ATTENTION DESIGN FIRMS

If you download this RFP from the website, it is your responsibility to advise the SOU Vice President for Finance and Administration that you have done so. This will allow us to add you to the Respondent's List, and advise you of any addenda issued for this Project. Failure to do so may cause your submittal to be rejected as non-responsive.

To add your firm to the Respondent's List, simply email or fax a signed request letter on your firm's letterhead to:

Treasa Sprague
spraguet@sou.edu
or
Fax: 541-552-6337

Be sure to clearly identify the name and email address of the contact person within your firm.

REQUEST FOR PROPOSALS

No. 2014-0529

For

ARCHITECTURAL SERVICES

McNeal Pavilion Renovation and New Student Recreation Center

May 29, 2014

Or

ISSUE DATE: May 29, 2014
RFP CLOSING (DUE) DATE: June 19, 2014, 3:00 PM,

NO LATE PROPOSALS WILL BE ACCEPTED

SUBMITTAL LOCATION

Southern Oregon University
Churchill Hall Room 122
1250 Siskiyou Boulevard
Ashland Oregon 97520

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I INTRODUCTION

The Oregon State Board of Higher Education (OSBHE) on behalf of Southern Oregon University (SOU or Owner), in accordance with Oregon Administrative Rules (OAR) 580-063-0020, is requesting proposals from architectural firms interested in providing design services for the McNeal Pavilion Renovation and New Student Recreation Center Project (the "Project").

Southern Oregon University has been authorized to proceed with the design of the Project. This Request for Proposals (RFP) is the initial step in the selection process to retain professional design consultant services through final Project completion. Once selected, the consultant will be required to sign an Oregon University System (OUS) Architect's Agreement. (A sample of this agreement is appended to this RFP as Appendix A.) Compensation will be based on a total "not-to-exceed" amount for services and reimbursable expenses. The initial agreement will only extend through schematic design and may be amended to include subsequent phases. Design services are anticipated to begin in August 2014. The project includes the remodel of existing facilities and construction of new facilities. Proposers should assume that the project will be phased so that the main gymnasium is available for winter sports. The entire project is expected to be completed by Fall Term 2016

II PROJECT DESCRIPTION

The McNeal Renovation and Student Recreation Center is a multi-faceted project that includes building renovations, seismic upgrades, and new construction. Of immediate concern are seismically vulnerable walls identified in two recent building structural evaluations (attached as Appendix B). The objective of this Project is to renovate and expand the existing McNeal Pavilion building to modernize existing teaching spaces and athletic facilities, meet current Title IX requirements, add needed campus teaching space, renovate the pool, and create a recreation center that will help to attract and retain students and faculty. With careful planning and design, the Project will provide opportunities for building a sense of community among students and faculty outside of the classroom. The location of this facility near the primary Residence Halls and outdoor athletic and recreation fields provides the opportunity to bring more classes, faculty, and staff to the "other side" of the boulevard. This ambitious Project will help to ensure a viable future for SOU and will revitalize an otherwise non-descript building into one that will help bring additional vitality to the north campus.

The original McNeal Pavilion was completed in 1957 and was named for the late Roy McNeal, the University's first athletic coach. The original building included a large gymnasium, multi-use rooms, locker rooms, classrooms, offices, and support spaces. McNeal is a reinforced concrete and concrete masonry structure. Interior partitions, floors, and roof are primarily wood-frame with some structural steel support members.

In 1966 the pool, small gymnasium and dance studio and additional locker room space were added. Construction of the 1966 addition was similar to the original building.

A 1991 project added staff offices, classrooms, and restrooms at the front of the original building and included renovation of the main gymnasium and press box. The 1991 addition is reinforced concrete masonry exterior walls over a concrete slab-on-grade. Interior partitions and roof are wood frame construction.

The facility now includes three gymnasiums, swimming pool, dance studio, wrestling rooms, physical therapy area, locker rooms, classrooms, offices, and support facilities. The existing McNeal complex is approximately 120,000 square feet.

In 2012 the SOU students voted to fund a new Student Recreation Center. SOU retained OPSIS Architecture to analyze alternate locations for the new Recreation Center and to work with a student building committee to develop a conceptual design for a $20 million program. A copy of the 2013 OPSIS study is attached to this RFP as Appendix C. ***It is important to note that at the time of the OPSIS study there was no funding for renovation of the existing McNeal building.*** The Recreation Center had to function as a "stand alone" facility in that study.

The now combined $39 million Project will afford new opportunities for shared spaces and building systems. Elements of the OPSIS design may or may not be incorporated into the new project as the design process starts anew. The project will need to be designed to provide access control for Recreation Center. The final layout for the new recreation center is open for discussion although removal and replacement of the large parking lot west of McNeal is not part of the program. The project will be designed for a minimum of LEED Gold certification, preferably LEED Platinum.

III BUDGET

The anticipated total program budget for the Project is $39 million with anticipation of no more than 20% for soft costs.

IV CONSULTANT SELECTION PROCESS

Beginning with this RFP, and in accordance with applicable administration rules in OAR Chapter 580, Division 63, and the criteria and schedule listed below, SOU will select an architectural firm to provide design services for this Project. Firms interested in this Project must demonstrate recent, relevant experience on projects of similar size, scope, and setting.

Proposals will be evaluated by SOU's consultant selection committee. The committee is chaired by the Vice President of Administration and comprised of other SOU administrators, staff, and SOU students. Proposals will be reviewed, scored and ranked according to solicitation criteria, reference investigations, and other information gleaned during the evaluation process. A minimum of three (3) firms will be invited to participate in an interview to promote their firm's talent and ability. SOU may modify the number of firms to interview if SOU determines it is in its best interest to do so.

The highest ranking firm will be selected based on overall merit as determined by the selection committee to be in the best interest of Southern Oregon University.

The consultant's fee for this Project will be negotiated with the successful firm after the selection process; however, the anticipated fee is no higher than 6% of the direct construction budget. The owner realizes the seismic upgrades may lead to higher percentage for engineering design fees; however, the simpler design of activity buildings with large spaces should reduce the architectural complexity. Do not submit a fee with your response to this RFP.

SOU is an AA/EEO employer.

V CONSULTANT SELECTION SCHEDULE

May 29, 2014	Advertise RFP
June 2, 2014	Solicitation Protest Deadline
June 4, 2014	**Mandatory Pre-Proposal Meeting** (2:00 p.m. McNeal Room 115)
June 9, 2014	Written Questions Due from Proposers
June 11, 2014	SOU's Written Response to Questions
June 19, 2014	Proposals due (3:00 p.m.)
June 26, 2014	Notify finalists and schedule interviews
July 8, 2014	Interview Finalists
July 11, 2014	Announce selection of winning candidate
July 21, 2014	Selection Protest Deadline

VI SCOPE OF SERVICES

The basic A/E services required for this Project include design services, bidding assistance, construction administration, and other consultant services as outlined in the sample agreement attached to this RFP. The owner reserves the right to terminate services or Contract, in whole or in part, at any phase of the Project whenever the Owner determines that termination of the services or Contract is in the best interest of the Owner or the public, or for Owner or the public's convenience. The Owner shall provide seven (7) Days' prior written notice of termination for Owner's or the public's interest or convenience. In the event of such termination, the selected Bidder's sole remedy shall be limited to recovery of amounts completed by the selected Bidder and accepted by SOU, less previous amounts paid. In no circumstance shall the selected Bidder be entitled to lost profits for Work not performed due to termination.

A/E services must include a comprehensive Efficiency Design analysis of the Project. When completed, the Project shall exceed the State Building Code requirements for energy efficiency by 20% or more, and shall be a "model of energy efficiency" as that term is described in the above-referenced administrative rules.

The design consultant selected for this Project should also be prepared to conduct charrettes and presentations to solicit feedback and to keep the campus community informed regarding the status of the Project.

Pursuant to ORS 276.073 to 276.090, and OAR 190-020-0000, this Project is subject to the State of Oregon's 1% for Art program. It is assumed that the Project architect will serve as a member of the art selection committee pro bono.

VII INSTRUCTIONS TO PROPOSERS

The proposal should be contained in a soft-bound (comb or spiral binders) document not exceeding 9 x 12 inches in size and must be signed by a principal of the firm. It must follow the format outlined below in numerical order, and should be limited to 20 single sided pages including pictures, charts, graphs, tables, and text that the firm deems appropriate in the proposal. The narrative text font should be no smaller than 10 point and in a style that is easy to read. The front and back cover, tab pages, and resumes of key personnel are exempted from the 20 page limit. Firms will provide vitae and brief descriptions of each team members experience over the last five years. It's especially critical that "all" team members assigned to this project are included (i.e., project managers, project architects, project engineers, designers, etc.)

The proposal must be signed by an officer of your firm with the authority to commit the firm. It must also certify that the proposer, as part of the proposal, has not discriminated against Minority, Women or Emerging Small Business Enterprises in obtaining any required subcontracts.

If Bidder has any questions, concerns or problems with the Terms and Conditions included in this Section, Bidder must indicate so in writing and submit such written questions, concerns or problems to SOU's Contact Person no later than the date specified for Project Timeline, for "Written Questions due from Proposers". Any protest to the specifications required in this RFP must be submitted no less than three business days following the issuance of this RFP or any subsequent addenda to this RFP.

Telephone, facsimile, or electronically transmitted submittals will not be accepted, and no proposals received after the closing date and time will be considered. Failure to comply with these instructions will result in rejection of your proposal.

Please note that SOU will not accept proposals or queries that require SOU to pay the costs of production or delivery.

SOU may reject any submittal not in compliance with all prescribed public bidding procedures and requirements, and may cancel this solicitation or reject for good cause, all responses upon a finding by SOU that it is in the public interest to do so.

VIII SELECTION CRITERIA

Respondents will be evaluated on the basis of the following criteria. Please follow the format outlined below in numerical order.

1 Firm Background (5)

Describe your firm's history. Include information identifying your firm's strengths and specialties in the architectural field. Include firm information for major sub-consultants.

2 Firm Workload (2)

Discuss your firm's capacity and capability to perform the required services within the time limitation set for this Project. Include all projects currently engaged and what phase and completion date expected.

3 Firm Experience and Success (5)

Describe your firm's experience with projects for institutions of higher education in general, and with OUS in particular, and identify at least five (5) recently completed projects, designed by your firm, that are similar in size, scope, and complexity to this Project. For each project identified, include the following information: the name of the Project architect, total construction cost, total cost of change orders, LEED certification status (if applicable), owner representative, and project start and completion dates.

Describe each project's similarities to this Project and any challenges or unique features that set it apart.

4 Key Personnel (5)

Provide a list of key personnel (with resumes) that would be assigned to this Project including sub-consultants. Provide detailed information for all significant project managers, project architects, engineers, job captains, and designers that will have a significant role in this project; specifically, state how long each team member has been with their firm(s). Briefly describe the responsibility of the each team member and state their specific duties relative to this project. For key personnel new to the firm(s), include recent prior work history.

5 Estimating/Cost Management (4)

Discuss your firm's method and ability to design a project within budget constraints and to accurately estimate construction costs through the design phase (other than the use of a CM/GC). Describe your use of BIM modeling and/or provide examples and projects where this and other approaches to controlling cost overruns in bidding and through change orders.

6 Sustainable Building Practices (2)

Describe your firm's philosophy regarding sustainable "green" building practices, and your expertise to design sustainable buildings. Provide a list of comparable LEED certified buildings completed by the firm.

7 Local Labor and Design (3)

Discuss how you will incorporate and encourage local firms to be involved in the planning and design of this project. Provide examples of recent success in this endeavor. We encourage joint venturing with local firms.

8 Schedule and Phase Management (2)

Provide a preliminary schedule that identifies the major design and construction elements of this Project. Identify major milestones and potential issues, negative or positive, that could affect the proposed completion date.

9 References (Not Scored)

Provide the names, addresses, emails, and phone numbers of three clients, three contractors, and three owner representatives, as references for your firm's qualification for this Project. These references should be from clients and contractors of recently completed projects that are similar in size and scope to the Project identified. Please verify that the contact information is current and that the individuals identified have had direct involvement with the referenced project. The University may also check with other reliable sources, which can provide information on the respective firm. **While the Reference category itself will not be scored, results obtained in reference checks may be used to score other evaluation criteria.**

IX PROPOSAL EVALUATION

Proposals will be evaluated for completeness and compliance with this RFP. Proposals considered complete will be evaluated to determine if they comply with the administrative, contractual, and technical requirements of the RFP. If the Proposal is unclear, Proposers may be asked to provide written clarification. **Proposals that do not specifically address the scope of work or do not include the complete Proposal Content may be rejected.**

Each member of the Selection Committee will score each of the first eight selection criteria described above in Section IIX on a scale between 0 and 5, and multiply that number by the weight assigned to the respective criteria in parentheses next to the description of each criteria above . The weighted scores will then be added to obtain individual total scores for each firm. The Selection Committee will then meet to discuss strengths and weaknesses of each firm, collectively tally the scores, and rank the respondents by score from highest to lowest. A minimum of three (3) and a maximum of five (5) finalists will be selected to proceed to the next step. These finalists will be invited to participate in an interview with SOU's selection committee and should be prepared to answer questions designed to clarify or expand on their statements of qualifications, provide specific information that demonstrates their knowledge of this Project and offer other information that may distinguish their firm from the others.

X INTERVIEW EVALUATION

Interviews will include a presentation period and Q&A session for each selected firm. Each member of the Selection Committee will subjectively score the finalists.

Interviews will be individually scored between 1 and 5 (5 being most favorable), and tallied. The Selection Committee will then tally all committee member scores to rank the candidate firms highest to lowest. The highest interview score will determine the apparent successful firm. If SOU is unable to successfully agree upon a contract with the highest ranked

proposer, SOU may terminate discussions and enter into discussions with the next highest ranked proposer and so on until a contract is executed. At any point SOU may terminate this procurement.

XI PROPRIETARY INFORMATION

This RFP and one copy of each original proposal received, together with copies of all documents pertaining to the award of a contract, shall be retained by the Owner and made a part of a file or record which shall be open to public inspection after consultant selection is announced. If a proposal contains any information that is considered a trade secret under ORS 192.501(2), each sheet of such information must be marked with the following legend: **"This data constitutes a trade secret under ORS 192.501(2), and shall not be disclosed except in accordance with the Oregon Public Records Law, ORS Chapter 192."**

The Oregon Public Records Law exempts from disclosure only bona fide trade secrets, and the exemption from disclosure applies only "unless the public interest requires disclosure in the particular instance". Therefore, non-disclosure of documents or any portion of a document submitted as part of a proposal may depend upon official or judicial determination made pursuant to the Public Records Law.

In order to facilitate public inspection of the non-confidential portion of the statement of qualifications, material designated as confidential shall accompany the statement, but shall be readily separable from it. Prices, makes, model, or catalog numbers of items offered, scheduled delivery dates, and terms of payment shall be publicly available regardless of any designation to the contrary.

XII SUBMITTAL INFORMATION

Submit twelve (12) printed copies of proposals and one CD copy to:

Treasa Sprague
Southern Oregon University
Churchill Hall Room 122
1250 Siskiyou Boulevard
Ashland Oregon, 97520

Proposals must be received by 3:00 PM, Thursday June 19, 2014. Proposals received after that time will not be considered

XIII PROTESTS

Solicitation Protests:

Any request for clarification or protest of the solicitation document(s) or specifications must be submitted in the manner provided for in OAR 580-061-0100 and 580-061-0145 to:

Treasa Sprague

Contracts Manager
Southern Oregon University
1250 Siskiyou Blvd.,
Ashland, OR 97520

A protest of Solicitation Document(s) must be received within seven (7) business days of the issuance of the ~~Soliciation~~Solicitation Document(s) or within three (3) business days of issuance of an addendum.

Requests for clarification may be submitted up to five (5) business days of the bid Closing Date.

Selection Protest:

SOU will name the apparent successful Bidder in a "Notice of Intent to Award" letter. Identification of the apparent successful Bidder is procedural only and creates no right in the named Bidder to award of the contract. Competing Bidders will be notified by publication of the Notice of Intent to Award on the OUS Procurement Gateway of the selection of the apparent successful Bidder(s) and shall be given seven (7) calendar days from the date on the "Notice of Intent to Award" letter to review the file at the Office of the Vice President of Administration and file a written protest of award, pursuant to and within the time required by OAR 580-061-0145. Any award protest must be in writing and must be delivered by hand delivery, mail or email to to: Craig Morris, Vice President for Finance and Administration, 1250 Siskiyou Blvd., Ashland, OR 97525.

XIV CONTACT INFORMATION

ALL QUESTIONS AND/OR COMMENTS REGARDING THIS RFP SHOULD BE DIRECTED TO:

Drew Gilliland
Director Facilities, Management and Planning,
Ph. 541-840-0677
Fax: 541-552-6235
E-mail: gilliland@sou.edu

XV APPENDICES

The following appendices are included in this RFP:

- Appendix A: OUS Architect's Sample Agreement
- Appendix B: Structural Reports for the Existing Building
- Appendix C: OPSIS Architecture Recreation Center Report
- Appendix D: Existing Building Drawings
- Appendix E: Floor Plans

END OF RFP

ARCHITECT'S AGREEMENT
MCNEAL PAVILION RENOVATION and NEW RECREATION CENTER PROJECT
SOUTHERN OREGON UNIVERSITY

This ARCHITECT'S AGREEMENT (the "Agreement") is made between

the "Architect": _____
_____ Phone: (___) ___-____
_____ FAX: (___) ___-____

and the Owner: The STATE OF OREGON acting by and through the
STATE BOARD OF HIGHER EDUCATION on behalf of
Southern Oregon University
1250 Siskiyou Boulevard Phone: (541) 552-6233
Ashland OR 97520 FAX: (541) 552-6335

regarding the "Project": Science Building Renovation

(The Architect and the Owner are referred to collectively as the "Parties" and individually as a "Party")

WHEREAS, the Owner desires to have the assistance of the Architect to provide certain professional services for the Project; and

WHEREAS, the Architect, with the aid of certain consultants (the "Consultants"), is willing and able to perform such professional services in connection with the Project;

NOW, THEREFORE, the Owner and the Architect, for the considerations hereinafter named, agree as follows:

I. RELATIONSHIP BETWEEN THE PARTIES

A. Scope of the Project. The scope of the Project includes the following: _____
_____
_____.

B. Scope of Services. The scope of Services to be performed under this Agreement includes the following:
_____
_____
_____.

The Architect's previously performed services, outside of this Agreement, have included the following: _____.

C. Critical Date Schedule. The Architect shall be perform the Services according to the following critical date schedule:

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

D. Effective Date. This Agreement is effective on the date it has been signed by every Party hereto and all necessary State approvals have been obtained (the "Effective Date"). No Services shall be performed or payment made prior to the Effective Date.

E. Defined Terms. In addition to any terms defined elsewhere in the body of this Agreement, certain terms that are capitalized and/or set forth in bold letters throughout the Agreement are defined as follows:

"Additional Services" means additional Services performed by the Architect that are beyond the scope of the Basic Services described in **Section VII**, based on hourly rates for Architect personnel or Consultants, plus Reimbursable Expenses, in accordance with an agreed-upon schedule of charges, and performed by the Architect after the Owner has given prior written authorization to proceed with performance of the Services and the Parties have executed an amendment or supplement to this Agreement, as more particularly described in **Section VIII** of this Agreement.

"Basic Services" are those Services more particularly described in **Subsections A., B., C., D. and E. of Section VII**. of this Agreement.

"Construction Contract" is defined as the contract entered into between the Owner and the Contractor to provide all Work necessary to construct the Project, including the original base contract for construction of the Project, the Oregon University System General Conditions For Public Improvement Contracts, any supplemental general conditions to the Construction Contract, any amendments to the Construction Contract, the Contractor's performance bond and payment bond, the plans, specifications, approved shop drawings, all approved change orders, any solicitation documents, and any response by a successful bidder or proposer to any such solicitation documents.

"Construction Documents" means drawings, specifications and other documents setting

forth in detail the requirements for construction of the Project, as well as the documents pertaining to bidding and contracting for the construction of the Project

"Contractor" is defined as the general contractor that is awarded the contract to construct the Project.

"Design Criteria" means the SOU Design Criteria in effect at the time of the Effective Date of this Agreement.

"Direct Construction Cost" means the cost to the Owner of all divisions of construction, including portable equipment only if designed or specified by the Architect for inclusion in the construction specifications.

"Reimbursable Expenses" are those expenses described in **Sub-section B. of Section III** of this Agreement.

"Services" are all those services to be performed by the Architect under the terms of this Agreement.

"Work" is defined as the furnishing of all materials, labor, equipment, transportation, services, and incidentals for the construction of the Project by the Contractor that is eventually awarded the Construction Contract for the Project.

F. Directives for Performance of the Services.

1. The Architect shall provide, with the assistance of the Consultants, the professional Services more particularly described in **Section VII** below for this Project.

2. The Architect shall provide a schedule for the performance of the Services upon execution of this Agreement. **Time is of the essence in the performance of this Agreement.**

3. The construction budget for the Project is currently estimated at approximately $17,000,000.

4. The Architect shall jointly select with Owner the Owner's independent cost estimator to provide estimates of probable Direct Construction Cost for the Schematic Design, Design Development, and Construction Documents Phases as described in **Section IX** below for this Project.

5. The Architect shall fully cooperate with Owner to meet all Project budgets. Owner understands that Architect has no control over the cost or availability of labor, equipment, or materials, or over market conditions or Contractor's method of pricing. Architect makes no warranty, express or implied, that the bids or the negotiated cost of the Work will not vary from the opinion of probable construction cost developed by the Owner's independent cost

estimator. In the event the opinion of probable construction cost exceeds the budget for the Project listed in **Sub-section 3** above by any amount during the design or construction phases, or in the event the bids or negotiated cost of the Work exceed the budget for the Project listed earlier in this Section by more that 10 percent, Architect, upon notice from Owner and prior to the award of the construction contract, agrees to modify, at Architect's sole expense, Architect's Schematic Design documents, Design Development documents or Construction Documents (or with owners approval those portions of those documents where opinions of probable construction costs or bids exceeded the budget or stipulated percentage). This redesign effort shall constitute Architect's sole responsibility with respect to the opinions of probable construction cost, and Architect agrees to cooperate with Owner in revising the Project scope and quality in order to reduce the opinion of probable Construction Cost, or the bids or negotiated price, so that they do not exceed the Project budget.

6. The Architect shall provide all Services for the Project in accordance with the terms and conditions of this Agreement. The Architect's performance of Services shall be as a professional Architect to the Owner to perform the professional services necessary for the Project, and to provide the technical documents and supervision required to achieve the Owner's Project objectives.

7. In administering this Agreement, the Owner may employ the services of an independent project manager and other consultants as needed to fulfill the Owner's objectives.

8. The Architect shall utilize the key personnel and Consultants identified on the attached **Exhibit 1** in the performance of the Services for the Project. In addition to the full names, titles/positions and a summary of the duties and Services to be performed by the key personnel and Consultants that are included in the attached **Exhibit 1**, the Architect agrees to promptly provide such additional information on the professional background of each of the assigned personnel and Consultants as may be requested by the Owner. The Architect acknowledges that the Owner's award of this Agreement to the Architect was made on the basis of the unique background and abilities of the Architect's key personnel and Consultants originally identified in the Architect's RFP proposal or cost proposal. Therefore, the Architect specifically understands and agrees that any attempted substitution or replacement of a key person or Consultant by the Architect, without the written consent of the Owner, shall constitute a material breach of this Agreement. In the event that key personnel or Consultants become unavailable to the Architect at anytime, Architect shall replace the key personnel and Consultants with personnel or Consultants having substantially equivalent or better qualifications than the key personnel or Consultants being replaced, as confirmed and approved by Owner. Likewise, the Architect shall remove any individual or Consultant from the Project if so directed by Owner in writing following discussion with the Architect, provided that Architect shall have a reasonable time period within which to find a suitable replacement. **The Architect represents and warrants that the key personnel and Consultants identified on the attached Exhibit 1 are fully licensed to perform the particular Services assigned to them on the Project.**

9. Architect shall make no news release, press release or statement to a member of the news media

regarding this Project without prior written authorization from Owner.

G. Suspension of Agreement by Owner. The Owner may suspend the Parties' performance of this Agreement in the event any of the following circumstances arise:

1. Owner fails to receive funding, or appropriations, limitations or other expenditure authority at levels sufficient to pay for the Architect's Services;

2. Federal or state laws, regulations or guidelines are modified or interpreted in such a way that either the Services performed under this Agreement are prohibited or Owner is prohibited from paying for such Services from the planned funding source;

3. Architect, or one of Architect's Consultants currently performing Services, no longer holds any license or certificate that is required to perform the Services;

4. The public interest otherwise requires suspension of performance of the Agreement, as reasonably determined by the Owner.

Any suspension of performance under this provision constitutes a temporary stoppage of performance of the Agreement, and does **not** constitute a termination of the Agreement pursuant to **Section XIX** of this Agreement. In the event that the condition(s) causing the suspension have been rectified and suspension is no longer required, the Parties will take all actions necessary to reactivate performance of the Agreement. In the event that the Owner determines that the conditions causing suspension of the Agreement are not likely to be rectified in a reasonable amount of time, the Owner retains the right to terminate this Agreement, pursuant to **Section XIX**. In the event of a suspension of performance pursuant to this Section of the Agreement, the Architect agrees to remain contractually obligated to perform the Services under this Agreement for the same hourly rates set forth in **Section III.C** of this Agreement for a period of three years after the Effective Date of the Agreement. If the Agreement is reactivated and the Architect is required to perform Services beyond this date or such other time period agreed to by the Parties, the Parties may negotiate updated hourly rates for the Architect and any Consultants and amend this Agreement accordingly.

II. ARCHITECT'S STANDARD OF CARE; REPRESENTATIONS AND WARRANTIES

A. Standard of Care. The Architect shall perform the Services in accordance with the professional skill, care and standards of other professionals performing similar services under similar conditions.

B. Performance Requirements. In addition to performing the Services in accordance with the professional skill, care and standards of other professionals performing similar services under similar conditions, the Architect shall perform the Services in accordance with the following requirements:

1. All plans, drawings, specifications, and other documents prepared by the Architect shall

accurately reflect, incorporate and comply with all applicable statutes, rules, regulations, ordinances and other laws which are applicable to the design and construction of the Project, and shall be complete and functional for the purposes intended (except as to any deficiencies which are due to causes beyond the control of Architect);

2. All plans, drawings, specifications, and other documents prepared by the Architect pursuant to this Agreement shall accurately reflect existing conditions for the scope of the Services to be performed;

3. The Project, if constructed in accordance with the intent established by such plans, drawings, specifications, and other documents, shall be structurally sound and a complete and properly functioning facility suitable for the purposes for which it is intended;

4. The Architect shall be responsible for any negligent inconsistencies or omissions in the plans, drawings, specifications, and other documents. While Architect cannot guarantee that the various documents required under this Agreement are completely free of all minor human errors and omissions, it shall be the responsibility of Architect throughout the period of performance under this Agreement to use due care and perform with professional competence. Architect will, at no additional cost to Owner, correct any and all errors and omissions in the plans, drawings, specifications, and other documents prepared by Architect. Except as provided in **Section VIII** of this Agreement and at no additional cost, Architect further agrees to render assistance to Owner in resolving other problems relating to the design of, or specified materials used in, the Project;

5. The Owner's review or acceptance of documents, or authorization to continue to the next phase of design, bidding process participation, or construction administration, shall not be deemed as approval of the adequacy of the plans, drawings, specifications, or other documents. Any review or acceptance by the Owner will not relieve the Architect of any responsibility for complying with the standard of care set forth herein. The Architect is responsible for all Services to be performed under this Agreement, and agrees that it will be liable for all its negligent acts, errors, or omissions, if any, relative to the Services.

6. The representations and warranties set forth in this Section are in addition to, and not in lieu of, any other representations or warranties provided.

C. Architect's Representations and Warranties. Architect represents and warrants to Owner that:

1. Architect has the power and authority to enter into and perform this Agreement;

2. When executed and delivered, this Agreement shall be a valid and binding obligation of the Architect enforceable in accordance with its terms;

3. Architect shall, at all times during the term of this Agreement be duly licensed to perform the Services, and if there is no licensing requirement for the profession or Services, be duly qualified and competent;

4. The Architect is an experienced architecture firm having the skill, legal capacity, and professional ability necessary to perform all the Services required under this Agreement and to design or administer a project having this scope and complexity;

5. The Architect has the capabilities and resources necessary to perform the obligations of this Agreement;

6. The Architect either is, or in a manner consistent with the standard of care set forth in this Agreement will become, familiar with all current laws, rules, and regulations which are applicable to the design and construction of the Project.

III. COMPENSATION

The maximum, not-to-exceed, total amount payable under this Agreement is $_____ (the "Maximum Compensation"), for the combination of Basic Services and Reimbursable Expenses. The Maximum Compensation cannot be increased without a fully executed and approved amendment or supplement to this Agreement. Architect progress payments shall be made according to the provisions and schedule set forth in **Section IV** of this Agreement. The Maximum Compensation is more particularly described as follows:

A. **Basic Services:** The Architect shall perform the Basic Services, directly or through the Consultants, on a time and materials basis not to exceed $_____.

B. **Reimbursable Expenses:** To be included in basic fee negotiated prior to contract agreement.

C. **Additional Services:** The Owner will compensate the Architect for Additional Services performed by the Architect, whether directly or through its Consultants, beyond the scope of the Basic Services described in **Section VII**, based on hourly rates for Architect personnel or Consultants, plus Reimbursable Expenses, in accordance with the following schedule of charges for the duration of this Agreement (except in the case of a suspension and reactivation of performance beyond the date agreed to by the Parties, as more particularly described in **Section I.G**), but only when the Owner has given prior written authorization and the Parties have executed an amendment or supplement to this Agreement.

ARCHITECT:

Principals.....$ ___/hr
Senior Architectural Designer.....$ __/hr
Architectural Designer.....$__ - __/hr

Sr. Project Manager.....$__ – __/hr
Project Manager.....$__ – __/hr

Production Personnel/Project Architect.....$__ – __/hr
Clerical.....$ __/hr

CONSULTANTS:

_____
_____.....$__/hr

_____.....$__/hr

_____

_____.....$__/hr

_____.....$__/hr

These charges shall also be used to determine amounts owed the Architect in the event this Agreement is terminated as provided in **Section XIX, D.1**, or suspended pursuant to **Section I. G**. Any amounts so derived may not exceed the limitations for each phase as specified by **Section IV** hereof.

IV. PAYMENTS

The Owner shall make monthly progress payments to the Architect based upon invoices submitted by the Architect for Services rendered and/or Reimbursable Expenses incurred during the preceding month. Payment requests, invoices and required documentation shall be submitted in the form and format stipulated by the Owner. One copy of each invoice, with required documentation, must be delivered to the following address:

Facilities Management & Planning
SOUTHERN OREGON UNIVERSITY
351 Walker Avenue
Ashland, OR 97520

Payments to the Architect will be made following the Owner's review and approval of the invoices and required documentation and acceptance of the Services performed and approval of the Reimbursable Expenses incurred.

Payments to the Architect for such Services performed and invoiced will be made for each phase as follows, with final payment for each phase subject to written acceptance of the phase by the Owner. The total of all payments for Basic Services shall not exceed the maximum amount set forth in **Section III.A.**

for Basic Services, and the total of all payments for Reimbursable Expenses shall not exceed the maximum amount set forth in **Section III.B.** for Reimbursable Expenses. The total of all such payments, for Services and Reimbursable Expenses, shall not exceed the Maximum Compensation. Owner reserves the right to retain up to five percent (5%) of the compensation limit set forth below for each phase, subject to Owner's acceptance of the Services and any deliverables for each phase. Notwithstanding "not to exceed" limits established below for each phase of Services, should an individual phase of design, beginning with Programming/Pre-Design, be completed without reaching the not-to-exceed limit for that phase, the balance remaining will be transferred to the next phase of work in succession through Project completion. At the completion of the Project, any remaining balance will revert to the Owner.

A. Pre-Design/Schematic Design Phase: not to exceed $_____.

B. Design Development Phase: not to exceed $_____.

C. Construction Documents Phase: not to exceed $_____.

D. Bidding Phase: not to exceed $_____.

E. Construction Administration Phase: not to exceed $_____.

No deduction shall be made from the Architect's fee on account of penalty, liquidated damages, or other sums withheld from payment to the Contractor.

V. SERVICES OF ARCHITECT'S CONSULTANTS

The Consultants shall be paid by the Architect out of the Maximum Compensation, and the Parties understand and agree that the Owner has no direct or indirect contractual obligation or other legal duty to pay the Consultants or ensure that the Architect makes full and timely payment to the Consultants for Consultant services rendered on the Project. Services performed by the Architect through the Consultants shall be included on Architect invoices at the Architect's cost, without markup, at the request of the Owner. The Architect shall provide to the Owner copies of the Consultant's invoices submitted to the Architect, along with the Architect's requests for payment that are submitted to the Owner under this Agreement.

VI. TIME OF PERFORMANCE

This Agreement shall take effect on the Effective Date and Architect shall perform its obligations according to this Agreement, unless terminated or suspended, through final completion of construction and completion of all warranty work.

VII. ARCHITECT'S SERVICES

A. Pre-Design/Schematic Design Phase

In consultation with the Owner, and in compliance with the Design Criteria for Southern Oregon University Projects provided by the Owner, the Architect shall:

1. identify applicable building codes, administrative, and permit processing requirements as relevant;

2. verify, by on-site inspection and field measurements, existing conditions and systems, including but not necessarily limited to architectural, structural, mechanical and electrical systems, to confirm that these conditions and systems are of adequate condition and capacity to support the Work to be executed on the Project;

3. in consultation with Consultant Team, Owner Representatives, and other designated persons, use all available information to evaluate the Program Requirements, and with appropriate data and graphics propose a series of improvements deemed necessary and desirable to satisfy the Program Requirements, including; space needs, budget, availability of utilities, effect of codes and ordinances, safety and energy requirements, handicapped access to all spaces, historical character of the building, etc.;

4. based on the revised Program Requirements, develop Schematic Design studies consisting of drawings, and other documents for the Owner's approval;

5. provide documents suitable for submission to the City of Ashland;

6. assist the Owner to file the required documents for the approval of various governmental agencies having jurisdiction over the Project; Owner shall pay for all required appeals and plan review fees;

7. prepare a comprehensive energy analysis of the Project. Identify options, alternatives and approximate costs for different building energy design strategies. When completed, the Project shall exceed the State Building Code requirements for energy efficiency by 20% or more, and shall be a "model of energy efficiency".

8. reconcile the independent cost estimate obtained by the Owner with the budget for the Project in **Section I** above;

9. submit to the Owner the following documents, information and other data:

    a. written report of the results of a Fire and Life Safety review with the City of Ashland;

    b. interior colors, materials and finishes recommendations;

c. a project schedule delineating the estimated time required for the Architect to complete the Design Development and Construction Documents Phases of the Project;

d. recommendations by the Consultants (structural, mechanical, electrical) of the technical requirements necessary to implement the Program Requirements;

e. equivalent LEED scorecard; and

f. three sets of preliminary plans, elevations, and other drawings necessary to describe the entire scope of the Project. These drawings may be used for local municipal review and campus review. The review sets should be delivered to the Owner one week before the scheduled completion of the Schematic Design Phase.

10. perform those design Services during this phase of the design for fine arts and crafts to be identified and incorporated into the Project, pursuant to the State of Oregon "1% For Art Program", set forth in ORS 276.073 to 276.090, as amended, relating to acquisition of fine arts or crafts to be part of the Project and consisting of consultations with the Owner on selection of artwork, commissioning and/or completion of the artwork and integration with the overall design of the Project.

B. Design Development Phase

Upon notification of the Owner's approval of the Services performed by the Architect under the Schematic Design Phase, and upon written authorization from the Owner to proceed, the Architect, in consultation with the Owner and in compliance with the Design Criteria for Southern Oregon University Projects provided by the Owner, shall:

1. prepare drawings and other documents to fix and describe the size and character of the entire Project as to architectural, site development, structural, mechanical, acoustical and electrical systems, materials and appearances, and such other essentials as may be appropriate and in accordance with governing codes and ordinances;

2. verify, by on-site inspection unless specifically stated otherwise by the Owner, prior to completion of the Construction Documents Phase, existing conditions as required to address significant constructability issues;

3. ensure that the Project complies with all applicable State of Oregon Building Codes and with the American with Disabilities Act Accessibility Guidelines (ADAAG), latest version, and allows for access to programs, activities, and services in the most integrated setting possible. The Owner will be responsible for review of accessibility and interpretation of ADAAG for compliance with Federal requirements.

4. reconcile the independent cost estimate obtained by the Owner with the budget for the Project in **Section I** above;

5. assist the Owner to file the required documents for the approval of various governmental agencies having jurisdiction over the Project and at the Architect's expense revise such documents if required for approval of the Plan by the City of Ashland (Owner shall pay for all required appeals and plan review fees);

6. submit an energy analysis for building performance based on the selected designs. Provide an energy model quantifying both operating and life-cycle costs.

7. submit to the Owner the following documents, information and other data:

    a. preliminary recommendations for interior colors, finishes, and materials;

    b. one-line diagrams for mechanical systems design(s);

    c. one-line diagrams for electrical systems design(s);

    d. complete outline specification and Project manual;

    e. recommendations for additive alternates equivalent to 10% of the base bid estimate;

    f. recommendations for construction phasing to ensure continued operation of Owner's activities;

    g. four copies of the energy analysis conforming to ORS 276.905 to 276.915 (State Agency Facility Energy Design) and ORS 469.010, more particularly described above;

    h. equipment layouts showing location, size, and configuration of all equipment in the Project;

    i. An updated LEED scorecard;

    j. an update of the Fire and Life Safety requirements resulting from previous reviews with the City of Ashland; and

    k. a list of additive alternates, following consultations with the Owner; and

    l. three sets of Design Development plans, elevations, and other drawings necessary to describe the entire scope of the Project. These drawings may be used for local municipal review and campus review. The review sets should be delivered to the Owner one week before the scheduled completion of the Design Development Phase.

8. perform those design Services during this phase of the design for fine arts and crafts to be identified and incorporated into the Project, pursuant to the State of Oregon "1% For Art Program", set forth in ORS 276.073 to 276.090, as amended, relating to acquisition of fine arts or crafts to be part of the Project and consisting of consultations with the Owner on selection of artwork, commissioning and/or completion of the artwork and integration with the overall design of the Project.

C. Construction Documents Phase

Upon notification of the Owner's approval of the Services performed by the Architect under the Design Development Phase and upon written authorization from the Owner to proceed, the Architect, in consultation with the Owner and in compliance with the Design Criteria for Southern Oregon University Projects provided by the Owner, shall:

1. prepare working drawings and specifications, setting forth all necessary plans, elevations, and construction details, descriptions of materials and equipment, methods of installation, and standards of workmanship;

2. ensure that the Project complies with the American with Disabilities Act Accessibility Guidelines (ADAAG), latest version, and allows for access to programs, activities, and services in the most integrated setting possible (the Owner will be responsible for review of accessibility and interpretation of ADAAG for compliance with federal requirements);

3. prepare Construction Documents as may be required to expedite the Work in phases so as to take maximum advantage of weather and availability of facilities for demolition and reconstruction;

4. prepare specifications setting forth descriptions of materials and equipment, methods of installation, and standards of workmanship, including (in the appropriate section of Division 1 of the specifications) a complete listing of all warranties required under the technical portions of the specifications;

5. develop all required bidding information;

6. provide the Owner 5 sets of the 100% complete Project manual, including specifications and drawings, for review and approval prior to advertising the Project for bid;

7. reconcile the independent cost estimate obtained by the Owner with the budget for the Project in **Section I** above;

8. assist Owner to file the required documents for the approval of various governmental agencies having jurisdiction over the Project (Owner shall pay for all required plan review fees);

9. prepare bidding documents with 10% additive alternates.

10. incorporate LEED requirements into the bidding documents to ensure the project meets LEED Silver certification, minimum.

11. prepare a comprehensive State Energy Efficiency Design ("SEED") Analysis of the Project, provide all documentation required for a SEED Award to the Owner for the Project and provide all other Services for the Project that are required under the SEED Program of the State of Oregon Department of Energy, consistent with the requirements of ORS 276.900 through 276.915 and OAR 330-130-0010 through 330-130-0080, that are applicable to this phase of the Services. When

completed, the Project shall exceed the State Building Code requirements for energy efficiency by 20% or more, and shall be a "model of energy efficiency" as that term is described in the above-referenced administrative rules.

12. submit to the Owner the following documents, information and other data:

    a. final recommendations for interior colors, materials, and finishes;

    b. structural calculations;

    c. heat gain/loss and HVAC system design calculations; and

    d. electrical system design load calculations; and

13. perform those design Services during this phase of the design for fine arts and crafts to be identified and incorporated into the Project, pursuant to the State of Oregon "1% For Art Program", set forth in ORS 276.073 to 276.090, as amended, relating to acquisition of fine arts or crafts to be part of the Project and consisting of consultations with the Owner on selection of artwork, commissioning and/or completion of the artwork and integration with the overall design of the Project.

D. Bidding Phase

Upon notification of the Owner's approval of the Services performed by the Architect under the Construction Documents Phase, and upon written authorization from the Owner to proceed, the Architect shall:

1. furnish the Owner with one fully reproducible set of the Construction Documents, including working drawings and specifications for each bid package complete as required for bid and construction purposes (for additional copies, see **Section VIII**, Additional Services);

2. assist the Owner in soliciting bids;

3. if requested, review the bids and assist in recommending the award of Construction Contract(s) for the Work;

4. coordinate with the City of Ashland to ensure that all plan review/building permit criteria are reflected in the final bid documents;

5. attend the pre-bid conference at the Project site; and

6. if the lowest acceptable bid exceeds the Direct Construction Cost allowance authorized by the Owner by 10%, then at the Owner's request, and at no additional cost to the Owner, the Architect shall modify the drawings and specifications in order that new bids may be solicited and a Construction Contract award made within said allowance, consistent with the requirements of **Section I.F.4** above.

E. Construction Administration Phase

Commencing with the Owner's issuance of a notice-to-proceed for construction of the Project, the Architect shall:

1. attend the pre-construction conference at the Project site;

2. provide general administration of the Work as contemplated by the provisions of the Construction Contract including assisting the Owner with evaluation of the feasibility of the Contractor-provided project time schedule;

3. make visits to the Project site with such frequency (one visit every two weeks, minimum) as to ascertain the progress and quality of the Work, attend progress meetings with the Contractor, determine in general if the Work is proceeding in accordance with the Construction Documents, and submit a written report to the Owner within five (5) business days after each visit, with copies of each report to the Contractor;

4. arrange for periodic visits of Consultants to make similar determinations with respect to mechanical and other Work, as applicable;

5. review and approve or take appropriate action, with reasonable promptness to cause no delay in the Work, regarding shop drawings and samples submitted by the Contractor;

6. prepare any supplemental drawings or large-scale details needed to clarify the Construction Documents;

7. respond promptly to requests from the Contractor for assistance with unforeseen problems so as to minimize the Owner's exposure to claims for delay;

8. advise and consult with the Owner, issuing appropriate instructions to the Contractor;

9. check proposed costs of any modifications to the Construction Contract and recommend acceptance or rejection to the Owner (Prepare written change orders on behalf of the Owner);

10. endeavor to guard the Owner against defects and deficiencies in the Work of the Contractor;

11. notify the Owner of any Work which does not conform to the Construction Documents and recommend to the Owner that the Contractor stop the Work whenever, in the Architect's opinion, it may be necessary for the proper performance of the Construction Contract.

12. issue certification to the Owner and the Contractor when all terms of the Construction Contract have been fulfilled to the Architect's satisfaction;

13. conduct on-site observations to determine the date of final completion, receive written guarantees and related documents assembled by the Contractor and issue recommendation for final acceptance and payment;

14. assist the Owner in the implementation of the State of Oregon's "1% For Art Program", as applicable;

15. upon completion of the Work, the Architect shall, at no additional cost to the Owner, update CAD drawings (plans only) and submit the appropriate compact discs (including "bookplans" of the construction area made to Southern Oregon University standards) - compatible with Autocad Release latest version - along with one set of 3 mil mylar drawings reflecting significant changes in the Work made during construction based on marked-up prints, drawings and other data furnished by the Contractor to the Architect (the "Record Documents "); and

16. review the completed Project near the end of any applicable warranty period(s) in order to identify defects of materials or workmanship and issue a written report to the Owner.

17. complete documentation required for LEED certification and submit required information to the USGBC.

VIII. ADDITIONAL SERVICES

A. Copies of Construction Documents. The Architect shall furnish printed copies of all Construction Documents upon the written request of the Owner. The Owner shall reimburse the Architect at the cost of reproduction if in excess of the number specified in **Section VII** hereof.

B. Conditions Required to Support Additional Compensation. The Architect shall be paid, subject to executed amendments or supplements, for extra expenses and services involved if:

1. substantial changes are ordered by the Owner after the Owner has acknowledged the acceptance of one or more of the planning phases described above (except changes which are ordered for the purpose of maintaining the Direct Construction Cost of the Project within the allowance specified in **Section I**);

3. damage occurs as a result of fire or other casualty to the structure;

4. the Contractor becomes delinquent or insolvent and the delinquency or insolvency creates additional work for the Architect;

5. the Owner requests the selection and specification of furnishing(s) outside the scope of the Projects' direct construction allowance; or

6. the Owner requests Additional Services not identified under the Basic Services provision of this

Agreement, such as study models, renderings, etc.;

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7. the Owner requests that the Architect perform Services related to:

   a. selection and installation of new furniture purchased by the Owner for the Project;

   b. preparation of any specifications required as part of the installation of the Owner's new furniture at the Project; or

   c. preparation of furniture plans for the Owner's use, related to coordinating, moving refinishing and relocating existing furniture at the Project site.

C. Payments at the time of Abandonment or Suspension. If any Services performed by the Architect are abandoned or suspended, the Architect shall be paid for the Services rendered, under the provisions and limitations of **Section I.G** and **Section IV**, in proportion to the amount of Services performed at the time of suspension or abandonment, provided the initiative for such abandonment or suspension is by the Owner and does not result from a design error of the Architect, a bid overrun, or other breach or default by the Architect.

IX. ESTIMATES OF PROBABLE CONSTRUCTION COST, BORINGS AND TESTS

The Owner shall, so far as the Services under this Agreement may require, furnish the Architect the following information:

A. Estimates of Probable Direct Construction Cost. The Owner will contract with an independent cost estimator (to be jointly selected by the Owner and the Architect) to prepare estimates consistent with the requirements of **Section I.F.4** above, of probable Direct Construction Cost of the Project based upon current area, volume or other appropriate unit costs for the Schematic Design, Design Development, and Construction Documents Phases; ;

B. Project Site Conditions; Utilities. The rights, restrictions, easements, boundaries, and contours of the Project site and full information as to sewer, water, gas and electrical service, existing utility tunnels, lines, etc. on site;

C. Geotechnical Reports. Geotechnical investigation reports with recommendations for soil bearing capacities will be provided by the Owner, if recommended by the structural engineer.

The Owner will pay for chemical, mechanical or other tests when required. The Owner does not warrant the accuracy of any of the information so provided. The Architect will not be held responsible for errors due to inaccuracy of any of the information so provided.

X. ARCHITECT'S RESPONSIBILITIES IN REGARD TO ASBESTOS AND OTHER HAZARDOUS SUBSTANCES

The Owner anticipates that this Project will involve the removal of and destruction of asbestos, asbestos-related materials, hazardous substances or other hazardous materials (collectively the "Hazardous Substances"). The Owner shall contract separately for the identification and removal of any Hazardous Substances, either prior to the commencement of this Project or at such time as such Hazardous Substances are detected. The Architect shall not and does not prescribe any safety measure or abatement procedure and is not responsible for any act or omission relating to the acts of the Owner and/or professional consultant and/or the contractor and/or subcontractor which the Owner selects relating to the abatement of such Hazardous Substances.

XI. INSURANCE PROVISIONS

During the term of this Agreement, Architect shall maintain in full force and at its own expense each insurance coverage or policy noted below, from insurance companies or entities with an A.M. Best rating of A- or better that are authorized to transact the business of insurance and issue coverage in the State of Oregon,:

A. Workers' Compensation - All employers, including Architect, that employ subject workers who work under this Agreement in the State of Oregon shall comply with ORS 656.017 and provide the required Oregon workers' compensation coverage, unless such employers are exempt under ORS 656.126. Architect shall ensure that each of its Consultants and subcontractors complies with these requirements.

B. Commercial General Liability - Architect shall secure Commercial General Liability insurance with a combined single limit of not less than $2,000,000 each occurrence/$4,000,000 annual aggregate for bodily injury and property damage. It shall include personal injury coverage and contractual liability coverage for the indemnity provided under this Agreement.

C. Automobile Liability - Architect shall secure Automobile Liability insurance with a combined single limit of not less than $1,000,000 per occurrence, for bodily injury and property damage, including coverage for all owned, hired, or non-owned vehicles, as applicable. This coverage may be written in combination with the Commercial General Liability Insurance.

D. Professional Liability/Errors & Omissions - Architect shall provide the Owner with proof of coverage for Professional Liability/Errors & Omissions insurance covering any damages caused by any negligent error, omission, or any act for the Project, its plans, drawings, specifications and/or project manual, and all related work product of the Architect. The policy may be either a practice based policy or a policy pertaining to the specific Project. Professional Liability insurance to be provided shall have a combined single limit of not less than $2,000,000 per claim, incident or occurrence $2,000,000 annual aggregate.

E. "Tail" Coverage. If any of the required liability insurance is arranged on a "claims made" basis, "tail" coverage will be required at the completion of the Agreement for a duration of 24 months or the maximum time period available in the marketplace if less than 24 months. Architect will be responsible for furnishing certification of "tail" coverage as described or continuous "claims made" liability coverage for 24 months following Owner's acceptance of and final payment for

the Architect's Services. Continuous "claims made" coverage will be acceptable in lieu of "tail" coverage, provided its retroactive date is on or before the effective date of this agreement. This will be a condition of the final acceptance of Work or Services and related warranty, if any.

F. Certificate of Insurance. Prior to the signature by the Owner to this Agreement, Architect shall furnish to the appropriate university official Certificates of Insurance as evidence of the insurance coverage required under this Agreement. The certificate(s) shall provide that the insurance policies have been endorsed/amended so that the insurance company or companies shall give a 30 calendar day notice (without reservation) to the Owner's representative set forth in **Section XXX** below if the applicable policy is canceled or materially changed, or if the aggregate limits have been reduced. The certificate(s) should state specifically that the insurance is provided for this Agreement. Insuring companies are subject to acceptance by the Owner.

G. Additional Insured. The Certificates of Insurance, except for Workers' Compensation and Professional Liability/Errors & Omissions, shall provide that the policies have been endorsed/amended so that the State of Oregon, the Owner, and its institutions, officers, and employees are Additional Insured with respect to the Architect's Services to be provided under this Agreement.

XII. INDEMNITY

A. Claims for Other Than Professional Liability. Architect shall indemnify, hold harmless and defend the Owner and its colleges and universities and any public agencies for which Services are performed under this Agreement as supplemented or amended, and their officers, agents, employees and members from and against all claims, suits, actions, losses, damages, liabilities, costs and expenses of whatsoever nature resulting from, arising out of, or relating to the activities of the Architect or the Architect's Consultants, partners, joint ventures, subcontractors, officers, agents or employees acting under or pursuant to this Agreement or any supplement or amendment hereto.

B. Claims for Professional Liability. Architect shall save, defend, indemnify and hold harmless the Owner and its colleges and universities and any public agencies for which Services are to be performed under this Agreement as supplemented or amended, and their officers, agents, employees and members from and against all claims, suits or actions, losses, damages, liabilities, costs and expenses of whatsoever nature resulting from, arising out of or relating to the professional negligent acts, errors or omissions of Architect or its Consultants, partners, joint ventures, subcontractors, officers, agents or employees acting under or pursuant to this Agreement or any supplement or amendment hereto.

C. Owner Defense Requirements. Notwithstanding the foregoing defense obligations of the Architect, neither the Architect nor any attorney engaged by the Architect shall defend any claim in the name of the Owner, the State of Oregon or any agency of the State of Oregon, nor purport to act as legal representative of the Owner, the State of Oregon or any of its agencies, without the prior written consent of the Oregon Attorney General. The Owner may, at anytime at its election assume its own defense and settlement in the event that it determines that the Architect is prohibited from defending the Owner, that Architect is not adequately defending the Owner's interests, or that an important

governmental principle is at issue or that it is in the best interests of the Owner to do so. The Owner reserves all rights to pursue any claims it may have against the Architect if the Owner elects to assume its own defense.

D. Agency's Actions. Sub-sections A. and B. above do not include indemnification by the Architect of the Owner for the Owner's activities, whether related to this Agreement or otherwise.

XIII. LIMITATION OF LIABILITIES

Except for any liability of the Architect arising under or related to the Architect's failure to perform according to the standard of care or any other liability arising under or related to the Architect's representations and warranties under **Section II** of this Agreement, neither Party shall be liable for any indirect, incidental, consequential or special damages under this Agreement or any damages of any sort arising solely from the termination of this Agreement in accordance with its terms.

XIV. [RESERVED]

XV. OWNERSHIP AND USE OF WORK PRODUCT OF ARCHITECT

A. Work Product. Copies of plans, specifications, reports, or other materials required to be delivered under this Agreement ("Work Product") shall be the exclusive property of Owner. The Owner and the Architect intend that such Work Product be deemed "Work made for Hire", of which the Owner shall be deemed the author. If for any reason such Work Products are not deemed "Work made for Hire", the Architect hereby irrevocably assigns to the Owner all of its right, title and interest in and to any and all of such Work Products, whether arising from copyright, patent, trademark, trade secret, or any other state or federal intellectual property law or doctrine. The Architect shall execute such further documents and instruments as the Owner may reasonably request in order to fully vest such rights in the Owner. The Architect forever waives any and all rights relating to such Work Product, including without limitation, any and all rights arising under 17 USC 106A or any other rights of identification of authorship or rights of approval, restriction or limitation on use of subsequent modifications.

B. Architect's Use of Work Product. The Architect, despite other conditions of this Section, shall have the right to utilize such Work Product on its brochures or other literature that it may utilize for its sales and in addition, unless specifically otherwise exempted, the Architect may use standard line drawings, specifications and calculations on other unrelated projects.

C. Owner Reuse or Modification of Work Product. If the Owner reuses or modifies the Work Product without the Architect's involvement or prior written consent, to the extent permitted by Article XI, Section 7 of the Oregon Constitution and by the Oregon Tort Claims Act, the Owner shall indemnify, within the limits of the Tort Claims Act, the Architect against liability for damage to life or property arising from the State's reuse or modification of the Work Product, provided the Owner shall not be required to indemnify the Architect for any such liability arising out of the wrongful acts of the Architect or the Architect's officers, employees, Consultants, subcontractors, or agents.

XVI. SUCCESSORS AND ASSIGNS

The provisions of this Agreement shall be binding upon and shall inure to the benefit of the Parties and their respective successors and assigns. After the original Agreement is executed, Architect shall not enter into any new Consultant agreements for any of the Services scheduled under this Agreement or assign or transfer any of its interest in or rights or obligations under this Agreement, without Owner's prior written consent. In addition to any provisions Owner may require, Architect shall include in any permitted Consultant agreement under this Agreement a requirement that the Consultant be bound by **Sections XI**-INSURANCE, **XII**-INDEMNITY, **XIII** -LIMITATION OF LIABILITIES, **XV**-OWNERSHIP AND USE OF WORK PRODUCT OF ARCHITECT, **XVIII**-MEDIATION, **XIX**-TERMINATION OF AGREEMENT; NON-AVAILABILITY OF FUNDS, **XX**-TAX COMPLIANCE, **XXII**-FOREIGN CONTRACTOR, **XXIII**-COMPLIANCE WITH APPLICABLE LAWS, **XXIV**-GOVERNING LAW; VENUE; CONSENT TO JURISDICTION, **XXV**-INDEPENDENT CONTRACTOR STATUS OF ARCHITECT, **XXVI**-ACCESS TO RECORDS and **XXIX**-NO WAIVER of this Agreement.

XVII. NO THIRD PARTY BENEFICIARIES

Owner and Architect are the only Parties to this Agreement and are the only Parties entitled to enforce its terms. Nothing in this Agreement gives, is intended to give, or shall be construed to give or provide any benefit or right, whether directly, indirectly or otherwise, to third persons unless such third persons are individually identified by name herein and expressly described as intended beneficiaries of the terms of this Agreement.

XVIII. MEDIATION

Architect and Owner, in an effort to resolve any conflicts that may arise during the design or construction of the Project or following the completion of the Project, agree that all disputes between them arising out of or relating to this Agreement or any supplements hereto, shall be submitted to non-binding mediation unless the parties mutually agree otherwise. Architect further agrees to include a similar provision in all agreements with Consultants retained for the Project, thereby providing for mediation as the primary method for dispute resolution between the Parties to those agreements. All Parties agree to exercise their best effort in good faith to resolve all disputes in mediation.

Each Party will pay its own costs for the time and effort involved in mediation. The cost of the mediator shall be shared equally by all Parties to the dispute.

XIX. TERMINATION OF AGREEMENT; NON-AVAILABILITY OF FUNDS

A. Mutual Agreement. The Owner and the Architect, by mutual written agreement, may terminate this Agreement at any time. The Owner, on 30 days written notice to the Architect, may terminate this Agreement for any reason deemed appropriate in its sole discretion.

B. Termination by Owner. Owner may terminate this Agreement, in whole or in part, immediately

upon notice to Architect, or at such later date as Owner may establish in such notice, upon the occurrence of any of the following events:

1. Owner fails to receive funding, or appropriations, limitations or other expenditure authority at levels sufficient to pay for Architect's Services;

2. Federal or state laws, regulations or guidelines are modified or interpreted in such a way that either the Services performed under this Agreement are prohibited or Owner is prohibited from paying for such Services from the planned funding source;

3. Architect no longer holds any license or certificate that is required to perform the Services;

4. Architect commits any material breach or default of any covenant, warranty, obligation or agreement under this Agreement, fails to perform the Services under this Agreement within the time specified herein or any extension thereof, or so fails to perform the Services as to endanger Architect's performance under this Agreement in accordance with its terms, and such breach, default or failure is not cured within 10 business days after delivery of Owner's notice, or such longer period of cure as Owner may specify in such notice.

C. Owner Funding. Owner reasonably believes that sufficient funds are anticipated to pay all amounts due hereunder and hereby covenants and agrees that it will use its best efforts to obtain and properly request and pursue funds from which payments hereunder may be made, including making provisions for such payments to the extent necessary in the budget submitted for the purpose of obtaining funds and using its best efforts to have such budget approved. It is Owner's intention to make all payments due hereunder if funds are legally available therefore and in that regard Owner represents and warrants to Architect that this agreement is important to Owner's efficient and economic operation. If, despite the above, Owner is not allotted sufficient funds for the next succeeding fiscal period by appropriation, appropriation limitation, grant, or other funds source lawfully available to it for such purposes to continue the Project and make payments hereunder, Owner may terminate this Agreement, by notice to Architect, without penalty, effective at the end of the current fiscal period for which funds have been allocated and if not so terminated Owner will remain fully obligated for all amounts owing hereunder. Such termination shall not constitute an event of default under any other provision of the Agreement, but Owner shall be obligated to pay all charges incurred through the end of such fiscal period. Owner shall give Architect notice of such non-availability of funds within thirty (30) days after it received notice of such non-availability.

D. Effect of Termination. In the event of termination of this Agreement:

1. Pursuant to **Sub-sections A, B.1 or B.2** above, the Owner , using the Schedule of hourly rates set forth in **Section III**, and within the limitations specified in **Section V** shall compensate the Architect for all Services performed prior to the termination date, together with reimbursable expenses then due, and such amounts shall immediately become due and payable.

2. Pursuant to **Sub-sections B.3 or B.4** above, the Owner shall have any remedy available to it under this Agreement or at law or in equity. Such remedies are cumulative and may be pursued

separately, collectively and in any order.

3. For any reason, the Architect shall immediately cease performance of Services under this Agreement, unless Owner expressly directs otherwise in the notice of termination, and shall provide to the Owner all plans, specifications, CAD drawings on compact discs, mylar drawings, and all documents, information, works-in-progress or other property that are or would be deliverables had this Agreement been completed.

4. For any reason, the Architect shall be responsible to the Owner for the quality of its Services and work product through the date of termination.

XX. TAX COMPLIANCE CERTIFICATION

By signature on this Agreement, the undersigned hereby certifies under penalty of perjury that the undersigned is authorized to act on behalf of the Architect and that the Architect is, to the best of the undersigned's knowledge, not in violation of any Oregon Tax Laws. For purposes of this certification, "Oregon Tax Laws" means a state tax imposed by ORS 320.005 to 320.150 and 403.200 to 403.250, ORS Chapters 118, 314, 316, 317, 318, 321 and 323; the elderly rental assistance program under ORS 310.630 to 310.706; and local taxes administered by the Oregon Department of Revenue under ORS 305.620.

XXI. DISCLOSURE OF SOCIAL SECURITY NUMBER

Architect must provide Architect's Social Security number unless Architect provides a federal tax ID number. This number is requested pursuant to ORS 305.385 and OAR 150-305.100. Social Security numbers provided pursuant to this authority will be used for the administration of state, federal and local tax laws.

XXII. FOREIGN CONTRACTOR

If Architect is not domiciled in or registered to do business in the State of Oregon, Architect shall promptly provide to the Oregon Department of Revenue and the Secretary of State Corporation Division all information required by those agencies relative to this Agreement. Architect shall demonstrate its legal capacity to perform the Services under this Agreement in the State of Oregon prior to entering into this Agreement.

XXIII. COMPLIANCE WITH APPLICABLE LAW

Architect shall comply with all federal, state, county, and local laws, ordinances, and regulations applicable to the Services to be provided under this Agreement. Architect specifically agrees to comply with all applicable requirements of federal and state civil rights and rehabilitation statues, rules and regulations. Architect also shall comply with the Americans with Disabilities Act of 1990 (Pub L No. 101-336), ORS 659a.142, and all regulations and administrative rules established pursuant to those laws. Failure or neglect on the part of Architect to comply with any or all such laws, ordinances, rules, and regulations shall not relieve Architect of these obligations nor of the requirements of this Agreement.

Architect further agrees to make payments promptly when due, to all persons supplying to such Architect labor or materials for the performance of the Services to be provided under this Agreement; pay all contributions or amounts due the Industrial Accident Fund from such contractor incurred in the performance of this Agreement; not permit any lien or claim to be filed or prosecuted against the State on account of any labor or material furnished; and pay to the Department of Revenue all sums withheld from employees pursuant to ORS 316.167. If Architect fails or refuses to make any such payments required herein, the appropriate Institution official may pay such claim. Any payment of a claim in the manner authorized in this Section shall not relieve the Architect or Architect's surety from obligation with respect to any unpaid claims. Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act and the Oregon Building Codes require all new construction to be totally accessible to people with physical limitations. Owner expects that all spaces in designs for new facilities and in remodel projects will be accessible to people with physical limitations.

XXIV. GOVERNING LAW; VENUE; CONSENT TO JURISDICTION

This Agreement is to be governed by and construed in accordance with the laws of the State of Oregon without regard to principles of conflicts of law. Any claim, action, suit or proceeding (collectively "Claim") between Owner and Architect that arises from or relates to this Agreement shall be brought and conducted solely and exclusively within the Circuit Court of Marion County for the State of Oregon; provided, however, if a Claim must be brought in a federal forum, it shall be brought and conducted solely and exclusively within the United States District Court for the District of Oregon. In no event shall this Section be construed as a waiver by the State of Oregon of any form of defense or immunity, whether based on sovereign immunity, governmental immunity, immunity based on the Eleventh Amendment to the United States Constitution or otherwise. **ARCHITECT, BY EXECUTION OF THIS AGREEMENT, HEREBY CONSENTS TO THE IN PERSONAM JURISDICTION OF SAID COURTS.**

XXV. INDEPENDENT CONTRACTOR STATUS OF ARCHITECT

A. Architect as Independent Contractor. Architect shall perform all required Services as an independent contractor. Although Owner reserves the right (i) to determine (and modify) the delivery schedule for the Services to be performed and (ii) to evaluate the quality of the competed performance, Owner cannot and will not control the means or manner of Architect's performance. Architect is responsible for determining the appropriate means and manner of performing the Services.

B. Agency Status. Architect is not an officer, employee, or agent of the State or Owner as those terms are used in ORS 30.265.

C. Benefits; Payment of Taxes. Architect is not a contributing member of the Public Employee's Retirement System and will be responsible for any federal or state taxes applicable to any compensation or payments paid to Architect under this Agreement. Architect will not be eligible for any benefits from these Agreement payments of federal Social Security, unemployment insurance or worker's compensation, except as a self-employed individual. If this payment is to be charged against federal funds, the Architect certifies that it is not currently employed by the federal

government.

XXVI. ACCESS TO RECORDS

For not less than three (3) years after the termination or full performance of this Agreement, the Owner, the Secretary of State's Office of the State of Oregon, the federal government, and their duly authorized representatives shall have access to the books, documents, papers, and records of the Architect and the Consultants which are directly pertinent to this Agreement for the purpose of making audit, examination, excerpts, and transcripts. If for any reason, any part of this Agreement, or any resulting construction contract(s) is involved in litigation, Architect shall retain all pertinent records for not less than three years or until all litigation is resolved, whichever is longer. The Architect will provide full access to such documents in preparation for and during any such litigation.

XXVII. SEVERABILITY

If any term or provision of this Agreement is declared by a court of competent jurisdiction to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected, and the rights and obligations of the Parties shall be construed and enforced as if the Agreement did not contain the particular term or provision held to be invalid.

XXVIII. FORCE MAJEURE

Neither party shall be held responsible for delay or default caused by fire, riot, acts of God, and war which is beyond such party's reasonable control. Each party shall, however, make all reasonable efforts to remove or eliminate such a cause of delay or default and shall, upon the cessation of the cause, diligently pursue performance of its obligations under this Agreement.

XXIX. NO WAIVER

The failure of the Owner to enforce any provision of this Agreement shall not constitute a waiver by the Owner of that or any other provision.

XXX. NOTICE; PARTIES' REPRESENTATIVES

Except as otherwise expressly provided in this Agreement, any notices to be given hereunder shall be given in writing by personal delivery, facsimile, or mailing the same, postage prepaid, to Architect or Owner at the address or number set forth below, or to such other addresses or numbers as either Party may hereafter indicate pursuant to this Section. Any notice so addressed and mailed shall be deemed to be given five (5) calendar days after the date of mailing. Any notice delivered by facsimile shall be deemed to be given when receipt of the transmission is generated by the transmitting machine. To be effective against Owner, such facsimile transmission must be confirmed by telephone notice to Owner's Representative named below. Any notice by personal delivery shall be deemed to be given when actually delivered. Regular, day-to-day communications between the Parties may be transmitted through one of the methods set forth above, in person, by telephone, by e-mail, or by other similar electronic transmission.

Representatives for the Architect and the Owner for purposes of notice and for other specific purposes provided for under this Agreement are:

Architect: _____ ..... Telephone: _____

Address: _____

Owner:
Craig Morris, Vice President for Finance & Administration
Telephone: 541-552-6319
Address: Finance & Administration
Southern Oregon University
1250 Siskiyou Boulevard
Ashland, OR 97520

XXXI. CONFIDENTIALITY.

Architect shall maintain the confidentiality of information of Owner, unless withholding such information would violate the law, create the risk of significant harm to the public or prevent Architect from establishing a claim or defense in an adjudicatory proceeding. Architect shall require the Consultants to execute similar agreements to maintain the confidentiality of information of Owner.

XXXII. CONFLICT OF INTEREST.

Except with Owner's prior written consent, Architect shall not engage in any activity, or accept any employment, interest or contribution that would or would reasonably appear to compromise Architect's professional judgment with respect to this Project, including without limitation, concurrent employment on any project in direct competition with the Project, and will provide copies of any such agreements within ten (10) days of the full execution of such agreements.

XXXIII. SURVIVAL

All rights and obligations shall cease upon termination or full performance of this Agreement, except for the rights and obligations set forth in **Sections II** Architect's Standard of Care; Representations and Warranties, **XII** Indemnity, **XIII** Limitation of Liabilities, **XV** Ownership and Use of Work Product of Architect, **XIX** Termination of Agreement; Non-Availability of Funds, **XXIV** Governing Law; Venue; Consent to Jurisdiction, **XXVI** Access to Records, **XXXI** Confidentiality, and **XXXIII** Survival.

XXXIV. COUNTERPARTS

This Agreement may be executed in several counterparts, all of which when taken together shall constitute one agreement binding on all Parties, notwithstanding that all Parties are not signatories to the same counterpart.

Each copy of the Agreement so executed shall constitute an original.

XXXV. MERGER CLAUSE

THIS AGREEMENT AND ANY ATTACHED EXHIBITS CONSTITUTE THE ENTIRE AGREEMENT BETWEEN THE PARTIES ON THE SUBJECT MATTER HEREOF. THERE ARE NO UNDERSTANDINGS, AGREEMENTS, OR REPRESENTATIONS, ORAL OR WRITTEN, NOT SPECIFIED HEREIN REGARDING THIS AGREEMENT. NO AMENDMENT, CONSENT, OR WAIVER OF TERMS OF THIS AGREEMENT SHALL BIND EITHER PARTY UNLESS IN WRITING AND SIGNED BY ALL PARTIES. ANY SUCH AMENDMENT, CONSENT, OR WAIVER SHALL BE EFFECTIVE ONLY IN THE SPECIFIED INSTANCE AND FOR THE SPECIFIC PURPOSE GIVEN. ARCHITECT, BY THE SIGNATURE BELOW OF ITS AUTHORIZED REPRESENTATIVE, ACKNOWLEDGES HAVING READ AND UNDERSTOOD THIS AGREEMENT AND THE ARCHITECT AGREES TO BE BOUND BY ITS TERMS AND CONDITIONS.

IN WITNESS HEREOF, the parties have duly executed this Agreement as of the Effective Date.

_____.
Architect

By _____

Title: _____

Date _____

Federal Tax ID # _____

_____
Assistant Attorney General

Date _____

STATE OF OREGON ACTING BY AND
THROUGH THE STATE BOARD OF HIGHER
EDUCATION, on behalf of Southern Oregon
University, Owner

By: _____

Craig Morris
Title: Vice President, Finance &
Administration

Date _____

APPROVED AS TO LEGAL SUFFICIENCY:

EXHIBIT 1

ARCHITECT'S KEY PERSONNEL AND CONSULTANTS

Key Personnel

Principal: _____

Senior Architectural Designer:_____

Architectural Designer:_____

Sr. Project Manager:_____

Project Manager:_____

Production Personnel/Project Architect:_____

Clerical:_____

Consultants

1._____

2._____

3._____

4._____

March 27, 2013

ZBINDEN • CARTER • SOUDERS
ENGINEERING Inc.

Drew Gilliland, Director
Southern Oregon University
Facilities Management and Planning
351 Walker Avenue
Ashland, Oregon 97520

Reference: McNeal Pavilion

Subject: Executive Summary

ZCS was contacted by the University to investigate the visible damage to the exterior southwest exterior masonry wall of the McNeal Pavilion located on the Southern Oregon University campus in Ashland, Oregon. The purpose of our investigation was to determine the probable cause of the damage observed and make recommendations for repair. The following is a brief summary of our findings and recommendations:

- The steel reinforcement within the masonry walls of the 1956 portion of the complex has already corroded in some areas and is susceptible to premature corrosion throughout due to high levels of chloride and carbonation found in the masonry wall samples.
- Grout and mortar samples are moderately soft to soft and absorptive suggesting suspect structural integrity apart from the reinforcement corrosion issues.
- During sampling operations we coincidentally encountered masonry wall cores that should have been grouted solid and/or reinforced as indicated in the original drawings but were not, suggesting the possibility of widespread workmanship issues that would further impact primary structural system reliability.
- It is our opinion that the masonry issues are wide spread throughout the original 1956 facility. This includes all of the interior and exterior walls associated with the boiler room, wrestling room, and main gymnasium.
- Permanent solutions would include complete demolition and replacement of the 1956 structures or at least the removal and replacement of the masonry walls (one scenario may include complete removal and replacement of the lower level structures and replacement of the gymnasium walls).
- Walls could be replaced all at once or in phases.
- Any wall repair will most likely require structural upgrades to associated roof framing and possibly foundation systems.
- If the walls are replaced in phases, it is recommended the phases include entire sections of building so that defined spaces are improved comprehensively.
- Removal and replacement of the lower level 1956 structures and replacement of the gym walls could be accomplished as part of a comprehensive athletic complex renovation project.

We are available to answer any questions and further evaluate possible solutions options. We trust this report will provide you with the information you require to make decisions on how to proceed.

Thank you,

March 27, 2013

Drew Gilliland, Director
Southern Oregon University
Facilities Management and Planning
351 Walker Avenue
Ashland, Oregon 97520

Reference: McNeal Pavilion

Subject: Structural Inspection

Mr. Gilliland,

We have prepared the following engineering report for your consideration.

BACKGROUND

ZCS personnel recently responded to Southern Oregon University's report of visual evidence of possible structural distress or damage to the exterior masonry wall system at the southwest corner of the above-mentioned facility. We visited the facility and developed the following report based on information collected thus far.

We were contacted by the University to investigate the visible damage to the exterior southwest exterior masonry wall of the McNeal Pavilion located on the Southern Oregon University campus in Ashland, Oregon. The purpose of our investigation was to determine the probable cause of the damage observed and make recommendations for repair.

ZCS representatives visited the site to perform an initial evaluation of the damage to develop a comprehensive evaluation program. ZCS obtained the original construction documents for review to determine the construction of the masonry walls. ZCS coordinated with the University to perform initial selective destructive investigation of the damaged areas to observe cross sections of the masonry wall system. ZCS then performed an overall visual inspection of the masonry construction throughout the facility in an attempt to locate areas with similar symptoms. With this information, a plan for extracting test samples was established that would provide an accurate representation of the overall condition of the masonry wall system. The first round of samples consisted of small 2" cores to extract samples of the grout. The second round of samples consisted of a full width block assemblies.

OBSERVATIONS

The existing drawings have been made available for our review. Construction appears to be consistent with the original drawings based on the information provided and visual observations. According to the construction documents, the facility was originally constructed in 1956 with a major expansion in 1964 and a renovation and addition in 1989. By overall observation, the 1964 and1989 construction does not appear to exhibit similar signs of damage and was therefore omitted from the scope of the testing regimen.

It was observed that the exterior masonry walls located at the southwest corner of the facility have sustained damage in the form of cracking and face shell bulging along steel reinforcement lines (see Figure 1). Upon further investigation through means of face shell removal, it was determined that the reinforcement steel within the masonry wall core has corroded resulting in an increase in reinforcement cross sectional area that has ruptured the masonry wall unit as a result of the internal bursting stresses on the surrounding core material(see Figure 2). It was also observed that one of the steel columns within the pilasters has corroded causing expansion of the masonry pilaster face shells resulting in a larger crack (see Figures 3 & 4). When reinforcement corrodes it can expand up to 10 times its original volume causing expansion of the surrounding materials. Upon overall observation of the exterior masonry walls, it appears all of the exterior walls are exhibiting similar symptoms along the reinforcement lines. (see Figure 5). These cracks are an indication of expansion within the masonry cells. Upon overall observation of the interior masonry walls, it appears the interior walls are not experiencing similar symptoms and are in good condition (see Figure 6).

It is our understanding the damage was recently discovered. However, it appears the damage has been developing over a long period of time. Attempts to fill the cracks and repair the surface are evident throughout the areas of damage (see Figure 7).

SUMMARY OF TEST SAMPLES

Selective sampling of the interior and exterior walls through means of 2" cores was performed to extract samples of the grout. (See attached diagram illustrating location of samples, and Figure 8). The samples were then sent to CTL Group materials testing laboratory for examination of the chloride content through means of an acid-soluble chloride analysis. (See attached CTL testing results). The testing results showed high levels of chloride in approximately 50% of the samples tested. These results were not conclusive in relation to the damage observed in the field. For example, one of the samples was extracted from the southwest wall near a damaged area and the test results showed an acceptable level of chloride. As a result, it was recommended that a full assembly be extracted from both an exterior wall and an interior wall to help determine the cause of the damage.

Additional samples were extracted by a selective demolition contractor for comprehensive analysis. The samples consisted of 8" wide x 16" tall masonry assemblies. One sample was extracted from the southwest exterior wall near the damaged area and another from an interior wall (see Figure 9 & 10). (See attached diagram illustrating location of samples). The samples were tested through means of petrographic examination. (See attached CTL analysis report).

SUMMARY OF CTL TEST RESULTS

Petrographic observations (Exterior sample):

1. Grout – the grout is moderately soft to soft and absorptive
2. Mortar – the mortar is moderately soft to soft and absorptive
3. Steel reinforcing bar – the #5 bar exhibits corrosion and #4 bar does not
4. Carbonation – grout is carbonated through full width of cell
5. Cracking – several cracks extend radially from corroded rebar; cracks are filled with corrosion products
6. Steel wire tie – a wire tie is partially embedded in joint mortar; the tie exhibits brown surface corrosion

Petrographic observations (Interior sample):

7. Grout – the grout is moderately soft to soft and absorptive
8. Mortar – the mortar is moderately soft to soft and absorptive
9. Steel reinforcing bar – the #4 bar does not exhibit visual signs of corrosion
10. Carbonation – grout is carbonated through full width of cell
11. Cracking – no visible cracking is observed
12. Steel wire tie – a wire tie is partially embedded in joint mortar; the tie exhibits brown surface corrosion

Acid-Soluble Chloride Analysis:

A total of (12) samples were tested. Results were reported as determined chloride concentration as wt. % of sample. Of the (12) samples tested (6) exhibited higher than acceptable levels of chloride ranging from 0.093 to 0.249%.

Based on our industry research to determine the probable cause of the corrosion of the reinforcement steel, we have determined that carbonation of the masonry assembly combined with moisture can result in premature corrosion of the reinforcement steel. It is evident through the analysis performed by CTL that carbonation is present through the full width of the masonry units sampled. Carbonation results in the masonry assembly's inability to protect the reinforcement steel from moisture experienced by the structure.

Upon further investigation, we discovered that high levels of chloride in the grout combined with moisture in the wall will result in premature corrosion of the reinforcement steel. It is evident through our analysis that high levels of chloride are present in a 50% of the grout samples. High levels of chloride results in the acceleration of the corrosion process through chemical reaction.

CONCLUSION/LIMITATION

In general, the masonry walls observed are susceptible to premature corrosion due to high levels of chloride and carbonation found in the wall samples. For areas that have been observed to exhibit damage, this is the most likely cause. Based on the random sampling performed, it is our opinion this condition is wide spread throughout the 1956 masonry construction in the facility. However, it is difficult to determine the actual extent of the damage. We have not calculated the overall impact to the structural integrity of the masonry. This would require a significant amount of additional testing samples to accurately determine the exact extent of the damage throughout the structure. The limited sampling performed was intended to discover a cause and the potential for widespread damage.

Solutions that would stop further corrosion of the damaged areas are limited and likely not feasible. Solutions that would prohibit corrosion of not yet damaged areas would also be limited and likely not feasible. However, work could be done to temporarily patch damaged areas to prolong the life of the existing structure. Corrosion would continue to occur and a regular maintenance program would need to be in place. The structural integrity of the walls would continue to degrade with this option. Structural retrofit would be recommended that would take the masonry walls out of service as a primary structural building system.

Permanent solutions would include total replacement of the masonry walls throughout the facility. This solution would be very costly, but would eliminate any future problems related to the corrosion of the masonry. This solution would also require a full structural retrofit to the

remaining structure to meet current code requirements. Another option would be to only replace the portions of the building with visible damage and continue to replace damaged areas as they appear. This option would require several phases of replacement over a period of time. For example, all of the Wrestling Room walls could be replaced in one phase with a retrofit of the associated roof structure. Each phase would likely need to include entire spaces so that improvement to the remaining structure could be retrofitted as a system.

The testing results also indicated that the mortar and grout found in the masonry assemblies are moderately soft to soft and absorptive. This condition suggests the structural strength of the assembly is suspect regardless of the condition of the reinforcement steel. Additional testing would be required to determine the actual compression strength of the wall construction. This information would be necessary to obtain if an in place solutions is considered.

This investigation is limited to the masonry reinforcement corrosion issue only. It was observed that other damage and deficiencies in the building existed that would require repair and retrofit during a renovation project. It was also discovered through our test sample regimen that sections of the masonry wall core that should have been grouted solid and/or reinforced as indicated in the original drawings were not. This information would also need to be taken into consideration during rehabilitation concept programming as it suggests the possibility of an even more comprehensive structural integrity issues.

We have prepared this report to help identify the cause of the observed damage to the masonry walls. Solutions are dependent on the Universities plans for future renovation and budget limitations. We would like to meet with you to discuss our findings and help you and the University to make decisions on how to proceed. Given the unique nature of this problem and the significant cost impacts associated with it, we recommend that additional professional engineering opinions be considered before making a final decision.

Thank you,

Sylas E. Allen, PE
Project Manager

Att.

INSPECTION PHOTOGRAPHS

Figure 1: South West Wall Exterior Damage

Figure 2: Corroded Steel within Wall

Figure 3: South West Wall Damage at Pilaster

Figure 4: Corroded Steel Column within Pilaster

Figure 5: North West Exterior Wall Condition

Figure 6: Interior Wall Condition

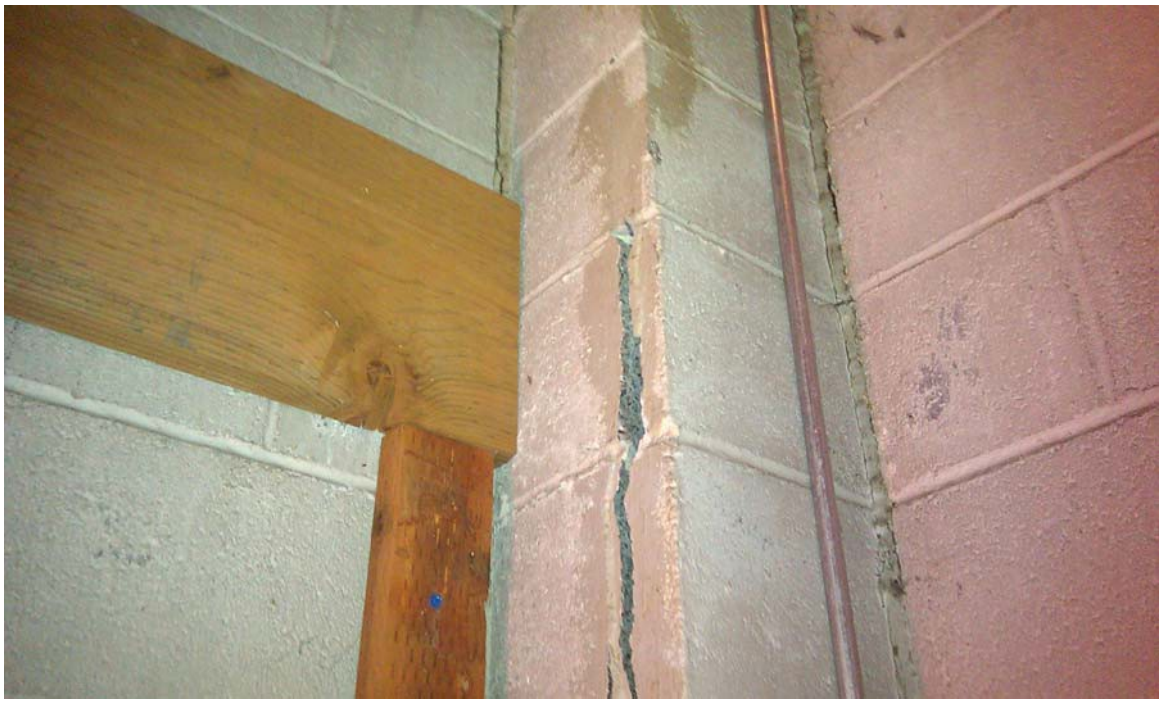

Figure 7: Repair at Damaged Area

Figure 8: 2” Core Sample at South West Wall

Figure 9: Exterior Assembly Sample

Figure 10: Interior Assembly Sample

Sample #6 (low)
Sample #7 (high)

Sample #10 (low)
Sample #9 (high)

Sample #2 (low)
Sample #3 (high)

Interior Sample (low)

Exterior Sample (low)

Sample #5 (low) at pilaster

Sample #1 (low)
Sample #4 (high)

Sample #8 (high)
No Sample (low)

MAIN FLOOR PLAN

COMM. NO. 1057	PHYSICAL EDUCATION BLDG.	FROM THE OFFICE OF
DRWN. BY WB	FOR	HOWARD R PERRIN
CHKD. BY ROP	SOUTHERN OREGON COLLEGE OF EDUCATION	ARCHITECT KLAMATH FALLS
DATE FEB. 1956	ASHLAND, OREGON	SHEET NUMBER 3

Copy No. 1

Report for
ZCS Engineering, Inc.
550 SW 6th Street, Suite C
Grants Pass, OR 97526

CTLGroup Project No. 262701

Petrographic Examination, ASTM C856, of Samples from Concrete Masonry Unit (CMU) Wall – McNeal Physical Education Building, Southern Oregon University, Ashland, Oregon

March 11, 2013

Submitted by:
Sang Y. Lee

5400 Old Orchard Road
Skokie, Illinois 60077-1030
(847) 965-7500

Austin, TX • Chicago, IL • Naperville, IL • Washington, DC

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REPORT OF PETROGRAPHIC EXAMINATION

Date: March 11, 2013

CTLGroup Project No.: 262701

Petrographic Examination, ASTM C856, of Samples from Concrete Masonry Unit (CMU) wall – Physical Education Building, Southern Oregon University, Ashland, Oregon

Two samples, designated EXTERIOR (Fig. 1) and INTERIOR (Fig. 2), were received on February 11, 2013 from Mr. Carlton Olson, CTLGroup Principal and Group Manager, on behalf of Mr. Sylas Allen of ZCS Engineering, Inc., Grants Pass, Oregon. The samples were reportedly removed from the CMU walls at the above-referenced location. Each sample consists of two CMU layers with horizontal mortar joints. The CMU cells in the both samples are filled with grout with embedded reinforcing steel bars. Petrographic examination (ASTM C856) was requested to document general composition and characteristics of the grout and joint mortar. Chloride analysis according to ASTM C1152, "Acid-Soluble Chloride in Mortar and Concrete," was performed for both grout and mortar in each sample. A piece of CMU was saw-cut from Sample INTERIOR, and was also analyzed for the chloride ion content.

FINDINGS

Petrographic Examination

Selected findings of petrographic examination are described below, and summarized in Table 1. Additional information is provided in the attached figure pages and petrography data sheets.

- Sample EXTERIOR exhibits several cracks in the grout. The cracks extend radially from a corroded reinforcing steel bar (rebar) embedded in the grout (Figs. 1c and 3a). Some of the cracks further extend into the surrounding CMU shells and webs. The cracks are locally filled with brown corrosion products from the rebar. Sample INTERIOR exhibits no visible cracking. The embedded rebar in the sample does not exhibit visible corrosion (Figs. 2c and 3b).
- The grout in both samples contains siliceous sand and pea gravel aggregates in a hardened portland cement paste. The grout in both samples exhibits generally similar

paste and aggregate composition and characteristics. The grout is light beige gray, moderately soft to soft, and absorptive. Localized zones of grout lacking coarse aggregate are observed near the top end (Fig. 4a), likely mortar from the joint. Macroscopically, the grout is well consolidated without large voids.

- Based on pH indicator testing and thin section examination (Figs. 4, 5, and 6), the grout in both samples is fully carbonated through the width of the CMU cells.
- The joint mortar in the samples contains siliceous sand in a hardened portland cement paste. The mortar in both samples exhibits generally similar paste and aggregate composition and characteristics. The joint mortar is moderately soft to soft and absorptive.
- A steel wire tie is observed at the bottom end of both samples, and is partially embedded in the joint mortar. The wire tie in both samples exhibits brown surface corrosion.

TABLE 1 SUMMARY OF SELECTED PETROGRAPHIC OBSERVATIONS

Characteristic	EXTERIOR	INTERIOR
Grout	Grout contains siliceous sand and pea gravel aggregates in hardened portland cement paste. The grout is moderately soft to soft and absorptive.	Grout contains siliceous sand and pea gravel aggregates in hardened portland cement paste; paste and aggregate constituents are similar to Sample EXTERIOR. The grout is moderately soft to soft and absorptive.
Joint Mortar	Mortar contains siliceous sand in hardened portland cement paste. The mortar is moderately soft to soft and absorptive.	Mortar contains siliceous sand in hardened portland cement paste; paste and sand constituents are similar to sample EXTERIOR. The mortar is moderately soft to soft and absorptive.
Steel reinforcing bar (Rebar)	Two rebars, a No. 5 and a No. 4, are embedded in grout, locally overlapped near ends; No.5 rebar exhibits corrosion, and No. 4 rebar does not.	A No. 4 steel reinforcing bar embedded in grout; no visible corrosion is observed.
Carbonation	Grout is carbonated through full width of cell.	Grout is carbonated through full width of cell.
Cracking	Several cracks extend radially from corroded rebar; cracks are locally filled with corrosion products.	No visible cracking is observed.
Steel wire tie	A wire tie is partially embedded in joint mortar; the tie exhibits brown surface corrosion.	A wire tie is partially embedded in joint mortar; the tie exhibits brown surface corrosion.

Acid-Soluble Chloride Analysis

Results of analysis for acid-soluble chloride ion concentration (ASTM C1152) are contained in the attached report, and are summarized in Table 2. Figures 1, 2, and 3 show the locations where the sub-samples were removed for the chloride analysis.

TABLE 2 SUMMARY OF ACID-SOLUBLE CHLORIDE ANALYSIS

Materials	Acid-Soluble Chloride Concentration as Wt. % of Sample	
	EXTERIOR	INTERIOR
Grout	0.187	0.231
Joint Mortar	0.016	0.197
CMU	-	0.003

METHODS OF TEST

Petrographic Examination: Petrographic examination of the provided samples was performed in accordance with ASTM C856, "Standard Practice for Petrographic Examination of Hardened Concrete." The samples were visually inspected and photographed as received. A slice was cut horizontally through a CMU cell filled with grout. One of the resulting surfaces was ground (lapped) to produce a smooth, flat, semi-polished surface. Lapped and freshly broken surfaces of the samples were examined using a stereomicroscope at magnifications up to 45X. For thin-section study, a small rectangular block was cut from the grout in each sample, and one side of the block was lapped to produce a smooth, flat surface. The blocks were cleaned and dried, and the prepared surfaces were mounted on separate ground glass microscope slides with epoxy resin. After the epoxy hardened, the thickness of the mounted blocks was reduced to approximately 20 μm (0.0008 in.). Powder mounts of the joint mortars were prepared by placing a small amount of each mortar on individual glass microscope slide, covering each with a thin glass coverslip, and infiltrating refractive index liquid under the coverslip. The powder was dispersed by gently shearing the coverslip. The resulting thin sections and powder mounts were

examined using a polarized-light (petrographic) microscope at magnifications up to 400X to study aggregate and paste mineralogy and microstructure.

Estimated water-cement ratio (w/c), when reported, is based on observed grout and paste properties including, but not limited to: 1) relative amounts of residual (unhydrated and partially hydrated) portland cement particles; 2) amount and size of calcium hydroxide crystals; 3) paste hardness, color, and luster; 4) paste-aggregate bond; and 5) relative absorbency of paste as indicated by the readiness of a freshly fractured surface to absorb applied water droplets. These techniques have been widely used by industry professionals to estimate w/c.

Depth and pattern of paste carbonation was determined by application of a pH indicator solution (phenolphthalein) to freshly fractured concrete surfaces. The solution imparts a deep magenta stain to high pH, non-carbonated paste. Carbonated paste does not change color. The extent of paste carbonation was confirmed in thin section.

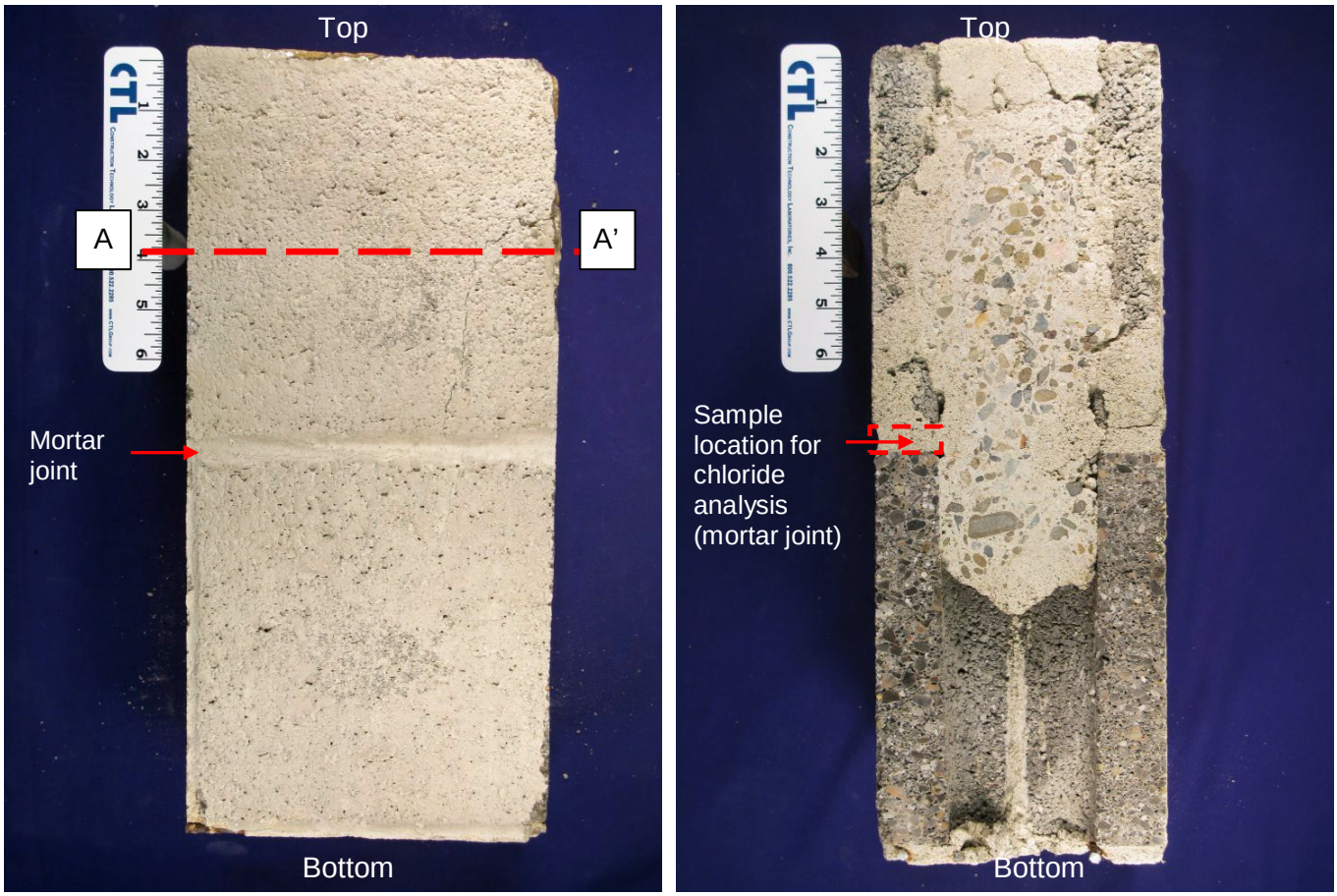
Acid-Soluble Chloride Analysis: The chemical analysis was performed in accordance with ASTM C1152, “Standard Test Method for Acid-Soluble Chloride in Mortar and Concrete.”

Sang Y. Lee, Ph.D., PE (Texas), PG (Indiana)
Senior Petrographer
Petrography Group

E-mail: SLee@CTLgroup.com
Direct phone: 847-972-3130

SYL

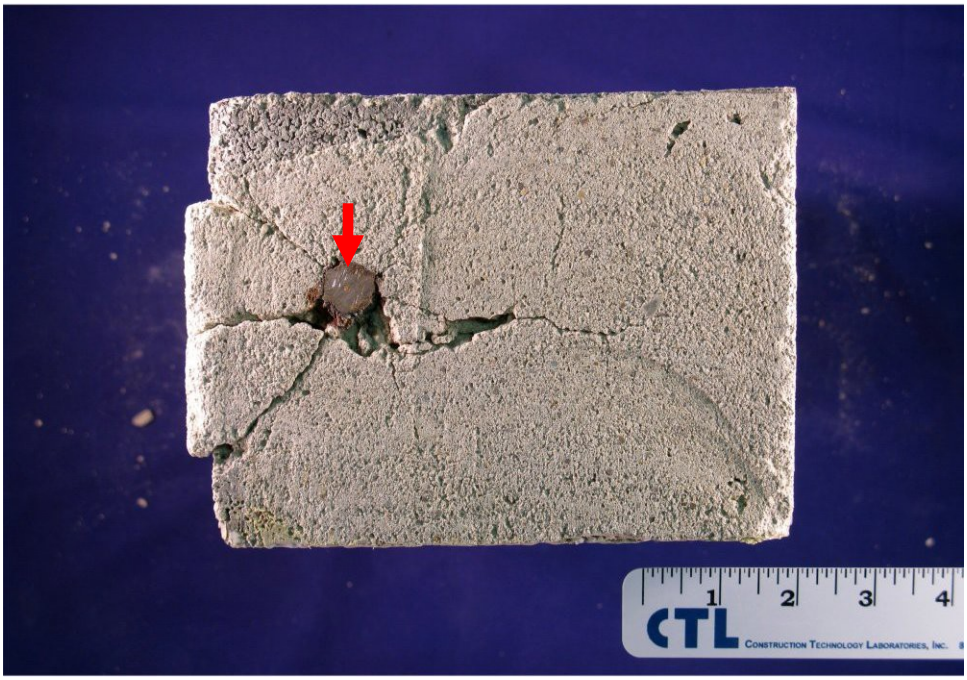
Notes: 1. Results refer specifically to the samples submitted.
2. This report may not be reproduced except in its entirety.



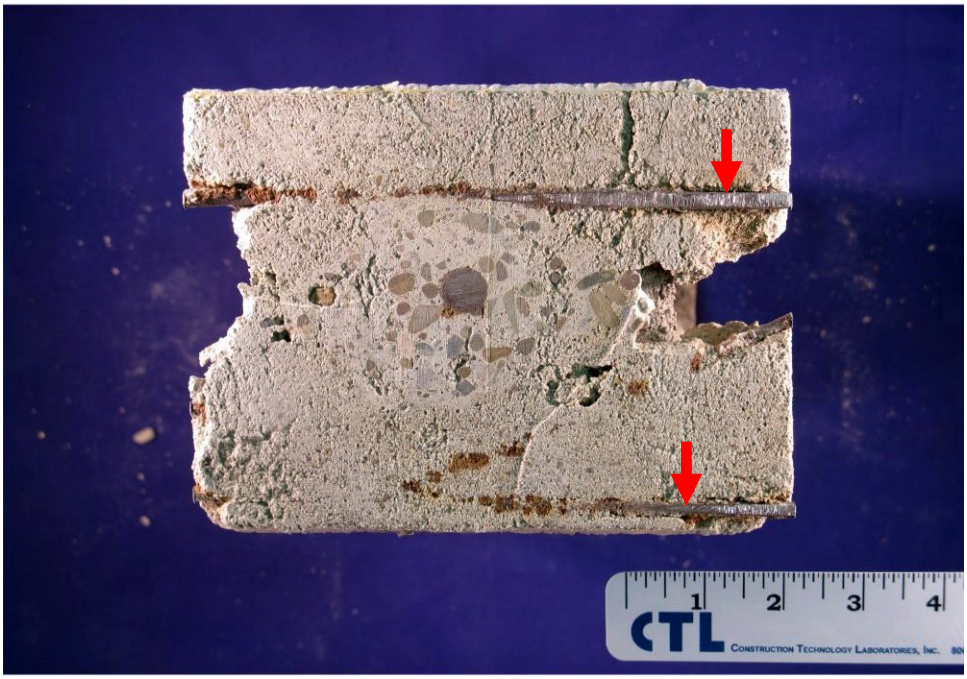
1a. Front surface. The saw-cut section along A-A' is shown in Fig. 3a.

1b. Side view. The red box designates location where mortar sample was taken for chloride analysis.

Fig. 1 Sample EXTERIOR as received for examination. The top and bottom surfaces of the sample are shown in Figures 1c and 1d, respectively. Scale is in inches.

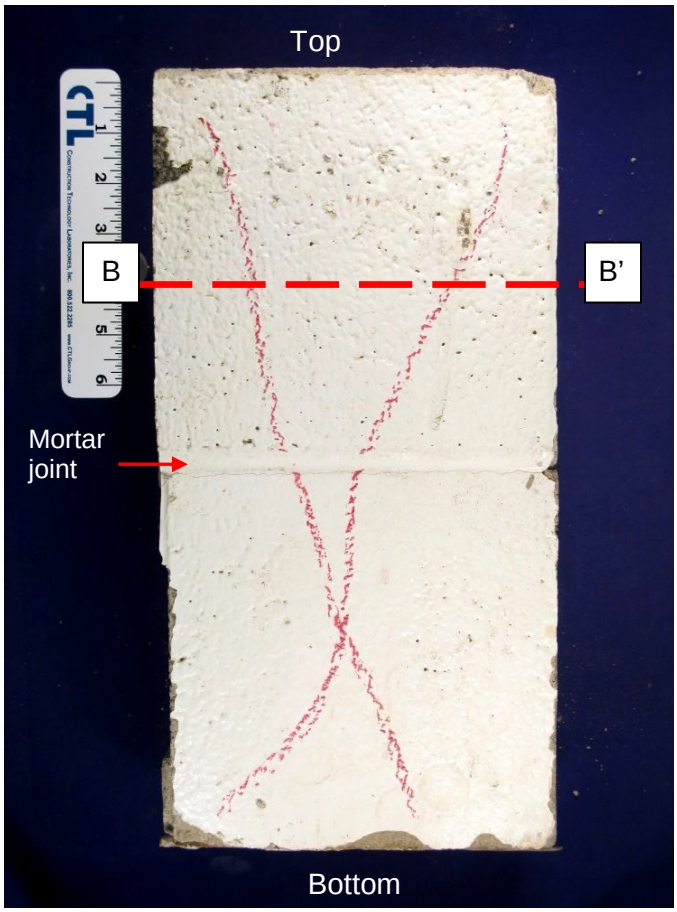


1c. Top surface showing cracks extending radially from a corroded reinforcing bar (arrow). The surface is covered with joint mortar.

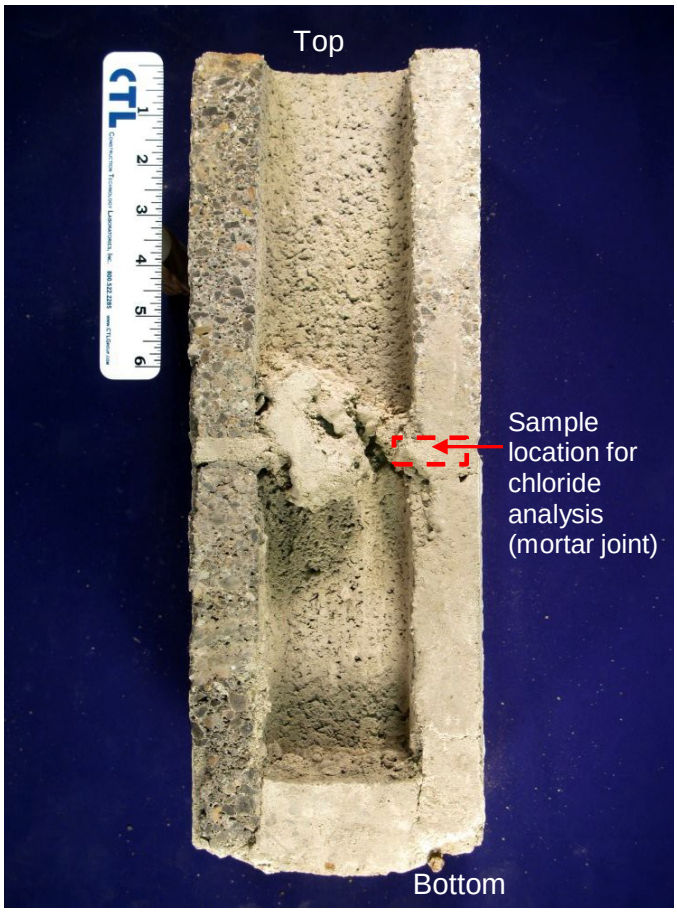


1d. Bottom surface showing a steel wire tie (arrows) partially embedded in joint mortar. The tie exhibits brown surface rusting.

Fig. 1 (Continued) Sample EXTERIOR as received for examination. Scale is in inches.



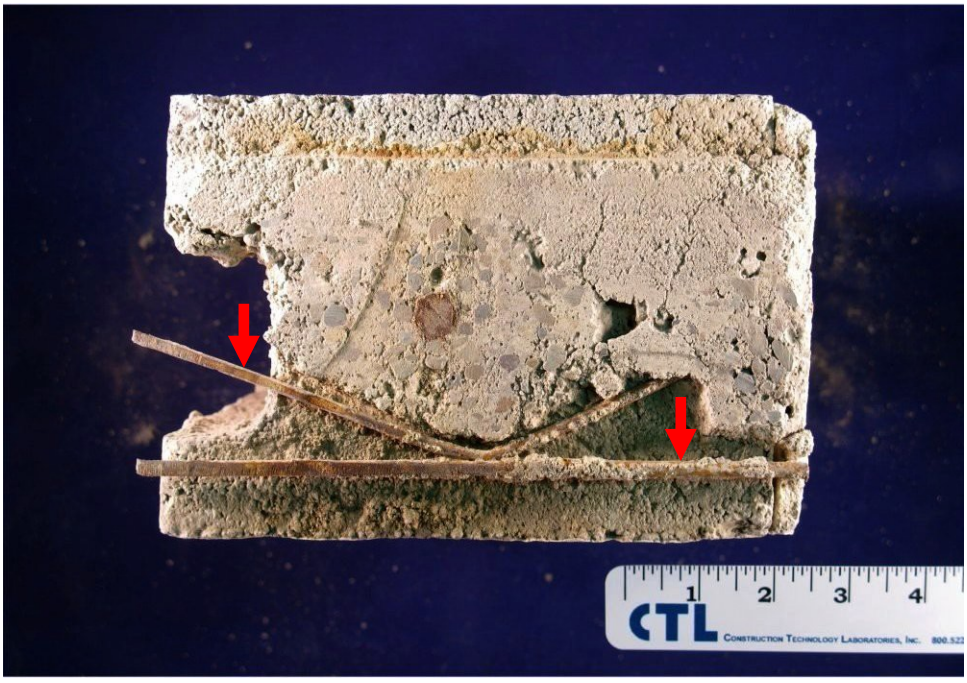
2a. Front surface. The saw-cut section along B-B' is shown in Fig. 3b.



1b. Side view. The red box designates location where mortar sample was taken for chloride analysis.

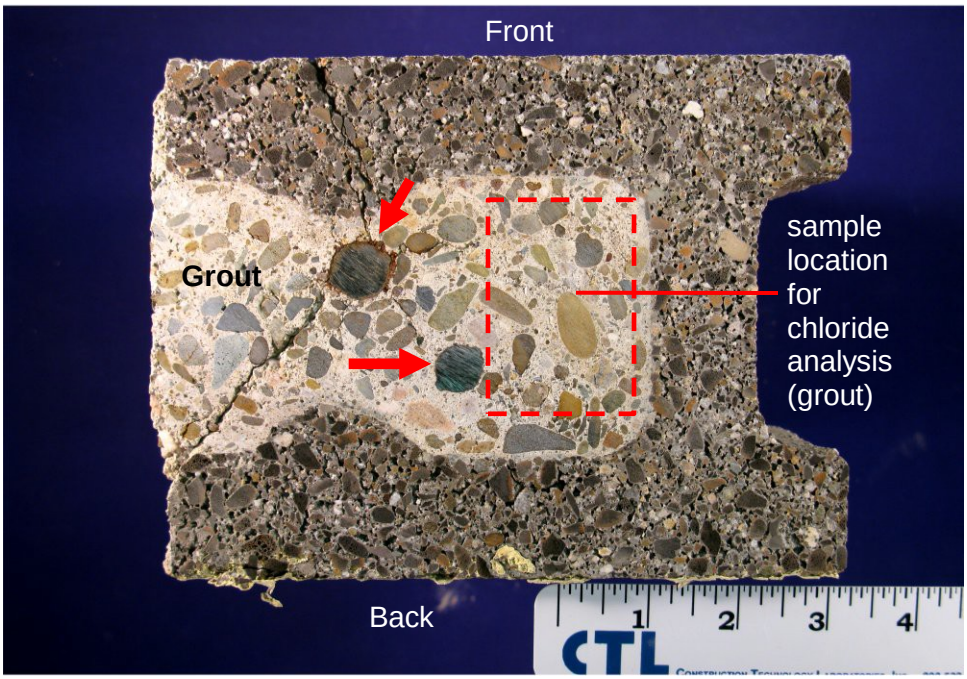
Fig. 2 Sample INTERIOR as received for examination. The top and bottom surfaces are shown in Figure 2c and 2d, respectively. Scale is in inches.

2c. Top surface, locally covered with joint mortar. Arrow designates a reinforcing steel bar. The rebar exhibits no visible corrosion.

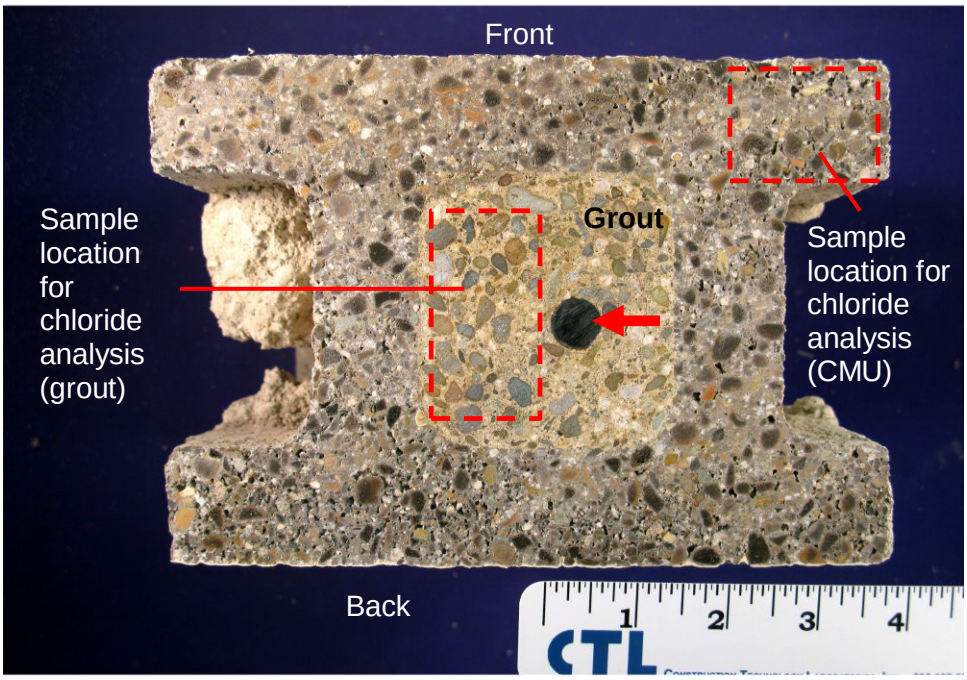


2d. Bottom surface showing a steel wire tie (arrows) partially embedded in joint mortar. The tie exhibits brown surface rusting.

Fig. 2 (Continued) Sample INTERIOR as received for examination. Scale is in inches.

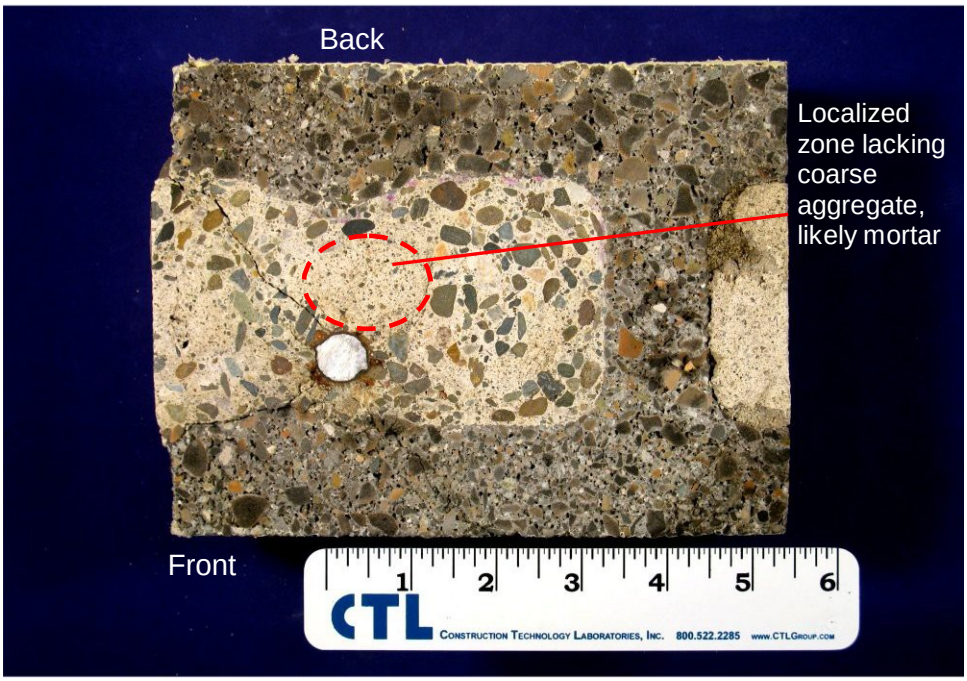


3a. Sample EXTERIOR. A few cracks extend radially from the corroded reinforcing steel bar.



3b. Sample INTERIOR. No cracks are observed.

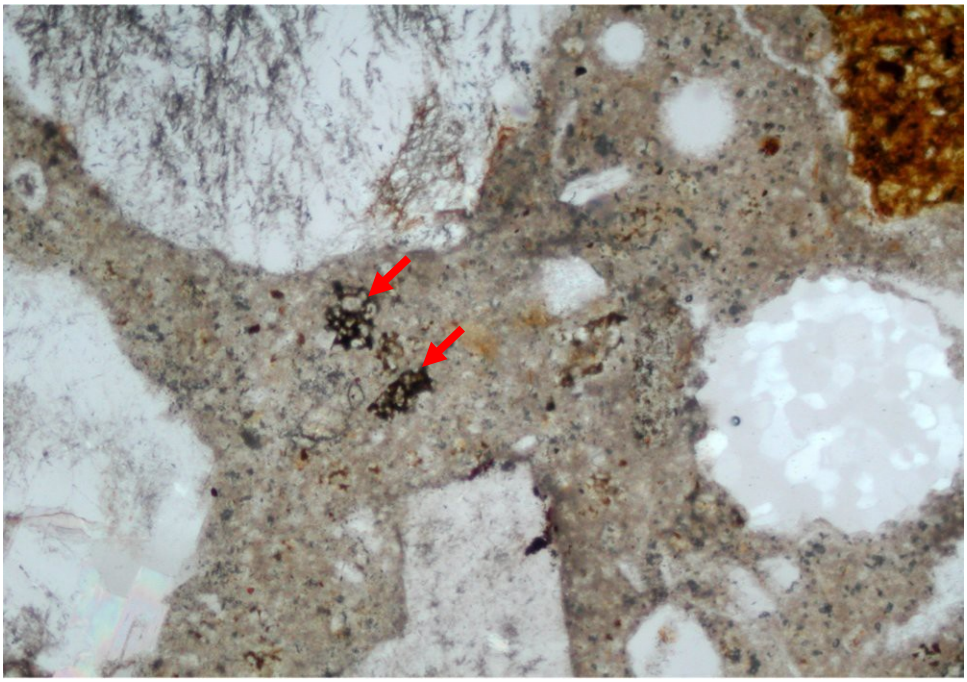
Fig. 3 Saw-cut sections of the samples along A-A' and B-B' designated in Figs. 1a and 2a, respectively. Arrows indicate reinforcing steel bars embedded in the grout. The red boxes designate locations where sub-samples were taken for chloride analysis. Scale is in inches.



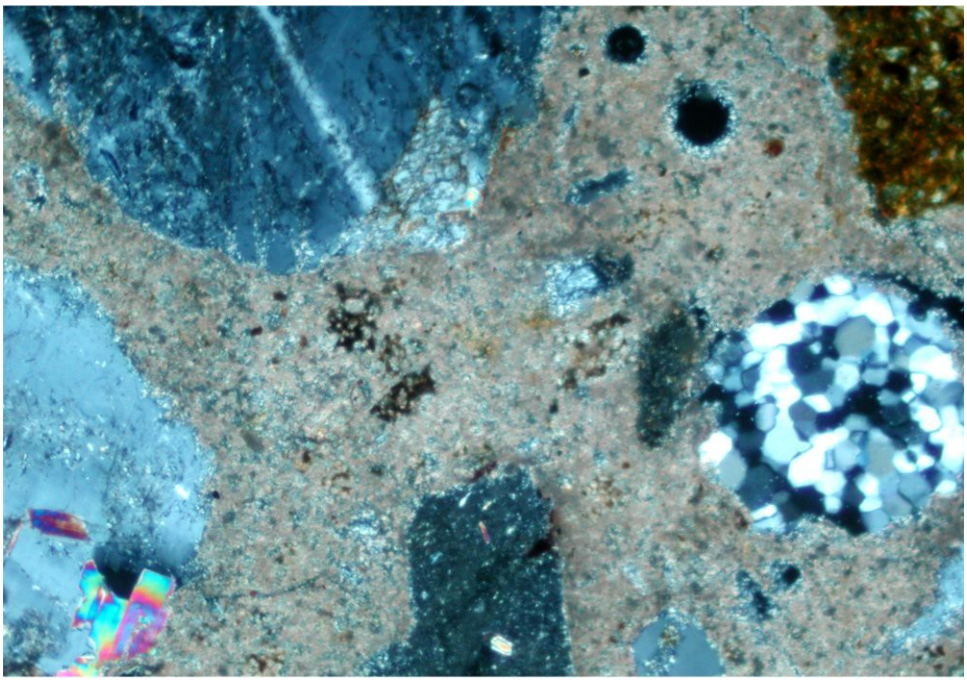
4a. Sample EXTERIOR. A few cracks extend radially from the corroded reinforcing steel bar.

4b. Sample INTERIOR. No cracks are observed.

Fig. 4 Saw-cut sections of the samples treated with a pH indicator solution (phenolphthalein). The solution imparts a deep magenta stain to high pH, non-carbonated paste. Absence of color change indicates that the grout is fully carbonated through the width of the cells. Scale is in inches.

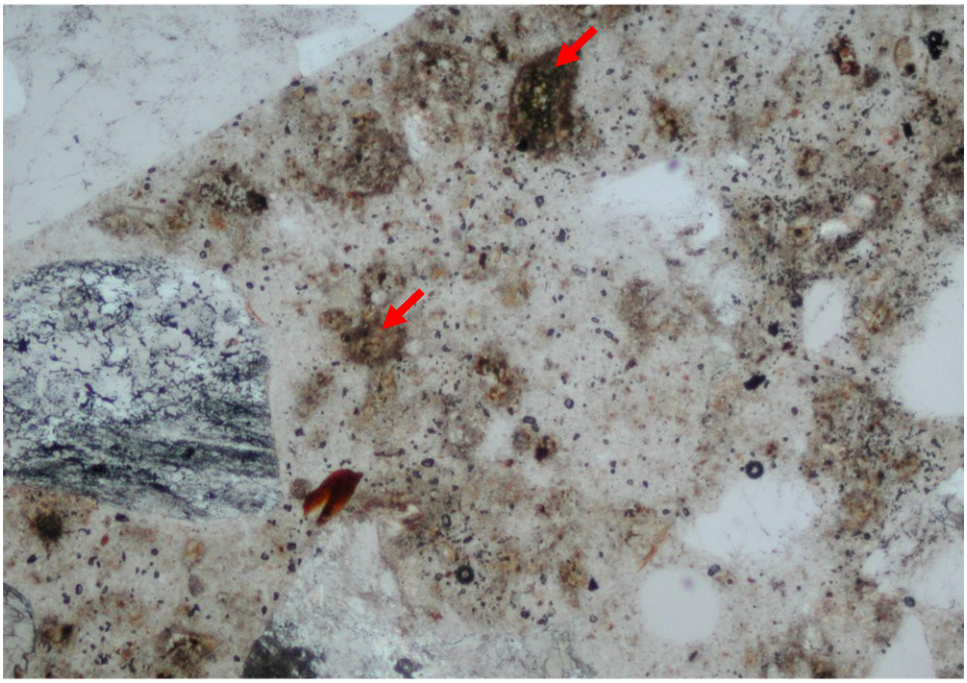


5a. Plane-polarized light. Arrows designate relicts of hydrated portland cement particles in the paste.

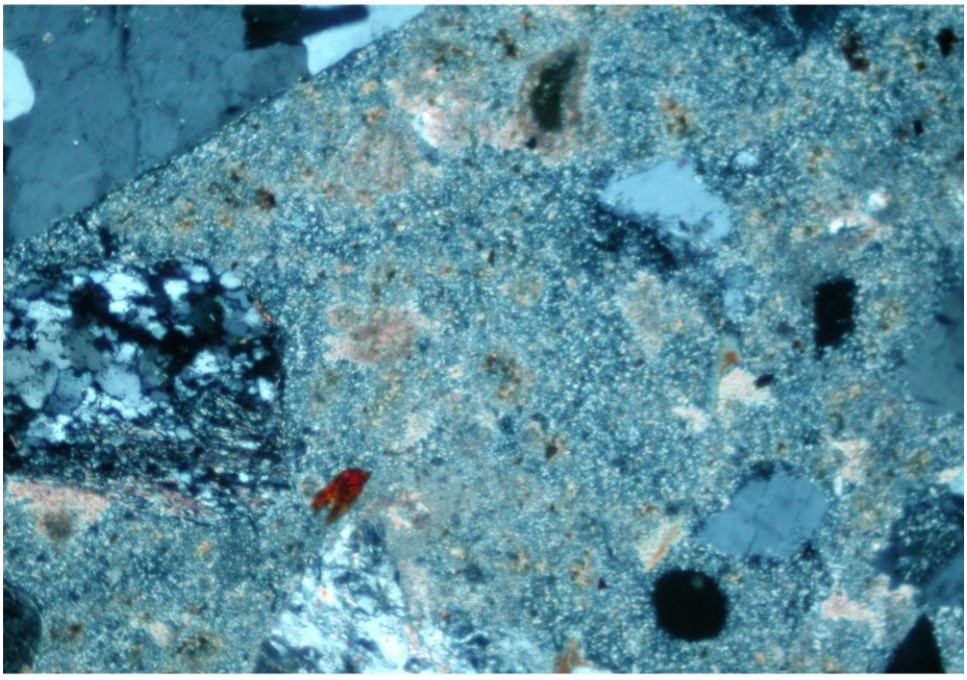


5b. The same field; cross-polarized light. The bright paste coloration is due to carbonation.

Fig. 5 Thin-section photomicrograph showing the hardened paste of the grout in Sample EXTERIOR. Field of view is approximately 0.05 in.



6a. Plane-polarized light. Arrows designate residual and relict portland cement particles in the paste.



6b. The same field; cross-polarized light. The bright paste coloration is due to carbonation.

Fig. 6 Thin-section photomicrograph showing the hardened paste of the grout in Sample INTERIOR. Field of view is approximately 0.05 in.

PETROGRAPHIC EXAMINATION OF HARDENED CONCRETE, ASTM C856

STRUCTURE: Walls of Concrete Masonry Units
DATE RECEIVED: February 11, 2013
LOCATION: Ashland, Oregon
EXAMINED BY: Sang Lee

SAMPLE

Client Identification: EXTERIOR.

CTLGroup Identification: 3336501.

Dimensions: The sample is approximately 16.0 in. (406 mm) high, 7.5 in. (191 mm) wide, and by 5.6 in. (142 mm) thick. The sample is a saw-cut partial section of a CMU wall, and consists of two CMU layers. The cells of the CMU's are filled with grout.

Top and Bottom Surfaces: Even saw-cut surfaces through horizontal mortar joints. The surfaces are covered or partially covered with the mortar.

Front and Back Surfaces: CMU surfaces, painted gray at the front and buff white at the back.

Cracks, Joints: The grout and the surrounding CMU webs exhibit several cracks; the cracks extend radially from a reinforcing steel bar embedded in the grout, and locally filled with brown corrosion products. Horizontal mortar joints are observed at the top, bottom, and boundary between the two CMU layers.

Reinforcement: Two reinforcing steel bars (rebars), a No. 5 and a No. 4, are embedded in the grout, and are locally overlapped. The No.5 rebar exhibits corrosion, but the No. 4 rebar does not. The cracks described above extend radially from the corroded No. 5 rebar. A steel wire tie is partially embedded in the joint mortar at the bottom end of the sample; the wire tie exhibits brown surface rusting.

Petrographic observations of the grout are described below. Brief descriptions of the joint mortar are provided in the "Miscellaneous" section below.

AGGREGATES

Coarse: Siliceous gravel consisting mainly of various volcanic and granitic rocks, quartzite, and sandstone.

Fine: Siliceous sand consisting mainly of quartz, feldspar, various igneous rocks, and small amounts of other siliceous rocks and minerals.

Gradation & Top Size: Visually appears evenly graded to an observed top size of 0.35 in. (9 mm).

Shape, Texture, Distribution: Coarse- sub-angular to rounded, and equant to occasionally elongated with smooth to somewhat rough surfaces; distribution is uniform. Fine- mostly angular to sub-rounded, and equant to occasionally elongated; distribution is uniform.

PASTE

Color: Light beige gray.

Hardness: Moderately soft to soft.

Luster: Dull.

Paste-Aggregate Bond: Moderately weak to weak; fresh fractures pass around almost all aggregate particles.

Air Content: Estimated 3 to 6%; the grout does not appear to be intentionally air entrained based on the scarcity of small, spherical air voids.

Depth of Carbonation: Carbonated throughout the body of the grout.

Calcium Hydroxide*: Due to carbonation of the grout paste, observation of calcium hydroxide is not provided.

Residual Portland Cement Clinker Particles: Almost fully hydrated; a few partially hydrated, coarse residual portland cement particles are occasionally observed.

Supplementary Cementitious Materials: None observed.

Secondary Deposits: Relatively small amount of secondary ettringite deposits are observed in a few voids. Brown corrosion products locally fill cracks extending radially from the corroded rebar in the grout.

MICROCRACKING: Several microcracks extend radially from the corroded rebar, and locally filled with brown corrosion product. Short (discontinuous), randomly-oriented microcracks are commonly observed in the paste between aggregate particles throughout the body of the grout; these microcracks are not related to any deleterious reactions within the grout.

MISCELLANEOUS:

Grout: The cementitious paste is absorptive; water droplets applied to fresh fractures are quickly absorbed by the paste.

Joint Mortar: The joint mortar contains siliceous sand in a hardened portland cement paste. No supplementary cementitious materials such as fly ash are observed. Sand in the joint mortar exhibits generally similar rock and mineral constituents with the sand in the grout. The cement is almost fully hydrated. The mortar is moderately soft to soft and absorptive.

---

*percent by volume of paste

PETROGRAPHIC EXAMINATION OF HARDENED CONCRETE, ASTM C856

STRUCTURE: Walls of Concrete Masonry Units
DATE RECEIVED: February 11, 2013
LOCATION: Ashland, Oregon
EXAMINED BY: Sang Lee

SAMPLE

Client Identification: INTERIOR.

CTLGroup Identification: 3336502.

Dimensions: The sample is approximately 15.7 in. (399 mm) high, 8.2 in. (208 mm) wide, and by 5.6 in. (142 mm) thick. The sample is a saw-cut partial section of a CMU wall, and consists of two CMU layers. The cells of the CMU's are filled with grout.

Top and Bottom Surfaces: Even saw-cut surfaces through horizontal mortar joints. The surfaces are covered or partially covered with the mortar.

Front and Back Surfaces: CMU surfaces, painted buff white at both sides.

Cracks, Joints: No visible cracks are observed. Horizontal mortar joints are observed at the top, bottom, and boundary between the two CMU layers.

Reinforcement: A No. 4 rebar is embedded in the grout; the rebar exhibits no visible corrosion. A steel wire tie is partially embedded in the joint mortar at the bottom end of the sample; the wire tie exhibits brown surface rusting.

Petrographic observations of the grout are described below. Brief descriptions of the joint mortar are provided in the "Miscellaneous" section below.

AGGREGATES

Coarse: Siliceous gravel consisting mainly of various volcanic and granitic rocks, quartzite, and sandstone.

Fine: Siliceous sand consisting mainly of quartz, feldspar, various igneous rocks, and small amounts of other siliceous rocks and minerals.

Gradation & Top Size: Visually appears evenly graded to an observed top size of 0.30 in. (8 mm).

Shape, Texture, Distribution: Coarse- sub-angular to rounded, and equant to occasionally elongated with smooth to somewhat rough surfaces; distribution is uniform. Fine- mostly angular to sub-rounded, and equant to occasionally elongated; distribution is uniform.

PASTE

Color: Light beige gray.

Hardness: Moderately soft to soft.

Luster: Dull.

Paste-Aggregate Bond: Moderately weak to weak; fresh fractures pass around almost all aggregate particles.

Air Content: Estimated 3 to 6%; the concrete does not appear to be intentionally air entrained based on the scarcity of small, spherical air voids.

Depth of Carbonation: Carbonated throughout the body of the grout.

Calcium Hydroxide*: Due to carbonation of the grout paste, observation of calcium hydroxide is limited; coarse irregular patches of remnant calcium hydroxide are observed in the paste.

Residual Portland Cement Clinker Particles: Approximately 1 to 2% of partially hydrated, relatively coarse residual portland cement particles.

Supplementary Cementitious Materials: None observed.

Secondary Deposits: Not observed.

MICROCRACKING: Short (discontinuous), randomly-oriented microcracks are commonly observed in the paste between aggregate particles throughout the body of the grout; these microcracks are not related to any deleterious reactions within the grout.

MISCELLANEOUS:

Grout: The cementitious paste is absorptive; water droplets applied to fresh fractures are quickly absorbed by the paste.

Joint Mortar: The joint mortar contains siliceous sand in a hardened portland cement paste. No supplementary cementitious materials such as fly ash are observed. Sand in the joint mortar exhibits generally similar rock and mineral constituents with the sand in the grout. The cement is almost fully hydrated. The mortar is moderately soft to soft and absorptive.

---

*percent by volume of paste

Client:	**ZCS Engineering, Inc.**	CTL Project No:	**262701**
Project:	**Chloride Testing**	CTL Project Mgr.:	**Carlton Olson**
		Analyst:	**Grant Isono**
Contact:	**Sylas Allen**	Approved:	*R W Steverson*
Submitter:	**Sang Lee, CTL Group**	Date Analyzed:	**February 26, 2013**
Date Received:	**February 13, 2013**	Date Reported:	**February 26, 2013**

REPORT of ACID-SOLUBLE CHLORIDE

Sample Identification			Determined Chloride	
CTL ID	Client ID	Description	(wt% sample)	(ppm Cl)
3336501-02	Exterior-Mortar	Mortar	0.016	160
3336501-03	Exterior-Grout	Grout	0.187	1870
3336502-02	Interior-Mortar	Mortar	0.197	1970
3336502-03	Interior-Grout	Grout	0.231	2310
3336502-04	Interior-CMU	Concrete Masonry Unit	0.003	30

Notes:
1. This analysis represents specifically the samples submitted on a dry (45°C) basis.
2. Analysis by potentiometric titration with silver nitrate. (ASTM C1152-04ε1)
3. Calculation of chloride by mass of cement/cementitious based on volume proportions provided by the client.
4. This report may not be reproduced except in its entirety.

Client:	**ZCS Engineering, Inc.**	CTL Project No:	**262695**
Project:	**Project name:McNeal; Southern Oregon Univ. Physical Education bldg.**	CTL Project Mgr.:	**Carlton Olson**
		Analyst:	**Grant Isono**
Contact:	**Sylas E. Allen**	Approved:	***R W Stevenson***
Submitter:	**Carlton Olson**	Date Analyzed:	**January 10, 2013**
Date Received:	**December 21, 2012**	Date Reported:	**January 11, 2013**

REPORT of ACID-SOLUBLE CHLORIDE

Sample Identification			Determined Chloride	
CTL ID	Client ID	Description	(wt% sample)	(ppm Cl)
3299201 Repeat	1	Grout	0.093	930
3299202 Repeat	2	Grout	0.010	100
3299203 Repeat	3	Grout	0.006	60
3299204 Repeat	4	Grout	0.001	10
3299205 Repeat	5	Grout	0.132	1320
3299206 Repeat	6	Grout	0.249	2490
3299207 Repeat	7	Grout	0.213	2130
3299208 Repeat	8	Grout	<0.001	<10
3299209 Repeat	9	Grout	0.001	10
3299210 Repeat	10	Grout	0.002	20

Notes:

1. This analysis represents specifically the samples submitted on a dry (45°C) basis.
2. Analysis by potentiometric titration with silver nitrate. (ASTM C1152-04ε1)
3. This report may not be reproduced except in its entirety.

Degenkolb

STRUCTURAL DAMAGE ASSESSMENT OF McNEAL PAVILION, PEER REVIEW

Southern Oregon University

Peer Review of Structural Damage Assessment of McNeal Pavilion

Ashland, Oregon

June 3, 2013

Degenkolb Job Number B3437002.00

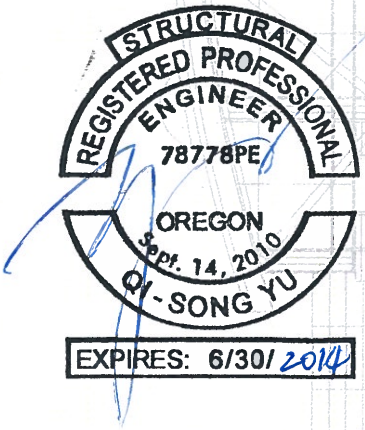


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Table of Contents

List of Figures

Acknowledgements

Owner: Southern Oregon University, Ashland
Drew Gilliland, Facility Director
Jim McNamara, Project Manager

Structural Engineer: Degenkolb Engineers
Kent Yu, Principal/Project Manager
Devon Lumbard, Project Engineer

Construction Consultant: Emerick Construction
Larry Sitz, CEO of Emerick Construction

1.0 Introduction

We are pleased to present this report of the peer review of the structural damage assessment of the McNeal Pavilion located on the Southern Oregon University campus in Ashland, Oregon. The objectives of this study were to 1) review assessment report prepared by ZCS Engineering, 2) observe the corrosion related to wall damage, and 3) develop alternate structural repair/replacement recommendations as appropriate. The results of our assessment and subsequent recommendations for repair of the McNeal Pavilion are included in this report.

2.0 Project Information

2.1 Building Description

The McNeal Pavilion was originally designed and built in 1956 and later expanded in 1989 (see **Figure 2.1**). The 1956 portion of the facility, built on a sloping site, is a one-story physical education building with a basement. It consists of classrooms, a gymnasium, and various large activity areas. The 1989 addition is also a one-story building and was built next to the east and south sides of the 1956 portion. It mainly consists of office spaces, conference rooms and other supporting function spaces.

Based on the construction drawings provided to us, the gravity system of the 1956 portion consists of two inch decking supported by purlins and glulam girders, which are, in turn, supported on wide flange columns encased inside masonry or concrete piers. The masonry piers are grouted around the wide flange columns as shown in **Figure 2.2**. The columns are typically supported by concrete piers (embedded in the basement concrete walls) near the top of the basement walls. The lateral force resisting system consists of straight and diagonally wood sheathed floor and roof diaphragms, lightly reinforced masonry walls above grade, and reinforced concrete walls in the basement. The exterior masonry wall typically is made of 6 and 8-inch concrete masonry blocks and reinforced with vertical #4 steel rebar at 48 inches on center.

2.2 Previous Studies

According to the ZCS draft report dated March 18, 2013, the exterior walls in the 1956 portion of the building have experienced steel corrosion of steel reinforcement and at least one steel column, resulting in surface cracks on the exterior face of the walls and the column pier. Based on the random sampling results, ZCS recommended a solution of total replacement of the masonry walls throughout the facility.

2.3 Project Scope and Intent

From our communications, we understood you were concerned about the disruption and cost associated with the recommended solution and would like us to: (1) conduct a peer review of the assessment report by ZCS to determine the soundness of the recommended solution, and (2) provide conceptual alternative options based on our field observation.

It is known that corrosion requires non-passivated steel (rebar and steel column in this case), oxygen and moisture (in conjunction with chemicals) in order to occur. Therefore, in order to understand the cause of the steel corrosion, we need to understand how moisture got to the steel. To prolong the building life, we need to protect the steel and also prevent moisture from getting to the steel. Any effective solution must break the corrosion cycle by eliminating one of the contributing elements.

To meet the project needs, we retained Emerick Construction to assist us with a preliminary building condition assessment. Based on this contracted scope of work we have completed the following tasks for this project:

(1) Reviewed the assessment report prepared by ZCS Engineering;
(2) Conducted one site visit. We utilized this site visit to observe corrosion related to wall damage and collect data as needed for developing structural repair/replacement recommendations;
(3) Developed alternate structural repair/replacement recommendations as appropriate;
(4) Prepared a report that summarizes our recommendations; and
(5) Presented our recommendations to you and your colleagues at Southern Oregon University.

Degenkolb was provided the following for the completion of this evaluation:

1) Architectural drawings of SOU Physical Education Building dated February 1956, by Howard A Perrin;

2) Structural drawings of SOU Physical Education Building dated February 1956, by A.D. Harvey Consulting Engineer;

Figure 2.1 – McNeal Pavilion, Southern Oregon University

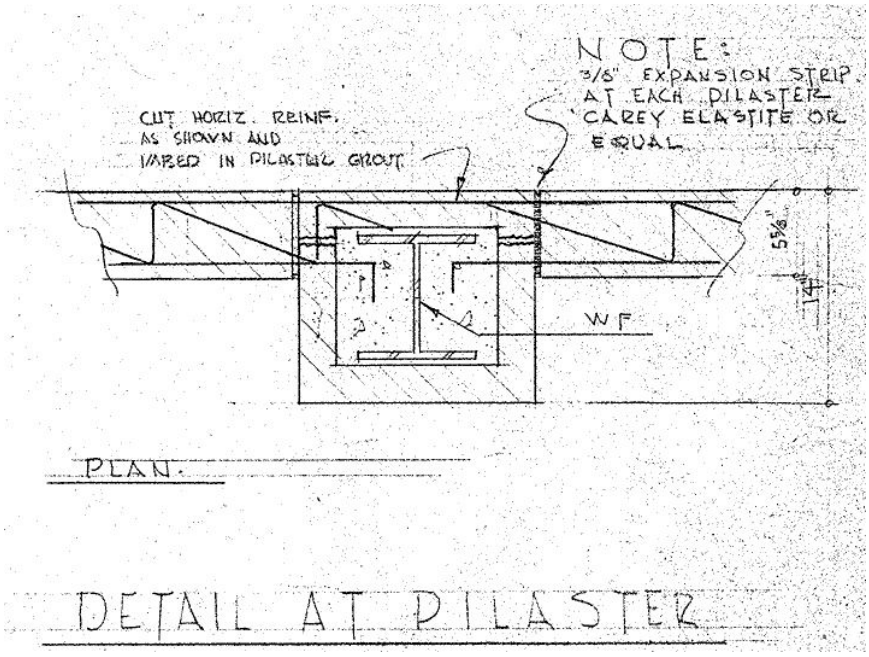

Figure 2.2 – Steel Column Detail

3.0 Structural Condition Assessment

Degenkolb visited the McNeal Pavilion on April 16th, 2013 and was joined by Larry Sitz of Emerick Construction. The site visit involved meeting with Drew Gilliland and Jim McNamara and walking through and around the McNeal Pavilion to observe the current condition of the masonry walls. The evidence of steel corrosion of the wall reinforcement and steel columns were investigated along with potential sources of moisture intrusion causing the steel corrosion.

The site visit observations have been categorized into the following topics:

- Cracks in the masonry walls
- Corrosion of reinforcing in the masonry walls
- Corrosion of steel columns
- Miscellaneous observations

Please see **Figure 3.1** for an overall plan of the McNeal Pavilion with the locations of the observations noted.

3.1 Cracks in the masonry walls

We found that cracks in the masonry walls tend to occur on the west and south sides, especially near the southwest corner of the building. This observation appears to be consistent with the exposure of the building to prevalent winter storms associated with southwesterly winds from the coast.

The site visit observations started at the outside of storage room at the southwest corner of the building. Vertical cracks on each side of the corner were observed as shown in **Figure 3.2**. These cracks extended over the full height of the wall and continued into the concrete wall below the masonry. These cracks indicate that the corner steel column has experienced severe corrosion from its top at the roof level to its bottom portion embedded in the concrete wall. A portion of the roof sheathing at the southwest corner as shown in **Figure 3.3** was replaced as a part of the re-roofing project a few years ago, suggesting that water might also have intruded into the masonry pier from the top of the column to cause the column corrosion. Additional vertical cracks were observed at the northwest corner of the wrestling room, as shown in **Figure 3.4**. In between columns, vertical cracks were observed approximately every four feet on center along the length of the wall, as shown in **Figure 3.5**. This spacing corresponds with the spacing of the vertical reinforcement in the wall.

Cracks were also noted in the masonry around the steel column above the low roof at the southeast corner of the gymnasium as shown in **Figure 3.6**. As can be seen in the original detail in **Figure 2.2** and the existing condition in **Figure 3.7**, the columns typically have expansion joint material between the masonry wall and the masonry pier. The sealant failure in this joint (as observed during the site visit) created a source for water intrusion into the masonry pier and could be getting behind the roof flashing.

3.2 Corrosion of reinforcing in the masonry walls

At several locations, the previous investigation had exposed the existing reinforcement in the masonry walls. On the inside of the south wall of the storage room (to the south of the wrestling room), a vertical rebar was exposed as shown in **Figure 3.8**. While the rebar was corroded, the deformations of the rebar were still discernible. A preliminary measurement of the diameter of the bar indicated that it had lost only a small portion of its diameter. However, the rust would have to be fully removed before a more accurate assessment of the bar could be performed. At this same location, the existing horizontal K-web reinforcing in the wall was exposed as shown in **Figure 3.9**. Corrosion was visible along both interior and exterior wires as well as the diagonal web. Inside the Boiler Room, a wall core was taken during the previous investigation to expose a vertical rebar as shown in **Figure 3.10**. No corrosion was visible on the bar at this location. Therefore, it appears that the extent of corrosion is variable throughout the building.

These cracks appear to be caused by moisture propagating through exterior face of masonry wall and causing corrosion of the vertical #4 reinforcement bar in the wall. As the rebar corrodes, the products of the corrosion are larger than the original reactants. This expanding volume causes cracks to form in the masonry.

3.3 Corrosion of steel columns

Inside the storage room to the south of the wrestling room, the masonry and grout around the bottom third of existing column at the southwest corner were partially removed in the previous investigation. The interior flange of the column exhibited corrosion over the extent exposed as shown in **Figure 3.11**. A preliminary measurement indicated that it had lost approximately one third of the thickness of the flange. As the moisture tends to travel down along the steel column from water intrusion at roof (as shown in **Figure 3.3**), it is likely that corrosion at the upper portion of the column is more severe than what is already exposed. In order to determine its remaining load bearing capacity, additional masonry and grout around the top third of the column height need to be removed to perform comprehensive assessment of the column corrosion.

Evidence of moisture intrusion was noted at the top of the southeast corner column of the gymnasium, as shown in **Figure 3.12**. Some discoloration appears to be present on the underside of the roof sheathing. Additionally cracks in the masonry around the top of the column appear to be larger than the cracks closer to the base of the column. This suggests that more significant corrosion could be present at the top of the column if the source of the moisture intrusion is at the top of the column as noted from the above roof investigation and **Figure 3.6**.

Additional columns in the wrestling room were observed near the southwest corner column shown in **Figure 3.11**. It was noted that the two columns to the north of the southwest column exhibited vertical cracking, as shown in **Figure 3.13** and **3.14**. As seen in the figures, the cracking at these columns does not appear as severe as the cracking at the southwest corner column shown in **Figure 3.11**. It is also important to note that these columns exhibited no visible signs of cracking on the outside of the building, but the cracking on the inside of the building suggests that corrosion of the column is likely occurring. Cracking was also noted on the exterior side of the column to the east of the southwest corner column, as shown in **Figure 3.15**.

3.4 Miscellaneous observations

While investigating the condition of the masonry walls, several other observations were made:

- In the Boiler Room, evidence of moisture intrusion on the bottom of the roof sheathing was observed. Sheathing has been selectively replaced throughout the Boiler Room roof area, as shown in **Figure 3.16**. While the roof sheathing has been replaced in some locations, the roof beams and girders should also be investigated to ensure their condition is adequate.
- The lack of existing support for the roof beams in the northwest corner of the Boiler Room was noted, as shown in **Figure 3.17**. It was noted that the wood beam along the west wall is not supported at the north end by a masonry pilaster. A pilaster may need to be added beneath this beam.
- The mechanical equipment in the basement was noted to have minimal seismic bracing or anchorage, as shown in **Figure 3.18**. If a seismic assessment of the building is desired, this equipment should be evaluated.
- In the gymnasium, cracks were noted in the existing east masonry wall where cables from the basketball hoops are attached to the wall as shown in **Figure 3.19**. The wall should be evaluated for the out-of-plane loading of the cables that support basketball hoop. A horizontal beam may need to be installed to the inside of the wall to spread the load from the basketball hoop cable onto the wall.
- The north wall of the gymnasium is a wood framed wall with numerous penetrations. If a seismic assessment of the building is desired, this wall should be evaluated.
- The roof sheathing consists of diagonal and straight sheathing. This type of sheathing has a low seismic shear capacity. If a seismic assessment of the building is desired, the roof diaphragm capacity should be evaluated.
- Only minor rusting was noted in the pool area at the northeast corner of the building. However, a missing nut at a beam to pilaster connection was noted as shown in **Figure 3.20**. An investigation of the pool building construction is recommended.

- A significant number of windows were observed between the top of the wall and the roof at the indoor basketball court at the southeast corner of the building, as shown in **Figure 3.21**. These windows disconnect the roof from the masonry walls, with only the columns extending from the wall up to the roof. If not properly designed, detailed and constructed, the portion of columns between the walls and the roof will experience significant damage during a seismic event.

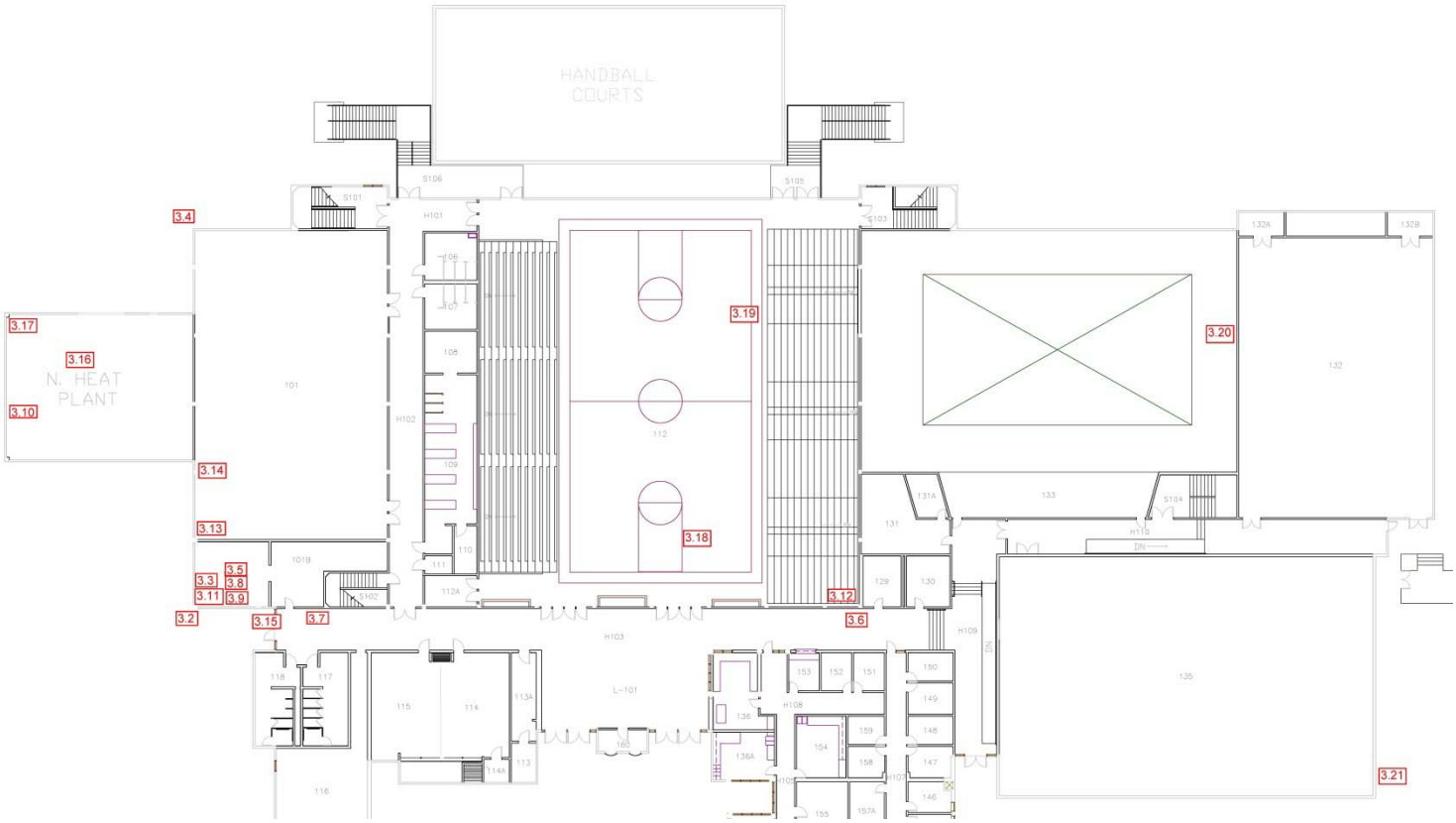

Figure 3.1 – Building Plan

Figure 3.2 – Southwest Corner of Storage Room

Figure 3.3 – Southwest Corner of Storage Room Roof

Figure 3.4 – Northwest Corner of Wrestling Room

Figure 3.5 – Vertical Cracks Spaced at Four Feet

Figure 3.6 – Vertical Cracks at Southeast Corner of Gymnasium

Figure 3.7 – Expansion Joint at Each Side of Masonry Pier

Figure 3.8 – Vertical Rebar in Storage Room

Figure 3.9 – Horizontal K-web Reinforcing in Storage Room

Figure 3.10 – Vertical Rebar in Boiler Room

Figure 3.11 – Southwest Corner Column in Storage Room

Figure 3.12 – Moisture at Top of Southeast Column

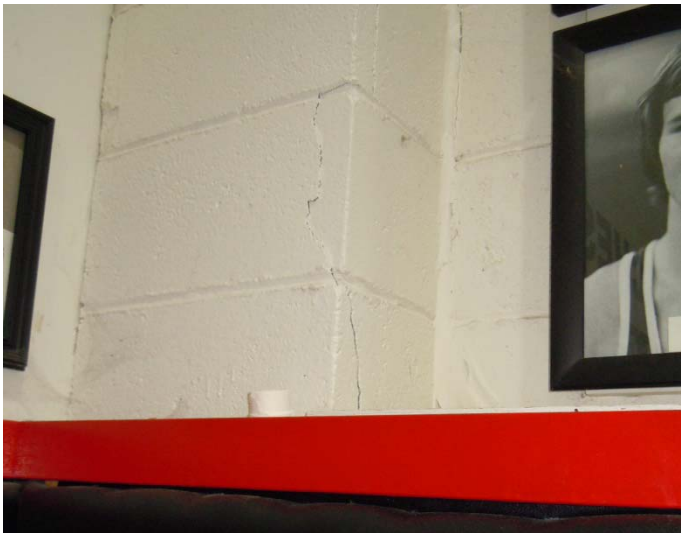

Figure 3.13 – 1st Column North of Southwest Corner

Figure 3.14 – 2nd Column North of Southwest Corner

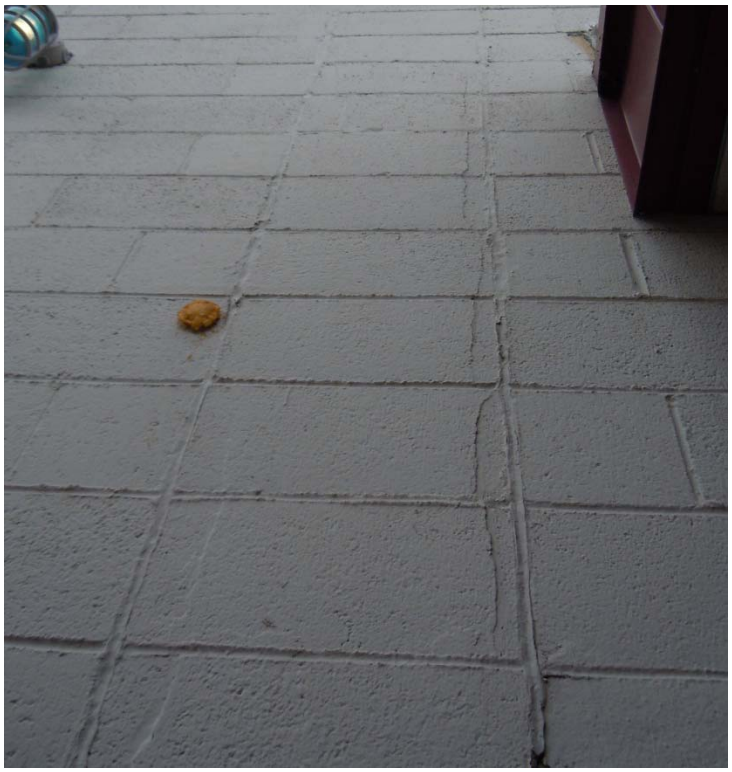

Figure 3.15 – Column East of Southwest Corner

Figure 3.16 – Boiler Room Roof Sheathing

Figure 3.17 – Missing Pilaster in Boiler Room

Figure 3.18 – Minimal Equipment Anchorage

Figure 3.19 – Diagonal Cracks at Basketball Hoop

Figure 3.20 – Missing Nut in Pool Area

Figure 3.21 – Windows as Southeast Indoor Basketball Court

4.0 Structural Recommendations

In general, cracks in masonry walls could be caused by many factors: corrosion of steel inside the wall, shrinkage of the masonry wall, or settlement or other movement of the wall. Based on the observations noted in Section 3 above, we feel that the observed corrosion has been caused by moisture intrusion through several potential sources. As noted in the draft report by ZCS Engineering dated March 18th, moisture could be reaching the reinforcement in the masonry wall and the steel columns through the masonry. It is possible that moisture is reaching the steel columns through the expansion joints at each side of the steel columns. Moisture could also be reaching the reinforcement in the masonry wall as well as the steel columns from the roof.

Now that the corrosion has started and cracks have formed, the corrosion process will accelerate if the condition is not remediated. If left unchecked, the cracks will continue to allow more moisture to reach the steel in the wall and cause further corrosion and cracking. However, we feel there are potential cost effective means of remediating the structure that should be considered in lieu of complete replacement of the masonry walls.

We understand the owner wishes to occupy the building for another 50 years and is looking for cost effective alternatives to the replacement of the masonry walls or the entire building.

Based on our site visit observations, it is our opinion that the current level of corrosion does not represent a dangerous condition. The extent of corrosion appears to be highly variable throughout the structure. Therefore, we recommend a three step process to develop a cost effective alternative to replacement of the masonry walls or the entire building:

1. We recommend additional investigation to quantify the extent of cracking of the masonry walls and corrosion of the steel reinforcement and the steel columns. The investigation needs to be thorough in order to ensure a complete inventory of cracking and corrosion is developed. As noted in the wrestling room and the storage room, cracks can be located on either the interior or exterior of the masonry walls. In addition to the cracking, a thorough inventory of moisture intrusion issues needs to be developed to quantify the total scope of a potential remediation of the existing conditions. This inventory should include sources of moisture such as the roof membrane, roof flashing details, and expansion joints as well as other isolated moisture damage such as roof sheathing and roof framing as noted in the Boiler Room.

2. With a thorough inventory in place, architectural building envelope and structural consultants can analyze the sources of moisture intrusion and subsequent degraded state of the structural elements to confirm the adequacy of the remaining strength to resist wind and gravity loads. The architectural consultant can then develop remediation of the moisture intrusion issues. These may include a coating for the masonry wall, a rain screen to prevent moisture from reaching the wall, and potentially utilizing cathodic protection for some of the steel columns if necessary. The structural consultant can design strengthening as necessary to significantly prolong the useful life of the structure. This may include installing steel plates on a few of the worst corroded columns or replacing the columns, and installing strong-backs on the wall (a strong-back is a secondary structural member that reinforces the wall and would take the place of the existing vertical reinforcement). This work is expected to be concentrated at the buildings perimeter, and should not void any roof warranty. Furthermore, it is expected that any construction work could be coordinated and properly phased to minimize impact on the use of the building during construction.
3. Work with a construction cost estimator to develop a construction estimate of each remediation concept for the university.
4. Work with the university to finalize a remediation scheme and help the university as needed to secure funding.

We also understand the university would like to utilize this building as an emergency shelter after a seismic event. Based on our review of the available drawings and field observation during the site visit, we noticed several major seismic deficiencies, including lack of cross-ties, inadequate connection between the roof diaphragm and the perimeter walls, and lack of any seismic joints in the building. Therefore, we recommend Southern Oregon University include a seismic structural assessment of the McNeal Pavilion during the next phase to understand the complete list of building seismic deficiencies. Given the lack of any seismic joints, this assessment should include both the original 1956 portion, as well as the 1989 additions since the entire building will act as one. The seismic assessment will provide SOU with a thorough understanding of the expected performance of the McNeal Pavilion after a seismic event. If a higher level of performance is desired for the building than is currently expected, seismic strengthening can be designed and incorporated into the corrosion mitigation project. If funds are not available to fully implement the seismic strengthening concurrently with the corrosion mitigation, we will be happy to work with the university to develop a phased strengthening approach which will maximize the efficiency of available construction budget and allow portions of the seismic strengthening to be addressed together with future regular maintenance projects.

5.0 Limitations

The opinions and recommendations presented in this report were developed with the care commonly used as the state of practice of the profession. No other warranties are included, either expressed or implied, as to the professional advice included in this report. This report has been prepared for Southern Oregon University, to be used solely in its evaluation of the extent of corrosion of the masonry walls of the McNeal Pavilion included herein. This report has not been prepared for use by other parties and may not contain sufficient information for purposes of other parties or use.

View of jogging track and two-court gymnasium, with stadium beyond

Southern Oregon University
Student Recreation Center

Conceptual Design Report
February 20, 2013

opsis architecture | Abell Architectural Group

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Contents

SRC Steering Committee Workshops

Executive Summary

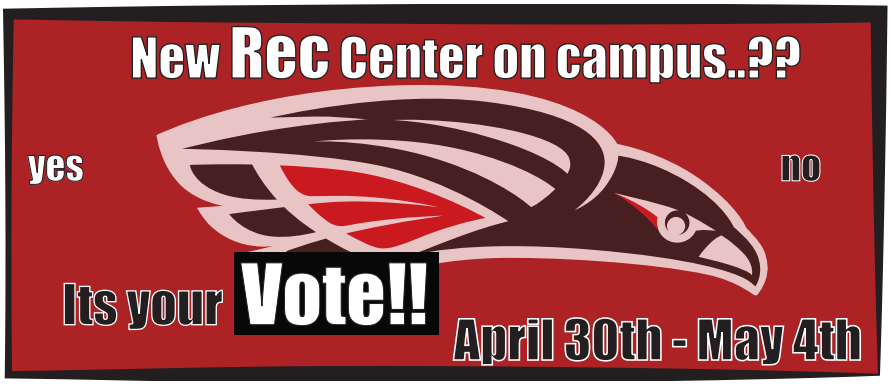
The Need for a New, Dedicated Student Recreation Center

In 2011 extensive surveys were conducted by nationally-recognized recreation planners Brailsford & Dunlavy (B&D) to gauge student interest in a new Student Recreation Center (SRC) at Southern Oregon University. B&D found that "90% of respondents indicated that improvements to campus recreation would have a significant or moderate impact on their quality of life at SOU." Building upon the growing enthusiasm, in May 2012 SOU students passed a referendum to increase student fees to pay for a new Student Recreation Center.

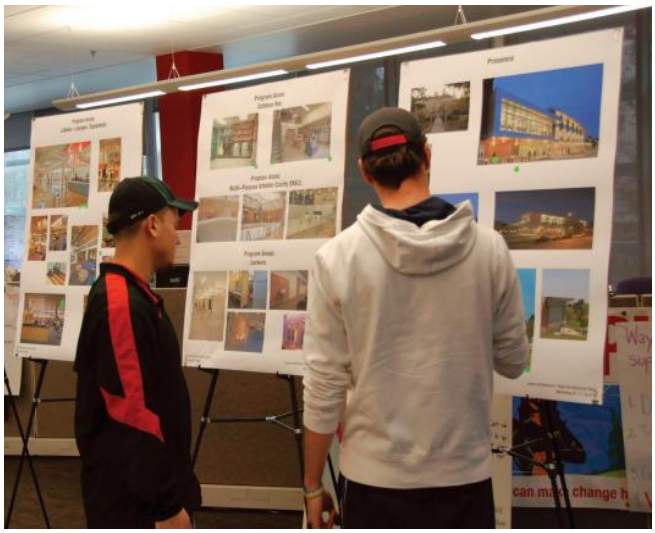
The demand for the new SRC is related to and a direct result of the recent growth on the SOU campus. In recent years SOU has experienced a 40 percent increase in student enrollment, with its second-highest enrollment numbers in SOU history for Fall 2012. SOU President Mary Cullinan noted "our numbers two years ago were the largest increase in the Oregon University System." (SOU Marketing & Communications Blog). To accommodate this growth, SOU has identified a number of construction projects in the areas of academics, housing and student life, including the new SRC.

Over the last 10 years, national health experts have been warning about the need to target young adults to improve their current and future health by developing lifestyles that value fitness, wellness and exercise. Institutions of higher education have recognized their role as educators by placing new emphasis on student recreation as a fundamental component of student life on campus and a basis for life long healthy lifestyles. Throughout the region, student recreation centers have been built in order to provide students with opportunities to experience a healthy, active lifestyle that complements and enhances the rigors of academic life. These vibrant and active facilities have proven to be a critical element in attracting and retaining students in an increasingly competitive market. Many Oregon University System (OUS) institutions, including Portland State University, Western Oregon University, Eastern Oregon University and the University of Oregon, are planning or have recently completed major renovations and expansions of their student recreation centers. Most of these facilities had existing recreation centers with new connecting additions, thus leveraging existing infrastructure and maximizing program efficiencies. As B&D noted in their 2011 Feasibility Plan, "without improvements to its quality-of-life facilities such as student recreation, (SOU) could experience competitive disadvantages to other Oregon University institutions, as many have invested significant capital to improving such facilities."

As SOU's enrollment grows, it will be unable to meet the recreational and wellness needs of students with the current facilities in McNeal Pavilion and Meyer Fitness Center, both of which are primarily used for athletic and academic programs. The new Student Recreation Center will allow a wider array of recreational and activity choices, as well as greater access to existing options such as the natatorium, practice gym and dance studio in McNeal Pavilion. This project will create more access for both commuter and residential students by allowing users to customize their participation based upon personal choice and convenience of schedules. Ultimately it will promote better individual and group approaches to fitness, wellness and recreation, which in turn is expected to lead to a healthier community, increased involvement and higher achieving students.



SOU students created posters and banners to generate support for the SRC



Students at a Steering Committee Workshop

Site

The new Student Recreation Center will be located at the north end of campus in an athletics zone that includes McNeal Pavilion, tennis courts, Raider Stadium with a track and field, practice fields and the Meyer Fitness Center below the stadium. The proposed location would be an addition to the north side of McNeal, which is across the street from the new 700-bed North Campus Village. The 2010 SOU Master Plan indicates a new pedestrian circulation path through the student housing zone to the south that would lead directly to McNeal and the SRC. The SRC would also be adjacent to a new parking lot to the east on Stadium Street for the housing. This conceptual design report examines the SRC as integrated with McNeal and its existing athletic and student recreation programs. The proposed design maximizes opportunities inherent in an integrated project and will require selective demolition to the interior and exterior of McNeal.

Conceptual Design Overview

The new Student Recreation Center will be approximately 58,000 square feet and will provide a full-range of recreation facilities that are multi-faceted and appeal to a wide array of students, both as drop-in activities and organized, scheduled programs. Key components include recreation program offices, a two-court gymnasium that will support basketball, volleyball and badminton, an elevated jogging track, climbing wall and bouldering area, outdoor program storage and resource center, two multipurpose rooms for dance, fitness and martial arts, a 6,000 square foot weight and fitness training area, two racquetball courts, locker rooms and storage.

Sustainable Design

Creating a facility of exemplary environmental stewardship was a key project goal articulated early in the process by the planning committee. The common goals between sustainable design and the enhancement of student life and health through recreation creates a strong foundation for this type of project. Across the country and at SOU, students are leading the way and pushing for environmentally responsible projects on their campuses. Opsis Architecture and their consultant team have incorporated their nationally-recognized expertise in sustainable recreation center design to create a model for sustainability for university projects. The project is planned to be a LEED™ gold certified design, going beyond the Governor's order mandating sustainable public facilities. The SRC is planned to incorporate a number of innovative technologies to reduce the building's impact on the environment. Natural ventilation, sun shading, rain water collection, displacement air systems, thermal mass structural system, sustainable materials and many other unique features have been programmed for the facility. Additionally, these approaches will also reduce long-term operational costs, thereby enhancing the financial sustainability of the SRC.

Fundamental to the design team's sustainability strategy was the ability to maximize energy savings as a result of connecting the project to McNeal Pavilion. The SRC and McNeal benefit by sharing a perimeter wall, thus decreasing the skin/volume ratio and realizing significant energy savings by having one less exterior wall. In McNeal's case, this wall is already uninsulated and highly inefficient. In addition, the two projects could share passive mechanical systems by passing pre-conditioned air between each building in the winter and exhausting warm air in the summer. These strategies were key design considerations and will be discussed in subsequent sections.

View from Raider Stadium of north elevation of new SRC, with McNeal behind

The Need for a Renovated McNeal Pavilion

McNeal Pavilion, a combined athletics and academic facility, was constructed in 1956 and had subsequent additions in 1964, 1977, 1983 and 1990. Today McNeal is 96,216 gross square feet with a main level and a basement level, and includes a competition gymnasium, wrestling gym, practice gym, pool, dance studio, racquetball courts, climbing wall, locker rooms and offices. A 2008 Facilities Condition Analysis identified numerous deferred maintenance items and building upgrades. According to the 2010 Campus Master Plan,

> *The current condition of McNeal Pavilion represents a liability for the University. The widespread problems associated with deferred maintenance significantly limit the building's usability. Moreover, in an age when recreational opportunities have been demonstrated to be a strong attractor for student recruitment, the lack of a modern well-equipped facility is a missed opportunity to build enrollment. McNeal is one of the priority projects for which dedicated deferred maintenance funds will be sought... Program improvements will be incorporated into the physical upgrade to the greatest extent feasible.*

Approaching its 60th birthday, the facility no longer meets the needs of a campus that has been experiencing record-level enrollment numbers with expected continued growth. As the B&D report found, "It is clear there is a growing demand for a new dedicated student recreation and wellness center on campus. Some of the challenges associated with the existing campus recreation are its availability for dedicated student use and adjacency of student-focused recreation spaces." McNeal currently hosts some facilities available for student recreation, but it is also the main facility for Intercollegiate Athletics and the Health and Physical Education department. This shared utilization requires all activity spaces in the building to be scheduled to allow for practice and competition for Athletics, classes for PE, and general recreation usage by students, faculty/staff, and the community. The number and variety of users for each space within McNeal results in schedules that are confusing to recreation patrons, change frequently, are occasionally subject to last-minute changes, and for many spaces allow for only very limited recreation usage. As a result of this confusion and general unavailability, many potential recreation participants have stopped using, or have never even tried to use, McNeal Pavilion. In addition, the lack of recreational participation is also attributed to the poor quality of the facility, the uninviting design and its confusing layout.

McNeal has also been evaluated with regards to the current state of its mechanical, electrical and structural systems, accessibility, and general facility maintenance and upgrades. The Facilities Conditions Analysis, the Campus Master Plan and the B&D Feasibility study all reached similar conclusions. McNeal offers students a poorly ventilated, inaccessible, windowless labyrinthine environment. The B&D surveys found that "McNeal was

said to have poor lighting with unfavorable operating hours and challenging way-finding within the facility." An on-going structural evaluation to be published spring of 2013 has determined that the building requires extensive seismic upgrades. Mechanical engineers for this conceptual design found that the mechanical systems and units are at the end or have passed the end of their service life, lack adequate filtration and have insufficient outside air. Additional systems deficiencies include:

- Pool chemicals kept in unventilated basement storage rooms.
- Corroded pipes
- Steam piping failures
- Air filters located next to unexcavated dirt basement
- Plumbing fixtures at the end of their useful life that do not meet current low flow water codes
- Electrical panels and equipment located in the pool chemical room, which has high humidity and a corrosive atmosphere.
- No emergency power source.
- Incomplete fire suppression system
- Multiple under-lighted spaces
- Malfunctioning electronic latches on some doors, resulting in unsecure doors
- No dedicated signal pathway

The design team also observed numerous barriers to accessibility such as non-compliant ramps, handrails, hardware, non-accessible restrooms and signage. The elevator added in 1983 requires users to exit the building and wait for the elevator in an uncovered outdoor area. With many OUS campuses focusing their attention on making facilities barrier-free and accessible to all users, McNeal is a prime example of a facility that would benefit from extensive upgrades.

Air filters next to unexcavated basement

Outdoor & uncovered elevator

While McNeal deferred maintenance and upgrades and the new SRC exist as separate projects with separate funding sources, this conceptual design study recommends combining the two facilities. The mutual benefits and opportunities presented by connecting the two projects will be elaborated on in subsequent sections, but the advantages of constructing both projects in tandem cannot be overemphasized. Combining the projects would:

- Provide significant energy savings
- Lower operating costs
- Improve maintenance
- Optimize program efficiencies
- Enhance way-finding and accessibility
- Improve safety and security
- Increase SOU recruitment opportunities
- Take advantage of current favorable construction climate
- Joined projects would realize significant construction cost savings
- Further enhance SOU's investment in site infrastructure for the north campus district with the new 700-bed North Campus Village, especially Webster Street improvements

Process

Process Overview

Opsis Architecture and Abell Architectural Group were selected to develop the Student Recreation Center Conceptual Design in October 2012.

The study was guided by a series of interactive on-campus work sessions with the steering committee, which included representatives from all of the program components of the project as well as athletics and academic representatives from McNeal. Multiple open-table sessions at Stevenson Union and campus dining facilities allowed for input from the wider campus community. The design team engaged enthusiastic students, staff and visitors and answered questions about the proposed design and design process. The steering committee devoted a day to site visits to comparable university recreation centers that included Oregon State University, University of Oregon and Western Oregon University. The tours allowed the committee a chance to experience in-person the recreation program areas as well as hear about operations management and best practices from facility managers. Student committee members generated support from the student body and SOU community by creating a Facebook profile for the SRC and extending invitations to all students to attend work sessions and tours.

The study followed a seven-step process that included reviewing existing facilities in McNeal Pavilion and Meyer Fitness Center, reviewing previous studies and the SOU Campus Master Plan, confirming program and space needs, testing design options and developing one concept design that responded to the vision and program. Throughout the process the design team used digital three-dimensional models to demonstrate to the committee alternative arrangements for combining the program elements into various configurations. The unanimously-accepted concept, which shows the SRC as a connected addition to the north of McNeal, was presented to SOU's president Mary Cullinan and Executive Council at a final presentation in February 2013.

Commmitte Tour of OUS recreation facilities

Steering Committee

A Steering Committee was created to guide the conceptual design study and determine the final composition of the program and site response. The committee met with Opsis and Abell for three work sessions. The committee included the following staff and student representatives:

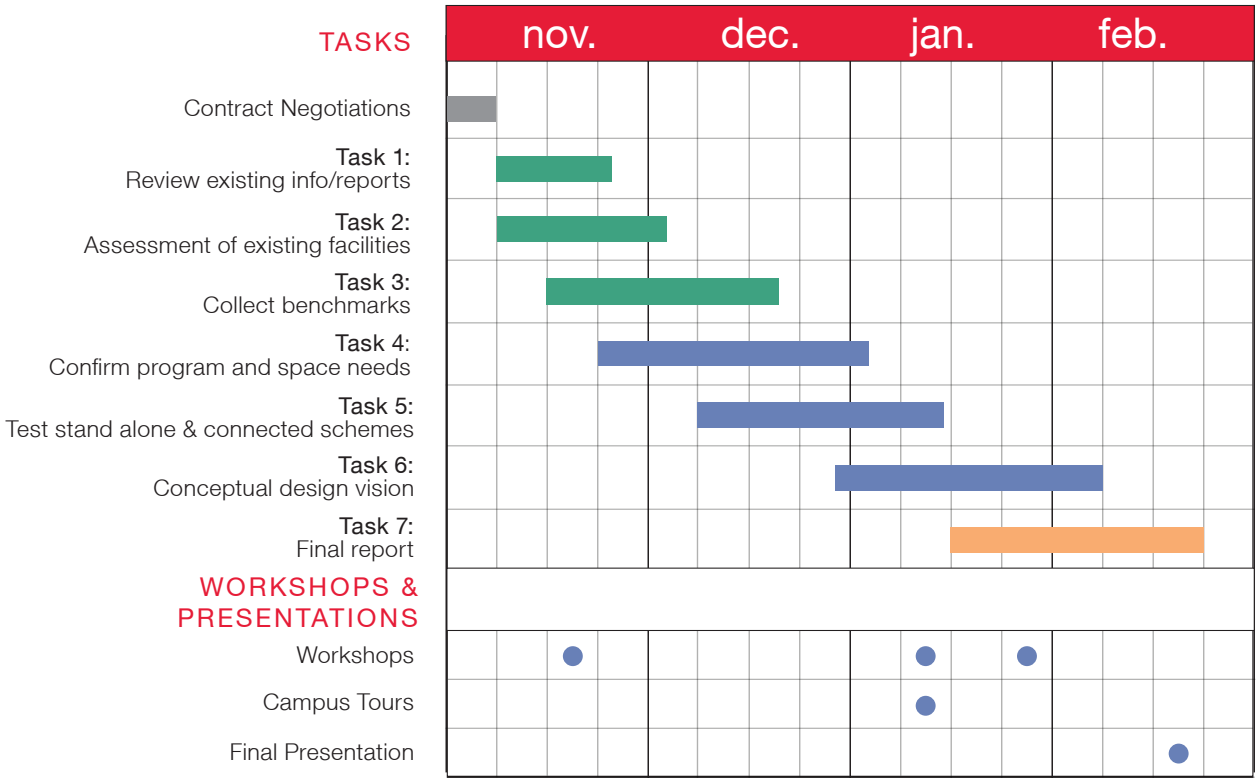
Craig Morris
Drew Gilliland
Tim Robitz
Desiree Young
Ryan Green
Zack Green
Mike Jones
Marquis Malcom
Jim McNamara
Matt Sayre
Hilaree Anchondo
Corey Ashburn
Daniel Breaux
Marisela Cornejo
Kayli Devincenzi
Nathaniel Jones
Bradley W. Krauss
Riley McDuffey
Kyle Ragsdale
Cydney Reid
Justin Silva

Student Input at Stevenson Union

The student committee created a Facebook profile to increase student awareness and enthusiasm for the SRC.

Conceptual Design Schedule

SOU Student Recreation Center Conceptual Design Proposed Schedule



Workshop 1 - November 16

- Confirm project goals / guiding principles
- Tour existing facilities / assessment
- Preliminary program discussion
- Review potential facility options, including connecting to McNeal
- Open campus presentations

Workshop 2 - January 10

- Review draft strategy for existing facilities including potential demolition areas
- Review space program and options
- Review site plan diagrams
- Test SRC massing diagrams
- Review concept alternatives
- Review draft report
- Recreation center tour

Workshop 3 - January 25

- Review observations from rec center tour
- Review project cost estimates
- Review final strategy for McNeal
- Review final space program for new SRC
- Discuss phased-implementation strategy
- Confirmation of connected option
- Review draft report

Project Background

The 2010 SOU Campus Master Plan identified the need for improving student recreation options. In 2011 B&D was hired to perform a feasibility study with extensive polling and market analysis. The study examined three distinct building concepts for a new Student Recreation Center to gauge the amount of support for a student fee-funded facility. The greatest amount of support was shown for concept B, which had a student fee of $85 to $95 per quarter and a size of 47,500 to 52,500 square feet. The resulting program analysis yielded a 51,480 gross square-foot building that includes recreation program offices, a two-court gymnasium with an elevated jogging track, climbing wall, outdoor program, two multipurpose rooms, a weight and fitness area, locker rooms and storage. The study also included financial analysis, conceptual drawings and survey results. Students voted to increase their student fees based on Option B in a referendum in spring of 2012.

Having determined there was ample support from SOU students for a new Student Recreation Center, the University issued a Request for Proposals in October 2012 for a conceptual design study. Opsis Architecture and Abell Architectural Group were selected to complete the conceptual design study. Conceptual Design commenced in November 2012 and concluded with a final presentation and report in February 2013.

Several guidelines informed the design process and helped create a new Student Recreation Center that would meet the needs of the growing SOU campus and greater southern Oregon community. The Conceptual Design phase referenced the previous studies mentioned, as well as City of Ashland development code, campus development requirements and standards, and SOU goals.

Figure 1.1 Student Survey Program Options

Recreation Center Amenities	Building Concept A	Building Concept B	Building Concept C
Student Fee per Quarter	$145 to $155	$85 to $95	$45 to $55
Approximately Size (gross square feet)	70,000 to 75,000	47,500 to 52,500	30,000 to 35,000
Weight & Fitness (square feet)	7,000	6,000	5,000
Indoor Jogging Track	Yes	Yes	No
Group Fitness Space	Two Rooms	Two Rooms	One Room
Rock Climbing Wall	Yes	Yes	Yes
Outdoor Program (square feet)	2,500	2,000	1,500
Natatorium (25M swimming lanes)	Yes	No	No
Gymnasium (basketball, volleyball, etc.)	Two-Court Gym	Two-Court Gym	One-Court Gym
Synthetic Field Turf	Yes	Yes	No
Locker Rooms	Yes	Yes (reduced)	Yes (reduced)
Recreation Administration Offices	Yes	Yes (reduced)	Yes (reduced)
Student Employment Opportunities	Yes	Yes (reduced)	Yes (reduced)

Figure 1.2 Referendum Support Analyses

Q93, Q95, Q97. If you were voting on this project only, how likely would you be to support it?	Building Concept A: $145 to $155 / Qtr. (n=915)	Building Concept B: $85 to $95 / Qtr. (n=907)	Building Concept C: $45 to $55 / Qtr. (n=910)
Very likely to support it	21%	36%	27%
Somewhat likely to support it	28%	31%	31%
Do not know/Need more information	7%	5%	7%
Somewhat unlikely to support it	16%	11%	16%
Not at all likely to support it	28%	17%	19%
Meets 60% Support Threshold	**No**	**Yes**	**No**

Q94, Q96, Q98. If a referendum ballot was held today on this preliminary concept, would you vote in favor of this option below?	Building Concept A: $145 to $155 / Qtr. (n=910)	Building Concept B: $85 to $95 / Qtr. (n=906)	Building Concept C: $45 to $55 / Qtr. (n=903)
Yes	43%	62%	54%
No	57%	38%	46%
Meets 60% Support Threshold	**No**	**Yes**	**No**

2011 B&D Feasibility Study - Sample Analysis

Raider Stadium Field Improvements

The University will pursue a project to convert the existing grass field to a field turf surface, which will allow it to be used more intensively for both practice and competition. This upgrade would allow other field areas to be re-configured.

Field Area Reconfigurations

Several reconfigurations of the field areas are being evaluated by the Athletic Department, including potentially moving the soccer field to the area north of Iowa Street. The existing softball fields along the eastern end of Iowa Street, used until recently by the City's Parks and Recreation programs, are no longer needed for that purpose.

2010 SOU Master Plan

In addition, the SRC project is consistent with and reinforces the goals set forth by the Oregon University System (State Board of Higher Education) for the future of higher education in the State of Oregon.

Access

SOU's plan to accommodate a growing demand for higher education in the southern Oregon region is central to its ability to keep higher education as accessible as possible to all Oregonians. The construction of this project will attract more students who will see a better environment for student life as integral to their collegiate experience. This increase will include out-of-state students, who, by paying higher tuition than Oregonians, will help subsidize the tuition for in-state students. The variety of recreation options possible in the new center along with leveraging McNeal's existing facilities (wellness and yoga, rock climbing and indoor soccer to name a few) will significantly increase access for students, faculty, and staff.

Quality

The new Student Recreation Center will be a high-quality facility designed to match those of competing regional and national peer institutions. Over the last 10 years, student recreation facilities have become key stopping points on campus tours and have demonstrated a significant role in recruitment, development and retention of quality students. SOU's recreation facilities are deficient compared to other OUS campuses in terms of access and quality.

Create & Advance

The connected facility will allow more students to recreate and condition themselves in a significantly more appropriate environment than the current McNeal Pavilion does on its own. As the university strives to create easier access and "one stop" services, the new recreation center will become the central hub for student life activity. On campuses across the country, new recreation centers have become the new "student unions" as places to build community and encourage involvement. The facility will allow significantly better service to students by separating general student recreation from varsity athletics. SOU will also employ cost and schedule effective CM/GC contracting methods to ensure the project is built to high quality in the most efficient manner possible.

Positive Community Contributions

The enrollment growth planned at SOU is directly tied to its mission of fostering better connections to the region's community colleges and high schools. The construction of this facility will help to implement the enrollment plan by offering facilities similar to other institutions in the state.

State / Community Values

Recreation and wellness are core values in our Northwest community. Ironically the current limited recreation facilities at SOU are housed in McNeal Pavilion, a windowless and poorly ventilated building with limited ADA access and no connection to the outdoors. The new site of the SRC is ideally suited to let the SOU community see what is happening inside, while also giving those recreating views of the city and mountains. By integrating the SRC with McNeal, the project makes use of an existing resource, thus enhancing it and increasing opportunities for sustainability, energy conservation and cost savings. Finally, with the new SRC, SOU's students will be encouraged to stay fit, participate in student activities, engage with the campus and as a result, forge stronger ties with SOU that will over time help them become better citizens of our community.

Open Table Session at Stevenson Union

Project Overview

New SRC Entry on Webster Street

The SOU Student Recreation Center is an exciting multi-use facility located at the north end of the SOU campus in Ashland. The new Student Recreation Center will be a very active, student-centered anchor and gateway to the athletic facilities to the north. The visually open and dynamic recreation center will draw students in while extensive social space and recreational opportunities will create a new focus for student interaction and involvement on campus. The center will be designed to the maximum degree of openness between activities to encourage greater participation and use; letting students easily see all the center has to offer.

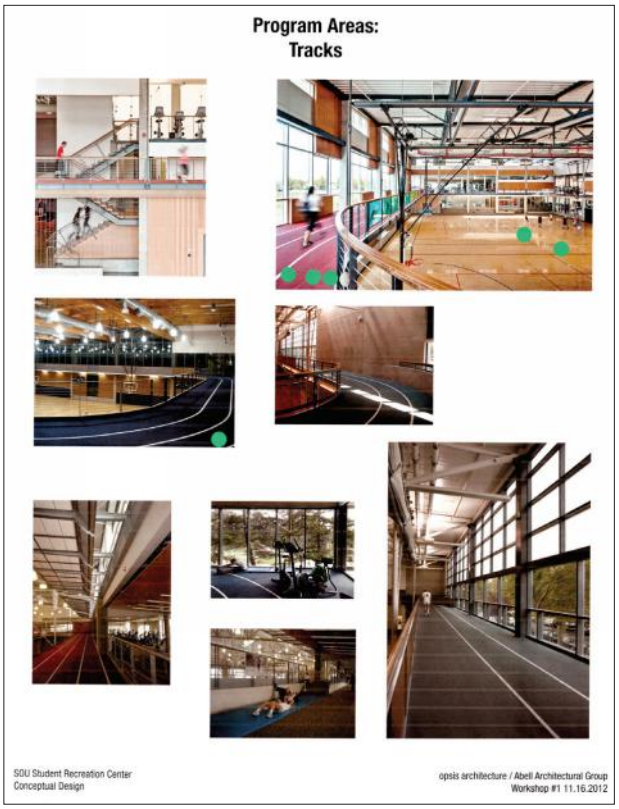
Comprising approximately 58,000 gross square feet, the new Recreation Center will be unique in its connection to McNeal Pavilion, which has existing resources that will enhance the SRC. The proposed 58,000 sq. ft. Student Recreation Center will be a comprehensive facility with two gymnasium courts for basketball, volleyball, and badminton; student social space; a rock climbing gym; multi-purpose rooms for wellness, dance, fitness and martial arts; a indoor jogging track; 6,000 sq. ft. of cardiovascular/ weight training space; two racquetball courts, recreation program office space and support locker spaces.

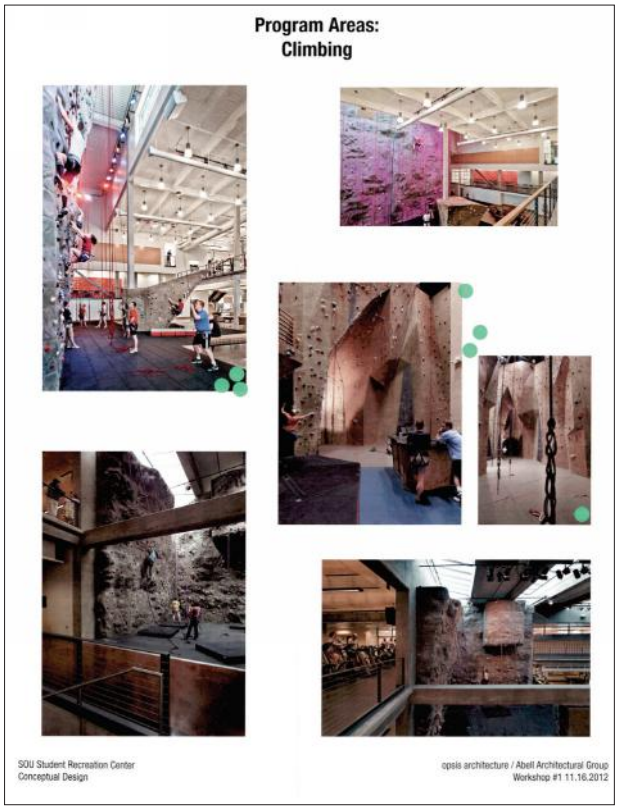
As required by the OUS Facilities Standards and Guidelines, the new Student Recreation Center will be designed to conform to the planning and design criteria set by the National Intramural and Recreations Sports Associates (NIRSA). In addition, the facility provides maximum accessibility for all users. The existing McNeal Pavilion will meet space standards set by the NIRSA and improve ADA compliance to achieve maximum accessibility for all users.

One of the main goals of the new recreation center is to provide recreational elements of the program that are multi-faceted and appeal to a wide array of students – from beginners to accomplished athletes, from students with disabilities to students with children. Recreational programming in the SRC would be designed to allow multiple drop-in activities to be conducted simultaneously with affordable, organized, scheduled programs. Connecting the SRC with McNeal would create scheduling flexibility and enhance

opportunities for demand-based program areas. Key goals for the facility were identified by the user groups as follows:

- An open and inviting atmosphere with high visibility into activity areas
- Abundant natural light and good ventilation
- Views into and out of the facility creating a dynamic center, day and night
- Multi-purpose rooms for aerobics, dance, martial arts, spinning etc.
- Flexible spaces that can be used for different activities
- Social meeting and relaxation space to make the center a social hub of campus
- Significant increased space for cardiovascular and strength equipment
- A rock climbing wall
- Sufficient office space for administration to provide programming for the center.
- A resource center and storage space for the Outdoor Program that integrates the program with other student recreation activities and also has outdoor access.
- Use of high quality, durable materials and finishes
- A sustainably-designed facility that represents SOU's commitment to environmental responsibility
- Use of Oregon-based professional services and contractors





Students showed preferences for recreation spaces in Workshop #1 by putting dots by favored images

Program Analysis

Existing Program / Facilities

McNeal Pavilion's existing program areas include classroom and meeting rooms, HPE and Athletics offices, a competition gym, wrestling gym, practice gym, dance studio, athletic team locker rooms, a pool, athletic training, laundry, equipment check-out, and storage. The adjacent racquetball building has 5 courts and a climbing wall in one of the courts. The location of the new SRC would require demolition of the racquetball building. Two displaced racquetball courts and a climbing wall would be located in the new SRC. As previously mentioned, the facilities in McNeal are in need of upgrades and repair. Multiple building systems and equipment were found to be at the end of their useful life including the racquetball court building.

Multiple pieces of McNeal's equipment, such as the pool filtration system, are at either the end of or past their useful life.

Program Analysis

Brailsford and Dunlavey (B&D) developed the program in the 2011 SOU Student Recreation Center Feasibility Plan and concentrated it into three areas: the Free Zone, the Activity Zone and the Support Zone. This analysis was also based on B&D's focus group interviews and SOU community interviews conducted during their study and on B&D's professional experience of planning over 100 sports and recreation projects across the country.

Opsis Architecture found that the program areas were similar in size and type to the new student Health & Wellness Center at Western Oregon University. These observations were confirmed by the SOU students who toured the WOU facility. Overall, the program was determined appropriate for SOU's student body size.

Few changes were made to the program during the conceptual design process, with the exception of the addition of two racquetball courts to account for the demolition of the current racquetball court building north of McNeal.

Enrollment / Space Allocations

The appropriate square footages were determined using Demand-Based Programming. The student survey asked respondents to indicate frequency of use and time of day they would typically use a variety of spaces. The results were studied and inputted into a model which analyzed additional factors such as "turnover factor," activity frequency" and intensity factor." The model yielded recommended space square footages that were then incorporated into the SRC final program.

Non-compliant ramps, McNeal Basement

Space Requirements: Free Zone

Summary Program

The Free Zone consists of administrative spaces such as offices and support areas. The proposed location for these spaces is immediately adjacent to the front desk on the main level, so that recreation center staff have direct access to visitors and recreation participants. The front desk acts as a control point from which staff will have excellent visibility and monitoring of the Activity Zone. The administrative area will have its own separate entrance and because it is somewhat removed from the recreation activities, it will maintain noise levels appropriate for an office environment.

• Offices

The office suite includes three private offices and three open work stations.

• Office Support

Office support spaces include shared areas that will be used by all staff members. These spaces include a Conference Room, Duplication/Mail Room, Storage and a Pantry/Lounge.

• Lobby/Entry

The office entry includes a small lobby and seating area for recreation staff visitors.

Office, WOU Health & Wellness Center

	Room Area (SF)	Number of Rooms	Total Area (SF)
FREE ZONE			
Director's Office	180	1	180
Assistant Dir. For Fitness & Instructional Services	150	1	150
Ass. Dir. For Intramural Sports, Sport Clubs & Camps	150	1	150
Administrative Work Station	120	1	120
Part-Time Employee Work Station	60	2	120
Conference Room	350	1	350
Mail Room/Admin Area	120	1	120
Pantry/Lounge	120	1	120
Admin Storage	100	1	100
Lobby/Guest Seating	150	1	150
Admissions Control	200	1	200
Net Area Subtotal		12	1,760
Efficiency factor / Grossing Area	***	68.00%	828
Total Gross Area - Free Zone			2,588

Administrative area, WOU Health & Wellness Center

Space Requirements: Activity Zone

Summary Program

The Activity Zone contains the recreation program areas. Access to these spaces is controlled by the admissions control desk. The Activity Zone spaces were strategically located to take advantage of mountain views to the north, in the case of the multipurpose rooms, jogging track, weight and fitness area, or because of site access such as the Outdoor Recreation program. The climbing wall was seen as a featured element that should be visible from the main entrance. The Activity Zone is on two levels, the main level (level 1) and the lower level, but because of the openness there is a high degree of connectivity and porosity between all program spaces.

Gym & Jogging Track, WOU Health & Wellness Center

	Room Area (SF)	Number of Rooms	Total Area (SF)
ACTIVITY ZONE			
Two-Court Gymnasium - 84 ft courts	13,520	1	13,520
Two-Court Gymnasium Storage	500	1	500
Elevated Jogging Track - 3 lanes	3,000	1	3,000
Weights and Fitness	6,000	1	6,000
Weight and Fitness Storage	500	1	500
Low-Ceiling Multipurpose Room	1,500	2	3,000
Low-Ceiling Multipurpose Storage	300	1	300
Rock Climbing/Bouldering Wall	1,000	1	1,000
Outdoor Recreation Storage & Resource Center	2,000	1	2,000
Racquetball Court	800	2	1,600
Net Area Subtotal		12	31,420
Efficiency factor / Grossing Area	***	68.00%	14,786
Sub-Total Gross Area - Activity Zone			46,206

• Two–Court Gymnasium & Storage

Current gymnasium recreation opportunities are limited by the size of the existing facilities and the lack of a flexible schedule. The level of interest and participation with the construction of a new recreation center will greatly increase court usage. A two-court gymnasium will also make it much easier to keep at least one court available for drop-in activities to happen simultaneously with scheduled/programmed activities.

Jogging Track Overlooking Pool, Western Washington University

• Elevated Jogging Track

Indoor jogging and walking is becoming increasingly popular based on the interest levels of B&D surveys around the country. This space is also an excellent opportunity to provide exciting views and a real sense of activity to a recreation center. Typically the track is located on the upper level of the court gymnasium.

• Weight and Fitness

From a design point of view, this space can be centralized into one space or split up into several spaces and can be “integrated” or “specialized” with respect to weight and fitness functions, such as designated areas for stretching or cardio workouts. During the detailed design phase, small alcoves and other spaces scattered throughout the building could be identified as “fitness space opportunities” to allow users to work out in a large, active setting or a quiet, more private setting.

Cardio Area, WOU Health & Wellness Center

• Two Multipurpose Rooms

The total amount of multi-purpose space seems proportionally appropriate given the mix of other spaces in the program. Based on survey results, there is significant demand for group exercise classes such as yoga, pilates and spinning. Most of these activities are more appropriately served by smaller and more specialized (in terms of flooring, HVAC control, lighting, sound systems and attenuation, etc.) rooms. Rather than two equally-sized rooms, the spaces could be split into a larger room and a smaller room which could better meet activity requirements and changes in demand.

Multipurpose Room, WOU Health & Wellness Center

• Rock Climbing / Bouldering & Outdoor Recreation

Both the outdoor recreation program and indoor climbing wall are currently very popular at SOU. These programs will benefit tremendously from having more space for their individual functions as well as having better proximity between them. There is typically a large degree of overlap between the people running these spaces and the patrons who are or may be interested in participating in their activities and a close proximity will allow for better visibility and "marketing" as well as increased operational efficiency. Operational efficiencies can also be enhanced by keeping the outdoor program's office/resource/checkout functions proximate to their storage/distribution/loading spaces. The conceptual design locates these two spaces next to each other, with the Outdoor Program having exterior access to bring in gear and equipment.

• Two Racquetball Courts

Racquetball courts are located on the main level adjacent to other recreation spaces. With glass walls, they allow users to be engaged with the rest of the rec center.

Racquetball, Boise State University

Climbing Wall & Bouldering Area, Western Washington University

Outdoor Program, Boise State University

Space Requirements: Support Zone

Summary Program

The Support Zone has spaces that serve the rest of the building. Some of these are considered "back-of-house" spaces while others, such as the lobby and equipment checkout, will be prominently located.

• Lobby

The lobby should be adjacent to the main entry and should be a vibrant, dynamic space where visitors can get a sense of the activity within the building. With comfortable lounge furniture, it will also need to be a place where building users can wait for rides to pick them up.

• Locker Rooms

The space for locker rooms was originally set to 2,000 square feet each during the B&D programming. However, based on recent experience, opsis and B&D have found that on most campuses the usage rate of locker rooms has been declining. The location of the residence hall directly across the street will also contribute to the decrease in use; thus the potential for smaller lockers rooms should be considered. For the conceptual design, the design team allocated 700 SF each for the locker rooms because larger pool locker rooms connected to McNeal could be leveraged to serve the SRC.

• Assisted Change Rooms

Assisted change rooms serve families and visitors who need extra space and privacy. They contain a shower, a seating area and lavatory, and water closet.

	Room Area (SF)	Number of Rooms	Total Area (SF)
SUPPORT ZONE			
Lobby	500	1	500
Men's Recreation Locker Room	2,000	1	2,000
Women's Recreation Locker Room	2,000	1	2,000
Assisted Change Rooms	150	2	300
Recreation Equipment Checkout	200	1	200
Laundry Room	250	1	250
General Building Storage	750	1	750
Net Area Subtotal		8	6,000
Efficiency factor / Grossing Area	***	68.00%	2,824
Sub-Total Gross Area - Support Zone			8,824

• Rec. Equipment Checkout / Laundry / Storage

Each of these spaces will be necessary given the likely range of services offered by the SRC (including equipment rental and some sales and towel service). Specific storage areas have been identified for the gymnasium, multipurpose rooms, weight and fitness areas and "maintenance" space has been specifically allocated. These program areas typically have several large pieces of dedicated equipment that will need directly adjacent storage space. As a general note, a recreation building can never have "too much" storage and rarely is able to provide "enough" storage space.

Lobby/Lounge, Boise State University

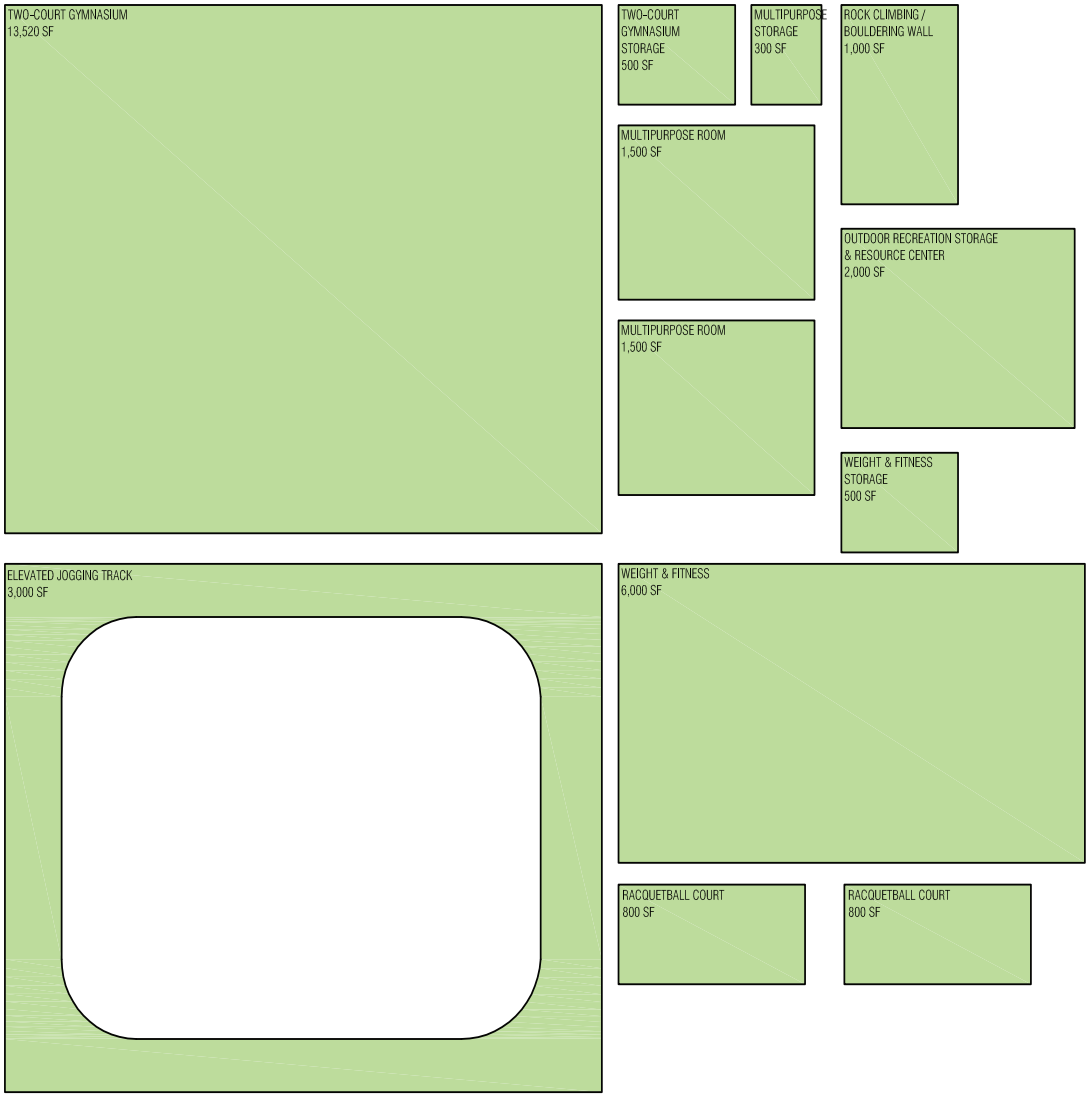
Front Desk, WOU Health & Wellness Center

Day-Use Lockers, Boise State University

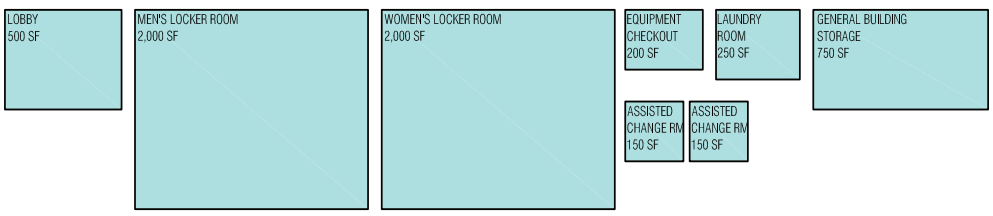
Program Areas

FREE ZONE - 1,760 SF

ACTIVITY ZONE - 31,420 SF



SUPPORT ZONE - 6,000 SF



Program Summary

SOU PROGRAM AREA SUMMARY	Comments	Proposed/Requested Program		
		Room Area (SF)	Number of Rooms	Total Area (SF)
FREE ZONE				
Director's Office		180	1	180
Assistant Dir. For Fitness & Instructional Services		150	1	150
Ass. Dir. For Intramural Sports, Sport Clubs & Camps		150	1	150
Administrative Work Station		120	1	120
Part-Time Employee Work Station		60	2	120
Conference Room		350	1	350
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ACTIVITY ZONE				
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Recreation Equipment Checkout		200	1	200
Laundry Room		250	1	250
General Building Storage		750	1	750
Net Area Subtotal			8	6,000
Efficiency factor / Grossing Area		***	68.00%	2,824
Sub-Total Gross Area - Support Zone				8,824
Total Gross Building Area				57,618

Site Analysis

Master Plan Coordination

The 2010 Campus Master Plan Update identified future work in the athletic zone of campus, mainly having to do with improving circulation to the track and Raider Stadium. Proposed pedestrian enhancements included a new promenade to the stadium off of Wightman Street and a new circulation path that extends through the student residence area to the south, pauses at the southwest corner of the McNeal site and continues north to the stadium. The Master Plan did not identify any designated building sites in the athletics area. It provides guidelines for building massing and orientation, building density and materials and character. The Master Plan notes there is not a clear established palate of materials for the SOU campus, but more significant buildings such as Churchill Hall and Hannon Library have brick, concrete and stucco.

Site Analysis

The north campus of SOU, in which McNeal and the SRC are located, is separated from the majority of campus buildings by Siskiyou Boulevard, a busy vehicular thoroughfare running diagonally through campus. To increase and facilitate pedestrian access to the housing located in the zone as well as the athletic facilities, a new walkway is being constructed as part of the new North Campus Village housing project, to be completed in 2013. The housing has a main entrance off of Webster Street but does not correspond to the McNeal facade or entrances. A new parking lot is being constructed to the east of the housing, which could be used to access the SRC. Webster Street was also closed off to vehicular traffic between Stadium Street to the east and the housing block to the west. The improvements will result in better pedestrian circulation to McNeal and the SRC and offer additional parking options for off-campus students.

Site topography varies, with the high point at the intersection of Webster and Wightman Streets. The site slopes down to the east along Webster Street and more dramatically to the north, where the grade at the north side of McNeal is approximately sixteen feet lower than at Webster.

Utilities run along Webster Street, with the campus steam tunnel extending north from Webster and terminating at McNeal's heat plant to the west.

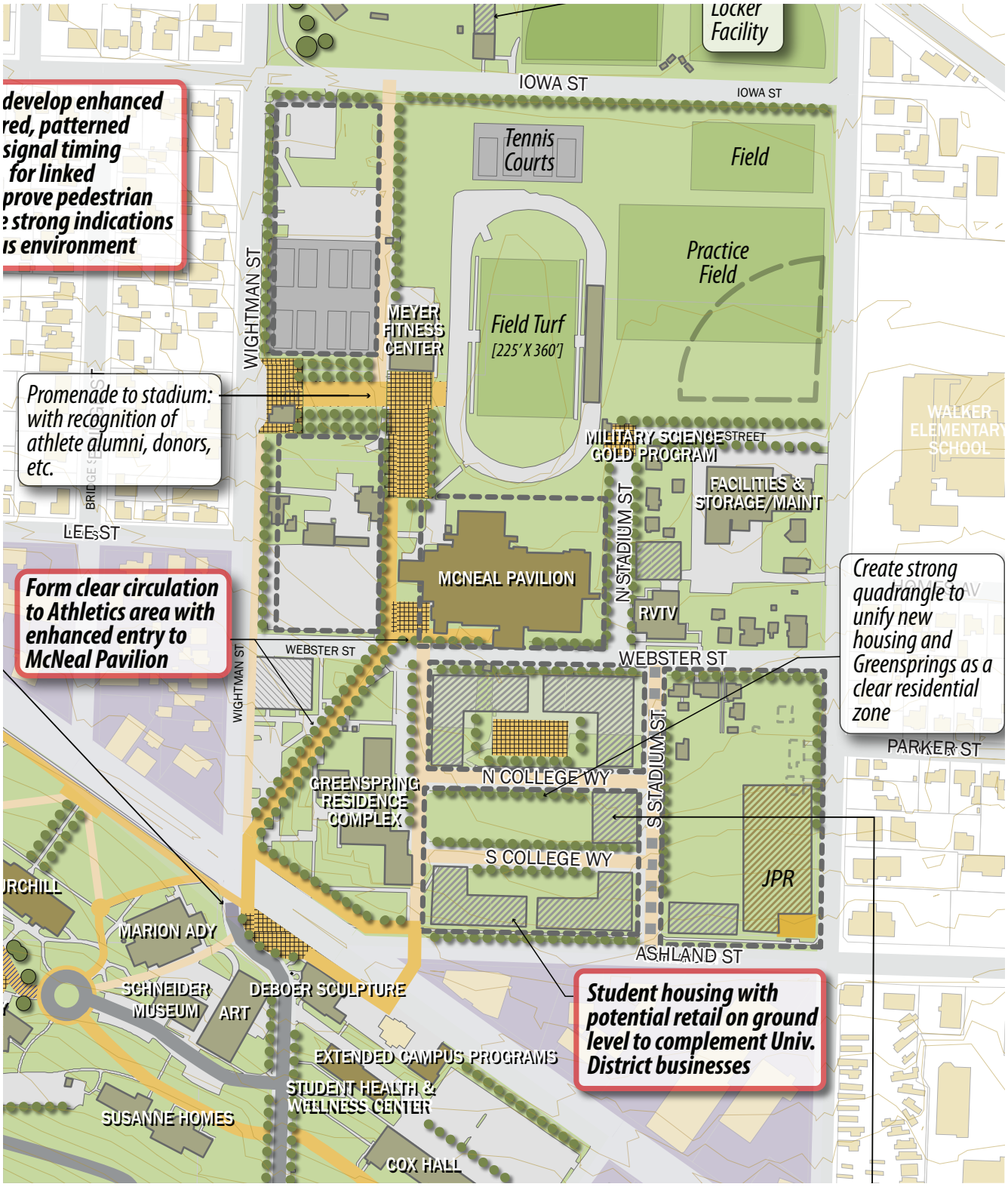
Primary views to the mountains are to the north, which are clearly visible from the spaces on the north side of McNeal. The north side of McNeal also offers superb views of the athletic fields and Raider Stadium.

The design team looked at three different options for siting the building, which will be described in the Conceptual Design section. Option 1 was unanimously selected, which places the SRC as an addition to the north side of McNeal. This north orientation offers excellent views and minimizes solar gain. It also presents opportunities for creating an enhanced future recreation district with a potential outdoor challenge course adjacent to the Outdoor Program space and sand volleyball courts to the east of Stadium Street. As student enrollment grows and the SRC becomes an integral part of student life, this part of campus presents significant opportunities for future student recreation facilities.

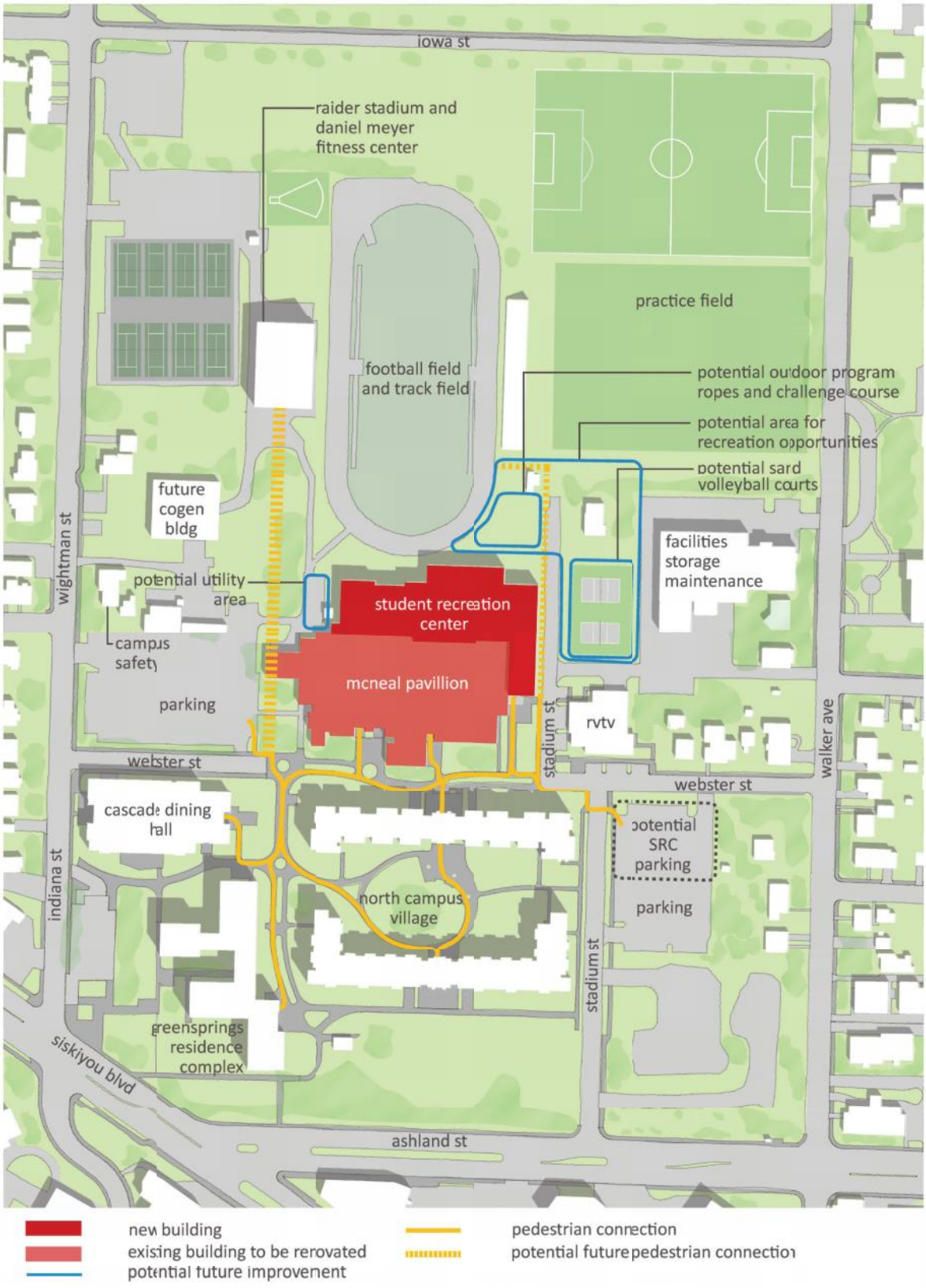
Pedestrian improvements to Webster, with new housing on left and McNeal on right

Proposed SRC Site with Raider Stadium and mountain views to north

2010 SOU Campus Master Plan

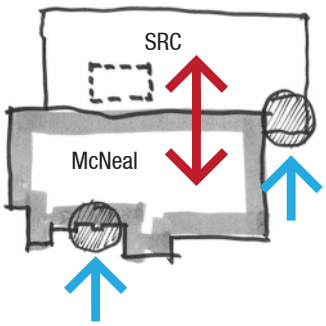


Conceptual Site Plan

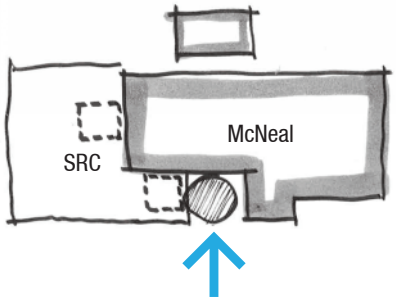


Concept Design

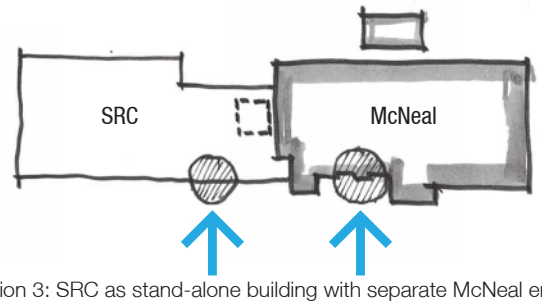
View of gym, with climbing wall beyond and jogging track



Option 1: SRC connected to McNeal as north addition with separate entry



Option 2: SRC as west addition with shared McNeal entry



Option 3: SRC as stand-alone building with separate McNeal entry

Architectural Narrative

Conceptual Development

The design team presented three options for locating the SRC to the Steering Committee. Option 1 placed the SRC north of McNeal and created the opportunity to directly connect to McNeal's existing spaces such as the pool, dance studio and practice gym. The SRC would have its own separate entry. Option 2 placed the SRC west of McNeal, partially in an existing parking lot. The SRC and McNeal would share an entry. Option 3 located the SRC entirely in the west parking lot with a separate entry--it was called the 'stand-alone' option. The committee unanimously agreed that Option 1 was the preferred option because of the McNeal opportunities, the views to the north and the potential for future growth of a recreation district.

Plan Organization / Program Relationships

The design team studied multiple options for organizing the program once Option 1 was selected. The primary design goals were to create an open, dynamic recreation zone with views and daylighting, and to facilitate connections to McNeal's program areas. The largest piece of the program, the two-court gym with jogging track, had limited options for placement and was the first area located because of its size. Other programs areas such as the Outdoor Program required exterior vehicular access which suggested it should be off of Stadium Street. The remaining activity zone spaces were

arranged around the north side of the building to maintain views and direct relationships with recreation areas.

One of the key concepts in successful recreation center design is the placement of the widest variety of program spaces within view of users as they enter the facility. Once visitors reach the front desk of the SRC the sense of activity and recreation opportunities are readily apparent. Upon entering the building users will immediately see the climbing wall, prominently located as a key feature of the building.

Another important design element became the importance of giving the SRC street presence and an identity on Webster Street. As most of the program is located north of McNeal, the design team wrapped the administrative spaces and lounge space south along Stadium Street. This bar includes the main entry from Webster and an inviting outdoor entry plaza and landscaping. Improvements to McNeal such as cutting new windows into the practice gym exterior would help activate this southeast corner of the site and provide views to the activity inside.

Demolition

Selective demolition of McNeal would be required in order to site the SRC to the north. The racquetball courts and climbing wall building, constructed in 1977 and separate from McNeal, would be demolished and the spaces replaced in the SRC. Exit stairs from the competition gym would be removed and replaced with new exiting within the SRC. The exterior wall of the pool would be removed and replaced with a new window wall with views of the SRC. The existing women's locker rooms would be demolished to make room for new men's and women's locker rooms shared with the SRC. In order to improve accessibility and way-finding in McNeal, the team proposed demolishing the exterior elevator and removing a level change on level 1. A new interior elevator would solve the multiple level changes and would extend accessible access to the basement.

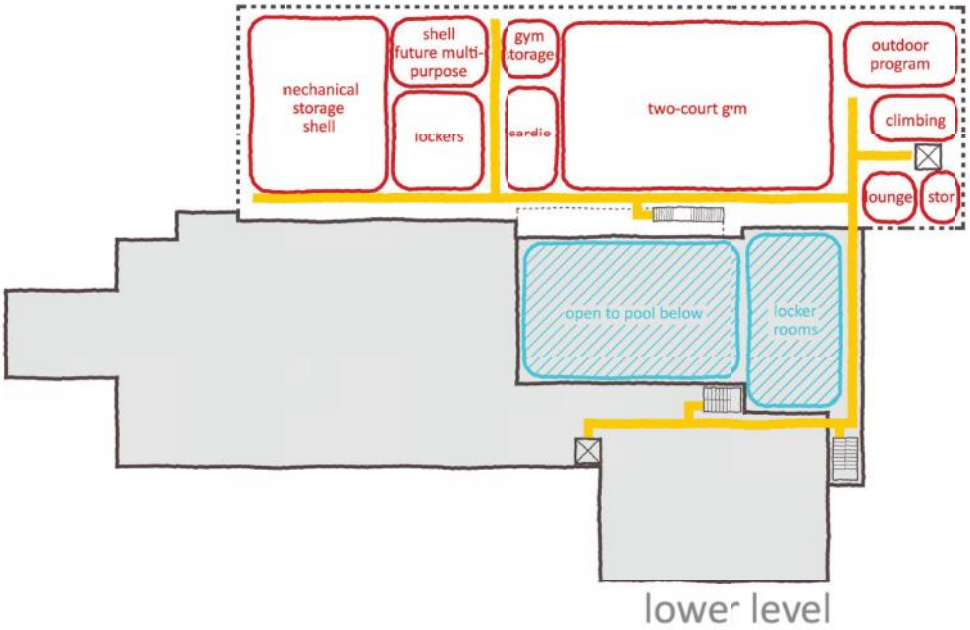
Level 1 Floor Plan

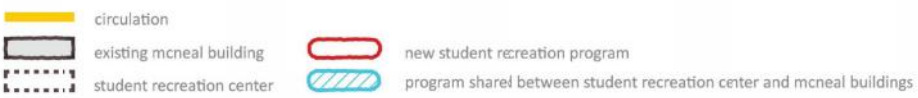
The main entry to the SRC is located just off of Webster Street at the intersection with Stadium Street. The finish floor elevation was set to match the level of McNeal's dance studio. A plaza with covered entry invites visitors from the street. A lounge was located immediately adjacent to the entry to provide a place for students to wait for rides or relax before or after workouts. One of the first views a visitor will have is of the climbing wall, which will draw them past the administrative area, which has a direct connection to the front desk. The front desk serves as the main control point, with views of the entire facility for safety and monitoring. From here, the SRC opens up into a dynamic, activated recreational space with views of almost all program areas including the gym, climbing wall, jogging track, multipurpose rooms, cardio and weight training and racquetball courts. The design calls for a new double-height glass window wall, adjacent to the main vertical circulation, which provides views of McNeal's pool. A hallway also creates a connection to the dance studio, which would be re-purposed into two multipurpose rooms, as well as to the practice gym inside McNeal.

Lower Level Floor Plan

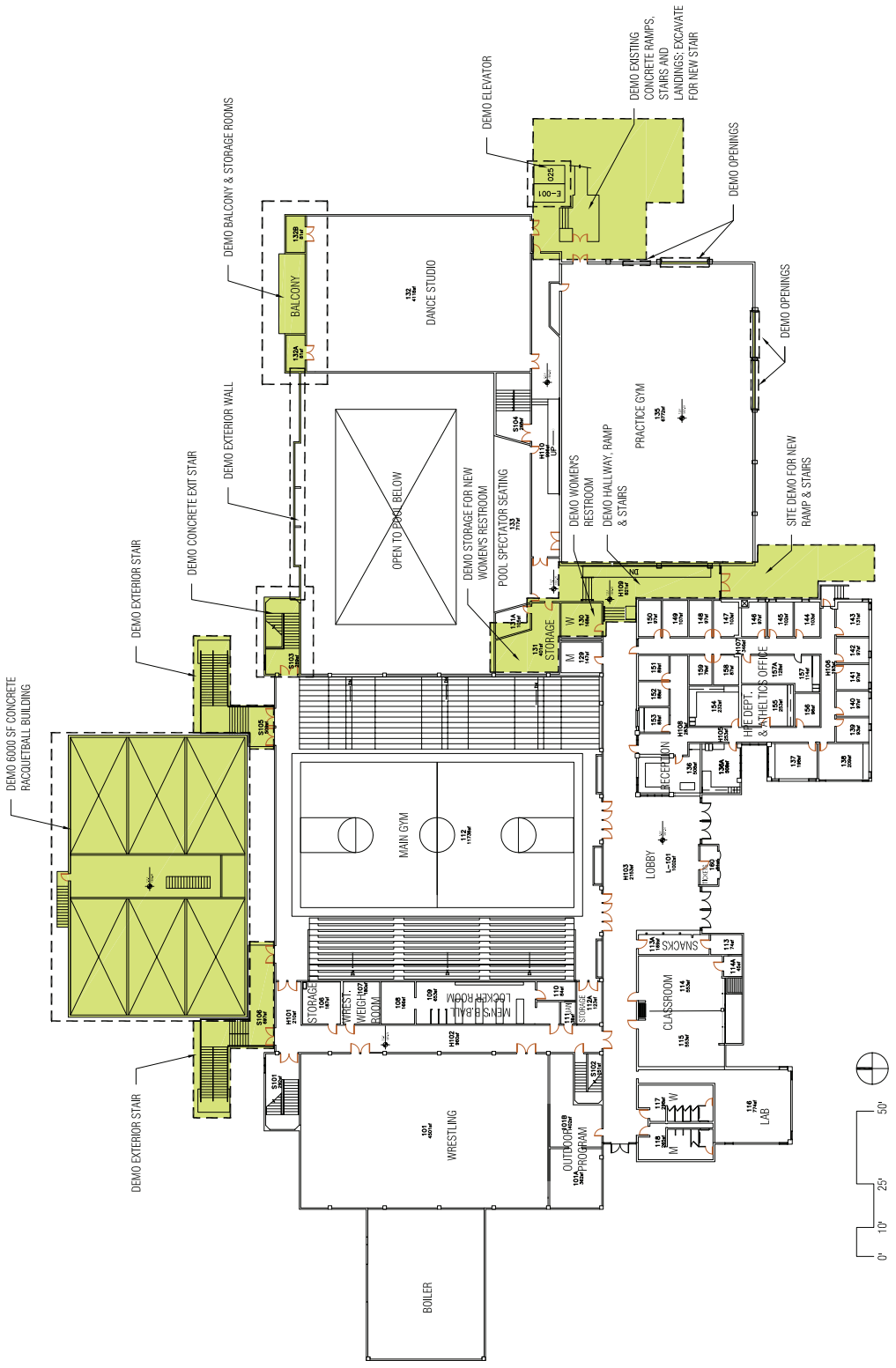
The lower level elevation matches McNeal's basement elevation of the football locker rooms and is accessed either by an open stair or elevator adjacent to the front desk. The lower level of the gym is 20" below, which allows for recommended minimum clearance for the jogging track in relationship to the basketball hoops. The design team has also found in their previous recreation center designs that a lowered gym creates excellent viewing opportunities. The lower level cardio and weight training area is adjacent to the gym, as well as the lower level of the climbing wall. The Outdoor Program space is accessed from the climbing area and has a double-height space which is advantageous for hanging large pieces of equipment. A loft provides a place for offices and a resource area. Locker rooms areas in the conceptual design were reduced from the original 2,000 square feet recommended by B&D because of an opportunity to share McNeal's pool locker rooms, which would contain the bulk of the showering facilities. The pool deck level and pool locker rooms are about 24" higher than the basement level and are accessed via a ramp from the SRC. Smaller locker rooms in the SRC also present an opportunity to re-purpose this space for additional recreation program areas. Finally, a large mechanical and storage room were provided, which could house a new pool chemical and filtration room as the pool equipment is recommended to be replaced. Opsis has found in previous pool designs that a new equipment room can reduce up to 90% of water consumption and significantly reduce energy usage.

Program Adjacency & Circulation Diagrams

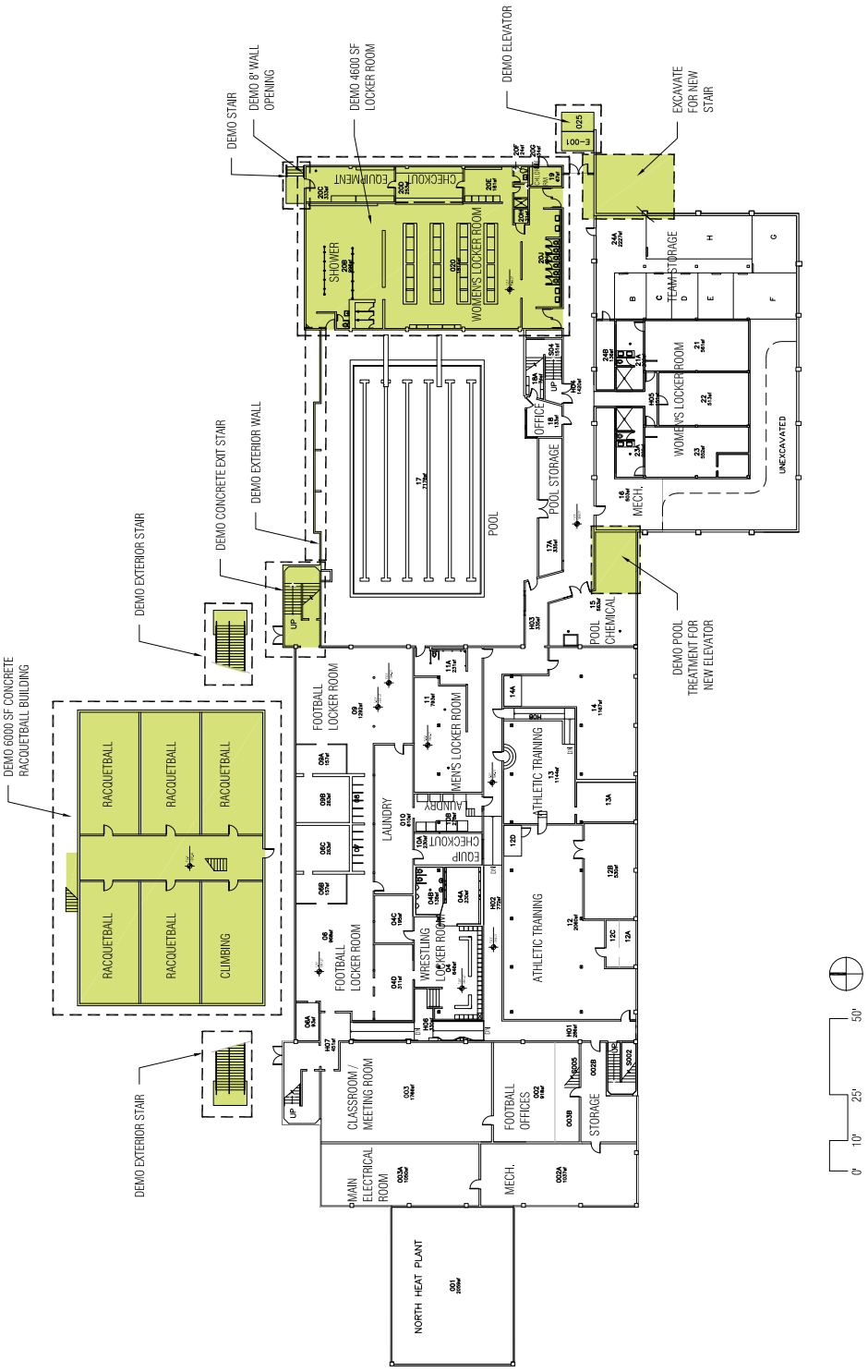




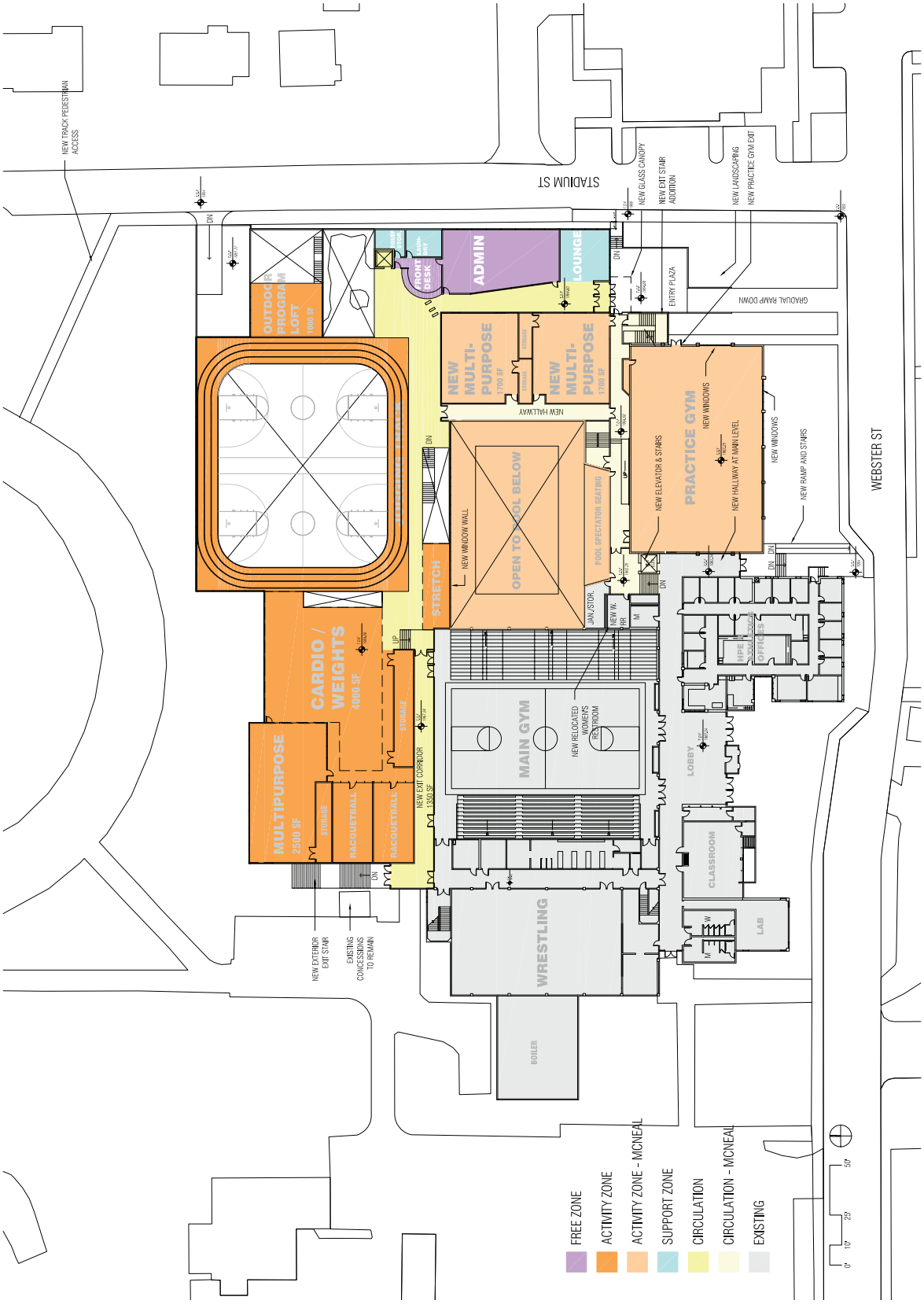
McNeal Demolition Plan – Level 1



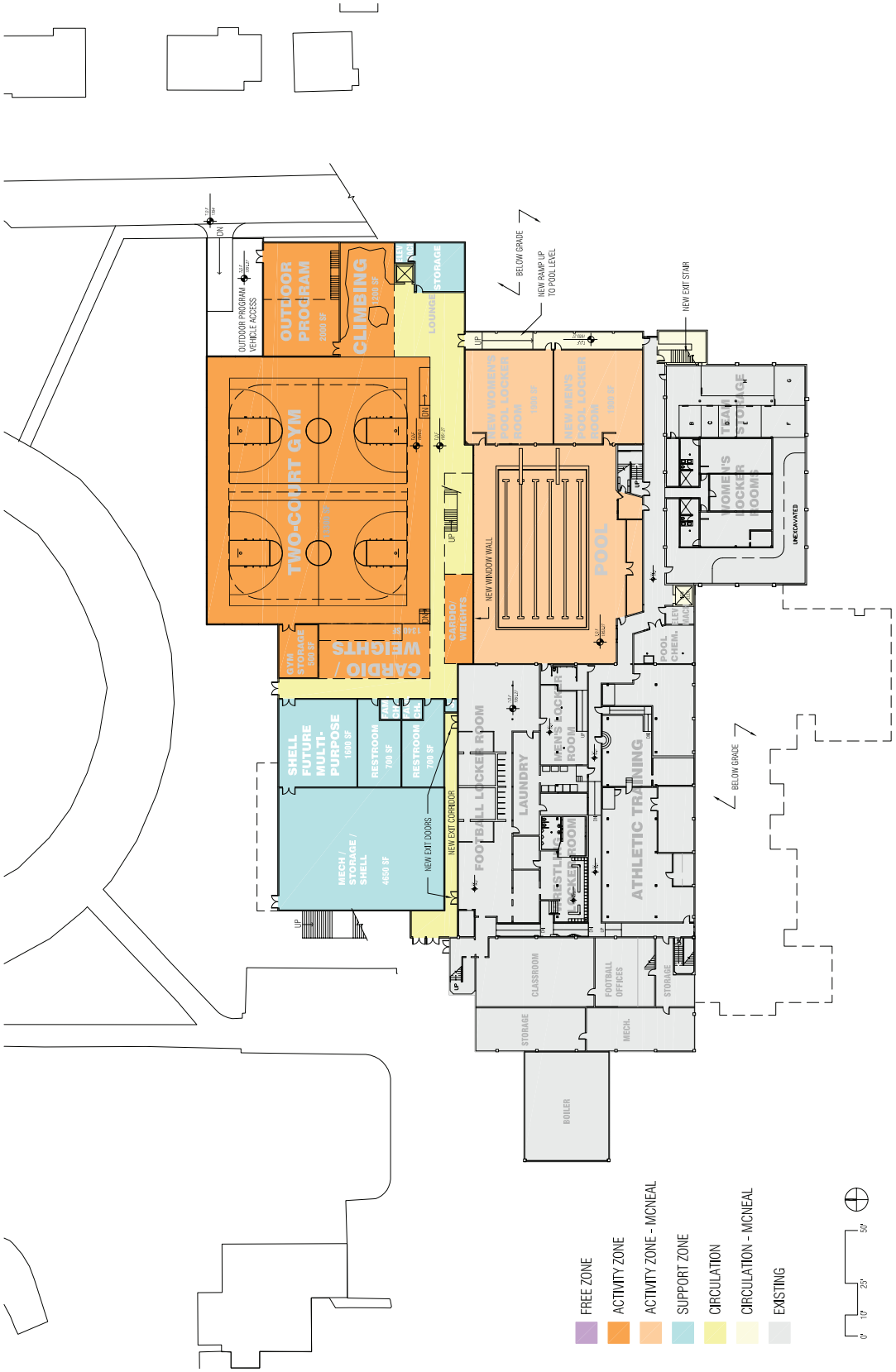
McNeal Demolition Plan – Basement



Conceptual Plan – Level 1



Conceptual Plan – Lower Level



Benefits of Connected Projects

View of McNeal pool and new window wall, with views to SRC

Early on in the conceptual design process McNeal Pavilion was recognized as a critical piece when defining the program and spaces of the SRC. While focused on athletic and academic programs, McNeal contains spaces that are routinely scheduled and used for student recreation. The practice gym, dance studio and pool were all seen as existing resources that especially complemented the SRC program areas. In particular, B&D noted in their 2011 Feasibility Plan that "SOU student demand for water-related activities such as recreational swimming, lap swimming and water aerobics ranked much higher than B&D typically observes, as these activities usually fall within the fourth to fifth priorities." Their survey results showed pool-related activities was a third priority. However, because of the need to generate support for the student fee referendum, a new pool facility was determined to be too costly. This high demand for a rec pool was a key indicator that the SRC should make use of McNeal's existing pool. The dance studio and practice gym offered similar opportunities for flexible spaces that could be considered part of the athletics/academic programs or part of rec, depending on demand.

With the goal of leveraging existing resources and making enhancements to McNeal, the SOU Student committee unanimously voted to site the SRC immediately north of McNeal as an addition and recommended connecting the two buildings for the mutual benefit of each.

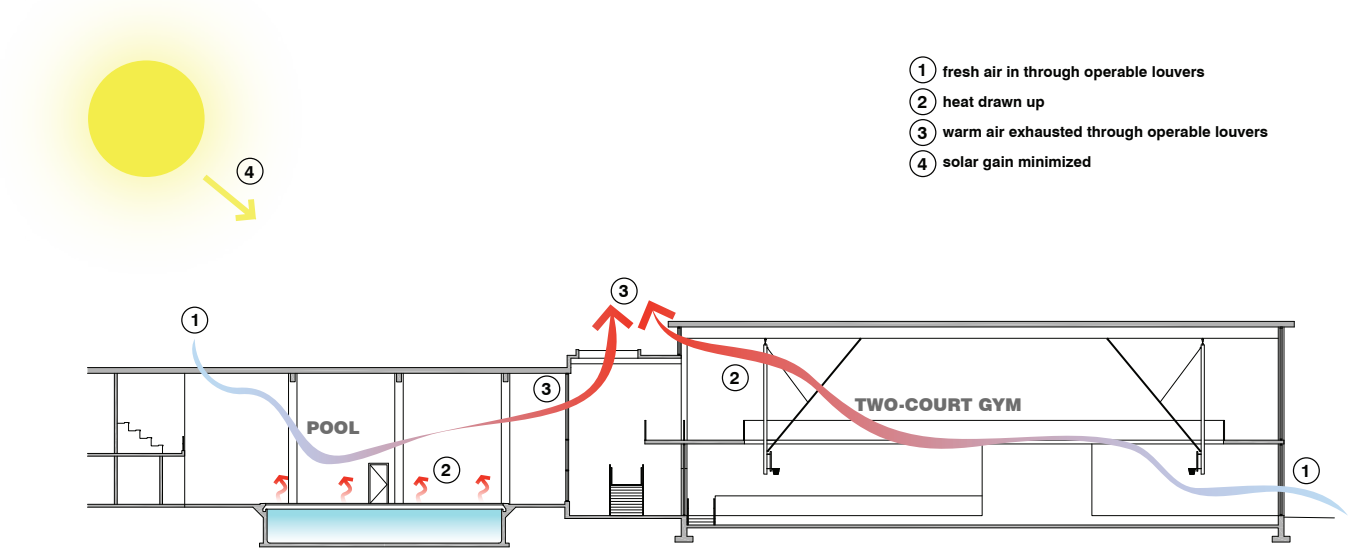
The design team also worked with mechanical and electrical engineers to analyze McNeal's systems and the SRC's systems to study if there were any benefit to connecting the two. Analysis yielded multiple opportunities including reduced construction costs, significant energy savings, lower operating costs and improved maintenance.

A preliminary list of mutual benefits of connecting McNeal and the SRC follows:

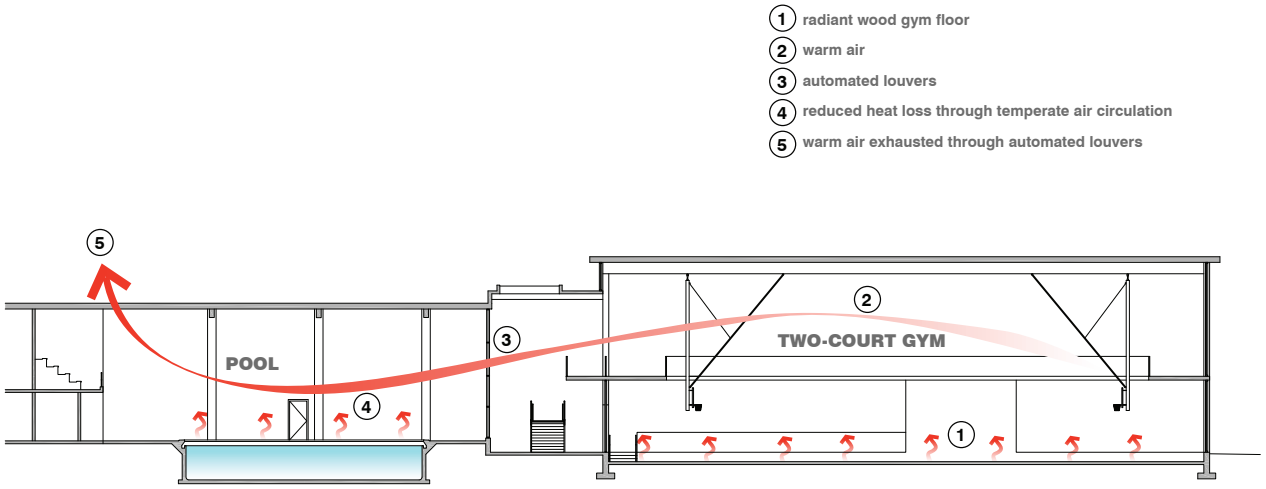
- Additional energy savings would be realized because the north exterior wall of McNeal would now be an interior wall (approximately half of the building's un-insulated walls will become interior walls). The new walls of the SRC will be highly insulated, and the non-code-compliant un-insulated existing walls of the McNeal facility would become interior walls.
- By sharing a wall, a decreased skin/volume ratio would create energy and cost savings.
- The relocation of the pool chemical treatment area saves operational costs and provides improved maintenance and safety. A new location would allow the systems to be integrated into the SRC for a more efficient operation.

- An energy-efficient, sustainable pool treatment system will use up to 90% less water.
- Shared central equipment (heating and domestic water) will lower operating costs by allowing central maintenance and small equipment size (lower first costs).
- Heat recovery can reduce the heating costs. For example, cascade air from the open gym to the pool area for ventilation.
- Benefits of shared electrical systems for economy and operation (including security systems, shared MDF, emergency power source and generation).
- New SRC 480V distribution can re-feed McNeal's electrical system.
- A single utility service connection could be used for both projects.
- The existing McNeal fire alarm can cover the SRC.
- Safety enhancements include improved wayfinding in McNeal and security/access.
- By putting in a new internal elevator for Mc-

Connected Benefits of Shared Passive Ventilation Strategies



SUMMER - PASSIVE VENTILATION STRATEGY



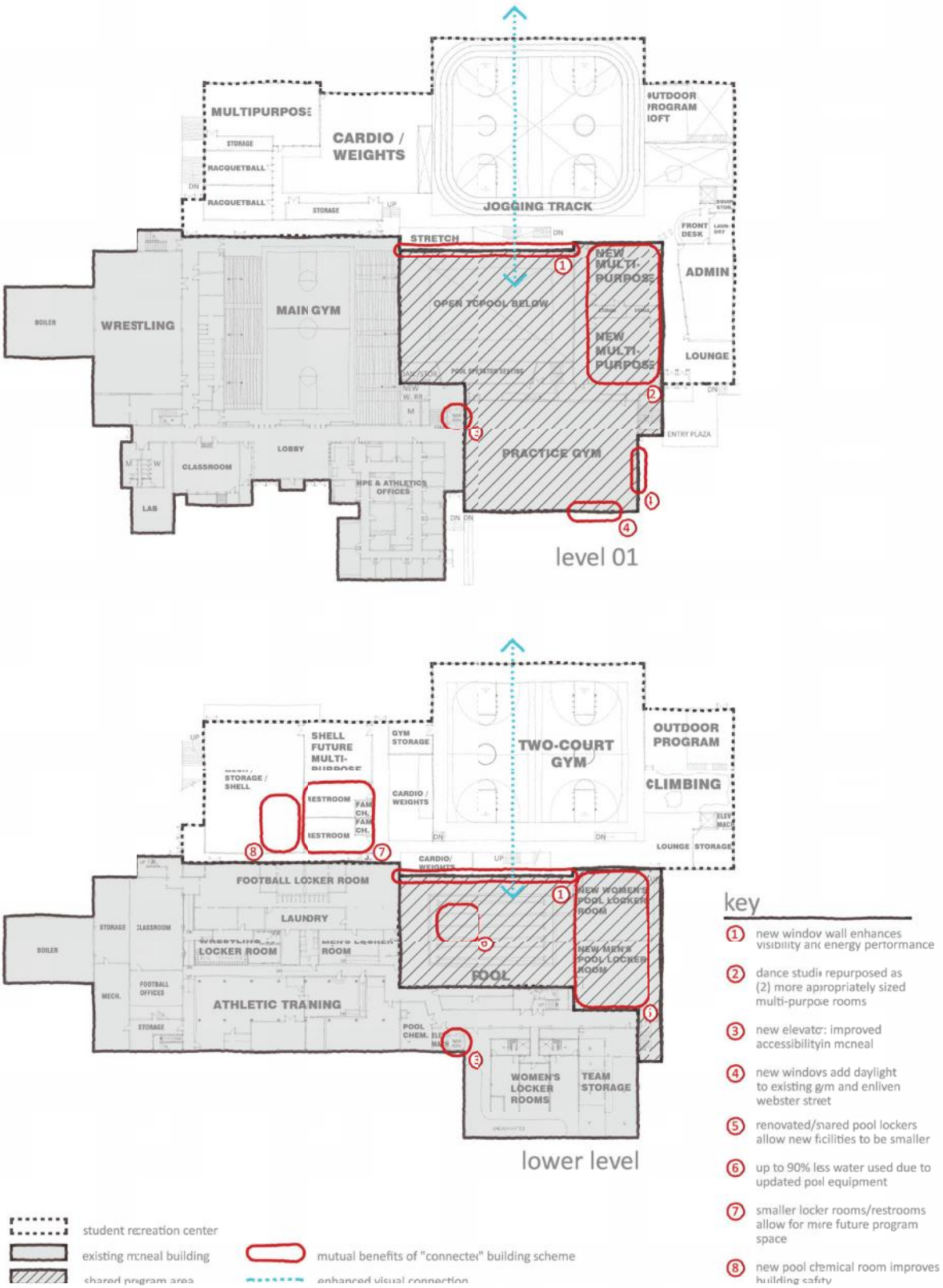
WINTER - ENERGY CASCADE OF VENTILATED AIR THROUGH NATATORIUM

Neal there will be improved accessibility and way-finding that will benefit all users.

- Increased recruiting opportunities for potential students.
- Connecting the SRC would optimize pool usage/access for student recreation and community members.
- Access to the existing pool would create an opportunity for a more complete student recreation facility rather than a future costly pool addition.
- Program efficiencies would be gained by putting in smaller locker rooms in the SRC because of shared pool locker rooms accessed through McNeal.
- The two buildings would create the ability to program for more complete health and wellness activities for students.
- If the two buildings are connected, McNeal can become an emergency shelter because of new emergency power systems and structural (seismic) upgrades.
- SOU would benefit from economies of scale on several fronts, including one contractor/design team used for both projects.
- SOU could take advantage of the current construction climate, which has low escalation that will rise in the future.
- Recent student recreation centers at other OUS campuses (WOU, EOU, OSU, UO) have had existing facilities with connected additions.
- SOU has already invested in the north campus sector with the new North Campus Village project, which has made improvements to utilities, pedestrian circulation and parking, all of which are adjacent to McNeal and could be used to the project's advantage.

With maintenance upgrades and improvements both the practice gym (top) and pool in McNeal (bottom) would be key recreation spaces in the new SRC

Connected Shared Benefits Diagrams



Sustainable Design

Under the OUS system, the project is mandated to be the equivalent of LEED™/SEED certified silver but will pursue Gold certification. The design team studied the program and site to include design parameters and systems that minimize negative environmental impacts and maximize life cycle costs. The Steering Committee's priority to connect the SRC with McNeal also aligns with sustainability goals by maximizing existing infrastructure and re-using or re-purposing an existing space to its fullest potential.

Site

The existing McNeal site has a two-level concrete and wood framed building. Most of this building will remain intact, while demolished portions could be deconstructed to maximize reusable materials. The building footprint has been planned to maximize pedestrian and bicycle traffic, and Webster Street has recently been closed to vehicular traffic. The north orientation of the SRC will result in minimized solar heat gain. A newly landscaped front entry would make use of native plants that decrease water usage. The Outdoor Programs space is adjacent to an outdoor area that could be used for activities and group meetings.

Water

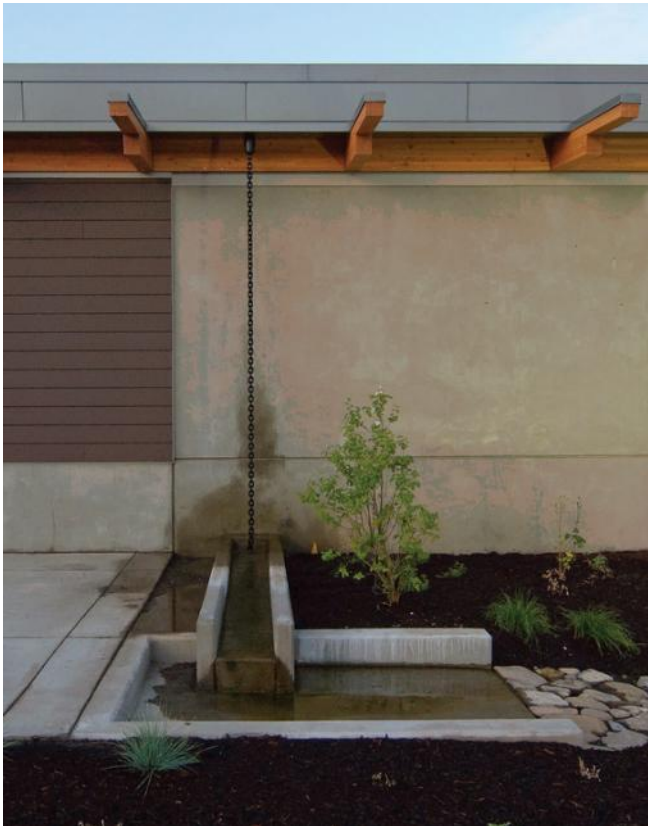
With no available land for water treatment, the building will require more innovative systems to minimize its impact on the city water and sewer systems. Options include:

- Rain water retention and harvesting to reduce municipal water use and stormwater system impact
- Using the fire suppression system tank as a water reclamation tank
- Eco-roof to reduce stormwater run-off

Energy

Early in the conceptual design process numerous goals were identified to reduce energy use and create a friendly, humane interior environment. The maximizing of transparency between spaces is not only key to good planning for recreation, offices and social areas, but also is essential for maximizing daylighting and natural ventilation. The inside-out connections will bring users closer to the natural environment and the connections from the outside-in will create a vibrant scene and reinforce the public nature of the programs inside. The connection with McNeal directly south also offers opportunities for energy savings and shared efficiencies outlined in previous sections. Energy-saving options might include:

- East and west side sun shading
- High performance glazing systems
- High performance roof insulation combined with insulation of eco-roof
- Entry vestibules
- Added wall insulation
- Concrete walls used for thermal mass
- Hydronic radiant flooring in the gym
- Drinking fountains with bottle fillers to cut



Water can be re-claimed on-site for irrigation

Tubes being laid out for radiant slab system

down on plastic water bottle waste
- Daylighting achieved through careful placement of program components and open space planning in recreation center
- Natural ventilation for gymnasium components achieved through drawing air from the gymnasium level up through the space and out through operable windows and skylights

Materials

Throughout the facility, materials will be selected for their durability, beauty and sustainability. A strong emphasis will be placed on natural non-toxic enduring materials that reinforce the University's and student recreation program's commitment to creating a facility whose goal is to improve the health of the campus community. Features could include:

- FSC certified wood or bamboo where used as paneling to create a warm and inviting atmosphere.
- Gym and multipurpose room flooring made from FSC certified maple
- Acoustical wall paneling made from wheatboard or other recycled materials
- Exposed concrete and steel structural system that reduces interior finishes
- Recycled glass wall tiles for locker rooms
- Solid surfaces with high recycled content for admissions control desk, equipment checkout and locker room benches
- Recycled content athletic flooring system for cardiovascular/ strength areas
- Waste management system for construction, and integrated recycling center for retail, office and recreation center spaces.
- Acoustical batt within walls and behind wall panels made from recycled materials, such as blue jeans
- Low-VOC paint used throughout

Sustainable Strategies

Sustainable design strategies were considered throughout the conceptual design process. Opsis Architecture, Abell Architectural Group and the consultant team bring considerable unique experience in the design of innovative sustainable design responses in student recreation centers. These planning strategies are integral to, and instrumental in developing the concept design options.

Building Form

With respect to the surrounding site, the SRC's location north of McNeal results in a building form that minimizes exterior envelope and southern exposure. The proposed massing is consistent and complimentary to the massing of McNeal Pavilion.

Natural Ventilation

Natural ventilation of the building can be achieved by taking advantage of natural wind patterns, particularly in the summer months. Natural ventilation louvers, in conjunction with operable windows located on the north side of the building, will be used to cool the gymnasium and exercise areas. Air will be pulled through the building by a natural stack effect. The major activity areas can be cooled during temperate periods of the day and any excess heated air can be flushed from the building in the evening hours.

Exterior sliding glass door systems and ceiling fans introduce natural ventilation in spaces such as a multi-purpose room

Systems Analysis

Structural Framing System

The structural framing system will be steel beams and columns with steel cross-bracing members for lateral support. Large spans such as in the two-court gym will be accomplished with roof trusses. An option for a wood structure would also be considered for the gymnasium roof structure. The floors will be composite concrete on metal deck.

Mechanical & Plumbing Narrative

The new student recreation center HVAC equipment will consist of a new air handler to serve level one and the lower level including lockers, multipurpose rooms, racquetball, cardio/weights, new courts, and elevated track and climbing area. The unit is to consist of 100% outside air with heat recovery and heating water coils. The use of natural ventilation / passive cooling will be used to night flush the area and provide fresh air during mild temperatures. Additionally, there will be a new air handler to serve the admin area. This unit would have 100% outside air, heating and cooling water coils.

The building heating and cooling is to be served by the campus central steam and chilled water. Steam is to be converted to heating water with a steam to water heat exchanger, and pumps on both the heating water and chilled water system.

The SRC will be fully fire sprinklered.

Locker rooms and toilet rooms will be provided with low flow fixtures. A central steam to domestic water heat exchanger will provide all domestic water heating.

Electrical Narrative

Electrical systems will consist of a service entrance power at 480/277V and distribution within the building at 480/277V for lighting and large mechanical loads and 208/120V for convenience and utilization loads. Branch panels and transformers will be placed in areas with high load densities to minimize conductor runs. A centralized emergency power source consisting of a standalone generator will be provided to support emergency/path of egress lighting and other life safety loads.

Lighting systems provided will be energy efficient sources and luminaires with optics and distribution to optimize performance and minimize maintenance. Automated controls with manual override for maintenance will be provided to control the lighting systems. Lighting controls technologies include daylight harvesting, occupancy sensing, sweeps and interface with fire and security systems to address life safety needs.

A structural roof system of steel trusses were used to span the gym at Western Oregon University.

Technologies include new MDF and IDF facilities to support telecom and data systems. Provisions will be made for AV, clock, paging, digital signage and wayfinding.

Landscape

While a landscape architect was not engaged as part of the conceptual design process, the landscape strategy for the SRC and McNeal would aim to preserve trees and plantings select by SOU and the designers during construction. New plantings would be native to the southern Oregon region which would aid in water reduction. Plants would also be selected based on SOU campus standards for maintenance and would share qualities similar to other vegetation on campus. The main entry plaza would be a hardscaped area that would have benches and outdoor seating to encourage students and visitors to linger and activate the exterior of the building.

Budget / Cost Estimate Summary

Design team consultant Architectural Cost Consultants (ACC), a regional cost-estimating firm, performed a detailed cost analysis of the SRC concept design. Using demolition plans, conceptual plans, photos and 3D images ACC developed a material and systems take-off estimate based on the square footage of each specific program element. The design team worked with the cost estimator to develop a cost allocation spreadsheet to determine the proportional costs associated with each program area. Opsis sought the expertise of local vendors to provide an estimate for recreation equipment. ACC has built detailed cost models based on comparable recreation centers throughout Oregon and Southwest Washington. The estimate was determined to be within an appropriate range for this stage of planning. Escalation for a July 2014 construction start was included at three percent.

Construction Costs:

SRC Building & Site Work	$13,481,911
Escalation - July 2014 start @ 3%	$682,185
Total Direct Construction with Escalation	$14,164,096
Soft Costs @ 21% of $18 million includes $675,000 for rec equip.	$3,835,904
SRC Total Project Cost	$18,000,000
Field Improvements	$2,000,000
Total, SRC and Field Improvements	**$20,000,000**
McNeal Deferred Maintenance and Upgrades	**$15,000,000**
Total Project Costs McNeal and SRC Combined	**$35,000,000**

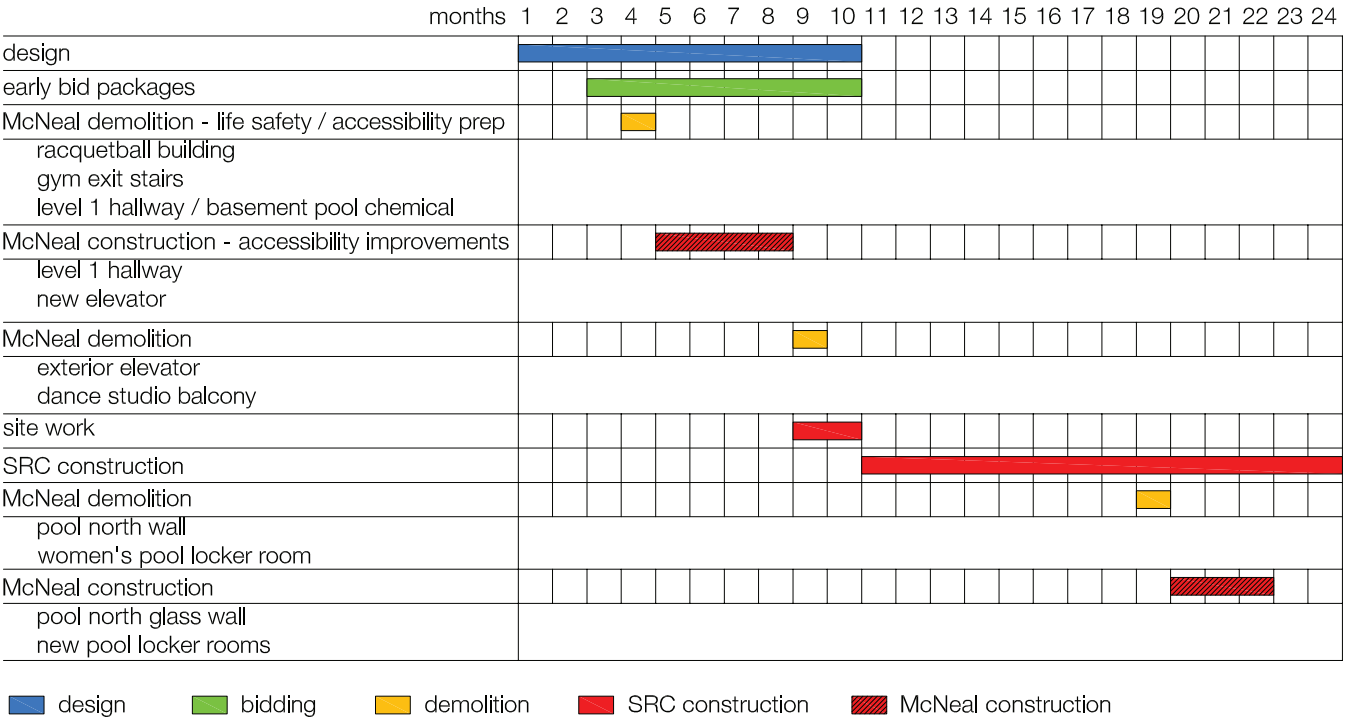
Schedule

Based on Opsis's previous experience designing student recreation centers throughout the Northwest, the recommended construction schedule would be a CMGC process. The addition/renovation work lends itself to multi-phased demolition and construction to maximize time-savings and cost, with the contractor on-board as early as possible in the design process. This approach was successfully implemented recently at the Opsis-designed Health and Wellness Center at Western Oregon University.

The final construction schedule would coordinate seasonal athletic schedules such as football, men's and women's basketball, volleyball and pool usage. The schedule would minimize the amount of time each of these activities would be displaced from McNeal. In addition, the academic schedule would be accounted for. SOU projects a summer 2014 start which is common in university construction in order to least disrupt students on campus.

Opsis recommends a 24 month design and construction schedule, with 10 months for design and 14 months for construction. The first priorities would be maintaining life-safety and accessibility in McNeal, both of which are affected by construction of the SRC. Selective demolition of the competition gymnasium exit stairs and racquetball building north of McNeal could be done initially. The project could obtain a temporary occupancy permit to allow the gym to function at decreased spectator capacity for competition. At the same time McNeal's first level hallway on the west side of the practice gym could be demolished for the new accessible elevator. Once construction of the elevator were complete, the existing exterior elevator demolition and site work could be performed for the new SRC entry. Simultaneously, the SRC construction could begin north of McNeal. Opsis suggests leaving demolition of the pool north wall and women's pool locker room to a later phase during construction in order to leave the pool in operation as long as possible. The final construction pieces would include the new glass pool wall and renovated locker rooms.

Preliminary McNeal–SRC Design & Construction Schedule



Appendix

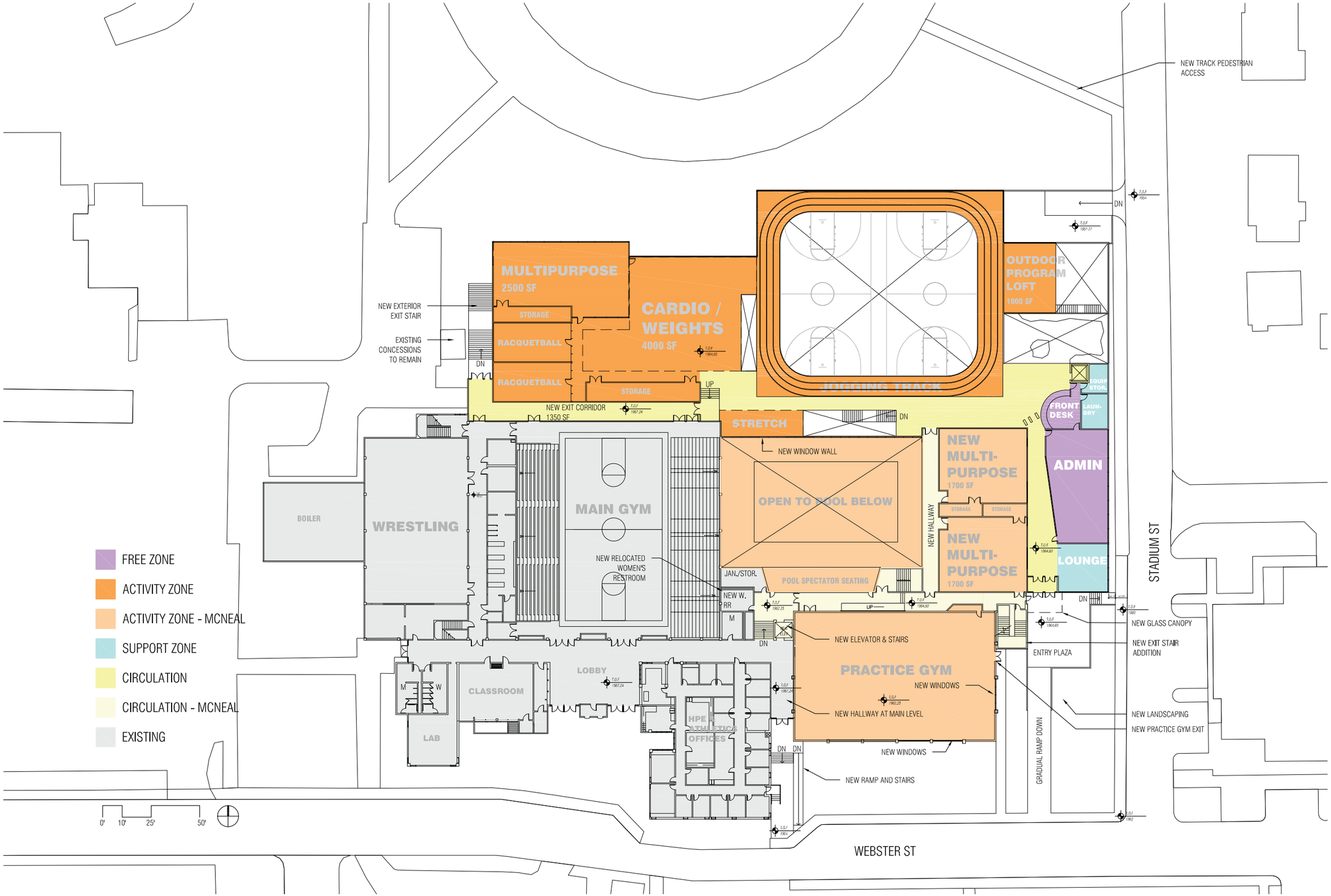
Level 1 Floor Plan

Lower Level Floor Plan

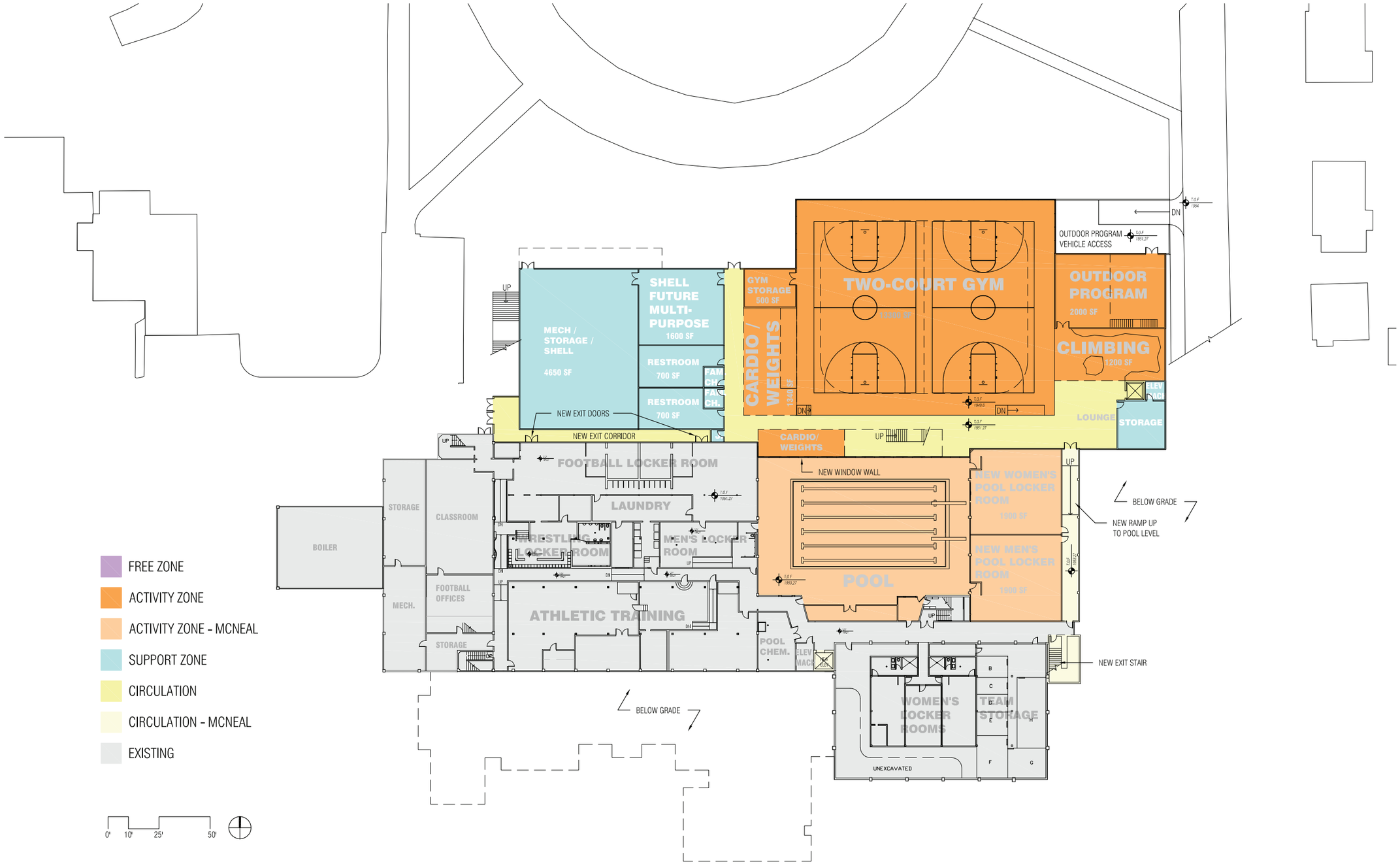
Exterior Elevations

Renderings

Conceptual Plan – Level 1

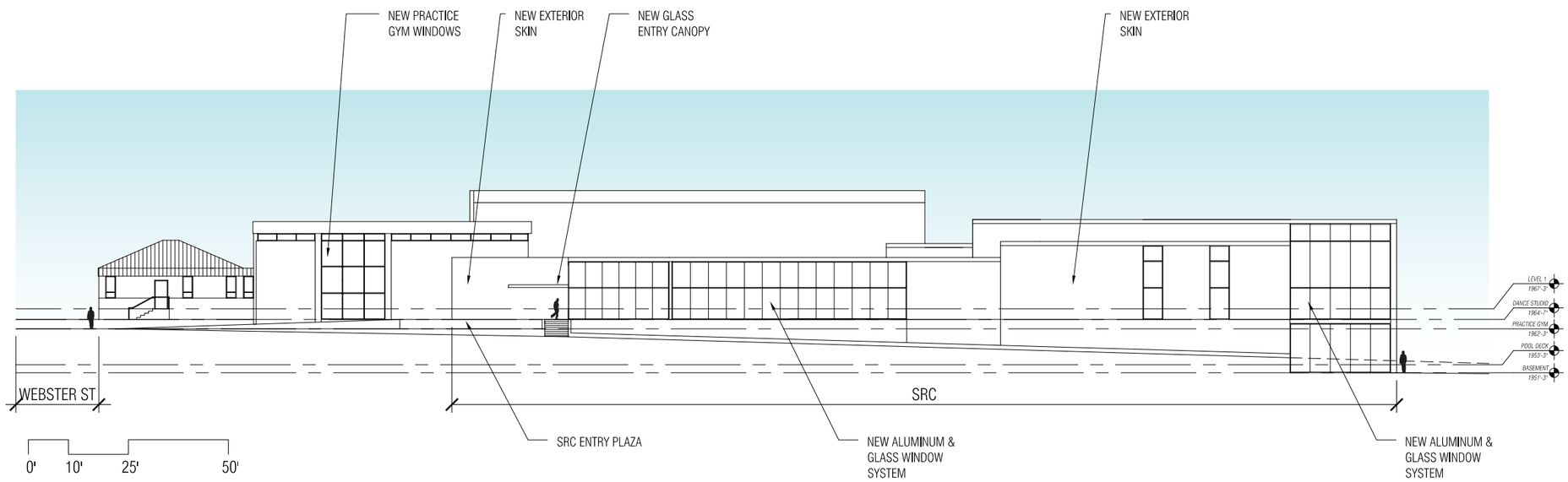


Conceptual Plan – Lower Level

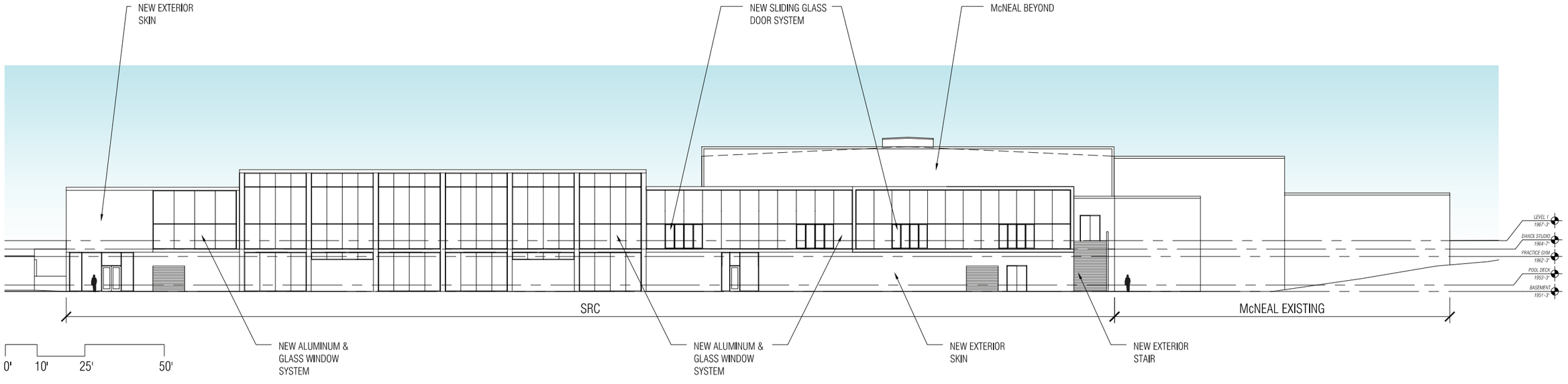


Conceptual Exterior South Elevation

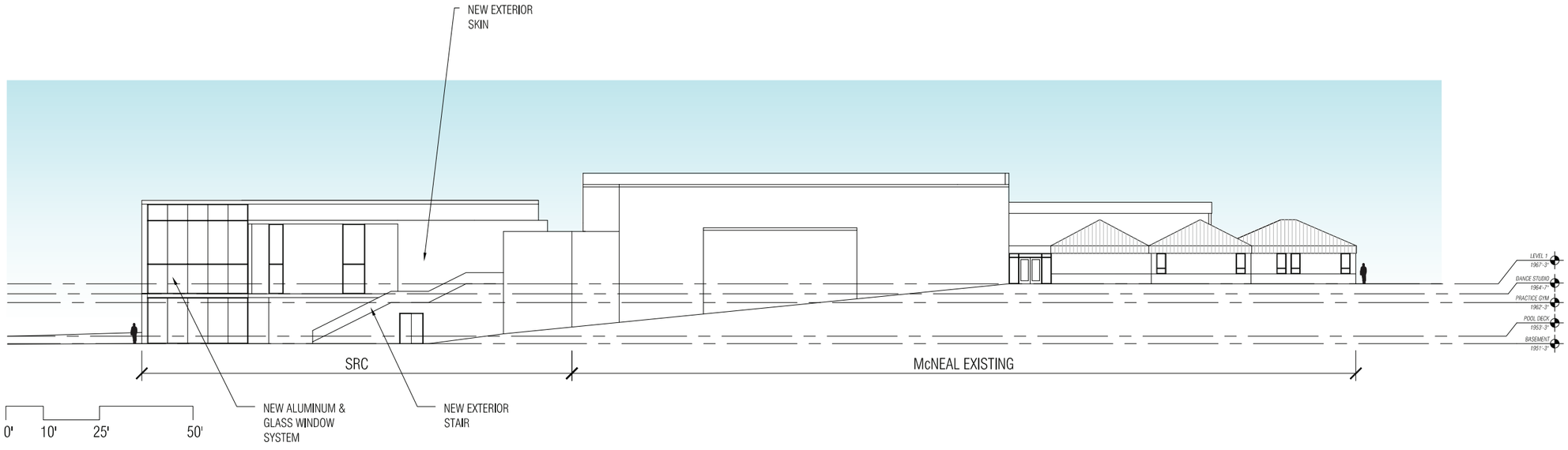
Conceptual Exterior East Elevation



Conceptual Exterior North Elevation



Conceptual Exterior West Elevation



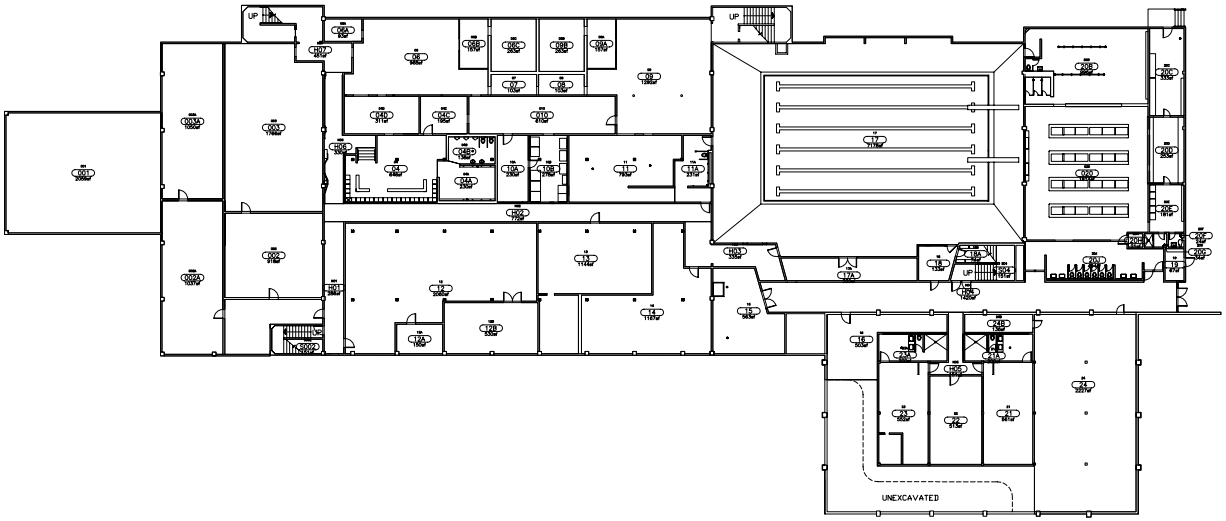
SRC Entry from Webster Street

North Elevation of SRC from Raider Stadium

View of Jogging Track and Gym with Raider Stadium

View of Gym, with Climbing Wall and Jogging Track

View of McNeal Pool and New Window Wall with Views to SRC



BASEMENT FLOOR PLAN

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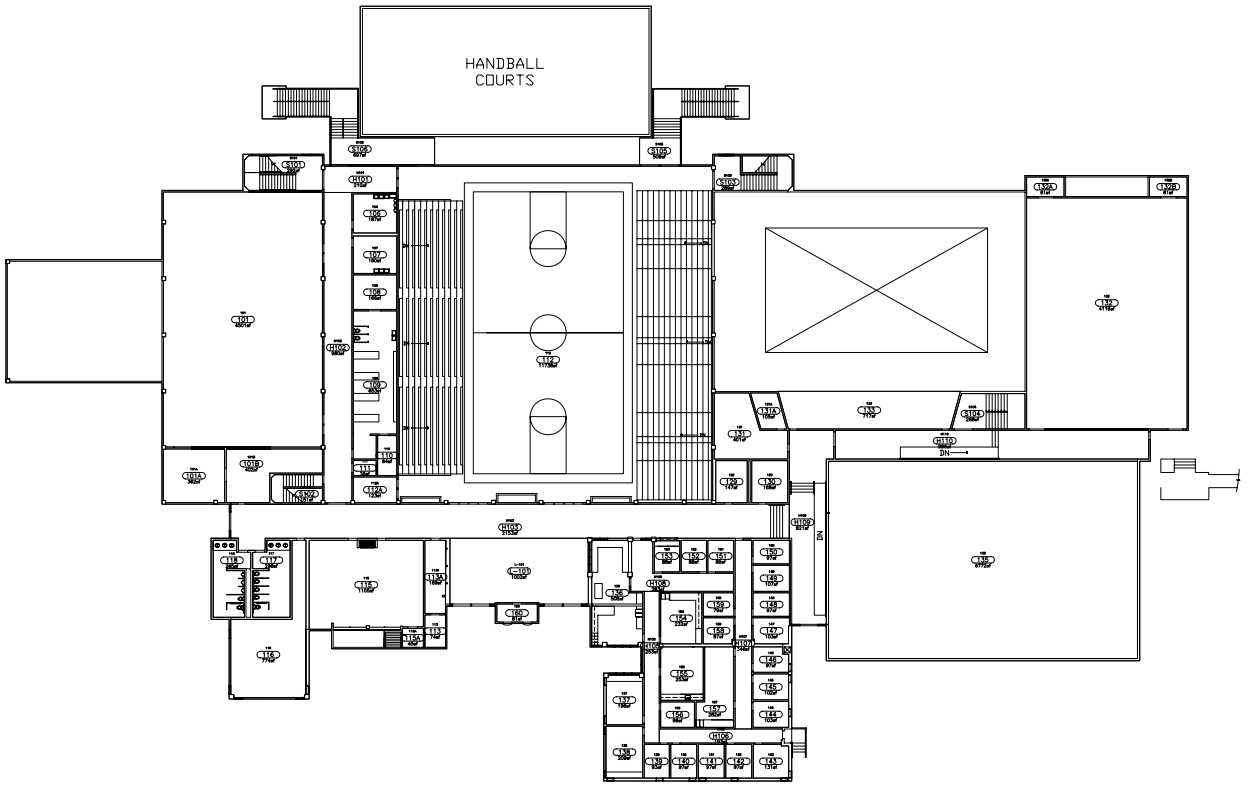

FIRST FLOOR PLAN

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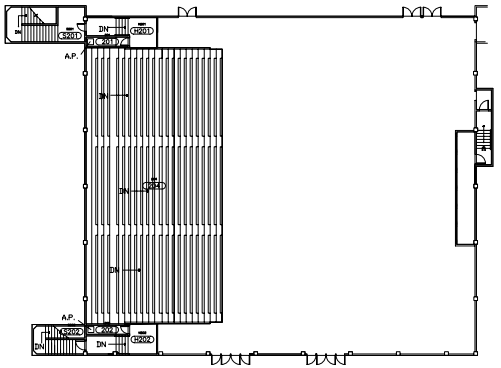

BALCONY FLOOR PLAN

N	FEET 32 64	SHEET 3 OF 4	BUILT / LAST DRAWN	1989 / 08/08	McNEAL HALL 1465 Webster St.	SOUTHERN OREGON UNIVERSITY	BUILDING 015