College of Business & Economics

Feasibility Study

April 21, 2003
Revised June 27, 2003
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Introduction

Executive Summary
The CSU Fullerton campus is growing and currently is in the process of updating its master plan that expands the University’s full-time equivalent (FTE) to 25,000 by 2009/2010. The College of Business & Economics (CBE) is responsible for a large portion of the University’s growth in the past several years and it is anticipated that it will continue to do so.

In order to meet the critical needs of a growing student population and to remain competitive, the University proposes a major construction project that includes a new campus facility and the future renovation of CBE’s current home, Langsdorf Hall.

The details contained within this feasibility study are for the new construction project only. A preliminary review of the proposed Langsdorf Hall renovation has been undertaken, and is briefly addressed in Appendix C, but further study is required.

The core objectives for the new building are:
- To provide an effective learning environment for today’s students through the thoughtful application of state-of-the-art technology.
- To provide space for faculty, students, and industry to interact in and out of the classroom.
- To provide a single location for CBE faculty and staff to promote interdisciplinary collaboration.
- To provide an environment that attracts high quality faculty and students.
- To provide students with learning opportunities with prospective employers through industry sponsored Centers’ of Excellence.

The Site
After assessing three potential sites, the preferred and recommended site for the new building is adjacent to Langsdorf Hall on 2.21 acres at the southeast corner of the campus. This location is in keeping with two of the basic tenets of the Master Plan – avoiding scattered academic building sites and removal of temporary structures. Additionally, with the conversion of Nutwood Avenue to a pedestrian mall, the proposed new CBE building site would form a campus “gateway” for both pedestrian and vehicular traffic.

Future Space Needs
The following quantitative space needs for the new College of Business and Economics Building have been identified through the Feasibility Study process:

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Conceptual Massing
RRM Design Group worked with the University to develop a preferred conceptual
massing. The massing is a mix of two, three and four story components surrounding existing buildings and a new courtyard. The proposed design of the structure is intended to complement the new pedestrian circulation to the east and the major pedestrian mall to the south.

**Anticipated Costs & Funding/Building Schedule**
The direct construction cost for the project is estimated at approximately $42,970,000 excluding group II equipment. The total project cost, including equipment and soft costs, is anticipated to be approximately $57,702,000.

This study is being submitted to request funding from the State for fiscal year 2004/2005. It is anticipated that the new building will be ready for occupancy in the summer of 2008, and in order to allow for continuous use of academic space, it is recommended that the new building be built prior to the renovation of Langsdorf Hall.

**Feasibility Study Introduction**
The California State University, Fullerton campus is located 22 miles southeast of Los Angeles in north Orange County. In 1957, Cal State Fullerton became the 12th State College in California to be authorized by the Legislature. The following year a site was designated in northeast Fullerton. It was purchased in 1959, when Dr. William B. Langsdorf was appointed as founding president, the first staff and faculty was selected and plans for opening the new college were made. Orange County State College started classes for 452 full and part-time students in September, 1959, using leased quarters for its administrative offices on the Fullerton Union High School campus and for its classrooms at Fullerton’s Sunny Hills High School. In the fall of 1960, the college opened classes on its own campus, where it occupied 12 temporary buildings. The name changed to Orange State College in July 1962, to California State College at Fullerton in July 1964, to California State College, Fullerton in July 1968 and to California State University, Fullerton in June 1972. The first permanent building, the six-story Letters and Science Building (now known as McCarthy Hall), was occupied in 1963.
Today the CSU Fullerton campus occupies 237 acres and has an enrollment of over 20,000 FTE with plans to expand to 25,000 by 2009/2010 with their revised Campus Master Plan scheduled to be approved by the Board of Trustees in 2003. A significant portion of this growth will be accommodated by the largest college on campus, the College of Business and Economics.

This feasibility study primarily addresses the new College of Business and Economics Building. The new building is programmed to be approximately 194,000 gross square feet of classroom, computer lab and administrative space. A secondary effect of the relocation of the College of Business and Economics into the building is the required renovation of Langsdorf Hall. The subsequent renovation of Langsdorf Hall is discussed briefly in appendix C, but further study of Langsdorf Hall will be required when the renovation of this building becomes a reality. Funding for the renovation is being requested for fiscal year 06/07.

The College
The College of Business and Economics at Cal State Fullerton was founded in 1959 and has seen tremendous growth—from three undergraduate degrees awarded in 1961, the graduating class of 2002 had 1,905 students. The first masters degree was awarded to a single student in 1964, compared to 260 in 2002. The fact that 80% of the College’s graduates work within a 50-mile radius of the University attests to the critical economic role the College plays in Orange County and much of Southern California.

In 1965, after only six years of operation, the College of Business and Economics earned accreditation by the American Assembly of Collegiate Schools of Business (AACSB) International, the premier accrediting agency for bachelor’s, master’s and doctoral degree programs in business administration and accounting. In 1972, the
graduate program was accredited, and in 1997, the Accounting Program was awarded accreditation by AACSB—making it one of only five universities in California to achieve accounting accreditation. Today, the College of Business and Economics at Cal State Fullerton is among the five largest accredited undergraduate programs in the nation, and the largest in California.

The College of Business and Economics began with a total of seven professors spread over six undergraduate concentrations (General Business, Accounting, Economics, Finance, Management and Marketing). Today, with full-time faculty totaling over 150 (Ph.D. rate, 97%) and part time faculty numbering 108, the College offers a Bachelor of Arts in Business Administration with concentrations in Accounting, Business Economics, Finance, Information Systems, International Business, Management, Management Science, Marketing, Entrepreneurship and Entertainment & Tourism. Also offered to undergraduates is a Bachelor of Arts in Economics and International Business. At the graduate level, degrees offered at the Fullerton campus include a Master of Arts in Economics and a Master of Science in Taxation, Accountancy and Management Science, while the MBA degree is offered both at the Fullerton campus and off-site in the Irvine Spectrum area. The Master in Taxation program, offered at both locations, is the only one of its kind in Orange County.

In addition to its undergraduate, graduate and doctoral offerings, today’s College of Business and Economics is able to offer its students a consistently growing array of opportunities in association with the private sector. Eleven “Centers of Excellence” provide academic and practical learning environments for students, while offering services to local business and government:

- Center for Business Studies
- Center for Economic Education
- Center for Entrepreneurship
- Center for Insurance Studies
- Center for International Business
- Center for the Study of Emerging Financial Markets
- Family Business Council
- Institute for Economic & Environmental Studies
- Real Estate and Land Use Institute
- Small Business Institute
- Student Tutoring Center

In addition to annual scholarships, private funding also makes possible the Dean’s Scholars Program. Students invited into this program are chosen as incoming freshman from the University’s top scholarship applicants and are among THE best and brightest.

With substantial growth expected, the College and the campus are striving to meet their mission of providing access with quality to a diverse citizenry. But the existing facilities are inadequate for that task.

The College of Business and Economics has made huge strides in providing a state-of-the-art, globally oriented and technologically savvy business program. It has set for itself the goal of becoming the school of choice for public business education in Southern California. The new building is a key component in that strategy.
Programming Team
During the programming and feasibility study preparation the following team was assembled:

Resource Committee
Anil Puri, Dean, College of Business & Economics
Katrin Harich, Associate Dean, College of Business & Economics
Jay Bond, Associate Vice President, Facilities Management
Kim Apel, Facilities Planner, Facilities Management
Ephraim Smith, Vice President, Academic Affairs
Pat Ames, Director, Academic Facilities and Classroom Technology
Stacey White, RRM Design Group
Katrina Rosa, RRM Design Group

Building Committee
Anil Puri, College of Business & Economics Dean
Kim Apel, Facilities Management Project Manager
Jay Bond, Facilities Management Director
Katrin Harich, College of Business & Economics Associate Dean
Curtis Williams, College of Business & Economics Technical Staff
Pat Ames, Academic Affairs
Ginny Pace, College of Business & Economics Advancement
Andy Luzi, Accounting Department Faculty
Mark Stohs, Finance Department Faculty
John Erickson, Finance Department Faculty
Steve Koernig, Marketing Department Faculty
Stewart Long, Economics Department Faculty
Tom Mayes, Management Department Faculty
Gus Vargas, Management Department Faculty
Don Crane, Finance Department Faculty
John Lawrence, ISDS Department Faculty
Seyed Hanizavareh, ISDS Department Faculty
Jenny Resnick, CSUF Accounting Department Faculty
Michael Smith, Design & Construction
Morteza Rahmatian, Economics Department Faculty
Stacey White, RRM Design Group
Katrina Rosa, RRM Design Group

Consultant Team
Programming
Victor Montgomery, RRM Design Group Principal in Charge
Stacey White, RRM Design Group Project Manager
Katrina Rosa, RRM Design Group Designer

Structural
Nathan White, Taylor & Syfan Consulting Engineers, Inc.

Mechanical & Plumbing
Keith Brummel, Brummel Myrick & Associates

Cost Estimating
John Mauk, O’Connor Construction Management
Project Program

Project Description
A new College of Business and Economics (CBE) building is being proposed on the southeast corner of campus to house the expanding College of Business and Economics. Following the construction of this building, in a subsequent project, renovation of the former home of the College, Langsdorf Hall, will be undertaken for use as primarily administration space on the upper floors and lecture space in the lower floors.

The new CBE building will be prominently located next to Langsdorf Hall. This new building will encompass 188,715 gross square feet (122,665 asf) and is anticipated to have a construction cost of about $43 million, excluding group II equipment.

The new building includes numerous technology enhanced classrooms designed to complement a student centered learning environment provided by the College of Business & Economics. The classrooms are designed to promote effective and lively interaction between students and professors and between students and their classmates. Multiple group study rooms will be placed adjacent to classrooms for breakout sessions and group projects. This interactive teaching model is used heavily in graduate programs and is becoming more prevalent for undergraduate programs and is designed to replicate the business environment in which the students are being trained to work.

The building has also been programmed to accommodate the College’s Centers of Excellence. These centers focus on various specialized areas of study and will facilitate interaction between the corporate and academic communities. The Centers add value to the education provided in the academic core courses of the College.

Today’s students are being taught in a world that requires technological currency, the ability to react quickly to rapidly changing information, and the ability to work creatively in multidisciplinary teams. This new building will be the most technologically integrated and advanced building on Cal State Fullerton’s campus and will help prepare the College of Business & Economics’ students for leadership roles in a rapidly changing global society.

Conceptual Rendering of new College of Business and Economics Building (Langsdorf Hall in the background)
In summary, the programming process identified the following quantitative space needs for the new College of Business and Economics Building:

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A detailed room list, component diagrams, and room data sheets have been developed for each of the assignable spaces included in the project (See Appendix A and B). Non assignable spaces have been accommodated by the net/gross ratio dictated by formula by the CSU standard guidelines. Non-assignable spaces (per the SUAM guidelines) include:

- Restrooms
- Mechanical Rooms
- Electrical Rooms
- Telecommunications Rooms
- Janitor Closets
- Fire Alarm Panels/Roofs
- Vertical and Horizontal Circulation
- Utility Distribution
- Lobbies
- Display Facilities
Project Process
In order to develop a project program that most accurately represented the true current and future needs of the College of Business and Economics a highly consultative process was used. This process included questionnaires, model building tours, user group interviews and massing workshops. Throughout the programming a variety of user groups were involved. Representatives for each of the areas contained in the new building were interviewed on three separate occasions to document space needs. Academic Affairs and Facilities Management were involved to represent the overall needs of the University. The following user groups were consulted during the programming process:

- CSUF Academic Affairs
- CSUF Facilities Management
- CSUF Design & Construction
- CSUF Physical Plant
- College of Business and Economics Administrative and Technical Staff
- Department of Accounting
- Department of Finance
- Department of Marketing/ Business Writing
- Department of Economics
- Department of Management
- Information Systems and Decision Sciences Department
- Centers of Excellence Representatives
- CSU CPDC

During the process two primary committees were formed to oversee the project, the Resource Committee and the Building Committee.

Graphic above represents the process that was completed to develop the program feasibility study.
The Building Committee, which is critical in larger projects such as the College of Business and Economics project, has multiple roles in the programming and feasibility study phase. Committee members include one or two representatives from each department, administrative staff, technicians, and key project players. This committee has many purposes, including, but not limited to:

- An approval body for specific user group information, offering input on prioritization as required,
- A source of data,
- A reporting body to the other faculty, staff, and students for their representative groups,
- A group to coordinate input from the respective departments,
- A general resource to the program architect for gathering and distributing information,
- A review body of the “technical” information included in the feasibility study, such as room lists, equipment list, and component diagrams.

The Resource Committee acts as the administrative approval body for the project. Members review the project at key milestones and provide direction. They do not typically get involved at the user group level. Collectively, they have final say on the project that is submitted to the Chancellor’s Office for review. The members are campus decision-makers and have the authority to approve/disapprove elements of the project at each key milestone.

The groups involved in this project to date should actively continue their participation throughout its life. Once funding has been allocated by the state and a project architect is selected it is paramount that the committees and user groups be re-engaged to revisit the program document to address its validity at that time.

Campus Visitations to the USC Marshall Business School and the UCLA Anderson School of Business were attended by both committees and interested CSUF faculty and staff. The tours visually provided the CSUF attendees with the technological advances and solutions to the current pedagogy of business and economics education. Tour leaders answered questions while visiting classrooms, break-out rooms, faculty and staff spaces, student circulation, gathering and work/study spaces. Participants in the campus visits were able to visualize aspects they liked and disliked, which they brought into the discussions forming the project program for the new CSUF College of Business and Economics.

Existing Conditions
The Campus & The College
The CSU Fullerton Campus is an urban campus on 237 acres with a growing enrollment. It is currently undergoing a master plan update process that will expand its FTE to 25,000, matching two other CSU campuses for the highest FTE of the 23 campuses. The campus is currently building two major capital projects, the Physical Education Addition and the Health Center Addition project. The University is also building some additional on-campus housing as well as a parking structure in addition to the Performing Arts Center that is currently being designed.

CBE has made up a large portion of the University’s growth in the last several years. The college is primarily located in Langsdorf Hall with faculty and teaching spaces located in four other buildings. Other buildings also containing CBE-owned spaces include University Hall, McCarthy Hall, College Park and the Faculty Terrace South temporary modular buildings. Once the project has been completed, the College will be reunited and consolidated into a single facility.
Existing Building - Langsdorf Hall
As previously mentioned, the CBE currently located in Langsdorf Hall. Langsdorf Hall was originally built in 1968 and was seismically retrofitted in the 1990s. It suffers from three main deficiencies for use primarily as an academic building for the CBE: 1) It has limited potential for systematic renovation to provide technology enhanced classroom spaces, 2) The existing circulation (stairs and elevators) limits traffic flow between floors making access to classrooms and faculty offices difficult and potentially dangerous, 3) Langsdorf is too small to meet the needs of the College of Business and Economics and unfortunately, due to its construction type (concrete), the building has limited potential for growth. As a result, the College has been forced to decentralize over the years across the campus. These three primary deficiencies limit the use of the building for CBE but make it an ideal candidate for renovation to be used as an administrative building (See Appendix C).

Technology
Langsdorf Hall is a concrete building constructed in the late 1960s. Its construction type and configuration limits its ability to change as technology and pedagogical needs change. The traditionally designed lecture halls do not support new teaching methods, which require computer technology and flexible configurations. Computers and modern equipment cannot be accommodated due to size and configuration of the classrooms, deficient utilities, and climate control.

Emerging pedagogy integrates traditional “lecture” and “computer laboratory,” as well as a variety of disciplines within a single course. Many business courses use a “studio” format. In the “studio,” traditional “lecture” and “laboratory” are integrated in a room with movable tables, seats, and computer stations where students are capable of communicating with each other and the instructor in a learning environment that is interactive, student-centered, instrument intensive, and involves cooperative learning among student peers. The addition of “break out rooms” allows students to work in larger groups, study their group process and their presentation skills required by real world work. The size and configuration of the existing space in Langsdorf Hall cannot support this type of pedagogy; renovation for this purpose is generally not possible or practical.

The Langsdorf Hall classrooms are not designed for the use of modern technology. Their size, configuration, and lack of utilities make use of educational technology difficult, if not impossible. Television monitors clumsily clutter the front of the rooms; screens, when in use, cover the boards; projection devices are difficult to place and use; connecting and operating computer equipment is equally difficult. The only 102 seat classroom is tiered but seats are small, uncomfortable and too close together. There is no way to facilitate group work or an interactive environment, the foundation of much modern pedagogy. The 50-60 seat classrooms are not tiered and lines of sight are severely impaired.

It is virtually impossible to convert the current Langsdorf Hall classrooms to a technology supported interactive environment in which “lecture” and “laboratory” are integrated. Increased demand for classes of this type requires that additional facilities be built. Without a new facility no appropriately configured spaces can be found, to meet the increased demand.
Circulation
The existing circulation system was not designed to accommodate the current levels of traffic flow to the academic spaces within the building. The existing elevators are inadequate for vertical circulation in a building with such a large number of classrooms on upper floors. The existing stairs are difficult to find, and are used beyond their safe limit. It is apparent that the building was not designed for the current student load. Renovation to the structure to fix this problem would be nearly impossible and extremely costly. The building is much more suited for administrative uses that generate a reduced level of foot traffic. Renovation to accommodate these uses would be much less costly and a better use of space and construction funds.

Expansion
As mentioned earlier, the College of Business and Economics is the largest college on campus and is growing. CBE’s space needs long ago exceeded the space provided in Langsdorf Hall and it has since been forced to move into several buildings across campus. The College is now scattered and needs to be consolidated. Langsdorf Hall, because of its exterior concrete frame, has limited opportunity for expansion. A horizontal expansion would be possible if structurally isolated from the building by an adequate expansion joint, since from a structural point of view, it would be an independent structure. However, available space around the building limits this as a possible solution. Attempting to expand vertically is even less feasible. Interior renovation for other uses is much more practical. Providing new space with a flexible design for future expansion and/or renovation for the college and relocating a use with limited future growth (such as administration) into Langsdorf is the most viable option.

For these three primary reasons continued use of Langsdorf Hall as an academic facility is not desirable and renovation to include additional academic space is strongly discouraged. Reuse of the building for use for administrative purposes and construction of a new academic building for the College of Business and Economics building is preferred.
Program Justification
The project was programmed based on actual need and every effort has been made to reconcile with the Chancellor’s Office formulas for space use. While for the most part the space programmed for the new construction complies with the formula requirements, there is one area where the University feels that an exception is warranted.

Classroom Space
The space allowed per formula of 15 ASF per station in a lecture classroom does not allow for the necessary equipment and for a layout that is required in a modern business school classroom. As previously discussed, the modern teaching environment is much different than the professor centered lecture classroom that the 15 asf per station model is based on. Business classes are taught in a case study format that requires a very different classroom design. Programs, such as the USC Marshall School of Business and the UCLA Anderson School of Business base their entire curriculum and space needs on this teaching method. The College of Business and Economics at CSUF is currently teaching by this method and plans to expand its use throughout the curriculum. Case study classrooms require flexibility to accommodate individual and group work, interaction between students, and accommodation of multimedia presentations. The classrooms contained in this feasibility study have been efficiently designed to accommodate all of these requirements (see Appendix B). In most cases the spaces are tiered with fixed tables and movable chairs. This configuration requires an increase in square feet per person due to the furniture type and accessibility requirements.
Site/Master Planning Issues
Campus Master Plan
The University is currently in the process of updating its Campus Master Plan. The University has contracted with AC Martin to develop a revised physical plan to reflect the necessary growth to 25,000 FTE in 2009/2010. The new plan includes new academic buildings, parking structures to replace surface parking, and improved vehicular and pedestrian circulation.

Revised Campus Master Plan by AC Martin Partners

The College of Business and Economics Building will be the first new academic building to be sited and designed following the approval of the Campus Master Plan in 2003. The CBE Building will be influenced in two key ways by the Master Plan:

- The Master Plan calls for retaining and strengthening the traditional academic core of the campus; that is, avoiding scattered academic building sites. The proposed site is closely adjacent to Langsdorf Hall and University Hall, the logical extension of the existing academic core.

- The Master Plan calls for the closure of Nutwood Avenue, the historic southern boundary of campus. The conversion of the street to a pedestrian mall, the rerouting of vehicular access from this side of the campus, and the siting of up to two new building facing the pedestrian mall and framing new campus entries. The proposed CBE building would occupy one of these designated new building sites, forming a pedestrian “gateway” to the Nutwood mall and to the interior of the campus, and a vehicular “gateway” to campus east side parking lots.
Site Analysis - Alternatives
University Location
Fullerton, California    Latitude: 33° 20' N
The City of Fullerton is located 22 miles southeast of Los Angeles, in the center of north Orange County. Fullerton is a full-service city renowned for its unique mix of residential, commercial and industrial, educational, and cultural environments which provide an outstanding quality of life for both residents and businesses alike.

Once part of a vast orange grove, Cal State Fullerton’s campus now consists of 237 acres bounded on the south by Nutwood Avenue, on the west by State College Boulevard, on the north by Yorba Linda Boulevard and on the east by the Orange Freeway (57).

The Cal State Fullerton campus itself has an efficient urban layout of facilities developed to serve a predominantly commuting public. The University’s campus was planned so that no student needs more than 10 minutes to go from one class to another. The campus is surrounded with landscaped parking areas.

As a part of this study three sites were analyzed as potential sites for the new CBE Building. Characteristics such as adjacent structures, pedestrian and vehicular traffic, wind, solar access and views were all considered as a part of the analysis.

**Site 1: East Langsdorf Hall Site (Preferred)**

The proposed 2.21 acre project site is bound to the west by the existing Langsdorf Hall and to the north, east and south by new plans for pedestrian and vehicular circulation proposed by the revised Campus Master Plan. Like much of the campus the site is generally flat. The site is located proximate to other academic buildings on campus such as University Hall, McCarthy Hall, the Science Laboratory building and a future academic building proposed as a part of the revised Campus Master Plan. There are opportunities for views from the site onto the new pedestrian way at Nutwood Ave. and to the southeast. The location of the site is at the southeast entry to the campus and could be considered a gateway project for the campus. The delivery entry to the existing Langsdorf Hall will need to be accommodated as a part of the project.
Site 2: Lot F
The proposed 2.31 acre project site is bound to the west by the existing Education Building and the Humanities and Social Science Building, to the south by a future academic building and to the east by a future parking structure. Like much of the campus the site is generally flat. The site is proximate to other academic buildings, but not in as close a proximity as site one. Opportunities for views are limited, given the interior location of the site. Space for the building is restricted by future projects.

Site 3: Lot C
The proposed 1.86 acre project site is bound to the west and south by two large roads, State College Blvd. and Nutwood Ave, to the north by a future parking structure (currently in design) and to the east by the Central Plant. Like much of the campus, this site is generally flat. The site is located at the southwestern edge of the campus, has poor proximity to other academic buildings and is quite disconnected from the campus core. There are many opportunities for views to and from the building. The location of the site is at the west entry to the campus and could be considered a gateway project for the campus. Given the location and size of the adjacent parking structure, development of this site for the CBE project is not possible.

Soil Conditions
See Appendix D for the 1990 Geotechnical report prepared by Converse Consultants. The geotechnical report was prepared for University Hall but per University instruction, the data should be considered accurate for the preferred site for this project. Once the project is approved, it is strongly recommended that the design team contract with a geotechnical engineer to perform a site and project specific analysis.

Utilities
Utilities are located on/near the site as indicated below on the University provided utility map. It is strongly recommended that the design team work with the University to verify the actual location of all utilities and other relevant site conditions once the project proceeds into schematic design.
Storm Drains:
There are existing storm drains on site that will need to be relocated.

Electrical:
Existing capacity on campus is adequate, but service will need to be extended to the building.

Hot/Cold Water:
The existing utility tunnel located adjacent to University Hall contains the hot and chilled water supply for the project. These lines will need to be extended (direct bury) to supply the project. For heating/cooling an additional chiller will need to be added at the central plant as a part of this project.

Sewer:
At the time this building is built it is anticipated that sewer capacity will be adequate.
Building Considerations, Analysis & Description

Codes & Standards
The codes and standards listed are minimum requirements only. The most current version of the code at the time that the contract for design services is issued should be used.

Applicable Codes
California Building Code (CBC)
California Electrical Code (CEC)
California Mechanical Code (CMC)
California Plumbing Code (CPC)
California Fire Code (CFC)
State of California Code of Regulations (CCR)
Title 24 State Building Standards

Standards & Guidelines
NFPA 101  Life Safety Code
ANSI A117.1  Providing Accessibility and Usability for Physically Handicapped People
ADA  Americans with Disabilities Act

Code Commentary
Occupancy: The classroom and office components of the project should be classified as Type “B.” There are also included various spaces that should be classified as Type “A-3”.

Construction Type: Given the occupancy type and various configurations of the building, a wide variety of construction types are possible. Depending on the ultimate configuration of the project one construction type may become more appropriate than others. When schematic design of the project is begun the design professional should review the applicable codes of the time to evaluate what the ideal solution is given the project constraints. Preliminary review of the code indicates that the following are possible construction types: Type I, Type II- FR, Type II-1 Hr., Type III-1 Hr., and Type IV (although it is highly unlikely that a building of this type and size would be constructed of heavy timber).

Modular Planning and Flexibility
In order to allow for maximum flexibility and adaptability, the classroom component of the project should be organized and designed with standardized units or dimensions. Modular planning establishes a grid by which structural columns, walls and partitions are located. As modifications are required because of changes in classroom and/or size partitions can be relocated, doors moved and spaces expanded or decreased in size without requiring major re-construction of structural or mechanical building elements.

Infrastructure should be incorporated into the planning module as well. Piped systems, HVAC, power and data should be brought into each in a systematic and consistent manner. Consistency will allow for addition or deletion of services to be less intrusive to the overall design of the system.
Module
The module selected for the classrooms is based on a 10'-6" module. If upon further review of the space configuration an alternative module size becomes more appropriate, then every effort should be made to apply the repeating module across all of the classroom spaces.

Circulation Options
Several possible configurations were used as the basis for developing a conceptual massing for the project. The building depth is based on the average depth of classrooms and width is based on multiples of the selected module. Once schematic design is begun by the design team, further options in plan should be explored to develop the ideal solution.

Massing Options
The Resource committee worked with RRM Design Group using foam core models to develop a possible conceptual massing for the project. Several options were introduced as possible options to draw inspiration from. The committee worked together borrowing from several of the options to develop the preferred solution.

Each of the options were documented. The preferred solution was developed further into a conceptual rendering and conceptual space layout. The purpose of the conceptual space layout was to check whether the project could fit on the designated site given the preferred massing. The purpose of the conceptual rendering is to further express the forms of the massing. Once the project has been awarded funds, the design team should re-evaluate the solution based on the constraints and opportunities at the time. It is quite likely that the design will require further modification at that time.
The preferred solution is a mix of two, three and four story components of a single structure. These lower forms help the building to relate at a pedestrian scale to the new pedestrian mall on the southern edge of the site as well as to the courtyard on the north and the existing courtyard bound by Langsdorf Hall and future academic building. Allowing space for outdoor learning was a priority so a significant outdoor plaza has been planned for the northwest side of the building.

When the project is implemented it may become necessary to increase the number of stories to decrease the building footprint. This option should be explored while remaining true to the building goals previously described.
Architectural Systems
General Building Description
A conceptual rendering was prepared of the preferred massing option to describe possible material solutions as well relationships between the forms. Once a design team has been hired, these solutions will need to be evaluated based on the programmatic, cost and University requirements at that time.

Exterior
The exterior of the building is anticipated to be of a palette that references the existing vernacular on campus. The existing campus vocabulary consists of multi-story buildings with white plaster or cast in place concrete.

Interior
For each assignable space to be located in the building a room data sheet has been prepared with appropriate interior finishes (see Appendix B).

Sustainable Design Opportunities
Executive Order D-16-00, signed by Governor Gray Davis on August 2, 2000, defines the CSU commitment to the design of energy efficient facilities to reduce the long-term cost of building ownership. The goals of these guidelines are to help architects and engineers maximize the energy efficiency, maintainability and resilience of a facility.

The basic objectives of a green building are to achieve a maximized operational energy savings, provide a healthy interior environment and limit the detrimental environmental impacts of the building’s operation and construction. Green buildings compete in bottom-line terms as well as in aesthetics. Green building methodology results in a value-added high performance building with direct, indirect and external benefits requiring different bottom-line calculations than their conventional
counterparts. The integrated, whole building design approach requires thinking about the building and its site as an interlinked and interdependent system. A single refinement of one system may have significant cost savings in another. As a result, high performance buildings are potentially no more expensive to build than traditional buildings, may be less expensive to operate, and can usually be more efficiently converted to their next use as human needs and requirements change and evolve.

Guided by the U.S. Green Building Council’s (USGBC) Leadership in Energy and Environmental Design (LEED™) guidelines, green design and construction practices significantly reduce or eliminate the negative impacts of buildings on the environment and occupants. The following strategies should be addressed as a part of the design of the project:

**Sustainable site planning**

When designing site features, it is important to consider environmental criteria throughout the site design and selection process. Existing ecological features of the site should be identified, including geology, water, climate, soil, vegetation, wildlife, and history of prior use. Appropriate siting of a new building can take advantage of sun angles and prevailing wind patterns to passively heat and cool the building.

**Safeguarding water and water efficiency**

Water efficiency measures in buildings can easily reduce water usage by 30% or more. In a typical 100,000 square foot office building, low-flow fixtures and equipment can save 1,000,000 gallons of water per year or more, based on 650 building occupants each using an average of 20 gallons per day. Monetary savings, though dependent on the local water costs, can save thousands of dollars per year, resulting in significant payback on water conservation infrastructure.

**Energy conservation**

Energy consumption can be dramatically reduced through practices that are both feasible and readily achievable. Improving the energy performance of buildings saves money for operations, reduces pollution generated by power plants and other energy producing equipment, and enhances comfort. Energy cost savings pay for most energy efficiency measures, often in a few years or less. When a building is considered as a whole, and measures are integrated in the design, energy efficiency measures work together, with far better results than any single measure alone.

**Conservation of materials and resources**

Building materials are an important component of green design because of their significant impacts on the environment as well as on human health. For example, mining, harvesting, and production of the materials used to construct buildings pollute the air and water, destroy habitats, and deplete natural resources. Additional air pollution is created by the transportation of materials or their components to the building site. Some building materials contain toxic or hazardous materials that harm construction workers performing the installation as well as the building users after the building is occupied.

**Indoor environmental quality (IEQ)**

On average, Americans spend 80% to 90% of their time indoors. As a result, the quality of the indoor environment has a significant influence on health, productivity, and quality of life. Research over the past decade has increased our understanding of the indoor environment, revealing both problems and potential solutions. Recent studies have shown that IEQ improvements can increase worker productivity by as much as 16%, leading to rapid payback for IEQ investments. Indoor environmental quality generally
includes issues related to indoor air quality such as ventilation effectiveness and control of contaminants as well as illumination and acoustics issues.

The Donald Bren School of Environmental Science and Management on the UC Santa Barbara campus, awarded a LEED™ platinum rating, offers all college campuses a model of a building that follows the USGBC design guidelines. The CSU Design Guidelines and the USGBC LEED™ guidelines require similar strategies to meet similar goals. Whether or not the CSUF College of Business and Economics will work toward achieving a LEED™ rating, the following strategies should, at a minimum, be followed:

1. Site new facilities to take advantage of solar angles, shading, and natural ventilation, as well as reduce impacts on the land
2. Use natural strategies to conserve, protect and restore water resources
3. Optimize energy efficiency to improve the energy performance of the building and provide occupant comfort
4. Promote occupant health and well-being in the indoor environment through careful selection of building products and systems.
5. Use appropriate landscape material
6. Use building materials that conserve our natural resources.
7. Plan for recycling during construction/demolition and occupancy.

Structural

General Building Description:
The proposed California State University Fullerton College of Business and Economics building consists of two wings linked by a central element, totaling over 190,000 gross square feet of floor area, with a footprint of about 54,000 gross square feet. The Southwest Wing, comprised primarily of office spaces, is a two-story L-shaped portion of the building, with a total floor area of 46,000 gross square feet and a footprint of 23,000 gross square feet. The Northeast Wing, comprised primarily of classroom spaces, is a three-story rectangular portion of the building, with a total floor area of 77,000 gross square feet and a footprint of 23,000 gross square feet. The Central Element is comprised of the main entry and generally open plan office spaces that fills and connects the space between the adjacent wings.

Floor to floor story heights are anticipated to be up to 14 feet, although a reduced floor to floor height may be possible once the building systems have been further designed.

Structural Design Criteria:
At the time of writing this report, the 1998 California Building Code (CBC) is the governing building code, which is based upon the 1997 Uniform Building Code (UBC). In November of 2002, the 2001 CBC will go into effect, however this new code will again be based upon the 1997 UBC. The 2004 CBC, slated to be written in the next year and adopted sometime in the year 2004, will be the next governing building code. At this point, any idea of what the 2004 CBC will be based upon is speculative at best.

Depending on when the structural analysis of this building is performed, the building code requirements at that time may or may not be based upon the 1997 UBC. Discussions are currently under way throughout the State of California whether or not the 2004 California Building Code will be based primarily upon the 2003 International Building Code (IBC), the 1997 UBC, ASCE 7-02, 2003 NEHRP, NFPA5000, FEMA
publications, or a combination of two or more of these. The structural procedures and design requirements vary significantly between the UBC and the other codes and provisions, especially for seismic design. Regardless of the governing code at the time of the structural analysis, the design should be based upon requirements and procedures that are at least as stringent as those in the 1998 CBC.

The structure will be located in Seismic Zone 4, approximately 6 km from the nearest fault, the Type-B Whittier Fault, per the CBC. It can be anticipated that this close proximity to an active fault will require design for higher seismic forces than would be required for a site further from a fault. Because the proposed structure does not exceed five stories or 65 feet in height, a static seismic analysis is allowed by the building code, however based upon the differing heights of the wings, varying shapes, and other irregularities in the structure, we recommended that a dynamic analysis be used. The analysis should be based on an appropriate ground motion representation and should be performed using accepted principles of dynamics. Additionally, an evaluation should be made as to the desired level of seismic resistance of the structure. The minimum intent of a lateral force resisting system is to protect human occupants from structural failures in order to allow for their safe exiting from the building.

It is recommended that rooms with higher design loads, such as laboratories, storage rooms, or heavy equipment use, be located on lower floors or the ground floor. Large lecture halls with few intermediate vertical supports, i.e. with long spans above, should have few stories above, if any, in order to limit the requirements of the horizontal framing system. This should be discussed with the design team during the early stages of the project, as these spaces typically prefer to be located on lower floors for programmatic reasons.

**Foundation System:**
The most current geotechnical (or “soils”) information for the site is a geotechnical report for the University Hall site, immediately adjacent to the proposed Business Building site. The conditions described and the recommendations contained in that report, by Converse Consultants Orange County, dated April 1990, should be relatively consistent with those of the proposed Business Building site. However, the report is outdated with respect to current seismic code requirements and does not provide information regarding local faults, ground shaking potential, or recommended seismic design criteria for the particular site. In order to provide a more in-depth structural evaluation of the proposed building, a new, revised or amended report will be necessary.

The foundation recommendations contained in the geotechnical report mentioned above is based upon a proposed “2 to 5-story steel frame building about 25,000 square feet in plan dimensions” with a “basement…in the northwest corner of the building.” The building being proposed at this time ranges between 2 and 4 stories, will have a total footprint of around 54,000 gross square feet, a total floor area of over 190,000 square feet, and will not necessarily use a steel frame superstructure. The recommendations given in this report will likely vary, therefore prior to the commencement of any structural design, they should be reviewed and amended as necessary for the proposed building and its particular site. Despite the fact that the recommendations may vary for the newly proposed building, we believe that the fundamental foundation system will be similar, i.e. deep foundations, utilizing cast-in-place concrete piles. This type of system is consistent with those used for many other buildings in the vicinity, including University Hall, Langsdorf Hall, and McCarthy Hall.
An alternate foundation system that may be feasible, contingent upon the geotechnical engineer’s recommendations, is the use of a mat foundation. A mat foundation is a shallow foundation system consisting of a thickened “slab” to distribute concentrated loads throughout the foundation and supporting soil. It is a preferred system under certain conditions, however for this site and the proposed structure, it may not necessarily be a more efficient or practical system. Prior to the commencement of structural design, we recommend that the geotechnical engineer evaluate the feasibility of using a mat foundation.

The probable foundation system for the proposed building will consist of a grid of drilled cast-in-place concrete piles, interconnected by concrete grade beams which will support the column loads and bearing walls. The piles will be embedded no less than 25 feet below the surface, and may extend significantly deeper, depending upon the magnitude of the building loads from above. Resistance to lateral forces will be provided by a combination of passive soil pressures and the bending strength of the piles. The ground floor slab will probably be either a slab on grade placed over a layer of engineered fill soil or a structural slab designed to span between the grade beams.

Superstructure System:
Several different combinations of systems are feasible for the structure; some of them have distinct advantages over others, however each system or combination of systems does have certain disadvantages as well. Based on the proposed building and site, the most suitable structure will likely consist of a steel frame system, utilizing moment-resisting frames, diagonally-braced frames, and/or steel-plate shearwalls to resist seismic and wind loading (or “lateral loading”). Floors would be concrete on formed steel decking (or steel “pan” decking). Building gravity loads would be supported by the concrete and steel deck over a system of steel beams and steel columns. Economy can be achieved by utilizing a composite design of the steel beams and steel columns. 

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**CONCEPTUAL FOUNDATION SECTION**

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**NOTE:** This diagram is not to scale.

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*Ground floor slab (structural slab, or slab on grade)*

*Concrete grade beams*

*Cast-in-place concrete piles*

*“Competent” alluvial soils at approx. 25’*

*Depth dependent upon building loads*

*Overexcavated and compacted fill (or “engineered fill”)*

*Subgrade and foundation system based upon recommendations contained in the geotechnical report by Converse Consultants, Orange County, dated April 10, 1990.*
beams and concrete deck system. Selection of the appropriate lateral force-resisting system, either moment frames, braced frames, shearwalls, or a combination of those systems, will depend mostly upon the layout of the building floor plans, the relationships between floors and adjacent building wings, the relationships between floors and the respective floors above, construction budget, and architectural considerations.

Concrete or masonry walls are probably not the most suitable solution for the proposed structure and site. Walls could be used as an efficient lateral force resisting system, however they pose several problems. As discussed above, the building will likely be supported by a foundation system of concrete grade beams and concrete piles. The use of concrete or masonry walls would add considerable weight, and would therefore induce greater loads to the foundations, as well as result in higher seismic forces due to the greater mass. A heavy building can have a much greater negative impact when supported by a deepened foundation system than if it were supported by conventional shallow foundations. Additionally, the use of shearwalls can greatly reduce the available window frontage in a building as well as limit flexibility for plan changes and technology infrastructure changes over time.

A steel frame system is likely a better structural system for this building than others for several reasons. It is considerably lighter than a concrete or masonry structure, and this structure will have a number of relatively long spans, especially in the Central and Northeast portions of the building, that are best supported by a steel frame system. A heavier concrete frame system, or a system of concrete or masonry walls, would add a significant amount of mass to the building.

Additional advantages of using a structural steel system over a concrete frame system are the ability to avoid shoring and forming of the floors and beams during construction, greater ease in doing remodels and additions to the built structure in the future, and simplified placement of openings in the floors for ductwork or other mechanical systems. A post-tensioned slab floor system is not recommended because it lacks the flexibility of placing additional openings, or changing the locations of openings, during or after construction. A concrete system also is much less ductile than a steel system, and a concrete system is subject to creep over time.

If they can be used, steel diagonally-braced frames may be better than steel moment-resisting frames for the lateral force-resisting system. A system of steel braced frames and steel pipe columns typically uses less material and is faster and easier to construct than a system of moment-resisting wideflange beams and columns. Diagonal braces can be hidden in walls where they occur, or placed behind glass so that they are not as obvious from outside the building. In many cases diagonal braces may actually be used as an architectural feature, while serving as a major structural element. Moment-resisting frames, however, are often necessary when diagonal braces are not permitted by architectural, visual, or other requirements.

Steel-plate shearwalls are a relatively new and unique alternative to other lateral force-resisting systems in a steel frame structure. Connections are relatively simple, especially when compared to moment frames, therefore material and labor costs can be reduced. Additionally, they tend to have much higher load capacities than moment frames and braced frames, therefore the number or size of lateral force-resisting elements can often be decreased. The use of steel-plates in lieu of masonry or concrete for shearwalls would significantly decrease the weight of the structure, and could decrease construction time since steel-plate shearwall assemblies can be fabricated off-site, whereas masonry or concrete walls would likely need to be constructed in place. The building code does not specifically address steel plate
shearwalls, so design and subsequent acceptance of the method is based upon a history of testing, past use in other parts of the country and the world, and well-established engineering principles. In addition to their common usage in Japan, several building departments on the West Coast of the United States have approved structures utilizing steel-plate shearwalls, including San Francisco, San Luis Obispo, and Seattle.

Both braced frames and steel-plate shearwalls can often develop significant overturning forces, especially when these forces are compounded by stacking of one frame or shearwall on top of another for multiple stories. Because of the restraints of the foundation type and large overturning forces likely being resisted by grade beams, the locations of the lateral force-resisting elements in either of these systems would need to be strategically located. The proposed structure may have a significant amount of window frontage. As discussed above, diagonal braces can obstruct windows, and shearwalls, whether they are steel, concrete, or masonry, can decrease the amount of available walls for windows. Steel moment frames tend to increase both material and labor costs, as well as fabrication time, however they are usually the least intrusive in walls with a significant amount of windows or other wall penetrations.

In conclusion, we believe that a steel frame superstructure is likely the most suitable and cost effective vertical load-carrying structural system for the proposed structure, however several different steel lateral load-resisting systems or combinations of systems could be used. Schematic structural design of the building should be integrated with design of the architectural systems so that considerations can be made for the optimum lateral force-resisting system.

**Mechanical**

*Outside Design Conditions*

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<td><strong>Mean Daily Range</strong></td>
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<tr>
<td><strong>Indoor Design Conditions</strong></td>
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<tr>
<td>Classrooms</td>
<td>75 F/40-60%</td>
<td>69 F/30-50%</td>
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<td>Office and Office Support</td>
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<td>69 F/30-50%</td>
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<td>Conferences, Lounge</td>
<td>75 F/40-60%</td>
<td>69 F/30-50%</td>
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<tr>
<td>Telecommunications spaces</td>
<td>72 F/40-60%</td>
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<td>Mechanical Spaces</td>
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<td>Minimum Airflow Rate</td>
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**General**

The 194,000 sq. ft. CSUF Business Building will be heated and cooled by connecting to the existing campus central hot water and chilled water systems. This project will require the installation of a 1000-ton direct fired absorption chiller to supplement the existing campus central plant since the plant will not be able to handle the additional 750 ton cooling load anticipated for this project. The new chiller will be fitted with new pumps to circulate chilled water flow to and from the campus loop and condenser water to the existing cooling towers. All mechanical equipment shall be located in interior rooms, and not on rooftops.
Direct Digital Control System
The HVAC controls will be an Andover Direct Digital Control (DDC) System connected to the existing campus system. All conduit & wiring shall be installed by the controls contractor. If ceiling return plenums are utilized in the design, all cable shall be plenum rated.

Air Handlers
Air handlers will be used to circulate conditioned air in the Business Building. Air handlers should be stacked floor to floor to minimize construction costs for piping. An outside air shaft and exhaust air shaft will be run between the roof and the first floor. Each air handler on each floor will utilize the shaft for outside air and exhaust air. An alternative would be to provide exterior louvers. Air handlers shall be fitted with a hot water pre-heat coil. All air handlers shall include filter sections with 60%, 4” filters.

1. Air handlers shall be supplied with supply & return fans with Variable Frequency Drives (VFD). The supply and return fans shall be started by the local DDC. The speed of the supply fan will be controlled by the DDC through a VFD to maintain a constant static pressure as sensed by the differential pressure transmitter located 2/3 of the way down the main supply air duct. The return fan will be controlled by the DDC through a VFD to maintain a constant static pressure as sensed by a differential pressure transmitter located in the occupied space.

2. Economizer control: Outside Air (OA), Return Air (RA) and Exhaust Air (EA) dampers will be modulated by the DDC to maintain a Mixed Air Temperature (MAT) setpoint when the OA temperature is lower than the RA temperature. When the OA temperature is above RA temperature, the OA damper shall close to its minimum setting. Minimum setting of OA is manually set based on the number of occupants. Carbon Dioxide (CO₂) monitors will be installed in all lecture halls to insure adequate supply of outside air (20 cfm/person minimum). The outside air damper will modulate to ensure adequate outside air supply.

3. Supply Air temperature control for air handler: The DDC will maintain the setpoint by modulating the cooling coil valve. This setpoint will be reset based on outside air temperature.

4. Safety controls: A duct smoke detector located in the supply air duct shall automatically stop both the supply fan and return fan and alarm the central operator’s station upon detection of particles of combustion.

VAV Boxes
Variable Air Volume boxes with hot water reheat coils shall be installed at each appropriate zone. The DDC controller will modulate the VAV box airflow and reheat coil valve in sequence to maintain space temperature conditions as sensed by a room sensor and the airflow pickup.

Data Rooms
Data Rooms shall be conditioned by separate cooling systems and not connected to the central plant. Computer Room units with roof top condensing units shall be provided. Humidity and dehumidification system shall be supplied if required.
Exhaust Systems
Restroom areas will be exhausted at 15 air changes/hour during occupied periods. Restroom exhaust on each floor will be combined and run to a central exhaust fan located on the roof.

Food Service
The food service area is for pre-cooked foods only. No cook line or commercial hood is proposed. No special HVAC systems are required.

Ductwork
Supply air ductwork shall be galvanized steel of minimum 4-inch water gauge pressure class for mains. Branch ducts and return air ductwork shall be minimum 2-inch water gauge pressure class. All ductwork is to be sealed with high-pressure duct sealant. All ductwork shall be insulated with 2 inch foil faced fiberglass wrap. Rectangular ductwork joints shall be jointed with “Ductmate” joints. Sealing, reinforcing and supporting of all ductwork shall be in accordance with SMACNA standards.

Plumbing
Standard institutional grade fixtures, wall hung lavatories, floor mounted toilets, wall mounted urinals, and drinking fountains. All water lines shall be copper pipe with overhead supply. Waste and vent system shall be cast iron under building and in attic spaces. Gas system shall be black iron piping with Tru-Coat at buried locations. All hot water piping shall be insulated. Roof drainage piping shall be cast iron.

Fire Sprinklers
The entire building including overhangs shall be fire sprinklered per NFPA standards. The campus standard is a simplex system. Sprinkler heads in heavy traffic areas shall be concealed type.

Telecommunications & Electrical
The project should be designed to meet at a minimum the most current CSU Minimum Baseline Standard TIP Guidelines.

For each office a minimum of two duplex and two data ports shall be provided.

Construction Phasing
Due to the large nature of the project construction phasing will be an important component of project planning. In order to allow for continuous use of the academic spaces, it is recommended that the new building be built prior to the renovation of Langsdorf Hall. Once the new construction has been completed than the renovation of Langsdorf can begin. College Park and portions of the new building could be used as surge space during the renovation of Langsdorf Hall.
Project Cost Estimate

Assumptions/Inclusions/Exclusions
Foundations: Based on the geotechnical study previously performed and the recommendations of the structural narrative. Cast in place concrete piles will be required into stable soils 25’ deep. The assumption was made that the piles would be required to penetrate this stable layer for approximately one third of their total length, so an average depth of 40’ was selected. Columns at approximately 40 feet on center for the two and three story buildings, with four piles at each location were assumed. For the four-story building we have assumed longer spans between columns, and six piles per column location. The cost of the foundation system falls within the CPDC Component Cost Summary range of values.

Structure:
It was assumed that the building will be constructed with a steel frame with concrete filled metal deck floor structure. The vertical and horizontal structure costs fall within the Component Cost Summary range of values.

Exterior Cladding:
It was assumed that the four-story building will have a concrete and glass exterior, and the two smaller buildings to have 30% glass and windows, with the remainder to be precast concrete panels. We have included an allowance for a sunshade structure. The cost for the exterior cladding falls below the minimum range in the Component Cost Summary. One reason is that there is a significant area of shared wall between the three buildings.

Roofing:
It was assumed that the project will contain a flat structure with a built up roof over rigid insulation. Sheet metal and roofing accessories are included. The cost is below the minimum range in the Component Cost Summary, but since these are multi story buildings, the range does not seem to apply.

Interiors:
The office and classroom buildings are assumed to be fairly standard in terms of partitions and finishes, with paint, carpet and resilient flooring and T-bar ceilings in most areas. The larger four-story building is assumed to be somewhat upgraded finishes due to its use by the Center’s of Excellence. The overall cost is above the maximum range in the Component Cost Summary. The office and classroom sections of the project fall within the range.

Vertical Transportation:
Two sets of stairs in each section of the building, with one set in each building extending to the roof have been included, multiple banks of elevators were assumed given the linear layout of the project.

Group I Equipment:
Equipment is included with allowances to fall within the expected range of costs for this type of building, as well as specific budgets for audio-visual, casework, window treatments, and fixed seating. The cost falls within the range set forth in the Component Cost Summary.
Mechanical and Electrical: The HVAC systems, plumbing and electrical systems were estimated based on the descriptions provided in the feasibility study. The cost falls within the range set forth in the Component Cost Summary.

**Site work:**
Soil to balance on the site after demolition of mostly light paving and landscaping was assumed, but that it will be necessary to move a significant number of underground utilities. Site improvements include work on public roadways to modify Nutwood Avenue, some additional parking requirements, sidewalk, landscaping and a fairly large upgraded plaza area central to the new building. Per a meeting with the CSUF physical plant, all required utilities are available near the site, with no requirement to underground new mains. Capacity issues are to be remedied prior to the funding of this project.

**Langsdorf Hall**
The remodel of Langsdorf Hall estimate assumes the following:

**Office to Office Remodel:**
Minimal wall relocation was assumed, about 20% of new office construction, new carpet and paint throughout. Ceiling repairs, and movement of lights, mechanical vents and fire sprinkler lines are included where walls are moved.

**Classroom to Office Remodel:**
An increase in the number of new walls was assumed here, about 50% of new office construction, and associated modifications of ceilings, mechanical and electrical work. New carpet and paint was included throughout.

**Computer Lab:**
Finishes include acoustical ceilings, carpet flooring, minimal new partitions and new paint throughout.

**Existing Building:**
Costs have been included for upgrading toilets and doorways to ADA standards. Costs to upgrade the electrical, telecommunications and mechanical systems throughout have also been included.
### Cost by Building Component

#### 2-7.5: Summary of Component Costs

**SUMMARY OF COMPONENT COSTS FROM FEASIBILITY THRU CONSTRUCTION PHASE**

*Form CPDC 2-7.5*

**ANALYSIS OF CONSTRUCTION COSTS**

**CAMPUS:** Fullerton  
**PROJECT:** College of Business & Economics Project

**IDENTIFY PHASE:** FS, S, P, W, BID, C: FS

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* Projected from A/E estimate at end of W, and from the schedule of values

* Please note that the 2-7 and 2-7.5 were modified by CPDC and CSUF staff after the completion of the feasibility study. Additional funding was added to pay for the additional chiller required for cooling as well as other modifications.
Appendix
A - Room List
B - Component Diagrams and Room Data Sheets
C - Secondary Effects
D - Geotechnical Study
E - Detailed Budget Estimate
A - Room List
<table>
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<tr>
<th>Space Name &amp; ID Number</th>
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RIM DESIGN GROUP

R:\=2001 Active Projects\1001063 CSU Fullerton CBE Programming\Programming\Room List
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<tr>
<td><strong>Other</strong></td>
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<td>OTH 02 Retail</td>
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</tbody>
</table>

**Summary Statistics**

- **Building ASF Total**: 126,145
- **Total Earned ASF per FTE (25,000)**: 121,659
- **Difference**: -4,486
- **Net/Gross Ratio (65%)**: 67.924
- **Building Total**: 194,069
B - Component Diagrams and Room Data Sheets
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Lateral File Cabinet</td>
<td></td>
<td>2. Visual Access to Support Staff Required</td>
</tr>
<tr>
<td>3. Bookshelves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Guest Table/Chairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Upper Cabinets/Shelving</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 01
DEPARTMENT: Dean’s Suite
SPACE NAME: Dean’s Office
STATIONS: 0
ASF: 200

1. Space Description and Design Attributes

2. Utilization
   ■ 8 hours/day
   ❏ 14 hours/day
   ❏ 24 hours/day

3. Security
   ❏ no lock
   ■ key lock
   ❏ card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   ❏ Hand sink. Quantity: Type:
   ❏ Floor Drain(s)
   ❏ Fume/Smoke Exhaust Systems
   ❏ Special Ventilation
   ■ Air Conditioning / Climate Control
   ❏ Humidity control or other special considerations
   ❏ Other:

5. Communications Requirements
   ■ Data Ports. Quantity: Type:
   ■ Telephone
   ■ CATV
   ❏ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ■ Task Lighting
   ❏ Other Specialty Lighting:
     ■ Standard convenience outlets
     ■ Special Power

7. Space Arrangements
   ❏ High Bay. Height in feet:
   ❏ Ground Floor Required:
   ❏ Must be adjacent to:
   ❏ Other:

Remarks:

8. Built-in Cabinetry
   ❏ Lower Cabinets
   ❏ Upper Cabinets
   ❏ Open Shelving
   ❏ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
     ■ Resilient Flooring
     ❏ Carpet
     ❏ Sealed Concrete
     ❏ Other:
   Ceiling Finish
     ❏ Exposed Structure
     ■ Acoustic Tile
     ❏ Other:
   Wall Finish
     ❏ Painted Wallboard
     ■ Wall Covering
     ❏ Other:
     Special Considerations:

10. Furnishings / Workstations
    ❏ Movable tables and chairs or movable desks
    ❏ Fixed table with movable chairs
    ■ Tablet arm chairs
    ❏ Computer stations: Quantity:
    ❏ No furnishings
    ■ Other: Office Furnishings

11. Outdoor Requirements (total area, covered, etc.)
    ❏ Covered Area required:
    ❏ Non-covered Area required:
    ❏ Outdoor Storage:
    ❏ Secured by fence (no ceiling)
    ❏ Highly secured by fence (no climbing access)
    ❏ Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

**FURNISHINGS:**
1. Workstation
2. Upper Cabinet / Shelving

**ADJACENCY:**
1. Dean's Office

**NOTES:**
1. Visual Access to Dean required
# Detailed Space Requirements

**Index No:** CBE 02  
**Department:** Dean’s Suite  
**Space Name:** Dean’s Support Staff  
**Stations:** 0  
**ASF:** 160

## 1. Space Description and Design Attributes

## 2. Utilization
- 🟢 8 hours/day
- 🟣 14 hours/day
- ✅ 24 hours/day

## 3. Security
- 🟢 no lock
- 🟣 key lock
- ✅ card key

## 4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
- 🟢 Hand sink. Quantity: Type:
- 🟣 Floor Drain(s)
- 🟢 Fume/Smoke Exhaust Systems
- 🟣 Special Ventilation
- 🟢 Air Conditioning / Climate Control
- 🟣 Humidity control or other special considerations
- ✅ Other:

## 5. Communications Requirements
- 🟢 Data Ports. Quantity: Type:
- 🟣 Telephone
- 🟣 CATV
- ✅ Other: Data/Computer Projector

## 6. Power and Lighting Requirements
- 🟢 General Lighting
- 🟢 Task Lighting
- 🟣 Other Specialty Lighting:
- 🟢 Standard convenience outlets
- 🟢 Special Power

## 7. Space Arrangements
- 🟢 High Bay. Height in feet:
- 🟣 Ground Floor Required:
- 🟢 Must be adjacent to: Dean
- ✅ Other:

## 8. Built-in Cabinetry
- 🟢 Lower Cabinets
- 🟣 Upper Cabinets
- 🟣 Open Shelving
- ✅ Specialty Cabinets:

## 9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish
  - 🟢 Resilient Flooring
  - 🟢 Carpet
  - 🟢 Sealed Concrete
  - ✅ Other:
- Ceiling Finish
  - 🟢 Exposed Structure
  - 🟢 Acoustic Tile
  - ✅ Other:
- Wall Finish
  - 🟢 Painted Wallboard
  - 🟢 Wall Covering
  - ✅ Other:
- Special Considerations:

## 10. Furnishings / Workstations
- 🟢 Movable tables and chairs or movable desks
- 🟣 Fixed table with movable chairs
- 🟣 Tablet arm chairs
- 🟢 Computer stations: Quantity:
- 🟢 No furnishings
- ✅ Other: Office Furnishings

## 11. Outdoor Requirements (total area, covered, etc.)
- 🟢 Covered Area required:
- 🟣 Non-covered Area required:
- 🟢 Outdoor Storage:
- 🟣 Secured by fence (no ceiling)
- 🟢 Highly secured by fence (no climbing access)
- ✅ Other:

## Remarks:

## Equipment:
COMPONENT DIAGRAM - CBE Spaces

INDEX NO.: CBE03
DEPARTMENT: Dean's Suite
SPACE NAME: Associate Dean Office
AREA: 180 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Workstation</td>
<td>1. Associate Deans</td>
<td>1. Windows required</td>
</tr>
<tr>
<td>2. Lateral File Cabinet</td>
<td>2. Dean's Office</td>
<td></td>
</tr>
<tr>
<td>3. Bookshelves</td>
<td>3. Advising Center</td>
<td></td>
</tr>
<tr>
<td>4. Visitor Chair</td>
<td>(Associate Dean, Academic Programs)</td>
<td></td>
</tr>
<tr>
<td>5. Upper Cabinets / Shelving</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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DETAILED SPACE REQUIREMENTS

INDEX NO:  CBE 03
DEPARTMENT:  Dean’s Suite
SPACE NAME:  Associate Dean Office
STATIONS:  0
ASF:  180

1. Space Description and Design Attributes

2. Utilization
   ■ 8 hours/day
   □ 14 hours/day
   □ 24 hours/day

3. Security
   □ no lock
   ■ key lock
   □ card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   □ Hand sink. Quantity:  Type:
   □ Floor Drain(s)
   □ Fume/Smoke Exhaust Systems
   □ Special Ventilation
   □ Air Conditioning / Climate Control
   □ Humidity control or other special considerations
   □ Other:

5. Communications Requirements
   ■ Data Ports. Quantity:  Type:
   ■ Telephone
   □ CATV
   □ Other:  Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ■ Task Lighting
   □ Other Specialty Lighting:
   □ Standard convenience outlets along walls
   □ Special Power

7. Space Arrangements
   □ High Bay. Height in feet:
   □ Ground Floor Required:
   □ Must be adjacent to:
   □ Other:

8. Built-in Cabinetry
   □ Lower Cabinets
   □ Upper Cabinets
   □ Open Shelving
   □ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
      ■ Resilient Flooring
      □ Carpet
      □ Sealed Concrete
      □ Other:
   Ceiling Finish
      □ Exposed Structure
      ■ Acoustic Tile
      □ Other:
   Wall Finish
      □ Painted Wallboard
      ■ Wall Covering
      □ Other:
   Special Considerations:

10. Furnishings / Workstations
    □ Movable tables and chairs or movable desks
    □ Fixed table with movable chairs
    □ Tablet arm chairs
    □ Computer stations: Quantity:
    □ No furnishings
    ■ Other:  Office Furnishings

11. Outdoor Requirements (total area, covered, etc.)
    □ Covered Area required:
    □ Non-covered Area required:
    □ Outdoor Storage:
       □ Secured by fence (no ceiling)
       □ Highly secured by fence (no climbing access)
       □ Other:

12. Equipment:
COMPONENT DIAGRAM - CBE Spaces

INDEX NO.: CBE04
DEPARTMENT: Dean's Suite
SPACE NAME: Office Manager
AREA: 110 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS:  
1. Workstation  
2. Visitor Chair  
3. Upper Cabinets / Shelving  
4. Full-height Lateral Files  
5. Bookshelves  
6. Whiteboard/Tack Board

ADJACENCY:  
1. Receptionist  
2. Deans' Support Staff

NOTES:  
1. Windows Required

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### Detailed Space Requirements

**INDEX NO:** CBE 04  
**DEPARTMENT:** Dean’s Suite  
**SPACE NAME:** Office Manager  
**STATIONS:** 0  
**ASF:** 110

#### 1. Space Description and Design Attributes

<table>
<thead>
<tr>
<th>Utilization</th>
<th>8 hours/day</th>
<th>14 hours/day</th>
<th>24 hours/day</th>
</tr>
</thead>
</table>

#### 2. Security

- no lock  
- key lock  
- card key

#### 3. Mechanical / Plumbing Requirements

(sinks, ventilation, drains, etc.)

- Hand sink.  Quantity: Type:  
- Floor Drain(s)  
- Fume/Smoke Exhaust Systems  
- Special Ventilation  
- Air Conditioning / Climate Control  
- Humidity control or other special considerations

#### 4. Communications Requirements

- Data Ports.  Quantity: Type:  
- Telephone  
- CATV  
- Other: Data/Computer Projector

#### 5. Power and Lighting Requirements

- General Lighting  
- Task Lighting  
- Other Specialty Lighting:  
- Standard convenience outlets along walls  
- Special Power

#### 6. Space Arrangements

- High Bay. Height in feet:  
- Ground Floor Required:  
- Must be adjacent to:  
- Other:

#### 8. Built-in Cabinetry

- Lower Cabinets  
- Upper Cabinets  
- Open Shelving  
- Specialty Cabinets:

#### 9. Finishes / Level of finishes (durability, cleanliness, etc.)

- Floor Finish  
- Resilient Flooring  
- Carpet  
- Sealed Concrete  
- Other:  
- Ceiling Finish  
- Exposed Structure  
- Acoustic Tile  
- Other:  
- Wall Finish  
- Painted Wallboard  
- Other:  
- Wall Covering  
- Other:  
- Special Considerations:

#### 10. Furnishings / Workstations

- Movable tables and chairs or movable desks  
- Fixed table with movable chairs  
- Tablet arm chairs  
- Computer stations: Quantity:  
- No furnishings  
- Other: Office Furnishings

#### 11. Outdoor Requirements (total area, covered, etc.)

- Covered Area required:  
- Non-covered Area required:  
- Outdoor Storage:  
- Secured by fence (no ceiling)  
- Highly secured by fence (no climbing access)  
- Other:

#### Remarks:

---

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COMPONENT DIAGRAM - CBE Spaces

INDEX NO.: CBE05
DEPARTMENT: Dean’s Suite
SPACE NAME: Receptionist
AREA: 280 S.F. (160 SF per Receptionist & 60 SF per Student Assistant)

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS:
1. Receptionist Workstation
2. Student Assistant’s Workstation
3. Vertical File Cabinet
4. Lateral File Cabinet
5. Typewriter
6. FAX Machine
7. Transaction Desk

ADJACENCY:
1. Dean’s Office
2. Support Staff
3. Office Manager

NOTES:

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DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 05
DEPARTMENT: Dean’s Suite
SPACE NAME: Receptionist
STATIONS: 0
ASF: 160

1. Space Description and Design Attributes

2. Utilization
   ■ 8 hours/day
   ◼ 14 hours/day
   ◼ 24 hours/day

3. Security
   ■ no lock
   ◼ key lock
   ◼ card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   ◼ Hand sink.  Quantity: Type:
   ◼ Floor Drain(s)
   ◼ Fume/Smoke Exhaust Systems
   ◼ Special Ventilation
   ◼ Air Conditioning / Climate Control
   ◼ Humidity control or other special considerations
   ◼ Other:

5. Communications Requirements
   ◼ Data Ports.  Quantity: Type:
   ◼ Telephone
   ◼ CATV
   ◼ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ■ Task Lighting
   ◼ Other Specialty Lighting:
   ◼ Standard convenience outlets along walls
   ◼ Special Power

7. Space Arrangements
   ◼ High Bay. Height in feet:
   ◼ Ground Floor Required:
   ◼ Must be adjacent to:
   ◼ Other:

Remarks:

8. Built-in Cabinetry
   ◼ Lower Cabinets
   ◼ Upper Cabinets
   ◼ Open Shelving
   ◼ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
   ■ Resilient Flooring
   ◼ Carpet
   ◼ Sealed Concrete
   ◼ Other:
   Ceiling Finish
   ◼ Exposed Structure
   ■ Acoustic Tile
   ◼ Other:
   Wall Finish
   ■ Painted Wallboard
   ◼ Wall Covering
   ◼ Other:
   Special Considerations:

10. Furnishings / Workstations
    ◼ Movable tables and chairs or movable desks
    ◼ Fixed table with movable chairs
    ◼ Tablet arm chairs
    ◼ Computer stations: Quantity:
    ◼ No furnishings
    ■ Other: Office Furnishings

11. Outdoor Requirements (total area, covered, etc.)
    ◼ Covered Area required:
    ◼ Non-covered Area required:
    ◼ Outdoor Storage:
    ◼ Secured by fence (no ceiling)
    ◼ Highly secured by fence (no climbing access)
    ◼ Other:

Equipment:

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COMPONENT DIAGRAM - CBE Spaces

INDEX NO.: CBE07
DEPARTMENT: Dean's Suite
SPACE NAME: File Storage
AREA: 244 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Compact Shelving Units</td>
<td>1. Deans' Support Staff</td>
<td>1. No Windows Required</td>
</tr>
</tbody>
</table>

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DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 07
DEPARTMENT: Dean’s Suite
SPACE NAME: File Storage
STATIONS: 0
ASF: 244

1. Space Description and Design Attributes

2. Utilization
   ■ 8 hours/day
   ❏ 14 hours/day
   ❏ 24 hours/day

3. Security
   ■ no lock
   ❏ key lock
   ❏ card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   ❏ Hand sink. Quantity: Type:
   ❏ Floor Drain(s)
   ❏ Fume/Smoke Exhaust Systems
   ❏ Special Ventilation
   ■ Air Conditioning / Climate Control
   ❏ Humidity control or other special considerations
   ❏ Other:

5. Communications Requirements
   ❏ Data Ports. Quantity: Type:
   ❏ Telephone
   ❏ CATV
   ❏ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ❏ Task Lighting
   ❏ Other Specialty Lighting:
   ❏ Standard convenience outlets along walls
   ❏ Special Power

7. Space Arrangements
   ❏ High Bay. Height in feet:
   ❏ Ground Floor Required:
   ❏ Must be adjacent to:
   ❏ Other:

8. Built-in Cabinetry
   ❏ Lower Cabinets
   ❏ Upper Cabinets
   ❏ Open Shelving
   ❏ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
   ■ Resilient Flooring
   ❏ Carpet
   ❏ Sealed Concrete
   ❏ Other:
   Ceiling Finish
   ■ Exposed Structure
   ❏ Acoustic Tile
   ❏ Other:
   Wall Finish
   ■ Painted Wallboard
   ❏ Wall Covering
   ❏ Other:
   Special Considerations:

10. Furnishings / Workstations
    ❏ Movable tables and chairs or movable desks
    ❏ Fixed table with movable chairs
    ❏ Tablet arm chairs
    ❏ Computer stations: Quantity:
    ❏ No furnishings
    ■ Other: Storage per Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    ❏ Covered Area required:
    ❏ Non-covered Area required:
    ❏ Outdoor Storage:
    ❏ Secured by fence (no ceiling)
    ❏ Highly secured by fence (no climbing access)
    ❏ Other:

Remarks:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS</th>
<th>ADJACENCY</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Microwave</td>
<td>1. Dean's Suite</td>
<td></td>
</tr>
<tr>
<td>2. Sink</td>
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</tr>
<tr>
<td>3. Under-counter Refrigerator</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Upper Cabinets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Work Counter / Cabinets Below</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# DETAILED SPACE REQUIREMENTS

**INDEX NO:** CBE 08  
**DEPARTMENT:** Dean's Suite  
**SPACE NAME:** Kitchenette  
**STATIONS:** 0  
**ASF:** 59

## 1. Space Description and Design Attributes

### 2. Utilization
- ✓ 8 hours/day
- ❑ 14 hours/day
- ❑ 24 hours/day

### 3. Security
- ✓ no lock
- ❑ key lock
- ❑ card key

## 4. Mechanical / Plumbing Requirements
(sinks, ventilation, drains, etc.)
- ✓ Hand sink. Quantity: 1  Type: Kitchenette
- ❑ Floor Drain(s)
- ❑ Fume/Smoke Exhaust Systems
- ❑ Special Ventilation
- ✓ Air Conditioning / Climate Control
- ❑ Humidity control or other special considerations
- ❑ Other:

### 5. Communications Requirements
- ❑ Data Ports. Quantity: Type:
- ✓ Telephone
- ❑ CATV
- ❑ Other: Data/Computer Projector

### 6. Power and Lighting Requirements
- ✓ General Lighting
- ❑ Task Lighting
- ❑ Other Specialty Lighting:
- ✓ Standard convenience outlets
- ❑ Special Power

## 7. Space Arrangements
- ❑ High Bay. Height in feet:
- ❑ Ground Floor Required:
- ❑ Must be adjacent to:
- ❑ Other:

## 8. Built-in Cabinetry
- ✓ Lower Cabinets
- ✓ Upper Cabinets
- ❑ Open Shelving
- ❑ Specialty Cabinets:

## 9. Finishes / Level of finishes (durability, cleanliness, etc.)
Floor Finish
- ✓ Resilient Flooring
- ❑ Carpet
- ❑ Sealed Concrete
- ❑ Other:
Ceiling Finish
- ✓ Exposed Structure
- ✓ Acoustic Tile
- ❑ Other:
Wall Finish
- ❑ Painted Wallboard
- ❑ Wall Covering
- ❑ Other:
Special Considerations:

## 10. Furnishings / Workstations
- ❑ Movable tables and chairs or movable desks
- ❑ Fixed table with movable chairs
- ❑ Tablet arm chairs
- ❑ Computer stations: Quantity:
- ❑ No furnishings
- ✓ Other: See Component Diagram

## 11. Outdoor Requirements (total area, covered, etc.)
- ❑ Covered Area required:
- ❑ Non-covered Area required:
- ❑ Outdoor Storage:
- ❑ Secured by fence (no ceiling)
- ❑ Highly secured by fence (no climbing access)
- ❑ Other:

### Remarks:

### Equipment:

---

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COMPONENT DIAGRAM - CBE Spaces

INDEX NO.: CBE09
DEPARTMENT: Community Affairs, Events & Major Gifts
SPACE NAME: Director, Community Affairs
AREA: 150 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS:  
1. Workstation  
2. Meeting Table / Chairs  
3. Overhead Cabinets / Shelving  
4. Lateral Files

ADJACENCY:  
1. Events Coordinator  
2. Principle Gifts Director

NOTES:  
1. Windows Required
DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 09
DEPARTMENT: Community Affairs & Events
SPACE NAME: Director of Community Affairs
STATIONS: 0
ASF: 150

1. Space Description and Design Attributes

2. Utilization
   ■ 8 hours/day
   ❏ 14 hours/day
   ❏ 24 hours/day

3. Security
   ❏ no lock
   ■ key lock
   ❏ card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   ❏ Hand sink. Quantity: Type:
   ❏ Floor Drain(s)
   ❏ Fume/Smoke Exhaust Systems
   ❏ Special Ventilation
   ■ Air Conditioning / Climate Control
   ❏ Humidity control or other special considerations
   ❏ Other:

5. Communications Requirements
   ■ Data Ports. Quantity: Type:
   ■ Telephone
   ❏ CATV
   ❏ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ■ Task Lighting
   ❏ Other Specialty Lighting:
   ■ Standard convenience outlets
   ❏ Special Power

7. Space Arrangements
   ❏ High Bay. Height in feet:
   ❏ Ground Floor Required:

   ❏ Must be adjacent to:
   ❏ Other:

Remarks:

8. Built-in Cabinetry
   ❏ Lower Cabinets
   ❏ Upper Cabinets
   ❏ Open Shelving
   ❏ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
   ❏ Resilient Flooring
   ■ Carpet
   ❏ Sealed Concrete
   ❏ Other:
   Ceiling Finish
   ❏ Exposed Structure
   ■ Acoustic Tile
   ❏ Other:
   Wall Finish
   ❏ Painted Wallboard
   ■ Wall Covering
   ❏ Other:
   Special Considerations:

10. Furnishings / Workstations
    ❏ Movable tables and chairs or movable desks
    ❏ Fixed table with movable chairs
    ❏ Tablet arm chairs
    ❏ Computer stations: Quantity:
    ❏ No furnishings
    ■ Other: Office Furnishings

11. Outdoor Requirements (total area, covered, etc.)
    ❏ Covered Area required:
    ❏ Non-covered Area required:
    ❏ Outdoor Storage:
    ❏ Secured by fence (no ceiling)
    ❏ Highly secured by fence (no climbing access)
    ❏ Other:

Equipment:
INDEX NO.: CBE10
DEPARTMENT: Community Affairs, Events & Major Gifts
SPACE NAME: Director, Principal Gifts
AREA: 150 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Workstation</td>
<td>1. Events Coordinator</td>
<td>1. Windows Required</td>
</tr>
<tr>
<td>2. Meeting Table / Chairs</td>
<td>2. Community Affairs Director</td>
<td></td>
</tr>
<tr>
<td>3. Overhead Cabinets / Shelving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Lateral Files</td>
<td></td>
<td></td>
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</table>

College of Business and Economics
RRM DESIGN GROUP

Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 10
DEPARTMENT: Community Affairs & Events
SPACE NAME: Director Principle Gifts
STATIONS: 0
ASF: 150

1. Space Description and Design Attributes

2. Utilization
   ■ 8 hours/day
   □ 14 hours/day
   □ 24 hours/day

3. Security
   □ no lock
   ■ key lock
   □ card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   □ Hand sink. Quantity: Type:
   □ Floor Drain(s)
   □ Fume/Smoke Exhaust Systems
   □ Special Ventilation
   ■ Air Conditioning / Climate Control
   □ Humidity control or other special considerations
   □ Other:

5. Communications Requirements
   ■ Data Ports. Quantity: Type:
   ■ Telephone
   □ CATV
   □ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ■ Task Lighting
   □ Other Specialty Lighting:
   ■ Standard convenience outlets
   □ Special Power

7. Space Arrangements
   □ High Bay. Height in feet:
   □ Ground Floor Required:
   □ Must be adjacent to:
   □ Other:

Remarks:

8. Built-in Cabinetry
   □ Lower Cabinets
   □ Upper Cabinets
   □ Open Shelving
   □ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
   ■ Resilient Flooring
   □ Carpet
   □ Sealed Concrete
   □ Other:
   Ceiling Finish
   □ Exposed Structure
   ■ Acoustic Tile
   □ Other:
   Wall Finish
   □ Painted Wallboard
   ■ Wall Covering
   □ Other:
   Special Considerations:

10. Furnishings / Workstations
    ■ Movable tables and chairs or movable desks
    □ Fixed table with movable chairs
    □ Tablet arm chairs
    □ Computer stations: Quantity:
    □ No furnishings
    ■ Other: Office Furnishings

11. Outdoor Requirements (total area, covered, etc.)
    □ Covered Area required:
    □ Non-covered Area required:
    □ Outdoor Storage:
    □ Secured by fence (no ceiling)
    □ Highly secured by fence (no climbing access)
    □ Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

**COMPONENT DIAGRAM - CBE Spaces**

**INDEX NO.:**  CBE04  
**DEPARTMENT:**  Community Affairs, Events & Major Gifts  
**SPACE NAME:**  Assoc. Director of Events  
**AREA:**  110 S.F.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Workstation</td>
<td>1. Director of Community Affairs</td>
<td>1. Windows Required</td>
</tr>
<tr>
<td>2. Upper Cabinets/ Shelving</td>
<td>2. Events Coordinator</td>
<td>2. 14&quot; Bookshelf required for storage</td>
</tr>
<tr>
<td>4. Pedestal File</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Visitor Chairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Lateral Files</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics  
RRM DESIGN GROUP  
Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 04
DEPARTMENT: Community Affairs & Events
SPACE NAME: Assoc. Director of Events
STATIONS: 0
ASF: 110

1. Space Description and Design Attributes

2. Utilization
   ■ 8 hours/day
   ❏ 14 hours/day
   ❏ 24 hours/day

3. Security
   ❏ no lock
   ■ key lock
   ❏ card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   ❏ Hand sink. Quantity: Type:
   ❏ Floor Drain(s)
   ❏ Fume/Smoke Exhaust Systems
   ❏ Special Ventilation
   ■ Air Conditioning / Climate Control
   ❏ Humidity control or other special considerations
   ❏ Other:

5. Communications Requirements
   ■ Data Ports. Quantity: Type:
   ■ Telephone
   ❏ CATV
   ❏ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ■ Task Lighting
   ❏ Other Specialty Lighting:
   ❏ Standard convenience outlets along walls
   ❏ Special Power

7. Space Arrangements
   ❏ High Bay. Height in feet:
   ❏ Ground Floor Required:
   ❏ Must be adjacent to:
   ❏ Other:

Remarks:

8. Built-in Cabinetry
   ❏ Lower Cabinets
   ❏ Upper Cabinets
   ❏ Open Shelving
   ❏ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   ■ Resilient Flooring
   ❏ Carpet
   ❏ Sealed Concrete
   ❏ Other:
   ■ Exposed Structure
   ❏ Acoustic Tile
   ❏ Other:
   ■ Wall Finish
   ❏ Painted Wallboard
   ■ Wall Covering
   ❏ Other:
   Special Considerations:

10. Furnishings / Workstations
    ■ Movable tables and chairs or movable desks
    ❏ Fixed table with movable chairs
    ❏ Tablet arm chairs
    ❏ Computer stations: Quantity:
    ❏ No furnishings
    ■ Other: Office Furnishings

11. Outdoor Requirements (total area, covered, etc.)
    ❏ Covered Area required:
    ❏ Non-covered Area required:
    ❏ Outdoor Storage:
    ❏ Secured by fence (no ceiling)
    ❏ Highly secured by fence (no climbing access)
    ❏ Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS:
1. Workstation
2. Visitor Chair
3. Overhead Cabinets / Shelving
4. Lateral Files
5. Bookshelves
6. Whiteboard/Tackboard

ADJACENCY:
1. Events Coordinator
2. Community Affairs
3. Principle Gifts

NOTES:
1. Windows Preferred
DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 04
DEPARTMENT: Community Affairs & Events
SPACE NAME: Development Assistant
STATIONS: 0
ASF: 110

1. Space Description and Design Attributes

2. Utilization
   ■ 8 hours/day
   □ 14 hours/day
   □ 24 hours/day

3. Security
   □ no lock
   ■ key lock
   □ card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   □ Hand sink. Quantity: Type:
   □ Floor Drain(s)
   □ Fume/Smoke Exhaust Systems
   □ Special Ventilation
   ■ Air Conditioning / Climate Control
   □ Humidity control or other special considerations
   □ Other:

5. Communications Requirements
   ■ Data Ports. Quantity: Type:
   □ Telephone
   □ CATV
   □ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ■ Task Lighting
   □ Other Specialty Lighting:
   □ Standard convenience outlets along walls
   □ Special Power

7. Space Arrangements
   □ High Bay. Height in feet:
   □ Ground Floor Required:
   □ Must be adjacent to:
   □ Other:

Remarks:

8. Built-in Cabinetry
   □ Lower Cabinets
   □ Upper Cabinets
   □ Open Shelving
   □ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
     □ Resilient Flooring
     ■ Carpet
     □ Sealed Concrete
     □ Other:
   Ceiling Finish
     □ Exposed Structure
     ■ Acoustic Tile
     □ Other:
   Wall Finish
     □ Painted Wallboard
     ■ Wall Covering
     □ Other:
     Special Considerations:

10. Furnishings / Workstations
   □ Movable tables and chairs or movable desks
   □ Fixed table with movable chairs
   □ Tablet arm chairs
   □ Computer stations: Quantity:
   □ No furnishings
   ■ Other: Office Furnishings

11. Outdoor Requirements (total area, covered, etc.)
   □ Covered Area required:
   □ Non-covered Area required:
   □ Outdoor Storage:
   □ Secured by fence (no ceiling)
   □ Highly secured by fence (no climbing access)
   □ Other:

Equipment:

College of Business and Economics
RRM Design Group

Cal State, Fullerton
COMPONENT DIAGRAM - CBE Spaces

INDEX NO.: CBE04
DEPARTMENT: Community Affairs, Events & Major Gifts
SPACE NAME: Graphic Designer
AREA: 110 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

---

FURNISHINGS:  
1. Workstation  
2. Visitor Chair  
3. Overhead Cabinets / Shelving  
4. Lateral Files  
5. Bookshelves  
6. Whiteboard/Tackboard

ADJACENCY:  
1. Community Affairs & Events Offices

NOTES:  
1. Windows Preferred

---

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DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 04
DEPARTMENT: Community Affairs & Events
SPACE NAME: Graphic Designer
STATIONS: 0
ASF: 110

1. Space Description and Design Attributes

2. Utilization

■ 8 hours/day
❏ 14 hours/day
❏ 24 hours/day

3. Security

❏ no lock
■ key lock
❏ card key

4. Mechanical / Plumbing Requirements
(sinks, ventilation, drains, etc.)

❏ Hand sink. Quantity: Type:
❏ Floor Drain(s)
❏ Fume/Smoke Exhaust Systems
❏ Special Ventilation
■ Air Conditioning / Climate Control
❏ Humidity control or other special considerations
❏ Other:

5. Communications Requirements

■ Data Ports. Quantity: Type:
❏ Telephone
❏ CATV
❏ Other: Data/Computer Projector

6. Power and Lighting Requirements

■ General Lighting
■ Task Lighting
❏ Other Specialty Lighting:
❏ Standard convenience outlets along walls
❏ Special Power

7. Space Arrangements

❏ High Bay. Height in feet:
❏ Ground Floor Required:
❏ Must be adjacent to:
❏ Other:

8. Built-in Cabintery

❏ Lower Cabinets
❏ Upper Cabinets
❏ Open Shelving
❏ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)

Floor Finish

❏ Resilient Flooring
■ Carpet
❏ Sealed Concrete
❏ Other:

Ceiling Finish

❏ Exposed Structure
■ Acoustic Tile
❏ Other:

Wall Finish

❏ Painted Wallboard
■ Wall Covering
❏ Other:
Special Considerations:

10. Furnishings / Workstations

❏ Movable tables and chairs or movable desks
❏ Fixed table with movable chairs
❏ Tablet arm chairs
❏ Computer stations: Quantity:
❏ No furnishings
■ Other: Office Furnishings

11. Outdoor Requirements (total area, covered, etc.)

❏ Covered Area required:
❏ Non-covered Area required:
❏ Outdoor Storage:
❏ Secured by fence (no ceiling)
❏ Highly secured by fence (no climbing access)
❏ Other:

Remarks:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

**FURNISHINGS:**

1. Workstation
2. Partition Wall

---

**INDEX NO.:** CBE06  
**DEPARTMENT:** Community Affairs, Events & Major Gifts  
**SPACE NAME:** Student Assistants  
**AREA:** 60 S.F.
DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 06
DEPARTMENT: Community Affairs & Events
SPACE NAME: Student Assistants
STATIONS: 0
ASF: 60

1. Space Description and Design Attributes

2. Utilization
   ■ 8 hours/day
   ❏ 14 hours/day
   ❏ 24 hours/day

3. Security
   ■ no lock
   ❏ key lock
   ❏ card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   ❏ Hand sink. Quantity: Type:
   ❏ Floor Drain(s)
   ❏ Fume/Smoke Exhaust Systems
   ❏ Special Ventilation
   ■ Air Conditioning / Climate Control
   ❏ Humidity control or other special considerations
   ❏ Other:

5. Communications Requirements
   ■ Data Ports. Quantity: Type:
   ■ Telephone
   ❏ CATV
   ❏ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ■ Task Lighting
   ❏ Other Specialty Lighting:
   ■ Standard convenience outlets
   ■ Special Power

7. Space Arrangements
   ❏ High Bay. Height in feet:
   ❏ Ground Floor Required:
   ❏ Must be adjacent to:
   ❏ Other:

   Remarks:

8. Built-in Cabinetry
   ❏ Lower Cabinets
   ❏ Upper Cabinets
   ❏ Open Shelving
   ❏ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
   ❏ Resilient Flooring
   ❏ Carpet
   ❏ Sealed Concrete
   ❏ Other:
   Ceiling Finish
   ❏ Exposed Structure
   ❏ Acoustic Tile
   ❏ Other:
   Wall Finish
   ■ Painted Wallboard
   ❏ Wall Covering
   ❏ Other:
   Special Considerations:

10. Furnishings / Workstations
    ❏ Movable tables and chairs or movable desks
    ❏ Fixed table with movable chairs
    ❏ Tablet arm chairs
    ❏ Computer stations: Quantity:
    ❏ No furnishings
    ■ Other: Office Furnishings

11. Outdoor Requirements (total area, covered, etc.)
    ❏ Covered Area required:
    ❏ Non-covered Area required:
    ❏ Outdoor Storage:
    ❏ Secured by fence (no ceiling)
    ❏ Highly secured by fence (no climbing access)
    ❏ Other:

   Equipment:
COMPONENT DIAGRAM - CBE Spaces

INDEX NO.: CBE12
DEPARTMENT: Community Affairs & Events
SPACE NAME: Storage Room
AREA: 244 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Compact Shelving Unit</td>
<td></td>
<td>1. Windows not required</td>
</tr>
</tbody>
</table>

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Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 12  
DEPARTMENT: Community Affairs & Events  
SPACE NAME: Storage  
STATIONS: 0  
ASF: 244

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
     - Telephone
     - CATV
     - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
     - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
      - Secured by fence (no ceiling)
      - Highly secured by fence (no climbing access)
    - Other:

Remarks:

Equipment:

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RRM Design Group  
Cal State, Fullerton
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

**FURNISHINGS:**
1. Mail Slots
2. Work Surface/Cabinets Below
3. Upper Cabinets/Shelving
4. Printer
5. FAX Machine
6. Copy Machine
7. Recycle Bins
8. Paper Shredder
9. Scanner
10. Phone

**ADJACENCY:**
1. Dean's Suite

**NOTES:**
1. Windows not required
INDEX NO: CBE 11
DEPARTMENT: CBE Shared Support Areas
SPACE NAME: Reprographics/Workroom-Mailroom
STATIONS: 0
ASF: 218

1. Space Description and Design Attributes

2. Utilization
   ❑ 8 hours/day
   ■ 14 hours/day
   ❑ 24 hours/day

3. Security
   ❑ no lock
   ■ key lock
   ❑ card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   ❑ Hand sink. Quantity: Type:
   ❑ Floor Drain(s)
   ❑ Fume/Smoke Exhaust Systems
   ■ Special Ventilation
   ■ Air Conditioning / Climate Control
   ❑ Humidity control or other special considerations
   ❑ Other:

5. Communications Requirements
   ■ Data Ports. Quantity: Type:
   ■ Telephone
   ❑ CATV
   ❑ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ❑ Task Lighting
   ❑ Other Specialty Lighting:
   ■ Standard convenience outlets
   ❑ Special Power

7. Space Arrangements
   ❑ High Bay. Height in feet:
   ❑ Ground Floor Required:
   ❑ Must be adjacent to:
   ❑ Other:

8. Built-in Cabinetry
   ■ Lower Cabinets
   ■ Upper Cabinets
   ❑ Open Shelving
   ❑ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
   ■ Resilient Flooring
   ❑ Carpet
   ❑ Sealed Concrete
   ❑ Other:
   Ceiling Finish
   ❑ Exposed Structure
   ■ Acoustic Tile
   ❑ Other:
   Wall Finish
   ■ Painted Wallboard
   ❑ Wall Covering
   ❑ Other:
   Special Considerations:

10. Furnishings / Workstations
    ❑ Movable tables and chairs or movable desks
    ❑ Fixed table with movable chairs
    ❑ Tablet arm chairs
    ❑ Computer stations: Quantity:
    ❑ No furnishings
    ■ Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    ❑ Covered Area required:
    ❑ Non-covered Area required:
    ❑ Outdoor Storage:
    ■ Secured by fence (no ceiling)
    ❑ Highly secured by fence (no climbing access)
    ❑ Other:

   Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
INDEX NO: CBE 12
DEPARTMENT: CBE Shared Support Areas
SPACE NAME: Intermediate Storage Room
STATIONS: 0
ASF: 244

1. Space Description and Design Attributes

2. Utilization
   ❑ 8 hours/day
   ■ 14 hours/day
   ❑ 24 hours/day

3. Security
   ❑ no lock
   ■ key lock
   ❑ card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   ❑ Hand sink. Quantity: Type:
   ❑ Floor Drain(s)
   ❑ Fume/Smoke Exhaust Systems
   ❑ Special Ventilation
   ■ Air Conditioning / Climate Control
   ❑ Humidity control or other special considerations
   ❑ Other:

5. Communications Requirements
   ❑ Data Ports. Quantity: Type:
   ■ Telephone
   ❑ CATV
   ❑ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ❑ Task Lighting
   ❑ Other Specialty Lighting:
   ■ Standard convenience outlets
   ❑ Special Power

7. Space Arrangements
   ❑ High Bay. Height in feet:
   ❑ Ground Floor Required:
   ❑ Must be adjacent to:
   ❑ Other:

Remarks:

8. Built-in Cabinetry
   ❑ Lower Cabinets
   ❑ Upper Cabinets
   ❑ Open Shelving
   ❑ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
   ■ Resilient Flooring
   ❑ Carpet
   ❑ Sealed Concrete
   ❑ Other:
   Ceiling Finish
   ■ Exposed Structure
   ■ Acoustic Tile
   ❑ Other:
   Wall Finish
   ■ Painted Wallboard
   ❑ Wall Covering
   ❑ Other:
   Special Considerations:

10. Furnishings / Workstations
    ❑ Movable tables and chairs or movable desks
    ❑ Fixed table with movable chairs
    ❑ Tablet arm chairs
    ❑ Computer stations: Quantity:
    ❑ No furnishings
    ■ Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    ❑ Covered Area required:
    ❑ Non-covered Area required:
    ❑ Outdoor Storage:
    ❑ Secured by fence (no ceiling)
    ❑ Highly secured by fence (no climbing access)
    ❑ Other:

Remarks:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

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<tbody>
<tr>
<td>1. Compact Shelving Unit</td>
<td>1. Windows not required</td>
<td></td>
</tr>
</tbody>
</table>
### DETAILED SPACE REQUIREMENTS

**INDEX NO:** CBE 13  
**DEPARTMENT:** CBE Shared Support Areas  
**SPACE NAME:** Archive  
**STATIONS:** 0  
**ASF:** 247

1. **Space Description and Design Attributes**

2. **Utilization**
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. **Security**
   - no lock
   - key lock
   - card key

4. **Mechanical / Plumbing Requirements**
   (sinks, ventilation, drains, etc.)
   - Hand sink.  Quantity: Type:  
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. **Communications Requirements**
   - Data Ports. Quantity: Type:  
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. **Power and Lighting Requirements**
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. **Space Arrangements**
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. **Built-in Cabinetry**
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets: Compact Shelving

9. **Finishes / Level of finishes (durability, cleanliness, etc.)**
   - Floor Finish
     - Resilient Flooring
   - Carpet
   - Sealed Concrete
   - Other:
   - Ceiling Finish
     - Exposed Structure
   - Acoustic Tile
   - Other:
   - Wall Finish
     - Painted Wallboard
   - Wall Covering
   - Other:
     - Special Considerations:

10. **Furnishings / Workstations**
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: See Component Diagram

11. **Outdoor Requirements (total area, covered, etc.)**
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

**Remarks:**

**Equipment:**
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS:  
1. Conference Table (20)  
2. Lower Cabinets  
3. White Board  
4. Projection Screen (ceiling mounted projector)  
5. Side Chairs

ADJACENCY:  
1. Windows preferred

NOTES:
INDEX NO: CBE 14
DEPARTMENT: CBE Shared Support Areas
SPACE NAME: Large Conference
STATIONS: 0
ASF: 636

1. Space Description and Design Attributes

2. Utilization
   ■ 8 hours/day
   ❏ 14 hours/day
   ❏ 24 hours/day

3. Security
   ❏ no lock
   ■ key lock
   ❏ card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   ❏ Hand sink. Quantity: Type:
   ❏ Floor Drain(s)
   ❏ Fume/Smoke Exhaust Systems
   ❏ Special Ventilation
   ■ Air Conditioning / Climate Control
   ❏ Humidity control or other special considerations
   ❏ Other:

5. Communications Requirements
   ■ Data Ports. Quantity: Type:
   ■ Telephone
   ❏ CATV
   ■ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ❏ Task Lighting
   ❏ Other Specialty Lighting:
   ❏ Standard convenience outlets
   ❏ Special Power

7. Space Arrangements
   ❏ High Bay. Height in feet:
   ❏ Ground Floor Required:
   ❏ Must be adjacent to:
   ❏ Other:

Remarks:

8. Built-in Cabinetry
   ❏ Lower Cabinets
   ❏ Upper Cabinets
   ❏ Open Shelving
   ❏ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
   ❏ Resilient Flooring
   ■ Carpet
   ❏ Sealed Concrete
   ❏ Other:
   Ceiling Finish
   ❏ Exposed Structure
   ■ Acoustic Tile
   ❏ Other:
   Wall Finish
   ❏ Painted Wallboard
   ■ Wall Covering
   ❏ Other:
   Special Considerations:

10. Furnishings / Workstations
   ❏ Movable tables and chairs or movable desks
   ❏ Fixed table with movable chairs
   ■ Tablet arm chairs
   ❏ Computer stations: Quantity:
   ❏ No furnishings
   ■ Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
   ❏ Covered Area required:
   ❏ Non-covered Area required:
   ❏ Outdoor Storage:
   ❏ Secured by fence (no ceiling)
   ❏ Highly secured by fence (no climbing access)
   ❏ Other:

Equipment:
COMPONENT DIAGRAM - CBE Spaces

INDEX NO.: CBE15
DEPARTMENT: CBE Shared Support Areas
SPACE NAME: Medium Conference Room (12)
AREA: 285 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Conference Table (10-12)</td>
<td></td>
<td>1. Windows preferred</td>
</tr>
<tr>
<td>2. Credenza</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. White Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Projector (ceiling mounted)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 15
DEPARTMENT: CBE Shared Support Areas
SPACE NAME: Medium Conference Room
STATIONS: 0
ASF: 285

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
     - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 16
DEPARTMENT: CBE Shared Support Areas
SPACE NAME: Events Conference Suite
STATIONS: 0
ASF: 2000

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: 3 Type: Kitchen Sink
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector Microphone

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power: Dimming Capability Required

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

Equipment:

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COMPONENT DIAGRAM - CBE Spaces

INDEX NO.: CBE17
DEPARTMENT: CBE Shared Support Areas
SPACE NAME: Faculty/Staff lounge
AREA: 1017 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lunch Tables / Chairs</td>
<td></td>
<td>1. Windows are preferred</td>
</tr>
<tr>
<td>2. Refrigerators (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Counterspace with worksurface</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. White Board / Tack Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Recycle Bins</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Microwave</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Dishwasher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Bookshelves</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 17
DEPARTMENT: CBE Shared Support Areas
SPACE NAME: Faculty Staff Lounge
STATIONS: 0
ASF: 1017

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: 1 Type: Kitchenette
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
     - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

Remarks:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

**FURNISHINGS:**
1. Workstation
2. Visitor Chair
3. Overhead Cabinets / Shelving
4. Lateral Files
5. Bookshelves
6. Whiteboard/Tackboard

**ADJACENCY:**
1. Events Coordinator
2. Community Affairs
3. Principle Gifts

**NOTES:**
1. Windows Preferred
1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
     - Standard convenience outlets
     - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
     - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

Equipment:
COMPONENT DIAGRAM - CBE Spaces

INDEX NO.: CBE19
DEPARTMENT: CBE Shared Support Areas
SPACE NAME: Duplication Area
AREA: 247 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

---

FURNISHINGS:
1. Copy Machine
2. Work surface
3. Recycle bins
4. Mailbox Storage
5. Shrink Wrap Machine
6. Folding Machine

ADJACENCY:

NOTES:
1. Windows are preferred
2. Special Acoustics
3. Increased HVAC requirements

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DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 19
DEPARTMENT: CBE Shared Support Areas
SPACE NAME: Duplication Area
STATIONS: 0
ASF: 247

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

**FURNISHINGS:**
1. Workstation
2. Visitor Table/Chair
3. Whiteboard
4. Lateral File
5. Overhead Storage
6. Waiting Chairs
7. Shelving

**ADJACENCY:**
1. Located on or near the student services floor.
2. Business Advising
3. Second priority is access to the dean's office.

**NOTES:**
1. Windows are preferred for private office
DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 20
DEPARTMENT: Business Advising Center
SPACE NAME: Student Affairs
STATIONS: 0
ASF: 273

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
      - Secured by fence (no ceiling)
      - Highly secured by fence (no climbing access)
    - Other:

Remarks:

Equipment:
COMPONENT DIAGRAM - CBE Spaces

INDEX NO.: CBEZ1
DEPARTMENT: Business Advising Center
SPACE NAME: Undergraduate Advising
AREA: 1889 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Kitchenette</td>
<td>1. Located on or near the student services floor.</td>
<td>1. Windows are required in private offices</td>
</tr>
<tr>
<td>2. Copy Machine</td>
<td>2. Assistant Dean of Student Affairs</td>
<td></td>
</tr>
<tr>
<td>3. Assistant Dean Office</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Graduate Advising</td>
<td>3. Second priority is access to the dean's office.</td>
<td></td>
</tr>
<tr>
<td>Department Director</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Advisor Workstations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Receptionist</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Student Workstations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 21
DEPARTMENT: Business Advising Center
SPACE NAME: Undergraduate Advisory
STATIONS: 0
ASF: 1868

1. Space Description and Design Attributes

2. Utilization
   ❑ 8 hours/day
   ■ 14 hours/day
   ❑ 24 hours/day

3. Security
   ❑ no lock
   ■ key lock
   ❑ card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   ❑ Hand sink. Quantity: Type:
   ❑ Floor Drain(s)
   ❑ Fume/Smoke Exhaust Systems
   ❑ Special Ventilation
   ■ Air Conditioning / Climate Control
   ❑ Humidity control or other special considerations
   ❑ Other:

5. Communications Requirements
   ■ Data Ports. Quantity: Type:
   ■ Telephone
   ■ CATV
   ❑ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ■ Task Lighting
   ❑ Other Specialty Lighting:
   ■ Standard convenience outlets
   ❑ Special Power

7. Space Arrangements
   ❑ High Bay. Height in feet:
   ❑ Ground Floor Required:
   ❑ Must be adjacent to:
   ❑ Other:

8. Built-in Cabinetry
   ❑ Lower Cabinets
   ❑ Upper Cabinets
   ❑ Open Shelving
   ❑ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
   ■ Resilient Flooring
   ■ Carpet
   ■ Sealed Concrete
   ❑ Other:
   Ceiling Finish
   ■ Exposed Structure
   ■ Acoustic Tile
   ❑ Other:
   Wall Finish
   ■ Painted Wallboard
   ■ Wall Covering
   ❑ Other:
   Special Considerations:

10. Furnishings / Workstations
    ❑ Movable tables and chairs or movable desks
    ❑ Fixed table with movable chairs
    ❑ Tablet arm chairs
    ❑ Computer stations: Quantity:
    ❑ No furnishings
    ■ Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    ❑ Covered Area required:
    ❑ Non-covered Area required:
    ❑ Outdoor Storage:
    ■ Secured by fence (no ceiling)
    ■ Highly secured by fence (no climbing access)
    ❑ Other:

Remarks:

Equipment:
COMPONENT DIAGRAM - CBE Spaces

INDEX NO.:  CBE-22
DEPARTMENT:  CBE Shared Space
SPACE NAME:  Student Peer Advising
AREA:  1,987 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

---

FURNISHINGS:  
1. Club Workstations
2. Half-height Partition
3. Study Tables
4. Meeting Tables
5. Refrigerator
6. Microwave
7. Projection Screen
8. White Marker Board
9. Copy Machine
10. Printer
11. Trash/Recycle Bins
12. Club Locker
13. Overhead Cabinet
14. Docking Stations
15. Lockable Bookshelf
16. Vertical File Cabinet
17. Lockable Drop-Box
18. Couch
19. Chair

ADJACENCY:  
1. Food Services
2. Public Access
3. Storage Room

NOTES:  
1. Windows preferred, but not required.
2. Provide lockable file cabinets and bookshelves.
3. Provide bulletin board outside of space.
4. Provide lockable drop-box outside of space.
5. Provide lockable display near a high-traffic area.
6. Provide kiosk for posting of club events.
### Detailed Space Requirements

**INDEX NO:** CBE 22  
**DEPARTMENT:** Business Advising Center  
**SPACE NAME:** Student Clubs Room  
**STATIONS:** 0  
**ASF:** 1987

#### 1. Space Description and Design Attributes

- **Utilization**
  - 8 hours/day
  - 14 hours/day
  - 24 hours/day

- **Security**
  - No lock
  - Key lock
  - Card key

#### 4. Mechanical / Plumbing Requirements  
(sinks, ventilation, drains, etc.)

- Hand sink. Quantity: 1  Type: Kitchenette
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

#### 5. Communications Requirements

- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

#### 6. Power and Lighting Requirements

- General Lighting
- Task Lighting
- Other Specialty Lighting:
  - Standard convenience outlets
  - Special Power

#### 7. Space Arrangements

- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

### Remarks:

8. Built-in Cabinetry

- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)

- Floor Finish:
  - Resilient Flooring (50%)
  - Carpet (50%)
  - Sealed Concrete
  - Other:
- Ceiling Finish:
  - Exposed Structure
  - Acoustic Tile
  - Other:
- Wall Finish:
  - Painted Wallboard
  - Wall Covering
  - Other:
  - Special Considerations:

10. Furnishings / Workstations

- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)

- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
  - Secured by fence (no ceiling)
  - Highly secured by fence (no climbing access)
  - Other:

### Equipment:

---

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Cal State, Fullerton
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

**FURNISHINGS:**
1. Computer Stations
2. Sign-In/Appointment Stations
3. Half-height Partitions
4. Full-height Partitions
5. White Markerboard
6. Round Meeting Tables
7. Chair
8. Workstation
9. Vertical File Cabinets
10. Kitchenette
11. Overhead Shelving
12. Bookshelf

**ADJACENCY:**
1. Main Floor
2. Student Services Floor

**NOTES:**
1. Windows preferred, but not required.
2. Provide lockable file cabinets and bookshelves.
3. Posting area preferred at entry.
## DETAILED SPACE REQUIREMENTS

**INDEX NO:** CBE 23  
**DEPARTMENT:** Business Advising Center  
**SPACE NAME:** CBE Tutoring Center/Business Writing Center  
**STATIONS:** 0  
**ASF:** 2017

### 1. Space Description and Design Attributes

### 2. Utilization
- 8 hours/day
- 14 hours/day
- 24 hours/day

### 3. Security
- no lock
- key lock
- card key

### 4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
- Hand sink. Quantity: 1 Type: Kitchenette
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

### 5. Communications Requirements
- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

### 6. Power and Lighting Requirements
- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

### 7. Space Arrangements
- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

### 8. Built-in Cabinetry
- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

### 9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish
  - Resilient Flooring
  - Carpet
  - Sealed Concrete
  - Other:
- Ceiling Finish
  - Exposed Structure
  - Acoustic Tile
  - Other:
- Wall Finish
  - Painted Wallboard
  - Wall Covering
  - Other:
- Special Considerations:

### 10. Furnishings / Workstations
- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: See Component Diagram

### 11. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

### Equipment:

---

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This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 24
DEPARTMENT: Business Advising Center
SPACE NAME: Honors Lounge
STATIONS: 0
ASF: 483

1. Space Description and Design Attributes

2. Utilization
- 8 hours/day
- 14 hours/day
- 24 hours/day

3. Security
- no lock
- key lock
- card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
- Hand sink. Quantity: Type:
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

5. Communications Requirements
- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

6. Power and Lighting Requirements
- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

7. Space Arrangements
- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

8. Built-in Cabinetry
- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish
- Resilient Flooring
- Carpet
- Sealed Concrete
- Other:
- Ceiling Finish
- Exposed Structure
- Acoustic Tile
- Other:
- Wall Finish
- Painted Wallboard
- Wall Covering
- Other:
- Special Considerations:

10. Furnishings / Workstations
- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

Remarks:

Equipment:

College of Business and Economics
RRM Design Group

Cal State, Fullerton
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS:
1. Meeting Table / Chairs
2. Bookshelves
3. Copier
4. Recycle bins
5. Worksurface / Cabinets below
6. Printer

ADJACENCY:
1. Windows preferred, but not required.

NOTES:
DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 25
DEPARTMENT: Business Advising Center
SPACE NAME: MBA Lounge
STATIONS: 0
ASF: 483

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: 1 Type: Kitchenette
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
     - Standard convenience outlets
     - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
      - Secured by fence (no ceiling)
      - Highly secured by fence (no climbing access)
    - Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS</th>
<th>ADJACENCY</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Director Workstation</td>
<td>1. IS Technicians</td>
<td>1. Windows not preferred.</td>
</tr>
<tr>
<td>2. Visitor Chair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. White Board / Tack Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Conference Table</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Upper Book Shelves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Work surface / Cabinets below</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Space Description and Design Attributes

2. Utilization
   ■ 8 hours/day
   □ 14 hours/day
   □ 24 hours/day

3. Security
   □ no lock
   ■ key lock
   □ card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   □ Hand sink. Quantity: Type:
   □ Floor Drain(s)
   □ Fume/Smoke Exhaust Systems
   □ Special Ventilation
   ■ Air Conditioning / Climate Control
   □ Humidity control or other special considerations
   □ Other:

5. Communications Requirements
   ■ Data Ports. Quantity: Type:
   ■ Telephone
   ■ CATV
   □ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ■ Task Lighting
   □ Other Specialty Lighting:
   ■ Standard convenience outlets
   □ Special Power

7. Space Arrangements
   □ High Bay. Height in feet:
   □ Ground Floor Required:
   □ Must be adjacent to:
   □ Other:

8. Built-in Cabinetry
   □ Lower Cabinets
   □ Upper Cabinets
   □ Open Shelving
   □ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   □ Resilient Flooring
   □ Carpet
   □ Sealed Concrete
   □ Other:
   □ Exposed Structure
   ■ Acoustic Tile
   □ Other:
   □ Painted Wallboard
   □ Wall Covering
   □ Other:
   Special Considerations:

10. Furnishings / Workstations
    ■ Movable tables and chairs or movable desks
    □ Fixed table with movable chairs
    □ Tablet arm chairs
    □ Computer stations: Quantity:
    □ No furnishings
    ■ Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    □ Covered Area required:
    □ Non-covered Area required:
    □ Outdoor Storage:
    □ Secured by fence (no ceiling)
    □ Highly secured by fence (no climbing access)
    □ Other:

Remarks:
   ▪ IS offices will require supplementary power with 4-plex in multiple locations in each office

Equipment:
COMPONENT DIAGRAM - CBE Spaces

INDEX NO.: CBE-27
DEPARTMENT: Information Services
SPACE NAME: F/T Tech Offices with R & D Space
AREA: 150 SF

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Computer workstation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Upper shelving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. White Board / Tack Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Work surface / Cabinets with Drawers below</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## DETAILED SPACE REQUIREMENTS

### INDEX NO: CBE 27
### DEPARTMENT: Information Services
### SPACE NAME: F/T Tech Office with R&D Space
### STATIONS: 0
### ASF: 150

1. **Space Description and Design Attributes**

2. **Utilization**
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. **Security**
   - no lock
   - key lock
   - card key

4. **Mechanical / Plumbing Requirements**
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. **Communications Requirements**
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. **Power and Lighting Requirements**
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
     - Standard convenience outlets
     - Special Power

7. **Space Arrangements**
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

### 8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
     - Specialty Cabinets: See Component Diagram

### 9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish:
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish:
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish:
     - Painted Wallboard
     - Wall Covering
     - Other:
   - Special Considerations:

### 10. Furnishings / Workstations
   - Movable tables and chairs or movable desks
   - Fixed table with movable chairs
   - Tablet arm chairs
   - Computer stations: Quantity:
   - No furnishings
     - Other: See Component Diagram

### 11. Outdoor Requirements (total area, covered, etc.)
   - Covered Area required:
   - Non-covered Area required:
   - Outdoor Storage:
     - Secured by fence (no ceiling)
     - Highly secured by fence (no climbing access)
     - Other:

### Equipment:
COMPONENT DIAGRAM - CBE Spaces

INDEX NO.: CBE - 28
DEPARTMENT: Information Services
SPACE NAME: Tech Shop - Triage Area
AREA: 390 SF

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Full Height Shelving</td>
<td>1. Storage Room</td>
<td>1. No Windows preferred</td>
</tr>
<tr>
<td>2. Full Height Storage Cabinets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Upper Shelving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Work Surface</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Rolling Racks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Desk</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics
RRM DESIGN GROUP
DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 28
DEPARTMENT: Information Services
SPACE NAME: Tech Shop – Triage Area
STATIONS: 0
ASF: 390

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
     - Standard convenience outlets
     - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets: See Component Diagram

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

**FURNISHINGS:**
1. Mail Slots  
2. Work Surface / Cabinets Below  
3. Upper Cabinets  
4. Printer  
5. FAX  
6. Copier  
7. Recycle Bins

**ADJACENCY:**
1. Tech Shop

**NOTES:**
1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
     - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
      - Secured by fence (no ceiling)
      - Highly secured by fence (no climbing access)
      - Other:

Equipment:
COMPONENT DIAGRAM - CBE Spaces

INDEX NO.: CBE29  
DEPARTMENT: Information Services  
SPACE NAME: Storage  
AREA: 244 SF

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Compact Shelving Units</td>
<td>1. No Windows preferred</td>
<td></td>
</tr>
<tr>
<td>2. Space for Rolling Racks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 29
DEPARTMENT: Information Services
SPACE NAME: Storage
STATIONS: 0
ASF: 244

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
     - Telephone
     - CATV
     - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
     - Standard convenience outlets
     - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets: See Component Diagram

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
     - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
      - Secured by fence (no ceiling)
      - Highly secured by fence (no climbing access)
    - Other:

Remarks:

Equipment:
COMPONENT DIAGRAM - CBE Spaces

INDEX NO.: CBE - 31
DEPARTMENT: Information Services
SPACE NAME: Security Monitoring/ Service Rooms
AREA: 110 SF

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Work Station</td>
<td></td>
<td>1. No Windows Preferred</td>
</tr>
<tr>
<td>2. Chair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Overhead Shelving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. TV Monitors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Equipment/Paper Storage</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DETAILED SPACE REQUIREMENTS

INDEX NO: CBE 31
DEPARTMENT: Information Services
SPACE NAME: Security Monitoring/Service Rooms
STATIONS: 0
ASF: 110

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector
     Video feed from each classroom

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
     - Standard convenience outlets
     - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets: See Component Diagram

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other: Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
| INDEX NO: | CBE 37 |
| DEPARTMENT: | Information Services |
| SPACE NAME: | Server Room |
| STATIONS: | 0 |
| ASF: | 864 |

1. **Space Description and Design Attributes**
   - **Utilization**
     - Marked: 8 hours/day
     - Marked: 14 hours/day
     - Marked: 24 hours/day
   - **Security**
     - Marked: no lock
     - Marked: key lock
     - Marked: card key
   - **Mechanical / Plumbing Requirements**
     - Marked: Hand sink
     - Quantity: Type:
     - Marked: Floor Drain(s)
     - Marked: Fume/Smoke Exhaust Systems
     - Marked: Special Ventilation
     - Marked: Air Conditioning / Climate Control
     - Marked: Humidity control or other special considerations
     - Marked: Other: Note supplementary HVAC requirements
   - **Communications Requirements**
     - Marked: Data Ports. Quantity: Type:
     - Marked: Telephone
     - Marked: CATV
     - Marked: Other:
   - **Power and Lighting Requirements**
     - Marked: General Lighting
     - Marked: Task Lighting
     - Other Specialty Lighting:
     - Marked: Standard convenience outlets
     - Marked: Special Power
   - **Space Arrangements**
     - Marked: High Bay. Height in feet:
     - Marked: Ground Floor Required:
     - Marked: Must be adjacent to:
     - Marked: Other:
   - **Remarks:**
     - Space will require additional HVAC do to use

2. **Built-in Cabinetry**
   - Marked: Lower Cabinets
   - Marked: Upper Cabinets
   - Marked: Open Shelving
   - Marked: Specialty Cabinets: See Component Diagram

3. **Finishes / Level of finishes (durability, cleanliness, etc.)**
   - Marked: Floor Finish
     - Marked: Resilient Flooring
     - Marked: Carpet
     - Marked: Sealed Concrete
     - Marked: Other:
   - Marked: Ceiling Finish
     - Marked: Exposed Structure
     - Marked: Acoustic Tile
     - Marked: Other:
   - Marked: Wall Finish
     - Marked: Painted Wallboard
     - Marked: Wall Covering
     - Marked: Other:
     - Special Considerations:

4. **Furnishings / Workstations**
   - Marked: Movable tables and chairs or movable desks
   - Marked: Fixed table with movable chairs
   - Marked: Tablet arm chairs
   - Marked: Computer stations: Quantity:
   - Marked: No furnishings
   - Marked: Other: See Component Diagram

5. **Outdoor Requirements (total area, covered, etc.)**
   - Marked: Covered Area required:
   - Marked: Non-covered Area required:
   - Marked: Outdoor Storage:
     - Marked: Secured by fence (no ceiling)
     - Marked: Highly secured by fence (no climbing access)
   - Marked: Other:

6. **Equipment:**
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

**FURNISHINGS:**

1. Work Station
2. Copier
3. CD Burner
4. Video Duplication
5. Scanner
6. Printer

**ADJACENCY:**

1. Video editing room.

**NOTES:**

1. No Windows Preferred

College of Business and Economics  
RRM DESIGN GROUP  
Cal State Fullerton
### Detailed Space Requirements

**INDEX NO:** CBE 32  
**DEPARTMENT:** Information Services  
**SPACE NAME:** Faculty Development Lab  
**STATIONS:** 0  
**ASF:** 311

<table>
<thead>
<tr>
<th>1. Space Description and Design Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Utilization</td>
</tr>
<tr>
<td>❑ 8 hours/day</td>
</tr>
<tr>
<td>■ 14 hours/day</td>
</tr>
<tr>
<td>❑ 24 hours/day</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>❑ no lock</td>
</tr>
<tr>
<td>■ key lock</td>
</tr>
<tr>
<td>❑ card key</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4. Mechanical / Plumbing Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>❑ Hand sink.  Quantity:  Type:</td>
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<tr>
<td>❑ Floor Drain(s)</td>
</tr>
<tr>
<td>❑ Fume/Smoke Exhaust Systems</td>
</tr>
<tr>
<td>❑ Special Ventilation</td>
</tr>
<tr>
<td>■ Air Conditioning / Climate Control</td>
</tr>
<tr>
<td>❑ Humidity control or other special</td>
</tr>
<tr>
<td>considerations</td>
</tr>
<tr>
<td>❑ Other:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. Communications Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Data Ports.  Quantity:  Type:</td>
</tr>
<tr>
<td>■ Telephone</td>
</tr>
<tr>
<td>■ CATV</td>
</tr>
<tr>
<td>❑ Other:  Data/Computer Projector</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6. Power and Lighting Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ General Lighting</td>
</tr>
<tr>
<td>❑ Task Lighting</td>
</tr>
<tr>
<td>❑ Other Specialty Lighting:</td>
</tr>
<tr>
<td>■ Standard convenience outlets</td>
</tr>
<tr>
<td>❑ Special Power</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7. Space Arrangements</th>
</tr>
</thead>
<tbody>
<tr>
<td>❑ High Bay.  Height in feet:</td>
</tr>
<tr>
<td>❑ Ground Floor Required:</td>
</tr>
<tr>
<td>❑ Must be adjacent to:</td>
</tr>
<tr>
<td>❑ Other:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8. Built-in Cabinetry</th>
</tr>
</thead>
<tbody>
<tr>
<td>❑ Lower Cabinets</td>
</tr>
<tr>
<td>❑ Upper Cabinets</td>
</tr>
<tr>
<td>❑ Open Shelving</td>
</tr>
<tr>
<td>■ Specialty Cabinets:  See Component</td>
</tr>
<tr>
<td>Diagram</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9. Finishes / Level of finishes</th>
</tr>
</thead>
<tbody>
<tr>
<td>(durability, cleanliness, etc.)</td>
</tr>
<tr>
<td>Floor Finish</td>
</tr>
<tr>
<td>■ Resilient Flooring</td>
</tr>
<tr>
<td>❑ Carpet</td>
</tr>
<tr>
<td>❑ Sealed Concrete</td>
</tr>
<tr>
<td>❑ Other:</td>
</tr>
<tr>
<td>Ceiling Finish</td>
</tr>
<tr>
<td>❑ Exposed Structure</td>
</tr>
<tr>
<td>■ Acoustic Tile</td>
</tr>
<tr>
<td>❑ Other:</td>
</tr>
<tr>
<td>Wall Finish</td>
</tr>
<tr>
<td>■ Painted Wallboard</td>
</tr>
<tr>
<td>❑ Wall Covering</td>
</tr>
<tr>
<td>❑ Other:</td>
</tr>
<tr>
<td>Special Considerations:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10. Furnishings / Workstations</th>
</tr>
</thead>
<tbody>
<tr>
<td>❑ Movable tables and chairs or movable</td>
</tr>
<tr>
<td>desks</td>
</tr>
<tr>
<td>❑ Fixed table with movable chairs</td>
</tr>
<tr>
<td>❑ Tablet arm chairs</td>
</tr>
<tr>
<td>❑ Computer stations:  Quantity:</td>
</tr>
<tr>
<td>❑ No furnishings</td>
</tr>
<tr>
<td>■ Other:  See Component Diagram</td>
</tr>
</tbody>
</table>

| 11. Outdoor Requirements (total area,      |
| covered, etc.)                            |
| ❑ Covered Area required:                  |
| ❑ Non-covered Area required:              |
| ❑ Outdoor Storage:                        |
| ❑ Secured by fence (no ceiling)           |
| ❑ Highly secured by fence (no climbing    |
|   access)                                 |
| ❑ Other:                                  |

**Remarks:**

**Equipment:**
COMPONENT DIAGRAM - CBE Spaces

INDEX NO.: CBE-33
DEPARTMENT: Information Services
SPACE NAME: Web Design Team
AREA: 520 SF

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS:
1. Full-time Office
2. Part-time Workstations
3. Storage Cabinets / Shelving

ADJACENCY:

NOTES:

College of Business and Economics
RRM DESIGN GROUP

Cal State Fullerton
<table>
<thead>
<tr>
<th>INDEX NO:</th>
<th>CBE 33</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPARTMENT:</td>
<td>Information Services</td>
</tr>
<tr>
<td>SPACE NAME:</td>
<td>Web Design Team</td>
</tr>
<tr>
<td>STATIONS:</td>
<td>0</td>
</tr>
<tr>
<td>ASF:</td>
<td>520</td>
</tr>
</tbody>
</table>

1. Space Description and Design Attributes

2. Utilization
- 8 hours/day
- 14 hours/day
- 24 hours/day

3. Security
- no lock
- key lock
- card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
- Hand sink. Quantity: Type:
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

5. Communications Requirements
- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

6. Power and Lighting Requirements
- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

7. Space Arrangements
- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

8. Built-in Cabinetry
- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets: See Component Diagram

9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish
  - Resilient Flooring
  - Carpet
  - Sealed Concrete
  - Other:
- Ceiling Finish
  - Exposed Structure
  - Acoustic Tile
  - Other:
- Wall Finish
  - Painted Wallboard
  - Wall Covering
  - Other:
- Special Considerations:

10. Furnishings / Workstations
- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

Remarks:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
DETAILED SPACE REQUIREMENTS

INDEX NO: ACT 01
DEPARTMENT: Accounting
SPACE NAME: Department Head Office
STATIONS: 0
ASF: 150

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings - See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
      - Secured by fence (no ceiling)
      - Highly secured by fence (no climbing access)
    - Other:

Equipment:
COMPONENT DIAGRAM - Department Spaces

INDEX NO.: ACT 02
DEPARTMENT: Accounting
SPACE NAME: Department Office
AREA: 517 SF

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Receptionist Workstation</td>
<td>2. Workroom</td>
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</tr>
<tr>
<td>3. Student Workstations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Lateral Files</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Full Height Bookcase Shelving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Copier</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Printer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Visitor Chairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Half Height Wall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Overhead Shelf</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics
RRM DESIGN GROUP

Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO: ACT 02
DEPARTMENT: Accounting
SPACE NAME: Department Office
STATIONS: 0
ASF: 517

1. Space Description and Design Attributes

2. Utilization
   ■ 8 hours/day
   ❏ 14 hours/day
   ❏ 24 hours/day

3. Security
   ❏ no lock
   ■ key lock
   ❏ card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   ❏ Hand sink. Quantity: Type:
   ❏ Floor Drain(s)
   ❏ Fume/Smoke Exhaust Systems
   ❏ Special Ventilation
   ■ Air Conditioning / Climate Control
   ❏ Humidity control or other special considerations
   ❏ Other:

5. Communications Requirements
   ■ Data Ports. Quantity: Type:
   ■ Telephone
   ❏ CATV
   ❏ Other: Data/Computer Projector
   ❏ Wired to each station

6. Power and Lighting Requirements
   ■ General Lighting
   ■ Task Lighting
   ❏ Other Specialty Lighting:
   ■ Standard convenience outlets
   ❏ Special Power

7. Space Arrangements
   ❏ High Bay. Height in feet:
   ❏ Ground Floor Required:
   ❏ Must be adjacent to: Dean
   ❏ Other:

Remarks:

8. Built-in Cabinetry
   ❏ Lower Cabinets
   ❏ Upper Cabinets
   ❏ Open Shelving
   ❏ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
   ❏ Resilient Flooring
   ■ Carpet
   ❏ Sealed Concrete
   ❏ Other:
   Ceiling Finish
   ❏ Exposed Structure
   ■ Acoustic Tile
   ❏ Other:
   Wall Finish
   ■ Painted Wallboard
   ❏ Wall Covering
   ❏ Other:
   Special Considerations:

10. Furnishings / Workstations
    ❏ Movable tables and chairs or movable desks
    ❏ Fixed table with movable chairs
    ❏ Tablet arm chairs
    ❏ Computer stations: Quantity:
    ❏ No furnishings
    ■ Other: Office Furnishings

11. Outdoor Requirements (total area, covered, etc.)
    ❏ Covered Area required:
    ❏ Non-covered Area required:
    ❏ Outdoor Storage:
    ❏ Secured by fence (no ceiling)
    ❏ Highly secured by fence (no climbing access)
    ❏ Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
DETAILED SPACE REQUIREMENTS

INDEX NO: ACT 03
DEPARTMENT: Accounting
SPACE NAME: Workroom
STATIONS: 0
ASF: 250

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
     - Standard convenience outlets
     - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
     - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

   Equipment:

Remarks:
COMPONENT DIAGRAM - Department Spaces

INDEX NO.: ACT 04  
DEPARTMENT: Accounting  
SPACE NAME: Storage  
AREA: 150 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Storage Cabinet</td>
<td>1. Department Office</td>
<td>1. No windows preferred</td>
</tr>
<tr>
<td>2. Overhead Shelving</td>
<td>2. Faculty Offices</td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics  
RRM DESIGN GROUP  
Cal State Fullerton
1. Space Description and Design Attributes

2. Utilization
- 8 hours/day
- 14 hours/day
- 24 hours/day

3. Security
- No lock
- Key lock
- Card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
- Hand sink. Quantity: Type:
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

5. Communications Requirements
- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

6. Power and Lighting Requirements
- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

7. Space Arrangements
- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

Remarks:

8. Built-in Cabinetry
- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish:
  - Resilient Flooring
  - Carpet
  - Sealed Concrete
  - Other:
- Ceiling Finish:
  - Exposed Structure
  - Acoustic Tile
  - Other:
- Wall Finish:
  - Painted Wallboard
  - Wall Covering
  - Other:
  - Special Considerations:

10. Furnishings / Workstations
- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

Equipment:
COMPONENT DIAGRAM - Department Spaces

INDEX NO.: ACT 11
DEPARTMENT: Accounting
SPACE NAME: Faculty Offices - Full Time
AREA: 110 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS</th>
<th>ADJACENCY</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Workstation</td>
<td></td>
<td>1. Windows are required</td>
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<tr>
<td>2. Overhead Shelving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Bookcase</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Pedistal Files</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Visitor Chair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Whiteboard/Tackboard</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics
RRM DESIGN GROUP

Cal State Fullerton
INDEX NO: ACT 11  
DEPARTMENT: Accounting  
SPACE NAME: Faculty Office – Full Time  
STATIONS: 1  
ASF: 110  

1. Space Description and Design Attributes  

2. Utilization  
   - 8 hours/day  
   - 14 hours/day  
   - 24 hours/day  

3. Security  
   - no lock  
   - key lock  
   - card key  

4. Mechanical / Plumbing Requirements  
   (sinks, ventilation, drains, etc.)  
   - Hand sink. Quantity: Type:  
   - Floor Drain(s)  
   - Fume/Smoke Exhaust Systems  
   - Special Ventilation  
   - Air Conditioning / Climate Control  
   - Humidity control or other special considerations  
   - Other:  

5. Communications Requirements  
   - Data Ports. Quantity: Type:  
   - Telephone  
   - CATV  
   - Other: Data/Computer Projector  

6. Power and Lighting Requirements  
   - General Lighting  
   - Task Lighting  
   - Other Specialty Lighting:  
   - Standard convenience outlets  
   - Special Power  

7. Space Arrangements  
   - High Bay. Height in feet:  
   - Ground Floor Required:  
   - Must be adjacent to:  
   - Other:  

8. Built-in Cabinetry  
   - Lower Cabinets  
   - Upper Cabinets  
   - Open Shelving  
   - Specialty Cabinets:  

9. Finishes / Level of finishes (durability, cleanliness, etc.)  
   - Floor Finish  
     - Resilient Flooring  
     - Carpet  
     - Sealed Concrete  
     - Other:  
   - Ceiling Finish  
     - Exposed Structure  
     - Acoustic Tile  
     - Other:  
   - Wall Finish  
     - Painted Wallboard  
     - Wall Covering  
     - Other:  
   - Special Considerations:  

10. Furnishings / Workstations  
    - Movable tables and chairs  
    - Fixed table with movable chairs  
    - Tablet arm chairs  
    - Computer stations: Quantity:  
    - No furnishings  
    - Other: See Component Diagram  

11. Outdoor Requirements (total area, covered, etc.)  
    - Covered Area required:  
    - Non-covered Area required:  
    - Outdoor Storage:  
    - Secured by fence (no ceiling)  
    - Highly secured by fence (no climbing access)  
    - Other:  

   Equipment:
COMPONENT DIAGRAM - Department Spaces

INDEX NO.: ACT 12
DEPARTMENT: Accounting
SPACE NAME: Faculty Offices - Part Time
AREA: 110 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS</th>
<th>ADJACENCY</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Workstation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Overhead Shelving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Bookcase</td>
<td></td>
<td>1. Windows are required</td>
</tr>
<tr>
<td>4. Pedistal Files</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Visitor Chair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Whiteboard</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DETAILED SPACE REQUIREMENTS

INDEX NO: ACT 12
DEPARTMENT: Accounting
SPACE NAME: Bullpen P/T Office
STATIONS: ASF:

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

   Remarks:

   Equipment:
COMPONENT DIAGRAM - Department Spaces

INDEX NO.: ACT 13
DEPARTMENT: Accounting
SPACE NAME: Faculty Office Conference Space
AREA: 153 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS</th>
<th>ADJACENCY</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Chair</td>
<td>1. Faculty Offices</td>
<td>1. Windows preferred.</td>
</tr>
<tr>
<td>2. Conference Table</td>
<td></td>
<td>2. Provide black-out screens for windows.</td>
</tr>
<tr>
<td>3. Ceiling Mounted Projector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Projection Screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. White Marker Board</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics
RRM DESIGN GROUP

Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO: ACT 13
DEPARTMENT: Accounting
SPACE NAME: Faculty Office Conference Space
STATIONS: 0
ASF: 153

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
     - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

Remarks:

Equipment:
COMPONENT DIAGRAM - Department Spaces

INDEX NO.: MGM01
DEPARTMENT: Management Department
SPACE NAME: Department Head
AREA: 150 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Meeting Table/Chairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Bookshelves</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Lateral Files</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Overhead Shelving/Cabinets</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics
RRM DESIGN GROUP
Cal State Fullerton
# Detailed Space Requirements

**INDEX NO:** MGM 01  
**DEPARTMENT:** Management  
**SPACE NAME:** Department Head Office  
**STATIONS:** 1  
**ASF:** 150

## 1. Space Description and Design Attributes

### 2. Utilization
- 8 hours/day
- 14 hours/day
- 24 hours/day

### 3. Security
- No lock
- Key lock
- Card key

### 4. Mechanical / Plumbing Requirements
(sinks, ventilation, drains, etc.)
- Hand sink. Quantity: Type:
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

### 5. Communications Requirements
- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

### 6. Power and Lighting Requirements
- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

### 7. Space Arrangements
- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

### 8. Built-in Cabinetry
- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

### 9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish
  - Resilient Flooring
  - Carpet
  - Sealed Concrete
  - Other:
- Ceiling Finish
  - Exposed Structure
  - Acoustic Tile
  - Other:
- Wall Finish
  - Painted Wallboard
  - Wall Covering
  - Other:
- Special Considerations:

### 10. Furnishings / Workstations
- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: Office Furnishings - See Component Diagram

### 11. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
  - Secured by fence (no ceiling)
  - Highly secured by fence (no climbing access)
- Other:

**Remarks:**

**Equipment:**

---

College of Business and Economics  
RRM Design Group  
Cal State, Fullerton
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Receptionist Workstation</td>
<td>2. Department Faculty Offices</td>
<td></td>
</tr>
<tr>
<td>3. Student Workstations</td>
<td>3. Workroom</td>
<td></td>
</tr>
<tr>
<td>4. Pedestal Files</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Full Height Bookcase Shelving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Copier</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Printer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Visitor Chairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Half Height Wall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Overhead Shelf</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## DETAILED SPACE REQUIREMENTS

**INDEX NO:** MGM 02  
**DEPARTMENT:** Management  
**SPACE NAME:** Department Office  
**STATIONS:** 0  
**ASF:** 517  

### 1. Space Description and Design Attributes

#### 2. Utilization
- 8 hours/day
- 14 hours/day
- 24 hours/day

#### 3. Security
- no lock
- key lock
- card key

### 4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
- Hand sink. Quantity: Type:  
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

### 5. Communications Requirements
- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector
- Wired to each station

### 6. Power and Lighting Requirements
- General Lighting
- Task Lighting
- Other Specialty Lighting:  
- Standard convenience outlets
- Special Power

### 7. Space Arrangements
- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to: Dean
- Other:

### 8. Built-in Cabinetry
- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

### 9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish  
- Resilient Flooring
- Carpet
- Sealed Concrete
- Other:
- Ceiling Finish  
- Exposed Structure
- Acoustic Tile
- Other:
- Wall Finish  
- Painted Wallboard
- Wall Covering
- Other:
- Special Considerations:

### 10. Furnishings / Workstations
- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: Office Furnishings

### 11. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

**Remarks:**

**Equipment:**
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
DETAILED SPACE REQUIREMENTS

INDEX NO: MGM 03
DEPARTMENT: Management
SPACE NAME: Workroom
STATIONS: N/A
ASF: 250

1. Space Description and Design Attributes

2. Utilization
   ■ 8 hours/day
   ❏ 14 hours/day
   ❏ 24 hours/day

3. Security
   ❏ no lock
   ■ key lock
   ❏ card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   ❏ Hand sink. Quantity: Type:
   ■ Floor Drain(s)
   ❏ Fume/Smoke Exhaust Systems
   ❏ Special Ventilation
   ■ Air Conditioning / Climate Control
   ❏ Humidity control or other special considerations
   ❏ Other:

5. Communications Requirements
   ■ Data Ports. Quantity: Type:
   ■ Telephone
   ❏ CATV
   ❏ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ❏ Task Lighting
   ❏ Other Specialty Lighting:
      ■ Standard convenience outlets
      ❏ Special Power

7. Space Arrangements
   ❏ High Bay. Height in feet:
   ❏ Ground Floor Required:
   ❏ Must be adjacent to:
   ❏ Other:

8. Built-in Cabinetry
   ❏ Lower Cabinets
   ❏ Upper Cabinets
   ❏ Open Shelving
   ❏ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
      ■ Resilient Flooring
      ❏ Carpet
      ❏ Sealed Concrete
      ❏ Other:
   Ceiling Finish
      ❏ Exposed Structure
      ■ Acoustic Tile
      ❏ Other:
   Wall Finish
      ■ Painted Wallboard
      ❏ Wall Covering
      ❏ Other:
   Special Considerations:

10. Furnishings / Workstations
    ❏ Movable tables and chairs or movable desks
    ❏ Fixed table with movable chairs
    ❏ Tablet arm chairs
    ❏ Computer stations: Quantity:
    ❏ No furnishings
    ■ Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    ❏ Covered Area required:
    ❏ Non-covered Area required:
    ❏ Outdoor Storage:
        ■ Secured by fence (no ceiling)
        ❏ Highly secured by fence (no climbing access)
        ❏ Other:

Remarks:

Equipment:
COMPONENT DIAGRAM - Department Spaces

INDEX NO.: MGM04
DEPARTMENT: Management Department
SPACE NAME: Department Storage
AREA: 150 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lower Shelving / Cabinets</td>
<td>1. Department Office</td>
<td>1. Windows not preferred</td>
</tr>
<tr>
<td>2. Upper Shelving / Cabinets</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics
RRM DESIGN GROUP

Cal State Fullerton
### DETAILED SPACE REQUIREMENTS

**INDEX NO:** MGM 04  
**DEPARTMENT:** Management  
**SPACE NAME:** Storage  
**STATIONS:** N/A  
**ASF:** 150

1. **Space Description and Design Attributes**

2. **Utilization**
   - ■ 8 hours/day
   - □ 14 hours/day
   - □ 24 hours/day

3. **Security**
   - □ no lock
   - ■ key lock
   - □ card key

4. **Mechanical / Plumbing Requirements**  
   (sinks, ventilation, drains, etc.)
   - □ Hand sink. Quantity: Type:
   - □ Floor Drain(s)
   - □ Fume/Smoke Exhaust Systems
   - □ Special Ventilation
   - ■ Air Conditioning / Climate Control
   - □ Humidity control or other special considerations
   - □ Other:

5. **Communications Requirements**
   - ■ Data Ports. Quantity: Type:
   - □ Telephone
   - □ CATV
   - □ Other: Data/Computer Projector

6. **Power and Lighting Requirements**
   - ■ General Lighting
   - □ Task Lighting
   - □ Other Specialty Lighting:
   - ■ Standard convenience outlets
   - □ Special Power

7. **Space Arrangements**
   - □ High Bay. Height in feet:
   - □ Ground Floor Required:
   - □ Must be adjacent to:
   - □ Other:

8. **Built-in Cabinetry**
   - ■ Lower Cabinets
   - □ Upper Cabinets
   - □ Open Shelving
   - □ Specialty Cabinets:

9. **Finishes / Level of finishes (durability, cleanliness, etc.)**
   - **Floor Finish**
     - ■ Resilient Flooring
     - □ Carpet
     - □ Sealed Concrete
     - □ Other:
   - **Ceiling Finish**
     - ■ Exposed Structure
     - □ Acoustic Tile
     - □ Other:
   - **Wall Finish**
     - ■ Painted Wallboard
     - □ Wall Covering
     - □ Other:
     - Special Considerations:

10. **Furnishings / Workstations**
    - □ Movable tables and chairs or movable desks
    - □ Fixed table with movable chairs
    - □ Tablet arm chairs
    - □ Computer stations: Quantity:
    - □ No furnishings
    - ■ Other: See Component Diagram

11. **Outdoor Requirements (total area, covered, etc.)**
    - □ Covered Area required:
    - □ Non-covered Area required:
    - □ Outdoor Storage:
    - □ Secured by fence (no ceiling)
    - □ Highly secured by fence (no climbing access)
    - □ Other:

**Remarks:**

**Equipment:**
INDEX NO.: MGM11  
DEPARTMENT: Management Department  
SPACE NAME: Faculty Office  
AREA: 110 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

---

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Workstation</td>
<td></td>
<td>1. Windows preferred</td>
</tr>
<tr>
<td>2. Overhead Shelving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Bookshelf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Vertical File Cabinet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Visitor Chair (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. White board/Tack Board</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics  
RRM DESIGN GROUP  
Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO: MGM 11
DEPARTMENT: Management
SPACE NAME: Faculty Office – Full-time
STATIONS: 1
ASF: 110

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
     Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

   Equipment:
COMPONENT DIAGRAM - Department Spaces

INDEX NO.: MGM12
DEPARTMENT: Management Department
SPACE NAME: Part-Time faculty Offices
AREA: 110 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Workstation</td>
<td>1. Department Offices</td>
<td>1. Windows preferred</td>
</tr>
<tr>
<td>2. Overhead Shelving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Full Height Bookcase Shelving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Lockable Pedestal Files</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Visitor Chair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. White Markerboard/Tackable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics
RRM DESIGN GROUP
Cal State Fullerton
## Detailed Space Requirements

**Index No:** MKT 12  
**Department:** Marketing/Business Writing  
**Space Name:** Part-Time Faculty Office  
**Stations:** 1  
**ASF:** 110

### 1. Space Description and Design Attributes

#### 2. Utilization
- 8 hours/day
- 14 hours/day
- 24 hours/day

#### 3. Security
- no lock
- key lock
- card key

### 4. Mechanical / Plumbing Requirements
(sinks, ventilation, drains, etc.)
- Hand sink. Quantity: Type:
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

### 5. Communications Requirements
- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

### 6. Power and Lighting Requirements
- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

### 7. Space Arrangements
- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

### 8. Built-in Cabinetry
- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

### 9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish
- Resilient Flooring
- Carpet
- Sealed Concrete
- Other:  
  - Ceiling Finish
  - Exposed Structure
  - Acoustic Tile
  - Other:
    - Wall Finish
    - Painted Wallboard
    - Wall Covering
    - Other:
      - Special Considerations:

### 10. Furnishings / Workstations
- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: Office Furnishings – See Component Diagram

### 11. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

**Remarks:**

**Equipment:**
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

**FURNISHINGS:**
1. Conference Table (8)
2. White Board
3. Ceiling Mounted Projector
4. Projection Screen

**ADJACENCY:**
1. Department Offices
2. Faculty Offices

**NOTES:**
1. Windows not required
# DETAILED SPACE REQUIREMENTS

**INDEX NO:** MGM 13  
**DEPARTMENT:** Management  
**SPACE NAME:** Faculty Office Conference Space  
**STATIONS:** N/A  
**ASF:** 153

1. **Space Description and Design Attributes**

2. **Utilization**
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. **Security**
   - no lock
   - key lock
   - card key

4. **Mechanical / Plumbing Requirements**
   - Hand sink. Quantity:  
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. **Communications Requirements**
   - Data Ports. Quantity:  
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. **Power and Lighting Requirements**
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:  
   - Standard convenience outlets
   - Special Power

7. **Space Arrangements**
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

**Remarks:**

8. **Built-in Cabinetry**
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. **Finishes / Level of finishes (durability, cleanliness, etc.)**
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
   - Special Considerations:

10. **Furnishings / Workstations**
    - Movable tables and chairs
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: See Component Diagram

11. **Outdoor Requirements (total area, covered, etc.)**
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
      - Secured by fence (no ceiling)
      - Highly secured by fence (no climbing access)
      - Other:

**Equipment:**
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
DETAILED SPACE REQUIREMENTS

INDEX NO: ECO 01
DEPARTMENT: Economics
SPACE NAME: Department Head Office
STATIONS: 1
ASF: 150

1. Space Description and Design Attributes

2. Utilization
   ■ 8 hours/day
   □ 14 hours/day
   □ 24 hours/day

3. Security
   □ no lock
   ■ key lock
   □ card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   □ Hand sink. Quantity: Type:
   □ Floor Drain(s)
   □ Fume/Smoke Exhaust Systems
   □ Special Ventilation
   ■ Air Conditioning / Climate Control
   □ Humidity control or other special considerations
   □ Other:

5. Communications Requirements
   ■ Data Ports. Quantity: Type:
   ■ Telephone
   ■ CATV
   □ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ■ Task Lighting
   □ Other Specialty Lighting:
   ■ Standard convenience outlets
   □ Special Power

7. Space Arrangements
   □ High Bay. Height in feet:
   □ Ground Floor Required:
   □ Must be adjacent to:
   □ Other:

8. Built-in Cabinetry
   □ Lower Cabinets
   □ Upper Cabinets
   □ Open Shelving
   □ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
   ■ Resilient Flooring
   □ Carpet
   □ Sealed Concrete
   □ Other:
   Ceiling Finish
   □ Exposed Structure
   ■ Acoustic Tile
   □ Other:
   Wall Finish
   ■ Painted Wallboard
   □ Wall Covering
   □ Other:
   Special Considerations:

10. Furnishings / Workstations
    ■ Movable tables and chairs or movable desks
    □ Fixed table with movable chairs
    ■ Tablet arm chairs
    □ Computer stations: Quantity:
    □ No furnishings
    ■ Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    □ Covered Area required:
    □ Non-covered Area required:
    □ Outdoor Storage:
    □ Secured by fence (no ceiling)
    □ Highly secured by fence (no climbing access)
    □ Other:

Equipment:
COMPONENT DIAGRAM - Department Spaces

INDEX NO.: ECO-02
DEPARTMENT: Economics
SPACE NAME: Economics Department Office
AREA: 517 SF

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS:
1. Dept. Sec. Workstation
2. Receptionist Workstation
3. Student Workstations
4. Pedestal File
5. Full Height Bookcase Shelving
6. Copier
7. Printer
8. Visitor Chairs
9. Half Height Wall
10. Overhead Shelf

ADJACENCY:
1. Economics Department Head Office
2. Storage Room
3. Economics Department Faculty Offices

NOTES:
1. Work Room needs to be accessible 24 hours a day.

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Cal State Fullerton
INDEX NO: ECO 02
DEPARTMENT: Economics
SPACE NAME: Department Office
STATIONS: 0
ASF: 517

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
   - Resilient Flooring
   - Carpet
   - Sealed Concrete
   - Other:
   - Ceiling Finish
   - Exposed Structure
   - Acoustic Tile
   - Other:
   - Wall Finish
   - Painted Wallboard
   - Wall Covering
   - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

   Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS:  ADJACENCY:  NOTES:
2. Faculty Mail Boxes
3. Storage Cabinet
4. Overhead Shelving
5. Lockable Storage Cabinets
6. Vertical File Cabinets
7. Lateral File Cabinets
8. Trash/Recycle Bins
DETAILED SPACE REQUIREMENTS

INDEX NO:  ECO 03
DEPARTMENT:  Economics
SPACE NAME:  Workroom
STATIONS:  N/A
ASF:  250

1. Space Description and Design Attributes

2. Utilization
- 8 hours/day
- 14 hours/day
- 24 hours/day

3. Security
- no lock
- key lock
- card key

4. Mechanical / Plumbing Requirements
(sinks, ventilation, drains, etc.)
- Hand sink. Quantity: Type:
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

5. Communications Requirements
- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

6. Power and Lighting Requirements
- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

7. Space Arrangements
- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

Remarks:

8. Built-in Cabinetry
- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
Floor Finish
- Resilient Flooring
- Carpet
- Sealed Concrete
- Other:
  - Ceiling Finish
  - Exposed Structure
  - Acoustic Tile
- Other:
  - Wall Finish
  - Painted Wallboard
  - Wall Covering
- Other:
  - Special Considerations:

10. Furnishings / Workstations
- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

Equipment:
INDEX NO.: ECO-04
DEPARTMENT: Economics
SPACE NAME: Storage Room
AREA: 150 SF

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS:
1. Storage Cabinet
2. Overhead Shelving

ADJACENCY:
1. Economics Department Office

NOTES:

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**DETAILED SPACE REQUIREMENTS**

**INDEX NO:** ECO 04  
**DEPARTMENT:** Economics  
**SPACE NAME:** Storage  
**STATIONS:** N/A  
**ASF:** 150

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
   - Resilient Flooring
   - Carpet
   - Sealed Concrete
   - Other: Ceiling Finish
   - Exposed Structure
   - Acoustic Tile
   - Other: Wall Finish
   - Painted Wallboard
   - Wall Covering
   - Other: Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Visitor Chair</td>
<td>2. Student Group Study Areas</td>
<td></td>
</tr>
<tr>
<td>3. Workstation</td>
<td>3. Writing Center/CBE Tutoring Center</td>
<td></td>
</tr>
<tr>
<td>4. Bookshelf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Meeting Table</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Full-height Partition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Half-height Partition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. White Marker Board</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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**DETAILED SPACE REQUIREMENTS**

**INDEX NO:** ECO 05  
**DEPARTMENT:** Economics  
**SPACE NAME:** Econ Help Center  
**STATIONS:** 0  
**ASF:** 998

1. **Space Description and Design Attributes**

2. **Utilization**
- 8 hours/day
- 14 hours/day
- 24 hours/day

3. **Security**
- no lock
- key lock
- card key

4. **Mechanical / Plumbing Requirements**
(sinks, ventilation, drains, etc.)
- Hand sink. Quantity: Type:
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

5. **Communications Requirements**
- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

6. **Power and Lighting Requirements**
- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

7. **Space Arrangements**
- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

8. **Built-in Cabinetry**
- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

9. **Finishes / Level of finishes (durability, cleanliness, etc.)**
Floor Finish
- Resilient Flooring
- Carpet
- Sealed Concrete
- Other:
- Ceiling Finish
- Exposed Structure
- Acoustic Tile
- Other:
- Wall Finish
- Painted Wallboard
- Wall Covering
- Other:
- Special Considerations:

10. **Furnishings / Workstations**
- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: Office Furnishings – See Component Diagram

11. **Outdoor Requirements (total area, covered, etc.)**
- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

**Equipment:**
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

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<tr>
<th>FURNISHINGS</th>
<th>ADJACENCY</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Visitor Chair</td>
<td>2. Storage Room</td>
<td></td>
</tr>
<tr>
<td>3. Workstation</td>
<td>3. Workroom</td>
<td></td>
</tr>
<tr>
<td>4. Bookshelf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Vertical File Cabinet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Overhead Shelf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. White Marker Board</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DETAILED SPACE REQUIREMENTS

INDEX NO:  ECO 11
DEPARTMENT:  Economics
SPACE NAME:  Faculty Office – Full Time
STATIONS:  1
ASF:  110

1. Space Description and Design Attributes

2. Utilization
   ❑ 8 hours/day
   ■ 14 hours/day
   ❑ 24 hours/day

3. Security
   ❑ no lock
   ■ key lock
   ❑ card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   ❑ Hand sink.  Quantity:    Type:
   ❑ Floor Drain(s)
   ❑ Fume/Smoke Exhaust Systems
   ❑ Special Ventilation
   ■ Air Conditioning / Climate Control
   ❑ Humidity control or other special considerations
   ❑ Other:

5. Communications Requirements
   ■ Data Ports.  Quantity:    Type:
   ■ Telephone
   ■ CATV
   ❑ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ■ Task Lighting
   ■ Other Specialty Lighting:
   ■ Standard convenience outlets
   ■ Special Power

7. Space Arrangements
   ❑ High Bay.  Height in feet:
   ❑ Ground Floor Required:
   ❑ Must be adjacent to:
   ❑ Other:

Remarks:

8. Built-in Cabinetry
   ❑ Lower Cabinets
   ❑ Upper Cabinets
   ❑ Open Shelving
   ❑ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
   ■ Resilient Flooring
   ❑ Carpet
   ❑ Sealed Concrete
   ❑ Other:
   Ceiling Finish
   ❑ Exposed Structure
   ■ Acoustic Tile
   ❑ Other:
   Wall Finish
   ■ Painted Wallboard
   ❑ Wall Covering
   ❑ Other:
   Special Considerations:

10. Furnishings / Workstations
    ❑ Movable tables and chairs or movable desks
    ❑ Fixed table with movable chairs
    ❑ Tablet arm chairs
    ❑ Computer stations:  Quantity:
    ❑ No furnishings
    ■ Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    ❑ Covered Area required:
    ❑ Non-covered Area required:
    ❑ Outdoor Storage:
    ❑ Secured by fence (no ceiling)
    ❑ Highly secured by fence (no climbing access)
    ❑ Other:

Remarks:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS:  
1. Workstation  
2. Overhead Shelving  
3. Full Height Bookcase Shelving  
4. Lockable Pedestal Files  
5. Visitor Chair  
6. White Markeboard/Tackable  

ADJACENCY:  
- Economics Faculty Offices  

NOTES:  
1. Windows preferrable.
DETAILED SPACE REQUIREMENTS

INDEX NO:  ECO 12
DEPARTMENT:  Economics
SPACE NAME:  Faculty Office – Part Time
STATIONS:  1
ASF:  110

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   - Hand sink.  Quantity:  Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports.  Quantity:  Type:
   - Telephone
   - CATV
   - Other:  Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay.  Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
   - Resilient Flooring
   - Carpet
   - Sealed Concrete
   - Other:
   - Ceiling Finish
   - Exposed Structure
   - Acoustic Tile
   - Other:
   - Wall Finish
   - Painted Wallboard
   - Wall Covering
   - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations:  Quantity:
    - No furnishings
    - Other:  Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

Equipment:

College of Business and Economics
RRM Design Group

Cal State, Fullerton
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Conference Table</td>
<td>Economics Faculty Offices</td>
<td>2. Provide black-out screens for windows.</td>
</tr>
<tr>
<td>3. Ceiling Mounted Projector</td>
<td></td>
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</tr>
<tr>
<td>4. Projection Screen</td>
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<td></td>
</tr>
<tr>
<td>5. White Marker Board</td>
<td></td>
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</tr>
</tbody>
</table>

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DETAILED SPACE REQUIREMENTS

INDEX NO: ECO 13
DEPARTMENT: Economics
SPACE NAME: Faculty Office Conference Room
STATIONS: N/A
ASF: 153

1. Space Description and Design Attributes

2. Utilization

- 8 hours/day
- 14 hours/day
- 24 hours/day

3. Security

- no lock
- key lock
- card key

4. Mechanical / Plumbing Requirements

- Hand sink. Quantity: Type:
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

5. Communications Requirements

- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

6. Power and Lighting Requirements

- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

7. Space Arrangements

- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

Remarks:

8. Built-in Cabinetry

- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)

- Floor Finish
- Resilient Flooring
- Carpet
- Sealed Concrete
- Other:
- Ceiling Finish
- Exposed Structure
- Acoustic Tile
- Other:
- Wall Finish
- Painted Wallboard
- Wall Covering
- Other:
- Special Considerations:

10. Furnishings / Workstations

- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)

- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

Equipment:
COMPONENT DIAGRAM - Office Spaces

INDEX NO.: FIN01
DEPARTMENT: Finance Department
SPACE NAME: Department Head
AREA: 150 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Meeting Table/Chairs</td>
<td></td>
<td>2. Corner office preferred</td>
</tr>
<tr>
<td>3. Bookshelves</td>
<td></td>
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</tr>
<tr>
<td>4. Lateral Files</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Overhead Shelving/ Cabinets</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

VISUAL ACCESS TO DEPT. OFFICE

College of Business and Economics
RRM DESIGN GROUP
Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO: FIN 01
DEPARTMENT: Finance
SPACE NAME: Department Head Office
STATIONS: 1
ASF: 150

1. Space Description and Design Attributes

2. Utilization
	- 8 hours/day
	- 14 hours/day
	- 24 hours/day

3. Security
	- no lock
	- key lock
	- card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
	- Hand sink. Quantity: Type:
	- Floor Drain(s)
	- Fume/Smoke Exhaust Systems
	- Special Ventilation
	- Air Conditioning / Climate Control
	- Humidity control or other special considerations
	- Other:

5. Communications Requirements
	- Data Ports. Quantity: Type:
	- Telephone
	- CATV
	- Other: Data/Computer Projector

6. Power and Lighting Requirements
	- General Lighting
	- Task Lighting
	- Other Specialty Lighting:
	- Standard convenience outlets
	- Special Power

7. Space Arrangements
	- High Bay. Height in feet:
	- Ground Floor Required:
	- Must be adjacent to:
	- Other:

Remarks:

8. Built-in Cabinetry
	- Lower Cabinets
	- Upper Cabinets
	- Open Shelving
	- Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
     - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
DETAILED SPACE REQUIREMENTS

INDEX NO: FIN 02
DEPARTMENT: Finance
SPACE NAME: Department Office
STATIONS: 0
ASF: 517

1. Space Description and Design Attributes

2. Utilization
☐ 8 hours/day
☐ 14 hours/day
☐ 24 hours/day

3. Security
☐ no lock
☐ key lock
☐ card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
☐ Hand sink. Quantity: Type:
☐ Floor Drain(s)
☐ Fume/Smoke Exhaust Systems
☐ Special Ventilation
☐ Air Conditioning / Climate Control
☐ Humidity control or other special considerations
☐ Other:

5. Communications Requirements
☐ Data Ports. Quantity: Type:
☐ Telephone
☐ CATV
☐ Other: Data/Computer Projector

6. Power and Lighting Requirements
☐ General Lighting
☐ Task Lighting
☐ Other Specialty Lighting:
☐ Standard convenience outlets
☐ Special Power

7. Space Arrangements
☐ High Bay. Height in feet:
☐ Ground Floor Required:
☐ Must be adjacent to:
☐ Other:

Remarks:

8. Built-in Cabinetry
☐ Lower Cabinets
☐ Upper Cabinets
☐ Open Shelving
☐ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
Floor Finish
☐ Resilient Flooring
☐ Carpet
☐ Sealed Concrete
☐ Other:
☐ Ceiling Finish
☐ Exposed Structure
☐ Acoustic Tile
☐ Other:
☐ Wall Finish
☐ Painted Wallboard
☐ Wall Covering
☐ Other:
☐ Special Considerations:

10. Furnishings / Workstations
☐ Movable tables and chairs or movable desks
☐ Fixed table with movable chairs
☐ Tablet arm chairs
☐ Computer stations: Quantity:
☐ No furnishings
☐ Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
☐ Covered Area required:
☐ Non-covered Area required:
☐ Outdoor Storage:
☐ Secured by fence (no ceiling)
☐ Highly secured by fence (no climbing access)
☐ Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

**FURNISHINGS:**
1. Mail Slots
2. Work Surfaces/ Cabinets Below
3. Upper Cabinets
4. Printer
5. FAX
6. Copier
7. Recycle Bins
8. Mail Drop/Pick Up
9. Shredder

**ADJACENCY:**
1. Department Offices

**NOTES:**
DETAILED SPACE REQUIREMENTS

INDEX NO: FIN 03
DEPARTMENT: Finance
SPACE NAME: Workroom
STATIONS: 0
ASF: 250

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
   - Resilient Flooring
   - Carpet
   - Sealed Concrete
   - Other:
     - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
       - Wall Finish
       - Painted Wallboard
       - Wall Covering
       - Other:
         - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Lower Cabinets / Shelving</td>
<td>1. Department Office</td>
<td>1. No Windows Required</td>
</tr>
<tr>
<td>2. Upper Cabinets / Shelving</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics  RRM DESIGN GROUP

Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO: FIN 04
DEPARTMENT: Finance
SPACE NAME: Storage
STATIONS: n/a
ASF: 150

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
   - Resilient Flooring
   - Carpet
   - Sealed Concrete
   - Other:
     - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
     - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
       - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

Equipment:
INDEX NO.: FIN11
DEPARTMENT: Finance Department
SPACE NAME: Faculty Office
AREA: 110 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS: 
1. Workstation
2. Overhead Shelving
3. Full Height Bookcase Shelving
4. Pedestal Files
5. Visitor Chair (2)
6. White board/ Tack Board

ADJACENCY: 
1. Windows preferred

NOTES: 

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Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO: FIN 11
DEPARTMENT: Finance
SPACE NAME: Faculty Office
STATIONS: 1
ASF: 110

1. Space Description and Design Attributes

2. Utilization
   ❑ 8 hours/day
   ■ 14 hours/day
   ❑ 24 hours/day

3. Security
   ❑ no lock
   ■ key lock
   ❑ card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   ❑ Hand sink. Quantity: Type:
   ❑ Floor Drain(s)
   ❑ Fume/Smoke Exhaust Systems
   ❑ Special Ventilation
   ■ Air Conditioning / Climate Control
   ❑ Humidity control or other special considerations
   ❑ Other:

5. Communications Requirements
   ■ Data Ports. Quantity: Type:
   ■ Telephone
   ■ CATV
   ❑ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ■ Task Lighting
   ❑ Other Specialty Lighting:
   ■ Standard convenience outlets
   ■ Special Power

7. Space Arrangements
   ❑ High Bay. Height in feet:
   ❑ Ground Floor Required:
   ❑ Must be adjacent to:
   ❑ Other:

 Remarks:

8. Built-in Cabinetry
   ❑ Lower Cabinets
   ❑ Upper Cabinets
   ❑ Open Shelving
   ❑ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
   ❑ Resilient Flooring
   ■ Carpet
   ■ Sealed Concrete
   ❑ Other:
   Ceiling Finish
   ❑ Exposed Structure
   ■ Acoustic Tile
   ❑ Other:
   Wall Finish
   ■ Painted Wallboard
   ■ Wall Covering
   ❑ Other:
   Special Considerations:

10. Furnishings / Workstations
    ❑ Movable tables and chairs or movable desks
    ❑ Fixed table with movable chairs
    ■ Tablet arm chairs
    ❑ Computer stations: Quantity:
    ❑ No furnishings
    ■ Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    ❑ Covered Area required:
    ❑ Non-covered Area required:
    ❑ Outdoor Storage:
    ❑ Secured by fence (no ceiling)
    ❑ Highly secured by fence (no climbing access)
    ❑ Other:

 Equipment:
COMPONENT DIAGRAM - Department Spaces

INDEX NO.: FIN12
DEPARTMENT: Finance Department
SPACE NAME: P/T Faculty Offices
AREA: 110 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Overhead Shelving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Full Height Bookcase Shelving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Lockable Pedestal Files</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Visitor Chair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. White Markeboard/Tackable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics
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Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO: FIN 12
DEPARTMENT: Finance
SPACE NAME: Part Time Faculty Office
STATIONS: 1
ASF: 110

1. Space Description and Design Attributes

2. Utilization
- 8 hours/day
- 14 hours/day
- 24 hours/day

3. Security
- no lock
- key lock
- card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
- Hand sink. Quantity: Type:
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

5. Communications Requirements
- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

6. Power and Lighting Requirements
- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

7. Space Arrangements
- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

Remarks:

8. Built-in Cabinetry
- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish
- Resilient Flooring
- Carpet
- Sealed Concrete
- Other:
- Ceiling Finish
- Exposed Structure
- Acoustic Tile
- Other:
- Wall Finish
- Painted Wallboard
- Wall Covering
- Other:
- Special Considerations:

10. Furnishings / Workstations
- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

Equipment:
COMPONENT DIAGRAM - Office Spaces

INDEX NO.: FIN13
DEPARTMENT: Finance Department
SPACE NAME: Faculty Office Conference Room
AREA: 153 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Conference Table (8)</td>
<td>1. Department Faculty Offices</td>
<td>1. Windows Required</td>
</tr>
<tr>
<td>2. White Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Projector (ceiling mounted)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Projection Screen</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics
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Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO: FIN 13
DEPARTMENT: Finance
SPACE NAME: Faculty Office Conference Room
STATIONS: 0
ASF: 153

1. Space Description and Design Attributes

2. Utilization
- 8 hours/day
- 14 hours/day
- 24 hours/day

3. Security
- no lock
- key lock
- card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
- Hand sink. Quantity: Type:
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

5. Communications Requirements
- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

6. Power and Lighting Requirements
- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

7. Space Arrangements
- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

8. Built-in Cabinetry
- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish
- Resilient Flooring
- Carpet
- Sealed Concrete
- Other:
- Ceiling Finish
- Exposed Structure
- Acoustic Tile
- Other:
- Wall Finish
- Painted Wallboard
- Wall Covering
- Other:
- Special Considerations:

10. Furnishings / Workstations
- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

   Equipment:
COMPONENT DIAGRAM - Department Spaces

INDEX NO.: ISD 01
DEPARTMENT: Information Systems ISDS
SPACE NAME: A-Department Head Office
AREA: 150 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Workstation</td>
<td>1. Department Office</td>
<td>1. Windows are required</td>
</tr>
<tr>
<td>2. Meeting Table/Chairs</td>
<td>2. Faculty Offices</td>
<td></td>
</tr>
<tr>
<td>3. Whiteboard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Files</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Overhead Cabinets</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics
RRM DESIGN GROUP
DETAILED SPACE REQUIREMENTS

INDEX NO: ISD 01
DEPARTMENT: ISDS
SPACE NAME: Department Head Office
STATIONS: 1
ASF: 150

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

Remarks:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
## DETAILED SPACE REQUIREMENTS

**INDEX NO:** ISD 02  
**DEPARTMENT:** Information Systems  
**SPACE NAME:** Department Office  
**STATIONS:** 0  
**ASF:** 517

### 1. Space Description and Design Attributes

#### 2. Utilization
- [ ] 8 hours/day  
- [ ] 14 hours/day  
- [ ] 24 hours/day

#### 3. Security
- [ ] no lock  
- [ ] key lock  
- [ ] card key

#### 4. Mechanical / Plumbing Requirements
- [ ] Hand sink. Quantity: [ ] Type:  
- [ ] Floor Drain(s)  
- [ ] Fume/Smoke Exhaust Systems  
- [ ] Special Ventilation  
- [ ] Air Conditioning / Climate Control  
- [ ] Humidity control or other special considerations  
- [ ] Other:

#### 5. Communications Requirements
- [ ] Data Ports. Quantity: [ ] Type:  
- [ ] Telephone  
- [ ] CATV  
- [ ] Other: Data/Computer Projector

#### 6. Power and Lighting Requirements
- [ ] General Lighting  
- [ ] Task Lighting  
- [ ] Other Specialty Lighting:  
- [ ] Standard convenience outlets  
- [ ] Special Power

#### 7. Space Arrangements
- [ ] High Bay. Height in feet:  
- [ ] Ground Floor Required:  
- [ ] Must be adjacent to:  
- [ ] Other:

#### Remarks:

### 8. Built-in Cabinetry
- Lower Cabinets  
- Upper Cabinets  
- Open Shelving  
- Specialty Cabinets:

### 9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish  
- Resilient Flooring  
- Carpet  
- Sealed Concrete  
- Other: Ceiling Finish  
- Exposed Structure  
- Acoustic Tile  
- Other: Wall Finish  
- Painted Wallboard  
- Wall Covering  
- Other: Special Considerations:

#### 10. Furnishings / Workstations
- Movable tables and chairs or movable desks  
- Fixed table with movable chairs  
- Tablet arm chairs  
- Computer stations: Quantity:  
- No furnishings  
- Other: Office Furnishings – See Component Diagram

### 11. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:  
- Non-covered Area required:  
- Outdoor Storage:  
- Secured by fence (no ceiling)  
- Highly secured by fence (no climbing access)  
- Other:

**Equipment:**

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College of Business and Economics  
RRM Design Group  
Cal State, Fullerton
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mail Slots</td>
<td>13. Shredder</td>
<td>1. Department Office</td>
</tr>
<tr>
<td>2. Work Surface/ cabinets below</td>
<td>14. Chair</td>
<td>2. Faculty Office</td>
</tr>
<tr>
<td>3. Upper cabinets</td>
<td>15. Desk</td>
<td></td>
</tr>
<tr>
<td>4. Printer</td>
<td>16. Mail drop-off</td>
<td></td>
</tr>
<tr>
<td>5. FAX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Copier</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Recycle bins</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics
RRM DESIGN GROUP
Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO: ISD 03
DEPARTMENT: ISDS
SPACE NAME: Workroom
STATIONS: 0
ASF: 250

1. Space Description and Design Attributes

2. Utilization
☑ 8 hours/day
☐ 14 hours/day
☐ 24 hours/day

3. Security
☐ no lock
☐ key lock
☐ card key

4. Mechanical / Plumbing Requirements
(sinks, ventilation, drains, etc.)
☑ Hand sink. Quantity: Type:
☐ Floor Drain(s)
☐ Fume/Smoke Exhaust Systems
☐ Special Ventilation
☐ Air Conditioning / Climate Control
☐ Humidity control or other special considerations
☐ Other:

5. Communications Requirements
☐ Data Ports. Quantity: Type:
☐ Telephone
☐ CATV
☐ Other: Data/Computer Projector

6. Power and Lighting Requirements
☐ General Lighting
☐ Task Lighting
☐ Other Specialty Lighting:
☐ Standard convenience outlets
☐ Special Power

7. Space Arrangements
☑ High Bay. Height in feet:
☐ Ground Floor Required:
☐ Must be adjacent to:
☐ Other:

Remarks:

8. Built-in Cabinetry
☐ Lower Cabinets
☐ Upper Cabinets
☐ Open Shelving
☐ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
Floor Finish
☐ Resilient Flooring
☐ Carpet
☐ Sealed Concrete
☐ Other:
☐ Ceiling Finish
☐ Exposed Structure
☐ Acoustic Tile
☐ Other:
☐ Wall Finish
☐ Painted Wallboard
☐ Wall Covering
☐ Other:
☐ Special Considerations:

10. Furnishings / Workstations
☐ Movable tables and chairs or movable desks
☐ Fixed table with movable chairs
☐ Tablet arm chairs
☐ Computer stations: Quantity:
☐ No furnishings
☐ Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
☐ Covered Area required:
☐ Non-covered Area required:
☐ Outdoor Storage:
☐ Secured by fence (no ceiling)
☐ Highly secured by fence (no climbing access)
☐ Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS:  
1. Lower Cabinets  
2. Upper Cabinets/Shelving

INDEX NO.: ISD 04  
DEPARTMENT: Information Systems ISDS  
SPACE NAME: Storage  
AREA: 150 S.F.
DETAILED SPACE REQUIREMENTS

INDEX NO: ISD 04
DEPARTMENT: ISDS
SPACE NAME: Storage
STATIONS: n/a
ASF: 150

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
   - Resilient Flooring
   - Carpet
   - Sealed Concrete
   - Other: Ceiling Finish
   - Exposed Structure
   - Acoustic Tile
   - Other: Wall Finish
   - Painted Wallboard
   - Wall Covering
   - Other: Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

1. Workstation
2. Overhead Shelving
3. Bookcase Shelving
4. Pedestal Files
5. Visitor Chair
6. White board

1. Windows required
1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   ■ 24 hours/day

3. Security
   • no lock
   ■ key lock
   • card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   • Hand sink. Quantity: Type:
   • Floor Drain(s)
   • Fume/Smoke Exhaust Systems
   ■ Special Ventilation
   ■ Air Conditioning / Climate Control
   • Humidity control or other special considerations
   • Other:

5. Communications Requirements
   ■ Data Ports. Quantity: Type:
   ■ Telephone
   ■ CATV
   • Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ■ Task Lighting
   ■ Other Specialty Lighting:
   ■ Standard convenience outlets
   ■ Special Power

7. Space Arrangements
   • High Bay. Height in feet:
   • Ground Floor Required:
   • Must be adjacent to:
   • Other:

8. Built-in Cabinetry
   • Lower Cabinets
   • Upper Cabinets
   • Open Shelving
   ■ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   • Floor Finish
   ■ Resilient Flooring
   ○ Carpet
   ■ Sealed Concrete
   • Other:
   • Ceiling Finish
   ■ Exposed Structure
   ■ Acoustic Tile
   • Other:
   • Wall Finish
   ■ Painted Wallboard
   • Wall Covering
   • Other:
   Special Considerations:

10. Furnishings / Workstations
    • Movable tables and chairs or movable desks
    • Fixed table with movable chairs
    ■ Tablet arm chairs
    • Computer stations: Quantity:
    • No furnishings
    ■ Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    • Covered Area required:
    • Non-covered Area required:
    • Outdoor Storage:
    ■ Secured by fence (no ceiling)
    • Highly secured by fence (no climbing access)
    • Other:

   Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Workstation</td>
<td>1. Faculty Offices</td>
<td></td>
</tr>
<tr>
<td>2. Overhead Shelving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Full Height Bookcase Shelving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Lockable Pedestal Files</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Visitor Chair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. White Markeboard/Tackable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics
RRM DESIGN GROUP
DETAILED SPACE REQUIREMENTS

INDEX NO: ISD 12
DEPARTMENT: ISDS
SPACE NAME: Part – Time Faculty Office
STATIONS: 1
ASF: 110

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
   - Resilient Flooring
   - Carpet
   - Sealed Concrete
   - Other:
   - Exposed Structure
   - Acoustic Tile
   - Other:
   - Wall Finish
   - Painted Wallboard
   - Wall Covering
   - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

Equipment:
COMPONENT DIAGRAM - Department Spaces

INDEX NO.: ISD 13
DEPARTMENT: Information Systems ISDS
SPACE NAME: Faculty Office Conference Room
AREA: 153 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS</th>
<th>ADJACENCY</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Conference Table (8)</td>
<td>1. Department Faculty Offices</td>
<td>1. Windows Preferred</td>
</tr>
<tr>
<td>2. White Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Projector (ceiling mounted)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Projection Screen</td>
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<td></td>
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</tbody>
</table>

College of Business and Economics
RRM DESIGN GROUP

Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO: ISD 13
DEPARTMENT: ISDS
SPACE NAME: Faculty Office Conference Room
STATIONS: 0
ASF: 153

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:
   Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
   - Resilient Flooring
   - Carpet
   - Sealed Concrete
   - Other:
   - Ceiling Finish
   - Exposed Structure
   - Acoustic Tile
   - Other:
   - Wall Finish
   - Painted Wallboard
   - Wall Covering
   - Other:
   Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:
    Equipment:
COMPONENT DIAGRAM - Office Spaces

INDEX NO.: MKT - 01
DEPARTMENT: Marketing Department
SPACE NAME: Department Head
AREA: 150 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS</th>
<th>ADJACENCY</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Meeting Table/Chairs</td>
<td></td>
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<tr>
<td>3. Full Height Bookshelves</td>
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<td></td>
</tr>
<tr>
<td>4. Lateral Files</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Overhead Shelving/ Cabinets</td>
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<td></td>
</tr>
</tbody>
</table>

College of Business and Economics
RRM DESIGN GROUP

Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO: MKT 01
DEPARTMENT: Marketing/Business Writing
SPACE NAME: Department Head Office
STATIONS: 1
ASF: 150

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
     - Standard convenience outlets
     - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
     - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

Remarks:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
DETAILED SPACE REQUIREMENTS

INDEX NO: MKT 02
DEPARTMENT: Marketing/Business Writing
SPACE NAME: Department Office
STATIONS: 0
ASF: 517

1. Space Description and Design Attributes

2. Utilization
   ■ 8 hours/day
   ❑ 14 hours/day
   ❑ 24 hours/day

3. Security
   ❑ no lock
   ■ key lock
   ❑ card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   ❑ Hand sink.  Quantity: Type:
   ❑ Floor Drain(s)
   ❑ Fume/Smoke Exhaust Systems
   ❑ Special Ventilation
   ■ Air Conditioning / Climate Control
   ❑ Humidity control or other special considerations
   ❑ Other:

5. Communications Requirements
   ■ Data Ports.  Quantity: Type:
   ■ Telephone
   ■ CATV
   ❑ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ■ Task Lighting
   ❑ Other Specialty Lighting:
   ■ Standard convenience outlets
   ❑ Special Power

7. Space Arrangements
   ❑ High Bay. Height in feet:
   ❑ Ground Floor Required:
   ❑ Must be adjacent to:
   ❑ Other:

Remarks:

8. Built-in Cabinetry
   ❑ Lower Cabinets
   ❑ Upper Cabinets
   ❑ Open Shelving
   ❑ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
   ❑ Resilient Flooring
   ■ Carpet
   ❑ Sealed Concrete
   ❑ Other:
   Ceiling Finish
   ❑ Exposed Structure
   ■ Acoustic Tile
   ❑ Other:
   Wall Finish
   ■ Painted Wallboard
   ❑ Wall Covering
   ❑ Other:
   Special Considerations:

10. Furnishings / Workstations
    ❑ Movable tables and chairs or movable desks
    ❑ Fixed table with movable chairs
    ■ Tablet arm chairs
    ❑ Computer stations: Quantity:
    ❑ No furnishings
    ■ Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    ❑ Covered Area required:
    ❑ Non-covered Area required:
    ❑ Outdoor Storage:
    ❑ Secured by fence (no ceiling)
    ❑ Highly secured by fence (no climbing access)
    ❑ Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
DETAILED SPACE REQUIREMENTS

INDEX NO: MKT 03
DEPARTMENT: Marketing/Business Writing
SPACE NAME: Workroom
STATIONS: 250

1. Space Description and Design Attributes

2. Utilization
- 8 hours/day
- 14 hours/day
- 24 hours/day

3. Security
- no lock
- key lock
- card key

4. Mechanical / Plumbing Requirements
(sinks, ventilation, drains, etc.)
- Hand sink. Quantity: Type:
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

5. Communications Requirements
- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

6. Power and Lighting Requirements
- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

7. Space Arrangements
- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

Remarks:

8. Built-in Cabinetry
- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish
- Resilient Flooring
- Carpet
- Sealed Concrete
- Other:
- Ceiling Finish
- Exposed Structure
- Acoustic Tile
- Other:
- Wall Finish
- Painted Wallboard
- Wall Covering
- Other:
- Specialty Considerations:

10. Furnishings / Workstations
- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

Equipment:
COMPONENT DIAGRAM - Office Spaces

INDEX NO.: MKT04
DEPARTMENT: Marketing Department
SPACE NAME: Department Storage
AREA: 150 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Work Surfaces/ Cabinets Below</td>
<td>1. Department Offices</td>
<td>1. No windows preferred</td>
</tr>
<tr>
<td>2. Upper Cabinets/Shelving</td>
<td></td>
<td>2. Lockable cabinets preferred</td>
</tr>
</tbody>
</table>
DETAILED SPACE REQUIREMENTS

INDEX NO: MKT 04
DEPARTMENT: Marketing/Business Writing
SPACE NAME: Storage
STATIONS: n/a
ASF: 150

1. Space Description and Design Attributes

2. Utilization
   ■ 8 hours/day
   ❏ 14 hours/day
   ❏ 24 hours/day

3. Security
   ❏ no lock
   ■ key lock
   ❏ card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   ❏ Hand sink. Quantity: Type:
   ❏ Floor Drain(s)
   ❏ Fume/Smoke Exhaust Systems
   ❏ Special Ventilation
   ■ Air Conditioning / Climate Control
   ❏ Humidity control or other special considerations
   ❏ Other:

5. Communications Requirements
   ■ Data Ports. Quantity: Type:
   ■ Telephone
   ❏ CATV
   ❏ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ❏ Task Lighting
   ❏ Other Specialty Lighting:
   ■ Standard convenience outlets
   ❏ Special Power

7. Space Arrangements
   ❏ High Bay. Height in feet:
   ❏ Ground Floor Required:
   ❏ Must be adjacent to:
   ❏ Other:

Remarks:

8. Built-in Cabinetry
   ❏ Lower Cabinets
   ❏ Upper Cabinets
   ❏ Open Shelving
   ❏ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
   ■ Resilient Flooring
   ❏ Carpet
   ❏ Sealed Concrete
   ❏ Other:
   ■ Ceiling Finish
   ❏ Exposed Structure
   ■ Acoustic Tile
   ❏ Other:
   ■ Wall Finish
   ❏ Painted Wallboard
   ❏ Wall Covering
   ❏ Other:
   ■ Special Considerations:

10. Furnishings / Workstations
    ❏ Movable tables and chairs or movable desks
    ❏ Fixed table with movable chairs
    ❏ Tablet arm chairs
    ❏ Computer stations: Quantity:
    ❏ No furnishings
    ■ Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    ❏ Covered Area required:
    ❏ Non-covered Area required:
    ❏ Outdoor Storage:
    ❏ Secured by fence (no ceiling)
    ❏ Highly secured by fence (no climbing access)
    ❏ Other:

Equipment:
COMPONENT DIAGRAM - Department Spaces

INDEX NO.: MKT11
DEPARTMENT: Marketing Department
SPACE NAME: Full-Time Faculty Office
AREA: 110 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Faculty Workstation</td>
<td>1. Department Office</td>
<td>1. Windows Preferred</td>
</tr>
<tr>
<td>2. Overhead Shelving</td>
<td>2. Storage</td>
<td></td>
</tr>
<tr>
<td>4. Vertical File Cabinet</td>
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<td></td>
</tr>
<tr>
<td>5. Visitor Chair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. White Markerboard</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics
RRM DESIGN GROUP
Cal State Fullerton
DETAIL SPACE REQUIREMENTS

INDEX NO: MKT 11
DEPARTMENT: Marketing/Business Writing
SPACE NAME: Full-Time Faculty Office
STATIONS: 1
ASF: 110

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
     - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
     - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
     - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

   Equipment:
COMPONENT DIAGRAM - Office Spaces

INDEX NO.: MKT12
DEPARTMENT: Marketing Department
SPACE NAME: Part-Time Faculty Office
AREA: 110 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Workstation</td>
<td>1. Faculty Offices</td>
<td>1. Windows Preferred</td>
</tr>
<tr>
<td>2. Overhead Shelving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Full Height Bookcase Shelving</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Lockable Pedestal Files</td>
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<td></td>
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<tr>
<td>5. Visitor Chair</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. White Markedboard/Tackable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics
RRM DESIGN GROUP

Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO: MKT 12
DEPARTMENT: Marketing/Business Writing
SPACE NAME: Part-Time Faculty Office
STATIONS: 1
ASF: 110

1. Space Description and Design Attributes

2. Utilization
- 8 hours/day
- 14 hours/day
- 24 hours/day

3. Security
- no lock
- key lock
- card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
- Hand sink. Quantity: Type:
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations

5. Communications Requirements
- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

6. Power and Lighting Requirements
- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

7. Space Arrangements
- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

8. Built-in Cabinetry
- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish
  - Resilient Flooring
  - Carpet
  - Sealed Concrete
  - Other:
    - Exposed Structure
    - Acoustic Tile
    - Other:
      - Wall Finish
      - Painted Wallboard
      - Wall Covering
      - Other:
        - Special Considerations:

10. Furnishings / Workstations
- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

Remarks:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
## Detailed Space Requirements

<table>
<thead>
<tr>
<th>INDEX NO:</th>
<th>MKT 13</th>
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<tbody>
<tr>
<td>DEPARTMENT:</td>
<td>Marketing/Business Writing</td>
</tr>
<tr>
<td>SPACE NAME:</td>
<td>Faculty Office Conference Room</td>
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<tr>
<td>STATIONS:</td>
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<tr>
<td>ASF:</td>
<td>153</td>
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</table>

### 1. Space Description and Design Attributes

#### 2. Utilization
- 8 hours/day
- 14 hours/day
- 24 hours/day

#### 3. Security
- no lock
- key lock
- card key

### 4. Mechanical / Plumbing Requirements
(sinks, ventilation, drains, etc.)
- Hand sink. Quantity: Type:
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

### 5. Communications Requirements
- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

### 6. Power and Lighting Requirements
- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

### 7. Space Arrangements
- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

### 8. Built-in Cabinetry
- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

### 9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish
  - Resilient Flooring
  - Carpet
  - Sealed Concrete
- Other: Ceiling Finish
- Exposed Structure
- Acoustic Tile
- Other: Wall Finish
- Painted Wallboard
- Wall Covering
- Other: Special Considerations:

### 10. Furnishings / Workstations
- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: Office Furnishings – See Component Diagram

### 11. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

### Equipment:
COMPONENT DIAGRAM - Office Spaces

INDEX NO.: MKT-15
DEPARTMENT: Marketing Department
SPACE NAME: Endowed Chair Office
AREA: 150 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Meeting Table/Chairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Full Height Bookshelves</td>
<td></td>
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<tr>
<td>4. Lateral Files</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Overhead Shelving/ Cabinets</td>
<td></td>
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</tbody>
</table>

College of Business and Economics
RRM DESIGN GROUP

Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO: MKT 15
DEPARTMENT: Marketing/Business Writing
SPACE NAME: Endowed Chair’s Office
STATIONS: 1
ASF: 150

1. Space Description and Design Attributes

2. Utilization
   ■ 8 hours/day
   ❏ 14 hours/day
   ❏ 24 hours/day

3. Security
   ❏ no lock
   ■ key lock
   ❏ card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   ❏ Hand sink. Quantity: Type:
   ❏ Floor Drain(s)
   ❏ Fume/Smoke Exhaust Systems
   ❏ Special Ventilation
   ■ Air Conditioning / Climate Control
   ❏ Humidity control or other special considerations
   ❏ Other:

5. Communications Requirements
   ■ Data Ports. Quantity: Type:
   ❏ Telephone
   ❏ CATV
   ❏ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ❏ Task Lighting
   ❏ Other Specialty Lighting:
   ■ Standard convenience outlets
   ❏ Special Power

7. Space Arrangements
   ❏ High Bay. Height in feet:
   ❏ Ground Floor Required:
   ❏ Must be adjacent to:
   ❏ Other:

Remarks:

8. Built-in Cabinetry
   ❏ Lower Cabinets
   ❏ Upper Cabinets
   ❏ Open Shelving
   ❏ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
   ❏ Resilient Flooring
   ❏ Carpet
   ❏ Sealed Concrete
   ❏ Other:
   Ceiling Finish
   ❏ Exposed Structure
   ❏ Acoustic Tile
   ❏ Other:
   Wall Finish
   ❏ Painted Wallboard
   ❏ Wall Covering
   ❏ Other:
   Special Considerations:

10. Furnishings / Workstations
    ❏ Movable tables and chairs or movable desks
    ❏ Fixed table with movable chairs
    ❏ Tablet arm chairs
    ❏ Computer stations: Quantity:
    ❏ No furnishings
    ■ Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    ❏ Covered Area required:
    ❏ Non-covered Area required:
    ❏ Outdoor Storage:
    ❏ Secured by fence (no ceiling)
    ❏ Highly secured by fence (no climbing access)
    ❏ Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
### DETAILED SPACE REQUIREMENTS

**INDEX NO:** CLA 01  
**DEPARTMENT:** University  
**SPACE NAME:** Lecture Hall (250)  
**STATIONS:** 250  
**ASF:** 3415

1. **Space Description and Design Attributes**

2. **Utilization**
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. **Security**
   - no lock
   - key lock
   - card key

4. **Mechanical / Plumbing Requirements**
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:  
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. **Communications Requirements**
   - Data Ports. Quantity: Type:  
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. **Power and Lighting Requirements**
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
     - Standard convenience outlets
     - Special Power

7. **Space Arrangements**
   - High Bay. Height in feet:  
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. **Built-in Cabinetry**
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. **Finishes / Level of finishes (durability, cleanliness, etc.)**
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
   - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
   - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
   - Other:
   - Special Considerations:

10. **Furnishings / Workstations**
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other:

11. **Outdoor Requirements (total area, covered, etc.)**
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
      - Secured by fence (no ceiling)
      - Highly secured by fence (no climbing access)
    - Other:

**Remarks:**

**Equipment:**
COMPONENT DIAGRAM - University Lecture Spaces

INDEX NO.: CLA-02
DEPARTMENT: University Owned Lecture
SPACE NAME: Lecture Hall (120) Tiered
AREA: 2,646 SF

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fixed Lectern/Computer Station</td>
<td>1. Classrooms</td>
<td>1. Each station to be provided with data and power</td>
</tr>
<tr>
<td>2. Mobile Demonstration Table</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Fixed Desk/Movable Chairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. White Marker Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Projection Screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Ceiling Mounted Projector</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics
RRM DESIGN GROUP

Cal State Fullerton
1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   - Hand sink. Quantity:  Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity:  Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector
   - Wired to each station

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to: Dean
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other:

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
      - Secured by fence (no ceiling)
      - Highly secured by fence (no climbing access)
      - Other:

Remarks:

Equipment:
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<table>
<thead>
<tr>
<th>FURNISHINGS</th>
<th>ADJACENCY</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fixed Lectern/Computer Station</td>
<td>1. Classrooms</td>
<td>1. Each station to be provided with data and power</td>
</tr>
<tr>
<td>2. Mobile Demonstration Table</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Fixed Desk/Moveable Chairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. White Marker Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Projection Screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Ceiling Mounted Projector</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DETAILED SPACE REQUIREMENTS

INDEX NO: CLA 03
DEPARTMENT: University-Owned Lecture
SPACE NAME: Lecture Hall - 75
STATIONS: 75
ASF: 1907

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector
   - Wired to each station

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other:

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

   Equipment:
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<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fixed Lectern/Computer Station</td>
<td>1. Classrooms</td>
<td>1. Each station should be provided with data and power</td>
</tr>
<tr>
<td>2. Mobile Demonstration Table</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Fixed Desk/Moveable Chairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. White Marker Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Projection Screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Ceiling Mounted Projector</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DETAILED SPACE REQUIREMENTS

INDEX NO: CLA 04
DEPARTMENT: University
SPACE NAME: Lecture Space - 50 - Tiered
STATIONS: 50
ASF: 1330

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector
   - Wired to each station

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets along walls
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other:

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
      - Secured by fence (no ceiling)
      - Highly secured by fence (no climbing access)
      - Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS</th>
<th>ADJACENCY</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fixed Lectern/Computer Station</td>
<td>1. Classrooms</td>
<td></td>
</tr>
<tr>
<td>2. Mobile Demonstration Table</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Fixed Desk/Movable Chairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. White Marker Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Projection Screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Ceiling Mounted Projector</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics
RRM DESIGN GROUP

Cal State Fullerton
1. Space Description and Design Attributes
2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day
3. Security
   - No lock
   - Key lock
   - Card key
4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:
5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector
6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
     - Standard convenience outlets
     - Special Power
7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:
Remarks:
8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:
9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
     - Special Considerations:
10. Furnishings / Workstations
    - Movable tables and chairs
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other:
11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:
Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
<table>
<thead>
<tr>
<th>INDEX NO: CLA 08</th>
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<tbody>
<tr>
<td>DEPARTMENT: University</td>
</tr>
<tr>
<td>SPACE NAME: Seminar</td>
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<tr>
<td>STATIONS: 30</td>
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<tr>
<td>ASF: 900</td>
</tr>
</tbody>
</table>

1. **Space Description and Design Attributes**

2. **Utilization**
- 8 hours/day
- 14 hours/day
- 24 hours/day

3. **Security**
- no lock
- key lock
- card key

4. **Mechanical / Plumbing Requirements**
   - sinks, ventilation, drains, etc.
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. **Communications Requirements**
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. **Power and Lighting Requirements**
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. **Space Arrangements**
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. **Built-in Cabinetry**
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. **Finishes / Level of finishes (durability, cleanliness, etc.)**
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
   - Special Considerations:

10. **Furnishings / Workstations**
    - Movable tables and chairs
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other:

11. **Outdoor Requirements (total area, covered, etc.)**
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
      - Secured by fence (no ceiling)
      - Highly secured by fence (no climbing access)
      - Other:

Remarks:

Equipment:
COMPONENT DIAGRAM - Center Spaces

INDEX NO.: CLA-09
DEPARTMENT: N/A
SPACE NAME: Break-Out Room
AREA: 153 SF

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Chair</td>
<td>1. Classrooms</td>
<td></td>
</tr>
<tr>
<td>2. Conference Table</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Ceiling Mounted Projector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Projection Screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. White Markerboard</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
     - Standard convenience outlets
     - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
     - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
      - Secured by fence (no ceiling)
      - Highly secured by fence (no climbing access)
    - Other:

Remarks:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS:  
1. Fixed Lectern/Computer Station  
2. Mobile Demonstration Table  
3. Fixed Desk, Movable Chairs  
4. White Markerboard  
5. Projection Screen  
6. Ceiling Mounted Projector

ADJACENCY:  
1. Classrooms

NOTES:  
1. Each station to be provided with data and power

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DETAILED SPACE REQUIREMENTS

INDEX NO: CLA 10
DEPARTMENT: University
SPACE NAME: Computer Lab
STATIONS: 75
ASF: 2258

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
     - Standard convenience outlets
     - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:

   Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity: 72
    - No furnishings
    - Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
      - Secured by fence (no ceiling)
      - Highly secured by fence (no climbing access)
      - Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
DETAILED SPACE REQUIREMENTS

INDEX NO: CLA 11
DEPARTMENT: University
SPACE NAME: Computer Lab
STATIONS: 50
ASF: 1582

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - No lock
   - Key lock
   - Card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
     - Standard convenience outlets
     - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
     - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity: 50
    - No furnishings
    - Other:

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
      - Secured by fence (no ceiling)
      - Highly secured by fence (no climbing access)
      - Other:

   Equipment:
COMPONENT DIAGRAM - University Lecture Spaces

INDEX NO.: CLA - 12
DEPARTMENT: University Owned Lecture
SPACE NAME: Computer Lab (35) Flat
AREA: 1,106 SF

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS</th>
<th>ADJACENCY</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fixed Lectern/Computer Station</td>
<td>1. Classrooms</td>
<td>1. Each station to be provided with data and power</td>
</tr>
<tr>
<td>2. Mobile Demonstration Table</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Fixed Desk, Movable Chairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. White Makerboard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Projection Screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Ceiling Mounted Projector</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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DETAILED SPACE REQUIREMENTS

INDEX NO: CLA 12
DEPARTMENT: University
SPACE NAME: Computer Lab
STATIONS: 35
ASF: 1106

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
     - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity: 40
    - No furnishings
    - Other: See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
      - Secured by fence (no ceiling)
      - Highly secured by fence (no climbing access)
      - Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
DETAILED SPACE REQUIREMENTS

INDEX NO: CLA 16
DEPARTMENT: University
SPACE NAME: Networking - Lab
STATIONS: 40
ASF: 1428

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - No lock
   - Key lock
   - Card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control (Independent System)
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector
   - Only external ports

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
     - Standard convenience outlets
     - Special Power: Provide power to racks

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

Remarks:
- Room may require supplementary HVAC due to use.

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs
    - Fixed high table with movable stools
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other:

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
      - Secured by fence (no ceiling)
      - Highly secured by fence (no climbing access)
    - Other:

   Equipment:
INDEX NO.: CE-01  
DEPARTMENT: N/A  
SPACE NAME: Center for Entrepreneurship/Small Business Institute  
AREA: 4,150 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS</th>
<th>ADJACENCY</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Table</td>
<td>- Near classrooms</td>
<td>2. Provide visual access from private offices into student work area.</td>
</tr>
<tr>
<td>3. Workstation</td>
<td>- Highly accessible to students</td>
<td>3. Provide adequate wall space for all student workstations to be moved to perimeter.</td>
</tr>
<tr>
<td>5. Student Locker</td>
<td></td>
<td>5. Provide raised floor.</td>
</tr>
<tr>
<td>6. Half-height Partition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. White Marker Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Overhead Shelf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Bookshelf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Lateral File Cabinet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Vertical File Cabinet</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Storage Cabinet</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
DETAILED SPACE REQUIREMENTS

INDEX NO: CE 01
DEPARTMENT: Center for Entrepreneurship
SPACE NAME: Center for Entrepreneurship
STATIONS: N/A
ASF: 4150

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
     - Standard convenience outlets
     - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
     - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

   Equipment:
COMPONENT DIAGRAM - Center Spaces

INDEX NO.: CE-02
DEPARTMENT: N/A
SPACE NAME: Center for Economic Education
AREA: 867 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS:
1. Chair
2. Table
3. Workstation
4. Lockable Shelving
5. Half-height wall
6. Copy Machine
7. Bookshelf
8. Overhead Shelf
9. Vertical File Cabinets
10. Lateral File Cabinets
11. White Marker Board
12. Trash/Recycling Bins

ADJACENCY:
- Economics Department

NOTES:
1. Windows preferable in private offices.
2. Windows preferable in general work space.

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DETAILED SPACE REQUIREMENTS

INDEX NO: CE 02
DEPARTMENT: Center for Economic Education
SPACE NAME: Center for Economic Education
STATIONS: N/A
ASF: 867

1. Space Description and Design Attributes

2. Utilization
- 8 hours/day
- 14 hours/day
- 24 hours/day

3. Security
- no lock
- key lock
- card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
- Hand sink. Quantity: Type:
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

5. Communications Requirements
- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

6. Power and Lighting Requirements
- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

7. Space Arrangements
- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

Remarks:

8. Built-in Cabinetry
- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish
- Resilient Flooring
- Carpet
- Sealed Concrete
- Other:
- Ceiling Finish
- Exposed Structure
- Acoustic Tile
- Other:
- Wall Finish
- Painted Wallboard
- Wall Covering
- Other:
- Special Considerations:

10. Furnishings / Workstations
- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

Equipment:
COMPONENT DIAGRAM - Center Spaces

INDEX NO.: CE-03
DEPARTMENT: N/A
SPACE NAME: Center for the Study of Emerging Financial Markets
AREA: 2,075 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS:
1. Chair
2. Table
3. Workstation
4. Half-height Partition
5. Copy Machine
6. Bookshelf
7. Overhead Shelf
8. Vertical File Cabinets
9. Lateral File Cabinets
10. Full-height Lateral File Cabinet
11. Work Table
12. White Marker Board
13. Full-height Partition

ADJACENCY:
- Other Centers
- Finance

NOTES:
1. Windows preferable in private offices

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Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO: CE 03  
DEPARTMENT: Center for the Study of Emerging Markets  
SPACE NAME: Center for the Study of Emerging Markets  
STATIONS: N/A  
ASF: 2075

1. Space Description and Design Attributes

2. Utilization
   ■ 8 hours/day
   ❑ 14 hours/day
   ❑ 24 hours/day

3. Security
   ❑ no lock
   ■ key lock
   ❑ card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   ❑ Hand sink. Quantity: Type:
   ❑ Floor Drain(s)
   ❑ Fume/Smoke Exhaust Systems
   ❑ Special Ventilation
   ■ Air Conditioning / Climate Control
   ❑ Humidity control or other special considerations
   ❑ Other:

5. Communications Requirements
   ■ Data Ports. Quantity: Type:
   ❑ Telephone
   ■ CATV
   ❑ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ❑ Task Lighting
   ❑ Other Specialty Lighting:
   ■ Standard convenience outlets
   ❑ Special Power

7. Space Arrangements
   ❑ High Bay. Height in feet:
   ❑ Ground Floor Required:
   ❑ Must be adjacent to:
   ❑ Other:

Remarks:

8. Built-in Cabinetry
   ❑ Lower Cabinets
   ❑ Upper Cabinets
   ❑ Open Shelving
   ❑ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
   ❑ Resilient Flooring
   ■ Carpet
   ❑ Sealed Concrete
   ❑ Other:
   ■ Ceiling Finish
   ❑ Exposed Structure
   ■ Acoustic Tile
   ❑ Other:
   ■ Wall Finish
   ■ Painted Wallboard
   ❑ Wall Covering
   ❑ Other:
   Special Considerations:

10. Furnishings / Workstations
    ❑ Movable tables and chairs or movable desks
    ❑ Fixed table with movable chairs
    ❑ Tablet arm chairs
    ❑ Computer stations: Quantity:
    ❑ No furnishings
    ■ Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    ❑ Covered Area required:
    ❑ Non-covered Area required:
    ❑ Outdoor Storage:
    ❑ Secured by fence (no ceiling)
    ❑ Highly secured by fence (no climbing access)
    ❑ Other:

   Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS:  
1. Chair  
2. Student Desk  
3. Professor Computer  
4. Ceiling Mounted Projector  
5. Projection Screen  
6. White Marker Board

ADJACENCY:  
• Center for the Study of Emerging Financial Markets

NOTES:
DETAILED SPACE REQUIREMENTS

INDEX NO: CE 03B
DEPARTMENT: Center for the Study for Emerging Markets
SPACE NAME: Remote Auditorium
STATIONS: 12
ASF: 690

1. Space Description and Design Attributes

2. Utilization
   ■ 8 hours/day
   ❏ 14 hours/day
   ❏ 24 hours/day

3. Security
   ❏ no lock
   ■ key lock
   ❏ card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   ❏ Hand sink. Quantity: Type:
   ❏ Floor Drain(s)
   ❏ Fume/Smoke Exhaust Systems
   ❏ Special Ventilation
   ■ Air Conditioning / Climate Control
   ❏ Humidity control or other special considerations
   ❏ Other:

5. Communications Requirements
   ■ Data Ports. Quantity: Type:
   ■ Telephone
   ■ CATV
   ■ Other: Data/Computer Projector

6. Power and Lighting Requirements
   ■ General Lighting
   ❏ Task Lighting
   ❏ Other Specialty Lighting:
   ■ Standard convenience outlets
   ❏ Special Power

7. Space Arrangements
   ❏ High Bay. Height in feet:
   ❏ Ground Floor Required:
   ❏ Must be adjacent to:
   ❏ Other:

Remarks:

8. Built-in Cabinetry
   ❏ Lower Cabinets
   ❏ Upper Cabinets
   ❏ Open Shelving
   ❏ Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   Floor Finish
   ❏ Resilient Flooring
   ■ Carpet
   ❏ Sealed Concrete
   ❏ Other:
     Ceiling Finish
     ❏ Exposed Structure
     ■ Acoustic Tile
     ❏ Other:
     Wall Finish
     ■ Painted Wallboard
     ❏ Wall Covering
     ❏ Other:
     Special Considerations:

10. Furnishings / Workstations
    ❏ Movable tables and chairs or movable desks
    ❏ Fixed table with movable chairs
    ❏ Tablet arm chairs
    ❏ Computer stations: Quantity:
    ❏ No furnishings
    ■ Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    ❏ Covered Area required:
    ❏ Non-covered Area required:
    ❏ Outdoor Storage:
    ❏ Secured by fence (no ceiling)
    ❏ Highly secured by fence (no climbing access)
    ❏ Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS:
1. Chair
2. Table
3. Workstation
4. Conference Table
5. Ceiling Mounted Projector
6. Projection Screen
7. Printer
8. Copy Machine
9. Bookshelf
10. Storage Cabinet
11. Overhead Shelf
12. Employee Mailboxes
13. Vertical File Cabinets
14. Lateral File Cabinets
15. White Marker Board
16. Trash/Recycling Bins

ADJACENCY:
1. Finance Department
2. Center Library Reading Room
3. Storage
4. P/T Faculty Office
5. F/T Faculty Office
6. P/T Workstations
7. F/T Workstations
8. Research Lab
9. Library
10. Visiting Faculty Office
11. Lobby
12. Conference Room
13. Director’s Office
14. Associate Director’s Office
15. Assistant Director’s Office

NOTES:
1. Provide wall in lobby for donor plaques.
2. Windows preferred in offices and conference room.
### Detailed Space Requirements

<table>
<thead>
<tr>
<th>INDEX NO:</th>
<th>CE 04</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPARTMENT:</td>
<td>Center for Insurance Studies</td>
</tr>
<tr>
<td>SPACE NAME:</td>
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</tr>
<tr>
<td>ASF:</td>
<td>3470</td>
</tr>
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</table>

#### 1. Space Description and Design Attributes

2. **Utilization**
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. **Security**
   - no lock
   - key lock
   - card key

4. **Mechanical / Plumbing Requirements**
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. **Communications Requirements**
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. **Power and Lighting Requirements**
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. **Space Arrangements**
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. **Built-in Cabinetry**
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. **Finishes / Level of finishes**
   - durability, cleanliness, etc.
   - Floor Finish
   - Resilient Flooring
   - Carpet
   - Sealed Concrete
   - Other:
   - Ceiling Finish
   - Exposed Structure
   - Acoustic Tile
   - Other:
   - Wall Finish
   - Painted Wallboard
   - Wall Covering
   - Other:
   - Special Considerations:

10. **Furnishings / Workstations**
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings – See Component Diagram

11. **Outdoor Requirements**
    - total area, covered, etc.
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

#### Remarks:

### Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
## DETAILED SPACE REQUIREMENTS

**INDEX NO:** CE 05  
**DEPARTMENT:** Center for International Business  
**SPACE NAME:** Center for International Business  
**STATIONS:** N/A  
**ASF:** 695

### 1. Space Description and Design Attributes

#### Utilization
- 8 hours/day  
- 14 hours/day  
- 24 hours/day

### 2. Security
- no lock  
- key lock  
- card key

### 3. Mechanical / Plumbing Requirements
- Hand sink. Quantity: Type:  
- Floor Drain(s)  
- Fume/Smoke Exhaust Systems  
- Special Ventilation  
- Air Conditioning / Climate Control  
- Humidity control or other special considerations  
- Other:

### 4. Communication Requirements
- Data Ports. Quantity: Type:  
- Telephone  
- CATV  
- Other: Data/Computer Projector

### 5. Power and Lighting Requirements
- General Lighting  
- Task Lighting  
- Other Specialty Lighting:  
- Standard convenience outlets  
- Special Power

### 6. Space Arrangements
- High Bay. Height in feet:  
- Ground Floor Required:  
- Must be adjacent to:  
- Other:

### 7. Built-in Cabinetry
- Lower Cabinets  
- Upper Cabinets  
- Open Shelving  
- Specialty Cabinets:

### 8. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish  
- Resilient Flooring  
- Carpet  
- Sealed Concrete  
- Other:  
  - Ceiling Finish  
  - Exposed Structure  
  - Acoustic Tile  
  - Other:  
    - Wall Finish  
    - Painted Wallboard  
    - Wall Covering  
    - Other:  
      - Special Considerations:

### 9. Furnishings / Workstations
- Movable tables and chairs or movable desks  
- Fixed table with movable chairs  
- Tablet arm chairs  
- Computer stations: Quantity:  
- No furnishings  
- Other: Office Furnishings – See Component Diagram

### 10. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:  
- Non-covered Area required:  
- Outdoor Storage:  
- Secured by fence (no ceiling)  
- Highly secured by fence (no climbing access)  
- Other:

### 11. Equipment:

---

College of Business and Economics  
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Cal State, Fullerton
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Chair</td>
<td>- Small Business &amp;</td>
<td>1. Windows preferable in private offices and</td>
</tr>
<tr>
<td>2. Table</td>
<td>Entrepreneurship</td>
<td>conference room.</td>
</tr>
<tr>
<td>3. Workstation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Bookshelf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Overhead Shelf</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Vertical File</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Lateral File</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. White Marker Board</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

College of Business and Economics
RRM DESIGN GROUP

Cal State Fullerton
# DETAILED SPACE REQUIREMENTS

## INDEX NO: CE 06

## DEPARTMENT: Family Business Council

## SPACE NAME: Family Business Council

## STATIONS: N/A

## ASF: 636

## 1. Space Description and Design Attributes

### 2. Utilization
- 8 hours/day
- 14 hours/day
- 24 hours/day

### 3. Security
- no lock
- key lock
- card key

### 4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
- Hand sink. Quantity: Type:
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations

### 5. Communications Requirements
- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

### 6. Power and Lighting Requirements
- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

### 7. Space Arrangements
- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

### 8. Built-in Cabinetry
- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

### 9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish
- Resilient Flooring
- Carpet
- Sealed Concrete
- Other: Ceiling Finish
- Exposed Structure
- Acoustic Tile
- Other: Wall Finish
- Painted Wallboard
- Wall Covering
- Other: Special Considerations:

### 10. Furnishings / Workstations
- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: Office Furnishings – See Component Diagram

### 11. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

#### Equipment:
COMPONENT DIAGRAM - Center Spaces

INDEX NO.: CE-07
DEPARTMENT: N/A
SPACE NAME: Institute for Economic and Environmental Studies
AREA: 1089 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

---

**FURNISHINGS:**

1. Chair
2. Table
3. Workstation
4. Conference Table
5. Ceiling Mounted Projector
6. Projection Screen
7. Printer
8. Copy Machine
9. Bookshelf
10. Storage Cabinet
11. Overhead Shelf
12. Employee Mailboxes
13. Vertical File Cabinets
14. Lateral File Cabinets
15. White Marker Board
16. Trash/Recycling Bins
17. Mini Refrigerator
18. Half-height Partition
19. Full-height Partition

**ADJACENCY:**

- Lower Floor
- Economics

**NOTES:**

1. Windows preferable in private offices.
2. Window preferred in reading area.
3. Provide small kitchenette and refrigerator in reading area.
4. Provide flexibility for increased office space.

---

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DETAILED SPACE REQUIREMENTS

INDEX NO: CE 07
DEPARTMENT: Institute for Economic and Environmental Studies
SPACE NAME: Institute for Economic and Environmental Studies
STATIONS: N/A
ASF: 1089

1. Space Description and Design Attributes

2. Utilization

- 8 hours/day
- 14 hours/day
- 24 hours/day

3. Security

- no lock
- key lock
- card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)

- Hand sink. Quantity: Type:
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

5. Communications Requirements

- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

6. Power and Lighting Requirements

- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

7. Space Arrangements

- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

Remarks:

8. Built-in Cabinetry

- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)

Floor Finish
- Resilient Flooring
- Carpet
- Sealed Concrete
- Other:
- Ceiling Finish
- Exposed Structure
- Acoustic Tile
- Other:
- Wall Finish
- Painted Wallboard
- Wall Covering
- Other:
- Special Considerations:

10. Furnishings / Workstations

- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)

- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS:  
1. Chair  
2. Table  
3. Workstation  
4. Overhead Shelf  
5. Bookshelf  
6. Half-height Partition  
7. Vertical File Cabinet  
8. Lateral File Cabinet  
9. Storage Cabinet

ADJACENCY:  
1. Windows preferable in private offices

NOTES:

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1. Space Description and Design Attributes

2. Utilization
- 8 hours/day
- 14 hours/day
- 24 hours/day

3. Security
- no lock
- key lock
- card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
- Hand sink. Quantity: Type:
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

5. Communications Requirements
- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

6. Power and Lighting Requirements
- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

7. Space Arrangements
- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

Remarks:

8. Built-in Cabinetry
- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish
- Resilient Flooring
- Carpet
- Sealed Concrete
- Other:
- Ceiling Finish
- Exposed Structure
- Acoustic Tile
- Other:
- Wall Finish
- Painted Wallboard
- Wall Covering
- Other:
- Special Considerations:

10. Furnishings / Workstations
- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity:  Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity:  Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
   - Resilient Flooring
   - Carpet
   - Sealed Concrete
   - Other:
   - Ceiling Finish
   - Exposed Structure
   - Acoustic Tile
   - Other:
   - Wall Finish
   - Painted Wallboard
   - Wall Covering
   - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

Equipment:
COMPONENT DIAGRAM - Center Spaces

INDEX NO.: CE-11
DEPARTMENT: Centers of Excellence Shared Spaces
SPACE NAME: Workroom
AREA: 250 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
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<tbody>
<tr>
<td>1. Employee Mail Slots</td>
<td>1. Centers of Excellence</td>
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<tr>
<td>2. Counter Space / Cabinets Below</td>
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<td>3. Upper Cabinets</td>
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<td>4. Full Height Storage Cabinet</td>
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<td>5. Copy Machine</td>
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<td>6. Trash/Recycle Bins</td>
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<td>7. Mail In/Out</td>
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<td>8. Paper Shredder</td>
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<td>9. Sink</td>
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</table>

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Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO: CE 11
DEPARTMENT: Centers of Excellence
SPACE NAME: Workroom
STATIONS: N/A
ASF: 250

1. Space Description and Design Attributes

2. Utilization
- 8 hours/day
- 14 hours/day
- 24 hours/day

3. Security
- no lock
- key lock
- card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
- Hand sink. Quantity: Type:
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

5. Communications Requirements
- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

6. Power and Lighting Requirements
- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

7. Space Arrangements
- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

Remarks:

8. Built-in Cabinetry
- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish
- Resilient Flooring
- Carpet
- Sealed Concrete
- Other:
- Ceiling Finish
- Exposed Structure
- Acoustic Tile
- Other:
- Wall Finish
- Painted Wallboard
- Wall Covering
- Other:
- Special Considerations:

10. Furnishings / Workstations
- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

Equipment:
COMPONENT DIAGRAM - Center Spaces

INDEX NO.: CE-12
DEPARTMENT: Centers of Excellence Shared Spaces
SPACE NAME: Storage
AREA: 150 SF

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
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</thead>
<tbody>
<tr>
<td>1. Work surface / Cabinets / Shelving Below</td>
<td>· Centers of Excellence</td>
<td></td>
</tr>
<tr>
<td>2. Upper Cabinets / Shelving</td>
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<td></td>
</tr>
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</table>

College of Business and Economics
RRM DESIGN GROUP
Cal State Fullerton
INDEX NO: CE 12
DEPARTMENT: Centers of Excellence
SPACE NAME: Storage
STATIONS: N/A
ASF: 150

1. Space Description and Design Attributes

2. Utilization
- 8 hours/day
- 14 hours/day
- 24 hours/day

3. Security
- no lock
- key lock
- card key

4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
- Hand sink. Quantity: Type:
- Floor Drain(s)
- Fume/Smoke Exhaust Systems
- Special Ventilation
- Air Conditioning / Climate Control
- Humidity control or other special considerations
- Other:

5. Communications Requirements
- Data Ports. Quantity: Type:
- Telephone
- CATV
- Other: Data/Computer Projector

6. Power and Lighting Requirements
- General Lighting
- Task Lighting
- Other Specialty Lighting:
- Standard convenience outlets
- Special Power

7. Space Arrangements
- High Bay. Height in feet:
- Ground Floor Required:
- Must be adjacent to:
- Other:

Remarks:

8. Built-in Cabinetry
- Lower Cabinets
- Upper Cabinets
- Open Shelving
- Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish
  - Resilient Flooring
  - Carpet
  - Sealed Concrete
  - Other:
- Ceiling Finish
  - Exposed Structure
  - Acoustic Tile
  - Other:
- Wall Finish
  - Painted Wallboard
  - Wall Covering
  - Other:
  - Special Considerations:

10. Furnishings / Workstations
- Movable tables and chairs or movable desks
- Fixed table with movable chairs
- Tablet arm chairs
- Computer stations: Quantity:
- No furnishings
- Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
- Covered Area required:
- Non-covered Area required:
- Outdoor Storage:
- Secured by fence (no ceiling)
- Highly secured by fence (no climbing access)
- Other:

Equipment:
COMPONENT DIAGRAM - Center Spaces

INDEX NO.: CE-13
DEPARTMENT: Centers of Excellence Shared Spaces
SPACE NAME: Conference Room 16-20
AREA: 636 S.F.

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Conference Table (16-20)</td>
<td>1. Centers of Excellence</td>
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<tr>
<td>2. Display Case / Storage Shelving/ Cabinets</td>
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<td></td>
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<tr>
<td>3. White Board</td>
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<tr>
<td>4. Projection Screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Extra Chairs</td>
<td></td>
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</tbody>
</table>

College of Business and Economics
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Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO:  CE 13
DEPARTMENT:  Centers of Excellence
SPACE NAME:  Conference Room
STATIONS:  N/A
ASF:  636

1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
   - Resilient Flooring
   - Carpet
   - Sealed Concrete
   - Other:
   - Ceiling Finish
   - Exposed Structure
   - Acoustic Tile
   - Other:
   - Wall Finish
   - Painted Wallboard
   - Wall Covering
   - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

Equipment:
COMPONENT DIAGRAM - Center Spaces

INDEX NO.: CE-14
DEPARTMENT: Centers of Excellence Shared Spaces
SPACE NAME: Conference Room 6-8
AREA: 153 SF

This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS:</th>
<th>ADJACENCY:</th>
<th>NOTES:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Chair</td>
<td>• Centers of Excellence</td>
<td></td>
</tr>
<tr>
<td>2. Meeting Table</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Ceiling Mounted Projector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Projection Screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. White Marker Board</td>
<td></td>
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</tbody>
</table>

College of Business and Economics
RRM DESIGN GROUP
Cal State Fullerton
DETAILED SPACE REQUIREMENTS

INDEX NO: CE 14
DEPARTMENT: Centers of Excellence
SPACE NAME: Conference Room
STATIONS: N/A
ASF: 153

1. Space Description and Design Attributes

2. Utilization
- 8 hours/day
- 14 hours/day
- 24 hours/day

3. Security
- no lock
- key lock
- card key

4. Mechanical / Plumbing Requirements
   (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector
   Video tie to selected break-out rooms

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

   Remarks:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
   - Resilient Flooring
   - Carpet
   - Sealed Concrete
   - Other:
   - Ceiling Finish
   - Exposed Structure
   - Acoustic Tile
   - Other:
   - Wall Finish
   - Painted Wallboard
   - Wall Covering
   - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings – See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

   Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

<table>
<thead>
<tr>
<th>FURNISHINGS</th>
<th>ADJACENCY</th>
<th>NOTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Fixed Lectern/Computer Station</td>
<td>1. Centers of Excellence</td>
<td></td>
</tr>
<tr>
<td>2. Moveable Demonstration Table</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Fixed Tables, Moveable Chairs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. White Markerboard</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Projection Screen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Ceiling Mounted Projector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INDEX NO:</td>
<td>CE 15</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>DEPARTMENT:</td>
<td>Centers of Excellence</td>
<td></td>
</tr>
<tr>
<td>SPACE NAME:</td>
<td>Tiered Classroom</td>
<td></td>
</tr>
<tr>
<td>STATIONS:</td>
<td>72</td>
<td></td>
</tr>
<tr>
<td>ASF:</td>
<td>1907</td>
<td></td>
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</tbody>
</table>

1. **Space Description and Design Attributes**

2. **Utilization**
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. **Security**
   - no lock
   - key lock
   - card key

4. **Mechanical / Plumbing Requirements** (sinks, ventilation, drains, etc.)
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. **Communications Requirements**
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. **Power and Lighting Requirements**
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. **Space Arrangements**
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. **Built-in Cabinetry**
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. **Finishes / Level of finishes (durability, cleanliness, etc.)**
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
     - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
     - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
     - Special Considerations:

10. **Furnishings / Workstations**
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings – See Component Diagram

11. **Outdoor Requirements (total area, covered, etc.)**
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
    - Secured by fence (no ceiling)
    - Highly secured by fence (no climbing access)
    - Other:

**Equipment:**

---

College of Business and Economics  Cal State, Fullerton
RRM Design Group
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.
### Detailed Space Requirements

**INDEX NO:** OTH 01  
**DEPARTMENT:** N/A  
**SPACE NAME:** Food Service  
**STATIONS:** N/A  
**ASF:** 2500

### 1. Space Description and Design Attributes

### 2. Utilization
- ■ 8 hours/day
- ❏ 14 hours/day
- ❏ 24 hours/day

### 3. Security
- ❏ no lock
- ■ key lock
- ❏ card key

### 4. Mechanical / Plumbing Requirements (sinks, ventilation, drains, etc.)
- ❏ Hand sink. Quantity: Type:
- ❏ Floor Drain(s)
- ❏ Fume/Smoke Exhaust Systems
- ❏ Special Ventilation
- ■ Air Conditioning / Climate Control
- ❏ Humidity control or other special considerations
- ❏ Other:

### 5. Communications Requirements
- ■ Data Ports. Quantity: Type:
  - ■ Telephone
  - ❏ CATV
  - ❏ Other: Data/Computer Projector
  - ❏ Wired to each station

### 6. Power and Lighting Requirements
- ■ General Lighting
- ■ Task Lighting
- ■ Other Specialty Lighting:
  - ■ Standard convenience outlets
  - ❏ Special Power

### 7. Space Arrangements
- ❏ High Bay. Height in feet:
- ❏ Ground Floor Required:
- ❏ Must be adjacent to: Dean
- ❏ Other:

### 8. Built-in Cabinetry
- ❏ Lower Cabinets
- ❏ Upper Cabinets
- ❏ Open Shelving
- ❏ Specialty Cabinets:

### 9. Finishes / Level of finishes (durability, cleanliness, etc.)
- Floor Finish
  - ■ Resilient Flooring
  - ❏ Carpet
  - ❏ Sealed Concrete
  - ❏ Other:
- Ceiling Finish
  - ❏ Exposed Structure
  - ■ Acoustic Tile
  - ❏ Other:
- Wall Finish
  - ■ Painted Wallboard
  - ❏ Wall Covering
  - ❏ Other:

### 10. Special Considerations:
- Other:

### 11. Furnishings / Workstations
- ■ Movable tables and chairs or movable desks
- ❏ Fixed table with movable chairs
- ❏ Tablet arm chairs
- ❏ Computer stations: Quantity:
  - ❏ No furnishings
  - ❏ Other: Office Furnishings

### 12. Outdoor Requirements (total area, covered, etc.)
- ❏ Covered Area required:
- ❏ Non-covered Area required:
- ❏ Outdoor Storage:
  - ❏ Secured by fence (no ceiling)
  - ❏ Highly secured by fence (no climbing access)
- ❏ Other:

### Equipment:
This diagram is conceptual and is provided only to indicate required furnishings, equipment, and general room proportions. The actual room design may change.

FURNISHINGS:  
1. Shelving Unit  
2. Oversized Material Storage Unit  
3. Display Table  
4. Check-out Counter  
5. Cash Register  
6. Display Rack

ADJACENCY:  
1. Outside Classroom

College of Business and Economics  
RRM DESIGN GROUP  
Cal State Fullerton
1. Space Description and Design Attributes

2. Utilization
   - 8 hours/day
   - 14 hours/day
   - 24 hours/day

3. Security
   - no lock
   - key lock
   - card key

4. Mechanical / Plumbing Requirements
   - Hand sink. Quantity: Type:
   - Floor Drain(s)
   - Fume/Smoke Exhaust Systems
   - Special Ventilation
   - Air Conditioning / Climate Control
   - Humidity control or other special considerations
   - Other:

5. Communications Requirements
   - Data Ports. Quantity: Type:
   - Telephone
   - CATV
   - Other: Data/Computer Projector

6. Power and Lighting Requirements
   - General Lighting
   - Task Lighting
   - Other Specialty Lighting:
   - Standard convenience outlets
   - Special Power

7. Space Arrangements
   - High Bay. Height in feet:
   - Ground Floor Required:
   - Must be adjacent to:
   - Other:

8. Built-in Cabinetry
   - Lower Cabinets
   - Upper Cabinets
   - Open Shelving
   - Specialty Cabinets:

9. Finishes / Level of finishes (durability, cleanliness, etc.)
   - Floor Finish
     - Resilient Flooring
     - Carpet
     - Sealed Concrete
     - Other:
   - Ceiling Finish
     - Exposed Structure
     - Acoustic Tile
     - Other:
   - Wall Finish
     - Painted Wallboard
     - Wall Covering
     - Other:
   - Special Considerations:

10. Furnishings / Workstations
    - Movable tables and chairs or movable desks
    - Fixed table with movable chairs
    - Tablet arm chairs
    - Computer stations: Quantity:
    - No furnishings
    - Other: Office Furnishings - See Component Diagram

11. Outdoor Requirements (total area, covered, etc.)
    - Covered Area required:
    - Non-covered Area required:
    - Outdoor Storage:
      - Secured by fence (no ceiling)
      - Highly secured by fence (no climbing access)
    - Other:

Remarks:

Equipment:
C - Secondary Effects
Secondary Effects

Langsdorf Hall
Langsdorf Hall was built in 1968. With the CBE’s growing student enrollment, rapidly advancing technology and the new learning pedagogy required to meet the needs of future students, Langsdorf Hall has three significant deficiencies: (1) it is already too small for the current student enrollment that has been forced to spread all across the campus; (2) it has a highly limited ability to update or expand classroom to accommodate required technology or new instructional pedagogy; and, (3) poor traffic flow between floors and between classrooms and professors’ offices creates heavy congestion and crowding.

Renovation - Secondary Effect
Once the College of Business & Economics is relocated to their new facility, Langsdorf Hall will be renovated. The current anticipated break down of the academic spaces to be included are (for a total of 1822 FTEs) is:
- 11,734 ASF Lecture
- 2,760 ASF Lecture service
- 4,651 ASF Self Instruction Computer Lab

Renovation Graphics
The following scope of work descriptions and graphics are a preliminary evaluation only. Programming of anticipated functions to be located within the building and further study of the existing systems is still required.

General
As a part of the renovation work, the existing mechanical, electrical, and data systems will be upgraded. The remaining renovations are dependent upon the scope of the remodel and are as follows:

First Floor
Renovations to the first floor will be to accommodate additional office space for Admissions and Records. The anticipated scope of renovations is:
• Necessary alterations to existing office space,
• Upgrade of finishes to existing interior stair wells and corridors,

Graphic representation of the scope of renovations to occur on the first floor of Langsdorf Hall
Second Floor
Renovations to the second floor will be to accommodate additional office space for Admissions and Records and for expanded food service. The anticipated scope of renovations is:

- Necessary alterations to existing office space,
- Upgrade of finishes to existing interior stair wells and corridors,

Third Floor
Renovations to the third floor will be minimal. The anticipated scope of renovations is:

- Upgrade of finishes to existing interior stair wells and corridors,
- Upgrades to the existing restrooms to meet accessibility requirements
- Infrastructure upgrades to mechanical, electrical, and telecommunications
Fourth and Fifth Floor
Renovations to the fourth and fifth floors will be to accommodate office space for Student Affairs. The anticipated scope of renovations is:
• Necessary alterations to existing office space,
• Upgrade of finishes to existing interior stair wells and corridors,
• Upgrades to the existing restrooms to meet accessibility requirements

Sixth and Seventh Floor
Renovations to the sixth and seventh floors will be to accommodate office space for the Vice President of Administration. The anticipated scope of renovations is:
• Necessary alterations to existing office space,
• Upgrade of finishes to existing interior stair wells and corridors,
• Upgrades to the existing restrooms to meet accessibility requirements
Eighth and Ninth Floor
Renovations to the eighth and ninth floors will be to accommodate office space for the University President. The anticipated scope of renovations is:

- Necessary alterations to existing office space,
- Upgrade of finishes to existing interior stair wells and corridors,
- Upgrades to the existing restrooms to meet accessibility requirements

Graphic representation of the scope of renovations to occur on the eighth and ninth floors of Langsdorf Hall
D - Geotechnical Study
CCOC Project No. 89-32245-01
April 10, 1990

REPORT OF GEOTECHNICAL EXPLORATION
PROPOSED CLASSROOM/OFFICE BUILDING
CALIFORNIA STATE UNIVERSITY,
FULLERTON CAMPUS
FULLERTON, CALIFORNIA

Prepared For:
CALIFORNIA STATE UNIVERSITY ARCHITECT
Physical Planning and Development
P.O. Box 3502
Seal Beach, California 90740-7502

PREPARED BY: Ben P. Lin - Senior Staff Engineer

APPROVED BY: Thomas J. Scheil - Vice President & Principal Engineer

OFFICE SET
DESIGN & CONSTRUCTION
CALIFORNIA STATE UNIVERSITY, FULLERTON
April 10, 1990

Mr. Jay Bond
California State University Architect
Physical Planning and Development
P.O. Box 3502
Seal Beach, California 90740-7502

Subject: Proposed Classroom/Office Building
California State University, Fullerton Campus
Fullerton, California
(CCOC Project No. 89-32245-01)

Dear Mr. Bond:

Presented herein are the results of our geotechnical exploration performed for the proposed Classroom/Office Building to be located at California State University in Fullerton, California. This work was conducted in accordance with our proposal dated December 22, 1989, which was accepted by you on February 5, 1990.

Thank you for the opportunity of working with you on this project. If there are any questions, please contact us. We look forward to assisting you during site grading and foundation construction.

Yours truly,

CONVERSE CONSULTANTS ORANGE COUNTY

Ben P. Lin
Senior Staff Engineer
BPL/TJS:rmh
Dist:(5) Addressee

Thomas J. Scheil, R.G.E. 753
Vice President & Principal Engineer

Registered Professional Engineer
No. GE753
Exp. 6-3-92
STATE OF CALIFORNIA
GEOTECHNICAL
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A  Field Exploration .......................... A-1 through A-19
B  Laboratory Testing .......................... B-1 through B-15
INTRODUCTION

This report presents the results of our geotechnical exploration performed for the proposed Classroom/Office Building planned for California State University Campus in Fullerton, California, as shown on Figure No. 1, Site Map.

PROJECT DESCRIPTION

It is our understanding that the proposed construction will include a 2 to 5-story steel frame building about 25,000 square feet in plan dimensions. A basement will be provided in the northwest corner of the building for access to the existing utility tunnel. The basement floor will be about 14 feet below grade for access to the utility tunnel. The remaining site area will be landscaped or paved walkways. Maximum and minimum column loads for various portions of the structure follow:

<table>
<thead>
<tr>
<th>NO. OF STORIES</th>
<th>COLUMN LOADS, KIPS</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>MINIMUM</td>
</tr>
<tr>
<td>2</td>
<td>40</td>
</tr>
<tr>
<td>3</td>
<td>50</td>
</tr>
<tr>
<td>5</td>
<td>125</td>
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</table>

Site grading is expected to consist of excavation for the lower level, backfill for the structure and related new utilities, and a cut and fill operation to establish grade for the building pad and site drainage. Permanent cut and fill depths are expected to be less than 2 feet.

PURPOSE AND SCOPE OF STUDY

The purposes of this study were to: (1) obtain information on the subsurface conditions within the project area, (2) evaluate the data, and (3) provide conclusions and recommendations for design and construction of the facilities as influenced by the subsurface conditions.
U.S.G.S., La Habra Quadrangle, 1964 (Photorevised 1981)
U.S.G.S., Orange Quadrangle, 1964 (Photorevised 1981)

Scale: 1" = 2000'

Note: Map may be distorted due to reproduction process.
To accomplish these objectives, we:

1. Collected and reviewed project data available to us and prepared an exploration program.

2. Engaged a contractor to perform 5 test borings, located the borings in the field, and provided full-time observation of the contractor's work.

3. Performed laboratory tests to aid in classification of the materials sampled and to obtain information on their engineering properties.

4. Correlated, interpreted, analyzed, and evaluated the data obtained, and prepared this report of our conclusions and recommendations.

FIELD EXPLORATION AND LABORATORY TESTING

Field Exploration
A total of 5 test borings were excavated on the site at the locations shown on Drawing No. 1, entitled Location of Borings. Boring locations were based on the structure configuration shown in the Site Plan, undated, prepared by Dworsky Associates, Inc., Architects, Los Angeles, California. The borings were drilled with a hollow-stem auger drill rig to depths ranging from 40 to 70 feet. Logs of the subsurface conditions as encountered in the test borings were recorded at the time of excavation and are presented on the boring logs included in Appendix A. Relatively undisturbed and bulk samples of subsurface materials were obtained at appropriate intervals below the ground surface and were taken to the laboratory for observation and testing. A brief description of the drilling and sampling operation is included in Appendix A.

Laboratory Testing
Representative samples were tested in the laboratory to determine engineering properties of the soils. Laboratory tests included unit weight, moisture content, maximum density and optimum moisture content, shear strength, consolidation, expansion index, and sulfate content tests on selected samples. Detailed descriptions of the laboratory tests are presented in Appendix B along with the tabulated test results.
SITE AND SUBSURFACE CONDITIONS

Site Description
The site is located north on Langsdorf Hall, west of McCarthy Hall and south of the Humanities and Science Building. The site is relatively level and is covered with landscaped, lawn areas, and concrete walkways.

Review of available plans indicate that several utilities traverse the site including storm, water, electric, irrigation, gas and sewer lines. A utility tunnel about 6 to 8 feet wide and about 6-10 feet deep is located west and north of the proposed Classroom/Office Building.

The elevation of the site was estimated to be about +236 feet (above MSL). This elevation was approximated using the United States Geologic Survey 7.5 minute La Habra, California quadrangle map (1964, photo revised 1981).

Subsurface Conditions
The subsurface conditions at the boring locations generally consisted of miscellaneous fill underlain by alluvial sediments to a maximum depth of 70 feet.

Miscellaneous fill, ranging from 1 to 3 feet in thickness, was encountered in test borings B2, B3 and B4 and consisted of loose to medium dense clayey sand and silty sand. The alluvial deposits consisted of loose to medium dense sand, clayey sand and silty sand and stiff to hard sandy silt to depths of 20 to 25 feet underlain by medium dense to dense sand and silty sand and stiff to hard sandy clay, clay and sandy silt.

Results of laboratory tests indicate the alluvial to have dry densities ranging from 89 and 110 pcf with an average of about 101 pcf. Moisture contents for the same soils ranged from 4 and 23 percent with an average of about 13 percent. Laboratory tests also indicate that the upper alluvial soils are prone to hydroconsolidation, i.e. collapse upon addition of water, up to about 3% of the stratum thickness.

Groundwater
Groundwater or seepage was not encountered in our test borings and is anticipated to be greater than 80 feet. The groundwater conditions noted above reflect those observed at the time of our field investigation.
Generally, seasonal and long-term fluctuations in the groundwater level may occur as a result of differences in subsurface stratification, rainfall, runoff conditions, and other factors. Therefore, variations from our observations may occur.

ENGINEERING EVALUATION, CONCLUSIONS, AND RECOMMENDATIONS

Based on the results of our field exploration and laboratory tests, combined with engineering analysis and our experience and judgment, it is our professional opinion that the site may be developed essentially as planned, provided the site grading and foundation criteria discussed herein are incorporated into the project plans and specifications and implemented during construction.

Our exploration indicated, however, that the upper 20 to 25 feet of soils are in a loose or soft condition, and are prone to hydroconsolidation. Therefore, in our opinion these soils are not suitable in their present condition for the support of the structure on conventional spread footings, without the potential for detrimental settlement occurring. Based on the variation in column loads within the structure and the potential for relatively large differential settlements, we recommend that the proposed classroom/office building be supported on a deep foundation system consisting of drilled cast-in-place or driven piles deriving their support in the competent soils below a depth of about 25 feet. The floor slabs may be placed on grade without pile support.

Site Grading
Recommended site preparation procedures include removal of vegetation, uncompacted fill, near-surface disturbed soils, debris, and all existing or abandoned utilities to at least 5 feet beyond the building limits of all proposed structures.

The on-site soils are in a loose/soft condition and we therefore recommend that these soils in the building areas and to at least 5 feet beyond the building limits be excavated and replaced with at least 2 feet of properly compacted fill beneath all floor slabs and grade beams. This includes the floor slab in the lower level as well.
The on-site soils are considered suitable for reuse as compacted fill provided they are free of debris, organic matter, or deleterious materials. Any soils imported to the site should be non-expansive (Expansion Index less than 30) and be approved by the Geotechnical Engineer or his representative.

Prior to placing any fill, the exposed surface should be scarified to a minimum depth of 6 inches, moisture-conditioned to near optimum moisture content and compacted to a minimum relative compaction of 90% (ASTM: D1557).

Properly compacted fill material is defined as fill placed in lifts not exceeding 8 inches in loose thickness, properly moisture conditioned and compacted to at least 90 percent of the maximum dry density as determined by ASTM Test Method D1557. On-site materials should be compacted with the water content within 2 percent of the optimum as determined from ASTM Test Method D1557. The placement and compaction of all fill should be performed under the observation of and testing by the Geotechnical Engineer's representative.

The shrinkage due to removal and recompaaction of the on-site soils within about the top 10 ft. depth is estimated to be approximately 13 to 24 percent. For estimating purposes, we recommend that a shrinkage factor of about 20 be used. The amount of shrinkage will vary with depth of removal, stripping loss, and actual field conditions at the time of grading. Shrinkage figures should therefore be considered rough estimates only and should be confirmed in the field during grading.

Foundations
The proposed Classroom/Office Building should be supported on a deep foundation system consisting of drilled cast-in-place piles or driven piles founded in the competent alluvial deposits commencing at a depth of about 25 feet below existing site grade. Review of available plans indicate that cast-in-place piles are consistent with the foundation systems for nearby Langsdorf Hall, McCarthy Hall, and the Humanities and Science Building. Driven piles will result in vibrations and could result in densification of loose upper soils in the immediate areas, possibly causing distress with existing improvements and slabs supported on grade. Therefore, we recommend that the proposed building be supported on a cast-in-place pile foundation system. The design criteria for driven piles will be provided upon request. Allowable capacities for isolated 18-inch- and 24-inch-diameter drilled cast-in-place piles are presented on Figure No. 2.
ALLOWABLE AXIAL LOAD PER SINGLE DRILLED PILE (kips)

Notes:
1. The allowable capacity is for dead plus live load and may be increased one third for combined dead, live and transient loads.
2. Resistance to uplift may be assumed to be one half the values indicated.
3. Single capacities should be reduced for group action in accordance with an appropriate efficiency formula as described in text.

DRILLED CAST-IN-PLACE PILE DESIGN CURVES

Classroom/Office Building
California State University Fullerton, Fullerton, California
For: California State University Architect

Converse Consultants | Structural Engineering
Our recommendations regarding drilled cast-in-place pile design capacities are based on a safety factor of 3 against shear failure. The settlement of a single drilled cast-in-place pile is expected to be about 1/4 inch.

The vertical drilled cast-in-place pile design capacities may be increased by 33% to resist total downward vertical loads, which include a transient component, such as loads due to wind forces or seismic shaking. Pile uplift design capacities may be taken as 50% of the vertical downward pile design values shown.

The center-to-center spacing between piles should not be less than 2 times the pile diameter. Allowable axial loads of pile groups with center-to-center pile spacing of less than 3 pile diameters should be determined by incorporating an efficiency reduction factor with the allowable axial loads for single piles. A group reduction factor can be provided on request.

The weight of the pile may be assumed to be carried in end bearing provided the bottom of the excavation is relatively free of loose or disturbed material at the time the concrete is placed.

**Drilled Cast-In-Place Pile Installation**

Piles should be drilled with a bucket or auger type drilling rig. Material resulting from the drilling operation should be removed from the site or placed in a location designated by the Architect. It is recommended that drilled excavations not be left open overnight.

Based on our exploration results, the upper 20± feet of soils are loose silty sands and may result in caving during pile installation. We recommend that temporary casing be used to support the side walls of the hole and to prevent sloughing. Casing wall thickness should be sufficient to withstand all forces without appreciable distortion. Excessively loose material and any water should be removed from the hole immediately before placing concrete. All drilled excavations should be observed by this office prior to placing any steel and concrete.

Concrete placement should commence as soon as possible after the drilling and clean-out is completed, and should progress in a continuous operation so that not more than one hour elapses between beginning and completion of the pouring of any pile.
Piles which are closer than eight feet (between perimeters) should be drilled and poured before an adjoining pile hole is drilled. A minimum of four hours should elapse between the completion of a concrete pour and the drilling of an adjoining pile.

To prevent segregation, concrete should not be dropped vertically without a tremie. As concrete is placed, the casing, if used, should be maintained a sufficient distance below the top of the concrete during pouring to prevent infiltration of the surrounding soil into the pile excavation.

The reinforcing cage should be placed and secured symmetrically around the axis of the pile and should be securely blocked from the sides of the hole. The concrete should be vibrated to the depths of the reinforcing cage. Converse Consultants Orange County should be present during the installation of the piles to observe drilling, clean out, and concreting.

Floor Slabs
The building slabs including the lower level slab should be supported on grade on at least 24 inches of properly compacted fill. Our laboratory tests indicate that the upper soils have a low expansion potential (E.I. = 42). Slabs supported on compacted fill must be adequately reinforced in both directions or sectionalized with structural separations to control cracking. The structural details, such as slab thickness, concrete strength, amount and type of reinforcing steel, and joint spacing, should be established by the project structural engineer considering the loading and the expansion potential of the subgrade soils.

We recommend that a moisture barrier, consisting of a minimum 8-mil thick visqueen be used under the building floor slab to reduce the potential for moisture migration up through the slab and affecting floor coverings. The moisture barrier should be covered with 2 inches of coarse sand to facilitate concrete curing and to protect the visqueen.

Lateral Loads
Resistance to lateral loads can be assumed to be provided by passive earth pressure and by friction acting on structural components in permanent contact with the subgrade soils.
For undisturbed natural soil or properly compacted backfill, passive earth pressure on the sides of footings, grade beams or pile caps may be assumed equal to that exerted by an equivalent fluid weighing 300 pcf, subject to a maximum pressure of 2000 psf. A coefficient of friction of 0.40 may be assumed with dead load forces of slab-on-grade or footings in permanent contact with subgrade soils. No friction is allowed for pile supported structural components.

Lateral load capacity for drilled cast-in-place piles and related structural information follows:

**TABLE 1**

**LATERAL LOAD PILE DESIGN CRITERIA**

<table>
<thead>
<tr>
<th></th>
<th>PILE DIAMETER</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>18 INCH</td>
<td>24 INCH</td>
<td></td>
</tr>
<tr>
<td><strong>FREE HEAD</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Capacity, P (Kips)</td>
<td>6.5</td>
<td>10.4</td>
<td></td>
</tr>
<tr>
<td>Maximum Moment (Ft. Kips)</td>
<td>4.1P</td>
<td>5.2P</td>
<td></td>
</tr>
<tr>
<td>Depth to Maximum Moment (Ft.)</td>
<td>6.7</td>
<td>8.5</td>
<td></td>
</tr>
<tr>
<td>Depth to Zero Moment (Ft.)</td>
<td>21.5</td>
<td>28.7</td>
<td></td>
</tr>
<tr>
<td><strong>FIXED HEAD</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lateral Capacity, P (Kips)</td>
<td>16.2</td>
<td>25.7</td>
<td></td>
</tr>
<tr>
<td>Maximum Negative Moment (Ft. Kips)</td>
<td>-4.8P</td>
<td>-6.1P</td>
<td></td>
</tr>
<tr>
<td>Maximum Positive Moment (Ft. Kips)</td>
<td>1.35P</td>
<td>1.7P</td>
<td></td>
</tr>
<tr>
<td>Depth to Maximum Negative Moment (Ft.)</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Depth to Maximum Positive Moment (Ft.)</td>
<td>10.8</td>
<td>13.6</td>
<td></td>
</tr>
<tr>
<td>Depth to Inflection Point (Ft.)</td>
<td>6.2</td>
<td>7.8</td>
<td></td>
</tr>
<tr>
<td>Depth to Zero Moment (Ft.)</td>
<td>6.2, 24.2</td>
<td>7.8, 30.5</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**  
1) Lateral capacity is based on 1/4-inch lateral deflection at pile cap and may be increased by 33 percent for short durations of loading, which includes the effect of wind and seismic forces.

2) Moment is for the horizontal load, P, in kips applied at the pile cap.
Retaining or Basement Walls

The earth pressure behind any buried walls depends primarily on the allowable wall movement, type of backfill materials, backfill slopes, wall inclination, surcharges, and any hydrostatic pressure. The following equivalent fluid pressures are recommended for vertical walls with no hydrostatic pressure, no surcharge, and level backfill:

<table>
<thead>
<tr>
<th>Wall Movement</th>
<th>Silty Sand</th>
<th>Select Sand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free to Deflect</td>
<td>35</td>
<td>30</td>
</tr>
<tr>
<td>Restrained</td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

These values are applicable for backfill placed between the wall stem and an imaginary plane rising at 45 degrees from below the edge (heel) of the wall footings. The surcharging effect of anticipated adjacent loads on the wall backfill (e.g., traffic, footings) should be included in the wall design. Depending on whether the wall is free to deflect or restrained, 35 or 50 percent, respectively, of a maximum surcharge load located within a distance equal to the height of the wall should be used in design for lateral earth pressures.

Except for the upper 2 feet, the soil immediately adjacent to backfilled retaining walls (minimum horizontal distance of about 2 feet measured perpendicular to the wall) should be free-draining. Crushed stone protected from clogging with the use of synthetic fabric between the natural soil and the gravel may be used. The use of a synthetic fabric and a drainage medium, e.g. Miradrain may also be used. For lower level basement walls, a perimeter drain, surrounded by 3/4 or 3/8 inch crushed stone surrounded by a filter cloth, is recommended. This drain should lead to a sump or nearby storm drain. Weep holes and/or drain pipes should be installed at the base of retaining walls.

Soil Sulfates

The laboratory test on a near-surface soil sample from Boring No. 1 indicated a sulfate concentration of 330 ppm. Soils with sulfate concentrations less than 1000 ppm are generally reported to have a low corrosive effect on foundation concrete. Type I or Type II Portland cement may be used for concrete in contact with these soils. This should be continued by additional sulfate testing during or upon completion of site grading.
Consideration should be given to retaining a Corrosion Engineer to evaluate the corrosion potential of any proposed subsurface piping or other metallic installation, e.g. tanks. This geotechnical exploration and soil testing did not address soil corrosivity.

**Liquefaction Potential**
The term "liquefaction" describes a phenomenon in which a saturated cohesionless soil loses strength and acquires a degree of mobility as a result of strong ground shaking during an earthquake. The factors known to influence liquefaction potential include soil type and depth, grain size, relative density, groundwater level, degree of saturation, and both the intensity and duration of ground shaking.

During our field exploration, free groundwater was not encountered to the maximum explored depth of 10 feet below the existing grade and is expected to be greater than 80 feet. Based on published data (Seed and Idriss, 1982), it is our opinion that the potential for liquefaction as a result of seismic shaking is considered to be low.

**Surface Drainage**
Surface grades adjacent to structures should be designed to facilitate drainage away from the structures. Landscaped areas should be designed with a minimum slope of 2 percent. Desirable slopes in paved areas are at least 1 percent. In addition, the following drainage recommendations should be incorporated into the final grading and landscaping design:

1. Special attention should be directed towards proper drainage around the buildings. The grounds should slope away from the buildings at a minimum grade of 2 percent.

2. Planters with solid bottoms and a drainage pipe away from the structure should be used when planting is required in close proximity to the structures.
Utilities
The on-site soils may be used for backfill of utility trenches from one foot above the top of the pipe to the surface, provided the material is free of organic matter and deleterious substances. Any soft and/or unstable material encountered at pipe invert should be removed and replaced with a properly compacted fill or an adequate bedding material.

The on-site granular soils are considered suitable for bedding or shading of utilities. Imported materials for this purpose should be non-expansive granular soils (Sand Equivalent greater than 30). Trench backfill soils should be compacted to at least 90 percent of the maximum dry density as determined by ASTM Test Method D1557.

Flatwork
Concrete surfacing or walkways may be placed on the existing soils after a minimum of 12 inches of the existing fill or natural material is removed and replaced as compacted fill. Prior to replacing the excavated material, the exposed surface should be compacted with mechanical equipment. A minimum of 90% relative compaction (ASTM: D1557) is recommended for the exposed subgrade and compacted fill.

Plan Review, Observations and Testing
As foundation and grading plans are completed, they should be forwarded to the Geotechnical Engineer for review for conformance with the intent of these recommendations. All grading and fill compaction should be performed under the observation of, and testing by, the Geotechnical Engineer or his representative. All pile excavations should be observed prior to placing steel and concrete to verify that satisfactory soils are encountered and that the excavations are free of loose and disturbed materials.

Closure
This report has been prepared for the exclusive use of the California State University Architect relative to the design and construction of the proposed structure. It is recommended that we be engaged to review the final design drawings and specifications prior to construction. This is to verify that the recommendations contained in this report have been properly interpreted and are
incorporated into the project specifications. If we are not accorded the opportunity to review these documents, we can take no responsibility for misinterpretation of our recommendations.

We recommend that Converse Consultants Orange County be retained to provide soil engineering services during performance of the excavation and foundation phases of the work. This is to observe compliance with the design, specifications, and recommendations and to allow design changes in the event that subsurface conditions differ from those anticipated prior to the start of construction.

The findings of this report are based upon our evaluation and interpretation of the subsurface conditions encountered in the exploratory borings and the results of the laboratory testing program. The soil conditions on the subject site have only been determined at the specific boring locations. Conditions between or beyond the borings may vary significantly, and interpretation or extrapolation of the results may not be appropriate, especially at shallow depths.

If the project plans change significantly (e.g., building loads or type of structures), we should be retained to review our original design recommendations and their applicability to the revised construction. If conditions are encountered during construction that appear to be different than those indicated in this report, this office should be notified immediately. Design and construction revisions may be required.

Our findings and recommendations were obtained in accordance with generally accepted professional principles and practice in geotechnical engineering. We make no other warranty, either express or implied.
SELECTED REFERENCES


EXPLANATION

B-5  Number and approximate location of boring

Note: This drawing is part of Converse Consultants Orange County project number 89-32245-01 and report dated 4/10/90.

LOCATION OF BORINGS

<table>
<thead>
<tr>
<th>Proposed Classroom/Office Building</th>
<th>Date as shown</th>
<th>Project No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>California State University - Fullerton</td>
<td>4/10/90</td>
<td>89-32245-01</td>
</tr>
<tr>
<td>Fullerton, California</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For: California State University</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Site Plan, undated
Prepared by Dworsky Associates, Inc
Los Angeles, California

Converse Consultants Orange County

[Diagram showing various buildings with story counts and location of borings marked with B-1 to B-5]
APPENDIX A
FIELD EXPLORATION
FIELD EXPLORATION

The field exploration included a site reconnaissance and subsurface drilling. During the site reconnaissance, the site subsurface conditions were noted and the approximate locations of the test borings were determined.

The test borings were advanced using a hollow-stem auger drill rig equipped with 8-inch-diameter hollow-stem augers for soil sampling. The soils were continuously logged by technical personnel from our office, and visually classified in the field in general accordance with the Unified Soil Classification System.

Relatively undisturbed samples of the subsurface soils were obtained at appropriate intervals in the boring using a drive sampler (2 1/2-inches inside diameter, 3-inches outside diameter) lined with sample rings. The sampler was driven into the bottom of the borehole with successive drops of a 140-lb hammer falling 30 inches. The blows for each six inches of penetration were recorded and are shown on the Boring Logs. The soil was retained in the brass rings of 2.50 inches in diameter and 1.00 inch in height.

Where noted on the boring logs, standard penetration test (SPT) samples were obtained using a 32-inch long split-spoon sampler, 2 inches outside diameter, driven with successive drops of a 140-lb hammer falling 30 inches. The blows were recorded for each 6 inches of penetration for a total penetration of 18 inches. The sum of the number of flows for the last 12 inches of an 18-inch penetration is referred to as the "N" value.

A key to soil symbols and terms, and logs of the borings are presented in the following pages of this Appendix. Laboratory data are tabulated in Appendix B.
### Key to Soil Symbols and Terms

#### Terms Describing Density and Consistency

**Coarse Grained Soils** (major portion retained on No. 200 sieve) include (1) clean gravels, (2) silty or clayey gravels, and (3) silty, clayey or gravelly sands. Relative density is related to SPT blow count corrected for overburden pressure or drive energy.

<table>
<thead>
<tr>
<th>Consistency</th>
<th>Shear Strength (kN/m²)</th>
<th>SPT N' Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Soft</td>
<td>less than 0.25</td>
<td>0 - 2</td>
</tr>
<tr>
<td>Soft</td>
<td>0.25 to 0.50</td>
<td>2 - 4</td>
</tr>
<tr>
<td>Firm</td>
<td>0.50 to 1.00</td>
<td>4 - 8</td>
</tr>
<tr>
<td>Stiff</td>
<td>1.00 to 2.00</td>
<td>8 - 15</td>
</tr>
<tr>
<td>Very Stiff</td>
<td>2.00 to 4.00</td>
<td>15 - 32</td>
</tr>
<tr>
<td>Hard</td>
<td>4.00 and higher</td>
<td>&gt;32</td>
</tr>
</tbody>
</table>

**Fine Grained Soils** (major portion passing No. 200 sieve) include (1) inorganic and organic silts and clays, (2) gravelly, sandy, or silty clays, and (3) clayey silts. Consistency is rated according to shear strength, as indicated by penetrometer readings, direct shear, or SPT blow count.

<table>
<thead>
<tr>
<th>Consistency</th>
<th>Shear Strength (kN/m²)</th>
<th>SPT N' Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Soft</td>
<td>less than 0.25</td>
<td>0 - 2</td>
</tr>
<tr>
<td>Soft</td>
<td>0.25 to 0.50</td>
<td>2 - 4</td>
</tr>
<tr>
<td>Firm</td>
<td>0.50 to 1.00</td>
<td>4 - 8</td>
</tr>
<tr>
<td>Stiff</td>
<td>1.00 to 2.00</td>
<td>8 - 15</td>
</tr>
<tr>
<td>Very Stiff</td>
<td>2.00 to 4.00</td>
<td>15 - 32</td>
</tr>
<tr>
<td>Hard</td>
<td>4.00 and higher</td>
<td>&gt;32</td>
</tr>
</tbody>
</table>

#### Terms Characterizing Soil Structure

- **Sandy Loam:** Having inclined planes of weakness that are sick and gassy in appearance.
- **Laminated:** Composed of thin layers of varying color and texture.
- **Interbedded:** Composed of alternate layers of different soil types.
- **Calcareous:** Containing appreciable quantities of calcium carbonate.
- **Well Graded:** Having wide range in grain sizes and substantial amounts of intermediate particle sizes.
- **Poorly Graded:** Predominantly one grain size, or having a range of sizes with some intermediate size missing.
- **Porous:** Having visibly apparent void spaces through which water, air, or light may pass.

#### Soil Moisture

From low to high the soil moisture is indicated by:
- **Dry (D)**
- **Slightly Moist (S M)**
- **Moist (near optimum for compaction) (M)**
- **Very Moist (V M)**
- **Wet (W)**

#### Size Proportions

<table>
<thead>
<tr>
<th>Designation</th>
<th>Percent by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trace</td>
<td>0 to 10</td>
</tr>
<tr>
<td>Little</td>
<td>10 to 20</td>
</tr>
<tr>
<td>Some</td>
<td>20 to 30</td>
</tr>
</tbody>
</table>

### Legend of Laboratory Tests

- **G** = Grain size
- **S** = Swell
- **DS** = Direct Shear
- **A** = Liquid & Plastic Limits
- **Ch** = Chemical
- **T** = Triaxial
- **PP** = Pocket Penetrometer
- **H** = Chemical Heave
- **Soi** = Solubility
- **U** = Unconfined
- **C** = Consolidation
- **P** = Compaction

### Sampler Types

- **Shelby Tube**
- **Rock Core**
- **Bulk**
- **Converse**
- **No Recovery**

### Gran Size Distribution

<table>
<thead>
<tr>
<th>Grain Size Distribution</th>
<th>Percent by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clay (CL)</td>
<td>0 to 2</td>
</tr>
<tr>
<td>Silt (SL)</td>
<td>2 to 15</td>
</tr>
<tr>
<td>Sand (SD)</td>
<td>15 to 50</td>
</tr>
<tr>
<td>Medium Sand (MD)</td>
<td>50 to 75</td>
</tr>
<tr>
<td>Coarse Sand (CS)</td>
<td>75 to 100</td>
</tr>
<tr>
<td>Fine Gravel (FG)</td>
<td>100</td>
</tr>
<tr>
<td>Coarse Gravel (CG)</td>
<td></td>
</tr>
</tbody>
</table>
**LOG OF BORING NO. 01**

Project: Classroom/Office Building  Project No.: 89-32245-01  Date Drilled: 2/12/90

Drilling Company/Driller: West Hazmat Drilling/Scott  Equipment: Hollow Stem Auger

Driving Weight (lbs): 140  Average Drop (in.): 30  Hole Diameter (in.): 8

### SUMMARY OF BORING

This log is part of the report prepared by Converse Consultants Orange County for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Sub-surface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

**DESCRIPTION**

- **SM Alluvium (Oal)**
  - Silty Sand: loose, moist, dark brown, fine-grained, trace rootlets

- **5 ft**
  - Silty Sand: loose, moist, dark brown, fine-grained, some clay

- **SP**
  - Sand: loose, slightly moist, light brown, fine-grained, slightly micaceous

- **SC**
  - Clayey Sand: loose, moist, dark brown, fine-grained, micaceous

- **25 ft**
  - Silty Sand: medium dense, moist, red brown, fine-grained
**LOG OF BORING NO. 01**

**Project** Classroom/Office Building  
**Project No.** 89-32245-01  
**Date Drilled** 2/12/90

**Drilling Company/Driller** West Hazmat Drilling/Scott  
**Equipment** Hollow Stem Auger

**Driving Weight (lbs)** 140  
**Average Drop (in.)** 30  
**Hole Diameter (in.)** 8

<table>
<thead>
<tr>
<th>Elevation (ft)</th>
<th>Depth to Water (ft)</th>
<th>Average Drop (in.)</th>
<th>Holes on</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample</td>
<td>Blow/6&quot;</td>
<td>Graphic Symbol</td>
<td>USCS Group</td>
</tr>
<tr>
<td>25</td>
<td>24</td>
<td>SM</td>
<td>Alluvium (Qa)</td>
</tr>
<tr>
<td>23</td>
<td>50/6&quot;</td>
<td>SC</td>
<td>Clayey Sand: dense, slightly moist to moist, olive brown and gray, fine-grained, micaceous</td>
</tr>
<tr>
<td>30</td>
<td>14</td>
<td>CL</td>
<td>Clay: hard, moist, brown, trace sand, slightly micaceous</td>
</tr>
<tr>
<td>35</td>
<td>18</td>
<td>SP</td>
<td>Sand: medium dense, moist, brown, fine-grained, slightly micaceous</td>
</tr>
<tr>
<td>19</td>
<td>19</td>
<td>CL</td>
<td>Sandy Clay: hard, moist, dark brown, fine-grained sand, slightly micaceous</td>
</tr>
</tbody>
</table>

**SUMMARY OF BORING**

This log is part of the report prepared by Converse Consultants Orange County for the named project and should be read together with the complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

**DESCRIPTION**

**Remarks**
# LOG OF BORING NO. 01

**Project:** Classroom/Office Building  
**Project No.:** 89-32245-01  
**Date Drilled:** 2/12/90

**Drilling Company/Driller:** West Hazmat Drilling/Scott  
**Equipment:** Hollow Stem Auger

**Driving Weight (lbs):** 140  
**Average Drop (in.):** 30  
**Hole Diameter (in.):** 8

<table>
<thead>
<tr>
<th>Elevation (ft)</th>
<th>Depth to Water (ft)</th>
<th>Blows/B&quot;</th>
<th>Graphic Symbol</th>
<th>USCS Group Symbol</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>36</td>
<td>46</td>
<td>CL</td>
<td>Alluvium (Qal)</td>
<td>Sandy Clay; hard, moist, dark brown, fine-grained sand, slightly micaceous</td>
</tr>
<tr>
<td>20</td>
<td>36</td>
<td>40</td>
<td>ML</td>
<td>Sandy Silt</td>
<td>hard, slightly moist to moist, brown, fine-grained sand, slightly plastic, micaceous, trace caliche</td>
</tr>
<tr>
<td>30</td>
<td>31</td>
<td>15</td>
<td>SP</td>
<td>Sand</td>
<td>medium dense, moist, brown, fine-grained, slightly micaceous, trace silt</td>
</tr>
</tbody>
</table>
| 40            |                     |           |                |                  | End of boring at 50 feet  
                  |                     |           |                | No free groundwater encountered  
                  |                     |           |                | Hole backfilled |
**LOG OF BORING NO. 02**

Sheet 1 of 3

---

**Converse Consultants**
**Orange County**

Project: Classroom/Office Building
Project No.: 89-32245-01
Date Drilled: 2/13/90

Drilling Company/Driller: West Hazmat Drilling; Scott
Equipment: Hollow Stem Auger

Driving Weight (lbs): 140
Average Drop (in.): 30
Hole Diameter (in.): 8

---

### SUMMARY OF BORING

This log is part of the report prepared by Converse Consultants Orange County for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

**DESCRIPTION**

<table>
<thead>
<tr>
<th>Depth, ft</th>
<th>Sample</th>
<th>Litho. NAME</th>
<th>Density</th>
<th>Color</th>
<th>Texture</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SM</td>
<td>Fill (Af)</td>
<td></td>
<td>Silty</td>
<td>Sand</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Silty Sand; medium dense, moist, dark brown, fine-grained, trace clay, rootlets</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>SP</td>
<td>Alluvium (Qal)</td>
<td></td>
<td>Sand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Sand; medium dense, moist, brown, fine-grained</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>; loose, trace silt</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>; medium dense, trace silt</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>16.2</td>
<td>SM</td>
<td>Silty Sand; loose, moist, brown, fine-grained, trace clay</td>
<td></td>
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<td></td>
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<td>15.8</td>
<td></td>
<td>Clayey Sand; medium dense, moist, little silt</td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

---
# LOG OF BORING NO. 02

**Sheet 2 of 3**

**Project:** Classroom/Office Building  
**Project No.:** 89-32245-01  
**Date Drilled:** 2/13/90  
**Drilling Company/Driller:** West Hazmat Drilling/Scott  
**Equipment:** Hollow Stem Auger

<table>
<thead>
<tr>
<th>Elevation (ft)</th>
<th>Depth to Water (N/A ft)</th>
<th>After Hrs on Geol/Engr</th>
<th>Remarks</th>
</tr>
</thead>
</table>

## SUMMARY OF BORING

This log is part of the report prepared by Converse Consultants Orange County for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Sub-surface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

**DESCRIPTION**

<table>
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<th>Depth Sample</th>
<th>Graphic Symbol</th>
<th>USGS Group Symbol</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-90</td>
<td>SC</td>
<td>Alluvium (Qa)</td>
<td>Clayey Sand; medium dense, moist, little silt</td>
</tr>
<tr>
<td>30-35</td>
<td>CL</td>
<td>Sandy Clay; hard, slightly moist to moist, red brown, fine-grained sand</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CL</td>
<td>Sandy Clay; very stiff, moist, red brown, some silt</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SP</td>
<td>Sand; medium dense, moist, brown, fine- to medium-grained</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ML</td>
<td>Sandy Silt; very hard, moist, dark brown, plastic, fine-grained sand, little caliche streaks and concretions</td>
<td></td>
</tr>
</tbody>
</table>
**Converse Consultants
Orange County**

**LOG OF BORING NO. 02**

Sheet 3 of 3

---

Project: Classroom/Office Building

Project No.: 89-32245-01

Date Drilled: 2/13/90

Drilling Company/Driller: West Hazmat Drilling/Scott

Equipment: Hollow Stem Auger

Driving Weight (lbs): 140

Average Drop (in.): 30

Hole Diameter (in.): 8

---

<table>
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<tr>
<th>Elevation (ft)</th>
<th>ft Depth to Water</th>
<th>N/A</th>
<th>ft After</th>
<th>hrs on</th>
<th>Geol/Engr</th>
<th>BPL</th>
</tr>
</thead>
</table>

**SUMMARY OF BORING**

This log is part of the report prepared by Converse Consultants Orange County for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

**DESCRIPTION**

- End of boring at 40 feet
- No free groundwater encountered
- Hole backfilled

**Remarks**
LOG OF BORING NO. 03

Sheet 1 of 3

Project: Classroom/Office Building  Project No.: 89-32245-01  Date Drilled: 2/13/90

Drilling Company/Driller: West Hazmat Drilling/Scott  Equipment: Hollow Stem Auger

Driving Weight (lbs): 140  Average Drop (in.): 30  Hole Diameter (in.): 8

<table>
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<th>ft</th>
<th>After</th>
<th>hrs on</th>
<th>Geol/Engr</th>
<th>BPL</th>
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**SUMMARY OF BORING**

This log is part of the report prepared by Converse Consultants Orange County for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

**DESCRIPTION**

- **Fill (Af):** Silty Sand; loose, moist, dark brown, fine-grained
- **Alluvium (Qal):** Silty Sand; loose, moist, dark brown, fine-grained, trace clay, rootlets
- **Sand:** medium dense, moist, brown, fine-grained, slightly micaceous, trace silt
  - ; loose
- **Silty Sand:** loose, moist, brown, fine- to medium-grained, trace clay
**LOG OF BORING NO. 03**

**Project:** Classroom/Office Building  
**Project No.:** 89-32245-01  
**Date Drilled:** 2/13/90  
**Drilling Company/Driller:** West Hazmat Drilling/Scott  
**Equipment:** Hollow Stem Auger  
**Driving Weight (lbs):** 140  
**Average Drop (in.):** 30  
**Hole Diameter (in.):** 8

<table>
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<tr>
<th>Elevation (ft)</th>
<th>Depth to Water (ft)</th>
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<th>After</th>
<th>hrs on</th>
<th>Geol/Engr</th>
<th>BPL</th>
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<td>25</td>
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<td>CL</td>
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<td></td>
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<td>38</td>
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<td>4</td>
<td>8</td>
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</tr>
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</table>

**SUMMARY OF BORING**

This log is part of the report prepared by Converse Consultants Orange County for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

**DESCRIPTION**

- **Alluvium (Qal):** Silty Sand; loose, moist, red brown, fine-grained
- **Sandy Clay:** very stiff, slightly moist to moist, gray brown, fine-grained sand
- **Clayey Sand:** dense, moist, red brown, slightly micaceous
- **Clayey Sand:** medium dense, moist, red brown, fine-grained
**LOG OF BORING NO. 03**

Sheet 3 of 3

Project: Classroom/Office Building  
Project No.: 89-32245-01  
Date Drilled: 2/13/90

Drilling Company/Driller: West Hazmat Drilling/Scott  
Equipment: Hollow Stem Auger

Driving Weight (lbs): 140  
Average Drop (in.): 30  
Hole Diameter (in.): 8

<table>
<thead>
<tr>
<th>Elevation (ft)</th>
<th>Depth to Water (ft)</th>
<th>After hrs on</th>
<th>Geol/Engr</th>
<th>BPL</th>
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<tbody>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

**SUMMARY OF BORING**

This log is part of the report prepared by Converse Consultants Orange County for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Sub-surface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

**DESCRIPTION**

End of boring at 40 feet
No free groundwater encountered
Hole backfilled
Converse Consultants  
Orange County

LOG OF BORING NO. 04  
Sheet 1 of 4

Project: Classroom/Office Building  
Project No: 89-32245-01  
Date Drilled: 2/13/90

Drilling Company/Driller: West Hazmat Drilling/Scott  
Equipment: Hollow Stem Auger

Driving Weight (lbs): 140  
Average Drop (in.): 30  
Hole Diameter (in.): 8

Elevation (ft) | Depth to Water (ft) | After (hrs) | Geol/Engr | Remarks
--- | --- | --- | --- | ---
15 | 13 | BPL | |  
11 | | | |  
9 | 9 | | |  
6 | | | |  
5 | 5 | | |  
5 | 4 | 3 | |  
10 | 7 | | |  
7 | | | |  
7 | 5 | 3 | |  
10 | 7 | | |  
7 | | | |  
15 | | | |  

**SUMMARY OF BORING**

This log is part of the report prepared by Converse Consultants Orange County for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

**DESCRIPTION**

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<th>Sample</th>
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<th>USCS Group Symbol</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td></td>
<td></td>
<td>SC</td>
<td>Fill (Af) Clayey Sand; loose, moist, dark brown, fine-grained, rootlets</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td>SC</td>
<td>Alluvium (Qal) Clayey Sand; loose, moist, brown, fine-grained, slightly porous</td>
</tr>
<tr>
<td>9</td>
<td>6</td>
<td>5</td>
<td>SM</td>
<td>Silty Sand; loose, moist, brown, fine-grained</td>
</tr>
<tr>
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<td>4</td>
<td>3</td>
<td>SM</td>
<td>Clayey Sand; loose, moist, brown, fine-grained</td>
</tr>
<tr>
<td>10</td>
<td>7</td>
<td>5</td>
<td>SC</td>
<td>Sand; medium dense, moist, brown, fine-grained, slightly micaceous</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td>SC</td>
<td>Clayey Sand; dense, moist, brown, fine-to medium-grained</td>
</tr>
<tr>
<td>Depth, ft</td>
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<td>Graphic Symbol</td>
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<td>----------</td>
<td>----------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>25</td>
<td></td>
<td></td>
<td>CL</td>
<td>SM</td>
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<td>SM</td>
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</tr>
<tr>
<td>35</td>
<td></td>
<td></td>
<td>SM</td>
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</tr>
</tbody>
</table>

**SUMMARY OF BORING**

This log is part of the report prepared by Converse Consultants Orange County for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Sub-surface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

**DESCRIPTION**
**LOG OF BORING NO. 04**

**Sheet 3 of 4**

**Project:** Classroom/Office Building  
**Project No.:** 89-32245-01  
**Date Drilled:** 2/13/90

**Drilling Company/Driller:** West Hazmat Drilling/Scott  
**Equipment:** Hollow Stem Auger

**Driving Weight (lbs):** 140  
**Average Drop (in.):** 30  
**Hole Diameter (in.):** 8

<table>
<thead>
<tr>
<th>Elevation (ft)</th>
<th>Depth to Water (ft)</th>
<th>After hrs on</th>
<th>Geol/Engr</th>
<th>BPL</th>
</tr>
</thead>
</table>

### SUMMARY OF BORING

This log is part of the report prepared by Converse Consultants Orange County for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

**DESCRIPTION**

- **SC** - Alluvium (Qal)
  - Clayey Sand; very dense, slightly moist to moist, red brown, fine-grained, trace caliche

- **ML** - Sandy Silt; very hard, slightly moist to moist, brown, plastic, fine-grained sand

- **SM** - Silty Sand; dense, moist, brown, fine-grained

- **CL** - Sandy Clay; very stiff, moist, dark brown, trace caliche
**LOG OF BORING NO. 04**

**Project:** Classroom/Office Building  
**Project No.:** 89-32245-01  
**Date Drilled:** 2/13/90

**Drilling Company/Driller:** West Hazmat Drilling/Scott  
**Equipment:** Hollow Stem Auger

**Driving Weight (lbs):** 140  
**Average Drop (in.):** 30  
**Hole Diameter (in.):** 8

<table>
<thead>
<tr>
<th>Elevation (ft)</th>
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<th>After hrs on</th>
<th>Geol/Engr BPL</th>
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<tr>
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</table>

**SUMMARY OF BORING**

This log is part of the report prepared by Converse Consultants Orange County for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

**DESCRIPTION**

- **Alluvium (Qal):** Sand; dense, slightly moist to moist, light brown, fine-grained
- **Sandy Clay (CL):** very stiff, slightly moist to moist, brown, fine-grained sand, trace caliche
- End of boring at 70 feet
  - No free groundwater encountered
  - Hole backfilled
**LOG OF BORING NO. 05**

**Project:** Classroom/Office Building  
**Project No.:** 89-32245-01  
**Date Drilled:** 2/13/90

**Drilling Company/Driller:** West Hazmat Drilling/Scott  
**Equipment:** Hollow Stem Auger

**Driving Weight (lbs):** 140  
**Average Drop (in.):** 30  
**Hole Diameter (in.):** 8

<table>
<thead>
<tr>
<th>Elevation (ft)</th>
<th>Depth to Water N/A ft</th>
<th>After hrs on</th>
<th>Geol/Engr</th>
<th>BPL</th>
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### SUMMARY OF BORING

This log is part of the report prepared by Converse Consultants Orange County for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Sub-surface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

#### DESCRIPTION

**Fill (Af)**
- Sand: loose, dry, light brown, fine-grained, rootlets
- medium dense, trace gravel

**Alluvium (QaI)**
- Sand: loose to medium dense, slightly moist, brown, trace caliche

**Clayey Sand:** medium dense, moist, brown, fine-grained, micaceous
- fine- to medium-grained

**Sandy Silt:** stiff, moist, brown, plastic, fine-grained sand
**LOG OF BORING NO. 05**

Sheet 2 of 4

Project: Classroom/Office Building  Project No. 89-32245-01  Date Drilled 2/13/90

Drilling Company/Driller: West Hazmat Drilling/Scott  Equipment: Hollow Stem Auger

Driving Weight (lbs): 140  Average Drop (in.): 30  Hole Diameter (in.): 8

<table>
<thead>
<tr>
<th>Elevation</th>
<th>ft</th>
<th>Depth to Water</th>
<th>ft</th>
<th>After</th>
<th>hrs on</th>
</tr>
</thead>
</table>

### SUMMARY OF BORING

This log is part of the report prepared by Converse Consultants Orange County for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

**DESCRIPTION**

- **ML**
  - Alluvium (Cal)
  - Sandy Silt: stiff, moist, brown, plastic, fine-grained sand

- **SC**
  - Clayey Sand: medium dense, moist, dark brown, fine-grained, slightly porous

- **CL**
  - Sandy Clay: hard, moist, red brown, fine-grained sand

- **47**
  - ; stiff, trace caliche

- **ML**
  - Sandy Silt: hard, slightly moist to moist, dark brown, plastic, fine-grained sand, little caliche
## LOG OF BORING NO. 05

**Project:** Classroom/Office Building  
**Project No.:** 89-32245-01  
**Date Drilled:** 2/13/90

**Drilling Company/Driller:** West Hazmat Drilling/Scott  
**Equipment:** Hollow Stem Auger

**Depth to Water:** N/A  
**Driving Weight (lbs):** 140  
**Average Drop (in.):** 30  
**Hole Diameter (in.):** 8

### SUMMARY OF BORING

This log is part of the report prepared by Converse Consultants Orange County for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Sub-surface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

**DESCRIPTION**

<table>
<thead>
<tr>
<th>Depth, ft</th>
<th>Sample</th>
<th>Blow/6&quot;</th>
<th>Graphic Symbol</th>
<th>USCS Group Symbol</th>
<th>Remarks</th>
</tr>
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<tbody>
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<td>50/6&quot;</td>
<td>ML</td>
<td></td>
<td></td>
<td></td>
<td>Alluvium (Qal)</td>
</tr>
<tr>
<td>55-</td>
<td>SC</td>
<td></td>
<td></td>
<td></td>
<td>Sandy Silt; hard, slightly moist to moist, dark brown, plastic, fine-grained sand, little caliche</td>
</tr>
<tr>
<td>25-25</td>
<td>SP</td>
<td></td>
<td></td>
<td></td>
<td>Clayey Sand; dense, moist, brown, fine-grained, trace caliche</td>
</tr>
<tr>
<td>25-</td>
<td>CL</td>
<td></td>
<td></td>
<td></td>
<td>Sand; medium dense, slightly moist to moist, gray brown, plastic, some fine-grained sand, trace silt</td>
</tr>
<tr>
<td>30-</td>
<td>SP</td>
<td></td>
<td></td>
<td></td>
<td>Clay; hard, moist, dark brown, some silt, trace caliche</td>
</tr>
<tr>
<td>25-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sand; dense, moist, brown, fine-grained</td>
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</table>

**Remarks**
### LOG OF BORING NO. 05

**Project**: Classroom/Office Building  
**Project No.**: 89-32245-01  
**Date Drilled**: 2/13/90

**Drilling Company/Driller**: West Hazmat Drilling/Scott  
**Equipment**: Hollow Stem Auger

**Driving Weight (lbs)**: 140  
**Average Drop (in.)**: 30  
**Hole Diameter (in.)**: 8

<table>
<thead>
<tr>
<th>Elevation (ft)</th>
<th>Depth to Water</th>
<th>After</th>
<th>hrs on</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
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<td>N/A</td>
<td></td>
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<td>End of boring at 60 feet</td>
</tr>
<tr>
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<td>N/A</td>
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<td>No free groundwater encountered</td>
</tr>
<tr>
<td>75</td>
<td>N/A</td>
<td></td>
<td></td>
<td>Hole backfilled</td>
</tr>
</tbody>
</table>

**SUMMARY OF BORING**

This log is part of the report prepared by Converse Consultants Orange County for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

**DESCRIPTION**

- End of boring at 60 feet
- No free groundwater encountered
- Hole backfilled
APPENDIX B
LABORATORY TESTING
LABORATORY TESTING

General Comments
A laboratory test program is designed for each project to evaluate the physical and mechanical properties of the soil and rock materials encountered at the site during the field exploration program. This appendix summarizes the purposes of and procedures followed in performing the most frequently assigned tests. The laboratory testing program for this project did not include all of the tests described herein. Results of the tests performed for this study are included at the end of this appendix.

The soil samples stored in CCOC's laboratory for this project are discarded 30 days after the date of this report unless a request and retainer to store the samples for a longer period of time has been received within that 30-day period.

Classification
Classification testing is performed to identify differences in material behavior and to correlate the results with shear strength and volume change characteristics of the materials. Classification testing includes moisture content, unit weight, grain-size analysis, sand equivalent, and Atterberg limits. The classification tests are performed in general accordance with procedures of the American Society for Testing and Materials (ASTM).

<table>
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<th>Test</th>
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<tr>
<td>Grain Size Analysis</td>
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<tr>
<td>Sieve</td>
<td>C136</td>
</tr>
<tr>
<td>Hydrometer</td>
<td>D422</td>
</tr>
<tr>
<td>Sand Equivalent</td>
<td>D2419</td>
</tr>
<tr>
<td>Atterberg Limits</td>
<td>D4318</td>
</tr>
</tbody>
</table>
Volume Change

Consolidation tests are performed in general accordance with ASTM test method D2435 to determine the load-deformation characteristics of the soils. The soil specimens, contained in a 2.42-inch-diameter, 1.00 inch high sampling ring, is placed in a loading frame under a seating pressure of about 0.1 ksf. The pressure is then increased to about 0.5 ksf, and the specimens is allowed to consolidate. The specimens is subsequently loaded in increments equal to the previous pressure and allowed to consolidate under each increment. The vertical deformation is recorded as a function of time.

When the pressure reaches a pre-selected effective overburden pressure and the specimens has consolidated under that pressure, the laboratory technician adds water to the test cell and records the vertical movement. After the specimens reaches equilibrium with addition of water, the technician continues the loading process, usually up to a pressure of about 8 ksf. The results of the test are presented in terms of percent volume change versus applied vertical stress.

The potential for soil and rock expansion due to wetting is evaluated from results of an expansion index test performed in general accordance with Uniform Building Code standard 29-2. In this test, a specimens is compacted to a degree of saturation between 40 and 60 percent in a 4.01-inch-diameter, 1.00 inch high ring. The specimens is subjected to a seating pressure of 144 psf, water is added to the test cell, and swell is monitored until the expansion stops. The volume of swell is converted to an expansion index.

Other methods to measure expansion potential due to wetting include a swell test and a swell-pressure test. In a swell test the sample, either at natural moisture content, air dry, or remolded to 90 percent of maximum density at optimum moisture, is subjected usually to a seating pressure of 60 psf. Water is then added to the test cell, and the expansion of the soil is monitored. The final expansion is reported as percent swell.
In a swell-pressure test, the specimens, contained in a sampling ring and at natural moisture content, is placed in a loading frame and subject to a seating pressure of about 100 psf. Water is added to the test cell, and the volume change is recorded until it essentially ceases. After the swelling is complete, the technician loads the specimens in increments equal to the previous load and allows the specimen to consolidate under each load. The specimen is consolidated back to zero volume change; the corresponding pressure is called the swell pressure. The swell pressure test is sometimes performed on a remolded specimens compacted to about 90 percent of maximum density and at optimum moisture content.

Shear Strength
Estimates of undrained shear strength of cohesive soils can be obtained with a hand (pocket) penetrometer. In this test, a small diameter, hand-held probe is pushed a specified distance into a soil sample, and the shear strength is estimated from the compression of a calibrated spring.

The direct shear test, performed in general accordance with ASTM D3080, is used to measure the shear resistance of both cohesive and granular materials. In this test, the specimens, in a 2.42-inch-diameter, 1.00 inch high ring, is usually allowed to soak under a seating pressure of about 100 psf. A vertical stress is applied to the specimens, and the specimens is allowed to reach an equilibrium state (swell or consolidate). The specimens is then sheared under a constant rate of deformation. The rate of deformation for a slow test is selected from computed or measured consolidation rates to allow full drainage (full dissipation of any tendency for pore water pressure changes) during shear. The rate of deformation for a quick test is usually taken as 0.05 in./min, which results in failure being reached within two to three minutes.

Residual shear resistances of fast tests are obtained by shearing the specimens past the peak shear resistance, resetting the specimens to zero displacement, shearing to a constant resistance, and repeating the process three to five times until the shear resistance has stabilized. In the case of slow tests, the
residual shear is measured by cycling the specimen between deformations of about 7 percent of the specimens diameter until an equilibrium shear stress is reached.

Three methods are used to obtain data points to construct a failure envelope from quick direct shear tests. Tests are performed on three or more specimens, each under different vertical stresses; three or more tests are performed on a single specimen, but the specimen is shifted for each test under different vertical stresses so new surfaces are sheared each time; three tests are performed on a single specimen in a multiple stage test. In a multiple stage test, we stop the shear test near but before failure is reached. The displacement is reset to zero, a higher vertical load is applied, and the specimen is sheared to failure. In the case of slow tests, usually three or more specimens are used, each at different consolidation pressures to generate a failure envelope.

Pavement design includes an assessment of subgrade resistance, which is measured by an "R"-value or a bearing ratio test, CBR (California Bearing Ratio). The R-value test is performed in general accordance with ASTM Test Method D1883.

**Compaction**

Compaction tests provide information on the relationship between moisture content and dry density of the soil compacted in a given manner. The maximum density is obtained for a given compaction effort at an optimum moisture content. Specifications for earthwork are in terms of the unit weight (or density) expressed as a percentage of the maximum unit weight and the moisture content compared to the optimum moisture content. The compaction test is performed in general accordance with ASTM D1557.

**Sulfate Test**

Soluble sulfate concentrations of soils are measured in general accordance with California Department of Transportation test procedure 417 to provide information on the potential for concrete in contact with the soil to deteriorate because of soluble sulfates.
### TABLE 1

SUMMARY OF DIRECT-SHEAR TEST RESULTS

(STM: D3080)

<table>
<thead>
<tr>
<th>BORING NO.</th>
<th>SAMPLE</th>
<th>SOIL DESCRIPTION</th>
<th>NORMAL STRESS (ksf)</th>
<th>SHEAR STRESS (ksf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.5</td>
<td>Silty Sand</td>
<td>0.75</td>
<td>0.69</td>
</tr>
<tr>
<td>1</td>
<td>12.5</td>
<td>Clayey Sand</td>
<td>1.50</td>
<td>1.23</td>
</tr>
<tr>
<td>2</td>
<td>19.5</td>
<td>Clayey Sand</td>
<td>2.50</td>
<td>2.02</td>
</tr>
<tr>
<td>2</td>
<td>29.5</td>
<td>Sandy Clay</td>
<td>3.50</td>
<td>2.76</td>
</tr>
<tr>
<td>3</td>
<td>8.5</td>
<td>Sand</td>
<td>1.00</td>
<td>0.99</td>
</tr>
<tr>
<td>3</td>
<td>15.5</td>
<td>Silty Sand</td>
<td>2.00</td>
<td>1.80</td>
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<tr>
<td>3</td>
<td>35.5</td>
<td>Clayey Sand</td>
<td>4.50</td>
<td>3.68</td>
</tr>
<tr>
<td>4</td>
<td>25.5</td>
<td>Sandy Clay</td>
<td>3.00</td>
<td>2.73</td>
</tr>
<tr>
<td>4</td>
<td>55.5</td>
<td>Sandy Clay</td>
<td>6.50</td>
<td>4.30</td>
</tr>
<tr>
<td>4</td>
<td>65.5</td>
<td>Sandy Clay</td>
<td>8.00</td>
<td>3.92</td>
</tr>
<tr>
<td>5</td>
<td>9.5</td>
<td>Clayey Sand</td>
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<td>0.43</td>
</tr>
<tr>
<td>5</td>
<td>38.5</td>
<td>Sandy Silt</td>
<td>4.50</td>
<td>3.41</td>
</tr>
<tr>
<td>5</td>
<td>48.5</td>
<td>Sand</td>
<td>6.00</td>
<td>5.38</td>
</tr>
</tbody>
</table>

NOTES:  
1) Rate of Deformation 0.025 In./Min.  
2) Samples Soaked Prior to Shearing  
3) Shear Stress Corresponds to Peak Value
### TABLE 2
RESULTS OF EXPANSION TEST
(U.B.C. NO. 29-2)

<table>
<thead>
<tr>
<th>Test Location</th>
<th>Expansion Index</th>
<th>Expansion Potential</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-1 @ 0'-3'</td>
<td>42</td>
<td>Low</td>
</tr>
</tbody>
</table>

### TABLE 2
SULFATE TEST RESULT
(CALIFORNIA: 417-A)

<table>
<thead>
<tr>
<th>Test Location</th>
<th>Soluble Sulfate (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-1 @ 0'-3'</td>
<td>330</td>
</tr>
</tbody>
</table>
SUMMARY OF MATERIAL PROPERTIES
Classroom/Office Building - Cal State Fullerton Campus, Fullerton
89-32245-01

<table>
<thead>
<tr>
<th>POINT IDENTIFICATION</th>
<th>DEPTH</th>
<th>ASMT</th>
<th>LL PI</th>
<th>FINE</th>
<th>WATER CONTENT</th>
<th>DRY SATE</th>
<th>MAX. DRY</th>
<th>O.M.C.</th>
<th>FRIC. COHESION SIGN</th>
</tr>
</thead>
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<td>89</td>
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<td>12</td>
<td>102</td>
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<td>50</td>
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<tr>
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<td>8.00</td>
<td></td>
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<td>100</td>
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<td>48</td>
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<td>9</td>
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<td>20</td>
<td>108</td>
<td>0.5592</td>
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<td>89</td>
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<tr>
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<td>23</td>
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</table>
## UNIFIED SOIL CLASSIFICATION

<table>
<thead>
<tr>
<th>BOULDERS &amp; COBBLES</th>
<th>GRAVEL</th>
<th>SAND</th>
<th>SILT OR CLAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. SIEVE SIZE IN INCHES</td>
<td>U.S. STANDARD SIEVE NO.</td>
<td>HYDROMETER</td>
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## GRAIN SIZE DISTRIBUTION

### Symbol

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Boring Number</th>
<th>Depth, ft</th>
<th>LL %</th>
<th>PI %</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>□</td>
<td>01</td>
<td>1.5</td>
<td></td>
<td></td>
<td>Brown Silty Sand (SM)</td>
</tr>
<tr>
<td>+</td>
<td>04</td>
<td>1.5</td>
<td></td>
<td></td>
<td>Brown Clayey Sand (SC)</td>
</tr>
</tbody>
</table>

---

**Classroom/Office Building**

**Cal State Fullerton Campus, Fullerton**

Converse Consultants Orange County

**Project No.**

89-32245-01
100% Saturation
Specific Gravity = 2.70

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Boring Number</th>
<th>Depth, ft</th>
<th>Description</th>
<th>Test Method</th>
<th>Optimum Moisture, %</th>
<th>Maximum Dry Density, pcf</th>
</tr>
</thead>
<tbody>
<tr>
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<td>04</td>
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<td>Brown Clayey Sand (SC)</td>
<td>D-1557A</td>
<td>11.5</td>
<td>117</td>
</tr>
</tbody>
</table>

Note: Sample passing #4 Sieve used

COMPACCTION TEST

Classroom/Office Building
Cal State Fullerton Campus, Fullerton

Project No. 89-32245-01

Converse Consultants Orange County
Boring Number: 01  Description: Brown Silty Sand (SM)
Depth, ft: 5.5  Liquid Limit:
Specific Gravity: 2.70  Plastic Limit:

<table>
<thead>
<tr>
<th>Moisture Content, %</th>
<th>Dry Density pcf</th>
<th>Percent Saturation</th>
<th>Void Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>17.0</td>
<td>92.2</td>
<td>55</td>
</tr>
<tr>
<td>Final</td>
<td>23.1</td>
<td>102.2</td>
<td>96</td>
</tr>
</tbody>
</table>

Note: Sample was Saturated @ 2.00 ksf

CONSOLIDATION TEST

Classroom/Office Building
Cal State Fullerton Campus, Fullerton

Converse Consultants Orange County
Boring Number: 03
Depth, ft: 15.5
Specific Gravity: 2.70

Description: Brown Silty Sand (SM)
Liquid Limit:
Plastic Limit:

<table>
<thead>
<tr>
<th>Moisture Content, %</th>
<th>Dry Density, pcf</th>
<th>Percent Saturation</th>
<th>Void Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial: 12.8</td>
<td>102.7</td>
<td>54</td>
<td>0.642</td>
</tr>
<tr>
<td>Final: 18.7</td>
<td>106.5</td>
<td>87</td>
<td>0.583</td>
</tr>
</tbody>
</table>

Note: Sample was Saturated @ 4.00 ksf

CONSOLIDATION TEST

Classroom/Office Building
Cal State Fullerton Campus, Fullerton

Project No. 89-32245-01
Boring Number: 04
Depth, ft: 25.5
Specific Gravity: 2.70

Description: Red Brown Sandy Clay (CL)
Liquid Limit:
Plastic Limit:

<table>
<thead>
<tr>
<th></th>
<th>Moisture Content, %</th>
<th>Dry Density pcf</th>
<th>Percent Saturation</th>
<th>Void Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>16.3</td>
<td>103.7</td>
<td>71</td>
<td>0.625</td>
</tr>
<tr>
<td>Final</td>
<td>20.6</td>
<td>108.1</td>
<td>100</td>
<td>0.559</td>
</tr>
</tbody>
</table>

Note: Sample was Saturated @ 2.00 ksf

CONSOLIDATION TEST

Classroom/Office Building
Cal State Fullerton Campus, Fullerton

Project No.
89-32245-01

Converse Consultants Orange County
Boring Number: 04  
Description: Brown Silty Sand (SM) 
Depth, ft: 35.5  
Liquid Limit:  
Specific Gravity: 2.70  
Plastic Limit:  

<table>
<thead>
<tr>
<th>Moisture Content, %</th>
<th>Dry Density, pcf</th>
<th>Percent Saturation</th>
<th>Void Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>13.8</td>
<td>98.9</td>
<td>53</td>
</tr>
<tr>
<td>Final</td>
<td>22.6</td>
<td>103.9</td>
<td>98</td>
</tr>
</tbody>
</table>

Note: Sample was Saturated @ 4.00 ksf

CONSOLIDATION TEST

Classroom/Office Building  
Cal State Fullerton Campus, Fullerton

Converse Consultants Orange County
Boring Number : 04  
Description : Brown Lean Clay (CL)
Depth, ft : 65.5  
Liquid Limit :
Specific Gravity : 2.70  
Plastic Limit :

<table>
<thead>
<tr>
<th></th>
<th>Moisture Content, %</th>
<th>Dry Density pcf</th>
<th>Percent Saturation</th>
<th>Void Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>20.0</td>
<td>104.8</td>
<td>89</td>
<td>0.609</td>
</tr>
<tr>
<td>Final</td>
<td>22.2</td>
<td>104.7</td>
<td>98</td>
<td>0.610</td>
</tr>
</tbody>
</table>

Note: Sample was Saturated @ 4.15 ksf

CONSOLIDATION TEST

Classroom/Office Building  
Cal State Fullerton Campus, Fullerton

Converse Consultants Orange County
Boring Number : 03  Description : Brown Silty Sand (SM)
Depth, ft : 15.5  Cohesion, ksf : 0.95
Specific Gravity : 2.70  Friction Angle, degrees : 34

<table>
<thead>
<tr>
<th>Moisture Content, %</th>
<th>Dry Density, pcf</th>
<th>Void Ratio</th>
<th>Normal Stress, ksf</th>
<th>Shear Stress, ksf</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.50</td>
<td>114.7</td>
<td></td>
<td>1.00</td>
<td>1.62</td>
</tr>
<tr>
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<tr>
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<td>114.7</td>
<td></td>
<td>4.00</td>
<td>3.65</td>
</tr>
</tbody>
</table>

Note: Rate of Deformation 0.025in./min.
Plot Corresponds to Peak Values
COLLEGE OF BUSINESS AND ECONOMICS
FEASIBILITY STUDY COST ESTIMATE
CALIFORNIA STATE UNIVERSITY, FULLERTON

23 SEPTEMBER 2002

CLIENT:
RRM Design Group
3765 South Higuera Street, Suite 102
San Luis Obispo, California 93401

Job #: 02168
INTRODUCTORY NOTES

This estimate is based upon the following information received August 26 and August 27, 2002 and verbal direction from the client:

1. Site plan undated.
2. Tenant improvement plans for Langsdorf Hall, five pages, floors one through seven.
3. Langsdorf Hall record drawings, six pages, floors one through nine.
5. Architectural rendering, undated.
7. Room list and space calculations, undated.
8. Fax with site limits dated 9/20/02.
9. Conference call discussions on 9/19/02.

Unit pricing is based on prevailing wage and is current as of the date of estimate.

The following items are excluded from this estimate, except as stated within the estimate:

A. Professional fees.
B. Building permits and fees.
C. Inspections and tests.
D. Furniture.
E. Escalation.
F. Construction change order contingency.
G. Contractor bonding.
H. Hazardous material abatement/removal.
I. Restrictions to access or abnormal working hours.

This estimate is based on a detailed measurement of quantities where possible and reasonable allowances for items not clearly defined on the drawings (marked “ALLOWANCE” in the estimate). This estimate is based on a minimum of four (4) competitive bids at both the general and sub-trade levels and a stable bidding market. We strongly advise that the client review this estimate in detail and that any estimate interpretations contrary to those intended by the design documents be addressed.
## PROJECT SUMMARY

<table>
<thead>
<tr>
<th></th>
<th>COST</th>
<th>COST/SF</th>
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</thead>
<tbody>
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<td>NEW BUILDING</td>
<td>$42,517,575</td>
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<tr>
<td>REMODEL</td>
<td>$11,240,038</td>
<td>$112.40</td>
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<tr>
<td>PROJECT GRAND TOTAL</td>
<td>$53,757,613</td>
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</table>
## NEW BUILDING SUMMARY

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>TOTAL COST</th>
<th>$/SF AREA</th>
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<tbody>
<tr>
<td>A - SUBSTRUCTURE</td>
<td>$2,026,272</td>
<td>$10.45</td>
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<tr>
<td>B - SHELL</td>
<td>$11,431,426</td>
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<tr>
<td>C - INTERIOR</td>
<td>$6,363,985</td>
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<tr>
<td>D - SERVICES</td>
<td>$13,797,981</td>
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<tr>
<td>E - EQUIPMENT / FURNISHINGS</td>
<td>$1,457,936</td>
<td>$7.52</td>
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<tr>
<td>G - SITEWORK</td>
<td>$2,715,800</td>
<td>$14.00</td>
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**SUBTOTAL** $37,793,400 / $194.82

**GENERAL CONDITIONS OH & PROFIT** 12.50% $4,724,175 / $24.35

**SUBTOTAL** $42,517,575

**ESCALATION TO MIDPOINT NIC**

**TOTAL BUILDING COST** $42,517,575

**GROSS FLOOR AREA:** 193,990 SF

**COST PER SQUARE FOOT:** $219.17
## FEASIBILITY STUDY COST ESTIMATE

**OCMI JOB #: 02168**  
**DATE: 23 SEPTEMBER 2002**

### A - SUBSTRUCTURE

#### A10 Standard Foundations:

<table>
<thead>
<tr>
<th>Description</th>
<th>Quan.</th>
<th>Unit</th>
<th>Unit Rate</th>
<th>Est. Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;L&quot; Building</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIP piles, dia 24&quot;, 40' long</td>
<td>124</td>
<td>EA</td>
<td>3,220.00</td>
<td>$399,280</td>
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<tr>
<td>Pile caps</td>
<td>31</td>
<td>EA</td>
<td>690.00</td>
<td>$21,390</td>
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<tr>
<td>Grade beams</td>
<td>1,540</td>
<td>LF</td>
<td>57.50</td>
<td>$88,550</td>
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<tr>
<td>SOG</td>
<td>20,465</td>
<td>SF</td>
<td>5.75</td>
<td>$117,674</td>
</tr>
<tr>
<td>&quot;O&quot; Building</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CIP piles, dia 24&quot;, 40' long</td>
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<td>EA</td>
<td>3,220.00</td>
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<tr>
<td>Pile caps</td>
<td>18</td>
<td>EA</td>
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<td>$12,420</td>
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<tr>
<td>Grade beams</td>
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<td>LF</td>
<td>57.50</td>
<td>$84,525</td>
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<tr>
<td>SOG</td>
<td>27,090</td>
<td>SF</td>
<td>5.75</td>
<td>$155,768</td>
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<tr>
<td>Building 3</td>
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<tr>
<td>CIP piles, dia 24&quot;, 40' long</td>
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<td>Pile caps</td>
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<td>SOG</td>
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<td>$85,675</td>
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<tr>
<td>Allowance for 50% basement level</td>
<td>31,300</td>
<td>SF</td>
<td>11.50</td>
<td>$359,950</td>
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<tr>
<td>Elevator pits</td>
<td>5</td>
<td>EA</td>
<td>5,750.00</td>
<td>$28,750</td>
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**TOTAL - A - SUBSTRUCTURE**  
$2,026,272

### B - SHELL

#### B10 Superstructure:

<table>
<thead>
<tr>
<th>Description</th>
<th>Quan.</th>
<th>Unit</th>
<th>Unit Rate</th>
<th>Est. Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floor structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&quot;L&quot; Building</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical steel structure - 10 lb/sf</td>
<td>205</td>
<td>TON</td>
<td>2,415.00</td>
<td>$495,075</td>
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<tr>
<td>Horizontal structure</td>
<td>20,465</td>
<td>SF</td>
<td>23.00</td>
<td>$470,695</td>
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<tr>
<td>&quot;O&quot; Building</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vertical steel structure - 12 lb/sf</td>
<td>650</td>
<td>TON</td>
<td>2,415.00</td>
<td>$1,569,750</td>
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<tr>
<td>Horizontal structure</td>
<td>81,270</td>
<td>SF</td>
<td>23.00</td>
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<tr>
<td>Building 3</td>
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<tr>
<td>Vertical steel structure - 10 lb/sf</td>
<td>224</td>
<td>TON</td>
<td>2,415.00</td>
<td>$540,960</td>
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<tr>
<td>Horizontal structure</td>
<td>29,800</td>
<td>SF</td>
<td>23.00</td>
<td>$685,400</td>
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<tr>
<td>Expansion joints</td>
<td>630</td>
<td>LF</td>
<td>69.00</td>
<td>$43,470</td>
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<tr>
<td>Roof structure</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>&quot;L&quot; Building</td>
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<td>SF</td>
<td>17.25</td>
<td>$353,021</td>
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<tr>
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<td>SF</td>
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<td>$467,303</td>
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<tr>
<td>Building 3</td>
<td>14,900</td>
<td>SF</td>
<td>17.25</td>
<td>$257,025</td>
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**Subtotal for section B10**  
$6,751,909

#### B20 Exterior Closure:

<table>
<thead>
<tr>
<th>Description</th>
<th>Quan.</th>
<th>Unit</th>
<th>Unit Rate</th>
<th>Est. Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;L&quot; Building</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DESCRIPTION</td>
<td>QUAN.</td>
<td>UNIT</td>
<td>UNIT RATE</td>
<td>EST. COST</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>-------</td>
<td>------</td>
<td>-----------</td>
<td>-------------</td>
</tr>
<tr>
<td>Glazing 30%</td>
<td>6,417</td>
<td>SF</td>
<td>51.75</td>
<td>$332,080</td>
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<tr>
<td>Precast panels</td>
<td>14,973</td>
<td>SF</td>
<td>46.00</td>
<td>$688,758</td>
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<tr>
<td>&quot;O&quot; Building Curtain wall</td>
<td>30,710</td>
<td>SF</td>
<td>69.00</td>
<td>$2,118,990</td>
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<tr>
<td>Building 3 Glazing 30%</td>
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<td>SF</td>
<td>51.75</td>
<td>$286,436</td>
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<tr>
<td>Precast panels</td>
<td>12,915</td>
<td>SF</td>
<td>46.00</td>
<td>$594,090</td>
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<tr>
<td>Sunshade allowance</td>
<td>1</td>
<td>LS</td>
<td>115,000.00</td>
<td>$115,000</td>
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<tr>
<td>Entry doors</td>
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<tr>
<td>Paired entrance door</td>
<td>3</td>
<td>PR</td>
<td>5,175.00</td>
<td>$15,525</td>
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<tr>
<td>Single entrance door</td>
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<td>EA</td>
<td>1,725.00</td>
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<td><strong>Subtotal for section B20</strong></td>
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<tr>
<td>B30 Roofing:</td>
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</tr>
<tr>
<td>Built up roofing, insulation, sheet metal and roof accessories</td>
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<td>SF</td>
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<td>$502,763</td>
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<td><strong>Subtotal for section B30</strong></td>
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<td></td>
<td>$502,763</td>
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<tr>
<td><strong>TOTAL - B - SHELL</strong></td>
<td></td>
<td></td>
<td></td>
<td>$11,431,426</td>
</tr>
</tbody>
</table>

**C - INTERIOR**

| C10 Interior Construction:        |       |      |           |             |
| "L" Building - primarily office space | 40,930 | SF   | 23.00     | $941,390    |
| "O" Building - primarily public space | 108,360 | SF   | 34.50     | $3,738,420  |
| Building 3 - primarily classrooms  | 44,700 | SF   | 28.75     | $1,285,125  |
| Premium for public restrooms      | 4,000 | SF   | 57.50     | $230,000    |
| **Subtotal for section C10**      |       |      |           | $6,194,935  |

| C20 Stairs:                       |       |      |           |             |
| Interior stairs                   | 21    | FLTS | 8,050.00  | $169,050    |
| **Subtotal for section C20**      |       |      |           | $169,050    |
| **TOTAL - C - INTERIOR**          |       |      |           | $6,363,985  |

**D - SERVICES**

<p>| D10 Conveying:                    |       |      |           |             |
| Hydraulic, 4 stop                 | 3     | EA   | 115,000.00| $345,000    |
| Hydraulic, 3 stop                 | 1     | EA   | 103,500.00| $103,500    |
| Hydraulic, 2 stop                 | 1     | EA   | 92,000.00 | $92,000     |
| <strong>Subtotal for section D10</strong>      |       |      |           | $540,500    |</p>
<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>QUAN.</th>
<th>UNIT</th>
<th>UNIT RATE</th>
<th>EST. COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>D20 Plumbing:</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Plumbing Fixtures Incl. Rough-in &amp; Local Piping, Mains &amp; Branch, Waste,</td>
<td>193,990</td>
<td>SF</td>
<td>10.64</td>
<td>$2,063,569</td>
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<td>Vent, Cold &amp; Hot Water, Gas Piping, FS's &amp; TP's</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Floor Drains, Roof Drains, Hose Bib's, Hydrants, WHA's, Access Panels,</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Valves, Clean-outs, RPBFP, Pumps, Hot Water Heaters, Expansion Tanks w/</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trim, Condensate Drains at HVAC Equipment, Gas Connection at Plbg / HVAC</td>
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</tr>
<tr>
<td>Equipment, VTR, Testing, Pipe Identification, Testing &amp; Flushing Domestic</td>
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<td></td>
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<tr>
<td>Systems, Fire Stopping, Seismic Control, Etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food Service Plumbing, Hook-up (FBO) Equipment</td>
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<td></td>
<td></td>
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<tr>
<td>Subtotal for section D20</td>
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<td></td>
<td></td>
<td>$2,063,569</td>
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<tr>
<td>D30 HVAC Systems:</td>
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<td></td>
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<tr>
<td>Chiller</td>
<td></td>
<td></td>
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<tr>
<td>1,000 Ton Water Cooled Chiller, Pumps, Chilled Water, Condenser</td>
<td>1</td>
<td>LS</td>
<td>109,250.00</td>
<td>$109,250</td>
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<td>Water Piping to (E) Cooling Tower, Insulation, Tie-inn's, Valving,</td>
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<td>Expansion Tanks, Chemical Feed, Air Vents.</td>
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</tr>
<tr>
<td>Air Handling Units</td>
<td>175,000</td>
<td>CFM</td>
<td>6.44</td>
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<td>Air Handling Units, w/ VFD's Economizers OSA Dampers, Vibration Isolation</td>
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</tr>
<tr>
<td>Flow Piping, Control Valves &amp; DDC Controls.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heating Hot Wtr. Pumps w/ SOV's &amp; Expansion Tank</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air Separators, Pot Feeders, In-Line Devices</td>
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<td>LS</td>
<td>13,800.00</td>
<td>$13,800</td>
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<td>Variable Air Volume</td>
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<tr>
<td>VAV's 600 / 1,000 cfm w/ Re-Heat Coils</td>
<td>200</td>
<td>EA</td>
<td>2,875.00</td>
<td>$575,000</td>
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<td>Data Room Air Conditioning</td>
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<td>Computer Room Package A/C Units, Leibers Units</td>
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<td>LS</td>
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<td>$57,500</td>
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<td>Exhaust Fans</td>
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<tr>
<td>EF's Roof Mounted w/ BDD's &amp; Bird Screens</td>
<td>21,000</td>
<td>CFM</td>
<td>1.44</td>
<td>$30,188</td>
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<tr>
<td>Ductwork &amp; Accessories</td>
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<td>Automatic Dampers MD-1 &amp; 2</td>
<td>14</td>
<td>EA</td>
<td>1,150.00</td>
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<td>Sound Traps 12,500 cfm's</td>
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<td>Wall Louvers</td>
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<td>EA</td>
<td>862.50</td>
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<td>Supply Air Diffusers</td>
<td>560</td>
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<td>253.00</td>
<td>$141,680</td>
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<td>Return Air Registers</td>
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<td>Exhaust Grilles</td>
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<td>Boot Boxes w/ lining</td>
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<td>74.75</td>
<td>$41,860</td>
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<td>Flex Duct</td>
<td>3,360</td>
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<td>Volume Dampers</td>
<td>800</td>
<td>EA</td>
<td>103.50</td>
<td>$82,800</td>
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<td>Fire Dampers</td>
<td>84</td>
<td>EA</td>
<td>138.00</td>
<td>$11,592</td>
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<td>Comb Smoke / Fire Dampers</td>
<td>24</td>
<td>EA</td>
<td>414.00</td>
<td>$9,936</td>
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<td>Galv. Sheet Metal Ductwork</td>
<td>250,000</td>
<td>LB</td>
<td>6.44</td>
<td>$1,610,000</td>
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<td>Duct Lining</td>
<td>11,200</td>
<td>SF</td>
<td>2.99</td>
<td>$33,488</td>
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<tr>
<td>Duct Insulation</td>
<td>108,000</td>
<td>SF</td>
<td>2.76</td>
<td>$298,080</td>
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<tr>
<td>Food Service HVAC (None Req'd)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chilled Water (S&amp;R) &amp; Heating Hot Water (S&amp;R) Piping w/ Insulation</td>
<td>193,990</td>
<td>SF</td>
<td>0.69</td>
<td>$133,853</td>
</tr>
</tbody>
</table>
## COLLEGE OF BUSINESS AND ECONOMICS
CALIFORNIA STATE UNIVERSITY, FULLERTON
FEASIBILITY STUDY COST ESTIMATE

**OCMI JOB #: 02168**
**DATE: 23 SEPTEMBER 2002**

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>QUAN.</th>
<th>UNIT</th>
<th>UNIT RATE</th>
<th>EST. COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heating Hot Water (S&amp;R) Piping w/ Insulation</td>
<td>193,990</td>
<td>SF</td>
<td>1.04</td>
<td>$200,780</td>
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<td>AHU Coil Chilled &amp; Heating Hot Water Face Piping w/ CV's &amp; SOV's</td>
<td>28</td>
<td>EA</td>
<td>2,300.00</td>
<td>$64,400</td>
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<tr>
<td>VAV Coils Re-Heat Face Piping w/ C V's &amp; SOV's</td>
<td>200</td>
<td>EA</td>
<td>402.50</td>
<td>$80,500</td>
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**DDC HVAC Controls**

<table>
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<tr>
<th>DESCRIPTION</th>
<th>QUAN.</th>
<th>UNIT</th>
<th>UNIT RATE</th>
<th>EST. COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>HVAC Test &amp; Balance, Air &amp; Water</td>
<td>207</td>
<td>LS</td>
<td>77.05</td>
<td>$15,949</td>
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<tr>
<td>HVAC Fire Stop</td>
<td>1</td>
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<td>8,625.00</td>
<td>$8,625</td>
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<tr>
<td>HVAC Seismic Control</td>
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<td>LS</td>
<td>17,250.00</td>
<td>$17,250</td>
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<tr>
<td>HVAC Miscellaneous Items</td>
<td>193,990</td>
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<td>0.29</td>
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<td>3,450.00</td>
<td>$3,450</td>
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<tr>
<td>HVAC Clean-up, Dump &amp; Haul Debris</td>
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<td>LS</td>
<td>8,625.00</td>
<td>$8,625</td>
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</tbody>
</table>

**Subtotal for section D30**

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>QUAN.</th>
<th>UNIT</th>
<th>UNIT RATE</th>
<th>EST. COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Combination Wet &amp; Dry Standpipe System w/ FDC's &amp; Valves</td>
<td>193,990</td>
<td>SF</td>
<td>3.74</td>
<td>$725,038</td>
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<tr>
<td>Automatic Wet Fire Sprinkler System, Test, Flush &amp; Seismic Control</td>
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<tr>
<td>Fire Pump &amp; Trim</td>
<td>1</td>
<td>EA</td>
<td>86,250.00</td>
<td>$86,250</td>
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**Subtotal for section D40**

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>QUAN.</th>
<th>UNIT</th>
<th>UNIT RATE</th>
<th>EST. COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Switch Boards, Motor Control Centers, Distribution Switch Boards, Power &amp; Lighting Panels, Conductors &amp; Cabling, Feeders, Raceways &amp; Boxes, Wiring Devices, Conduit &amp; Wire</td>
<td>193,990</td>
<td>SF</td>
<td>8.63</td>
<td>$1,673,164</td>
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<tr>
<td>Transformers &amp; Cabling</td>
<td>7</td>
<td>EA</td>
<td>23,000.00</td>
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<td>Lighting Control Panels &amp; Devices</td>
<td>8</td>
<td>EA</td>
<td>5,175.00</td>
<td>$41,400</td>
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<td>HVAC Power, w/ Disconnect Switches</td>
<td>15</td>
<td>EA</td>
<td>13,800.00</td>
<td>$207,000</td>
</tr>
<tr>
<td>Diesel Emergency Generator (self contained) &amp; ATS 1,000KW, for Lighting, Fire Pump &amp; Equipment w/ Outdoor Generator-set Enclosure</td>
<td>1</td>
<td>EA</td>
<td>207,000.00</td>
<td>$207,000</td>
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<tr>
<td>Interior Lighting, Fluorescent &amp; Incandescent</td>
<td>193,990</td>
<td>SF</td>
<td>5.75</td>
<td>$1,115,443</td>
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<tr>
<td>Fire Alarm Control Panel, Annunciation, Supervision &amp; Control. The system shall be a Class &quot;A&quot; four wire system. Pull Stations, Sound &amp; Visual.</td>
<td>193,990</td>
<td>SF</td>
<td>4.60</td>
<td>$892,354</td>
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<tr>
<td>Telephone / Data / CCTV / Life Safety Distribution System Backboards, Outlets, Backboxes, Conduit &amp; Wire</td>
<td>193,990</td>
<td>SF</td>
<td>2.88</td>
<td>$557,721</td>
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<tr>
<td>Electrical System Ring-out &amp; Test</td>
<td>1</td>
<td>LS</td>
<td>5,750.00</td>
<td>$5,750</td>
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<tr>
<td>Electrical System Seismic Control</td>
<td>1</td>
<td>LS</td>
<td>11,500.00</td>
<td>$11,500</td>
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<tr>
<td>Electrical System Fire Stop</td>
<td>1</td>
<td>LS</td>
<td>5,750.00</td>
<td>$5,750</td>
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</table>

**Subtotal for section D50**

**Prepared by: O'Connor Construction Management, Inc. Sheet 6 of 12**
### COLLEGE OF BUSINESS AND ECONOMICS
CALIFORNIA STATE UNIVERSITY, FULLERTON
FEASIBILITY STUDY COST ESTIMATE

**OCMI JOB #: 02168**
**DATE: 23 SEPTEMBER 2002**

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
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<th>UNIT</th>
<th>UNIT RATE</th>
<th>EST. COST</th>
</tr>
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<tbody>
<tr>
<td>Electrical System Identify &amp; Tag</td>
<td>1 LS</td>
<td>2,875.00</td>
<td>$2,875</td>
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<tr>
<td>Electrical System Miscellaneous</td>
<td>193,990 SF</td>
<td>0.40</td>
<td>$78,081</td>
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<tr>
<td>Electrical System Clean-up</td>
<td>1 LS</td>
<td>3,450.00</td>
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Subtotal for section D50                   $4,962,488

**TOTAL - D - SERVICES**                     $13,797,981

### E - EQUIPMENT / FURNISHINGS

**E10 Equipment**
Audiovisual equipment ALLOWANCE
1 LS 287,500.00 $287,500

**E20 Furnishings**
- Fixed casework ALLOWANCE
  1 LS 230,000.00 $230,000
- Window treatments (50% of glazing)
  21,000 SF 5.75 $120,750
- Fixed floor mats
  18 EA 690.00 $12,420
- Fixed seating ALLOWANCE
  400 EA 345.00 $138,000

Equipment and Furnishings ALLOWANCE
193,990 SF 3.45 $669,266

Subtotal for section E                      $1,457,936

**TOTAL - E - EQUIPMENT / FURNISHINGS**     $1,457,936

### G - SITEWORK

**G10 Site Preparation:**
- **G1010 Site Clearing:**
  Clearing and disposal
  187,000 SF 0.12 $21,505

**G1020 Demolition:**
- Civil improvements
  187,000 SF 0.58 $107,525
- Utilities re-route - ALLOWANCE
  1 LS 115,000.00 $115,000
- Allowance for expanded site limits
  100,000 SF 1.15 $115,000

**G1030 Earthwork**
- Remove and recompact under structure - 2’
  4,900 CY 11.50 $56,350
- Rough and fine grading
  187,000 SF 0.35 $64,515
- Allowance for expanded site limits
  100,000 SF 0.17 $17,250

Subtotal for section G10                    $497,145

**G20 Site Improvements:**
- **G2010 Roadways:**
  State College Blvd.
  40,000 SF 11.50 $460,000
  Parking lots
  20,000 SF 3.45 $69,000
  Curbs and gutters
  5,000 LF 13.80 $69,000
  Allowance for expanded site limits
  100,000 SF 5.75 $575,000

Prepared by: O'Connor Construction Management, Inc. Sheet 7 of 12
### Description of Work

#### G2030 Pedestrian Paving:
- **Concrete walkway**: 10,000 SF at $5.75 per SF = $57,500
- **Enhanced plaza areas**: 20,000 SF at $11.50 per SF = $230,000

#### G2040 Site Development:
- **Signage ALLOWANCE**: 1 LS at $34,500.00 = $34,500

#### G2050 Landscaping:
- **New and repair exisiting**: 38,170 SF at $4.60 per SF = $175,582

**Subtotal for section G20** = $1,670,582

#### G30 Site Utilities:

##### G3010 Water:
- **Hot tap existing**: 1 LS at $1,725.00 = $1,725
- **Detector check assembly**: 1 EA at $17,250.00 = $17,250
- **Fire loop**: 1,600 LF at $57.50 per LF = $92,000
- **Domestic water**: 1 LS at $1,725.00 = $1,725
- **Irrigation service**: 1 LS at $1,725.00 = $1,725
- **Fire hydrants**: 3 EA at $4,600.00 per EA = $13,800

##### G3020 Sanitary Sewer:
- **Connection to existing system**: 1 LS at $2,875.00 = $2,875
- **Underground service**: 500 LF at $46.00 per LF = $23,000
- **Manholes/cleanouts**: 2 EA at $3,450.00 per EA = $6,900
- **Laterals**: 100 LF at $34.50 per LF = $3,450

##### G3030 Storm Sewer:
- **Connection to existing system**: 1 LS at $2,300.00 = $2,300
- **Underground piping, various sizes**: 1,500 LF at $28.75 per LF = $43,125
- **Catch basins**: 30 EA at $575.00 per EA = $17,250
- **Manholes**: 4 EA at $2,875.00 per EA = $11,500
- **Misc. structures**: 1 LS at $5,750.00 = $5,750

##### G3040 Mechanical Hot and Chilled Water Systems
- **Connect to existing - pipe services to building**: 1 LS at $86,250.00 = $86,250

**Subtotal for section G30** = $330,625

#### G40 Site Electrical Utilities:

##### G4010 Electrical and communications service ALLOWANCE
- 1 LS at $143,750.00 = $143,750

##### G4020 Site Lighting: ALLOWANCE
- 128,170 SF at $0.58 per SF = $73,698

**Subtotal for section G40** = $217,448

---

**TOTAL - G - SITEWORK** = $2,715,800

Prepared by: O'Connor Construction Management, Inc. Sheet 8 of 12
## REMODEL SUMMARY

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>TOTAL COST</th>
<th>$/SF AREA</th>
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</thead>
<tbody>
<tr>
<td>A - SUBSTRUCTURE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B - SHELL</td>
<td>$246,560</td>
<td>$2.47</td>
</tr>
<tr>
<td>C - INTERIOR</td>
<td>$2,238,820</td>
<td>$22.39</td>
</tr>
<tr>
<td>D - SERVICES</td>
<td>$6,522,800</td>
<td>$65.23</td>
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<tr>
<td>E - EQUIPMENT / FURNISHINGS</td>
<td>$115,000</td>
<td>$1.15</td>
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<tr>
<td>G - SITEWORK</td>
<td>$483,690</td>
<td>$4.84</td>
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</tbody>
</table>

**SUBTOTAL** $9,606,870 $96.07

**GENERAL CONDITIONS OH & PROFIT** 17.00% $1,633,168 $16.33

**SUBTOTAL** $11,240,038

**ESCALATION TO MIDPOINT NIC**

**TOTAL BUILDING COST** $11,240,038

**GROSS FLOOR AREA:** 100,000 SF
**COST PER SQUARE FOOT:** $112.40
### B - SHELL

**B20 Exterior Closure:**
- **B2010.10 Exterior Skin:**
  - Patch and repaint exterior
  - QUAN: 50,000 SF  
  - UNIT RATE: 3.45  
  - EST. COST: $172,500

- **B2030.10 Exterior Doors:**
  - Upgrade for ADA
  - QUAN: 1 LS  
  - UNIT RATE: 23,000.00  
  - EST. COST: $23,000

**Subtotal for section B20**  
$195,500

**B30 Roofing:**
- Allowance for re roofing of building
  - QUAN: 11,100 SF  
  - UNIT RATE: 4.60  
  - EST. COST: $51,060

**Subtotal for section B30**  
$51,060

**TOTAL - B - SHELL**  
$246,560

### C - INTERIOR

**C10 Interior Construction:**
- **C1010 Partitions:**
  - Revisions for new changes to existing layout
    - Office to office remodel
      - QUAN: 26,000 SF  
      - UNIT RATE: 9.20  
      - EST. COST: $239,200
    - Classroom to office remodel
      - QUAN: 9,000 SF  
      - UNIT RATE: 23.00  
      - EST. COST: $207,000
    - Food service and computer lab improvements
      - QUAN: 7,600 SF  
      - UNIT RATE: 4.60  
      - EST. COST: $34,960
    - Allowance for 8th and 9th floors
      - QUAN: 15,000 SF  
      - UNIT RATE: 13.80  
      - EST. COST: $207,000
    - Renovate balance of second floor
      - QUAN: 10,000 SF  
      - UNIT RATE: 9.20  
      - EST. COST: $92,000

- **C1020.10 Interior Swing Doors:**
  - Door additions and revisions
    - Office to office remodel
      - QUAN: 26,000 SF  
      - UNIT RATE: 4.60  
      - EST. COST: $119,600
    - Classroom to office remodel
      - QUAN: 9,000 SF  
      - UNIT RATE: 11.50  
      - EST. COST: $103,500
    - Allowance for 8th and 9th floors
      - QUAN: 15,000 SF  
      - UNIT RATE: 9.20  
      - EST. COST: $138,000
    - Renovate balance of second floor
      - QUAN: 10,000 SF  
      - UNIT RATE: 4.60  
      - EST. COST: $46,000
    - Revisions for ADA
      - QUAN: 9 LEVEL  
      - UNIT RATE: 17,250.00  
      - EST. COST: $155,250

- **C1030.67 Casework:**
  - New kitchen casework
    - QUAN: 1 LS  
    - UNIT RATE: 23,000.00  
    - EST. COST: $23,000
  - New food service casework
    - QUAN: 1 LS  
    - UNIT RATE: 46,000.00  
    - EST. COST: $46,000
  - Work stations in computer lab
    - QUAN: 720 LF  
    - UNIT RATE: 230.00  
    - EST. COST: $165,600

- **C1030.70 Toilet Accessories:**
  - Revisions for ADA
    - QUAN: 9 LEVEL  
    - UNIT RATE: 9,200.00  
    - EST. COST: $82,800

**Subtotal for section C10**  
$1,659,910

**C30 Interior Finish:**
- **C3010 Wall Finishes:**
  - Repair tile in restrooms
    - QUAN: 9 LEVEL  
    - UNIT RATE: 11,500.00  
    - EST. COST: $103,500

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>QUAN.</th>
<th>UNIT</th>
<th>UNIT RATE</th>
<th>EST. COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>B2010.10 Exterior Skin</td>
<td>50,000</td>
<td>SF</td>
<td>3.45</td>
<td>$172,500</td>
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<tr>
<td>B2030.10 Exterior Doors</td>
<td>1</td>
<td>LS</td>
<td>23,000.00</td>
<td>$23,000</td>
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<tr>
<td>B30 Roofing</td>
<td>11,100</td>
<td>SF</td>
<td>4.60</td>
<td>$51,060</td>
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<tr>
<td>C1010 Partitions</td>
<td>26,000</td>
<td>SF</td>
<td>9.20</td>
<td>$239,200</td>
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<tr>
<td>C1020.10 Interior Swing Doors</td>
<td>26,000</td>
<td>SF</td>
<td>4.60</td>
<td>$119,600</td>
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<tr>
<td>C1030.67 Casework</td>
<td>1</td>
<td>LS</td>
<td>23,000.00</td>
<td>$23,000</td>
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<td>C1030.70 Toilet Accessories</td>
<td>9</td>
<td>LEVEL</td>
<td>9,200.00</td>
<td>$82,800</td>
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<tr>
<td>C3010 Wall Finishes</td>
<td>9</td>
<td>LEVEL</td>
<td>11,500.00</td>
<td>$103,500</td>
</tr>
</tbody>
</table>

Prepared by: O'Connor Construction Management, Inc.  
Sheet 10 of 12
### COLLEGE OF BUSINESS AND ECONOMICS
### CALIFORNIA STATE UNIVERSITY, FULLERTON
### FEASIBILITY STUDY COST ESTIMATE

**DATE:** 23 SEPTEMBER 2002

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>QUAN.</th>
<th>UNIT</th>
<th>UNIT RATE</th>
<th>EST. COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>C3010.80 Interior Wall Paint:</td>
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<td></td>
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<tr>
<td>Interior paint</td>
<td>67,600</td>
<td>SF</td>
<td>1.44</td>
<td>$97,175</td>
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<tr>
<td>Upgrade wall cover allowance</td>
<td>5,000</td>
<td>SF</td>
<td>6.90</td>
<td>$34,500</td>
</tr>
<tr>
<td>Allowance for 8th and 9th floors</td>
<td>15,000</td>
<td>SF</td>
<td>1.73</td>
<td>$25,875</td>
</tr>
<tr>
<td>Renovate balance of second floor</td>
<td>10,000</td>
<td>SF</td>
<td>1.44</td>
<td>$14,375</td>
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<tr>
<td>C3020.45 Flooring:</td>
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<td></td>
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<tr>
<td>Allowance for 8th and 9th floors</td>
<td>15,000</td>
<td>SF</td>
<td>4.60</td>
<td>$69,000</td>
</tr>
<tr>
<td>Renovate balance of second floor</td>
<td>10,000</td>
<td>SF</td>
<td>4.60</td>
<td>$46,000</td>
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<tr>
<td>C3030.40 Ceiling Finishes:</td>
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<td></td>
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<tr>
<td>New / repair ceiling finishes</td>
<td>67,600</td>
<td>SF</td>
<td>1.73</td>
<td>$116,610</td>
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<tr>
<td>Allowance for 8th and 9th floors</td>
<td>15,000</td>
<td>SF</td>
<td>1.73</td>
<td>$25,875</td>
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<tr>
<td>Renovate balance of second floor</td>
<td>10,000</td>
<td>SF</td>
<td>4.60</td>
<td>$46,000</td>
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Subtotal for section C30: $578,910

**TOTAL - C - INTERIOR**

$2,238,820

---

### D - SERVICES

<table>
<thead>
<tr>
<th>D10 Conveying:</th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>D1010.10 Elevators:</td>
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</tr>
<tr>
<td>Repairs to 9 story elevators</td>
<td>2</td>
<td>EA</td>
<td>138,000.00</td>
<td>$276,000</td>
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Subtotal for section D10: $276,000

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<tr>
<th>D20 Plumbing:</th>
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</thead>
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<tr>
<td>Revisions for ADA</td>
<td>9</td>
<td>LEVEL</td>
<td>46,000.00</td>
<td>$414,000</td>
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Subtotal for section D20: $414,000

<table>
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<tr>
<th>D30 HVAC Systems:</th>
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<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Office to office changes</td>
<td>26,000</td>
<td>SF</td>
<td>11.50</td>
<td>$299,000</td>
</tr>
<tr>
<td>Classroom to office changes</td>
<td>9,000</td>
<td>SF</td>
<td>13.80</td>
<td>$124,200</td>
</tr>
<tr>
<td>Food service area</td>
<td>1,600</td>
<td>SF</td>
<td>23.00</td>
<td>$36,800</td>
</tr>
<tr>
<td>Computer lab area</td>
<td>6,000</td>
<td>SF</td>
<td>23.00</td>
<td>$138,000</td>
</tr>
<tr>
<td>Allowance for 8th and 9th floors</td>
<td>15,000</td>
<td>SF</td>
<td>13.80</td>
<td>$207,000</td>
</tr>
<tr>
<td>Renovate balance of second floor</td>
<td>10,000</td>
<td>SF</td>
<td>11.50</td>
<td>$115,000</td>
</tr>
<tr>
<td>Repair/replace worn equipment</td>
<td>100,000</td>
<td>SF</td>
<td>17.25</td>
<td>$1,725,000</td>
</tr>
</tbody>
</table>

Subtotal for section D30: $2,645,000

<table>
<thead>
<tr>
<th>D40 Fire Protection:</th>
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<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Revisions for new changes to existing layout</td>
<td>100,000</td>
<td>SF</td>
<td>4.60</td>
<td>$460,000</td>
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Subtotal for section D40: $460,000

<table>
<thead>
<tr>
<th>D50 Electrical:</th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Office to office changes</td>
<td>26,000</td>
<td>SF</td>
<td>11.50</td>
<td>$299,000</td>
</tr>
<tr>
<td>Classroom to office changes</td>
<td>9,000</td>
<td>SF</td>
<td>17.25</td>
<td>$155,250</td>
</tr>
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---

Prepared by: O'Connor Construction Management, Inc.

Sheet 11 of 12
<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>QUAN.</th>
<th>UNIT</th>
<th>UNIT RATE</th>
<th>EST. COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food service area</td>
<td>1,600</td>
<td>SF</td>
<td>23.00</td>
<td>$36,800</td>
</tr>
<tr>
<td>Computer lab area</td>
<td>6,000</td>
<td>SF</td>
<td>23.00</td>
<td>$138,000</td>
</tr>
<tr>
<td>Allowance for 8th and 9th floors</td>
<td>15,000</td>
<td>SF</td>
<td>17.25</td>
<td>$258,750</td>
</tr>
<tr>
<td>Upgrade data and communications systems</td>
<td>100,000</td>
<td>SF</td>
<td>17.25</td>
<td>$1,725,000</td>
</tr>
<tr>
<td>Renovate balance of second floor</td>
<td>10,000</td>
<td>SF</td>
<td>11.50</td>
<td>$115,000</td>
</tr>
</tbody>
</table>

Subtotal for section D50                             | $2,727,800

TOTAL - D - SERVICES                                  | $6,522,800

E - EQUIPMENT / FURNISHINGS                           |

E20 Furnishings:
- Expanded food service equipment                    | 1 LS    | 57,500.00 | $57,500
- New window cover                                    | 10,000  | SF       | 5.75     | $57,500

Subtotal for section E20                             | $115,000

TOTAL - E - EQUIPMENT / FURNISHINGS                   | $115,000

G - SITEWORK                                          |

G10 Site Preparation:
- G1020 Demolition:
  - Existing improvements, office to office changes  | 26,000 | SF   | 5.75     | $149,500  |
  - Existing improvements, classroom to office improvements | 9,000  | SF   | 5.75     | $51,750   |
  - Existing improvements, future computer lab and food service areas | 7,600  | SF   | 6.90     | $52,440   |
  - Existing improvements, finish only changes        | 25,000 | SF   | 3.45     | $86,250   |
  - Allowance for 8th and 9th floor                    | 15,000 | SF   | 5.75     | $86,250   |
  - Balance of second floor for renovation             | 10,000 | SF   | 5.75     | $57,500   |

Subtotal for section G10                             | $483,690

TOTAL - G - SITEWORK                                  | $483,690