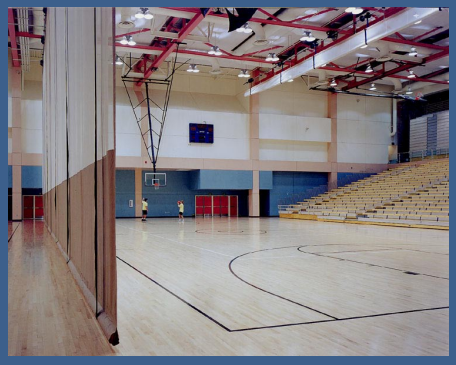

UC RIVERSIDE

STUDENT RECREATION CENTER EXPANSION

DETAILED PROJECT PROGRAM

MARCH 23, 2009

CANNONDESIGN

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Executive Summary

1.0 Executive Summary

EXECUTIVE SUMMARY

1.0 EXECUTIVE SUMMARY

The Student Recreation Center Expansion Detailed Project Program (DPP) Study provides justification and illustrates the space requirements and siting recommendations for the expansion of the Student Recreation Center. This study was conducted concurrently with and was informed by a Student Referendum Plan Study completed by the facility planning firm, Brailsford & Dunlavey. The primary finding of this DPP is that the current Student Recreation Center facility is deficient both in quantity and type of space and should be expanded to meet current university needs.

The Student Recreation Center opened in 1994 and contains 59,056 assignable square feet (asf), 86,140 gross square feet (gsf). The facility was constructed when the campus population was 8,600 students, and the building was planned to accommodate a population of 11,000 students. Since 1994, enrollment has increased to approximately 18,000 students (Fall 2008 headcount), with the long term projection of growth to 25,000 students. The existing building was funded by student fees and designed primarily for recreation; however the facility was planned with the ability to configure the gymnasium and related support spaces into a 2,800 seat arena for limited use by intercollegiate athletics and special events. This shared use creates operational requirements that must be accommodated within the planned expansion.

The conclusions contained in the DPP were reached through a highly interactive and inclusive planning process that engaged a wide range of campus stakeholders. Initial input from students, faculty and staff was obtained through a series of focus groups meetings. Information obtained from these discussions was used to develop a preliminary space program that was incorporated in the Student Referendum Plan student survey conducted by Brailsford & Dunlavey. Results from the survey were instrumental in shaping the final space program recommendation.

The areas of greatest need identified by the student survey were the fitness area, weight training, group fitness, indoor walking / jogging track, and a lap/leisure pool. The DPP also recommends adding a basketball gymnasium dedicated to recreation use because there is no gymnasium space available for students when the Student Recreation Center is used to accommodate an event.

The proposed project provides 35,090 asf (53,843 gsf) facility containing a new, expanded weight training and fitness area, wellness center, administrative offices, locker rooms and support. The new space would be located south of the existing east-west walkway on the south side of the Student Recreation Center, and would connect to the current facility via a pedestrian bridge. The concept permits a controlled single point of entry for recreational users while maintaining a separate events entrance. The leisure pool is contiguous to the expansion which facilitates control and shared use of support facilities. Consolidating all weight training and fitness areas in the new facility allows for renovation of approximately 6,830 asf (8,035 gsf) of space in the Student Recreation Center. Renovated space combined with an addition of 2,320 asf (2,729 gsf) will provide space for three new fitness rooms and the Outdoor Adventures programs.

A Multi Use Athletic Court (MAC) of 8,804 asf (12,577 gsf) was identified as a need, and is listed as an alternate in the program. If this is to be incorporated in the project, the combined total area of new construction will be 43,894 asf (66,420 gsf), and renovation of 6,830 asf (8,035 gsf).

This expansion is sited to allow maximum flexibility to accommodate the ever-changing recreational requirements of a dynamic growing student body; the expansion is sized to meet the needs of the current and future East Campus student population. As the West Campus population grows, it is anticipated that a satellite recreation facility will be constructed to provide West Campus recreational opportunities proximate to that population.

Space Program Summary

	ASF	GSF
Expansion, New Construction	35,090	53,843
Addition, New Construction	2,320	2,729
Total New Construction	37,410	56,572
Mac Gym, Alternate	8,804	12,577
Renovation	6,830	8,035

2
Introduction

2.1 PARTICIPANTS LIST

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2.1 GENERAL BACKGROUND

In 1994, the University of California, Riverside opened the Student Recreation Center (SRC) providing new opportunities for recreational activities on campus to accommodate the expected growth at UCR. The design of the 86,140 gross square foot facility was planned for a campus population of 11,000 students. Since the SRC opened, the campus population has doubled from approximately 8,600 to 18,000 students. In addition to the increased campus population, participation rates among all population segments are greater than before with evolving activity preferences. Accordingly, generally accepted planning standards suggest that the University is facing an acute shortage of recreation space and crowded conditions.

Based on these issues, the UCR Recreation Facilities Governing Board proposed the Student Recreation Center Expansion Project to enhance the quality and quantity of recreation programs offered as well to incorporate a recreational aquatics program. High priority has been given to identify recreation space needs to support a long-term campus population of 25,000 students on both the East and West Campus.

Cannon Design has developed the Detailed Project Program in tandem with the Student Referendum Plan- Study conducted concurrently by Brailsford & Dunlavey.

2.2 PROJECT DESCRIPTION

The goal of this project was to define a program for the expansion to the existing Student Recreation Center that was completed in the Fall of 1993, and to plan and recommend how this expansion is to be sited relative to the existing Recreation Center.

The contents of this Report are the findings and conclusions for the programming and planning of an expansion to the existing Student Recreation Center. It is thus critical that an evaluation of the existing building is included in the Report to assess the current layout and condition of the existing building.

The existing Student Recreation Center was opened in early 1994 and contains 86,140 gross square feet (GSF) of space on two stories. Linden Street is on the north side of the building and Aberdeen Drive is on the east side of the building. There is a small parking lot on the west side of the building. The south side of the building is an east-west pedestrian and emergency vehicle access walkway that is accessed mainly from Aberdeen Drive but can also be accessed if necessary from the Parking Lot on the west side of the building. There is an outdoor Recreation complex to the south of this walkway that includes a small Outdoor Excursions facility, 10 tennis courts, a roller hockey court, 2 basketball courts, and 2 sand volleyball courts. A service road along the east side of the building from the main east-west walkway on the south side provides service access to the mechanical, electrical and trash spaces. To the east of the service road are an outdoor Challenge Course and a small Climbing Wall.

The evolution of the expansion program and the selection of a final program were accomplished through input from various sources. First a series of open Student Focus Group sessions were held where students were able to express their opinions on the spaces in the existing Student Recreation Center along with the current programming offered by Campus Recreation in not only the Recreation Center building but at the adjacent outdoor recreation complex which contains Outdoor Excursions , tennis courts, a roller hockey court, basketball courts, and sand volleyball courts. The students were also asked what is deficient in terms of both spaces and programming in the existing Student Recreation Center and outdoor recreation area, and what they would like to see in an expansion to the Recreation Center. In addition to these open Focus Group sessions, Brailsford & Dunlavey conducted a student survey to poll students on their opinions on the existing Student Recreation Center and programming, and what they would like to see in an expansion to the Recreation Center. All students were eligible to respond to this survey online and thus it provided more comprehensive data to use in the programming of the building expansion. The survey also collected data on the demographics of the students that responded to the survey. The survey results are contained in a separate report prepared by Brailsford & Dunlavey. Additional input for the programming process was received from the Project Committee, the staff of the Student Recreation Center, and from Capital Planning through a series of meetings that occurred on a regular basis throughout the duration of the project. A number of Program Models were created, tested and refined into a final expansion Space Program Model. All of these Program Models are included in Section 11.1 of this Report. The Final Space Program Model includes 8,035 gross square feet of renovation space in the existing Recreation Center along with a small expansion of 2,729 gross square feet to the northwest corner of the existing building. The rest of the expansion program calls for 66,420 gsf of new space to be accommodated on the south side of the existing building. The size of the expansion was also determined by what the survey determined was the amount of a student fee increase that the students were willing to pay if this was put to a referendum vote, and translating that fee amount into a square footage amount for the expansion program. Thus a mid-size expansion program of approximately 65,000 gross square feet of new space has been determined to be in the range of increased student fees that students would be willing to approve in a referendum.

INTRODUCTION

As the Program Models were being developed, they were also concurrently being tested as to how the site around the existing Recreation Center could be developed for this expansion. The site was analyzed to see if the expansion areas that were defined in the Program Models could be accommodated on the west and east sides of the existing Recreation Center, or would additional site on the south side of the Recreation Center be necessary. Renovation of portions of the existing Recreation Center were also considered in order to accommodate the expansion program. The Site and Building Concept options that were created during the study are included in Section 11.2 of this Report. The Preferred Site and Building layout shows a renovation of the existing Fitness / Weight Room into Multi-purpose Rooms and a small addition to the north of this space to accommodate the Outdoor Excursions spaces and the Climbing and Bouldering Walls. The majority of the building expansion including the Outdoor Pool and Deck are sited to the south of the existing Recreation Center separated by approximately 60 feet of open area between the existing building and the expansion building maintaining the existing walkway / emergency vehicle access on the south side of the existing building . The two buildings will be linked by second level bridge linking the existing Entry Lobby to a new Entry Lobby at the northwest corner of the new expansion building.

1. Existing Recreation Center
2. Challenge Course
3. Outdoor Recreation Building
4. Outdoor Recreation Complex
5. Track Stadium

3
Site Analysis

3.0 EXISTING SITE

The existing Recreation Center is located at the southwest corner of Linden Street and Aberdeen Drive in an area which the 2005 Long Range Development Plan (LRDP) has designated for recreational facilities/ outdoor fields. As described in the 2005 LRDP, fields and facilities will be added to the East Campus, to better serve the students living in student housing on that side of campus. Over time, however, additional facilities will also be added to the West Campus to provide additional capacity for West Campus residents.

The area immediately south of the existing Student Recreation Center is the area being studied . The site is basically flat and currently covered with turf, ten tennis courts and a roller hockey rink. On the east and south edges there is a grade change of approximately 6 feet rising up to the level of the adjacent areas.

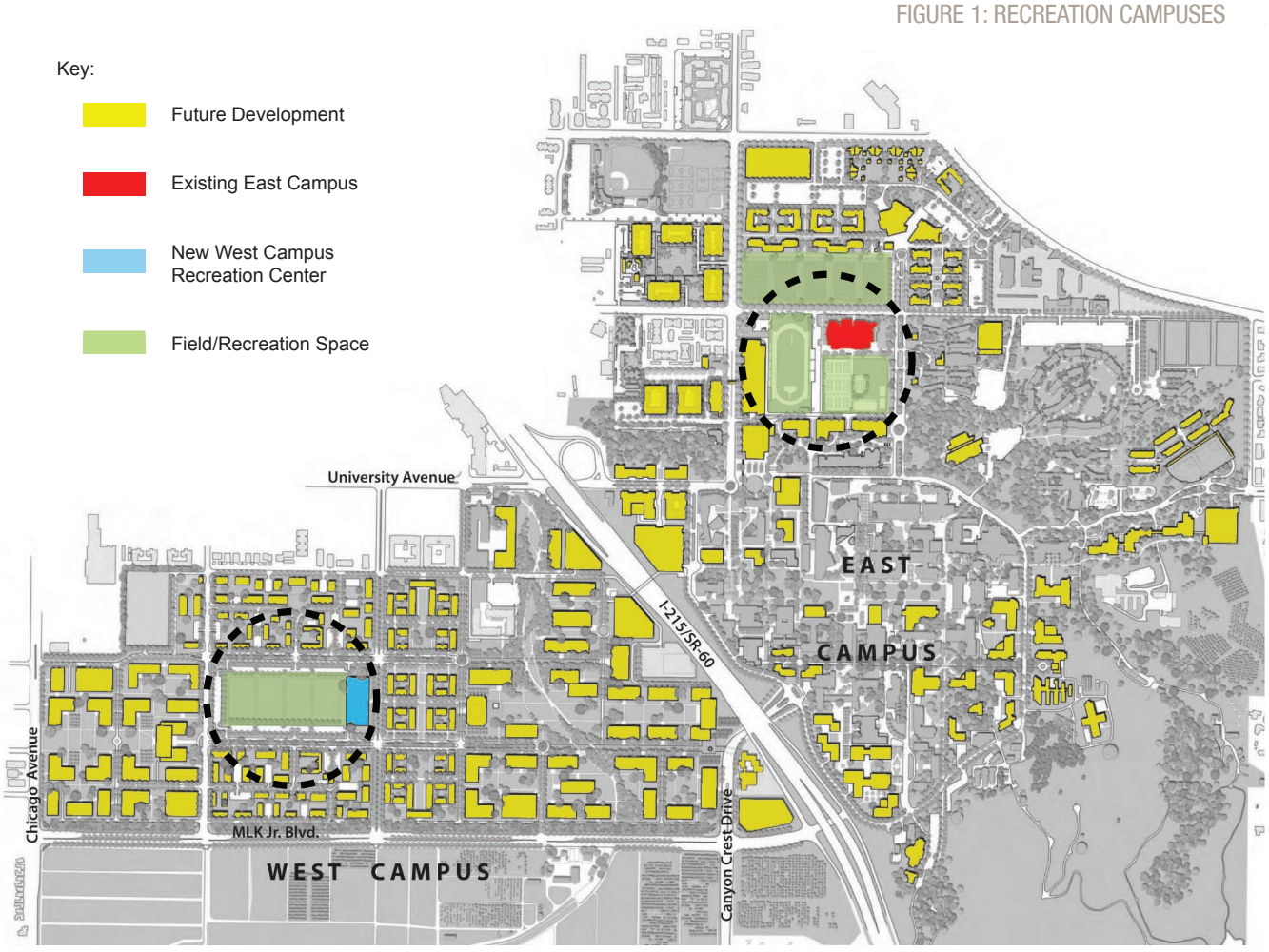
One of the main components of the Student Recreation Center Expansion is the outdoor pool. Consideration must be given to the location of the pool and pool deck in relation to the sun pattern. Figure 2: Sun Diagram illustrates the sun pattern in relation to the site.

The general contextual issues related to the proposed Student Recreation Expansion and its site were analyzed in terms of current and long term issues.

Currently the area of study is bounded by campus student housing on the north and east sides an athletic field to the west, and future academic use to the south. The existing parking lot-24 serves the recreation center visitors for both day to day recreational users and for special events. The 2005 LRDP and the 2008 Campus Aggregate Master Plan (CAMPS) analysis of East Campus Development and Capacity were the guide to the long term goals and site influences for the student recreation expansion layout.

CAMPS is an all-encompassing examination of several area studies within the context of the 2005 LRDP. The 2008 CAMPS weaves the various planning documents together creating coherence among the various precincts as well as providing for changes as a result of the 2008 Strategic Plan for Housing update.

FIGURE 1: RECREATION CAMPUSES

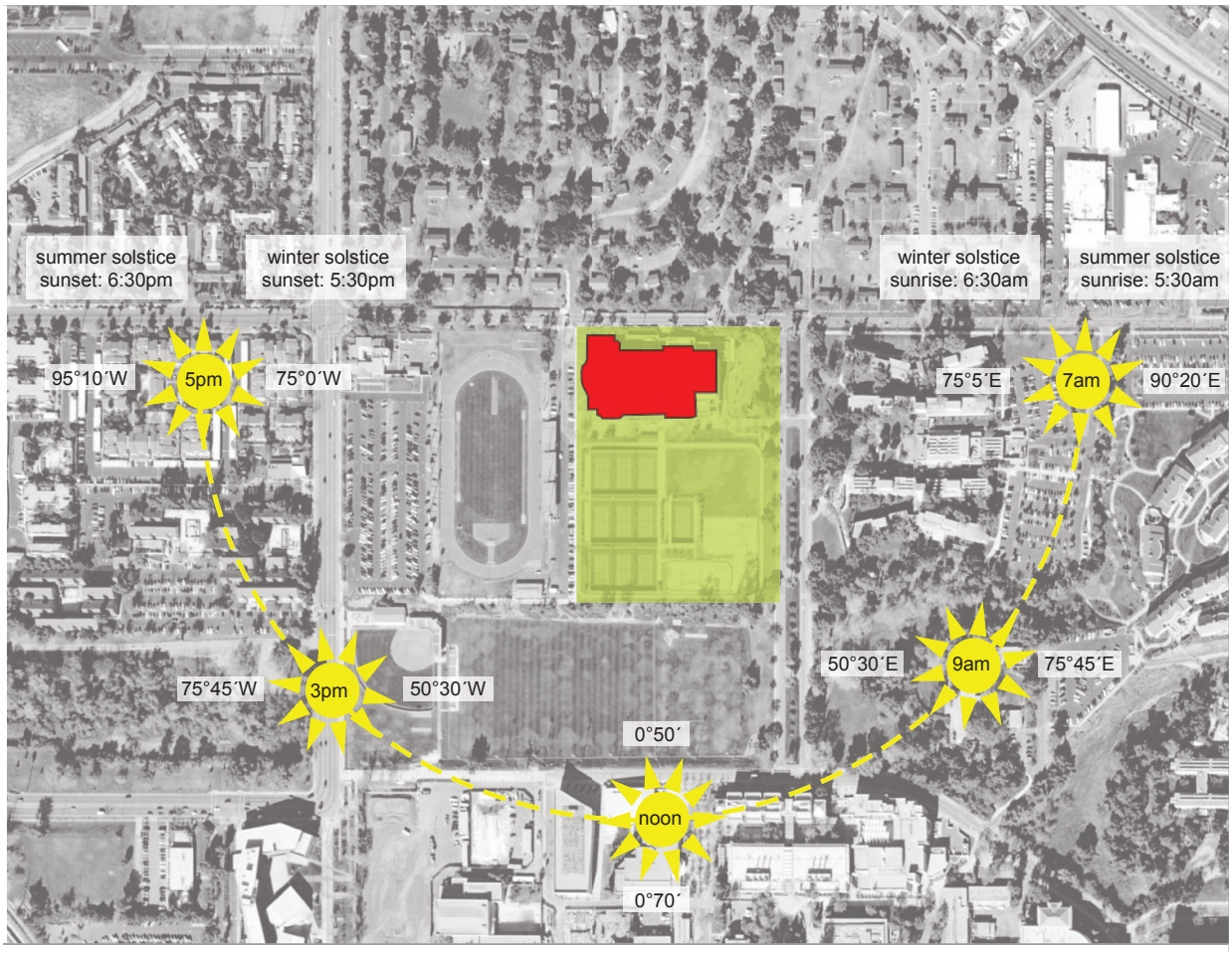


3.1 SITE CONCEPTS

SITE AND BUILDING CONCEPT

A series of Site and Building Options for the expansion to the Student Recreation Center were developed in conjunction with the associated Space Program Models (see Section 4.3 of this Report) These Options were first developed to determine the potential expansion site areas around the existing building, specifically the west and the east sides of the building. The Outdoor Recreation area to the south of the existing Student Recreation Center was also explored as a site for the building expansion. As the size of the expansion program evolved into an expansion area of approximately 65,000 gross square feet, it became apparent that this size would be hard to accommodate on just the west and east sides of the existing building. It was also determined that although the east-west circulation and emergency vehicle access walkway between the existing building and the Outdoor Recreation area could be relocated, it would probably not be worthwhile to do this. The access walkway could only be moved approximately 80 feet to the south of its existing location in order for it to match a cut in the island between the two lanes of traffic in Aberdeen Drive. There is also a main sewer line under the access walkway and it would be costly to relocate this sewer line. A brief description of the Site and Building Concept Options is as follows including the pros and cons for each of the Options:

FIGURE 2: SUN DIAGRAM



SITE ANALYSIS

SITE AND BUILDING OPTION 1:

This Option would renovate the existing Fitness / Weight Room on the west side of the existing building into Multi-purpose Rooms and add a small expansion to area north of the Fitness / Weight Room to accommodate the Outdoor Excursion spaces including the Climbing and Bouldering Walls. The Outdoor Excursions area would be accommodated for the loading and unloading of outdoor equipment rented from Outdoor Excursions by the existing parking spaces in the Parking Lot on the west side of the existing building. These northern-most spaces are to remain with access from Linden Street even after this Parking Lot is converted into the Recreation Mall. The area on the east side of the existing building has enough room for 15,000 gross square feet of expansion on each floor for a total of 30,000 gross square feet. The Outdoor Pool and Pool Deck and a Pool Support Building would be located on the open field area on the northeast side of the Outdoor Recreation area to the south of the existing building. The access to the Pool Support building (delivery of pool chemicals and any pool equipment) will be from the south off of a future limited access road that the Campus Master Plan calls for on the south side of the Outdoor Recreation area with access to Aberdeen Drive on the east, and Canyon Crest Drive on the west.

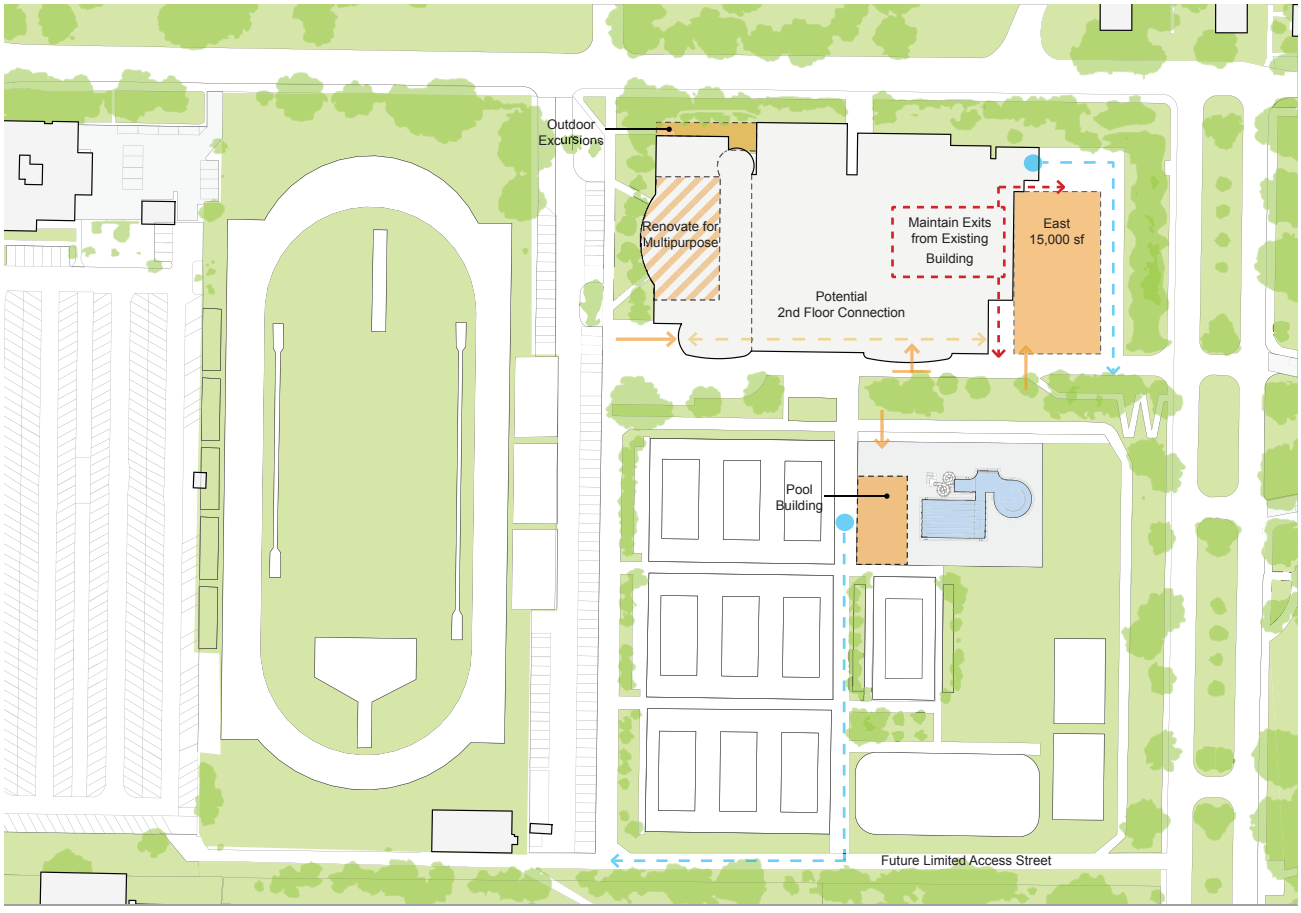
PROS:

- Pool location minimizes relocation impact of current Outdoor recreation areas (tennis courts, specifically)
- Expansion area contiguous; does not require a new entrance
- No impact on tennis courts

CONS:

- East side expansion only allows for 30,000 sf of expansion, while the program requires approximately 65,000 sf.
- Construction will create existing building operational problems, specifically with events entrance and connection; the link between the east and west is not possible on the First Floor of the building because of the location of the Events Entry and Lobby, and can possibly take place on the 2nd Floor of the building, but it would have to cross through the Events Lobby on the 2nd Floor level.

OPTION 1 DIAGRAM:



SITE AND BUILDING OPTION 2:

The only difference between this Option and Option 1 described above is in the location of the Outdoor Pool and Pool Deck and the Pool Support building. These are located on the area currently occupied by the three northern-most of the existing Tennis Courts.

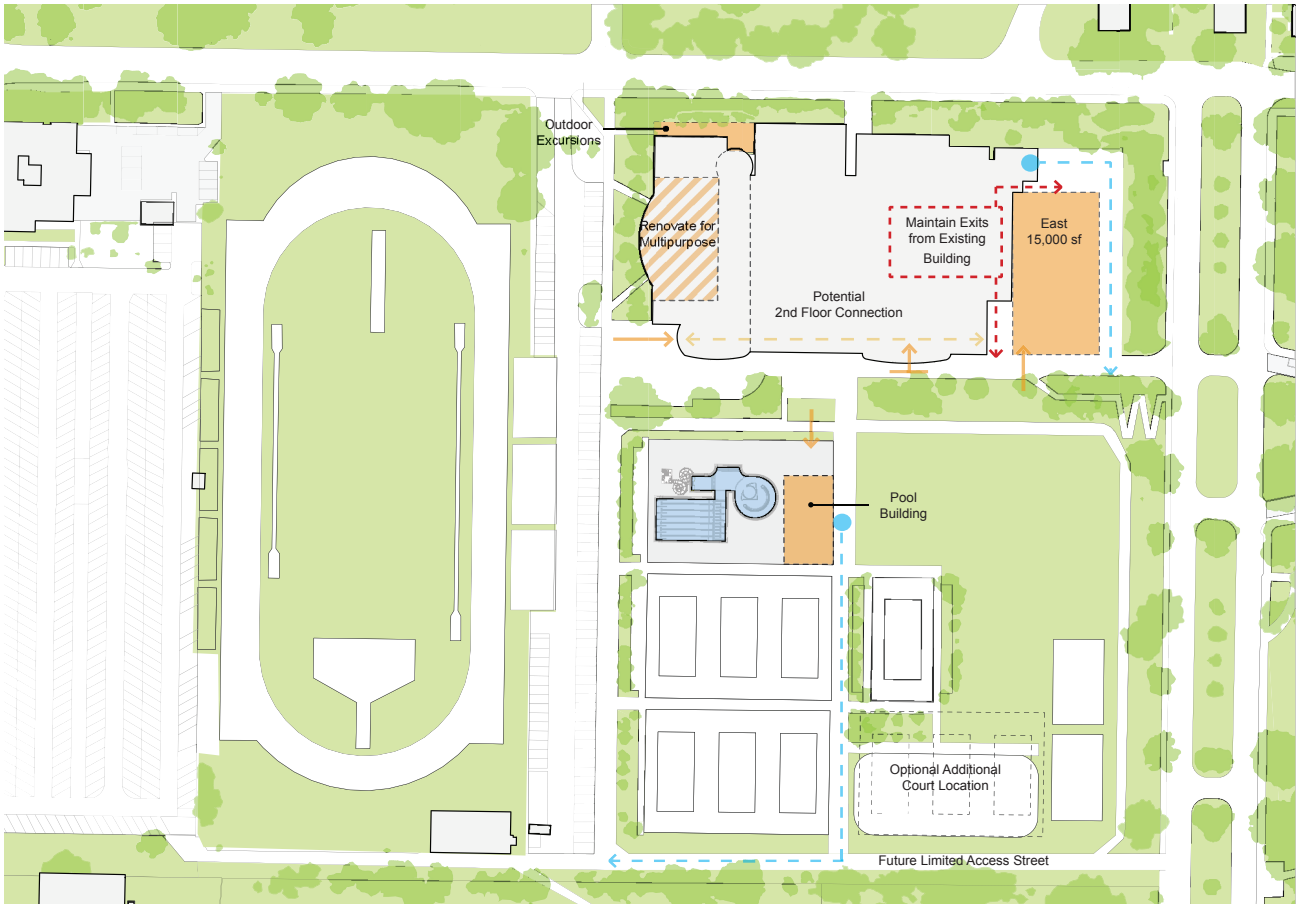
PROS:

- The Project Committee preferred this location for the Pool as it would have a presence on the future Recreation Mall that will replace the parking lot on the west side of the existing Recreation Center and the Outdoor Recreation area.
- West side expansion works well with site
- Pool location minimizes relocation impact of current Outdoor recreation areas (tennis courts, specifically)
- Expansion area contiguous; does not require a new entrance

CONS:

- Construction will create existing building operational problems, specifically with events entrance and connection; the link between the east and west is not possible on the First Floor of the building because of the location of the Events Entry and Lobby, and can possibly take place on the 2nd Floor of the building, but it would have to cross through the Events Lobby on the 2nd Floor level.
- West side expansion creates need for second floor connection
- Service access location is compromised
- Structural integration between the west and east side will be costly and expensive and may require that the rest of the existing building be upgraded to meet the structural and separation requirements of the current California Building Code.
- Although three Tennis Courts will be lost in this Option, it was determined that the remaining seven Tennis Courts were sufficient for both Athletic and Recreational uses. If it is necessary to still have nine Tennis Courts, three replacement Courts could be built in the location of the existing Roller Hockey Courts which has very little use and is expendable.
- Events/East/West Interaction will be problematic
- Physical separation of pool
- No gyms are included

OPTION 2 DIAGRAM:



SITE ANALYSIS

SITE AND BUILDING OPTION 3:

This Option locates the expansion area on the east side of the existing Student Recreation Center as shown in both Options 1 and 2, but it removes the entire west side of the existing building (one-story that contains Administration Offices, the Fitness / Weight Room, and a Multi-purpose Room) with a new 2-story expansion. This would provide approximately 30,600 gsf of expansion space on the west side of the building, and along with the 30,000 gsf of expansion area contiguous to the existing building. The original building was approved under the provisions of the 1989 Uniform Building Code. The location of the Pool, Pool Deck and the Pool Support building is in the same location as Option 2.

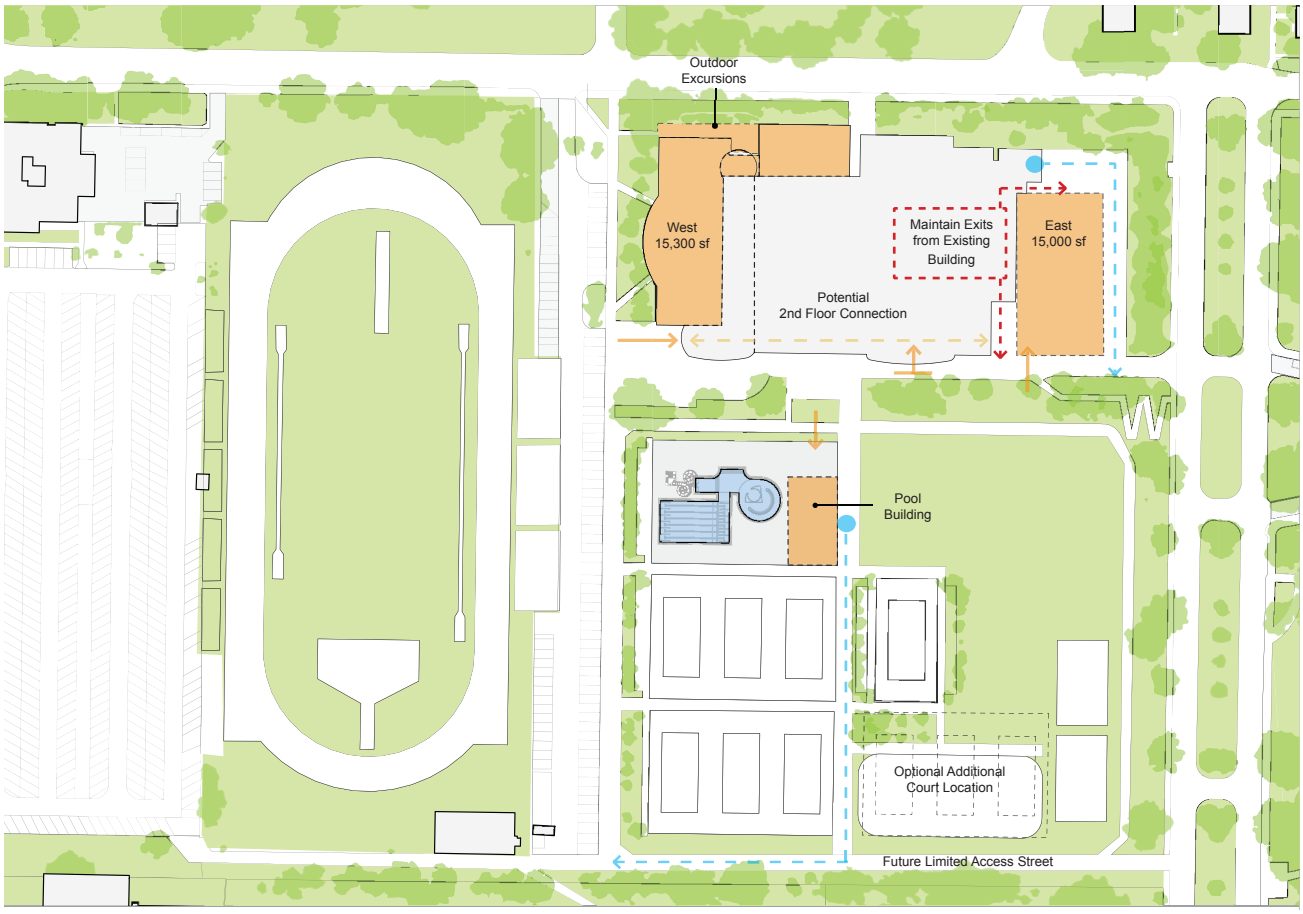
PROS:

- Pool location optimal because of its location to sun light gain.
- West side expansion works well with site
- Pool location minimizes relocation impact of current Outdoor recreation areas (tennis courts, specifically)

CONS:

- The total expansion area of 60,600 gsf is still a little short of the 65,000 gsf that is required by the program for the expansion.
- Structural integration between the west and east side will be costly and expensive and may require that the rest of the existing building be upgraded to meet the structural and separation requirements of the current California Building Code.
- The original building has a construction type of Type II, Fire Resistive, and the allowable building area for this construction type would not allow over 60,000 gsf of expansion to the existing building without costly building separations between the expansion areas and the existing building.
- Construction will create existing building operational problems, specifically with events entrance and connection; the link between the east and west is not possible on the First Floor of the building because of the location of the Events Entry and Lobby, and can possibly take place on the 2nd Floor of the building, but it would have to cross through the Events Lobby on the 2nd Floor level.

OPTION 3 DIAGRAM:



SITE AND BUILDING OPTION 4:

This Option renovates the existing Fitness / Weight Room into Multi-purpose Rooms and adds a small expansion to the area north of this for the Outdoor Excursion spaces as in Options 1 and 2. The big difference in this Option is that the new expansion is not on the east side of the existing building, but takes place in a new building that extends from the southwest side of the existing building and occupies the area of six of the nine existing Tennis Courts. This expansion building would also contain the Pool Support spaces. The Pool and Pool Deck would be located on the south side of this expansion building over three more of the existing Tennis Courts.

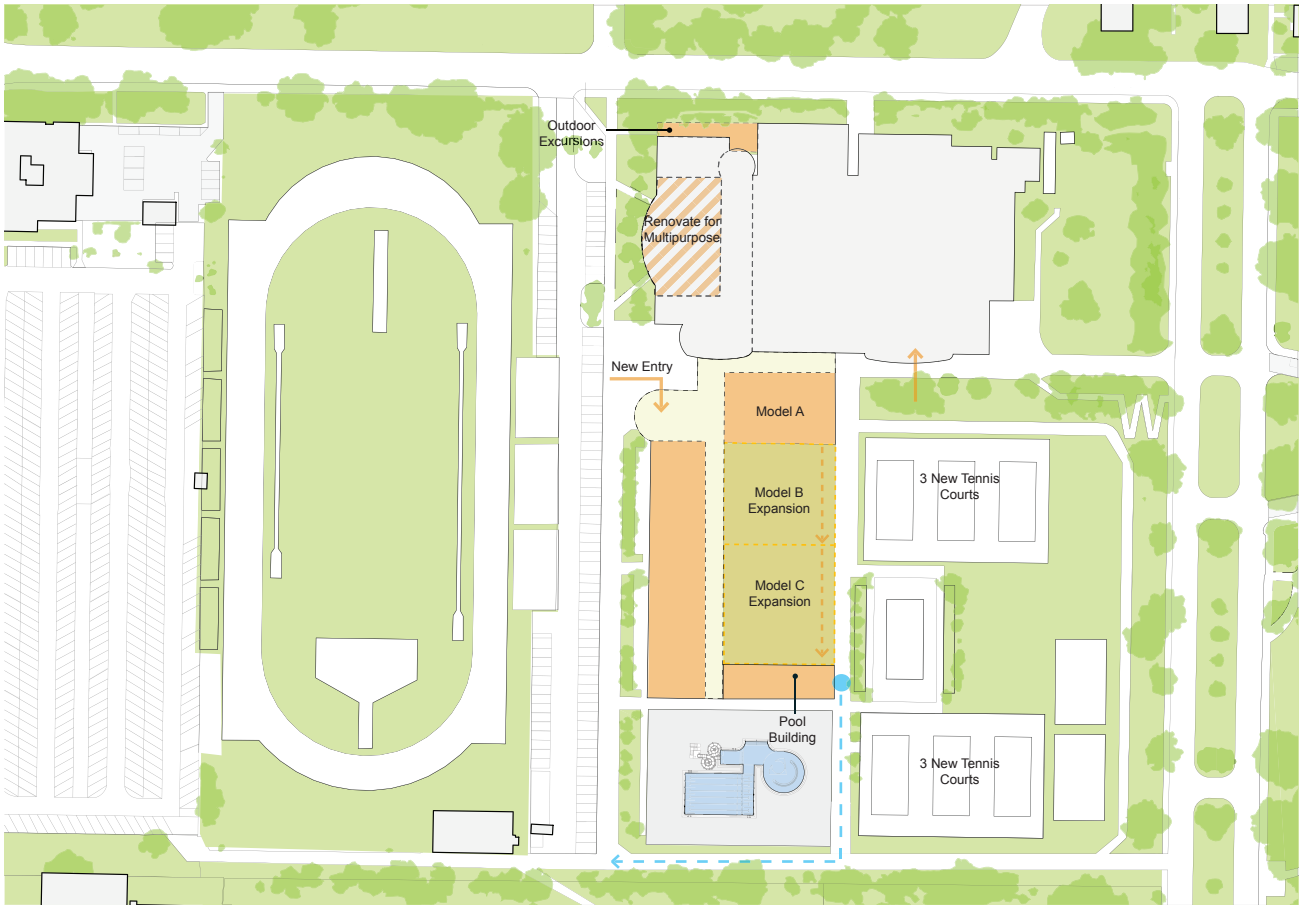
PROS:

- North/South connection supports pedestrian mall master planning concept
- The expansion area would allow for all program spaces in all three of the Program Models including all Gymnasiums.
- Creates a contiguous building and allows for the continuous operation of all recreation spaces when there is an event in the existing gym

CONS:

- Requires the relocation of a utility service line under the full length of the walkway (line connects to utitlity lines under Aberdeen Drive) and builds over the emergency vehicle access on the south side of the existing building .
- Requires the replacement of at least six Tennis Courts to be built on the Roller Hockey site and the open field area to the south of the events Entry of the existing building.
- The new building entry on the west side and the existing events Entry are isolated from each other.

OPTION 4 DIAGRAM:



SITE ANALYSIS

SITE AND BUILDING OPTION 5:

This Option includes the renovation of the existing Multi-purpose Room and the addition for the Outdoor Excursions spaces as described on previous page. The new building expansion is parallel to the existing building, which maintains the separation between the two buildings with the existing pedestrian and emergency vehicle access walkway. The connection between the existing building and the new expansion building is by a 2nd level bridge that crosses over the walkway and provides enough clearance height for an emergency vehicle. The Outdoor Pool and Pool Deck and the Pool Support building are located on the south side of the new expansion building.

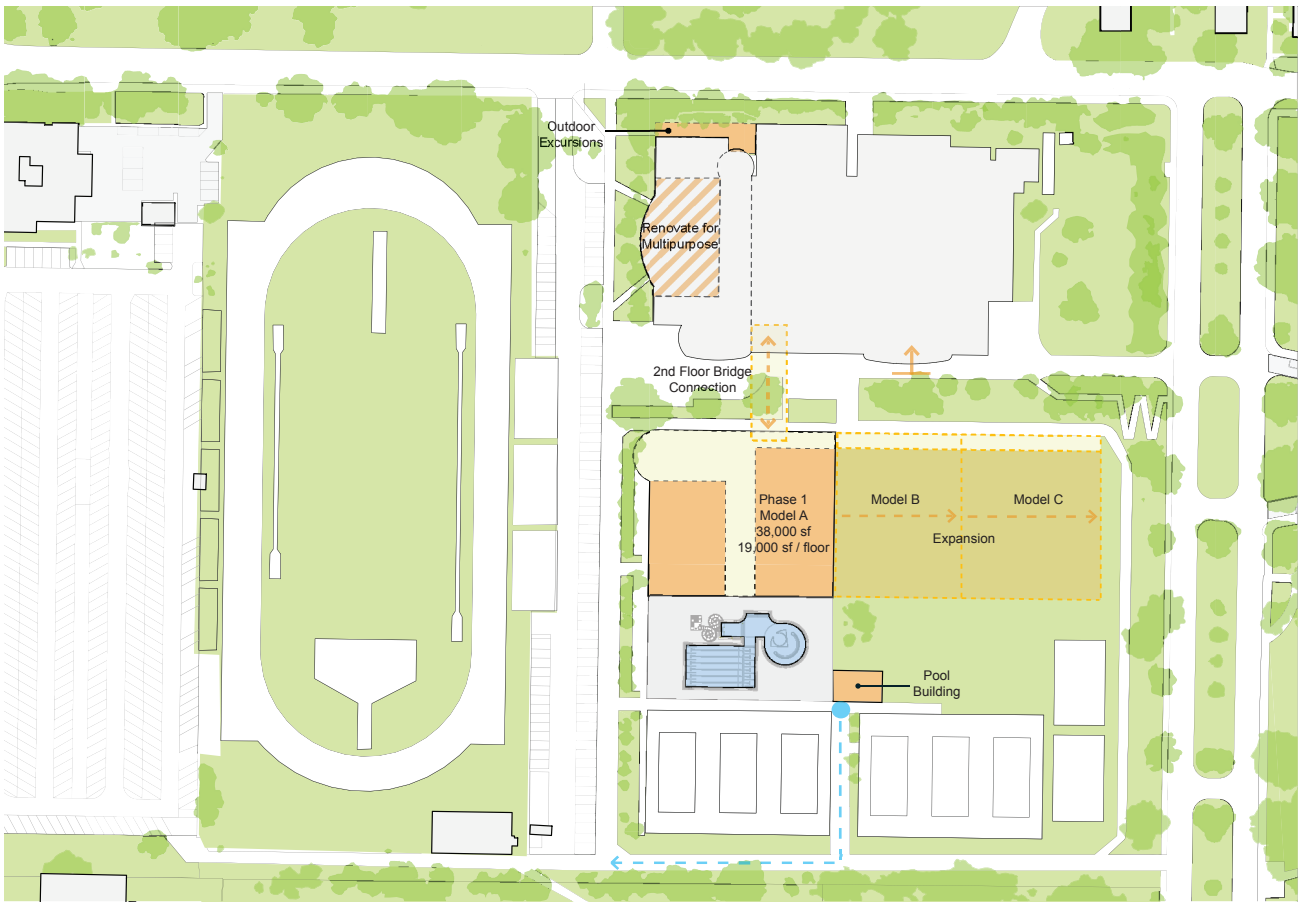
PROS:

- This Option allows for future expansions on the east side of the new building to accommodate the needs of Space Program Models B and C, specifically new Gymnasiums.
- The new building and the pool is built over six of the existing Tennis Courts and will probably require the removal of the exhibition Tennis Court, so a minimum of three Courts would have to be replaced and built over the site of the existing Roller Hockey Court. However, the loss of the exhibition Tennis Court has been determined to not be of any consequence.
- Construction phasing is ideal
- Ideal interaction between components
- Adjacencies are closer and work well together

CONS:

- The biggest con for this Option is that the Project Committee did not like the location of the Outdoor Pool and Pool Deck.

OPTION 5 DIAGRAM:



SITE AND BUILDING PREFERRED OPTION:

This Preferred Option located the new expansion building south of the existing building as in Option 5 above, but moves it further to the east to allow for the Outdoor Pool and Pool Deck to be located on the west side of this expansion building to allow a major presence for the Pool along the future Recreation Mall and at the new entrance to the expanded Recreation Center. It reduces the area for future expansion on the east side of the new building but it was determined that future expansion space was needed only to accommodate the One-Court MAC Gym in the Space Program Model B and not the two Gyms called for in Model C.

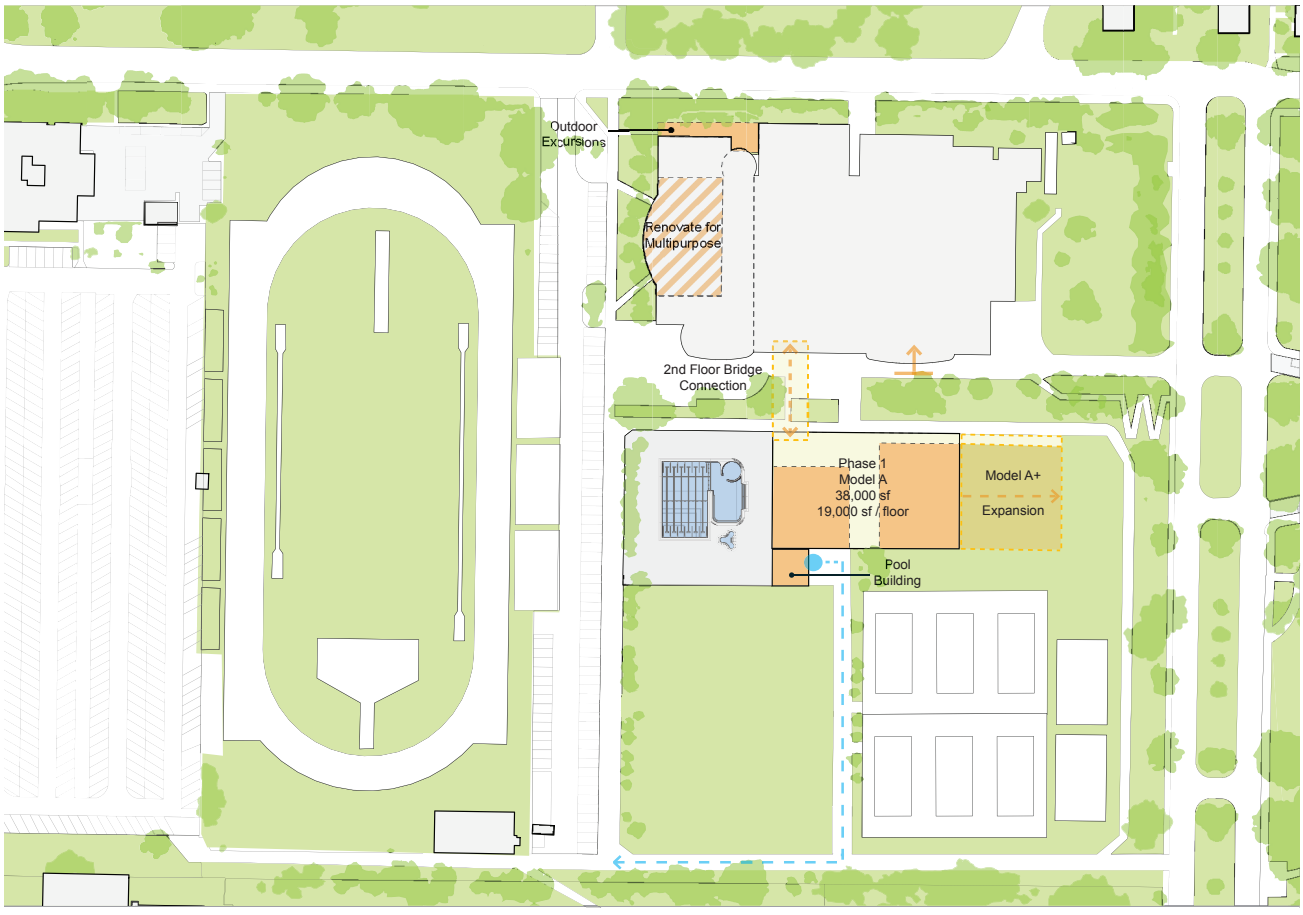
PROS:

- This Option also allows for an open Field area to the south of the new Outdoor Pool so that the east side of the future Recreation Mall would be sited with open space Outdoor Recreation facilities.
- Construction phasing is ideal
- Pool and Open Green Space are located along future Recreation Mall

CONS:

- All ten existing Tennis Courts would be lost and a minimum of six replaced
- Tennis Courts would have to be built over the site of the existing exhibition Tennis Court and the Roller Hockey Court, but this was determined to be an acceptable trade-off for creating a preferred location for the building expansion, and to create the Outdoor Pool with an adjacent open grass recreation area.

OPTION 6 DIAGRAM:



4

Building Program

4.0 PROGRAMMING PROCESS

As the program was being developed and tested along with accompanying costs fee impact analysis and survey data, the program diagram elements were further developed and reviewed in a series of workshops with the Project Committee. These workshops were held during the period of October to December 2008.

The goal of the workshops was to provide an open forum for exploring, refining, and achieving consensus regarding the building program elements to be included in the Student Recreation Expansion program. The workshops also included discussions of specific site influences and constraints as documented in the 2008 Campus Aggregate Master Planning Study (CAMPS).

4.1 GOALS AND OBJECTIVES

Based on the benchmarking, relevant experience, and the programming workshops, the following project goals, expectations and objectives were established:

- To build an expansion that meets current and future demand for recreational facilities, programs and services and is in line with current trends in recreational facilities.
- To create a flexible facility that can easily adapt to new recreational programs and allow for the effective and efficient use of financial resources and enhances operational efficiencies.
- To create a venue that raises the profile and presence of Recreation; enhances the visibility of its programs, facilities and services to the campus, and improves access to them.
- To create a well-organized, welcoming environment that is recognized as a campus destination.
- To create a venue through which the recreational and social needs of users are both fostered and met; a space where students want to stay and be a part of.
- To create a facility that is inviting, inclusive and integrative.
- To create a facility that fosters a safe and collegial atmosphere for all of its users.
- To provide versatile spaces that house multiple recreational, fitness and wellness programs.
- To create a facility that is a model of sustainable design.

4.2 PROGRAM OVERVIEW

The purpose of the Detailed Project Program report is to define the scope of the project and to evaluate costs, phasing and schedule implications. In addition, the program establishes clear design goals and objectives, functional relationships, and building and site design criteria.

The Program for the Student Recreation Center Expansion was created through a series of meetings with the UC Riverside Project Committee, Steering Committee, the Student Recreation Center staff, UC Riverside Capital & Physical Planning, Brailsford & Dunlavey, other Focus Groups on the UC Riverside Campus. Each round of meetings further refined the program based on the input of the various Campus groups and lead to the refinement of the Site and Building Concepts that are shown in Section 3.1 & 4.5 of this Report.

4.3 SPACE PROGRAM MODELS

A series of space program models were developed as a result of the preliminary input from focus groups & the need for a program model to guide the student survey prepared by B & D. Please note that the Model with the smallest total program area is called Model A and the Model with the largest total program area is called Model C in each of the Space Program Models. The student survey created by Brailsford & Dunlavey has Option A as the largest of the program model and Option C as the smallest program model. The Space Program Models for October 31, 2008 described below had Models A – D, but one of the Models was eliminated in subsequent Program Models and for the Models that were represented in the student survey. Below is a summary of the Program Models that were in chronological order leading up to the final Space Program Model that is to be used as the project proceeds into a Schematic Design phase. All of the versions of the Space Program Models except the Final Space Program Model are included in the Appendix of this Report. The Final Space Program Model follows these summaries.

SPACE PROGRAM MODELS – OCTOBER 31, 2008: WORKSHOP III

The first program model was reviewed via conference call on October 23rd and later presented to a joint project and steering committee at the October 31st meeting. Various program size options were reviewed to determine what building size options should be included in the student survey that Brailsford & Dunlavey was creating. The main differences between the Models are in the number of Gymnasiums, the size of the Fitness / Weight Room, the number of Multi-purpose Rooms, the size of the Outdoor Excursions area, if there is a Wellness component, the size of the Administration suite, and whether there are Restrooms on the 2nd Floor. The total program sizes of these Models range from 33,200 gross square feet up to 87,060 gross square feet.

SPACE PROGRAM MODELS – NOVEMBER 7, 2008: WORKSHOP IV

During Workshop III, it was decided to go forward with just three Program Models to be included as the building size Options to be included in the student survey. These three Models were then presented to the Project Committee, and the Student Recreation Center staff at meetings that took place on November 7, 2008 for review. The major differences between these Models and the Models of October 31st are in the sizes of the Gymnasiums, an increase in the size of the Administration suite, and an increase in the size of the Outdoor Pool. The total program sizes of these Models range from 39,129 gross square feet up to 92,020 gross square feet. All of these Models also have an Outdoor Pool with a water area of 6,000 square feet along with a Pool Deck area of 10,000 square feet.

SPACE PROGRAM MODELS – NOVEMBER 21, 2008: WORKSHOP V

The aforementioned Program Models were revised based on the results of the student survey and incorporated the comments from the workshop on November 7th. The Models were presented at the meetings of November 21, 2008. The biggest changes are in the number of Gyms in Model B (reduced from two to one), and all of the Models now include three Multi-purpose Rooms. The total program areas of the Models range from 38,014 gross square feet up to 80,963 gross square feet. The Outdoor Excursion spaces are now listed as a separate Outdoor Excursions building that could use a tighter efficiency factor (88% versus 70%) with the size of this building ranging from 2,295 gross square feet up to 2,420 gross square feet. Also, the Pool Locker Rooms along with the Pool support spaces (Filtration Room, Storage, Pool Offices) are listed to be included in a separate Pool building that could use also use a tighter efficiency factor (88% versus 70%) with the size of this building ranging from 4,875 gross square feet up to 5,102 gross square feet. All of these Models have an Outdoor Pool with a water area of 6,000 square feet along with a Pool Deck area of 10,000 square feet.

SPACE PROGRAM MODELS – DECEMBER 4, 2008: WORKSHOP VI

Program Models incorporated comments from the meetings of November 21, 2008, which included a discussion of how each of these Models could be incorporated on the building site. The major changes are that the size of the One-Court MAC (Multi-use Activity Court), the refining of the list of spaces in the Administration suite (input from Student Recreation Director and staff), all of the Models have 2nd Floor Restrooms, the Entry Lobby and the Lounge are combined into one Entry Lobby space since the Juice Bar will be located before the turnstile security entrance), and the Pool Locker Rooms and the Pool support spaces are no longer separated into a separate Pool building with a different efficiency factor. The One-Court Gym will always be configured as a MAC gym. It was decided to go forward with these three Models to test the Site and Building Options being considered for the expansion project. The total program sizes for these Models range from a small Model A with 50,086 gross square feet, a medium Model B with 62,663 gross square feet, and a large Model C with 90,234 square feet. All of these Models have an Outdoor Pool with a water area of 6,000 square feet along with a Pool Deck area of 10,000 square feet.

FINAL SPACE PROGRAM MODEL

After reviewing the three December 4th Program Models it was decided during Workshop VI to go forward with Model B as the Expansion program and to test the Site and Building Options (see Section 3.1 & 4.5 of this Report). It was then decided to go forward with Option 6 as the Site and Building layout for the expansion of the Student Recreation Center. This Option has a renovation of the existing Fitness / Weight Room into three Multi-purpose Rooms, downsizing the existing Multi-purpose Room A and adding on to the area that remains from this room (1,330 asf) with a small expansion (800 asf of new construction) to the northwest corner of the existing building that creates the Outdoor Excursions area of 2,130 asf and the area for the Climbing and Bouldering Walls (1,520 asf). The renovation of the existing Fitness / Weight Room will create two Multi-purpose Rooms each of 1,500 square feet, and one Multi-purpose Room of 3,100 square feet. The existing Multi-purpose Room A will be reduced in size to from 3,100 square feet to 2,100 square feet. The earlier Space Program Models called for three new Multi-purpose Rooms, one of 2,000 asf and two of 1,500 asf each. The proposed renovation of the existing Fitness / Weight Room and Multi-purpose Room A will not only satisfy this Program requirement but will also maintain a Multi-purpose Room that is 3,100 asf to replace the downsized Multi-purpose Room A. The existing Administration Office area (3,050 asf) to the south of the existing Fitness / Weight Room will remain. The program for the Administration area (2,200 asf) in the Final Space Program Model is for administrative spaces above and beyond the spaces in the existing Administration area. One existing office to the west side of the existing Women's Locker Room will be lost to create the stair and elevator to the 2nd Floor Bridge that will connect the existing building with the expansion building. But this office is included in the Space Program Model for new office space for the Administration area that will be located in the expansion building. The area of the existing Fitness / Weight Room that will be lost in the renovation (approximately 7,000 square feet) will be replaced as new construction in the expansion building, so that a total of 20,000 asf of Fitness / Weight Room will be provided.

The rest of the Model B Program, is incorporated into a new building to the south of the existing Student Recreation Center that is connected by a second floor enclosed bridge to the existing building. The One Court MAC Gymnasium in Model B is to be an Additive Alternate. This Final Space Program Model separates the program spaces into spaces in the new expansion building (53,843 gross square feet), the spaces that are in the small expansion to the existing Recreation Center for the Outdoor Excursions and the Climbing Wall (2,729 gross square feet), and the spaces in the renovation of the existing Recreation Center (8,035 gross square feet). The efficiency factor remains as 70% for the new construction, but a factor of 85% is used for the renovation construction. The size of the Outdoor Pool is 6,000 square feet, the Spa is 250 square feet and the pool deck is 14,630 square feet and will be located on the west side of the new building expansion construction. The One Court MAC Gymnasium that is an Additive Alternate adds 12,577 gross square feet to the new expansion building.

The one program space that was eliminated from the Student Recreation Center Final Program Model, but had been included in the original Model C was the Two-Court Gymnasium. It was decided that the need for this Gym would probably occur with the development of the West Campus and should be located on the site identified for a satellite Recreation Center on the West Campus.

CONCLUSIONS:

The current Recreation Center has a gross floor area of 86,140 square feet. This equates to approximately 4.76 gross square feet of recreation space per student (2008 enrollment at 18,000 students). With the building expansion providing an additional 69,149 gross square feet of new recreation space (including the One-court MAC Gymnasium), the total area with the completed expansion will be 155,289 gross square feet, or approximately 8.59 gross square feet of recreation space per student. When the West Campus is built and the student population increases to 25,000 students, the approximately 8.59 gross square feet of recreation space per student should be maintained so that an additional 59,460 gross square feet of recreation space should be provided for at the West Campus in the area called out for a Indoor Recreation facility on the West Campus Master Plan. This additional 59,460 gross square feet of recreation space can include the Two-Court Gymnasium that has been eliminated from the expansion Program, along with Fitness / Weight Room area, and possibly a few Multi-purpose Rooms and small Locker Rooms.Campus planning should continue to use 65,000 gsf for the West Campus Recreation Center as identified in CAMPS. The overall space furnishes flexibility for the facility design, and provides spaces for outdoor program.

Final Space Program Model

University of California, Riverside
Student Recreation Center Expansion

Page No.	Program Space	New	Expans.	Renovate	Remarks
	Activity Zone				
32	Elevated Jogging Track	5,280			3 lane track,10 laps per mile
34	Fitness / Weight Room	20,000			includes distributed cardio areas
36	Fitness / Weight Room Storage	400			
38	Fitness Coordinator's Office	110			
40	Fitness / Weight Room Work / Repair Room	200			
42	Multi-purpose Room 1			2,000	Renovate existing Fitness / Weight Room
44	Multi-purpose Room 1 Storage			200	Renovate existing Fitness / Weight Room
46	Multi-purpose Room 2			1,500	Renovate existing Fitness / Weight Room
48	Multi-purpose Room 2 Storage			150	Renovate existing Fitness / Weight Room
46	Multi-purpose Room 3			1,500	Renovate existing Fitness / Weight Room
48	Multi-purpose Room 3 Storage			150	Renovate existing Fitness / Weight Room
50	Classroom	800			seating for 30, classroom / demonstration kitchen
	Actvity Zone Assignable Area (ASF)	**26,790**		**5,500**	
	Outdoor Excursions Zone				
38	Outdoor Excursions Staff Office 1			110	Renovate existing Multi-purpose Room A
38	Outdoor Excursions Staff Office 2			110	Renovate existing Multi-purpose Room A
38	Outdoor Excursions Staff Office 3			110	Renovate existing Multi-purpose Room A
52	Entry / Rental Counter / Equipment Display			200	Renovate existing Multi-purpose Room A
54	Storage Area			800	Renovate existing Multi-purpose Room A
56	Maintenance Area		500		New constr. / expan. of exist. Recreation Ctr.
58	Training / Resource Room		300		New constr. / expan. of exist. Recreation Ctr.
60	Rock Climbing Wall with Safety / Landing Area		600		New constr. / expan. of exist. Recreation Ctr.
62	Bouldering Wall with Safety / Landing Area		600		New constr. / expan. of exist. Recreation Ctr.
64	Climbing / Bouldering Wall Registration Counter		120		New constr. / expan. of exist. Recreation Ctr.
66	Climbing and Bouldering Wall Storage		200		New constr. / expan. of exist. Recreation Ctr.
	Outdoor Recreation Zone Assign. Area (ASF)		**2,320**	**1,330**	
	Wellness Component				
38	Wellness Director's Office	110			
68	Entry / Information Resource Area	150			
70	Massage Therapy / Assessment 1	120			
70	Massage Therapy / Assessment 2	120			
72	Wellness Storage	100			
	Wellness Componenent Assignable Area (ASF)	**600**			
	Administrative Office Suite				
38	Staff Office 1	110			
38	Staff Office 2	110			
38	Staff Office 3	110			
38	Staff Office 4	110			
38	Administrative Assistant	110			
70	Student Employees' Work Room	200			
76	Conference Room	600			seats 30
78	Administration Work Room	240			
80	IT Server Room	100			
82	Administration Storage	100			
38	Recreation Sports Office	110			
84	Recreation Sports Work Room	300			Intramurals, Club Sports
	Administration Office Suite Area (ASF)	**2,200**			

Page	Program Space	New	Expans.	Renovate	Remarks
	Entry Zone				
86	Entry Lobby / Commons - Lounge & Juice Bar Seating	1,000			
86	Entry Lobby - Building Circulation	1,000			Non-Assignable Area
88	Juice Bar	500			
90	Vending Area	100			
92	Control Counter	200			
94	Control Office	110			secure cash counting and safe room
96	Staff Office (Overnight Operations)	150			2 person office space
	Entry Zone Net Area (NSF)	**3,060**			
	Entry Zone Assignable Area (ASF)	**2,060**			
	Support Zone				
98	Men's Pool Locker Room	1,000			62 locker ftprints, 5 shwrs., 2 tlts., 2 urin., 3 sinks
100	Women's Pool Locker Room	1,000			62 locker footprints, 5 showers, 4 toilets, 3 sinks
102	Universal Locker Room	190			2 - 3 locker footprints, 1 shower, 1 toilet, 1 sink
104	Men's Restroom - 2nd Floor	180			Non-Assignable Area-2 toilets, 1 urinal, 2 sinks
106	Women's Restroom - 2nd Floor	180			Non-Assignable Area- 3 toilets, 2 sinks
108	Universal Restroom - 2nd Floor	80			Non-Assignable Area- 1 toilet, 1 sink
110	Custodial (distributed)	160			Non-Assignable Area- 80 SF each per floor
112	Custodial / Maintenance Office / Work Room	150			
	Support Zone Net Area (NSF)	**2,940**			
	Entry Zone Assignable Area (ASF)	**2,340**			
	Pool Zone				
114	Pool Filtration	1,000			Non-Assignable Area
116	Pool Storage	800			
118	Aquatic Directors' Office	150			2 person office
120	Lifeguards' Office	150			2 lifeguards & space for emergency cot
	Pool Zone Net Area (NSF)	**2,100**			
	Pool Zone Assignable Area (ASF)	**1,100**			
	Total Building Net Area (NSF)	**37,690**			
	Total Building Assignable Area (ASF)	**35,090**	**2,320**	**6,830**	
	Total Building Envelope Area (GSF)	**53,843**			70% Building Efficiency
	Total New Construction Area (ASF)	**37,410**			
	Building Envelope Area @ 85% Effciency (GSF)		**2,729**	**8,035**	85% Building Efficiency
	Outdoor Recreation Space				
	Outdoor Pool Water Area SF	6,000			
	Outdoor Pool Deck Area SF	14,630			
	SPA SF	250			

Additive Alternate Space Program Model

Page No.	Program Space	New	Expans.	Renovate	Remarks
28	Gymnasium - One Court MAC Gym, 84' long BB court	8,404	0	0	80' x 104', plus 2 recessed goals (84 SF)
30	Gymnasium Storage	400	0	0	
	Total Gymnasium (ASF)	**8,804**	**0**	**0**	
	Total Gymnasium (GSF)	**12,577**	**0**	**0**	

TOTAL PROJECT SUMMARY

Total New Construction - 69,149 gsf
Total Buildin Area (ASF) - New Construction 46,214 asf
Total Renovation - 8,035 gsf
Total Renovation Area (ASF) - 6,830 asf

4.4 ROOM DATA SHEETS AND PROTOTYPE ROOM LAYOUTS

SUMMARY

The Room Data Sheets and the Prototype Room Layouts that follow are the result of a collaborative effort between Cannon Design, the Project Committee, Project Management Team, and the heads of Capital Planning and Design and Construction. The intent of the following section is meant to summarize the planning efforts that were made during project programming.

These Room Data Sheets and Prototype Room Layouts are intended to serve as a guideline for the design team to work off of when developing the Student Recreation Center expansion.

The Room Data Sheets and Prototype Room Layouts represent the spaces that are listed in the Final Space Program Model in Section 3.3 and are described as follows:

General Information:

This section documents the intent of the room in regards to use of the space, the assignable area for the room, the capacity of the room based on the Code occupant load, important adjacencies for the room, access requirement for the room in regards to the disabled, and the occupancy type for the Room based on the Code. The Occupant Load Factor information on the Room Data Sheets is based on the Codes that are listed in Section 7 of this Report, specifically the 2007 California Building Code, per table 1004.1.1. The calculated occupant load was used to help in the planning for each of the room layouts, but more importantly as a guideline for the building design on exiting requirements discussions with State Fire Marshal. The Occupancy type for each room is listed to also assist in the building design and with discussions with the State Fire Marshal in terms of maximum allowable building area and necessary occupancy separations.

Finishes/Treatments:

This section establishes a material palate guideline in regards to floor/base, walls, ceilings, doors natural light, acoustics and special requirements.

Engineering Systems:

This section describes the systems needed for each room in regards to lighting, electrical, mechanical, plumbing, fire protection, security.

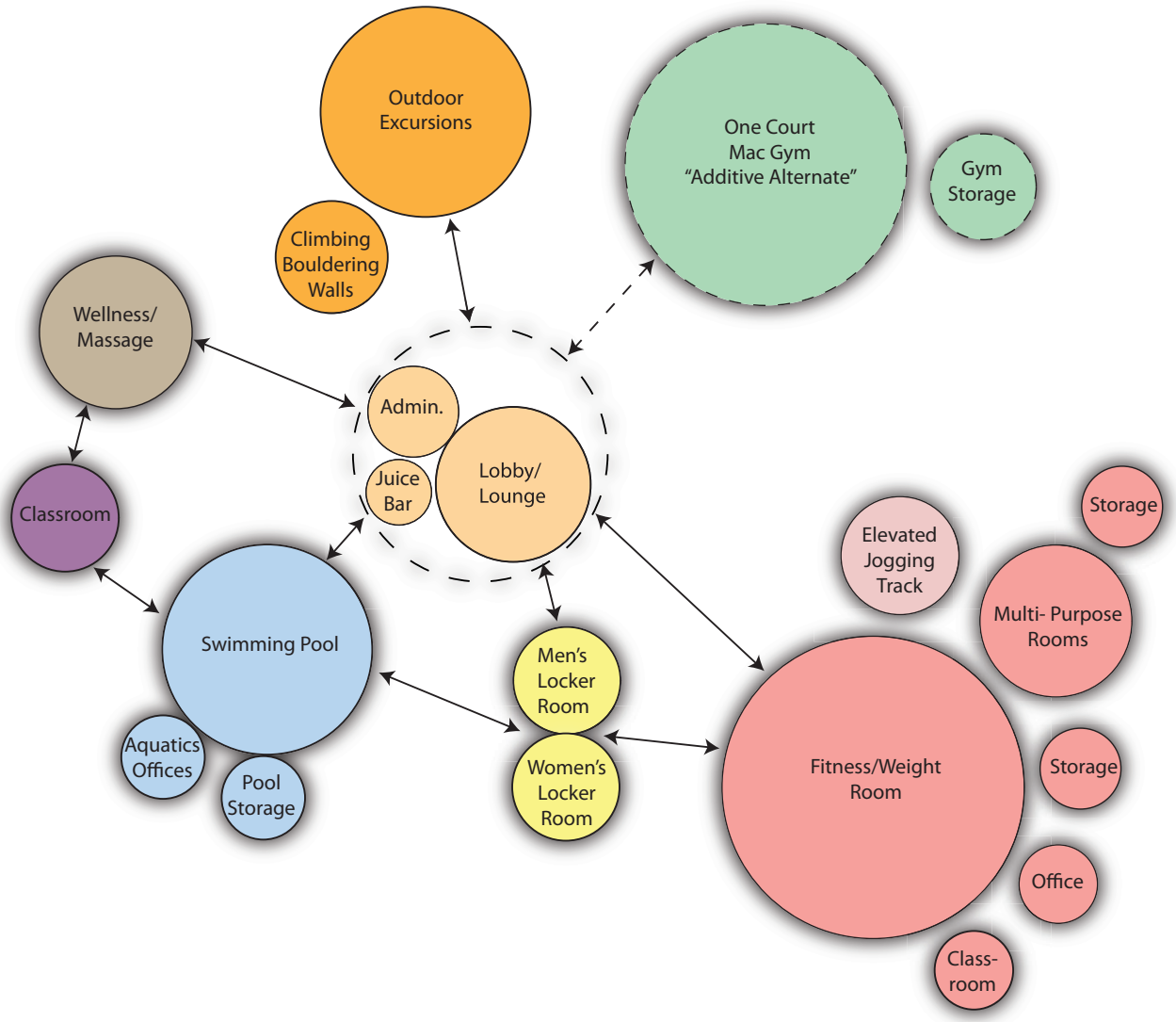
Technology:

This section catalogs the voice, data, TV and other technology needs.

FFE:

This section lists the fixed equipment for each space that is assumed to be a part of the construction budget for the Expansion project. The movable equipment that are listed for each space is assumed to be a part of the Furniture, Fixtures and Equipment (FFE) budget for the Expansion project.

SPACE ADJACENCIES DIAGRAM:


Outdoor Excursions
Climbing Bouldering Walls
One Court Mac Gym "Additive Alternate"
Gym Storage
Wellness/ Massage
Admin.
Juice Bar
Lobby/ Lounge
Classroom
Swimming Pool
Aquatics Offices
Pool Storage
Men's Locker Room
Women's Locker Room
Elevated Jogging Track
Storage
Multi- Purpose Rooms
Fitness/Weight Room
Storage
Office
Class- room

BUILDING PROGRAM • GYMNASIUM / ONE-COURT MAC GYM

GENERAL INFORMATION

Use/Function	One-recreational basketball sized Gymnasium, which will also accommodate volleyball (2), and badminton (3). To be also used for indoor soccer/hockey. Rounded corners and permanent recessed goals and optional fixed players box with spectator seating on one side of the Gym. 50' x 84' basketball court.
Assignable Area	8,404 SF with 2 recessed goal areas added for indoor soccer / hockey: 8,320 SF + 84 SF = 8,404 SF
Occupant Load Factor	Meet with the State Fire Marshall to request that the occupant load is 150 / occupant
Key Dimensions	H: 30'-0" min. W: 80'-0" L: 104'-0", Recessed goals (2) W: 3'-6" L: 12'-0"
Adjacencies	Gymnasium C Storage
Access	Disabled
Occupancy Type	A-3
	*Targeted occupant load of 150 SF / occupant versus 15 SF / occupant

FINISHES/TREATMENTS

Floor/Base	Athletic resilient wood. 2nd grade maple / ventilated rubber base, or synthetic flooring if soccer is predominant sport to be played in this Gym.
Walls	Masonry up to 18'-0" min. height, drywall above is OK
Ceiling	Exposed structure, acoustical metal decking
Doors	Hollow metal to the exterior, glass or partial glass doors into the gym from the interior
Natural Light	Desired at north wall, allow as much natural light and visibility into the Gym as possible without affecting the play in the Gym, and if Gym is used for movies or banquets, ability to black out natural light for movies, etc.
Acoustics	Acoustical metal decking. At the walls and at the exposed structure
Special Requirements	Accessible directly from the outside for events in Gym. All equipment and clocks should be impact resistant

ENGINEERING SYSTEMS

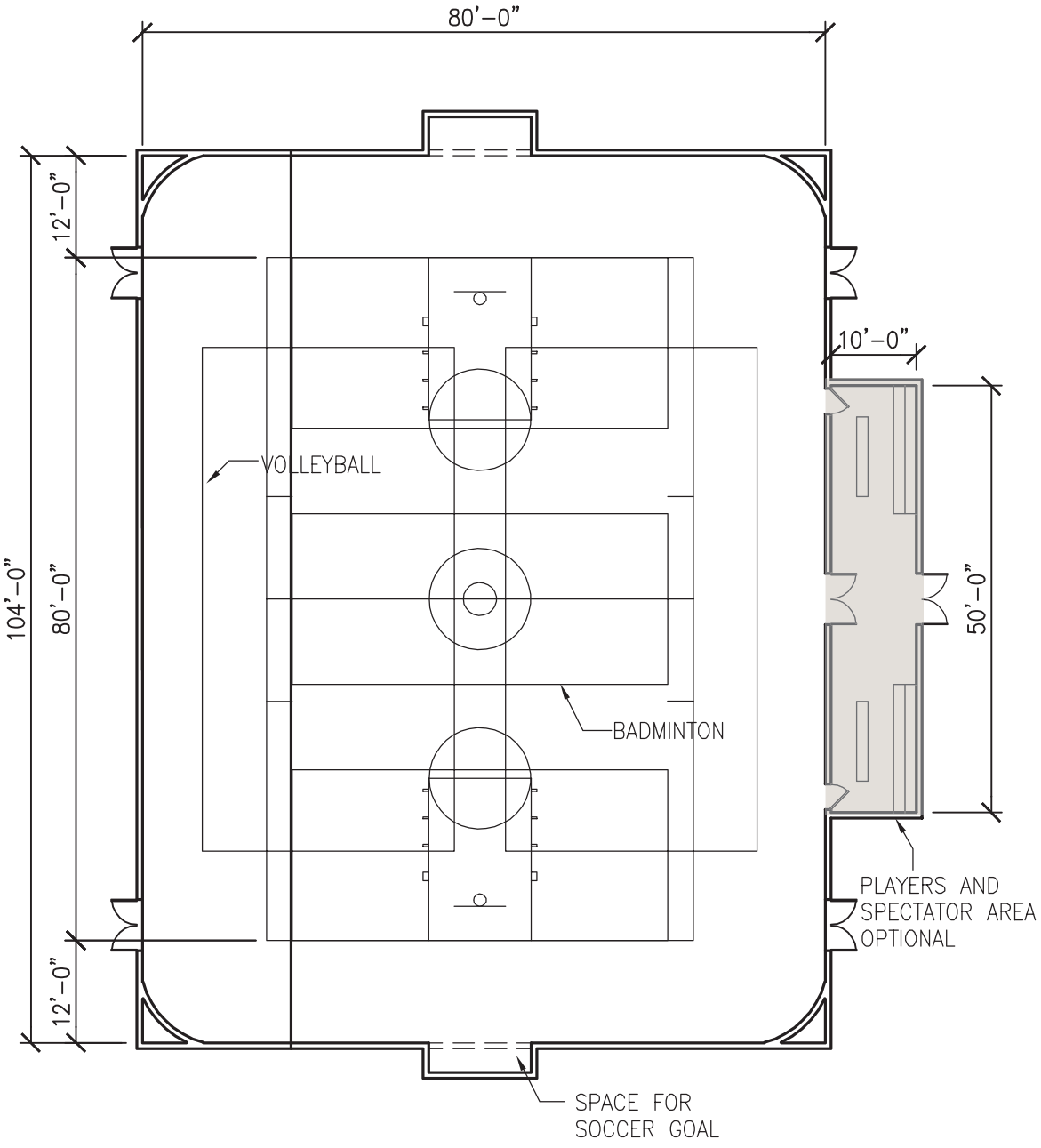
Lighting	H.I.D., two levels – 70 fc / 50 fc (50 fc average), clear to 30'-0", can also be fluorescent fixtures but will require more fixtures than H.I.D.
Electrical	600 amps, 3-phase, 480/277 for lights, power for backstops, power for scoreboards, power in the walls and f floor for control of backstops and scoreboards
Mechanical	Air conditioned, thermostat control, 3 changes per hour peak period usage
Plumbing	Recessed drinking fountains with chilled water and cuspidors in the common area outside of the Gymnasium
Fire Protection	Fire sprinklers, smoke detectors
Security	Alarms on any doors directly to the outside of the facility

TECHNOLOGY

Voice	Telephone
Data	Internet connection / wireless
TV	Cable outlet
Other Technology	Independent sound system controllable for events which can also connect into the sound system controlled at the front counter. PA connected to the front counter. Control booth for movies. Permanent speakers at ceiling area or at upper parts of walls

FFE

Fixed Equipment	2 power operated retractable basketball backstops with glass backboards and snap back rims, floor plates for volleyball and badminton poles, 2 wall mounted scoreboards, protected wall clocks, large drop-down projection screen
Movable Equipment	2 sets volleyball standards with padding and 4 nets, 2 volleyball officiating stands with padding, 3 sets badminton standards with 6 nets, service lift to be stored in the Gymnasium Storage


80'–0"
12'–0"
104'–0"
80'–0"
12'–0"
10'–0"
50'–0"
VOLLEYBALL
BADMINTON
PLAYERS AND
SPECTATOR AREA
OPTIONAL
SPACE FOR
SOCCER GOAL

SCALE: 1" = 20'-0"

BUILDING PROGRAM • GYMNASIUM / STORAGE

GENERAL INFORMATION

Use/Function	Storage for Gymnasium B
Assignable Area	400 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 300 sf / occupant
Key Dimensions	H: 12'-0" min. W: 10'-0" L: 40'-0"
Adjacencies	Gymnasium B
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Sealed concrete / rubber base at drywall surfaces
Walls	Masonry or drywall. Solid, durable surface up to 7'-0" min.
Ceiling	Exposed structure
Doors	Hollow metal, double doors, or metal roll-up door, 6'-0" min. opening
Natural Light	None
Acoustics	None
Special Requirements	To be determined

ENGINEERING SYSTEMS

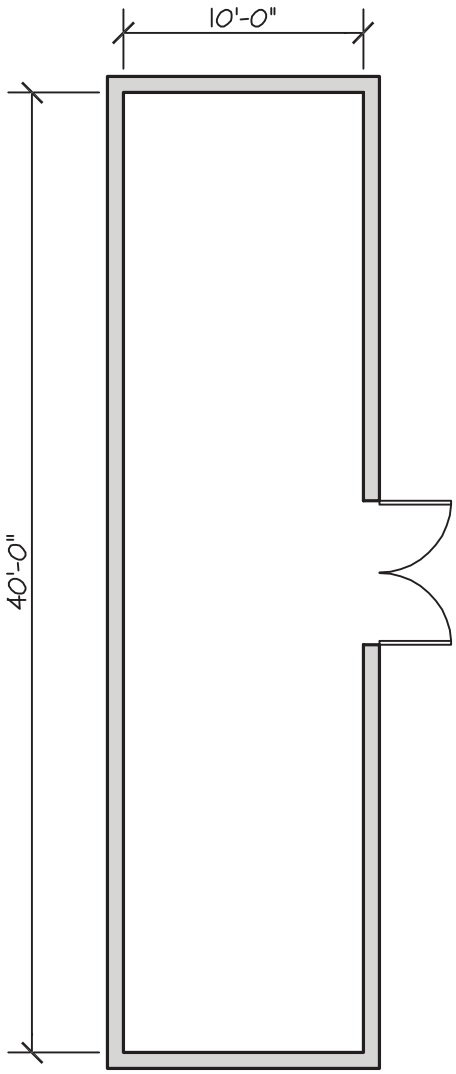
Lighting	Fluorescent, 10 fc
Electrical	Convenience outlets at the walls, 110 and 220 V
Mechanical	Ventilation, air changes per Code
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	Alarm on any doors directly to the exterior of the facility

TECHNOLOGY

Voice	None
Data	None
TV	None
Other Technology	None

FFE

Fixed Equipment	To be determined
Movable Equipment	Metal shelving, lift for the changing of the Gym lights and maintenance, floor cleaning equipment, sports equipment for use in the Gym



SCALE: 1/8" = 1'-0"

BUILDING PROGRAM • ELEVATED JOGGING TRACK

GENERAL INFORMATION

Use/Function	3-lane track for jogging, walking, and cardio-vascular warm-up, above the inside perimeter of one of the Gymnasiums and/or parts of the upper level of the facility
Assignable Area	5280 square feet, 10 laps per mile (center of middle lane of the Track)
Occupant Load Factor	*Meet with the State Fire Marshall to request that the occupant load is 100 / occupant
Key Dimensions	H: 12'-0" min. W: 10'-2" Outside perimeter of track to be determined
Adjacencies	Above Gymnasiums and other spaces in the Recreation Center
Access	Disabled
Occupancy Type	A-3 *Targeted occupant load of 100 SF / occupant versus 15 SF / occupant

FINISHES/TREATMENTS

Floor/Base	Rubber, embossed synthetic track surfacing –poured. Vinyl composition tile or sealed concrete at the drinking fountains.
Walls	Masonry or drywall, glass
Ceiling	Exposed structure
Doors	None
Natural Light	Windows
Acoustics	At the walls if required
Special Requirements	Stretching areas at the corners of the Track, or adjacents to the Track

ENGINEERING SYSTEMS

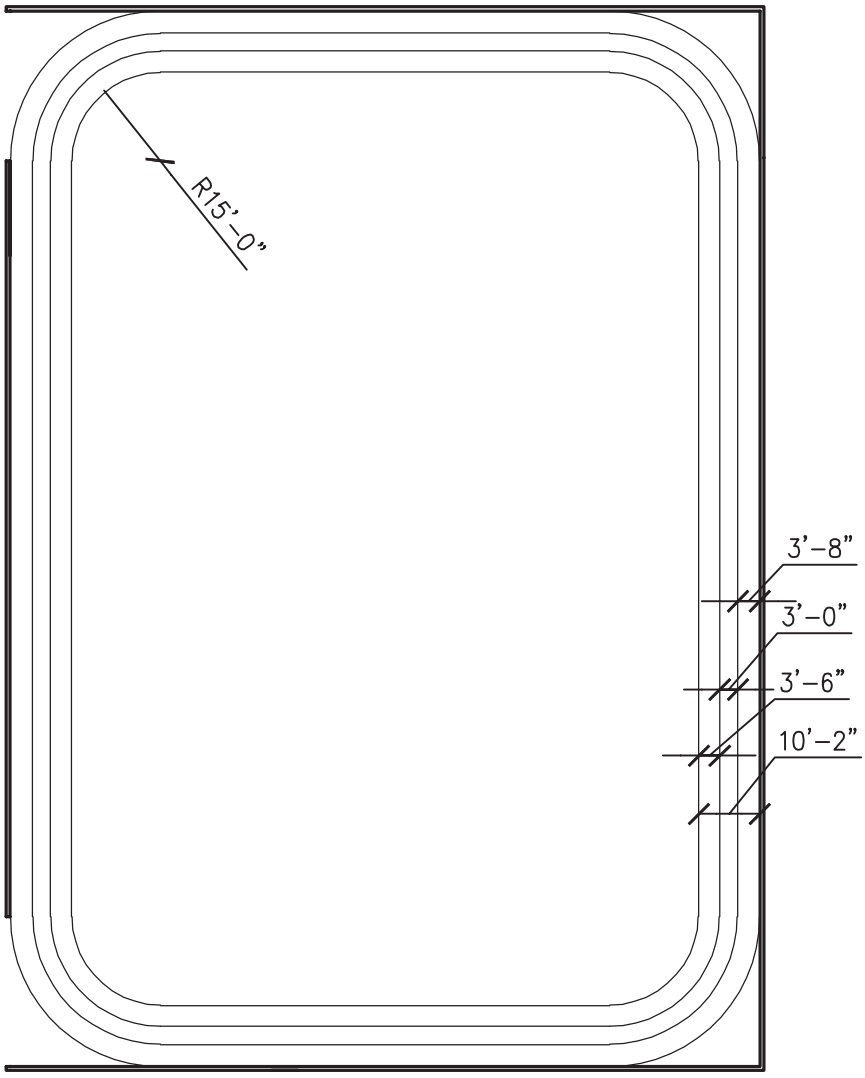
Lighting	Fluorescent, 25 fc, in addition to the lighting in the Gym or the other portions of the building that the Track will go through
Electrical	Convenience outlets at the walls, outlets for pace clocks
Mechanical	Air conditioned, 3 changes per hour peak period usage
Plumbing	Drinking fountains with chilled water in common areas adjacent to the Track
Fire Protection	Fire sprinklers, smoke detectors
Security	None

TECHNOLOGY

Voice	Telephone for emergencies
Data	Potential for digital display installation
TV	Potential for digital display installation
Other Technology	None

FFE

Fixed Equipment	Pace clock, jogging directional signs
Movable Equipment	To be determined



NOTE: THIS LAYOUT ONLY REPRESENTS THE POSSIBLE SIZE OF THE ELEVATED JOGGING TRACK. THE ACTUAL LAYOUT WILL BE FINALIZED DURING THE DESIGN PHASE OF THE PROJECT.

SCALE: 1/32" = 1'-0"

BUILDING PROGRAM • FITNESS / WEIGHT ROOM

GENERAL INFORMATION

Use/Function	Space for fitness exercising with equipment – free weights, cardio-vascular equipment, selectorized equipment, with stretching areas
Assignable Area	20,000 square feet total if all new Fitness / Weight Room space, 13,500 sf of new Fitness / Weight Room space if existing Fitness / Weight Room to remain. Some of the area should be on a mezzanine level or distributed throughout the facility versus all of the area in one room
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 50 sf / occupant
Key Dimensions	H: 12'-0" to 15'-0" min. W: to be determined L: to be determined
Adjacencies	Fitness Coordinator's Office, Fitness / Weight Room Storage, Fitness / Weight Room Work Room
Access	Disabled
Occupancy Type	A-3

FINISHES/TREATMENTS

Floor/Base	Carpet and / or rubber tiles, rubber tiles are required at free weight area / rubber tile base or wainscot up to 18" min. on wall and column surfaces. Vinyl composition tile or sealed concrete at the drinking fountains in the room or at adjacent common areas
Walls	Masonry or drywall, glass, mirrors
Ceiling	Drywall soffit, acoustical tiles
Doors	Solid core wood or glass
Natural Light	Windows
Acoustics	In the walls and at the ceiling
Special Requirements	Independent sound system, door width adequate to move equipment in and out of the room, good view to and from the Entry Lobby / Lounge (if adjoining the Fitness / Weight Room) and the circulation spaces of the facility

ENGINEERING SYSTEMS

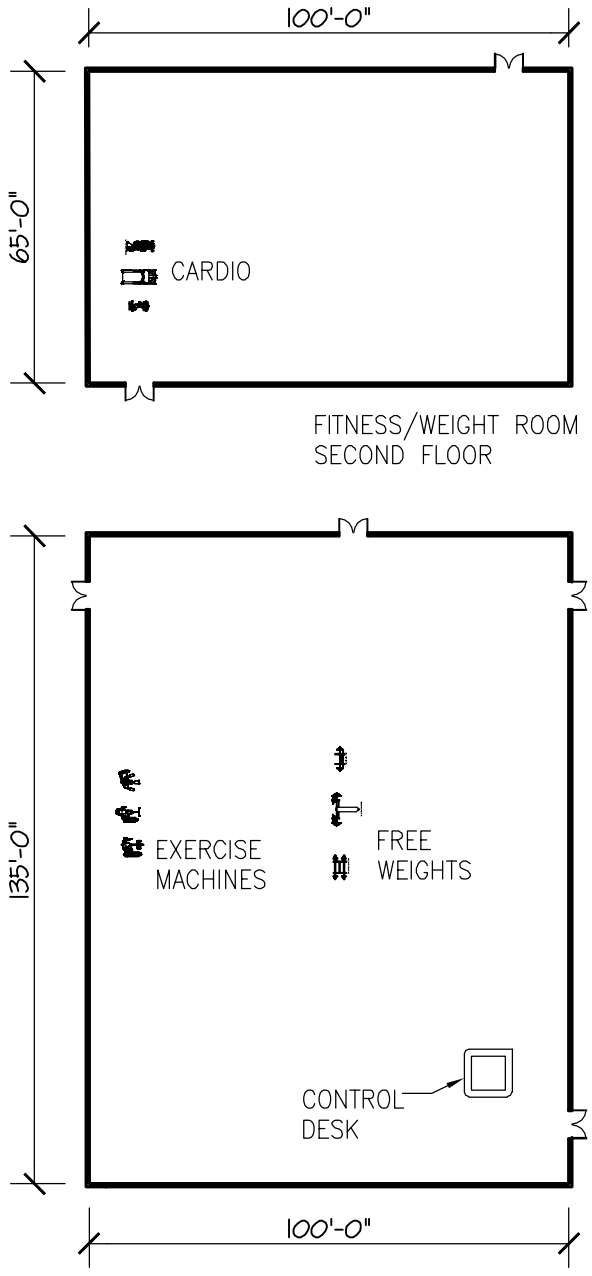
Lighting	Indirect, fluorescent, 60 fc
Electrical	Extensive convenience outlets at the walls and in the floor, some equipment will require 220 V dedicated circuits (treadmills)
Mechanical	Air conditioned, thermostat control, 100% exhaust or filter, 10 changes per hour-average, (15 changes per hour at peak periods – occupancy sensors), ceiling fans
Plumbing	Drinking fountains with chilled water within the room.
Fire Protection	Fire sprinklers, smoke detectors
Security	Alarms on any doors directly to the outside of the facility

TECHNOLOGY

Voice	Telephone at the control counter
Data	Internet connection / wireless
TV	Cable outlets, individual cables at cardio machines
Other Technology	Independent sound system with controls at control counter, which can also connect into the sound system controlled at the front counter. PA connected to the front counter

FFE

Fixed Equipment	Lockers or storage cubicles near room entrance, central assistance / control counter, wall mirrors, wall or ceiling-hung televisions, speakers, and sound systems
Movable Equipment	Cardio-vascular equipment, selectorized equipment, free weight equipment, mats, protected wall clocks



NOTE: THIS LAYOUT ONLY REPRESENTS THE POSSIBLE SIZE OF THE FITNESS / WEIGHT ROOM. THE ACTUAL LAYOUT WILL BE FINALIZED DURING THE DESIGN PHASE OF THE PROJECT.

SCALE: 1" = 40'-0"

BUILDING PROGRAM • FITNESS / WEIGHT ROOM STORAGE

GENERAL INFORMATION

Use/Function	Storage for the Fitness / Weight Room
Assignable Area	400 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 300 sf / occupant
Key Dimensions	H: 12'-0" min. W: 16'-0" L: 25'-0"
Adjacencies	Fitness / Weight Room, Fitness / Weight Room Work / Repair Room
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Sealed concrete / rubber base
Walls	Drywall or masonry
Ceiling	Exposed structure
Doors	Solid core wood, double doors
Natural Light	None
Acoustics	In the walls
Special Requirements	Connect to Work / Repair Room

ENGINEERING SYSTEMS

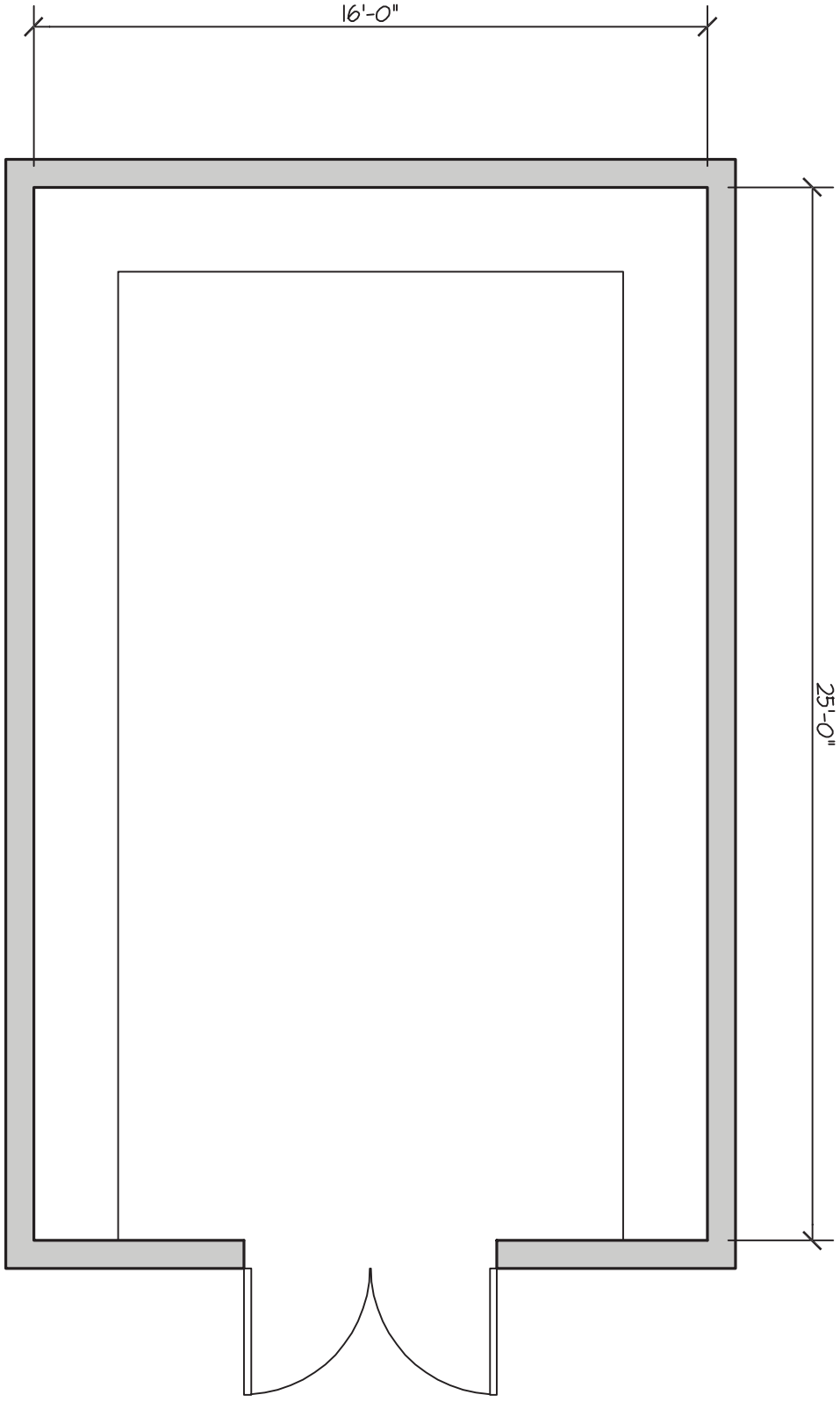
Lighting	Fluorescent, 10 fc
Electrical	Convenience outlets at the walls, 110 and 220 V
Mechanical	Air conditioned
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	None

TECHNOLOGY

Voice	Telephone
Data	Internet Connection / Wireless
TV	None
Other Technology	Sound system board, if provided for the Fitness / Weight Room

FFE

Fixed Equipment	Sound system board, shelving and storage cabinets if built-in
Movable Equipment	Shelving and storage cabinets if not built-in



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • TYPICAL OFFICE

GENERAL INFORMATION

Use/Function	Typical Office
Assignable Area	110 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 100 sf / occupant
Key Dimensions	H: 9'-0" W: 10'-0" L: 11'-0"
Adjacencies	Fitness / Weight Room
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Carpet / rubber base
Walls	Drywall, glass (with maximum view into the Fitness / Weight Room for monitoring)
Ceiling	Acoustical tile
Doors	Solid core wood and glass (for view into the Fitness / Weight Room for monitoring)
Natural Light	Windows
Acoustics	In the walls and at the ceiling
Special Requirements	Overall view of the Fitness / Weight Room

ENGINEERING SYSTEMS

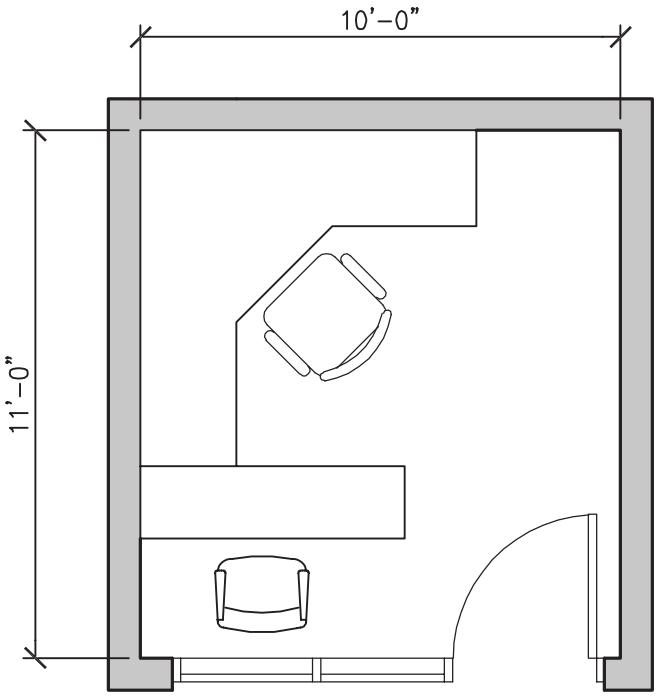
Lighting	Fluorescent, 50 fc
Electrical	Convenience outlets at the walls
Mechanical	Air conditioned
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	Telephone
Data	Internet connection / wireless
TV	May require cable outlet
Other Technology	To be determined

FFE

Fixed Equipment	Window blinds
Movable Equipment	Desk or modular furnishing, desk chair, 2 guest chairs, lateral file cabinet, bookcase, computer, printer, task lighting



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • FITNESS / WEIGHT ROOM WORK / REPAIR ROOM

GENERAL INFORMATION

Use/Function	Work Area for the Fitness / Weight Room for fitness equipment repair
Assignable Area	200 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 300 sf / occupant
Key Dimensions	H: 9'- 0" min. W: 12'-6" L: 16'-0"
Adjacencies	Fitness / Weight Room, Fitness / Weight Room Storage
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Vinyl composition tile / rubber base, or sealed concrete / rubber base
Walls	Masonry of drywall
Ceiling	Exposed structure
Doors	Solid core wood to the inside, hollow metal with louvers if doors to the outside of the building
Natural Light	Optional
Acoustics	In the walls
Special Requirements	Connected to the Fitness / Weight Room Storage

ENGINEERING SYSTEMS

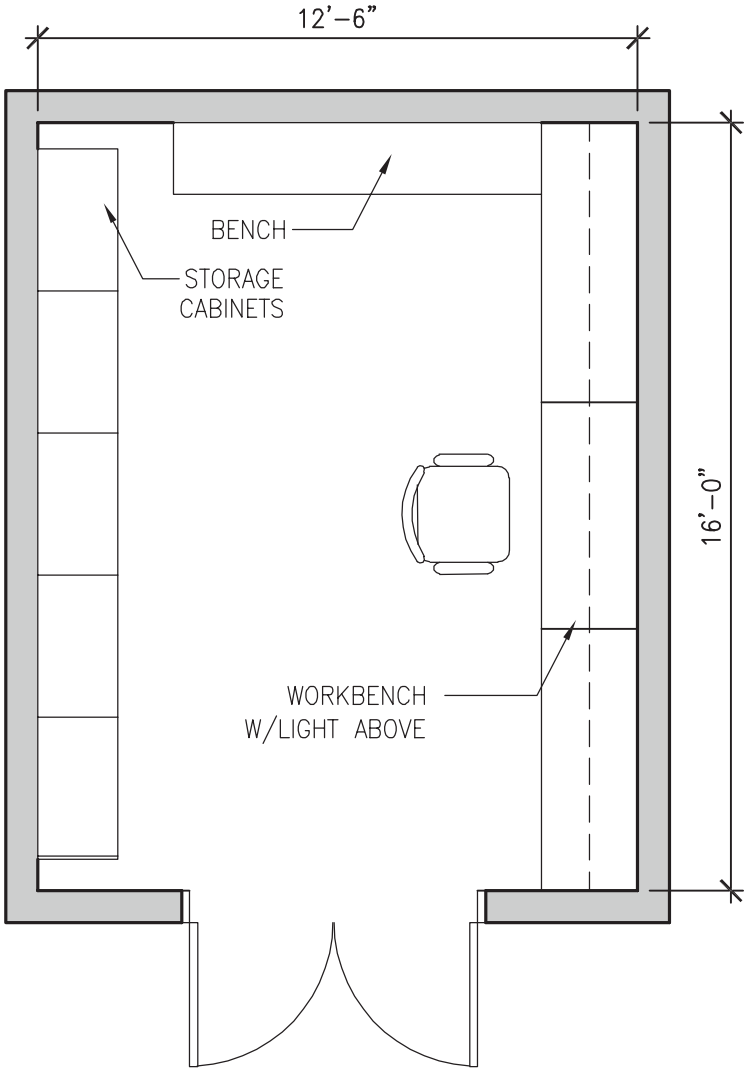
Lighting	Fluorescent, task lighting at work bench location (if necessary)
Electrical	Convenience outlets at the walls, some 220 V outlets required
Mechanical	Air conditioned, good ventilation is essential
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	Alarms on doors to the outside

TECHNOLOGY

Voice	Telephone
Data	Internet connection / wireless
TV	None
Other Technology	To be determined

FFE

Fixed Equipment	Work counter, work bench
Movable Equipment	Desks if not built-in work counter, workbench, desk chair, storage cabinets



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • MULTI-PURPOSE ROOM 1

GENERAL INFORMATION

Use/Function	Space for group fitness activities, also small meetings and as a small performance space
Assignable Area	2,000 square feet (including 72 square feet for bench / bag storage area)
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 50 sf / occupant
Key Dimensions	H: 12'-0" to 15'-0" W: 40'-0" L: 50'-0" Bench / bag storage area: 3'-0" x 24'-0"
Adjacencies	Multi-purpose Room 1 Storage, Multi-purpose Room 2, Multi-purpose Room 3
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Athletic resilient wood, 2nd grade maple, possibly a parquet pattern / ventilated rubberbase
Walls	Masonry or drywall, glass, mirrors on 2 walls – 12" min. above the floor
Ceiling	Drywall soffit, acoustical tile
Doors	Solid core wood with sidelight
Natural Light	Windows
Acoustics	In the walls and at the ceiling
Special Requirements	Independent sound system. Design and treatment must address a high volume audio environment inside and not transferring the sound to the outside. Vibration criteria for the floor structure is important.

ENGINEERING SYSTEMS

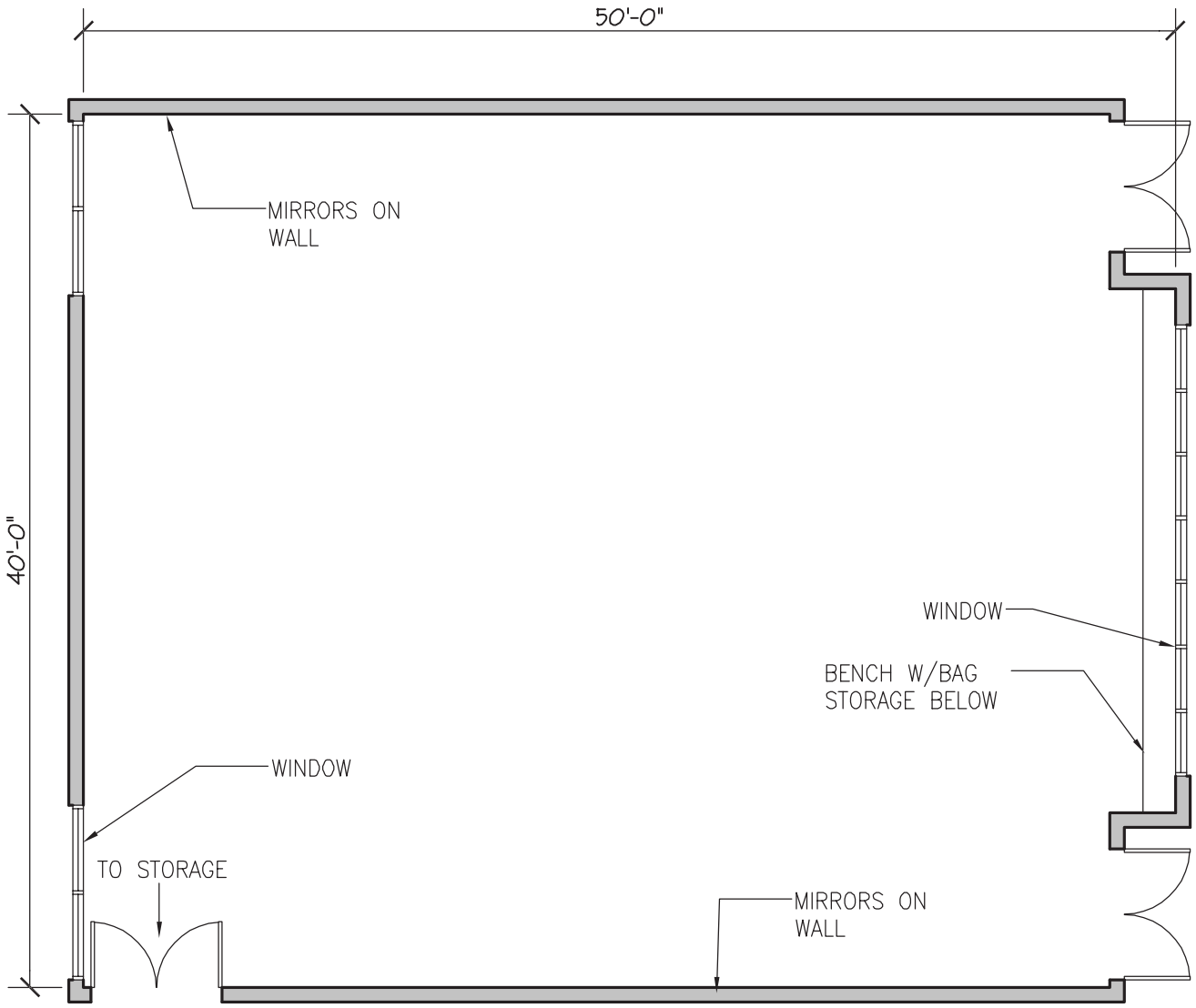
Lighting	Indirect, fluorescent, two levels, 60 fc / 40 fc, independently controlled
Electrical	Convenience outlets at the walls and for a clock – coordinate the location of the outlets with the mirrors and for disabled access requirements
Mechanical	Air conditioned, thermostat control,10 changes per hour (average, 12 changes per hour at peak periods – occupancy sensors). Ceiling fans if there is a ceiling height of a minimum of 12'-0".
Plumbing	Drinking fountains with chilled water at the outside of the room.
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	Telephone
Data	Internet connection / wireless – OK to have data jacks / lines if the room is also usedas a meeting room
TV	Cable outlet
Other Technology	CO2 sensors located 3' to 6' APF

FFE

Fixed Equipment	Clock, wall mirrors, window blinds for both the interior and exterior windows, built-in sound system and speakers, built-in bench with bag storage cubicles under it, hooks above bench for jackets, dance bar at one wall.
Movable Equipment	Aerobic steps, individual folding mats, other group fitness equipment, floor covering, pin up board


50'-0"
40'-0"
MIRRORS ON WALL
WINDOW
BENCH W/BAG STORAGE BELOW
WINDOW
TO STORAGE
MIRRORS ON WALL

SCALE: 1/8" = 1'-0"

BUILDING PROGRAM • MULTI-PURPOSE ROOM 1 / STORAGE

GENERAL INFORMATION

Use/Function	Storage for furnishings and equipment used in Multi-purpose Room 1
Assignable Area	200 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 300 sf / occupant
Key Dimensions	H: 12'-0" min. W: 10'-0" L: 20'-0"
Adjacencies	Multi-purpose Room 1
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Vinyl composition tile or sealed concrete / rubber base
Walls	Drywall or masonry
Ceiling	Exposed structure
Doors	Solid core wood, double door
Natural Light	None
Acoustics	In the walls
Special Requirements	To be determined

ENGINEERING SYSTEMS

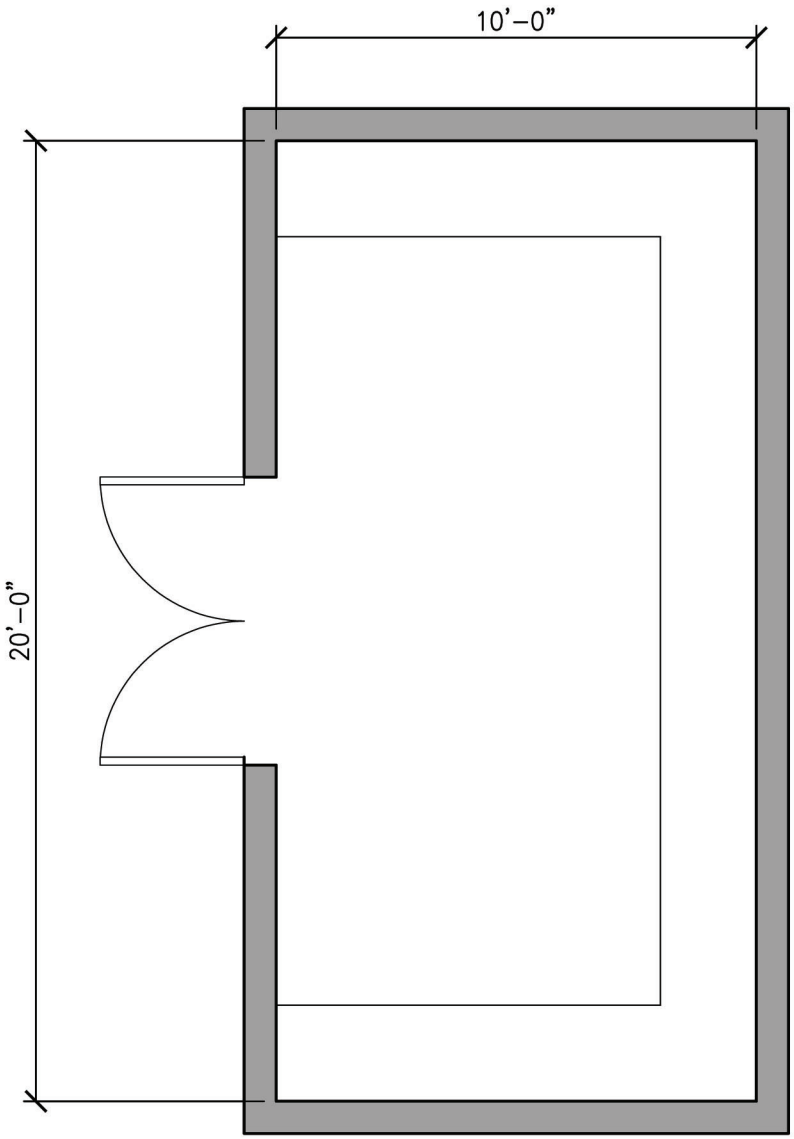
Lighting	Fluorescent, 10 fc
Electrical	Convenience outlets at the walls, 110 and 220 V
Mechanical	Air conditioned
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	None
Data	None
TV	None
Other Technology	None

FFE

Fixed Equipment	Shelving and storage cabinets, if built-in
Movable Equipment	Shelving and storage cabinets, if not built-in, furnishings and equipment for use in Multi-purpose Room 1



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • MULTI-PURPOSE ROOM 2 & 3

GENERAL INFORMATION

Use/Function	Space for group fitness activities, also small meetings
Assignable Area	1,500 square feet (including 42 square feet for bench / bag storage area)
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 50 sf / occupant
Key Dimensions	H: 12'-0" to 15'-0" W: 30'-0" L: 50'-0" Bench / bag storage area: 3'-0" x 14'-0"
Adjacencies	Multi-purpose Room 2 Storage, Multi-purpose Room 1, Multi-purpose Room 3
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Athletic resilient wood, 2nd grade maple, possibly a parquet pattern / ventilated rubberbase
Walls	Masonry or drywall, glass, mirrors on 2 walls – 12" min. above the floor
Ceiling	Drywall soffit, acoustical tile
Doors	Solid core wood
Natural Light	Windows
Acoustics	In the walls and at the ceiling
Special Requirements	Independent sound system. Design and treatment must address a high volume audio environment inside and not transferring the sound to the outside. Vibration criteria for the floor structure is important.

ENGINEERING SYSTEMS

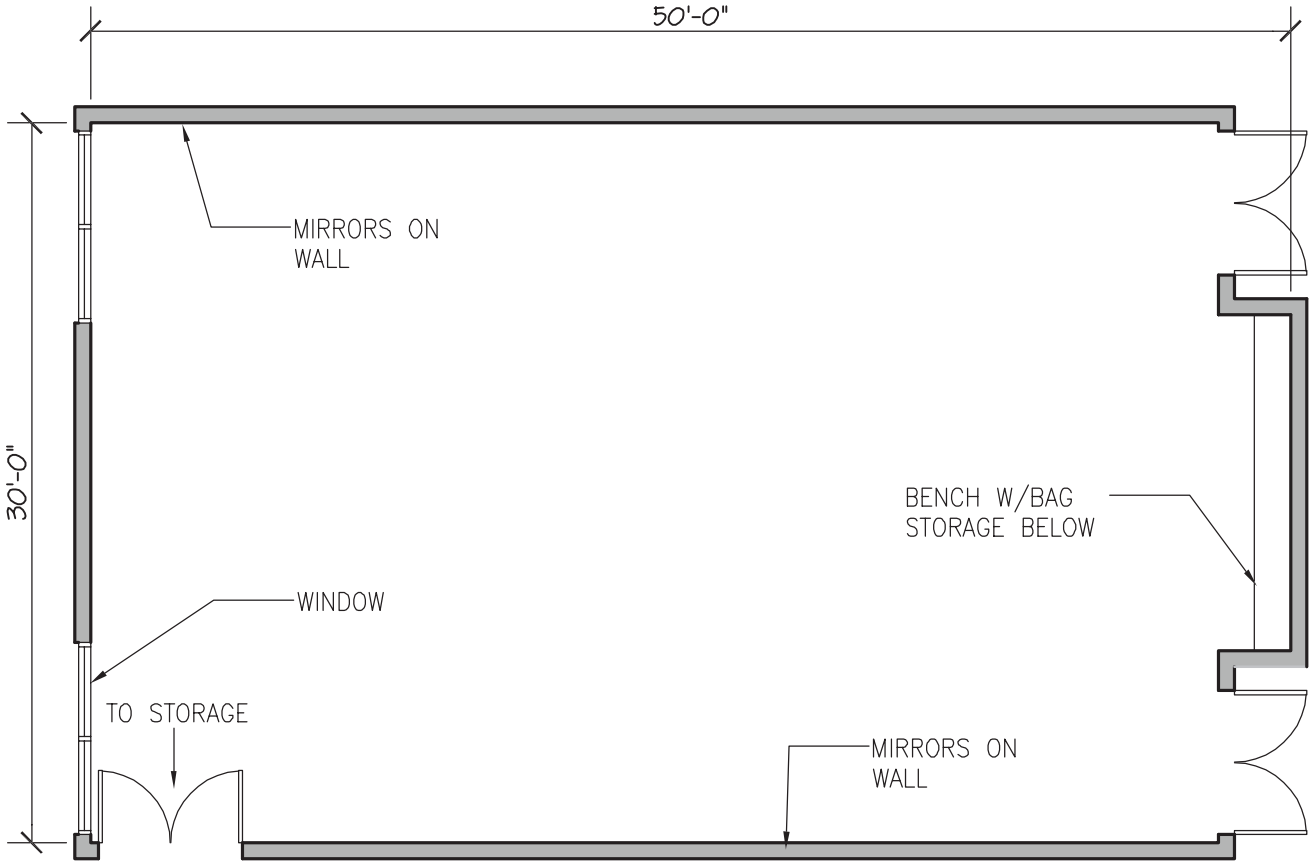
Lighting	Indirect, fluorescent, two levels, 60 fc / 40 fc, independently controlled
Electrical	Convenience outlets at the walls and for a clock – coordinate the location of the outlets with the mirrors and for disabled access requirements
Mechanical	Air conditioned, thermostat control, 10 changes per hour (average, 12 changes at peak periods – occupancy sensors). Ceiling fans if there is a ceiling height of a minimum of 12'-0".
Plumbing	Drinking fountains with chilled water at the outside of the room.
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	Telephone
Data	Internet connection / wireless – OK to have data jacks / lines if the room is also used as a meeting room
TV	Cable outlet
Other Technology	CO2 sensors located at 3' to 6' AFF

FFE

Fixed Equipment	Clock, wall mirrors, window blinds for both the interior and exterior windows, built-in sound system and speakers, built-in bench with bag storage cubicles under it, swing away wall-mounted martial arts bag holders if room is used martial arts, hooks above bench for jackets, dance bar at one wall.
Movable Equipment	Aerobic steps, individual folding mats, other group fitness and martial arts equipment, floor covering, display board


50'-0"
30'-0"
MIRRORS ON WALL
BENCH W/BAG STORAGE BELOW
WINDOW
TO STORAGE
MIRRORS ON WALL

SCALE: 1/8" = 1'-0"

BUILDING PROGRAM • MULTI-PURPOSE ROOM 2 & 3 / STORAGE

GENERAL INFORMATION

Use/Function	Storage for furnishings and equipment used in Multi-purpose Room 2
Assignable Area	150 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 300 sf / occupant
Key Dimensions	H: 12'-0" min. W: 10'-0" L: 15'-0"
Adjacencies	Multi-purpose Room 2
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Vinyl composition tile or sealed concrete / rubber base
Walls	Drywall or masonry
Ceiling	Exposed structure
Doors	Solid core wood, double door
Natural Light	None
Acoustics	In the walls
Special Requirements	To be determined

ENGINEERING SYSTEMS

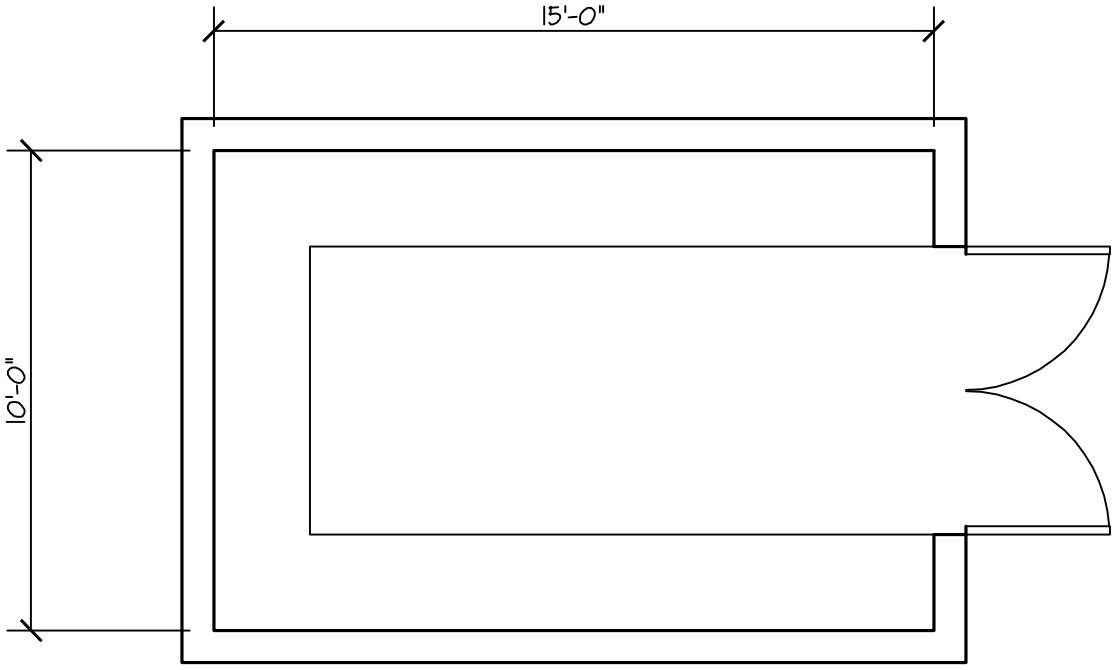
Lighting	Fluorescent, 10 fc
Electrical	Convenience outlets at the walls, 110 and 220 V
Mechanical	Air conditioned
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	None
Data	None
TV	None
Other Technology	None

FFE

Fixed Equipment	Shelving and storage cabinets, if built-in
Movable Equipment	Shelving and storage cabinets, if not built-in, furnishings and equipment for use in Multi-purpose Room 2



SCALE: 1/4" = 1'-0"

GENERAL INFORMATION

Use/Function	Classroom for the Student Recreation Center. Classroom to also be used as a Demonstration Kitchen for nutritional cooking classes, and possibly as a Classroom for pool classes.
Assignable Area	800 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 20 sf / occupant
Key Dimensions	H: 9'-0" min. W: 28'-0" L: 28'-7"
Adjacencies	Located so that it is accessible to a large part of the Student Recreation Center. It may want to be located adjacent to the Wellness component or possibly adjacent to the pool deck.
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Vinyl composition tile / rubber base
Walls	Masonry or drywall
Ceiling	Drywall and acoustical tile
Doors	Solid core wood
Natural Light	Windows
Acoustics	In the walls and at the ceiling
Special Requirements	Countertop with sink, kitchen /cooking appliances for nutritional cooking demonstrations

ENGINEERING SYSTEMS

Lighting	Fluorescent, 70 fc / 50 fc (50 fc average), independently controlled
Electrical	Convenience outlets at the walls and at counters
Mechanical	Air conditioned
Plumbing	Hot and cold water for the kitchen sink and appliances, countertop sink, floor drain not required
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

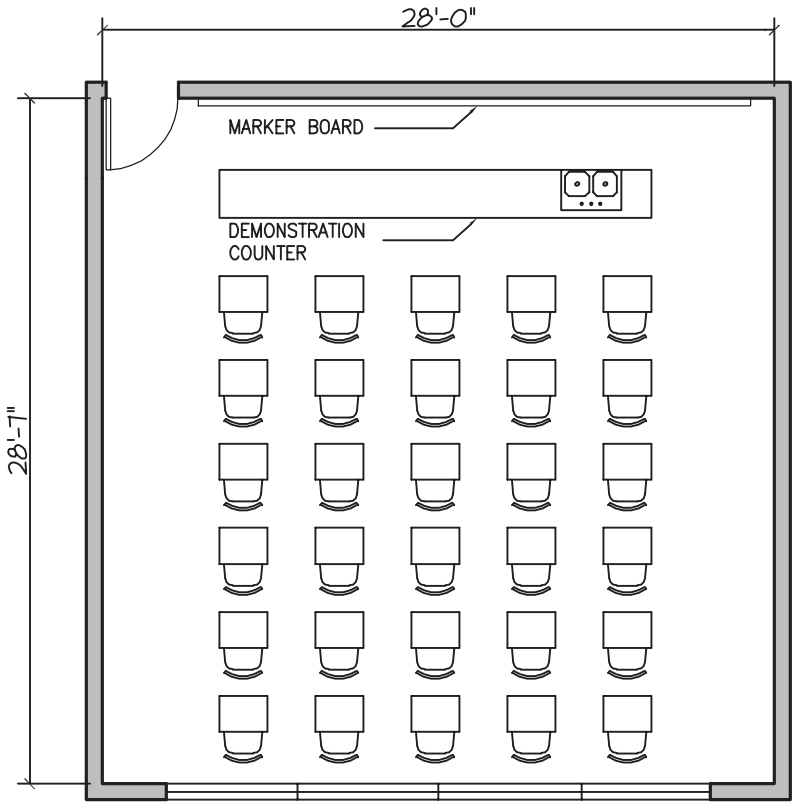
TECHNOLOGY

Voice	Telephone
Data	Internet connection / wireless
TV	Cable outlet
Other Technology	PA system connected to the front counter

FFE

Fixed Equipment	Window blinds, retractable projection screen, marker boards, countertop for demonstration kitchen
Movable Equipment	Ceiling mounted projector, video/disk player, classroom desks or tables, classroom chairs, kitchen appliances (cooktop, undercounter refrigerator, dishwasher), overhead television monitor

NOTE: FLOOR DRAIN IS NOT NECESSARY BECAUSE USERS ARE EXPECTED TO DRY OFF PRIOR TO ENTERING THE ROOM.



SCALE: 1/8" = 1'-0"

BUILDING PROGRAM • ENTRY RENTAL / COUNTER / EQUIPMENT DISPLAY

GENERAL INFORMATION

Use/Function	Entry lobby and space for display and renting of recreation equipment for the Outdoor Excursions area
Assignable Area	200 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 15 sf / occupant
Key Dimensions	H: 12'-0" W: 13'-4" L: 15'-0"
Adjacencies	Other Outdoor Recreation spaces
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Vinyl composition tile / rubber base Sealed concrete / no base at storage area
Walls	Masonry or drywall (at the front counter area)
Ceiling	Acoustical tile
Doors	Solid core wood from inside of the Student Recreation Center, hollow metal doors if doors are required between the Entry and the Storage and Maintenance Areas
Natural Light	Optional
Acoustics	In the walls and at the ceiling
Special Requirements	Counter for renting and display of recreation equipment with wall / cabinets to display equipment in the rear of the sales area. Storage area for equipment behind the front counter area. ID card reader access, charge card transactions required

ENGINEERING SYSTEMS

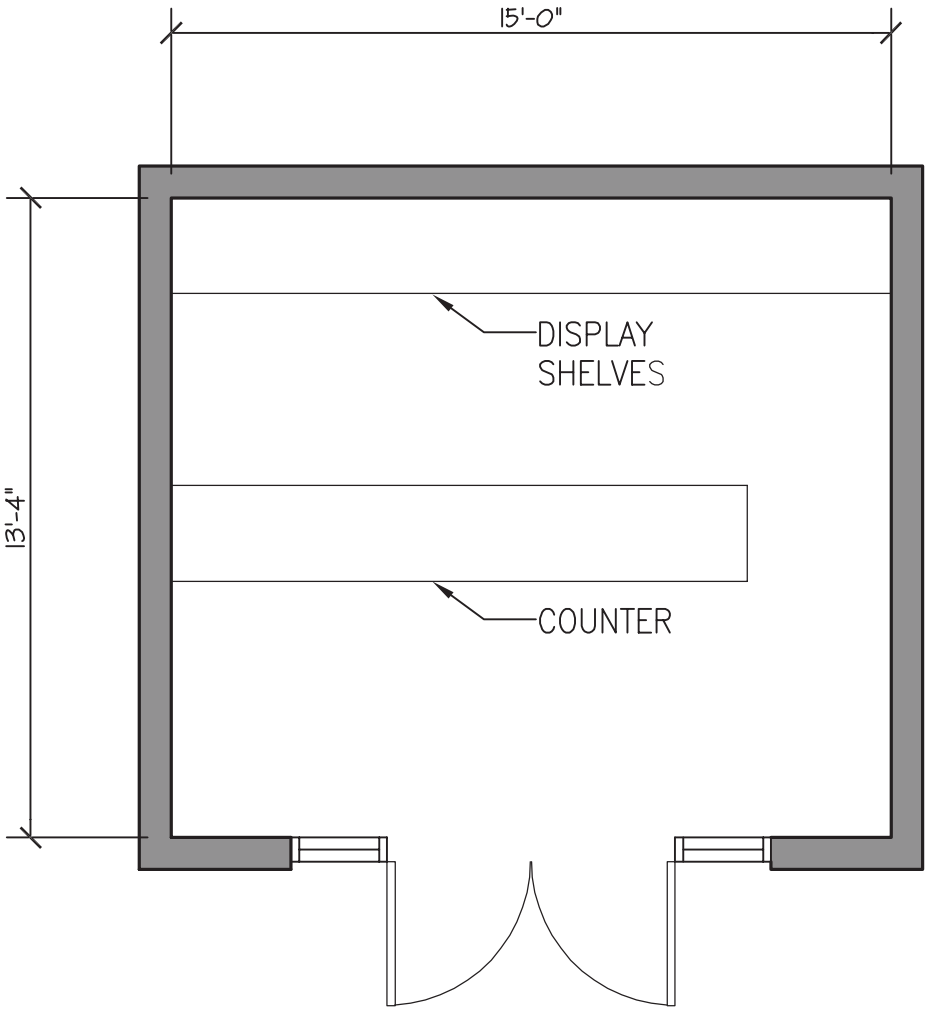
Lighting	Fluorescent, 50 fc
Electrical	Convenient outlets at walls and any counters, may require both 110 and 220 V
Mechanical	Air conditioned
Plumbing	To be determined
Fire Protection	Fire sprinklers, smoke detectors
Security	Alarms on doors to the outside of the building; security cameras.

TECHNOLOGY

Voice	Telephone
Data	Internet / wireless. Data may be required for cash register at front counter
TV	Cable outlet, cable TV monitor (viewable from service counter)
Other Technology	To be determined

FFE

Fixed Equipment	Display counters, cabinets, and shelves, storage cabinets, bulletin boards
Movable Equipment	Storage shelves and cabinets if not built-in, cash register, drop safe, chairs or stools for behind the counter, wall clock



NOTE: THIS LAYOUT ONLY REPRESENTS THE POSSIBLE SIZE OF THE ENTRY / EQUIPMENT DISPLAY / STORAGE AREA. THE ACTUAL LAYOUT WILL EVOLVE DURING THE DESIGN DEVELOPMENT PHASE WITH INPUT FROM THE OUTDOOR EXCURSIONS STAFF.

SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • STORAGE AREA

GENERAL INFORMATION

Use/Function	Space for the storage of the equipment that can be rented from Outdoor Excursions, also space for food storage
Assignable Area	800 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 300 sf / occupant
Key Dimensions	H: 12'-0" W: to be determined L: to be determined
Adjacencies	Outdoor Excursions Maintenance Area, and other Outdoor Excursions spaces
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Sealed concrete / no base
Walls	Masonry
Ceiling	Solid core wood from inside of the Student Recreation Center, hollow metal and metal roll-up counter door to the outside of the building. May not require a door between the Storage and Maintenance Areas
Doors	Solid core wood from inside of the Student Life Center, hollow metal and metal roll-up counter door to the out side of the building
Natural Light	Optional
Acoustics	To be determined
Special Requirements	Space for food storage, both refrigerated and non-refrigerated food supplies

ENGINEERING SYSTEMS

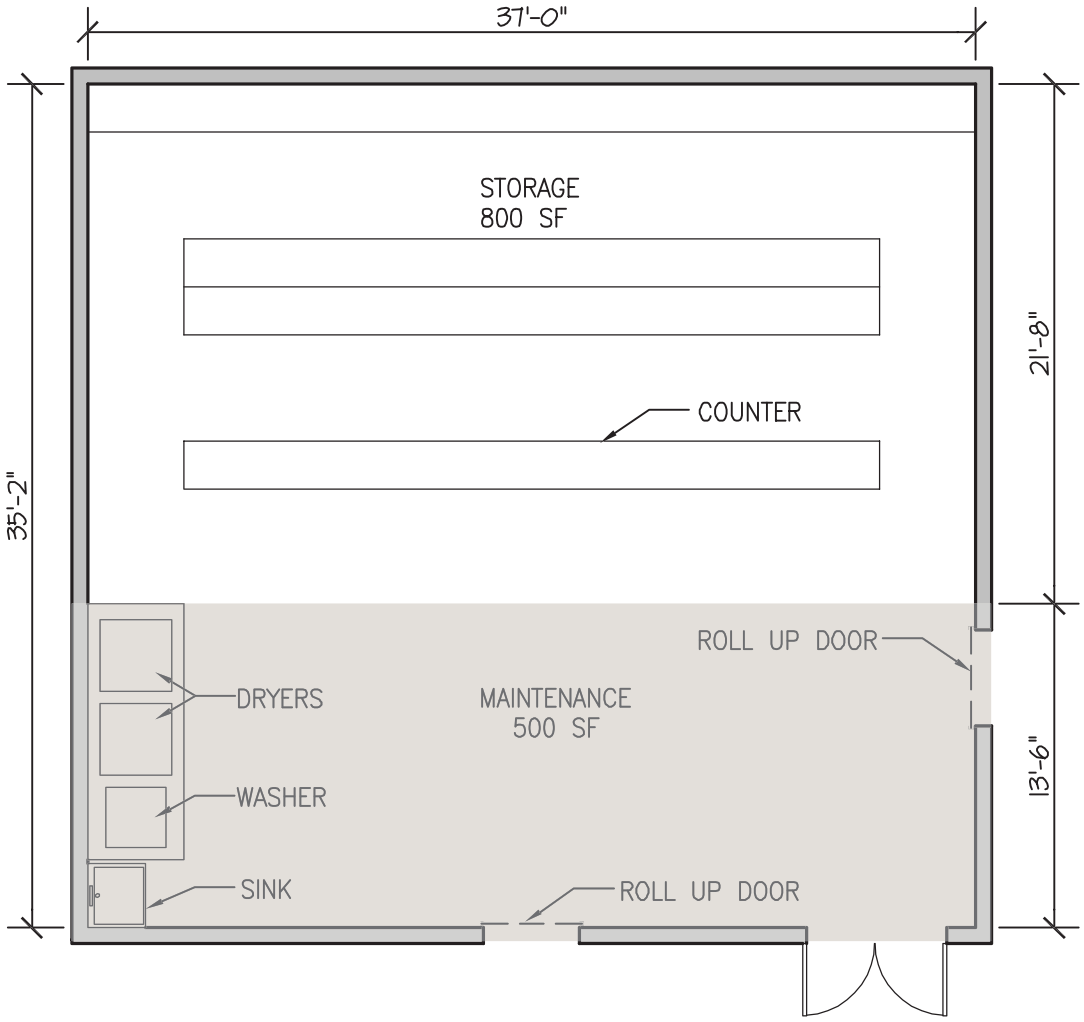
Lighting	Fluorescent, 50 fc
Electrical	Multiple convenience outlets at walls and any counters, may require both 110 and 220 V
Mechanical	Air conditioned, exhaust and dryer vent to the exterior of the building
Plumbing	Multiple convenience outlets at walls, may require both 110 and 220 V
Fire Protection	Fire sprinklers, smoke detectors
Security	Alarms on doors to the outside of the building; security cameras.

TECHNOLOGY

Voice	Telephone, voice communications
Data	Internet / wireless. Data may be required for cash register at front counter
TV	None
Other Technology	To be determined

FFE

Fixed Equipment	Cabinets, and shelves, storage cabinets, bulletin boards;
Movable Equipment	Storage shelves and cabinets if not built-in, refrigerators.



NOTE: LIGHT GREY AREA REPRESENTS THE MAINTENANCE AREA.
NOTE: THIS LAYOUT REPRESENTS BOTH THE MAINTENANCE AND STORAGE AREA FROM THE SPACE PROGRAM MODELS. THIS LAYOUT ONLY REPRESENTS THE POSSIBLE SIZE OF THE STORAGE AND MAINTENANCE AREA. THE ACTUAL LAYOUT WILL EVOLVE DURING THE DESIGN DEVELOPMENT PHASE WITH INPUT FROM THE OUTDOOR EXCURSIONS STAFF.

SCALE: 1/8" = 1'-0"

GENERAL INFORMATION

Use/Function	Space for the storage of the equipment that can be rented from Outdoor Excursions, also space for food storage
Assignable Area	500 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 300 sf / occupant
Key Dimensions	H: 12'-0" W: to be determined L: to be determined
Adjacencies	Other Outdoor Excursions spaces
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Sealed concrete / no base
Walls	Masonry
Ceiling	Exposed structure
Doors	Hollow metal, metal roll-up door to the outside of the building. No door required between the Storage and Maintenance Areas.
Natural Light	Optional
Acoustics	To be determined
Special Requirements	Ventilation and cooling capabilities at the Laundry area, isolated concrete base for the washer and dryer, may want to insulate for sound and vibration.

ENGINEERING SYSTEMS

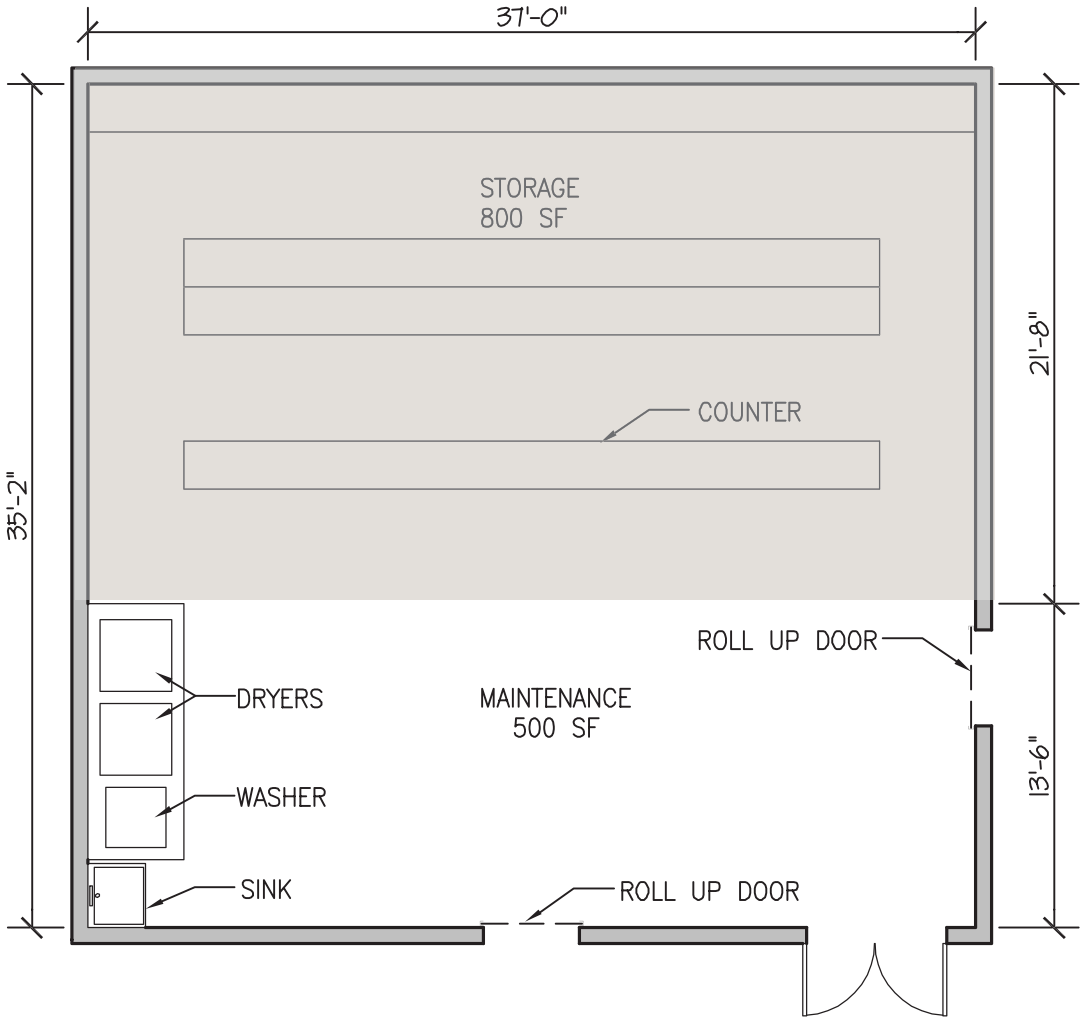
Lighting	Fluorescent, 50 fc
Electrical	Multiple convenience outlets at walls and any counters, may require both 110 and 220 V (220 V for laundry equipment)
Mechanical	Air conditioned, exhaust and dryer vent to the exterior of the building
Plumbing	Hot and cold water for laundry and industrial sinks and washer, industrial sinks, natural gas, hose bibs throughout the room, floor drains throughout the room. Industrial sink requires a garbage disposal.
Fire Protection	Fire sprinklers, smoke detectors
Security	Alarms on doors to the outside

TECHNOLOGY

Voice	Telephone, voice communications
Data	Internet / wireless. Data may be required for cash register at front counter
TV	None
Other Technology	To be determined

FFE

Fixed Equipment	1 heavy-duty commercial washer (60 lb. capacity min.), and 2 commercial dryer (75 lb. capacity min.), industrial sink with garbage disposal, countertop for folding and food preparation
Movable Equipment	Storage cabinet (may be overhead cabinets), storage racks as required



NOTE: THE LIGHT GREY AREA REPRESENTS THE STORAGE AREA.
NOTE: THIS LAYOUT REPRESENTS BOTH THE MAINTENANCE AND STORAGE AREA FROM THE SPACE PROGRAM MODELS. THIS LAYOUT ONLY REPRESENTS THE POSSIBLE SIZE OF THE STORAGE AND MAINTENANCE AREA. THE ACTUAL LAYOUT WILL EVOLVE DURING THE DESIGN DEVELOPMENT PHASE WITH INPUT FROM THE OUTDOOR EXCURSIONS STAFF.

SCALE: 1/8" = 1'-0"

BUILDING PROGRAM • TRAINING / RESOURCE ROOM

GENERAL INFORMATION

Use/Function	Training / Resource Room for the Outdoor Excursions area for training and a resource library, that can also be used as a Conference Room
Assignable Area	300 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 15 sf / occupant
Key Dimensions	H: 9'-0" min. W: 13'-0" L: 23'-0"
Adjacencies	Other Outdoor Recreation spaces
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Carpet or vinyl composition tile / rubber base
Walls	Masonry or drywall, glass
Ceiling	Acoustical tile
Doors	Solid core wood, or glass
Natural Light	Windows
Acoustics	In the walls and at the ceiling
Special Requirements	PA system connected to the front control counter

ENGINEERING SYSTEMS

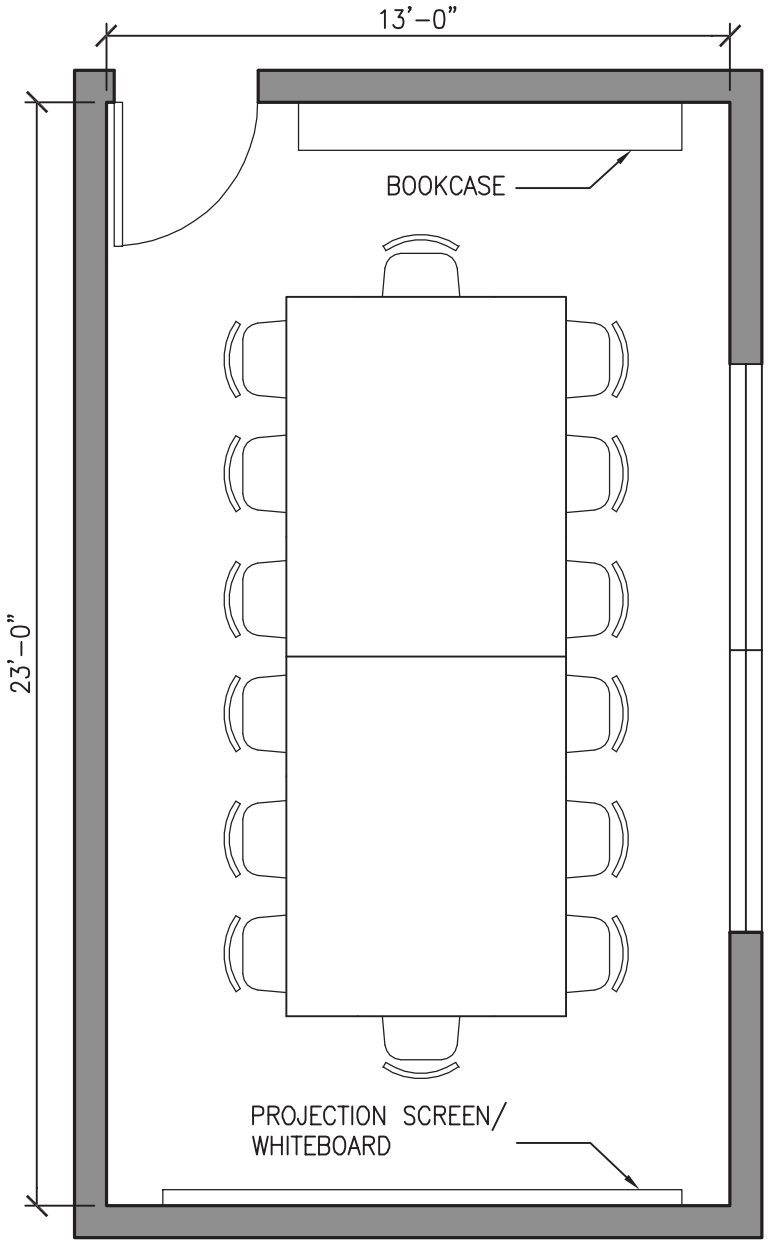
Lighting	Fluorescent, two levels, 70 fc / 50 fc (50 fc average), independently controlled
Electrical	Convenience outlets at the walls, outlets in the floor
Mechanical	Air conditioned
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	Telephones
Data	Internet connections / wireless
TV	Cable outlet
Other Technology	PA connected to Student Life Center control counter

FFE

Fixed Equipment	Window blinds, retractable projection screen, marker boards, bookcases if built-in
Movable Equipment	Ceiling mounted projector, video/disk player, bookcases if not built-in Conference tables (2 modules), 15 conference chairs



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • ROCK CLIMBING WALL WITH SAFETY / LANDING AREA

GENERAL INFORMATION

Use/Function	Space for a synthetic structure climbing and bouldering wall for general recreation and classes with a safety zone at the base of the wall. Needs to be in a visible, but secure area with a maximum available ceiling height.
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 600 square feet
Capacity	Per Code: 50 sf / occupant
Key Dimensions	H: to be determined W: to be determined
Adjacencies	Bouldering Wall, Outdoor Exursions area, Storage, Registration Counter
Access	To be determined
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Synthetic cushioned flooring, tapered with greater thickness at the Climbing Wall (12") and thinner at the edge of the landing area (4" min.).
Walls	Synthetic "real rock" type structure for the Climbing Wall
Ceiling	Exposed structure or drywall above the Climbing Wall
Doors	None
Natural Light	None
Acoustics	None
Special Requirements	Sufficient safe area (10' min.) around the climbing surface. Safety area can be separated from the adjacent floor surface by recessing the safe area, or being higher than the adjacent floor surface.

ENGINEERING SYSTEMS

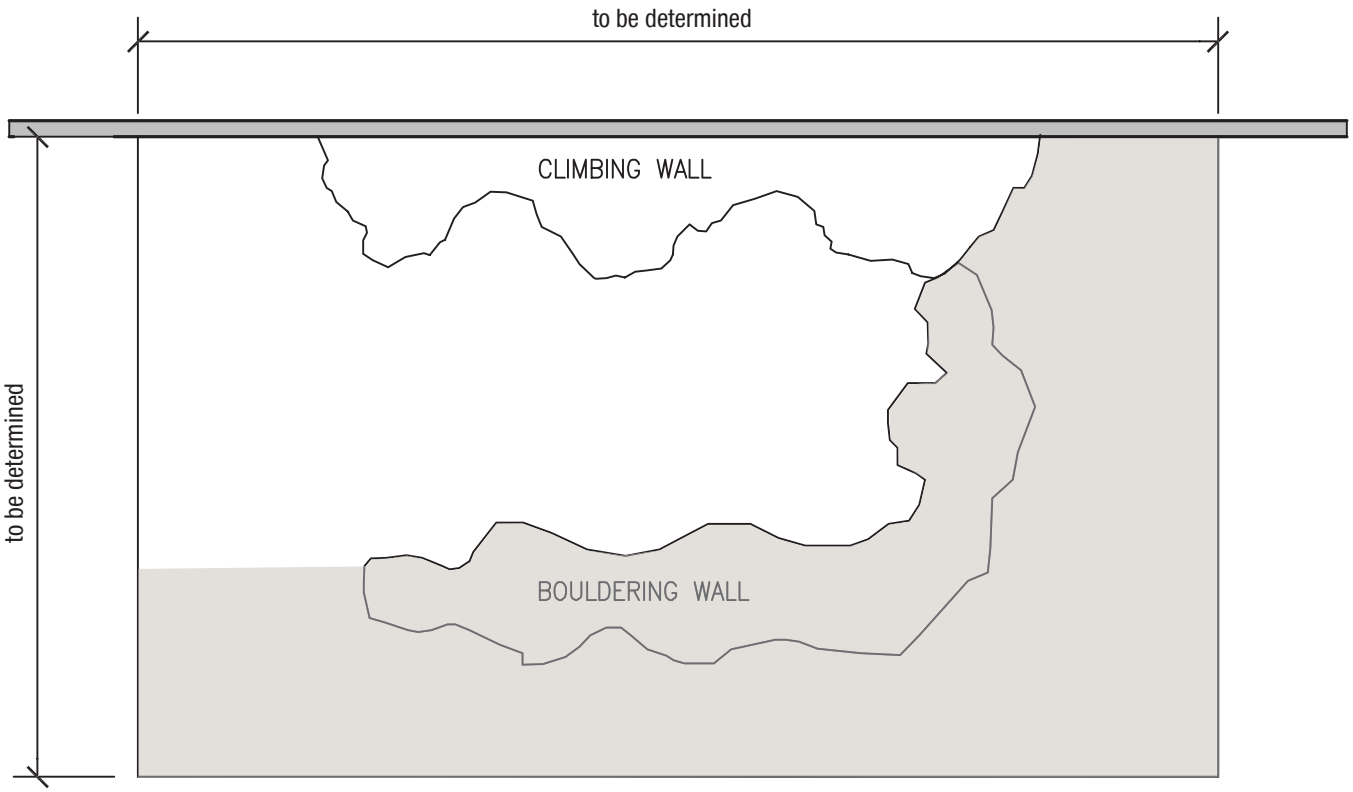
Lighting	Fluorescent, 75 fc; specialty lighting to be determined.
Electrical	Convenience outlets behind the wall or if there is a storage area as a part of the rear of the climbing structure
Mechanical	Air conditioned
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	None

TECHNOLOGY

Voice	None
Data	Internet connection / wireless
TV	Cable outlet, cable TV monitor
Other Technology	Music and PA system with controls located at wall registration counter.

FFE

Fixed Equipment	Rock climbing and bouldering wall
Movable Equipment	Climbing ropes, harnesses / webbing, helmets



NOTE: LIGHT GREY AREA REPRESENTS BOULDERING WALL PROGRAM.
NOTE: THIS LAYOUT COMBINES BOTH THE CLIMBING AND BOULDERING WALLS FROM THE SPACE PROGRAM MODELS.

SCALE: 1/8" = 1'-0"

BUILDING PROGRAM • BOULDERING WALL WITH SAFETY / LANDING AREA

GENERAL INFORMATION

Use/Function	Space for a synthetic structure bouldering wall for general recreation and classes with a safety zone at the base of the wall. Needs to be in a visible, but secure area with a maximum available ceiling height.
Assignable Area	600 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 50 sf / occupant
Key Dimensions	H: to be determined W: to be determined
Adjacencies	Bouldering Wall, Outdoor Excursions area, Storage, Registration Counter
Access	To be determined
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Synthetic cushioned flooring, tapered with greater thickness at the Bouldering Wall (12”) and thinner at the edge of the landing area (4” min.).
Walls	Synthetic “real rock” type structure for the Bouldering Wall
Ceiling	Exposed structure or drywall above the Bouldering Wall
Doors	None
Natural Light	None
Acoustics	None
Special Requirements	Sufficient safe area (10’ min.) around the bouldering surface. Safety area can be separated from the adjacent floor surface by recessing the safe area, or being higher than the adjacent floor surface.

ENGINEERING SYSTEMS

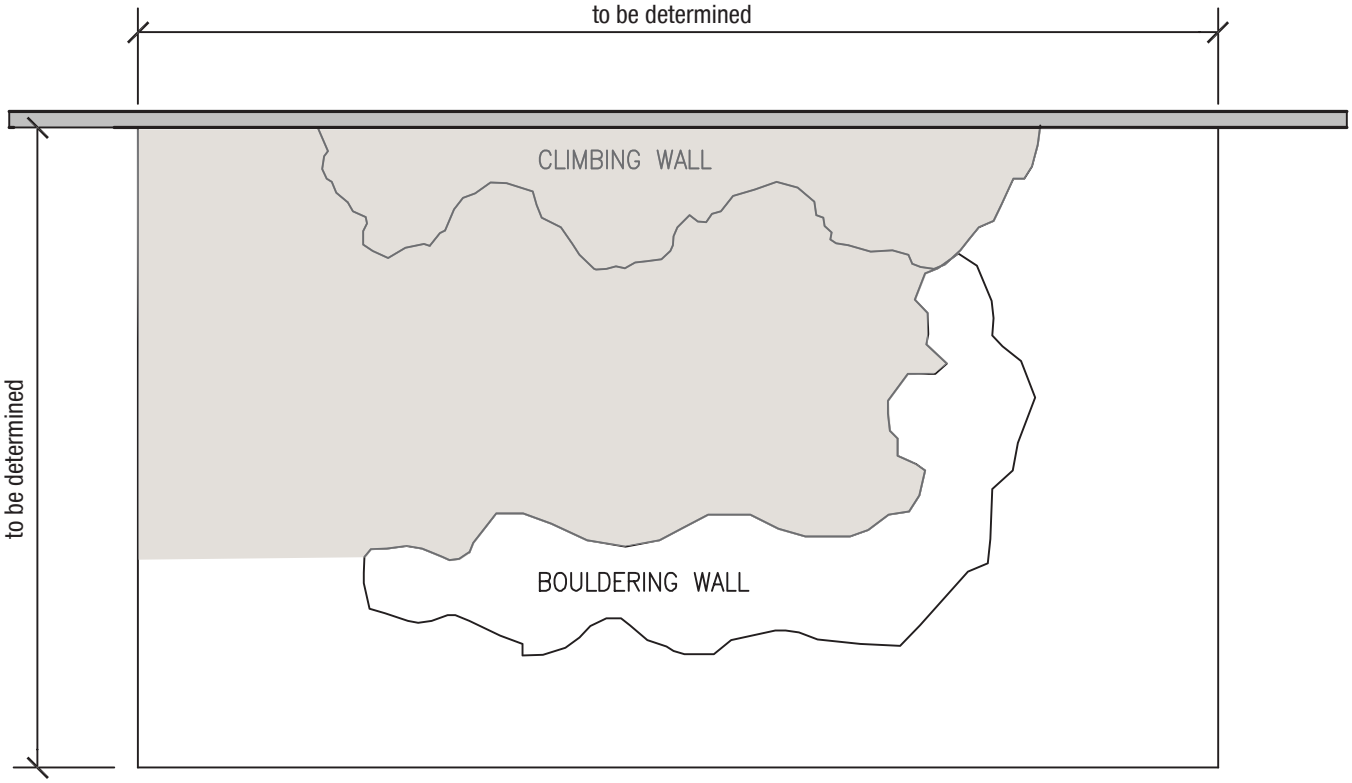
Lighting	Fluorescent, 75 fc, specialty lighting to be determined.
Electrical	Convenience outlets behind the wall or if there is a storage area as a part of the rear of the bouldering structure
Mechanical	Air conditioned
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	None

TECHNOLOGY

Voice	None
Data	Internet Connection / Wireless
TV	Cable Outlet, Cable TV Monitor
Other Technology	Music/ PA system with controls at registration counter.

FFE

Fixed Equipment	Rock bouldering wall
Movable Equipment	Not required.



NOTE: LIGHT GREY AREA REPRESENTS CLIMBING WALL PROGRAM.
NOTE: THIS LAYOUT COMBINES BOTH THE CLIMBING AND BOULDERING WALLS FROM THE SPACE PROGRAM MODELS.

SCALE: 1/8" = 1'-0"

BUILDING PROGRAM • CLIMBING / BOULDERING WALL REGISTRATION COUNTER

GENERAL INFORMATION

Use/Function	Registration, control and information counter for the Rock Climbing Wall and the Bouldering Wall
Assignable Area	120 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 100 sf / occupant
Key Dimensions	H: 12'-0" min. W: 10'- 0" L: 12'-0"
Adjacencies	Rock Climbing Wall (line of sight optional), if required, Bouldering Wall, Storage
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Carpet or vinyl composition tile / rubber base
Walls	Masonry or drywall on adjacent walls
Ceiling	Exposed structure or drywall
Doors	Low door for ADA access behind counter
Natural Light	Desired
Acoustics	In the walls and at the ceiling
Special Requirements	Main registration, control and information counter for the Climbing and Bouldering Walls. Registration for use of the Climbing and Bouldering Walls to take place at this counter Cash transactions may take place at this counter (drop safe may be required) Space at counter for telephone and computer

ENGINEERING SYSTEMS

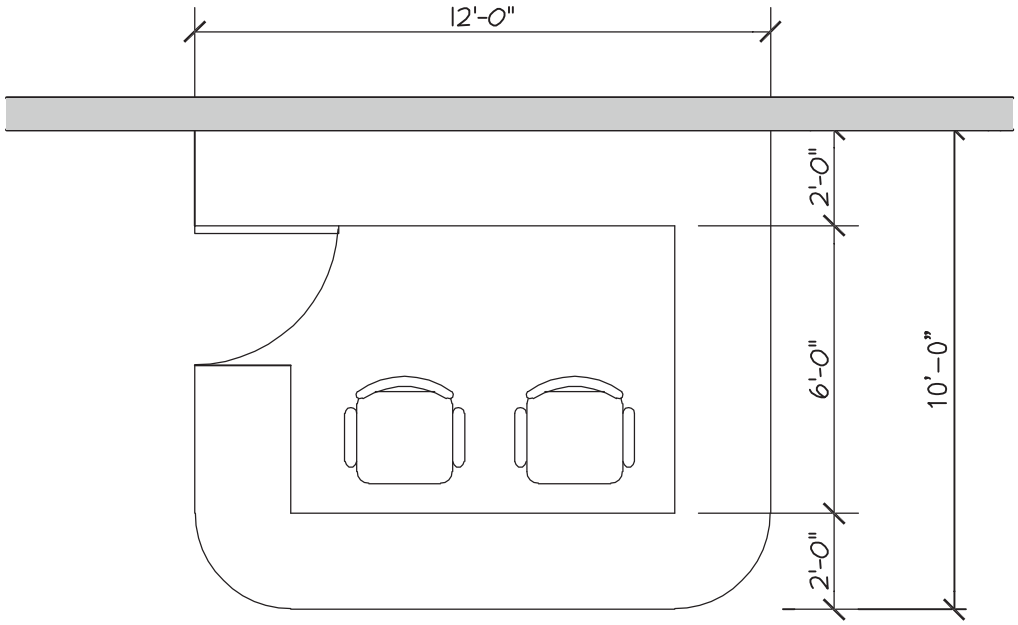
Lighting	Fluorescent, 60 fc, or H.I.D., or decorative lighting
Electrical	Convenience outlets at the Registration Counter
Mechanical	Air conditioned, thermostat control
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	Telephone
Data	Internet connection / wireless
TV	Cable outlet, Cable TV Monitor
Other Technology	To be determined

FFE

Fixed Equipment	Registration counter (dual height for standing transactions and for disabled access and lockable storage under counter)
Movable Equipment	2 counter chairs, computer, wall clock



NOTE: VISUAL CONNECTION TO CLIMBING AREA REQUIRED.

SCALE: 1/4" = 1'-0"

GENERAL INFORMATION

Use/Function	Registration, control and information counter for the Rock Climbing Wall and the Bouldering Wall
Assignable Area	200 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 100 sf / occupant
Key Dimensions	H: 12'-0" min. W: 10'- 0" L: 20'-0"
Adjacencies	Rock Climbing Wall, Bouldering Wall, Registration Counter
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Vinyl composition tile or sealed concrete / rubber base
Walls	Drywall or masonry
Ceiling	Exposed structure
Doors	Solid core wood, double door
Natural Light	Desired
Acoustics	In the walls
Special Requirements	To be determined

ENGINEERING SYSTEMS

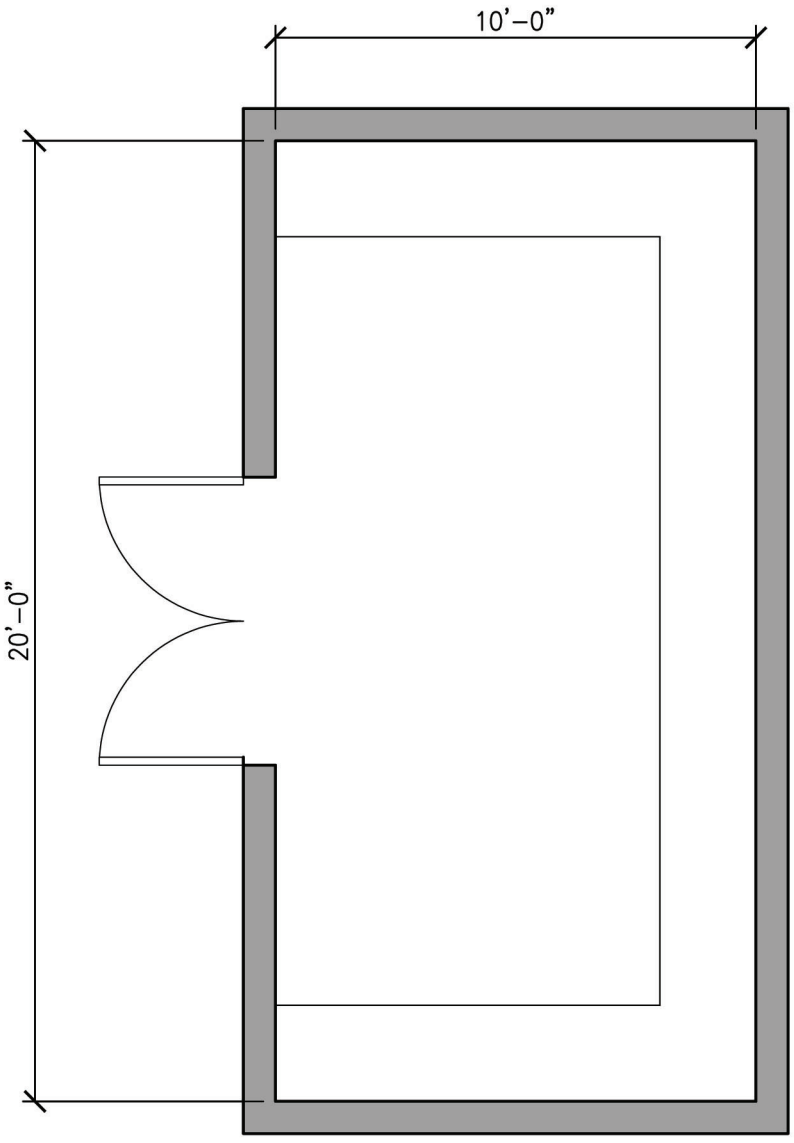
Lighting	Fluorescent, 10 fc
Electrical	Convenience outlets at the walls, 110 and 220 V
Mechanical	Air conditioned
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	None
Data	None
TV	None
Other Technology	None

FFE

Fixed Equipment	Shelving and storage cabinets, if built-in
Movable Equipment	Shelving and storage cabinets, if not built-in, furnishings and equipment for Rock Climbing and Bouldering Walls



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • WELLNESS ENTRY / INFORMATION RESOURCE AREA

GENERAL INFORMATION

Use/Function	Entry and Information / Resource Area for the Wellness Zone of the facility
Assignable Area	150 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 150 sf / occupant
Key Dimensions	H: 9'- 0" min. W: 10'-0" L: 15'-0"
Adjacencies	Other Wellness spaces
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Carpet / rubber base
Walls	Masonry of drywall, glass
Ceiling	Acoustical tile
Doors	Solid core wood, glass
Natural Light	Desired
Acoustics	In the walls and at the ceiling
Special Requirements	To be determined

ENGINEERING SYSTEMS

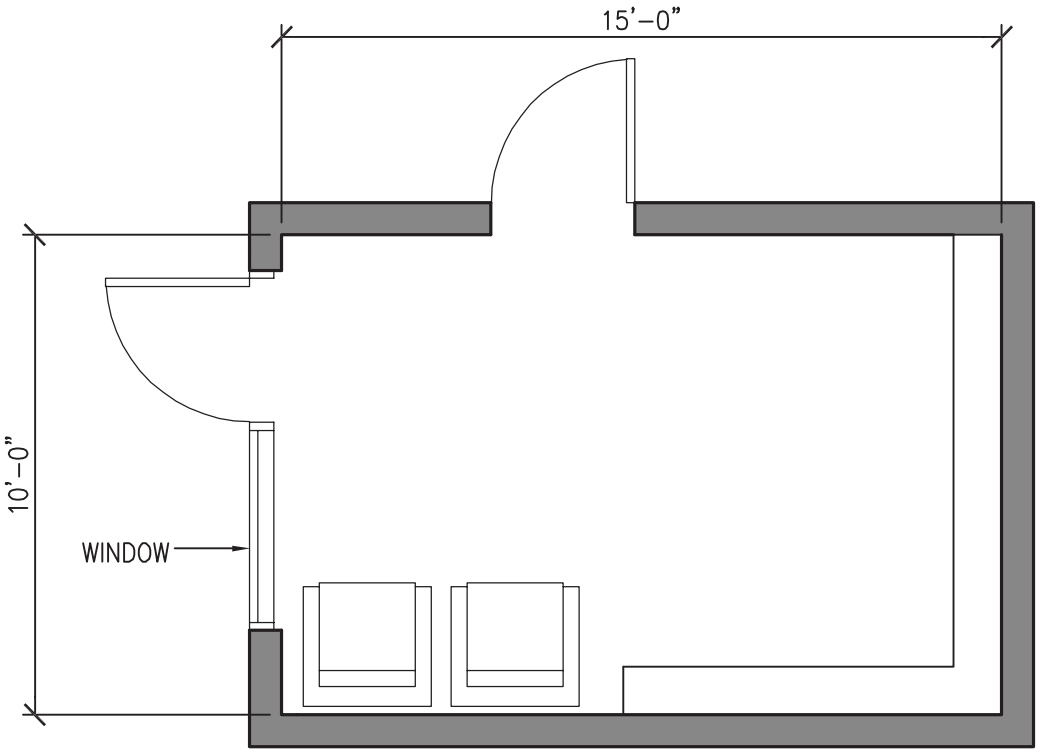
Lighting	Fluorescent, 50 fc
Electrical	Convenience outlets at the walls
Mechanical	Air conditioned
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	Telephone
Data	Internet connection / wireless
TV	Cable outlet, Cable TV Monitor
Other Technology	To be determined

FFE

Fixed Equipment	Book shelves and/or display shelves
Movable Equipment	Book shelves and/or display shelves, if not built in. 2 lounge chairs



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • MASSAGE THERAPY / ASSESSMENT

GENERAL INFORMATION

Use/Function	Room for Massage Therapy and Examination / Assessment
Assignable Area	120 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 50 sf / occupant
Key Dimensions	H: 9'-0" W: 10'-0" L: 12'-0"
Adjacencies	Massage Therapy / Assessment 2, and other Wellness area spaces, Restroom (if possible)
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Carpet
Walls	Drywall, glass
Ceiling	Acoustical tile
Doors	Solid core wood
Natural Light	None
Acoustics	In the walls and at the ceiling
Special Requirements	To be determined

ENGINEERING SYSTEMS

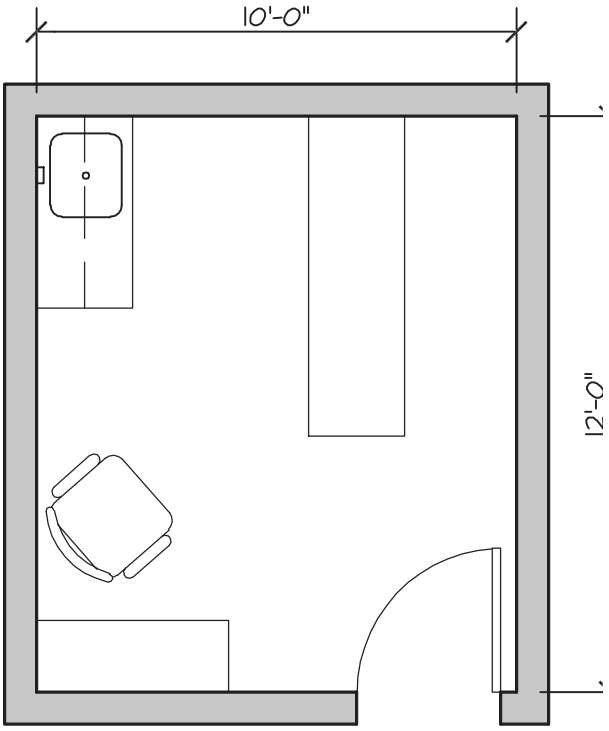
Lighting	Fluorescent, 50 fc, dimmer to provide for multiple light levels
Electrical	Multiple convenience outlets at the walls and at the counter
Mechanical	Air conditioned, individual temperature control
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	None

TECHNOLOGY

Voice	Telephone
Data	Internet connection
TV	Cable outlet, Cable TV monitor
Other Technology	Stereo

FFE

Fixed Equipment	Small countertop with overhead cabinets, Built-in area with bag storage cubicles and hooks to hang jackets, pull out hamper
Movable Equipment	Massage table, chair , bookshelf, wall mirror



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • WELLNESS STORAGE

GENERAL INFORMATION

Use/Function	Storage for the Wellness area
Assignable Area	100 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 300 sf / occupant
Key Dimensions	H: 10'-0" min. W: 10'-0" L: 10'-0"
Adjacencies	Wellness Director's Office and other Wellness area spaces
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Vinyl composition tile / rubber base
Walls	Drywall
Ceiling	Acoustical tile
Doors	Solid core wood
Natural Light	None
Acoustics	In the walls and at the ceiling
Special Requirements	To be determined

ENGINEERING SYSTEMS

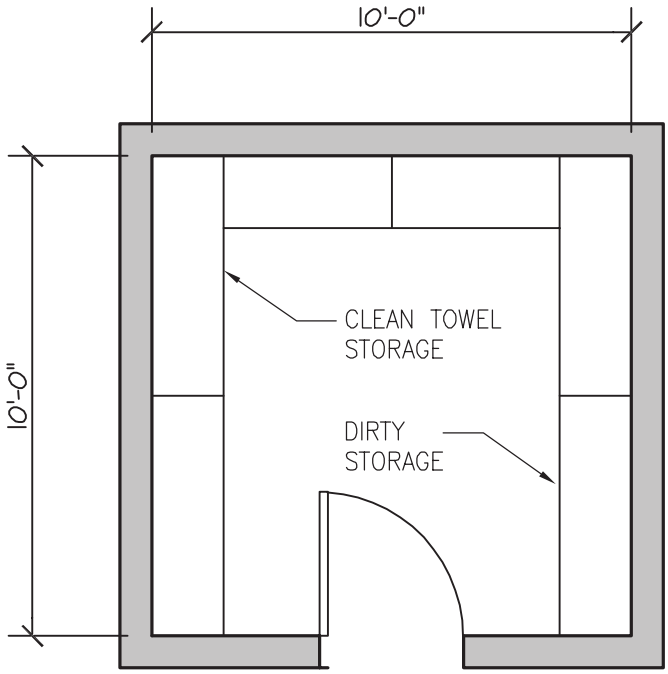
Lighting	Fluorescent, 10 fc
Electrical	Convenience outlets at the walls
Mechanical	Air conditioned
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	None

TECHNOLOGY

Voice	None
Data	None
TV	None
Other Technology	None

FFE

Fixed Equipment	None
Movable Equipment	Shelves, file cabinets, storage cabinets, hand truck



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • STUDENT EMPLOYEES' WORK ROOM

GENERAL INFORMATION

Use/Function	Work area / Office for Student Employees
Assignable Area	200 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 100 sf / occupant
Key Dimensions	H: 9'-0" W: 13'-4" L: 15'-0"
Adjacencies	Adjacent to Administration Area, the Fitness/ Weight Room, or the Locker Rooms
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Carpet / rubber base
Walls	Drywall, glass
Ceiling	Acoustical tile
Doors	Solid core wood
Natural Light	Windows
Acoustics	In the walls and at the ceiling
Special Requirements	To be determined

ENGINEERING SYSTEMS

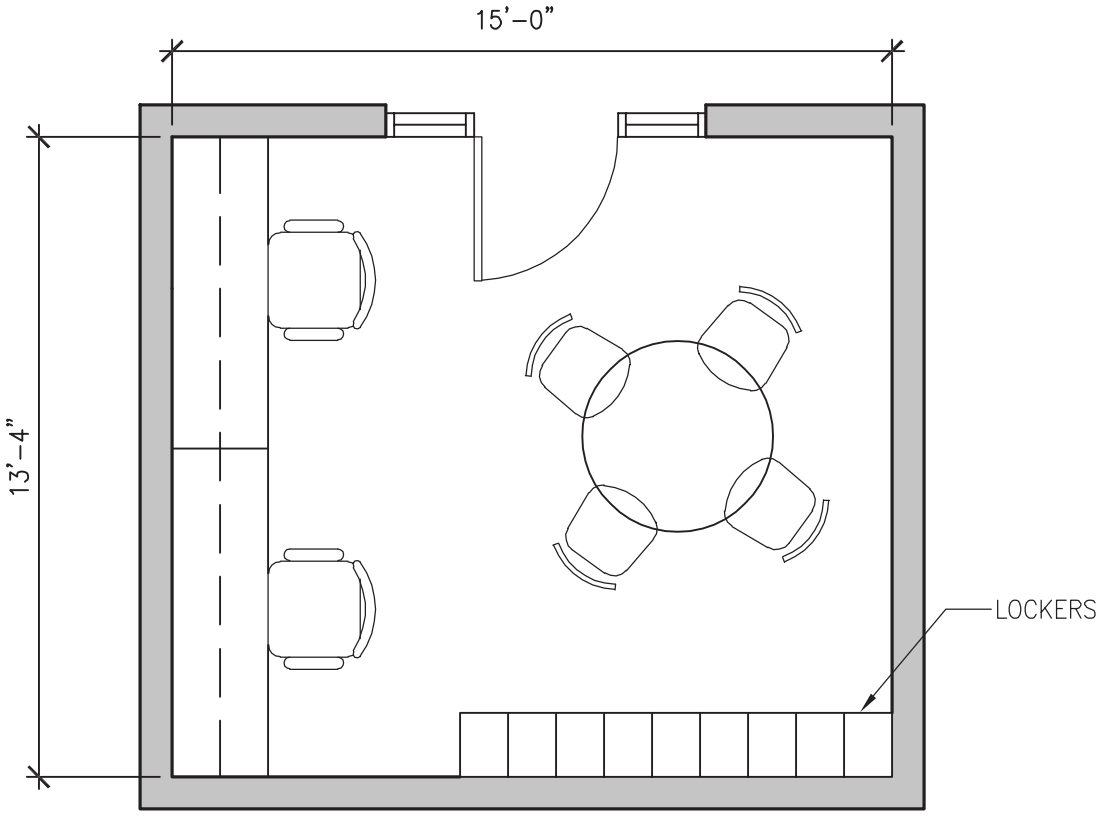
Lighting	Fluorescent, 50 fc
Electrical	Convenience outlets at the walls
Mechanical	Air conditioned
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	None

TECHNOLOGY

Voice	2 telephones, minimum
Data	2 internet connections, minimum, wireless
TV	Cable outlet
Other Technology	To be determined

FFE

Fixed Equipment	Window blinds, counter(s) with overhead shelves, 9 lockers (12" W x 16"D x 30"H half lockers and 15" high quarter lockers)
Movable Equipment	2 desks or modular furnishing, 2 desk chairs, lateral file cabinets, 2 computers, printer, 4 dining chairs, table, task lighting, wall clock



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • CONFERENCE ROOM

GENERAL INFORMATION

Use/Function	Conference Room for the Administration area
Assignable Area	600 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 15 sf / occupant
Key Dimensions	H: 9'-0" W: 24'-0" L: 25'-0"
Adjacencies	Administrative area offices,
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Carpet / rubber base
Walls	Drywall, glass
Ceiling	Drywall, acoustical tile
Doors	Solid core wood, or glass
Natural Light	Windows
Acoustics	In the walls and at the ceiling
Special Requirements	PA system connected to the front control counter, CO2 sensors located @ 3' to 6' AFF

ENGINEERING SYSTEMS

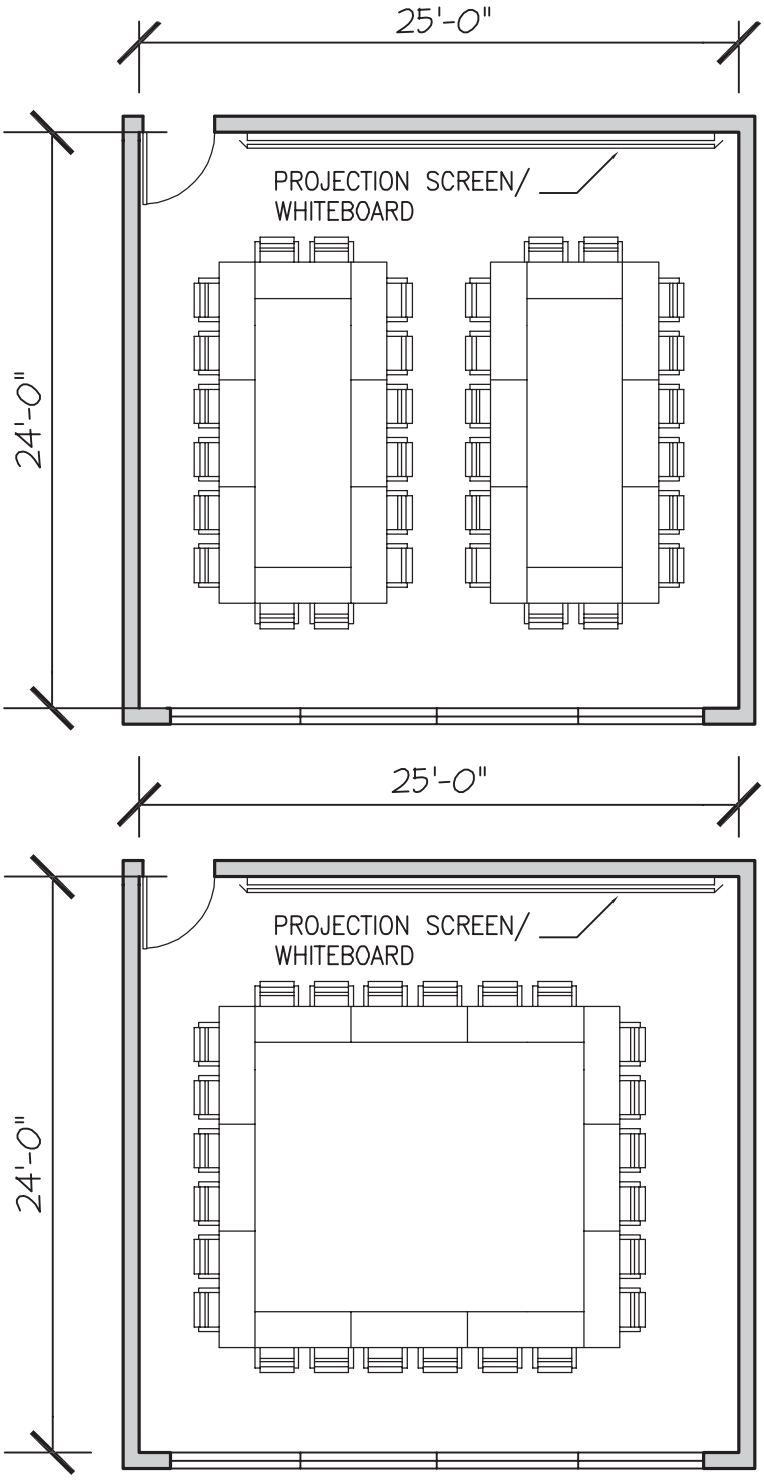
Lighting	Fluorescent, two levels, 70 fc / 50 fc (50 fc average), independently controlled
Electrical	Convenience outlets at the walls, outlets in the floor
Mechanical	Air conditioned, thermostat control
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	Telephones
Data	Internet connection / wireless
TV	Cable outlet
Other Technology	PA system connected to the front control counter

FFE

Fixed Equipment	Window blinds, retractable projection screen, marker boards
Movable Equipment	Ceiling mounted projector, video/disk player
	Conference or work tables (16 modules), 28-30 conference chairs, wall clock


25'-0"
PROJECTION SCREEN/
WHITEBOARD
24'-0"
25'-0"
PROJECTION SCREEN/
WHITEBOARD
24'-0"

SCALE: 1/8" = 1'-0"

BUILDING PROGRAM • ADMINSTRATIVE WORK ROOM

GENERAL INFORMATION

Use/Function	Work Room and Staff Room for the Administration area
Assignable Area	240 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 100 sf / occupant
Key Dimensions	H: 9'-0" W: 12'-0" L: 20'-0"
Adjacencies	Administration area Offices, Administration Storage
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Vinyl composition tile / rubber base
Walls	Drywall
Ceiling	Acoustical tile
Doors	Solid core wood
Natural Light	Windows
Acoustics	In the walls and at the ceiling
Special Requirements	Administration Storage accessible from this Work Room.

ENGINEERING SYSTEMS

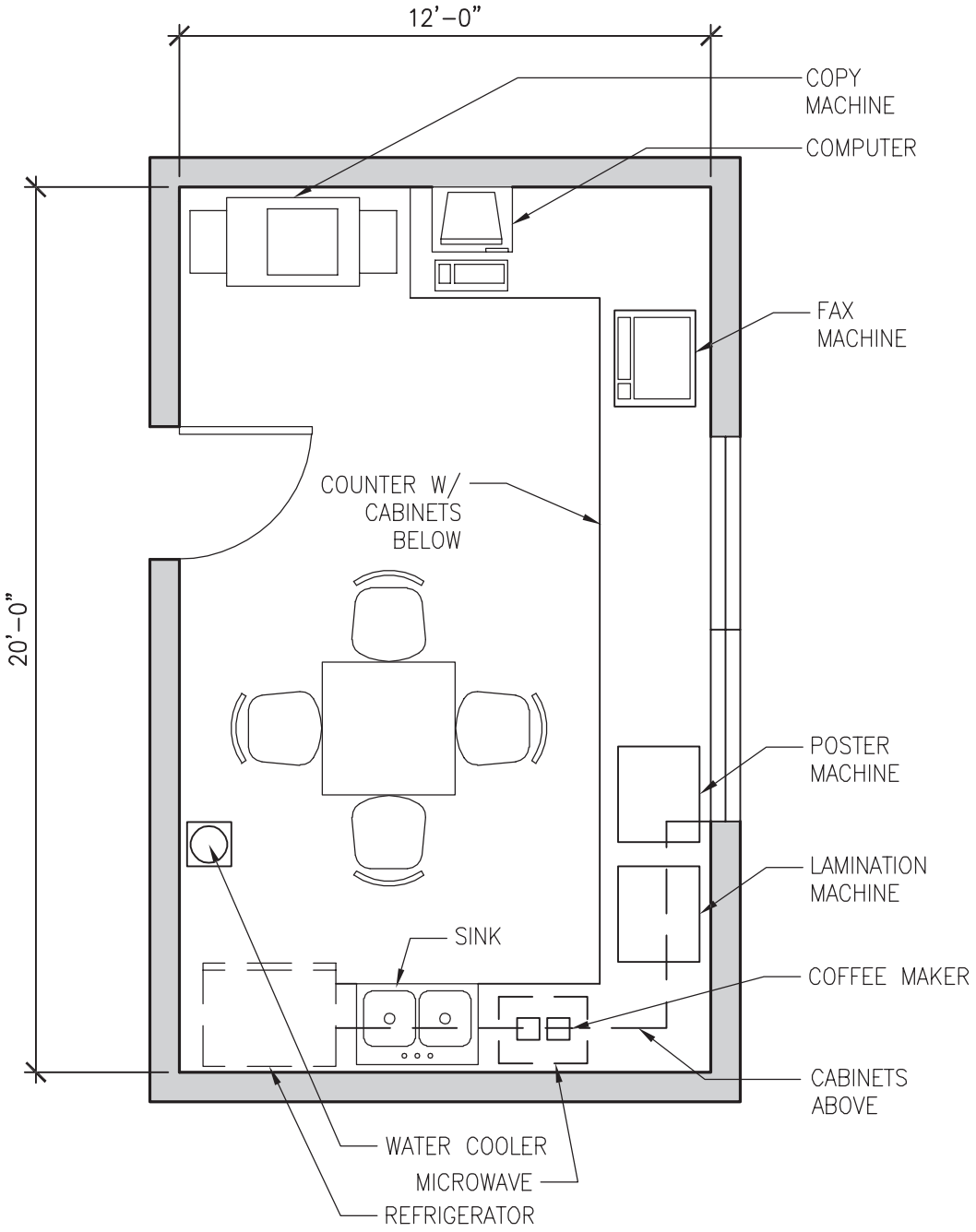
Lighting	Fluorescent, 50 fc
Electrical	Convenience outlets at the walls and at the counter for equipment and appliances
Mechanical	Air conditioned
Plumbing	Hot and cold water for countertop sink with garbage disposal
Fire Protection	Fire sprinklers, smoke detectors
Security	None

TECHNOLOGY

Voice	Telephone
Data	Data connection to copier, if required
TV	None
Other Technology	To be determined

FFE

Fixed Equipment	Window blinds, counter, shelving, mailboxes / cubbies (if this is the location for these), marker board
Movable Equipment	Full refrigerator, microwave, water cooler, fax machine, coffee maker, computer, copy machine (printer/copy/scanner), poster machine, laminating machine, table, 4 chairs. Timeclock (if this is the location for this), wall clock


12'–0"
20'–0"
COPY MACHINE
COMPUTER
FAX MACHINE
COUNTER W/ CABINETS BELOW
POSTER MACHINE
LAMINATION MACHINE
SINK
COFFEE MAKER
CABINETS ABOVE
WATER COOLER
MICROWAVE
REFRIGERATOR

SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • IT SERVER ROOM

GENERAL INFORMATION

Use/Function	Room for the Computer Server (IT) equipment
Assignable Area	100 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 300 sf / occupant
Key Dimensions	H: 10’-0” min. W: 10’-0” L: 10’-0”
Adjacencies	Administration area offices, Computer Server (IT) Office (if there is one)
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Vinyl composition tile / rubber base
Walls	Drywall
Ceiling	Acoustical tile
Doors	Solid core wood, 4’-0” width
Natural Light	None
Acoustics	In the walls and at the ceiling
Special Requirements	To be determined

ENGINEERING SYSTEMS

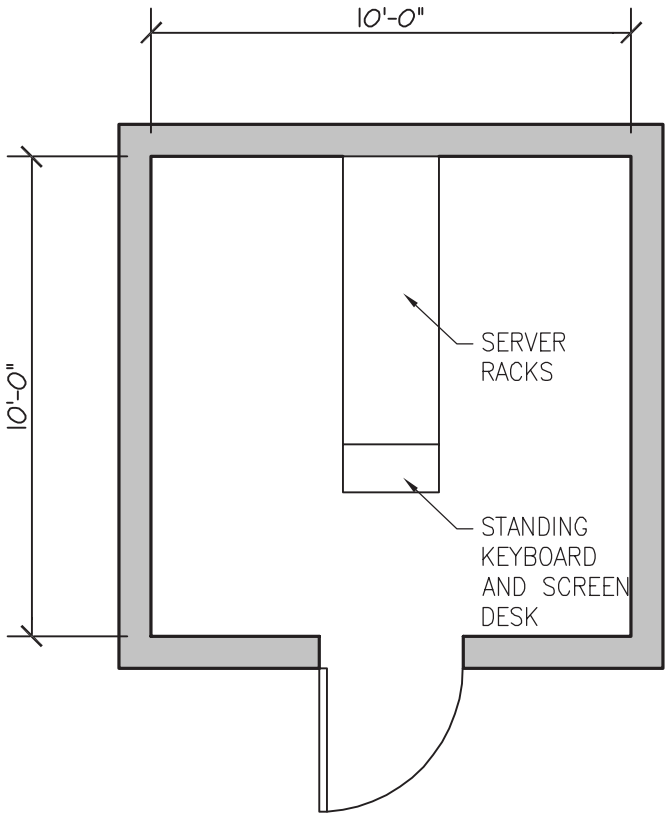
Lighting	Fluorescent, 50 fc
Electrical	Convenience outlets at the walls
Mechanical	Air conditioned, Independent thermostat control
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	None

TECHNOLOGY

Voice	Voice Communications
Data	Multiple Data Lines
TV	None
Other Technology	None

FFE

Fixed Equipment	None
Movable Equipment	Server racks, small desk for keyboard and computer screen.



SCALE: 1/4" = 1'-0"

GENERAL INFORMATION

Use/Function	Storage for the Administration area
Assignable Area	100 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 300 sf / occupant
Key Dimensions	H: 10'-0" min. W: 10'-0" L: 10'-0"
Adjacencies	Administration area offices, Work Room / Staff Room
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Vinyl composition tile / rubber base
Walls	Drywall
Ceiling	Acoustical tile
Doors	Solid core wood
Natural Light	None
Acoustics	In the walls and at the ceiling
Special Requirements	To be determined

ENGINEERING SYSTEMS

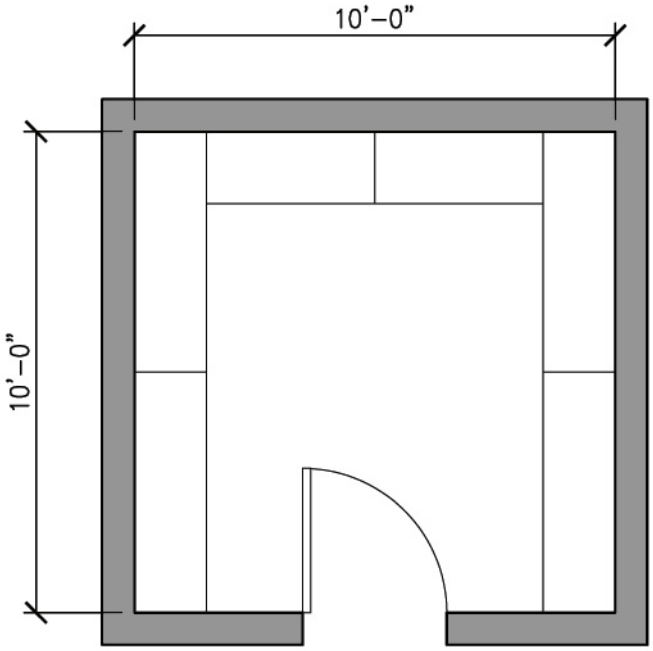
Lighting	Fluorescent, 50 fc
Electrical	Convenience outlets at the walls
Mechanical	Air conditioned
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	None

TECHNOLOGY

Voice	None
Data	None
TV	None
Other Technology	None

FFE

Fixed Equipment	None
Movable Equipment	Shelves, file cabinets, storage cabinets, hand truck



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • RECREATION SPORTS WORK ROOM

GENERAL INFORMATION

Use/Function	Work area / Office for Intramurals and Club Sports
Assignable Area	300 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 100 sf / occupant
Key Dimensions	H: 9'-0" W: 15'-0" L: 20'-0"
Adjacencies	Administration area offices, Administration Work Room / Staff Room
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Carpet / rubber base
Walls	Drywall, glass
Ceiling	Acoustical tile
Doors	Solid core wood
Natural Light	Windows
Acoustics	In the walls and at the ceiling
Special Requirements	Access to the secured portion of the Recreation Center, with access to the Administration Work Room / Staff Room in the evenings when the rest of the Administration area is shut down

ENGINEERING SYSTEMS

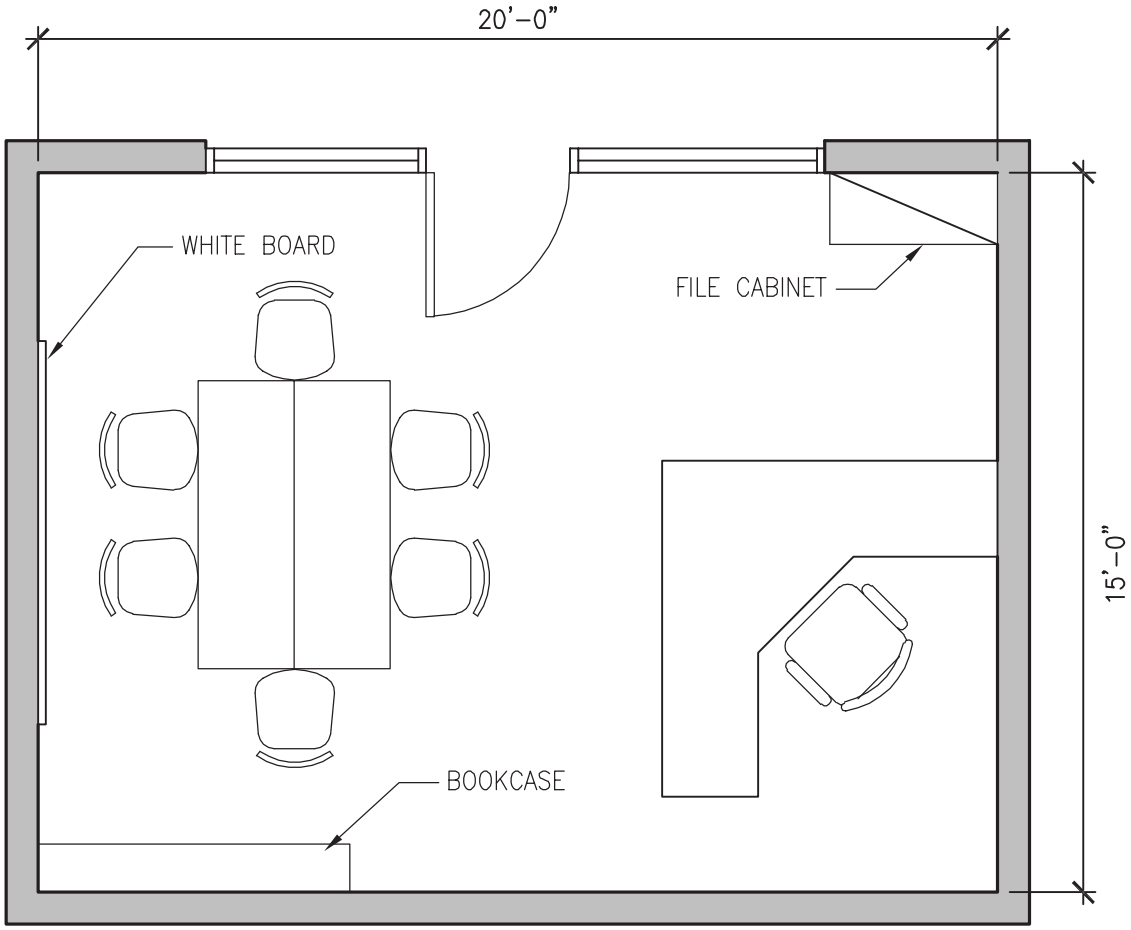
Lighting	Fluorescent, 50 fc
Electrical	Convenience outlets at the walls
Mechanical	Air conditioned
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	None

TECHNOLOGY

Voice	4 telephones, minimum
Data	4 internet connections, minimum, wireless
TV	Cable outlet
Other Technology	To be determined

FFE

Fixed Equipment	Window blinds, counter(s) with overhead shelves if movable desks are not provided, white board
Movable Equipment	1 desk or modular furnishing, 1 desk chair, lateral file cabinet, 1 computer, bookcase, 2 folding tables (2'x6'), 6 stackable chairs, printer, task lighting, white board



SCALE: 1/4" = 1'-0"

GENERAL INFORMATION

Use/Function	Entry Lobby for the facility before the entry turnstiles, also space for informal social interaction and seating for the Juice Bar.
Assignable Area	1,000 square feet + 1000 non-assignable
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 15 sf / occupant
Key Dimensions	H: 15'-0" min. W: to be determined L: to be determined
Adjacencies	Control Counter and Office, Juice Bar
Access	Disabled
Occupancy Type	A-3

FINISHES/TREATMENTS

Floor/Base	Hard surface such as slate, quarry tile, terrazzo / base to match floor surface
Walls	Masonry or drywall, glass (use as much glass as possible based on direction that the glass wall is facing)
Ceiling	Exposed structure and drywall
Doors	Glass
Natural Light	Windows
Acoustics	In walls and at the ceiling
Special Requirements	Turnstiles and gates

ENGINEERING SYSTEMS

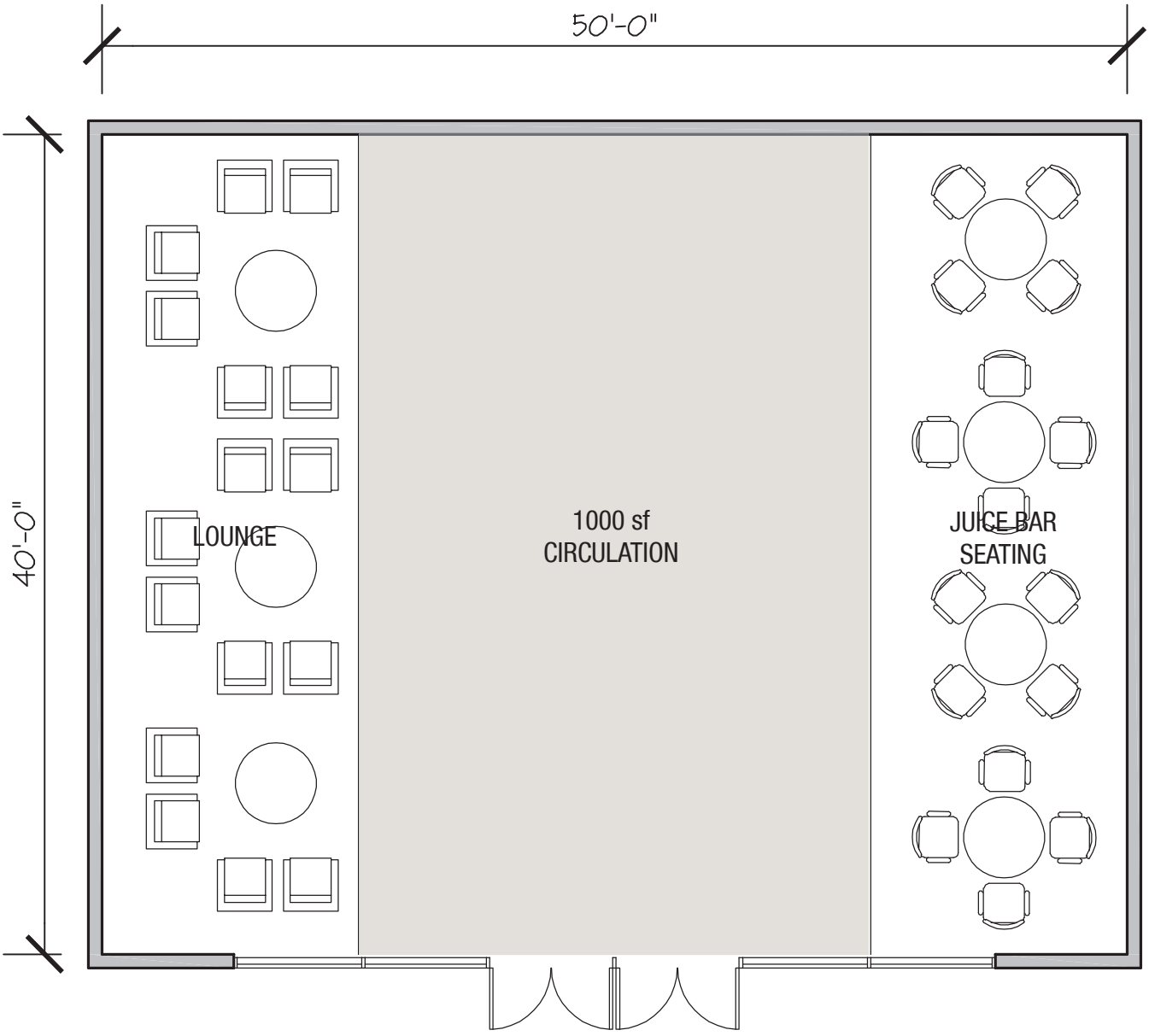
Lighting	Fluorescent 60 fc, or H.I.D., or decorative lighting
Electrical	Convenience outlets at walls and in the floor, power for the turnstiles
Mechanical	Air conditioned
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	Alarms at the entry doors

TECHNOLOGY

Voice	Telephones at control counter, area for public telephones, if required (1 regular, 1 to meet ADA requirements) in the Lobby
Data	Internet connection / wireless
TV	Cable outlet
Other Technology	PA / sound system for throughout the building and controlled at the Control counter

FFE

Fixed Equipment	Turnstiles, gates. Window blinds, if required
Movable Equipment	Lobby seating – side chairs and end tables, tables and chairs for the Entry Lobby adjacent to the Juice Bar



NOTE: THIS LAYOUT ONLY REPRESENTS THE POSSIBLE SIZE OF THE ENTRY LOBBY / LOUNGE. THE ACTUAL LAYOUT OF THE ENTRY LOBBY / LOUNGE WILL BE FINALIZED DURING THE DESIGN PHASE OF THE PROJECT.

SCALE: 1/8" = 1'-0"

BUILDING PROGRAM • JUICE BAR

GENERAL INFORMATION

Use/Function	Juice Bar
Assignable Area	500 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 30 sf / occupant
Key Dimensions	H: 9'-0" min. W: 20'-0" L: 25'-0"
Adjacencies	Entry Lobby, Lounge. To be located before the turnstiles / security point
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Quarry tile, non-slip finish / quarry tile base
Walls	Masonry or drywall
Ceiling	Acoustical tile, drywall
Doors	Solid core wood
Natural Light	Windows desired
Acoustics	In the walls and at the ceiling
Special Requirements	Electronic message board

ENGINEERING SYSTEMS

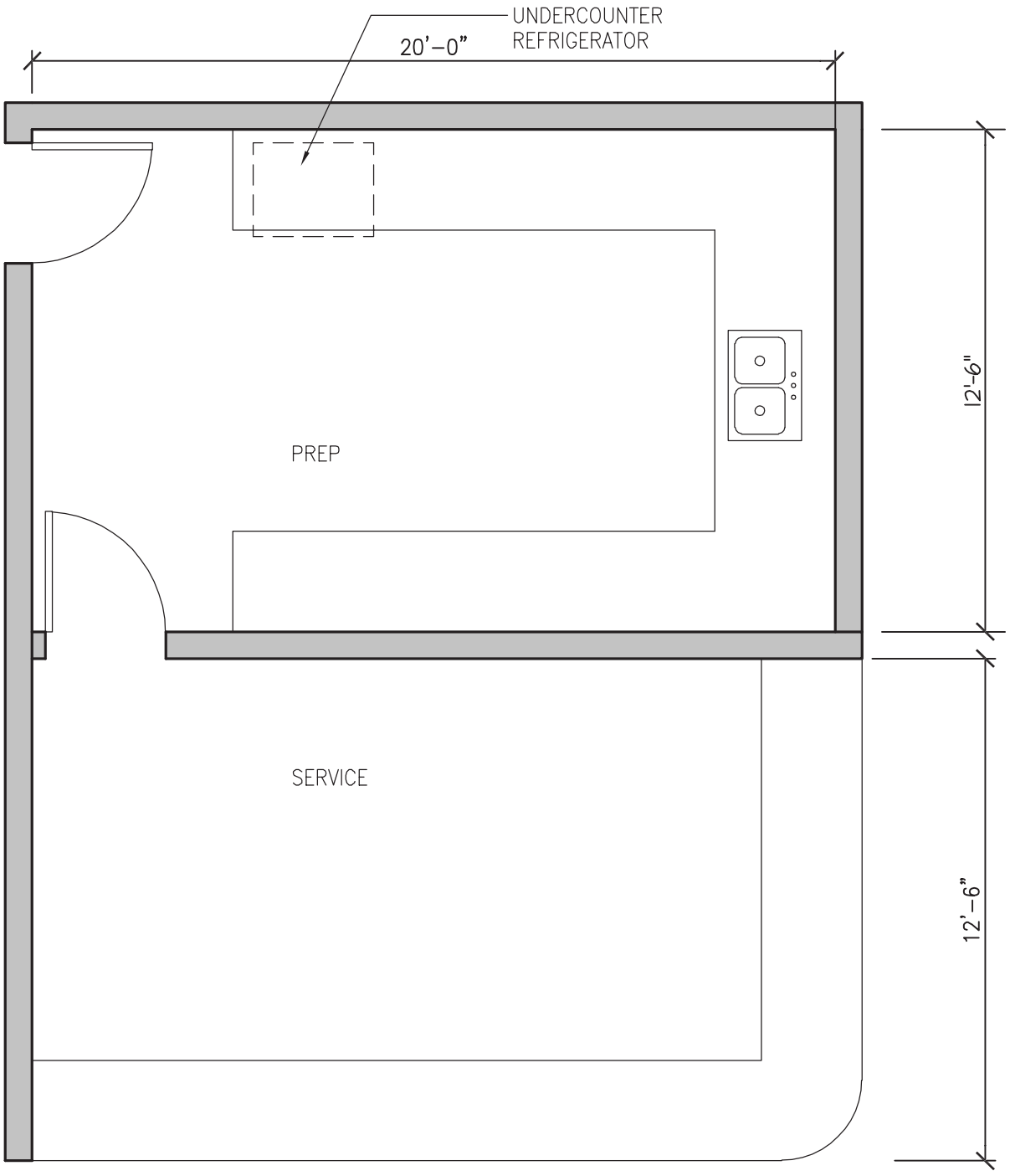
Lighting	Fluorescent, 60 fc
Electrical	Convenience outlets at the walls, 220 V outlets for Juice Bar equipment
Mechanical	Air conditioned
Plumbing	Hot and cold water as required for the Juice Bar equipment, floor drains
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	Telephone
Data	Internet connection / wireless
TV	TV Outlet, TV Monitor
Other Technology	To be determined

FFE

Fixed Equipment	Refrigerator, sink, work counter, service counter
Movable Equipment	Cash registers, safe, ice machine



SCALE: 1/4" = 1'-0"

GENERAL INFORMATION

Use/Function	Space for vending machines
Assignable Area	100 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 30 sf / occupant
Key Dimensions	H: 9'-0" min. W: 5'-0" L: 20'-0"
Adjacencies	Located adjacent to the Entry Lobby / Lounge areas
Access	Disabled
Occupancy Type	B

FINISHES / TREATMENTS

Floor/Base	Vinyl composition tile / rubber base
Walls	Masonry or drywall
Ceiling	Acoustical tile or drywall
Doors	None
Natural Light	None
Acoustics	In the walls and at the ceiling
Special Requirements	To be determined

ENGINEERING SYSTEMS

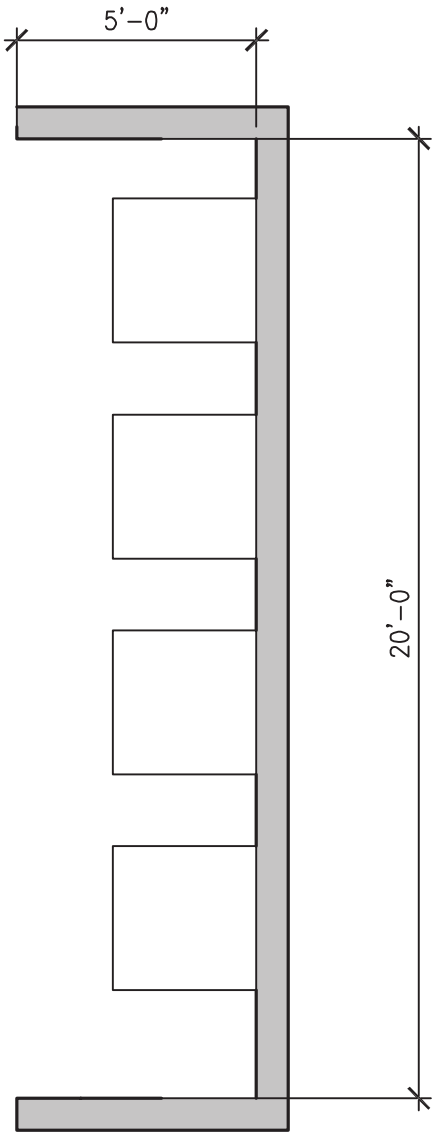
Lighting	Fluorescent, 60 fc
Electrical	Convenience outlets at the walls for the vending machines
Mechanical	Air conditioned
Plumbing	Hot and cold water as required for the vending machines, floor drains may be required
Fire Protection	Fire sprinklers, smoke detectors
Security	None

TECHNOLOGY

Voice	None
Data	Internet connection if required for the vending machines
TV	None
Other Technology	To be determined

FFE

Fixed Equipment	None
Movable Equipment	Vending machines (3 – 5)



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • CONTROL COUNTER

GENERAL INFORMATION

Use/Function	Control counter for entry into the secured area of the facility
Assignable Area	200 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 100 sf / occupant
Key Dimensions	H: 12'-0" min. W: 7'- 0"
Adjacencies	Control Office, Entry Lobby
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Carpet / rubber base
Walls	Masonry or drywall
Ceiling	Exposed structure or drywall
Doors	Low door for ADA access behind counter
Natural Light	Desired
Acoustics	In the walls and at the ceiling
Special Requirements	Main control for the facility's lighting, security (monitoring of security cameras), and sound systems may be at counter or in Control Office. Central point for any paging or intercom systems. Cash transactions may take place at this counter (drop safe may be required) Space at counter for 6 telephones and computers

ENGINEERING SYSTEMS

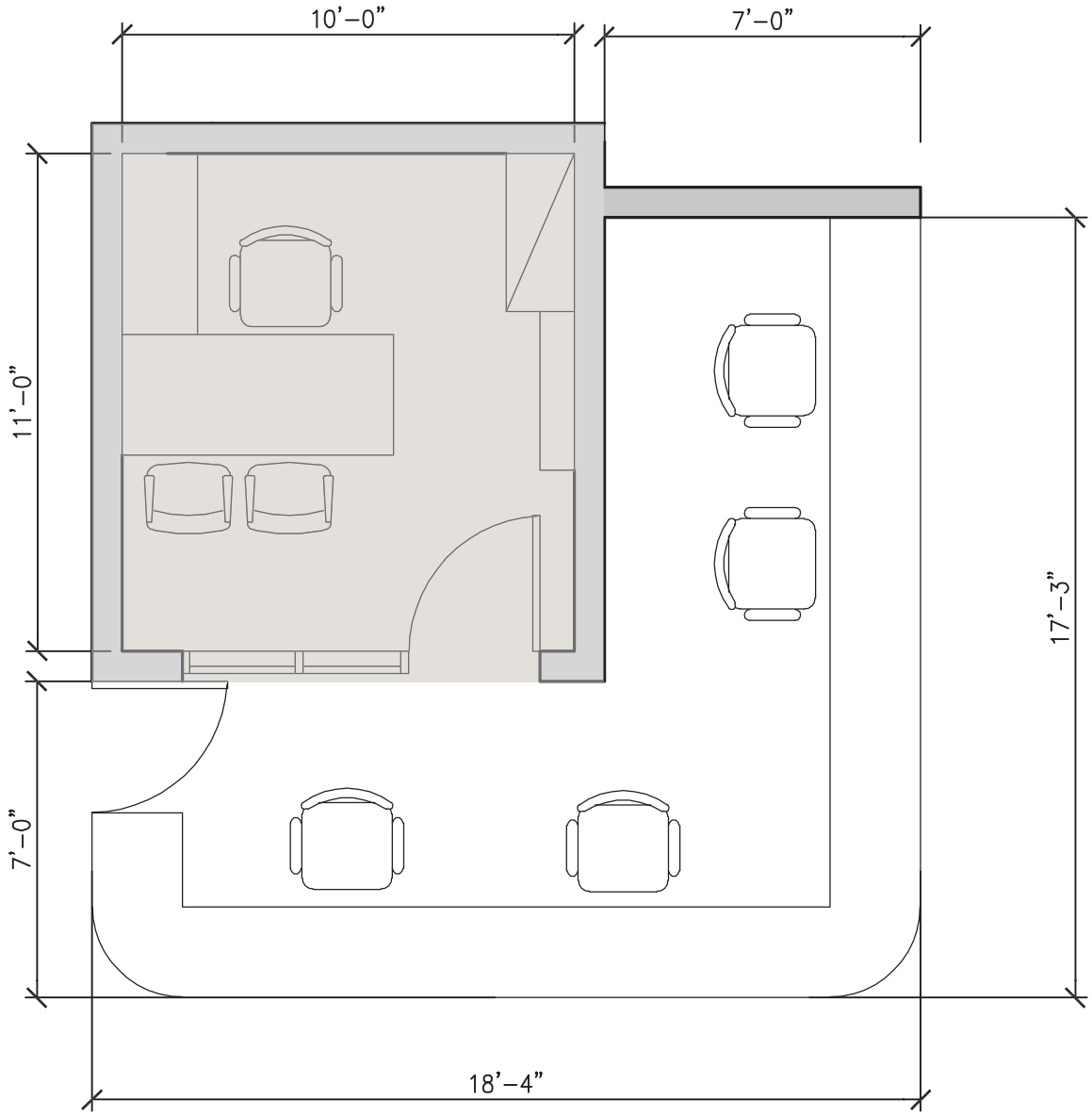
Lighting	Fluorescent, 60 fc, or H.I.D., or decorative lighting
Electrical	Convenience outlets at the Control Counter, power for the turnstiles and Gates at the Control Counter
Mechanical	Air conditioned, thermostat control
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	Entrance and exit turnstiles or similar devices (gates), controls for the facility's security system

TECHNOLOGY

Voice	6 telephones
Data	Internet connections (must have enough data lines for register/computer to access the University of Utah system)/wireless
TV	Cable outlets, 2 TV monitors
Other Technology	To be determined

FFE

Fixed Equipment	Control counter (dual height for standing transactions and for disabled access), turnstiles, gate
Movable Equipment	4 - 6 control counter chairs, 4 – 6 computers, wall clock, cash registers



NOTE: LIGHT GREY AREA REPRESENTS CONTROL OFFICE PROGRAM.
NOTE: DIAGRAM INCLUDES BOTH THE CONTROL COUNTER AND CONTROL OFFICE FOR CLARITY.

SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • CONTROL OFFICE

GENERAL INFORMATION

Use/Function	Control Office for the facility, adjacent to the Control Counter at the secured entry point of the building
Assignable Area	110 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 100 sf / occupant
Key Dimensions	H: 9'-0" W: 10'- 0" L: 11'-0"
Adjacencies	Control Counter, Entry Lobby, Lounge
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Carpet / rubber base
Walls	Masonry or drywall, glass (allow as much transparency from the Office looking out to the Control Counter and the Entry Lobby and Lounge
Ceiling	Acoustical tile
Doors	Solid core wood, glass
Natural Light	Windows
Acoustics	In the walls and at the ceiling
Special Requirements	Main control for the facility's lighting, security (monitoring of security cameras), and sound systems may be in the Control Office or at the Control Counter

ENGINEERING SYSTEMS

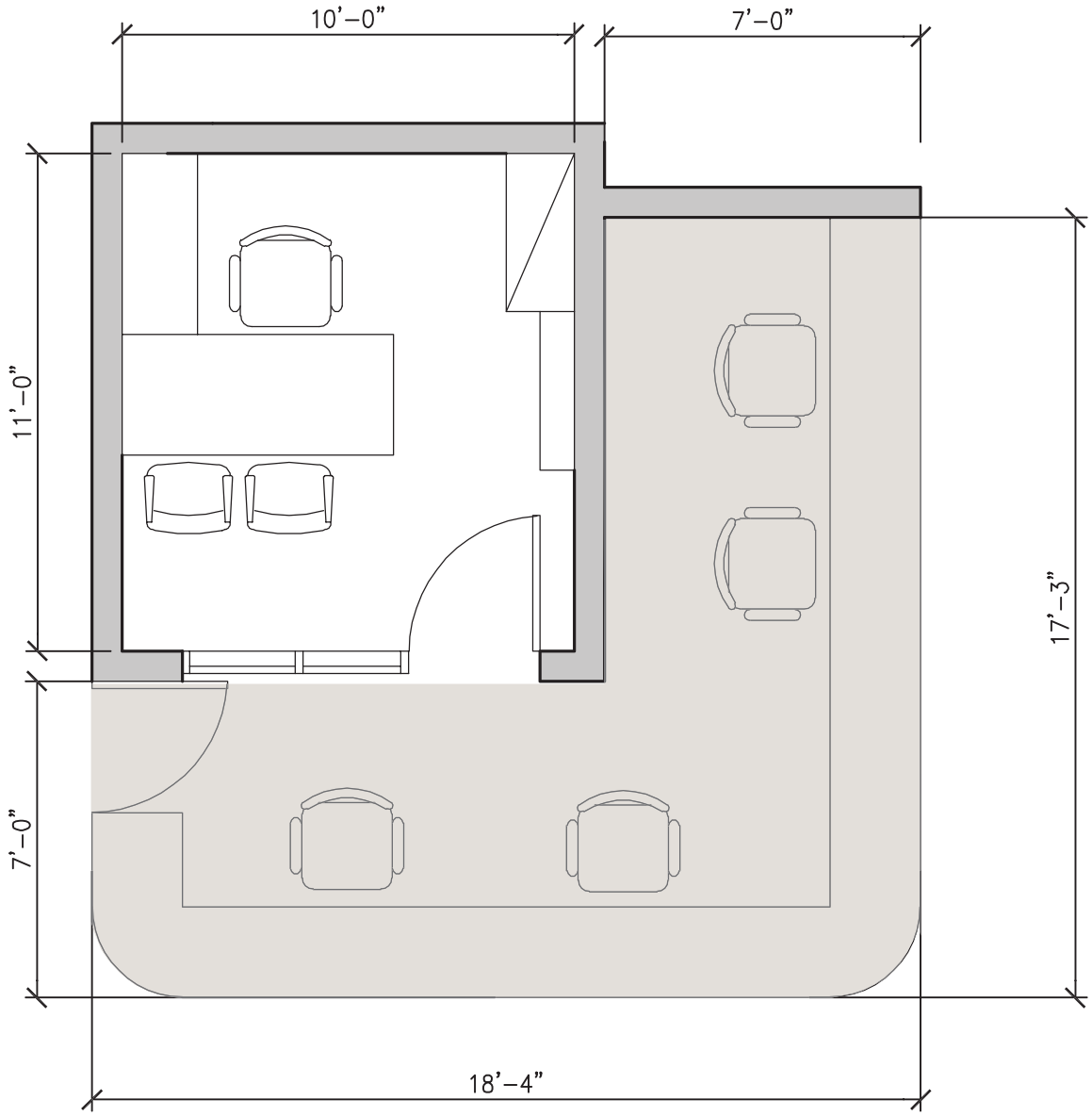
Lighting	Fluorescent, 50 fc at the Office.
Electrical	Convenience outlets at the walls
Mechanical	Air conditioned, thermostat control
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	Telephone
Data	Internet connection / wireless
TV	Cable outlet
Other Technology	To be determined

FFE

Fixed Equipment	Window blinds
Movable Equipment	Desk or modular furnishing, desk chair, 2 guest chairs, lateral file cabinets, bookcase, computer, printer, drop safe (if not at the Control Counter)



NOTE: LIGHT GREY AREA REPRESENTS CONTROL COUNTER PROGRAM.
NOTE: DIAGRAM INCLUDES BOTH THE CONTROL COUNTER AND CONTROL OFFICE FOR CLARITY.

SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • STAFF OFFICE / OVERNIGHT OPERATIONS

GENERAL INFORMATION

Use/Function	Office for Staff to be located in the Entry Lobby / Lounge area
Assignable Area	150 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 100 sf / occupant
Key Dimensions	H: 9'-0" W: 10'-0" L: 15'-0"
Adjacencies	Entry Lobby, Lounge, Control Counter, Control Office
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Carpet / rubber base
Walls	Drywall, glass
Ceiling	Acoustical tile
Doors	Solid core wood, glass
Natural Light	Windows
Acoustics	In the walls and at the ceiling
Special Requirements	To be determined

ENGINEERING SYSTEMS

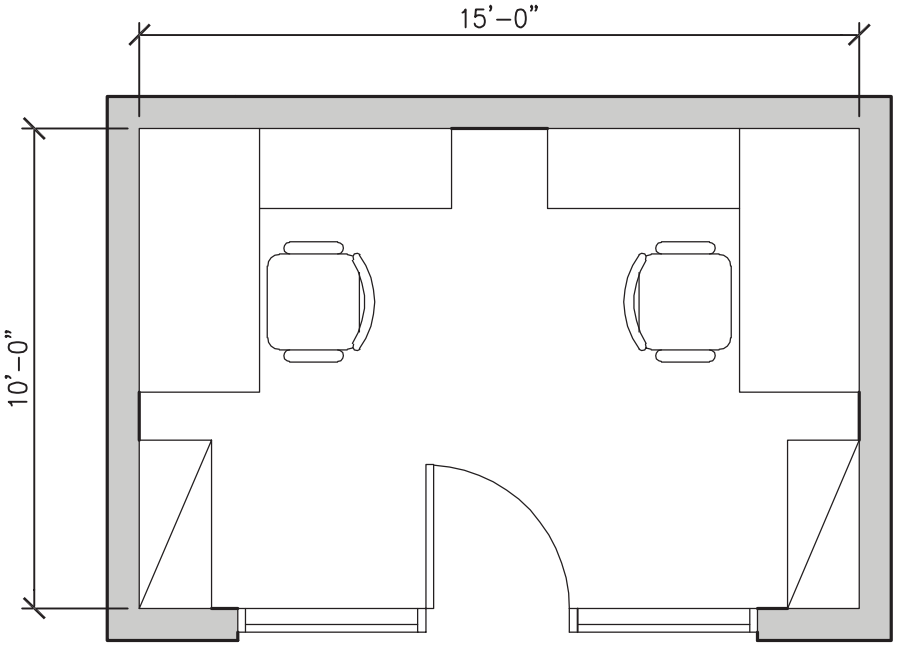
Lighting	Fluorescent, 50 fc
Electrical	Convenience outlets at the walls
Mechanical	Air conditioned, thermostat control
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	Telephone
Data	Internet connection / wireless
TV	Cable outlet
Other Technology	To be determined

FFE

Fixed Equipment	Window blinds
Movable Equipment	2 Desks or modular furnishings, desk chair, 2 lateral file cabinets, 2 computers, printer, task lighting



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • MEN'S POOL LOCKER ROOM

GENERAL INFORMATION

Use/Function	Men's Locker Room for the Pool with toilets and showers. 62 locker footprints.
Assignable Area	1,000 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 30 sf / occupant
Key Dimensions	H: 9'-0" W: to be determined L: to be determined
Adjacencies	Women's Locker Room, Universal Locker Room
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Ceramic tile, slip-resistant finish / unglazed ceramic tile base
Walls	Ceramic tile at toilet and shower areas, moisture-resistant drywall with epoxy paint finish at locker area
Ceiling	Plaster with smooth finish at shower area, moisture-resistant drywall at the other areas, epoxy paint finish
Doors	Solid core wood from the adjacent common area, if there is a door. Hollow metal door out to the Pool Deck.
Natural Light	None
Acoustics	In the walls and at the ceiling
Special Requirements	Floor mounted, overhead-braced toilet partitions, wall mounted shower and urinal partitions, water closets, lavatory sinks, urinals, shower heads

ENGINEERING SYSTEMS

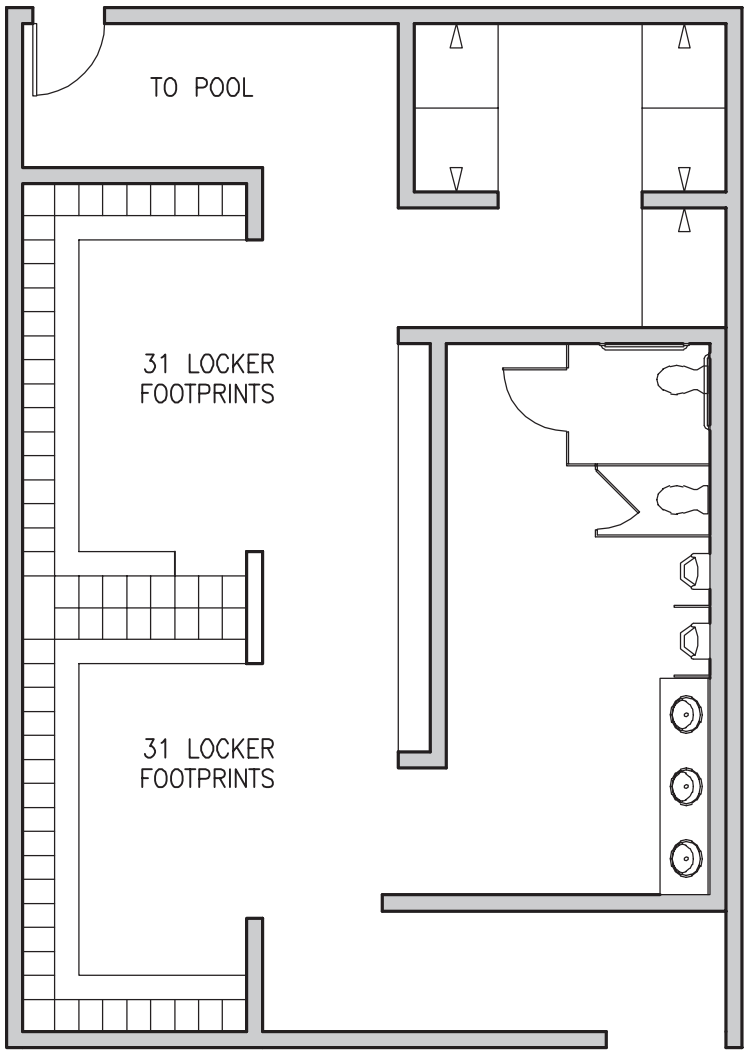
Lighting	Fluorescent, 50 fc, moisture-resistant at the shower area
Electrical	Convenience outlets at the walls and at the grooming counters, waterproof
Mechanical	Air conditioned, 100% exhaust, 10 changes per hour at the locker area (average, 14 changes at peak periods – occupancy sensors), 10 changes per hour at the toilet and shower areas (average, 18 changes at peak periods – occupancy sensors)
Plumbing	Hot and cold water, wall hung water closets and urinals, lavatory sinks, tamper-proof shower heads, floor drains. Water closet and urinal flush, and sink faucets to be sensor-type. Hose bibs in the toilet and shower areas for maintenance, drinking fountains.
Fire Protection	Fire sprinklers, smoke detectors
Security	Cameras at entrance.

TECHNOLOGY

Voice	Voice Communications
Data	TV Cable outlets, 2 Csble TV Monitors
TV	None
Other Technology	PA system connected to the front control counter

FFE

Fixed Equipment	12" w. x 16" d. x 60" h. lockers (combination of Z-shaped double, and triple height), locker bases with continuous benches (with cutout for disabled access), toilet, urinal, and shower partitions, toilet and shower accessories (toilet paper holders, seat cover dispensers, paper towel dispensers or hand dryers, trash receptacles, soap dispensers, etc.), lavatory and grooming counters with mirrors, full length mirrors, baby changing shelf. Paper towel dispensers to be sensor-type
Movable Equipment	Scale, wall clock



NOTE: LAYOUT IS A DIAGRAMMATIC REPRESENTATION OF THE TOTAL ASF IN ADDITION TO NECESSARY INTERNAL CIRCULATION SPACE. THE ASF SHOULD EQUAL 1000 SF IN THE FINAL DESIGN LAYOUT.

SCALE: 1/8" = 1'-0"

BUILDING PROGRAM • WOMEN'S POOL LOCKER ROOM

GENERAL INFORMATION

Use/Function	Women's Locker Room for the Pool with toilets and showers. 62 locker footprints.
Assignable Area	1,000 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 30 sf / occupant
Key Dimensions	H: 9'-0" W: to be determined L: to be determined
Adjacencies	Men's Locker Room, Assisted Change (Universal) Locker Room
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Ceramic tile, slip-resistant finish / unglazed ceramic tile base
Walls	Ceramic tile at toilet and shower areas, moisture-resistant drywall with epoxy paint finish at locker area
Ceiling	Plaster with smooth finish at shower area, moisture-resistant drywall at the other areas, epoxy paint finish
Doors	Solid core wood from the adjacent common area, if there is a door. Hollow metal door out to the Pool Deck
Natural Light	None
Acoustics	In the walls and at the ceiling
Special Requirements	Floor mounted, overhead-braced toilet partitions, wall mounted shower partitions, water closets, lavatory sinks, showerheads. PA system connected to the front control counter

ENGINEERING SYSTEMS

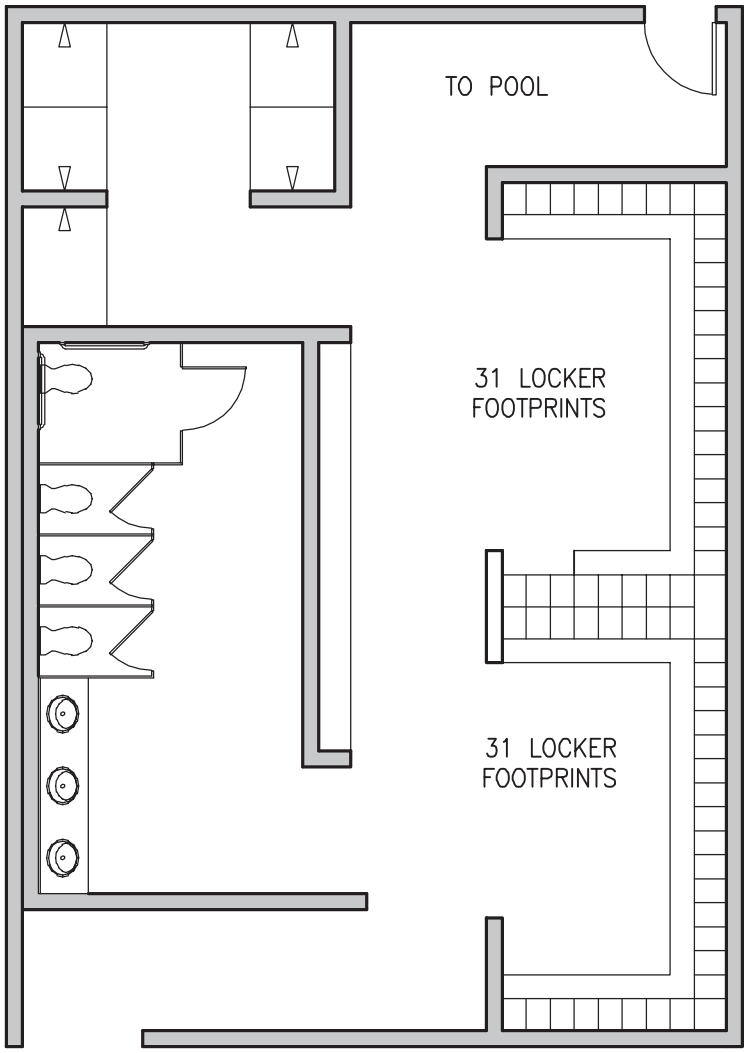
Lighting	Fluorescent, 50 fc, moisture-resistant at the shower area
Electrical	Convenience outlets at the walls and at the grooming counters, waterproof
Mechanical	Air conditioned, 100% exhaust, 10 changes per hour at the locker area (average, 14 changes at peak periods – occupancy sensors), 10 changes per hour at the toilet and shower areas (average, 18 changes at peak periods – occupancy sensors)
Plumbing	Hot and cold water, wall hung water closets, lavatory sinks, tamper-proof shower heads, floor drains. Water closet flushes and sink faucets to be sensor-type. Hose bibs in the toilet and shower areas for maintenance, drinking fountains.
Fire Protection	Fire sprinklers, smoke detectors
Security	Cameras at entrance.

TECHNOLOGY

Voice	Voice Communications
Data	TV Cable outlets, 2 Cable TV Monitor
TV	None
Other Technology	PA system connected to the front control counter.

FFE

Fixed Equipment	12" w. x 16" d. x 60" h. lockers (combination of Z-shaped double, and triple height), locker bases with continuous benches (with cutout for disabled access), toilet and shower partitions, toilet and shower accessories (toilet paper holders, seat cover dispensers, paper towel dispensers or hand dryers, trash receptacles, feminine napkin dispensers/disposals, soap dispensers, etc), lavatory and grooming counters with mirrors, full length mirrors, baby changing shelf. Paper towel dispensers to be sensor-type.
Movable Equipment	Scale



NOTE: LAYOUT IS A DIAGRAMMATIC REPRESENTATION OF THE TOTAL ASF IN ADDITION TO NECESSARY INTERNAL CIRCULATION SPACE. THE ASF SHOULD EQUAL 1000 SF IN THE FINAL DESIGN LAYOUT.

SCALE: 1/8" = 1'-0"

BUILDING PROGRAM • UNIVERSAL LOCKER ROOM

GENERAL INFORMATION

Use/Function	Privacy toilet / shower / changing room, with disabled access to be used as a Privacy Locker Room for the Student Life Center
Assignable Area	190 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 30 sf / occupant
Key Dimensions	H: 9'-0" W: to be determined L: to be determined
Adjacencies	Men's Locker Room, Women's Locker Room
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Ceramic tile, slip-resistant finish / unglazed ceramic tile base
Walls	Ceramic tile at toilet and shower area, moisture-resistant drywall at other areas, epoxy paint finish
Ceiling	Plaster with smooth finish at the shower area, moisture-resistant drywall at the other areas, epoxy paint finish
Doors	Solid core wood
Natural Light	None
Acoustics	In the walls and at the ceiling
Special Requirements	Access to room to be controlled – lockable with checked-out key. Water closet, lavatory sink, shower head

ENGINEERING SYSTEMS

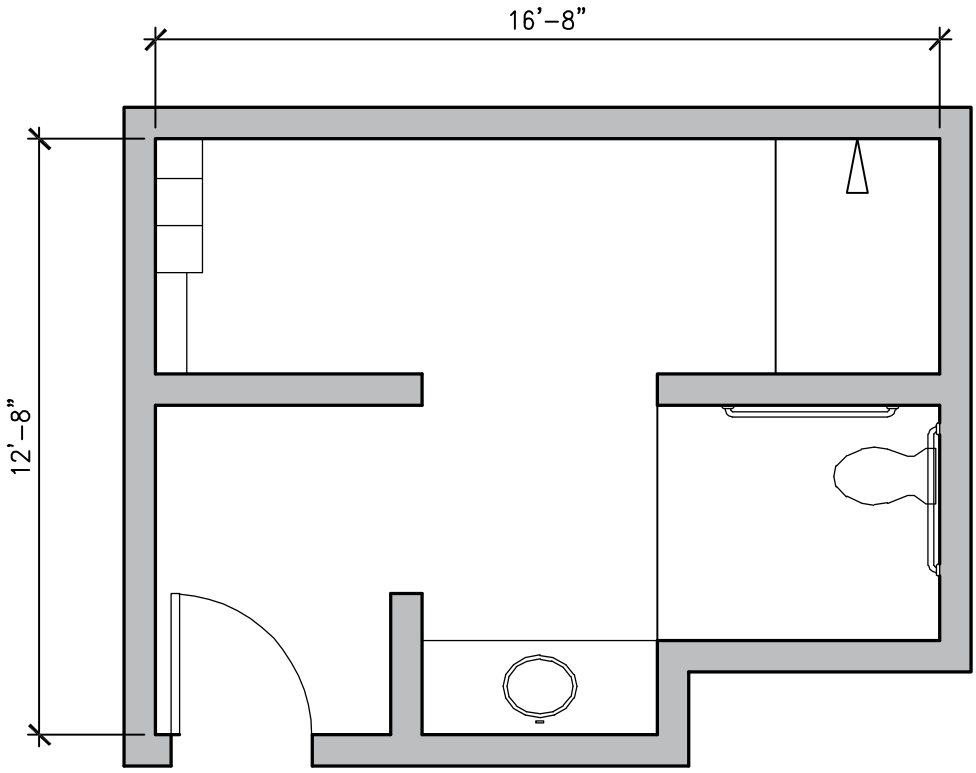
Lighting	Fluorescent, 50 fc, moisture-resistant at the shower area
Electrical	Convenience outlets at the walls and at the lavatory counter, waterproof
Mechanical	Air conditioned, 100% exhaust, 10 changes per hour (average)
Plumbing	Hot and cold water, water closet, lavatory sink, tamper-proof shower head, floor drains. Water closet flush and sink faucet to be sensor-type. Hose bib in the toilet and shower areas for maintenance
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	Voice Communications
Data	Cable Outlet, Cable TV monitor
TV	None
Other Technology	PA system connected to the front control counter.

FFE

Fixed Equipment	Two to three 12" w. x 16"d. x 60" h. lockers (single and double height), locker base with continuous bench (with cut out for disabled access), toilet and shower accessories (paper towel dispenser, toilet paper holder, seat cover dispenser, trash receptacle, hair dryer, feminine napkin dispenser/disposal, soap dispenser, etc.), vanity counter with mirror, full length mirror. Hand dryer may be used instead of paper towels
Movable Equipment	Scale, wall clock



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • MEN'S RESTROOM / 2ND FLOOR

GENERAL INFORMATION

Use/Function	Men's Restroom for 2nd Floor spaces
Assignable Area	180 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 100 sf / occupant = 1.8 occupants
Key Dimensions	H: 9'-0" W: 12'-0" L: to be determined
Adjacencies	Women's 2nd Floor Restroom
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Ceramic tile, slip-resistant finish / unglazed ceramic tile base
Walls	Ceramic tile
Ceiling	Moisture-resistant drywall, epoxy paint finish
Doors	Solid core wood
Natural Light	None
Acoustics	In the walls and at the ceiling
Special Requirements	Floor mounted, overhead-braced toilet partitions, wall mounted urinal partition, water closets, urinals, lavatory sinks. PA system connected to the front control counter

ENGINEERING SYSTEMS

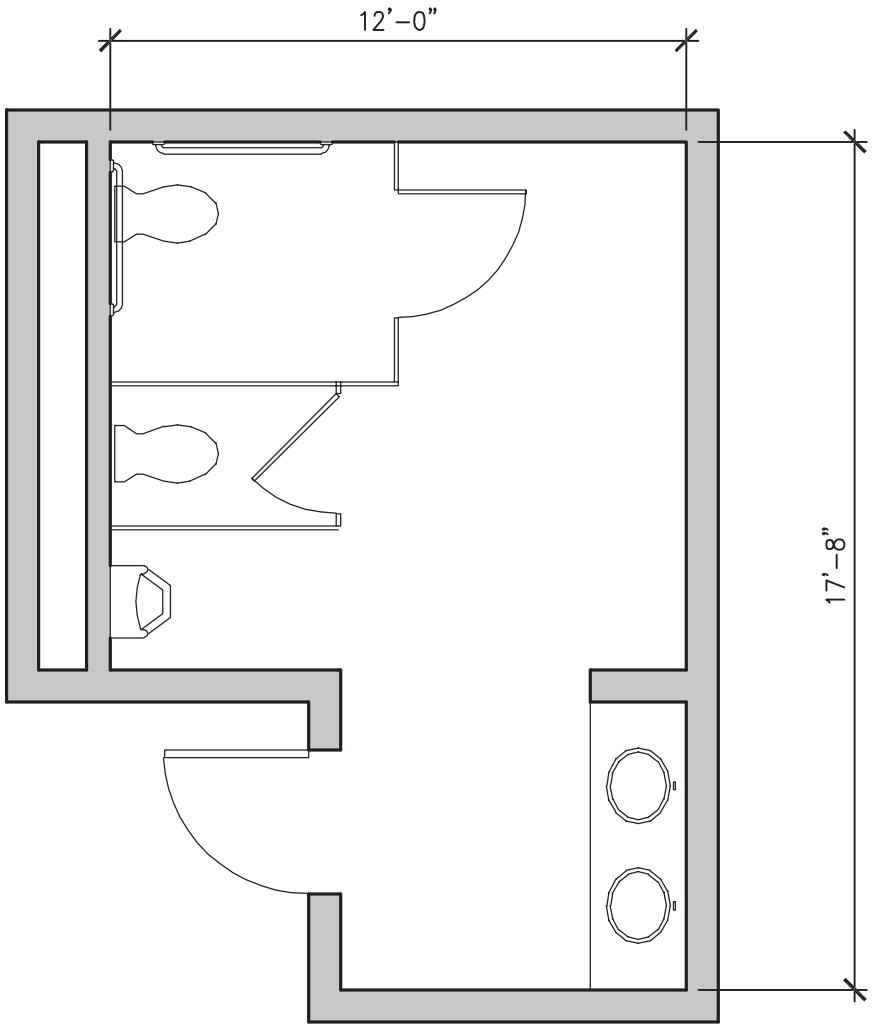
Lighting	Fluorescent, 50 fc
Electrical	Convenience outlets at the walls
Mechanical	Air conditioned, 100% exhaust, 10 changes per hour
Plumbing	Hot and cold water, wall hung water closets and urinals, lavatories, floor drains. Water closet and urinal flush, and sink faucets to be sensor-type. Hose bib for maintenance
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	Provision for adding in the future
Data	Provision for adding in the future
TV	Provision for adding in the future
Other Technology	PA system connected to the front control counter

FFE

Fixed Equipment	Toilet and urinal partitions, toilet accessories (toilet paper holders, seat cover dispensers, paper towel dispensers or hand dryers, trash receptacle, soap dispensers), lavatory counter with mirror
Movable Equipment	None



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • WOMEN'S RESTROOM / 2ND FLOOR

GENERAL INFORMATION

Use/Function	Women's Restroom for the 2nd Floor spaces
Assignable Area	180 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 100 sf / occupant = 1.8 occupants
Key Dimensions	H: 9'-0" W: 12'-0" L: to be determined
Adjacencies	Men's 2nd Floor Restroom
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Ceramic tile, slip-resistant finish / unglazed ceramic tile base
Walls	Ceramic tile
Ceiling	Moisture-resistant drywall, epoxy paint finish
Doors	Solid core wood
Natural Light	None
Acoustics	In the walls and at the ceiling
Special Requirements	Floor mounted, overhead-braced toilet partitions, water closets, lavatory sinks. PA system connected to front control counter

ENGINEERING SYSTEMS

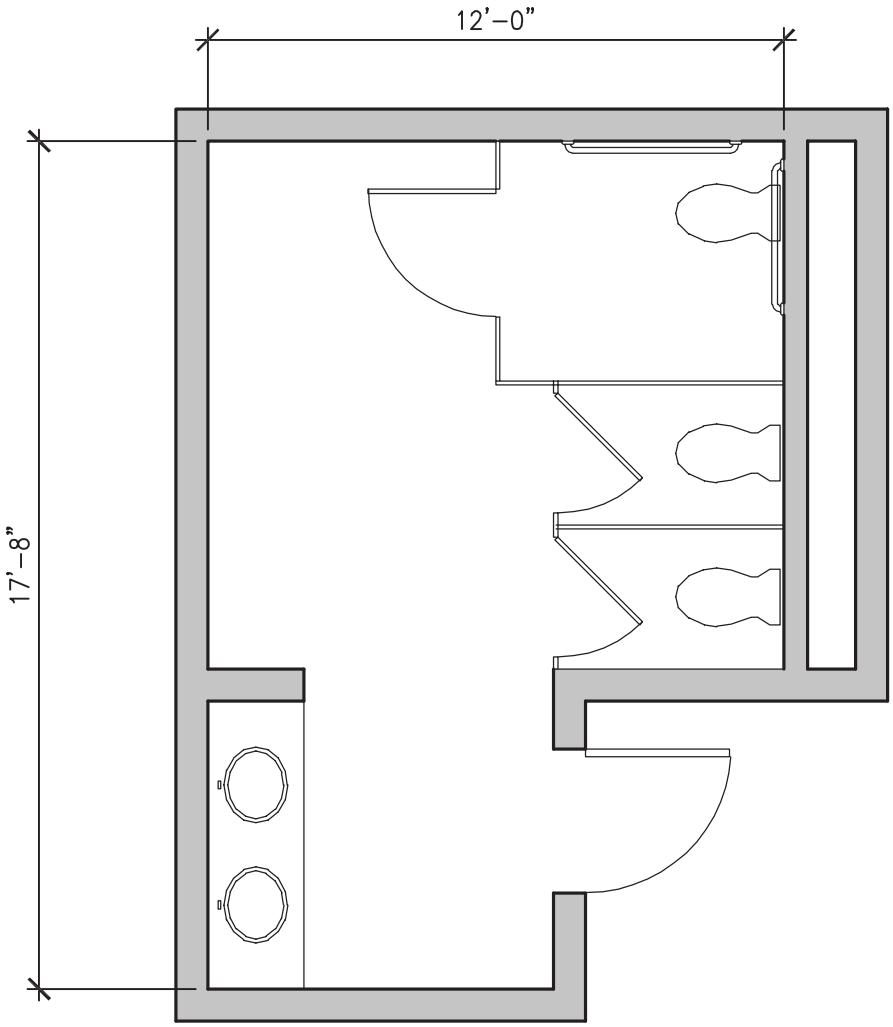
Lighting	Fluorescent, 50 fc
Electrical	Convenience outlets at the walls
Mechanical	Air conditioned, 100% exhaust, 10 changes per hour
Plumbing	Hot and cold water, wall hung water closets, lavatories, floor drains. Water closet flush and sink faucets to be sensor-type. Hose bib for maintenance
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	Provision for adding in the future
Data	Provision for adding in the future
TV	Provision for adding in the future
Other Technology	PA system connected to front control counter. Provision for future digital display

FFE

Fixed Equipment	Toilet partitions, toilet accessories (toilet paper holders, seat cover dispensers, paper towel dispensers or hand dryers, trash receptacle, feminine napkin dispenser/disposal, soap dispensers, etc.), lavatory counter with mirror
Movable Equipment	None



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • UNIVERSAL RESTROOM / 2ND FLOOR

GENERAL INFORMATION

Use/Function	Universal Restroom for the second floor
Assignable Area	80 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 100 sf / occupant
Key Dimensions	H: 9'-0" W: 8'-0" L: 10'-0"
Adjacencies	Other Outdoor Recreation spaces
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Ceramic tile, slip-resistant finish / unglazed ceramic tile base
Walls	Ceramic tile
Ceiling	Moisture-resistant drywall, epoxy paint finish
Doors	Hollow metal, epoxy paint finish
Natural Light	None
Acoustics	In the walls and at the ceiling
Special Requirements	Water closet, lavatory sink

ENGINEERING SYSTEMS

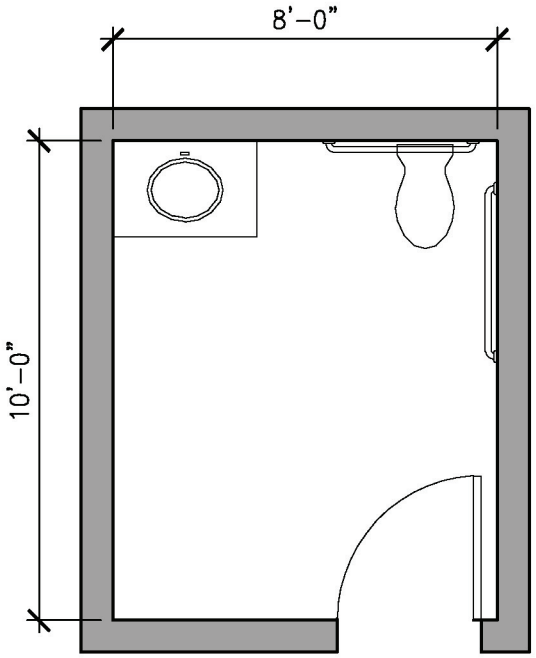
Lighting	Fluorescent, 50 fc
Electrical	Convenience outlets at the walls
Mechanical	Air conditioned, 100% exhaust, 10 changes per hour (average)
Plumbing	Hot and cold water, wall hung water closet, counter-mounted lavatory sink, floor drains
Fire Protection	Fire sprinklers, smoke detectors
Security	None

TECHNOLOGY

Voice	None
Data	None
TV	None
Other Technology	None

FFE

Fixed Equipment	Toilet accessories (toilet paper holder, seat cover dispenser, trash receptacle, feminine napkin dispenser/disposal, soap dispenser, paper towel dispenser or a hand dryer), lavatory counter with mirror
Movable Equipment	None



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • CUSTODIAL / DISTRIBUTED

GENERAL INFORMATION

Use/Function	Custodial space – one on the 1st Floor, one on the 2nd Floor
Assignable Area	80 square feet each
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 300 sf / occupant
Key Dimensions	H: 9'-0" min. W: 8'-0" L: 10'-0"
Adjacencies	To be determined
Access	To be determined
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Vinyl composition tile, latex resin, or sealed concrete / rubber base or latex resin base
Walls	Drywall, masonry, or concrete. Moisture-resistant drywall at the sink. Epoxy paint finish
Ceiling	Exposed structure
Doors	Solid core wood
Natural Light	None
Acoustics	In the walls
Special Requirements	To be determined

ENGINEERING SYSTEMS

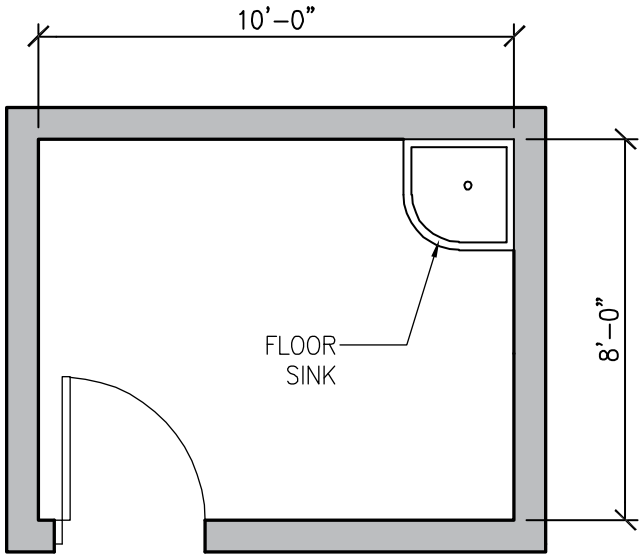
Lighting	Fluorescent, 40 fc
Electrical	Convenience outlets at the walls
Mechanical	Air conditioned
Plumbing	Hot and cold water for the floor mop sink, floor mop sink, floor drain
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	Telephone
Data	None
TV	None
Other Technology	None

FFE

Fixed Equipment	Floor mop sink, mop and broom holder
Movable Equipment	Shelves, storage cabinets



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • CUSTODIAL / MAINTENANCE OFFICE / WORK ROOM

GENERAL INFORMATION

Use/Function	Storage Space and Office / Work Area for the Maintenance Staff
Assignable Area	150 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 300 sf / occupant
Key Dimensions	H: 9'- 0" min. W: 10'-0" L: 15'-0"
Adjacencies	Custodial space on the 1st Floor
Access	To be determined
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Vinyl composition tile / rubber base, or sealed concrete / rubber base
Walls	Masonry of drywall
Ceiling	Exposed structure
Doors	Solid core wood
Natural Light	Optional
Acoustics	In the walls
Special Requirements	To be determined

ENGINEERING SYSTEMS

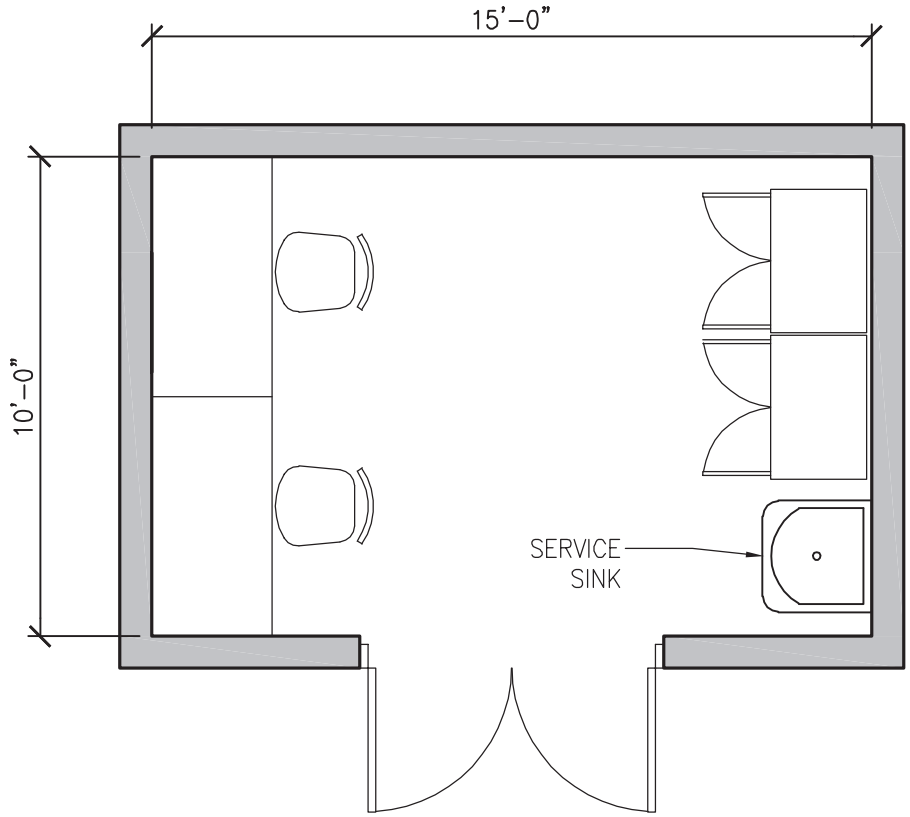
Lighting	Fluorescent, 50 fc
Electrical	Convenience outlets at the walls, a few at 220 V
Mechanical	Air conditioned
Plumbing	May require a hose bib.
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	Telephone
Data	Internet connection / wireless
TV	None
Other Technology	To be determined

FFE

Fixed Equipment	Work counter
Movable Equipment	Work chairs (2), shelving, storage cabinets, task lighting



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • POOL FILTRATION

GENERAL INFORMATION

Use/Function	Location of mechanical / filtration equipment for the Pool
Assignable Area	1,000 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 300 sf / occupant
Key Dimensions	H: 12'-0" min. W: 25'-0" L: 40'-0"
Adjacencies	Pool and Deck, Pool Storage
Access	None
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Sealed concrete
Walls	Masonry, epoxy paint finish
Ceiling	Exposed structure
Doors	Hollow metal or stainless steel double doors
Natural Light	None
Acoustics	To be determined
Special Requirements	To be determined

ENGINEERING SYSTEMS

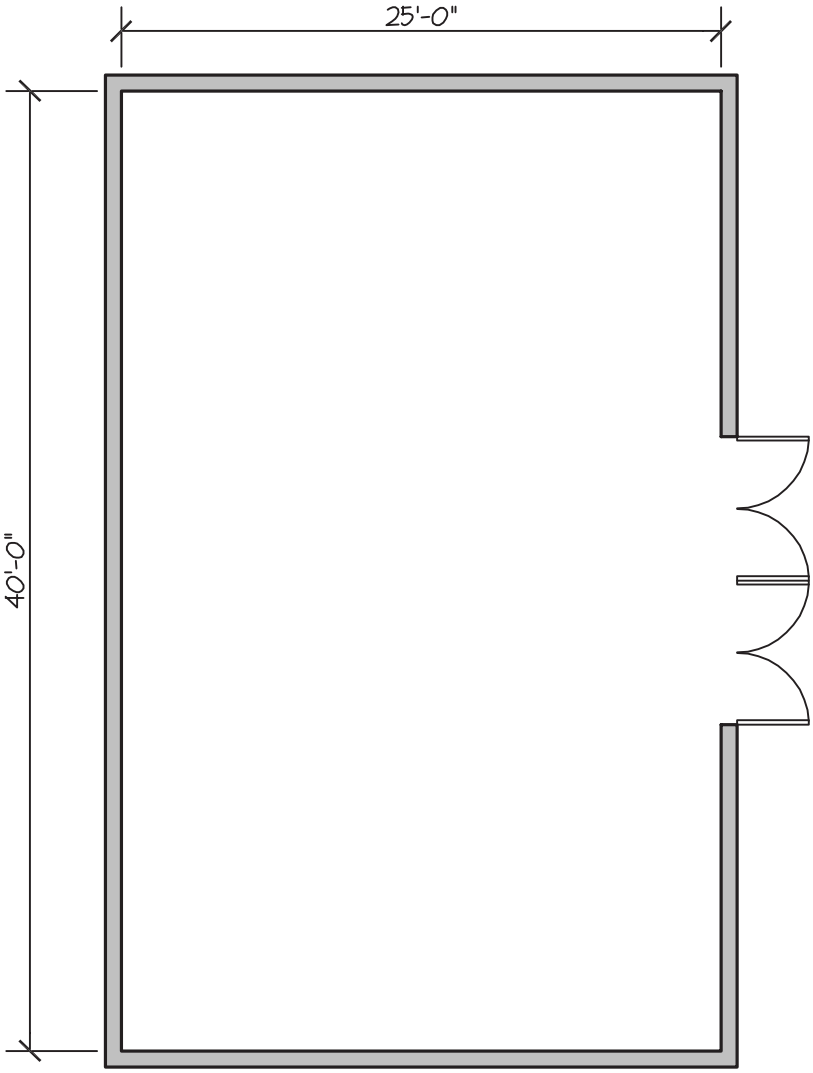
Lighting	Fluorescent, 40 fc
Electrical	Power for filtration equipment
Mechanical	Air changes per Code
Plumbing	Plumbing as required for filtration equipment, emergency eye wash, floor drains
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	Telephone
Data	As required for filtration equipment
TV	None
Other Technology	To be determined

FFE

Fixed Equipment	Filtration equipment
Movable Equipment	To be determined



NOTE: THIS LAYOUT ONLY REPRESENTS THE POSSIBLE SIZE OF THE POOL FILTRATION ROOM. THE ACTUAL LAYOUT OF THE FILTRATION ROOM WITH THE FILTRATION EQUIPMENT WILL BE FINALIZED DURING THE DESIGN PHASE OF THE PROJECT.

SCALE: 1/8" = 1'-0"

GENERAL INFORMATION

Use/Function	Storage for the Pool equipment
Assignable Area	800 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 300 sf / occupant
Key Dimensions	H: 12'-0" min. W: 20'-0" L: 40'-0"
Adjacencies	Pool and Deck, Filtration Room
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Sealed concrete
Walls	Masonry, epoxy paint finish
Ceiling	Exposed structure
Doors	Hollow metal or stainless steel double doors, or metal roll-up door (6'-0" to 8'-0" min. width)
Natural Light	None
Acoustics	To be determined
Special Requirements	To be determined

ENGINEERING SYSTEMS

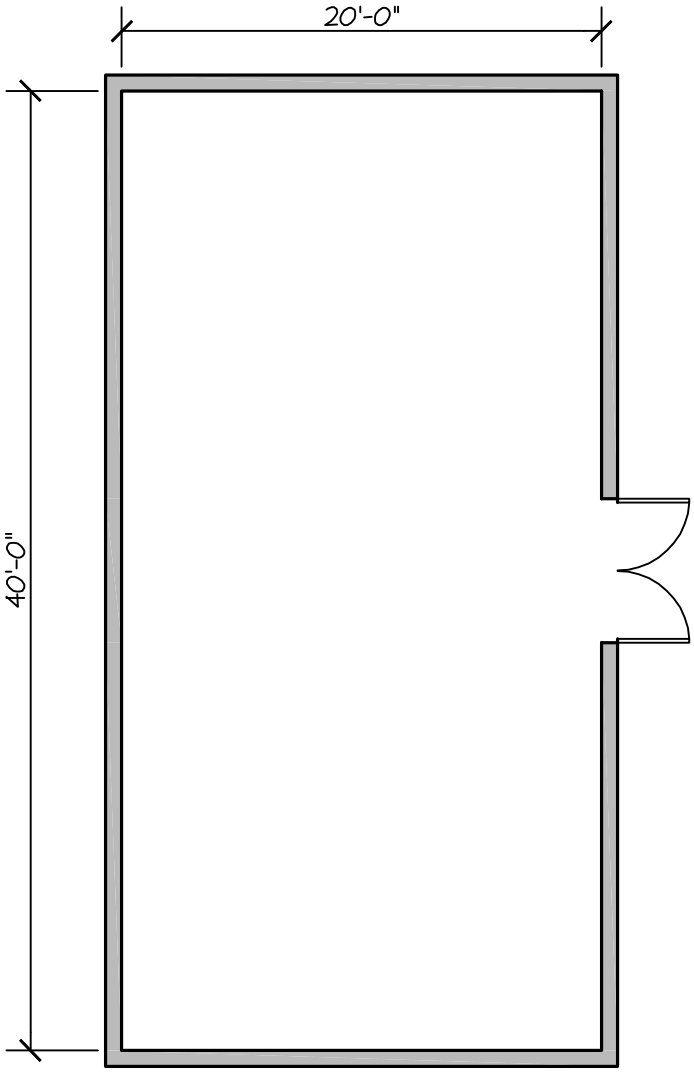
Lighting	Fluorescent, 40 fc
Electrical	Convenience outlets at the walls, may require both 110 and 220 V
Mechanical	Air changes per Code
Plumbing	Hose bid, floor drains
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	Telephone
Data	Internet connection, wireless
TV	None
Other Technology	To be determined

FFE

Fixed Equipment	To be determined
Movable Equipment	Metal shelving, storage cart for high pressure deck hose, storage reels for lane lines if required, pool vacuum and other pool cleaning equipment



NOTE: THIS LAYOUT ONLY REPRESENTS THE POSSIBLE SIZE OF THE POOL STORAGE ROOM. THE ACTUAL LAYOUT OF THE STORAGE ROOM WILL BE FINALIZED DURING THE DESIGN PHASE OF THE PROJECT.

SCALE: 1/8" = 1'-0"

BUILDING PROGRAM • AQUATIC DIRECTOR'S OFFICE

GENERAL INFORMATION

Use/Function	Office space for the Aquatic Director for the Indoor Pool
Assignable Area	150 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 100 sf / occupant
Key Dimensions	H: 9'-0" W: 10'-0" L: 15'-0"
Adjacencies	Pool and the Pool Deck, Lifeguards' Office
Access	Disabled
Occupancy Type	B

FINISHES/ TREATMENTS

Floor/Base	Vinyl composition tile / rubber base
Walls	Masonry or drywall with epoxy paint finish, glass
Ceiling	Drywall with epoxy paint finish, or ceramic coated acoustical tile
Doors	Hollow metal, glass
Natural Light	Windows and sidelights
Acoustics	In the walls and at the ceiling
Special Requirements	Space for 2 persons

ENGINEERING SYSTEMS

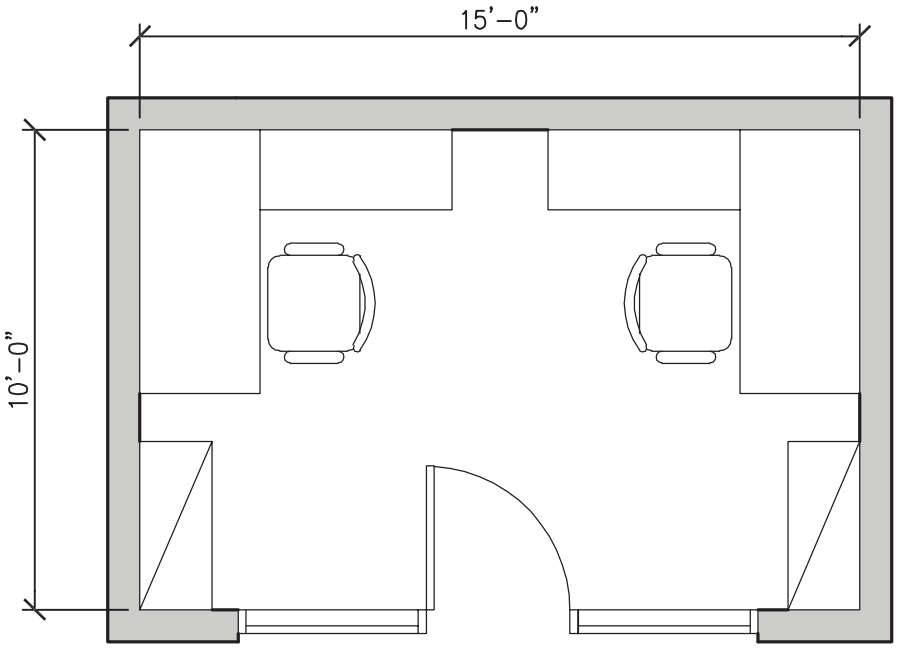
Lighting	Fluorescent, 50 fc
Electrical	Convenience outlets at the walls
Mechanical	Air conditioned, thermostat control
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	Telephone
Data	Internet connection, wireless
TV	Cable outlet
Other Technology	To be determined

FFE

Fixed Equipment	Window blinds
Movable Equipment	2 desks or modular furnishing, 2 desk chairs, 2 lateral file cabinets, 2 computers, printer, task lighting



SCALE: 1/4" = 1'-0"

BUILDING PROGRAM • LIFEGUARD'S OFFICE

GENERAL INFORMATION

Use/Function	Office for the Lifeguards for the Pool, space for a cot for emergency situations
Assignable Area	150 square feet
Occupant Load Factor	Per table 1004.1.1 2007 - CBC: 100 sf / occupant
Key Dimensions	H: 9'-0" W: 12'-0" L: 12'-6"
Adjacencies	Pool and the Pool Deck, Aquatics Director's Office
Access	Disabled
Occupancy Type	B

FINISHES/TREATMENTS

Floor/Base	Vinyl composition tile / rubber base
Walls	Masonry or drywall with epoxy paint finish, glass
Ceiling	Drywall with epoxy paint finish, or ceramic coated acoustical tile
Doors	Hollow metal, glass
Natural Light	Windows and sidelights
Acoustics	In the walls and at the ceiling
Special Requirements	Space to fit a cot in this Office, 4 locker footprints

ENGINEERING SYSTEMS

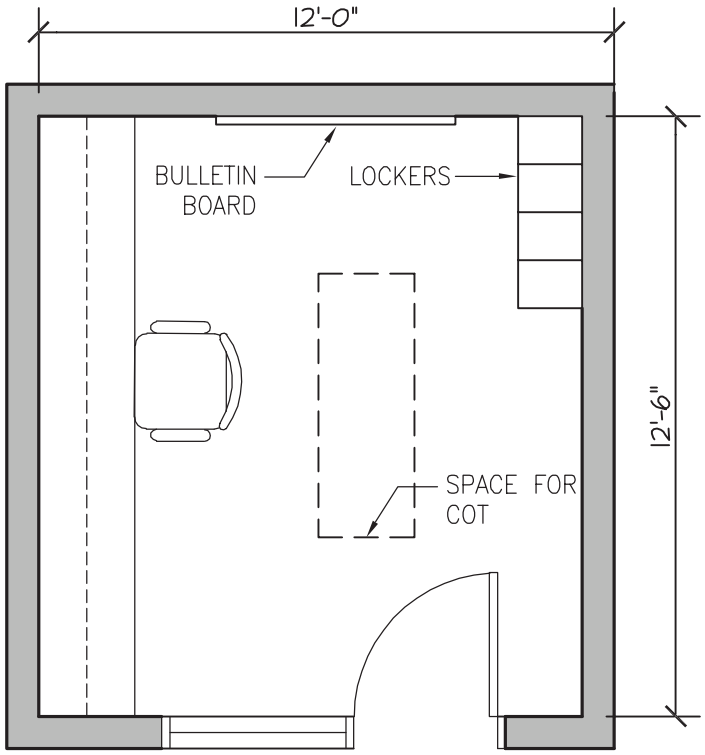
Lighting	Fluorescent, 50 fc
Electrical	Convenience outlets at the walls
Mechanical	Air conditioned
Plumbing	None
Fire Protection	Fire sprinklers, smoke detectors
Security	To be determined

TECHNOLOGY

Voice	2 telephones
Data	2 internet connections / wireless
TV	Cable outlet
Other Technology	To be determined

FFE

Fixed Equipment	Window blinds, marker board, bulletin board, lockers (12" W. x 16" D. x 60" H. – full height lockers)
Movable Equipment	Desk or modular furnishing, desk chair, computer, printer, task lighting



SCALE: 1/4" = 1'-0"

4.5 PREFERRED OPTION BLOCK PLANS

BLOCK PLANS

Block Plans for the Renovation of the existing building and the First and Second Floors of the expansion building are included as guidelines for the design of the expansion project. Further consideration for alternative layouts may be considered during the design process by the design team if it is within the overall project scope and construction budget.

PREFERRED OPTION RENOVATION BLOCK PLAN FOR THE EXISTING RECREATION CENTER:

This Block Plan shows the renovation scheme for converting the existing Fitness / Weight Room into three Multi-purpose Rooms and the downsizing of one existing Multi-purpose Room into a smaller Multi-purpose Room and using the remainder of the space to add to a small expansion to the north east of this Room to create a space for Outdoor Excursions and the Climbing and Bouldering Walls.

PREFERRED OPTION NEW EXPANSION BUILDING FIRST FLOOR BLOCK PLAN:

This Block Plan shows a potential layout of the First Floor spaces in the new expansion building with a new Entry Lobby for the Recreation Center, new Pool Locker Rooms, the Pool Support spaces, and a new Fitness / Weight Room of 13,500 asf on the First Floor (with an additional 6,500 asf on the 2nd Floor) that accommodates not only the expansion program for the Fitness / Weight Room but also accommodates the area loss in the renovation of the existing Fitness / Weight Room for a total of 20,000 asf of program space. The One-Court MAC Gym in the preferred Space Program Model is shown on the east side of this new expansion building. The Outdoor Pool and Spa with the Pool Deck is shown on the west side of the new building.

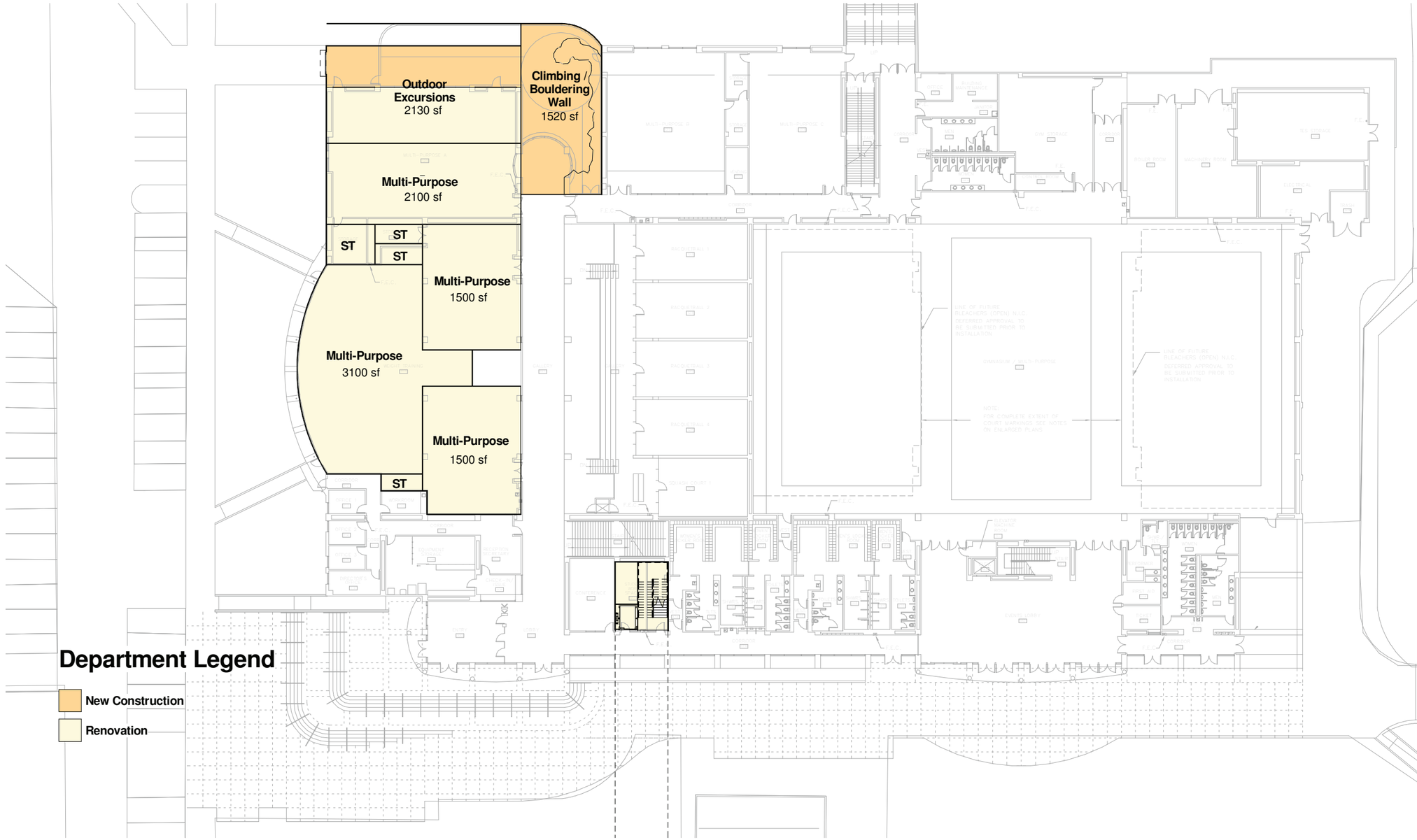
PREFERRED OPTION NEW EXPANSION BUILDING SECOND FLOOR BLOCK PLAN:

This 2nd Floor Block Plan shows the bridge connection to the existing building, the Wellness Center, the new Administration space, and 6,500 asf of the Fitness / Weight Room program, and a indoor Jogging Track around the perimeter of the Fitness / Weight Room. The bridge that would connect the existing building to the expansion building should not only be used as a circulation connection between the two buildings, but also as a location where cardio-vascular equipment can be placed to enliven this bridge. Before this idea can be implemented it needs to be further explored in terms of whether there will be sufficient space for cardio equipment and if life safety and heating and cooling requirements can be met.

Preferred Option
Block Plan
Existing Building

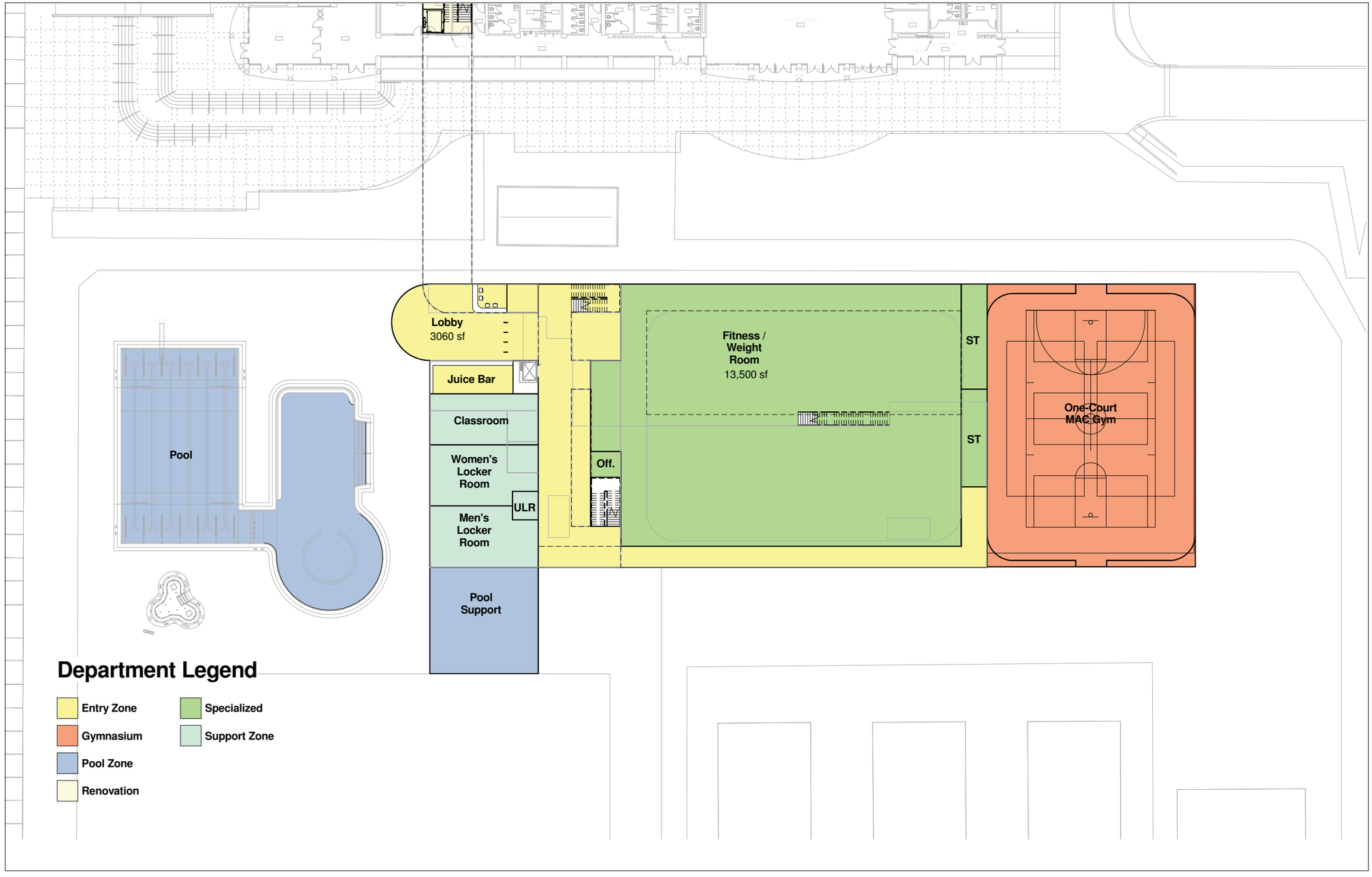
Renovation:
5,500 ASF- Multi-purpose room
1,330 ASF- Outdoor Excursions
Total: 6,830 ASF= 8,035 GSF (@85% Eff.)

Addition:
800 ASF- Outdoor Excursions
1,520 ASF- Climbing/ Bouldering Wall
Total: 2,320 ASF= 3,315 GSF (@70%Eff.)



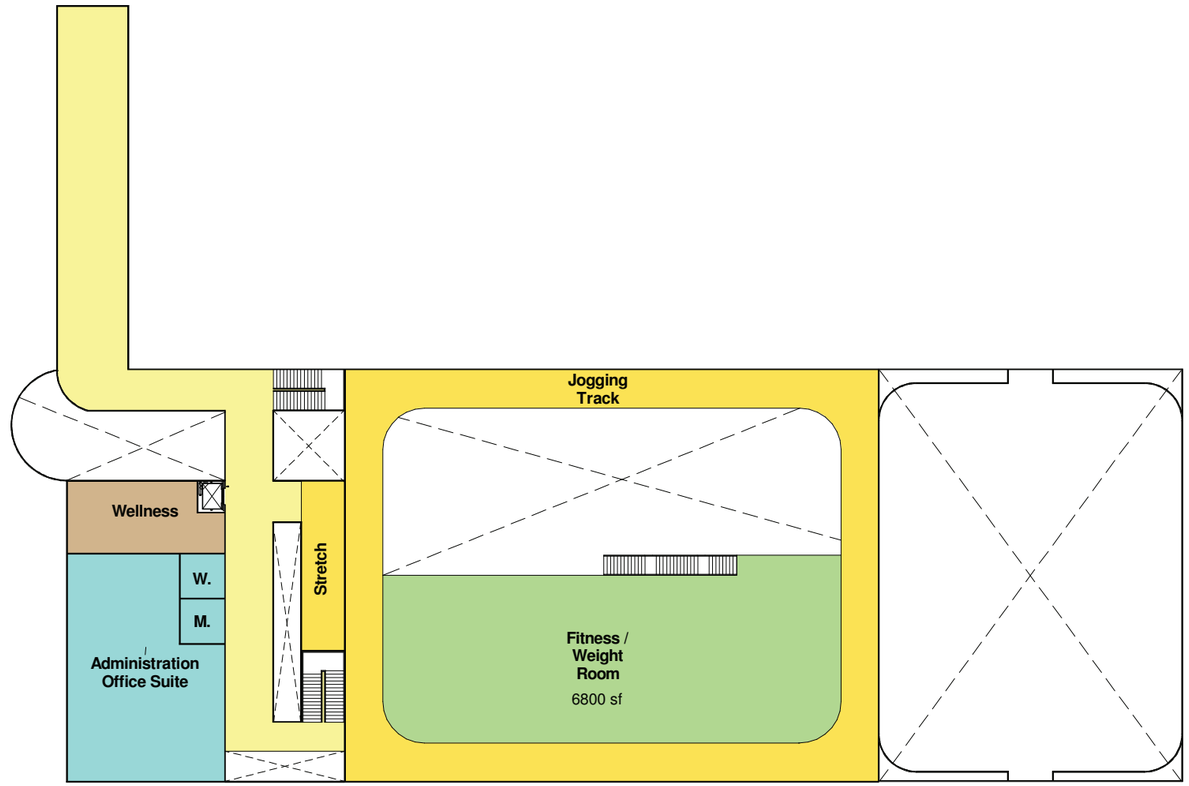
Preferred Option
Block Plan
Ground Floor

New Building
First Floor-Main Components:
- Fitness/Weight Room
- Gymnasium
- Juice Bar
- Locker Rooms
- Pool Zone + Pool Support



Preferred Option Block Diagram Second Floor

New Building
Second Floor-Main Components:
- Fitness/Weight Room
- Jogging Track
- Administration Suite
- Wellness
- Connection-Bridge



Department Legend

- Administration Office Suite
- Entry Zone
- Specialized
- Track
- Wellness

5
Systems Criteria

5 INTRODUCTION

The following narratives, prepared by Cannon Design and their engineering consultant team, discuss the proposed improvements to the Recreation Center. These improvements were generated during the focus group meetings are designed to meet the current and future needs of the building. These needs are articulated throughout this document.

This information will be used as a guide for key elements in the building design effort as the process moves forward through all phases of design and construction.

LANDSCAPE DESIGN CRITERIA
NEW PROJECT LANDSCAPE OBJECTIVES

The Recreation Center Expansion project proposes to add new buildings and a recreational swimming pool south of the existing building, preserving the east-west walkway as an open air esplanade between the new and old portions of the Center. A second story bridge crossing the walkway will connect the new facilities with the existing Student Recreation Center. This plan will allow preservation of most of the existing large trees in the present walkway area, and the landscape development program for the esplanade space should include extensive development of shaded seating and gathering spaces in the comfortable shade of the existing trees. The expansion plan further proposes relocation of existing tennis courts at the west side of the the outdoor recreation complex to form a consolidated six to eight court grouping on the east side of the complex. Evergreen Pear Trees on the raised mound behind the existing bleacher seating at the west side of the existing tennis courts are good candidates for relocation since the mounded placement will facilitate boxing, and should be considered for relocation as well. An assesment by an arborist to identify their condition and viability for relocation will need to be completed as part of the design process.

The Expansion Plan further proposes a new building addition for the Outdoor Excursions program at the northwest corner of the existing building's Linden Street frontage. Landscape redevelopment of the site in this area should take advantage of the new building addition to improve the Recreation Center's visibility from Linden Street, both to promote the presence of the Center and to make the entrance to the building from the housing to the north safer and more pedestrian friendly. All of the existing landscaping now hiding the Recreation Center from clear view from Linden Street should be evaluated and perhaps replaced with more open plantings promoting more visibility and greater pedestrian safety. The confusing and unsafe confluence of the vehicle parking lot entry driveway for the Student Recreation Center and the pedestrian walkway linkage from the student housing to the north should also be resolved with a new design that safely separates the two. The use of enriched pavement to announce the pedestrian crossing of Linden Street, along with possible crossing lights and enhanced safety illumination should also be part of the project at this location.

LANDSCAPE SUSTAINABILITY ISSUES

There are two possible LEED certification points to be earned for water conservation in the landscape design. One point is earned for using water obtained from other than domestic potable sources such as reclaimed effluent, stored rain runoff, or graywater. In order to earn this point at least half of the water used for the site landscaping must come from alternative sources. There is no reclaimed effluent water expected for this area in the foreseeable future. It may be possible to implement a graywater system using, for example, swimming pool filter backwash. This should be evaluated in detail during project design. The quantity of water available from this source is minimal with respect to the total annual irrigation water budget while the cost to implement such a system will be significant. Issues that must be resolved include graywater storage required to buffer production, which will be at a relatively high flow rate, with demand, which will be at a lower rate for a prolonged period. Other issues to be considered include sanitation and health issues pertaining to stored graywater, and the treatment required to, in the case of filter backwash, filter our particulate matter (drip irrigation is especially sensitive to clogging) and the neutralization of chemicals used to keep the pool water sanitized.

The second LEED point available for landscape irrigation water conservation requires that the designed landscape use no more than half the amount of water that a base case landscape design for the same project is calculated to use. Much of the existing site is presently planted to turf, and turf is a very high water using plant material. Turf must also be watered by spray irrigation, and the water use formulae used by LEED weighs heavily against spray irrigation. The base design case therefore will reasonably and fairly yield a high value of water use. The design for the new landscape should therefore be able to achieve the required 50% water use reduction without too much difficulty, but in order to do this the design must significantly reduce the extent of turf in the new design and the new design must use drip irrigation in lieu of overhead spray. The existing irrigation infrastructure serving the existing Recreation Center is compatible with drip irrigation and therefore this should be possible. Existing campus irrigation standards do not cover drip irrigation adequately and the new project design will need to develop appropriate specifications and standards to implement a drip irrigation design.

SUMMARY OF PROJECT LANDSCAPE CRITERIA

Planting:

- Reduce lawn area not needed for recreational use. A reduction on the order of 50% over the base case will be required in the design to earn the WE 1.1 credit.
- Preserve existing trees where possible. Relocate existing trees conflicting with the planned development that are deemed by Campus Facilities to be desirable for preservation.
- Wherever feasible use water conserving plants in the design. Water conserving plants are those rated as low water using in this climate zone by the University of California's Water Use Classification of Landscape Species. Try to select water conserving plant materials not significantly different in character from the existing Recreation Center landscaping. Follow the example of water conserving planting that now exists on the mounds behind the various existing tennis court bleachers.
- Comply with LEED concept of minimizing dense multi-layered planting schemes that multiply the demand for irrigation except where necessary to achieve a design objective.
- Remove the dense existing shrubbery along the north elevation of the existing building to improve security and increase the presence and appeal of the building as seen from Linden Street. Increasing the presence of the building on the relatively high speed Linden Street vehicular way will enhance pedestrian safety at the crossing from the student housing to the North by alerting drivers of the possibility of pedestrian activity.

Irrigation:

- Reuse as feasible the existing irrigation system infrastructure existing at the site including existing backflow protected irrigation water main line and central control capable controller.
- Follow campus standard specifications and details for all new equipment installed including zone valves, remote control valves, quick couplers, spray heads, and all other products and installation.
- Study and implement if feasible a graywater supplemental supply system.
- Provide drip irrigation wherever feasible for shrub and ground cover beds. LEED significantly penalizes spray irrigation.
- Working with the campus Grounds Department, develop new standards for drip irrigation. It is recommended to use a rigid PVC pipe system with a minimum of fragile flex tubing and drip line tubing.

5.1 CIVIL DESIGN CRITERIA

The Student Recreation Center (SRC) expansion project will include a new building housing fitness rooms, additional program offices, a swimming pool and its support zones, and the relocation of existing tennis courts. The project is located adjacent to the existing Student Recreation Center on the Campus, southwest of the intersection of Linden Street and Aberdeen Drive.

Utilities will be provided from existing utilities administered by both the City of Riverside and the University. Information on existing utilities was gathered from as-built plans for the existing Student Recreation Center and from the Utility Infrastructure Study for the June, 2002 East Campus Infrastructure Detailed Project Program (DPP). The East Campus Infrastructure DPP also provided information about proposed Campus-wide utility upgrades.

The Utility Infrastructure Study in the East Campus Infrastructure DPP found the existing Student Recreation Center's utilities in good condition. The proposed SRC expansion would have similar domestic water, fire protection water, sanitary sewer, gas, and storm drain needs as the existing building. As the square footage of the expansion project is less than, but close to the square footage of the existing SRC, the proposed utilities were sized accordingly.

- The domestic and fire water supply will be provided from an existing 6" main located in Linden Street approximately 300 feet north of the proposed expansion site.

- Sanitary sewer for the project will be provided by connecting to the existing City of Riverside 8-in. gravity main in Linden Street, approximately 300 feet north of the proposed expansion site.

- We are proposing that the storm water from the new construction be infiltrated in the adjacent turf area and/or to the existing 12-inch storm drain west of the existing Student Recreation Center building.

• The Gas Company can supply gas from a main line adjacent to the site in Linden Street.

These utilities will be permanent and in accordance with the East Campus Infrastructure DPP.

DOMESTIC WATER AND FIRE PROTECTION

As stated above, the domestic and fire water supply will be provided from an existing 6" main located in Linden Street.

PROPOSED DOMESTIC WATER

A new 6-inch water line shall be connected to the existing 6-inch water line located between the existing Student Recreation Center building and the Track. The connection shall be made upstream of the existing 6-inch backflow preventer. A new meter and 6-inch backflow preventer shall be added to this new service line.

However, depending on the time of construction, the new water service for the SRC expansion project could potentially connect to new 6-inch or 8-inch mains that are identified in the East Campus Infrastructure DPP Water Project W-22. These were slated for construction between 2006 and 2010. The proposed Water Project W-22 6-inch main would run south on Aberdeen Drive between Linden Street and North Campus Drive. The proposed Water Project W-22 8-inch main would run parallel to Linden Street between Canyon Crest Drive and Aberdeen Drive. UC Riverside should be consulted as to which water line would be best for connection, should their construction be completed in time for use by this project. If this option was used, the project must include a new backflow preventer, whereas in the first option, the project would utilize the existing backflow preventer.

PROPOSED FIRE PROTECTION

The proposed expansion will increase square footage of the SRC by approximately two-thirds the original area. A new 8-inch line is recommended for the proposed building. It may be connected to the southwest corner of the existing 8-inch line that serves the existing SRC, and extend south to the new SRC Expansion. The existing 8-inch line currently serves the existing building's three fire hydrants. Due to their close proximity, the two hydrants on the south side of the existing building may be used for exterior protection of the new building. An additional two fire hydrants are proposed on the south side of the new building. A 6-inch lateral for fire sprinklers shall be connected to the proposed 8-inch extension with a double detector check assembly and fire department connection (FDC).

SANITARY SEWER SYSTEM

PROPOSED SANITARY SEWER

A new 6-inch service line is recommended for the expansion project.

A 2001 sewer study expressed Campus-wide concerns regarding the load on the current sewer system as indicated in the East Campus Infrastructure DPP. The 8-inch line in the south side of Linden Street, to which the existing Student Recreation Center sewer is connected, was not mentioned in the East Campus Infrastructure DPP as being problematic. It is likely that the necessary 6-inch connection could be made to this main.

There are future improvements proposed for the Campus sewer system. UC Riverside plans to upgrade the 8-inch sewer line in the north side of Linden Street by replacing it with 12-inch line between 2006 and 2010. This proposed 12-inch line, part of UC Riverside's Sewer Project SS-21, is intended to serve housing units and buildings to the north and east of the Student Recreation Center. It may be possible to tie the proposed expansion lines into this 12-inch main. UC Riverside should be consulted as to which sewer line would be best for connection.

GRADING AND STORM DRAINAGE

PROPOSED GRADING AND STORM DRAINAGE

The new construction area is proposed to be located south of the existing Student Recreation Center building. The existing hardscape in this area includes 10 tennis courts, a roller-hockey rink, a multi purpose court, and two basketball courts. Surface flow goes untreated into catch basins and is conveyed to the 12-inch storm drain mentioned above. Although the pool and new building will be constructed over

some existing turf, there will be new turf space after the relocation of the tennis courts. The net hardscape and landscape areas would be approximately the same after construction.

Roof drains from the new building and surface drainage from the pool and relocated tennis courts can be conveyed to the existing 12-inch storm drain.

SUSTAINABILITY

Although the storm water collected in the 12-inch storm drain would be treated in the Gage Retention Basin, further reduction of water pollution should be considered for the expansion project. It may be possible to direct roof drainage from the new gym and some surface drainage from the relocated tennis courts to the turf area. This would encourage pretreatment and possible infiltration of storm water. Pervious paving materials or vegetated swales would also encourage pretreatment and infiltration of storm water.

NATURAL GAS SYSTEMS

PROPOSED NATURAL GAS

The Gas Company has adequate facilities in Linden Street to provide natural gas for the SRC expansion. A 1-inch service line is recommended for the proposed building.

QUANTITIES ESTIMATE

Item Description	Quantity	Unit
Site Preparation and Building Demolition		
Site clearing	208,000	SF
Site Grading and Paving		
Earthwork	7,640	CY
Pedestrian concrete paving, 4" thick, no base	22,500	SF
Utilities on Site		
Mechanical		
Water mains, domestic and fire		
Domestic water, 6" PVC	600	LF
Fire water, 8", C900 PVC	750	LF
Metering	1	EA
6" Backflow preventer	1	EA
Valves and specialties	2	EA
Connections to existing	2	EA
Hydrant	2	EA
8" Double detector check	1	EA
Fire department connection	1	EA
Patch and repair paving following trenching	1,050	LF
Gas		
Underground pipework, fittings, <3", PE 2406	600	LF
Valves and specialties	1	EA
Connections to existing	1	EA
Sewer		
6" Sewer, SDR 35 PVC	300	LF
Connections to existing	1	EA
Sewer cleanout	2	EA
Storm Drain		
12" Storm drain	1,000	LF
Connections to existing	2	EA
Catch basin 24"x24"	6	EA
Storm drain cleanout	4	EA

5.2 ARCHITECTURAL DESIGN CRITERIA

The purpose of this section is to establish basic guidelines and criteria for the design of the Student Recreation Center Expansion and Renovation. Several important design goals were communicated to the design team by the University:

- Create a stronger sense of arrival and locate interior activities to enliven and vitalize the entry courtyard.
- Create an entry that is inviting and celebratory to enhance the building's presence on the campus.
- Maximize views into the building in order to reveal the dynamic activity inside and attract students to take advantage of its facilities.
- Maximize views between activities to strengthen the sense of diversity and activity within the building.
- Create open views from inside the building to the adjacent exterior spaces, especially the pool.
- Maximize the use of natural light to increase quality of space and save energy use.
- Maximize the flexibility of the building and minimize the impact it has on the environment.
- Design the building to minimize the total lifecycle costs and maximize energy efficiency. The building systems should be designed for ease of operation and maintenance.
- Make indoor environmental quality a priority. Materials should be selected for durability.
- Strive to minimize pollution and disruption to the neighborhood.

SITE AND CONTEXT

The proposed expansion will include the renovation of the existing Student Recreation Center, an addition to the North-West corner of the Existing Student Recreation Center, and a new building along the south edge of the existing pedestrian circulation. The new building will be connected to the existing building by an enclosed second story bridge. The new addition will remain structurally independent to maintain seismic separation and to pursue LEED Silver certification as an independent and new building.

The Fitness Room and the large multi-purpose room will be renovated to accommodate three more multi-purpose rooms and outdoor excursions. The existing entry will remain as the main control point with the option of using the lobby of the new addition as an independent access to the new building and pool area for special events.

The new addition will create a stronger more intimate connection to the north-south Recreation Mall. A strong connection to the exterior will be emphasized in the design of the building through glazing opportunities and views. The exterior program elements, the leisure pool, tennis courts and open green area, will be oriented to create a vibrant center of activity.

MASSING AND MATERIALS

The massing of the existing building is typical of this building type. It is characterized by large volumes and extensive opaque wall planes. Judicious placement of glass will allow views into and out of the building and provide views to the Campus landscape. Large glazed areas will illuminate the building in the evening as a hub of activity. The design will maximize the use of glare free natural light throughout the building.

The University is seeking a new contemporary and dynamic image for the Recreation Center, one that encourages social interaction, is open and inviting. The new construction will seek to expand and transform the existing building vocabulary within the context of the 2007 Campus Design Guidelines. The campus includes a strong but diverse array of building forms and materials. The new addition will attempt to engage this diversity through simple and clear expression of the multiple activities within the building. It will also begin to engage the continuous fabric of the landscape. The exterior facade materials will explore, but will not be limited to, metal, stucco, masonry, concrete and glass. The existing recreation building currently applies a custom UCR Brick Blend that will be investigated and/or implemented in the new construction's facade design.

HUMAN INTERACTION

A key aspect of the Student Recreation Center is the opportunity for social interaction. The lobby and all of the main circulation spaces should create a welcoming and user-friendly ambiance. It should function for casual relaxation and conversation, as well as high traffic flow common to recreation uses. The Student Recreation Center should be accessible to the entire university community beyond the incorporation of ADA requirements for disabled accessibility.

FUNCTIONAL DESIGN

The specific requirements for the individual spaces are outlined in the Room Data Sheets located in Section 4.4 of this report. The organization of the facility will use exercise spaces to create a continuous network of activity. New lobby space will accommodate separate event circulation. It is important that there be overall visual openness to permit staff supervision and provide orientation to the users of the building. Consideration will be given to the development of a graphics program to aid in way finding and create a visual theme for the building.

BUILDING SYSTEMS

The utilities and the structural, mechanical and electrical, plumbing and telecommunication systems of the building are discussed in the following sections. There are several areas where these systems have an aesthetic impact on the building. The design of the long span structural members in the large spaces, such as the gymnasiums, has a significant impact on the visual quality of the space. Deeper trusses at greater spacing tend to have a more pleasing quality than closely spaced truss joists. Similarly, the duct work and lighting in the large open spaces should be organized to work with the structure and the configuration of the space.

5.3 STRUCTURAL DESIGN CRITERIA

PROJECT DESCRIPTION

The project consists of an addition of approximately 53,843 GSF of new recreation and swimming pool support space, and renovation of the existing fitness space into multi-purpose space. The new addition will be an independent two-story building, located to the south of the existing Recreation Center and linked by a new bridge between the two buildings.

The existing Student Recreation Center was originally constructed in approximately 1992 and it is estimated that it was designed in accordance with the 1989 Uniform Building Code. The two-story building has a rectangular footprint measuring about 221 feet in the north-south direction by 372 feet in the east-west direction, with approximately 86,140 GSF. The building currently houses a gymnasium, multi-purpose rooms, weight and rooms, and offices.

SYSTEMS CRITERIA

STRUCTURAL DESIGN

The structural design for the Student Recreation Center Expansion will provide a system integrated with the program requirements for space layout and the architectural and building service needs. Current user needs of the spaces and future flexibility of use will be carefully considered.

The California Building Code 2007 will be the governing building code. Other referenced design codes are anticipated to include the AISC Manual of Steel Construction (LRFD), Second Edition, ACI Building Code, Commentary, ACI 318 05, ASCE 7-05 and AWS Structural Welding Code, ANSI (AWS D 1.1 98).

The design live loads for office areas will be a minimum of 80 psf, for the multi-purpose and weight and fitness rooms will be 100 psf, for the stairs and corridors will be 100 psf, and for storage and mechanical areas will be a minimum of 125 psf. The roof will be designed for a live load of 20 psf except in areas where mechanical equipment occurs, which will be designed accordingly. Consideration will be given to locating areas with heavy loads, such as mechanical equipment, at the slab-on-grade level to avoid the need for heavy structural framing.

The building will be designed with a lateral force resisting system that provides ductility for dissipation of energy generated during an earthquake. Structural systems will be detailed to limit the effects of earthquake damage to both structural and nonstructural components of the building. Seismic restraints are to be provided for all equipment.

VIABLE STRUCTURAL FRAMING SYSTEMS

Both structural steel framing systems or a combination of concrete and steel can be considered as viable alternatives. Each scheme offers it own advantages and disadvantages. Irrespective of the system selected, the structural framing will relate to the architectural layout of the space.

The lateral force resisting system should balance the need for maximizing seismic safety, layout functional and architectural considerations, and economy. Lateral force resisting systems that may be considered include steel Eccentric Brace Frames (EBF), Buckling Restrained Brace Frames (BRBF), steel Moment Resisting Frames (SMRF), reinforced concrete or masonry shear walls. Some advantages and disadvantages to these systems are summarized in the following table:

Lateral Force Resisting System	Program Flexibility	Architectural Flexibility	Relative Cost	Structural Performance
Reinforced Concrete or Masonry Shear Walls	Low	Low	Low	Adequate
Buckling Restrained Brace Frames (BRBF)	Low-Medium	Medium-High	Medium	Adequate
Eccentric Steel Braced Frames (EBF)	Medium	Medium-High	Medium	Adequate
Steel Moment Resisting Frames	High	High	Medium-High	Adequate

The seismic resisting system will depend on the structural construction type selected. Final selection of the system may be driven by current market conditions, architectural considerations, or cost evaluation. Architectural and program flexibility, which are desirable for this building, can be achieved in all of the systems by configuring the lateral force resisting systems within the exterior perimeter and interior elevator/stair walls of the building. If the steel brace frames or BRBF or reinforced concrete or masonry shear walls are pursued, care should be taken to locate these elements to suit the space requirements and maintain program flexibility. Layout of the structural grid will be coordinated with the planning module established for the various building functions. The layout of the lateral load resisting elements, such as shear walls or braced frames, will be carefully planned to maintain flexibility of the interior spaces and to provide an efficient structural system.

These options should be studied in detail in schematic design. The applicable alternate vertical and lateral force-resisting systems that are responsive to architectural and functional needs should be studied and estimated in the schematic design phase.

RECOMMENDED STRUCTURAL FRAMING SYSTEMS

Given the consultant's understanding of the project and past experience with designing such recreation centers, it is the consultant's opinion that a structural steel construction is most appropriate for the proposed project. The selection of the structural steel frame considered the floor to floor height requirements, the mechanical requirements for ductwork and plenums, the acoustic and vibration requirements, the long spans required for the horizontal elements to suit open areas, and the architectural aesthetics for the building. The structural system depth for the floor and roof levels will depend on the ceiling heights, M/E/P requirements and the floor to floor heights.

The second floor is to consist of concrete filled metal deck and the roof is to consist of metal deck, both of which spanning between steel beams or trusses, supported by steel columns. The grade level will be supported by a concrete slab on grade.

At the second floor, concrete and metal deck diaphragms will distribute lateral loads to the braced frames or shear walls. At the roof level, metal deck diaphragms will distribute lateral loads to the lateral force resisting system. The lateral force resisting system would likely be either braced frames or shear walls. The braced frames or shear walls will carry the lateral loads to the foundation, where they are dissipated into the soil.

The new one-story pool house and the storage facilities will likely be steel framed supported on block walls.

FOUNDATION SYSTEM

No geotechnical report was available for the proposed project. However, given that the existing Student Recreation Center is supported on shallow isolated footings, it is reasonable to assume that the proposed new addition will also have shallow foundation system. This will be verified with geotechnical study during schematic design.

OUTLINE SPECIFICATIONS

A. DESIGN CRITERIA

1. GOVERNING CODES
   - a) California Building Code - 2007 Edition
   - b) Wind Speed – 85 mph
   - c) Occupancy Category II
   - d) Seismic Design Category D or E (will be established once site-specific seismic hazard study is done)
   - e) Importance Factor I= 1.00
   - f) Structural System Factor Will depend on the system selected

2.REFERENCE STANDARDS
   - a)American Welding Society - AWS Latest Edition
   - b)American Society for Testing and Materials
   - c)Concrete Reinforcing Steel Handbook
   - d)Reinforced Masonry Engineering Handbook
   - e)American Concrete Institute - ACI 318
   - f) American Institute of Steel Construction - 9th Edition

B.DESIGN LOADS

1.FLOOR LIVE LOADS

a)Multi-Purpose Rooms	100 psf unreduced
b)Weight and Fitness Rooms	100 psf unreduced
c)Typical Office and Classroom Areas	80 psf reducible + 20 psf
d)Stairs/Corridors/Public Areas	100 psf reduced
e)Locker Rooms/Wellness	100 psf unreduced
f) Mechanical Rooms	125 psf unreduced + pads
g) Roof	20 psf reducible

C. MATERIALS

1. CONCRETE
   a) Aggregates
      (1) ASTM C-33 (Hardrock)
      (2) ASTM C-330 (Lightweight)
   b) Cement - ASTM C-150, Type I or II
   c) 28-Day Compressive Strengths
      (1) Footings 3000 psi
      (2) Slab on grade 3000 psi
      (3) Walls, grade beams 3000 psi
      (4) Concrete fill on metal deck 3000 psi (Lightweight)
      (5) Shear Walls 5000 psi
      (6) Columns 5000 psi
      (7) Framed slabs/beams 4000 psi
      (8) All other concrete 3000 psi

2. REINFORCING STEEL
   a) ASTM A-615 grade 60 typically
   b) ASTM A-706 grade 60 where bars are welded

3. STRUCTURAL STEEL
   a) Beams and Plates
      (1) ASTM A-36
      (2) ASTM A-36-50 dual certified
   b) Columns ASTM A-572 Grade 50
   c) Bolts ASTM A-325SC; A490SC where noted
   d) Weld Electrodes ASTM E70XX
   e) Metal Deck ASTM A-446

4. MASONRY
   a) Units conforming to ASTM C90
   b) Mortar Strength - 1800 psi
   c) Grout Strength - 2000 psi
   d) Block Design Strength - 1500 psi

5.4 HVAC DESIGN CRITERIA

GENERAL

The design of the new HVAC system for the expansion of the Student Recreation Center will address the overall objective of providing a system that meets the occupants' needs, provides a safe environment, and accommodates any changes in the building operation. The proposed mechanical system will include air handlers, exhaust fans, hydronic systems, controls, and air distribution systems.

The Mechanical Design considers both the initial construction cost together with the issues of future flexibility and with emphasis and focus to achieve sustainable “green building” and maximize LEED points. Some considerations for design will be:

- Assist with providing an energy efficient envelope to assist with the downsizing of mechanical equipment
- Increased ventilation requirements
- Indoor air quality control and monitoring
- Zero use of HCFC refrigerants
- Continuous Direct Digital Control monitoring
- Energy efficient modifications to the sequence of operations of the existing Student Recreation Center
- Thermal Energy Storage System that augment mechanical cooling to conserve energy usage.
- Energy efficient motors for all equipment

- Variable volume air systems will be used wherever applicable
- Variable speed drives will be used for controlling fan speed

The following areas will be heated, cooled and ventilated:

Multi-purpose Rooms
Weight / Fitness Room
Lockers and Toilets
Cardio Areas
Gymnasium and Running Track
Offices and Conference Rooms
Classroom
Support areas
Corridors

For details of the detailed program areas reference should be made to the Architectural narrative and the Room Data Sheets.

CODES AND STANDARDS

The HVAC systems will comply with the following codes and standards:

APPLICABLE CODES:

California Building Standards Administrative Code (Title 24 C.C.R.), 2007
California Building Code (Title 24 C.C.R.), 2007
California Mechanical Code (Title 24, Part 4), 2007
California Energy Code (Title 24, Part 6), 2007
California Fire Code (Title 24, Part 9), 2007
California Reference Standards Code (Title 24, Part 12), 2007

REFERENCE STANDARDS AND GUIDELINES:

ACGIH: American Council of Governmental Industrial Hygienists
AMCA: Air Movement and Control Association
ANSI: American National Standards Institute
ARI: Air Conditioning and Refrigeration Institute
ASHRAE: American Society of Heating, Refrigerating, and Air-Conditioning Engineers
NFPA: National Fire Protection Association
OSHA: Occupational Safety and Health Administration, U.S. Department of Labor
SMACNA: Sheet Metal and Air-Conditioning Contractors National Association
CSU: CSU Energy and Utility Requirements
UL: Underwriters Laboratories, Inc.
UCR Campus Standards
2007 Campus Design Guidelines

DESIGN CRITERIA

INDOOR DESIGN CONDITIONS:

Classrooms, Offices	
Winter/Summer	74º F/70 º F
Multipurpose Rooms	
Winter/Summer	74º F/70 º F

SYSTEMS CRITERIA

Weight Room, Fitness Areas, Racquetball Courts Winter/Summer	74º F/70 º F
Gymnasium and Running Track Winter/Summer	74º F/70 º F
Corridors and Distributed Cardio Winter/Summer	74º F/70 º F
Support Areas Winter/Summer	74º F/70 º F
Juice Bar Winter/Summer	74º F/70 º F
Stores, Toilets	68º F to 80º F
Mechanical and Electrical Rooms	Maintain @ 90º F
Elevator Machine Room	85º F

INDOOR RELATIVE HUMIDITY

Humidity control is generally not required for this type of facility. However, this issue will be discussed further with the University in future design phases.

Outdoor Design Conditions (ASHRAE Standard 90.1 Table D-1):

Location	Riverside, California
Latitude	33.9 N
Longitude	117.25 W
Elevation	1,535 Feet
Winter	34º F
Summer	110º F dry bulb 64º F wet bulb

VENTILATION REQUIREMENTS

Gymnasium	0.15-0.5 cfm/SF for Demand Control Ventilation, DVC
Cardio/Free weight/ Fitness	0.15-0.5 cfm/SF for DCV
Offices	15 cfm/person
Multi-Purpose Room	0.15-0.5 cfm/SF for DCV
Jogging Track	0.15-0.5 cfm/SF for DCV
Locker	20 ACH
Toiler/Shower	20 ACH

NOISE CRITERIA

The project noise criteria levels will be set by the project acoustician during subsequent design phases. The NC levels listed address the mechanical systems only.

Offices	NR 35 to NR 40
Classrooms	NR 25 to NR 30
Multi-purpose Rooms	NR 40 to NR 45
Weight Fitness Room	NR 40 to NR 45
Lockers and Toilets	NR 40 to NR 45
Gymnasium and Running Track	NR 40 to NR 45
Racquetball	NR 40 to NR 45

HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS

HYDRONIC SYSTEMS

It is proposed to install new chilled water and heating hot water service to the expansion complex. A thermal energy storage system is proposed to augment the existing mechanical cooling to conserve energy usage. A new chiller and boiler will be added with ice storage to support the expansion. The systems will be manifolded so that both systems can serve the existing building and the expansion. The existing mechanical room will either be expanded or a new mechanical room will be placed within the expansion.

It is proposed to change out all the hydronic pumps in the existing Student Recreation Center and install new hydronic pumps and pipes that are sized to serve both existing and new load.

Chilled water coils for air handling units, AHU, will be sized for a maximum face velocity of 400 fpm, a minimum of 4 rows, 8 fins per inch maximum, and having a minimum wall thickness of 0.025". Coils will have copper fins, copper tubes and stainless steel casing and condensate pans.

AIR SYSTEMS

The expansion building will be provided with new VAV air handling units with zone reheat. All air handling units will be provided with plenum-type supply air sections. All air handling units will be provided with variable speed drives.

Zone control will be accomplished with VAV boxes with hot water reheat coils. The VAV boxes will modulate to maintain required temperature set points.

Final filters will be provided on all of the air handlers. Final filters shall be LUWA rigidly supported, extended area type, U/L listed as Class 2, 85% efficiency ASHRAE test standard 52.299, 12 inch thick with a MERV rating of 13. A universal holding frame shall be provided.

Conditioned air will be distributed using medium pressure ductwork for the mains and low pressure ductwork after the VAV terminal boxes. Medium pressure supply air duct risers will be located inside duct shafts located within the building.

Return air will return to the air handling units via plenum return and/or duct return. Acoustical sound boots at the return air grilles will be used for office spaces and other acoustically critical spaces.

A 24 hours per day/7 days per week ductless split system DX shall be provided for the building distribution frame (BDF) room and individual distribution frame rooms (IDF).

Ventilation for restrooms, janitor rooms and utility rooms will be done mechanically by exhaust fans. All small fans will be direct drive. These fans will be located at various locations on roof of the building.

PIPING MATERIALS

Underground chilled water piping from the chillers connection to the building will be prefabricated/pre-insulated PVC piping. Buried heating hot water piping from the boiler connection to the building will be prefabricated/pre-insulated ductile iron piping. Both systems will utilize cast iron fittings.

SYSTEMS CRITERIA

Chilled water and heating hot water piping within the building: 4" and larger, Schedule 40 black welded or flanged steel pipe ASTM A53, with thermal insulation to minimize heat gain/loss and prevent condensation; 3" and smaller Type "L", hard drawn copper tube. Insulation will be the same as the larger piping systems.

VAV BOXES

The size and number of VAV terminal boxes to serve each area will be based on the load, ventilation requirement and functionality. All VAV boxes will be furnished with a reheat coil and shall be pressure independent.

DUCTWORK

The supply air duct system will be galvanized steel of minimum 4-inch water gauge pressure class for mains. Branch ducts will be minimum 2 inch class. Sealing, reinforcing and supporting will be according to SMACNA standards. Ductwork shall have thermal insulation to minimize heat gain, loss, and prevent condensation.

The general exhaust duct system will be galvanized steel of minimum 2-inch water gauge pressure class. There will be no insulation provided for general exhaust ductwork.

CONTROLS

The building automation/energy management system will be compatible with the existing campus energy management system. The building controllers will integrate with central utility control system. The system will be able to integrate multiple building functions, including equipment supervision and control, alarm management, energy management, historical data management and archiving, and monitoring.

All control panels will be stand alone in memory, networking, and control operations. The design of the controls will be in a modular format, permitting future expansion capabilities. The system will monitor and control equipment according to the sequence of operation, as well as additional input and output points. The building control system will operate to ensure operational safety, regulatory compliance and to satisfy process constraints as well as occupant comfort.

TOILET EXHAUST SYSTEMS

Each toilet will be exhausted to atmosphere. Exhaust fans will be roof-mounted or in-line type above ceiling (TBD). Air supply/make-up will be through nearest supply air system.

LOCKER ROOMS AND LOCKER ROOM TOILETS

The locker rooms will be exhausted to atmosphere. Exhaust fans will be roof-mounted or in-line type above ceiling (TBD). Supply/make-up air will be through nearest supply air system.

MECHANICAL ROOMS EXHAUST SYSTEM

Both existing and new mechanical rooms' exhaust system will be upgraded to meet the current standard and/or code to assure proper ventilation and enable continuous refrigerant detection.

NOISE AND VIBRATION

Vibration generated by HVAC systems may be minimized by several means: appropriate equipment selection; limitation of fluid flow velocities; and isolation of key mechanical, piping and ducting systems.

Vibration isolation systems will be provided on rotating mechanical equipment greater than 2 hp located within the critical areas, greater than 5 hp elsewhere in the building, and greater than 10 hp outside the building within 200 feet of the building

Concrete inertia bases will be used with rotating mechanical equipment handling liquids (e.g., pumps). Steel frames will be used for air handling equipment. Flexible pipe connector will be used on piping connecting to pumps. Flexible duct connectors will be used in a similar manner.

Passive piping and ducting is defined as are those that are at a great distance from their energy source and that have low flow rates and/or infrequent use such as city water, sprinkler water, gases, waste water, smoke purge, etc. Conversely, active piping, is defined as piping that is close to an energy source (e.g., a pump or air handler) has continuous or frequent use, with high flow rate or velocity of air or liquid. Active piping and ducting can be a major source of vibration, and isolation is required within the mechanical spaces and in some cases within the piping risers.

Whenever possible, flow velocities in significant active ducting and piping should be sized for maximum flow velocities of 1,200 feet/minute and 8 feet/second, respectively. Systems that require higher velocities for proper function (e.g., exhaust systems) call for more stringent isolation.

Ducts of diameter less than 24 inches do not require isolation provided flow velocities do not exceed 1,200 feet / minute (in the case of rectangular ducting, ducts with less than 3 sq ft of cross sectional area).

Active piping associated with HVAC equipment (chilled water and hot water) within mechanical rooms or within a 50-foot distance (whichever is longer) from connected vibration-isolated equipment (chillers, pumps) shall be provided with spring type pipe hangers and resilient penetration sleeves used where this piping penetrates walls. Flexible piping connectors will be used where the piping leaves the mechanical room. All active piping in the critical area having a diameter of 4 inches or greater will be isolated.

5.5 PLUMBING DESIGN CRITERIA

Plumbing for the Student Recreation Center Expansion will focus on low flow fixtures and systems to achieve sustainable “green building" status and maximize LEED points. The emphasis is also to provide a system that complies with the occupant needs and a more efficient and safer environment. The plumbing and Fire Protection scope of work includes plumbing fixtures, domestic water heating equipment, domestic water, waste/vent, storm water drainage and natural gas piping distribution systems. The Fire Protection system will be isolated from the domestic water service.

The following material will be used for the plumbing systems:

HW, CW:	Copper tube, Type L, with wrought copper fittings and brazed or soldered joints.
G:	Schedule 40 black steel with threaded galvanized malleable iron fittings as required.
W, V:	Heavy duty cast iron. No hub, minimum 1/4" per foot slope.
CD:	Type "L" copper, insulated, minimum 1/4" per foot slope.
RD, OD:	Heavy duty cast iron. No hub, minimum 1/4" per foot slope.

PLUMBING FIXTURES

A.	Water Closets:	Zurn Ecovantage Flush Valve Toilet System; 1.28 gpf, vitreous china.
B.	Urinals:	Zurn Ecovantage Flush Valve Sensor Urinal System; 0.125 gpf, vitreous china
C.	Lavatories:	Zurn, 20” x 18” vitreous china wall hung lavatory, Zurn 19” round self rimming, vitreous china lavatory.
D.	Lavatory Faucets:	Zurn AquaSense sensor faucet, 0.5 gpm aerator.
E.	Showers:	Chrome plated brass, pressure balancing valve, wall mounted. 1.5 gpm.
F.	ADA Showers:	Same as above, with diverter. slide bar and hand held head.
G.	Sinks:	Stainless steel, 18 gauge, self rimming.
H.	Sink Faucets:	Chrome plated brass.
I.	Garbage Disposer:	ABS with stainless steel grinding elements, ½ horsepower.
J.	Drinking Fountains:	Stainless steel, dual dish, refrigerated, 120 VAC.
K.	Mop Sinks:	Enameled cast iron, floor mounted.
L.	Mop Sink Faucets:	Chrome plated brass.
M.	Hose Bibs:	Rough cast brass, loose tee key.
N.	Wall Hydrants:	Rough cast brass, wheel handle, aluminum box and locking cover.
O.	Floor Drains:	Cast iron with nickel bronze strainers
P.	Floor Sinks:	Enameled cast iron with enameled cast iron grate.
Q.	Roof Drains:	Cast iron with cast iron domes.

2007 California Plumbing Code Water Supply (WSFU) and Drainage (DFU) Fixture Unit Equivalent Table A-2 and Table 7-3

Fixture	*CODE WSFU*	*CODE DFU*	*LEED WSFU*	*LEED DFU*
Water Closet: 1.28 gpf Flush Valve	5.0	**4.0**	5.0	**4.0**
Urinal: 0.125 gpf Flush Valve	0.0	**2.0**	0.0	**2.0**
Lavatory: 0.5 gpm aerator	1.0	**1.0**	1.0	**1.0**
KitchenSink: Double Compartment: 0.5 gpm aerator	2.0	**2.0**	2.0	**2.0**
Sink: Single Compartment:0.5 gpm	1.0	**1.0**	1.0	**1.0**
Laundry Sink: 0.5 gpm aerator	1.5	**2.0**	1.5	**2.0**
Service Sink: 0.5 gpm aerator	3.0	**3.0**	3.0	**3.0**
Shower ;Low Flow 1.5 gpm	2.0	**2.0**	2.0	**2.0**
Bathtub; Low Flow 1.5 gpm	10.0	**2.0**	10.0	**2.0**
Clothes Washer	4.0	**3.0**	4.0	**3.0**
Drinking Fountain: Single Bubbler	0.5	**0.5**	0.5	**0.5**
Drinking Fountain: Dual Bubbler	1.0	**1.0**	1.0	**1.0**
Food Waste Grinder	0.0	**3.0**	0.0	**3.0**
Dishwasher	1.5	**2.0**	1.5	**2.0**
Floor Drain	0.0	**2.0**	0.0	**2.0**
Floor Sink	0.0	**3.0**	0.0	**3.0**
Hose Bibb	1.0	**0.0**	1.0	**0.0**

DOMESTIC WATER DISTRIBUTION

Renovation: The domestic water supply to fixtures for multi-purpose (if any are added as part of renovation) will be fed from the existing system within the building. Isolation valves with access panels will separate the existing and new service. The main building existing water (cold/hot) service, fixtures and equipment will remain.

All piping components (if any, as part of renovation) subject to sweating or heat loss will be insulated with appropriate thickness of insulation and fire retardant jacket.
Pipe sizing is based on the requirement of The State of California 2007 edition of The Uniform Plumbing Code with amendments.

Pipe sizes are based on a maximum 3 pounds per square inch friction loss for copper pipe at maximum velocity of 8 feet per second and a predominantly flush valve type of system requiring a minimum residual pressure of 35 pounds per square inch.

Average minimum street pressure available at main is estimated to be at 45 to 80 pounds per square inch.

Expansion: The domestic water supply will be fed from an existing campus water main located north of the recreation center, off Linden Street. A central backflow prevention device will separate the domestic water service from fire protection service. The building water service will be provided from a water line extended into the building from the service connection to the building. A strainer, a secondary utility grade remote reading water meter matching UCR campus standards will be provided. The pool water and energy usage will be metered separately from the building system. Domestic water will be distributed to plumbing fixtures, hose bibs and water heaters via gravity and through the Campus water main residual pressure.

Water boilers will be provided and will possibly be located in a mechanical room by the swimming pool area (location not yet determined). This service will provide for all domestic hot water demands for the expansion. Domestic hot water will be distributed via gravity and through the Campus water main residual pressure.

Groups of fixtures on each floor will be provided with isolation valves with access panels for ease of maintenance. Each plumbing fixture will also be provided with individual polished chrome plated risers water supply connections with ferrule stops and metal nose pieces. Restroom fixtures shall be operated by a low flow energy standard automated flush valves and faucets. Water hammer arrestors will be provided in the wall, as required, behind an access panel. Trap primers with access panels for floor drains will also be provided.

All piping components subject to sweating or heat loss will be insulated with appropriate thickness of insulation and fire retardant jacket.
Domestic water use at building shall be metered/submetered as follows:

A. Main building
B. Irrigation
C. Pool

Pipe sizing is based on the requirement of The State of California 2007 edition of The Uniform Plumbing Code with amendments.
Pipe sizes are based on a maximum 3 pounds per square inch friction loss for copper pipe at maximum velocity of 8 feet per second and a predominantly flush valve type of system requiring a minimum residual pressure of 35 pounds per square inch.
Average minimum street pressure available at main is estimated to be at 45 to 80 pounds per square inch.

NATURAL GAS DISTRIBUTION

Renovation: Main building gas service will remain as is.

Expansion: Building gas service pressure is at 5 pounds per square inch. Maximum developed length of natural gas piping system from pressure regulator to the most remote equipment location is not to exceed 1000 feet. Total building natural gas load is not to exceed 2000 cubic feet per hour. Natural gas will be utilized for building domestic load and demand. Seismic shut-off valve(s) will be provided as required.

Natural Gas Meters/Submeters will be used for: A. Existing Building B. New Building C. Pool Systems

One option to consider for pool heating instead of natural gas would be Solar Heating and possibly utilize the new boilers for back-up. Solar heating panels can be located on the roof of the building. Actual square foot coverage needs to be determined based upon the volume of the pool.

SANITARY WASTE

Renovation: Main building soil/waste drainage piping will be provided to each domestic plumbing fixture (if any are added as part of renovation) and can tie into existing soil/waste if piping is adequate to handle capacity. Sanitary drainage ventilation piping will also be provided to each domestic plumbing fixture or trap and can tie into existing piping of adequate size.

Expansion: Soil/waste drainage piping will be provided to each domestic plumbing fixture. Sanitary drainage ventilation piping will be provided to each domestic plumbing fixture or trap and will terminate at various locations on the roof.

HVAC condensate drainage piping will be provided to each HVAC unit (if any are added as part of renovation). Such piping will drain to an indirect waste connection to the sanitary soil/waste system via either tailpiece connection at the nearest lavatory or sink, or a fixed air gap mounted within a stainless steel panel in wall. Roof air handler condensate shall drain to roof mounted floor sinks adjacent to air handlers. Floor sinks shall have elevated rims above roof level to prevent drainage of rainwater. Pipe sizing is based on the requirement of The State of California 2007 edition of The Uniform Plumbing Code with amendments. All piping shall be sloped at ¼ inch per foot slope except noted at 1/8 inch per foot to conform to the structure.

RAIN WATER DRAINAGE

Renovation: Storm drain service will remain as is.

Expansion: Storm drain service will discharge through roof drains and rainwater leaders connecting to the site storm drainage lines. The overflow drainage system will be connected to storm drain system as allowed by code and will not daylight at building overhangs or exterior walls to avoid outfalls to adjacent sidewalks, stairs and pedestrian pathways.
Pipe sizes are based on a maximum rainfall rate of 2 inches per hour. All piping shall be sloped at ¼ inch per foot slope except noted at 1/8 inch per foot to clear structure and ductwork.

APPLICABLE CODES:

- California Building Standards Administrative Code (Title 24, Part I), 2007
- California Building Code (Title 24, Part 2), 2007
- California Plumbing Code (Title 24, Part 5), 2007
- California Energy Code (Title 24, Part 6), 2007
- California Fire Code (Title 24, Part 9), 2007
- California Reference Standards Code (Title 24, Part 12), 2007

REFERENCE STANDARDS AND GUIDELINES:

NFPA 13: Installation of Sprinkler Systems, 2006 Edition
NFPA 14: Installation of Standpipe and Hose Systems
NFPA 24: Installation of Private Service Mains and Their Appurtenances

5.6 ELECTRICAL SYSTEMS

WORK INCLUDED:

The scope of work is to include lighting, power, fire and basic voice/data systems. The audiovisual system is to be designed by the architect-appointed contractor.

CODES AND STANDARDS:

Design, manufacture, testing and method of installation of an apparatus and materials furnished under requirements of these specifications shall conform to latest publications or standard rules of the following.

- Institute of Electrical and Electronic Engineers - IEEE
- National Electrical Manufacturers' Association - NEMA
- Underwriters' Laboratories - UL
- National Fire Protection Association - NFPA
- American Society for Testing and Materials - ASTM
- American National Standards Institute ANSI
- National Electrical Code - NEC
- National Electrical Safety Code - NESC
- Insulated Cable Engineers Association - ICLA
- American Institute of Steel Construction - AISC
- Occupational Safety and Health Administration (OSHA)
- Electronics Industries Association/Telecommunications Industry Association (EIA/TIA)
- California Electrical Code
- California Building Code - Title 24
- 2007 UCR Campus Design Guidelines

ELECTRICAL SERVICE AND DISTRIBUTION

A. Based on the preliminary load analysis performed, the total power required by the building expansion is approximately 600kVA. The main incoming power source will be derived via a 750kVA outdoor pad-mounted transformer that steps the existing 12kV campus loop line down to 480/277V, 3-phase; 4 wire, and feeds the main switchboard. A revenue meter will be installed ahead of the switchboard, as required. The aforementioned transformer will be located adjacent to the northeast end of the building expansion. A 15kV SF6 gas four-position selector switch, fed from the existing campus 12kV distribution system in manhole V-27, will be located adjacent to the building transformer. Two 12kV feeders will serve the switch for redundancy.

B. The main electrical room will be located at the northeast end of the first floor of the expansion. The room shall adequately ac commodate a main distribution switchboard rated at 1200A, 480/277V, 3-phase, 4-wire, branch-circuit panel boards, a battery inverter, and a single dry-type transformer rated at 300kVA, 480-208/120V.

C. Additional stacked electrical rooms will be located throughout building as required. The rooms will house branch-circuit panel boards for lighting, receptacle, and HVAC loads. Their exact sizes will be finalized in the design phases.

D. Panelboards rated at 480/277 volt, 3-phase, 4-wire served from the main switchboard will be provided to supply for lighting, elevator, HVAC, and motorized equipment 0.75 hp or more.

E. A single dry-type transformer rated at 300kVA, 480-208/120V will be used to supply 208/120-volt power to distribution panel boards. Distribution panel boards will be located in electrical rooms and closets throughout the building to accommodate

receptacles, small appliances, and fitness equipment.

F. All cables and wiring will be in conduits concealed at all public spaces and finished areas. Minimum conduit size will be ¾" except buried conduits will be minimum 1". Conduit types will be electric metallic, intermediate metallic, or rigid galvanized steel as required.

G. All cables will be copper with THWN/THHN 600V class insulation. Color-coding will be as stipulated by NEC.

H. All junction boxes will be recessed-mounted on finished areas and will be of the one-piece galvanized pressed steel knock-out type minimum 4" square.

I. All 120-volt duplex receptacles for general usage will be rated 20-ampere with ground connection.

J. Galvanized steel cover plates will be provided in all electrical, mechanical, and utility rooms. Plastic cover plates of proper color finish will be utilized for other areas.

K. All parts of the power distribution system will be provided with an equipment ground conductor. The grounding system will extend from the switchboard to the branch circuit load or device via ground conductor.

L. The grounding system will be established from a structural ground grid as follows:

1. A 4/0 AWG bare copper UFER ground will be installed below grade adjacent to the main electrical room. Steel columns and cold-water piping will be bonded to become part of the grounding system.
2. A copper ground bus will be located in the main electrical room. The main electrical room ground bus will be connected to the exterior ground loop and a separate insulated ground wire in conduit will be provided from the main electrical room ground bus to each floor electrical room ground bus.
3. A 4/0 AWG bare copper grounding electrode conductor will be extended to all telephone closets, so that those systems can be properly bonded,
4. A separate ground wire will be provided for all branch circuits and all feeders serving panel boards, distribution panel boards, motor control centers, and switchboards.

M. Meters and submeters will be used for:

1. Entire building addition
2. HVAC
3. Pool electrical

LIGHTING AND BRANCH WIRING

A. INTERIOR LIGHTING:

1. Lighting will be accomplished by a variety of fixture types. The most typical interior fixtures will be compact fluorescent down lights, suspended direct/indirect fluorescent fixtures, and linear fluorescent fixtures with solid state dimming ballasts.

2. All T5 and T8 fixtures will be provided with solid state dimming ballasts.

3. Industrial fluorescent fixtures will be provided in all mechanical, electrical, storage and other utility rooms.

4. Fluorescent lamps will be 48" long, T5 or T8, warm-white, energy saving type, rated at 28 or 32 Watts, respectively, and producing a minimum of 2,950 initial lumens.

5. Each task area will be designed with the following fixture types:

a. MAC: Dual high-bay fixtures equipped with HID lamps.
b. Multipurpose Rooms: Suspended linear direct/indirect fluorescent.
c. Weight/Fitness Areas: Suspended linear direct/indirect fluorescent.
d. Main Lobby and Lounge: Compact fluorescent downlights.
e. Control Counter: Compact fluorescent downlights.
f. Offices and Staff areas: Recessed linear direct/indirect fluorescent.
g. Locker rooms: Indirect linear fluorescent.

B. EXTERIOR LIGHTING:

1. Metal halide, high intensity discharge, LED, and/or fluorescent fixtures will be used to light the exterior facade of the new addition and existing building (the current exterior fixtures will be replaced). Exterior lighting fixtures will have internal shields for light spill control in conformance with LEED requirements. Lighting will be zoned and controlled by a programmable lighting control system per the latest Title 24 requirements. Some local overrides will also be provided.

2. High intensity discharge lamps will be the phosphor-coated, color connected type.

3. Fluorescent ballasts will be high-efficiency solid state, dimmable to 10%, instant start, high power factor, reduced harmonics, electronic type, UL listed class "P", certified by ETS/CBM, minimum power factor 95% with integral automatic reset thermal protector.

4. High intensity ballasts will be of the constant-wattage regulator type.

5. As stated above, LED fixtures are also being evaluated for possible use in the exterior areas of the building. Still a relatively new technology, they exhibit roughly the same luminous efficacy (lumens per watt) while having an installed cost of roughly 3x that of a comparable HID fixture. This cost can be offset over time, however, due to the fact that they are less maintenance-intensive than an HID or fluorescent fixture.

6. The design criteria will take into account the existing and new exterior fixtures in the Pathway, Parking Lot, and Recreation Mall areas to ensure aesthetic and functional consistency of the exterior lighting in the area around in the Student Recreation Center.

C. EMERGENCY LIGHTING:

1. An inverter is recommended to be located in the main electrical room and connected to the dedicated emergency section of the lighting control panel. It will be supplying the power for the code-required emergency illumination of the building expansion. It is also recommended that the inverter serving the existing Student Recreation Center be replaced to take advantage of the latest monitoring, alarm, programming and diagnostic features offered by new inverter systems. The size and type of both installations (existing SRC and building expansion) favor modern inverter systems over a traditional generator due to their lower installed cost and footprint, while avoiding issues inherent to generators like fuel storage, noise, air pollution, placement, and testing.

D. LIGHTING CONTROL SYSTEM:

1. All lighting switches will be minimum 20-ampere rated and of the quiet action type.

2. Occupancy sensors will be used for most interior fixtures when applicable. Multi-level switching along with automatic day lighting control will be implemented. Common area lighting will be zoned and controlled by a programmable lighting control system per the latest Title 24 requirements. Local overrides will also be provided.

3. All interior switching will comply with California Administrative Code, Title 24, Part 6.

4. Energy-efficient LED exit signs will be used.

5. Exterior lights will be controlled by the lighting control panel through the programmable lighting system.

6. Illumination foot-candle level will be as prescribed in the latest edition of the Illuminating Engineer's Society Handbook. The calculated level will be as measured at 30" above finished floor for all laboratories and classrooms.

7. Maintenance factor used for calculation and for test measurement purposes will be 0.85.

8. Coefficient of Utilization will be based on the actual room reflectance anticipated and the published test data for the selected light fixture.

E. Design criteria for the lighting power density (LPD) and illuminance of various spaces within the building expansion are shown in the table below:

Space	*LPD (W/ft²)*	*Avg. Illuminance (fc)*
MAC	1.0	75
Lobby	0.8	40
Fitness Rooms	1.0	50
Equipment Issue	0.5	20
Lounge	0.8	40
Wellness Center	0.8	40
Multi-purpose	1.0	50
Offices	0.8	40
Conference Rooms	1.2	60
Restroom / Locker Rooms	0.6	30
Custodial	0.5	20
Storage	0.5	20
Sidewalks & Walkways	-	3
Building Entrance	-	5
Driveways	-	1

Campus Design Guideline will be adhered to as well.

OTHER ELECTRICAL SYSTEMS

A. Fire Alarm and Detection System: A new microprocessor-based, multiplexed, addressable fire alarm system will be provided for the building expansion. The system will utilize individual addressable photoelectric smoke detectors, duct smoke detectors, heat detectors, strobe/horns, addressable manual pull stations, and addressable monitor and control modules. The system will monitor all sprinkler supervisory and water flow switches and will interface with elevators, HVAC smoke control, and smoke fire dampers. The fire alarm system shall be an extension of the existing Campus system and will meet current ADA requirements.

B. Mechanical Controls:
1. Motors and other appliances ½ hp and below will be served at 120 volt, single-phase; 0.75 hp and above will be at 480 volt, three-phase. Premium efficiency motors will be used.
2. Motors 25 hp and above will be provided with soft start solid-state starters.
3. Switchboards will be utilized to serve 3•phase motors and most HVAC systems.

LEED SILVER CERTIFICATION

The goal of achieving LEED Silver certification for the Student Recreation Center Expansion directly affects both the lighting control system design and the outdoor light fixture selections. All non-emergency interior lighting shall be automatically controlled to turn off during non-business hours. Photocells and occupancy sensors will work in conjunction with the digital time clock schedules to appropriately dim or turn off light fixtures in various building spaces as conditions dictate, thereby reducing the overall energy consumption of the building expansion. The outdoor lighting system will be designed to minimize exterior light trespass onto adjacent properties while using full-cutoff fixtures wherever possible to limit night-sky light pollution.

5.7 TELECOMMUNICATIONS DESIGN CRITERIA

CONNECTIONS TO THE INFRASTRUCTURE

Currently there are (2) 4" conduits that feed into the main Telecommunications Room (MDF) of the Student Recreation Center. One 100 pair outside plant copper cable feeds from the "Telecom Building" on campus and 50 pairs of that cable is non-functional. One Air Blown Fiber 7-Tube Cable with (1) 6-strand multimode fiber optic cable feeds from the "Corp Yard".

It is recommended that an additional 50 pair outside plant copper cable and one 18 strand single mode fiber optic Air Blown Fiber cable be provided to the MDF for this project. The additional outside plant copper and Air Blown Fiber would bring the existing Student Recreation Center up to the current University of California, Riverside "Computing and Communications Guidelines".

INTRA-BUILDING BACKBONE

The existing Student Recreation Center building will have one MDF, one IDF, and two consolidation points on the first floor. The new addition will be attached to the existing Student Recreation Center via a connection bridge and will have one IDF per floor and be stacked one above the other with (4) 4" conduits feeding back to the MDF. The existing Outdoor Excursion Building will be demolished for the expansion and relocated into the existing Student Recreation Center.

All of the structures will have conduits or cable trays in the attic areas to distribute the horizontal or station cables from the Telecommunications Rooms to the outlets. Any cable trays that are to be in high, open ceiling areas shall be the solid type.

Outlets will have double-gang extra deep metal boxes recessed in the walls equipped with a single-gang ring for the faceplate. A 1 ¼" conduit shall be run from the outlet box up the wall and into the accessible attic area a minimum of 6". Station cables will be supported by "J" hooks attached to the upper deck from the stubbed conduits to the cable tray at 5' minimum intervals. If the number of cables do not warrant cable tray, "J" hooks shall be used to distribute cables in above-ceiling areas.

TELECOMMUNICATIONS SPACES

Equipment in the Telecommunications Rooms will be rack mounted on a minimum of two 7'x19" equipment racks. Voice cables will be terminated on wall mounted 110 blocks and data cables on Category 6 48 port patch panels. All outside plant copper cables to be installed on stubbed or 110 style wall mount entrance protectors with all protector spaces populated with solid state protector modules Commscope part number 4C1S. The incoming Sumitomo Air Blown Fiber will be terminated on fiber termination units and will be distributed to other Telecommunications Rooms and data switches.

The Telecommunications Rooms will be equipped with a standalone HVAC system for 24 hours per day, 365 days a year climate control to protect active electronics. An individual electrical sub-panel for the room will provide for a minimum of four (4) dedicated 120 VAC, 20 amp duplex electrical outlets and 208 volt circuit for UPS system use.

Grounding and Bonding that complies with TIA/EIA 607 shall be designed using bus bars in each Telecommunications Room connected by a 3/0 insulated conductor back to the MDF and to the Main Building Ground of each building. All conduits, trays and other equipment shall be bonded to the bus bars using #6 AWG conductors.

It is recommended that the existing MDF and IDF in the existing Student Recreation Center be converted into dedicated Telecommunications Rooms that meet current BICSI TIA/EIA standards and the current University of California, Riverside "Computing and Communications Guidelines".

STRUCTURED CABLING SYSTEM

The horizontal or station cabling shall be a Category 6, UTP, 4-pair Structured Cabling System (SCS) that complies with TIA/EIA-568-B.2-10 requirements. Labeling of outlets, cables, faceplates, patch panels, and terminals shall comply with TIA/EIA 606 requirements. The current campus standard is a Systimax Category 6 solution.

TELECOM OUTLETS

The typical outlet will consist of one voice and two data ports. Each Administrative Office will have a minimum of two outlets. Classrooms will have four data ports at the instructor's station, one voice outlet for a wall mounted phone, and three data ports in the ceiling—one for projector use and two for wireless. Standard Conference Room outlets will have one voice and two data ports and one data in the ceiling for projector use. Conference/Instructional Stations will have two data ports at the instructor station, one voice outlet for a wall mounted phone, and one data port in the ceiling for projector use. The Cashier/Control Room Office locations will have one voice and three data ports per outlet location. In addition, courtesy wall phone outlets will be placed in hallways in several locations on each floor of the expansion. Two port data outlets will be placed strategically throughout the Student Recreation Center for wireless access points. Wireless access will also be designed for the pool area.

WIRELESS

Wireless access points will be positioned strategically throughout the Student Recreation Center. The access point body will be located above the ceiling grid, if possible. The two Category 6 data ports will be run from the nearest Telecommunications Room location for connection.

AUDIO/VISUAL

Conference Rooms and Classrooms will need to have a tie in from the instructor's station to the ceiling projector. A 2" conduit from the teaching station to the projector will be planned so the University Audio Visual Team and/or contractor can place the appropriate cables to the projector.

The new Fitness Weight Room, Mac Court, Lounge Areas and Lobby Entry will require a independent AV system design for sporting events, meetings, and events. The paging and/or intercom system, if required, will need to be tied to the Control Counter/Office. The Entry Lobby and Lounge Areas will have connections for possible flat panel displays. The audiovisual system is to be designed by the architect-appointed contractor.

SECURITY SYSTEM

CCTV cameras will be strategically located throughout the building and hardwired back to the appropriate Control Center/Office.

Door contacts, motion detectors, and alarm will be in a central panel.

Further coordination with appropriate University personnel is needed in order to develop an adequate security system for the expansion.

PUBLIC ADDRESS

There is currently no public address system in the existing Student Recreation Center. Further coordination with appropriate University personnel is needed in order to develop an appropriate PA system if the University is interested in providing such a system.

TELEVISION DISTRIBUTION SYSTEM

Charter Cable Television currently provides service to broadcast UCR sporting events only in the existing main Gym. Further coordination with appropriate University personnel will be needed if cable television is desired in areas of the existing and new addition of the Student Recreation Center.

5.8 SWIMMING POOL EXECUTIVE SUMMARY

The proposed Swimming Pool and Spa for the Student Recreation Center at the University of California, Riverside will be designed to meet the recreational needs of the students for the next fifty years. It is important to provide maximum flexibility for programming, which will be the key to maximum utilization.

The proposed Recreation Pool and Spa amenities and details are described in Section 2. The pools will be constructed of shotcrete (pneumatically applied wet mix concrete). The interior of the pool will be white marcite plaster with a tile finish or similar approved equal. The spa will have an all tile finish. All loose and deck equipment will be as required by the applicable health department regulations (i.e., grab rails, safety ropes and anchors, lifeguard chairs, stanchions, deck anchors, etc.) The filtration system will be a high rate pressure sand system. Miscellaneous deck, maintenance, and first aid equipment will be provided to meet the applicable Health Department Regulations.

The proposed swimming pool will meet the following performance standards:

Overhead lighting: Recreation Pool	=	50 foot candles
Water Temperature: Recreation Pool	=	84 - 86 degrees F.
Water Temperature: Spa	=	100 – 104 degrees F.
Filtration Turnover Rate: Recreation Pool	=	3.0 hours
Filtration Turnover Rate: Spa	=	0.5 hours
Free Chlorine Level	=	1.0 - 3.0 ppm
pH level	=	7.4 - 7.6

SWIMMING POOL PROGRAM

RECREATION POOL

The recreation pool will be approximately 6,000 sf. and is proposed to have the following amenities:

- Pool Depth – 3’-6” to 12’-6”
- Step Entry
- Six (6) Lap Lanes
    - o 25 yards
    - o 7’-0” lane widths
    - o Traditional lane markings
- Current Channel
- Vortex
- Bubble Bench
- One-meter Diving Board
- Water Basketball
- Water Volleyball
- Club Water Polo

Design of the new recreation pool will maximize areas for social places without influencing or compromising the lap lanes. The step entry into the pool will be located on the north side of the pool with the Bubble Bench on the east side, and the Vortex and Current Channel to be located on the west side of the pool. The pool will also be designed to accommodate the addition of a drop water slide in the deep end of the lap lanes adjacent to the diving board. The pool will allow for the diving board and water slide to be in use at the same time. The pool deck area will provide adequate space for the addition of a family water slide with a self contained run-out. A 12” deep full perim-

eter deck level gutter system will be provided for recirculation of the pool water. Equipment to be provided will include (not all inclusive): deck mounted water polo goals (2), basketball hoop, volleyball net, movable guard stands that are 42" tall, one handicap lift, maintenance equipment, and safety equipment.

SPA

The spa will be approximately 250 sf. and is proposed to provide the following amenities:

- Hydrotherapy jets will be located at the back and calf locations.
- A place for relaxation and therapy.
- Skimmers will be provided for the recirculation of the pool water.

SWIMMING POOL SYSTEMS AND EQUIPMENT

POOL CONSTRUCTION

Pool shell of pneumatically applied concrete (shotcrete) will be provided. An option to use alternative construction methods will be investigated at the direction of the client.

HYDROSTATIC RELIEF SYSTEMS

A means of stabilizing the pool shell when abnormal subsurface hydrostatic pressure occurs will be provided, which otherwise can cause the pool shell to float when the swimming pool is empty.

The design of a hydrostatic relief system is usually based upon the predictable levels of the subsurface water table. Because other developments can also create a hazardous situation when the pool is empty, it is important to understand these various dangers and to design a comprehensive system that will prevent destructive forces from developing. Various systems have been developed including automatic check valves, concrete ballast, dehydration systems, refilling systems and gravity drains. The primary issue, as in any preventative action task, is to understand the various kinds of hazard and damage that may occur.

Even a benign water table is not justification to dismiss the potential problem. An unnatural hydrostatic pressure condition can develop if a break occurs in a water pipe in either the fresh water system or the pool water system. This rapid introduction of water into the otherwise "dry" substrata can create an unstable condition for the pool shell. In the case of the fresh water line, the condition can go undetected for months in certain circumstances. For this reason the pool will feature some means of draining the substrata below the pool shell.

In addition to a conventional automatic hydrostatic relief mechanism(s), it is recommended that a sight well be provided in the pool deck, adjacent to filter room. Such a feature will allow the visual inspection of the water table under the pool and with a sight sump, dewatering can be conveniently executed.

POOL FINISH

The interior finish for the pool will be white marcite plaster with a glazed ceramic waterline tile. Specialty tile will be provided for the perimeter tile band, gutter nosing, wall targets, recessed steps, floor lane markings, depth markings, warning signs, and construction joint installation bands.

The interior of the spa will have an all tile finish.

DECK SIGNAGE

Depth markings and warning signs for the pool will be required by code in contrasting ceramic tile. Depth markings will be shown in standard and/or metric measurements. "NO DIVING" signs will be provided at all pool areas with a depth of water 6'-0" or less. Depth markers will be provided per code at not more than 25 ft intervals.

SYSTEMS CRITERIA

OVERFLOW RECIRCULATION SYSTEMS

In modern swimming pools, the purpose of the perimeter overflow system is to receive and capture water at the pool surface. This water is then transferred to the filter plant, either by direct suction connection, or through a surge tank, which helps stabilize the water displacement in the swimming pool. A surge tank will be required for the recreation pool utilizing a gutter system.

FILTRATION SYSTEMS

The filters will be high rate pressure sand filters operating at a flow rate of up to 15 GPM per square foot of filter area. While many manufacturers rate their system at 20 GPM/sq. ft., field experience has shown that the lower flow rate results in better water quality. The system will be designed to completely turn over the recreation pool water every 3 hours, and the spa every 15 minutes. Chemicals for sanitizing the water will be injected into the filtration system piping in the filter room.

Filter room and filter face piping will be PVC Schedule 80 piping used throughout the pool piping system (8 in. or smaller) because of its non corrosive quality; however, only molded fittings are recommended. All flanges will be reinforced with a steel ring molded into the flange to avoid cracking due to vibration. Heater piping to and from the main return line piping will be CPVC.

PUMPING EQUIPMENT

Horizontally mounted centrifugal pumps will be utilized for the pool recirculation and spa hydrotherapy pumps, and will be certified by the National Sanitation Foundation (NSF) and bear the certification mark. Pump casing will be cast iron fitted with a replaceable bronze case wear ring. Pump impeller will be enclosed type of cast bronze, statically and dynamically balanced, and trimmed for the specified design conditions. A hair and lint strainer will be provided for each pump constructed of fiberglass or epoxy coated stainless steel construction with a clear observation top. Pressure gauges will be installed on the discharge side of the pumps and compound gauges will be provided at the intake port of the pumps, after the hair and lint strainer.

PIPING SYSTEMS

All exposed piping in the filter room and surge tank, and all underground pool piping will be Schedule 80 PVC for strength and resistance to corrosion.

All valves will be identified in the filter room. Valves will be described as to their function and referenced in the operating instruction manual and wall mounted piping diagram to be prepared by the contractor.

The pool will utilize a combination of floor and wall inlets.

CHEMICAL TREATMENT SYSTEMS

Sodium hypochlorite will provide the primary chemical sanitizing for the pool, providing there is adequate access for weekly deliveries. The halogen requirement of the Swimming Pool and Spa will be automatically monitored and controlled by a Strantrol Impact chemical controller capable of monitoring 0 to 6 parts per million of chemical and showing Oxidation Reduction Potential (ORP) in addition to the two traditional readings of sanitizer and pH. Other methods will be investigated at the direction of the owner. Chemical feeders for the sodium hypochlorite will be diaphragm type pumps. A double walled bulk storage tank will be provided for the sodium hypochlorite. Chemical feed pumps will be furnished and connected to the filtered water return lines to the pool(s) as shown on the pool plans. The pumps will be capable of feeding a solution to the pool(s) to maintain chlorine level against the back pressure involved and will be fully adjustable while in operation.

Muriatic Acid will be provided as the pH Buffering System. Chemical feeders for muriatic acid will be diaphragm type pumps. A double walled bulk storage tank will be provided for the muriatic acid. Chemical feed pumps will be furnished and connected to the filtered water return lines to the pool(s) as shown on the pool plans. The pumps will be capable of feeding a solution to the pool(s) to maintain pH level against the back pressure involved and will be fully adjustable while in operation.

CO2 may also be used as a pH Buffering System and although not as prevalent its use will be investigated following an analysis of the source water. There may be a possibility that both systems will be utilized in tandem.

WATER CHEMISTRY MONITORING AND CONTROL SYSTEMS

A programmable chemical automation system will be furnished for the pool and spa for continuous monitoring of water chemistry (ORP/HRR, PPM, pH and Temperature), Langelier Saturation Index, and for automatic control of the chemical feeders, heater, and water level. Installation of the system will be as specified by the manufacturer. A factory-authorized representative will provide training to the owner and the training will be video taped per the specifications. Such a system will not only improve the water quality of the pool, but will also improve the overall environment of the natatorium because of the greater degree of chemical balance of the water. This can result in much less aggressive atmospheric conditions.

INSERTS AND ANCHOR SOCKETS

A. Anchors for grab rails and stair railings will be provided.
B. Anchors for backstroke stanchions and water polo goals will be provided.
C. Heavy-duty cup anchors for all floating lane lines will be provided.
D. Anchors for the volleyball net and basketball goals will be provided.
E. Anchors for deck-mounted water polo goals will be provided.

DECK EQUIPMENT

A. Grab rails and recessed steps for the pool will be provided as required. These will be provided by stainless steel grab-rails set in chrome plated bronze wedge anchors and escutcheons with set screws. Recessed steps in the pool wall will be provided.
B. Backstroke stanchions will be provided. The backstroke stanchions will be fitted with pennants and the recall stanchions with a rope.
C. Durafirm stand for an (1) 1-meter springboard will be provided with a 16' Maxiflex "B" Board.
D. Deck mounted water polo goals will be provided.
E. Lifeguard chairs to meet the minimum standards of state regulations will be provided in portable (wheeled) units that may be stored out of the way during periods when lifeguards are not required.
F. A surge tank access hatch will be furnished and installed over the surge tank. The access hatch will be a single door 2 ft.-6 in. x 2 ft.6 in. with 1 in. fillable pan to receive ceramic tile and grout or concrete deck fill. The frame will be 1/4 in. extruded aluminum with built in neoprene cushion and continuous anchor flange. Door will be ¼ in. aluminum plate reinforced with aluminum stiffeners as required.
G. Surge tank ladder rungs will be 1/2 in. Grade 60 steel encased with co-polymer polypropylene plastic.
H. Handicap lift(s) will be provided to meet ADA guidelines.

LOOSE EQUIPMENT

A. 4" diameter floating lane lines will be provided with an adequate number of storage reels.
B. Laneline storage reels will be fabricated from a heavy-duty aluminum reel joined together by a 1-1/2 inch aluminum axle. This unit must ride easily on four hard rubber wheels.
C. Pool covers will be provided with an adequate number of storage reels.

MAINTENANCE EQUIPMENT

A. Wall brush will be a flexible polyethylene material with five (5) rows of nylon bristles. Pool brush holder will be permanent mold cast aluminum with hydrofoil flap.
B. Skimming net head will consist of one-piece molded plastic frame with a reinforced, integral handle bracket suitable for quick attachment to a standard 1¼ or 1 ½ inch diameter handle using bolts and wing nut.
C. Adjustable telescopic and stainless steel poles to will be provided.
D. Testing kit to feature liquid reagents, color comparator, waterproof instructions and treatment charts, chemistry guide and watergram. Test kit to have the ability to test for free and total chlorine (0.5 – 5.0 ppm), bromine (1-10 ppm), pH (7.0 – 8.0), acid and base demand, total alkalinity, calcium hardness and cyanuric acid.
E. A vacuum cleaner will be provided with pump and strainer.
F. Stainless steel cleaner will be provided.

SAFETY EQUIPMENT

A. Ring buoys and extension ropes will be provided.
B. Life hook and an aluminum extension pole will be provided.
C. Spineboards will be provided with head immobilizer, head strap, body straps, side roll ups, adhesive strips and required staples.
D. A first aid kit will be a 24 unit kit per American Red Cross standards as manufactured by Swift First Aid, or equal.

E. Rescue tubes for each lifeguard chair will be provided.
F. A safety eye wash station will be a self-contained system in which eyewash bottles are securely positioned in a portable holder. Eye wash bottles will be 32 ounces and easily removable from case, and will contain a sterile, saline solution with the ability to neutralize a varying quantity acids or caustics.
G. A safety eyeglasses dispenser station containing ten (10) pairs of safety glasses will be provided.

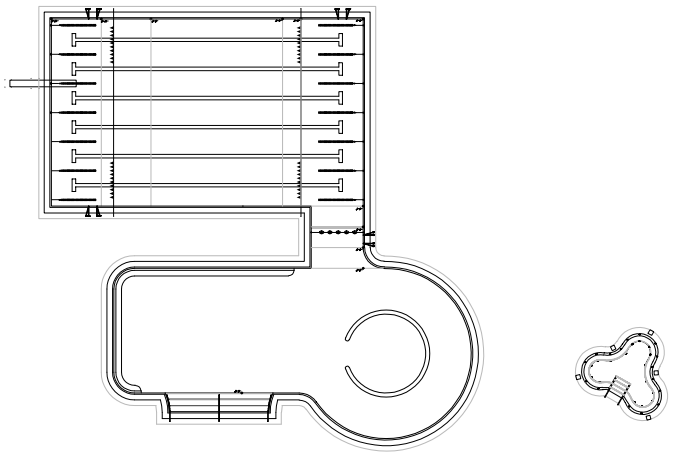
UNDERWATER LIGHTS

500 watt incandescent underwater pool lights will be specified for the recreation pool. 100 watt incandescent underwater spa lights will be specified for the spa. The recreation underwater lights will be substituted for 70 watt LED lights once they obtain NSF approval. The spa underwater lights will be substituted for LED lights once they are available in the spa size on the market and obtain NSF approval.

LEED CERTIFICATION

Pool covers, LED underwater lights, and variable frequency drives for each of the recirculation pumps provide viable energy conservation options for the pool system. The possibility of reusing the filter backwash water for landscaping or graywater for toilets is dependent on the mechanical engineer's recommendation. Solar heating could be explored as a supplemental heating source for the pool heaters. A sun study is recommended prior to this option being considered.

Below is a diagram of the pool layout:



6
Sustainability

6.0 SUSTAINABILITY APPROACH

Sustainable – or "green design" – seeks to reduce the consumption of non-renewable resources, minimize waste, and create healthy, productive environments. An integrated, holistic approach, sustainable strategies can be applied at every stage of the building life cycle, from initial site selection and building design through construction and operations. Sustainable design principles seek to:

- Optimize site potential
- Protect and conserve water
- Minimize non-renewable energy consumption
- Enhance indoor environmental quality
- Use environmentally preferable products
- Optimize operational and maintenance practices

The U.S. Green Building Council has utilized these principles to develop the Leadership in Energy and Environmental Design (LEEDTM) Rating System. LEED was created to define "green design", establishing a national standard of measurement that recognizes achievement in integrated, whole-building design practices by calculating performance points in five categories: sustainable sites; water efficiency; energy and atmosphere; materials and resources; and indoor environmental quality. A sixth category is meant to encourage innovation in green operations, maintenance, education or exemplary performance in the other five categories. Buildings are awarded points based on successfully meeting the criteria of credits within the six categories. Based on total points earned, a building can attain LEED certification at one of four levels. The first level, certified, requires 26-32 points. LEED silver requires 33-38 points, gold requires 39-51 points and Platinum requires 52-69 points.

LEED CREDITS PURSUED FOR THE STUDENT RECREATION CENTER EXPANSION AT UC RIVERSIDE

Considering UC-Riverside commitment to sustainable design principles, the building performance criteria presented for the Student Recreation Center Expansion has been developed to pursue LEED Silver Certification.

Based on a preliminary analysis and on the UC Riverside-Campus Green Building Baseline, the design team will implement the following Green Building Strategies:

- Secure bicycle storage and changing rooms will be provided.
- Preferred parking for alternative fuel vehicles and van pools.
- Paving material with Solar Reflectance Index (SRI) of at least 29.
- Roofing material will have with high solar reflectance to reduce the heat island effect.
- Reduction of light pollution to the night sky through appropriately designed and placed exterior light fixtures.
- High –Efficiency plumbing fixtures, low flow shower heads and waterless fixtures reduce potable water usage by 30%.
- Building System Commissioning verifies implementation and performance.
- Insulated, low-E coated glass reduces energy costs.
- Energy costs savings targeted at 20%-30% above prerequisite standard by optimizing system and envelope performance.
- Natural ventilation strategies will be investigated in select spaces to minimize cooling loads.
- No ozone-depleting CFC-based refrigerants.
- At least 75% of construction and demolition waste will be diverted from landfill streams.
- 10% of building materials will have recycled content.
- 10% of building materials will be purchased from regional sources within 500 miles of the project site.
- Wood-based products used in the project will be sourced from Forest Stewardship Council certified, sustainably managed forests.
- Responsible construction practices will be maintained in order to protect indoor air quality.
- Low VOC emitting materials such as carpet, paint, adhesives and composite wood will be used on the interior of the building.
- Natural Day-lighting will be throughout the building.
- 2-week building "flush-out" prior to occupancy to remove any chemical contaminants from construction.
- A green cleaning program and policy will be implemented.
- An education and outreach program will be documented to provide awareness of the LEED rating system and the green components of the building.

SUMMARY

36 points have been identified for inclusion in this project; with several others to be investigated during the design process (see checklist on next page). Some of the credits described in this synopsis were based on the UCR Campus Green Building Baseline Substantiation dated October 3, 2005.

WIND DIAGRAM

Climate and Wind Facts:

1. Prevailing winds come from the North-West.
2. The Santa Ana winds are strong, extremely dry, hot winds that sweep through late fall into winter.

LEED-NC

LEED-NC Version 2.2 Pre-Design Project Checklist

University of California, Riverside
Riverside, CA

Yes	?	No			
10	1	3	**Sustainable Sites**		**14** Points
Y			Prereq 1	**Construction Activity Pollution Prevention**	Required
1			Credit 1	**Site Selection**	1
1			Credit 2	**Development Density & Community Connectivity**	1
		1	Credit 3	**Brownfield Redevelopment**	1
1			Credit 4.1	**Alternative Transportation**, Public Transportation Access	1
1			Credit 4.2	**Alternative Transportation**, Bicycle Storage & Changing Rooms	1
1			Credit 4.3	**Alternative Transportation**, Low-Emitting and Fuel-Efficient Vehicles	1
1			Credit 4.4	**Alternative Transportation**, Parking Capacity	1
		1	Credit 5.1	**Site Development,** Protect or Restore Habitat	1
1			Credit 5.2	**Site Development,** Maximize Open Space	1
		1	Credit 6.1	**Stormwater Design,** Quantity Control	1
	1		Credit 6.2	**Stormwater Design,** Quality Control	1
1			Credit 7.1	**Heat Island Effect,** Non-Roof	1
1			Credit 7.2	**Heat Island Effect,** Roof	1
1			Credit 8	**Light Pollution Reduction**	1

Yes	?	No			
1	3	1	**Water Efficiency**		**5** Points
	1		Credit 1.1	**Water Efficient Landscaping**, Reduce by 50%	1
	1		Credit 1.2	**Water Efficient Landscaping**, No Potable Use or No Irrigation	1
		1	Credit 2	**Innovative Wastewater Technologies**	1
1			Credit 3.1	**Water Use Reduction**, 20% Reduction	1
	1		Credit 3.2	**Water Use Reduction**, 30% Reduction	1

Yes	?	No			
6	5		**Energy & Atmosphere**		**17** Points
Y			Prereq 1	**Fundamental Commissioning of the Building Energy Systems**	Required
Y			Prereq 2	**Minimum Energy Performance**	Required
Y			Prereq 3	**Fundamental Refrigerant Management**	Required
4	2		Credit 1	**Optimize Energy Performance**	1 to 10
	1		Credit 2	**On-Site Renewable Energy**	1 to 3
1			Credit 3	**Enhanced Commissioning**	1
1			Credit 4	**Enhanced Refrigerant Management**	1
	1		Credit 5	**Measurement & Verification**	1
	1		Credit 6	**Green Power**	1

continued…

Yes	?	No			
5	2	**6**	**Materials & Resources**		**13** Points
Y			Prereq 1	**Storage & Collection of Recyclables**	Required
		1	Credit 1.1	**Building Reuse**, Maintain 75% of Existing Walls, Floors & Roof	1
		1	Credit 1.2	**Building Reuse**, Maintain 100% of Existing Walls, Floors & Roof	1
		1	Credit 1.3	**Building Reuse**, Maintain 50% of Interior Non-Structural Elements	1
1			Credit 2.1	**Construction Waste Management**, Divert 50% from Disposal	1
1			Credit 2.2	**Construction Waste Management**, Divert 75% from Disposal	1
		1	Credit 3.1	**Materials Reuse**, 5%	1
		1	Credit 3.2	**Materials Reuse**,10%	1
1			Credit 4.1	**Recycled Content**, 10% (post-consumer + ½ pre-consumer)	1
	1		Credit 4.2	**Recycled Content**, 20% (post-consumer + ½ pre-consumer)	1
1			Credit 5.1	**Regional Materials**, 10% Extracted, Processed & Manufactured Regionally	1
	1		Credit 5.2	**Regional Materials**, 20% Extracted, Processed & Manufactured Regionally	1
		1	Credit 6	**Rapidly Renewable Materials**	1
1			Credit 7	**Certified Wood**	1

Yes	?	No			
11	2	**2**	**Indoor Environmental Quality**		**15** Points
Y			Prereq 1	**Minimum IAQ Performance**	Required
Y			Prereq 2	**Environmental Tobacco Smoke** (ETS) **Control**	Required
1			Credit 1	**Outdoor Air Delivery Monitoring**	1
1			Credit 2	**Increased Ventilation**	1
1			Credit 3.1	**Construction IAQ Management Plan**, During Construction	1
1			Credit 3.2	**Construction IAQ Management Plan**, Before Occupancy	1
1			Credit 4.1	**Low-Emitting Materials**, Adhesives & Sealants	1
1			Credit 4.2	**Low-Emitting Materials**, Paints & Coatings	1
1			Credit 4.3	**Low-Emitting Materials**, Carpet Systems	1
1			Credit 4.4	**Low-Emitting Materials**, Composite Wood & Agrifiber Products	1
1			Credit 5	**Indoor Chemical & Pollutant Source Control**	1
	1		Credit 6.1	**Controllability of Systems**, Lighting	1
		1	Credit 6.2	**Controllability of Systems**, Thermal Comfort	1
1			Credit 7.1	**Thermal Comfort**, Design	1
1			Credit 7.2	**Thermal Comfort**, Verification	1
	1		Credit 8.1	**Daylight & Views**, Daylight 75% of Spaces	1
		1	Credit 8.2	**Daylight & Views**, Views for 90% of Spaces	1

Yes	?	No			
3	2		**Innovation & Design Process**		**5** Points
1			Credit 1.1	**Innovation in Design**: Green Building Education/ Signage program	1
1			Credit 1.2	**Innovation in Design**: Green Housekeeping Products - "Green Seal" Rating	1
	1		Credit 1.3	**Innovation in Design**: Double Regional Materials (40%)	1
	1		Credit 1.4	**Innovation in Design**: Recycled Content (30%)	1
1			Credit 2	**LEED® Accredited Professional**	1

36	15	**12**	**Project Totals**	**(pre-certification estimates)**	**69** Points

Certified 26-32 points **Silver** 33-38 points **Gold** 39-51 points **Platinum** 52-69 points

7
Code Analysis

7.0 CODES AND REGULATIONS

The project will be designed and constructed in accordance with the current applicable laws, codes, and requirements of regulatory agencies having jurisdiction including the following:

- 2007 California Building Code (based on the 2006 International Building Code)
- 2007 California Electrical Code (Title 24, Part 2, based on the 2005 National Fire Code)
- 2007 California Mechanical Code (based on the 2006 Uniform Mechanical Code)
- 2007 California Plumbing Code (based on 2006 Uniform Plumbing Code)
- 2007 California Fire Code
- 2007 California Reference Standards Code
- 2007 California Energy Code
- California Occupational Safety and Health Act
- California Environmental Quality Act
- Requirements of the Regional Water Quality Board
- State and Local Health Departments
- Requirements of the State Fire Marshall
- California Elevator Safety Construction Code 2007
- Air Quality Management District Regulations
- ASHRAE Indoor Air Quality Standard 62-1989
- Titles 8, 19, and 24, California Code of Regulations (CCR) 1991
- ADA Act Title III, 1991
- NFPA 101 Life Safety Code
- ANSI A117.1 Providing Accessibility and Usability for Physically Handicapped people, 1986.
- ADA P.L. 101-336

CBC OCCUPANCY GROUP

The gymnasiums, the racquetball courts, the fitness/ weight room, the climbing and bouldering walls, and the jogging track will each be classified as type A-3 occupancy. The remainder of the building is classified as type B occupancy. The most stringent of these occupancy types is A-3, so this occupancy type will be used for the overall classification purposes for the building.

CONSTRUCTION TYPE

The type of construction is based on the occupancy classifications noted above and the program size of the building. The existing building is Type II-Fire Resistive. The addition to the existing building is 2,320 asf. This minimal increase in square footage will not exceed the maximum area allowed for the existing building. The new building will be Type I-A construction, which provides unlimited allowable floor area and building height, to accommodate future expansion. A fire separation will be required between the two construction types. The fire separation can be located where the new bridge meets the existing building.

If the location of the building is greater than 10 feet, but less than 30 feet away from other structures, the construction type will require one-hour rated exterior non-bearing walls, non-combustible and fire resistive interior walls, and 2-hour rated floors/floor-ceilings, and roof structure.

The Student Recreation Center Expansion will be fully fire sprinklered and have smoke detectors. This is not required but will allow for openings in interior walls between activity spaces and the lobbies or hallways.

7.1 OCCUPANCY LOAD

The occupant loads are per the International Building Code with variances based on the understanding that this facility is for student recreation. The variances require that the occupant load be posted and a letter from the University confirming that the occupancy will be limited as posted. The variances are listed below. They need to be approved by the University, then the Campus Fire Marshal and then subsequently the State Fire Marshall and have been used at similar building types within both the California State System and the University of California System.

- MAC gymnasium court occupancy negotiated at 150/court
- jogging track with a targeted occupant load of at 1/100 SF

The occupant loads are listed in the table attached at the end of this section.

University of California, Riverside
Student Recreation Center Expansion
Occupant Load

Occupancy Load Calculations

Number	Space	Model SF	Load Factor	Occupant Load
	Activity Zone			
3	*Gymnasium B - One Court MAC Gym, 84' long BB cour	8,404		150.0
4	Gymnasium B Storage	400		
5	* Elevated Jogging Track	5,280	100	52.8
6	Fitness / Weight Room	20,000	50	400.0
7	Fitness / Weight Room Storage	400	100	4.0
8	Fitness Coordinator's Office	110	100	1.1
9	Fitness / Weight Room Work / Repair Room	200		
16	Classroom	800	20	40.0
	Activity Zone ASF	**35,594**		
	Wellness Component			
28	Wellness Director's Office	110	100	1.1
29	Entry / Information Resource Area	150	100	1.5
30	Massage Therapy / Assessment 1	120	100	1.2
31	Massage Therapy / Assessment 2	120	100	1.2
32	Wellness Storage	100		
	Wellness Component Assignable Area (ASF	**600**		
	Administrative Office Suite			
33	Staff Office 1	110	100	1.1
34	Staff Office 2	110	100	1.1
35	Staff Office 3	110	100	1.1
36	Staff Office 4	110	100	1.1
37	Administrative Assistant	110	100	1.1
38	Student Employees' Work Room	200	100	2.0
39	Conference Room	600	20	30.0
40	Admistration Work Room	240	100	2.4
41	IT Server Room	100		
42	Administration Storage	100		
43	Recreation Sports Office	110	100	1.1
44	Recreation Sports Work Room	300	100	3.0
	Administration Office Suite Assign. Area (ASF	**2200**		
	Entry Zone			
45	Entry Lobby	2,000		
46	Juice Bar	500	200	2.5
47	Vending Area	100		
48	Control Counter	200	100	2.0
49	Control Office	110	100	1.1
50	Staff Office (Overnight Operations)	150	100	1.5
	Entry Zone Assignable Area (ASF)	**3,060**		
	Pool Zone			
59	Pool Filtration	1,000		
60	Pool Storage	800		
61	Aquatic Directors' Office	150	100	1.5
62	Lifeguards' Office	150	100	1.5
	Pool Zone Assignable Area (ASF)	**2,100**		
	Total Building Occupant Load			**707.0**

* The number shown in the occupant load column reflects a targeted occupant load.

7.2 FIXTURE COUNTS
PLUMBING FIXTURE COUNT

The calculation for the minimum number of plumbing fixtures is based on the occupant loads discussed above. These loads are applied to the fixture count calculations as outlined in Table 2902.1, Minimum Number of Required Plumbing Fixtures of the International Building Code.

The calculations are as follows:

Group B Occupancy (Administrative Office area, Wellness Suite, and Recreation Area with occupant load less than 50):

7,070 square feet /* 200 square feet per occupant = 36 occupants.
*Occupant Load Factor taken from CPC table A, as described on Chapter 4 of the 2007 California Plumbing Code.

Assume 18 males:
Water closets for males: 1 per each 150 males. 1 water closet required.
Urinals for males: 1 per each 150 males. 1 urinal required.
Lavatories for males: 1 per 2 water closets. 1 lavatory required.

Assume 18 females:
Water closets for females: 1 per each 75 females. 1 water closet required.
Lavatories for females: 1 per 2 water closets. 1 lavatory required.

Drinking Fountains: 1 per first 150 occupants. 1 for each 300 occupants thereafter: 1 required.

Group A3 Occupancy (Gymnasium, Jogging Tack, Fitness/ Weight Room):

The areas that are based on variances to the Building Code include the Gymnasium and the Jogging Track. The load for the 1-Court MAC Gymnasium is based on 1 court at 150 people per court. The total load is 150 occupants. The load for the Jogging Track is 53 Occupants. The total load for these activity areas is 203 occupants.

The Fitness/ Weight Room and the distributed cardiovascular spaces have a total square footage of 20,000 square feet:
20,000 square feet / *30 square feet per occupant = 667 occupants
203 occupants + 667 occupants = 870 occupants
*Occupant Load Factor taken from CPC table A, as described on Chapter 4 of the 2007 California Plumbing Code.

Assume 435 males:
Water closets for males: 1 per 150 males. 3 water closets required.
Urinals for males: 1 per 150 males. 3 urinals required.
Lavatories for males: 1 per 2 water closets. 2 lavatories required.

Assume 435 females:
Water closets for females: 1 per 75 females. 6 water closets required.
Lavatories for females: 1 per 2 water closets. 3 lavatories required.

Drinking fountains: 1 per first 150 occupants. 1 for each 300 occupants thereafter: 4 required

Total Required Fixtures (A3 + B Occupancy requirements)

Water Closets for Males: 4 required
Urinals for Males: 4 required
Lavatories for Males: 3 required

Water Closets for Females: 7 required
Lavatories for Females: 4 required

Where six or more stalls are provided within a multiple-accommodation toilet room, at least one shall be a standard side-transfer toilet stall, and at least one additional stall shall be 36 inches wide with an outward swinging self-closing door and parallel grab bars.

Drinking Fountains: 5 required

California Building Code Section 3115B provides the requirements for an aquatic facility. The occupant load and shower requirements are based on the square footage of pool water surface area. The proposed leisure pool has approximately 6,000 square feet of pool water. The occupant load is one bather per 15 square feet of pool water surface area. 6000/15 = 400 occupants. One shower shall be provided for every 50 occupants. 400/50 = 8 showers. Showers must be provided within 300 feet of the pool. There are additional water closet, urinal, and lavatory requirements based on the pool. However, the number of fixtures required falls within the number being provided for the recreation facility.

The fixture counts are listed in the table attached at the below:

UC Riverside
Student Recreation Center Expansion
Fixture Counts

Fixture Counts

Occupancy Type	Space	Program Area ASF
Group - B		
	Wellness Component	
	Wellness Director's Office	110
	Entry / Information Resource Area	150
	Massage Therapy / Assessment 1	120
	Massage Therapy / Assessment 2	120
	Wellness Storage	100
	Staff Office 1	110
	Staff Office 2	110
	Staff Office 3	110
	Staff Office 4	110
	Administrative Assistant	110
	Student Employees' Work Room	200
	Conference Room	600
	Admistration Work Room	240
	IT Server Room	100
	Administration Storage	100
	Recreation Sports Office	110
	Recreation Sports Work Room	300
	Classroom	800
	Entry Lobby	2,000
	Juice Bar	500
	Vending Area	100
	Control Counter	200
	Control Office	110
	Staff Office (Overnight Operations)	150
	Aquatic Directors' Office	150
	Lifeguards' Office	150
	Fitness Coordinator's Office	110
	Total Assignable Area Group B	7,070
Group - A3		
	Gymnasium B - One Court MAC Gym, 84' long BB court	
	Elevated Jogging Track	5,280
	Fitness / Weight Room	20,000
	Total Assignable Area Group A3	20,000

7.3 DISABLED ACCESS REQUIREMENTS

All portions of the building shall be made accessible to the physically challenged as prescribed in Title 24, and the Americans with Disabilities Act, Title III. These elements include, but are not limited to, accessible entrances and pathways, doorways, washroom facilities, toilets, and lockers.

An accessible path of travel should be provided from the parking lot and other approaches to the building from campus and the public way. All primary entrances to the building shall be made accessible to the disabled. This includes the type of lock or latch, type and location of hardware, door size and location, floor level, and size of threshold.

Passageways leading to sanitary facilities shall have clear access width as specified in the ADA. All doorways leading to such sanitary facilities shall be accessible and identified per ADA requirements.

Multiple accommodation toilet facilities shall be made to meet ADA requirements. Their layout should provide adequate wheelchair clearance and clear space at all fixtures. Grab bars should be provided and the compartment doors should be located and sized per the requirements. The washroom fixtures and equipment should be mounted at the recommended heights, and specified to meet ADA requirements. Accurate amounts of accessible urinals, water closets and lavatories are to be provided. Other equipment, including hot water and drain pipes, shall be protected as specified in the ADA. A disabled access shower should be provided in each locker room, including a fold down shower seat and grab bars. Lockers should also be provided to meet the needs of the physically disabled. Their size and location should allow easy access and a side bench should be provided.

EGRESS REQUIREMENTS

Occupant loads for each space were determined as described in the Occupant Load section above. The egress component widths in inches are determined by multiplying the occupant load by 0.2 for stairs and 0.15 for other egress components, per Table 1005.1 of the CBC. If the occupant load per each story falls between 1 and 500 occupants, a minimum of 2 exits per story are required per Table 1019.1. If the occupant load is between 501 and 1000 occupants, a minimum of 3 exits per story are required.

Travel distance in a sprinklered building is 250’ per CBC Table 1016.1. The corridors are not required to have an hourly rating in a sprinklered building. Dead ends in corridors may not exceed 20 feet. The required rating of exit stair enclosures is based on the construction type and is to be a minimum of 1 hour, per CBC Section 1019.1.

PARKING REQUIREMENTS

Accessible parking is to be provided per CBC Section 1129B. These parking spaces should be provided as near as practical to a primary entrance and shall be sized in accordance to Section 1129 and the American with Disabilities Act. An accessible path of travel should connect the parking lot to the entrance of the Recreation Center. The existing Recreation Center currently provides ADA parking and at this time, no new parking is being provided.

8

Budget and Cost Plan

CONCEPTUAL DESIGN COST PLAN

for

University of California Riverside
Student Recreation Center Expansion
Riverside, California

Cannon Design
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February 5, 2009

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BASIS OF COST PLAN

Cost Plan Prepared From	Dated	Received
Drawings issued for		
Architectural		
A101 (Existing building renovation and expansion), A102 (New building ground floor plan), A103 (New building sencond floor plan), Massing and site plan	01/05/09	01/05/09

Narratives from consultants
Room data sheets

Discussions with the Project Architect and Engineers

BASIS OF COST PLAN

Conditions of Construction

The pricing is based on the following general conditions of construction

A start date of April 2012

A construction period of 18 months

The general contract will be competitively bid with qualified general and main subcontractors

There will not be small business set aside requirements

The contractor will be required to pay prevailing wages

There are no phasing requirements

The general contractor will have full access to the site during normal business hours

LEED Silver building

INCLUSIONS

The project at the University of California Riverside campus consists of the construction of a new 53,843 gsf student recreation center building (with a further potential 12,577 gsf included as an alternate) connected to the existing recreation center by a pedestrian bridge. The existing student recreation center consists of a 8,035 gsf renovation of existing space and a 2,729 gsf expansion.

SUSTAINABLE DESIGN CONSIDERATIONS

Following up on recent discussions on the subject of accounting for sustainable design within the cost report, we have reviewed the project's pre design LEED checklist.

In this document, 36 LEED credits are listed in the "YES" column, positioning the project in the LEED Silver rated category.

Of these 36 credits, our only concern regarding cost was the certified wood credit MRc7. Our cost report contains rough and finish carpentry, wood doors and wood sports flooring and we believe it necessary to add an allowance of $150,000 to account for the need to access certified sources for some or all of these products.

Lastly, at 36 points the project appears to be on track to achieve the desired Silver rating with three credits to spare. We would recommend, however, that the design team aim for a larger "buffer" of five or six credits to improve the project's chances of obtaining the desired certification.

INCLUSIONS

BIDDING PROCESS - MARKET CONDITIONS

This document is based on the measurement and pricing of quantities wherever information is provided and/or reasonable assumptions for other work not covered in the drawings or specifications, as stated within this document. Unit rates have been obtained from historical records and/or discussion with contractors. The unit rates reflect current bid costs in the area. All unit rates relevant to subcontractor work include the subcontractors overhead and profit unless otherwise stated. The mark-ups cover the costs of field overhead, home office overhead and profit and range from 15% to 25% of the cost for a particular item of work.

Pricing reflects probable construction costs obtainable in the project locality on the date of this statement of probable costs. This estimate is a determination of fair market value for the construction of this project. It is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the construction work for all subcontractors and general contractors, with a minimum of 4 bidders for all items of subcontracted work. Experience indicates that a fewer number of bidders may result in higher bids, conversely an increased number of bidders may result in more competitive bids.

Since Davis Langdon has no control over the cost of labor, material, equipment, or over the contractor's method of determining prices, or over the competitive bidding or market conditions at the time of bid, the statement of probable construction cost is based on industry practice, professional experience and qualifications, and represents Davis Langdon's best judgment as professional construction consultant familiar with the construction industry. However, Davis Langdon cannot and does not guarantee that the proposals, bids, or the construction cost will not vary from opinions of probable cost prepared by them.

EXCLUSIONS

Owner supplied and installed furniture, fixtures and equipment

Loose furniture and equipment except as specifically identified

Security equipment and devices

Audio visual equipment

Hazardous material handling, disposal and abatement

Compression of schedule, premium or shift work, and restrictions on the contractor's working hours

Design, testing, inspection or construction management fees

Architectural and design fees

Scope change and post contract contingencies

Assessments, taxes, finance, legal and development charges

Environmental impact mitigation

Builder's risk, project wrap-up and other owner provided insurance program

Land and easement acquisition

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OVERALL SUMMARY

	Gross Floor Area	$ / SF	$x1,000
New Building	53,843 SF	413.80	22,280
Renovation/Expansion			
Epansion	2,729 SF		
Renovation	8,035 SF		
Total Renovation/Expansion	10,764 SF	379.42	4,084
TOTAL Building Construction	64,607 SF	408.07	26,364
Sitework			8,085
TOTAL Building & Sitework Construction	*April 2012*		*34,449*

Alternates

Alternate 1: One Court MAC Gym - 12,756 sf	4,095
Alternate 2: Pool backwash water as irrigation water source	74
Alternate 3: Solar panels on existing gymnasium roof	3,791

Please refer to the Inclusions and Exclusions sections of this report

University of California Riverside Student Recreation Center Expansion
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NEW BUILDING AREAS & CONTROL QUANTITIES

Areas

	SF	SF	SF
Enclosed Areas			
Level 1	32,586		
Level 2	21,257		
SUBTOTAL, Enclosed Area		53,843	
Covered area			
SUBTOTAL, Covered Area @ ½ Value			
TOTAL GROSS FLOOR AREA			53,843

Control Quantities

				Ratio to Gross Area
Number of stories (x1,000)		2	EA	0.037
Gross Area		53,843	SF	1.000
Enclosed Area		53,843	SF	1.000
Covered Area		0	SF	0.000
Footprint Area		32,586	SF	0.605
Volume		1,065,674	CF	19.792
Basement Volume		0	CF	0.000
Gross Wall Area		36,188	SF	0.672
Retaining Wall Area		0	SF	0.000
Finished Wall Area		36,188	SF	0.672
Windows or Glazing Area	30.00%	10,856	SF	0.202
Roof Area - Flat		32,586	SF	0.605
Roof Area - Sloping		0	SF	0.000
Roof Area - Total		32,586	SF	0.605
Roof Glazing Area		0	SF	0.000
Interior Partition Length		3,000	LF	0.056
Finished Area		53,843	SF	1.000
Elevators (x10,000)		1	EA	0.186
Plumbing Fixtures (x1,000)		80	EA	1.486

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NEW BUILDING COMPONENT SUMMARY

Gross Area: 53,843 SF

		$/SF	$x1,000
1. Foundations		10.34	557
2. Vertical Structure		10.43	562
3. Floor & Roof Structures		45.11	2,429
4. Exterior Cladding		48.34	2,603
5. Roofing, Waterproofing & Skylights		14.51	781
Shell (1-5)		128.73	6,931
6. Interior Partitions, Doors & Glazing		25.15	1,354
7. Floor, Wall & Ceiling Finishes		19.66	1,059
Interiors (6-7)		44.82	2,413
8. Function Equipment & Specialties		12.21	657
9. Stairs & Vertical Transportation		6.20	334
Equipment & Vertical Transportation (8-9)		18.41	991
10. Plumbing Systems		14.02	755
11. Heating, Ventilating & Air Conditioning		54.38	2,928
12. Electric Lighting, Power & Communications		37.62	2,026
13. Fire Protection Systems		7.62	410
Mechanical & Electrical (10-13)		113.65	6,119
Total Building Construction (1-13)		305.61	16,455
14. Site Preparation & Demolition		0.00	0
15. Site Paving, Structures & Landscaping		0.00	0
16. Utilities on Site		0.00	0
Total Site Construction (14-16)		0.00	0
TOTAL BUILDING & SITE (1-16)		305.61	16,455
General Conditions	10.00%	30.55	1,645
Contractor's Overhead & Profit or Fee	5.00%	16.81	905
PLANNED CONSTRUCTION COST	*February 2009*	352.97	19,005
Contingency for Development of Design	10.00%	35.29	1,900
Escalation	6.58%	25.54	1,375
RECOMMENDED BUDGET	*April 2012*	413.80	22,280

University of California Riverside Student Recreation Center Expansion
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Item Description	*Quantity*	*Unit*	*Rate*	*Total*
1. Foundations				
Reinforced concrete including excavation				
Standard reinforced concrete footings, allow	53,843	SF	10.00	538,430
Subsurface drainage				
Perimeter drainage system	727	LF	25.00	18,175
				556,605
2. Vertical Structure				
Columns and pilasters				
Structural steel columns and brace frames, allow	47	T	4,000.00	188,800
Shear bracing				
Steel structural steel brace frames	71	T	5,000.00	354,000
Fireproofing on steelwork				
Fireproofing	47	T	400.00	18,880
				561,680
3. Floor and Roof Structure				
Floor on grade				
Reinforced slab on grade including subbase and vapor barrier	32,586	SF	9.00	293,277
Suspended floors				
Structural steel framing, allow	93	T	4,000.00	372,000
Composite metal deck	21,257	SF	10.00	212,567
Allow for miscellaneous metals	53,843	SF	2.00	107,686
Flat roofs				
Structural steel framing, allow	143	T	4,000.00	572,000
Epicore metal deck with light weight concrete topping	32,586	SF	16.00	521,382

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Item Description	*Quantity*	*Unit*	*Rate*	*Total*
Fireproofing steelwork				
Fireproofing	236	T	400.00	94,400
Miscellaneous				
Miscellaneous metals, allow 1.25 lb/sf	34	T	6,000.00	201,911
Housekeeping pads and curbs	53,843	SF	0.25	13,461
Rough carpentry, backing and blocking	53,843	SF	0.75	40,382
				2,429,065

4. Exterior Cladding

Wall framing, furring and insulation				
Steel stud framing	25,332	SF	9.00	227,984
Densglass sheathing	25,332	SF	4.80	121,592
Batt insulation	25,332	SF	1.00	25,332
Applied exterior finishes				
Riverside brick blend	18,999	SF	30.00	569,961
Prefabricated cladding panels				
Waterproofing membrane	25,332	SF	2.00	50,663
Alucabond metal wall panel, allow	6,333	SF	50.00	316,645
Expansion joint connection at bridge	48	LF	200.00	9,600
Interior finish to exterior walls				
Gypsum board taped and sanded	6,333	SF	3.25	20,582
Expansion joint connection at bridge	48	LF	150.00	7,200
Windows and glazing				
Aluminum curtain wall, allow	10,856	SF	90.00	977,076
Exterior doors, frames and hardware				
Aluminum glazed doors, double	4	EA	8,000.00	32,000
Hollow metal doors, allow	6	EA	3,000.00	18,000
Fascias, bands, screens and trim etc.				
Allow for architectural detailing	36,188	SF	5.00	180,940

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Item Description	*Quantity*	*Unit*	*Rate*	*Total*
Balustrades, parapets and screens				
Allow for mechanical equipment screen with framing	600	SF	75.00	45,000
				2,602,575

5. Roofing, Waterproofing & Skylights

Roofing				
Insulated thermoplastic roofing	32,586	SF	15.00	488,795
Roofing upstands and sheetmetal				
Rough carpentry	32,586	SF	1.00	32,586
Allow for sheet metal flashing and coping	32,586	SF	1.00	32,586
Roof lights				
Gymnasium roof lights	2,100	SF	75.00	157,500
Roof access and ventilation				
Allow for roof hatches and ladders	1	LS	10,000.00	10,000
Allow for fall protection	1	LS	15,000.00	15,000
Caulking and sealants				
Allow for caulking and sealing	36,188	SF	0.50	18,094
Allow for firestopping	53,843	SF	0.50	26,921
				781,483

6. Interior Partitions, Doors & Glazing

Concrete, block or brick walls				
Extra over for CMU partitions, allow	3,500	SF	30.00	105,000
Partition framing and cores				
Impact resistant gypsum board partitions systems, allow	46,000	SF	15.00	690,000
Allow for blocking and backing	53,843	SF	1.00	53,843

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Item Description	*Quantity*	*Unit*	*Rate*	*Total*
Balustrades and rails				
Glass guardrails	631	LF	400.00	252,400
Window walls and borrowed lights				
Allow for glazed partitions, 5%	2,300	SF	60.00	138,000
Interior doors, frames and hardware				
Aluminum doors, double	4	EA	8,000.00	32,000
Wood doors, single	25	EA	1,800.00	45,000
Hollow metal doors, single	15	EA	1,200.00	18,000
Roll up/coiling doors	1	LS	10,000.00	10,000
Finished hardware - sets				
Allow for special hardware	1	LS	10,000.00	10,000
				1,354,243

7. Floor, Wall & Ceiling Finishes

Floors				
Rubber tile sports flooring	20,000	SF	10.00	200,000
Rubber track surface	4,676	SF	12.00	56,112
Carpet	2,970	SF	4.50	13,365
VCT	2,248	SF	3.25	7,306
Sealed concrete	2,200	SF	1.25	2,750
Terrazzo	2,000	SF	30.00	60,000
Quarry tile	500	SF	20.00	10,000
Ceramic tile, slip-resistant	2,634	SF	14.00	36,876
Allow for floor finishes to circulation spaces	16,615	SF	7.00	116,305
Bases or skirting, etc.				
Rubber base	1,947	LF	2.75	5,354
Rubber tile base, 18"	470	LF	8.50	3,995
Terrazzo base	150	LF	30.00	4,500
Quarry tile base	95	LF	20.00	1,900
Ceramic tile base	711	LF	15.00	10,665
Allow for base at circulation spaces	16,615	SF	0.75	12,461

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Item Description	*Quantity*	*Unit*	*Rate*	*Total*
Walls				
Paint	32,095	SF	1.25	40,119
Epoxy paint	5,136	SF	1.50	7,704
Ceramic tile	3,207	SF	16.00	51,312
Allow for wall finishes to circulation spaces	16,615	SF	3.00	49,845
Ceilings				
ACT	11,620	SF	4.50	52,290
Gypsum board ceiling, taped, sanded and painted, including framing	6,679	SF	20.00	133,580
Water resistant gypsum board ceilings, taped and sanded, with epoxy paint, including framing	2,521	SF	23.00	57,983
Plaster ceiling, including framing, epoxy painted	313	SF	30.00	9,390
Paint exposed structure	16,095	SF	2.50	40,238
Allow for ceiling finish to circulation spaces	16,615	SF	4.50	74,768
				1,058,817

8. Function Equipment & Specialties

Protective guards, barriers and bumpers				
Allow for corner and wall guards	53,843	SF	0.25	13,461
Prefabricated compartments and accessories				
Toilet partitions				
Standard	7	EA	1,000.00	7,000
ADA	5	EA	1,200.00	6,000
Urinal screens	2	EA	450.00	900
Shower partitions				
Standard	8	EA	850.00	6,800
ADA	3	EA	1,200.00	3,600
Stainless steel ADA grab bars	9	EA	350.00	3,150
Toilet paper dispensers	13	EA	150.00	1,950
Sanitary napkin dispenser / disposal	1	EA	350.00	350
Seat cover dispensers	13	EA	150.00	1,950
Paper towel dispensers, sensor type	8	EA	175.00	1,400
Soap dispensers	8	EA	75.00	600
Wall mounted trash receptacles	6	EA	350.00	2,100

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Item Description	*Quantity*	*Unit*	*Rate*	*Total*
Diaper changing stations	2	EA	400.00	800
Swim suit dryers	2	EA	600.00	1,200
Shower accessories	11	EA	250.00	2,750
Mirrors	1,367	SF	15.00	20,505
Shelving and millwork				
Fitness / Weight room control desk	1	LS	5,000.00	5,000
Juice Bar service counter	30	LF	200.00	6,000
Control Desk / counter	35	LF	500.00	17,500
Mailboxes / cubbies	1	LS	2,500.00	2,500
Storage shelving, full height	59	LF	350.00	20,650
Book shelves, full height	12	LF	250.00	3,000
Upper book shelves	94	LF	125.00	11,750
Locker base / continuous benches	114	LF	125.00	14,250
Janitor shelf and mop rack	2	EA	350.00	700
Cabinets and countertops				
Base island cabinet and countertop	18	LF	350.00	6,300
Work counter	110	LF	175.00	19,250
Storage cabinets, full height	11	LF	350.00	3,850
Base cabinet and countertops	40	SF	325.00	13,000
Upper cabinets	24	LF	225.00	5,400
Solid surface restroom lavatory countertops	40	LF	150.00	6,000
Locker room grooming counter, p-lam	26	LF	125.00	3,250
Certified wood products - premium	1	LS	150,000.00	150,000
Chalkboards, insignia and graphics, etc.				
Code and wayfinding signage	53,843	SF	0.25	13,461
Room identification signage	53,843	SF	0.50	26,921
White boards	140	SF	13.00	1,820
Bulletin boards	21	SF	8.00	168
Light and vision control				
Window blinds	1,025	SF	8.50	8,713
Projection screen, power operated	2	EA	4,000.00	8,000
Projector mounting brackets	2	EA	350.00	700
Amenities and convenience items				
Entrance mats & frames	132	SF	45.00	5,940

Item Description	*Quantity*	*Unit*	*Rate*	*Total*
Small metal lockers, allow for 12" x 15"	52	SF	125.00	6,500
Metal lockers, 12" x 30"	218	EA	150.00	32,700
Metal lockers, full height, 12" x 60"	25	EA	275.00	6,875
Fire extinguisher cabinets, allow 1 per 4,000 S.F.	17	EA	450.00	7,650
Special use equipment of all types				
Weight/fitness sound systems	1	LS	25,000.00	25,000
Turnstiles and gates at Entry Lobby	1	LS	150,000.00	150,000
				657,363

9. Stairs & Vertical Transportation

Staircase flights - floor to floor				
Architectural stairs with rails	3	EA	75,000.00	225,000
Ladders and fire escape				
Elevator pit ladder	1	LS	2,000.00	2,000
Roof access ladders	2	EA	3,500.00	7,000
Elevators				
Passenger elevator, 2 stop	1	LS	100,000.00	100,000
				334,000

10. Plumbing Systems

Sanitary fixtures and local connection pipework - low flow	80	EA	2,000.00	160,000
Sanitary waste, vent and service pipework				
Floor drains, sinks and roof receptors, local connection pipework, fittings and trap primer - allow	20	EA	3,000.00	60,000
Hose bibs, 3/4" - local connection cold water pipework - allow	4	EA	2,500.00	10,000
Rough-in sanitary fixtures, including waste, vent and domestic service pipework	80	EA	4,000.00	320,000
Condensate drainage, < = 2"	1	LS	15,000.00	15,000

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Item Description	*Quantity*	*Unit*	*Rate*	*Total*
Back flow prevention and reduced pressure valve sets - < = 4"	1	LS	15,500.00	15,500
Make-up	1	LS	7,500.00	7,500
Special equipment service and connections				
Laundry equipment, connections	1	LS	10,000.00	10,000
Water treatment, storage and circulation				
Gas-fire domestic hot water heating, storage type - including circulatory equipment	1	LS	12,500.00	12,500
Rainwater drainage system				
Roof and overflow drains, drain pipework, fittings, < =	32	EA	3,750.00	120,000
Natural gas				
Pipework, fittings, equipment connections, valves, specialties and seismic regulator	1	LS	45,500.00	45,500
DDT - MAC gym	(1)	LS	21,010.00	(21,010)
				754,990

11. Heating, Ventilation & Air Conditioning

Heat generation and chilling equipment				
Chillers, electric, centrifugal, water-cooled (300 SF/ton) - high efficiency type	250	Ton	500.00	125,000
Cooling towers, induced-draft, variable speed (non-HCFC)	250	Ton	250.00	62,500
Chemical water treatment	1	LS	17,500.00	17,500
Chilled water storage systems				
Thermal storage units	10,000	gal.	25.00	250,000
Heat exchanger	1	LS	25,000.00	25,000
Chemical treatment	1	LS	17,500.00	17,500
Circulatory pumps	2	EA	22,500.00	45,000
Associated pipework, fittings	1,000	t/hr	87.50	87,500
Controls	1	LS	35,000.00	35,000

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Item Description	*Quantity*	*Unit*	*Rate*	*Total*
Heating				
Natural gas-fired boilers, flue (roof-top) - @ 45 bth/SF	3,000	mbth	20.00	60,000
Chemical pot feeders	1	LS	10,000.00	10,000
Thermal expansion compensation and circulation				
Expansion tanks/air separators	1	LS	10,000.00	10,000
Pumps, energy efficient				
Condenser water, < 15 hp	2	EA	10,000.00	20,000
Chilled water, < 15 hp	2	EA	6,750.00	13,500
Heated hot water, < 10 hp	2	EA	3,750.00	7,500
Variable speed drive package	4	EA	4,500.00	18,000
Vibration isolation	6	EA	1,850.00	11,100
Piping, fittings, valves and insulation				
insulation, <= 6". Inclusive of outdoor preinsulated runs.	66,420	SF	7.50	498,150
Air handing equipment				
Air handling units, supply/return fans with VFD, cooling and heating, air filtered, vibration isolation (1	70,000	CFM	5.00	350,000
Fan coil units, chilled water - telecom rooms etc. 24/7 cooling	1	LS	25,000.00	25,000
Terminal boxes, with hot water reheat, VAV (1/1,200 SF)	55	EA	1,250.00	68,750
Air distribution and return				
Galvanized sheetmetal ductwork	60,000	LB	10.00	600,000
Flexible duct	1,250	LF	17.50	21,875
Dampers				
Fire/smoke (allow)	35	EA	1,500.00	52,500
Volume	250	EA	75.00	18,750
Insulation	40,000	SF	3.50	140,000
Diffusers, registers and grilles	66,420	SF	0.75	49,815
Controls and instrumentation				
Direct digital energy management system, including metering	66,420	SF	7.00	464,940

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Item Description	*Quantity*	*Unit*	*Rate*	*Total*
Test and balance air & water systems	500	HR	115.00	57,500
HVAC subcontractor representation to LEED commissioning crew	1	LS	35,000.00	35,000
Unit ventilation				
General exhaust	1	LS	25,000.00	25,000
DDT - MAC gym	(1)	LS	294,140.00	(294,140)
				2,928,240

12. Electrical Lighting, Power & Communication

Main service and distribution				
Including mains switchboard, metering, 480-120/208 V distribution equipment and feeders	750	kVA	375.00	281,250
Emergency power				
Emergency lighting inverter, 90 minutes - allow	15	KVA	2,500.00	37,500
Machine and equipment power				
Connections and switches, including conduit and cable				
Elevators connections	1	LS	17,500.00	17,500
Mechanical equipment				
< = 25 hp	25	EA	3,250.00	81,250
Miscellaneous connections, < 100 A - including security, power hardware, fire alarm, BMS and telephone/data equipment power, mecho shades connections, VAV, fire/smoke dampers, special equipment	1	LS	77,500.00	77,500
User convenience power				
Panelboard breakers, 120V, 225A	420	EA	110.00	46,200
Feeder conduit and cable	800	LF	35.00	28,000
Receptacles, including conduit and cable - general areas	66,420	SF	3.50	232,470

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Item Description	*Quantity*	*Unit*	*Rate*	*Total*
Lighting				
Panelboard breakers, 277V, 225A	210	EA	125.00	26,250
Feeder conduit and cable	500	LF	35.00	17,500
Light fixtures/switching - including conduit and cable	66,420	SF	8.00	531,360
Lighting and power specialties				
Grounding	1	LS	7,500.00	7,500
Lighting control, including lighting relay panels	2	EA	7,500.00	15,000
Daylight dimming	66,420	SF	1.50	99,630
Telephone and communications				
Telephone/data				
Telephone/data outlets, including conduit and	66,420	SF	4.00	265,680
Public address system - equipment, speakers, including conduit and cable	66,420	SF	1.00	66,420
Audio/visual - conduit only	1	LS	15,000.00	15,000
Alarm and security				
Fire alarm system	66,420	SF	4.00	265,680
Security				
Security equipment including CCTV, card access/intrusion detection	66,420	SF	2.50	166,050
DDT - MAC gym	(1)	LS	252,120.00	(252,120)
				2,025,620

13. Fire Protection Systems

Fire protection				
Automatic wet sprinkler system - complete with standpipes and fire hose valves	66,420	SF	7.00	464,940
Fire pump and jockey pump, electric				
DDT - MAC gym	(1)	LS	54,626.00	(54,626)
				410,314

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RENOVATION/EXPANSION AREAS & CONTROL QUANTITIES

Areas

	SF	SF	SF
Enclosed Areas			
Renovated area			
Level 1	8,035		
Expanded area			
Level 1	2,729		
SUBTOTAL, Enclosed Area		10,764	
Covered area			
SUBTOTAL, Covered Area @ ½ Value			
TOTAL GROSS FLOOR AREA			10,764

Control Quantities

				Ratio to Gross Area
Number of stories (x1,000)		2	EA	0.186
Gross Area		10,764	SF	1.000
Enclosed Area		10,764	SF	1.000
Covered Area		0	SF	0.000
Footprint Area		13,890	SF	1.290
Volume		694,500	CF	64.521
Basement Volume		0	CF	0.000
Gross Wall Area		5,720	SF	0.531
Retaining Wall Area		0	SF	0.000
Finished Wall Area		0	SF	0.000
Windows or Glazing Area	82.50%	4,719	SF	0.438
Roof Area - Flat		2,729	SF	0.254
Roof Area - Sloping		0	SF	0.000
Roof Area - Total		2,729	SF	0.254
Roof Glazing Area		0	SF	0.000
Interior Partition Length		316	LF	0.029
Finished Area		10,764	SF	1.000
Elevators (x10,000)		1	EA	0.929
Plumbing Fixtures (x1,000)		0	EA	0.000
Electrical Load		0	KW	0.000

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RENOVATION/EXPANSION COMPONENT SUMMARY

Gross Area: 10,764 SF

		$/SF	$x1,000
1. Foundations		3.49	38
2. Vertical Structure		7.43	80
3. Floor & Roof Structures		11.63	125
4. Exterior Cladding		58.04	625
5. Roofing, Waterproofing & Skylights		5.86	63
Shell (1-5)		86.45	931
6. Interior Partitions, Doors & Glazing		28.48	307
7. Floor, Wall & Ceiling Finishes		17.84	192
Interiors (6-7)		46.31	499
8. Function Equipment & Specialties		33.66	362
9. Stairs & Vertical Transportation		11.80	127
Equipment & Vertical Transportation (8-9)		45.46	489
10. Plumbing Systems		12.50	135
11. Heating, Ventilating & Air Conditioning		35.00	377
12. Electric Lighting, Power & Communications		32.50	350
13. Fire Protection Systems		5.50	59
Mechanical & Electrical (10-13)		85.50	920
Total Building Construction (1-13)		263.72	2,839
14. Site Preparation & Demolition		16.47	177
15. Site Paving, Structures & Landscaping		0.00	0
16. Utilities on Site		0.00	0
Total Site Construction (14-16)		16.47	177
TOTAL BUILDING & SITE (1-16)		280.20	3,016
General Conditions	10.00%	28.06	302
Contractor's Overhead & Profit or Fee	5.00%	15.42	166
PLANNED CONSTRUCTION COST	*February 2009*	323.67	3,484
Contingency for Development of Design	10.00%	32.33	348
Escalation	6.58%	23.41	252
RECOMMENDED BUDGET	*April 2012*	379.42	4,084

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Item Description	*Quantity*	*Unit*	*Rate*	*Total*
1. Foundations				
Reinforced concrete including excavation				
Standard reinforced concrete footings, allow	2,729	SF	10.00	27,290
Allow for connection to existing	225	LF	30.00	6,750
Subsurface drainage				
Perimeter drainage system	141	LF	25.00	3,525
				37,565
2. Vertical Structure				
Columns and pilasters				
Structural steel columns, allow	2	T	4,000.00	9,600
Shear bracing				
Steel structural steel framing	4	T	5,000.00	18,000
Allow for structural strengthening of existing building	1	LS	50,000.00	50,000
Fireproofing on steelwork				
Fire proofing	6	T	400.00	2,400
				80,000
3. Floor and Roof Structure				
Floor on grade				
Reinforced slab on grade including subbase	2,729	SF	9.00	24,561
Allow for connection to existing	224	LF	40.00	8,960

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Item Description	*Quantity*	*Unit*	*Rate*	*Total*
Flat roofs				
Structural steel framing, allow	12	T	4,000.00	48,000
Epicore metal deck with light weight concrete topping	2,729	SF	16.00	43,664
				125,185

4. Exterior Cladding

Wall framing, furring and insulation				
Steel stud framing	1,573	SF	9.00	14,157
Densglass sheathing	1,573	SF	4.80	7,550
Batt insulation	1,573	SF	1.00	1,573
Applied exterior finishes				
Riverside brick blend	1,180	SF	30.00	35,393
Prefabricated cladding panels				
Waterproofing membrane	393	SF	2.00	787
Alucabond metal wall panel, allow	1,573	SF	50.00	78,650
Allow for connection to existing	166	LF	50.00	8,300
Interior finish to exterior walls				
Gypsum board taped and sanded	1,573	SF	3.25	5,112
Windows and glazing				
Aluminum curtain wall	4,719	SF	90.00	424,710
Exterior doors, frames and hardware				
Aluminum glazed doors, double	2	EA	8,000.00	16,000
Allow for special hardware	1	LS	1,000.00	1,000
Fascias, bands, screens and trim etc.				
Allow for architectural detailing	6,292	SF	5.00	31,460
				624,692

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Item Description	*Quantity*	*Unit*	*Rate*	*Total*
5. Roofing, Waterproofing & Skylights				
Roofing				
Insulated thermoplastic roofing	2,729	SF	15.00	40,935
Allow for connection to existing	224	LF	50.00	11,200
Roofing upstands and sheetmetal				
Allow for sheet metal flashing and coping	2,729	SF	1.00	2,729
Caulking and sealants				
Allow for caulking and sealing	5,720	SF	0.50	2,860
Allow for fireproofing	10,764	SF	0.50	5,382
				63,106
6. Interior Partitions, Doors & Glazing				
Partition framing and cores				
Impact resistant gypsum board partitions systems	11,840	SF	15.00	177,600
Window walls and borrowed lights				
Allow for glazed partitions, 5%	592	SF	60.00	35,520
Interior doors, frames and hardware				
Aluminum glazed doors, double allow	10	EA	8,000.00	80,000
Hollow metal doors, single allow	7	EA	1,200.00	8,400
Finished hardware - sets				
Allow for special hardware	1	LS	5,000.00	5,000
				306,520

Item Description	*Quantity*	*Unit*	*Rate*	*Total*
7. Floor, Wall & Ceiling Finishes				
Floors				
Resilient maple wood flooring	4,933	SF	14.00	69,062
Carpet	1,422	SF	4.50	6,399
VCT	900	SF	3.25	2,925
Sealed concrete	1,295	SF	1.25	1,619
Synthetic cushioned flooring	600	SF	15.00	9,000
Allow for floor finishes to circulation spaces	1,614	SF	7.00	11,298
Bases or skirting, etc.				
Rubber base	671	LF	2.75	1,845
Ventilated rubber base	537	LF	3.00	1,611
Allow for base at circulation spaces	1,614	SF	0.75	1,211
Walls				
Paint	20,049	SF	1.25	25,061
Allow for wall finishes to circulation spaces	1,614	SF	3.00	4,842
Ceilings				
ACT	3,979	SF	4.50	17,906
Gypsum board ceiling, taped, sanded and painted, including framing	1,350	SF	20.00	27,000
Exposed structure, painted	3,315	SF	1.50	4,973
Allow for ceiling finish to circulation spaces	1,614	SF	4.50	7,263
				192,014
8. Function Equipment & Specialties				
Protective guards, barriers and bumpers				
Allow for corner and wall guards	8,035	SF	0.25	2,009
Prefabricated compartments and accessories				
Mirrors	1,710	SF	25.00	42,750
Shelving and millwork				
Rock climbing registration desk	1	LS	5,000.00	5,000

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Item Description	*Quantity*	*Unit*	*Rate*	*Total*
Equipment rental/check-out counter	15	LF	175.00	2,625
Storage shelving, full height	283	LF	350.00	99,050
Bench with storage cubicles	52	LF	175.00	9,100
Book shelves, full height	8	LF	250.00	2,000
Chalkboards, insignia and graphics, etc.				
Code and wayfinding signage	8,035	SF	0.65	5,223
Room identification signage	8,035	SF	0.75	6,026
Bulletin boards	30	SF	8.00	240
Light and vision control				
Window blinds	792	SF	8.50	6,732
Projection screen, power operated	1	EA	4,000.00	4,000
Projector mounting brackets	1	EA	350.00	350
Amenities and convenience items				
Coat hooks	60	EA	10.00	600
Fire extinguisher cabinets, allow 1 per 4,000 S.F.	2	EA	450.00	900
Special use equipment of all types				
Dance bar, wall mounted	135	LF	10.00	1,350
Special use equipment of all types				
Challenge course	2,325	SF	75.00	174,375
				362,330

9. Stairs & Vertical Transportation

Staircase flights - floor to floor				
Metal pan stairs with concrete fill including rails	1	LS	25,000.00	25,000

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Item Description	*Quantity*	*Unit*	*Rate*	*Total*
Ladders and fire escape				
Elevator pit ladder	1	LS	2,000.00	2,000
Elevators				
Passenger elevator	1	LS	100,000.00	100,000
				127,000
10. Plumbing Systems				
Including sanitary fixtures, floor drainage, domestic hot water heating, roof drainage upgrades and gas	10,764	SF	12.50	134,550
				134,550
11. Heating, Ventilation & Air Conditioning				
Including removal and replacement of hydronic pipework network, air handling equipment, zoned controls, air distribution and return and exhaust ventilation	10,764	SF	35.00	376,740
				376,740
12. Electrical Lighting, Power & Communication				
Including removal and replacement of machine, equipment and user convenience power , lighting, telephone/data, fire alarm and security systems	10,764	SF	32.50	349,830
				349,830

University of California Riverside Student Recreation Center Expansion — *Conceptual Design Cost Plan*
Renovation/Expansion — *February 5, 2009*
Riverside, California — *0272-7686.110*

Item Description	*Quantity*	*Unit*	*Rate*	*Total*
13. Fire Protection Systems				
Fire protection				
Reconfigure (E) sprinklers systems	10,764	SF	5.50	59,202
				59,202
14. Site Preparation & Building Demolition				
Cutting and drilling				
Sawcutting existing wall	166	LF	15.00	2,490
Saw cut suspending slab	107	LF	20.00	2,140
Selective demolition and removal				
Exterior wall demolition	9,420	SF	5.00	47,100
Interior demo	11,591	SF	10.00	115,910
Demo existing suspended slab	483	SF	20.00	9,660
				177,300

University of California Riverside Student Recreation Center Expansion — *Conceptual Design Cost Plan*
Section 5 Title — *February 5, 2009*
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SECTION 5 TITLE AREAS & CONTROL QUANTITIES

Areas

	SF	SF	SF
Sitework Area	208,000		
SUBTOTAL, Enclosed Area		208,000	
Covered area			
SUBTOTAL, Covered Area @ ½ Value			
TOTAL GROSS FLOOR AREA			208,000

University of California Riverside Student Recreation Center Expansion — *Conceptual Design Cost Plan*
Sitework — *February 5, 2009*
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SITEWORK COMPONENT SUMMARY

		Gross Area: 208,000 SF $/SF	$x1,000
14. Site Preparation & Demolition		2.98	620
15. Site Paving, Structures & Landscaping		22.34	4,647
16. Utilities on Site		3.38	704
TOTAL BUILDING & SITE (1-16)		28.71	5,971
General Conditions	10.00%	2.87	597
Contractor's Overhead & Profit or Fee	5.00%	1.58	328
PLANNED CONSTRUCTION COST	*February 2009*	33.15	6,896
Contingency for Development of Design	10.00%	3.32	690
Escalation	6.58%	2.40	499
RECOMMENDED BUDGET	*April 2012*	38.87	8,085

University of California Riverside Student Recreation Center Expansion — *Conceptual Design Cost Plan*
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Item Description	*Quantity*	*Unit*	*Rate*	*Total*
14. Site Preparation & Building Demolition				
Demolition of buildings and structures				
Earthwork	7,640	CY	20.00	152,800
Site protective construction				
Allow for erosion control	208,000	SF	0.50	104,000
Site clearing and grading				
Site demo and clearing	208,000	SF	1.50	312,000
Cutting and drilling				
Allow for saw cutting	1	LS	10,000.00	10,000
Selective demolition and removal				
Allow for miscellaneous demo and removal	208,000	SF	0.20	41,600
				620,400
15. Site Paving, Structures & Landscaping				
Improvements to Linden Street				
Remove existing sidewalk and planting	8,400	SF	3.00	25,200
New concrete sidewalk, 4" thick	2,400	SF	7.00	16,800
New concrete gutter	600	LF	15.00	9,000
Raised concrete pavers at crosswalks	594	SF	20.00	11,880
Soft scape redevelopment	6,000	SF	7.30	43,800
Patch existing asphalt	1,800	SF	4.50	8,100
Pedestrian paving				
Pedestrian paving, 4" thick	22,500	SF	7.00	157,500
Paving to building perimeter	4,500	SF	7.00	31,500
Games or sports surfaces				
Replace tennis courts cleared during demolition				
Concrete slab on grade	48,100	SF	7.00	336,700
Sports court surface	48,100	SF	5.00	240,500
Equipment	6	EA	1,000.00	6,000

University of California Riverside Student Recreation Center Expansion — *Conceptual Design Cost Plan*
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Item Description	*Quantity*	*Unit*	*Rate*	*Total*
Chain link fence, allow for 10' tall	1,045	LF	26.00	27,170
Gates	2	EA	750.00	1,500
Fabric windscreen at perimeter, allow for 10' tall	10,450	SF	1.75	18,288
Court lighting on pole	6	EA	15,000.00	90,000
Outdoor benches, allow	6	EA	1,000.00	6,000
Drinking fountain, allow	1	EA	5,000.00	5,000
Storage shed	150	SF	250.00	37,500
Structures and water features, etc.				
Swimming pool and hottub	9,300	SF	200.00	1,860,000
Pool deck	17,244	SF	10.00	172,440
Allow for curbs and site walls	178,480	SF	1.00	178,480
Bridge				
Bridge structure and enclosure	97	LF	7,500.00	727,500
Plumbing	1,903	SF	4.50	8,564
HVAC	1,903	SF	17.50	33,303
Electrical	1,903	SF	15.00	28,545
Sprinklers	1,903	SF	5.00	9,515
Site drainage				
Underground pipework, fittings, trenching, < 12"	1,000	LF	75.00	75,000
Area drains and catch basins	6	EA	2,500.00	15,000
Manholes	2	EA	10,000.00	20,000
Site lighting (including pool)	1	LS	150,000.00	150,000
Pool power, including metering, 277 V	1	LS	27,500.00	27,500
Landscape planting and maintenance				
Soft scape, allow	22,500	SF	7.30	164,250
Irrigation				
Irrigation	22,500	SF	1.75	39,375
Fencing and miscellaneous accessories				
Site benches, fencing, bollards, and accessories	178,480	SF	0.25	44,620
Site signage	1	LS	20,000.00	20,000
				4,646,529

University of California Riverside Student Recreation Center Expansion — *Conceptual Design Cost Plan*
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Item Description	*Quantity*	*Unit*	*Rate*	*Total*
16. Utilities on Site				
Mechanical				
Domestic and fire water				
Underground pipework, fittings, < 8"	1,280	LF	87.50	112,000
Metering	1	EA	12,500.00	12,500
Valves and specialties	1	LS	30,000.00	30,000
Fire hydrants	2	EA	10,000.00	20,000
Connection to existing	2	EA	4,000.00	8,000
Pool improvements - plumbing connections, including pipework, fittings, valves, specialties, < = 6" (separately metered)	1	LS	87,500.00	87,500
Solar pool heating	1	LS	47,500.00	47,500
Sewer				
Underground pipework, fittings, < 8"	300	LF	100.00	30,000
Manhole	1	EA	10,000.00	10,000
Connection to existing	1	EA	4,500.00	4,500
Natural gas				
Underground pipework, fittings, < 4"	600	LF	70.00	42,000
Metering	1	EA	8,750.00	8,750
Valves and specialties	1	LS	12,500.00	12,500
Connection to existing	1	EA	3,500.00	3,500
Electrical				
Main power				
Pad-mounted transformer, 12 kV-480/277V	750	kVA	70.00	52,500
4-position selector switch	1	LS	37,500.00	37,500
Underground feeder, concrete encased - 12 kV with 1-4"CO spare (allow)	200	LF	450.00	90,000
Secondary feeders, 1200A, concrete encased				
Telecommunications/signals	1	LS	45,000.00	45,000

University of California Riverside Student Recreation Center Expansion — *Conceptual Design Cost Plan*
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Item Description	*Quantity*	*Unit*	*Rate*	*Total*
Trade demolition and specialties				
Trade demolition, relocation and protection of existing Utilities	1	LS	50,000.00	50,000
				703,750

University of California Riverside Student Recreation Center Expansion
Alternates
Riverside, California

Conceptual Design Cost Plan
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	Quantity	*Unit*	*Rate*	*Total*
Alternate 1: One Court MAC Gym - 12,756 sf				
Add				
Reinforced concrete including excavation				
Standard reinforced concrete footings, allow	12,756	SF	10.00	127,560
Subsurface drainage				
Perimeter drainage system	162	LF	25.00	4,050
Columns and pilasters				
Structural steel columns, allow	11	T	4,000.00	43,200
Shear bracing				
Structural steel shear bracing, allow	16	T	5,000.00	81,000
Floor on grade				
Reinforced slab on grade including subbase	12,756	SF	9.00	114,804
Flat roofs				
Structural steel trusses, allow	52	T	5,000.00	260,000
Epicore metal deck with light weight concrete topping	12,756	SF	16.00	204,096
Wall framing, furring and insulation				
Steel stud framing	4,165	SF	9.00	37,485
Denseglass sheathing	4,165	SF	4.80	19,992
Batt insulation	4,165	SF	1.00	4,165
Applied exterior finishes				
Riverside brick blend	3,124	SF	30.00	93,713
Prefabricated cladding panels				
Waterproofing membrane	4,165	SF	2.00	8,330
Alucabond metal wall panel, allow	1,041	SF	50.00	52,063
Interior finish to exterior walls				
Gypsum board taped and sanded	6,976	SF	3.25	22,672
CMU 8" - honed finish	8,089	SF	30.00	242,670

University of California Riverside Student Recreation Center Expansion — *Conceptual Design Cost Plan*
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	Quantity	*Unit*	*Rate*	*Total*
Windows and glazing				
Aluminum curtain wall, allow	3,142	SF	90.00	282,780
Exterior doors, frames and hardware				
Aluminum glazed doors, double	2	EA	8,000.00	16,000
Hollow metal doors, allow	6	EA	3,000.00	18,000
Fascias, bands, screens and trim etc.				
Allow for architectural detailing	7,307	SF	5.00	36,535
Insulation				
Rigid insulation	12,756	SF	4.00	51,024
Roofing				
Insulated thermoplastic roofing	12,756	SF	15.00	191,340
Roofing upstands and sheetmetal				
Rough carpentry	12,756	SF	1.00	12,756
Allow for sheet metal flashing and coping	12,756	SF	1.00	12,756
Caulking and sealants				
Allow for caulking and sealing	7,307	SF	0.50	3,654
Allow for firestopping	12,756	SF	0.50	6,378
Floors				
Resilient maple wood flooring	8,320	SF	14.00	116,480
Rubber tile sports flooring	500	SF	12.00	6,000
Sealed concrete	400	SF	1.00	400
Bases or skirting, etc.				
Ventilated rubber base	368	LF	3.00	1,104
Rubber base	220	LF	2.50	550
Walls				
Paint	13,680	SF	1.25	17,100
Acoustic wall fabric, Tectum	4,416	SF	10.00	44,160
Ceilings				
Exposed structure, painted	9,220	SF	2.00	18,440

University of California Riverside Student Recreation Center Expansion
Alternates
Riverside, California

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	Quantity	*Unit*	*Rate*	*Total*
Special use equipment of all types				
Power operated retractable basketball hoops with glass backboards	2	EA	8,000.00	16,000
Scoreboards with control center	2	EA	8,000.00	16,000
Volleyball floor plates and standards, per court	2	EA	2,000.00	4,000
Badminton floor plates and standards, per court	3	EA	2,000.00	6,000
Fixed bleachers / bench seating	74	LF	27.50	2,035
MEP costs associated with the MAC gymnasium				
Plumbing	12,756	SF	2.50	31,890
HVAC	12,756	SF	35.00	446,460
Electrical	12,756	SF	30.00	382,680
Sprinklers	12,756	SF	6.50	82,914
Deduct				
Landscaping	12,756	SF	(9.00)	(114,804)
Markups	35.41	%	3,024,430.50	1,070,906
				4,095,337

Alternate 2: Pool backwash water as irrigation water source

Add				
Backwash containment, treatment and recirculation including pipework and fittings	10,000	Gals	5.50	55,000
Markups	35.41	%	55,000.00	19,475
				74,475

University of California Riverside Student Recreation Center Expansion — *Conceptual Design Cost Plan*
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	Quantity	*Unit*	*Rate*	*Total*
Alternate 3: Solar panels on existing gymnasium roof				
Add				
Photovoltaic panels	28,000	SF	100.00	2,800,000
Markups	35.41	%	2,800,000.00	991,439
				3,791,439

9
Schedule

9.0 Schedule

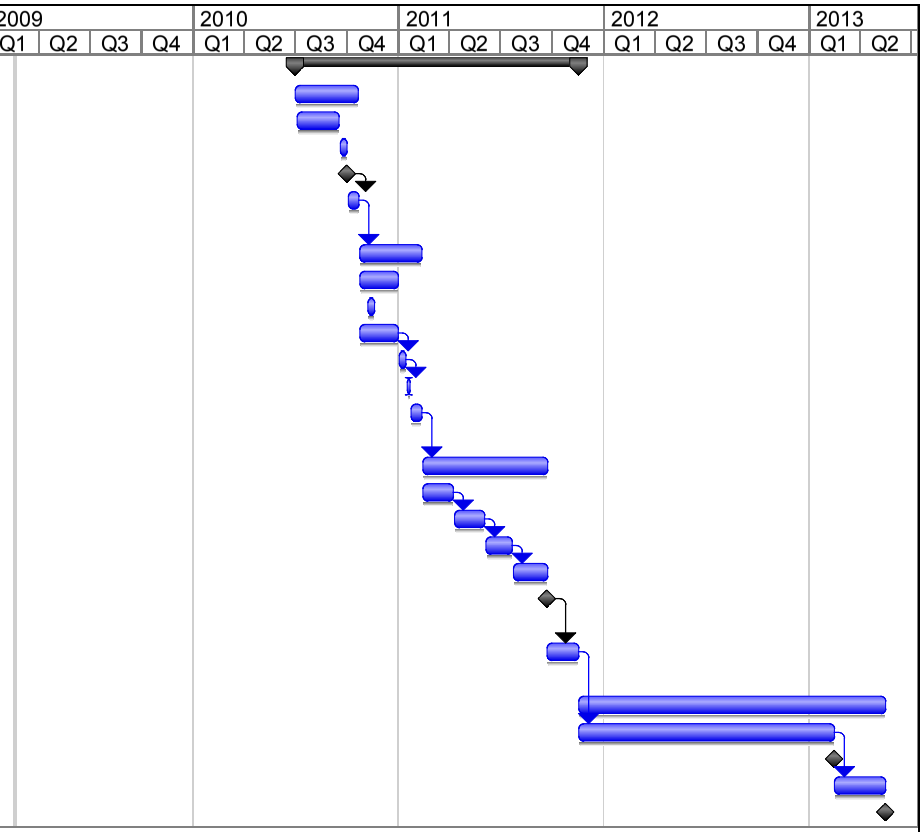
9.0 SCHEDULE

There are substantial milestones that need to be met during the expansion of the Recreation Center. With the assumptions of the student referendum passing on Spring 2010 and that the project delivery method will be Construction Manager at Risk, we have developed the following milestones:

- Schematic Design Phase 16 weeks
- Design Development Phase 16 weeks
- Construction Documents Phase 32 weeks
- Bidding/ Award Contract 8 weeks
- Construction would have duration of 78 weeks from mobilization/demolition to Substantial Completion.

The duration of these milestones are tentative and is to be confirmed jointly by the Construction Manager at Risk and the University.

ID	Task Name	Duration
1	**Project SCHEDULE**	**72 wks**
2	Schematic Design	16 wks
3	Preparation of Schematic Design Deliverables	11 wks
4	Cost Model	2 wks
5	P-phase Deliverables to UCR	0 wks
6	P-phase review & approvals & Revisions	3 wks
7		
8	Design Development	16 wks
9	Developmet of Site plan, Floor Plans, RCP, Elevations, Building Sections	10 wks
10	Preliminary Plan Reviews:AHJ, SFM, County Health	2 wks
11	Development of Structural MEP & Building Systems	10 wks
12	Probable Cost Estimate	2 wks
13	DD presentations/Approvals by Campus	1 wk
14	Design Development Revisions	3 wks
15		
16	Construction Documents Phase	32 wks
17	50% Working Drawings	8 wks
18	95% Working Drawings	8 wks
19	Bid Documents	7 wks
20	Plan Check Submittal Review/Approvals & Corrections	9 wks
21	Plan Check Sign-off	0 wks
22		
23	Bidding / Award of Contract	8 wks
24		
25	**Construction Activities**	**78 wks**
26	Phase 1-New Construction	65 wks
27	Phase 1-New Construction Complete	0 wks
28	Phase 2- Construction Remodel	13 wks
29	Phase 2- Construction Complete	0 wks



Project: UCR-New-Schedule-02.17.09
Date: Tue 2/17/09

Task
Progress
Milestone
Summary
Rolled Up Task
Rolled Up Milestone
Rolled Up Progress
Split
External Tasks
Project Summary
Group By Summary
Deadline

Page 1

10
Building Evaluation Summary

BUILDING EVALUATION SUMMARY

10 INTRODUCTION

BUILDING EVALUATION INTRODUCTION

The contents of this Report are the findings and conclusions for the programming and planning of an expansion to the existing Student Recreation Center. It is thus critical that an evaluation of the existing building is included in the Report to assess the current layout and condition of the existing building.

The existing Student Recreation Center was opened in early 1994 and contains 86,140 GSF of space. Linden Street is on the north side of the building and Aberdeen Drive is on the east side of the building. There is a small parking lot on the west side of the building. The south side of the building is an east-west pedestrian and emergency vehicle access walkway that is accessed mainly from Aberdeen Drive but can also be accessed if necessary from the Parking Lot on the west side of the building. There is an outdoor Recreation complex to the south of this walkway that includes a small Outdoor Excursions facility, 10 tennis courts, a roller hockey court, 2 basketball courts, and 2 sand volleyball courts. A service road along the east side of the building from the main east-west walkway on the south side provides service access to the mechanical, electrical and trash spaces. To the east of the service road are an outdoor Challenge Course and a small Climbing Wall.

The building has two entries into it. The day-to-day Entry and Lobby for the Recreation Center is located on the southwest corner of the facility and an Entry and Lobby that can be used for events that take place in the main Gymnasium space in the building is located on the southeastern side of the building. When there is an event in the Gymnasium, the Events Lobby, the Gym, two Multi-purpose Rooms, and portions of the existing Locker Rooms can be closed off from the rest of the Recreation Center so that recreation uses can continue when there is an event in the Gym. The Gym is used for athletic events such as intercollegiate basketball and volleyball games, and for other events such as speakers, concerts, and commencement exercises.

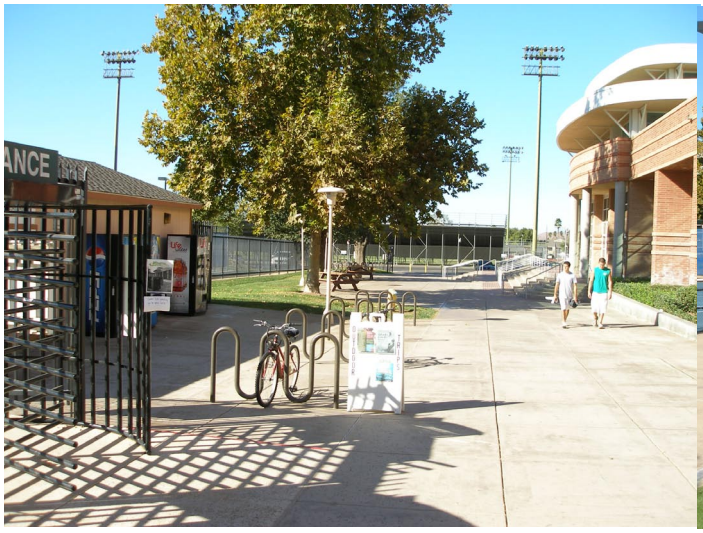
The First Floor of the existing building has the main Entry and Lobby for the building at it's southwest corner. As the existing Recreation Center is a one point of entry facility for security purposes, a series of turnstiles and gates are located just within the main Entry Lobby along with a security counter. This counter is also used to check out recreation equipment to be used in the facility. Other spaces on the west side of the First Floor are an Administration Suite, an Equipment Storage Room and Laundry, the Fitness/Weight Room, and one large Multi-purpose Room, and on the other side of a north-south double-height circulation corridor, four Racquetball Courts and one Squash Court. These Courts are positioned seven feet below the elevation of the First Floor of the building to compensate for their higher ceiling height requirement than the other First Floor spaces. This creates a stepped seating / viewing area along the west side of the Racquetball and Squash Courts. These lowered courts are accessible to the disabled through a lift. The size of the Fitness / Weight Room at approximately 6,600 ASF is too small for the current UC Riverside student population even with cardio-vascular equipment situated along the sides and the north end of the main circulation corridor. The south side of the building contains Offices, a Conference Room, and the Locker Rooms that are arranged on the north side of an east west circulation corridor along the south side of the building. This circulation corridor also links the two building Lobbies for the facility, the main Entry Lobby and the Events Lobby. Along the east side of the Events Lobby are public restrooms for events, a training / first aid space, and a ticket office. A large portion of the First Floor is taken up with by the Gym that is a three basketball court Gym that also contains two banks of retractable bleachers on the west side (one bank on the First Floor and one bank at a Second Floor Gym) and one bank of retractable bleachers on the east side that in total provide bleacher seating for approximately 3,300 spectators. The north side of the existing building has two medium-sized Multi-purpose Rooms along with a small Lobby with additional public restrooms for events that take place in the Gym.

The Second Floor of the building contains a one-court Gymnasium on its west side that has retractable bleachers on it as described in the previous paragraph. The Second Floor Gym is accessed from a stairway just opposite the main check-in counter, and also by a stair and elevator at the north side of the events Entry Lobby.

EXISTING SITE CONDITIONS

1. Existing Recreation Center
2. Challenge Course
3. Outdoor Recreation Building
4. Outdoor Recreation Complex
5. Track Stadium

BUILDING EVALUATION SUMMARY



View West Towards Existing Field

View North Towards Existing Recreation Center

10.0 EXISTING LANDSCAPE EVALUATION

The landscaping and hardscape development of the existing Student Recreation Center site includes walkways, stairs and ramps connecting the building entry to the onsite parking along the west perimeter of the site, and includes a major walkway promenade running east to west providing access through the site from Aberdeen Drive on the east and to the future Recreation Mall and the Track Stadium on the west. Open general use turf, tennis courts, sand volleyball, and a roller hockey rink occupy the site to the south. A Challenge Course and outdoor adventure installation is east of the Center between the building and the Aberdeen Drive/Linden Street intersection at the northeast corner of the site. The Linden Street frontage of the existing Center is a heavily landscape "back of house" with no direct connection or entry from the street. A minimally developed pedestrian crossing exists on Linden Street at the parking lot entry point on the west side of the building where a significant amount of student traffic occurs from the student housing north of the site into the greater campus area.

The hardscape vocabulary for the site includes integral color concrete paving and campus standard salmon brick veneered low walls. Natural color concrete seat bleachers line east and west sides of the tennis courts south of the building, with decomposed granite walkways around some of the courts. A measured perimeter jogging track of decomposed granite completely encircles the field area south of the building. Black painted ornamental iron fencing encloses the tennis courts and other recreational amenities with a controlled, gated

View North Towards Existing Ramp Entrance

access point across from the Student Recreation Center lobby.

Existing landscaping includes extensive expanses of turf, both for casual recreation use and as fill in groundcover. Some shrub planting occurs in foundation planting beds immediately adjacent to the Student Recreation Center building, with fairly extensive tree planting including Ash trees, London Plane Trees, and Liquidambars. Planting mounds adjoining the bleacher seating at the tennis courts include water conserving plantings of Oaks and low water use ground covers. In general the older planting around the building is of high water use turf and other varieties and does not reflect current trends to water conserving design. The exiting landscaping appears to be in good condition and well maintained and therefore it can be assumed the landscape support infrastructure including irrigation system and sub-surface drainage is adequate and functioning.

A specific problem to be addressed in the landscape concerns pedestrian access from the student housing to the north and pedestrian safety along the narrow and relatively high speed vehicular traffic corridor of Linden Street along the north side of the site. A goal of the design should be to improve pedestrian safety along Linden to promote more positive pedestrian accessibility to the site from the housing areas to the north. Concepts to be considered should include development of a sidewalk on the north side of Linden, traffic calming measures such as enriched pavement cross walks, and the possibility of changing the “back of house” character of the site and landscape development on the north side of the Student Recreation Center into a more open and welcoming expression that will alert drivers of the likely concentration of pedestrians expected at such a well used Campus facility.

View West Towards Existing Field

View East at Linden St. and Florida St.

BUILDING EVALUATION SUMMARY

10.1 EXISTING CIVIL

UTILITIES EVALUATION SUMMARY

Bechard Long and Associates, Inc. conducted a Utility Infrastructure Study for the June, 2002 East Campus Infrastructure Detailed Project Program (DPP). The utilities, including domestic water, fire protection water, sanitary sewer, gas, and storm drain systems, were considered to be in good condition.

EXISTING DOMESTIC WATER

A 6-inch service line with a 3-inch meter and backflow preventer connects from the north side of the existing building to the 6-inch water line in Linden Street. The 2002 DPP states that the peak domestic water demand is 49.3 gallons per minute (gpm).

A 6-inch water line connects to the 6-inch main in Linden and serves irrigation needs for the Track. There is a 6-inch reduced pressure backflow preventer at the end of this line, approximately 60 feet from the 6-inch main in Linden. The line is located between the existing Student Recreation Center and the Track.

The 6-inch water line in Linden is part of UC Riverside's water system that serves Campus domestic, irrigation, and fire water needs. It is fed by a City of Riverside reservoir located southeast of University Avenue and Interstate 215/60

EXISTING FIRE PROTECTION

A 6-inch line connects from the north side of the building to the 6-inch water line on Linden Street. A 4-inch fire department connection (FDC) is located near the northwest corner of the building near Linden Street. The fire service line evidently provides the necessary 3,000 GPM of fire flow for the existing building. There is also an 8-inch line that connects three fire hydrants to the 6-inch main on Linden Street. This 8-inch line runs south from the main to a hydrant at the northwest corner, continues south along the building to a hydrant on the southwest corner, then east towards Aberdeen Drive, and serves a third hydrant near the southeast corner near Aberdeen Drive. The 1992 as-built plans show a detector check, FDC, and PIV. The exact locations should be field verified.

EXISTING SANITARY SEWER

A 6-inch sanitary sewer currently serves the Student Recreation Center. It connects to the 8-inch sewer line owned and maintained by the University in the south side of Linden Street. This 8-inch sewer line later feeds into the City of Riverside's 15-inch line in Canyon Crest Drive. Sewer lines and loads will change as we move forward and should be revisited during the design phase.

EXISTING GRADING AND STORM DRAINAGE

A 12-inch drain carries storm water collected from the existing Student Recreation Center site southward along the tennis courts to a 27-inch drain. This 27-inch drain flows south into a 39-inch main, and then east into the City of Riverside's Gage Detention Basin. The detention basin currently acts as the storm water quality control device. The detention basin later feeds west into a City of Riverside open channel. With the current roof area of 30,500 SF, the peak flow for five minutes of a 100-year storm event is 1,118 GPM or 2.49 CFS.

PROPOSED GRADING AND STORM DRAINAGE

The new construction area is proposed south of the existing Student Recreation Center building. The existing hardscape in this area includes 10 tennis courts, a roller-hockey rink, a multi purpose court, and two basketball courts. Surface flow goes into catch basins and is conveyed to the 12-inch storm drain mentioned above. Although the pool and new building will be constructed over some existing turf, there will be new turf space after the relocation of the tennis courts. The net hardscape and landscape areas would be approximately the same after construction.

Roof drains from the new building and surface drainage from the pool and relocated tennis courts can be conveyed to the existing 12-inch storm drain.

EXISTING NATURAL GAS

According to the East Campus Infrastructure DPP, a 1-inch service line connects the building to a 4-inch SCG line. The location of this connection and line should be field verified.

10.2 EXISTING ARCHITECTURAL

A description of the site of the existing Student Recreation Center and the current layout of the First and Second Floors of the building is in the Introduction to this section of the Report.

The short comings of the building spaces are either they are too small for the current and future needs for campus recreation or that spaces are unavailable for general recreation use during certain times during the school year. The size of the Fitness Weight Room is much too small and the building expansion should contain a space that is at least twice the size of the current room. The total of three Multi-purpose Rooms in the existing building is not enough to accommodate the demands for Group Fitness spaces and thus additional Multi-purpose Rooms are necessary. The Gyms are not only used for recreation purposes but are used for athletic events such as inter-collegiate basketball and volleyball games, and for other events such as speakers, concerts, and commencement exercises. When these events are happening in the Gyms, there are no Gym spaces available for general recreational uses in the existing building. Also two of the existing Multi-purpose Rooms and portions of both of the existing Locker Rooms are used when there are events in the Gyms. This is the main reason why there is need for additional Gym space in the expansion to the Student Recreation Center.

The high mass of the Gym space (approximately 60 feet in height) is masked by the fact that both Linden Street and Aberdeen Road are at a higher elevation than the Recreation Center site, and by the placement of the one-story program elements on the west and south sides of the Gym (approximately 20 feet in height). The building site does rise from the west to the east, so the main Entry and Lobby at the southwest corner of the building are placed on a raised podium in order to provide a consistent First Floor elevation for the building. The podium is at the top of a series of broad stairs and there is also a ramp for disabled access on the north side of the podium.

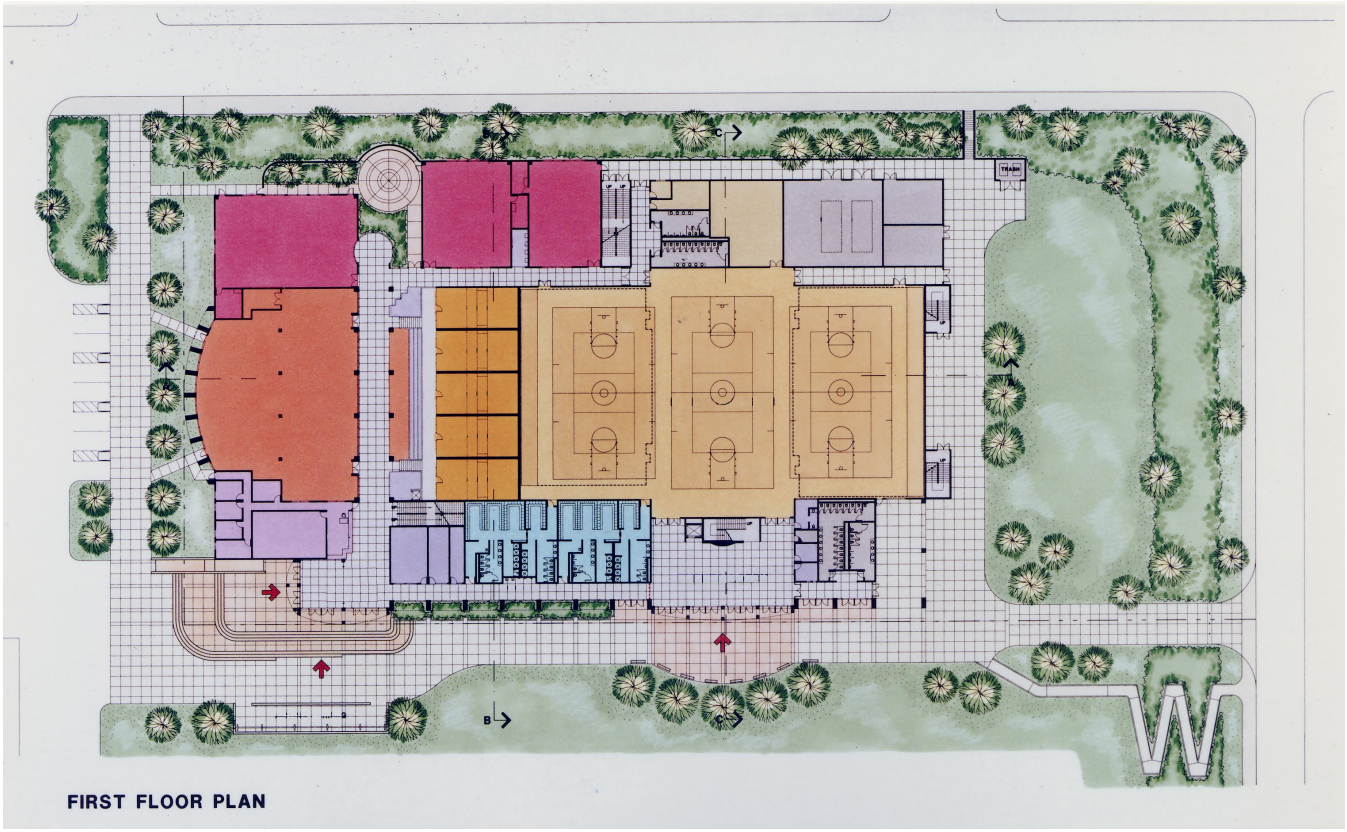
The lower elements / walls of the building (up to 20 feet in height) are constructed of brick (double masonry walls) and solar green glass. The brick is in two colors, red for the main brick color, and a tan brick for the accent bands of brick. Both of these brick colors and the size of the brick are standards for the brick that is used on other buildings on the UC Riverside campus.

The upper portions of the building, specifically the walls of the Gym above 20 feet in height, are clad in an integral color tan exterior plaster. The two entries into the building are made up of a series of stacking clerestory windows that are clad on the outside with a white metal cladding along with solar green glass. This cladding and glass is also used at the top of the clerestory windows along the west side of the main north-south circulation corridor in the Recreation Center and also at the oculus that terminates this circulation corridor at its north end. The majority of the interior wall finishes are painted gypsum board or interior plaster (lower portions of the Gym walls) and clear glass (wire glass at most locations as required by the Code regulations in place when the original building was built). Ceilings are suspended acoustical tile, painted gypsum board or plaster (in the shower areas), or left exposed in the non-program spaces (Storage, mechanical, electrical rooms). Wood athletic flooring is used in the Gyms, for the Racquetball and Squash Courts, and the three Multi-purpose Rooms. The Fitness / Weight Room has a synthetic rubber tile flooring. The main circulation corridors have anti-microbial carpeting, and the two Entry Lobbies have non-slip quarry tile flooring. The flooring in the Locker Rooms and the public Restrooms are non-slip ceramic tile. Ceramic tile is also used on the walls at the toilet and shower areas in the Locker Rooms and toilets. The condition of both the exterior and interior finishes in the existing building are in relatively good condition and do not require either replacement or major refurbishing to them.

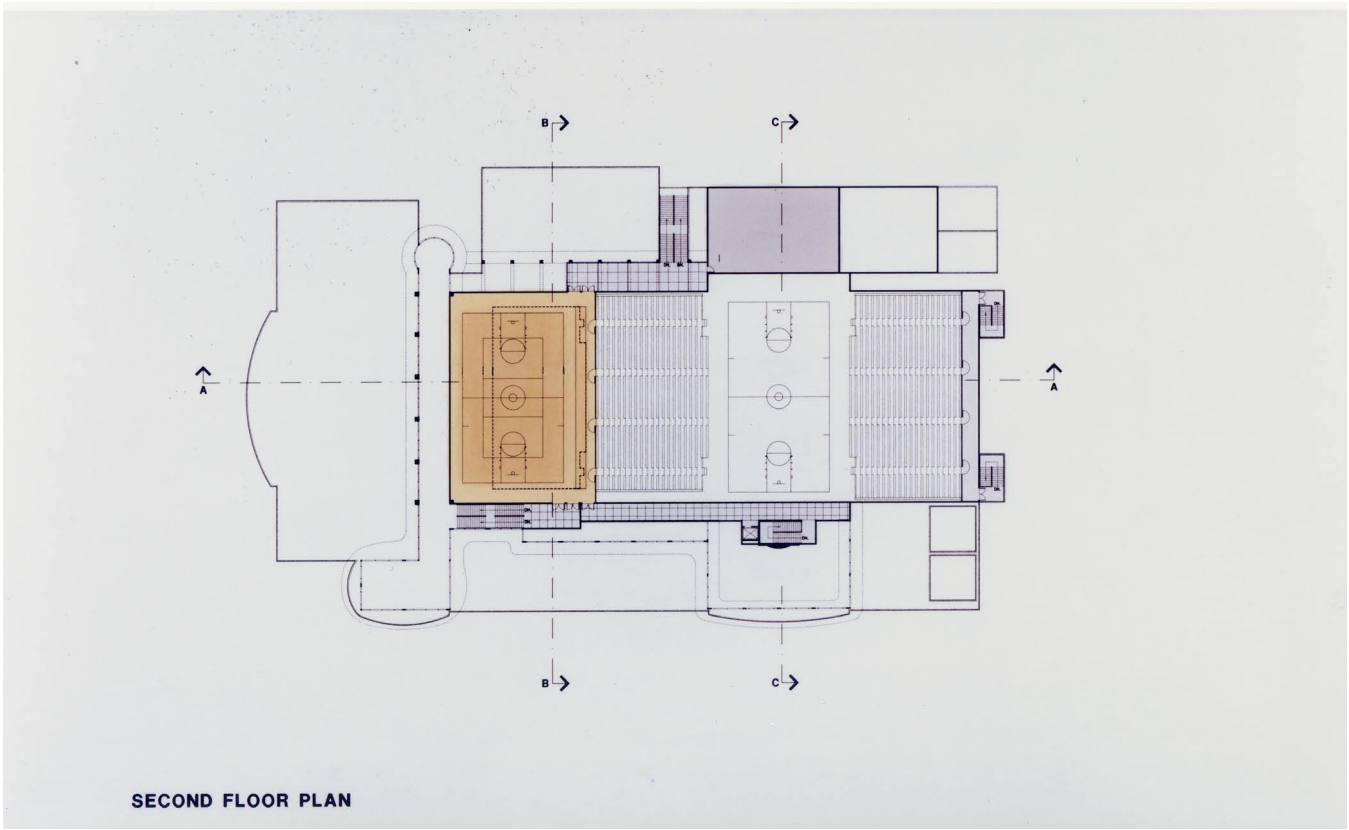
The existing building is a braced steel framed construction with interior walls and the upper walls of the Gymnasium framed with steel stud construction.

BUILDING EVALUATION SUMMARY

EXISTING FIRST FLOOR PLAN



EXISTING SECOND FLOOR PLAN



10.3 EXISTING STRUCTURAL EVALUATION SUMMARY

The Student Recreation Center was originally constructed in 1993 and it is estimated that it was designed in accordance with the 1989 Uniform Building Code. The two-story building has a rectangular footprint measuring about 221 feet in the north-south direction by 372 feet in the east-west direction, with approximately 86,140 gross square foot. The building has a gymnasium and multi-purpose rooms.

VERTICAL LOAD CARRYING SYSTEM:

The high roof framing above the gymnasium consists of insulating concrete over metal decking supported by steel beams, which in turn are supported by long span steel truss spanning about 86 feet across the width of the gymnasium. The low roof is similar to the high roof supported by steel beams. The second floor framing is consists of concrete over metal decking supported by steel beams. Steel wide flange columns provide vertical support for the roof and second floor framing levels.

LATERAL LOAD RESISTING SYSTEM:

The lateral load resisting system of the building primarily consists of the flexible roof and floor diaphragm that transfer lateral seismic forces to the concentric braced located along the building perimeter.

FOUNDATION SYSTEM:

The building is founded on a concrete slab-on-grade at the ground floor level with isolated column footings.

Based on our review of the drawings and limited site observation, the structure appears to be in good structural condition and appears to be in conformance with the building design standards at the time of its original design. In our opinion, this building has a “GOOD” rating based on the University Policy Seismic Safety rating system.

10.4 EXISTING HVAC

The UC Riverside Student Recreation Center is an approximately 86,140 GSF state-of-the-art facility for student recreational activities and university athletic competitions. The Center comprised of gymnasium, racquetball/squash ball courts, weight training room, multi-purpose rooms, office areas, men and women locker rooms, men and women shower rooms and restrooms, etc.

HVAC SYSTEM EVALUATION SUMMARY

The existing HVAC equipments that serve the Student Recreation Center comprised of five (5) thermal energy storages made by IceStore™ FAFCO, two (2) chillers made by Trane, two (2) cooling towers made by BAC, two (2) heat exchangers, ten (10) air handling units made by EnergyLabs, three (3) heating hot water boilers made by Thermific, two (2) chilled water pumps, two (2) condenser water pumps, four (4) glycol pumps, three (3) heating hot water pumps, two (2) expansion tanks, eight (8) exhaust fans, numerous VAV terminal units with reheat coils and other miscellaneous HVAC equipments.

The existing HVAC system is approximately 15 years old that provides cooling and heating for the SRC. The SRC staff reported numerous office areas inside the Center that are experiencing excessive cooling in the summer and excessive heating in the winter.

All existing air handling units are located on roof and already past half of its 30 years service life. Per visual inspection all air handling units are well maintained. The coils inside the air handling units are heading towards its 20 years service life and consideration can be made for replacing the coils.

The existing thermal energy storage systems are located inside the mechanical enclosure next to the Student Recreation Center. Per visual inspection thermal energy storage systems appear to be in good condition and it has a minimum 35 years of service life.

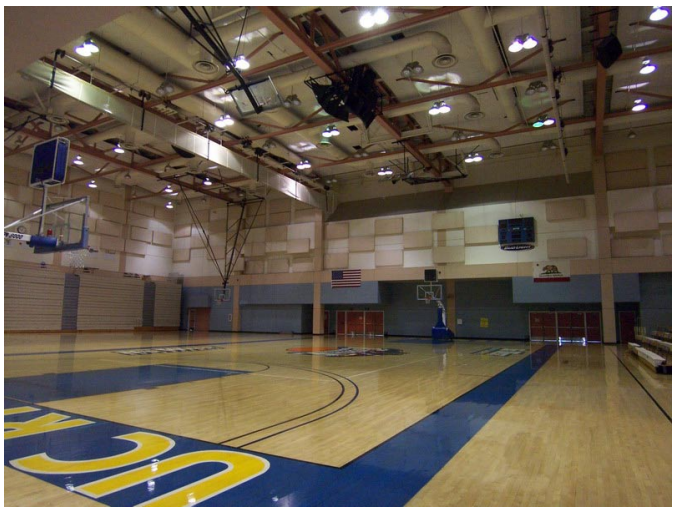
The existing chillers are made by Trane and located in Machinery Room Rm.145. The existing chillers are already past half of its 30 years service life. Per visual inspection the existing chillers are well maintained and can consider cleaning the tubes and/or perform manufacturer's recommended service maintenance.

The existing cooling towers are made by BAC and located on the roof. The support bases are rusty and both towers are heading the end of its 20 years service life. The University can consider replacing the cooling towers with a new one that can handle both existing and future load from the 69,149 GSF of new expansion.

The existing heat exchangers inside Machinery Room Rm.145 and already past half of its 25 years service life. Per visual inspection, the existing heat exchangers are well maintained but very dusty. The University can consider replacing the heat exchangers with a new one that can handle both existing and future load from the 69,149 GSF of new expansion.

Most of the existing pumps are heading towards the end its 20 years service life. Since the University is planning to expand the center, all existing pumps should be replaced with new pumps and pipes that are sized to serve both existing and future cooling and heating load from the 69,149 GSF of new expansion.

The University should upgrade the existing exhaust system in the Machinery Room Rm.145 to meet the current standard and/or code to



assure proper ventilation and enable continuous refrigerant detection. Most of the existing exhaust systems are running and well maintained.

Since the University is planning to add an additional 69,149 GSF next to the current building, additional HVAC equipments, i.e. chillers, cooling tower, thermal storage system, pumps, etc. is required to accommodate the future load. Expansion of the chiller room, boiler room, and the mechanical enclosure can centralized all HVAC equipments, both existing and new equipments, for easy maintenance. If the existing mechanical room and enclosure lack of room for expansion, a stand alone mechanical room and/or enclosure.

EXISTING THERMAL ENERGY STORAGE SYSTEM, CHILLERS, COOLING TOWERS AND HEAT EXCHANGERS

The existing thermal energy storage system, TES-1 and 2, located at the north east corner of the center. Each thermal energy storage system has a capacity of 1050 ton/hour and 1050 GPM of chilled water with capacity of 218.9 ton/hour. The thermal storage system is design to augment mechanical cooling, which is the glycon screw water chiller, CH-1 and 2 in order to relieve the peak load demand.
The existing chillers, CH-1 and 2 are located inside the Machinery Room Rm.145. The chillers operate in 2 different capacities through out the day. During day time/peak hours each chiller provides 225 ton of cooling with 645 GPM of condenser water with 85°F entering condenser water temperature and 95°F leaving condenser water temperature. The condenser water is then pump to two existing 645 GPM cooling towers, CT-1 and 2, which are located on the roof of the Machinery Room Rm.145 where heat is removed from the condenser water. The existing chillers are providing cooling load to the air handling units that service the Student Recreation Center during daytime peak hours.

During night time/off peak hours each chiller provides 150 ton of cooling with 645 GPM of condenser water with 78°F entering condenser water temperature and 85°F leaving condenser water temperature. The condenser water is then pump to two existing 645 GPM cooling towers, CT-1 and 2, which are located on the roof of the Machinery Room Rm.145 where heat is removed from the condenser water. The existing chillers are providing cooling load to the thermal energy storage system, TES-1 and 2, during night time off peak hours to create ice.

The existing thermal energy storage system create ice from the chiller at night to save energy cost during low peak hours and supply chilled water during the day to supplement the chillers during peak hours. The intention is to reduce energy cost during peak hours during the day by not running the chiller in 100% load. Both thermal energy storage systems and chillers provide 35°F entering temperature to the heat exchangers, HX-1 and 2, and 56°F leaving temperature back to the chiller during daytime. The existing heat exchangers are plate type with 30% glycol GPM of 425 and located in the Machinery Room Rm.145. The existing heat exchangers then remove the heating load from air handling units with returning 59°F chilled water temperature and 43°F leaving chilled water temperature back to cooling coils inside the air handling units.

BUILDING EVALUATION SUMMARY

EXISTING HEATING HOT WATER BOILERS

There are three existing heating hot boilers, B-1, 2 and 3, located in the Boiler Room Rm.144. These are forced drafted boiler run on natural gas. Each boiler has a maximum input capacity of 2,000 MBH and maximum output capacity of 1,500 MBH with 125 GPM. It generates 180°F leaving heating hot water from 140°F retuning heating hot water. The heating hot water is supply to numbers of VAV terminal units and air handling units, AHU-1, 2, 3, 4, 8, 9 and 10, that service the Student Recreation Center.

EXISTING AIR HANDLING UNITS

AHU-1, 2, 3 and 4 locate on the second floor roof north side of the center. Supply and return ducts penetrate thru the roof from these units and run along the plenum of Gym Storage Rm.142, Building Maintenance Rm.139, Men and Women Restrooms Rm.140 and 142 and enter to Gymnasium Rm.149. AHU-1, 2 and 3 have both cooling coil and heating coil that provide cooling and heating to the Gymnasium Rm.149. AHU-1 provides, 81.6 tons of cooling, 591 MBH of heating and 30,800 supply air CFM. AHU-2 provides 98.9 tons of cooling, 622 MBH of heating and 45,250 supply air CFM. AHU-3 provides, 81.9 tons of cooling, 589 MBH of heating and 30,000 supply air CFM. AHU-4 has both cooling coil and heating coil to provide cooling and heating to the Upper Gymnasium Rm.200 and Vestibule Rm.201. AHU-4 provides, 73.8 tons of cooling, 574 MBH of heating and 23,400 supply air CFM. In addition, AHU-2 also provides cooling to number of terminal VAV units that service the Gym Storage Rm.142, Building Maintenance Rm.139, Men and Women Restrooms Rm.140 and 142.

AHU-5 locates on the second roof north side of the center that is above Multi-purpose B Rm. 129 and Multi-purpose C Rm.133. AHU-5 only has cooling coil. It provides 87.8 tons of cooling and 32,000 supply air CFM. AHU-5 and service the Gallery Rm.121 and 122, the Racquetball Rm.123, 124, 125 126, and Squash Court Rm.127. Besides serving the racquetball and squash court area, AHU-5 also serves Women's Locker Room Rm.171 and 172, Women's Toilets Rm.175 and 178, Women's Shower Rooms Rm. 176 and 177, Conference Rm.102, Student Work Space Rm.103, Sports Club Barrels Rm.104 and Gallery Rm.179. In addition, it also serves the Men's Locker Room Rm.163 and 164, Men's Toilets Rm.167 and 168, Men's Shower Rooms Rm. 168 and 169 and Events Lobby Rm.160. Heating for these areas are accomplished by numbers of VAV terminal units that has heating hot water coil.

AHU-6 locates on the second roof southwest side of the center that is above Equipment Storage Rm.108 area. AHU-6 only has cooling coil that provides 82.5 tons of cooling and 22,000 supply air CFM. Supply and return ducts penetrate thru the roof from AHU-6 and services Entry Rm.100, Lobby Rm.101, Workroom Rm.110, Office Rm. 113, 114 and 115, Director's Office Rm.116, Equipment Storage Rm. 108, Check-in/Issue Rm.106, Reception Secretary Rm.107 and Corridor Rm. 109, 110 and 111. In addition, AHU-6 also serves Gallery Rm.121 and Multi-purpose A Rm. 120 that is located at the northwest side of the center. Heating for these areas are accomplished by numbers of VAV terminal units that has heating hot water coil.

AHU-7 locates on the second roof southeast side of the center that is above Men's and Women's Toilet Rm. 150 and 151 areas. AHU-7 only has cooling coil that provides 26.4 tons of cooling and 10,400 supply air CFM. Supply and return ducts penetrate thru the roof from AHU-7 services the first floor Men's and Women's Toilet Rm. 150 and 151, Vestibule Rm.152, Gallery Rm.153, Shower-Toilets Rm.155, Performer Rm.156, First-Aid Room Rm.158, Ticket Rm.159 and second floor Corridor Rm.202. Heating for these areas are accomplished by numbers of VAV terminal units that has heating hot water coil.

AHU-8 locates on the second roof southwest side of the center that is above Equipment Storage Rm.108 area. AHU-8 has both cooling and heating coils. It provides 73.8 tons of cooling, 785 MBH of heating and 18,000 supply air CFM. AHU-8 serves Weight Training Rm.117

and Storage Rm. 118.

AHU-9 and 10 locate on the second roof north side of the center that is above Multi-purpose B Rm. 129 and Multi-purpose C Rm. 133. Supply and return ducts penetrate thru the roof from these units and service these two areas directly. AHU-9 has both cooling coil and heating coil that provides cooling and heating to Multi-purpose B Rm. 129. AHU-9 provides, 21.9 tons of cooling, 87 MBH of heating and 5,700 supply air CFM. AHU-10 has both cooling coil and heating coil that provides cooling and heating to Multi-purpose C Rm. 133. AHU-10 provides, 21.2 tons of cooling, 67.3 MBH of heating and 4,900 supply air CFM.

EXISTING EXPANSION TANKS

There are two existing expansion tanks, ET-1 and 2, both located in the Boiler Room Rm.144 and the Machinery Room Rm.145 respectively. ET-1 is for heating hot water with acceptable volume of 56 gallons and ET-2 is for chiller water with acceptable volume of 26 gallons.

EXISTING PUMPS

There are two existing chilled water pumps, P-1 and 2, located in the Machinery Room Rm.145 that provide chilled water to the air handling units. These are end suction pumps with 490 GPM each.

There are two existing condenser water pumps, P-3 and 4, located in the Machinery Room Rm.145 that service between the chillers and cooling towers. These are end suction pumps with 645 GPM each.

There are two existing building glycol pumps, P-5 and 6, located in the Machinery Room Rm.145 that service between the thermal energy storage systems, chillers and heat exchangers. These are split case pumps with 425 GPM each.

There are two existing primary glycol pumps, P-7 and 8, located in the Machinery Room Rm.145 that service between the thermal energy storage systems and chillers. These are split case pumps with 425 GPM each.

There are three existing heating hot water pumps, P-9, 10 and 11, located in the Boiler Room Rm.144 that service between the boilers and numbers of VAV terminal units that locate in the Student Recreation Center. These are end suction pumps with 125 GPM each.

EXISTING EXHAUST FANS

Exhaust Fan, EF-1, services the Men's and Women's Restroom Rm.140 and 141, Office Rm.181, Building Maintenance Rm.138, and Janitor Rm.139. It locates on the roof above and exhausts 2,470 CFM.

Exhaust Fan, EF-2, services Men's Toilets Rm.167 and 170, Men's Shower Rooms Rm. 168 and 169. It locates on the roof above and exhausts 5,940 CFM.

Exhaust Fan, EF-3, services the first floor Men's and Women's Toilet Rm. 150 and 151, and Shower-Toilets Rm.155. It locates on the second roof southeast side of the center and exhausts 2,600 CFM.

BUILDING EVALUATION SUMMARY

Exhaust Fan, EF-4, services Women's Toilets Rm.175 and 178, Women's Shower Rooms Rm. 176 and 177. It locates on the roof and exhausts 5,940 CFM.

Exhaust Fan, EF-5, services Weight Training Rm.117. It locates on the roof above the Weight Training Rm.117 and exhausts 9,000 CFM.

Exhaust Fan, EF-6, services Weight Training Rm.117. It locates on the roof above the Weight Training Rm.117 and exhausts 9,000 CFM.

Exhaust Fan, EF-7, services Elevator Room. It locates on the roof and exhausts 550 CFM.

Exhaust Fan, EF-8, services Chiller Room. It locates on the roof and exhausts 3,300 CFM.

EXISTING MISCELLANEOUS FANS

Rotary Cooler Unit, EC-1, services Electrical Room. It locates on the roof and exhausts 6,000 CFM.

Supply Fan, SF-1, services Machinery Room Rm.145. It locates on the roof and exhausts 2,000 CFM.

10.5 PLUMBING SYSTEM EVALUATION SUMMARY

The 80,000-square-foot building provides a state-of-the-art facility for student recreational activities and university athletic competitions. Opening its doors in early 1994, the Center includes racquetball/squash ball courts, weight training room, multi-purpose rooms, gymnasium, men/women locker rooms, men/women shower rooms, men/women restrooms and office areas.

PLUMBING SYSTEM EVALUATION SUMMARY

The existing Plumbing system serving the Student Recreation Center consists of domestic hot/cold water, gravity waste drainage/vent, Natural gas, storm drainage and Fire Protection systems. The domestic water is fed from the main at Linden Street. A 6" sized pressure reducing station, dowmstream of the water meter and backflow preventer serves the building and is located in the landscape area covered in brush/bushes along side of the sidewalk on Linden Street. Two (2) Gas-fired water boilers with a 1,500 gallon storage tank located in the Boiler room provides for all the domestic hot water demand for the building except the sink in the workroom, washer machine and laundry sink in the Equipment Storage room. Such fixtures are served by a 40 gallon standalone storage type water heater located directly above (on roof) the Storage Equipment room.

The existing Plumbing is approximately 15 years old with conventional plumbing fixtures. A visual inspection of fixtures (water closets, flush valves, lavatories, faucets, shower head, etc.) revealed that the fixtures although kept well maintained, need replacing. A leaking electric drinking fountain was observed in the corridor between the Mens & Womens restrooms. Replacement of flush valves and faucets with new can reduce water usage in the facility. A visual inspection of the condition of piping in all systems appear to be in good standing condition and should remain unless a connection is needed to serve the new expansion requiring a pipe size increase to meet the new demand.

A visual inspection of all Plumbing equipment revealed that although the water heaters are in good working condition and appear to be well maintained, they should be replaced as the useful life has been exceeded. Replacement of such equipment can also be a benefit to the facility when using higher efficiency water heaters. The re-circulation pumps connected to the water boiler/heater system should also be replaced as they appear to be worn out. The hot water storage tank in the Boiler room should remain.

The existing Fire Protection, Sprinkler system appears to be code compliant and should remain however the location of the risers are questionable. Further evaluation is required to determine the extent of modification of either the location of where they rise or modification to the room they currently occupy (office).

10.6 EXISTING ELECTRICAL CONDITIONS

MAIN ELECTRICAL SERVICE AND ELECTRICAL DISTRIBUTION

The Recreation Center is currently served from the 2000 kVA unit substation 'SRC'. This substation is comprised of a 12kV switch, a dry-type, 2000 kVA, 12470-480/277V, 3-phase, 4-wire transformer and 2500 A main distribution switchboard 'HDS' and is located in the main electrical room on the northeast side of the building.

The main distribution switchboard 'HDS' serves lighting branch circuit panelboards, distribution switchboard 'LDS' (through a 300kVA, 480-120/208V, 3-phase, 4-wire transformer), two water-cooled chillers, five motor control centers, and the fire alarm control panel (also through a 480-120/208V transformer). The lighting branch circuit panelboards meet the lighting demands of the building and the distribution switchboard 'LDS' meets the power demands of the building. The motor control centers distribute power to the ten air-handling units and additional exhaust fans located throughout the building.

A 10kW, 277V, single-phase battery inverter located in the main electrical room provides emergency lighting and power to the building. The system itself is functional, but there is no monitoring system on the batteries which leads the system being working improperly if a failed battery is not discovered and replaced before an outage.

Visual inspection of the main electrical equipment revealed that the equipment is in good condition. Branch circuit panelboards served from the main distribution switchboard are also in good condition.

LIGHT FIXTURES AND CONTROLS

LIGHT FIXTURES

The majority of the offices in the building are illuminated with 2'X4' recessed fluorescent light fixtures equipped with T8 lamps and electronic ballasts.

Fitness areas and multi-purpose rooms are illuminated with a combination of 2'X4' and 2'X2' recessed fluorescent light fixtures equipped with 2-T8 lamps and electronic ballasts.

The gymnasium areas are illuminated with dual high-bay fixtures equipped with HID lamps.

The racquetball and squash courts are illuminated with recessed 2'x2' high bay lensed fixtures with HID lamps.

The entry lobby and main gallery areas are illuminated with a combination of decorative wall-mounted light fixtures and compact fluorescent downlights.

Locker rooms in the building are illuminated with a combination of 1'X4' recessed fluorescent lensed fixtures equipped with T8 lamps and wall-mounted direct/indirect lensed fixtures.

Maintenance and storage areas in the building are illuminated with 1'x4' industrial strip fixtures equipped with 2 T8 lamps.
All light fixtures in the building are in good condition and are equipped with energy efficient lamps and ballasts.

LIGHTING CONTROL SYSTEM

A combination of bilevel switching and occupancy sensors is provided in many areas of the building. However, no digital lighting control system currently exists in the building. The light fixtures in the soffit and walk areas is controlled by a roof-mounted photocell and lighting contactor panel located in the main electrical room.

10.6 4 FIRE ALARM SYSTEM

The Recreation Center is currently equipped with an addressable manual fire alarm system manufactured by Notifier. The fire alarm system comprises of manual pull stations, strobes, horns, smoke detectors, beam detectors and tamper switches.

The fire alarm control panel for the building is a Notifier AFP 1010 w/ XP series transponder and is located in the main electrical room. Additional fire alarm terminal cabinets are distributed throughout the building. The remote annunciator is located in the lobby area.

The existing fire alarm system is in good condition and should be retained. Horns and strobes are properly located throughout the building to provide adequate levels of notification in an alarm condition. Manual pull stations are provided at each building exit and smoke detectors are located throughout the building.

10.7 TELECOMMUNICATIONS EXISTING CONDITIONS

CONNECTIONS TO THE INFRASTRUCTURE

Currently there are (2) 4" conduits that feed into the main telecommunications room (MDF) of the recreation center. One 100 pair OSP copper lines feed from the campus "Telecom Building" and 50 pairs of that cable is non-functional. The Air Blown Fiber (ABF) feeds from the Corp Yard with one 7 tube cable with one 6 stand multimode.

TELECOMMUNICATIONS SPACES

The MDF is located in a shared space with the main electrical room. All active electronics equipment, 110 blocks, protector blocks, and fiber (FTU) are wall mounted on the telecommunications backboard exposed to the unconditioned and dusty conditions of the shared space. The telecommunications backboard (TBB) is not treated with a flame retardant paint and existing wall penetrations are not properly sleeved and fire-stopped. There appears to be no proper grounding and bonding of the voice and data cable and hardware. There are insufficient dedicated power receptacles for the current equipment and no uninterruptible power supplies.

The secondary TBB and/or IDF are located in a shared space location with storage and laundry facilities. All active electronics equipment, 110 blocks, protector blocks, and fiber (FTU) are wall mounted and exposed to room conditions, accidental disconnect, and accidental damage from this multi-function storage space location. The TBB is not treated with a flame retardant paint and there is no sign of proper ground and bonding. There is currently one receptacle that is adequate for current active equipment needs but no uninterruptible power supply. The ceiling tile right above the TBB displays water damage and could prove damaging to the structured cabling system and active electronics if left unchecked.

There are also two other consolidation point locations that consist of a 36"Hx6"D enclosure that contains one 100 pair 110 block connecting these location back to the main telecommunications room.

The third TBB and/or IDF location is physically separated from the Student Recreation Center and located in the Outdoor Excursion Building. The TBB is in a shared space with electrical and all telecommunications and networking equipment is wall mounted. The TBB is not treated with a flame retardant paint and there appears to be no proper grounding and bonding. Current power seems to be sufficient for active electronics but there is no uninterruptible power supply. Potential cooling and EMI issues may occur because of the close proximity of the TBB to the electrical panels and conditioning of the room. A quantity of (2) 2" and (2) 1" conduits run from the Outdoor Excursion Building to the MDF.

The current telecommunication spaces do not meet current BICSI TIA/EIA standards or the current University of California, Riverside Computing and Communications Guidelines. Current standards recommend dedicated telecommunication rooms that are environmentally controlled 24 hours per day, 365 days a year to protect active electronics and the structured cabling terminations itself. Any new addition to the Rec Center will require a new dedicated telecom room (IDF) with minimum of (4) 4" conduits connecting the MDF in room 147.

STRUCTURED CABLING SYSTEM

The horizontal, or station, cabling is currently a mixture of Category 5/5e components, UTP, 4-pair Structured Cabling System (SCS). The current campus standard is a Systimax Category 6 solution.

TELECOM OUTLETS

The current basic office outlet consists of a double gang jack with (4) Cat5e outlets. Current conference room has only one voice/data outlet available.

WIRELESS

There are several wireless access points positioned strategically throughout the Student Recreation Center. The access point body is located above the ceiling grid, if possible, with the antennas extended down below the ceiling for optimum coverage. Currently one cat5e jack is being

run from the nearest TTB location for connection.

AUDIO/VISUAL

The main gym has an independent A/V system with an adjacent control room with two full size enclosures that houses the A/V equipment. There are two floor mount boxes in the gym floor for A/V connections and telephone connection.

Conference room was equipped with only one data outlet and there were no provisions for an overhead projector and/or floor mount data port to provide services to a large conference table.

Further coordination with the UCR Media Services Department would be required for any further A/V development.

SECURITY SYSTEM

CCTV cameras are strategically located throughout the building and hardwired back to the control center in room 158.

Door contacts, motion detectors, and alarm are in a central panel.

Further coordination with appropriate University personnel is needed in order to develop adequate security system for the proposed expansion.

PUBLIC ADDRESS

There is currently no public address system in the Recreation Center.

TELEVISION DISTRIBUTION SYSTEM

Charter Cable Television currently provides service to broadcast UCR Sporting events only.

10.8 EXISTING BUILDING EVALUATION CONCLUSIONS:

LANDSCAPE

Planting:

- Reduce lawn area not needed for recreational use in order to conserve water.
- Preserve existing trees where possible.
- Wherever feasible use water conserving plants in the design.
- Minimize dense multi-layered planting schemes in order to reduce irrigation needs.
- Remove the dense existing shrubbery along the north elevation of the existing building to improve security and increase the presence and appeal of the building as seen from Linden Street.

Irrigation:

- Reuse the existing irrigation system infrastructure, including existing backflow protected irrigation water main line and central control capable controller.
- Follow campus standard specifications and details for all new equipment installed including zone valves, remote control valves, quick couplers, spray heads, and all other products and installation.
- Study and implement if feasible a gray water supplemental supply system.
- Provide drip irrigation wherever feasible for shrub and ground cover beds.
- Working with the campus Grounds Department, develop new standards for drip irrigation. It is recommended to use a rigid PVC pipe system with a minimum of fragile flex tubing and drip line tubing.

CIVIL

- The utilities, including domestic water, fire protection water, sanitary sewer, gas, and storm drain systems, were considered to be in good condition.

- The net hardscape and landscape areas would be approximately the same after construction.

- Roof drains from the new building and surface drainage from the pool and relocated tennis courts can be conveyed to the existing 12-inch storm drain.

ARCHITECTURAL

- Existing building spaces are small for the current and future needs. Including:
  A. Fitness Weight Room
  B. Multi-purpose Rooms
  C. Gyms (which are used for both athletic events and entertainment/commencement)
  D. Two of the existing Multi-purpose Rooms and portions of both of the existing Locker Rooms are used when there are events in the Gyms

- The brick is in two colors, red for the main brick color, and a tan brick for the accent bands of brick, known as the UCR blend.

- The condition of both the exterior and interior finishes in the existing building are in relatively good condition and do not require either replacement or major refurbishing to them.

STRUCTURAL

- The building has a "GOOD" rating based on the University Policy Seismic Safety rating system.

HVAC

- The coils inside the air handling units are heading towards 20 years of service life and consideration can be made for replacing the coils.

- Thermal energy storage systems are well maintained with minimum 35 years of service life.

- Existing chillers are half-past their 30 years service life.

- Existing cooling towers are heading towards of the end of their 20 year service life.
- Heat exchangers are half-past their 25 years service life.
- Existing pumps are near end of 20 year service life.
- Existing exhaust system should be upgraded to assure proper ventilation.
- Expansion of the chiller room, boiler room, and the mechanical enclosure will be required to accommodate the future load.
- If the existing mechanical room lacks room for expansion, a stand alone mechanical room and/or enclosure in the expansion area should be considered.

PLUMBING

- Equipment that should be replaced:
  A. fixtures (water closets, flush valves, lavatories, faucets, shower head, etc.)
  B. re-circulation pumps connected to the water boiler/heater system
  C. water heaters
- Equipment that should be remain:
  A. piping in all systems (unless increase in size is required)
  B. hot water storage tank in the Boiler room
  C. Fire Protection, Sprinkler system (however the location of the risers are questionable)
- A leaking electric drinking fountain was observed in the corridor between the Mens & Womens restrooms.

ELECTRICAL

- Visual inspection of the main electrical equipment revealed that the equipment is in good condition
- All light fixtures in the building are in good condition and are equipped with energy efficient lamps and ballasts.
- No digital lighting control system currently exists in the building
- The existing fire alarm system is in good condition and should be retained.

TELECOMMUNICATIONS

- Equipment that replacement is recommended that the MDF and IDF be replaced.
- It is recommended that an additional 50 pairs of outside plant copper cable and one 18 strand single mode fiber optic Air Blown Fiber cable be provided to the MDF for this project

11
Appendix

APPENDIX : TABLE OF CONTENTS

CANNONDESIGN

Baltimore ▪ Boston ▪ Buffalo ▪ Chicago ▪ Jacksonville ▪ Los Angeles ▪ New York ▪ St. Louis ▪ Vancouver ▪ Washington DC

MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
Data Collection-Focus Groups
Day – I
October 7, 2008

Meeting **01**	8:00am- 8:30am
Location	Recreation Center Facility Walk-Through. Review of Existing Usage.

Attendees	Jon Harvey	UCR Capital Planning
PMT	Lindy Fenex	UCR Recreation
	Daniel Vargas	UCR Office of Design & Construction
	Eileen O'Connel-Owens	UCR, AP&B

During the tour of the existing facilities, the following observations were made:

- The Sports Club office has been converted to Office space. There is a need for a Sports Club office.
- They used to do Massage Therapy in a space off of the Events Lobby that has been converted to a Training Room.

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MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
Data Collection-Focus Groups
Day – I
October 7, 2008

Meeting **02**	8:45am- 10:15am
Location	Recreation Center Kick-Off Meeting (DPP)

Attendees Project Committee	Jon Harvey	Capital Planning
	Alejandro Cortez	Graduate Student Association
	Lindy Fenex	UCR Recreation
	Eric Malmquist	UCR R. Governing Board
	Mandy Silvey	UCR R. Governing Board
	Jenny Delgado	Cannon Design
	Keith Fuchigami	Cannon Design
	David Body	Cannon Design
	Kieron Brunelle	UCR CPP
	Matt Bohannon	Brailsford & Dunlavey
	Sam Jung	Brailsford & Dunlavey
	Derrick Hong	Brailsford & Dunlavey

Keith Fuchigami Presented an Overview of the steps to take to develop a DPP. The information gathered from the Project Committee is:

- The purpose of the DPP and the Referendum planning is to minimize the risks of the non-passage of a referendum to raise student fees for the Recreation Center Expansion.
- The current fee is $59 per quarter per student. 90-92% of the operating costs for the facility are covered by the Student fees.
- The pool should have 4 – 6 lap lanes. The length of the lap lanes should be 25 yards (75 feet). There should be a deep water area (7 feet minimum) for water polo. There should also be an area deep enough for lifeguard certification and scuba classes (10 feet minimum) and Kayak training lessons. A zero depth entry or entry by a series of shallow, broad steps is desired. A large amount of deck space and a wet classroom that opens to the pool deck were also mentioned.
- There should be an integration of social and activity spaces that can be achieved with transparency/ no barriers between such areas.
- The amount of Gymnasium space that is added should provide 2 -4 basketball courts, with 3 courts the desired minimum.
- Spaces should be designed and programmed with flexibility in mind.

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MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
Data Collection-Focus Groups
Day – I
October 7, 2008

Meeting **03**	10:30am- Noon
Location	Recreation Center Kick-Off Meeting (Steering Committee)

Attendees Steering Committee	Peter Burke	Academic Senate, Sociology
	Lindy Fenex	UCR Recreation
	Eileen O'Connel-Owens	UCR Academic Planning & Budget
	Jerry Garcia	AP&B, Resource Analysis
	Solkim	UCR Recreation Center
	Anne Hansen	UCR Graduate Student Assoc.
	Kieron Brunelle	UCR CPP
	Jon Harvey	UCR CPP
	Sam Jung	Brailsford & Dunlavey
	Matt Bohannon	Brailsford & Dunlavey
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design
	David Body	Cannon Design

Keith Fuchigami and Matt Bohannon presented an Overview of the steps to take to develop a DPP. The information gathered from the Steering Committee is:

- Basketball courts are overcrowded. Intramurals run teams from 5:30PM to 11:30PM. Space is needed for players and spectators (150 spectators).
- Need 2 to 3 additional basketball courts.
- Ability to do open recreation in the gymnasiums and run intramurals programs at the same time.
- The Recreation Center receives from 2,400 to 3,400 visits/day.
- Basketball courts are used in the evening. Flexibility to do badminton and volleyball during the morning hours would be nice.
- Juice bar: "hang-out space" with smoothies, juices, social space.
- Very preliminary figures that show net new revenues from a proposed student fee increase were reviewed. New fees will need to contribute 25% for Financial Aid Set Aside. This will have an impact on the overall project.

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University of California, Riverside- Student Recreation Center Expansion
Data Collection-Focus Groups
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October 7, 2008

Meeting **04**	12:15pm- 1:45pm
Location	Recreation Center Focus Group-I

Attendees
Faculty & Staff

- All the attendees were complimentary about the operations of the Student Recreation Center.
- The Staff & Faculty use the Recreation Facilities during lunch hours or early in the morning when not crowded.
- There is an intimidation factor due to the small size of the fitness center.
- The pool would be use by faculty, staff, students and families. The group commented on short opening times of existing pool.
- Combative (Martial Arts) participants requested a dedicated room the size of Multi-purpose room-B.
- Participants felt that Recreation could do more to publicize the programs in the Union and elsewhere on Campus.
- High Quality of Outdoor Adventures was mentioned.
- This focus group is supportive of additional basketball courts for when competitions are taking place. For Drop in basketball games.
- 2 or 3 participants said they would pay increased fees. Some said SRC was a bargain compared to commercial clubs.

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MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
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Day – I
October 7, 2008

Meeting **05**	12:15pm- 1:45pm	
Location	Recreation Center Focus Group-II	
Attendees	Jennifer Henke	UCR Entomology
	Jennifer Okabayashi	
Students	Tony Yang	UCR, GSA
	Andrew Wang	
	Benson Yu	
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design
	San Jung	Brailsford & Dunlavey

- What UCR offered in a students major or study area was the most important reason for deciding to attend UCR. The quality of the campus housing (Pentland) was also an important factor. The campus tour to prospective students did not include the Recreation Center and barely mentioned what the facility had to offer. The Recreation Center was on the campus tour 10 years ago when one of the Graduate Students first was considering UCR for his undergraduate studies.

- There is no pool at the current Recreation Center. A pool is desired as a part of the Expansion. The pool at the old Gym building is only available between 12 p.m. and 3 p.m. for open swimming.

- The pool should be Olympic sized with a lot of lap lanes, with a depth from 3 feet to 12 feet. The pool should be able to hold water aerobics classes and learn to swim classes. A spa (Jacuzzi) is desired. Kayak demonstration in the pool would be nice to have.

- Graduate students use the outdoor fields a lot. There is a lot of competition for the use of the outdoor fields with Athletics. Another location for outdoor fields is desired.

- Martial arts activities are very popular, held in the current Multi-purpose Room C. The mats have to be placed over the wood floor and then removed whenever a Martial arts activity takes place in this room. It would be nice to have a room dedicated to Martial arts with a permanent mat floor. Taekwondo is very popular – practices are up to 2 hours long. Turbo kick boxing (a combination of taekwondo and dance) would be nice to have as a class.

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MEETING MINUTES

- The busiest hours for the current Recreation Center are between 4:30 p.m. and 8:00 p.m.
- The fitness and weight machinery is up-to-date, but require better maintenance. They like the Precor equipment. More elliptical machines are desired (between 10 and 20). Cardiovascular equipment with the T.V. screens built-in to them would be nice to have. Thigh machines are popular. The circulation in the Weight / Fitness Room is bad around the machines. There is a perception that the Fitness / Weight Room are just a Weight Room. Women are turned off by this and do not like to use the equipment in this room. Weight training for undergraduate women would be a good class to offer.
- Students prefer bringing their own towels, although an option of renting towels would be nice.
- The Locker Rooms should be renovated. There are not enough lockers when a portion of the room is closed off when there are athletic events in the Gym. There should be an option to rent a locker for the entire quarter besides daily use lockers for which students bring their own locks and remove them after they are done with their workout. Sauna and steam rooms would be nice to have.
- A snack bar / juice bar is desired serving healthy food. It would be nice to also be able to buy t-shirts at the Recreation Center.
- Lounge areas are not seen as necessary.
- Parking in close proximity and enough parking is a problem.
- Class instructors are up to par. More dance studios are desired. More yoga classes and ultimate sports are some of the activities that students would like to see accommodated
- Other amenities desired – massage therapy, an all weather outdoor track, and batting cage.
- An indoor climbing and bouldering wall is desired. Some students are members of a local climbing club facility in the Riverside area.
- One student observed that a large number of UCR students are overweight. Weight loss programs/ wellness would be nice.
- The best way to get out the word about a potential student fee referendum is by e-mail. Renderings of the proposed expansion should be included. The student newspaper is only published once a week and would not be an effective way to get out the word on a student referendum.

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University of California, Riverside- Student Recreation Center Expansion
Data Collection-Focus Groups
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October 7, 2008

Meeting **06**	1:45pm- 3:15pm
Location	Recreation Center Focus Group-III

Attendees	Tyler Quesnel	Outdoor Excursions
Students	Corrie Neighbors	Graduate Student
	Jenny Delgado	Cannon Design
	Sam Jung	Brailsford & Dunlavey

- Students are willing to pay twice as much what they pay now if the facilities are comparable to a private gymnasium.
- The majority of the students attending the meetings do not live in campus.
- Overnight locker rooms would be great. An additional annual fee is acceptable.
- A good way of spreading the word would be having a stand on Wednesday's at noon by the Bell Tower where students gather every week for other events.
- People don't know where outdoor program is. Integrating Outdoor Rec. with the addition is important.
- Gymnastics Equipment- Stretching areas/ mats are needed.
- There are no outdoor fields available for recreation. Indoor soccer would be nice for recreation purposes.
- Would like to have a food area promoting "healthy habits".
- The pool would be priority number one to have. Social spot. Volleyball & basketball. Sand volleyball court (existing has virtually no sand). Swimming classes and aerobics.

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MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
Data Collection-Focus Groups
Day – I
October 7, 2008

Meeting **07**	2:00pm- 3:00pm
Location	Recreation Center Vice Chancellor Student Affairs

Attendees Student Affairs	Jim Sandoval	UCR, Vice Chancellor
	Susan Allen Ortega	UCR, Assistant Vice Chancellor of Students Affairs and Dean of Students
	Danny Kim	UCR, Assistant Vice Chancellor of Student Affairs
	Jon Harvey	UCR, Capital Planning
	Matt Bohannon	Brailsford & Dunlavey
	Keith Fuchigami	Cannon Design
	David Body	Cannon Design

- The goal for UCR is to become a large, public research university that is a University of first choice in 10 to 15 years (UC of choice). It is also a goal to improve the overall student experience on campus.
- The LRDP goal is to place 50% of the student population in campus housing. The Recreation Center would become increasingly important to students that live on campus. The relationship to future housing is important.
- The Student Recreation Center will serve as a campus communication network.
- There are 5 year projections for enrollment increases.
- UCR is planning to have a major social event each quarter to improve Highlander pride and spirit. They are planning activities that have mass market versus niche market appeal. More social opportunities. Student organizations to participate in activities.
- 20% of the current UCR students are from the Inland Empire.
- There is an increased demand for Athletic facilities and facilities for the Health Center and counseling.
- Assume that the campus will move Athletics to another venue. The Student Recreation Center will need to accommodate Athletics for the short-term.
- Any component accommodating Athletics in the short term will also have to serve Recreation long term needs.

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MEETING MINUTES

- Expansion of the Recreation Center should be looked at 20 – 30 years down the road – the existing context with the possible need for satellite Recreation facilities.
- Wellness – prevention to the forefront is important. Wellness components should be student centric and student friendly. Should integrate active peer mentoring and education. Diversity, culture, race/class issues are important goals. The challenge is to weave together all of this into something coherent.
- UCR is interested in seeing any benchmarking information that Cannon Design has on what other Colleges and Universities are doing in regards to wellness programs and facilities.

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MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
Data Collection-Focus Groups
Day – I
October 7, 2008

Meeting **08**	3:15pm- 4:30pm
Location	Recreation Center Recreation Staff

Attendees **Recreation Staff**	Mike Eason	UCR Recreation
	Lindy Fenex	UCR Recreation
	Rudy Rico	UCR Recretion
	Wanda Murphy	UCR Recreation/ SRC
	Sheila Gibbs	UCR Recreation
	Noelle Conroy	UCR Recreation
	Farshideh Kheshgoo	UCR Recreation
	Rose Sanchez	UCR Recreation
	Domenico Piazza	UCR Recreation
	Kevin Martin	UCR Recreation/ Intramural Sports
	Julie Dube	UCR Recreation
	Jen Hopper	UCR Rec/ Outdoor Excursions
	Jeffrey Keenan	UCR Rec./Outdoor Excursions
	Kieron Brunelle	UCR CPP
	Jon Harvey	UCR CPP
	Sam Jung	Brailsford & Dunlavey
	Matt Bohannon	Brailsford & Dunlavey
	Jenny Delgado	Cannon Design
	Keith Fuchigami	Cannon Design

- Outdoor Excursions is using Boise State's facility as a model. They passed out a list of desired amenities for their facility. There should be a rental area and a maintenance area, Offices, Storage, Food Storage, a Dishwashing area, and a Laundry. Back-up space for trailers and trailer storage is important.
- An indoor climbing and bouldering wall adjacent to the Outdoor Excursions area is desired. Climbing wall should not be a focus point, should not be located at the access point. People feel uncomfortable/ invited to climb in front of people.
- Exterior areas with floor drains to wash-off equipment.
- More staff offices and another Conference Room with presentation capabilities are desired.
- More parking for students, faculty, and staff who use the Recreation Center is important.

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MEETING MINUTES

- The Outdoor Excursions Focus Group Provided a list with an overview of the existing outdoor facilities, current problems and a list of desired spaces as follows:

Outdoor Excursions Focus Group

Outdoor Excursions Overview

- Challenge Course & Climbing Wall
  - Free climbing Tuesday and Thursday nights
  - 50+ challenge course events/year, 1,600+ participants
- Equipment Rental Center
  - 1000+ items in inventory
- Mobile Rock Wall
  - 64+ events/year
- Trip Program
  - 50+ trips/year, 500+ participants

Problems

- Storage all over the SRC (North Storage, Cage, Food Lockers, Old Van)
- Limited conference room availability for our meetings. Often unavailable due to leisure line classes or athletics.
- No plumbing makes it difficult to wash dirty dishes from trips and clean our equipment.
- Professional staff do not have enclosed office space. Makes it difficult to make phone calls, or have private conversations with student staff members.
- The UCR climbing community has grown over the years. The outdoor climbing wall that we currently offer does not meet the needs of the students. Students want an indoor, more professional climbing space.

Outdoor Excursions Wish List:

- Washing machine
- Dishwasher
- Industrial sinks
- Enclosed offices (3-4)
- Indoor climbing wall
- 2 conference rooms w/AV presentation capability
- Food storage area
- All equipment storage in one area (kayaks, surfboards, rafts, coolers, mobile climbing wall)
  - Trailer accessible equipment rinse area with floor drain
  - Garage door to exterior (secured and covered), trailer access driveway

Areas:

- Climbing wall
- Front counter/resource center
- Equipment Center
- Van & trailer parking
- Office space
- Conference rooms

Model Outdoor Facility: Boise State University

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University of California, Riverside- Student Recreation Center Expansion
Data Collection-Focus Groups
Day – I
October 7, 2008

Meeting **09**	4:45pm- 5:15pm
Location	Recreation Center Wrap-Up Meeting
Attendees	UCR Project & Steering Committees Cannon Design Brailsford & Dunlavey

Cannon Design, Brailsford & Dunlavey, UCR Committee Members gathered to share the findings after meeting with the different groups.

- Access to the Center was viewed as an obstacle. Parking is viewed as being insufficient.
- Common themes such as pool, additional gyms, informal interaction spaces and Juice Bar were discussed with the different groups of participants. The Indoor climbing wall was also a common theme among students and staff.
- Reduce staffing points-Control areas (Make it one).
- The two committees will be combined in future meetings.
- Pool: One rectangular shape with different depths to run different programs plus a curvilinear area for social gathering.

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MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
Data Collection-Focus Groups
Day – I
October 7, 2008

Meeting 1**0**	5:30pm- 7:00pm
Location	Recreation Center Focus Group-IV

Attendees Students	Rebecca Young	UCR, Student
	Yong Zeng	UCR, Student
	Jessica Maldonado	UCR, Student
	Shang Gao	UCR
	Jan Zari	UCR
	Timothy Shian	UCR
	Justin Lee	UCR
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design
	Sam Jung	Brailsford & Dunlavey
	Matt Bihannon	Brailsford & Dunlavey

- Social spaces are not important.
- The badminton club is popular as is volleyball.
- There is not much interest for indoor soccer.
- More space for martial arts and dance is desired.
- An indoor climbing and bouldering wall would be nice to have.
- It would be nice if Outdoor Excursions offered fishing trips.
- A physical therapist and massage therapy is desired.
- Costs for a personal trainer should be lower.
- If self defense classes for women are offered, they should be shorter and offered more often.
- It would be nice if the Recreation Center opened until 2 a.m.
- There should be a combination of lockers that are rented for the quarter and day use lockers.

DISCLAIMER NOTE:
Please respond with any comments or corrections to these meeting minutes within 5 days of receipt. Prepared By: Jenny Delgado, Associate/Cannon Design

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MEETING MINUTES

University of California, Riverside
Student Recreation Center Expansion
Action Items- Log

*No.	Issues, Notes & Comments	Status	Action By	Due Date
I.07.A	Benchmarking on wellness facilities program in other Universities	Closed	Cannon	

*Workshop Number. Meeting Number. Item Number

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MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
Data Collection-Focus Groups
Workshop-II
October 14, 2008

Meeting **01**	9:30am- 10:30am
Location	Recreation Center Conference Room

Attendees Project &Steering Committees	Lindy Fenex	UCR Recreation
	Kieron Brunelle	UCR Capital Planning
	Jon Harvey	UCR Capital Planning
	Nita Bullock	UCR Capital Planning
	Mercedes Passanisi	BREEN Engineering, Civil
	Jon Ziegler	BREEN Engineering, Civil
	Daniel Vargas	UCR ODC
	Alejandro Cortez	UCR Graduate Student Association
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design
	Monica Amalfitano	P2S Engineering
	Eric Malmquist	UCR, R. Governing Board
	Mandy Silvey	UCR, R. Governing Board

- Parking is an issue that will need to be considered. Some students are not willing to walk to the Recreations center. The walking distance is not a problem for the students. The real issue is to carry bulky items, big duffel bags with training equipment that they have to carry around campus. Renting lockers for longer periods of time could help reduce the problem. A lack of parking in lot 25 was also mentioned.
- Having defined and well lit bike routes, pedestrian walkways and/or transportation system connecting to campus (e.g. residence halls) is another consideration.
- The Campus master plan identifies a parking structure on parking lot 24 and this will serve the Recreation Center. There is no established date for this project.
- Students don't feel safe walking to the Recreation Center at night. "A trolley that stops regularly next to the Recreation Center would be a solution"
- Some of the group members mentioned that the track creates a physical barrier and between P24 and the recreation facilities. The campus master plan retains the track, and the planning process will assume the track will remain.
- Linden Street is not pedestrian friendly.
- Students decide not to workout when there is no parking available.

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MEETING MINUTES

- The building setback on the west side is established, and will be retained. The east/west walkway/fire lane can be relocated to the south and opens the possibility of attaching the Recreation Center Expansion to the south of the existing building. The new walkway/fire lane will need to be aligned with the campus pedestrian circulation system. The fenced in recreation fields can be redeveloped to support the expansion project
- Students complain about not having access to the track. “The track is off limits, it belongs to Athletics”.
- Dance Cheerleading and tae kwon do are constantly practicing on the tennis courts. There are not enough Multi purpose rooms in the recreation center to house these activities.
- 6 tennis courts minimum are needed for matches and practices.
- Consider placing “Social spaces on the roof of the recreation center to create a visual contact & views at night”.
- Operationally, there will only be one access point in the recreation center including the expansion.
- The south west corner of the site can be re-imagined to achieve the needs of the new program.
- Look in to having the East side visually connected with student housing and Aberdeen.
- Make the recreation center a beacon. Visible from other points on campus.
- The possibility of having the events access moved to the North was mentioned (arrive to the gym directly from the North side). The idea was remove from consideration after further examination after the meeting. Campus circulation systems on Linden cannot support the crowds attending events.
- Add a social aspect with to the roller hockey rink with an outdoor sound system.
- Explore the idea of incorporating a second level on the existing building.

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MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
Data Collection-Focus Groups
Workshop-II
October 14, 2008

Meeting **02**	10:30pm- 11:00pm	TAPS
Location	Recreation Center Conference Room	

Attendees	Lindy Fenex	UCR Recreation
	Jon Harvey	UCR Capital Planning
	Nita Bullock	UCR Capital Planning
	Mercedes Passanisi	BREEN Engineering, Civil
	Jon Ziegler	BREEN Engineering, Civil
	Daniel Vargas	UCR ODC
	Alejandro Cortez	UCR Graduate Student Association
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design
	Monica Amalfitano	P2S Engineering
	Eric Malmquist	UCR, R. Governing Board
	Mandy Silvey	UCR, R. Governing Board
	Mike Delo	UCR Transportation & Parking
	Andrew Steuart	UCR Transportation & Parking

- The student community constantly brings up the need for more parking spaces that would be available for students use. TAPS responded that there will never be enough parking for the students.
- UCR is trying to move away from the commuter school to become a resident school.
- A drop-off/ pick-up area to the south of the recreation center would be a nice and safe alternative for the students. Linden is not a safe street to cross at night.
- We have to proceed with the assumption that there will be a parking structure on P24. We have to work with the land we have. Athletics track will remain with Athletics and cannot be used for recreation.
- Activating the southern side of P24 by creating a new access point to the Recreation Center could be an inviting solution.
- Trolley Service: there is 1 shuttle serving the recreation center area until 7:00 PM. increasing the trolley service is not an option unless student parking fees are raised or a student transit fee is charged.

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- The addition to the recreation center will require a discussion on parking for the additional square footage which may be provided in the overall campus-wide parking plan. The project may or may not require additional parking spaces according to LRDP.

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MEETING MINUTES

University of California, Riverside-Student Recreation Center Expansion
Data Collection-Focus Groups
Workshop-II
October 14, 2008

Meeting **03**	11:am- 12:00pm	Housing/Dining
Location	Recreation Center Conference Room	

Attendees	Jon Harvey	UCR Capital Planning
	Lindy Fenex	UCR Recreation
	Keith Fuchigami	Cannon Design
	Kieron Brunelle	UCR Capital Panning
	Daniel Vargas	UCR ODC
	Nita Bullock	UCR Capital Planning
	Alejandro Cortez	UCR Graduate Student Association
	Eric Malmquist	UCR R. Governing Board
	Andy Plumley	UCR Housing/Dining

- Housing / Dining services is interested in placing a food venue in the Student Recreation Center. Hours would be defined at a later date, and are depended upon location and market conditions.
- Proximity to pool and gym space is preferred. Preference is with the gym space. If possible, the food venue location could serve both the gym and the pool.
- Initial space allocation is 500 asf, which does not include space in front of the counter for sales or seating. Information on two existing outlets will be provided to Cannon (Ivan's and the proposed “Bytes” in Engineering Building 2).
- Furnishing infrastructure to support banquets is another need. This would include power and space for prep and clean-up.
- The SRC is the largest place on campus to hold large receptions, and is used to hold various events throughout the year (two to three).

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MEETING MINUTES

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Meeting **04**	1:00pm- 1:30pm	Telecommunications/Physical Plant
Location	Recreation Center Conference Room	

Attendees	Jon Harvey	UCR Capital Planning
Students	Lindy Fenex	UCR Recreation
	Jenny Delgado	Cannon Design
	Keith Fuchigami	Cannon Design
	Nita Bullock	UCR Capital Panning
	Ron Lee	Saiful/Bouquet, Structural
	Alejandro Cortez	Graduate Students Association
	Dan Martin	UCR Telecomm
	Jon Ziegler	BREEN Engineering, Civil
	Mercedes Passanisi	BREEN Engineering, Civil
	Chuck Spini	UCR Physical Plant
	Eric Malmquist	UCR R. Governing Board
	Ernest Ma	UCR Facility

Keith Fuchigami gave an overview of the different options available to for the Recreation Center expansion.

- Expansion option from 30,000 SF to 50,000 SF. These spaces would be composed of mostly Fitness-weight room and potentially 2 gymnasiums. Multi-purpose rooms and office spaces.
- The main telecomm is located in the main electrical room. It already has a DRU because of distance. DRU is at maximum capacity. We can add more DRU but if feed from Pentland can be removed.
- There is existing wireless capacity in the recreation center. Would like to have this at the pool area as well.
- Charter cable provides TV access.
- Looking at upgraded cardio-theater audio visual system. Want to explore options for cardio.
- The University is the Voice/Data provider.

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- Copper and fiber pathways are needed (4-4")- MDF is located near freeway off of University.
- The existing fire alarm system is "Symplex"
- Upsize substation might be needed for expansion. Existing already at maximum capacity.
- No lighting Upgrades have been done since original installation= Good opportunity to get LEED points.
- AHU- have inlet vanes- replace with VFD (LEED).
- Replace Honeywell energy management system completely within building.
- Johnson Controls, Allerton, Siemens located at UCR Steam plant.
- Air changes/ lighting standards for MP rooms, Fitness areas and gymnasiums are different from classrooms. This type of building has different volumes.
- Dual lighting levels/ natural lighting in the rooms are used to reduce usage of energy.
- A Variable Frequency Drive can be added to the renovation to moderate the horse power of the mechanical system (Energy Conservation).

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University of California, Riverside- Student Recreation Center Expansion
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Meeting **05**	1:30pm- 2:00pm	Police
Location	Recreation Center	

Attendees	Jon Harvey	UCR Capital Planning
	Lindy Fenex	UCR Recreation
	Jenny Delgado	Cannon Design
	Keith Fuchigami	Cannon Design
	Daniel Vargas	UCR Capital Panning
	Eddie Garcia	UC Police Department
	Mike Lane	UC Police Department
	Alejandro Cortez	Graduate Students Association

- Security guards are hired only on special events.
- The alarm on the existing recreation center reports to the main police department. Property crimes are the most common in the recreation center.
- When alarm sounds in the police department, a generic signal is received. This alarm does not locate where in the perimeter of the building is coming from.
- The panic alarm is for an unsafe situation. The internal surveillance system is stand alone for internal Recreation Center use only, it does not report to the police.
- There are minimum criteria/ standards to be met in a security camera system. Such as Pixel resolution and night resolution.
- There are no emergency phones around the recreation center.
- There is an exterior lighting plan for the campus.
- If the density increases, the demand for police services will increase. Coordination with Escort services will also increase. The escort services run out of the women resource center. It's a volunteer program.
- Having the memberships limited to students, faculty and staff helps with keeping the safety issues under control.
- The police department recommends walking never alone and to use the escort service. The escort service runs until 1 or 2 am.

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- Lighting and call boxes will be necessary on the official paths. Watch natural paths (short cuts) with not enough light.
- The hedges on Linden increase the insecurity in the walk path from family housing to the Recreation Center.

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Meeting **06**	3:15pm- 4:30pm	Students with Disabilities
Location	Recreation Center	

Attendees	Jon Harvey	UCR Capital Planning
Recreation Staff	Lindy Fenex	UCR Recreation
	Jenny Delgado	Cannon Design
	Keith Fuchigami	Cannon Design
	Daniel Vargas	UCR ODC
	Suzanne Trotta	UCR Students with Disabilities

- Portable lift is recommended for disabled at shallow water area.
- There is no participation from students with disabilities on sports or recreation events.
- Add plugs for information booths.
- Take ASU swimming pool as an example.
- Keep in mind accessible spaces when allocating spectators.

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Meeting **07**	2:30pm- 3:00pm	Athletics
Location	Recreation Center	

Attendees	Jon Harvey	UCR Capital Planning
	Lindy Fenex	UCR Recreation
	Jenny Delgado	Cannon Design
	Keith Fuchigami	Cannon Design
	Kieron Brunelle	UCR Capital Panning
	Daniel Vargas	UCR ODC
	Janet Lucas	UCR Athletics
	Alejandro Cortez	Graduate Students Association

- Janet Lucas expressed that she was happy to be involved with the recreation facilities and provided a written handout to the committee.
- Janet provided the group with a list of items on how Athletics use the Recreation Center. In a brief summary, the athletics department uses Gymnasium, Locker rooms, Meeting/ Activity rooms, storage, Tennis Courts for games, pre-games and practices.
- Athletics would like an upgrade on the lighting, Increase the number of locker rooms to allow for tournaments, more meeting rooms for pre-game, half time, and postgame activities. Additional storage space is needed for baskets, sound equipment, ticket equipment, etc.
- Would be nice to have UCR representation at the lobby. Concessions booth, ticket booth (space to reconcile tickets).
- Other support areas: Increase the electricity capabilities & expand parking capacity.

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University of California, Riverside- Student Recreation Center Expansion
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Meeting **08**	3:00pm- 3:30pm	Fire Marshall
Location	Recreation Center	

Attendees	Jon Harvey	UCR Capital Planning
	Lindy Fenex	UCR Recreation
	Jenny Delgado	Cannon Design
	Keith Fuchigami	Cannon Design
	Daniel Vargas	UCR ODC
	Alejandro Cortez	Graduate Students Association
		Scott Corrin, UCR Fire Marshall

- The different options for the Recreation Center expansion location were presented to Scott Corrin [See Exhibit-A].
- Moving the fire lane to the south of existing location is an option. Be careful with the Fire Hydrant water lines. We cannot build buildings on above fire water mains.
- Option 1. We would have to bring the structure and the entire building up to current code. The existing Recreation Center was designed under the 1988 UBC. There have been significant changes to the code since then. On this option also the Mechanical services would be impacted.
- Option 2. The mechanical equipment wasn't sized for an additional court.
- Exiting: There is a concern on the use of the building for other than sports events. This building is used for concerts and commencement ceremonies. Exiting from the main gymnasium is always used for staging concerts and events.
- The building needs a dedicated generator.
- Occupant load: A request was made for acceptance of an occupant load of 150 in the gymnasium. This is because the use will be strictly for Recreation. The Fire Marshall said no to the negotiations on the occupant load factors at this point. He can consider this request when the project is in Schematic Design. If there are two distinct structures, the Fire Marshall is willing to entertain the idea of a lower occupant load. Once the official program is approved, and its clearly established that the expansion facilities will only be used for recreation purposes, this request can be considered. Both options will be presented in the report for information purposes.

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- Making programmatic changes might help with the negotiation for toilet requirements (water closet count).
- Work with Governing board to change the events programs.
- Fire Marshall recommended going with the most conservative count when developing the DPP (worst case scenario).
- In conclusion the Fire Marshall said that any of the proposed sites are doable.

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Meeting 09	3:30pm- 4:00pm	Lesbian, Gay, Bisexual and Transgender Resource Center
Location	Recreation Center Conference Room	

Attendees	Jon Harvey	UCR Capital Planning
	Lindy Fenex	UCR Recreation
	Jenny Delgado	Cannon Design
	Keith Fuchigami	Cannon Design
	Daniel Vargas	UCR ODC
	Alejandro Cortez	Graduate Students Association
	Nancy Tubbs	LGBT

- Nancy Tubbs expressed how pleased she was to be invited to represent the LGBT community and provided a list of goals from the LGBT resource center.
- The goal of the LGBT is to create Unisex restrooms and changing rooms that are safe and accessible for all campus members and visitors, including families, people with disabilities or attendants and transgender people. Keith explained that this is now a standard in the programs Cannon Design develops. Cannon Design typically provides for one “Universal Locker Room”, this room typically has private shower, Water Closet, changing area and lockers.
- Emphasis was made to the fact that open locker and shower rooms can be intimidating, uncomfortable and even dangerous places for transgender students, who may be ousted as transgender if they have to undress in front of others.

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Meeting 10	4:15pm- 5:00pm	Wrap-up
Location	Recreation Center	

Attendees	Jon Harvey	UCR Capital Planning
	Lindy Fenex	UCR Recreation
	Jenny Delgado	Cannon Design
	Keith Fuchigami	Cannon Design
	Daniel Vargas	UCR ODC
	Alejandro Cortez	Graduate Students Association
	Derrick Hong	ASUCR
	Eric Malmquist	UCR Recreation Governing Board

- Site: south-west site is good for the pool area with the possibility of building on site option 3 [See Exhibit A] grass area.
- Locker Rooms: prolonged locker rentals are a must for the renovation.
- Food: The initial assumption is the area would be 500 SF for the juice bar program. “Grab & Going” place. Healthy food station. No cooking/ grilling.
- Friendly bike routes (inviting surroundings) to encourage more students participating in the recreation center’s project plans.
- The general consensus on the use of the tennis courts is that 6 tennis courts are needed for both Athletics and Recreation activities. The main competition court is not used at all.
- There is a big need for more office space.
- The occupant load in the gymnasiums should be as prescribed in 2007 CBC.
- A visual connection from Aberdeen in to the recreation building expansion is desired [jogging track with windows overlooking in to the street]

DISCLAIMER NOTE:
Please respond with any comments or corrections to these meeting minutes within 5 days of receipt.

Prepared By: Jenny Delgado, Associate
Cannon Design

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MEETING MINUTES

University of California, Riverside
Student Recreation Center Expansion
Action Items- Log

*No.	Session Date	Issues, Notes & Comments	Status	Action By	Due Date
I.07.A	10.07.08	Benchmarking on wellness facilities program in other Universities	Closed	Cannon	
2.10.A	10.14.08	Information on Operation & Maintenance costs of a pool	Closed	Cannon	
2.10.B	10.14.08	Site Survey	Closed	UCR	
2.10.C	10.14.08	Student Recreation Expansion Goals-From User Groups	Closed	UCR	
2.10.D	10.14.08	Call Box Information	Closed	UCR	

*Workshop Number**.** Meeting Number**.** Item Number

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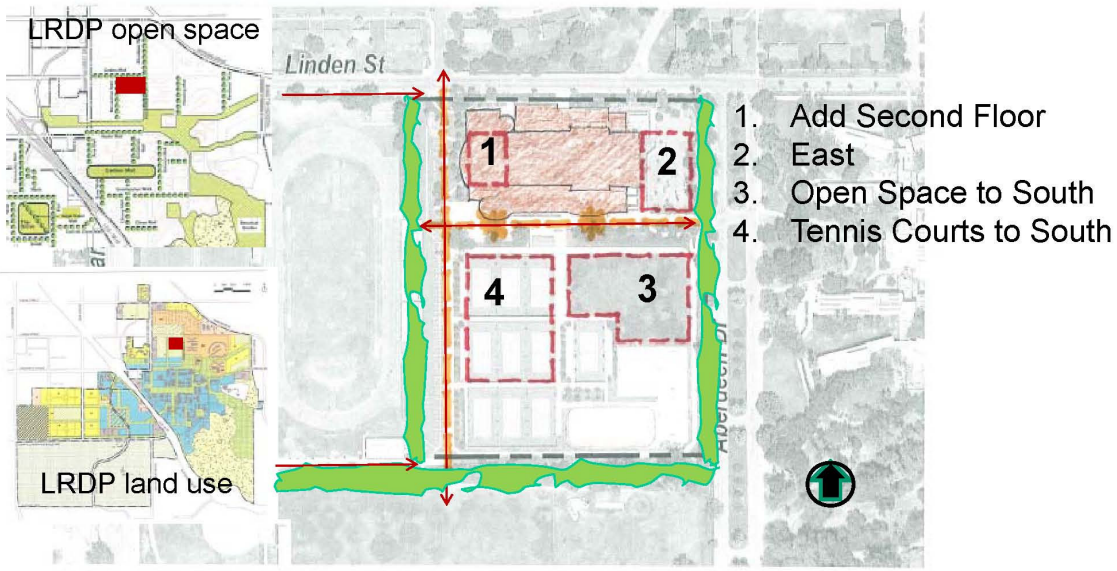
MEETING MINUTES

University of California, Riverside
Student Recreation Center Expansion
Workshop-II
EXHIBIT-A as presented on 10.14.08

Site and Design Challenges



Site Influences & Expansion Options

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11.1 APPENDIX : MEETING MINUTES

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MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
Data Collection-Focus Groups
Workshop-III
October 31, 2008

Meeting **01**	9:30am- 12:30am	Project & Steering Committees UCR Representatives
Location	Bannockburn J-102	Feedback from Program

Attendees Project &Steering Committees	Lindy Fenex	UCR Recreation
	Kieron Brunelle	UCR Capital Planning
	Jon Harvey	UCR Capital Planning
	Daniel Vargas	UCR ODC
	Alejandro Cortez	UCR Graduate Student Association
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design
	Jerry Garcia	UCR APB
	Ryan Briones	ASUCR
	Mike Eason	UCR Recreation
	Ernst Ma	UCR Project Committee, Academic Senate
	David Body	Cannon Design
	Matt Bohannon	Brailsford & Dunlavey

- B&D conducted presentation on bench marking of other peer facilities. Past experiences with referendums and a description of what worked and what didn't work for other Universities.

  Student Survey:

  - Change from parking questions to transportation questions (walking, tram service, bicycle, etc.)
  - No child care in survey
  - Questions such as demand for lap swimming will provide whole campus needs. Demand will be reconciled with existing facilities.
  - Survey will launch November 6th
  - Survey will close November 13th (assuming minimum number of student participants)
  - Survey and Demand Analysis presentation on November 21st

  Discussions during Presentation

  - What is the average referendum turnout? Based on internal B&D database, referendums have had a 16% turnout rate.
  - B&D to look into other referendums with at least a 20% turnout within its database.

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- Answers to questions sent after the last meeting from Jerry were included within the presentation.
- Historical changes since the building opened have altered the perceptions of spaces but have also expanded and maximized space (cardio equipment).
- Expand community participation / membership – there could be significant tax implications depending on the amount of non-University sources of memberships. The recreation center could loose tax-exempt status if it is viewed as competing in the private for-profit market. This could also impact the financing of the facility based on project pro formas. Also, opening to the outside community may require additional square footage to accommodate their needs and limit the focus of the student oriented facility.
- B&D conducted 13 intercept interviews while on-campus. Overall sentiments of the interviews were included within the focus group presentation.
- What is the true need of gymnasium space? Current gym gets closed 60 times per year for various events. Impact not only on intramurals but free play.
- Are outdoor fields included within the scope of work? What cost components will need to be added to the project?
-

- The current recreation activities at the Gymnasiums require more room in-between the courts for spectator seating. Spectator seating in this case is space on the floor for people to stand or sit on the floor to watch the game. Bleachers are not needed.

- Even though office area and Wellness center do not show in the focus groups survey, the need to include these spaces in the program is evident.

- Cannon Design distributed the preliminary space program models with four different models [A, B, C, & D. See Exhibit A] to begin the discussion with the committees and UCR representatives on what is really needed in the program and obtain feedback.

- The number of gymnasiums needed in the Recreation Expansion was discussed in deeper detail. Gymnasiums take up most of the square footage in the program.

- The future need for the gymnasiums might be moved to the proposed West Campus Recreation Center. Another consideration for the West Campus facility is a weight fitness room.

- One court Gym can also be used as a large Multi-Purpose room to serve a dual purpose and host large classes.

- Ethnic Dance classes need room in the Recreation Center [15 to 30 people].

- The Committee consensus on the size of the Multi Purpose rooms is that two rooms of 1,500 SF each will meet current and future needs. This size room will support classes up to 30 people.

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- Graduate students have a special interest in Mountain biking rentals. The proposed Outdoor Excursion storage area can accommodate bike storage and repair if the option is added to the program.
- Combining the Outdoor Excursion display area [line item 22] and the Wellness resource area [line item 31] in an integrated display is worth exploring to reduce program area.
- The Student Recreation Center is a final destination. It is located far from the student classes. Needs to be a place students want to go to.
- Jerry Garcia presented the financial models describing how much the students will pay quarterly depending on the amount of money needed for the expansion.
- The current financial numbers project a large student fee increase to support the proposed programs. The potential three quarter costs for the four models range from $526 to $737, or an increase of 197% to 316%. Recreation will review proposed operating expenditures since this is a large portion of the overall expenditures. The financial numbers will be updated following the operating costs review.
- Student Recreation Center is at capacity. The facility was built to support 11,000 students. Since that time the use of the weigh room and cardio areas have expanded.
- If athletics moves to another venue the addition of one gymnasium might be enough for the recreation program expansion.
- A 20,000 asf weight/fitness room could typically support 23,720 students based on the NIRSA space planning guidelines for Fitness Facilities. These guidelines were developed based on data from the 2006 College Recreational Sports Facility Inventory.
- Rock climbing wall – for estimating purposes we can count on 5 feet per climber on a roped wall. A 400 ASF wall would provide 26 lf of wall space and a 10 foot landing, and could accommodate up to 6 people.
- Bouldering wall area is hard to calculate because people will be traversing the wall. The key with bouldering is to design/create enough space in front of the wall so a steep terrain can be built.
- The general consensus on the location of the climbing/bouldering wall is that it should be placed away from the main entry lobby.
- Wet classroom will have direct access to the pool deck and building. The features of a wet classroom will be identified in the room data sheets part of the Detailed Project Program report. A wet classroom typically has a different floor material (tile) than a regular classroom.

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Data Collection-Focus Groups
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October 31, 2008

Meeting **02**	1:00pm- 3:00pm	Recreation Staff
Location	Bannockburn J-102	

Attendees	Lindy Fenex	UCR Recreation
	Jon Harvey	UCR Capital Planning
	Nita Bullock	UCR Capital Planning
	Alejandro Cortez	UCR Graduate Student Association
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design
	Mike Eason	UCR Recreation
	Rudy Rico	UCR Recreation
	Sheila Gibbs	UCR Recreation
	Paul Young	UCR Recreation
	Kevin Martin	UCR Recreation
	Noelle Conroy	UCR Recreation
	Kim Stotts-Sanchez	UCR Recreation
	Rose Sanchez	UCR Recreation
	Julie Dube	UCR Recreation

- The Space Program Models were introduced to the Recreation Staff. An open forum on the existing needs for each of the Recreation departments was conducted.
- When Athletics comes to the all courts shut down for Recreation use. An additional gym court will provide program flexibility by furnishing space for open recreation activities during events.
- There are approximately 60 events during the year, which includes Athletics and other programs.
- Intramurals activities run 5 nights/ week, Athletics activities run 2 nights/week. This leaves no open recreation time in the gymnasiums.
- The basketball players are constantly fighting with Badminton players for the courts. Currently in the gymnasiums some nights are assigned for basketball and some for badminton.
- The addition of two gymnasiums will not be an overkill given the demand of the intramurals program combined with Badminton. Open Recreation + Intramurals + Clubs all practice at the same time.

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- Indoor Soccer is currently played in the outdoor hockey rink. This could move indoors if a MAC gym is included.
- It was expressed the preference for a MAC court with wood floor finish.
- One MAC court and a two court Gymnasium with spectator seats is the preference of the Recreation Staff. As previously noted, spectator seating is accommodated on the adjacent floor and does not require bleachers
- The jogging track is important to have in the program because the existing outdoor trail will disappear when the addition to the recreation center happens.
- The desire of reducing the gender impact and the “fish bowl effect” in the existing weight room was expressed. One of the options to achieve this would be assigning fitness area for Women only.
- A total of approximately 84 people are practicing dance outdoors on tennis courts and walkways due to a lack of multipurpose rooms. .
- The Intramurals Staff requires an area of 400 SF to accommodate current functions and activities. This area will allow for a work area for the intramural staff and a small private office.
- The general consensus on the location of the Juice Bar is that will be located before the turnstiles at the Lobby-lounge area.
- There is the desire of keeping the control counter together with equipment check-out. The main goal is to save cost in operations.
- Equipment check-out can also be located in the Weight Fitness room.
- The existing Recreation Center Equipment Storage is not big enough for recreation equipment and support. There is currently on washer and one dryer, and a second dryer is needed.
- A Universal Locker Room is required in the program to serve people with special needs such as those physically challenged, transsexual etc. that may require more privacy when changing.
- Chemical room for the pool area need direct access from and to a service driveway.
- There is a need for a single access point with the ability of having the event access isolated. The rest of the building needs to be functioning when events occur. Having the events entry on the 2nd floor could be an option to meet this need.

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- A break room for student staff with copy room/student work area is needed to support the large number of student workers.
- An automated information Kiosk in the lobby was requested.
- Additional 400 SF of storage area was requested. The fitness room storage will have additional 200 SF and the Gym storage will have additional 200 SF of storage area. Space is needed for maintenance equipment such as lift and floor polishers.
- Sports clubs storage requires interior and exterior access due to access problems with the current location. Getting and returning equipment while the recreation center was preparing for events is a problem.
- Recreation cash room function was requested and it has been incorporated into the counter office area.
- The second Outdoor Excursions Zone conference / training room was removed from the program. Other conference / meeting rooms will be available in the facility to address this requirement.

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Meeting **03**	4:00- 5:00pm	Wrap-up
Location	Bannockburn J-102	

Attendees	Lindy Fenex	UCR Recreation
	Jon Harvey	UCR Capital Planning
	Kieron Brunelle	UCR Capital Planning
	Alejandro Cortez	UCR Graduate Student Association
	Richard Zapp	ASUCR
	Chirag Naravati	Recreation Governing Board
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design

- Consideration is needed on how to fund the future development of the West Campus Recreation Fields and those planned north of the Student Recreation Center. Direction on how these will be funded will be furnished at the next meeting.
- The program models will be reduced from four to three models. The differences between the two middle options (B & C) were small.
- It was agreed to have a site analysis charrette with project and steering committees as part of the meeting on 11.21.08. A workbook with room layouts and findings on the analysis of the existing conditions will be provided on 12.04.08.
- The project schedule was revised to furnish additional time to produce the administrative draft report. Although a report could be provided by December 4, the quality of the information presented would be higher if the date was revised.
- The administrative draft report will be provided on January 5, 2009. The balance of the project schedule remains unchanged with the January 13, 2008, review session (morning), and the final report provided by January 20, 2009.

DISCLAIMER NOTE:
Please respond with any comments or corrections to these meeting minutes within 5 days of receipt.

Prepared By: Jenny Delgado, Associate
Cannon Design

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Action Items- Log

*No.	Session Date	Issues, Notes & Comments	Status	Action By	Due Date
I.07.A	10.07.08	Benchmarking on wellness facilities program in other Universities	Closed	Cannon	
2.10.A	10.14.08	Information on Operation & Maintenance costs of a pool	Closed	Cannon	
2.10.B	10.14.08	Site Survey	Closed	UCR	
2.10.C	10.14.08	Student Recreation Expansion Goals-From User Groups	Closed	UCR	
2.10.D	10.14.08	Call Box Information	Closed	UCR	
3.01.A	10.31.08	Jerry to provide potential student fee increases for each $1.0 million in project costs and $100,000 in O&M costs.	Closed	UCR	
3.01.B	10.31.08	Lindy will review and updated proposed operating expenses for the financial model, and will furnish the information to Jerry.	Closed	UCR	
3.03.C	10.31.08	Lindy will furnish direction on if recreation field costs should be incorporated into the financial plan at the next meeting.		UCR	11.07.08
3.02.D	10.31.08	Information on rock climbing and bouldering walls.		Cannon	
3.02.E	10.31.08	Recreation staff will provide information illustrating the utilization of the existing gymnasiums and multi-purpose rooms.			11.14.08

*Workshop Number**.** Meeting Number**.** Item Number

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EXHIBIT-A as presented on 10.31.08

Space Program Models
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University of California, Riverside
Student Recreation Center Expansion

No.	Program Space	Model A	Model B	Model C	Model D	Remarks
	Activity Zone					
	Gymnasiums					
1	Gymnasium A - Two courts, 84' courts	0	0	0	13,520	104' x 130'
2	Gymnasium A Storage	0	0	0	400	
3	Gymnasium B - Two Court MAC Gym, 84' courts	0	0	13,604	0	104' x 130', plus 2 recess. goals (additional 84 SF)
4	Gymnasium B Storage	0	0	400	0	
5	Gymnasium C - One court MAC Gym, 84' court	0	8,404	0	8,404	80' x 104', plus 2 recess. goals (additional 84 SF)
6	Gymnasium C Storage	0	300	0	300	
7	Elevated Jogging Track	0	0	3,168	3,168	5,280 SF @ 60%, 3 lane track,10 laps per mile
	Gymnasiums Assignable Area (ASF)	**0**	**8,704**	**17,172**	**25,792**	
	Specialized Activity Spaces					
8	Fitness / Weight Room	10,500	11,500	12,500	13,500	includes distributed cardio areas
9	Fitness / Weight Room Storage	400	400	400	400	
10	Fitness Coordinator's Office	110	110	110	110	
11	Fitness / Weight Room Work / Repair Room	200	200	200	200	
12	Multi-purpose Room 1	0	0	0	2,500	50 person capacity for Group Fitness classes
13	Multi-purpose Room 1 Storage	0	0	0	200	
14	Multi-purpose Room 2	0	2,000	2,000	2,000	40 person capacity for Group Fitness classes
15	Multi-purpose Room 2 Storage	0	200	200	200	
16	Multi-purpose Room 3	1,000	1,000	1,000	1,000	30 person capacity for Group Fitness classes
17	Multi-purpose Room 3 Storage	150	150	150	150	
18	Classroom	800	800	800	800	seating for 30, wet classrm/demonstration kitchen
	Specialized Activity Spaces Assign. Area (ASF)	**13,160**	**16,360**	**17,360**	**21,060**	
	Actvity Zone Assignable Area (ASF)	**13,160**	**25,064**	**34,532**	**46,852**	
	Outdoor Excursions Zone					
19	Staff Office 1	110	110	110	110	
20	Staff Office 2	110	110	110	110	
21	Staff Office 3	0	0	110	110	
22	Storage Area / Equipment Display	1,000	1,000	1,000	1,000	Includes Food storage area
23	Maintenance Area	500	500	500	500	Includes wash. machine, industr. sinks, dishwash.
24	Training / Resource Room	300	300	300	300	seats 15, maybe used as a Conference Room
25	Conference Room	0	0	300	300	seats 15
26	Rock Climbing Wall with Safety / Landing Area	400	500	600	750	
27	Bouldering Wall with Safety / Landing Area	400	500	600	750	
28	Climbing / Bouldering Wall Registration Counter	120	120	120	120	
29	Climbing and Bouldering Wall Storage	200	200	200	200	
	Outdoor Recreation Zone Assign. Area (ASF)	**3,140**	**3,340**	**3,950**	**4,250**	
	Wellness Component					
30	Wellness Director's Office	0	110	110	110	
31	Entry / Information Resource Area	0	110	110	200	
32	Personal Training / Fitness Room	0	120	120	120	
33	Massage Therapy / Assessment	0	120	120	120	
34	Wellness Storage	0	100	100	100	
	Wellness Componenent Assignable Area (ASF)	**0**	**560**	**560**	**650**	For discussion

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No.	Program Space	Model A	Model B	Model C	Model D	Remarks
	Administrative Office Suite					
35	Staff Office 1	110	110	110	110	
36	Staff Office 2	110	110	110	110	
37	Staff Office 3	110	110	110	110	
38	Staff Office 4	0	110	110	110	
39	Staff Office 5	0	0	110	110	
40	Administrative Assistant 1	100	100	100	100	
41	Administrative Assistant 2	0	100	100	100	
42	Conference Room	600	600	600	600	seats 30
43	Administration Storage	100	100	100	100	
44	Intramurals Office / Work Area	110	110	200	200	
45	Sports Club Office / Work Area	110	110	200	200	
	Administration Office Suite Assign. Area (ASF)	**1350**	**1560**	**1850**	**1850**	
	Entry / Lounge Area					
46	Entry Lobby	1,000	1,150	1,300	1,500	
47	Lounge	1,000	1,150	1,300	1,500	
48	Juice Bar	500	500	500	500	
49	Vending Area	100	100	100	100	
50	Control Counter	200	200	200	200	
51	Control Office	110	110	110	110	
52	Staff Office (Overnight Operations)	110	110	110	110	
	Entry / Lounge Area Assignable Area (ASF)	**3,020**	**3,320**	**3,620**	**4,020**	
	Support Zone					
53	Men's Pool Locker Room	1,000	1,000	1,000	1,000	60 lkr, ftprints, 5 showers, 2 tlts, 2 urinals, 3 sinks
54	Men's Locker Room Sauna	0	0	100	100	
55	Women's Pool Locker Room	1,000	1,000	1,000	1,000	60 lkr ftprints, 5 showers, 4 toilets, 3 sinks
56	Women's Locker Room Sauna	0	0	100	100	
57	Universal Locker Room	190	190	190	190	2 - 3 lkr ftprints, 1 shower, 1 toilet, 1 sink
58	Men's Restroom - 2nd Floor	0	0	170	170	2 toilets, 1 urinal, 2 sinks
59	Women's Restroom - 2nd Floor	0	0	170	170	3 toilets, 2 sinks
60	Universal Restroom - 2nd Floor	0	0	80	80	1 toilet, 1 sink
61	Custodial (distributed)	80	80	160	160	2 @ 80 SF each, 1 per floor w/ a custodial sink
62	Custodial / Maintenance Office / Work Room	150	150	200	200	
	Support Zone Assignable Area (ASF)	**2,420**	**2,420**	**3,170**	**3,170**	
	Pool Zone					
63	Pool Filtration	1,000	1,000	1,000	1,000	
64	Pool Storage	800	800	800	800	
65	Aquatic Directors' Office	150	150	150	150	2 person office
66	Lifeguards' Office	150	150	150	150	2 lifeguards & space for emergency cot
	Pool Zone Assignable Area (ASF)	**2,100**	**2,100**	**2,100**	**2,100**	
	Total Building Assignable Area (ASF)	**25,190**	**38,364**	**49,782**	**62,892**	
	Total Building Envelope Area (GSF)	**35,986**	**54,806**	**71,117**	**89,846**	70% Building Efficiency
	Construction Cost @ $460 / SF	**$16.6 m**	**$25.2 m**	**$32.7 m**	**$41.3 m**	Cost escalated to Fall 2010 construction start
	Allowance for renovation / connection to exist'g.	**$0.3m**	**$0.3 m**	**$0.3 m**	**$0.3 m**	
	Outdoor Pool Construction Cost	**$1.5 m**	**$1.5 m**	**$1.5 m**	**$1.5 m**	5,100 SF Pool, 10,000 SF Deck area
	Total Recreation Center Expansion Constr. Cost	**$18.4 m**	**$27.0 m**	**$34.5 m**	**$43.1 m**	
	Total Rec. Center Expansion Project Cost	**$23.9 m**	**$35.1 m**	**$44.9 m**	**$56.0 m**	Add 30% to Construction Cost

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Meeting **01**	9:30am- 11:30am	Project & Steering Committees UCR Representatives
Location	Bannockburn J-102	Pool needs/ requirements

Attendees Project &Steering Committees	Lindy Fenex	UCR Recreation
	Jon Harvey	UCR Capital Planning
	Alejandro Cortez	UCR Graduate Student Association
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design
	Ryan Briones	ASUCR
	Ernst Ma	UCR Project Committee, Academic Senate
	Peter J. Burke	UCR Steering Committee, Academic Senate
	Matt Reynolds	Counsilman-Hunsaker

- Counsilman-Hunsaker (Aquatics consultant) represented by Matt Reynolds provided an introductory presentation with an overview of Leisure Pool activities and elements that compose these types of pools in general.

  Leisure Pool Elements: promote social gathering.

  - Current Channel
  - Vortex: could become water volleyball & basketball
  - Slides
  - Underwater Bench
  - Bubble Couch
  - Zero depth Entry: this is a nice feature but is not an efficient use of the pool area.
  - Wet Deck
  - Spa: California Code dictates a maximum of 250 SF for a spa.

  Lap Swimming: activities/ lane

  2 Lanes: lap swimming +lesson teaching
  4 Lanes: lap swimming + lesson teaching + water volleyball + water basketball.
  6 Lanes: lap swimming + lesson teaching + water volleyball + water basketball + inner-tube + water polo + club water polo.

  Water Depth.

  0-3.5 feet: Recreation+ wellness+ therapy
  3.5-5 feet: Recreation + Lap Swimming + Wellness + Therapy
  6-10 feet: Swimming + Water Polo + Synchronized Swimming

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- Discussion during Presentation.
  - Life Guard Certification will be an important part of the Recreation Program. Students will be able to get certified and then work as Life Guards in the Recreation Center.
  - There was a positive reaction on the pool images showing areas of the pool partitioned to group people.
  - The general consensus on how to address ADA access to the pool is to provide flexibility; a portable Battery Powered Lift is the way to go.
  - After presenting the different uses of a pool depending on the water temperature these are designed for, the group voiced that the new recreation pool will be used mainly for Recreation/Leisure. The water temperature for this use is 82-86 degrees.
  - Among the design issues to consider when planning for a pool are: the type of pool [Gutters vs. Skimmers], Filtration System, Water Chemistry.
  - Characteristics of Skimmers: Water level is 6" below the deck surface. System creates more water turbulence. Circulation not as ideal for high use pools. Does not require a balance tank.
  - Characteristics of Deck Level Gutter: Water level is the same as deck surface. System allows for more calm water surface when swimming. There is always a slight water fall noise as water is continually flowing into the gutters. It is more user friendly, easy to get in and out anywhere around the pool perimeter.
  - Among the items to take into consideration for energy conservation when designing a pool are: Design pool with minimal footprint, Pump efficiency improves with a SPCS [Smart Pump Control System].For water efficiency we should consider reusing pool wastewater from backwashing and deck drains, Use high efficiency fixtures and sensors to reduce potable water demand and Pool covers to reduce evaporation.
  - Energy & Atmosphere. Install metering equipment for pool fill lines, waste lines, pump motors, pool heaters, pool chemistry controllers, etc.
  - Design for pump space for future heating with solar panels.

  Decision Making Checklist:

  2 Lanes: lap swimming +lesson teaching
  4 Lanes: lap swimming + lesson teaching + water volleyball + water basketball.
  6 Lanes: lap swimming + lesson teaching + water volleyball + water basketball + inner-tube + water polo + club water polo.

- A decision was made to have an equal portion of the pool for leisure and an equal portion for lap swimming. A desire was expressed for 6 lap lanes.

- The lap lanes were requested to have a depth ranging from 6 ft at the shallow end to 10 ft at the deep end to allow for lifeguard training and water polo. If deep water cannot be provided for the entire lap area then it was requested that there be deep water in one of

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the corners as shown in the presentation example. A desire to explore a drop slide or diving in the deep water portion of the lap lanes was expressed. It was requested that the 3'-6" water depth in the leisure portion of the pool be maximized.

- Temperature: 82 to 86 degrees for a Recreation/Leisure pool.
- Gutter profile: Deck level gutter.
- Deck Equipment: The inclination is to provide for a portable Pool Lift.
- The maintenance and safety equipment was touched upon briefly just to inform the Project Committee that these are required by code and storage for them will need to be provided.
- A decision was made to have a white plaster finish. Underwater lights and pool covers were also requested.
- Diving was discussed for the deep water portion of the lap lanes. It was requested that space in the leisure portion of the pool be allotted for a water slide in the future (as a place-setter), meaning that the deck and pool clearances be met and piping be installed for the addition.
- The spa is an important piece in the recreation program and will complement the wellness aspect of the Recreation Center.
- The Campus water is extremely hard. Water softener is needed.
- The spa size was requested to be maximized by code in the 240 square foot range. It was mentioned that the current mechanical equipment space allowance is 1000 square feet.

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Meeting **02**	11:30pm- 12:00pm	Environmental health & Safety Design & Construction
Location	Bannockburn J-102	Pool Requirements

Attendees	Lindy Fenex	UCR Recreation
	Jon Harvey	UCR Capital Planning
	Alejandro Cortez	UCR Graduate Student Association
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design
	Matt Reynolds	Counsilman & Hunsaker
	Ross Grayson	UCR EH&S
	Edgar Romo	UCR EH&S
	Kieron Brunelle	UCR Capital Planning

- An overview of the technical aspects involved in designing a pool was presented to the representatives of UCR Environmental, Health & Safety.
- In regards to the filtration system and the chemical treatment systems, we asked Ross Grayson and Edgar Romo from the Environmental Health & Safety department about the systems utilized in the Existing Pool located at the Physical Education Building. The direction is to design the pool with State of the Art systems, utilizing Best Practices in Energy Conservation and Design.
- The existing pool at the Physical Education Building has many deficiencies.
- High rate sand filters was chosen based on its serviceability, low maintenance, user friendly interface, lower initial cost, and ability to drain backwash water directly to the sewer.
- It was asked if the filter backwash water could be reused for “gray water” for irrigation. The backwash water will need to be treated and stored before it can be used for irrigation.
- Operations: the delivery of the chlorine would happen once a week. We need to locate the pool storage room close to a vehicular access road. The chemical storage room needs to be at grade.
- The new recreation pool will be one body of water plus the Spa.
- The pool will be designed to the Virginia Baker Act with dual main drains for each pump and grates required by this Federal Regulation.

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Meeting **03**	1:00- 2:30pm	Project Committee & Capital & Physical Planning
Location	Bannockburn J-102	Site Analysis Meeting

Attendees	Lindy Fenex	UCR Recreation
	Jon Harvey	UCR Capital Planning
	Kieron Brunelle	UCR Capital Planning
	Nita Bullock	UCR Capital Planning
	Eileen Takata	UCR Capital Planning
	Alejandro Cortez	UCR Graduate Student Association
	Eric Malmquist	Recreation Governing Board
	Mandy Silvey	Recreation Governing Board
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design

- Keith Fuchigami presented the program space models uploaded in the survey [see exhibit A] Model A with a GSF of 39,000 SF. Model B with one gym and one MAC with a GSF of 70,034 SF and Model C with 2 Gyms plus one MAC with a total of 92,020 GSF.
- The site limitations discussion started with the presentation of a “block model” representing the footprint of Model B. This preliminary “block model” accommodates two multipurpose rooms where the existing weight/fitness room is currently located (renovation). This “block model” assumes leaving the existing fire lane running east-west providing a connection to the Student Recreation Center Expansion through an enclosed second level bridge. This will allow for minimum disruption of the Recreation Center operations while the new addition is built. This could be a great idea for phasing in construction.
- Nita expressed that we can’t let the divider on Aberdeen Drive be the guide for the space to work for the expansion.
- There is an existing 8” water line running along the fire lane road. How feasible is it to relocate this water line? Jon expressed that this should not stop us from exploring the idea of having the expansion attached to the existing building.
- There is a desire of having the Recreation Expansion on the second floor. A major seismic upgrade will have to happen on the existing building in order to build a second floor up to current building code standards. The entire existing building will also have to be upgraded.

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- It was also mentioned that in order to build a second floor and avoid seismic upgrades demolishing the first floor program areas in its entirety and building a new two story volume would be an option (this would make phasing more difficult).
- A second floor can be suspended above the existing roof from a series of trusses spanning across the width of the existing building, thus creating an independent structure. This option will have minimal impact to the existing structure below, but will NOT be cost-effective.
- Service Road: service vehicles and event trucks need access to the existing Student Recreation Center north storage room and the events entry for setting up prior to an event.
- The east side of the Recreation Site does not have enough area to accommodate the size of model B without blocking access to the mechanical rooms and the north storage room.
- The pool cannot be located at the east side of the Existing Recreation Center because the pool and deck would be in shade due to the shadow from the Gymnasium.
- The set backs along Aberdeen Drive are to be maintained for the expansion project.
- There is a proposed service road part of the Engineering Building Unit 3 development. When completed, this road will run east-west from Aberdeen Drive to Canyon Crest and could be a way of providing service access to the recreation expansion site.
- Making the pool the center of the activities is a priority for the project committee. Consideration should be given to locating the pool at the north-west of the tennis courts site [re-arranging the courts if necessary].
- The desire of keeping the main Recreation Entrance and the event entrance apart was expressed during the discussion. People going to the event entrance should clearly know where they are going and people visiting the recreation center should not get confused.
- “Anything within the site can be re-invented [wiped out] to create an awesome Recreation Center”
- The west side of the site will have to be visually attractive and engaging.
- Accessing through the middle of the site for service can be a possibility.
- Using the land base as best as possible is one of the Campus goals.

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- Maximizing the area around the pool with trees and green open area is another item to take into consideration when developing the design of the outdoor area.

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Meeting **04**	3:30pm	Joint Project & Steering Committee, PMT
Location	Bannockburn J-102	Wrap-Up Session

Attendees	Lindy Fenex	UCR Recreation
	Jon Harvey	UCR Capital Planning
	Kieron Brunelle	UCR Capital Planning
	Alejandro Cortez	UCR Graduate Student Association
	Eric Malmquist	Recreation Governing Board
	Mandy Silvey	Recreation Governing Board
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design

- The proposed pool would need to serve the recreation needs of the entire campus. Since the Recreation Facilities Governing Board Project Committee representatives missed the morning discussion, a copy of the presentation was given to Lindy for their review. Pool features that could be consider will be provided prior to the next meeting.
- A vision for the proposed west campus recreation facility was discussed to understand the potential impact on the overall recreation space needs. The program could have: one, two court gymnasium, two multipurpose rooms, a small administration area and a weight and fitness area. The West Campus Center would not have a pool.
- Funding for the future campus recreation field space will not be included in the financial analysis or the referendum: Lindy felt that the preliminary numbers to expand the student Recreation Center are high as a reason not to include the cost. Funding to build the fields will need to come from revenues obtained from future student growth.
- Cannon shared comments on the draft project goals previously provided by the Recreation Facilities Governing Board. The Board will review and update the goals for the next Project Committee meeting.
- Brailsford & Dunlavey (B&D) is scheduled to provide preliminary program results from the survey to Cannon on November 14. The proposed November 21 meeting agenda provides time for B&D to present survey results, and to review and revise the program. The meeting will also include a site analysis charrette.
- The proposed Design Review Board presentation is scheduled for January 6 was viewed as achievable. Site information will be presented to the Campus Architect at the December 4 meeting or shortly after.

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- Summary of upcoming Meetings:
  11.21.08. Site Analysis Charrette, flush-out program.
  12.02.08. A preview of the room data sheets will be delivered to Jon for review prior to the 12.04.08 meeting.
  12.04.08. Summary of findings, linkages, pedestrian traffic and how these will affect the site. Presentation to the Campus Architect [one hour].
  12.12.08. Draft of the Presentation to Design Review Board due this day [this material is the revised version of the power point presentation to the Campus Architect] .
  The design review board presentation via conference call to be scheduled the week of 12.15.08.
  01.05.09. Administrative Draft due.
  01.20.09. Final report due to UCR.

DISCLAIMER NOTE:
Please respond with any comments or corrections to these meeting minutes within 5 days of receipt.

Prepared By: Jenny Delgado, Associate
Cannon Design

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Action Items- Log

*No.	Session Date	Issues, Notes & Comments	Status	Action By	Due Date
I.07.A	10.07.08	Benchmarking on wellness facilities program in other Universities	Closed	Cannon	
2.10.A	10.14.08	Information on Operation & Maintenance costs of a pool	Closed	Cannon	
2.10.B	10.14.08	Site Survey	Closed	UCR	
2.10.C	10.14.08	Student Recreation Expansion Goals-From User Groups	Closed	UCR	
2.10.D	10.14.08	Call Box Information	Closed	UCR	
3.01.A	10.31.08	Jerry to provide potential student fee increases for each $1.0 million in project costs and $100,000 in O&M costs.	Closed	UCR	
3.01.B	10.31.08	Lindy will review and updated proposed operating expenses for the financial model, and will furnish the information to Jerry.	Closed	UCR	
3.03.C	10.31.08	Lindy will furnish direction on if recreation field costs should be incorporated into the financial plan at the next meeting.	Closed	UCR	11.07.08
3.02.D	10.31.08	Information on rock climbing and bouldering walls.	Closed	Cannon	
4.04.A	11.07.08	Recreation Facilities Governing Board will furnish review and update project goals, and furnish proposed pool program.		RGB	

*Workshop Number**.** Meeting Number**.** Item Number

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EXHIBIT-A as presented on 11.07.08

Space Program Models
November 3, 2008

University of California, Riverside
Student Recreation Center Expansion

No.	Program Space	Model A	Model B	Model C	Remarks
	Activity Zone				
	Gymnasiums				
1	Gymnasium A - Two Court Gym, 84' long BB courts	0	0	13,520	104' x 130'
2	Gymnasium A Storage	0	0	500	
3	Gymnasium B - One Court Gym, 84' long BB court	0	8,320	0	80' x 104'
4	Gymnasium B Storage	0	400	0	
5	Gymnasium C - One Court MAC Gym, 84' long BB court	0	8,404	8,404	80' x 104', plus 2 recessed goals (additional 84 SF)
6	Gymnasium C Storage	0	400	400	
7	Elevated Jogging Track	0	0	5,280	3 lane track,10 laps per mile
	Gymnasiums Assignable Area (ASF)	**0**	**17,524**	**28,104**	
	Specialized Activity Spaces				
8	Fitness / Weight Room	11,000	12,000	13,000	includes distributed cardio areas
9	Fitness / Weight Room Storage	400	500	500	
10	Fitness Coordinator's Office	110	110	110	
11	Fitness / Weight Room Work / Repair Room	200	200	200	
12	Multi-purpose Room 1	0	0	2,000	40 person capacity for Group Fitness classes
13	Multi-purpose Room 1 Storage	0	0	200	
14	Multi-purpose Room 2	0	1,500	1,500	30 person capacity for Group Fitness classes
15	Multi-purpose Room 2 Storage	0	150	150	
16	Multi-purpose Room 3	1,500	1,500	1,500	30 person capacity for Group Fitness classes
17	Multi-purpose Room 3 Storage	150	150	150	
18	Classroom	800	800	800	seating for 30, wet classroom / demonstration kitchen
	Specialized Activity Spaces Assign. Area (ASF)	**14,160**	**16,910**	**20,110**	
	Actvity Zone Assignable Area (ASF)	**14,160**	**34,434**	**48,214**	
	Outdoor Excursions Zone				
19	Staff Office 1	110	110	110	
20	Staff Office 2	110	110	110	
21	Staff Office 3	0	0	110	
22	Entry / Rental Counter / Equipment Display	200	200	200	
23	Storage Area	800	800	800	includes Food storage area
24	Maintenance Area	500	500	500	includes washing machine, industrial sinks, dishwasher
25	Training / Resource Room	300	300	300	seats 15, maybe used as a Conference Room
26	Rock Climbing Wall with Safety / Landing Area	400	500	600	
27	Bouldering Wall with Safety / Landing Area	400	500	600	
28	Climbing / Bouldering Wall Registration Counter	120	120	120	
29	Climbing and Bouldering Wall Storage	200	200	200	
	Outdoor Recreation Zone Assign. Area (ASF)	**3,140**	**3,340**	**3,650**	
	Wellness Component				
30	Wellness Director's Office	110	110	110	
31	Entry / Information Resource Area	110	110	200	
32	Personal Training / Fitness Room	120	120	120	maybe used for Massage Therapy / Assessment
33	Massage Therapy / Assessment	120	120	120	maybe used as a Personal Training / Fitness Room
34	Wellness Storage	100	100	100	
	Wellness Componenent Assignable Area (ASF)	**560**	**560**	**650**	

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No.	Program Space	Model A	Model B	Model C	Remarks
	Administrative Office Suite				
35	Staff Office 1	110	110	110	
36	Staff Office 2	110	110	110	
37	Staff Office 3	110	110	110	
38	Staff Office 4	0	110	110	
39	Staff Office 5	0	0	110	
40	Administrative Assistant 1	100	100	100	
41	Administrative Assistant 2	0	100	100	
42	Student Employees' Work Room	200	250	300	
43	Conference Room	600	600	600	seats 30
44	Admistration Work Room	240	240	240	
45	IT Server Room	110	110	110	
46	Administration Storage	100	100	100	
47	Recreation Sports Office	110	110	110	
48	Recreation Sports Work Room	200	300	400	Intramurals, Club Sports
	Administration Office Suite Assign. Area (ASF)	**1990**	**2350**	**2610**	
	Entry / Lounge Area				
49	Entry Lobby	1,000	1,250	1,500	
50	Lounge	1,000	1,250	1,500	
51	Juice Bar	500	500	500	
52	Vending Area	100	100	100	
53	Control Counter	200	200	200	
54	Control Office	110	110	110	safe for cash transactions located in this Office
55	Staff Office (Overnight Operations)	110	110	110	
	Entry / Lounge Area Assignable Area (ASF)	**3,020**	**3,520**	**4,020**	
	Support Zone				
56	Men's Pool Locker Room	1,000	1,000	1,000	60 locker ftprints, 5 showers, 2 toilets, 2 urinals, 3 sinks
57	Men's Locker Room Sauna	0	0	100	
58	Women's Pool Locker Room	1,000	1,000	1,000	60 locker footprints, 5 showers, 4 toilets, 3 sinks
59	Women's Locker Room Sauna	0	0	100	
60	Universal Locker Room	190	190	190	2 - 3 locker footprints, 1 shower, 1 toilet, 1 sink
61	Men's Restroom - 2nd Floor	0	110	170	
62	Women's Restroom - 2nd Floor	0	110	170	
63	Universal Restroom - 2nd Floor	0	80	80	
64	Custodial (distributed)	80	80	160	80 SF each per floor with a custodial floor sink
65	Custodial / Maintenance Office / Work Room	150	150	200	
	Support Zone Assignable Area (ASF)	**2,420**	**2,720**	**3,170**	
	Pool Zone				
66	Pool Filtration	1,000	1,000	1,000	
67	Pool Storage	800	800	800	
68	Aquatic Directors' Office	150	150	150	2 person office
69	Lifeguards' Office	150	150	150	2 lifeguards & space for emergency cot
	Pool Zone Assignable Area (ASF)	**2,100**	**2,100**	**2,100**	
	Total Building Assignable Area (ASF)	**27,390**	**49,024**	**64,414**	
	Total Building Envelope Area (GSF)	**39,129**	**70,034**	**92,020**	70% Building Efficiency
	Construction Cost @ $460 / SF	**$18.0 m**	**$32.2 m**	**$42.3 m**	Cost escalated to Fall 2010 construction start
	Allowance for renovation / connection to exist'g.	**$0.3m**	**$0.3 m**	**$0.3 m**	
	Outdoor Pool Construction Cost	**$1.5 m**	**$1.5 m**	**$1.5 m**	6,000 SF Pool, 10,000 SF Deck area
	Total Recreation Center Expansion Constr. Cost	**$19.8 m**	**$34.0 m**	**$44.1 m**	
	Total Rec. Center Expansion Project Cost	**$25.7 m**	**$44.2 m**	**$57.3 m**	Add 30% to Construction Cost

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MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
Programming/Referendum Plan
Workshop-V
November 21, 2008

Meeting **01**	9:30am- 11:00am	Project & Steering Committees
Location	Bannockburn J-102	Survey Findings

Attendees Project &Steering Committees	Lindy Fenex	UCR Recreation
	Jon Harvey	UCR Capital Planning
	Tim Ralston	UCR Capital Planning
	Kieron Brunelle	UCR Capital Planning
	Berent Pipert	UCR Capital Planning
	Jerry Garcia	UCR APB
	Alejandro Cortez	UCR Graduate Student Association
	Mandy Silvey	UCR Recreation Governing Board
	Eric Malmquist	UCR Recreation Governing Board
	Ryan Briones	ASUCR
	Ernst Ma	UCR Project Committee, Academic Senate
	Matt Bohannon	Brailsford & Dunlavey
	Sam Jung	Brailsford & Dunlavey
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design
	Lauren Coles	Cannon Design

The meeting began with Brailsford & Dunlavey (B&D) presenting an overview of the survey information gathered from November 5, 2008 to November 13, 2008. During this time a total of 1,681 students participated in the survey, which focused on the student demand and utilization of the current Student Recreation Center (SRC). The margin of error in the study was +/- 2.9%.

Summary of Findings:

- B&D discussed the survey statistics to the Project Committee; elaborating upon the difference between total response and true response, margin of error, and the statistically valid survey sample.
- The presentation consisted of seven sections: schedule update, review of previous findings, survey analysis, demand analysis, fee support, recommendations, and next steps.

  Schedule update – the project is on schedule with a completion date set for mid December.

  Review of previous findings – B&D highlighted key points from the last focus group meetings, including students' needs and perception of recreation on campus. A discussion of recreation center planning standard placed UCR's square footage per student near its peer average.

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Survey analysis – consisted of four parts: student demographics, recreation preferences, off-campus recreation, student demand, wellness preferences.

Demand analysis – aggregating the student survey results, B&D utilized its proprietary model, Demand-based Programming, to access recreation facility needs. Depth & breath, activity prioritization, space reconciliation, and utilization schedules are the collective components of this model.

First priority – weight and fitness, cardiovascular fitness, indoor track, group fitness, and swimming;

Second priority – group exercise space, outdoor track, and leisure swimming;

Third priority – indoor basketball, outdoor tennis, racquetball / handball, social lounge, billiards, and rock climbing walls;

Fourth priority – badminton, martial arts, outdoor basketball, indoor soccer, table tennis, and water aerobics;

Fifth priority – outdoor soccer, volleyball, and roller hockey.

Fee support – analysis showed that 35% of the student population preferred option C (40,000 gsf), followed by 27% who preferred option A (90,000 gsf). Cross tabulation of demographics also indicated student preferences remained somewhat constant with initial findings.

Recommendations – Option C was the most palatable choice among survey participants.

- B&D recommends increasing weight and fitness to 20,000 asf, increasing the number of multipurpose rooms, including wellness into recreation programs, and gymnasium space was not the highest priority among students.
- With 50% interest for all available options, there is not enough support to move forward with the referendum; therefore, slowing down the process and leading an education campaign will lead to maximized student involvement.
- B&D recommends implementing the education process and holding the referendum next spring.

Next steps – compile a draft document for review for December 4, 2008.

- The committee asked to cross tab “how students travel to campus” with their “commute time” and whether they lived “on / off campus”.
- The committee agreed that the survey data was consistent with recreation’s own findings. However, student government leaders disagreed with the priority of indoor court space. Their

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experience and interviews with students indicated that the courts were over used and many students were unable to play open court basketball.

- Further discussion on what is needed to continue with a spring referendum focused on the following points.
- Have you experienced a successful referendum with 50% interest?
  - 60% interest is the minimum threshold.
  - When referendums fail, it sets the process back an additional two to five years, thus imposing additional risk to the project.
  - The average student participation in student elections is usually below 10%. Over 20% of the students need to participate in the referendum election.
- It is important to note that planning standards shown on the context analysis are based on nationwide numbers. These include the indoor pool areas that don't apply to California.

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Meeting **02**	11:00am- 12:00pm	Project & Steering Committees
Location	Bannockburn J-102	Discuss potential adjustments to Program
Attendees	Lindy Fenex	UCR Recreation
	Jon Harvey	UCR Capital Planning
	Kieron Brunelle	UCR Capital Planning
	Berent Pipert	UCR Capital Planning
	Jerry Garcia	UCR APB
	Alejandro Cortez	UCR Graduate Student Association
	Mandy Silvey	UCR Recreation Governing Board
	Eric Malmquist	UCR Recreation Governing Board
	Ryan Briones	ASUCR
	Matt Bohannon	Brailsford & Dunlavey
	Sam Jung	Brailsford & Dunlavey
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design
	Lauren Coles	Cannon Design

Keith Fuchigami presented a revised version of the space program models based on the draft of the survey results dated 11.14.08. [See Exhibit A].

Summary of Presentation:

The space program models were adjusted based on the survey demand analysis and the priority of spaces as shown on the survey results. All three program models have the same main program elements and their total area (SF) differs depending on whether a Gymnasium is part of the program or not.

The program spaces as shown on Exhibit A were discussed as follows:

- How many students 20,000 SF of Cardio/Fitness would support?
  - To maintain a safe circulation area it is typically recommended to have 80 to 90 SF of area per piece of cardio equipment. 200 to 300 pieces of equipment would be adequate to serve 20,000 to 25,000 students.
- All three space program models now include three Multi-purpose rooms.
- Regarding the rock climbing wall, the Committee noted that rock climbers don't like the "fish bowl effect". The request of not making the climbing wall a focal point was reiterated.

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- Outdoor excursions rentals will need service access. It was also mentioned that the outdoor excursions group is really comfortable with removing the existing outdoor climbing wall if the new program is providing an indoor climbing wall.
- The idea of having the climbing wall and outdoor excursions as a separate building was viewed as a possible option.
- Lindy expressed the desire of centralizing the operations of outdoor recreations, indoor recreations and pool. It would be ideal to have all payments and transactions located at the same counter; however the current operational model of indoor and outdoor recreation is manageable.
- The assigned area for administrative office suites on the space program model spreadsheet is based on the staff projections provided by Lindy. These projections are based on the LRDP 2005.
- The committees expressed the desire of having the lobby-lounge combined with the juice bar located before the turnstiles for easy and inviting access. It was mentioned that it is also desirable to have access to the juice bar from the pool deck.
- The vision of the lobby-lounge area is: to have a flexible space, a generous combination of lounge seating (waiting area) and stools with bar like seating.

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Meeting **03**	1:00- 3:30pm	Project Committee & Capital & Physical Planning
Location	Bannockburn J-102	Site Analysis Charrette

Attendees	Lindy Fenex	UCR Recreation
	Jon Harvey	UCR Capital Planning
	Kieron Brunelle	UCR Capital Planning
	Nita Bullock	UCR Capital Planning
	Eileen Takata	UCR Capital Planning
	Alejandro Cortez	UCR Graduate Student Association
	Eric Malmquist	Recreation Governing Board
	Mandy Silvey	Recreation Governing Board
	YeJooh Hwang	ASUCR
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design
	Lauren Coles	Cannon Design

The purpose of this meeting is to come-up with the preferred site location for the recreation expansion. Keith Fuchigami presented the site influences gathered from CAMPS and LRDP. The site options on the location of the student recreation expansion were developed based on the analysis of the future developments, pedestrian traffic, access roads, and linkages as well as building/pool orientation. Five different expansion options were presented as follows (Refer to Exhibit B for diagrams of each option).

- **Option C**: This option consists of the New Recreation Expansion and Swimming Pool to be located south of the existing Recreation Building with a bridge linking the two buildings. This model assumes renovating the existing weight/fitness room to accommodate 3 new Multi-purpose rooms, Administration offices and Wellness Program. The New Building will allow for all other program components in two floors with a footprint of 19,000 SF plus a 6,000 SF pool/outdoor Recreation Building.
  Feedback: The Committee liked the location of the pool at the south-west of the project site. There is a strong desire of having a grass area around the pool. The championship tennis court will have to be demolished to accommodate the grass area around the pool.
  The possibility was discussed of having outdoor excursions located north-west corner of the site (multiple purpose room A) and allowing for some pull-up parking providing for service access.

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- **Option D**: This option was not received as a positive solution. It will indeed support the north south pedestrian mall development but the general perception was that we are "tunalizing" the space with this option. The pool in this scheme is located at the south edge of the Recreation Site and there are concerns that it is too close to the buildings being built to its south. [See option d part of exhibit B].
- **Options a1 & a2**: These two options consist of attaching a two story building addition to the east of the existing recreation building assuming no gymnasiums will be added to the program. Options a1 & a2 locate 2/3 of the fitness area on the first floor and 1/3 on the second floor of the new addition. The existing weight/fitness room would be renovated to accommodate the space for the multi-purpose rooms. A separate small building with the pool building and outdoor recreations next to the pool deck would be located to the south of the walkway running east-west. Expanding to the east of the events area creates operational difficulties for the recreation staff; however, this option reduces land base use.
- **Option a3**: The concept assumes renovating the first level on existing west and north wings and building a new second floor level on top of the weight/fitness room and multi-purpose rooms. This scheme would also accommodate a two story building addition to the east of the events court with a smaller building to the south of the existing recreation building to house the pool building and the outdoor recreation programs.
  Feedback:
  When presenting this option it was asked what keeps us from doing a three story addition? The reason is that the building total height would be 80 feet. The gymnasium itself is 40 feet tall limiting the number of stories to stack on top of this area.
  Lindy commented that the organizational layout doesn't flow well in this scheme.
  The left over open area is not usable (programmable).
  Phasing would be a problem when building this scheme.
  It is preferred to have the program space located to the south of the existing recreation center rather than to the east.
  It is important to keep the events access away from other programmatic activities.
- **Concluding Discussion:** option C came back as the preferred option. This idea supports the "more events like" entrance and there is an easier connection when the space is on events mode. Option C also leaves more room for future expansion. It was suggested to rotate the pool building east-west to allow for visual connection from the pool and pool deck to the east side of the site.

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- A possible solution for allowing use of the upstairs court for free recreation activities while athletic events are being conducted was to build a glass wall between the two courts and removing the second floor bleachers. The project committee will begin inquiring if removing seating to allow for an additional gymnasium court is a viable approach.
- Lindy observed that none of the schemes have the juice bar accessible from the pool side and the lobby. This will be addressed during the design phase of the project.
- One of the reactions of the committee on the proposed connection bridge was that the bridge could also become part of the recreation center identity.
- Option a3 was the second preferred option.

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November 21, 2008

Meeting **04**	3:30pm	Joint Project & Steering Committee, PMT
Location	Bannockburn J-102	Wrap-Up Session

Attendees	Lindy Fenex	UCR Recreation
	Jon Harvey	UCR Capital Planning
	Alejandro Cortez	UCR Graduate Student Association
	Ryan Briones	ACUCR
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design
	Lauren Coles	Cannon Design

The purpose of this meeting was to obtain direction from the project committee and UCR representatives in the refinement of the program components presented throughout the day.

- In the program model with the option of one gymnasium only, the group wants to go with a MAC court.
- The site options presented demonstrated that the site can house the model with the largest program area and support the needs of a population of 25,000 students. The carrying capacity of the site is shown on space program model “C”.
- Lindy will inquire about remodeling the second floor gymnasium as a solution to providing an additional gym court.
- In regards to the sauna, the project committee decided to take this element out of the program due to operational, maintenance, and safety reasons.
- The staff growth projections allow for reducing the administrative suite by removing the Staff Office 5 - line 32, and Administrative Assistant 2 - line 34 from the Space Program Model-Version 1A with the following assumptions:
  - All existing office space remains and the Control Office on line 47 – contains the secure cash counting and safe room area.
  - Revise the Staff Office in line 48 into a two person office space.
- The Recreation Board swimming pool component priorities and the project goals were distributed and reviewed. Both will be included in the DPP [see exhibit C].
- The combined lounge and lobby programmed area shall allow for fifteen to twenty seats.

DISCLAIMER NOTE:
Please respond with any comments or corrections to these meeting minutes within 5 days of receipt.

Prepared By: Jenny Delgado, Associate
Cannon Design

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MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
Programming/Referendum Plan
Workshop-V
November 21, 2008

Action Items- Log

*No.	Session Date	Issues, Notes & Comments	Status	Action By	Due Date
I.07.A	10.07.08	Benchmarking on wellness facilities program in other Universities	Closed	Cannon	
2.10.A	10.14.08	Information on Operation & Maintenance costs of a pool	Closed	Cannon	
2.10.B	10.14.08	Site Survey	Closed	UCR	
2.10.C	10.14.08	Student Recreation Expansion Goals-From User Groups	Closed	UCR	
2.10.D	10.14.08	Call Box Information	Closed	UCR	
3.01.A	10.31.08	Jerry to provide potential student fee increases for each $1.0 million in project costs and $100,000 in O&M costs.	Closed	UCR	
3.01.B	10.31.08	Lindy will review and updated proposed operating expenses for the financial model, and will furnish the information to Jerry.	Closed	UCR	
3.03.C	10.31.08	Lindy will furnish direction on if recreation field costs should be incorporated into the financial plan at the next meeting.	Closed	UCR	11.07.08
3.02.D	10.31.08	Information on rock climbing and bouldering walls.	Closed	Cannon	
4.04.A	11.07.08	Recreation Facilities Governing Board will furnish review and update project goals, and furnish proposed pool program.	Closed	RGB	
5.03.A	11.21.08	Resolution on the viability of remodeling the second floor gym court.		UCR	

*Workshop Number**.** Meeting Number**.** Item Number

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MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
Programming/Referendum Plan
Workshop-V
November 21, 2008

EXHIBIT-A as presented on 11.21.08

Space Program Models - Version 1A - with separate Outdoor Recreation & Pool Buildings
November 21, 2008

University of California, Riverside
Student Recreation Center Expansion

No.	Program Space	Model A	Model B	Model C	Remarks
	Activity Zone				
	Gymnasiums:				
1	Gymnasium A - Two court Gym, 84' long BB courts	0	0	13,520	104' x 130'
2	Gymnasium A Storage	0	0	500	
3	Gymnasium B - One-court Gym, 84' long BB court	0	0	0	80' x 104'
4	Gymnasium B Storage	0	0	0	
5	Gymnasium C - One-court MAC Gym, 84' long court	0	8,404	8,404	80' x 104', plus 2 recess. goals (additional 84 SF)
6	Gymnasium C Storage	0	400	400	
7	Elevated Jogging Track	0	5,280	5,280	3 lane track,10 laps per mile
	Gymnasiums Assignable Area (ASF)	**0**	**14,084**	**28,104**	
	Specialized Activity Spaces:				
8	Fitness / Weight Room	13,500	13,500	13,500	includes distributed cardio areas
9	Fitness / Weight Room Storage	400	400	400	
10	Fitness Coordinator's Office	110	110	110	
11	Fitness / Weight Room Work / Repair Room	200	200	200	
12	Multi-purpose Room 1	2,000	2,000	2,000	40 person capacity for Group Fitness classes
13	Multi-purpose Room 1 Storage	200	200	200	
14	Multi-purpose Room 2	1,500	1,500	1,500	30 person capacity for Group Fitness classes
15	Multi-purpose Room 2 Storage	150	150	150	
16	Multi-purpose Room 3	1,500	1,500	1,500	30 person capacity for Group Fitness classes
17	Multi-purpose Room 3 Storage	150	150	150	
18	Classroom	800	800	800	seating for 30, classroom / demonstration kitchen
19	Rock Climbing Wall with Safety / Landing Area	600	600	600	
20	Bouldering Wall with Safety / Landing Area	600	600	600	
21	Climbing / Bouldering Wall Registration Counter	120	120	120	
22	Climbing / Bouldering Wall Storage	200	200	200	
	Specialized Activity Spaces Assign. Area (ASF)	**20,510**	**20,510**	**20,510**	
	Actvity Zone Assignable Area (ASF)	**20,510**	**34,594**	**48,614**	
	Wellness Component:				
23	Wellness Director's Office	110	110	110	
24	Entry / Information Resource Area	150	150	150	
25	Personal Training / Fitness Room	120	120	120	
26	Massage Therapy / Assessment	120	120	120	
27	Wellness Storage	100	100	100	
	Wellness Componenent Assignable Area (ASF)	**600**	**600**	**600**	
	Administrative Office Suite:				
28	Staff Office 1	110	110	110	
29	Staff Office 2	110	110	110	
30	Staff Office 3	110	110	110	
31	Staff Office 4	110	110	110	
32	Staff Office 5	110	110	110	
33	Administrative Assistant 1	100	100	100	
34	Administrative Assistant 2	100	100	100	
35	Student Employees' Work Room	200	200	200	
36	Conference Room	600	600	600	seats 30
37	Administration Work Room	240	240	240	
38	IT Server Room	110	110	110	
39	Administration Storage	100	100	100	
40	Recreation Sports Office	110	110	110	
41	Recreation Sports Work Room	300	300	300	Intramurals, Club Sprts
	Administration Office Suite Assign. Area (ASF)	**2410**	**2410**	**2410**	

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November 21, 2008

No.	Program Space	Model A	Model B	Model C	Remarks
	Entry / Lounge Area:				
42	Entry Lobby	1,000	1,000	1,000	
43	Lounge	1,000	1,000	1,000	
44	Juice Bar	500	500	500	
45	Vending Area	100	100	100	
46	Control Counter	200	200	200	
47	Control Office	110	110	110	
48	Staff Office (Overnight Operations)	110	110	110	
	Entry / Lounge Area Assignable Area (ASF)	3,020	3,020	3,020	
	Support Zone:				
49	Men's Restroom - 2nd Floor	110	170	170	
50	Women's Restroom - 2nd Floor	110	170	170	
51	Universal Restroom - 2nd Floor	80	80	80	
52	Custodial (distributed)	160	160	160	80 SF each, with a custodial floor sink
53	Custodial / Maintenance Office / Work Room	150	150	150	
	Support Zone Assignable Area (ASF)	610	730	730	
	Total Building Assignable Area (ASF)	27,150	41,354	55,374	
	Total Building Envelope Area (GSF)	38,786	59,077	79,106	70% Building Efficiency
	Construction Cost @ $460 / SF	$17.9 m	$27.2 m	$36.4 m	cost escalated to Fall 2010 construction start
	Outdoor Excursions Zone (separate Building):				
54	Staff Office 1	110	110	110	
55	Staff Office 2	110	110	110	
56	Staff Office 3	110	110	110	
57	Entry / Rental Counter / Equipment Display	200	200	200	
58	Storage Area	800	800	800	includes Food Storage area
59	Maintenance Area	500	500	500	includes wash. machine, industrial sinks, dishwasher
60	Training / Resource Room	300	300	300	seats 15, maybe used as a Conference Room
	Outdoor Recreation Zone Assignable Area (ASF)	2130	2130	2130	
	Total Outdoor Recr. Building. Envelope Area (GSF)	2420	2420	2420	88% Building Efficiency
	Construction Cost @ $460 / SF	$1.1 m	$1.1 m	$1.1 m	cost escalated to Fall 2020 construction start
	Pool Zone (separate Pool Building):				
58	Men's Pool Locker Room	1,000	1,000	1,000	60 locker. ftprints., 5 showers, 2 tlts., 2 urinals, 3 sinks
59	Men's Locker Room Sauna	100	100	100	
60	Women's Pool Locker Room	1,000	1,000	1,000	60 locker footprints, 5 showers, 4 toilets, 3 sinks
61	Women's Locker Room Sauna	100	100	100	
62	Universal Locker Room	190	190	190	2-3 locker footpints, 1 shower, 1 toilet, 1 sink
63	Pool Filtration	1,000	1,000	1,000	
64	Pool Storage	800	800	800	
65	Aquatic Directors' Office	150	150	150	2 person office
66	Lifeguards' Office	150	150	150	2 lifeguards & space for emergency cot
	Pool Zone Assignable Area (ASF)	4,490	4,490	4,490	
	Total Pool Building Envelope Area (GSF)	5,102	5,102	5,102	88% Building Efficiency
	Construction Cost @ $460 / SF	$2.4 m	$2.4 m	$2.4 m	cost escalated to Fall 2010 construction start
	Allowance for renovation	$0.3m	$0.3 m	$0.3 m	
	Outdoor Pool Construction Cost	$1.5 m	$1.5 m	$1.5 m	6,000 SF Pool, 10,000 SF Deck area
	Total Recreation Center Expansion Constr. Cost	$23.2 m	$32.5 m	$42.5 m	
	Total Rec. Center Expansion Project Cost	$30.2 m	$42.3 m	$55.3 m	add 30% to Construction Cost

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MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
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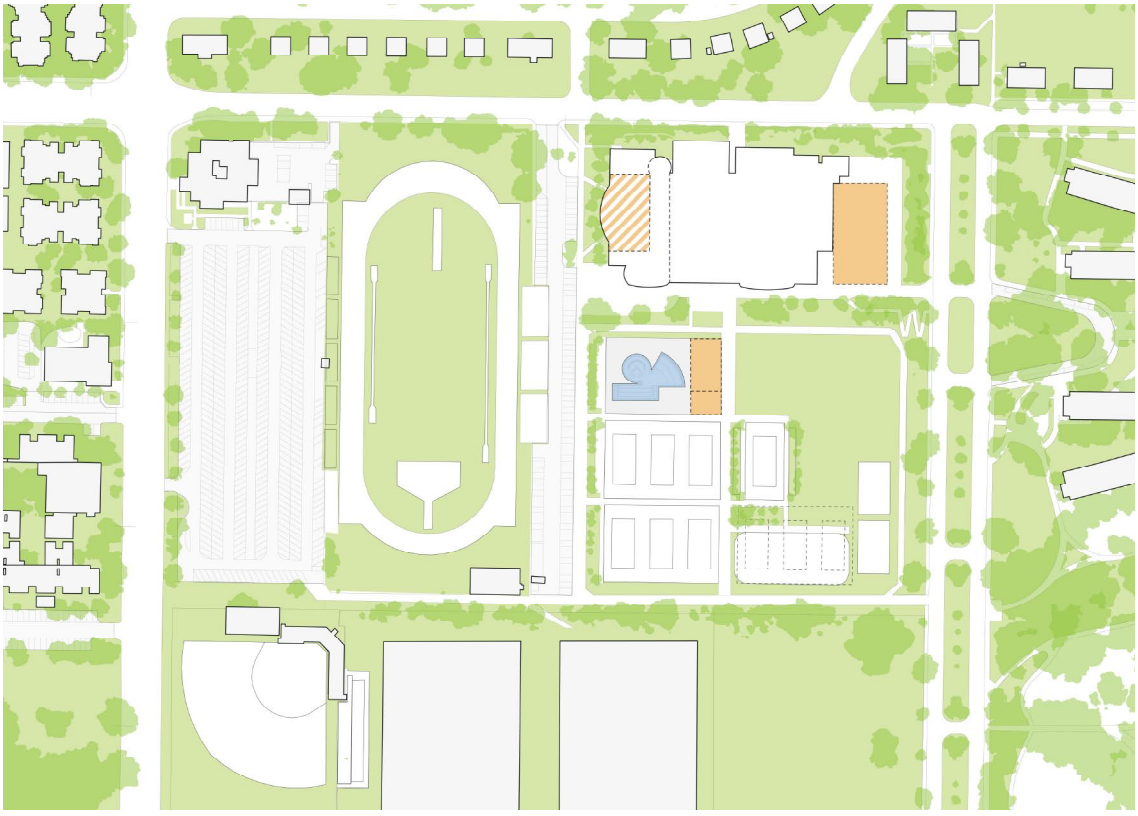
EXHIBIT-B as presented on 11.21.08

Option a1
Renovation of existing Weight Room into Multi-Purpose and a 2 story expansion to east
And a Separate smaller building for outdoor excursions and pool zone.



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University of California, Riverside- Student Recreation Center Expansion
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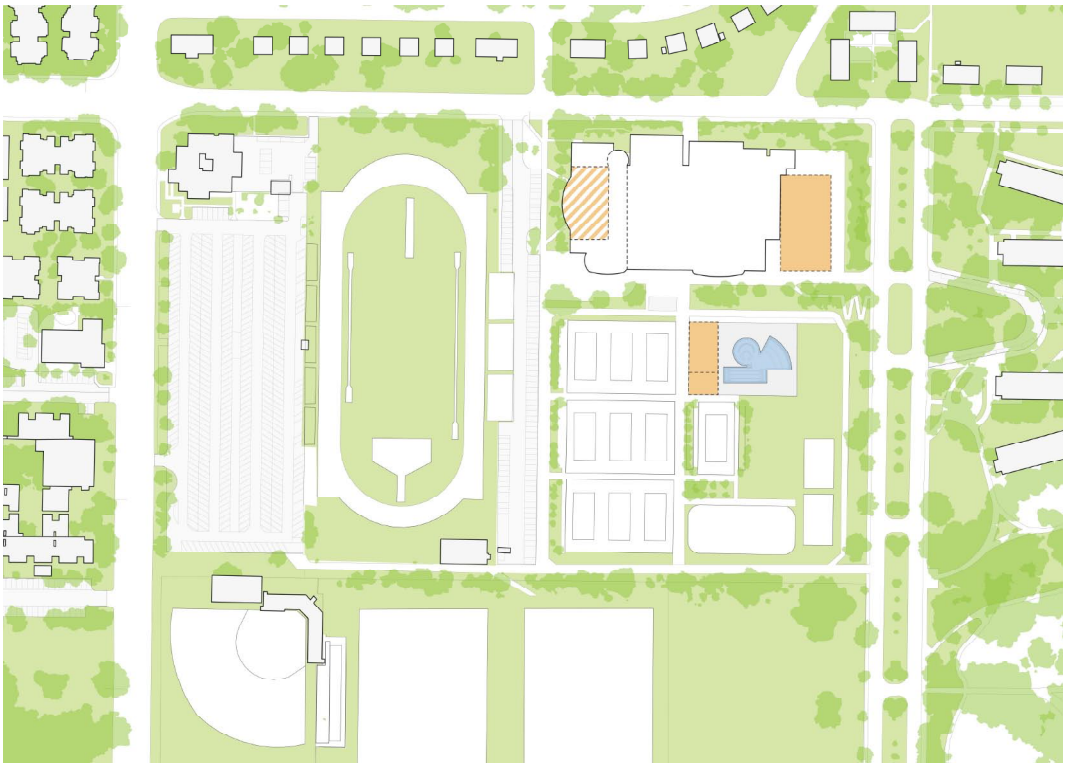
Continuation EXHIBIT-B

Option a2
Renovation of existing Weight Room into Multi-Purpose and a 2 story expansion to east. Separate smaller building for outdoor excursions and pool zone south of the existing recreation building.
Existing Outdoor Recreation Components remain in place.



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University of California, Riverside- Student Recreation Center Expansion
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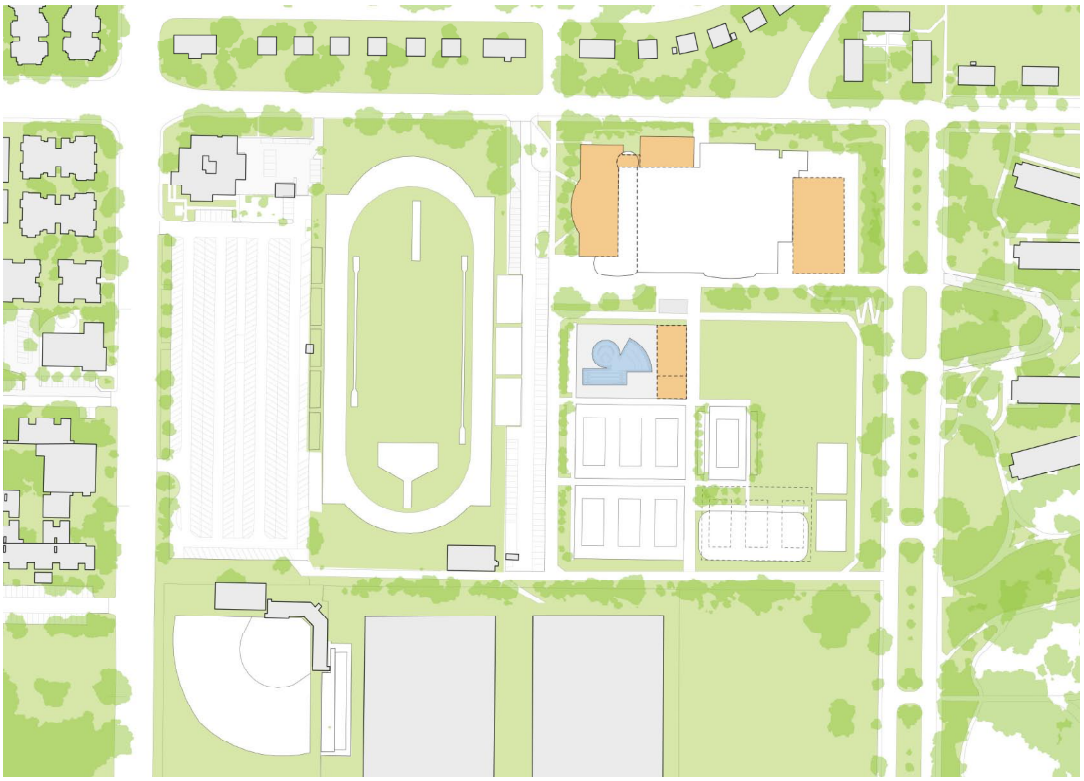
Continuation EXHIBIT-B

Option a3
Major renovation of the existing west wing for a two story expansion.
A two story addition to the east and a separate smaller building for outdoor excursions and pool zone.



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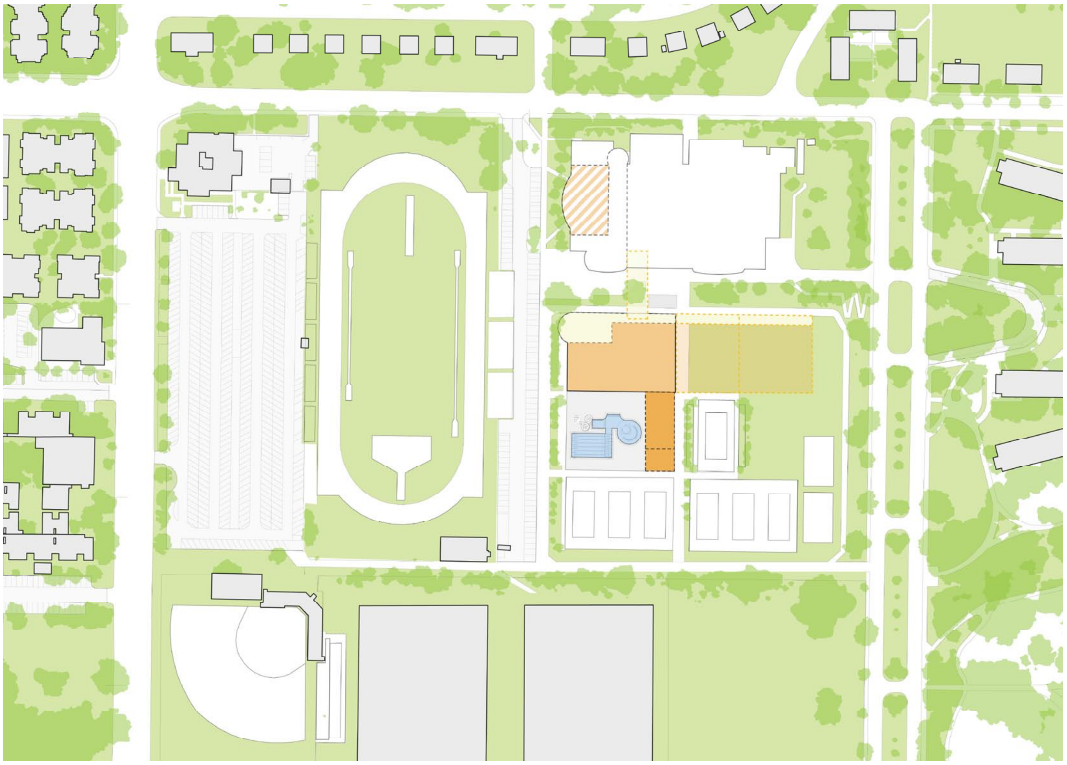
Continuation EXHIBIT-B

Option c
Renovation of existing Weight Room into Multi-Purpose and a 2 story expansion to south implementing an upper level bridge to existing Recreation.
And a Separate building for outdoor excursions and pool zone.



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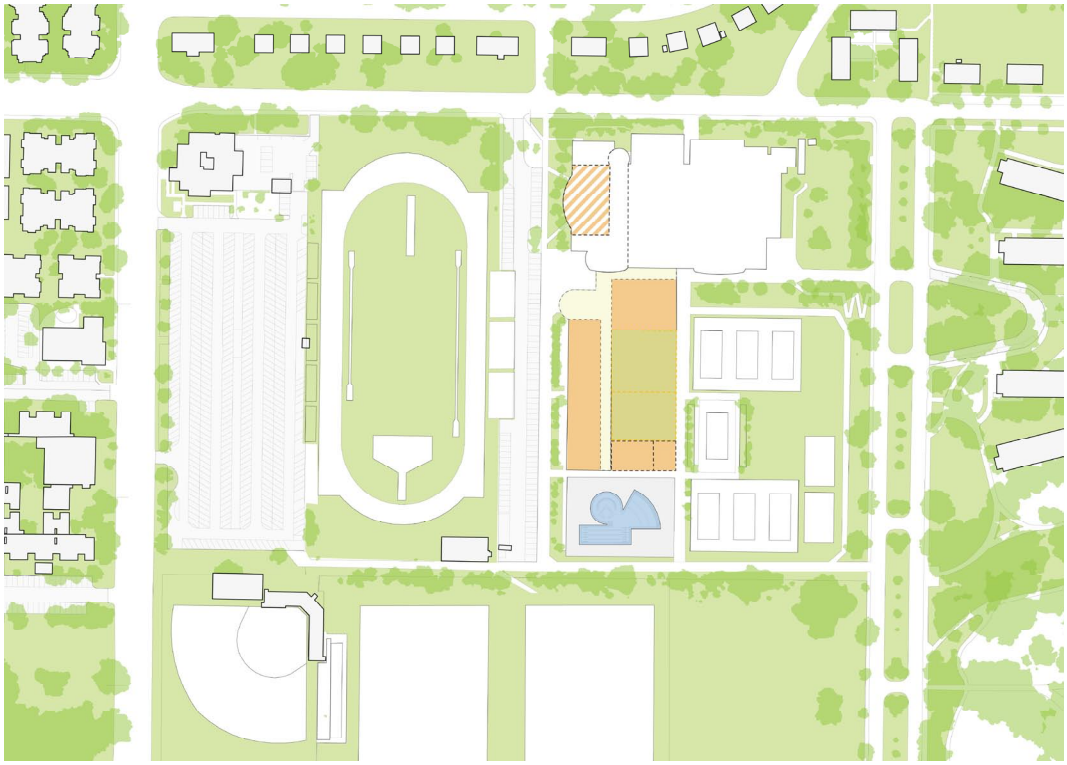
Continuation EXHIBIT-B

Option d
Renovation of existing Weight Room into Multi-Purpose and a 2 story southern expansion allowing a connection with existing Recreation. This scheme was created in response to the future Recreation Mall running north-south.



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University of California, Riverside- Student Recreation Center Expansion
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EXHIBIT-C Revised version received on 11.25.08

Swimming Pool Component priorities
November 24, 2008

1. **Minimum of 6 lane lines**
   a. **Convertible for water polo**
   b. **Minimum 7' depth for lane area**
   c. **13' depth at corner of lane area for diving board, scuba, lifeguard instruction**
2. **Spa / Jacuzzi (max size possible)**
   a. **Possibly multiple spas**
   b. **Located in leisure area / connected to / multiple levels**
3. **Zero depth entry (flexible if space does not permit)**
4. **One meter diving board located in lap swimming portion of pool**
5. **Bubble Couch and / or Vortex**
6. **Underwater ambience lighting**
7. **Contiguous body of water**
8. **82-87 degrees Fahrenheit**
9. **Deck space set- aside for potential future water slide**

Do Not Want:
1. **Water playground**
2. **No water slide**
3. **No climbing wall**
4. **No Lazy River**

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Continuation EXHIBIT-C

Recreation Governing Board Project Goals
November 24, 2008

1. To build an expansion that meets current and future demand for recreational facilities, programs and services and is in line with current trends in recreational facilities.

2. To create a flexible facility that can easily adapt to new recreational programs and allows for the effective and efficient use of financial resources and enhances operational efficiencies.

3. To create a venue that raises the profile and presence of Recreation; enhances the visibility its programs, facilities and services to the campus, and improves access to them.

4. To create a well-organized, welcoming environment that is recognized as a campus destination.

5. To create a venue through which the recreational and social needs of users are both fostered and met; a space where students want to stay and be a part of.

6. To create a facility that is inviting, inclusive and integrative.

7. To create a facility that fosters a safe and collegial atmosphere for all of its users.

8. To provide versatile spaces that house multiple recreational, fitness and wellness programs.

9. To create a facility that is a model of sustainable design.

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11.1 APPENDIX : MEETING MINUTES

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MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
Programming/Referendum Plan
Workshop-VI
December 4, 2008

Meeting **01**	9:30am- 11:00am	Project & Steering Committees
Location	Bannockburn J-102	Survey Findings

Attendees Project &Steering Committees	Lindy Fenex	UCR Recreation
	Jon Harvey	UCR Capital Planning
	Kieron Brunelle	UCR Capital Planning
	Daniel Vargas	UCR, ODC
	Jerry Garcia	UCR APB
	Alejandro Cortez	UCR Graduate Student Association
	Mandy Silvey	UCR Recreation Governing Board
	Eric Malmquist	UCR Recreation Governing Board
	Richard Zapp	ASUCR
	Eileen O'Connell-Owens	UCR
	Matt Bohannon	Brailsford & Dunlavey
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design

Brailsford & Dunlavey (B&D) presented a review of findings and recommendations.

- While students believe improvements to recreation are important, fee support is not sufficient for B&D to recommend moving forward with an educational and referendum campaign at this time.
- B&D recommends:
  - To delay referendum at least one year
  - To develop a student committee, and ad hoc committees, which will develop, direct, and implement a detailed educational campaign
  - To implement short term changes which can highlight need for improvements and expansion
- Committees thoughts and questions:
  - Short term risk versus long term risk – if students move ahead with a referendum this spring a lot of detailed work will be required to not only educate students but ensure a 20% turnout. If the referendum fails, there is no guarantee that an opportunity the following year would be available given competing University and Chancellor Priorities. This could further delay the proposed expansion project.

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December 4, 2008

- The existing facility does provide a challenge moving forward with the referendum as students view the facility in good to excellent condition. It is a potential struggle to educate students on the deficiencies and need for expansion.
- Timing of fee collection has an impact on overall fee level as well as likelihood of a referendum success. If possibilities exist to have any early fees available to offset the upfront design costs, the overall fee number will decrease. However, it is harder to pass referendums with fee increases that do not tangibly return value to students.
- All referendum processes are reviewed by the Chancellor's office and require approval to move forward.
- Opportunities to further showcase the SRC to incoming students are important. Enhanced coordination between the SRC and orientation programs like beartracks could introduce more students to facility.

Additional Comments:

- Mention was made of the possibility of tuition increase by the state. This can create uncertainty among the students and it might be better to wait and see what the fee increase will be prior to going forward with the referendum.
- Even if the referendum passes and the students vote to tax themselves this decision and the chosen scheme and program have to be approved first by the chancellor and then by the Regents to go forward.
- The inclination of the group present at this meeting is to not go forward with the referendum.
- The student survey utilized the preliminary space program and revised the program labels to present the largest option first. Thus survey concept A corresponds with Cannon concept C. Survey results were review and utilized to make adjustments to the space program. Thus the Student Referendum Plan space program is not the same as the Cannon Space program. Both the space program changes and concept identifications will need to be noted in the report.
- Schedule
  - Administrative report will be provided on Monday
  - Committee comments to Jon by December 18
  - Comments to B&D by December 22
  - Final report mid January.

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MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion Programming/Referendum Plan
Workshop-VI
December 4, 2008

Meeting **02**	11:00am- 12:00pm	Project & Steering Committees
Location	Bannockburn J-102	Review Pool and Building Program

Attendees	Lindy Fenex	UCR Recreation
	Jon Harvey	UCR Capital Planning
	Kieron Brunelle	UCR Capital Planning
	Daniel Vargas	UCR, ODC
	Jerry Garcia	UCR APB
	Alejandro Cortez	UCR Graduate Student Association
	Mandy Silvey	UCR Recreation Governing Board
	Eric Malmquist	UCR Recreation Governing Board
	Richard Zapp	ASUCR
	Eileen O'Connell-Owens	UCR
	Matt Bohannon	Brailsford & Dunlavey
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design

Keith Fuchigami explained every program component contained in the space program models dated December 4, 2008. [See Exhibit A].

Items discussed included:

- The difference between the space program models presented on 11/21/08 and the one presented today is the inclusion of one MAC court and a two-court gymnasium to the largest model (Model C) and the revision of the administrative suite area as recommended by Lindy.
- A request was made to locate the wellness center adjacent to the Fitness Center.
- The Recreation Center staff projections accounts for an assistant director of Wellness for 2012/13. This position would be funded with the referendum.
- An observation was made among the project committee that the program area for the women's locker room should be larger than the men's.
- The program will need to separate assignable space from non-assignable space. Capital Planning will review the program and identify those areas that would be classified as non-assignable.
- Projects goals revised November 24, 2008, were reviewed and supported by the committees.

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MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
Programming/Referendum Plan
Workshop-VI
December 4, 2008

Meeting **03**	1:00- 2:00 pm	Project Committee & Campus Architect
Location	Bannockburn J-102	Site Discussion and Summary of Findings
Attendees	Lindy Fenex	UCR Recreation
	Jon Harvey	UCR Capital Planning
	Kieron Brunelle	UCR Capital Planning
	Nita Bullock	UCR Capital Planning
	Eileen Takata	UCR Capital Planning
	Berent Pippert	UCR Capital Planning
	Daniel Vargas	UCR, ODC
	Tim Ralston	UCR Capital Planning
	Don Caskey	AVC/ Campus Architect
	Alejandro Cortez	UCR Graduate Student Association
	Sol Kim	Recreation Governing Board
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design
	Ben Caffey	Cannon Design

The purpose of this meeting was to present the summary of findings to the Campus Architect and other committee members. The site influences and the study of the LARDP and CAMPS for future development led to five different expansion options. The Committee preferred option 5 with a few changes as follows:

- Provide green space adjacent to the pool deck, preferably on the south.
- Locate the pool with a direct relationship to the main point of access. The pool is to be the main visual attraction.
- Plan on Athletics moving out of the Recreation Center.
- A comment was made about the jogging track cantilevering out from the building and looking over the pool.
- The size of the building expansion (Model A + MAC court) could house a 10 lap/ mile jogging track instead of the 8 lap/mile previously mentioned.
- Outdoor excursions will be located to the north side of the existing recreation center. The existing Multi-purpose rooms will be renovated to house this program area.
- The possibility of keeping the pool chemical storage where the service access is currently located should be explored.

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- Direct adjacency between the wet classroom, lockers and pool house is preferred.
- For cost estimating: program model "A" (smallest) should be priced with the addition of a jogging track plus the cost of closing off the upper gymnasium.

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Meeting **04**	2:00- 3:30pm	Project Committee
Location	Bannockburn J-102	Review of Room Data Sheets & prototype Room Layouts- Pool components conclusion
Attendees	Lindy Fenex	UCR Recreation
	Jon Harvey	UCR Capital Planning
	Alejandro Cortez	UCR Graduate Student Association
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design
	Ben Caffey	Cannon Design

The purpose of this meeting was to provide the committee with an overview of the Programming Workbook to aid in the review of the room data sheets and room layouts in order to obtain feedback.

Programming Workbook Review schedule

- Committee comments to Jon– December 12; comments to Cannon by December 17
- Administrative Draft Report provided to UCR by January 12
- Reschedule January 13 review meeting to January 15 or 16
- Committee comments to Jon by January 20
- Comments on administrative draft report to Cannon by January 26
- DRB – February

Keith then presented three pool scheme options [See Exhibit B]. The discussion on the pool schemes continued to provide clear direction on the preferred scheme and priorities on the pool components.

- Lap swimming doesn't require only deep water. It can be a combination of shallow water and deep water.
- Consideration should be given to the fact that the use of shallow water for kids will only happen during the summer (for summer camp) and is a total of 5% of the programmed activities.
- The survey indicated the need for lap swimming and leisure pool area. Water polo was not a component resulting from the survey.
- The committee prefers to keep one body of water instead of two separate ones.

The committee expressed preference for the pool option 3 with the following components:

- One body of water

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- A total of approximately 6,000 SF of pool surface divided in equal parts for lap swimming and leisure.
- Bubble couch
- Vortex + current channel
- A spa with the maximum capacity allowed by code
- Shallow step entrance
- Leave enough deck space for future slide.

The committee in conjunction with Cannon Design came up with a program to satisfy the long term needs for the west campus recreation center. The west campus recreation center would include:

- 5,000 ASF - cardio/fitness area
- 3,000 ASF - Multipurpose room area (two MP rooms)
- 8,320 ASF - Gym courts
- 600 ASF - Administrative office area
- 1,500 ASF - Lockers and restrooms area

This adds to a total of: 26,400 GSF at 70% efficiency.

The combination of the proposed addition (model A with the Mac Gym) and the future West Campus Recreation Center as defined above will put the Recreation Center at a ratio of 7 GSF/student. Although this figure is higher than anticipated, the overall recreation program for 25,000 students was viewed as reasonable.

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Programming/Referendum Plan
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Meeting **05**	3:30pm	Joint Project & Steering Committee, PMT
Location	Bannockburn J-102	Wrap-Up Session

Attendees	Lindy Fenex	UCR Recreation
	Jon Harvey	UCR Capital Planning
	Kieron Brunelle	UCR Capital Planning
	Jim Sandoval	AV Chancellor of Student Affairs
	Keith Fuchigami	Cannon Design
	Jenny Delgado	Cannon Design
	Ben Caffey	Cannon Design

The purpose of this meeting was to obtain direction from the project committee and UCR representatives on the next steps to develop the DPP.

- The preferred program is Model A with a one-court Mac Gym. The additional gym space is viewed as necessary to support open recreation during events. The concept of closing off the upper gym was not support since it would reduce total seating capacity. The Student Recreation Center is the largest Campus venue.
- The pool and spa should be priced as a separate component.
- The area assigned to the restrooms and custodial should be represented as a separate line item in the Space Program Models spreadsheet (i.e., separate assignable space from non-assignable space).
- The MAC gym should be priced as an alternate. If the athletics program allows for the use of the existing upper gym court for free recreation, the MAC court would then be part of the west campus recreation program.
- The possibility of having a 10 lap/mile jogging track Instead of the original 8 lap/mile was well received.

DISCLAIMER NOTE:
Please respond with any comments or corrections to these meeting minutes within 5 days of receipt.

Prepared By: Jenny Delgado, Associate
Cannon Design

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University of California, Riverside- Student Recreation Center Expansion
Programming/Referendum Plan
Workshop-VI
December 4, 2008

Action Items- Log

*No.	Session Date	Issues, Notes & Comments	Status	Action By	Due Date
I.07.A	10.07.08	Benchmarking on wellness facilities program in other Universities	Closed	Cannon	
2.10.A	10.14.08	Information on Operation & Maintenance costs of a pool	Closed	Cannon	
2.10.B	10.14.08	Site Survey	Closed	UCR	
2.10.C	10.14.08	Student Recreation Expansion Goals-From User Groups	Closed	UCR	
2.10.D	10.14.08	Call Box Information	Closed	UCR	
3.01.A	10.31.08	Jerry to provide potential student fee increases for each $1.0 million in project costs and $100,000 in O&M costs.	Closed	UCR	
3.01.B	10.31.08	Lindy will review and updated proposed operating expenses for the financial model, and will furnish the information to Jerry.	Closed	UCR	
3.03.C	10.31.08	Lindy will furnish direction on if recreation field costs should be incorporated into the financial plan at the next meeting.	Closed	UCR	11.07.08
3.02.D	10.31.08	Information on rock climbing and bouldering walls.	Closed	Cannon	
4.04.A	11.07.08	Recreation Facilities Governing Board will furnish review and update project goals, and furnish proposed pool program.	Closed	RGB	
5.03.A	11.21.08	Resolution on the viability of remodeling the second floor gym court.	Closed	Lindy	
6.02.A	12.04.08	Most current staff projections to include in DPP		Jon/Lindy	
6.02.B	12.04.08	List of assignable and non-assignable areas to identify in next steps.		Berent Pippert	

*Workshop Number**.** Meeting Number**.** Item Number

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MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
Programming/Referendum Plan
Workshop-VI
December 4, 2008

EXHIBIT-A as presented on 12.04.08

Space Program Models
December 4, 2008

University of California, Riverside
Student Recreation Center Expansion

No.	Program Space	Model A	Model B	Model C	Remarks
	Activity Zone				
	Gymnasiums				
1	Gymnasium A - Two Court Gym, 84' long BB courts	0	0	13,520	104' x 130'
2	Gymnasium A Storage	0	0	500	
3	Gymnasium B - One Court MAC Gym, 84' long BB court	0	8,404	8,404	80' x 104', plus 2 recessed goals (additional 84 SF)
4	Gymnasium B Storage	0	400	400	
5	Elevated Jogging Track	0	0	5,280	3 lane track,10 laps per mile
	Gymnasiums Assignable Area (ASF)	**0**	**8,804**	**28,104**	
	Specialized Activity Spaces				
6	Fitness / Weight Room	13,500	13,500	13,500	includes distributed cardio areas, and existing Fitn. Room
7	Fitness / Weight Room Storage	400	400	400	
8	Fitness Coordinator's Office	110	110	110	
9	Fitness / Weight Room Work / Repair Room	200	200	200	
10	Multi-purpose Room 1	2,000	2,000	2,000	40 person capacity for Group Fitness classes
11	Multi-purpose Room 1 Storage	200	200	200	
12	Multi-purpose Room 2	1,500	1,500	1,500	30 person capacity for Group Fitness classes
13	Multi-purpose Room 2 Storage	150	150	150	
14	Multi-purpose Room 3	1,500	1,500	1,500	30 person capacity for Group Fitness classes
15	Multi-purpose Room 3 Storage	150	150	150	
16	Classroom	800	800	800	seating for 30, classroom / demonstration kitchen
	Specialized Activity Spaces Assign. Area (ASF)	**20,510**	**20,510**	**20,510**	
	Actvity Zone Assignable Area (ASF)	**20,510**	**29,314**	**48,614**	
	Outdoor Excursions Zone				
17	Outdoor Excursions Staff Office 1	110	110	110	
18	Outdoor Excursions Staff Office 2	110	110	110	
19	Outdoor Excursions Staff Office 3	110	110	110	
20	Entry / Rental Counter / Equipment Display	200	200	200	
21	Storage Area	800	800	800	includes Food storage area
22	Maintenance Area	500	500	500	includes washing machine, industrial sinks, dishwasher
23	Training / Resource Room	300	300	300	seats 15, may be used as a Conference Room
24	Rock Climbing Wall with Safety / Landing Area	600	600	600	
25	Bouldering Wall with Safety / Landing Area	600	600	600	
26	Climbing / Bouldering Wall Registration Counter	120	120	120	
27	Climbing and Bouldering Wall Storage	200	200	200	
	Outdoor Recreation Zone Assign. Area (ASF)	**3,650**	**3,650**	**3,650**	
	Wellness Component				
28	Wellness Director's Office	110	110	110	
29	Entry / Information Resource Area	150	150	150	
30	Massage Therapy / Assessment 1	120	120	120	
31	Massage Therapy / Assessment 2	120	120	120	
32	Wellness Storage	100	100	100	
	Wellness Componenent Assignable Area (ASF)	**600**	**600**	**600**	

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MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
Programming/Referendum Plan
Workshop-VI
December 4, 2008

EXHIBIT-A continuation…

No.	Program Space	Model A	Model B	Model C	Remarks
	Administrative Office Suite				
33	Staff Office 1	110	110	110	
34	Staff Office 2	110	110	110	
35	Staff Office 3	110	110	110	
36	Staff Office 4	110	110	110	
37	Administrative Assistant	110	110	110	
38	Student Employees' Work Room	200	200	200	
39	Conference Room	600	600	600	seats 30
40	Admistration Work Room	240	240	240	
41	IT Server Room	100	100	100	
42	Administration Storage	100	100	100	
43	Recreation Sports Office	110	110	110	
44	Recreation Sports Work Room	300	300	300	Intramurals, Club Sports
	Administration Office Suite Assign. Area (ASF)	**2200**	**2200**	**2200**	
	Entry Zone				
45	Entry Lobby	2,000	2,000	2,000	
46	Juice Bar	500	500	500	
47	Vending Area	100	100	100	
48	Control Counter	200	200	200	
49	Control Office	110	110	110	secure cash counting and safe room
50	Staff Office (Overnight Operations)	150	150	150	2 person office space
	Entry Zone Assignable Area (ASF)	**3,060**	**3,060**	**3,060**	
	Support Zone				
51	Men's Pool Locker Room	1,000	1,000	1,000	62 locker ftprints, 5 showers, 2 toilets, 2 urinals, 3 sinks
52	Women's Pool Locker Room	1,000	1,000	1,000	62 locker footprints, 5 showers, 4 toilets, 3 sinks
53	Universal Locker Room	190	190	190	2 - 3 locker footprints, 1 shower, 1 toilet, 1 sink
54	Men's Restroom - 2nd Floor	180	180	180	2 toilets, 1 urinal, 2 sinks
55	Women's Restroom - 2nd Floor	180	180	180	3 toilets, 2 sinks
56	Universal Restroom - 2nd Floor	80	80	80	1 toilet ,1 sink
57	Custodial (distributed)	160	160	160	80 SF each per floor with a custodial floor sink
58	Custodial / Maintenance Office / Work Room	150	150	150	
	Support Zone Assignable Area (ASF)	**2,940**	**2,940**	**2,940**	
	Pool Zone				
59	Pool Filtration	1,000	1,000	1,000	
60	Pool Storage	800	800	800	
61	Aquatic Directors' Office	150	150	150	2 person office
62	Lifeguards' Office	150	150	150	2 lifeguards & space for emergency cot
	Pool Zone Assignable Area (ASF)	**2,100**	**2,100**	**2,100**	
	Total Building Assignable Area (ASF)	**35,060**	**43,864**	**63,164**	
	Total Building Envelope Area (GSF)	**50,086**	**62,663**	**90,234**	70% Building Efficiency
	Construction Cost @ $460 / SF	**$23.0 m**	**$28.8 m**	**$41.5 m**	Cost escalated to Fall 2010 construction start
	Allowance for renovation / connection to exist'g.	**$0.3m**	**$0.3 m**	**$0.3 m**	
	Outdoor Pool Construction Cost	**$1.5 m**	**$1.5 m**	**$1.5 m**	6,000 SF Pool, 10,000 SF Deck area
	Total Recreation Center Expansion Constr. Cost	**$24.8 m**	**$30.6 m**	**$43.3 m**	
	Total Rec. Center Expansion Project Cost	**$32.3 m**	**$39.8 m**	**$56.3 m**	Add 30% to Construction Cost

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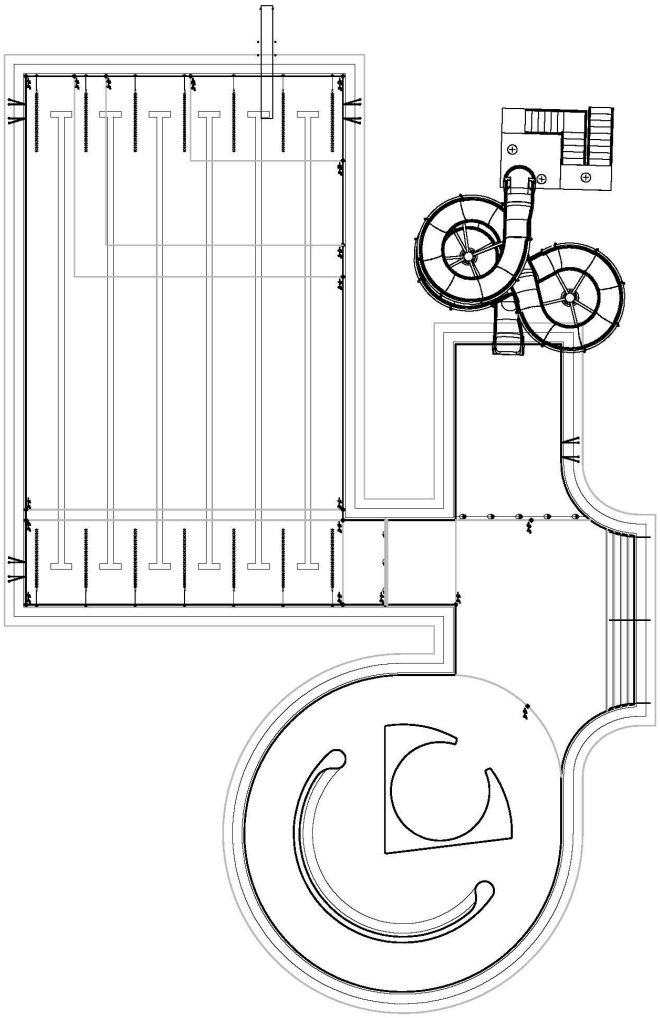
MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
Programming/Referendum Plan
Workshop-VI
December 4, 2008

EXHIBIT-B as presented on 12.04.08



OPTION-1

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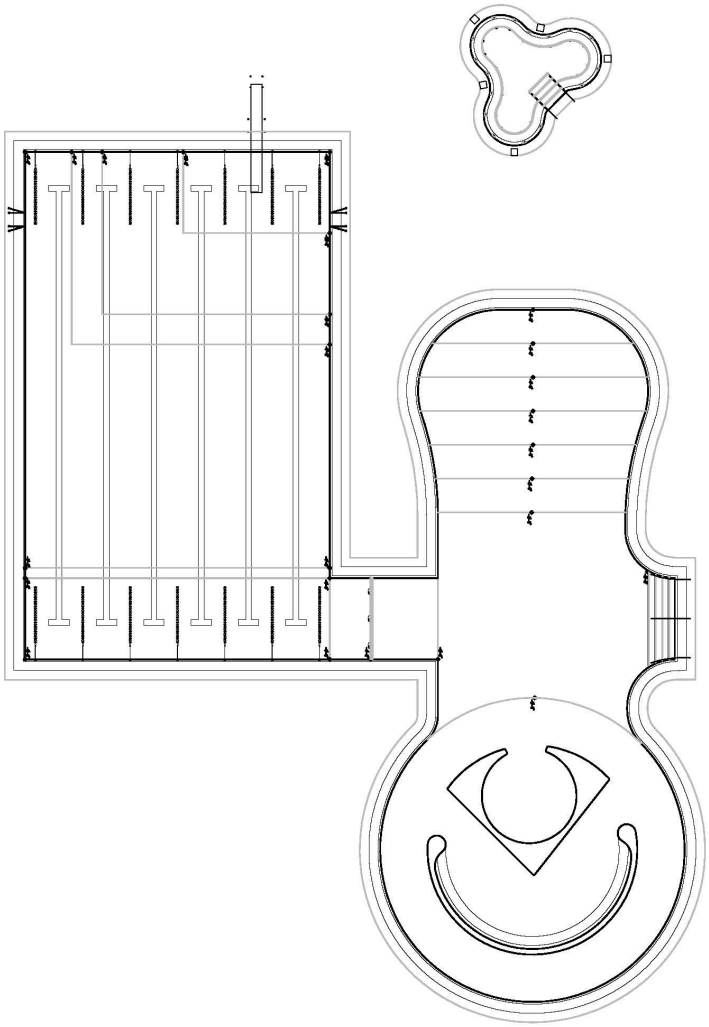
MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
Programming/Referendum Plan
Workshop-VI
December 4, 2008

EXHIBIT-B continuation…



OPTION-2

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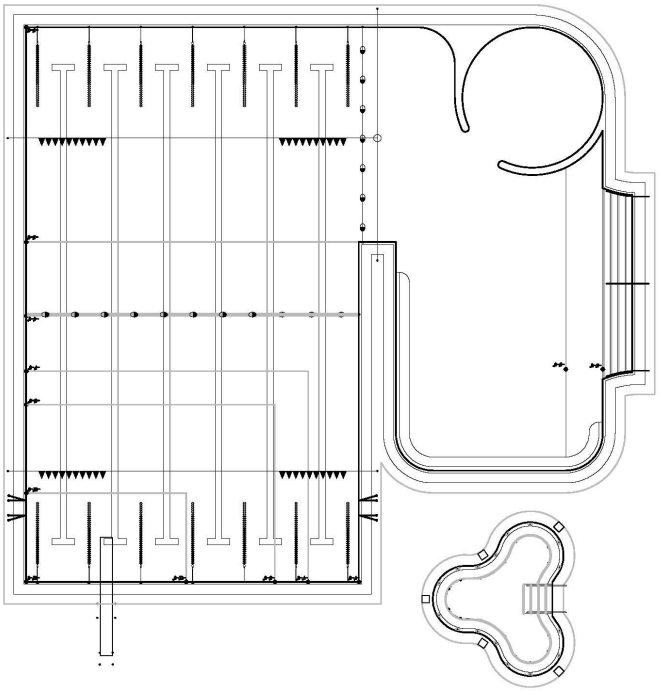
MEETING MINUTES

University of California, Riverside- Student Recreation Center Expansion
Programming/Referendum Plan
Workshop-VI
December 4, 2008

EXHIBIT-B continuation…



OPTION-3

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Space Program Models
October 31, 2008

University of California, Riverside
Student Recreation Center Expansion

No.	Program Space	Model A	Model B	Model C	Model D	Remarks
	Activity Zone					
	Gymnasiums					
1	Two-court Gymnasium A - 84' courts	0	0	0	13,520	104' x 130'
2	Two-court Gymnasium A Storage	0	0	0	400	
3	Two-court Gymnasium B (MAC Gym) - 84' courts	0	0	13,604	0	104' x 130', plus 2 recessed goals (additional 84 SF)
4	Two-court B Gymnasium Storage	0	0	400	0	
5	One-court Gymnasium A (MAC Gym) - 84' court	0	8,404	0	8,404	80' x 104', plus 2 recessed goals (additional 84 SF)
6	One-court Gymnasium A Storage	0	300	0	300	
7	Elevated Jogging Track	0	0	3,168	3,168	5,280 SF @ 60%, 3 lane track,10 laps per mile
	Gymnasiums Assignable Area (ASF)	**0**	**8,704**	**17,172**	**25,792**	
	Specialized Activity Spaces					
8	Fitness / Weight Room	10,500	11,500	12,500	13,500	includes distributed cardio areas
9	Fitness / Weight Room Storage	400	400	400	400	
10	Fitness Coordinator's Office	110	110	110	110	
11	Fitness / Weight Room Work / Repair Room	200	200	200	200	
12	Multi-purpose Room 1	0	0	0	2,500	50 person capacity for Group Fitness classes
13	Multi-purpose Room 1 Storage	0	0	0	200	
14	Multi-purpose Room 2	0	2,000	2,000	2,000	40 person capacity for Group Fitness classes
15	Multi-purpose Room 2 Storage	0	200	200	200	
16	Multi-purpose Room 3	1,000	1,000	1,000	1,000	30 person capacity for Group Fitness classes
17	Multi-purpose Room 3 Storage	150	150	150	150	
18	Classroom	800	800	800	800	seating for 30, wet classrom/demonstration kitchen
	Specialized Activity Spaces Assign. Area (ASF)	**13,160**	**16,360**	**17,360**	**21,060**	
	Actvity Zone Assignable Area (ASF)	**13,160**	**25,064**	**34,532**	**46,852**	
	Outdoor Excursions Zone					
19	Staff Office 1	110	110	110	110	
20	Staff Office 2	110	110	110	110	
21	Staff Office 3	0	0	110	110	
22	Storage Area / Equipment Display	1,000	1,000	1,000	1,000	Includes Food storage area
23	Maintenance Area	500	500	500	500	Includes washing machine, industr. sinks, dishwash.
24	Training / Resource Room	300	300	300	300	seats 15, maybe used as a Conference Room
25	Conference Room	0	0	300	300	seats 15
26	Rock Climbing Wall with Safety / Landing Area	400	500	600	750	
27	Bouldering Wall with Safety / Landing Area	400	500	600	750	
28	Climbing / Bouldering Wall Registration Counter	120	120	120	120	
29	Climbing and Bouldering Wall Storage	200	200	200	200	
	Outdoor Recreation Zone Assign. Area (ASF)	**3,140**	**3,340**	**3,950**	**4,250**	
	Wellness Component					
30	Wellness Director's Office	0	110	110	110	
31	Entry / Information Resource Area	0	110	110	200	
32	Personal Training / Fitness Room	0	120	120	120	
33	Massage Therapy / Assessment	0	120	120	120	
34	Wellness Storage	0	100	100	100	
	Wellness Componenent Assignable Area (ASF)	**0**	**560**	**560**	**650**	For discussion

No.	Program Space	Model A	Model B	Model C	Model D	Remarks
	Administrative Office Suite					
35	Staff Office 1	110	110	110	110	
36	Staff Office 2	110	110	110	110	
37	Staff Office 3	110	110	110	110	
38	Staff Office 4	0	110	110	110	
39	Staff Office 5	0	0	110	110	
40	Administrative Assistant 1	100	100	100	100	
41	Administrative Assistant 2	0	100	100	100	
42	Conference Room	600	600	600	600	seats 30
43	Administration Storage	100	100	100	100	
44	Intramurals Office / Work Area	110	110	200	200	
45	Sports Club Office / Work Area	110	110	200	200	
	Administration Office Suite Assign. Area (ASF)	**1,350**	**1,560**	**1,850**	**1,850**	
	Entry / Lounge Area					
46	Entry Lobby	1,000	1,150	1,300	1,500	
47	Lounge	1,000	1,150	1,300	1,500	
48	Juice Bar	500	500	500	500	
49	Vending Area	100	100	100	100	
50	Control Counter	200	200	200	200	
51	Control Office	110	110	110	110	
52	Staff Office (Overnight Operations)	110	110	110	110	
	Entry / Lounge Area Assignable Area (ASF)	**3,020**	**3,320**	**3,620**	**4,020**	
	Support Zone					
53	Men's Pool Locker Room	1,000	1,000	1,000	1,000	60 lkr. ftprints, 5 showers, 2 toilets, 2 urinals, 3 sinks
54	Men's Locker Room Sauna	0	0	100	100	
55	Women's Pool Locker Room	1,000	1,000	1,000	1,000	60 lkr ftprints, 5 showers, 4 toilets, 3 sinks
56	Women's Locker Room Sauna	0	0	100	100	
57	Universal Locker Room	190	190	190	190	2 - 3 lkr ftprints, 1 shower, 1 toilet, 1 sink
58	Men's Restroom - 2nd Floor	0	0	170	170	2 toilets, 1 urinal, 2 sinks
59	Women's Restroom - 2nd Floor	0	0	170	170	3 toilets, 2 sinks
60	Universal Restroom - 2nd Floor	0	0	80	80	1 toilet, 1 sink
61	Custodial (distributed)	80	80	160	160	2 @ 80 SF each, 1 per floor w/ a custodial sink
62	Custodial / Maintenance Office / Work Room	150	150	200	200	
	Support Zone Assignable Area (ASF)	**2,420**	**2,420**	**3,170**	**3,170**	
						.
	Pool Zone					
63	Pool Filtration	1,000	1,000	1,000	1,000	
64	Pool Storage	800	800	800	800	
65	Aquatic Directors' Office	150	150	150	150	2 person office
66	Lifeguards' Office	150	150	150	150	2 lifeguards & space for emergency cot
	Pool Zone Assignable Area (ASF)	**2,100**	**2,100**	**2,100**	**2,100**	
	Total Building Assignable Area (ASF)	**23,240**	**36,414**	**47,832**	**60,942**	
	Total Building Envelope Area (GSF)	**33,200**	**52,020**	**68,331**	**87,060**	70% Building Efficiency
	Outdoor Pool Water Area (ASF)	5,100	5,100	5,100	5,100	
	Outdoor Pool Deck Area (ASF)	10,000	10,000	10,000	10,000	

Space Program Models
November 7, 2008

University of California, Riverside
Student Recreation Center Expansion

No.	Program Space	Model A	Model B	Model C	Remarks
	Activity Zone				
	Gymnasiums				
1	Gymnasium A - Two Court Gym, 84' long BB courts	0	0	13,520	104' x 130'
2	Gymnasium A Storage	0	0	500	
3	Gymnasium B - One Court Gym, 84' long BB court	0	8,320	0	80' x 104'
4	Gymnasium B Storage	0	400	0	
5	Gymnasium C - One Court MAC Gym, 84' long BB court	0	8,404	8,404	80' x 104', plus 2 recessed goals (additional 84 SF)
6	Gymnasium C Storage	0	400	400	
7	Elevated Jogging Track	0	0	5,280	3 lane track,10 laps per mile
	Gymnasiums Assignable Area (ASF)	**0**	**17,524**	**28,104**	
	Specialized Activity Spaces				
8	Fitness / Weight Room	11,000	12,000	13,000	includes distributed cardio areas
9	Fitness / Weight Room Storage	400	500	500	
10	Fitness Coordinator's Office	110	110	110	
11	Fitness / Weight Room Work / Repair Room	200	200	200	
12	Multi-purpose Room 1	0	0	2,000	40 person capacity for Group Fitness classes
13	Multi-purpose Room 1 Storage	0	0	200	
14	Multi-purpose Room 2	0	1,500	1,500	30 person capacity for Group Fitness classes
15	Multi-purpose Room 2 Storage	0	150	150	
16	Multi-purpose Room 3	1,500	1,500	1,500	30 person capacity for Group Fitness classes
17	Multi-purpose Room 3 Storage	150	150	150	
18	Classroom	800	800	800	seating for 30, wet classroom / demonstration kitchen
	Specialized Activity Spaces Assign. Area (ASF)	**14,160**	**16,910**	**20,110**	
	Actvity Zone Assignable Area (ASF)	**14,160**	**34,434**	**48,214**	
	Outdoor Excursions Zone				
19	Staff Office 1	110	110	110	
20	Staff Office 2	110	110	110	
21	Staff Office 3	0	0	110	
22	Entry / Rental Counter / Equipment Display	200	200	200	
23	Storage Area	800	800	800	includes Food storage area
24	Maintenance Area	500	500	500	includes washing machine, industrial sinks, dishwasher
25	Training / Resource Room	300	300	300	seats 15, maybe used as a Conference Room
26	Rock Climbing Wall with Safety / Landing Area	400	500	600	
27	Bouldering Wall with Safety / Landing Area	400	500	600	
28	Climbing / Bouldering Wall Registration Counter	120	120	120	
29	Climbing and Bouldering Wall Storage	200	200	200	
	Outdoor Recreation Zone Assign. Area (ASF)	**3,140**	**3,340**	**3,650**	
	Wellness Component				
30	Wellness Director's Office	110	110	110	
31	Entry / Information Resource Area	110	110	200	
32	Personal Training / Fitness Room	120	120	120	maybe used for Massage Therapy / Assessment
33	Massage Therapy / Assessment	120	120	120	maybe used as a Personal Training / Fitness Room
34	Wellness Storage	100	100	100	
	Wellness Componenent Assignable Area (ASF)	**560**	**560**	**650**	

No.	Program Space	Model A	Model B	Model C	Remarks
	Administrative Office Suite				
35	Staff Office 1	110	110	110	
36	Staff Office 2	110	110	110	
37	Staff Office 3	110	110	110	
38	Staff Office 4	0	110	110	
39	Staff Office 5	0	0	110	
40	Administrative Assistant 1	100	100	100	
41	Administrative Assistant 2	0	100	100	
42	Student Employees' Work Room	200	250	300	
43	Conference Room	600	600	600	seats 30
44	Admistration Work Room	240	240	240	
45	IT Server Room	110	110	110	
46	Administration Storage	100	100	100	
47	Recreation Sports Office	110	110	110	
48	Recreation Sports Work Room	200	300	400	Intramurals, Club Sports
	Administration Office Suite Assign. Area (ASF)	**1,990**	**2,350**	**2,610**	
	Entry / Lounge Area				
49	Entry Lobby	1,000	1,250	1,500	
50	Lounge	1,000	1,250	1,500	
51	Juice Bar	500	500	500	
52	Vending Area	100	100	100	
53	Control Counter	200	200	200	
54	Control Office	110	110	110	safe for cash transactions located in this Office
55	Staff Office (Overnight Operations)	110	110	110	
	Entry / Lounge Area Assignable Area (ASF)	**3,020**	**3,520**	**4,020**	
	Support Zone				
56	Men's Pool Locker Room	1,000	1,000	1,000	60 locker ftprints, 5 showers, 2 toilets, 2 urinals, 3 sinks
57	Men's Locker Room Sauna	0	0	100	
58	Women's Pool Locker Room	1,000	1,000	1,000	60 locker footprints, 5 showers, 4 toilets, 3 sinks
59	Women's Locker Room Sauna	0	0	100	
60	Universal Locker Room	190	190	190	2 - 3 locker footprints, 1 shower, 1 toilet, 1 sink
61	Men's Restroom - 2nd Floor	0	110	170	
62	Women's Restroom - 2nd Floor	0	110	170	
63	Universal Restroom - 2nd Floor	0	80	80	
64	Custodial (distributed)	80	80	160	80 SF each per floor with a custodial floor sink
65	Custodial / Maintenance Office / Work Room	150	150	200	
	Support Zone Assignable Area (ASF)	**2,420**	**2,720**	**3,170**	
					,
	Pool Zone				
66	Pool Filtration	1,000	1,000	1,000	
67	Pool Storage	800	800	800	
68	Aquatic Directors' Office	150	150	150	2 person office
69	Lifeguards' Office	150	150	150	2 lifeguards & space for emergency cot
	Pool Zone Assignable Area (ASF)	**2,100**	**2,100**	**2,100**	
	Total Building Assignable Area (ASF)	**27,390**	**49,024**	**64,414**	
	Total Building Envelope Area (GSF)	**39,129**	**70,034**	**92,020**	70% Building Efficiency
	Outdoor Pool Water Area (ASF)	6,000	6,000	6,000	
	Outdoor Pool Deck Area (ASF)	10,000	10,000	10,000	

Space Program Models - with separate Outdoor Recreation & Pool Buildings

November 21, 2008

University of California, Riverside • Student Recreation Center Expansion

No.	Program Space	Model A	Model B	Model C	Remarks
	Activity Zone				
	Gymnasiums:				
1	Gymnasium A - Two court Gym, 84' long BB courts	0	0	13,520	104' x 130'
2	Gymnasium A Storage	0	0	500	
3	Gymnasium B - One-court Gym, 84' long BB court	0	0	0	80' x 104'
4	Gymnasium B Storage	0	0	0	
5	Gymnasium C - One-court MAC Gym, 84' long court	0	8,404	8,404	80' x 104', plus 2 recess. goals (additional 84 SF)
6	Gymnasium C Storage	0	400	400	
7	Elevated Jogging Track	0	5,280	5,280	3 lane track,10 laps per mile
	Gymnasiums Assignable Area (ASF)	**0**	**14,084**	**28,104**	
	Specialized Activity Spaces:				
8	Fitness / Weight Room	13,500	13,500	13,500	includes distributed cardio areas
9	Fitness / Weight Room Storage	400	400	400	
10	Fitness Coordinator's Office	110	110	110	
11	Fitness / Weight Room Work / Repair Room	200	200	200	
12	Multi-purpose Room 1	2,000	2,000	2,000	40 person capacity for Group Fitness classes
13	Multi-purpose Room 1 Storage	200	200	200	
14	Multi-purpose Room 2	1,500	1,500	1,500	30 person capacity for Group Fitness classes
15	Multi-purpose Room 2 Storage	150	150	150	
16	Multi-purpose Room 3	1,500	1,500	1,500	30 person capacity for Group Fitness classes
17	Multi-purpose Room 3 Storage	150	150	150	
18	Classroom	800	800	800	seating for 30, classroom / demonstration kitchen
19	Rock Climbing Wall with Safety / Landing Area	400	500	600	
20	Bouldering Wall with Safety / Landing Area	400	500	600	
21	Climbing / Bouldering Wall Registration Counter	120	120	120	
22	Climbing / Bouldering Wall Storage	200	200	200	
	Specialized Activity Spaces Assign. Area (ASF)	**21,630**	**21,830**	**22,030**	
	Actvity Zone Assignable Area (ASF)	**21,630**	**35,914**	**50,134**	
	Wellness Component:				
23	Wellness Director's Office	110	110	110	
24	Entry / Information Resource Area	110	110	200	
25	Personal Training / Fitness Room	120	120	120	
26	Massage Therapy / Assessment	120	120	120	
27	Wellness Storage	100	100	100	
	Wellness Componenent Assignable Area (ASF)	**560**	**560**	**650**	
	Administrative Office Suite:				
28	Staff Office 1	110	110	110	
29	Staff Office 2	110	110	110	
30	Staff Office 3	110	110	110	
31	Staff Office 4	0	110	110	
32	Staff Office 5	0	0	110	
33	Administrative Assistant 1	100	100	100	
34	Administrative Assistant 2	0	100	100	
35	Stuedent Employees'm Work Room	200	250	300	
36	Conference Room	600	600	600	seats 30
37	Administration Work Room	240	240	240	
38	IT Server Room	110	110	110	
39	Administration Storage	100	100	100	
40	Recreation Sports Office	110	110	110	
41	Recreation Sports Work Room	200	300	400	Intramurals, Club Sprts
	Administration Office Suite Assign. Area (ASF)	**1,990**	**2,350**	**2,610**	

No.	Program Space	Model A	Model B	Model C	Remarks
	Entry / Lounge Area:				
42	Entry Lobby	1,000	1,250	1,500	
43	Lounge	1,000	1,250	1,500	
44	Juice Bar	500	500	500	
45	Vending Area	100	100	100	
46	Control Counter	200	200	200	
47	Control Office	110	110	110	
48	Staff Office (Overnight Operations)	110	110	110	
	Entry / Lounge Area Assignable Area (ASF)	**3,020**	**3,520**	**4,020**	
	Support Zone:				
49	Men's Restroom - 2nd Floor	110	110	170	
50	Women's Restroom - 2nd Floor	110	110	170	
51	Universal Restroom - 2nd Floor	80	80	80	
52	Custodial (distributed)	80	80	160	80 SF each, with a custodial floor sink
53	Custodial / Maintenance Office / Work Room	150	150	200	
	Support Zone Assignable Area (ASF)	**530**	**530**	**780**	
	Total Building Assignable Area (ASF)	**27,730**	**42,874**	**58,194**	
	Total Building Envelope Area (GSF)	**39,614**	**61,249**	**83,134**	70% Building Efficiency
	Outdoor Excursions Zone (separate Building):				
54	Staff Office 1	110	110	110	
55	Staff Office 2	110	110	110	
56	Staff Office 3	0	0	110	
57	Entry / Rental Counter / Equipment Display	200	200	200	
58	Storage Area	800	800	800	includes Food Storage area
59	Maintenance Area	500	500	500	includes wash. machine, industrial sinks, dishwasher
60	Training / Resource Room	300	300	300	seats 15, maybe used as a Conference Room
	Outdoor Recreation Zone Assignable Area (ASF)	**2020**	**2020**	**2130**	
	Total Outdoor Recr. Building. Envelope Area (GSF)	**2295**	**2295**	**2420**	88% Building Efficiency
	Pool Zone (separate Pool Building):				
58	Men's Pool Locker Room	1,000	1,000	1,000	60 locker. ftprints., 5 showers, 2 tlts., 2 urinals, 3 sinks
59	Men's Locker Room Sauna	0	0	100	
60	Women's Pool Locker Room	1,000	1,000	1,000	60 locker footprints, 5 showers, 4 toilets, 3 sinks
61	Women's Locker Room Sauna	0	0	100	
62	Universal Locker Room	190	190	190	2-3 locker footpints, 1 shower, 1 toilet, 1 sink
63	Pool Filtration	1,000	1,000	1,000	
64	Pool Storage	800	800	800	
65	Aquatic Directors' Office	150	150	150	2 person office
66	Lifeguards' Office	150	150	150	2 lifeguards & space for emergency cot
	Pool Zone Assignable Area (ASF)	**4,290**	**4,290**	**4,490**	
	Total Pool Building Envelope Area (GSF)	**4,875**	**4,875**	**5,102**	88% Building Efficiency
	Outdoor Pool Water Area (ASF)	6,000	6,000	6,000	
	Outdoor Pool Deck Area (ASF)	10,000	10,000	10,000	

Space Program Models (with UC Riverside Room Codes)
December 4, 2008

University of California, Riverside
Student Recreation Center Expansion

No.	Rm Code	Program Space	Mod. A	Mod. B	Mod. C	Remarks
		Activity Zone				
		Gymnasiums				
1	520	Gymnasium A - Two Court Gym, 84' long BB courts	0	0	13,520	104' x 130'
2	525	Gymnasium A Storage	0	0	500	
3	520	Gymnasium B - One Court MAC Gym, 84' BB court	0	8,404	8,404	80' x 104', plus 2 recessed goals (additional 84 SF)
4	525	Gymnasium B Storage	0	400	400	
5	520	Elevated Jogging Track	0	0	5,280	3 lane track,10 laps per mile
		Gymnasiums Assignable Area (ASF)	**0**	**8,804**	**28,104**	
		Specialized Activity Spaces				
6	520	Fitness / Weight Room	13,500	13,500	13,500	includes distributed cardio areas, and exist. Fitn. Rm.
7	525	Fitness / Weight Room Storage	400	400	400	
8	320	Fitness Coordinator's Office	110	110	110	
9	525	Fitness / Weight Room Work / Repair Room	200	200	200	
10	520	Multi-purpose Room 1	2,000	2,000	2,000	40 person capacity for Group Fitness classes
11	525	Multi-purpose Room 1 Storage	200	200	200	
12	520	Multi-purpose Room 2	1,500	1,500	1,500	30 person capacity for Group Fitness classes
13	525	Multi-purpose Room 2 Storage	150	150	150	
14	520	Multi-purpose Room 3	1,500	1,500	1,500	30 person capacity for Group Fitness classes
15	525	Multi-purpose Room 3 Storage	150	150	150	
16	550	Classroom	800	800	800	seating for 30, classroom / demonstration kitchen
		Specialized Activity Spaces Assign. Area (ASF)	**20,510**	**20,510**	**20,510**	
		Actvity Zone Assignable Area (ASF)	**20,510**	**29,314**	**48,614**	
		Outdoor Excursions Zone				
17	320	Outdoor Excursions Staff Office 1	110	110	110	
18	320	Outdoor Excursions Staff Office 2	110	110	110	
19	320	Outdoor Excursions Staff Office 3	110	110	110	
20	625	Entry / Rental Counter / Equipment Display	200	200	200	
21	720	Storage Area	800	800	800	includes Food storage area
22	625	Maintenance Area	500	500	500	includes wash. machine, industrial sinks, dishwasher
23	340	Training / Resource Room	300	300	300	seats 15, may be used as a Conference Room
24	620	Rock Climbing Wall with Safety / Landing Area	600	600	600	
25	620	Bouldering Wall with Safety / Landing Area	600	600	600	
26	625	Climbing / Bouldering Wall Registration Counter	120	120	120	
27	625	Climbing and Bouldering Wall Storage	200	200	200	
		Outdoor Recreation Zone Assign. Area (ASF)	**3,650**	**3,650**	**3,650**	
		Wellness Component				
28	320	Wellness Director's Office	110	110	110	
29	545	Entry / Information Resource Area	150	150	150	
30	540	Massage Therapy / Assessment 1	120	120	120	
31	540	Massage Therapy / Assessment 2	120	120	120	
32	545	Wellness Storage	100	100	100	
		Wellness Componenent Assignable Area (ASF)	**600**	**600**	**600**	

No.	Rm Code	Program Space	Mod. A	Mod. B	Mod. C	Remarks
		Administrative Office Suite				
33	320	Staff Office 1	110	110	110	
34	320	Staff Office 2	110	110	110	
35	320	Staff Office 3	110	110	110	
36	320	Staff Office 4	110	110	110	
37	320	Administrative Assistant	110	110	110	
38	320	Student Employees' Work Room	200	200	200	
39	340	Conference Room	600	600	600	seats 30
40	335	Administration Work Room	240	240	240	
41	335	IT Server Room	100	100	100	
42	335	Administration Storage	100	100	100	
43	320	Recreation Sports Office	110	110	110	
44	335	Recreation Sports Work Room	300	300	300	Intramurals, Club Sports
		Administration Office Suite Assign. Area (ASF)	**2200**	**2200**	**2200**	
		Entry Zone				
45	630	Entry Lobby / Commons - Lounge & Juice Bar Seating	1,000	1,000	1,000	
45	NAC	Entry Lobby	1,000	1,000	1,000	circulation portion of the Entry Lobby
46	610	Juice Bar	500	500	500	
47	615	Vending Area	100	100	100	
48	525	Control Counter	200	200	200	
49	320	Control Office	110	110	110	secure cash counting and safe room
50	320	Staff Office (Overnight Operations)	150	150	150	2 person office space
		Entry Zone Assignable Area (ASF)	**3,060**	**3,060**	**3,060**	
		Support Zone				
51	525	Men's Pool Locker Room	1,000	1,000	1,000	62 locker ftprints, 5 shwrs., 2 toilets, 2 urnls., 3 sinks
52	525	Women's Pool Locker Room	1,000	1,000	1,000	62 locker footprints, 5 showers, 4 toilets, 3 sinks
53	525	Universal Locker Room	190	190	190	2 - 3 locker footprints, 1 shower, 1 toilet, 1 sink
54	NAR	Men's Restroom - 2nd Floor	180	180	180	2 toilets, 1 urinal, 2 sinks
55	NAR	Women's Restroom - 2nd Floor	180	180	180	3 toilets, 2 sinks
56	NAR	Universal Restroom - 2nd Floor	80	80	80	1 toilet, 1 sink
57	NAJ	Custodial (distributed)	160	160	160	80 SF each per floor with a custodial floor sink
58	320	Custodial / Maintenance Office / Work Room	150	150	150	
		Support Zone Assignable Area (ASF)	**2,940**	**2,940**	**2,940**	
						.
		Pool Zone				
59	NAM	Pool Filtration	1,000	1,000	1,000	
60	720	Pool Storage	800	800	800	
61	320	Aquatic Directors' Office	150	150	150	2 person office
62	320	Lifeguards' Office	150	150	150	2 lifeguards & space for emergency cot
		Pool Zone Assignable Area (ASF)	**2,100**	**2,100**	**2,100**	
		Total Building Assignable Area (ASF)	**35,060**	**43,864**	**63,164**	
		Total Building Envelope Area (GSF)	**50,086**	**62,663**	**90,234**	70% Building Efficiency
		Outdoor Pool Water Area (ASF)	6,000	6,000	6,000	
		Outdoor Pool Deck Area (ASF)	10,000	10,000	10,000	

11.2 APPENDIX : SPACE PROGRAM MODELS

Summary of Space Program Areas using the UC Riverside Room Codes

	Rm Code	Program Space	Mod. A	Mod. B	Mod. C	Remarks
	520		0	8,404	27,204	
	525		3,490	3,890	4,390	
	320		2120	2,120	2,120	
	550		800	800	800	
	625		1,020	1,020	1,020	
	630		1,000	1,000	1,000	
	720		1,600	1,600	1,600	
	340		900	900	900	
	620		1,200	1,200	1,200	
	545		250	250	250	
	540		240	240	240	
	335		740	740	740	
	610		500	500	500	
	615		100	100	100	
		Sub Total ASF	32,460	41,264	60,564	
	NAC		1,000	1,000	1,000	
	NAR		440	440	440	
	NAJ		160	160	160	
	NAM		1,000	1,000	1,000	
		Sub Total Non ASF	2,600	2,600	2,600	
		Sub Total NSF	35,060	43,864	63,164	
		GSF	50,086	62,663	90,234	
		ASF / GSF Ratio	64.81%	65.85%	67.12%	

Option 1

Areas.
30,000 gsf (Recreation)
6,000 gsf (Pool Support / Outdoor Rec)
36,000 gsf (Total Addition)
(90% of Model A)

First Floor
- Lobby / Lounge
- Restrooms
- Fitness (2/3)
- Climbing

Second Floor
- Wellness
- Administration
- Restrooms
- Classroom
- Fitness (1/3)

Independent Pool / Outdoor Recreation Building

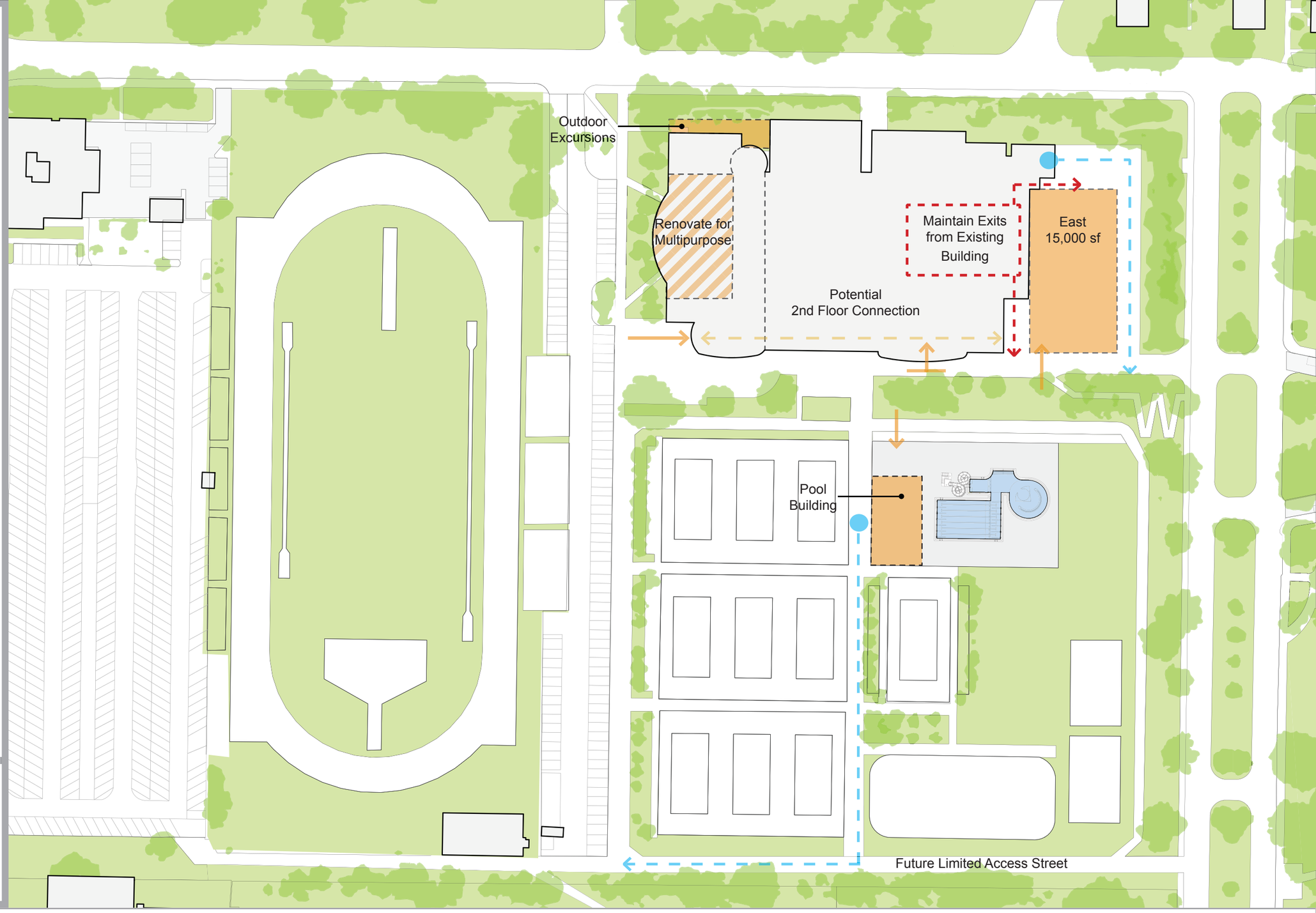
Pros:
1. Pool Location
2. Minimizing amount of covered area.
3. Two Story @ West Side, works well with program.
4. No impact on Tennis Courts

Cons:
1. Second Floor connection
2. Service access location.
3. More expensive structure.
4. Events/East Interaction problematic.
5. Physical separation of pool.

Key:

Entry

Service Access



Option 1

Areas.
30,000 gsf (Recreation)
6,000 gsf (Pool Support / Outdoor Rec)
36,000 gsf (Total Addition)
(90% of Model A)

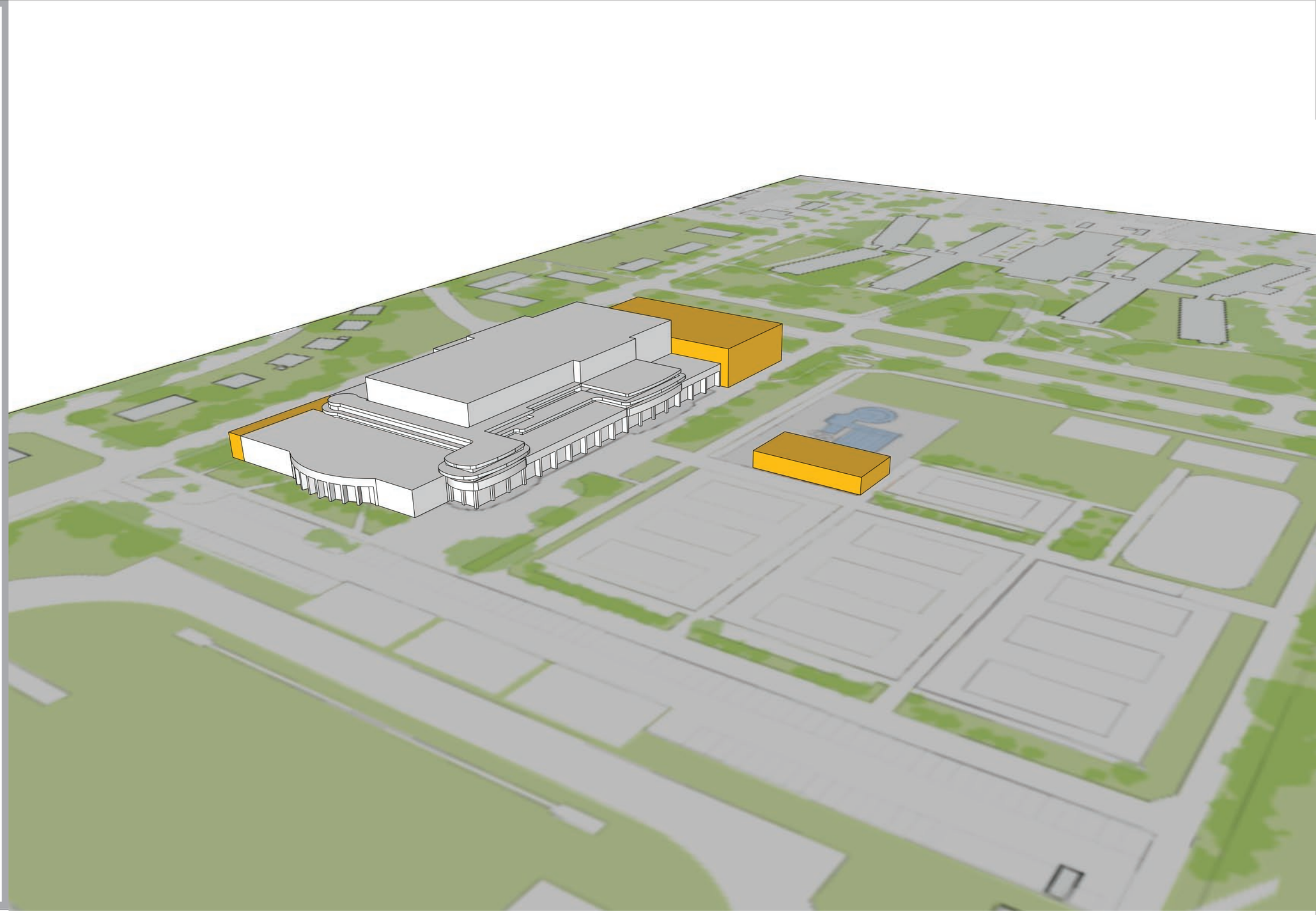
First Floor
- Lobby / Lounge
- Restrooms
- Fitness (2/3)
- Climbing

Second Floor
- Wellness
- Administration
- Restrooms
- Classroom
- Fitness (1/3)

Independent Pool / Outdoor Recreation Building

Pros:
1. Pool Location
2. Minimizing amount of covered area.
3. Two Story @ West Side, works well with program.
4. No impact on Tennis Courts

Cons:
1. Second Floor connection
2. Service access location.
3. More expensive structure.
4. Events/East Interaction problematic.
5. Physical seperation of pool.



Option 2

Areas.
30,000 gsf (Recreation)
6,000 gsf (Pool Support / Outdoor Rec)
36,000 gsf (Total Addition)
(90% of Model A)

First Floor
- Lobby / Lounge
- Restrooms
- Fitness (2/3)
- Climbing

Second Floor
- Wellness
- Administration
- Restrooms
- Classroom
- Fitness (1/3)

Independent Pool / Outdoor Recreation Building

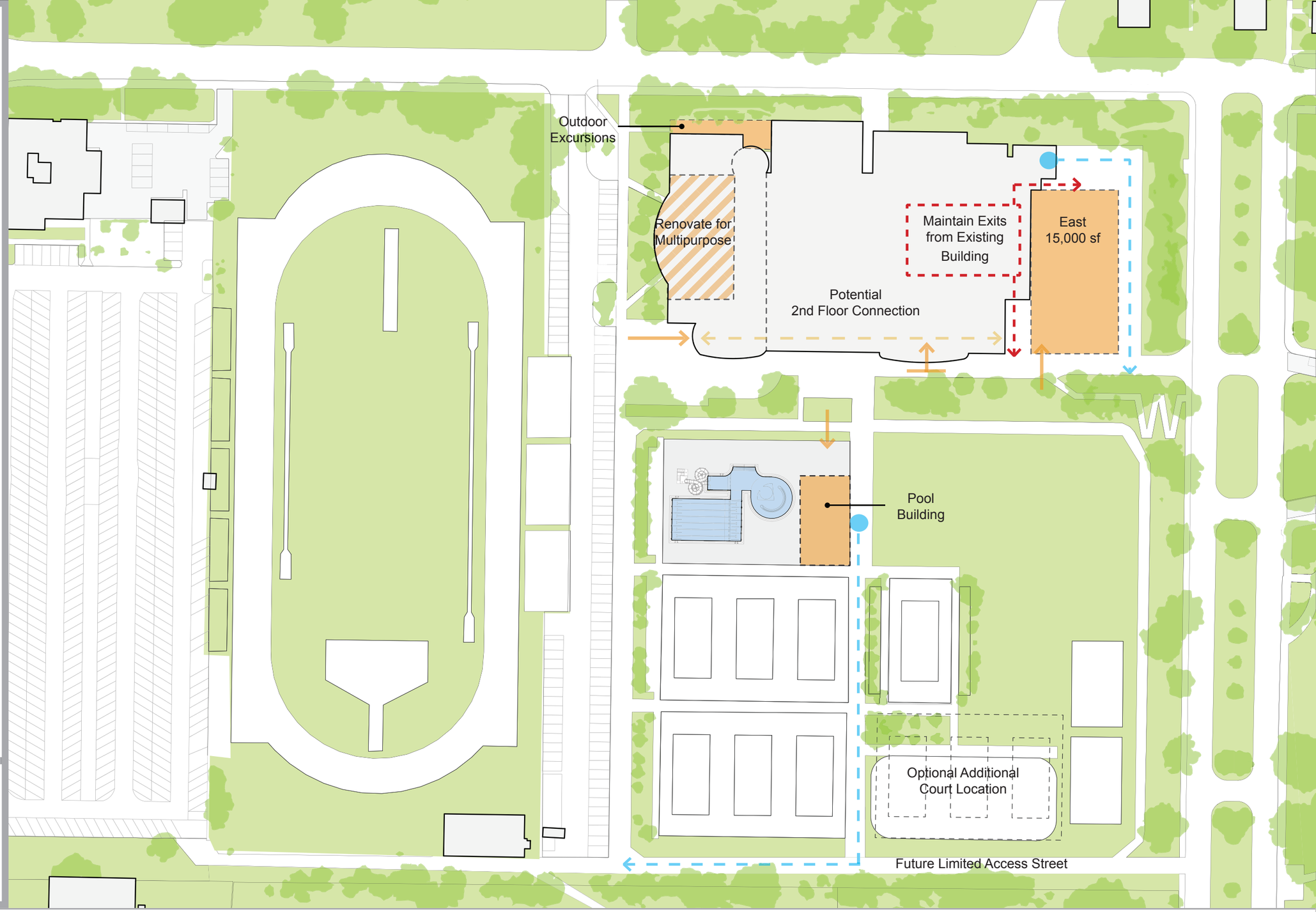
Pros:
1. Pool Location
2. Minimizing amount of covered area.
3. Two Story @ West Side, works well with program.

Cons:
1. Second Floor connection
2. Service access location.
3. More expensive structure.
4. Events/East Interaction problematic.
5. Physical seperation of pool.
6. Impact on three Tennis Courts
7. No gyms in Model B and C

Key:

Entry

Service Access



Option 2

Areas.
30,000 gsf (Recreation)
6,000 gsf (Pool Support / Outdoor Rec)
36,000 gsf (Total Addition)
(90% of Model A)

First Floor
- Lobby / Lounge
- Restrooms
- Fitness (2/3)
- Climbing

Second Floor
- Wellness
- Administration
- Restrooms
- Classroom
- Fitness (1/3)

Independent Pool / Outdoor Recreation Building

Pros:
1. Pool Location
2. Minimizing amount of covered area.
3. Two Story @ West Side, works well with program.

Cons:
1. Second Floor connection
2. Service access location.
3. More expensive structure.
4. Events/East Interaction problematic.
5. Physical seperation of pool.
6. Impact on three Tennis Courts
7. No gyms in Model B and C

Option 3

Areas.
30,000 gsf (East)
15,300 gsf (West)
6,000 gsf (Pool Support / Outdoor Rec)
51,300 gsf (Total Addition)

(Model B with or without Jogging Track)

East.

First Floor
- Multipurpose
- Administration
- Wellness

Second Floor
- 2 Court Gym
- (Jogging Track)

West.

1st. Floor
- Climbing
- Fitness

2nd Floor
- Fitness
- Multipurpose

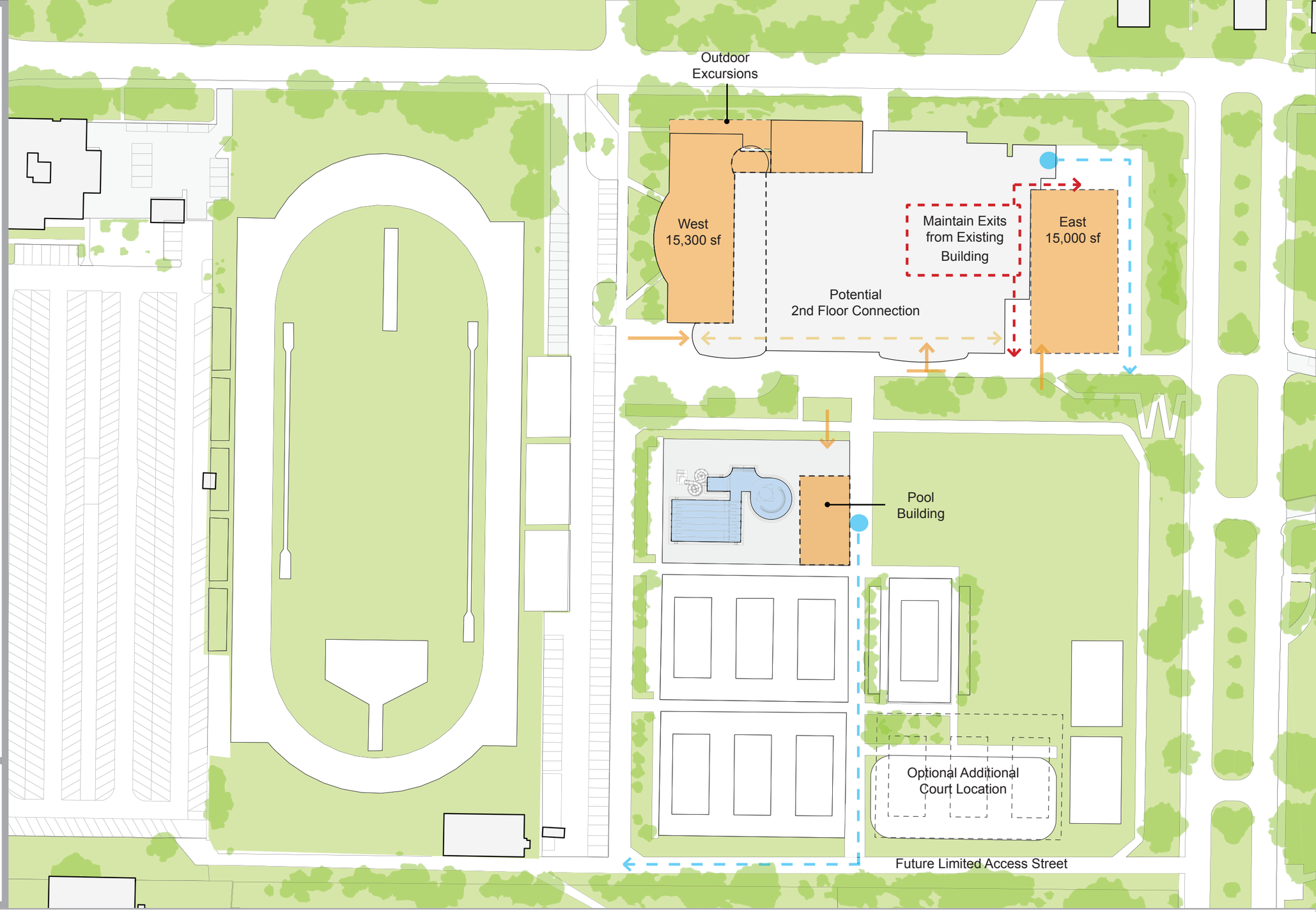
Pros:
1. Pool Location
2. Minimizing amount of covered area.
3. Two Story @ West Side, works well with program.

Cons:
1. Second Floor connection
2. Service access location.
3. More expensive structure.
4. Events/East Interaction problematic.
5. Physical seperation of pool.
6. Impact on three Tennis Courts
7. No gyms in Model B and C

Key:

Entry

Service Access



Option 3

Areas.
30,000 gsf (East)
15,300 gsf (West)
6,000 gsf (Pool Support / Outdoor Rec)
51,300 gsf (Total Addition)

(Model B with or without Jogging Track)

East.

First Floor
- Multipurpose
- Administration
- Wellness

Second Floor
- 2 Court Gym
- (Jogging Track)

West.

1st. Floor
- Climbing
- Fitness

2nd Floor
- Fitness
- Multipurpose

Pros:
1. Pool Location
2. Minimizing amount of covered area.
3. Two Story @ West Side, works well with program.

Cons:
1. Second Floor connection
2. Service access location.
3. More expensive structure.
4. Events/East Interaction problematic.
5. Physical seperation of pool.
6. Impact on three Tennis Courts

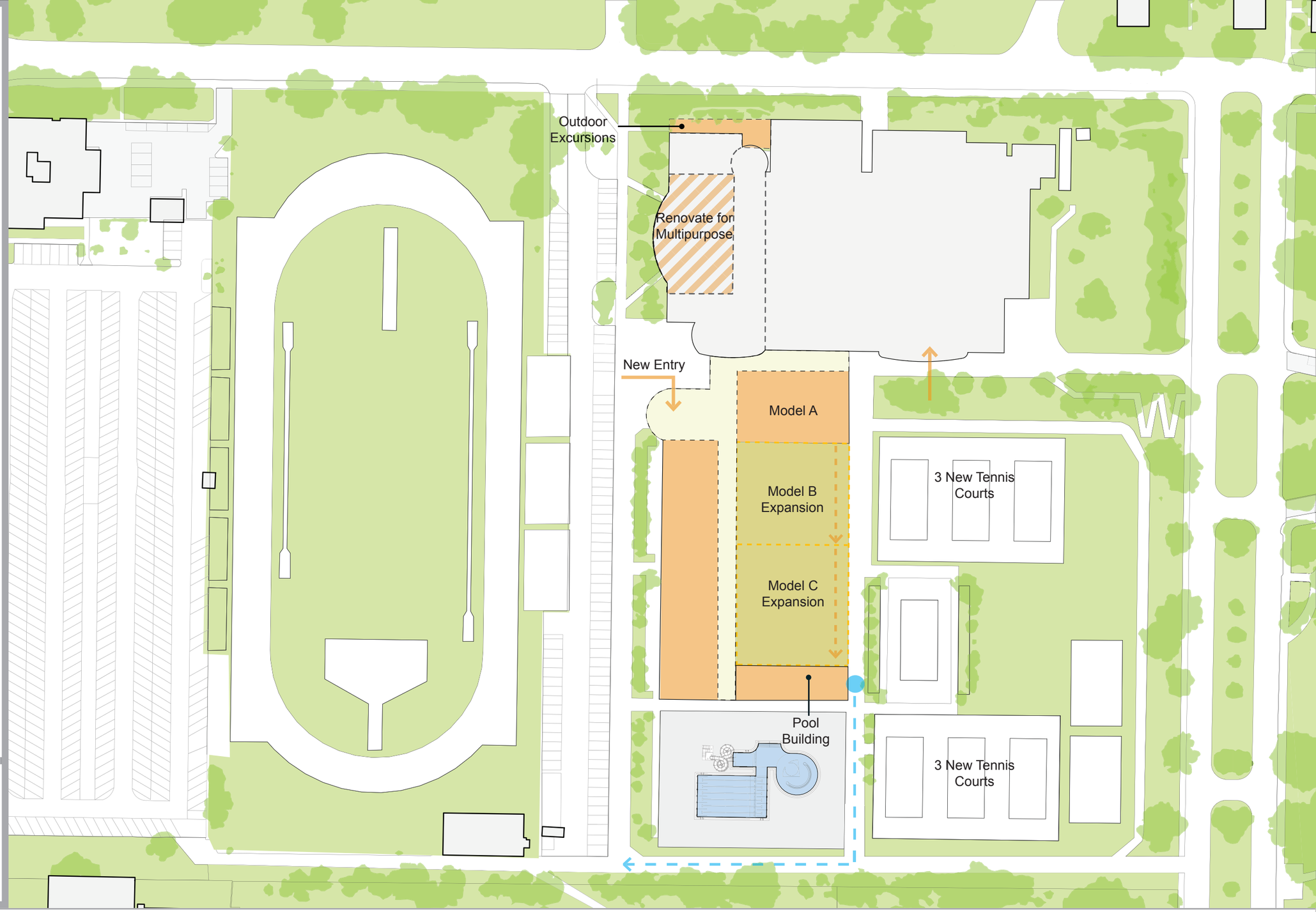
Option 4

Southern Expansion, allows connection to Existing Center

Areas.
35,000 gsf (Recreation)
6,000 gsf (Pool Support / Outdoor Rec)
41,000 gsf (Total Addition)

Pros:
1. Support the North/South pedestrian mall development.

Cons:
1. “tunnel-izing” the circulation.
2. Pool location is several yards away from the entrance
3. Impact on nine Tennis Courts



Key:

Entry

Service Access

Option 4

Southern Expansion, allows connection to Existing Center

Areas.
35,000 gsf (Recreation)
6,000 gsf (Pool Support / Outdoor Rec)
41,000 gsf (Total Addition)

Pros:
1. Support the North/South pedestrian mall development.

Cons:
1. “tunnel-izing” the circulation.
2. Pool location is several yards away from the entrance
3. Impact on nine Tennis Courts
4. Encroaching on Future Academic Building

Option 5

New Recreation and Swimming to South with Bridge Link to Existing

Areas.
38,000 gsf (Recreation)
6,000 gsf (Pool Support / Outdoor Rec)
44,000 gsf (Total Addition)

Phasing:

Phase One:
All components except Multi-purpose

Phase Two:
Renovate Existing Fitness into Multi-Purpose

Allows Model A, B, C

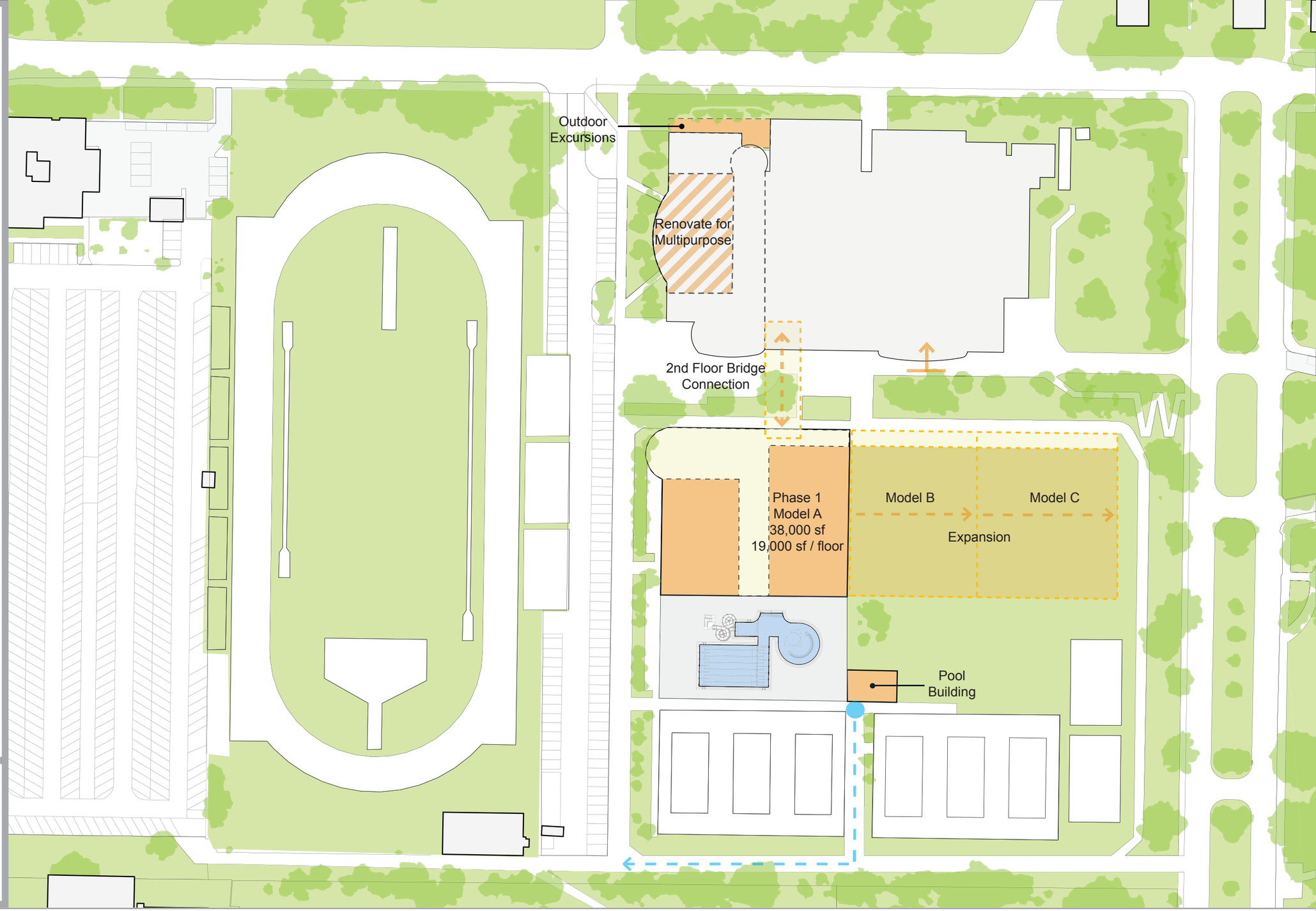
Pros:
1. Construction phasing ideal.
2. Two Story Option
3. Ideal interaction between components.
4. Adjacencies closer.

Cons:
1. Impact on seven Tennis Courts
2. Require 3 new replacement courts

Key:

Entry

Service Access



Option 5

New Recreation and Swimming to South with Bridge Link to Existing

Areas.
38,000 gsf (Recreation)
6,000 gsf (Pool Support / Outdoor Rec)
44,000 gsf (Total Addition)

Phasing:

Phase One:
All components except Multi-purpose

Phase Two:
Renovate Existing Fitness into Multi-Purpose

Allows Models A, B, C

Pros:
1. Construction phasing ideal.
2. Two Story Option
3. Ideal interaction between components.
4. Adjacencies closer.

Cons:
1. Impact on seven Tennis Courts
2. Require 3 new replacement courts

Preferred Option Site Diagram

New Recreation and Swimming to South with Bridge Link to Existing

Areas.
38,000 gsf (Recreation)
6,000 gsf (Pool Support / Outdoor Rec)
44,000 gsf (Total Addition)

Phasing:

Phase One:
All components except Multi-purpose

Phase Two:
Renovate Existing Fitness into Multi-Purpose

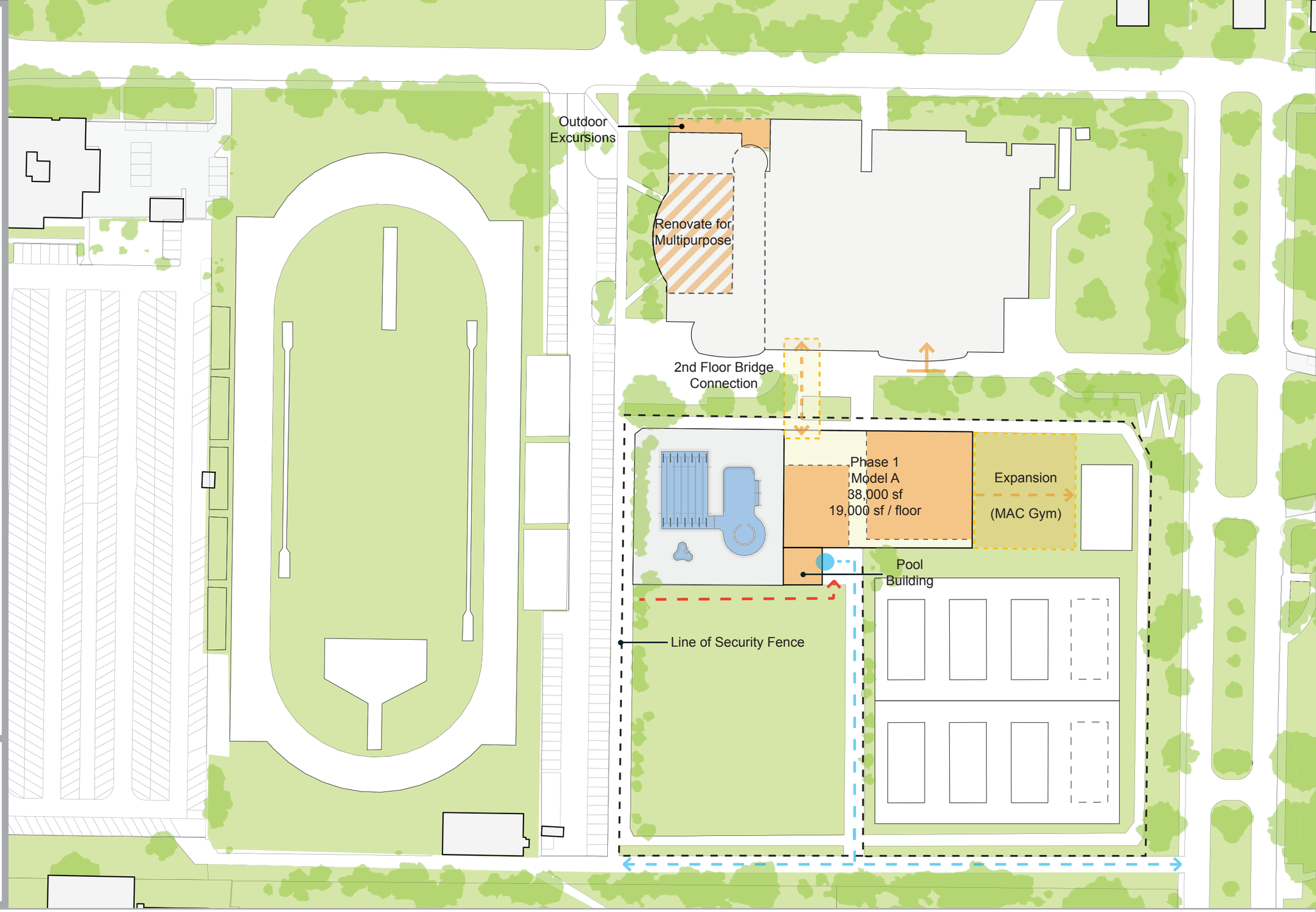
Allows Models A, B, C

Pros:
1. Construction phasing ideal.
2. Two Story Option
3. Ideal interaction between components.
4. Adjacencies closer.
5. Pool and Open Green Space along future Recreation Mall.

Cons:
1. Impact on Tennis Courts - Requires 6 to 8 new replacement courts.

Key:

- Entry
- Service Access
- Potential Temp. Service



Preferred Option Massing Diagram

New Recreation and Swimming to South with Bridge Link to Existing

Areas.
38,000 gsf (Recreation)
6,000 gsf (Pool Support / Outdoor Rec)
44,000 gsf (Total Addition)

Phasing:

Phase One:
All components except Multi-purpose

Phase Two:
Renovate Existing Fitness into Multi-Purpose

Allows Models A, B, C

Pros:
1. Construction phasing ideal.
2. Two Story Option
3. Ideal interaction between components.
4. Adjacencies closer.
5. Pool and Open Green Space along future Recreation Mall.

Cons:
1. Impact on Tennis Courts - Requires 6 to 8 new replacement courts.