Preliminary Layout Design Proposal: The Cal Poly SLO Recreation Center

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The Cal Poly Recreation Center in San Luis Obispo is a social staple within the boundaries of the university. With plans to undergo a flooring renovation in the second-story exercise area, a new layout of machines and equipment is desired by the administrative and maintenance staff. Accounting for current market demand trends, space, and owner compliance, this report displays the proposed layout for the facility’s fitness area and the required information for a successful product. The following report will present the area’s existing layout design, the available space for remodel, and a preliminary layout design. In addition, the following report will display the research process which was conducted, in order to generate the most logical floor plan. Though progress for the construction project has been postponed due to COVID-19 orders, a layout change will still be necessary for future progress. With only few code requirements to be considered (i.e. ADA, Fire Marshall regulations, etc.), creative freedom is prominent in the proposed design. The adaptation to COVID-19 circumstances and assurance that all building and safety codes were met, presented valuable lessons to be learned for the future of this project, as well as other construction endeavors.

Key Words: Cal Poly Recreation Center, Layout Proposal, COVID-19, Fitness Center Layout, Preliminary Interior Design

Introduction

This project came about after discussions between the maintenance and administrative staff of Associated Students, Inc. (ASI) agreed that one of their facility’s existing fitness rooms required retrofitted flooring. As planning progressed, the opportunity to design a layout plan to compliment the renovation became available. The design of this area required thorough research, use of BIM applications, and access to private drawings.

The scope of the Recreation Center project is in regards to the installation of new flooring, demolition of an existing furniture feature, addition of air-circulation features, and design of a new equipment layout. For this report, we will primarily be analyzing the design of the equipment and machine layout.

The administrative and maintenance staff of ASI are the primary operators of the Cal Poly facility. ASI looks to follow current trends within the industry, ensuring that the facility is in demand, delivery exceeds expectations, and the organization remains updated on participant desires. In order to provide current and future participants with the highest quality of service, the renovation must account for proper spacing, efficient zoning, and active reception.

The following plans will display the current layout of the Recreation Center, the workable area after the new flooring is installed, and the proposed floor plan for future reference.
Unfortunately, with the COVID-19 shelter-in-place order in effect, all operations for this project have been postponed until further notice. Prior to the shutdown being implemented, ASI aimed to host weekly coordination meetings to discuss details of installation; with Cal Poly’s precautionary action to close the campus, communication and efficiency was heavily impacted and the administrative and maintenance staff agreed to pull back from the project. However, active members of the maintenance team have been responsive to questions and concerns regarding their efforts to renovate the space.

**General Background**

The existing layout of the facility is composed of cardio sections, free-weights, machines, and open areas. The section of interest, the UER, is the largest of the three designated exercise areas, occupying 9,500 square feet of the building’s 20,000 square feet of exercise space.

According to Roberto Espinosa, the lead technician of the maintenance staff at the Recreation Center, the initial layout of the Upper Exercise Room (UER) was influenced by other universities in southern California. Prior to the completion of the fitness area, a team of ASI’s administrative staff and maintenance technicians toured UC and CSU facilities to gain a better grasp as to what the consumer wanted. As a basis for the design, the team applied their knowledge to the Cal Poly facility.

As a means to avoid a stagnant-feeling facility, ASI finds the rearrangement and alterations of the exercise floors to be a crucial aspect of maintaining relevance to the university. Mr. Espinosa stated the use of the space should follow the current trends within the industry (i.e. types of equipment, space delegation, etc.), in order to ensure that participants continue to utilize all aspects of the facility. In addition, Mr. Espinosa touched on the aspects of maintaining significance, stating that relevance “requires reinvesting in layout, materials, maintenance, and spaces.

As for the facility’s building codes, the largest factor revolves around the area’s capacity and space delegation. To ensure the Americans with Disabilities Act of 1990 (ADA) is upheld, spacing between equipment must be wide enough to allow wheelchair access, requiring a minimum of 3 feet (per ADA, 2010). To ensure practical social distancing standards, equipment will be placed further apart after the flooring scope is complete, recommending a minimum of 6 feet (CDC, 2019). Lastly, Fire Marshall regulation calls for clear paths to exits, in the case of an emergency. Upholding these typical building codes will allow for a wide range of layouts and options for ASI to refurbish the area.

**Current Demand and Industry Trends**

In order to get a better grasp as to which layout would be most effective and significant, research regarding current fitness industry trends was conducted. This information played a vital role in the design process, since it acts as a guide to meeting the demand.

Recent studies have shown particular trends within the fitness industry, specifically, the importance of exercise room layouts. In recent years, there has been an increase in demand for a more open floor plan; proper alterations will meet the current, ideal establishment for a functional training zone (Curley, 2017). This demand can be met within the Recreation Center, by allocating a higher percentage of the flooring capacity to open space. This design requires spatial reconfiguration of the existing equipment in the area; this is on track to being achieved, due to updated social distancing measures.
In addition, the Recreation Center plays a major role in the recruiting process for Cal Poly. By representing one of the major social attractions of the campus, visitors and potential new students can visualize the caliber of the surrounding community. The former president of Alderson-Broaddus College in Philippi, W.Va., Rick Creehan, suggests that sports and recreation facilities do, in fact, have an effect on potential enrollment; Mr. Creehan states, “at Old Navy and Abercrombie & Fitch, everything - the colors, the styles, the music playing in the stores - has been tested and marketed with regard to what is appealing to a 17-year-old. Well, our consumer is the same age… Sports and recreation facilities support the [same] strategic plan and the whole model” (Athletic Business, 2012). By focusing on the impact that layouts and designs have on the college’s future, the Recreation Center can make efforts to display compatibility between consumer and supplier.

Processes

The primary objective for this proposal is to provide an equipment and machine layout plan that meets the convenience, comfort, and aesthetic requirements of the Recreation Center’s staff and participants. With high expectations coming from the surrounding Cal Poly community, a means of catering to the masses is crucial. This includes providing a setting where various body types can operate adequately. In addition, a diverse selection of machines, cardio equipment, open space and free weights must be supplied to ensure the satisfaction of participants. As a means of following social distancing procedures, ASI intends to remove unpopular equipment from the area; this will allow for spatial capacity to open, simplifying the arrangement of equipment and meeting health and safety standards.

As previously stated, extensive research for this project was necessary, in order to ensure that the proposed layout would be catering to industry and societal standards. For instance, acquiring knowledge regarding what participants expect from their fitness centers (i.e. space delegation, equipment variety, etc.) was critical to the proposed design. As a means of gathering historical data and future design intentions, the conversation with Mr. Espinosa was essential; his experience at the facility and knowledge of the respective industry was of great value to determining what should be done and how it will accomplished.

This proposal suggests that allocating more area to open-space should be prioritized. By prioritizing this aspect, the facility’s renovated fitness area will be providing: safe distancing measures for participants, refreshed arrangement of equipment, and requested use of space. Aside from this specific workout space, these factors are crucial to the Recreation Center’s success; since they keep the facility from being monotonous.

Design Process

Considering the UER is the primary area for indoor cardio machines, the removal of treadmills, stationary bikes, ellipticals, and step-mills was mostly avoided. Instead, these pieces of equipment were distributed along the perimeter, to allow more space for the open area and free-weight area. Allocating the former machine area to open space, allows for designated boundaries. These boundaries can be beneficial to personal trainers and participants conducting private group exercises.

As to which machines should be removed, different factors were considered. For starters, the usability of the equipment and machines should be measured; if there is not a consistent demand to meet, then piece of equipment should be factored out. In addition, the age and condition of the various machines should be vetted; if certain equipment is frequently breaking and requiring maintenance, then
consideration to remove it from the floor and purchase upgraded versions when space is less valuable should be contemplated.

Space Proposition

As a means of storing the removed machines, options are limited. Considering the efforts for social distancing will be indefinite, the option to sell or donate equipment to create space should be addressed. Neighboring San Luis Obispo fitness centers (i.e. Club 24, Mustang Village Fitness Center, Headstrong, etc.) may have the available capacity and need to implement the used machines and equipment in their floor plans.

The costs associated with donating or selling the less-used inventory would be in regards to disassembly and transportation; hauling the respective equipment to different facilities and the cost of the labor force to do so.

Alternative means could be finding open storage facilities on-campus that have the capacity to hold sizeable quantities. This will cover the need to sell or donate the machines, allowing ASI to maintain their current inventory and valuable supply.

Deliverables

After the new flooring has been installed, there will be approximately 9,500 square feet of available space to redesign. Primarily focusing on creating more open space for trainers and participants, the proposed layout will cater to updated markets. By removing some of the less-significant equipment and machines the reorganized space will increase the overall capacity of the exercise room.

The following architectural drawings were provided by Mr. Espinosa. Since the initial development of the Cal Poly facility was a privately funded project, the completed drawings sets are infrequent to come by.

Bluebeam Revu Drawings

The following drawings were laid out (see Appendix A), using Bluebeam Revu. In order to provide a visual representation of the current facility lay out for the UER, the architectural drawings were overlaid. In addition, the Bluebeam drawings display the workable area of the UER, as well as the proposed lay out after the flooring is installed. As seen in the drawings, a built-in desk area is to be removed, creating a better flow for spatial organization and consistency. Overall, the 9,500 square feet was distributed to balance the four primary zones: cardio, machines, free weights, and open space.

Taking the previous machine section and delegating the area to open-space, allows for an additional 300 square feet to be added to the latter zone. This also allows for the machine and free weight areas to be expanded from the previous layout. As seen, placing the machine and free weight sections in the middle of the floor plan opens up the center area, giving the UER a wider atmosphere.

To provide ASI with a realistic proposal, 4’x4’ and 3’x6’ figures were oriented throughout the machine and cardio areas on the proposed layout sheet. This will help depict a better understanding of the use of space and provide a guide as to what orientations are plausible.
Taking into account the research, the ideals of ASI, and the freedom to create a use of space that has not been done before, the final product came to fruition.

**Lessons Learned**

While working on this project, there were a multitude of lessons to be learned and measures to be taken away. For starters, typical communication practices varied drastically, due to the COVID-19 obstacles. All efforts for the project were placed on hold and no meetings were permitted with the given circumstances. However, information was still fluidly passed along from ASI and all necessary questions and concerns were promptly addressed. This highlighted the importance of adaptation for future projects. Regardless of the roadblock’s caliber, it is essential for communication to be as effective as a typical day on the site, with little room for ambiguity and inconsistency.

**Future Project**

This proposal will be beneficial to the future project of the Recreation Center, due to the acquired knowledge, preliminary designs, and propositions for which it provides. With suggestions as to where equipment can be stored, how space can be cleared, and what layout will best cater to the facilities demand, ASI will have fewer steps to complete throughout the process. In addition, the latest industry trends have been identified and this information will be useful for adjustments moving forward.

**References**


