

2014



[STRENGTH & CONDITIONING CENTER]

FEASIBILITY STUDY – AUGUST 2014

Salt Lake Community College Feasibility Study for Strength & Conditioning Center

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I EXECUTIVE SUMMARY

Project Description

This Feasibility Study describes a potential 11,575 gross square foot (gsf) addition to the north side of the Salt Lake Community College - South Campus. The Strength and Conditioning Center is envisioned as one-story addition connected to the Main Building through a lobby that includes a small gathering space to compensate for the difference in the levels between the existing and new buildings. The project will compete expenditures from the student-funded package that helped create the Center for New Media, completed in 2014.

Comment [FP1]: Compete for funds, or complete?? Is it being funded by this package?

The Strength and Conditioning Center will include an entry lobby and reception desk, exercise/weight room, multi-purpose instruction space, men's and women's restrooms with showers, two offices, storage, and lockers all on the main level. Building support space is tied into existing building systems in a basement location. The new building will be serviced by the campus-wide utilities systems.

Site

The site selected for the Strength and Conditioning Center is located at the northwest corner of the South Campus immediately adjacent to the north end of the Main Building. The site is owned by Salt Lake Community College, and all required utilities are present at the site.

The site currently accommodates a childcare playground, which will be relocated south of its current location. For this to happen, the parking spaces (approximate 9 parking stalls) located north of the existing building will be removed and replaced with the new childcare space/structure.

In Conclusion

SLCC may want to state their case here regarding the scope of the project, budget, schedule, available funding, etc.

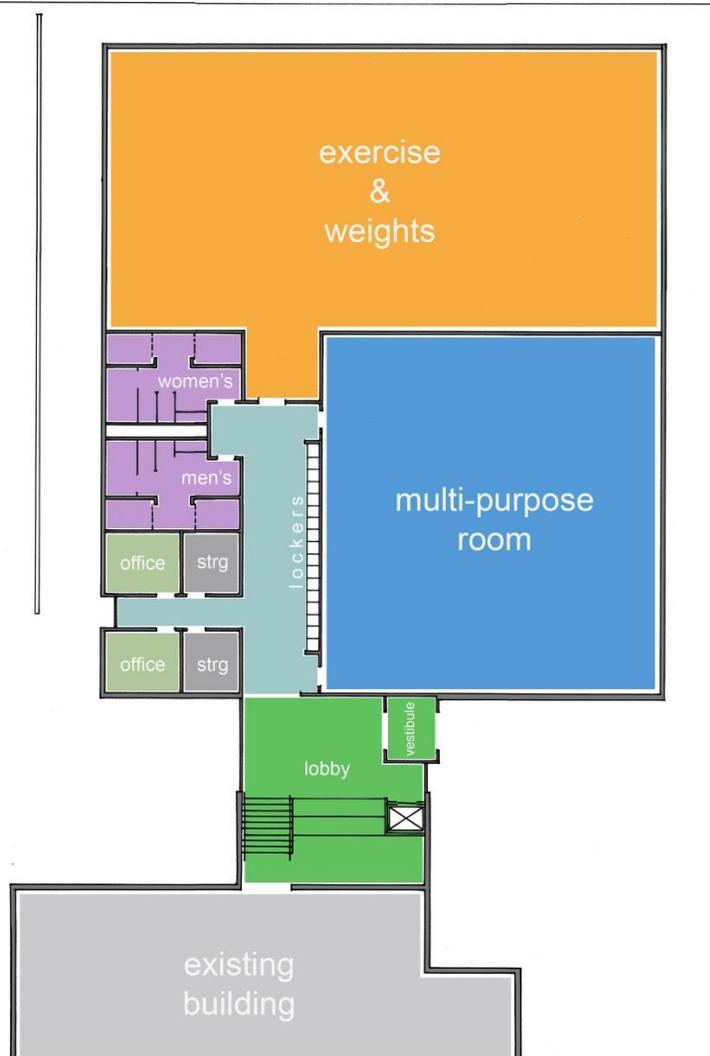
II FACILITIES NEEDS

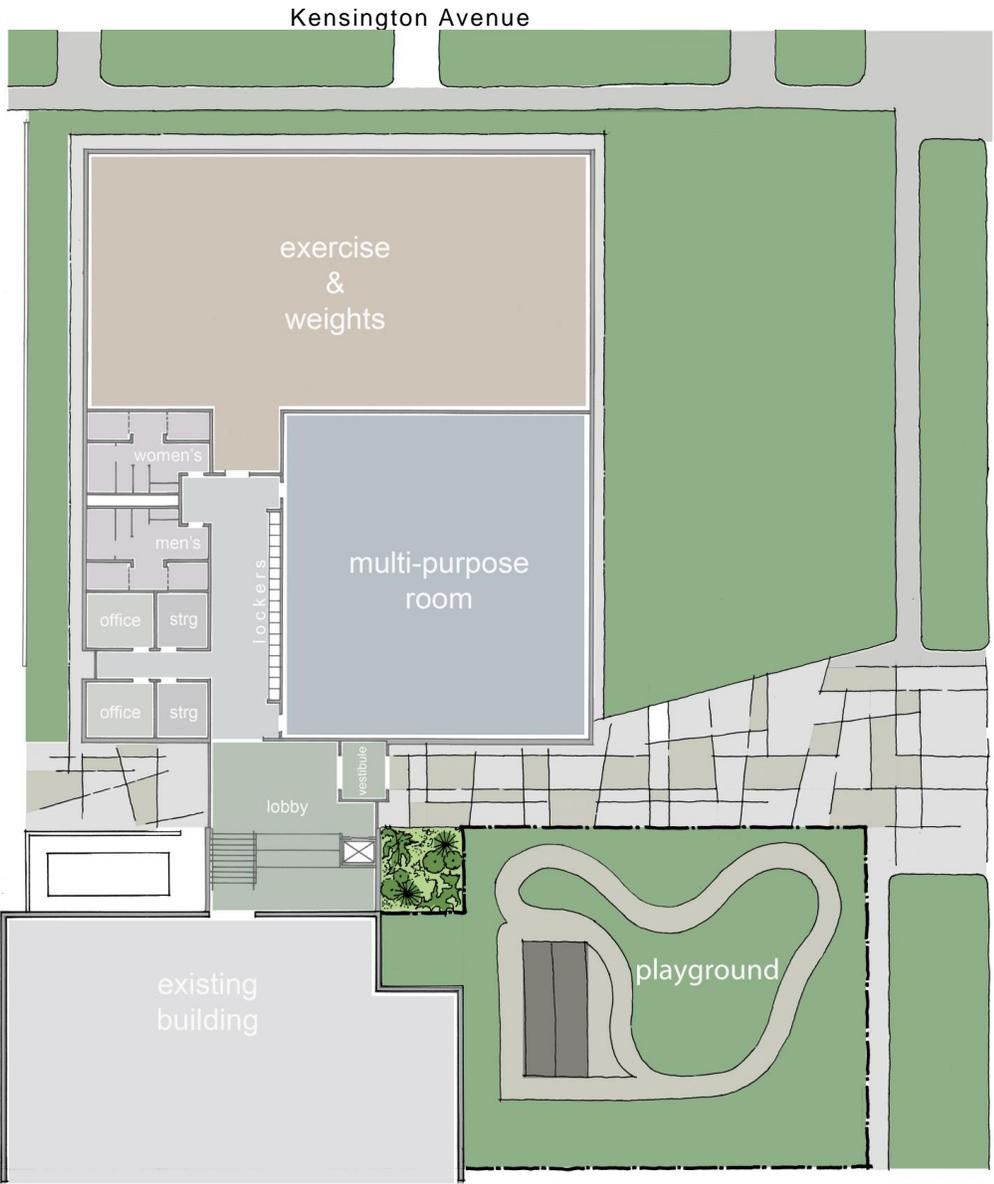
Total Space Requirements and Analysis

The program for the building is organized around two primary building programs: the exercise and weights area, and the multi-purpose room. Support spaces include restrooms, lockers, offices and storage space. The building is served by an entry lobby and reception design, a space that bridges the elevation change between the existing building and the Strength and Conditioning Building and accommodates a small gathering area and lift. Spaces are configured for the greatest flexibility, organized to support the diversity of the Health and Lifetime Activities course work, and provide indoor venues in the off hours for recreational and fitness programs.

AREA	DESCRIPTION	PROP QTY	NASF	GASF	TOTAL NET SF	TOTAL GROSS SF	NOTES
ENTIRE PROGRAM					10,065	11,575	
1	COMMONS AREA/CONNECTION				1,605	1,846	
1.1	Entry				765	880	
1.1.1	Vestibule	1	85	98	85	98	
1.1.2	Lobby/Lounge	1	600	690	600	690	
1.1.3	Help-Staff Desk	1	80	92	80	92	Controlled by student staff member
1.2	Auxiliary Services				240	276	
1.2.1	Offices	2	120	138	240	276	
1.3	Support				600	690	
1.3.1	Restrooms/Showers	2	300	345	600	690	3 Stalls, 2 Lavatories, 2 showers
2	CONDITIONING AREA				3,200	3,680	
2.1	Aerobics				3,200	3,680	
2.1.2	Multiuse Room	1	3,200	3,680	3,200	3,680	
3	STRENGTH AREA				4,445	5,112	
3.1	Active				4,200	4,830	
3.1.1	Exercise Equipment/Free Weights	1	4,200	4,830	4,200	4,830	
3.3	Support				245	282	
3.3.1	Storage	2	90	104	180	207	
3.3.2	Lockers	1	65	75	65	75	
4	BUILDING SERVICE				815	937	
4.1	Mechanical / Electrical / Communications				310	357	
4.1.1	Electrical Room	1	60	69	60	69	Basement
4.1.2	Mechanical Room	1	190	219	190	219	Basement
4.1.3	Telecommunications	1	60	69	60	69	Basement
4.2	Support				505	581	
4.2.1	Building Storage	1	480	552	480	552	Basement
4.2.2	Custodial/Janitor	1	25	29	25	29	Basement
TOTAL ASSIGNABLE SPACE					10,065	11,575	

The conceptual floor plan below illustrates the relationships of function and arrangement of the areas that are described in the Space Summary above.





Conceptual Site Plan for SLCC SCC Strength and Conditioning Center

Exterior Materials

The new Strength and Conditioning Center will have a contemporary feel, yet materials and proportions will reflect the existing campus aesthetic guidelines. Because of its strong connection to the Salt Lake community,, and a desire to specifically respond to the adjacent residential community, the new building will be a one story structure.

A dynamic and expressive building form can be employed here. Current conceptual images of the facility indicate materials consistent with this area and include:

- Red-brown masonry used in combination with either cast-in-place or pre-cast concrete or with veneer masonry systems of contrasting color,
- Aluminum window systems with tinted low-e glass,
- Sun shading devices could be used on the south and west elevations to control natural daylight and heat gain,
- Pedestrian-friendly entrances, which connect to the pathway system, and support the campus landscape plan.

Existing Campus Buildings / Context



Original façade of South High School which is the current home of Salt Lake Community College, South City Campus



Salt Lake Community College – East



Salt Lake Community College – North-East



Salt Lake Community College – East

Interior Materials

Interior materials proposed for the Strength and Conditioning Center will be similar to those of the existing Community College and will be further refined during Schematic Design. Materials selection includes latitude for adjustment to accommodate price variation when the project is bid. Durable and sustainable materials have been used for estimating purposes. Sustainable materials or materials with sustainable components shall be considered as a priority. Interior wall framing materials will be designed for flexibility..

- Office Wall Construction:
Metal Studs with 5/8" impact resistant gypsum board with sound batt insulation.
- Office Flooring Options:
Recycled and recyclable Carpet or Carpet Tiles
- Multi-purpose/Exercise and Weights Room Flooring Options:
Linoleum – Forbo Marmoleum global 2 or equal,
Recycled-content Sport Floor
Vinyl Composition Tiles
- Hallway Flooring Options:
Terrazzo
Linoleum – Forbo Marmoleum global 2 or equal
Carpet or Carpet Tiles
Vinyl Composition Tiles
- Multi-purpose/Exercise and Weights/Hallway Walls:
Metal Studs with 5/8" impact resistant gypsum board w/ sound batt insulation.
Ground Face or Painted Concrete Masonry Units –sand filled cores where not reinforced.
- Acoustical wall panels should be considered for sound control and distribution.
- Exterior Wall Construction, Interior Component:
Insulated Steel Studs with 5/8" impact resistant gypsum board.
Insulated Metal stud furring over concrete systems w/ 5/8" impact resistant gypsum board.
Ground Face or Painted Concrete Masonry Units –sand filled cores where not reinforced.
Thermally Broken aluminum storefront and/or curtain wall systems with insulated, tinted low-e glass.
- Restroom Walls:
Glazed Concrete Masonry Units
Sealed Ground Face or Painted Concrete Masonry Units – cores sand filled where not reinforced.
Metal Studs with Ceramic Wall Tile full height
- Restroom Flooring:
Tile, including but not limed to: porcelain tile or polished stone.
Terrazzo
- Ceiling Systems:
Acoustical Ceiling Panels in Suspended Grid System.
5/8" gypsum board on metal stud framing for articulated ceiling systems and soffits, and restroom/janitorial ceilings.

Health, Life Safety and Code Compliance Issues

This project will be designed and constructed in accordance with the latest edition of the approved building codes and standards that have been adopted by the State Buildings Programs as the minimum requirements.

Commencement of schematic design shall include review and compliance with the most current codes as adopted by State Buildings Programs.

This project will be Occupancy Group A (Assembly), which includes educational occupancies above the 12th grade. The new building will be an 11,575 gross square foot, 1-story structure, requiring a minimum of two exits, and toilet facilities.

Accessibility to and within the building will follow ICC/ANSI A117.1, providing handicapped access to all areas of the building.

Existing Site Requirements

The existing site has been identified in the Salt Lake Community College – Facilities Master Plan Amendment, adopted in 2002, and located between State Street and 300 East and Kensington Avenue and 1700 South:



Site features and/or constraints include:

The site is currently occupied by a temporary structure, which has been used for “swing space” and overflow space for programs dislocated due to construction and/or renovation on the campus. The project site is adjacent to the existing structure and will respect existing landscape materials, pathways, emergency vehicle access, and other site features that support the Campus Master Plan. Work will include:

- Relocation of Childcare playground equipment/structures.
- The site is relatively level. Storm drainage for the site will conform to City of Salt Lake City requirements.
- All required utilities exist adjacent to the site, and no known utilities exist beneath the proposed building footprint. Further studies will be required.
- Previously established site landscaping, trees, pedestrian walks, and fire lanes will be incorporated into the master planned landscaping for the North Mall and campus open space.



Existing Site looking south from north-east (playground area shown)

Equipment Requirements

There are limited FF&E requirements for the Strength and Conditioning Center. New office furnishings, exercise equipment, and audio visual equipment will be purchased for the project by the owner. Individual office computers and printers will be provided by the departments occupying the building.

Acquisition of Real Estate Property

No land acquisition is necessary. Salt Lake Community College owns the proposed building site.

IV PROJECT DESCRIPTION

Site, Civil and Landscape Narrative

In placing the proposed facility on the site, the most important consideration is the inherent relationship of this building to the existing SLCC South City campus building to the south, residential housing to the north, commercial to the west, and surface parking to the east.

An existing, wide pedestrian walk, runs along the west of the main building from south to north providing access to the existing generator located north of existing building.

Utilities to service the proposed facility are on site. Verification of utilities including invert elevations for existing storm and sanitary sewer lines shall be verified early in the design process.

Comment [ba2]: Invert is correct

Comment [FP3]: inverted?

No additional parking is anticipated with this project. Maximizing the use of existing parking lots and encouraging alternative transportation aligns with campus master planning efforts, and is geared toward a more pedestrian-oriented, sustainable campus.

Structural Considerations

The main level floor of the project will be concrete slab on grade with structural fill as required. Soil conditions at this site will need to be verified. A geotechnical survey from the south end of the South City Campus for the New Media Center may be available.

Mechanical Narrative

The mechanical systems for the proposed Strength and Conditioning Center will balance the building usage requirements with factors such as first cost, operating costs, and system reliability. The project will most likely be heated and cooled by ceiling-mounted VAV units that will be connected to the campus central loop (CL) fluid circulation system through a primary-secondary arrangement. Roof-mounted, air-to-air heat recovery units will be used to pre-heat/pre-cool the incoming outside air for ventilation. These units will draw relief air from the space and discharge to the outside.

Comment [ba4]:heated and cooled by fan units with zoned VAV boxes that will be connected.....

Comment [FP5]: Ceiling mounted-??? is something missing here?

Design Conditions:

Winter: Outdoor temperature 11 ° F.

Indoor temperature 70° F.

Plumbing System:

- Water service: A 2" or 3" water service is proposed from the 6" main.
- Backflow Prevention: reduced-pressure type backflow prevention will be provided at the water service to the building.
- A water meter will be provided at the domestic water service entrance to the building.
- A roof drainage system is proposed, connected to site storm water piping.
- A 4" sanitary waste line will exit the building near the north-west corner, and connect to the existing main.

Fire Protection System:

- The building will be served with a wet-pipe type fire protection system, hydraulically designed to provide coverage per NFPA 13. Sprinkler coverage will be Light Hazard, except in storage rooms and mechanical / electrical rooms, which will require Ordinary Hazard, Group 1 coverage.

- The fire service will be 4" or 6" diameter, with service entry consisting of a double-check type backflow preventer, fire department connection, and flow/tamper switches as required by NFPA 13.

Electrical Narrative

Basic aspects of the electrical construction requirements for the proposed project include the following:

Power:

- Initial load estimates are based upon 10-Volt-Amperes (VA) per square foot (sf).
- This conservative estimate has been use in initial equipment sizing. During design this will be replaced with calculations based upon actual equipment installed. Service equipment will be rated 480Y/277V, 3-phase, 4-wire, 600-Amp. Most lighting will be fed at 277-volts. Large motors will be fed at 480-volts, 3-phase.

Lighting:

The lighting system will consist of a combination of the most economical recessed fluorescent or LED lighting, direct/indirect pendants and specialty accent lighting at limited locations. SLCC has recently undergone an energy audit and are subsequently using a 28 watt T8 fluorescent lamp.

Comment [ba6]: efficient

Comment [ba7]: Delete entire sentence. It has nothing to do with the proposed project.

Comment [FP8]: Colorado Mesa?

Motion sensors for control are required by the energy code and dimming will be used where it appears it can complement the educational process. Light fixtures in common areas will be more architecturally driven.

The lighting design shall follow Illuminating Engineering Society of North America guidelines.

Illumination Levels:

Based on recommendations from the Illumination Engineering Society of North America, (IESNA), interior illumination levels will be as follows ('fc' represents foot candles):

- Offices, multi-purpose and exercise & weights:..... 50 fc
- Corridors and hallways: 10 fc
- Mechanical and electrical rooms: 30 fc
- Other rooms: 30 fc

Telecommunications:

Telecommunications services for the building will be connected to the campus telecommunications distribution systems. Services will consist of telephone and high-speed data.

Project Budget

SLCC to provide a funding narrative to accommodate the summarized construction budget below.

SUMMARY OF SPACES		11,575	gsf	\$	199	ave./gsf	\$	2,299,603
1	COMMONS AREA/CONNECTION	1,605	1,846	16%	\$	220	\$	406,065
2	CONDITIONING AREA	3,200	3,680	32%	\$	198	\$	728,640
3	STRENGTH AREA	4,445	5,112	44%	\$	198	\$	1,012,127
4	BUILDING SERVICE	815	937	8%	\$	163	\$	152,772
Utilities Connection		400	lf	\$	300	/sf	\$	120,000
summary of construction costs		11,575 gsf					\$	2,419,603
overhead / profit				4%	\$			96,784
general conditions				5%	\$			120,980
design contingency				15%	\$			362,940
construction budget							\$	3,000,308

Operating Cost

Salt Lake Community College’s operating budget will be impacted by this project. Utility, custodial, and maintenance cost increases are anticipated; no additional support staff will be required. The estimated annual operating budget increase is:

Custodial Supplies and Personnel	\$1.63/sf/yr x 11,575 =	\$18,867
Utility Costs	\$1.18/sf/yr x 11,575 =	\$13,658
Maintenance Supplies and Personnel	\$1.59/sf/yr x 11,575 =	<u>\$18,404</u>
		\$50,929

The College is prepared to accommodate this budget requirement and it will not affect state operating expenditures.

Financial Analysis

SLCC can provide any narrative it feels is relevant and needed for this project.

V. APPENDICES

APPENDIX A – BUILDING CONCEPTUAL DESIGN MODELS



Conceptual building image of the Strength and Conditioning Center and site looking northwest



Conceptual building image of entry, plaza, Strength and Conditioning Center and corner of new Childcare play yard.