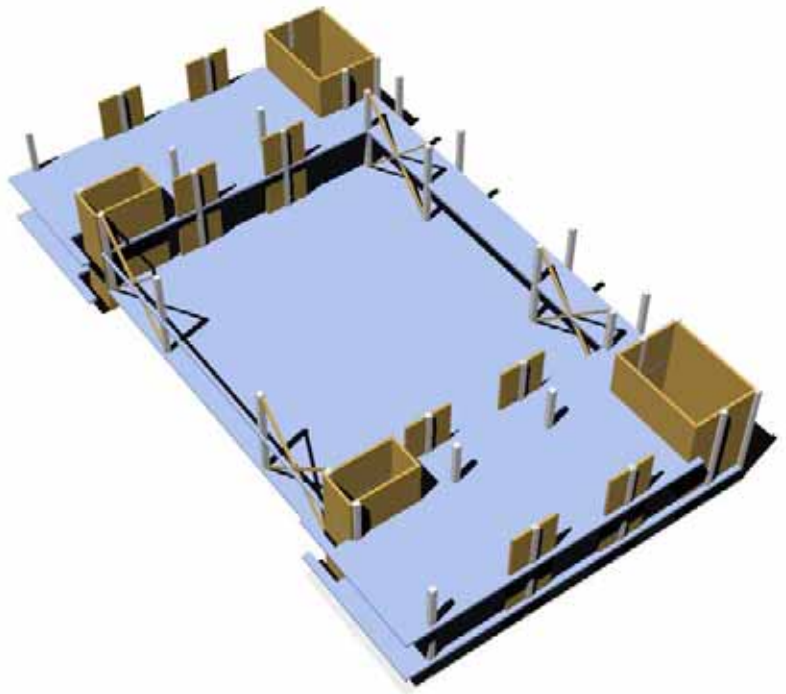
Structural System of the Physical Education Center

The recommended building type for all new buildings on campus is Type II One-Hour Fire Rated.

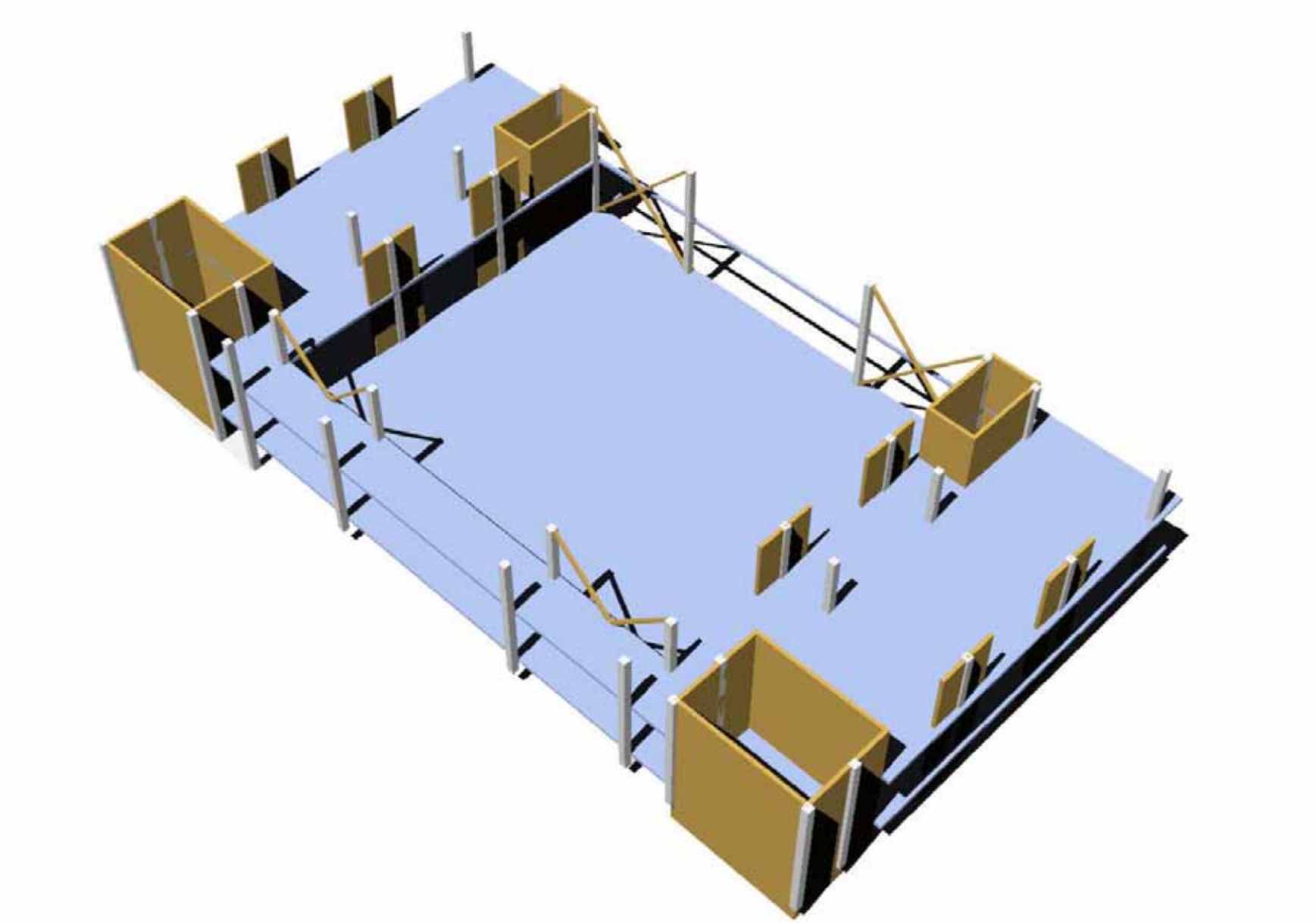
Foundations will consist of conventional shallow concrete footings, (geotechnical conditions allowing), with reinforced concrete slab-on-grade on compacted cut and fill. The second and third floor construction shall consist of concrete on metal decking supported by structural steel beams, girders and columns. The floor deck shall conform to the one-hour fire resistive requirement. The floor deck is recommended to be 3 1/2" normal weight concrete over 3" deep composite metal decking.

The roof structure over the gymnasium will consist of a long span system, most likely trusses and metal joists.The roof shall consist of lightweight roofing materials over light gage metal decking support by steel beams, girders, and columns.

Columns shall be placed on a grid of approximately 32-34 FT by 32-34 FT. The seismic bracing system of the structure shall consist of a combination of steel braced frames on two sides of the gymnasium and load bearing 12" concrete masonry unit walls centered on the columns at the perimeter of the buildings and wrapping the vertical circulation cores.



Physical Education Center Concept Structural Systems View from the Southeast



Physical Education Center Concept Structural Systems View from the Northwest

Authentic Architecture in a Semi-Arid Mediterranean Climate

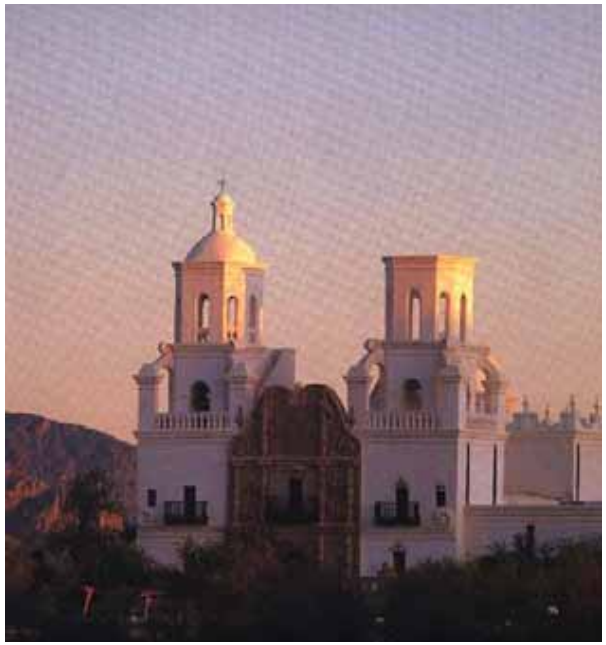
The combination of desert, ranch and agricultural lands that mark the semi-arid Mediterranean climate and geography of west Riverside County is potent with possibility in how buildings and ensembles of buildings can respond. The architecture of Mesopotamia, Egypt, Tunisia and Morocco, the Italian peninsula, Spain and Greece, the agricultural tradition of early California, the Spanish Missions and the Native American architecture of the American southwest and desert regions of Southern California, not to mention the modern architecture of 20th Century Southern California are all legitimate sources of imagery and inspiration for an architecture of character and integrity in the environment that is unique to the Norco/Corona area of the world.

These traditions share simple common sense attributes whose wisdom in the context of their natural geographic and climactic environments was accumulated over centuries of experience. It is only with humility and respect for such experience that we can even begin to create an authentic architecture that will respond believably to the unique requirements of this campus' remarkable setting. The lessons are numerous:

Characteristics of Architecture in a Semi-Arid Mediterranean Climate

- Buildings Anchored to or Emerging from the Earth
- Buildings That Float
- Thick Walls, Glass Walls & Screened Walls
- Natural, Earth Tone & Light Colors
- Natural Materials: Stone, Plaster and Tile
- Open Air Roof Apertures
- Large Overhangs
- Courtyards, Atriums & "Rooms Without Roofs"



Authentic Architecture in a Semi Arid Mediterranean Environment. *The combination of semi-arid climate and natural landscapes, ranchlands and agricultural lands that mark the west Riverside County area of the Norco campus is potent with possibility in how buildings and ensembles of buildings can respond. From Palm Springs and the American Southwest to the architecture of North Africa, Spain, France, Italy, Turkey and Greece the traditions from which there are lessons to be learned are numerous and varied.*

Building Envelope and Materials Palette

The exterior building envelope of new buildings on campus shall be arranged to maximize daylight within interiors and definition of the open spaces upon which they face. Doors and windows will be rectangular and spaced to preserve the integrity and solidity of exterior wall surfaces.

All wall surfaces will be rendered in high quality smooth plaster and high quality stone veneer. All plaster surfaces will be white or light earth tones. Stone surfaces will be lightly colored earth tones. High quality metal panel, door and window mullion systems will be rendered in dark earth tone colors.

Special features such as wood paneling on ceilings and walls protected from the sun will provide warm and refined detail in areas closed to the eye and hand.

- No bright or primary colors.
- Metal panel shall be used sparingly.
- No corrugated metal surfaces.
- No exposed, unpainted metal flashing.
- Roofs will be flat.

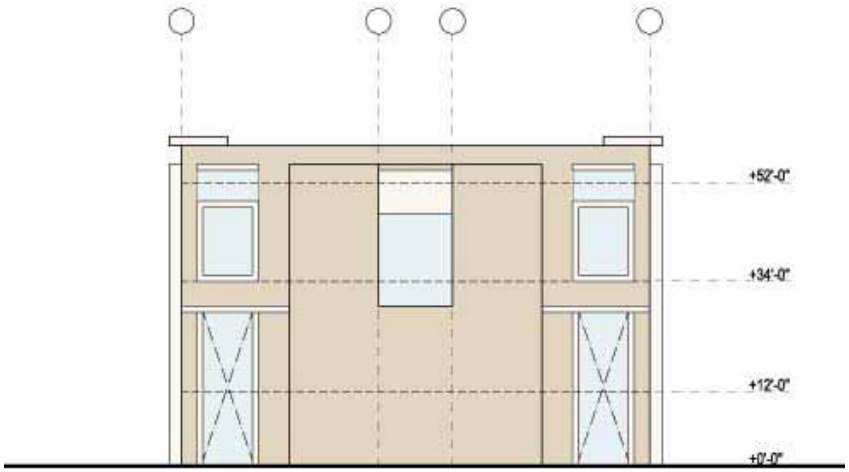
Concept Materials Palette and Building Envelope at a Corner of the Student Center

Concept Materials Palette and Building Envelope at the Corner of Arts and Sciences I and II at the South Quadrangle

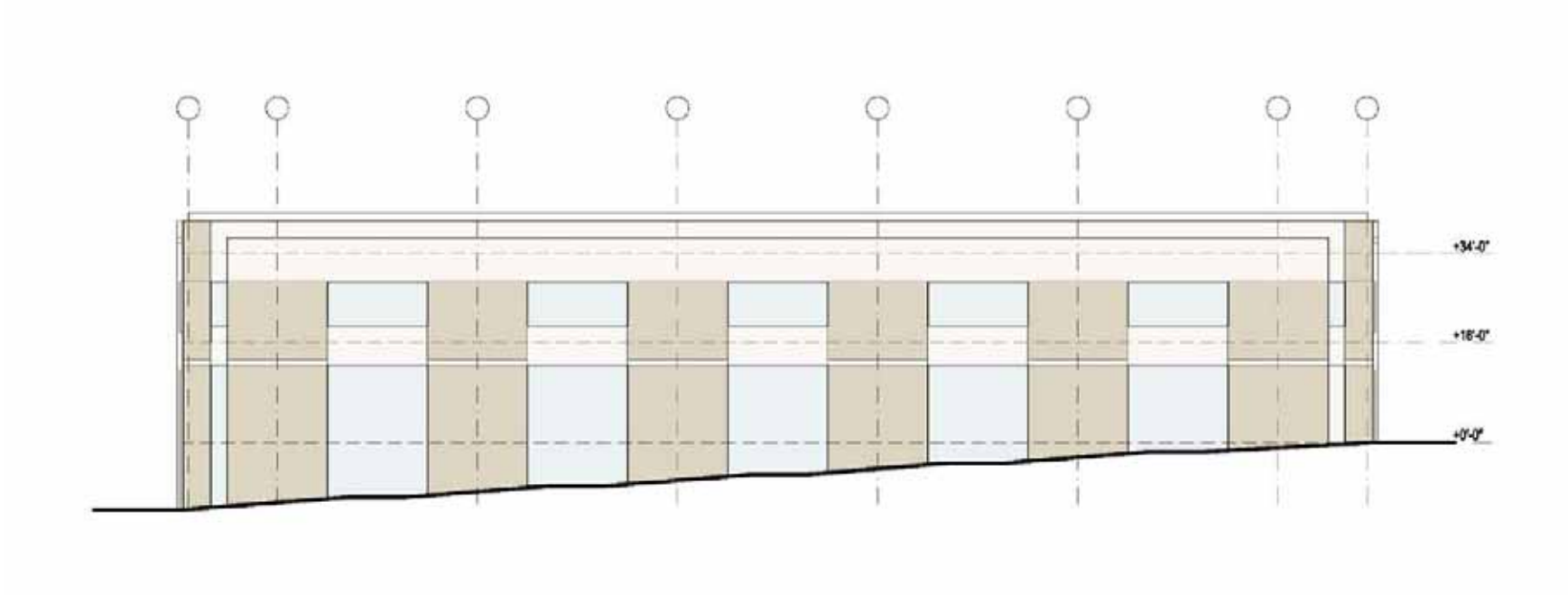
Building Envelope and Materials Palette for Arts and Sciences I & II

Wide and tall covered exterior loggias wrap the ground floors of these two buildings situated at what will become the principal front door of campus. The second floor plates extend to the perimeter of the buildings spanning over the loggias. Symmetrically composed facades face north and south toward 3rd Street to the south and the core campus to the north.

A sand or earth tone stone covers most of the exterior surfaces except in key areas higher up on the building where white plaster will complement the stone. Stone courses will provide detail and refined treatment at edges, corners and profiles. Windows will be as unobstructed as possible by intermediate mullions.



Arts & Sciences I Concept Materials Palette and Building Envelope South Elevation

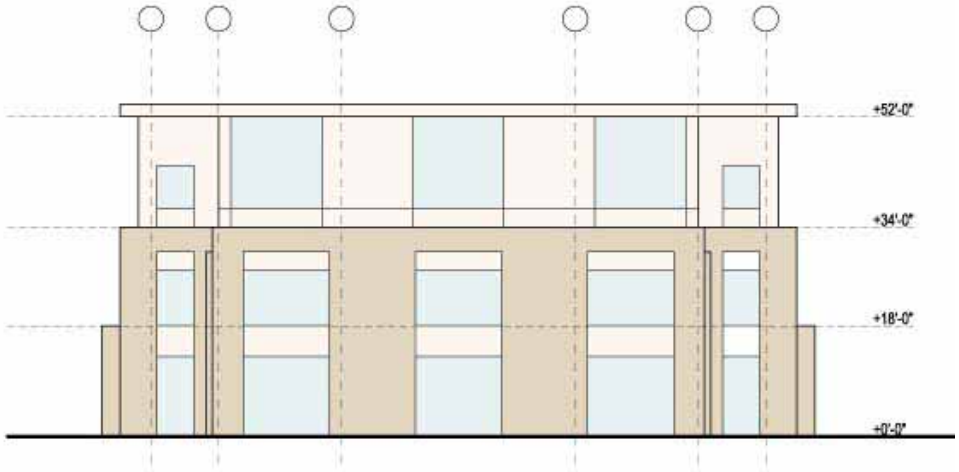


Arts and Sciences I at the South Quadrangle Concept Materials Palette and Building Envelope East Elevation

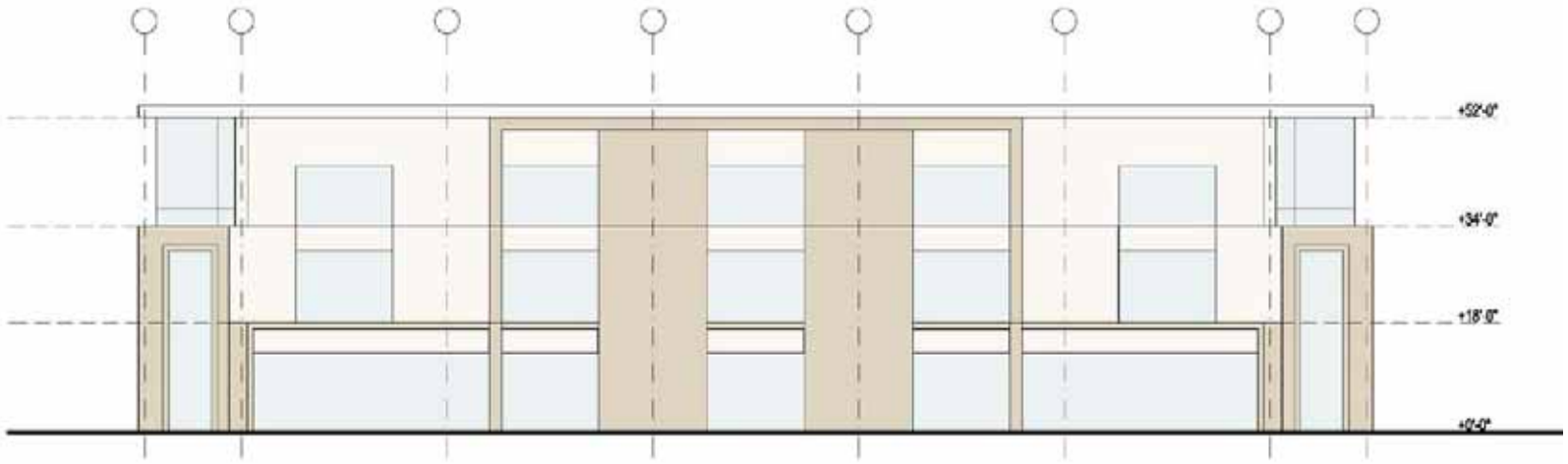
Building Envelope and Materials Palette for Student Center

Double height covered exterior loggias flank the east and west sides of this three story building which will face onto the first new major open space on campus and the new campus front door. Symmetrically composed facades face north and south toward the south quadrangle to the south and the core campus to the north.

A sand or earth tone stone covers most of the exterior surfaces except in key areas higher up on the building where white plaster will complement the stone. Stone courses will provide detail and refined treatment at edges, corners and profiles. Windows will be as unobstructed as possible by intermediate mullions.



Student Center Concept Materials Palette and Building Envelope East Elevation

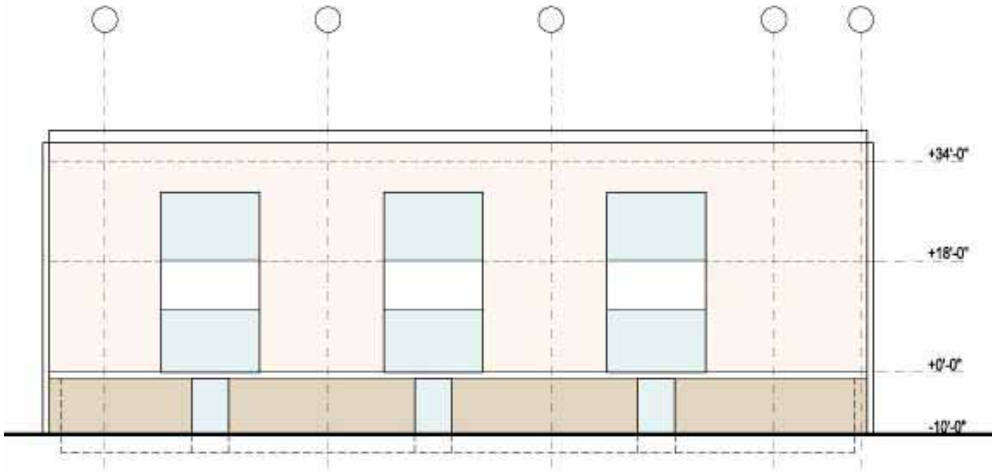


Student Center Concept Materials Palette and Building Envelope South Elevation

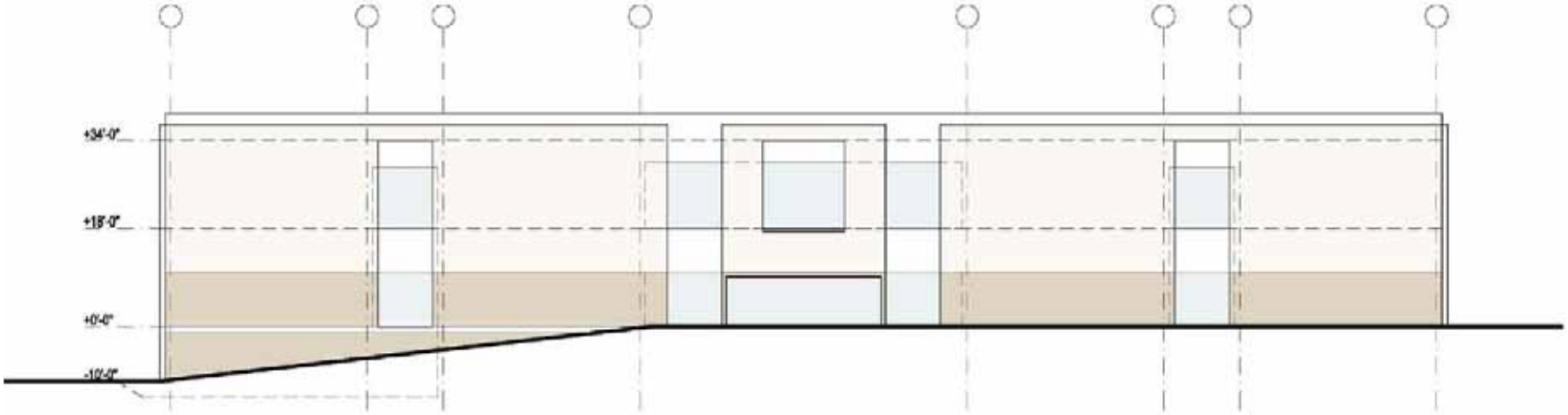
Building Envelope and Materials Palette for Student Center

A covered exterior loggia flanks the south side of this three story building facing south toward the core campus. The north facade is the north side of the gymnasium which will face north toward the track and field and Lake Norconian beyond.

A sand or earth tone stone covers most of the exterior surfaces at the base of the building . Areas higher up on the building are rendered in white plaster that will complement the stone. Stone courses will provide detail and refined treatment at edges, corners and profiles. Windows will be as unobstructed as possible by intermediate mullions.



P.E. Center Concept Materials Palette and Building Envelope East Elevation



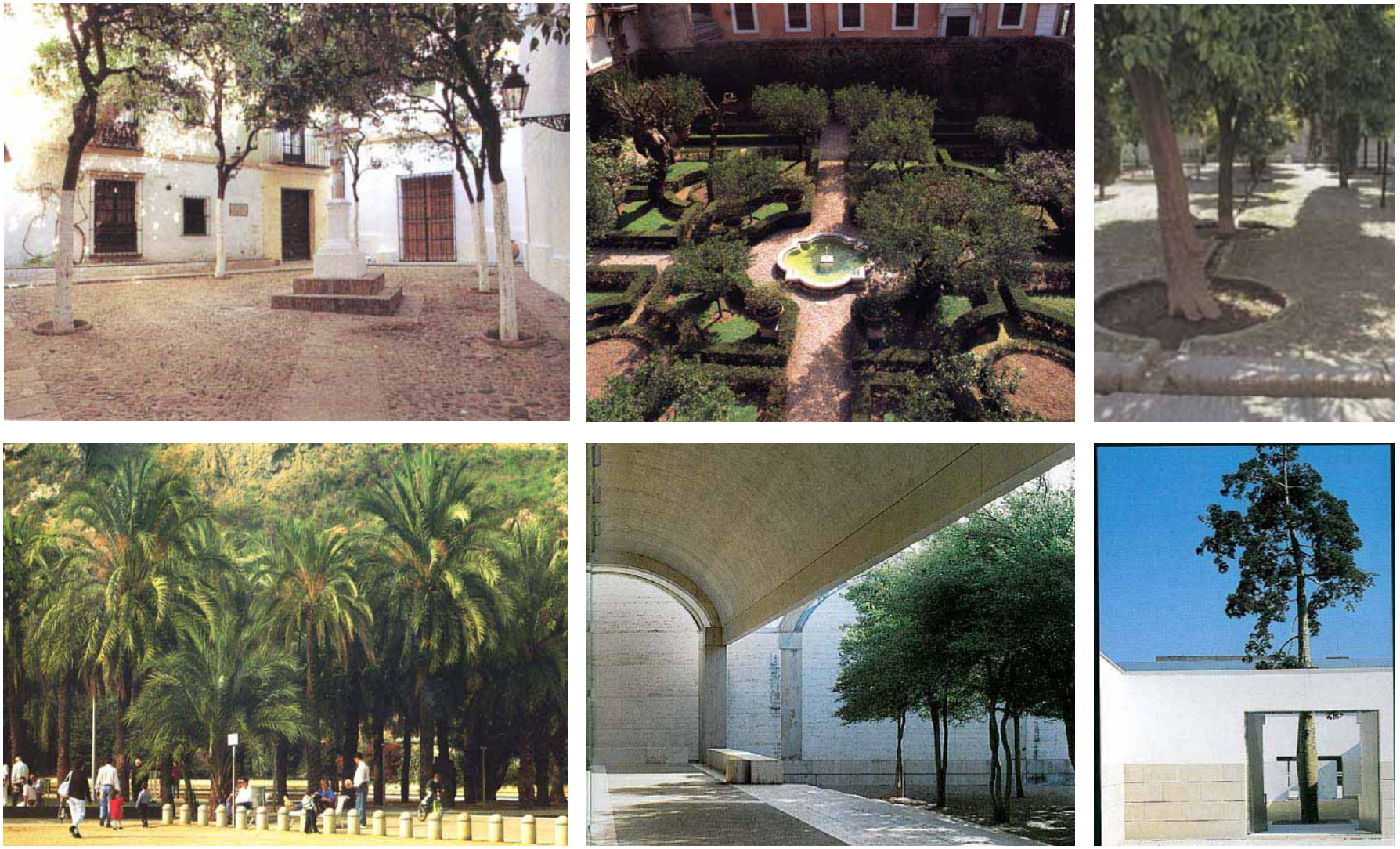
Physical Education Center Concept Materials Palette and Building Envelope South Elevation

Authentic Landscape in a Semi-Arid Mediterranean Climate

The scarcity of water and potentially inhospitable heat and arid winds of the eastern San Gabriel Valley environment are forces with which to contend, but also opportunities for the creation of a unique campus environment. The contrast of a bright green lawn imported from the American campus tradition sparingly and judiciously arranged within a more indigenous landscape of palms, lupine and lavender, blooming ground covers, oaks, olives and sycamores is amazing in its potential. Properly composed it will create an almost magical feeling one associates with romantic images with arid parts of the Mediterranean landscape.

Characteristics of Landscape in a Semi-Arid Mediterranean Climate

- Oaks, olives & sycamores
- Multi-colored,variegeated grasses & wild flowers
- Massive palm canopies
- Blooming ground covers
- Bougainvillea, wisteria & climbing roses
- Sparingly used brilliant green lawn
- Silver and gray greens
- Springs, Spouts & Pools



Landscape & Open Space of a Coachella Valley Campus. *Opportunities range from the indigenous desert landscape of the native Coachella Valley, to the cultivated agricultural fabric of the early California tradition, groves of date palms and intimate lush courtyards and the shade of a tree.*

Typologies of Open Space and Landscape

The landscape and open space plan consists of four principle typologies:

- Linear and meandering arrangements of trees
- Traditional quadrangles with grass and trees
- Native, drought tolerant riparian gardens.
- Shaded, paved courts

Each type serves a purpose and has its placed in a fully intergrated hierarchy of open spaces interconnected and interrelated across the core campus.

Long Range Campus Landscape Plan

Southern California Native Drought Tolerant Gardens

lazas and Courts

Quadrangles and Yards

Long Range Core Campus Landscape Plan

Linear and Meandering Arrangements of Trees

Large canopy trees and palms are arranged along principal vehicular and pedestrian axes to provide drama and dignity at the perimeter of campus and along approaches to it. Double rows of trees are established where possible along pedestrian paths to provide shade, clarity and order in the overall campus environment. Specimen trees are recommended for the southwest slopes of the mesa where will be established the riparian garden. Primary locations include:

- 3rd Street
- North-south drive
- East quadrangle
- Visual and performing arts fore courts.

Trees in Linear Composition to Create Allees , Visual Axes and Formal Promenades

Trees in Free Form Composition to Create Shaded Open Space and Informal Promenades

Allees, Axes and Formal and Informal Promenades

Shaded Paved Courts

Pedestrian and auto oriented paved courts provide gracious points of entry and outdoor gathering spaces. Principal among these is the learning commons situated between the student center, faculty and staff development center and library. This space is flexible, generous in size and the focal point of the core campus. Daily activities currently staged on the concrete expanse north of the existing Student Services building will be relocated here. Other courts are placed at the perimeter of campus to provide proper thresholds for entry to campus. Primary locations include:

- Learning Commons
- Visual and Performing Arts
- Early Childhood Education
- Student Center
- South Quadrangle
- West Quadrangle
- Physical Education Center

Paved Piazza or Plaza

Paved Piazza or Plaza with Daily Activity

Plazas and Courts

Traditional Grass and Trees

Four major spaces arranged in the manner of the quadrangle found ubiquitously throughout the American tradition of the college campus are located in key locations at the heart of the core campus. These spaces are rendered in grass and shaded with generously scaled large canopy trees. Pedestrian paths criss cross them linking them together and with outlying areas of campus. Included as a luxury within a climate that is semi-arid with minimal annual rainfall these spaces are like oases in providing relief from the heat and wind of the surrounding natural landscape. They are limited in number and extent in respect for the reality of the limits on the supply of water in this part of the world. Primary locations include:

- South Quadrangle
- North Quadrangle
- West Quadrangle
- East Quadrangle
- Student Center East and West

Quadrangle or Yard with Grass and Trees and Paths

Quadrangle or Yard with Grass and Trees and Paths

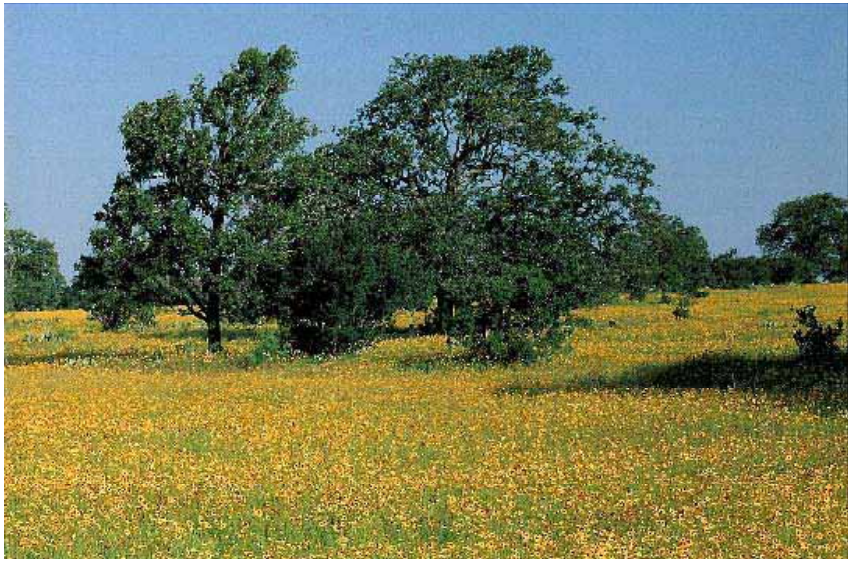
Quadrangles and Yards

Riparian Gardens

Two areas of campus are rendered in a native, drought tolerant palette of plant materials and specimen trees. The amphitheater is to be converted into a kind of naturally occurring bowl set into the side of the mesa, most of its concrete surfaces replaced with native California vegetation. Extending northwest of the amphitheater along the southwest flanks of the upper mesa meandering paths thread through and along a riparian garden rendered to replicate naturally occurring landscapes of western Riverside County. A similar landscape is to be established along 3rd Street just west of the South Quadrangle as a kind of front yard to campus that makes visual connection to the naturally occurring landscapes found south of the 3rd Street. Major locations for riparian gardens include:

- Southwest slopes of the upper mesa
- Front yard along 3rd Street west of the south quadrangle.
- Student Center East and West

Southern California Native, Drought Tolerant Indigenous Landscapes



Southern California Native, Drought Tolerant Indigenous Landscapes

The Mesa Riparian Garden and the Southeast Quadrangle with Southern California Native Drought Tolerant Plant Materials

Roadways, Surface Parking Lots and Parking Structures.

The long range plan establishes a perimeter road linking all sides of the core campus. The north-south drive links 3rd Street with the northern most side of campus at the far north end of the track and field. This extensions is required for emergency vehicle access serving the track and field. It has the added benefit of providing for a potential new campus entry from the north. The perimeter road provides vehicular drop-off and pick-up at key locations throughout the core campus within reasonable walking distances of all areas of campus.

Primary locations of points of vehicular pick-up and drop-off are:

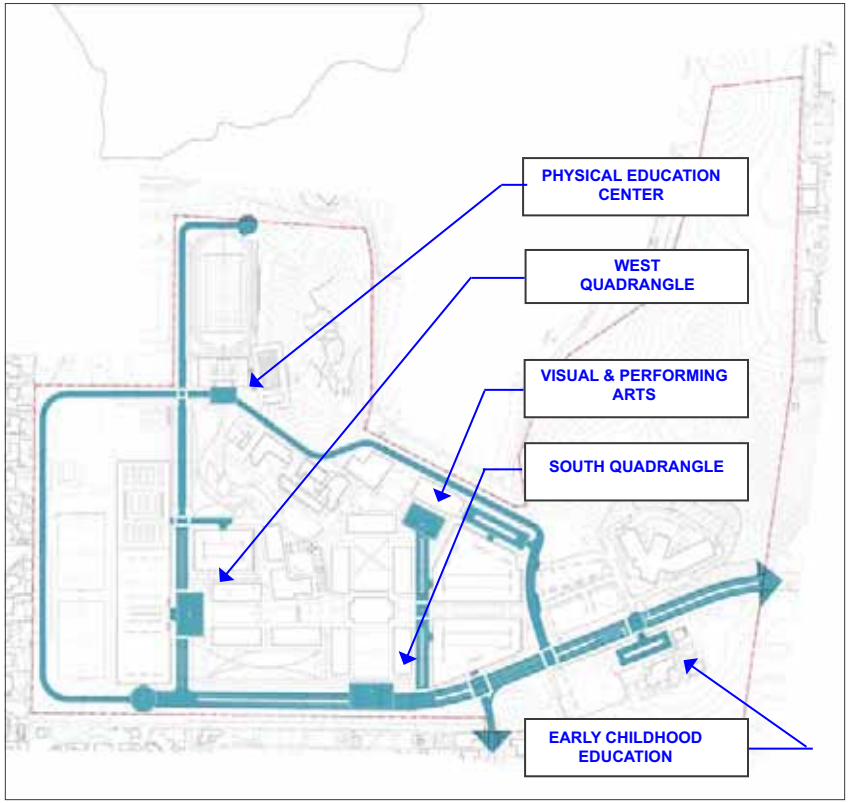
- Early Childhood Education
- Visual and Performing Arts
- Student Center
- South Quadrangle (3rd Street)
- West Quadrangle
- Physical Education Center

Surfaces parking lots are situated in four key locations:

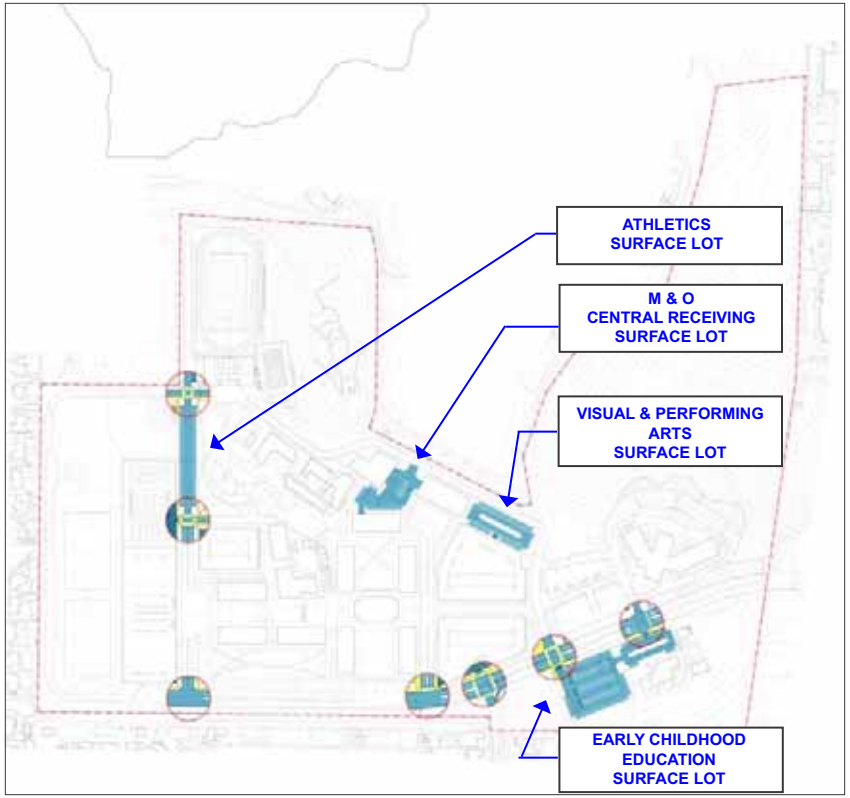
- Early Childhood Education
- Visual and Performing Arts
- Maintenance & Operations/Central Receiving
- Athletics

Parking structures are situated on the east and west flanks of the core campus. There are four of them:

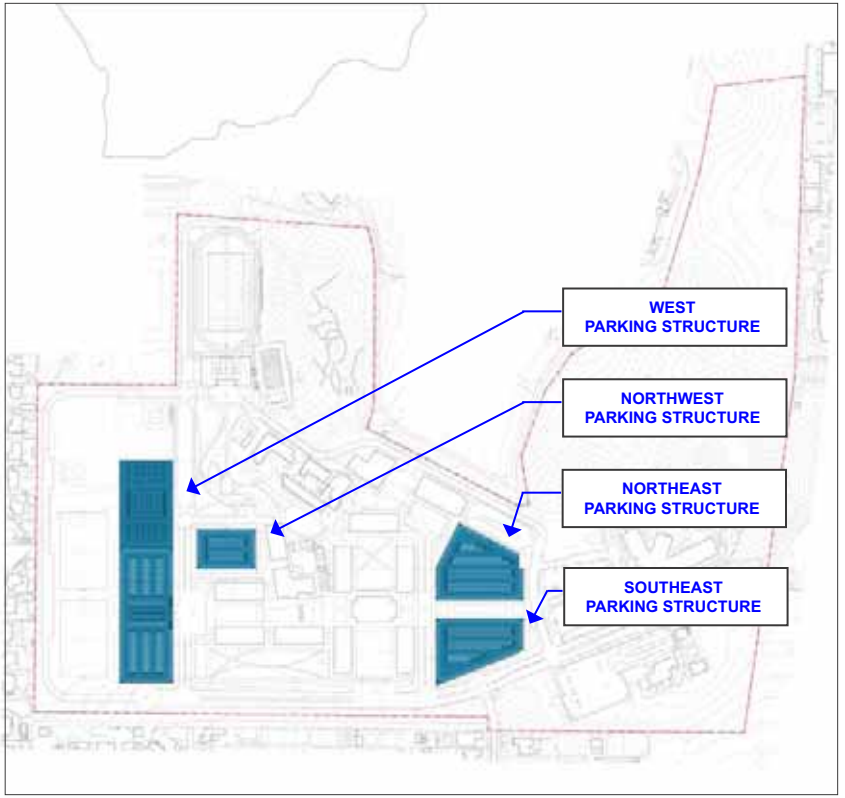
- West
- Northwest
- Northeast
- Southeast



Perimeter Road with Points of Vehicular Drop-Off and Pick-Up



Key Intersections and Surface Parking Lots



Parking Structures

Emergency and Service Vehicle Access

Fire trucks must have access to within 150 feet of all areas of all buildings on campus from two directions. This requires access for these large vehicles within the core campus within the boundaries of the perimeter road. Thus some pedestrian walk ways will be 26 FT minimum in width to provide for proper clearance.

Service vehicles will use the perimeter roads penetrating campus at only three major points, one associated with the Maintenance & Operations/Central Receiving facility on the north side of core campus, another with the Applied Technology and Industrial Technology buildings, and the third with the new Student Success Center at the west side of core campus

Smaller vehicles serving waste and recycling removal from buildings will move freely about the core campus making use of pedestrian paths with minimum widths of 8FT or more.

Emergency Vehicle Access and Circulation

Large Service and Delivery Vehicle Access and Circulation

Waste and Recycling Vehicle Access and Circulation

Water Distribution on Campus in the Long Range Plan

Sanitary Sewer

The existing Norco campus sanitary sewer system consists of several 8 inch lines which connect to two main outlets; an 8 inch main at the southwest corner of the site and a 10 inch main at the southeast corner of the site.

The first outlet is an 8 inch main which runs east to west under Third Street and then heads south under Pacific Avenue. This outlet carries the sanitary sewer loads from the buildings located along the southwest portion of the main campus. An 8 inch sanitary sewer line which runs south through the main campus parking lot connects the building service lines to the main under Third Street.

The second outlet is an 8 inch pipe that starts out running west to east then heads south at Kennedy High School. It connects the building sanitary sewer service lines located along the northeast portion of the main campus to the 10 inch main under Third Street.

Phase I will need new sewer lines added to connect each of the five new buildings to the existing system.

Phase II, which involves the construction of two additional new buildings will require the relocation of several utilities including an 8 inch sanitary sewer line which cuts the main campus into two equal parts from northwest to southeast. The second 8 inch sanitary sewer will also be relocated maintaining the outfall connection at or along Campus Drive.

Phase III will maintain the 8 inch and 10 inch mains rerouting the 8 inch service lines and adding a series of 4 inch to 6 inch building service lines to accommodate for the new building locations. The flow can be split between the 8 inch and 10 inch mains, which should be sufficient for the new construction. The large change in gradient across the site of 30 feet will also help by increasing the amount of flow the pipes can carry and should eliminate any need for a lift station on site.

Storm Sewer

The existing storm drain system for the Norco Campus site is split into two large drainage areas divided by Campus Drive located west of Kennedy High School.

The storm drain system for the drainage area located west of Campus Drive consists of a series of curb inlets, area drains, headwalls, and pipes that outlet to a 72 inch pipe located at the southwest corner of the campus property. A 42 inch headwall and a 36 inch headwall collect runoff from the north side of the site. Where the 42 inch pipe and 36 inch intersect the storm drain is increased to a 60 inch pipe and eventually is routed into the 72 inch pipe, which drains into the North Norco Channel.

The drainage area located east of Campus Drive conveys storm runoff to two roadway ditches located north and south of Third Street. The runoff will eventually reach the North Norco Channel through the Third Street storm drain system.

Phase 1

The first phase of the Master Plan will increase the impervious surface on site, which will result in an increase in storm runoff. A detention pond may be required by the City of Norco to detain this excess water so it doesn't overwhelm the existing 72 inch pipe downstream. The proposed building along with the track and field located northwest of the main campus will have a larger impact on the civil infrastructure of the campus than the other four buildings. The 42 inch headwall located on that area of the site will need to be relocated to the north and several hundred feet of 42 inch and 60 inch storm drain will need to be added/relocated to reconnect the headwall to the storm drain system. This system will run along the center line of the new drive located on the west side of the main campus and the connection to the 72 inch pipe will be maintained.

Phase 2

In this phase of the master plan the green space will not increase on campus so the detention or retention pond that was constructed for Phase I will be needed still to manage storm runoff. Several new drains will be needed.

Phase 3

The long-term phase of the master plan will increase the imperious surface and therefore detention or retention will still be required to manage storm runoff. Phase III has the least impact on the civil infrastructure out of all the phases for the new construction. This is the result of the civil infrastructure being improved throughout Phase I and Phase II.

The 36 inch storm drain that runs east to west, (and connects to the 42 inch pipe relocated in Phase I,) will need to be relocated during this phase to allow for a new parking garage structure.

Sanitary Sewer Lines in the 16,000 Student Plan

Storm Water Drainage in the 16,000 Student Plan

Fire Water

The current fire water system consists of 28 on site fire hydrants along with two 8 inch fire water loops that connect to the 12 inch water main located under Third Street. The loops are connected to the main by an 8 inch fire water line. Also part of this system are double detector check valves or back flow preventors at each building. These devices are part of the 6 inch fire service to each building that has a sprinkler system. A pressure test will need to be done to determine whether fire pumps will be required for future buildings. An 8 inch fire water line, which cuts the main campus into two equal parts from northwest to southeast will need to be relocated. The 8 and 6 inch loops can be relocated to maintain the integrity of the existing fire water and domestic water loops.

Most of the systems from the existing condition are maintained for the final master plan, and new 8 inch fire loops for future buildings will need to be designed.

Fire Water Distribution in the 16,000 Student Plan

Domestic Water

Domestic water is currently provided to the campus by a 12 inch water main located under Third Street. A 12 inch domestic water line connects the 12 inch main under Third Street to two 6 inch domestic water loops that serve the buildings located in the main part of the campus.

The 12 inch main will be sufficient for future campus growth. Pressure tests will need to be performed to determine whether booster pumps will be needed to maintain water pressure throughout the different phases of the master plan. New service lines will need to be added to the new construction. The construction of two the new buildings in Phase II will require the relocation of several utilities including a 6 inch domestic water line which cuts the main campus into two equal parts from northwest to southeast. The 8 and 6 inch loops can be relocated to maintain the integrity of the existing fire water and domestic water loops.

The master plan will continue to use domestic water loops to serve the buildings on site. The 6 inch domestic water loops will run parallel to the 8 inch fire water loops.

Reclaimed Water

Graywater from buildings as well as rainwater from roofs will be collected in the retention pond required for storm water runoff at Phase I. This water will be filtered then be used to irrigate landscaping on campus or in the fire water system. Combined with a drip irrigation system, reclaimed water will lead to dramatic savings on water bills throughout the life of the campus.

Domestic Water Distribution in the 16,000 Student Plan

Reclaimed Water Distribution in the 16,000 Student Plan

Electricity Distribution in the Long Range Plan

Phase 1

Based on an evaluation of the existing facilities master plan, approximately 185,000 square feet is being added in Phase I. Based on 10watt/sqft for connected load and a demand factor of 40%, the campus will see a total demand of 740kW being added to the overall campus demand. As part of this phase, two Classrooms and Laboratory buildings and a Student Center are being added on the south east quad, gymnasium buildings are being added on the north side and a new facilities and maintenance facility is being added at the location of the existing F1 building.

Since the existing Edison transformer located in F1 building is not adequately sized to serve the loads of the south east quad buildings, we recommend that a new 12kV service be requested from SCE from Third Street to serve the proposed buildings. New 12kV/480V transformer sized to meet the load requirements of the buildings (proposed in phase 1 and phase 3) be provided by SCE and the buildings be served from a new 480V main distribution board (MSB3) sized to not only meet the load requirements of the proposed buildings in this phase but also proposed buildings in Phase III that are being proposed on the south west side of the campus.

Since the Gymnasium is located close to building F2, we recommend that the same be served from the main 3000A distribution board MSB 2 located near building F2. A 480V feeder sized to meet the load requirements of the building will be provided from the main distribution board MSB2 to proposed building's electrical room.

Since the Facilities and Warehouse building is located close to building F1, we recommend that the same be served from the main 3000A distribution board MSB 2 located near building F1. A 480V feeder sized to meet the load requirements of the building will be provided from the main distribution board MSB1 to proposed building's electrical room.

Phase 2

Based on an evaluation of the existing facilities master plan, approximately 132,000 square feet is being added in Phase II. Based on 10watt/sqft for connected load and a demand factor of 40%, the campus will see a total demand of 530kW being added to the overall campus demand. As part of this phase, three Classrooms and Laboratory buildings and a Performing /Visual Arts Center are being added in the central area of the campus.

Since the existing Edison transformer located in F1 building is not adequately sized to serve the loads of these Phase II buildings, we recommend that the existing SCE transformer located in F1 building be upgraded. Since the main switchboard is adequately sized to meet the demand, we recommend that the same be retained and be used to serve these buildings being added as part of Phase II. Necessary coordination needs to be done with SCE to initiate upgrade of the transformer to meet the load requirements of the added buildings.

480V feeders sized to meet the load requirements of the buildings proposed in Phase II will be provided from the main distribution board MSB1 to proposed building's electrical room.

Buildings scheduled to be removed in this phase should be disconnected from the existing main switchboard and conduit and feeders serving the buildings should be removed for clearing site for the proposed buildings.

Phase 3

Based on an evaluation of the existing facilities master plan, approximately 132,000 square feet are being added in Phase III. Based on 10watt/sqft for connected load and a demand factor of 40%, the campus will see a total demand of 380kW being added to the overall campus demand. As part of this phase, two Classrooms and Laboratory buildings and a Student and faculty Support building are being added to the campus.

All the buildings proposed in this phase will be served from the main distribution board provided under Phase I. 480V feeders sized to meet the load requirements of the buildings proposed in this phase will be provided from the main distribution board (MSB3) to proposed building's electrical room.

Buildings scheduled to be removed in this phase should be disconnected from the existing main switchboard and conduit and feeders serving the buildings should be removed for clearing site for the proposed buildings.

Site Lighting System in the Long Range Plan

The proposed site lighting system will be designed with an effort to standardize fixtures and lamps at the proposed campus. The site lighting system will basically consist of two types of exterior light fixtures. One fixture type will be used in parking lots and roadways and the other fixture type will be used for the walkways internal to the campus. The following is a description of the type of light fixtures that will be utilized in the following areas:
walkways internal to the campus. The following is a description of the type of light fixtures that will be utilized in these areas:

Roadway/Parking Lots

The lighting system for the roadways/parking lots will consist of 25' high pole mount exterior light fixtures equipped with cut off optics and 250W high-pressure sodium vapor lamps. These poles will be spaced to achieve average foot-candle levels of 1.5-2fc.

Walkways

A decorative fixture with 12' high decorative pole and equipped with 70-100W high pressure sodium vapor lamp will be utilized to illuminate the walkways leading to and from the buildings. These poles again will be spaced to achieve average foot-candle levels of 1.5-2fc.

Telecommunications Systems

Phase 1

As part of the Master Plan Phase One include the construction of a new Main Distribution Facility (MDF), and the Network Operating Center (NOC) for the Voice, Data and Video Networks. This can be included in the new Facilities Shop & Warehouse building and minimum footage recommended is 2400 square feet.

Phase I will require the demolition of conduits from CMH #01 to the existing F1 building and the conduits from the F1 building to the M1 building to remain. This will also require placement of new 6SM/6MM fiber optic cable and a 25 pair copper cable to be placed for temporary feed to the M1 building. Placing the new MDF/NOC building northeast of the existing Humanities Building would allow the use of existing pathway system to feed existing building. This would require placing (4) 4" conduits being place from the new MDF/NOC to existing CMH #01. (3) new 4 inch entry conduits from the existing conduits system to the new MDF/NOC will be needed as well as (4) 4 inch conduits to the five new buildings to be built in Phase I. This would require the placement of (6) new 6'W X 12'L X 7'H manholes.

Provide new fiber optic cables from the new MDF/NOC to each new building included in Phase I. Recommended minimum fiber optic cables to be 12 strands single mode and 12 strands of 50mu multi-mode cable. Provide new copper cable from the new MDF/NOC to all new building included in Phase One. Backbone Copper cable to be sized 1 pair for each voice outlet or minimum of 50 pair per building. Provide fiber optic and copper tie cables from the new MDF/NOC to the existing MDF to allow for the use of the backbone cables feeding the existing building on campus.

Phase 2

Phase 2 will require all networks including voice, data and video to be relocated in the MDF/NOC prior to the start of Phase II. The existing MDF is located in the Humanities building and the NOC is located in the Multi-Purpose building. They are part of the building complex that is scheduled for demolition as part of Phase II.

After location of all networks and the placement of the new copper and fiber optic cable the demolition of the existing conduits and manholes will required to clear the building site. Provide (4) 4 inch conduits to each of the new buildings proposed in this phase.

Prior to the demolition of the existing buildings in this phase, it will require that placement of new fiber optic and copper cables from the MDF/NOC to each existing building to remain. A detail cut-over plan would be required as part of phase two. Provide new fiber optic cables from the MDF/NOC to each new building included in Phase II. Recommended minimum fiber optic cables to be 12 strands single mode and 12 strands of 50mu multi-mode cable. Provide new copper cable from the MDF/NOC to all new building included in Phase I. Backbone Copper cable to be sized 1 pair for each voice outlet or minimum of 50 pair per building.

Phase 3

Provide (4) 4 inch conduits to the new buildings planned as part of this phase. This would require the placement of (1) new 6'W X 12'L X 7'H and (4) 4.5"W X 8.5'L X 6.5'D manholes.

Provide new fiber optic cables from the new MDF/NOC to each new building included in Phase II. Recommended minimum fiber optic cables to be 12 strands single mode and 12 strands of 50mu multi-mode cable.Provide new copper cable from the new MDF/NOC to all new building included in Phase I. Backbone Copper cable to be sized 1 pair for each voice outlet or minimum of 50 pair per building.

Electrical and Telecom Distribution in the 16,000 Student Plan

Gas and Mechanical Distribution in the 16,000 Student Plan

Mechanical Distribution in the Long Range Plan

Phase 1

Phase I buildings loads reveal that the peak central cooling capacity will need to increase to about 840 tons. For maximum energy savings, peak demand reduction and a reduced carbon footprint, a chilled water Thermal Energy Storage (TES) tank is proposed on the hilltop overlooking the campus. For energy efficiency reasons an evaporative cooled chilled water plant is proposed that would also feed the TES tank.

New buildings should be provided with air handlers instead of fan coils to make better use of air side economizers and also greater delta T's through the chilled water coils. This is essential for maximizing the capacity of the Chilled Water TES tank. All new buildings should have BTU metering capabilities and tie into a Central DDC system with robust energy management capabilities. Existing large buildings should be retrofit with BTU monitoring capabilities. It is recommended to localize the generation of heating hot water rather than grouping it all in one location. Current SCAQMD regulations limit economical boiler sizing to less than 2.0 million BTU per boiler.

Phase 2

A review of the Phase II buildings loads reveal that the peak central cooling capacity will need to increase to about 1,100 tons. Plans for a Chilled Water Thermal Energy Storage (TES) tank should be implemented. Piping distribution system will need to be upgraded to increase size and allow placement of new buildings over current pipe locations per our proposed site plan. New buildings should be provided with air handlers and integrated air side economizers, and DDC controls.

Phase 3

A review of the Phase III buildings loads reveal that the peak central cooling capacity will need to increase to about 1,300 tons. Provide additional chiller and cooling tower capacity. Piping distribution system will need to be expanded to new buildings, which should be provided with air handlers and integrated air side economizers, and DDC controls.

Riverside Commmunity College District

- Jim Buysse, Interim Chancellor
- Chris Carlson, Executive Assistant to the Chancellor's Office
- Kristina Kauffman, Vice Chancellor for Institutional Effectiveness
- Aan Tan, Associate Vice Chancellor for Facilities
- Mike Webster, Facilities Planning Design & Construction
- Dan Johnson, Facilities Planning Design & Construction
- Rick Hernandez, Director Capital Planning
- Chani Beeman, Director of Diversity, Equity & Compliance

Norco Campus Executive Committee

- Dr. Brenda Davis, President
- Norm Godin, Vice President Business Services
- Dr. Gaither Loewenstein, Vice President Instructional Services
- Dr. Diane Dieckmeyer, Dean of Instruction
- Tom Wagner, President, Academic Senate
- Dr. Gail Zwart, Instructor Business Administration
- Steve Monsanto, Director, Plant Operations

Norco Campus Strategic Planning Committee Council of Co-Chairs

- Melissa Bader, Communications
- Sarah Burnett, Instructor, Early Childhood Education
- Rex Beck, Assistant Professor, Business Administration
- Deborah Tompsett-Makin, Associate Professor of Political Science
- Daniela Grecu, Outreach Specialist
- Jimmie Hill, Assistant Professor, Counseling
- Celia Brockenbrough, Associate Professor, Library Services
- Tamara Caponetto, Tutorial Services Clerk
- James Thomas, Assistant Professor Construction Technology
- Siobhan Freitas, Assistant Professor, Chemistry
- Steven Monsanto, Director, Plant Operations
- Charles Sternburg, Associate Professor, Anatomy and Physiology
- David Dieckmeyer, Instructional Support Specialist
- Alexis Gray, Instructor , Anthropology
- Louie McCarthy, Information Services
- James Thomas, Assistan Professor, Construction Technology
- Peter Boelman-Lopez, Associate Professor, Economics
- Dr. Gail Zwart, Instructor, Business Administration
- James Sutton, Senior Applied Technician

The Norco Campus Strategic Planning Committee Sub-Committees

- Financial Resources
- Human Resources
- Instructional Programs
- Institutional Mission and Effectiveness
- Library and Learning Support
- Physical Resources
- Student Support Services
- Technology
- Leadership and Governance

Faculty at the Norco Campus

- Ed Bush, Dean of Student Services
- Damon Nance, Assistant Dean of the Library
- Linda Reifschneider, Public Relations
- Dimitrios Synodinos, Student Activities Coordinator
- Hank Rogers, CACT Director
- Paul Van Hulle, Manufacturing Technology
- Tim Wallstrom, Physical Education
- Judy Perhamus, Humanities
- Anyd Robles, Math and Science
- Jim Kross, Consultant Physical Education
- John Coverdale, Computer Information Services

MDA Johnson Favaro, Architecture &Urban Design

- James Favaro, Principal
- Steve Johnson, Principal
- Nate Chiappa, Design Associate
- Grace Cheung, Design Associate
- Luke Stevenson, Design Associate
- Jodi Christopher, Associate