

PROJECT MANUAL FOR:

**PICKARD HALL – PHASE 1 –
SELECTIVE DEMOLITION AND RAD
CHARACTERIZATION**

PROJECT NO: CP242862

**AT:
UNIVERSITY OF MISSOURI - COLUMBIA
COLUMBIA, MISSOURI**

**FOR:
THE CURATORS OF THE
UNIVERSITY OF MISSOURI**

PREPARED BY:

**Crockett Engineering
Gregory Linneman, PE
1000 W. Nifong Blvd, Bldg #1
Columbia, MO 65203
(573) 447-0292**

April 24, 2025



**GREGORY L. LINNEMAN - PE
MO LICENSE - 2005001013**

I hereby certify that these Drawings and/or Specifications have been prepared by me, or under my supervision. I further certify that to the best of my knowledge these Drawings and/or Specifications are as required by and in compliance with Building Codes of the University of Missouri.

DRAWING INCLUDED:

COVER SHEET
D100-BASEMENT DEMO PLAN
D101-FIRST FLOOR DEMO PLAN
D102-SECOND FLOOR DEMO PLAN

SPECIFICATION INCLUDED:

02 4119-SELECTIVE DEMOLITION



GREGORY L. LINNEMAN - PE
MO LICENSE - 2005001013

Signature: Gregory L. Linneman, PE

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RAD CHARACTERIZATION

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TABLE OF CONTENTS

<u>TITLE</u>	<u>PAGE</u>
<u>DIVISION 1</u>	<u>GENERAL REQUIREMENTS</u>
	Advertisement for Bids
1.A	Bid for Lump Sum Contract 1.A/1-5
1.B	Bidder's Statement of Qualifications BSQ/1-2
1.B.1	Bidder's Statement of Qualifications for Asbestos Abatement BSQAA/1-2
1.B.2	Supplier Diversity Compliance Evaluation SD/1-2
1.B.3	Application for Waiver SD/3-4
1.B.4	Affidavit SD/5
1.B.5	Affidavit for Affirmative Action SD/6
1.B.6	Certifying Supplier Diversity Agencies SD/7
1.B.7	Newspapers for Outreach to Diverse Suppliers SD/8
1.B.8	Affidavit of Supplier Diversity Participation SD/9
1.C	Information for Bidders IFB/1-5
1.D	General Conditions GC/1-46
1.E	Special Conditions SC/1-12
1.F	Index of Drawings INDEX/1
1.G	Prevailing Wage Rates PW/1-4
1.H	Hot Work Permit 1-2
1.J	Reference Drawings From 1974 Remodel 1-24

DIVISION 2 EXISTING CONDITIONS

02 0813-ASBESTOS-CONTAINING MATERIALS REMOVAL AND DISPOSAL
& UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL

02 4119-SELECTIVE DEMOLITION

DIVISION 3 CONCRETE (NOT USED)

DIVISION 4 MASONRY (NOT USED)

DIVISION 5 METALS (NOT USED)

DIVISION 6 WOOD AND PLASTICS, AND COMPOSITES (NOT USED)

DIVISION 7 THERMAL AND MOISTURE PROTECTION (NOT USED)

DIVISION 8 OPENINGS (NOT USED)

DIVISION 9 FINISHES (NOT USED)

DIVISION 10 SPECIALTIES (NOT USED)

DIVISION 11 EQUIPMENT (NOT USED)

DIVISION 12 FURNISHINGS (NOT USED)

DIVISION 13 SPECIAL CONSTRUCTION (NOT USED)

DIVISION 14 CONVEYING SYSTEMS (NOT USED)

DIVISION 21 FIRE SUPPRESSION (NOT USED)

DIVISION 22 PLUMBING (NOT USED)

DIVISION 23 MECHANICAL (NOT USED)

DIVISION 25 INTEGRATED AUTOMATION (NOT USED)

DIVISION 26 ELECTRICAL (NOT USED)

DIVISION 27 COMMUNICATIONS (NOT USED)

DIVISION 28 ELECTRONIC SAFETY AND SECURITY (NOT USED)

DIVISION 31 EARTHWORK (NOT USED)

DIVISION 32 EXTERIOR IMPROVEMENTS (NOT USED)

DIVISION 33

UTILITIES (NOT USED)

DIVISION 34

TRANSPORTATION (NOT USED)

END OF SECTION

PLANNING DESIGN & CONSTRUCTION

900 E. Stadium, Ste. 130
Columbia, Missouri 65211
Telephone: (573) 882-6800

ADVERTISEMENT FOR BIDS

Sealed bids for:

PICKARD HALL –
SELECTIVE DEMOLITION AND RAD CHARACTERIZATION PHASE I
UNIVERSITY OF MISSOURI
COLUMBIA, MISSOURI
PROJECT NUMBER: CP242862

CONSTRUCTION ESTIMATE: \$958,500 - \$1,065,000

will be received by the Curators of the University of Missouri, Owner, at Planning, Design & Construction, Room L100 (Front Reception Desk), General Services Building, University of Missouri, Columbia, Missouri 65211, until 1:30 p.m., C.T., May 27, 2025 and then immediately opened and publicly read aloud.

Drawings, specifications, and other related contract information may be obtained at <http://operations-webapps.missouri.edu/pdc/adsite/ad.html>. Electronic bid sets are available at no cost and may be printed as desired by the plan holders. No paper copies will be issued. If paper copies are desired, it is the responsibility of the user to print the files or have them printed.

Questions regarding the scope of work should be directed to Greg Linneman with Crockett Engineering at (573) 447-0292 or glinneman@crockettengineering.com. Questions regarding commercial conditions should be directed to John Moon at (573) 882-0544 or moonj@missouri.edu.

A prebid meeting will be held at 1:30 p.m., C.T., May 15, 2025 in the General Services Bldg., Room 194A, followed by a site walk-through.

A Diversity Participation goal of 10% MBE, 10% WBE, DBE and Veteran; 3% SDVE has been established for this contract.

The Owner reserves the right to waive informalities in bids and to reject any and all bids.

Individuals with special needs as addressed by the Americans with Disabilities Act may contact (573) 882-6800.

Advertisement Date: May 1, 2025

SECTION 1.A

BID FOR LUMP SUM CONTRACT

Date: _____

BID OF _____
(hereinafter called "Bidder") a corporation * organized and existing under laws of the State of

_____ ,
A partnership * consisting of _____ ,

An individual* trading as _____ ,

A joint venture* consisting of _____ ,

*Insert Corporations(s), partnership or individual, as applicable.

TO: Curators of the University of Missouri
c/o Associate Vice Chancellor-Facilities
Room L100, General Services Building
University of Missouri
Columbia, Missouri 65211

1. Bidder, in compliance with invitation for bids for construction work in accordance with Drawings and Specifications prepared by CROCKETT ENGINEERING, entitled "PICKARD HALL – PHASE 1 – SELECTIVE DEMOLITION AND RAD CHARACTERIZATION" project number CP242862, dated April 24, 2025 having examined Contract Documents and site of proposed work, and being familiar with all conditions pertaining to construction of proposed project, including availability of materials and labor, hereby proposed to furnish all labor, materials and supplies to construct project in accordance with Contract Documents, within time set forth herein at prices stated below. Prices shall cover all expenses, including taxes not covered by the University of Missouri's tax exemption status, incurred in performing work required under Contract documents, of which this Bid is a part.

Bidder acknowledges receipt of the following addenda:

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

Addendum No. _____ Dated _____

2. In the following Bid(s), amount (s) shall be written in both words and figures. In case of discrepancy between words and figures, words shall govern.

3. BID PRICING

a. Base Bid:

The Bidder agrees to furnish all labor, materials, tools, and equipment required to provide demolition to the interior finishes at Pickard; all as indicated on the Drawings and described in these Specifications for a sum of: _____
_____ DOLLARS (\$ _____).

4. PROJECT COMPLETION

- a. Contract Period – Contract period begins on the day the Contractor receives unsigned Contract, Performance Bond, Payment Bond, and “Instructions for Execution of Contract, Bonds, and Insurance Certificates.” Bidder agrees to complete project within One Hundred (100) calendar days from receipt of aforementioned documents. Fifteen (15) calendar days have been allocated in construction schedule for receiving aforementioned document from Bidder.
- b. Commencement – Contractor agrees to commence work on this project after the “Notice to Proceed” is issued by the Owner. “Notice to Proceed” will be issued within seven (7) calendar days after the Owner receives properly prepared and executed Contract documents listed in paragraph 4.a. above.
- c. Special Scheduling Requirements – Chase Environmental will be on-site for the duration of the project, it is expected that the contractor will give two weeks' notice prior to start of the project and will complete the project in consecutive standard working days/weeks without delays.

5. SUPPLIER DIVERSITY PARTICIPATION GOALS

- a. The Contractor shall have as a goal, subcontracting with Minority Business Enterprise (MBE) of ten (10) with Women Business Enterprise (WBE), Disadvantage Business Enterprise (DBE), and/or Veteran Owned Business Enterprise, of ten (10) with Service-Disable Veteran Owned Business (SDVE) of three percent (3%) of awarded contract price for work to be performed.
- b. Request for waiver of this goal shall be submitted on the attached Application For Waivers form. A determination by the Director of Facilities Planning & Development, UM, that a good faith effort has not been made by Contractor to achieve above stated goal may result in rejection of bid.
- c. The Undersigned proposed to perform work with following Supplier Diversity participation level:

MBE PERCENTAGE PARTICIPATION:
_____ percent (_____ %)

WBE, DBE, and/or VETERAN PERCENTAGE PARTICIPATION

_____ percent (_____%)

SDVE PERCENTAGE PARTICIPATION:

_____ percent (_____%)

- d. A Supplier Diversity Compliance Evaluation form shall be submitted with this bid for each diverse subcontractor to be used on this project.

6. BIDDER'S ACKNOWLEDGEMENTS

- a. Bidder declares that he has had an opportunity to examine the site of the work, and he has examined Contract Documents; therefore, that he has carefully prepared his bid upon the basis thereof; that he has carefully examined and checked bid, materials, equipment and labor required thereunder, cost thereof, and his figures therefore. Bidder hereby states that amount, or amounts, set forth in bid is, or are, correct and that no mistake or error has occurred in bid or in Bidder's computations upon which this bid is based. Bidder agrees that he will make no claim for reformation, modifications, revisions or correction of bid after scheduled closing time for receipt of bids.
- b. Bidder agrees that bid shall not be withdrawn for a period of Sixty (60) days after scheduled closing time for receipt of bids.
- c. Bidder understands that Owner reserves the right to reject any or all bids and to waive any informalities in bidding.
- d. Accompanying the bid is a bid bond, or a certified check, or a cashier's check payable without condition to "The Curators of the University of Missouri" which is an amount at least equal to five percent (5%) of amount of largest possible total bid herein submitted, including consideration of Alternates.
- e. Accompanying the bid is a Bidder's Statement of Qualifications. Failure of Bidder to submit the Bidder's Statement of Qualifications with the bid may cause the bid to be rejected. Owner does not maintain Bidder's Statements of Qualifications on file.
- f. It is understood and agreed that bid security of two (2) lowest and responsive Bidders will be retained until Contract has been executed and an acceptable Performance Bond and Payment Bond has been furnished. It is understood and agreed that if the bid is accepted and the undersigned fails to execute the Contract and furnish acceptable Performance/Payment Bond as required by Contract Documents, accompanying bid security will be realized upon or retained by Owner. Otherwise, the bid security will be returned to the undersigned.

7. BIDDER'S CERTIFICATE

Bidder hereby certifies:

- a. His bid is genuine and is not made in interest of or on behalf of any undisclosed person, firm or corporation, and is not submitted in conformity with any agreement or rules or any group, association or corporation.
- b. He has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid.
- c. He has not solicited or induced any person, firm or corporation to refrain from bidding.
- d. He has not sought by collusion or otherwise to obtain for himself any advantage over any other Bidder or over Owner.
- e. He will not discriminate against any employee or applicant for employment because of race, color, religion, sex or national origin in connection with performance of work.
- f. By virtue of policy of the Board of Curators, and by virtue of statutory authority, a preference will be given to materials, products, supplies, provisions and all other articles produced, manufactured, mined or grown within the State of Missouri. By virtue of policy of the Board of Curators, preference will also be given to all Missouri firms, corporations, or individuals, all as more fully set forth in "Information For Bidders."

END OF BIDDER'S CERTIFICATE

8. BIDDER'S SIGNATURE

Note: All signatures shall be original; not copies, photocopies, stamped, etc.

Authorized Signature	Date
Printed Name	Title
Company Name	
Mailing Address	
City, State, Zip	
Phone No.	
Fax No.	E-Mail Address
Circle one: Individual Partnership Corporation Joint Venture	
If a corporation, incorporated under the laws of the State of _____	
Licensed to do business in the State of Missouri? ____yes ____no	

(Each Bidder shall complete bid form by manually signing on the proper signature line above and supplying required information called for in connection with the signature. Information is necessary for proper preparation of the Contract, Performance Bond and Payment Bond. Each Bidder shall supply information called for in accompanying "Bidder's Statement of Qualifications.")

END OF SECTION

**UNIVERSITY OF MISSOURI
BIDDER'S STATEMENT OF QUALIFICATIONS**

Submit with Bid for Lump Sum Contract in separate envelope appropriately labeled. Attach additional sheet if necessary.

1. Company Name _____
Phone# _____ Fax #: _____
Address _____
2. Number of years in business _____. If not under present firm name, list previous firm names and types of organization.

3. List contracts on hand (complete the following schedule, include telephone number).

Project & Address	Owner/Owner's Representative	Phone Number	Architect	Amount of your Contract	Percent Completed
4. General character of work performed by your company personnel.

5. List important projects completed in the last five (5) years on a type similar to the work now bid for, including approximate cost and telephone number.

Project & Address	Owner/Owner's Representative	Phone Number	Architect	Amount of your Contract	Percent Completed
6. Other experience qualifying you for the work now bid.

7. No default has been made in any contract complete or incomplete except as noted below:
(a) Number of contracts on which default was made _____
(b) Description of defaulted contracts and reason therefor _____

8. (a) Have you or your company participated in any contract subject to an equal opportunity clause similar to that described in the General Conditions?
Yes _____ No _____
(b) Have you filed all required compliance reports?
Yes _____ No _____

- (c) Is fifty percent or more of your company owned by a minority?
Yes _____ No _____
- (d) Is fifty percent or more of your company owned by a woman?
Yes _____ No _____
- (e) Is fifty percent or more of your company owned by a service disabled veteran?
Yes _____ No _____
- (f) Is fifty percent or more of your company owned by a veteran?
Yes _____ No _____
- (g) Is your company a Disadvantaged Business Enterprise?
Yes _____ No _____

9. Have you or your company been suspended or debarred from working at any University of Missouri campus?

Yes _____ No _____ (If the answer is "yes", give details.)

10. Have any administrative or legal proceedings been started against you or your company alleging violation of any wage and hour regulations or laws?

Yes _____ No _____ (If the answer is "yes", give details.)

11. Workers Compensation Experience Modification Rates (last 3 yrs): _____ / _____ / _____

Incidence Rates (last 3 years): _____ / _____ / _____

12. List banking references.

13. (a) Do you have a current confidential financial statement on file with Owner?
Yes _____ No _____ (If not, and if desired, Bidder may submit such statement with bid, in a separate sealed and labeled envelope.)

(b) If not, upon request will you file a detailed confidential financial statement within three (3) days?
Yes _____ No _____

Dated at _____ this _____ day of _____ 20____

Name of Organization

Signature

Printed Name

Title of Person Signing

END OF SECTION

UNIVERSITY OF MISSOURI
BIDDER'S STATEMENT OF QUALIFICATIONS FOR ASBESTOS ABATEMENT

Submit with Bid for Lump Sum Contract in separate envelope appropriately labeled. Attach additional sheet if necessary.

1. Company Name _____ Phone# _____

Address _____

2. State of Missouri Registration number _____

3. Number of years in business _____. If not under present firm name, list previous firm names and types of organization.

4. List contracts on hand (complete the following schedule, include telephone number).

Project & Address	Owner/Owner's Representative	Phone Number	Architect	Amount of your Contract	Percent Completed
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5. General character of work performed by your company personnel.

6. List important projects completed in the last five (5) years on a type similar to the work now bid for, including approximate cost and telephone number.

Project & Address	Owner/Owner's Representative	Phone Number	Architect	Amount of your Contract	Percent Completed
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7. Other experience qualifying you for the work now bid.

8. No default has been made in any contract complete or incomplete except as noted below:

(a) Number of contracts on which default was made _____
(b) Description of defaulted contracts and reason therefor _____

9. (a) Have you or your company participated in any contract subject to an equal opportunity clause similar to that described in the General Conditions?

Yes _____ No _____

(b) Have you filed all required compliance reports?

Yes _____ No _____

- (c) Is fifty percent or more of your company owned by a minority?
Yes _____ No _____
- (d) Is fifty percent or more of your company owned by a woman?
Yes _____ No _____
- (e) Is fifty percent or more of your company owned by a service disabled veteran?
Yes _____ No _____
- (f) Is fifty percent or more of your company owned by a veteran?
Yes _____ No _____
- (g) Is your company a Disadvantaged Business Enterprise?
Yes _____ No _____

10. Have you or your company been suspended or debarred from working at any University of Missouri campus?

Yes _____ No _____ (If the answer is "yes", give details.)

11. Have any administrative or legal proceedings been started against you or your company alleging violation of any wage and hour regulations or laws?

Yes _____ No _____ (If the answer is "yes", give details.)

12. Workers Compensation Experience Modification Rates (last 3 yrs): _____ / _____ / _____

Incidence Rates (last 3 years): _____ / _____ / _____

13. List banking references.

14. (a) Do you have a current confidential financial statement on file with Owner?

Yes _____ No _____ (If not, and if desired, Bidder may submit such statement with bid, in a separate sealed and labeled envelope.)

(b) If not, upon request will you file a detailed confidential financial statement within three (3) days?

Yes _____ No _____

Dated at _____ this _____ day of _____ 20____

Name of Organization

Signature

Printed Name

Title of Person Signing

END OF SECTION

SUPPLIER DIVERSITY COMPLIANCE EVALUATION FORM

This form shall be completed by Bidders and submitted with the Bidder's Statement of Qualifications form for each diverse firm who will function as a subcontractor on the contract.

The undersigned submits the following data with respect to this firm's assurance to meet the goal for Supplier Diversity participation.

- I. Project: _____
- II. Name of General Contractor: _____
- III. Name of Diverse Firm: _____
Address: _____
Phone No.: _____ Fax No.: _____
Status (check one) MBE _____ WBE _____ Veteran _____ Service Disabled Veteran _____ DBE _____
- IV. Describe the subcontract work to be performed. (List Base Bid work and any Alternate work separately):
Base Bid: _____

- V. Dollar amount of contract to be subcontracted to the Diverse firm:
Base Bid: _____
Alternate(s), (Identify separately): _____

- VI. Is the proposed subcontractor listed in the Directory of M/W/DBE Vendors, Directory of Served Disabled Veterans and/or the Directory of Veterans maintained by the State of Missouri?
Yes _____ No _____

Is the proposed subcontractor certified as a diverse supplier by any of the following: federal government agencies, state agencies, State of Missouri city or county government agencies, Minority and/or WBE certifying agencies?

Yes _____

No _____

If yes, please provide details and attach a copy of the certification.

Does the proposed subcontractor have a signed document from their attorney certifying the Supplier as a Diverse and meeting the 51% owned and committed requirement?

Yes _____

No _____

If yes, please attach letter.

Signature: _____

Name: _____

Title: _____

Date: _____

APPLICATION FOR WAIVER

This form shall be completed and submitted with the Bidder's Statement of Qualifications. Firms wishing to be considered for award are required to demonstrate that a good faith effort has been made to include diverse suppliers. This form will be used to evaluate the extent to which a good faith effort has been made. The undersigned submits the following data with respect to the firm's efforts to meet the goal for Supplier Diversity Participation.

1. List pre-bid conferences your firm attended where Supplier Diversity requirements were discussed.

2. Identify advertising efforts undertaken by your firm which were intended to recruit potential diverse subcontractors for various aspects of this project. Provide names of newspapers, dates of advertisements and copies of ads that were run.

3. Note specific efforts to contact in writing those diverse suppliers capable of and likely to participate as subcontractors for this project.

4. Describe steps taken by your firm to divide work into areas in which diverse suppliers/contractors would be capable of performing.

5. What efforts were taken to negotiate with prospective diverse suppliers/contractors for specific sub-bids? Include the names, addresses, and telephone numbers of diverse suppliers/contractors contacted, a description of the information given to diverse suppliers/contractors regarding plans and specifications for the assigned work, and a statement as to why additional agreements were not made with diverse suppliers/contractors.

6. List reasons for rejecting a diverse supplier/contractor which has been contacted.

8. Describe the follow-up contacts with diverse suppliers/contractors made by your firm after the initial solicitation.

9. Describe the efforts made by your firm to provide interested diverse suppliers/contractors with sufficiently detailed information about the plans, specifications and requirements of the contract.

10. Describe your firm's efforts to locate diverse suppliers/contractors.

Based on the above stated good faith efforts made to include supplier diversity, the bidder hereby requests that the original supplier diversity percentage goal be waived and that the percentage goal for this project be set at _____ percent.

The undersigned hereby certifies, having read the answers contained in the foregoing Application for Waiver, that they are true and correct to the best of his/her knowledge, information and belief.

Signature_____

Name_____

Title_____

Company_____

Date_____

AFFIDAVIT

"The undersigned swears that the foregoing statements are true and correct and include all material information necessary to identify and explain the operation of _____ (name of firm) as well as the ownership thereof. Further, the undersigned agrees to provide through the prime contractor or directly to the Contracting Officer current, complete and accurate information regarding actual work performed on the project, the payment therefore and any proposed changes, if any, of the project, the foregoing arrangements and to permit the audit and examination of books, records and files of the named firm. Any material misrepresentation will be grounds for terminating any contract which may be awarded and for initiating action under federal or state laws concerning false statements."

Note - If, after filing this information and before the work of this firm is completed on the contract covered by this regulation, there is any significant change in the information submitted, you must inform the Director of Facilities Planning and Development of the change either through the prime contractor or directly.

Signature _____

Name _____

Title _____

Date _____

Corporate Seal (where appropriate)

Date _____

State of _____

County of _____

On this _____ day of _____, 19_,
before me appeared (name) _____ to me personally known, who, being
duly sworn, did execute the foregoing affidavit, and did state that he or she was properly authorized by (name of firm)

_____ to execute the affidavit and did so as his or her own free act and deed.

(Seal)

Notary Public _____

Commission expires _____

AFFIDAVIT FOR AFFIRMATIVE ACTION

State of Missouri)
)
County of) ss.

_____ first being duly sworn on his/her oath
states: that he/she is the (sole proprietor, partner, or officer) of _____
_____ a (sole proprietorship, partnership, corporation), and as such (sole proprietor, partner, or officer) is
duly authorized to make this affidavit on behalf of said (sole proprietorship, partnership, corporation); that under the contract
known as " _____ "
Project No. _____ less than 50 persons in the aggregate will be employed and therefore, the applicable Affirmative
Action requirements as set forth in the "Nondiscrimination in Employment Equal Opportunity," Supplemental Special
Conditions, and Article 13 in the General Conditions do not apply.

Subscribed and sworn before me this _____ day of _____, 19_____.

My commission expires _____, 19_____.

CERTIFYING SUPPLIER DIVERSITY AGENCIES

Diverse firms are defined in General Conditions Articles 1.1.7 and those businesses must be certified as disadvantaged by an approved agency. The Bidder is responsible for obtaining information regarding the certification status of a firm. A list of certified firms may be obtained by contacting the agencies listed below. Any firm listed as disadvantaged by any of the following agencies will be classified as a diverse firm by the Owner.

St. Louis Development Corporation
1520 Market St., Ste. 2000
St. Louis, MO 63103
P: 314.982.1400
W: www.stlouis-mo.gov/slhc/

Bi-State Development
211 N. Broadway, Ste. 700
St. Louis, MO 63102
P: 314.982.1400
W: www.metrostlouis.dbesystem.com

St. Louis Minority Business Council
211 N. Broadway, Ste. 1300
St. Louis, MO 63102
P: 314.231.5555
W: www.slmhc.org

U.S. Small Business Administration - St. Louis, MO
8(a) Contractors, Minority Small Business
1222 Spruce Street, Suite 10.103
St. Louis, MO 63101
P: 314.539.6600
W: www.sba.gov

Lambert St. Louis International Airport
Business Diversity Development Office
11495 Navaid
Bridgeton, MO 63044
P: 314-426-8111
W: www.flystl.com/business/business-diversity-development-1/directories

City of Kansas City, Missouri
Human Relations Department, MBE/WBE Division
4th Floor, City Hall
414 E. 12th Street
Kansas City, MO 64106
P: 816.513.1836
W: kcmohrd.mwdbe.com/?TN=kcmohrd

Mid-States Minority Supplier Development Council
505 N. 7th Street, Ste. 1820
St. Louis, MO 63101
P: 314.278.5616
W: midstatesdc.org

U.S. Small Business Administration - Kansas City, MO
8(a) Contractors, Minority Small Business
1000 Walnut, Suite 500
Kansas City, MO 64106
P: 816.426.4900
W: kcmohrd.mwdbe.com/?TN=kcmohrd

Missouri Department of Transportation
Division of Construction
1617 Missouri Blvd.
P.O. Box 270
Jefferson City, MO 65102
P: 573.526.2978
W: www.modot.org/mrcc-directory

Illinois Department of Transportation
MBE/WBE Certification Section
2300 Dirksen Parkway
Springfield, IL 62764
217/782-5490; 217/785-1524 (Fax)
W: webapps.dot.illinois.gov/UCP/ExternalSearch

State of Missouri OA
Office of Equal Opportunity
301 W. High St. HSC Rm 870-B
Jefferson City, MO 65101
P: 877.259.2963
W: oa.mo.gov/sites/default/files/sdvelisting.pdf
oeo.mo.gov/

Minority Newspapers

Dos Mundos Bilingual Newspaper
902A Southwest Blvd.
Kansas City, MO 64108
816-221-4747
www.dosmundos.com

Kansas City Hispanic News
2918 Southwest Blvd.
Kansas City, MO 64108
816/472-5246
www.kchispanicnews.com

The Kansas City Globe
615 E. 29th Street
Kansas City, MO 64109
816-531-5253
www.thekcglobe.com/about_us.php

St. Louis American
4144 Lindell
St. Louis, MO 63108
314-533-8000
www.stlamerican.com

St. Louis Chinese American News
1766 Burns Ave, Suite 201
St. Louis, MO 63132
314-432-3858
www.scanews.com

St. Louis Business Journal
815 Olive St., Suite 100
St. Louis, MO 63101
314-421-6200
www.bizjournal.com/stlouis

Kansas City Business Journal
1100 Main Street, Suite 210
Kansas City, MO 64105
816-421-5900
www.bizjournals.com/kansascity

AFFIDAVIT OF SUPPLIER DIVERSITY PARTICIPATION

The apparent low Bidder shall complete and submit this form within 48 hours of bid opening for each Diverse firm that will participate on the contract.

1. Diverse Firm: _____

Contact Name: _____

Address: _____

Phone No.: _____ E-Mail: _____

Status (check one) MBE ☐ WBE ☐ Veteran ☐ Service Disabled Veteran ☐ DBE ☐

If MBE, Certified as (circle one): 1) Black American 2) Hispanic American 3) Native American 4) Asian American

2. Is the proposed diverse firm certified by an approved agency [see IFB article 15]? Yes ☐ No ☐

Agency: _____ [attach copy of certification authorization from agency]

Certification Number: _____

3. Diverse firm scope work and bid/contract dollar amount of participation (List Base Bid and Alternate work separately). The final Dollar amount will be determined at substantial completion:

	Scope of Work	Bid/Contract Amount	Final Dollar Amount
Base Bid			
Alternate #1			
Alternate #2			
Alternate #3			
Alternate #4			
Alternate #5			
Alternate #6			

The undersigned certifies that the information contained herein (i.e. Scope of Work and Bid/Contract Amount) is true and correct to the best of their knowledge, information and belief.

General Contractor: _____

Diverse Firm: _____

Signature: _____

Signature: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

The undersigned certifies that the information contained herein (i.e. Scope of Work and Final Dollar Amount) is true and correct to the best of their knowledge, information and belief. If the Final Dollar Amount is different than the Bid/Contract Amount, then attach justification for the difference.

Contractor: _____

Diverse Firm: _____

Signature: _____

Signature: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

University of Missouri

INFORMATION FOR BIDDERS

	Page No.
1. Contract Documents and Definitions.....	IFB/1
2. Bidder's Obligation	IFB/1
3. Interpretation of Documents.....	IFB/1
4. Bids.....	IFB/1
5. Modification and Withdrawal of Bids	IFB/2
6. Signing of Bids	IFB/2
7. Bid Security	IFB/2
8. Bidder's Statement of Qualifications.....	IFB/3
9. Award of Contract	IFB/3
10. Contract Execution	IFB/3
11. Contract Security	IFB/3
12. Time of Completion	IFB/3
13. Number of Contract Documents	IFB/3
14. Missouri Products and Missouri Firms.....	IFB/4
15. Supplier Diversity.....	IFB/4
16. List of Subcontractors.....	IFB/6

July 2024 Edition

1. Contract Documents and Definitions

1.1 The “Drawings,” “Specifications,” and “Contract Documents” are defined in the “General Conditions of the Contract for Construction.”

1.2 The Drawings, Specifications, and other Contract Documents may be obtained as indicated in the Advertisement for Bids.

1.3 As used herein, “Bid” refers to an offer or proposal submitted to the Owner to enter into a contract for the work identified in the Drawings, Specifications and other Contract Documents.

1.4 As used herein, “Bidder” means an individual or business entity that submits a Bid to the Owner as a prime bidder or general contractor.

1.5 All other terms used herein shall have the meanings defined herein or in the General Conditions of the Contract for Construction or other Contract Documents.

2. Bidder Obligations

2.1 Before submitting a Bid, each Bidder shall carefully examine the Drawings and Specifications and related Contract Documents, visit the site of the work, and fully inform themselves as to all existing conditions, facilities, restrictions, and other matters that could affect the work or the cost thereof.

2.2 Each Bidder shall include in their Bid the cost of all work and materials required to complete the contract in a first-class manner, as specified in the Drawings, Specifications, and other Contract Documents. All work shall be done as defined in the Specifications and as indicated on the Drawings.

2.3 Failure or omission of any Bidder to receive or to examine any form, instrument, addendum, or other document, or to visit the site of the work and acquaint themselves with existing conditions, shall in no way relieve the Bidder from any obligation with respect to their Bid or any awarded contract. No extra compensation will be allowed concerning any matter about which the Bidder should have fully informed themselves prior to submitting a Bid.

2.4 Submission of a Bid shall be deemed acceptance by the Bidder of the above obligations and every obligation required by the Contract Documents in the event the Bid is accepted by the Owner.

3. Interpretation of Documents

3.1 If any prospective Bidder is in doubt about the meaning of any part of the Drawings, Specifications, or

other Contract Documents, the Bidder shall submit a written request to the Architect for an interpretation.

3.2 Any request for interpretation shall be delivered to the Architect at least one (1) week prior to time for receipt of bids.

3.3 A Bid shall be based only on an interpretation issued in the form of an addendum mailed to each person or business entity that is on the Architect’s record as having received a set of the Contract Documents.

3.4 Bidders shall not be entitled to rely on oral interpretations or written statements not issued in an addendum from either the Architect or a representative, agent, or employee of the Owner.

4. Bids

4.1 Bids shall be submitted on a single “Bid for Lump Sum Contract” form (“Bid Form”) as furnished by the Owner or Architect. Bids shall be received separately or in combination as required by Bid Form

4.2 In addition to the Bid Form, the Bid shall include any documents or information required to be submitted by this Information for Bidders or the Contract Documents.

4.3 Bids shall include amounts for alternate bids, unit prices, and cost accounting data where required by the Bid Form.

4.4 Bidders shall apportion each base Bid between various phases of the work, where stipulated in the Bid Form.

4.5 Bids shall be presented in sealed envelopes, which shall be plainly marked “Bids for (indicate name of project from cover sheet)” and mailed or delivered to the building and room number specified in the Advertisement for Bids.

4.6 Each Bidder shall be responsible for actual delivery of their bid during business hours, and it shall not be sufficient to show that a Bid was mailed in time to be received before scheduled closing time for receipt of bids, nor shall it be sufficient to show that a Bid was somewhere in a university facility.

4.7 The Bidder’s price shall include all federal sales, excise, and similar taxes that may be lawfully assessed in connection with their performance of work and purchase of materials to be incorporated in the work. City and State taxes shall not be included as stated in the General Conditions of the Contract for Construction.

4.8 No Bidder shall stipulate in their Bid any conditions not contained in the Bid Form or Contract Documents. Inclusion of any additional conditions or taking exception to any terms may result in rejection of the Bid.

4.9 The Owner reserves the right to waive informalities in bids and to reject any or all bids.

5. Modification and Withdrawal of Bids

5.1 A Bidder may withdraw their Bid at any time before the scheduled closing time for receipt of bids. No Bidder may withdraw their Bid after the scheduled closing time for receipt of bids.

5.2 Only a written request for modification or correction of a previously submitted Bid, contained in a sealed envelope that is plainly marked "Modification of Bid on (name of project on cover sheet)," which is addressed in the same manner as a Bid and received by Owner before the scheduled closing time for receipt of bids, will be accepted and the Bid modified in accordance with such written request.

6. Signing of Bids

6.1 All bids shall be signed manually, by an individual authorized to sign on behalf of the Bidder. The title or office held by the person signing for the Bidder shall appear below the signature.

6.2 A Bid should contain the full and correct legal name of the Bidder. If the Bidder is an entity registered with the Missouri Secretary of State, the Bidder's name on the Bid form should appear as shown in the Secretary of State's records.

6.3 A Bid from a partnership or joint venture shall be signed in the name of the partnership or joint venture by at least one partner or joint venturer or by an Attorney-in-Fact. If signed by Attorney-in-Fact there should be attached to the Bid, a Power of Attorney evidencing authority to sign the Bid executed by all partners or joint venturers.

6.4 A Bid from a corporation shall be signed by an officer of the corporation.

6.5 A Bid from a limited liability company (LLC) shall be signed by a manager or a managing member of the LLC.

6.6 A Bid from an individual or sole proprietor shall be signed in the name of the individual by the individual or an Attorney-in-Fact. If signed by Attorney-in-Fact there should be attached to the Bid, a Power of Attorney evidencing authority to sign the Bid

executed by the individual.

7. Bid Security

7.1 Each Bid shall be accompanied by a Bid Bond, certified check, or cashier's check, acceptable to and payable without condition to "The Curators of the University of Missouri" in an amount at least equal to five percent (5%) of the Bidder's Bid including additive alternates ("Bid Security").

7.2 Bid security is required as a guarantee that the Bidder will enter into a written contract and furnish a Performance Bond within the time and in form as specified herein or in the Contract Documents; and, if successful Bidder fails to do so, the Bid Security will be realized upon or retained by the Owner. The apparent low Bidder shall notify the Owner in writing within forty-eight (48) hours of the Bid opening of any circumstance that may affect the Bid Security including, but not limited to, an error in the Bid. This notification will not guarantee release of the Bidder's security and/or the Bidder from the Bidder's obligations.

7.3 If a Bid Bond is given as a Bid Security, the amount of the Bid Bond may be stated as an amount equal to at least five percent (5%) of the Bid, including additive alternates, described in the Bid. The Bid Bond shall be executed by the Bidder and a responsible surety licensed in the State of Missouri with a Best's rating of no less than A-/XL.

7.4 It is specifically understood that the Bid Security is a guarantee and shall not be considered as liquidated damages for failure of Bidder to execute and deliver the contract and Performance Bond, nor limit or fix the Bidder's liability to the Owner for any damages sustained because of failure to execute and deliver the required contract and Performance Bond.

7.5 The Bid Security of the two (2) lowest, responsive, responsible bidders will be retained by the Owner until a contract has been executed and an acceptable Performance Bond has been furnished, as required hereby, when such Bid Security will be returned. The Bid Bonds of all other Bidders will be destroyed and all other alternative forms of Bid Security will be returned to them within ten (10) days after the Owner has determined the two (2) lowest, responsive, responsible bids.

8. Bidder's Statement of Qualifications

8.1 Each Bidder shall present evidence of their experience, qualifications, financial responsibility, and ability to carry out the terms of the contract by completing and submitting with their Bid the "Bidder's Statement of Qualifications" form included with the Bid

documents.

8.2 Financial information required to be included with the Statement of Qualifications may be submitted by the Bidder in a separately sealed envelope, which will not be opened by the Owner during the public Bid opening.

8.3 The Bidder's Statement of Qualifications will be treated as confidential information by the Owner to the extent permitted by the Missouri Sunshine Law, Section 610.010, RSMo et seq.

8.4 Bids not accompanied by the Bidder's Statement of Qualifications may be rejected.

9. Award of Contract

9.1 The Owner reserves the right to let other contracts in connection with the work, including, but not limited to, contracts for furnishing and installation of furniture, equipment, machines, appliances, and other apparatus.

9.2 In awarding the contract, the Owner may take into consideration the ability of the Bidder, and their subcontractors, to handle promptly the additional work; the skill, facilities, capacity, experience, ability, responsibility, previous work, and financial standing of Bidder; the Bidder's ability to provide the required bonds and insurance; the quality, efficiency and construction of equipment proposed to be furnished; the period of time within which equipment is proposed to be furnished and delivered; success in achieving the specified Supplier Diversity Goals or demonstrating a good faith effort to do so as described in Article 15 of this document; and the Bidder's status as suspended or debarred. Inability of any Bidder to meet the requirements mentioned above may be cause for rejection of their Bid.

10. Contract Execution

10.1 The awarded Bidder shall submit within fifteen (15) days from receipt of notice of award, the documents required in Article 9 of the General Conditions of the Contract for Construction.

10.2 No bids will be considered binding upon the Owner until all such required documents have been furnished. Failure of Contractor to execute and submit such documents within the time specified will be treated, at the option of the Owner, as a breach of the Bidder's Bid Security and the Owner shall be under no further obligation to the Bidder.

11. Contract Security

11.1 When the Contract Sum exceeds \$50,000, the

Contractor shall procure and furnish a Performance Bond and a Payment Bond in the form prepared by the Owner. Each bond shall be in the amount equal to one hundred percent (100%) of the Contract Sum, as well as adjustments to the Contract Sum. The Performance Bond shall secure and guarantee the Contractor's faithful performance of the Contract, including but not limited to the Contractor's obligation to correct any defects after final payment has been made as required by the Contract Documents. The Payment Bond shall secure and guarantee payment of all persons performing labor on the Project under the Contract and furnishing materials in connection with the Contract in accordance with Section 107.170, RSMo. These bonds shall be in effect through the duration of the Contract plus any Guaranty Period required by the Contract Documents.

11.2 The bonds required hereunder shall be meet all requirements of Article 11 of the General Conditions of the Contract for Construction.

11.3 If the surety of any bond furnished by the Contractor is declared bankrupt or becomes insolvent or its right to conduct business in the State of Missouri is terminated, or it ceases to meet the requirements of this Article 11, the Contractor shall within ten (10) days substitute another bond and surety, both of which must be acceptable to the Owner. If the Contractor fails to make such substitution, the Owner may procure such required bonds on behalf of Contractor at Contractor's expense.

12. Time of Completion

12.1 The awarded Contractor shall agree to commence work within five (5) days of the date "Notice to Proceed" is received from the Owner, and the entire work shall be completed by the completion date specified or within the number of consecutive calendar days stated in the Special Conditions. The duration of the construction period, when specified in consecutive calendar days, shall begin when the contractor receives notice requesting the documents required in Article 9 of the General Conditions of the Contract for Construction.

13. Number of Contract Documents

13.1 The Owner will furnish the Contractor a copy of the executed contract, Performance Bond, and Payment Bond.

13.2 The Owner will furnish the Contractor the number of copies of complete sets of Drawings and Specifications for the work, as well as clarification and change order Drawings pertaining to change orders required during construction as set forth in the Special Conditions.

14. Missouri Products and Missouri Firms

14.1 The Curators of the University of Missouri have adopted a policy which is binding upon all employees and departments of the University of Missouri, and which by contract, shall be binding upon independent contractors and subcontractors with the University of Missouri whereby all other things being equal, and when the same can be secured without additional cost over foreign products, or products of other states, a preference shall be granted in all construction, repair and purchase contracts, to all products, commodities, materials, supplies, and articles mined, grown, produced, and manufactured in marketable quantity and quality in the State of Missouri, and to all firms, corporations or individuals doing business as Missouri firms, corporations, or individuals. Each Bidder submitting a Bid agrees to comply with and be bound by the foregoing policy.

15. Supplier Diversity

15.1 Award of Contract

15.1.1 The Bidder shall have a minimum goal of providing participation of Diverse Firms in the project, through self-performance, if a Diverse Firm, or by subcontracting with Diverse Firms as subcontractors, suppliers, or manufacturers, in the amount of the percent of contract price stated in the Bid Form ("Supplier Diversity Goals"). The Owner will take into consideration the Bidder's success in achieving the Supplier Diversity Goals in awarding the contract. Inability of any Bidder to meet one or more of the Supplier Diversity Goals may be cause for rejection of their Bid, unless the Bidder has demonstrated that they made a good faith effort to comply as set forth below.

15.1.2 In addition to the Supplier Diversity Goals set forth in the Bid Form, a three (3) point bonus preference will be given to a Bidder that is a certified Service-Disabled Veteran Enterprises (SDVE) business doing business as Missouri firm, corporation, or individual, or that maintains a Missouri office or place of business. The bonus preference will **not** be given to a Bidder for the use of SDVE subcontractors, suppliers, or manufacturers. The bonus preference shall be calculated and applied by reducing the Bid amount of the SDVE Bidder by three (3) percent of the apparent low, responsive Bidder's Bid. Based on this calculation, if the SDVE Bidder's resulting total Bid valuation is less than the Bid of the apparent low, responsive Bidder, the SDVE Bid becomes the apparent low, responsive Bid. This reduction is for evaluation purposes only and will have no impact on the actual amount(s) of the SDVE Bidder's Bid or the amount(s) of any contract awarded.

15.2 List of Diverse Firms

15.2.1 The Bidder shall submit, within forty-eight (48) hours of the receipt of bids to the University Contracting Officer, a list of Diverse Firms that will be performing as contractor, subcontractor, supplier, or manufacturer on the project. The list shall separately identify each Diverse Firm by name and address. If acceptance or non-acceptance of alternates will affect the designation of a subcontractor, supplier, or manufacturer, the Bidder shall provide information for each affected category.

15.2.2 Failure to include a complete list of Diverse Firms that will be used to meet the Supplier Diversity Goals may be grounds for rejection of the Bid.

15.2.3 The list of Diverse Firms shall be submitted in addition to any other listing of subcontractors required in the Bid Form or elsewhere in this document.

15.3 Supplier Diversity Goal Computation

15.3.1 The Bidder may count toward the Supplier Diversity Goal only expenditures to Diverse Firms that perform a commercially useful function in the work of a contract. A Diverse Firm is considered to perform a commercially useful function when it is responsible for executing a distinct element of the work or contract and is carrying out its responsibilities by actually performing managing and supervising the work.

15.3.2 The Bidder may count toward its Supplier Diversity Goals work granted to a second or subsequent tier subcontractor that is a Diverse Firm provided the Diverse Firm assumes the actual and contractual responsibility for performing work on the project. The Bidder may count toward its Supplier Diversity Goals expenditures for materials and/or supplies obtained from a Diverse Firm, provided the Diverse Firm assumes the actual and contractual responsibility for the provision of the materials and/or supplies. To perform a commercially useful function, a supplier or manufacturer that is a Diverse Firm must be responsible for negotiating price, determining quality and quantity, ordering the material, installing (where applicable) and paying for the material itself.

15.3.3 A Diverse Firm does not perform a commercially useful function if its role is solely that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of participation. In determining whether a firm is such an extra participant, the Owner will examine similar transactions, particularly those in which Diverse Firms do not participate.

15.3.4 A Bidder that is a certified Diverse Firm may count one hundred percent 100% of the contract amount

towards the applicable Supplier Diversity Goal(s), less any amounts awarded to another Diverse Firm. For projects with separate Supplier Diversity Goals, the Bidder will be required to obtain participation in the other categories for which it is not certified through participation by subcontractors, suppliers, or manufacturers. Therefore, an MBE Bidder is expected to obtain the required SDVE and WBE/DBE/Veteran participation; a WBE/DBE/Veteran Bidder is expected to obtain the required MBE and SDVE participation; and a SDVE Bidder is expected to obtain the required MBE and WBE/DBE/Veteran participation.

15.3.5 If the Bidder is a joint venture and the joint venture itself is certified as a Diverse Firm, the joint venture may count toward the Supplier Diversity Goals that portion of the total dollar value of the work equal to the percentage of the ownership and control of the Diverse Firm participant in the joint venture. When a Diverse Firm performs work as a participant in a joint venture where the joint venture is **not** separately certified as a Diverse Firm, only the portion of the Contract Sum equal to the distinct, clearly defined portion of the work that the Diverse Firm performs with its own forces shall count toward the Supplier Diversity Goals.

15.3.6 If a Diverse Firm is certified in more than one Supplier Diversity category, that Diverse Firm may be used to satisfy more than one Supplier Diversity goal, provided that the Diverse Firm is awarded a sufficient percentage of the contract work to meet or exceed all applicable Supplier Diversity Goals.

15.4 Certification of Diverse Firms

15.4.1 The Bidder shall submit, within forty-eight (48) hours of the time for receipt of bids, to the University Contracting Officer, the information requested in the "Supplier Diversity Compliance Evaluation Form" for every Diverse Firm the Bidder intends to award work to under the contract to meet the Supplier Diversity Goals.

15.4.2 "Diverse Firm" is defined in Article 1 of the General Conditions of the Contract for Construction. The Bidder is responsible for obtaining information regarding the certification status of a Diverse Firm. A list of certified Diverse Firms may be obtained by contacting the agencies listed in the document entitled "Supplier Diversity Certifying Agencies."

15.4.3 Bidders are urged to encourage their prospective subcontractors, joint venture participants, team partners, suppliers and manufacturers who are Diverse Firms but are not currently certified to obtain certification from one of the approved agencies prior to

bidding.

15.5 Supplier Diversity Participation Waiver

15.5.1 The Bidder is required to make a good faith effort to locate and contract with Diverse Firms. If a Bidder has made a good faith effort to secure the required Supplier Diversity Participation and has failed, the Bidder shall submit within forty-eight (48) hours of the time for receipt of bids to the University Contracting Officer, the information requested in "Application for Supplier Diversity Participation Waiver." The Contracting Officer will review the Bidder's actions as set forth in the Bidder's "Application for Waiver" and any other factors deemed relevant by the Contracting Officer to determine if a good faith effort has been made to meet the Supplier Diversity Goal(s). If the Bidder is judged not to have made a good faith effort, the Bid may be rejected. Bidders who demonstrate that they have made a good faith effort to meet the Supplier Diversity Goal(s) may be awarded the contract regardless of the actual percent of Supplier Diversity Participation, provided that the Bid is otherwise acceptable and is determined to be the lowest, responsive, responsible Bid.

15.5.2 To determine the good faith effort of the Bidder, the Contracting Officer may evaluate factors including, but not limited to, the following:

15.5.2.1 The Bidder's attendance at pre-proposal meetings scheduled to inform Diverse Firms of contracting and subcontracting opportunities and responsibilities associated with Supplier Diversity Participation.

15.5.2.2 The Bidder's advertisements in general circulation trade association, and diverse (minority) focused media concerning subcontracting opportunities.

15.5.2.3 The Bidder's written notice to specific Diverse Firms that their services were being solicited in sufficient time to allow for their effective participation.

15.5.2.4 The Bidder's follow-up attempts to the initial solicitation(s) to determine with certainty whether Diverse Firms were interested.

15.5.2.5 The Bidder's efforts to divide the work into packages suitable for subcontracting to Diverse Firms.

15.5.2.6 The Bidder's efforts to provide interested Diverse Firms with sufficiently detailed information about the Drawings, Specifications and requirements of the contract, and clear scopes of work for the Diverse Firms to bid on.

15.5.2.7 The Bidder's efforts to solicit for specific sub-bids from Diverse Firms in good faith. Documentation should include names, addresses, and telephone numbers of Diverse Firms contacted, a description of all information provided to the Diverse Firms, and an explanation as to why agreements were not reached.

15.5.2.8 The Bidder's efforts to locate Diverse Firms not on the directory list and assist Diverse Firms in becoming certified as such.

15.5.2.9 The Bidder's initiatives to encourage and develop participation by Diverse Firms.

15.5.2.10 The Bidder's efforts to help Diverse Firms overcome legal or other barriers impeding the participation of Diverse Firms in the construction contract.

15.5.2.11 The availability of Diverse Firms and the adequacy of the Bidder's efforts to increase the participation of such business provided by the persons and organizations consulted by the Bidder.

15.6 Submittal of Forms

15.6.1 Within forty-eight (48) hours of the time for receipt of bids, the apparent low Bidder shall submit to the University Contracting Officer all Supplier Diversity Compliance Evaluation Form(s), and/or Application for Waiver with supporting information, and an "Affidavit of Supplier Diversity Participation" for every Diverse Firm the Bidder intends to award work on the contract. The affidavit will be signed by both the Bidder and the Diverse Firm. Failure to submit the documents in the time indicated may result in rejection of the Bid.

15.7 Additional Bid/Proposer Information

15.7.1 The Contracting Officer reserves the right to request from the apparent low Bidder additional information regarding the Bidder's proposed Supplier Diversity Participation and supporting documentation. The Bidder shall respond in writing to the Contracting Officer within twenty-four (24) hours of a request.

15.7.2 The Contracting Officer reserves the right to request additional information after the Bidder has responded to prior requests. This information may include follow up and/or clarification of the information previously submitted.

15.7.3 The Owner reserves the right to consider additional Supplier Diversity Participation submitted by the Bidder after bids are opened. The Owner may

elect to waive the good faith effort requirement if such additional participation achieves the Supplier Diversity Goal.

15.7.4 The Bidder shall provide to the Owner information related to the Supplier Diversity Participation included in the Bidder's proposal, including, but not limited to, the complete Application for Waiver, evidence of certification of participating Diverse firms, dollar amount of participation of Diverse Firms, information supporting a good faith effort as described above, and a list of all Diverse Firms that submitted bids to the Bidder with the Diverse Firm's price, and the name and the price of the firm awarded the scope of work.

16. List of Subcontractors

16.1 If a list of subcontractors is required on the Bid Form, the Bidder shall list the name, city, and state of the firm(s) that will accomplish that portion of the contract requested in the space provided. This list is separate from both the list of Diverse Firms required in Section 15.2 and the complete list of subcontractors required in Section 10.1 of this document. Should the Bidder choose to perform any of the listed portions of the work with its own forces, the Bidder shall enter its own name, city, and state in the space provided. If acceptance or non-acceptance of alternates will affect the designation of a subcontractor, the Bidder shall provide that information on the Bid Form.

16.2 Failure of the Bidder to supply the list of subcontractors required or the listing of more than one subcontractor for any category without designating the portion of the work to be performed by each, shall be grounds for the rejection of the Bid. The Bidder can petition the Owner to change a listed subcontractor within forty-eight (48) hours of the Bid opening. The Owner reserves the right to make the final determination on a petition to change a subcontractor. The Owner will consider factors such as clerical and mathematical errors in the Bid, a listed subcontractor's inability to perform the work, etc. Any request to change a listed subcontractor shall include at a minimum, a Bid sheet showing tabulation of the Bid; all subcontractor bids with documentation of the time they were received by the contractor; and a letter from the listed subcontractor on their letterhead stating why they cannot perform the work if applicable. The Owner reserves the right to ask for additional information.

16.3 Upon award of the contract, the requirements of Article 10 herein and Article 5 of the General Conditions of the Contract for Construction will apply.

University of Missouri

General Conditions

of the

Contract

for

Construction

July 2024 Edition

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TABLE OF ARTICLES

	PAGE
1. GENERAL PROVISIONS.....	GC/1
1.1 Basic Definitions	GC/1
1.2 Specifications and Drawings	GC/3
1.3 Required Provisions Deemed Inserted.....	GC/4
2. OWNER.....	GC/4
2.1 Information and Services Required of the Owner	GC/4
2.2 Owner's Right to Stop the Work	GC/4
2.3 Owner's Right to Carry Out the Work.....	GC/4
2.4 Extent of Owner Rights	GC/5
3. CONTRACTOR	GC/5
3.1 Contractor's Warranty	GC/5
3.2 Compliance with Laws, Regulations, Permits, Codes, and Inspections	GC/5
3.3 Anti-Kickback	GC/6
3.4 Supervision and Construction Procedures	GC/6
3.5 Use of Site	GC/7
3.6 Review of Contract Documents and Field Conditions by Contractor.....	GC/8
3.7 Cleaning and Removal.....	GC/8
3.8 Cutting and Patching	GC/8
3.9 Indemnification.....	GC/9
3.10 Patents	GC/9
3.11 Delegated Design.....	GC/10
3.12 Materials, Labor, and Workmanship	GC/10
3.13 Approved Equal.....	GC/11
3.14 Shop Drawings, Product Data, Samples, and Coordination Drawings/BIM Models.....	GC/11
3.15 Record Drawings	GC/12
3.16 Operating Instructions and Service Manual.....	GC/13
3.17 Taxes	GC/13
3.18 Contractor's Construction Schedules.....	GC/14
4. ADMINISTRATION OF THE CONTRACT	GC/14
4.1 Rights of the Owner.....	GC/14
4.2 Rights of the Architect.....	GC/15
4.3 Review of the Work.....	GC/15
4.4 Claims.....	GC/15
4.5 Claims for Concealed or Unknown Conditions.....	GC/15
4.6 Claim for Additional Cost	GC/16
4.7 Claims for Additional Time.....	GC/16
4.8 Resolution of Claims and Disputes.....	GC/17
4.9 Administrative Review	GC/17
5. SUBCONTRACTORS	GC/17
5.1 Award of Subcontracts	GC/17
5.2 Subcontractual Relations	GC/18
5.3 Contingent Assignment of Subcontract	GC/18
6. SEPARATE CONTRACTS AND COOPERATION	GC/18
7. CHANGES IN THE WORK.....	GC/19
7.1 Change Orders	GC/19
7.2 Construction Change Directive.....	GC/19
7.3 Overhead and Profit.....	GC/20
7.4 Extended General Conditions.....	GC/21

7.5 Emergency Work.....	GC/21
8. TIME	GC/21
8.1 Progress and Completion.....	GC/21
8.2 Delay in Completion.....	GC/21
8.3 Liquidated Damages.....	GC/22
9. PAYMENTS AND COMPLETION.....	GC/22
9.1 Commencement, Prosecution and Completion.....	GC/22
9.2 Contract Sum	GC/23
9.3 Schedule of Values	GC/23
9.4 Applications for Payment	GC/24
9.5 Approval for Payment	GC/25
9.6 Decisions to Withhold Approval	GC/25
9.7 Progress Payments.....	GC/25
9.8 Failure of Payment.....	GC/26
9.9 Substantial Completion.....	GC/26
9.10 Partial Occupancy or Use	GC/26
9.11 Final Completion and Final Payment	GC/26
10. PROTECTION OF PERSONS AND PROPERTY	GC/27
10.1 Safety Precautions and Programs	GC/27
10.2 Safety of Persons and Property.....	GC/27
11. INSURANCE and BONDS	GC/28
11.1 Insurance.....	GC/28
11.2 Commercial General Liability	GC/28
11.3 Licensed for Use Vehicle Liability.....	GC/29
11.4 Workers' Compensation Insurance.....	GC/29
11.5 General Insurance Requirements and Professional Liability.....	GC/29
11.6 Builder's Risk Insurance	GC/30
11.7 Bonds.....	GC/31
12. UNCOVERING AND CORRECTION OF THE WORK.....	GC/32
12.1 Uncovering of the Work	GC/32
12.2 Correction of the Work.....	GC/32
12.3 Acceptance of Nonconforming Work.....	GC/32
13. MISCELLANEOUS PROVISIONS	GC/33
13.1 Written Notice	GC/33
13.2 Rights and Remedies	GC/33
13.3 Tests and Inspections.....	GC/33
13.4 Nondiscrimination in Employment Opportunity	GC/34
13.5 Supplier Diversity Goal Program	GC/34
13.6 Wage Rates.....	GC/34
13.7 Records.....	GC/36
13.8 Codes and Standards.....	GC/36
13.9 General Provisions.....	GC/37
13.10 Certifications.....	GC/37
14. TERMINATION OR SUSPENSION OF THE CONTRACT	GC/38
14.1 Termination by Owner for Cause	GC/38
14.2 Suspension by the Owner for Convenience	GC/39
14.3 Owner's Termination for Convenience	GC/39

ARTICLE 1 GENERAL PROVISIONS

1.1 Basic Definitions

As used in the Contract Documents, the following terms shall have the meanings and refer to the parties designated in these definitions.

1.1.1 Owner

The Owner is The Curators of the University of Missouri. The Owner may act through its Board of Curators or any duly authorized committee or representative thereof. The Owner may also be referred to herein as "University".

1.1.2 Contracting Officer

The Contracting Officer is the duly authorized representative of the Owner with the authority to execute contracts. Communications to the Contracting Officer shall be forwarded via the Owner's Representative.

1.1.3 Owner's Representative

The Owner's Representative is authorized by the Owner as the administrator of the Contract and will represent the Owner during the progress of the Work. Communications from the Architect to the Contractor and from the Contractor to the Architect shall be through the Owner's Representative, unless otherwise indicated in the Contract Documents.

1.1.4 Architect

When the term "Architect" is used herein, it shall refer to the Architect or the Engineer specified and defined in the Contract for Construction or its duly authorized representative. Communications to the Architect shall be forwarded to the address shown in the Contract for Construction.

1.1.5 Owner's Authorized Agent

When the term "Owner's Authorized Agent" is used herein, it shall refer to an employee or agency acting on the behalf of the Owner's Representative to perform duties related to code inspections, testing, operational systems check, certification or accreditation inspections, or other specialized work.

1.1.6 Contractor

The Contractor is the person or entity with whom the Owner has entered into the Contract for Construction. The term "Contractor" means the Contractor or the Contractor's authorized representative.

1.1.7 Subcontractor and Lower-tier Subcontractor

A Subcontractor is a person or organization who has a contract with the Contractor to perform any of the Work. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and means a Subcontractor or its authorized representative. The term "Subcontractor" also is applicable to those furnishing materials to be incorporated in the Work whether

performed at the Owner's site or off site, or both. A lower-tier Subcontractor is a person or organization who has a contract with a Subcontractor or another lower-tier Subcontractor to perform any of the Work at the site. Nothing contained in the Contract Documents shall create contractual relationships between the Owner or the Architect and any Subcontractor or lower-tier Subcontractor of any tier.

1.1.8 Diversity Definitions

"Diverse Firm" shall mean an approved, certified business concern which is at least fifty-one percent (51%) owned and controlled by one (1) or more diverse individuals as described below.

.1 Minority Business Enterprises (MBE)

Minority Business Enterprise (MBE) shall mean an approved certified business concern which is at least fifty-one percent (51%) owned and controlled by one (1) or more minorities as defined below or, in the case of any publicly-owned business, in which at least fifty-one percent (51%) of the stock of which is owned by one (1) or more minorities as defined below, and whose management and daily business operations are controlled by one (1) or more minorities as defined herein.

.1.1 "African Americans", which includes persons having origins in any of the black racial groups of Africa.

.1.2 "Hispanic Americans", which includes persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.

.1.3 "Native Americans", which includes persons of American Indian, Eskimo, Aleut, or Native Hawaiian origin.

.1.4 "Asian-Pacific Americans", which includes persons whose origins are from Japan, China, Taiwan, Korea, Vietnam, Laos, Cambodia, the Philippines, Samoa, Guam, the U.S. Trust Territories of the Pacific, or the Northern Marianas.

.1.5 "Asian-Indian Americans", which includes persons whose origins are from India, Pakistan, or Bangladesh.

.2 Women Business Enterprise (WBE)

Women Business Enterprise (WBE) shall mean an approved certified business concern which is at least fifty-one percent (51%) owned and controlled by one (1) or more women or, in the case of any publicly owned business, in which at least fifty-one percent (51%) of the stock of which is owned by one (1) or more women, and whose management and daily business operations are controlled by one (1) or more women.

.3 Veteran Owned Business

Veteran Owned Business shall mean an approved certified business concern which is at least fifty-one percent (51%) owned and controlled by one (1) or more Veterans or, in the case of any publicly owned business, in which at least fifty-one percent (51%) of the stock of which is owned by one (1) or more Veterans, and whose management and daily business operations are controlled by one (1) or more Veterans. Veterans must be certified by the appropriate federal agency responsible for veterans' affairs.

.4 Service-Disabled Veteran Enterprise (SDVE)

Service-Disabled Veteran Enterprise (SDVE) shall mean a business certified by the State of Missouri Office of Administration as a Service-Disabled Veteran Enterprise, which is at least fifty-one percent (51%) owned and controlled by one (1) or more Serviced-Disabled Veterans or, in the case

of any publicly-owned business, in which at least fifty-one percent (51%) of the stock of which is owned by one (1) or more Service-Disabled Veterans, and whose management and daily business operations are controlled by one (1) or more Serviced-Disabled Veterans.

.5 Disadvantaged Business Enterprise (DBE)

A Disadvantaged Business Enterprise (DBE) is a for-profit small business concern where a socially and economically disadvantaged individual owns at least 51% interest and also controls management and daily business operations. These firms can also be referred to as Small Disadvantaged Businesses (SDB). Eligibility requirements for certification are stated in 49 CFR (Code of Federal Regulations), part 26, Subpart D.

U.S. citizens that are African Americans, Hispanics, Native Americans, Asian-Pacific and Subcontinent Asian Americans, and women are presumed to be socially and economically disadvantaged. Also recognized as DBEs are Historically Black Colleges and Universities (HBCU) and small businesses located in Federal HUB Zones.

To be regarded as economically disadvantaged, an individual must have a personal net worth that does not exceed \$1.32 million. To be seen as a small business, a firm must meet Small Business Administration (SBA) size criteria (500 employees or less) and have average annual gross receipts not to exceed \$22.41 million. To be considered a DBE/SDB, a small business owned and controlled by socially and/or economically disadvantaged individuals must receive DBE certification from one of the recognized Missouri state agencies to be recognized in this classification.

1.1.9 Work

Work shall mean supervision, labor, equipment, tools, material, supplies, incidentals operations and activities required by the Contract Documents or reasonably inferable by the Contractor therefrom as necessary to produce the results intended by the Contract Documents in a safe, expeditious, orderly, and workmanlike manner, and in the best manner known to each respective trade.

1.1.10 Approved

The terms “approved”, “equal to”, “directed”, “required”, “ordered”, “designated”, “acceptable”, “compliant”, “satisfactory”, and similar words or phrases will be understood to have reference to action on the part of the Architect and/or the Owner’s Representative.

1.1.11 Contract Documents

The Contract Documents consist of (1) the executed Contract for Construction, (2) these General Conditions of the Contract for Construction, (3) any Supplemental Conditions or Special Conditions identified in the Contract for Construction, (4) the Specifications identified in the Contract for Construction, (5) the Drawings identified in the Contract for Construction, (6) Addenda issued prior to the receipt of bids, (7) Contractor’s bid addressed to Owner, including Contractor’s completed Qualification

Statement, (8) Contractor’s Performance Bond and Contractor’s Payment Bond, (9) Notice to Proceed, (10) and any other exhibits and/or post bid adjustments identified in the Contract for Construction, (11) Advertisement for Bid, (12) Information for Bidders, and (13) Change Orders issued after execution of the Contract. All other documents and technical reports and information are not Contract Documents, including without limitation, Shop Drawings, and Submittals.

1.1.12 Contract

The Contract Documents form the Contract and are the exclusive statement of agreement between the parties. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior representations or agreements, either written or oral. The Contract Documents shall not be construed to create a contractual relationship of any kind between the Owner and a Subcontractor or any lower-tier Subcontractor.

1.1.13 Change Order

The Contract may be amended or modified without invalidating the Contract only by a Change Order, subject to the limitations in Article 7 and elsewhere in the Contract Documents. A Change Order is a written instrument signed by the Owner and the Contractor stating their agreement to a change in the Work, the amount of the adjustment to the Contract Sum, if any, and the extent of the adjustment to the Contract Time, if any. Agreement to any Change Order shall constitute a final settlement of all matters relating to the change in the Work which is the subject of the Change Order, including, but not limited to, all direct and indirect costs associated with such change and any and all adjustments of the Contract Sum, time and schedule.

1.1.14 Substantial Completion

The terms “Substantial Completion” or “substantially complete” as used herein shall be construed to mean the completion of the entire Work, including all submittals required under the Contract Documents, except minor items which in the opinion of the Architect, and/or the Owner’s Representative will not interfere with the complete and satisfactory use of the facilities for the purposes intended.

1.1.15 Final Completion

The date when all punch list items are completed, including all closeout submittals and approval by the Architect is given to the Owner in writing.

1.1.16 Supplemental and Special Conditions

The terms “Supplemental Conditions” or “Special Conditions” shall mean the part of the Contract Documents which amend, supplement, delete from, or add to these General Conditions.

1.1.17 Day

The term “day” as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

1.1.18 Knowledge

The terms “knowledge,” “recognize” and “discover” their respective derivatives and similar terms in the Contract Documents, as used in reference to the Contractor, shall be interpreted to mean that which the Contractor knows or should know, recognizes, or should recognize and discovers or should discover in exercising the care, skill, and diligence of a diligent and prudent contractor familiar with the Work. Analogously, the expression “reasonably inferable” and similar terms in the Contract Documents shall be interpreted to mean reasonably inferable by a diligent and prudent contractor familiar with the Work.

1.1.19 Punch List

“Punch List” means the list of items, prepared in connection with the inspection(s) of the Project by the Owner’s Representative or the Architect in connection with Substantial Completion of the Work or a portion of the Work, which the Owner’s Representative or the Architect has designated as remaining to be performed, completed, or corrected before the Work will be accepted by the Owner.

1.1.20 Force Majeure

An event or circumstance that could not have been reasonably anticipated and is out of the control of both the Owner and the Contractor.

1.2 Specifications and Drawings

1.2.1 The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction system, standards and workmanship and performance of related services for the Work identified in the Contract for Construction. Specifications are separated into titled divisions for convenience of reference only. Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade. Such separation will not operate to make the Owner or the Architect an arbiter of labor disputes or work agreements.

1.2.2 The drawings herein referred to, consist of drawings prepared by the Architect, and are enumerated in the Contract Documents.

1.2.3 Drawings are intended to show general arrangements, design, and dimensions of work and are partly diagrammatic. Dimensions shall not be determined by scale or rule. If figured dimensions are lacking, they shall be supplied by the Architect on the Contractor’s written request to the Owner’s Representative.

1.2.4 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complimentary, and what is required by one shall be as binding as if required by all; performance by the Contractor

shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the intended results.

1.2.5 In the event of inconsistencies within or between parts of the Contract Documents, or between the Contract Documents and applicable standards, codes and ordinances, the Contractor shall (1) provide the better quality or greater quantity of Work or (2) comply with the more stringent requirement; either or both in accordance with the Owner’s Representative’s interpretation. On the Drawings, given dimensions shall take precedence over scaled measurements and large-scale drawings over small scale drawings. Before ordering any materials or doing any Work, the Contractor and each Subcontractor shall verify measurements at the Work site and shall be responsible for the correctness of such measurements. Any difference which may be found shall be submitted to the Owner’s Representative and the Architect for resolution before proceeding with the Work. If a minor change in the Work is found necessary due to actual field conditions, the Contractor shall submit detailed drawings of such departure for the approval by the Owner’s Representative and the Architect before making the change.

1.2.6 Data in the Contract Documents concerning lot size, ground elevations, present obstructions on or near the site, locations and depths of sewers, conduits, pipes, wires, etc., position of sidewalks, curbs, pavements, etc., and nature of ground and subsurface conditions have been obtained from sources the Architect believes reliable, but the Architect and the Owner do not represent or warrant that this information is accurate or complete. The Contractor shall verify such data to the extent possible through normal construction procedures, including but not limited to contacting utility owners and by prospecting.

1.2.7 Only work included in the Contract Documents is authorized, and the Contractor shall do no work other than that described therein.

1.2.8 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become familiar with local conditions under which the Work is to be performed and correlated personal observations with requirements of the Contract Documents. The Contractor represents that it has performed its own investigation and examination of the Work site and its surroundings and satisfied itself before entering into this Contract as to:

- .1** conditions bearing upon transportation, disposal, handling, and storage of materials;
- .2** the availability of labor, materials, equipment, water, electrical power, utilities and roads;
- .3** uncertainties of weather, river stages, flooding and similar characteristics of the site;
- .4** conditions bearing upon security and protection of material, equipment, and Work in progress;
- .5** the form and nature of the Work site, including the surface and sub-surface conditions;

.6 the extent and nature of Work and materials necessary for the execution of the Work and the remedying of any defects therein; and

.7 the means of access to the site and the accommodations it may require and, in general, shall be deemed to have obtained all information as to risks, contingencies and other circumstances.

.8 the ability to complete work without disruption to normal campus activities, except as specifically allowed in the Contract Documents.

The Owner assumes no responsibility or liability for the physical condition or safety of the Work site, or any improvements located on the Work site. The Contractor shall be solely responsible for providing a safe place for the performance of the Work. The Owner shall not be required to make any adjustment in either the Contract Sum or Contract Time concerning any failure by the Contractor or any Subcontractor to comply with the requirements of this Paragraph.

1.2.9 Drawings, specifications, and copies thereof furnished by the Owner are and shall remain the Owner's property. They are not to be used on another project and, with the exception of one contract set for each party to the Contract, shall be returned to the Owner's Representative on request, at the completion of the Work.

1.3 Required Provisions Deemed Inserted

Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein, and the Contract shall be read and enforced as though it were included herein; and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the written application of either party the Contract shall forthwith be physically amended to make such insertion or correction.

ARTICLE 2 OWNER

2.1 Information and Services Required of Owner

2.1.1 Permits and fees are the responsibility of the Contractor under the Contract Documents, unless specifically stated in the Contract Documents that the Owner will secure and pay for specific necessary approvals, easements, assessments, and charges required for construction, use or occupancy of permanent structures, or for permanent changes in existing facilities.

2.1.2 When requested in writing by the Contractor, information or services under the Owner's control, which are reasonably necessary to perform the Work, will be furnished by the Owner with reasonable promptness to avoid delay in the orderly progress of the Work.

2.2 Owner's Right to Stop the Work

2.2.1 If the Contractor fails to correct Work which is not in strict accordance with the requirements of the Contract Documents or fails to carry out Work in strict accordance with the Contract Documents, the Owner's Representative may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work will not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity. The Owner's lifting of Stop Work Order shall not prejudice the Owner's right to enforce any provision of this Contract.

2.3 Owner's Right to Carry Out the Work

2.3.1 If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a seven (7) day period after receipt of a written notice from the Owner to correct such default or neglect, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. In such case, an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the cost of correcting such deficiencies, including compensation for the Architect's additional services and expenses made necessary by such default or neglect. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to Owner. However, such notice shall be waived in the event of an emergency with the potential for property damage or the endangerment of students, faculty, staff, the public or construction personnel, at the sole discretion of the Owner.

2.3.2 In the event the Contractor has not satisfactorily completed all items on the Punch List within thirty (30) days of its receipt, the Owner reserves the right to complete the Punch List without further notice to the Contractor or its surety. In such case, the Owner shall be entitled to deduct from payments then or thereafter due the Contractor the cost of completing the Punch List items, including compensation for the Architect's additional services. If payments then or thereafter due Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner.

2.4 Extent of Owner Rights

2.4.1 The rights stated in Article 2 and elsewhere in the Contract Documents are cumulative and not in limitation of any rights of the Owner (1) granted in the Contract Documents, (2) at law or (3) in equity.

2.4.2 In no event shall the Owner have control over, charge of, or any responsibility for construction means, methods, techniques, sequences or procedures or for safety precautions and programs in connection with the Work, notwithstanding any of the rights and authority granted the Owner in the Contract Documents.

ARTICLE 3 CONTRACTOR

3.1 Contractor's Warranty

3.1.1 The Contractor warrants all equipment and materials furnished, and work performed, under this Contract, against defective materials and workmanship for a period of twelve months after acceptance as provided in this Contract, unless a longer period is specified, regardless of whether the same were furnished or performed by the Contractor or any Subcontractors of any tier. Upon written notice from the Owner of any breach of warranty during the applicable warranty period due to defective material or workmanship, the affected part or parts thereof shall be repaired or replaced by the Contractor at no cost to the Owner. Should the Contractor fail or refuse to make the necessary repairs, replacements, and tests when requested by the Owner, the Owner may perform, or cause the necessary work and tests to be performed, at the Contractor's expense, or exercise the Owner's rights under Article 14.

3.1.2 Should one or more defects mentioned above appear within the specified period, the Owner shall have the right to continue to use or operate the defective part or apparatus until the Contractor makes repairs or replacements or until such time as it can be taken out of service without loss or inconvenience to the Owner.

3.1.3 The above warranties are not intended as a limitation but are in addition to all other express warranties set forth in this Contract and such other warranties as are implied by law, custom, and usage of trade. The Contractor, and its surety or sureties, if any, shall be liable for the satisfaction and full performance of the warranties set forth herein.

3.1.4 Neither the final payment nor any provision in the Contract Documents nor partial or entire occupancy of the premises by the Owner, nor expiration of warranty stated herein, will constitute an acceptance of Work not done in accordance with the Contract Documents or relieve the Contractor of liability in respect to any responsibility for non-conforming work. The Contractor shall immediately remedy any defects in the Work and pay for any damage to other Work resulting therefrom upon written notice from the Owner. Should the Contractor fail or refuse to remedy the non-conforming work, the Owner may perform, or cause to be performed all actions necessary to bring the Work into conformance with the Contract Documents at the Contractor's expense.

3.1.5 The Contractor agrees to defend, indemnify, and save harmless The Curators of the University of Missouri, their officers, agents, employees, and volunteers, from and against all loss or expense from any injury or damages to property of others suffered or incurred on account of any breach of the aforesaid obligations and covenants. The Contractor agrees to investigate, handle, respond to and provide defense for and defend against any such liability, claims, and demands at the sole expense of the Contractor, or at the option of the University, agrees to pay to or

reimburse the University for the defense costs incurred by the University in connection with any such liability claims, or demands. The parties hereto understand and agree that the University is relying on and does not waive or intend to waive by any provision of this Contract, any monetary limitations or any other rights, immunities, and protections provided by the State of Missouri, as from time to time amended, or otherwise available to the University, or its officers, employees, agents or volunteers.

3.2 Compliance with Laws, Regulations, Permits, Codes, and Inspections

3.2.1 The Contractor shall, without additional expense to the Owner, comply with all applicable laws, ordinances, rules, permit requirements, codes, statutes, and regulations (which may be collectively referred to as "laws").

3.2.2 Since the Owner is an instrumentality of the State of Missouri, municipal, or political subdivision, ordinances, zoning ordinances, and other like ordinances are not applicable to construction on the Owner's property, and the Contractor will not be required to submit plans and specifications to any municipal or political subdivision authority to obtain construction permits or any other licenses or permits from or submit to, inspection by any municipality or political subdivision relating to the construction on the Owner's property, unless required by the Owner in these Contract Documents or otherwise in writing.

3.2.3 All fees, permits, inspections, or licenses required by municipality or political subdivision for operation on property not belonging to the Owner, shall be obtained by and paid for by the Contractor. The Contractor, of its own expense, is responsible to ensure that all inspections required by said permits or licenses on property, easements, or utilities not belonging to the Owner are conducted as required therein. All connection charges, assessments or transportation fees as may be imposed by any utility company or others are included in the Contract Sum and shall be the Contractor's responsibility.

3.2.4 If the Contractor has knowledge that any Contract Documents are at variance with any laws, including Americans with Disabilities Act – Standards for Accessible Design, ordinances, rules, regulations, or codes applying to the Work, Contractor shall promptly notify the Architect and the Owner's Representative, in writing, and any necessary changes will be adjusted as provided in the Contract Documents. However, it is not the Contractor's primary responsibility to ascertain that the Contract Documents are in accordance with applicable laws, unless such laws bear upon performance of the Work.

3.3 Anti-Kickback

3.3.1 No member or delegate to Congress, or resident commissioner, shall be admitted to any share or part of this Contract or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this Contract if made with a corporation for its general benefit.

3.3.2 No official of the Owner who is authorized in such capacity and on behalf of the Owner to negotiate, make, accept or approve, or to take part in negotiating, making, accepting, or approving any architectural, engineering, inspection, construction, or material supply contract or any Subcontract of any tier in connection with the construction of the Work shall have a financial interest in this Contract or in any part thereof, any material supply contract, Subcontract of any tier, insurance contract, or any other contract pertaining to the Work.

3.4 Supervision and Construction Procedures

3.4.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for and have control over construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the Work under the Contract. The Contractor shall supply sufficient and competent supervision and personnel, and sufficient material, plant, and equipment to prosecute the Work with diligence to ensure completion thereof within the time specified in the Contract Documents, and shall pay when due any laborer, Subcontractor of any tier, or supplier.

3.4.2 The Contractor, if an individual, shall give the Work an adequate amount of personal supervision, and if a partnership, corporation, or joint venture or other business entity, the Work shall be given an adequate amount of personal supervision by a partner or executive officer, as determined by the Owner's Representative.

3.4.3 The Contractor and each of its Subcontractors of any tier shall submit to the Owner such schedules of quantities and costs, progress schedules in accordance with 3.18 this document, payrolls, reports, estimates, records, and other data as the Owner may request concerning Work performed or to be performed under the Contract.

3.4.4 The Contractor shall be represented at the site by a competent superintendent from the beginning of the Work until its final acceptance, whenever Contract Work is being performed, unless otherwise permitted in writing by the Owner's Representative. The superintendent for the Contractor shall exercise general supervision over the Work and such superintendent shall have decision making authority of the Contractor. Communications given to the superintendent shall be binding as if given to the Contractor. The superintendent shall not be changed by the Contractor without approval from the Owner's Representative.

3.4.5 The Contractor shall establish and maintain a permanent benchmark to which access may be had during progress of the Work, and Contractor shall establish all lines and levels, and shall be responsible for the correctness of such. The Contractor shall be fully responsible for all layout work for the proper location of Work in strict accordance with the Contract Documents.

3.4.6 The Contractor shall establish and be responsible for wall and partition locations. If applicable, separate contractors shall be entitled to rely upon these locations and for setting their sleeves, openings, or chases.

3.4.7 The Contractor's scheduled outage/tie-in plan, time, and date for any utilities is subject to approval by the Owner's Representative. Communication with the appropriate entity and planning for any scheduled outage/tie-in of utilities shall be the responsibility of the Contractor. Failure of the Contractor to comply with the provisions of this Paragraph shall cause the Contractor to forfeit any right to an adjustment of the Contract Sum or Contract Time for any postponement, rescheduling or other delays ordered by the Owner in connection with such Work. The Contractor shall follow the following procedures for all utility outages/tie-ins or disruption of any building system:

- .1** All shutting of valves, switches, etc., shall be by the Owner's personnel.
- .2** The Contractor shall submit its preliminary outage/tie-in schedule with its baseline schedule.
- .3** The Contractor shall request an outage/tie-in meeting at least two weeks before the outage/tie-in is required.
- .4** The Owner's Representative will schedule an outage/tie-in meeting at least one week prior to the outage/tie-in.

3.4.8 The Contractor shall coordinate all Work so there shall be no prolonged interruption of existing utilities, systems, and equipment of the Owner. Any existing plumbing, heating, ventilating, air conditioning, or electrical disconnection necessary, which affect portions of this construction or building or any other building, must be scheduled with the Owner's Representative to avoid any disruption of operation within the building under construction or other buildings or utilities. In no case shall utilities be left disconnected at the end of a workday or over a weekend. Any interruption of utilities, either intentionally or accidentally, shall not relieve the Contractor from repairing and restoring the utility to normal service. Repairs and restoration shall be made before the workers responsible for the repair and restoration leave the job.

3.4.9 The Contractor shall be responsible for repair of damage to property on or off the project occurring during construction of project, and all such repairs shall be made to meet code requirements or to the satisfaction of the Owner's Representative if code is not applicable.

3.4.10 The Contractor shall be responsible for all shoring required to protect the Work or adjacent property and shall pay

for any damage caused by failure to shore or by improper shoring or by failure to give proper notice. Shoring shall be removed only after completion of permanent supports.

3.4.11 The Contractor shall maintain at the Contractor's own cost and expense, adequate, safe and sufficient walkways, platforms, scaffolds, ladders, hoists and all necessary, proper, and adequate equipment, apparatus, and appliances useful in carrying on the Work and which are necessary to make the place of Work safe and free from avoidable danger for students, faculty, staff, the public and construction personnel, and as may be required by safety provisions of applicable laws, ordinances, rules regulations and building and construction codes.

3.4.12 During the performance of the Work, the Contractor shall be responsible for providing and maintaining warning signs, lights, signal devices, barricades, guard rails, fences, and other devices appropriately located on site which shall give proper and understandable warning to all persons of danger of entry onto land, structure, or equipment, within the limits of the Contractor's work area.

3.4.13 The Contractor shall pump, bail, or otherwise keep any general excavations free of water. The Contractor shall keep all areas free of water before, during and after concrete placement. The Contractor shall be responsible for protection, including weather protection, and proper maintenance of all equipment and materials installed, or to be installed by the Contractor.

3.4.14 The Contractor shall be responsible for care of the Work and must protect same from damage of defacement until acceptance by the Owner. All damaged or defaced Work shall be repaired or replaced to the Owner's satisfaction, without cost to the Owner.

3.4.15 When requested by the Owner's Representative, the Contractor, at no extra charge, shall provide scaffolds or ladders in place as may be required by the Architect or the Owner for examination or inspection of Work in progress or completed.

3.4.16 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors of any tier and their agents and employees, and any other entity or persons performing portions of the Work.

3.4.17 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Owner's Representative or the Architect in their administration of the Contract, or by tests, inspections or approvals required or performed by persons other than the Contractor.

3.4.18 The Contractor shall be responsible for inspection of portions of the Work already performed under this Contract to determine that such portions are compliant and in proper condition to receive subsequent Work.

3.5 Use of Site

3.5.1 The Contractor shall limit operations and storage of material to the area within the Work limit lines shown on Drawings, except as necessary to connect to exiting utilities, shall not encroach on neighboring property, and shall exercise caution to prevent damage to existing structures.

3.5.2 Only materials and equipment, which are to be used directly in the Work, shall be brought to and stored on the Work site by the Contractor. After equipment is no longer required for the Work, it shall be promptly removed from the Work site. Protection of construction materials and equipment stored at the Work site from weather, theft, damage and all other adversity is solely the responsibility of the Contractor.

3.5.3 No project signs shall be erected without the written approval of the Owner's Representative.

3.5.4 The Contractor shall ensure that the Work is at all times performed in a manner that affords reasonable access, both vehicular and pedestrian, to the site of the Work and all adjacent areas. Particular attention shall be paid to access for emergency vehicles, including fire trucks. Wherever there is the possibility of interfering with normal emergency vehicle operations, the Contractor shall obtain permission from both campus and municipal emergency response entities prior to limiting any access. The Work shall be performed, to the fullest extent reasonably possible, in such a manner that public areas adjacent to the site of the Work shall be free from all debris, building materials and equipment likely to cause hazardous conditions. Without limitation of any other provision of the Contract Documents, the Contractor shall not interfere with the occupancy or beneficial use of (1) any areas and buildings adjacent to the site of the Work or (2) the Work in the event of partial occupancy. The Contractor shall assume full responsibility for any damage to the property comprising the Work or to the owner or occupant of any adjacent land or areas resulting from the performance of the Work.

3.5.5 The Contractor shall not permit any workers to use any existing facilities at the Work site, including, without limitation, lavatories, toilets, entrances, and parking areas other than those designated by Owner. The Contractor, Subcontractors of any tier, suppliers and employees shall comply with instructions or regulations of the Owner's Representative governing access to, operation of, and conduct while in or on the premises and shall perform all Work required under the Contract Documents in such a manner as not to unreasonably interrupt or interfere with the conduct of the Owner's operations. Any request for Work, a suspension of Work or any other request or directive received by the Contractor from occupants of existing buildings shall be referred to the Owner's Representative for determination.

3.5.6 The Contractor and the Subcontractor of any tier shall have its' name, acceptable abbreviation or recognizable logo and the name of the city and state of the mailing address of the principal office of the company, on each motor vehicle and motorized self-propelled piece of equipment which is used in connection with the project. The signs are required on such vehicles during the time the Contractor is working on the project.

3.6 Review of Contract Documents and Field Conditions by Contractor

3.6.1 The Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by the Architect and the Owner and shall at once report in writing to the Architect and the Owner's Representative any errors, inconsistencies or omissions discovered. If the Contractor performs any construction activity which it knows or should have known involves a recognized error, inconsistency, or omission in the Contract Documents without such written notice to the Architect and the Owner's Representative, the Contractor shall assume appropriate responsibility for such performance and shall bear an appropriate amount of the attributable costs for correction.

3.6.2 The Contractor shall take field measurements and verify field conditions and shall carefully compare such field measurements and conditions and other information known to the Contractor with the Contract Documents before commencing activities. Errors, inconsistencies, or omissions discovered shall be reported in writing to the Architect and the Owner's Representative within twenty-four (24) hours. During the progress of the Work, the Contractor shall verify all field measurements prior to fabrication of building components or equipment and proceed with the fabrication to meet field conditions. The Contractor shall consult all Contract Documents to determine the exact location of all work and verify spatial relationships of all work. Any question concerning said location or spatial relationships shall be submitted to the Owner's Representative. Specific locations for equipment, pipelines, ductwork and other such items of work, where not dimensioned on plans, shall be determined in consultation with the Owner's Representative and the Architect. The Contractor shall be responsible for the proper fitting of the Work in place.

3.6.3 The Contractor shall provide, at the proper time, such material as required for support of the Work. If openings or chases are required, whether shown on Drawings or not, the Contractor shall see they are properly constructed. If required openings or chases are omitted, the Contractor shall cut them at the Contractor's own expense, but only as directed by the Architect, through the Owner's Representative.

3.6.4 Should the Contract Documents fail to particularly describe materials or goods to be used, it shall be the duty of the Contractor to inquire of the Architect and

the Owner's Representative what is to be used and to supply it at the Contractor's expense, or else thereafter replace it to the Owner's Representative's satisfaction. At a minimum, the Contractor shall provide the quality of materials as generally specified throughout the Contract Documents.

3.7 Cleaning and Removal

3.7.1 The Contractor shall keep the Work site and surrounding areas free from accumulation of waste materials, rubbish, debris, and dirt resulting from the Work and shall clean the Work site and surrounding areas as requested by the Architect and the Owner's Representative, including mowing of grass greater than six (6) inches high. The Contractor shall be responsible for the cost of clean up and removal of debris from premises. The building and premises shall be kept clean, safe, in a workmanlike manner, and in compliance with OSHA standards and code at all times. At completion of the Work, the Contractor shall remove from and about the Work site tools, construction equipment, machinery, fencing, and surplus materials. Further, at the completion of the Work, all dirt, stains, and smudges shall be removed from every part of the building, all glass in doors and windows shall be washed, and entire Work shall be left broom clean in a finished state ready for occupancy. The Contractor shall advise his Subcontractors of any tier of this provision, and the Contractor shall be fully responsible for leaving the premises in a finished state ready for use to the satisfaction of the Owner's Representative. If the Contractor fails to comply with the provisions of this Paragraph, the Owner may do so, and the cost thereof shall be charged to the Contractor.

3.8 Cutting and Patching

3.8.1 The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly.

3.8.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or separate contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter such construction by the Owner or a separate contractor except with written consent of the Owner and of such separate contractor; such consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold from the Owner or a separate contractor the Contractor's consent to cutting or otherwise altering the Work.

3.8.3 If the Work involves renovation and/or alteration of existing improvements, the Contractor acknowledges that cutting and patching of the Work is essential for the Work to be successfully completed. The Contractor shall perform any cutting, altering, patching, and/or fitting of the Work necessary for the Work and the existing improvements to be fully integrated and to present the visual appearance of an entire, completed, and unified project. In performing any Work which requires cutting or patching, the Contractor shall use its best efforts to protect and preserve the visual appearance and

aesthetics of the Work to the reasonable satisfaction of both the Owner's Representative and the Architect.

3.9 Indemnification

3.9.1 To the fullest extent permitted by law, the Contractor shall defend, indemnify, and hold harmless the Owner, the Architect, the Architect's consultants, and the agents, employees, representatives, insurers and re-insurers of any of the foregoing (hereafter collectively referred to as the "Indemnitees") from and against claims, damages (including loss of use of the Work itself), punitive damages, penalties and civil fines unless expressly prohibited by law, losses and expenses, including, but not limited to, attorneys' fees, arising out of or resulting from performance of the Work to the extent caused in whole or in part by negligent acts or omissions or other fault of the Contractor, a Subcontractor of any tier, or anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by the negligent acts or omissions or other fault of a party indemnified hereunder. The Contractor's obligations hereunder are in addition to and shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that the Owner may possess. If one or more of the Indemnitees demand performance by the Contractor of obligations under this Paragraph or other provisions of the Contract Documents and if the Contractor refuses to assume or perform, or delays in assuming or performing the Contractor's obligations, Contractor shall pay each Indemnitee who has made such demand its respective attorneys' fees, costs, and other expenses incurred in enforcing this provision. The defense and indemnity required herein shall be a binding obligation upon the Contractor whether or not an Indemnitee has made such demand. Even if a defense is successful to a claim or demand for which the Contractor is obligated to indemnify the Indemnitees from under this Paragraph, the Contractor shall remain liable for all costs of defense.

3.9.2 The indemnity obligations of the Contractor under this Section 3.9 shall survive termination of this Contract or final payment thereunder. In the event of any claim or demand made against any party which is entitled to be indemnified hereunder, the Owner may in its sole discretion reserve, return or apply any monies due or to become due the Contractor under the Contract for the purpose of resolving such claims; provided, however, that the Owner may release such funds if the Contractor provides the Owner with reasonable assurance of protection of the Owner's interests. The Owner shall in its sole discretion determine if such assurances are reasonable. The Owner reserves the right to control the defense and settlement of any claim, action or proceeding which the Contractor has an obligation to indemnify the Indemnitees against.

3.9.3 In claims against any person or entity indemnified under this Section 3.9 by an employee of the Contractor, a

Subcontractor of any tier, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this Section 3.9 shall not be limited by a limitation on amount or type of damages, compensation or benefits payable by or for the Contractor or a Subcontractor of any tier under workers' or workmen's compensation acts, disability benefit acts or other employee benefit acts.

3.9.4 The obligations of the Contractor under Paragraph 3.9.1 shall not extend to the liability of the Architect, the Architect's agents or employees, arising out of the preparation and approval of maps, drawings, opinions, reports, surveys, Change Orders, designs, or Specifications.

3.10 Patents

3.10.1 The Contractor shall hold and save harmless the Owner and its officers, agents, servants, and employees from liability of any nature or kind, including cost and expense, for, or on account of, any patented or otherwise protected invention, process, article, or appliance manufactured or used in the performance of the Contract, including its use by the Owner, unless otherwise specifically stipulated in the Contract Documents.

3.10.2 If the Contractor uses any design, device, or material covered by letters patent or copyright, the Contractor shall provide for such use by suitable agreement with the Owner of such patented or copyrighted design, device, or material. It is mutually agreed and understood, without exception, that the Contract Sum include, and the Contractor shall pay all royalties, license fees or costs arising from the use of such design, device, or material in any way involved in the Work. The Contractor and/or sureties shall indemnify and save harmless the Owner from any and all claims for infringement by reason of the use of such patented or copyrighted design, device, or material or any trademark or copyright in connection with Work agreed to be performed under this Contract and shall indemnify the Owner for any cost, expense, or damage it may be obligated to pay by reason of such infringement at any time during the prosecution of the Work or after completion of the Work.

3.11 Delegated Design

3.11.1 If the Contract Documents specify the Contractor is responsible for the design of any Work as part of the project, then the Contractor shall procure all design services and certifications necessary to complete the Work as specified, from a design professional licensed in the State of Missouri. The signature and seal of that design professional shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals related to the Work. The design professional shall maintain insurance as required per Article 11.

3.12 Materials, Labor, and Workmanship

3.12.1 Materials and equipment incorporated into the Work shall strictly conform to the Contract Documents and representations and approved Samples provided by Contractor

and shall be of the most suitable grade of their respective kinds for their respective uses and shall be fit and sufficient for the purpose intended, merchantable, of good new material and workmanship, and free from defect. Workmanship shall be in accordance with the highest standard in the industry and free from defect in strict accordance with the Contract Documents.

3.12.2 Materials and fixtures shall be new and of latest design unless otherwise specified and shall provide the most efficient operating and maintenance costs to the Owner. All Work shall be performed by competent workers and shall be of best quality.

3.12.3 The Contractor shall carefully examine the Contract Documents and shall be responsible for the proper fitting of his material, equipment, and apparatus into the building.

3.12.4 The Contractor shall base its bid only on the Contract Documents.

3.12.5 Materials and workmanship shall be subject to inspection, examination, and testing by the Architect and the Owner's Representative at any and all times during manufacture, installation, and construction of any of them, at places where such manufacture, installation, or construction is performed.

3.12.6 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Contract. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

3.12.7 Unless otherwise specifically noted, the Contractor shall provide and pay for supervision, labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for the proper execution and completion of the Work.

3.12.8 Substitutions

3.12.8.1 A substitution is a Contractor proposal of an alternate product or method in lieu of what has been specified or shown in the Contract Documents, which is not an "or equal" as set forth in Section 3.13.

3.12.8.2 The Contractor may make a proposal to the Architect and the Owner's Representative to use substitute products or methods as set forth herein, but the Architect's and the Owner's Representative's decision concerning acceptance of a substitute shall be final. The Contractor must do so in writing and setting forth the following:

.1 Full explanation of the proposed substitution and submittal of all supporting data including technical information, catalog cuts, warranties, test results, installation instructions, operating procedures, and other

like information necessary for a complete evaluation of the substitution.

.2 Reasons the substitution is advantageous and necessary, including the benefits to the Owner and the Work in the event the substitution is acceptable.

.3 The adjustment, if any, in the Contract Sum, in the event the substitution is acceptable.

.4 The adjustment, if any, in the time of completion of the Contract and the construction schedule in the event the substitution is acceptable.

.5 An affidavit stating that (a) the proposed substitution conforms to and meets all of the Contract Document requirements and is code compliant, except as specifically disclosed and set forth in the affidavit and (b) the Contractor accepts the warranty and correction obligations in connection with the proposed substitution as if originally specified by the Architect. Proposals for substitutions shall be submitted to the Architect and the Owner's Representative in sufficient time to allow the Architect and the Owner's Representative no less than ten (10) working days for review. No substitution will be considered or allowed without the Contractor's submittal of complete substantiating data and information as stated herein.

3.12.8.3 Substitutions may be rejected without explanation at the Owner's sole discretion and will be considered only under one or more of the following conditions:

.1 Required for compliance with interpretation of code requirements or insurance regulations then existing;

.2 Unavailability of specified products, through no fault of the Contractor;

.3 Material delivered fails to comply with the Contract Documents;

.4 Subsequent information discloses inability of specified products to perform properly or to fit in designated space;

.5 Manufacturer/fabricator refuses to certify or guarantee performance of specified product as required; or

.6 When in the judgment of the Owner or the Architect, a substitution would be substantially to the Owner's best interests, in terms of cost, time, or other considerations.

3.12.8.4 Whether or not any proposed substitution is accepted by the Owner or the Architect, the Contractor shall reimburse the Owner for any fees charged by the Architect or other consultants for evaluating each proposed substitution.

3.13 Approved Equal

3.13.1 Whenever in the Contract Documents any article, appliance, device, or material is designated by the name of a manufacturer, vendor, or by any proprietary or trade name, the words "or approved equal," shall automatically follow and shall be implied unless specifically indicated otherwise. The standard products of manufacturers other than those specified will be accepted when, prior to the ordering or use thereof, it is proven to the satisfaction of the Owner's Representative and the Architect they are equal in design, appearance, spare parts availability, strength, durability, usefulness, serviceability, operation cost, maintenance cost, and convenience for the purpose intended. Any general listings of approved

manufacturers in any Contract Document shall be for informational purposes only and it shall be the Contractor's sole responsibility to ensure that any proposed "or equal" complies with the requirements of the Contract Documents and is code compliant.

3.13.2 The Contractor shall submit to the Architect and the Owner's Representative a written and full description of the proposed "or equal" including all supporting data, including technical information, catalog cuts, warranties, test results, installation instructions, operating procedures, and similar information demonstrating that the proposed "or equal" strictly complies with the Contract Documents. The Architect or the Owner's Representative shall take appropriate action with respect to the submission of a proposed "or equal" item. If Contractor fails to submit proposed "or equals" as set forth herein, it shall waive any right to supply such items. The Contract Sum and Contract Time shall not be adjusted as a result of any failure by Contractor to submit proposed "or equals" as provided for herein. All documents submitted in connection with preparing an "or equal" shall be clearly and obviously marked as a proposed "or equal" submission.

3.13.3 No approvals or action taken by the Architect or Owner's Representative shall relieve the Contractor from its obligation to ensure that an "or equal" article, appliance, devise, or material strictly complies with the requirements of the Contract Documents. The Contractor shall not propose "or equal" items in connection with Shop Drawings or other Submittals, and the Contractor acknowledges and agrees that no approvals or action taken by the Architect or Owner's Representative with respect to Shop Drawings or other Submittals shall constitute approval of any "or equal" item or relieve the Contractor from its sole and exclusive responsibility. Any changes required in the details and dimensions indicated in the Contract Documents for the incorporation or installation of any "or equal" item supplied by the Contractor shall be properly made and approved by the Architect at the expense of the Contractor. No "or equal" items will be permitted for components of or extensions to existing systems when, in the opinion of the Architect, the named manufacturer must be provided in order to ensure compatibility with the existing systems, including, but not limited to, mechanical systems, electrical systems, fire alarms, smoke detectors, etc. No action will be taken by the Architect with respect to proposed "or equal" items prior to receipt of bids, unless otherwise noted in the Special Conditions.

3.14 Shop Drawings, Product Data, Samples, and Coordination Drawings/BIM Models

3.14.1 Shop Drawings are drawings, diagrams, schedules, and other data specifically prepared for the Work by the Contractor or a Subcontractor, sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.

3.14.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

3.14.3 Samples are physical samples which illustrate materials, equipment or workmanship and establish standards by which the Work will be judged.

3.14.4 Coordination Drawings are drawings for the integration of the Work, including work first shown in detail on Shop Drawings or product data. Coordination Drawings show sequencing and relationship of separate units of work which must interface in a restricted manner to fit in the space provided, or function as indicated. Coordination Drawings are the responsibility of the Contractor and are submitted for informational purposes. The Special Conditions will state whether Coordination Drawings are required. BIM models may be used for coordination in lieu of Coordination Drawings at the Contractor's discretion, unless required in the Special Conditions. The final Coordination Drawings/BIM Model will not change the Contract Documents, unless approved by a fully executed Change Order describing the specific modifications that are being made to the Contract Documents.

3.14.5 Shop Drawings, Coordination Drawings/BIM Models, Product Data, Samples, and similar submittals (collectively referred to as "Submittals") are not Contract Documents. The purpose of their submittal is to demonstrate for those portions of the Work for which submittals are required the way the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents.

3.14.6 The Contractor shall schedule submittal of Shop Drawings and Product Data to the Architect so that no delays will result in delivery of materials and equipment, advising the Architect of priority for checking of Shop Drawings and Product Data, but a minimum of two weeks shall be provided for this purpose. Because time is of the essence in this Contract, unless noted otherwise in the Special Conditions or Technical Specifications, all Submittals, Shop Drawings and Samples must be submitted as required to maintain the Contractor's plan for proceeding but must be submitted within ninety (90) days of the Notice to Proceed. If the Contractor believes that this milestone is unreasonable for any submittal, the Contractor shall request an extension of this milestone, within sixty (60) days of Notice to Proceed, for each submittal that cannot meet the milestone. The request shall contain a reasonable explanation as to why the ninety (90)-day milestone is unrealistic and shall specify a date on which the submittal will be provided, for approval by the Owner's Representative. Failure of the Contractor to comply with this Section may result in delays in the submittal approval process and/or charges for expediting approval, both of which will be the responsibility of the Contractor.

3.14.7 The Contractor, at its own expense, shall submit Samples required by the Contract Documents with reasonable promptness as to cause no delay in the Work or the activities of

separate contractors and no later than twenty (20) days before materials are required to be ordered for scheduled delivery to the Work site. Samples shall be labeled to designate material or products represented, grade, place of origin, name of producer, name of the Contractor and the name and number of the Owner's project. Quantities of Samples shall be twice the number required for testing so that the Architect can return one set of the Samples. Materials delivered before receipt of Architect's approval may be rejected by the Architect and in such event, the Contractor shall immediately remove all such materials from the Work site. When requested by the Architect or the Owner's Representative, Samples of finished masonry and field applied paints and finishes shall be located as directed and shall include sample panels built at the site of approximately twenty (20) square feet each.

3.14.8 The Contractor shall perform no portion of the Work requiring submittal and review of Shop Drawings, Product Data, Samples, or similar submittals until the respective submittal has been approved by the Architect. Such Work shall be in accordance with approved Submittals.

3.14.9 By approving and submitting Shop Drawings, Product Data, Samples and similar submittals, the Contractor represents such Submittals strictly comply with the requirements of the Contract Documents and that the Contractor has determined and verified field measurements and field construction criteria related thereto, that materials are fit for their intended use and that the fabrication, shipping, handling, storage, assembly and installation of all materials, systems and equipment are in accordance with best practices in the industry and are in strict compliance with any applicable requirements of the Contract Documents. The Contractor shall also coordinate each Submittal with other Submittals.

3.14.10 The Contractor shall be responsible for the correctness and accuracy of the dimensions, measurements and other information contained in the Submittals.

3.14.11 Each Submittal will bear a stamp or specific indication that the Submittal complies with the Contract Documents and the Contractor has satisfied its obligations under the Contract Documents with respect to the Contractor's review and approval of that Submittal. Each Submittal shall bear the signature of the representative of the Contractor who approved the Submittal, together with the Contractor's name, Owner's name, number of the Project, and the item name and specification section number.

3.14.12 The Contractor shall not be relieved of responsibility for deviations from requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples, or similar submittals. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals by the Architect's approval thereof. Specifically, but not by way of limitation, the

Contractor acknowledges that the Architect's approval of Shop Drawings shall not relieve the Contractor for responsibility for errors and omissions in the Shop Drawings since the Contractor is responsible for the correctness of dimensions, details and the design of adequate connections and details contained in the Shop Drawings.

3.14.13 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples or similar submittals, to revisions other than those requested by the Architect on previous Submittals.

3.14.14 The Contractor represents and warrants that all Shop Drawings shall be prepared by persons and entities possessing expertise and experience in the trade for which the Shop Drawing is prepared and, if required by the Architect or applicable laws, by a licensed engineer or other design professional.

3.15 Record Drawings

3.15.1 The Contractor shall maintain a set of Record Drawings on site in good condition and shall use colored pencils to mark up said set with "record information" in a legible manner to show: (1) bidding addendums, (2) executed Change Orders, (3) deviations from the Drawings made during construction; (4) details in the Work not previously shown; (5) changes to existing conditions or existing conditions found to differ from those shown on any existing drawings; (6) the actual installed position of equipment, piping, conduits, light switches, electric fixtures, circuiting, ducts, dampers, access panels, control valves, drains, openings, and stub-outs; and (7) such other information as either the Owner or the Architect may reasonably request. The prints for Record Drawing use will be a set of "blue line" prints provided by the Architect to the Contractor at the start of construction. Upon Substantial Completion of the Work, the Contractor shall deliver all Record Drawings to the Owner and the Architect for approval. If not approved, the Contractor shall make the revisions requested by the Architect or the Owner's Representative. Final payment and any retainage shall not be due and owing to the Contractor until the final Record Drawings marked by the Contractor as required above are delivered to the Owner.

3.16 Operating Instructions and Service Manuals

3.16.1 The Contractor shall submit four (4) volumes of operating instructions and service manuals to the Architect before completing 50% of the adjusted contract amount. Payments beyond 50% of the adjusted contract amount may be withheld until all operating instructions and service manuals are received. The operating instructions and service manuals shall contain:

.1 Start-up and Shutdown Procedures: Provide a step-by-step write up of all major equipment. When manufacturer's printed start-up, trouble shooting and shut-down procedures are available, they may be incorporated into the operating manual for reference.

.2 Operating Instructions: Written operating instructions shall be included for the efficient and safe operation of all equipment.

.3 Equipment List: List of all major equipment as installed shall include model number, capacities, flow rate, and name-plate data.

.4 Service Instructions: The Contractor shall be required to provide the following information for all pieces of equipment.

.4.1 Recommended spare parts including catalog number and name of local suppliers or factory representative.

.4.2 Belt sizes, types, and lengths.

.4.3 Wiring diagrams.

.5 Manufacturer's Certificate of Warranty: Manufacturer's certificates of warranty shall be obtained for all major equipment. Warranty shall be obtained for at least one year from the date of Substantial Completion. Where longer period is required by the Contract Documents, the longer period shall govern.

.6 Parts catalogs: For each piece of equipment furnished, a parts catalog or similar document shall be provided which identifies the components by number for replacement ordering.

3.16.2 Submission

.1 Manuals shall be bound into volumes of standard 8 1/2" x 11" hard binders. Large drawings too bulky to be folded into 8 1/2" x 11" shall be separately bound or folded and in brown envelopes, cross-referenced and indexed with the manuals.

.2 The manuals shall identify the Owner's project name, project number, and include the name and address of the Contractor and major Subcontractors of any tier who were involved with the activity described in that particular manual.

3.17 Taxes

3.17.1 The Contractor shall pay all applicable sales, consumer, use, and similar taxes for the Work which are legally enacted when the bids are received, whether or not yet effective or scheduled to go into effect. However, certain purchases by the Contractor of materials incorporated in or consumed in the Work are exempt from certain sales tax pursuant to Section 144.062, RSMo. The Contractor shall be issued a Project Tax Exemption Certificate for this Work to obtain the benefits of Section 144.062, RSMo.

3.17.2 The Contractor shall furnish this certificate to all Subcontractors, and any person or entity purchasing materials for the Work shall present such certificate to all material suppliers as authorization to purchase, on behalf of the Owner, all tangible personal property and materials to be incorporated into or consumed in the Work and no other on a tax-exempt basis. Such suppliers shall provide to the purchasing party invoices bearing the name of the exempt entity and the project identification number. Nothing in this Section shall be deemed to exempt from any sales or similar tax the purchase of any construction machinery, equipment or tools used in construction, repairing or remodeling facilities for the Owner. All

invoices for all personal property and materials purchased under a Project Tax Exemption Certificate shall be retained by the Contractor for a period of five years and shall be subject to audit by the Director of Revenue.

3.17.3 Any excess resalable tangible personal property or materials which were purchased for the project under this Project Tax Exemption Certificate but which were not incorporated into or consumed in the Work shall either be returned to the supplier for credit or the appropriate sales or use tax on such excess property or materials shall be reported on a return and paid by such purchasing party not later than the due date of the purchasing party's Missouri sales or use tax return following the month in which it was determined that the materials were not used in the Work.

3.17.4 If it is determined that sales tax is owed by the Contractor on property and materials due to the failure of the Owner to revise the certificate expiration date to cover the applicable date of purchase, the Owner shall be liable for the tax owed.

3.17.5 The Owner shall not be responsible for any tax liability due to the Contractor's neglect to make timely orders, payments, etc. or the Contractor's misuse of the Project Tax Exemption Certificate. The Contractor represents that the Project Tax Exemption Certificate shall be used in accordance with Section 144.062, RSMo and the terms of the Project Tax Exemption Certificate. The Contractor shall indemnify the Owner for any loss or expense, including but not limited to, reasonable attorneys' fees, arising out of the Contractor's use of the Project Tax Exemption Certificate.

3.18 Contractor's Construction Schedules

3.18.1 The Contractor, within fifteen (15) days after the issuance of the Notice to Proceed, shall prepare and submit for the Owner's and the Architect's information the Contractor's construction schedule for the Work and shall set forth interim dates for completion of various components of the Work and Work Milestone Dates as defined herein. The schedule shall not exceed time limits current under the Contract Documents, shall be revised on a monthly basis or as requested by the Owner's Representative as required by the conditions of the Work, and shall provide for expeditious and practicable execution of the Work. The Contractor shall conform to the most recent schedule.

3.18.2 The construction schedule shall be in a detailed format satisfactory to the Owner's Representative and the Architect and in accordance with the detailed schedule requirements set forth in this document and the Special Conditions. If the Owner's Representative or the Architect has a reasonable objection to the schedule submitted by Contractor, the construction schedule shall be promptly revised by the Contractor. The Contractor shall monitor the progress of the Work for conformance with the requirements of the construction schedule and shall promptly advise the Owner of any delays or potential delays.

3.18.3 As time is of the essence to this Contract, the University expects that the Contractor will take all necessary steps to ensure that the project construction schedule shall be prepared in accordance with the specific requirements of the Special Conditions to this Contract. At a minimum, the Contractor shall comply with the following:

- .1** The schedule shall be prepared using Primavera P3, Oracle P6, Microsoft Project or other software acceptable to the Owner's Representative.
- .2** The schedule shall be prepared and maintained in CPM format, in accordance with Construction CPM Scheduling, published by the Associated General Contractors of American (AGC).
- .3** Prior to submittal to the Owner's Representative for review, the Contractor shall obtain full buy-in to the schedule from all major Subcontractors, in writing if so, requested by Owner's Representative.
- .4** Schedule shall be updated, in accordance with Construction CPM Scheduling, published by the AGC, on a monthly basis at minimum, prior to, and submitted with, the monthly pay application or as requested by the Owner's Representative.
- .5** Along with the update the Contractor shall submit a narrative report addressing all changes, delays and impacts, including weather to the schedule during the last month, and explain how the end date has been impacted by same.
- .6** The submission of the updated schedule certifies that all delays and impacts that have occurred on or to the project during the previous month have been factored into the update and are fully integrated into the schedule and the projected completion date.

Failure to comply with any of these requirements will be considered a material breach of this Contract. See Special Conditions for detailed scheduling requirements.

3.18.4 In the event the Owner's Representative or the Architect determines that the performance of the Work, as of a Milestone Date, has not progressed or reached the level of completion required by the Contract Documents, the Owner shall have the right to order the Contractor to take corrective measures necessary to expedite the progress of construction, including, without limitation, (1) working additional shifts or overtime, (2) supplying additional manpower, equipment, facilities, (3) expediting delivery of materials, and (4) other similar measures (hereinafter referred to collectively as "Extraordinary Measures"). Such Extraordinary Measures shall continue until the progress of the Work complies with the stage of completion required by the Contract Documents. The Owner's right to require Extraordinary Measures is solely for the purpose of ensuring the Contractor's compliance with the construction schedule. The Contractor shall not be entitled to an adjustment in the Contract Sum concerning Extraordinary Measures required by the Owner under or pursuant to this Paragraph. The Owner may exercise the rights furnished the Owner under or pursuant to this Paragraph as frequently as the Owner deems necessary to ensure that the Contractor's performance of the Work will

comply with any Milestone Date or completion date set forth in the Contract Documents.

ARTICLE 4 ADMINISTRATION OF THE CONTRACT

4.1 Rights of the Owner

4.1.1 The Owner's Representative will administer the Construction Contract. The Architect will assist the Owner's Representative with the administration of the Contract as indicated in these Contract Documents.

4.1.2 If, in the judgment of the Owner's Representative, it becomes necessary to accelerate the Work, the Contractor, when directed by the Owner's Representative in writing, shall cease work at any point and transfer its workers to such point or points and execute such portions of the Work as may be required to enable others to hasten and properly engage and carry out the Work, all as directed by the Owner's Representative. The additional cost of accelerating the Work, if any, will be borne by the Owner, unless the Contractor's work progress is behind schedule as shown on the most recent progress schedule.

4.1.3 If the Contractor refuses, for any reason, to proceed with what the Owner believes to be Contract Work, the Owner may issue a Construction Directive, directing the Contractor to proceed. The Contractor shall be obligated to promptly proceed with such work. If the Contractor feels that it is entitled to additional compensation as a result of a Construction Directive, it may file a claim for additional compensation and/or time, in accordance with 4.4 of this Contract.

4.1.4 The Owner's Representative, may, by written notice, require the Contractor to remove from involvement with the Work, any of the Contractor's personnel or the personnel of its Subcontractors of any tier whom the Owner's Representative may deem abusive, incompetent, careless, or a hindrance to proper and timely execution of the Work. The Contractor shall comply with such notice promptly, but without detriment to the Work or its progress.

4.1.5 The Owner's Representative will schedule Work status meetings that shall be attended by representatives of the Contractor and appropriate Subcontractors of any tier. Material suppliers shall attend status meetings if required by the Owner's Representative. These meetings shall include preconstruction meetings.

4.1.6 The Owner does not allow smoking on University property.

4.2 Rights of the Architect

4.2.1 The Architect will interpret requirements of the Contract Documents with respect to the quality, quantity, and other technical requirements of the Work itself within a reasonable time after written request of the Contractor. The

Contractor shall provide Owner's Representative a copy of such written request.

4.3 Review of the Work

4.3.1 The Architect, the Owner's Representative, and the Owner's Authorized Agent shall, at all times, have access to the Work; and the Contractor shall provide proper and safe facilities for such access.

4.3.2 The Owner's Representative shall have authority to reject Work that does not strictly comply with the requirements of the Contract Documents. Whenever the Owner's Representative considers it necessary or advisable for implementation of the intent of the Contract Documents, Owner's Representative shall have the authority to require additional inspection or testing of the Work, whether or not such Work is fabricated, installed, or completed.

4.3.3 The fact that the Architect or the Owner's Representative observed, or failed to observe, faulty Work, or Work done which is not in accordance with the Contract Documents, regardless of whether or not the Owner has released final payment, shall not relieve the Contractor from responsibility for all damages and additional costs of the Owner as a result of defective or faulty Work.

4.4 Claims

4.4.1 A Claim is a demand or assertion by the Contractor seeking, as a matter of right, adjustment or interpretation of Contract terms, payment of money, extension of time or any other relief with respect to the terms of the Contract. The term "Claim(s)" also includes demands and assertions of the Contractor arising out of or relating to the Contract Documents, including Claims based upon breach of contract, mistake, misrepresentation, or other cause for Contract Modification or rescission. Claims must be made by written notice. The Contractor shall have the responsibility to substantiate Claims.

4.4.2 Claims by the Contractor must be made promptly, and no later than within fourteen (14) days after occurrence of the event giving rise to such Claim. Claims must be made by written notice. Such notice shall include a detailed statement setting forth all reasons for the Claim and the amount of additional money and additional time claimed by the Contractor. The notice of Claims shall also strictly comply with all other provisions of the Contract Documents. The Contractor shall not be entitled to rely upon any grounds or basis for additional money on additional time not specifically set forth in the notice of Claim. All Claims not made in the manner provided herein shall be deemed waived and of no effect. The Contractor shall furnish the Owner and the Architect such timely written notice of any Claim provided for herein, including, without limitation, those in connection with alleged concealed or unknown conditions, and shall cooperate with the Owner and the Architect in any effort to mitigate the alleged or potential damages, delay or

other adverse consequences arising out of the condition which is the cause of such a Claim.

4.4.3 Pending final resolution of a Claim, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments that are not in dispute in accordance with the Contract Documents.

4.5 Claims for Concealed or Unknown Conditions

4.5.1 If conditions are encountered at the site which are (1) subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents, or (2) unknown physical conditions of an unusual nature, which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, then notice by the Contractor shall be given to the Owner's Representative promptly before conditions are disturbed, and in no event later than three (3) days after first observance of the conditions. The Owner's Representative will promptly investigate such conditions. If such conditions differ materially, as provided for above and cause an increase or decrease in the Contractor's cost, or time, required for performance of the Work, an equitable adjustment in the Contract Sum or Contract Time, or both, shall be made, subject to the provisions and restrictions set for herein. If the Owner's Representative determines that the conditions at the site are not materially different from those indicated in the Contract Documents, and that no change in the terms of the Contract is justified, the Owner's Representative will so notify the Contractor in writing. If the Contractor disputes the finding of the Owner's Representative that no change in the terms of the Contract terms is justified, the Contractor shall proceed with the Work, taking whatever steps are necessary to overcome or correct such conditions so that Contractor can proceed in a timely manner. The Contractor may have the right to file a Claim in accordance with the Contract Documents.

4.5.2 It is expressly agreed that no adjustment in the Contract Time or Contract Sum shall be permitted, however, in connection with a concealed or unknown condition which does not differ materially from those conditions disclosed or which reasonably should have been disclosed by the Contractor's (1) prior inspections, tests, reviews and preconstruction investigations for the Project, or (2) inspections, tests, reviews and preconstruction inspections which the Contractor had the opportunity to make or should have performed in connection with the Project.

4.6 Claim for Additional Cost

4.6.1 If the Contractor makes a Claim for an increase in the Contract Sum, written notice as provided herein shall be given before proceeding to execute the Work. In addition to all other requirements for notice of a Claim, said notice shall detail and itemize the amount of all Claims and shall contain sufficient data to permit evaluation of same by the Owner.

4.7 Claims for Additional Time

4.7.1 If the Contractor makes a Claim for an increase in the

Contract Time, written notice as provided herein shall be given. In addition to other requirements for notice of a Claim, the Contractor shall include an estimate of the probable effect of delay upon the progress of the Work, utilizing a CPM Time Impact Schedule Analysis, (TIA) as defined in the AGC Scheduling Manual. In the case of a continuing delay, only one Claim is necessary.

.1 Time extensions will be considered for excusable delays only. That is, delays that are beyond the control and/or contractual responsibility of the Contractor.

4.7.2 If weather days are the basis for a Claim for additional time, such Claim shall be documented by the Contractor by data acceptable to the Owner's Representative substantiating that weather conditions for the period of time in question, had an adverse effect on the critical path of the scheduled construction. Weather days shall be defined as days on which critical path work cannot proceed due to weather conditions (including but not limited to rain, snow, etc.), in excess of the number of days shown on the anticipated weather day schedule in the Special Conditions. To be considered a weather day, at least four (4) working hours must be lost due to the weather conditions on a critical path scope item for that day. Weather days and anticipated weather days listed in the Special Conditions shall only apply to Monday through Friday. A weather day claim cannot be made for Saturdays, Sundays, New Year's Day, Martin Luther King Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the day after Thanksgiving Day and Christmas Day, unless that specific day was approved in writing for work by the Owner's Representative.

.1 The Contractor must have fulfilled its contractual obligations with respect to temporary facilities and protection of its work, and worker protection for hot and cold weather per OSHA guidelines.

.2 If the contractual obligations have been satisfied, the Owner will review requests for non-compensable time extensions for critical path activities as follows:

.2.1 If the Contractor cannot work on a critical path activity due to adverse weather, after implementing all reasonable temporary weather protection, the Contractor will so notify the Owner's Representative. Each week, the Contractor will notify the Owner's Representative of the number of adverse weather days that it believes it has experienced in the previous week. As provided in the Contract, until such time as the weather days acknowledged by the Owner's Representative exceed the number of days of adverse weather contemplated in the Special Conditions, no request for extension of the Contract Time will be considered.

.2.2 If the Contractor has accumulated in excess of the number of adverse weather days contemplated in the Special Conditions due to the stoppage of work on critical path activities due to adverse weather, the Owner will consider a time extension request from the Contractor that is submitted in accordance with the Contract requirements. The Owner will provide a Change Order extending the time for contract completion or direct an acceleration of the

Work in accordance with the Contract terms and conditions to recover the time lost due to adverse weather in excess of the number of adverse weather working days contemplated in the Special Conditions.

4.7.3 A Force Majeure event or circumstance shall not be the basis of a claim by the Contractor seeking an adjustment in the Contract amount for costs or expenses of any type. With the exception of weather delays, which are administered under Article 4, and notwithstanding other requirements of the Contract, all Force Majeure events resulting in a delay to the critical path of the project shall be administered as provided in Article 8.

4.7.4 The Owner will consider and evaluate requests for time extensions due to changes or other events beyond the control of the Contractor on a monthly basis only, with the submission of the Contractor's updated schedule, in conjunction with the monthly application for payment.

4.8 Resolution of Claims and Disputes

4.8.1 The Owner's Representative will review Claims and take one or more of the following preliminary actions within ten days of receipt of a Claim: (1) request additional supporting data from the Contractor, (2) reject the Claim in whole or in part, (3) approve the Claim, or (4) suggest a compromise.

4.8.2 If a Claim has not been resolved, the Contractor shall, within ten (10) days after the Owner's Representative's preliminary response, take one or more of the following actions: (1) submit additional supporting data requested, (2) modify the initial Claim, or (3) notify the Owner's Representative that the initial Claim stands.

4.8.3 If a Claim has not been resolved after consideration of the foregoing and of further information presented by the Contractor, the Contractor has the right to seek administrative review as set forth in Section 4.9. However, Owner's Representative's decisions on matters relating to aesthetics will be final.

4.9 Administrative Review

4.9.1 Claims not resolved pursuant to the procedures set forth in the Contract Documents except with respect to Owner's Representative's decision on matters relating to aesthetic effect, and except for claims which have been waived by the making or acceptance of final payment, or the Contractor's acceptance of payments in full for changes in work may be submitted to administrative review as provided in this Section. All requests for administrative review shall be made in writing.

4.9.2 Upon written request from the Contractor, the Owner's Review Administrator authorized by the Campus Contracting Officer will convene a review meeting between the Contractor and Owner's Representative within fifteen (15) days of receipt of such written request. The Contractor and Owner's Representative will be allowed to present written

documentation with respect to the Claim(s) before or during the meeting. The Contractor and Owner's Representative will be allowed to present the testimony of any knowledgeable person regarding the Claim at the review meeting. The Owner's Review Administrator will issue a written summary of the review meeting and decision to resolve the Claim within fifteen (15) days. If the Contractor is in agreement with the decision the Contractor shall notify the Owner's Review Administrator in writing within five (5) days, and appropriate documentation will be signed by the parties to resolve the Claim.

4.9.3 If the Contractor is not in agreement with the proposal of the Owner's Review Administrator as to the resolution of the Claim, the Contractor may file a written appeal with the UM System Contracting Officer, [in care of the Executive Director of Facilities Planning and Development, University of Missouri, 130 General Services Building, University of Missouri, Columbia, Missouri 65211] within fifteen (15) days after receipt of the Owner's Review Administrator's proposal. The UM System Contracting Officer will call a meeting of the Contractor, the Owner's Representative, and the Owner's Review Administrator by written notice, within thirty (30) days after receipt of the Contractor's written appeal. The Owner's Review Administrator shall provide the UM System Contracting Officer with a copy of the written decision and summary of the review meeting, the Contractor's corrections, or comments regarding the summary of the review meeting, and any written documentation presented by the Contractor and the Owner's Representative at the initial review meeting. The parties may present further documentation and/or present the testimony of any knowledgeable person regarding the Claim at the meeting called by the UM System Contracting Officer.

4.9.4 The UM System Contracting Officer will issue a written decision to resolve the claim within fifteen (15) days after the meeting. If the Contractor is in agreement with the UM System Contracting Officer's proposal, the Contractor shall notify the UM System Contracting Officer in writing within five (5) days, and the Contractor and the Owner shall sign appropriate documents. The issuance of the UM System Contracting Officer's written proposal shall conclude the administrative review process even if the Contractor is not in agreement. However, proposals and any opinions expressed in such proposals issued under this Section will not be binding on the Contractor nor will the decisions or any opinions expressed be admissible in any legal actions arising from the Claim and will not be deemed to remove any right or remedy of the Contractor as may otherwise exist by virtue of Contract Documents or Law. The Contractor and the Owner agree that the Missouri Circuit Court for the County where the Work is located shall have exclusive jurisdiction to determine all issues between them. The Contractor agrees not to file any

complaint, petition, lawsuit or legal proceeding against the Owner except with such Missouri Circuit Court.

ARTICLE 5 SUBCONTRACTORS

5.1 Award of Subcontracts

5.1.1 Pursuant to Article 9, the Contractor shall furnish the Owner and the Architect, in writing, with the name, and trade for each Subcontractor and the names of all persons or entities proposed as manufacturers of products, materials and equipment identified in the Contract Documents and where applicable, the name of the installing contractor. The Owner's Representative will reply to the Contractor in writing if the Owner has reasonable objection to any such proposed person or entity. The Contractor shall not contract with a proposed person or entity to whom the Owner has made reasonable and timely objection.

5.1.2 The Contractor may request to change a Subcontractor. Any such request shall be made in writing to the Owner's Representative. The Contractor shall not change a Subcontractor, person, or entity previously disclosed if the Owner makes reasonable objection to such change.

5.1.3 The Contractor shall be responsible to the Owner for acts, defaults, and omissions of its Subcontractors of any tier.

5.2 Subcontractual Relations

5.2.1 By appropriate agreement, written where legally required for validity, the Contractor shall require each Subcontractor of any tier, to the extent of the Work to be performed by the Subcontractor of any tier, to be bound to the Contractor by terms of the Contract Documents and to assume toward the Contractor all the obligations and responsibilities which the Contractor, by these Documents, assumes toward the Owner and the Architect. Each subcontract agreement of any tier shall preserve and protect the rights of the Owner and the Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor of any tier so that subcontracting thereof will not prejudice such rights and shall allow to the Subcontractor of any tier, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with its sub-subcontractors. The Contractor shall make available to each proposed Subcontractor of any tier, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor of any tier shall be bound. Subcontractors of any tier shall similarly make copies of applicable portions of such documents available to their respective proposed Subcontractors of any tier.

5.2.2 All agreements between the Contractor and a Subcontractor or supplier shall contain provisions whereby Subcontractor or supplier waives all rights against the Owner,

Contractor, Owner's Representative, the Architect and all other Additional Insureds for all losses and damages caused by, arising out of, or resulting from any of the perils covered by property or builders risk insurance coverage required of the Contractor in the Contract Documents. If Contractor fails to include said provisions in all subcontracts, Contractor shall indemnify, defend and hold all the above entities harmless in the event of any legal action by Subcontractor or supplier. If insureds on any such policies require separate waiver forms to be signed by any Subcontractors of any tier or suppliers, Contractor shall obtain the same.

5.3 Contingent Assignment of Subcontract

5.3.1 No assignment by the Contractor of any amount or any part of the Contract or of the funds to be received thereunder will be recognized unless such assignment has had the written approval of the Owner, and the surety has been given due notice of such assignment and has furnished written consent hereto. In addition to the usual recitals in assignment Contracts, the following language must be set forth: "It is agreed that the funds to be paid to the assignee under this assignment are subject to performance by the Contractor of the Contract and to claims and to liens for services rendered or materials supplied for the performance of the Work called for in said Contract in favor of all persons, firms or corporations rendering such services or supplying such materials."

ARTICLE 6

SEPARATE CONTRACTS AND COOPERATION

6.1 The Owner reserves the right to let other contracts in connection with the Work.

6.2 It shall be the duty of each Contractor to whom Work may be awarded, as well as all Subcontractors of any tier employed by them, to communicate immediately with each other in order to schedule Work, locate storage facilities, etc., in a manner that will permit all Contractors to work in harmony in order that Work may be completed in the manner and within the time specified in the Contract Documents.

6.3 No Contractor shall delay another Contractor by neglecting to perform the Contractor's work at the proper time. Each Contractor shall be required to coordinate the Contractor's work with other Contractors to afford others reasonable opportunity for execution of their work. Any costs caused by defective, non-compliant, or ill-timed work, including actual damages and liquidated damages for delay, if applicable, shall be borne by the Contractor responsible therefor.

6.4 Each Contractor shall be responsible for damage to the Owner's or another Contractor's property done by the Contractor or the Contractor's employees, through his or their fault or negligence. If any Contractor shall cause

damage to any other Contractor, the Contractor causing such damage shall upon notice of any claim, settle with such Contractor.

6.5 The Contractor shall not claim from the Owner money damages or extra compensation under this Contract when delayed in initiating or completing his performance hereunder, when the delay is caused by labor disputes, acts of God, or the failure of any other Contractor to complete the Contractor's performance under any Contract with the Owner, where any such cause is beyond the Owner's reasonable control.

6.6 Progress schedule of the Contractor for the Work shall be submitted to other Contractors as necessary to permit coordinating their progress schedules.

6.7 If Contractors or Subcontractors of any tier refuse to cooperate with the instructions and reasonable requests of other contractors performing work for the Owner under separate contract, in the overall coordinating of the Work, the Owner's Representative may take such appropriate action and issue such instructions as in his judgement may be required to avoid unnecessary and unwarranted delay.

ARTICLE 7

CHANGES IN THE WORK

7.1 CHANGE ORDERS

7.1.1 A Change Order is a written instrument prepared by the Owner and signed by the Owner and the Contractor formalizing their agreement on the following:

- .1** a change in the Work
- .2** the amount of an adjustment, if any, in the Contract amount
- .3** an adjustment, if any, in the Contract Time

7.1.2 The Owner may at any time, order additions, deletions, or revisions in the Work by a Change Order or a Construction Change Directive. Such Change Order or Construction Change Directive shall not invalidate the Contract and requires no notice to the surety. Upon receipt of any such document, or written authorization from the Owner's Representative directing the Contractor to proceed pending receipt of the document, the Contractor shall promptly proceed with the Work involved in accordance with the terms set forth therein.

7.1.3 Until such time as the Change Order is formalized and signed by both the Owner and the Contractor it shall be considered a Change Order Request.

7.1.4 The amount of adjustment in the Contract price for authorized Change Orders will be agreed upon before such Change Orders becomes effective and will be determined as follows:

- .1** By a lump sum proposal from the Contractor and the Subcontractors of any tier, including overhead and profit.

.2 By a time and material basis with or without a specified maximum. The Contractor shall submit to the Owner's Representative itemized time and material sheets depicting labor, materials, equipment utilized in completing the Work on a daily basis for the Owner's Representative approval. If this pricing option is utilized, the Contractor may be required to submit weekly reports summarizing costs to date on time and material Change Order Requests not yet finalized.

.3 By unit prices contained in the Contractor's original bid and incorporated in the Construction Contract or subsequently agreed upon. Such unit prices contained in the Contractor's original proposal are understood to include the Contractor's overhead and profit. If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are so changed in a proposed Change Order that application of such unit prices to quantities of the Work proposed will cause substantial inequity to the Owner or to the Contractor, the applicable unit prices shall be equitably adjusted.

7.1.5 The Contractor shall submit all fully documented Change Order Requests with corresponding back-up documentation within the time requested by the Owner but no later than fourteen (14) working days following 1.) the Owner's request for pricing in the case of a lump sum; or 2.) the completion of unit price or time and material work.

7.1.6 The Contractor shall submit Change Order Requests in sufficient detail to allow evaluation by the Owner. Such requests shall be fully itemized by units of labor, material and equipment and overhead and profit. Such breakdowns shall be itemized as follows:

.1 Labor: The Contractor's proposal shall include breakdowns by labor, by trade, indicating number of hours and cost per hour for each Subcontractor as applicable. Such breakdowns shall only include employees in the direct employ of the Contractor or Subcontractors in the performance of the Work. Such employees shall only include laborers at the site, mechanics, craftsmen and foremen. Payroll cost shall include base rate salaries and wages plus the cost of fringe benefits required by agreement or custom and social security contributions, unemployment, payroll taxes and workers' or workmen's compensation insurance and other customary and legally required taxes paid by the Contractor or Subcontractors. Any item or expense outside of these categories is not allowed. The expense of performing Work after regular working hours, on Saturdays, Sundays or legal holidays shall not be included in the above, unless approved in writing and in advance by Owner.

.2 Material, supplies, consumables and equipment to be incorporated into the Work at actual invoice cost to the Contractor or Subcontractors; breakdowns showing all material, installed equipment and consumables fully itemized with number of units installed and cost per unit extended. Any singular item or items in aggregate greater than one thousand dollars (\$1,000) in cost shall be

supported with supplier invoices at the request of the Owner's Representative. Normal hand tools are not compensable.

.3 Equipment: Breakdown for required equipment shall itemize (at a minimum) delivery / pick-up charge, hourly rate and hours used. Operator hours and rate shall not be included in the equipment breakdown. Contractor must use the most cost-effective equipment available in the area and should not exceed the rates listed in the Rental Rate Blue Book for Construction Equipment (Blue Book). The Contractor shall submit documentation for the Blue Book to support the rate being requested.

7.2 Construction Change Directive

7.2.1 A construction change directive is a written order prepared and signed by the Owner, issued with supporting documents prepared by the Architect (if applicable), directing a change in the Work prior to agreement on adjustment of the Contract amount or Contract Time, or both. A Construction Change Directive shall be used in the absence of complete agreement between the Owner and Contractor on the terms of a Change Order. If the Construction Change Directive allows an adjustment of the Contract amount or time, such adjustment amount shall be based on one of the following methods:

.1 A lump sum agreement, properly itemized and supported by substantiating documents of sufficient detail to allow evaluation.

.2 By unit prices contained in the Contractor's original proposal and incorporated in the Construction Contract or subsequently agreed upon.

.3 A method agreed to by both the Owner and the Contractor with a mutually agreeable fee for overhead and profit.

.4 In the absence of an agreement between the Owner and the Contractor on the method of establishing an adjustment of the Contract amount, the Owner, with the assistance of the Architect, shall determine the adjustment amount on the basis of expenditures by the Contractor for labor, materials, equipment, and other costs consistent with other provisions of the Contract. The Contractor shall keep and submit to the Owner an itemized accounting of all cost components, either expended or saved, while performing the Work covered under the Construction Change Directive.

7.2.2 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Owner of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum, Contract Time, or both.

7.2.3 A Construction Change Directive signed by Contractor indicates the agreement of the Contractor therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

7.3 Overhead and Profit

7.3.1 Overhead and Profit on Change Orders shall be applied as follows:

.1 The overhead and profit charged by the Contractor and Subcontractors shall be considered to include, but not limited to, job site office and clerical expense, normal hand tools, incidental job supervision, field supervision, payroll costs and other compensation for project manager, officers, executives, principals, general managers, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, time-keepers, and other personnel employed whether at the site or in principal or a branch office for general superintendent and administration of the Work.

.2 The percentages for overhead and profit charged on Change Orders shall be negotiated and may vary according to the nature, extent, and complexity of the Work involved but in no case shall exceed the following:

- 15% To the Contractor or the Subcontractor of any tier for Work performed with their respective forces or materials purchased
- 5% To the Contractor on Work performed by other than the Contractor's forces
- 5% To first tier Subcontractor on Work performed by his Subcontractor

.3 The Contractor will be allowed to add 2% for the cost of bonding and insurance to their cost of work. This 2% shall be allowed on the total cost of the added work, including overhead and profit.

.4 Not more than three mark-ups, not to exceed individual maximums shown above, shall be allowed regardless of the number of tier Subcontractors. Overhead and profit shall be shown separately for each Subcontractor of any tier and the Contractor.

.5 On proposals covering both increases and decreases in the amount of the Contract, the application of overhead and profit shall be on the net change in direct cost for the Contractor or Subcontractor of any tier performing the Work.

.6 The percentages for overhead and profit credit to the Owner on Change Orders that are strictly decreases in the quantity of work or materials shall be negotiated and may vary according to the nature, extent, and complexity of the Work involved, but shall not be less than the following:

Overhead and Profit

- 7.5% Credit to the Owner from the Contractor or Subcontractor of any tier for Work performed with their respective forces or materials purchased
- 2.5% Credit to the Owner from the Contractor on Work performed by other than his forces
- 2.5% Credit to the Owner from the first tier Subcontractor on Work performed by his Subcontractor of any tier

7.4 Extended General Conditions

7.4.1 The Contractor acknowledges that the percentage mark-up allowed on Change Orders for overhead and

profit cover the Contractor's cost of administering and executing the Work, inclusive of Change Orders that increase the Contract Time. The Contractor further acknowledges that no compensation beyond the specified mark-up percentages for extended overhead shall be due or payable as a result of an increase in the Contract Time.

7.4.2 The Owner may reimburse the Contractor for extended overhead if an extension of the Contract Time is granted by the Owner, in accordance with 4.7.1 and the Owner determines that the extension of the Contract Time creates an inequitable condition for the Contractor. If these conditions are determined by the Owner to exist, the Contractor may be reimbursed by unit prices contained in the Contractor's original bid and incorporated in the Construction Contract or by unit prices subsequently agreed upon.

7.4.3 If unit prices are subsequently agreed upon, the Contractor's compensation shall be limited as follows:

.1 For the portion of the direct payroll cost of the Contractor's project manager expended in completing the Work and the direct payroll cost of other onsite administrative staff not included in Article 7.3.1. Direct payroll cost shall include base rate salaries and wages plus the cost of fringe benefits required by agreement or custom and social security contributions, unemployment, payroll taxes and workers' or workmen's compensation insurance and other customary and legally required taxes paid by the Contractor;

.2 Cost of the Contractor's temporary office, including temporary office utilities expense;

.3 Cost of temporary utilities required in the performance of the Work;

.4 Profit not to exceed 5% of the total extended overhead direct costs;

7.4.4 All costs not falling into one of these categories and costs of the Contractor's staff not employed onsite are not allowed.

7.5 Emergency Work

7.5.1 If, during the course of the Work, the Owner has need to engage the Contractor in emergency work, whether related to the Work or not, the Contractor shall immediately proceed with the emergency work as directed by the Owner under the applicable provisions of the Contract. In so doing, the Contractor agrees that all provisions of the Contract remain in full force and effect and the schedule for the Work is not impacted in any way unless explicitly agreed to in writing by the Owner.

ARTICLE 8 TIME

8.1 Progress and Completion

8.1.1 The Contractor acknowledges and agrees that time is of the essence of this Contract.

8.1.2 The Contract Time is the period of time set forth in the Contract for Construction required for Substantial Completion and Final Completion of the entire Work or portions of the Work as defined in the Contract Documents. Time limits stated in the Contract Documents are of the essence of the Contract. The Contract Time may only be changed by a Change Order. By executing the Contract, the Contractor confirms that the Contract Time is a sufficient period for performing the Work in its entirety.

8.1.3 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, prematurely commence operations on the site or elsewhere prior to the effective date of insurance and bonds required by Article 11 to be furnished by the Contractor.

8.1.4 The Contractor shall proceed expeditiously and diligently with adequate forces and shall achieve Substantial Completion and Final Completion within the time specified in the Contract Documents.

8.2 Delay in Completion

8.2.1 The Contractor shall be liable for all of the Owner's damages for delay in achieving Substantial Completion and/or Final Completion of the entire Work or portions of Work as set forth in the Contract Documents within the Contract Time unless liquidated damages are specifically provided for in the Contract Documents. If liquidated damages are specifically provided for in the Contract for Construction, the Contractor shall be liable for such liquidated damages as set forth in Section 8.3

8.2.2 All time limits stated in the Contract are of the essence of the Contract. However, if the Contractor is delayed at any time in the progress of the Work by any act or neglect of the Owner or by the Owner's Representative, by changes ordered in the Work, Force Majeure including but not limited to war, armed conflict, riot, civil commotion or disorder, act of terrorism or sabotage; epidemic, pandemic, outbreaks of infectious disease or any other public health crisis, including quarantine or other employee restrictions, compliance with any law or governmental order, rule, regulation or direction, curfew restriction, act of God or natural disaster such as earthquake, volcanic activity, landslide, tidal wave, tsunami, flood, damage or destruction by lightning, drought; explosion, fire, destruction of machines, equipment, prolonged break-down of transport, telecommunication or electric current; general labor disturbance such as but not limited to boycott, strike and lock-out, occupation of factories and premises, or any other causes beyond the Contractor's reasonable control which the Owner's Representative determines may justify delay then, upon submission of the Time Impact Schedule Analysis (TIA) justifying the delay called out in Section 4.7 of these General Conditions, the Contract Time may be extended for a reasonable time to the extent such delay will prevent the Contractor from achieving Substantial

Completion and/or Final Completion within the Contract Time and if performance of the Work is not, was not or would not have been delayed by any other cause for which the Contractor is not entitled to an extension of the Contract Time under the Contract Documents. It shall be a condition precedent to any adjustment of the Contract Time that the Contractor provides the Owner's Representative with written notice of the cause of delay within seven (7) days from the occurrence of the event or condition which caused the claimed delay. If a Force Majeure is approved by the Owner as the basis for a delay claim, an adjustment in the Contract Time to the extent the Force Majeure impacts the schedule is the only remedy. No increase in the Contract Sum for any reason shall be allowed due to a Force Majeure.

8.2.3 The Contractor further acknowledges and agrees that adjustments in the Contract Time will be permitted for a delay only to the extent such delay (1) is not caused, or could not have been anticipated, by the Contractor, (2) could not be limited or avoided by the Contractor's timely notice to the Owner of the delay, (3) prevents the Contractor from completing its Work by the Contract Time, and (4) is of a duration not less than one (1) day. Delays attributable to and within the control of a Subcontractor or supplier shall not justify an extension of the Contract Time.

8.2.4 Notwithstanding anything to the contrary in the Contract Documents, except as otherwise noted in these General Conditions, an extension in the Contract Time, to the extent permitted under this Article, shall be the sole remedy of the Contractor for any (1) delay in the commencement, prosecution or completion of the Work, (2) hindrance or obstruction in the performance of the Work, (3) loss of productivity, or (4) other claims due to or caused by any events beyond the control of both the Owner and the Contractor defined herein as Force Majeure. In no event shall the Contractor be entitled to any compensation or recovery of any damages or any portion of damages resulting from delays caused by or within the control of the Contractor or by acts or omissions of the Contractor or its Subcontractors of any tier or delays beyond the control of both the Owner and the Contractor. If the Contractor contends that delay, hindrance, obstruction or other adverse condition results from acts or omissions of the Owner, the Owner's Representative or the Architect, the Contractor shall provide written notice to the Owner within seven (7) calendar days of the event giving rise to such claim. The Contractor shall only be entitled to an adjustment in the Contract Sum to the extent that such acts or omissions continue after the Contractor's written notice to the Owner of such acts or omissions, but in no case shall Force Majeure be the basis of an increase in the Contract Sum. The Owner's exercise of any of its rights or remedies under the Contract Documents (including, without limitation, ordering changes in the Work, or directing suspension, rescheduling or correction of the Work) regardless of the extent or frequency of the Owner's exercise of such rights or remedies, shall not be the basis of any Claim for an increase in the Contract Sum or Contract Time. In the event Contractor is entitled to an adjustment in the Contract Sum for any delay, hindrance, obstruction or other adverse condition caused by the acts or

omissions of the Owner, the Owner's Representative or the Architect, the Contractor shall only be entitled to its actual direct costs caused thereby and the Contractor shall not be entitled to and waives any right to special, indirect, or consequential damages including loss of profits, loss of savings or revenues, loss of anticipated profits, labor inefficiencies, idle equipment, home office overhead, and similar type of damages.

8.2.5 If the Contractor submits a progress report or any construction schedule indicating, or otherwise expressing an intention to achieve completion of the Work prior to any completion date required by the Contract Documents or expiration of the Contract Time, no liability of the Owner to the Contractor for any failure of the Contractor to so complete the Work shall be created or implied. Further, the Contractor acknowledges and agrees that even if the Contractor intends or is able to complete the Work prior to the Contract Time, it shall assert no Claim and the Owner shall not be liable to the Contractor for any failure of the Contractor, regardless of the cause of the failure, to complete the Work prior to the Contract Time.

8.3 Liquidated Damages

8.3.1 If Liquidated Damages are prescribed on the Bid Form and Special Conditions in the Contract Documents, the Owner may deduct from the Contract Sum and retain as Liquidated Damages, and not as penalty or forfeiture, the sum stipulated in the Contract Documents for each calendar day after the date specified for completion of the Work that the entire Work is not substantially complete and/or finally complete.

8.3.2 The Owner's Representative shall establish the date of Substantial Completion and the date of Final Completion of the Work which shall be conclusive and binding on the Owner and the Contractor for the purpose of determining whether or not Liquidated Damages shall be assessed under terms hereof and the sum total amount due.

8.3.3 Liquidated Damages or any matter related thereto shall not relieve the Contractor or the Contractor's surety of any responsibility or obligation under this Contract.

ARTICLE 9 PAYMENTS AND COMPLETION

9.1 Commencement, Prosecution, and Completion

9.1.1 The Contractor shall commence Work within five (5) days upon the date of a "Notice to Proceed" from the Owner or the date fixed in the Notice to Proceed. The Contractor shall prosecute the Work with faithfulness and diligence, and the Contractor shall complete the Work within the Contract Time set forth in the Contract Documents.

9.1.2 The Owner will prepare and forward three (3) copies of the Contract and Performance Bond to the bidder to whom the Contract for the Work is awarded and such bidder shall return two (2) properly executed prescribed copies of the Contract and Bond to the Owner.

9.1.3 The construction period, when specified in consecutive calendar days, shall begin when the Contractor receives notice requesting the instruments listed in below. Before the Owner will issue Notice to Proceed to permit the Contractor to begin Work, the Owner shall have received the following instruments, properly executed as described in the Contract Documents. The documents below shall have been received by the Owner within fifteen (15) days after receipt of request for documents:

- .1** Contract
- .2** Bond (See Article 11)
- .3** Insurance (See Article 11)
- .4** List of Subcontractors of any tier
- .5** Affirmative Action Plan (See Article 13)

9.1.4 In the event the Contractor fails to provide the Owner such documents, the Contractor may not enter upon the site of the Work until such documents are provided. The date the Contractor is required to commence and complete the Work shall not be affected by the Owner denying the Contractor access to the site as a result of the Contractor's failure to provide such documents and the Contractor shall not be entitled to an adjustment of the Contract Time or Contract Sum as a result of its failure to provide the Owner the required documents

9.1.5 Contracts executed by partnerships shall be signed by all general partners of the partnership. Contracts signed by corporations shall be signed by the President or Vice President and the Secretary or Assistant Secretary. In case the Assistant Secretary or Vice President signs, it shall be so indicated by writing the word "Asst." or "Vice" in front of the words "Secretary" and "President". The corporate seal of the corporation shall be affixed. For all other types of entities, the Contractor and the person signing the Contract on behalf of the Contractor represent and warrant that the person signing the Contract has the legal authority to bind the Contractor to the Contract.

9.1.6 Any successful bidder which is a corporation organized in a state other than Missouri or any bidder doing business in the State of Missouri under a fictitious name shall furnish, at no cost to the Owner, no later than the time at which the executed Contract for Construction, the Payment Bond, and the Performance Bond are returned, a properly certified copy of its current Certificate of Authority and License to do business in the State of Missouri. No contract will be executed by the Owner until such certificate is furnished by the bidder, unless there already is on file with the Owner a current certificate, in which event, no additional certificate will be required during the period of time for which such current certificate remains in effect.

9.1.7 Within fifteen (15) calendar days of the issuance of a Notice to Proceed, the Contractor shall submit one (1) signed copy of the following instruments. No payment will be processed until all of these instruments are received and approved by the Owner's Representative.

- .1** Reproducible progress and payment schedule
- .2** Contractor's Schedule of Values
- .3** List of material suppliers
- .4** Itemized breakdown of all labor rates for each classification. Overhead and profit shall not be included. Payroll cost shall include base rate salaries and wages plus the cost of fringe benefits required by agreement or custom and social security contributions, unemployment, payroll taxes and workers' or workmen's compensation insurance and other customary and legally required taxes paid by the Contractor or Subcontractors. Any item or expense outside of these categories is not allowed. The expense of performing Work after regular working hours, on Saturdays, Sundays or legal holidays shall not be included in the above, unless approved in writing and in advance by the Owner.
- .5** Itemized breakdown of anticipated equipment rates (breakout operator rate). Overhead and profit shall not be included. Breakdown for required equipment shall itemize (at a minimum) delivery/ pick-up charge, hourly rate and hours used. Operator hours and rate shall not be included in the equipment breakdown. The Contractor must use the most cost-effective equipment available in the area and should not exceed the rates listed in the Rental Rate Blue Book for Construction Equipment (Blue Book). The Contractor shall submit documentation for the Blue Book to support the rate being requested.

9.1.8 The Contractor shall be paid electronically using the Owner's web-based payment program with a direct electronic transfer from the Owner's account into the Contractor's account. The Contractor must submit the following information to the Owner's Representative:

- .1** Bank Transit Number for the Contractor's bank into which the electronic deposit will be made.
- .2** Bank Account Number for the Contractor's account into which the electronic deposit will be made.
- .3** Contractor's E-Mail address so that formal notification of the deposit by the Owner can be provided.

9.2 Contract Sum

9.2.1 The Owner shall compensate the Contractor for all Work described herein, and in the Contract Documents the Contract Sum set forth in the Contract for Construction, subject to additions and deletions as provided hereunder.

9.3 Schedule of Values

9.3.1 Within fifteen (15) days after receipt of the Notice to Proceed, the Contractor shall submit to the Owner's Representative a schedule of values allocated to various portions of the Work, prepared in such form and supported by such data to substantiate its accuracy as the Owner's Representative may require. This schedule, unless objected

to by the Owner's Representative, shall be used as a basis for reviewing the Contractor's Applications for Payment. The values set forth in such schedule may, at the Owner's option be used in any manner as fixing a basis for additions to or deletions from the Contract Sum.

9.3.2 The progress and payment schedule of values shall show the following:

- .1** Enough detail as necessary to adequately evaluate the actual percent complete of any line item on a monthly basis, as determined by the Owner's Representative.
- .2** Line items, when being performed by a Subcontractor or material supplier, shall correlate directly back to the subcontract or purchase order amount if requested by the Owner's Representative.

9.4 Applications for Payment

9.4.1 The Contractor shall submit monthly to the Owner's Representative and the Architect an itemized Application for Payment for operations completed in accordance with the Schedule of Values. Such application shall be supported by such data substantiating the Contractor's right to payment as the Owner's Representative or the Architect may require, such as copies of requisitions from Subcontractors and material suppliers, and reflecting retainage as provided for herein.

9.4.2 Such applications shall not include requests for payment of amounts the Contractor does not intend to pay to a Subcontractor or material supplier

9.4.3 Progress payments shall be made on account of materials and equipment delivered to the site and incorporated in the Work. No payments will be made for materials and equipment stored at the Project site but not yet incorporated into the Work except as provided in Paragraph 9.4.4.

9.4.4 If approved in writing and in advance by the Owner, progress payments may be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. The Owner may in its sole discretion refuse to grant approval for payments for materials and equipment stored at the Project site but not yet incorporated in the Work. Any approval by the Owner for payment for materials and equipment delivered and suitably stored at the site, or stored offsite as noted below, for subsequent incorporation in the Work shall be conditioned upon Contractor's demonstrating that such materials and equipment are adequately protected from weather, damage, vandalism and theft and that such materials and equipment have been inventoried and stored in accordance with procedures established by or approved by the Owner. Nothing in this clause shall imply or create any liability on the part of the Owner for the Contractor's inventory and storage procedures or for any loss or damage to material, equipment or supplies stored on the site, whether incorporated into the Work or not. In the event any such loss or damage occurs, the Contractor remains solely responsible for all costs associated with replacement of the affected materials, supplies and equipment including labor and

incidental costs, and shall have no claim against the Owner for such loss.

No allowance shall be made in the project pay requests for materials not delivered to the site of the Work and incorporated into the Work, except as noted below. For the purposes of this Contract, offsite is defined as any location not owned or leased by the Owner. The Contractor shall submit a list of materials that they are requesting payment for offsite storage within sixty (60) days of Notice to Proceed.

.1 Items considered to be major items of considerable magnitude, if suitably stored, may be allowed in project pay requests on the basis of ninety percent (90%) of invoices

.2 Determination of acceptable "major items of considerable magnitude" and "suitably stored" shall be made by the Owner's Representative.

.3 Aggregate quantities of materials not considered unique to this project will not be considered for offsite storage payment.

.4 The Contractor shall submit to the Owner's Representative a list of the material for which application for payment for offsite storage is anticipated no less than forty-five days (45) prior to the submission of the applicable pay request. The list shall include a material description, applicable division, quantity, and discounts offered to the Owner for early payment. The Contractor shall also submit the location the material will be stored and the method of protection

.5 The storage facility shall be subject to approval by the Owner's representative, shall be located within an acceptable distance of the project sites as established by the Owner's Representative and all materials for the Owner's project must be stored separately from all other items within the storage facility and shall be labeled and stored in the name of "The Curators of the University of Missouri."

.6 The Owner's Representative shall be provided a minimum of two weeks' notice to visit the storage facility and inspect the stored material prior to submission of the pay request.

.7 Upon favorable inspection by the Owner's Representative, the Contractor shall, at the Owner's option, submit a Bill of Sale on forms provided by the Owner's Representative, transferring title of the material or equipment to "The Curators of the University of Missouri."

.8 An invoice provided by the supplier shall be included with the applicable pay request.

.9 The Contractor shall remain fully responsible for all items, until acceptance of the project by the Owner.

.10 The Contractor shall reimburse all costs incurred by the Owner in inspecting and verifying all material stored offsite, including mileage, airfare, meals, lodging and time, charged at a reasonable hourly rate.

.11 The Contractor shall furnish and maintain insurance covering the replacement cost of the material stored offsite against all losses and shall furnish proof of coverage with the application for payment for material stored offsite.

.12 The Contractor is responsible for all costs related to storage and handling of material stored offsite unless otherwise directed by the Owner's Representative.

9.4.5 The Application for Payment shall constitute a representation by the Contractor to the Owner that the Work has progressed to the point indicated; the quality of the Work covered by the Application for Payment is in accordance with the Contract Documents; and the Contractor is entitled to payment in the amount requested.

9.4.6 The Contractor will be reimbursed for ninety-five percent (95%) of the value of all labor furnished and material installed and computed in the same manner, less all previous payments made. On projects where a bond is not required, the Contractor will be reimbursed for ninety percent (90%) of the value of all labor furnished and material installed and computed in the same manner, less all previous payments made.

9.5 Approval for Payment

9.5.1 The Owner's Representative will, within fifteen (15) days after receipt of the Contractor's Application for Payment, either approve Contractor's Application for Payment for such amount as the Owner's Representative determines is properly due or notify the Contractor of the Owner's Representative's reasons for withholding certification in whole or in part as provided in Section 9.6.

9.6 Decisions to Withhold Approval

9.6.1 The Owner's Representative may decide not to certify payment and may withhold approval in whole or in part, to the extent reasonably necessary to protect the Owner. If the Owner's Representative is unable to approve payment in the amount of the Application, the Owner's Representative will notify the Contractor as provided in Paragraph 9.5.1. If the Contractor and Owner's Representative cannot agree on a revised amount, the Owner's Representative will promptly issue approval for payment for the amount for which the Owner's Representative is able to determine is due to the Contractor. The Owner's Representative may also decide not to approve payment or, because of subsequently discovered evidence or subsequent observations, may nullify the whole or a part of approval for payment previously issued, to such extent as may be necessary in the Owner's Representative opinion to protect the Owner from loss because of:

.1 defective or non-compliant Work not remedied, or damage to completed Work;

.2 failure to supply sufficient skilled workers or suitable materials;

.3 third party claims filed or reasonable evidence indicating probable filing of such claims;

.4 failure of the Contractor to make payments properly to Subcontractors or for labor, materials or equipment, the Owner may, at its sole option issue joint checks to Subcontractors who have presented evidence that it has not been paid in accordance with the Contract;

.5 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;

- .6 damage to the Owner or another contractor;
- .7 reasonable evidence that the Work will not be completed within the Contract Time or an unsatisfactory rate of progress made by the Contractor;
- .8 The Contractor's failure to comply with applicable laws;
- .9 The Contractor's or Subcontractor's failure to comply with applicable wage requirements; or
- .10 The Contractor's failure to carry out the Work in strict accordance with the Contract Documents.

9.6.2 When the above reasons for withholding approval are removed, approval will be made for amounts previously withheld.

9.7 Progress Payments

9.7.1 Based upon Applications for Payment submitted to the Owner by the Contractor and approvals issued by the Owner's Representative, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

9.7.2 The period covered by each Application for Payment shall be one (1) calendar month.

9.7.3 The Owner shall make payment to the Contractor for amounts due and approved by the Owner's Representative not later than thirty (30) days after the Owner approves a properly detailed Application for Payment which is in compliance with the Contract Documents. The Owner shall not have the obligation to process or pay such Application for Payment until it receives an Application for Payment satisfying such requirements.

9.7.4 Based on the Schedule of Values submitted by the Contractor, Applications for Payment submitted by the Contractor shall indicate the actual percentage of completion of each portion of the Contractor's Work as of the end of the period covered by the Application for Payment.

9.7.5 The Contractor shall promptly pay each Subcontractor and supplier, upon receipt of payment from the Owner, out of the amount paid to the Contractor on account of such Subcontractor's or supplier's portion of the Work, the amount to which said Subcontractor or supplier is entitled, reflecting percentages actually retained from payments to the Contractor on account of each Subcontractor's or supplier's portion of the Work, in full compliance with state statute. The Contractor shall, by appropriate agreement with each Subcontractor or supplier, require each Subcontractor or supplier to make payments to Sub-subcontractors in similar manner.

9.7.6 Neither the Owner nor the Architect shall have an obligation to pay or to see to the payment of money to a Subcontractor of any tier nor a laborer or employee of the Contractor except to the extent required by law. Retainage provided for by the Contract Documents are to be retained

and held for the sole protection of the Owner, and no other person, firm or corporation shall have any claim or right whatsoever thereto.

9.7.7 An approval for payment by the Owner's Representative, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

9.8 Failure of Payment

9.8.1 If the Owner is entitled to reimbursement or payment from the Contractor under or pursuant to the Contract Documents, such payment by the Contractor shall be made promptly upon demand by the Owner. Notwithstanding anything contained in the Contract Documents to the contrary, if the Contractor fails to promptly make any payment due the Owner, or the Owner incurs any costs and expenses to cure any default of the Contractor or to correct defective Work, the Owner shall have an absolute right to offset such amount against the Contract Sum and may, in the Owner's sole discretion, elect either to: (1) deduct an amount equal to that to which the Owner is entitled from any payment then or thereafter due the Contractor from the Owner, or (2) issue a written notice to the Contractor reducing the Contract Sum by an amount equal to that to which the Owner is entitled.

9.9 Substantial Completion

9.9.1 Substantial Completion is the stage in the progress of the Work as defined in Paragraph 1.1.14 as certified by the Owner.

9.9.2 When the Contractor considers the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall notify the Owner and the Architect. The Owner's Representative will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Owner's Representative's inspection discloses any item which is not in accordance with the requirements of the Contract Documents, the Contractor shall complete or correct such item upon notification by the Owner's Representative. The Contractor shall then submit a request for another inspection by the Owner's Representative to determine Substantial Completion. When the Work or designated portion thereof is substantially complete, the Owner will issue a Certificate of Substantial Completion. Substantial Completion shall transfer from the Contractor to the Owner responsibilities for security, maintenance, heat, utilities, damage to the Work and insurance. In no event shall the Contractor have more than thirty (30) days to complete all items on the Punch List and achieve Final Completion. Warranties required by the Contract Documents shall commence on the date of Substantial Completion or as agreed otherwise.

9.9.3 At the date of Substantial Completion, the Contractor may apply for, and if approved by Owner's Representative, the Owner, subject to the provisions herein, shall increase total payments to one hundred percent (100%) of the Contract Sum

less one hundred fifty percent (150%) of the value of any incomplete Work and unsettled claims, as determined by the Owner's Representative.

9.10 Partial Occupancy or Use

9.10.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and the Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, security, maintenance, heat, utilities, damage to the Work and insurance. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by the Owner's Representative.

9.10.2 Immediately before such partial occupancy or use, the Owner, and the Contractor shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work. Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

9.11 Final Completion and Final Payment

9.11.1 Upon receipt of written notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Owner's Representative and the Architect will promptly make such inspection and, when the Owner's Representative and the Architect find the Work acceptable under the Contract Documents and the Contract fully performed, the Owner's Representative will promptly issue a final approval for payment; otherwise, the Owner's Representative will return the Contractor's Final Application for Payment to the Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application. Submission of a Final Application for Payment shall constitute a further representation that conditions listed in Paragraph 9.11.2 as precedent to the Contractor being entitled to final payment have been fulfilled. All warranties and guarantees required under or pursuant to the Contract Documents shall be assembled and delivered by the Contractor to the Owner's Representative as part of the final Application for Payment. The final approval for payment will not be issued by the Owner's Representative until all warranties and guarantees have been received and accepted by the Owner.

9.11.2 The Owner will request the Contractor to submit the application for final payment along with a manually signed notarized letter on the Contractor's letterhead certifying that:

.1 Labor costs, prevailing wage rates, fringe benefits and material costs have been paid.

.2 Subcontractors of any tier and manufacturers furnishing materials and labor for the project have fully completed their Work and have been paid in full.

.3 The project has been fully completed in accordance with the Contract Documents as modified by Change Orders.

.4 The acceptance by the Contractor of its final payment, by check or electronic transfer, shall be and operate as a release of all claims of the Contractor against the Owner for all things done or furnished or relating to the Work and for every act or alleged neglect of the Owner arising out of the Work.

9.11.3 Final payment constituting the entire unpaid balance due shall be paid by the Owner to the Contractor within thirty (30) days after the Owner's receipt of Contractor's Final Application for Payment which satisfies all the requirements of the Contract Documents and the Owner's receipt of all information and documents set forth in Section 9.11.

9.11.4 No payment under this Contract, including but not limited to final payment, shall constitute acceptance by the Owner of any Work or act not in accordance with the requirements of the Contract Documents.

9.11.5 No recourse shall be had against any member of the Board of Curators, or officer thereof, for any payment under the Contract or any claim based thereon.

ARTICLE 10

PROTECTION OF PERSONS AND PROPERTY

10.1 Safety Precautions and Programs

10.1.1 The Contractor shall at all times conduct operations under this Contract in a manner to avoid the risk of bodily harm to persons or risk of damage to any property. The Contractor shall promptly take precautions which are necessary and adequate against conditions created during the progress of the Contractor's activities hereunder which involve a risk of bodily harm to persons or a risk of damage to property. The Contractor shall continuously inspect Work, materials, and equipment to discover and determine any such conditions and shall be solely responsible for discovery, determination, and correction of any such conditions. The Contractor shall comply with applicable safety laws, standards, codes, and regulations in the jurisdiction where the Work is being performed, specifically, but without limiting the generality of the foregoing, with rules, regulations, and standards adopted pursuant to the Williams-Steiger Occupational Safety and Health Act of 1970 and applicable amendments.

10.1.2 The Contractor and all Subcontractors to the Contract must require all on-site employees to complete the ten-hour construction safety training program required under Section 292.675, RSMo, unless they have previously completed the program and have documentation of having done so. The Contractor will forfeit a penalty to the Owner of \$2,500 plus an additional \$100 for each employee employed by the Contractor or Subcontractor, for each calendar day, or

portion thereof, such employee is employed without the required training.” (Section 292.675, RSMo).

10.1.3 In the event the Contractor encounters on the site, material reasonably believed to be asbestos, polychlorinated biphenyl (PCB), lead, mercury, or other material known to be hazardous, which has not been rendered harmless, the Contractor shall immediately stop Work in the area affected and report the condition to the Owner’s Representative and the Architect in writing. The Work in the affected area shall not thereafter be resumed except by written agreement of the Owner’s Representative and the Contractor if in fact the material is asbestos or polychlorinated biphenyl (PCB) and has not been rendered harmless. The Work in the affected area shall be resumed in the absence of asbestos or polychlorinated biphenyl (PCB), or when it has been rendered harmless by written agreement of the Owner’s Representative and the Contractor. “Rendered Harmless” shall mean that levels of such materials are less than any applicable exposure standards, including but limited to OSHA regulations.

10.2 Safety Of Persons and Property

10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide protection to prevent damage, injury, or loss to:

- .1** students, faculty, staff, the public, construction personnel, and other persons who may be affected thereby;
- .2** the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor or the Contractor’s Subcontractors of any tier; and
- .3** other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

10.2.2 The Contractor shall give notices and comply with applicable laws, standards, codes, ordinances, rules, regulations, and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury, or loss.

10.2.3 The Contractor shall erect and maintain, as required by existing conditions and performance of the Contract, safeguards for safety and protection, including, but not limited to, posting danger signs and other warnings against hazards, promulgating safety regulations, and notifying owners and users of adjacent sites and utilities.

10.2.4 When use or storage of explosives or other hazardous materials or equipment or unusual methods are necessary for execution of the Work, the Contractor shall exercise the highest degree of care and carry on such activities under supervision of properly qualified personnel.

10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property

insurance required by the Contract Documents) to property caused in whole or in part by the Contractor, a Subcontractor of any tier, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable, and for which the Contractor is responsible under Article 10, except damage or loss attributable solely to acts or omissions of the Owner or the Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor’s other obligations stated elsewhere in the Contract.

10.2.6 The Contractor shall designate a responsible member of the Contractor’s organization at the site whose duty shall be the prevention of accidents, and the maintaining, enforcing and supervising of safety precautions and programs. This person shall be the Contractor’s superintendent unless otherwise designated by the Contractor in writing to the Owner’s Representative and the Architect. The Contractor shall hold regularly scheduled safety meetings to instruct the Contractor’s personnel on safety practices, accident avoidance and prevention, and the Project Safety Program. The Contractor shall furnish safety equipment and enforce the use of such equipment by its employees and its Subcontractors of any tier.

10.2.7 The Contractor shall not load or permit any part of the construction or site to be loaded so as to endanger its safety.

10.2.8 The Contractor shall promptly report in writing to the Owner all accidents arising out of or in connection with the Work which cause death, lost time injury, personal injury, or property damage, giving full details and statements of any witnesses. In addition, if death, serious personal injuries, or serious property damages are caused, the accident shall be reported immediately.

10.2.9 The Contractor shall promptly notify in writing to the Owner of any claims for injury or damage to personal property related to the Work, either by or against the Contractor.

ARTICLE 11 INSURANCE AND BONDS

11.1 Insurance

11.1.1 The Contractor shall secure from the date of the Contract for Construction and maintain for such periods of time as set forth below, insurance of such types and in such amounts specified below, to protect the Contractor, the Owner and others against all hazards or risks of loss described below. The form of such insurance together with carriers thereof, in each case, shall be approved by the Owner, but, regardless of such approval, it shall be the responsibility of the Contractor to maintain the insurance coverages set forth herein.

11.1.2 The Contractor shall not be allowed on the Owner's property without proof of the insurance coverages set forth herein

11.2 Commercial General Liability

11.2.1 The Contractor shall secure and maintain from the date of the Contract, and for a period of at least ten (10) years from the date of Final Completion of the entire Work, Commercial General Liability insurance ("CGL") with a combined single limit of not less than \$2,000,000 per occurrence, \$5,000,000 general aggregate, \$5,000,000 products and completed operations aggregate, and \$1,000,000 personal injury and advertising injury. General Aggregate must apply per project. An umbrella policy may be used to satisfy these limits.

11.2.2 CGL insurance shall be written on a Commercial form CG 00 01 or an equivalent form providing the same coverages and shall cover claims and liability in connection with or resulting from the Contractor's operations and activities under the Contract, for personal injuries, occupational sickness, disease, death or damage to property of others, including loss of use resulting therefrom, arising out of any operations or activities of the Contractor, its agents, or any Subcontractors of any tier or by anyone directly or indirectly employed by either of them.

11.2.3 CGL insurance shall include premises, operations, independent contractors, products-completed operations, personal injury and advertising injury and liability assumed under an insured contract (including the tort liability of another assumed in a business contract) coverages. In particular, and not by way of any limitation, the CGL insurance shall cover the Contractor's indemnity obligations contained in the Contract Documents.

11.2.4 There shall be no endorsement or modification of the CGL policy limiting the scope of coverage for liability arising from blasting, explosion, collapse, or underground property damage.

11.2.6 The Contractor waives all rights against the Owner and its agents, officers, representatives, and employees for recovery of damages to the extent those damages are covered by the CGL policy required hereunder.

11.3 Licensed for Use Vehicle Liability

11.3.1 The Contractor shall secure and maintain from the date of the Contract for Construction until the date of Final Completion of the entire Work, insurance, to be on comprehensive form, which shall protect the Contractor against any and all claims for all injuries and all damage to property arising from the use of automobiles, trucks and motorized vehicles, in connection with the performance of Work under this Contract, and shall cover the operation on or off the site of the Work of all motor vehicles licensed for

highway use whether they are owned, non-owned or hired. Such insurance shall include contractual liability coverage and shall provide coverage on the basis of the date of any accident. The liability limits under such policy shall not be less than \$2,000,000 combined single limit for bodily injury and property damage per accident.

11.3.2 The Contractor waives all rights against the Owner and its agents, officers, directors, and employees for recovery of damages to the extent such damages are covered by the automobile liability insurance required hereunder.

11.4 Workers' Compensation Insurance

11.4.1 The Contractor shall purchase and maintain workers' compensation insurance and employers' liability insurance which shall protect the Contractor from claims for injury, sickness, disease or death of the Contractor's employees or statutory employees. The insurance policies required hereunder shall include an "all states" or "other states" endorsement. In case any Work is subcontracted, the Contractor shall require any Subcontractor of any tier to provide the insurance coverages required under this Paragraph.

11.4.2 The Contractor's workers' compensation insurance coverage shall be in compliance with all applicable laws, including the statutes of the State of Missouri. The Contractor's employers' liability coverage limits shall not be less than \$1,000,000 each accident for bodily injury by accident or \$1,000,000 each employee for bodily injury by disease.

11.5 General Insurance Requirements and Professional Liability

11.5.1 Any Consultant/Contractor providing professional design services as part of the Contract shall be required to provide and maintain, from the date of this Contract and for a period of ten (10) years after the date of Final Completion, Professional Liability insurance, in a claims made form, to cover any claims, including but not limited to errors, omissions, and negligence, which may arise from the design and related services performed by the Consultant. The minimum limits for such policy shall be \$1,000,000.00 per claim/\$1,000,000.00 aggregate.

11.5.2 "The officers, employees, and agents of The Curators of the University of Missouri" shall be added as Additional Insured with respect to the CGL, umbrella/excess and Automobile Liability policies required herein. A certificate of insurance evidencing all coverage required is to be provided at least ten (10) days prior to the inception date of the Contract between the Contractor and the University. The Contractor is required to maintain coverages as stated and required to notify the University of a carrier change or cancellation within two (2) business days. The University reserves the right to request a copy of the policy. The University reserves the right to require higher limits on any contract provided notice of such requirement is stated in the request for proposals for such contract. The Contractor shall request that its insurer(s)

include the following disclaimer in any insurance policy, rider or endorsement issued pursuant to this Additional Insured requirement: "Neither the requirement for Additional Insured status nor any of the Contractor's action in compliance with such requirement, either direct or indirect, is intended to be and neither shall be construed as a waiver of any sovereign immunity, governmental immunity or any other type of immunity enjoyed by The Curators of the University of Missouri, the Board of Curators of the University of Missouri, or any of its officers, employees or agents."

The Additional Insured status must be conveyed by using the ISO CG 20 10 (2004) edition or equivalent and the ISO CG 20 37 (2004) edition. The policy shall be endorsed to be primary coverage and any other insurance carried by the Owner shall be excess only and will not contribute with Contractors' insurance. To confirm, the Endorsement should accompany the insurance certificate.

11.5.3 All insurance coverages procured by the Contractor shall be provided by agencies and insurance companies acceptable to and approved by Owner. All insurance coverage shall be provided by insurance companies that are duly licensed to conduct business in the State of Missouri as an admitted carrier, except that the Professional Liability insurance required herein may be provided by any insurance company legally authorized to do business in the State of Missouri. The form and content of all insurance coverage provided by the Contractor are subject to the approval of the Owner. All required insurance coverages shall be obtained and paid for by the Contractor. Any approval of the form, content or insurance company by the Owner shall not relieve the Contractor from the obligation to provide the coverages required herein. All insurance coverage procured by the Contractor shall be provided by insurance companies having policyholder ratings no lower than "A-" and financial ratings not lower than "XI" in the Best's Insurance Guide, latest edition in effect as of the date of the Contract, and subsequently in effect at the time of renewal of any policies required by the Contract Documents. Insurance coverages required hereunder shall not be subject to a deductible amount on a per-claim basis of more than \$10,000.00 and shall not be subject to a per-occurrence deductible of more than \$25,000.00. Insurance procured by the Contractor covering the Additional Insureds shall be primary insurance and any insurance maintained by Owner shall be excess insurance.

11.5.4 All insurance required hereunder shall provide that the insurer's cost of providing the insureds a defense and appeal, including attorneys' fees, shall be supplementary and shall not be included as part of the policy limits but shall remain the insurer's separate responsibility. The Contractor shall cause its insurance carriers for all required coverages, except for workers' compensation, to waive all rights of subrogation against the Owner and its officers, employees and agents.

11.5.5 The Contractor shall furnish the Owner with certificates, Additional Insured endorsements, policies, or binders which indicate the Contractor and/or the Owner and other Contractors (where required) are covered by the required insurance showing type, amount, class of operations covered, effective dates and dates of expiration of policies prior to commencement of the Work. The Contractor is required to maintain coverages as stated and required to notify the University of a carrier change or cancellation within two (2) business days. The University reserves the right to request a copy of the policy. The Contractor fails to provide, procure, and deliver acceptable policies of insurance or satisfactory certificates or other evidence thereof, the Owner may obtain such insurance at the cost and expense of the Contractor without notice to the Contractor.

11.5.6 With respect to all insurance coverages required to remain in force and affect after final payment, The Contractor shall provide the Owner additional certificates, policies and binders evidencing continuation of such insurance coverages along with the Contractor's application for final payment and shall provide certificates, policies and binders thereafter as requested by the Owner.

11.5.7 The maintenance in full current force and effect of such forms and amounts of insurance and bonds required by the Contract Documents shall be a condition precedent to the Contractor's exercise or enforcement of any rights under the Contract Documents.

11.5.8 Failure of the Owner to demand certificates, policies and binders evidencing insurance coverages required by the Contract Documents, approval by the Owner of such certificates, policies and binders or failure of the Owner to identify a deficiency from evidence that is provided by the Contractor shall not be construed as a waiver of the Contractor's obligations to maintain the insurance required by the Contract Documents.

11.5.9 The Owner shall have the right to terminate the Contract if the Contractor fails to maintain the insurance required by the Contract Documents.

11.5.10 If the Contractor fails to maintain the insurance required by the Contract Document, the Owner shall have the right, but not the obligation, to purchase said insurance at Contractor's expense. If the Owner is damaged by the Contractor's failure to maintain the insurance required by the Contract Documents, the Contractor shall bear all reasonable costs properly attributable to such failure.

11.5.11 By requiring the insurance set forth herein and in the Contract Documents, the Owner does not represent or warrant that coverage and limits will necessarily be adequate to protect the Contractor, and such coverages and limits shall not be deemed as a limitation on the Contractor's liability under the indemnities granted to the Owner in the Contract Documents. For those policies requiring the Owner to be added as an

Additional Insured, as set forth herein, the Owner and all other indemnified parties shall be an Additional Insured for the full limits carried by the Contractor, not just the limits required herein.

11.5.12 If Contractor's liability policies do not contain a standard separation of insureds provision, such policies shall be endorsed to provide cross-liability coverage.

11.5.13 If a part of the Work hereunder is to be subcontracted, the Contractor shall: (1) cover any and all Subcontractors in its insurance policies; (2) require each Subcontractor to secure insurance which will protect said Subcontractor and supplier against all applicable hazards or risks of loss designated in accordance with Article 11; and (3) require each Subcontractor or supplier to assist in every manner possible in the reporting and investigation of any accident, and upon request, to cooperate with any insurance carrier in the handling of any claim by securing and giving evidence and obtaining the attendance of witnesses as required by any claim or suit.

11.5.14 It is understood and agreed that the insurance coverages required by the provisions of this Contract are required in the public interest and that the Owner does not assume any liability for acts of the Contractor or Subcontractors of any tier or their employees in the performance of the Contract or Work.

11.6 Builder's Risk Insurance

11.6.1 The Contractor shall purchase and maintain, in a company or companies lawfully authorized to do business in the State of Missouri, as an admitted carrier, builder's risk insurance on the entire Work. Such insurance shall be written on a completed value form for the entire Work. The insurance shall apply on a replacement cost basis.

11.6.2 The insurance as required herein shall name as insureds the Owner, the Contractor, and all Subcontractors of any tier. The insurance policy shall contain a provision that the insurance will not be canceled, allowed to expire or materially changed until at least thirty (30) days prior written notice has been given to the Owner.

11.6.3 The insurance as required herein shall cover the entire Work, including reasonable compensation for Architect's services and expenses made necessary by an insured loss. Insured property shall include portions of the Work located away from the site (including all offsite stored materials) but intended for use at the site and shall also cover portions of the Work in transit. The policy shall include as insured property scaffolding, falsework, and temporary buildings located at the site. The policy shall cover the cost of removing debris, including demolition as may be made legally necessary by the operation of any law, ordinance, or regulation.

11.6.4 The insurance required herein shall be on an all risk form and shall be written to cover all risks of physical

loss or damage to the insured party and shall insure at least against the perils of fire and extended coverage, theft, vandalism, malicious mischief, collapse, lightning, earthquake, flood, frost, water damage, windstorm and freezing.

11.6.5 If there are any deductibles applicable to the insurance required herein, the Contractor shall pay any part of any loss not covered because of the operation of such deductibles.

11.6.6 The insurance as required herein shall be maintained in effect until the earliest of the following dates:

- .1** the date which all persons and organization who are insureds under the policy agree in writing that it shall be terminated;
- .2** the date on which final payment of this Contract has been made by the Owner to the Contractor; or
- .3** the date on which the insurable interests in the property of all insureds other than the Owner have ceased.

11.6.7 The Owner and the Contractor waive all rights against (1) each other and any of their Subcontractors of any tier, suppliers, agents and employees, each of the other, (2) the Architect and Architect's consultants, and (3) separate contractors described in Article 6, if any, and any of their subcontractors of any tier, suppliers, agents and employees, for damages caused by fire or other perils to the extent covered by property insurance or other insurance applicable to the Work, except such rights as they have to proceeds of such insurance. The Owner or the Contractor, as appropriate, shall require of the Architect, Architect's consultants, separate contractors described in Article 6, if any, and the Subcontractors of any tier, suppliers, agents, and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, was at fault or was negligent in causing the loss and whether or not the person or entity had an interest in the property damaged.

11.6.8 A loss insured under the Contractor's property insurance shall be adjusted by the Owner in good faith and made payable to the Owner for the insureds, subject to requirements of the Contract Documents. The Contractor shall pay Subcontractors of any tier their just shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require Subcontractors of any tier to make payments to their Subcontractors in similar manner. The Contractor shall waive its rights to subrogation for any loss or damage to the Contractor's property or equipment coverage in favor of the Owner and other indemnified parties.

11.7 Bonds

11.7.1 When the Contract Sum exceeds Fifty Thousand Dollars (\$50,000), the Contractor shall procure and furnish a Performance Bond and a Payment Bond in the form prepared by the Owner, each in an amount equal to one hundred percent (100%) of the Contract Sum, as well as adjustments to the Contract Sum. The Performance Bond shall secure and guarantee the Contractor's faithful performance of this Contract, including but not limited to the Contractor's obligation to correct defects after final payment has been made as required by the Contract Documents. The Payment Bond shall secure and guarantee payment of all persons performing labor on the Project under this Contract and furnishing materials in connection with this Contract. These Bonds shall be in effect through the duration of the Contract plus the Guaranty Period as required by the Contract Documents.

11.7.2 The bonds required hereunder shall be executed by a responsible surety licensed in the State of Missouri, with a Best's rating of no less than A-/XI. The Contractor shall require the attorney in fact who executes the required bonds on behalf of the surety to affix thereto a certified and current copy of this power of attorney indicating the monetary limit of such power.

11.7.3 If the surety of any bond furnished by the Contractor is declared bankrupt or becomes insolvent or its right to conduct business in the State of Missouri is terminated, or it ceases to meet the requirements of this Section, the Contractor shall within ten (10) days substitute another bond and surety, both of which must be acceptable to the Owner. If Contractor fails to make such substitution, the Owner may procure such required bonds on behalf of the Contractor at the Contractor's expense.

11.7.4 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds to such person or entity.

11.7.5 The Contractor shall keep the surety informed of the progress of the Work, and, where necessary, obtain the surety's consent to or waiver of: (1) notice of changes in the Work; (2) request for reduction or release of retention; (3) request for final payment; and (4) any other material required by the surety. The Owner shall be notified by the Contractor, in writing, of all communications with the surety, as it relates to items one through four. The Owner may, in the Owner's sole discretion, inform surety of the progress of the Work, any defects in the Work, or any defaults of the Contractor under the Contract Documents and obtain consents as necessary to protect the Owner's rights, interest, privileges and benefits under and pursuant to any bond issued in connection with the Work.

11.7.6 The Contractor shall indemnify and hold harmless the Owner and any agents, employees, representative or member of the Board of Curators from and against any

claims, expenses, losses, costs, including reasonable attorneys' fees, as a result of any failure of the Contractor to procure the bonds required herein.

ARTICLE 12 UNCOVERING AND CORRECTION OF THE WORK

12.1 Uncovering of the Work

12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it shall, if required in writing by the Architect or the Owner's Representative, be uncovered for the Architect's observation and be replaced at the Contractor's expense without change in the Contract Time.

12.1.2 If a portion of the Work has been covered which the Architect or the Owner's Representative has not specifically requested to observe, prior to its being covered, the Architect or the Owner's Representative may request to see such Work, and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, costs of uncovering and replacement shall, by appropriate Change Order, be charged to the Owner. If such Work is not in accordance with the Contract Documents, the Contractor shall pay such costs unless the condition was caused by the Owner or a separate contractor in which event the Owner will be responsible for payment of such costs.

12.2 Correction of the Work

12.2.1 The Architect or the Owner's Representative shall have the right to reject Work not in strict compliance with the requirements of the Contract Documents. The Contractor shall promptly correct Work rejected by the Architect or the Owner's Representative for failing to conform to the requirements of the Contract Documents, whether observed before or after final completion and whether or not fabricated, installed, or completed. If Work has been rejected by the Architect or the Owner's Representative, the Architect or the Owner's Representative shall have the right to require the Contractor to remove it from the Project site and replace it with Work that strictly conforms to the requirements of the Contract Documents regardless, if such removal and replacement results in "economic waste." The Contractor shall pay all claims, costs, losses and damages caused by or resulting from the correction, removal or replacement of defective, or non-compliant Work, including but not limited to, all costs of repair or replacement of Work of others. The Contractor shall bear costs of correcting, removing and replacing such rejected Work, including additional testing and inspections and compensation for the Architect's services and expenses made necessary thereby. If prior to the date of final payment, the Contractor, a Subcontractor, or anyone for whom either is responsible uses or damages any portion of the Work, including, without limitation, mechanical, electrical, plumbing, and other building systems, machinery, equipment or other mechanical device, the Contractor shall cause such item to be restored to "like new" condition at no expense to the Owner.

12.2.2 If, within twelve (12) months after the date of Final Completion of the Work or designated portion thereof, or after the date for commencement of warranties, or by terms of an applicable special warranty required by the Contract Documents, any of the Work is found not to be in strict accordance with the requirements of the Contract Documents, the Contractor shall correct or remove and replace such defective Work, at the Owner's discretion. Such twelve (12) month period is referred to as the "Guarantee Period." The obligations under this Paragraph shall cover any repairs, removal, and replacement to any part of the Work or other property caused by the defective Work.

12.2.3 The Contractor shall remove from the site portions of the Work which are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

12.2.4 If the Contractor fails to correct nonconforming Work within a reasonable time, the Owner may correct or remove it and replace such nonconforming Work. If the Contractor does not proceed with correction of such nonconforming Work within a reasonable time fixed by written notice from the Owner, the Owner may take action to correct or remove the nonconforming work at the Contractor's expense.

12.2.5 The Contractor shall bear the cost of correcting destroyed or damaged Work or property, whether completed or partially completed, of the Owner or of others caused by the Contractor's correction or removal of Work which is not in accordance with the requirements of the Contract Documents.

12.2.6 Nothing contained in Article 12 shall be construed to establish a period of limitation with respect to other obligations that the Contractor might have under the Contract Documents. Establishment of the twelve (12) month Guarantee Period as described in Article 12 relates only to the specific obligation of the Contractor to correct, remove or replace the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations under the Contract Documents. The requirements of Article 12 are in addition to and not in limitation of any of the other requirements of the Contract for warranties or conformance of the Work to the requirements of the Contract Documents.

12.3 Acceptance of Nonconforming Work

12.3.1 The Owner may accept Work which is not in accordance with the Contract Documents, instead of requiring its removal and correction, in its sole discretion. In such case, the Contract Sum will be adjusted as appropriate and equitable. Such adjustment shall be made

whether or not final payment has been made. Nothing contained herein shall impose any obligation upon the Owner to accept nonconforming or defective Work.

ARTICLE 13 MISCELLANEOUS PROVISIONS

13.1 Written Notice

13.1.1 All notices required to be given by the Contractor under the terms of this Contract shall be made in writing. Written notice when served by the Owner will be deemed to have been duly served if delivered in person to the individual or a member of the firm or entity or to an office of the corporation for which it was intended, or if delivered at or sent to the last business address known to the party giving notice.

13.2 Rights and Remedies

13.2.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.

13.2.2 No action or failure to act by the Owner, the Architect, or the Owner's Representative will constitute a waiver of a right or duty afforded to the Owner under the Contract Documents, nor will such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed in writing.

13.2.3 The terms of this Contract and all representations, indemnifications, warranties and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion and acceptance of the Work and termination or completion of the Work and shall remain in effect so long as the Owner is entitled to protection of its rights under applicable law.

13.2.4 The Contractor shall carry out the Work and adhere to the current construction schedule during all disputes or disagreements with the Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements except as the Owner and the Contractor may otherwise agree to in writing.

13.3 Tests and Inspections

13.3.1 Tests, inspections, and approvals of portions of the Work required by the Contract Documents or by laws, ordinances, rules, codes, or regulations shall be made at an appropriate time. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections and approvals with an independent testing laboratory, the Owner's Authorized Agent, or entity acceptable to the Owner, and the Contractor shall bear related costs of tests, inspections, and approvals as required in the Contract Documents. The Contractor shall give the Architect, the Owner's Representative, and the Owner's Authorized Agent timely notice of when and where tests and inspections are to be made

so the Architect, the Owner's Representative and/or the Owner's Authorized Agent may observe procedures or perform the necessary tests or inspections.

13.3.2 If the Architect, the Owner's Representative, or the Owner's Authorized Agent determine that portions of the Work require additional testing, inspection or approval not included in the Contract Documents, or required by law, the Architect, or the Owner's Representative will instruct the Contractor to make arrangements for such additional testing, inspection, or approval by an entity acceptable to the Owner's Representative and the Contractor shall give timely notice to the Architect, the Owner's Representative or the Owner's Authorized Agent, of when and where tests and inspections are to be made so the Architect, the Owner's Representative and/or the Owner's Authorized Agent, may choose that the tests or inspections can be performed or observed. The Owner will bear such costs except as provided elsewhere in Article 13.

13.3.3 If such procedures for testing, inspection, or approval under Article 13 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, the Contractor shall bear all costs made necessary by such failure including those of repeated procedures and compensation for the Architect's and Owner's Authorized Agent's services and expenses.

13.3.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor, and promptly delivered to the Owner's Representative and the Architect.

13.3.5 The Contractor shall take all necessary actions to ensure that all tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

13.3.6 The Contractor shall arrange for and pay for all costs of all testing required by the Contract Documents or any applicable laws for materials to be tested or certified at or on the place or premises of the source of the material to be supplied. The Owner shall have the right to require testing of all materials at the place of the source of the material to be supplied if not required by the Contract Documents or any applicable laws. The Owner shall bear the costs of such tests and inspections not required by the Contract Documents or by applicable laws, unless prior defective Work provides the Architect or the Owner with a reasonable belief that additional defective Work may be found, in which case the Contractor shall be responsible for all costs of tests and inspections ordered by the Owner or the Architect, whether or not such tests or inspection reveals that Work is in compliance with the Contract Documents.

13.4 Nondiscrimination in Employment Equal Opportunity

13.4.1 The University serves from time to time as a contractor for and/or receives funds from the United States

government. Accordingly, the Contractor shall comply with applicable federal laws, rules, and regulations, including those relating to nondiscrimination, equal employment opportunity, and affirmative action in the employment of certain entities or individuals, including, but not limited to, minorities (Executive Order 11246), women (Executive Order 11375), persons with disabilities (29 USC 706 and Executive Order 11758), and certain veterans (38 USC 4212 formerly [2012]). and those related to contracting with small or disadvantaged business concerns (Publication L. 95-507). Contract clauses required by the Federal Government in such circumstances are incorporated herein by reference.

13.4.2 If applicable, the Contractor shall comply with the equal opportunity requirements of 41 CFR Part 60, which are incorporated into this Contract by reference.

13.5 Supplier Diversity Participation Goals

13.5.1 The Contractor shall provide participation of Diverse Firms in the Project, through self-performance, if a Diverse Firm, or by subcontracting with Diverse Firms as Subcontractors, suppliers or manufacturers, in an amount that is no less than the percent of Contract Sum that was promised in the Contractor's bid and/or the amount accepted by the Owner.

13.5.2 If the Contractor must remove any Diverse Firm as a Subcontractor, supplier or manufacturer under the Contract, the Contractor shall replace the Diverse Firm with one or more Diverse Firms in an amount equal to the dollar value of the work awarded to the Diverse Firm that was removed. The Contractor shall immediately notify the Owner's Representative in writing of the Contractor's intent to remove any Diverse Firm as a Subcontractor, supplier or manufacturer, and the Contractor's plan to provide the promised amount of Supplier Diversity Participation. All changes of a Diverse Firm as a Subcontractor of any tier, supplier or manufacturer under the Contract shall be approved by the Executive Director of Facilities Planning and Development.

13.5.3 If the Contractor fails to meet or to maintain the promised amount of Supplier Diversity Participation, the Contractor shall immediately notify in writing the Owner's Representative and the Executive Director of Facilities Planning and Development. Such notice shall include a description of the Contractor's good faith effort to provide the promised Supplier Diversity Participation.

13.5.4 If the Executive Director of Facilities Planning and Development finds that the Contractor has failed to comply in good faith with the promised Supplier Diversity Participation the Executive Director may take appropriate action, including but not limited to, declaring the Contractor ineligible to participate in any contracts with the Owner for a period not to exceed six (6) months, and/or directing that the Contractor's actions be declared a material breach of the Contract and that the Contract be terminated.

13.5.5 The Contractor and his Subcontractors shall develop, implement, maintain, and submit in writing to the Executive Director of Facilities Planning and Development, an affirmative action program if at least fifty (50) persons in the aggregate are employed under this Contract. If less than fifty (50) persons in the aggregate are to be employed under this Contract, the Contractor shall submit, in lieu of the written affirmative action program, a properly executed "Affidavit for Affirmative Action" in the form as included in the Contract Documents. For the purpose of this Section, an "Affirmative Action Program" means positive actions to influence all employment practices (including, but not limited to, recruiting, hiring, promoting, and training) in providing equal employment opportunity regardless of race, color, sex, national origin, religion, age (where the person affected is between 40 and 70), disabled and Vietnam-era veteran status, and handicapped otherwise qualified status. Such affirmative action program shall include:

.1 A written policy statement committing the total organization to affirmative action and assigning management responsibilities and procedures for evaluation and dissemination.

.2 The identification of a person designated to handle action.

.3 The establishment of non-discriminatory selection standards, objective measures to analyze recruitment, an upward mobility system, a wage and salary structure, and standards applicable to lay-off, recall, discharge, demotion, and discipline.

.4 The exclusion of discrimination from collective bargaining agreements.

.5 Performance of an internal audit of the reporting system to monitor execution and to provide for future planning.

13.5.6 In the enforcement of the non-discrimination requirements in Section 13.4 and 13.5, the Owner may use any reasonable procedures available, including but not limited to: requests, reports, site visits, and inspection of relevant documents of Contractors and Subcontractors of any tier. The Contractor shall submit a final Affidavit of Diversity Participation for each Diverse Firm at the end of the project stating the actual amount paid to the Diverse Firm.

13.6 Wage Rates (If the Contract amount is less than \$75,000, the requirements of this Section will not apply. Any adjustments that increase the Contract cost above \$75,000 will be subject to this Section, per Section 290.230, RSMo.)

13.6.1 The Contractor and its Subcontractors shall pay all workers performing work under the Contract not less than the prevailing hourly rate of wages or the public works contracting minimum wage, whichever is applicable, as set out in the Annual Wage Order that is attached to and made part of the specifications for work under the Contract, in accordance with Sections 290.210 to 290.340, RSMo

(Missouri Prevailing Wage Law) and related regulations. The Annual Wage Order(s) published by the Missouri Department of Labor and Industrial Relations (MDLIR) for the location where the Work is performed is incorporated into the Contract by this reference. The Contractor shall use applicable MDLIR regulations, including, but not limited to, 8 CSR 30-3.010-3.060, in determining the appropriate occupational titles and rates for workers used in the execution of this Contract. All determinations and/or interpretations regarding wage rates and classification of workers will be made by the office of the University of Missouri Executive Director of Facilities Planning and Development.

13.6.2 If this Project is financed in whole or in part from Federal funds (as indicated in the bid or Contract Documents), then this Contract shall be subject to all applicable federal labor statutes, rules, and regulations, including provisions of the Davis-Bacon Act, 40 U.S.C. § 3141 et seq., and the "Federal Labor Standards Provisions." Where the Missouri Prevailing Wage Law and the Davis-Bacon Act require payment of different wages for work performed under this Contract, the Contractor and all Subcontractors shall pay the greater of the wages required under either law, on a classification-by-classification basis.

13.6.3 The Contractor will forfeit a penalty to the Owner of \$100 per day (or portion of a day) for each worker that is paid less than the specified rate for any work done under the Contract by the Contractor or by any Subcontractor. The Owner shall deduct from any unpaid amounts then or thereafter due the Contractor under the Contract all sums and amounts due and owing as a result of any violation of Sections 290.210 to 290.340, RSMo. (Section 290.250, RSMo) The Contractor agrees to abide by any decision made by the Owner regarding underpayment of wages to workers and amounts owed them as well as penalties for underpayment of wages.

13.6.4 The prevailing wage rate(s) and public works contracting minimum wage(s) included in the Annual Wage Order(s) include fringe benefits as set forth in Sections 290.219 and 290.257, RSMo. Fringe benefit payments may be made to the worker in cash, or irrevocably made by a Contractor or Subcontractor to a trustee or to a third person pursuant to a fund, plan or program, or pursuant to an enforceable commitment, or any combination thereof, to carry out a financially responsible plan or program which was communicated in writing to the workmen affected, for medical or hospital care, pensions on retirement or death, compensation for injuries or illness resulting from occupational activity, or insurance to provide any of the foregoing, for unemployment benefits, life insurance, disability and sickness insurance, accident insurance, for vacation and holiday pay, for defraying costs of apprenticeship or other similar programs, or for other bona fide fringe benefits, but only where the Contractor or Subcontractor is not required by other federal or state law to provide any of the benefits as referenced in Section 290.210(5), RSMo.

13.6.5 The Contractor shall make full payment of the applicable required wages to workers in legal tender. Pay for travel, mileage, meals, bonuses, or other expenses are not fringe benefits and cannot be considered part of the workers wage rate. The Contractor shall not make any deductions for food, sleeping accommodations, transportation, use of small tools, uniforms, or anything of any kind or description, unless the Contractor and employee enter into an agreement in writing at the beginning of the worker's term of employment, and such agreement is approved by the Owner as fair and reasonable in accordance with Section 290.315, RSMo.

13.6.6 The Contractor shall submit to the Owner with the Contractor's periodic pay request, certified payroll records for labor performed by the Contractor and Subcontractors of any tier. The Contractor shall submit all required certified payroll information records electronically in pdf format using the Owner's web-based payment program. The certified payroll forms shall contain the name, address, personal identification number, and occupational title of the workers as well as the hours they work each day. Do not include personal social security numbers in payroll records. The Owner's acceptance of certified payroll records does not in any way relieve the Contractor of any responsibility for the payment of prevailing wages to workers on the project. The Contractor shall also maintain copies of the certified payroll records. The Owner may, at any time, request copies of, and/or inspect all of the Contractor's payroll records for the Work to verify compliance. The Contractor shall furnish the Owner copies of payroll records within ten (10) days of the Owner's written request. The Contractor shall provide copies of workers I-9 forms within twenty-four (24) hours of written notice. Such payroll records shall be maintained in accordance with Article 13.7.1 and shall be available for inspection for two (2) years after final completion of the Work. Falsification of the certified payroll records may result in the debarment of the Contractor or Subcontractor from future work with the University.

13.6.7 If applicable, the Contractor shall comply with the Copeland "Anti-Kick Act, 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference into this contract.

13.6.8 The Contractor shall specifically incorporate the obligations of Section 13.6 into the subcontracts, supply agreements and purchase orders for the Work and require the same of any Subcontractors of any tier.

13.6.9 If Contractor fails to comply with the provisions of Section 13.6 of this Contract or with Sections 290.210 to 290.340, RSMo and related regulations, the Owner may, in its sole discretion, immediately terminate the Contract upon written notice. The rights and remedies of the Owner provided herein shall not be exclusive and are in addition

to other rights and remedies provided by law or under this Contract.

13.6.10 The Contractor may pay entry-level workers or federally-registered apprentices fifty percent (50%) of the pay of a journeyman in their same occupational title, in accordance with Section 290.235, RSMo and 8 CSR 30-3.030. Per 8 CSR 30-3.030, an entry-level worker is "[a]ny worker who is not a journeyman and who is not otherwise enrolled in a federally-registered apprenticeship program but is participating in an on-the-job training program provided by the contractor for whom they perform work on a public construction project." The University of Missouri may require documentation showing, to the University's sole satisfaction, that an entry-level worker is participating in an on-the-job training program with the Contractor. The combined total of such entry-level workers and federally registered apprentices shall not exceed a one-to-one ratio with the number of journeyman workers in any occupational title on the project.

13.6.11 The Contractor shall post the wage rates for the Contract in a dry, accessible place at the field office on the project or, where there is no field office, at the Contractor's local office or batch plant so long as a copy is provided to workers upon request, as required by 8 CSR 30-3.050. The wage rates shall be kept in a clearly legible condition for the duration of the project.

13.6.12 Neither the Contractor, nor any Subcontractor of any tier, nor any person hired by them or acting on their behalf, shall request, demand or receive, either before or after such worker is engaged, that such worker pay back, return, donate, contribute, or give any part or all of said worker's wages, salary, or thing of value, to any person, upon the statement, representation, or understanding that failure to comply with such request or demand will prevent such worker from procuring or retaining employment, and no person shall, directly or indirectly, pay, request or authorize any other person to violate this Section as set forth in Section 290.305, RSMo, the exception being to an agent or representative of a duly constituted labor organization acting in the collection of dues or assessments of such organization. No Contractor or Subcontractor may directly or indirectly receive a wage subsidy, bid supplement, or rebate for employment on this project if such wage subsidy, bid supplement, or rebate has the effect of reducing the wage rate paid by the employer on a given occupational title below the applicable wage rate as provided in the Contract. In the event a wage subsidy, bid supplement, or rebate is provided or received, the entity receiving such subsidy, supplement, or rebate shall report the date and amount of such subsidy, supplement, or rebate to the University within thirty days of receipt of payment. This disclosure report shall be a matter of public record.

13.6.13 The Contractor will pay workers overtime for all hours worked over ten (10) hours per day and forty (40) hours per week in accordance with Section 290.230, RSMo. For all overtime work performed, not less than one and one-half the prevailing hourly rate of wages for work of a similar character

in the locality in which the Work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid. For all work performed on a Sunday or holiday, not less than twice the prevailing hourly rate of pay or public works contracting minimum wage will apply in accordance with Section 290.230, RSMo. For purposes of this Section, holidays are as follows: January first, the last Monday in May, July fourth, the first Monday in September, November 11, the fourth Thursday in November, December twenty-fifth. If any holiday falls on a Sunday, the following Monday shall be considered a holiday.

13.7Records

13.7.1 The Owner, or any parties it deems necessary, shall have access to and the right to examine any accounting or other records of the Contractor involving transactions and Work related to this Contract for five (5) years after final payment or five (5) years after the final resolution of any on going disputes at the time of final payment. All records shall be maintained in accordance with generally accepted accounting procedures, consistently applied. Subcontractors of any tier shall be required by Contractor to maintain records and to permit audits as required of Contractor herein.

13.8Codes and Standards

13.8.1 The Work shall be performed to comply with the International Code Council (ICC) Codes, and the codes and standards noted below. The latest editions and supplements of these codes and standards in effect on the date of the execution of the Contract for Construction shall be applicable unless otherwise designated in the Contract Documents. Codes and standards required by accreditation agencies will also be used unless the ICC requirements are more stringent. In the event that special design features and/or construction systems are not covered in the ICC codes, the applicable edition of the National Fire Protection Association (NFPA) family of standards and/or the NFPA 101 Life Safety Code shall be used.

- .1** ICC International Building Code and reference standards
- .2** ICC International Plumbing Code
- .3** ICC International Mechanical Code
- .4** ICC International Fire Code
- .5** ICC International Fuel Gas Code
- .6** NFPA 70 National Electric Code (NEC)
- .7** Americans with Disabilities Act – Standards for Accessible Design.
- .8** American National Standard Safety Code for Elevators, Dumbwaiters, Escalators, and Moving Walks as published by the American Society of Mechanical Engineers (ASME), American National Standards Institute (ANSI) A17.1
- .9** NFPA 101 Life Safety Code (as noted above)
- .10** American Concrete Institute (ACI)
- .11** American National Standards Institute (ANSI)
- .12** American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)

- .13** American Refrigeration Institute (ARI)
- .14** American Society for Testing and Materials (ASTM)
- .15** Missouri Standard Specification for Highway Construction, Missouri State Highway Commission
- .16** National Electrical Manufacturers Association (NEMA)
- .17** Underwriter's Laboratories, Inc. (UL), Federal Specifications
- .18** Williams Steiger Occupational Safety and Health Act of 1970 (OSHA)

13.9 General Provisions

13.9.1 Any specific requirement in this Contract that the responsibilities or obligations of the Contractor also apply to a Subcontractor is added for emphasis and are also hereby deemed to include a Subcontractor of any tier. The omission of a reference to a Subcontractor in connection with any of the Contractor's responsibilities or obligations shall not be construed to diminish, abrogate or limit any responsibilities or obligations of a Subcontractor of any tier under the Contract Documents or the applicable subcontract.

13.9.2 This Contract shall be interpreted, construed, enforced, and regulated under and by the laws of the State of Missouri. Whenever possible, each provision of this Contract shall be interpreted in a manner as to be effective and valid under applicable law. If, however, any provision of this Contract, or a portion thereof, is prohibited by law or found invalid under any law, only such provision or portion thereof shall be ineffective, without invalidating or affecting the remaining provisions of this Contract or valid portions of such provision, which are hereby deemed severable. The Contractor and the Owner further agree that in the event any provision of this Contract, or a portion thereof, is prohibited by law or found invalid under any law, this Contract shall be reformed to replace such prohibited or invalid provision or portion thereof with a valid and enforceable provision which comes as close as possible to expressing the intention of the prohibited or invalid provision.

13.9.3 The Contractor and the Owner each agree that the State of Missouri Circuit Court for the County where the Project is located shall have exclusive jurisdiction to resolve all Claims and any issue and disputes between the Contractor and the Owner. The Contractor agrees that it shall not file any petition, complaint, lawsuit or legal proceeding against the Owner in any other court other than the State of Missouri Circuit Court for the County where the Project is located.

13.9.4 The Owner's total liability to the Contractor and anyone claiming by, through, or under the Contractor for any Claim, cost, loss, expense, or damage caused in part by the fault of the Owner and in part by the fault of The Contractor or any other entity or individual shall not exceed the percentage share that the Owner's fault bears to the total fault of the Owner, the Contractor and all other entities and individuals as determined on the basis of comparative fault principles.

13.9.5 The Contractor agrees that the Owner shall not be liable to the Contractor for any special, indirect, incidental, or

consequential damage whatsoever, whether caused by the Owner's negligence, fault, errors or omissions, strict liability, breach of contract, breach of warranty or other cause or causes whatsoever. Such special, indirect, incidental or consequential damages include, but are not limited to loss of profits, loss of savings or revenue, loss of anticipated profits, labor inefficiencies, idle equipment, home office overhead, and similar types of damages.

13.9.6 Nothing contained in this Contract or the Contract Documents shall create any contractual relationship with or cause of action in favor of a third party against the Owner.

13.9.7 No member or officer of the Board of Curators of the University incurs or assumes any individual or personal liability under the Contract or by reason of the default of the Owner in the performance of any terms thereof. The Contractor releases and discharges all members or officers of the Board of Curators of the University from any liability as a condition of and as consideration for the award of the Contract to the Contractor.

13.9.8 The Contractor hereby binds itself, its partners, successors, assigns and legal representatives to the Owner in respect to covenants, agreements and obligations contained in the Contract Documents. The Contractor shall not assign the Contract or proceeds hereof without written consent of the Owner. If the Contractor attempts to make such an assignment without such consent, it shall be void and confer no rights on third parties, and the Contractor shall nevertheless remain legally responsible for all obligations under the Contract. The Owner's consent to any assignment is conditioned upon the Contractor entering into a written assignment which contains the following language: "It is agreed that the funds to be paid to the assignee under this assignment are subject to performance by the Contractor and to claims and to liens for services rendered or materials supplied for the performance of the Work required in said Contract in favor of all persons, firms, corporations rendering such services or supplying such materials."

13.10 Certifications

13.10.1 Suspension and Debarment

The Contractor certifies to the best of its knowledge and belief that it and its principals are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any department or agency in accordance with Federal Executive Orders 12549 (2/18/86) and 12689 (8/15/89).

13.10.2 Anti-Discrimination Against Israel Act

If this Contract is for \$100,000 or more, and if the Contractor is a company with ten (10) or more employees, then Contractor certifies that it, and any company affiliated with it, does not boycott Israel, and will not boycott Israel during the term of this Contract. In this Paragraph, the terms "company" and "boycott Israel" shall have the meanings described in Section 34.600 of the Missouri Revised Statutes.

13.10.3 Byrd Anti-Lobbying Amendment

.1 If this Contract exceeds \$100,000 and is funded by Federal funding, Contractor agrees to file the required certification, in compliance with 31 U.S.C. § 1352 (as amended).

.2 Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352.

.3 Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the awarding agency.

13.10.4 Work Authorization

The Contractor and all subcontractors performing work under this Contract shall enroll and participate in a federal work authorization program operated by the United States Department of Homeland Security, E-Verify or an equivalent federal work authorization program, to verify information of newly hired employees, under the Immigration Reform and Control Act of 1986 (IRCA), P.L.99-603. By executing a contract with The Curators of the University of Missouri, the Contractor shall affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted service and affirm that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services. The Contractor shall maintain documentation of its participation in a federal work authorization program and make such documentation available to the University upon request.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

14.1 Termination by Owner for Cause

14.1.1 In addition to other rights and remedies granted to the Owner under the Contract Documents and by law, the Owner may terminate the Contract if the Contractor:

.1 refuses or fails to supply enough properly skilled workers, superintendents, foremen, or managers;

.2 refuses or fails to supply sufficient or proper materials;

.3 fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractors;

.4 disregards laws, ordinances, rules, codes, regulations or orders of an authority having jurisdiction;

.5 disregards the authority of the Owner's Representative, the Architect, or the Owner's Authorized Agent;

.6 breaches any warranty or representations made by the Contractor under or pursuant to the Contract Documents;

.7 fails to furnish the Owner with assurances satisfactory to the Owner evidencing the Contractor's ability to complete the Work in compliance with all the requirements of the Contract Documents;

.8 fails after commencement of the Work to proceed continuously with the construction and completion of the Work for more than ten (10) days, except as permitted under the Contract Documents;

.9 fails to maintain a satisfactory rate of progress with the Work or fails to comply with approved progress schedules; or

.10 violates in any substantial way any provisions of the Contract Documents.

14.1.2 When any of the above reasons exist, the Owner may, without prejudice to any other rights or remedies of the Owner, terminate this Contract by delivering a written notice of termination to the Contractor and the Contractor's surety, and may:

.1 take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;

.2 accept assignment of subcontracts pursuant to Section 5.3; and

.3 finish the Work by whatever reasonable method the Owner may deem expedient, including turning the Work over to the surety.

14.1.3 The Contractor, in the event of a termination under Section 14.1, shall not be entitled to receive any further payments under the Contract until the Work is completed in its entirety. Then, if the unpaid balance under the Contract shall exceed all expenses of the Owner in finishing the Work, including additional compensation for the Architect's services and expenses made necessary thereby, such excess will be paid to the Contractor; but, if such expenses of the Owner to finish the Work shall exceed the unpaid balance, the Contractor and its surety shall be liable for, and shall pay the difference and any damages to the Owner. The obligation of the Contractor and its surety for payment of said amounts shall survive termination of the Contract.

14.1.4 In exercising the Owner's right to secure completion of the Work under any of the provisions hereof, the Owner shall have the right to exercise the Owner's sole discretion as to the manner, methods, and reasonableness of costs of completing the Work.

14.1.5 The rights of the Owner to terminate pursuant to Article 14.1 will be cumulative and not exclusive and shall be in addition to any other remedy provided by law or the Contract Documents.

14.1.6 Should the Contractor fail to achieve Final Completion of the Work within thirty (30) calendar days following the date of Substantial Completion, the Owner may exercise its rights under Section 14.1.

14.2 Suspension by the Owner for Convenience

14.2.1 The Owner may, without cause, order the Contractor in writing to suspend, delay, or interrupt the Work in whole or in part for such period of time as the Owner may determine.

14.2.2 An adjustment will be made to the Contract Sum for increases in the cost of performance of the Contract caused by suspension, delay or interruption. However, in the event of a suspension under Section 14.2, Contractor hereby waives and forfeits any claims for payment of any special, indirect, incidental or consequential damages such as lost profits, loss of savings or revenue, loss of anticipated profits, idle labor or equipment, home office overhead, and similar type damages. No adjustment will be made to the extent:

.1 that performance is, was, or would have been so suspended, delayed or interrupted by another cause for which the Contractor in whole or in part is responsible, or

.2 that an equitable adjustment is made or denied under another provision of this Contract.

14.3 Owner's Termination for Convenience

14.3.1 The Owner may, at any time, terminate the Contract in whole or in part for the Owner's convenience and without cause. Termination by the Owner under this Paragraph shall be by a notice of termination delivered to the Contractor specifying the extent of termination and the effective date.

14.3.2 Upon receipt of a notice of termination for convenience, the Contractor shall immediately, in accordance with instructions from the Owner, proceed with performance of the following duties regardless of delay in determining or adjusting amounts due under this Paragraph:

.1 cease operation as specified in the notice;

.2 place no further orders and enter into no further subcontracts for materials, labor, services or facilities except as necessary to complete Work not terminated;

.3 terminate all subcontracts and orders to the extent they relate to the Work terminated;

.4 proceed to complete the performance of Work not terminated; and

.5 take actions that may be necessary, or that the Owner may direct, for the protection and preservation of the terminated Work.

14.3.3 Upon such termination, the Contractor shall recover as its sole remedy payment for Work properly performed in connection with the terminated portion of the Work prior to the effective date of termination and for items properly and timely fabricated off the Project site, delivered and stored in accordance with the Owner's instructions and for all Owner approved claims, costs, losses and damages incurred in settlement of terminated contracts with Subcontractors and suppliers. The Contractor hereby waives and forfeits all other claims for payment and damages, including, without limitation, anticipated profits, consequential damages and other economic losses.

14.3.4 The Owner shall be credited for (1) payments previously made to the Contractor for the terminated portion of

the Work, (2) claims which the Owner has against the Contractor under the Contract and (3) the value of the materials, supplies, equipment, or other items that are to be disposed of by the Contractor that are part of the Contract Sum.

14.3.5 Upon determination by a court that termination of Contractor or its successor in interest pursuant to Section 14.1 was wrongful, such termination will be deemed converted to a termination for convenience pursuant to Section 14.3, and Contractor's sole and exclusive remedy for wrongful termination is limited to recovery of the payments permitted for termination for convenience as set forth in 14.3.

SECTION 1.E

SPECIAL CONDITIONS

1. DEFINITIONS

- a. “Drawings”
Drawings referred to in and accompany Project Manual consist of Drawings prepared by and bearing the name of the below defined Architect, bearing Date of April 24, 2025, entitled “PICKARD HALL – PHASE 1 – SELECTIVE DEMOLITION AND RAD CHARACTERIZATION”, project number CP242862.
- b. Project Manager
Crockett Engineering
Gregory Linneman, PE
1000 W. Nifong Blvd, Bldg #1
Columbia, MO 65203
(573) 447-0292
- c. Electrical Engineer
J-Squared Engineering
Jeremy Patrick
2400 Bluff Creek Drive, Suite 101
Columbia, MO 65201
(573) 234-4492
- d. Other Definitions: See Article 1., General Conditions

2. SPECIAL SCHEDULING REQUIREMENTS

- a. Special scheduling requirements are supplemental to the bid form.

The contractor shall perform all work in the designated areas in One Hundred (100) calendar days.

The contractor shall perform all work in the designated areas during regular working hours, which are 7 a.m. to 5 p.m., Monday through Friday.

There will be limited activities that may require limited noise due to proximity to Francis Quad and Jesse Hall/Auditorium; this will be coordinated by the MU construction manager. Nearby activities will include 8/25 Welcome Week, 8/24 Tiger Walk, 8/31 Tiger Walk, and 9/1 - 9/7 Alumni Campaign Kickoff.

Training- All crew members will receive indoctrination, training and testing during the mobilization phase. All project personnel (including MU and MU contractors that will be entering controlled areas) require Radiation Worker training and

qualification and will be trained in a single session that is expected to take up to four hours. Training of all personnel should occur at the beginning of the project only. Reference Article 10 in General Conditions Contractor to provide construction schedule with details pertaining to the order in which laboratories will be under construction - Refer to General Conditions 3.18.

Chase Environmental will be on-site for the duration of the project, it is expected that the contractor will give two weeks' notice prior to the start of the project and will complete the project in consecutive standard working days/weeks without delays. No work may be done on-site without Chase personnel being present.

3. SCOPE OF WORK

- a. The Contractor shall furnish all labor, materials, tools, equipment necessary for, and incidental to, construction of this project as indicated on the Drawings and specified herein.
- b. Work shall include everything requisite and necessary to finish work properly, notwithstanding that every item of labor or materials or accessories required to make project complete may not be specifically mentioned.
- c. General Description of Work:
 - (1) Demolition shall consist of removal of the interior finishes including ceilings, lights, plumbing fixtures, interior partitions, doors, flooring, and gypcrete subflooring that were added after the original construction of the project.
 - (2) Hazardous material:
 - (a) Asbestos and lead are present and will be required to be abated as part of the contract.
 - (b) Chase Environmental will be retained to observe the removal to test and categorize the RAD waste material as it is removed. Chase is to then categorize the waste as non-contaminated for normal disposal by the contractor.
 - (3) New electrical work shall consist of installing temporary construction lighting, and fire alarm system along with the necessary electrical work associated with general demolition.

4. LOCATION

- a. Work shall be performed under this Contract on the campus of the University of Missouri – Columbia, at Pickard Hall, 405 S 9th Street.

5. NUMBER OF CONSTRUCTION DOCUMENTS

- a. The Owner's Representative will furnish the Contractor a copy of the executed Contract and a complete set of Drawings and Specifications in PDF format.
- b. The Owner will furnish explanatory and changed Drawings to the Contractor in PDF format as issued during project.
- c. The Owner will provide electronic data files to the Contractor for their convenience and use in progressing the Work and the preparation of shop drawings or other submittal requirements required for construction of the reference project. The electronic data files shall reflect Construction Documents and Bid Addenda only. These files will be transmitted subject to the following terms and conditions:
 - (1) The Owner makes no representation as to the compatibility of these files with the Contractor's hardware or software.
 - (2) Data contained on these electronic files shall not be used by the Contractor or anyone else for any purpose other than as a convenience in progressing the Work or in the preparation of shop drawings or other required submittals for the referenced project. Any other use or reuse by the Contractor or by others will be at their own sole risk and without liability or legal exposure to Owner. The Contractor agrees to make no claim and hereby waive, to the fullest extent permitted by law, any claim or cause of action of any nature against the Owner and its consultants, contractors, agents, employees, and representatives that may arise out of or in connection with the use of the electronic files transmitted.
 - (3) Furthermore, the Contractor shall, to the fullest extent permitted by law, indemnify and hold harmless the Owner and its consultants, contractors, agents, employees, and representatives, against all damages, liabilities or costs, including reasonable attorney's fees and defense costs, arising out of or resulting from the use of these electronic files.
 - (4) These electronic files are not contract documents. Differences may exist between these electronic files and corresponding hard-copy construction documents. The Owner makes no representation regarding the accuracy or completeness of the electronic files you receive. In the event that a conflict arises between the signed or sealed hard-copy construction documents prepared by the Consultant and the electronic files, the signed and sealed hard-copy construction documents shall govern. The Contractor is responsible for determining if any conflict exists. By use of these electronic files, the Contractor is not relieved of their duty to fully comply with the contract documents.
 - (5) Because information presented on the electronic files can be modified,

unintentionally or otherwise, the Owner reserves the right to remove all indications of ownership and/or involvement from each electronic display.

- (6) Under no circumstances shall delivery of the electronic files be deemed a sale by the Owner and no warranties are made, either expressed or implied, of merchantability and fitness for any particular purpose. In no event shall the Owner be liable for any loss of profit, or any consequential damages as a result of use or reuse of these electronic files.

6. SUBMITTALS

- a. The Contractor shall submit for approval to the Architect, equipment lists and Shop Drawings, as expediently as possible. Failure of the Contractor to submit Shop Drawings in a timely manner will result in the Owner holding back Contractor payments. (See General Conditions)
- b. The material and equipment lists shall be submitted and approved before any material or equipment is purchased and shall be corrected to as-built conditions before the completion of the project.
- c. The Contractor shall submit electronic versions of all required Shop Drawings, material and equipment lists. The Contractor shall upload all Shop Drawings to a secure information sharing website determined by the Owner notifying the Owner and Consultant that these shop drawings are available for review. Each submittal shall have the General Contractors digital stamp affixed to the first page signifying their review and acceptance. Review comments, approvals, and rejections will be posted on this same site with notification to the contractor. Submittals requiring a professional seal shall be submitted hard copy with a manual seal affixed.
 - (1) The Contractor shall identify each submittal item with the following:
 - (a) Project Title and Locations
 - (b) Project Number
 - (c) Supplier's Name
 - (d) Manufacturer's Name
 - (e) Contract Specification Section and Article Number
 - (f) Contract Drawing Number
 - (g) Acrobat File Name: Spec Section_Times Submitted_Spec Title:
033000_01-Cast in Place Concrete.pdf
 - (2) Reference the accompanying Shop Drawing and Submittal Log at the end of this section (1.E.2) for the required submittal information.
- d. The Contractor shall submit to the Architect four (4) bound copies of all required Operating Instructions and Service Manuals for the Architect's and the Owner's sole use prior to completing 50% of the adjusted contract. Payments beyond 50% of the contract amount may be withheld until all Operating Instructions and Service

Manuals are received as referenced in the accompanying Operating Instructions and Service Manual Log at the end of this section (1.E.5).

- e. The Contractor shall submit to the Owner's Representative all items referenced in the accompanying Closeout Log (1.E.2) within 30 days following substantial completion of the work. The Owner's Representative will maintain the closeout log and include as an agenda item at all coordination meetings.

7. USE OF PREMISES

- a. Access: Access to construction site shall be as indicated on the drawings and as directed by the Owner's Representative.
- b. Parking:
 - (1) The Owner will issue Contractor two (2) service vehicle parking permits for use in the Pickard Hall Parking lot (Lot RC2). The permits will be issued at no cost to the contractor up to the contract completion date. After the contract completion date, the permits will be re-issued on an as available basis at the contractor's expense. These permits are to be used for general contractor or subcontractor owned and labeled vehicles only. Personal vehicles are prohibited from use of these permits. Violation of this requirement may result in ticketing and/or towing at the vehicle owner's expense and suspension of progress payments. Additionally, the adjacent ADA spaces will need to remain accessible throughout construction.
 - (2) Parking of personal vehicles within project access/lay down/staging areas is prohibited. Violation of this requirement may result in ticketing and/or towing at the vehicle owner's expense and suspension of progress payments.
 - (3) Parking or driving on sidewalks, landscaped areas, within fire and service lanes or generally in areas not designated for vehicular traffic is prohibited except as allowed in the contract documents. Violation of this requirement may result in ticketing and/or towing at the vehicle owner's expense and suspension of progress payments.
 - (4) Sidewalk(s) and Hardscape – Parking/driving on hardscapes is strictly prohibited unless specifically directed by the Owner's Representative through the MU sidewalk permitting process. Restricted use permits will be limited to activities that are constrained by an absolute need to access from a sidewalk. Such activities shall be considered the exception and not the norm. Adequate signage, fencing and alternate routes must be provided in the immediate and adjacent areas.
 - (5) Free parking for contractor employees is available in the Ashland Road Contractor lot on an as available basis. This space is for use by contractor employees for parking their personal vehicles only and is not to be used for

staging or storage.

- (6) Vendor Permits may be purchased by contractor management personnel on an as available basis by contacting the Parking and Transportation office in the General Services Building. These permits will allow contractor management personnel to park in various University lots while conducting business on University construction projects.
 - (7) Temporary University parking permits may be purchased by contractor employees for use with their personal vehicles on an as available basis by contacting the Parking and Transportation office in the General Services Building.
- 8. Conley Avenue between Missouri Avenue and University Avenue and Hitt Street between University Avenue and the Memorial Union are designated for pedestrian use only during the work week between the hours of 8:15 AM and 3:45 PM. Unless otherwise indicated in the contract documents, this area is strictly off limits to vehicular traffic without authorization from the Owner's Representative.
 - b. Storage of materials: The Contractor shall store all materials within project limits. The Contractor shall confine apparatus, materials, and operation of workers to location established by the Owner's Representative. The Contractor shall not unreasonably encumber premises with materials. For Columbia Campus projects add: In addition, storage trailer locations may be available within 1-1/2 miles of the project site as directed by the Owner's Representative. Storage trailer locations shall be subject to approval by the Owner's Representative and are available to the Contractor without cost.
 - c. Utilities: Drinking water, water required to carry on work, and 120-volt electrical power required for small tool operation may be obtained without cost to the Contractor from existing utilities at locations designated by the Owner's Representative. Provisions for obtaining power, including temporary extensions, shall be furnished, and maintained by the Contractor. Upon completion of work such extensions shall be removed and any damage caused by use of such extensions shall be repaired to satisfaction of the Owner's Representative, at no cost to the Owner.
 - d. Restroom: The Contractor shall provide and maintain, in a sanitary condition, chemical type portable toilet facilities at work site for use by his personnel. Toilets and toilet location shall be subject to approval by the Owner's Representative.
 - e. Smoking is prohibited at the University of Missouri and all properties owned, operated, leased or controlled by the University of Missouri. Violation of the policy is defined as the use of any tobacco or marijuana products, including e-cigarettes, cigarettes, and vaping.

- f. Care of Project Work Site: The contractor shall be responsible for maintaining the construction site in a reasonably neat and orderly condition by regular cleaning and mowing of the premises as determined by the Owner's Representative.
- g. Dust control measures will be required for the duration of the project both inside the facility and at the dumpster. Control measures shall be approved by Chase Environmental prior to implementation.
- h. Discharge to Sewer Request: The University of Missouri's MS4 permit and NPDES Storm Water Discharge Permits along with the City of Columbia's POTW Operating Permit as well as local ordinances, and state and federal environmental regulations prohibit hazardous materials from being disposed into either the storm water or sanitary sewer systems. Unless specifically approved, all chemical products such as paints, dyes, lawn care products, maintenance products, and oil is prohibited from drain disposal. Any product, including contaminated water, being discarded into the storm water or sanitary sewer systems requires written approval from the Owner through a formal "Discharge to Sewer Request" form obtained at [Discharge to Sewer Request Form](#). The contractor should submit the form to the Owner's Representative, not to the Department of Environmental Health and Safety as the form indicates.
- i. All concrete waste material including washout water shall be totally contained and removed from the Owner's property.
- j. Artifacts Found During Construction: Contractor shall immediately notify the Owner's Representative when artifacts are uncovered or found during the demolition or construction process. Artifacts include, but are not limited to, tools, drawings (construction or other), photographs, books and other objects/devices which may hold historical importance/significance. Do not remove or disturb the object(s) in question. Artifacts are not considered part of demolished materials and shall remain the property of the University of Missouri.

9. PROTECTION OF OWNER'S PROPERTY

- a. The Contractor shall be responsible for repair of damage to building exterior and interior, drives, curbs, streets, walks, grass, shrubbery and trees, which was caused by workmen or equipment employed during progress of work. All such repairs shall be made to satisfaction of the Owner's Representative, at no cost to the Owner, or reimburse the Owner if the Owner elects to make repairs. For landscape damage, the Owners shall make such repairs. Compensation for these repairs shall be determined by the Owner's Representative using the "Valuation of Landscape Trees, Shrubs, and other Plants" as published by the International Society of Arboriculture, as last revised.
- b. Construction Project Fencing:

- (1) Fencing requirements, as indicated on Drawings, shall be constructed of 9 or 11-gauge chain link not less than six (6) feet in height and not more than 2-inch mesh with posts spaced not more than ten (10) feet apart and all corner and gate posts imbedded in concrete. All other posts shall be sufficiently secured in ground to maintain proper and adequate support of fence. Fenced in area shall have at least two (2) access gates and all gates shall be lockable.
- (2) Fence screening fabric shall be used on all perimeter fencing. Fabric shall be Tiger Stripe fabric, see graphic provided, full height of the project fence, securely attached and properly maintained throughout the duration of the project.
- (3) Using existing landmarks, lamp posts, trees or other Owner property for support of fencing is strictly prohibited unless a written waiver is obtained from Owner's Representative.
- (4) Use of ribbon, snow fence, chicken wire, rope, and wooden barricades as fencing is prohibited.
- (5) Fencing shall be maintained in an "as-installed" condition throughout the life of the project.
- (6) The Contractor may use used fencing provided it is in good condition and is satisfactory to the Owner's Representative.

c. Preserving and Protecting Existing Vegetation:

- (1) Protection and compensation for damages:
 - (a) Trees and shrubs within work area designated to remain shall be protected from damage during construction by fixed chain link fencing or armoring as indicated on Drawings or specified herein. Plant protection devices shall be installed before work has begun and shall be maintained for duration of work unless otherwise directed by Owner's Representative.
 - (b) In the event that damage(s) to the Owner's trees, shrubs or vegetation occurs as a result of the Contractor's unauthorized operations, the Contractor shall pay or allow to the Owner compensation for said damage(s). Compensation shall be determined by the Owner's Representative using the "Valuation of Landscape Trees, Shrubs, and other Plants" as published by the International Society of Arboriculture, as last revised.
- (2) To prevent compaction of soil over tree roots, vehicles or equipment shall

not at any time park or travel over, nor shall any materials be stored within drip lines of trees designated to remain.

- (3) Area within drip line of trees and shrubs shall be protected from work area by use of a standard 60" high woven plastic or woven wire fence mounted on standard steel posts set not more than 10' apart. Tree protection shall be removed during work in area of protection only when necessary to perform grading and other work required by Drawings and only as authorized by Owner's Representative.
- (4) Only minimal grading or disturbance will be allowed to area within and adjacent to drip line of trees or shrubs designated to remain. Contractor shall obtain approval from Owner's Representative prior to starting any grading work in these areas. Unnecessary cutting of plant roots shall not be permitted. The Contractor shall stop work immediately and shall notify Owner's Representative immediately if root system is exposed or if any roots over 1 1/2" in diameter are encountered. Roots exposed and/or damaged during construction shall be immediately cut off cleanly behind exposed or damaged area, and cut surface treated in accordance with established horticultural standards and covered with topsoil.
- (5) Owner's Representative will stop work immediately when proper measures are not being employed to protect trees and shrubs. Contractor will be notified to resume work after required protection measures are implemented.
- (6) Removal and/or pruning of select landscape materials shall be performed by MU Landscape Services department.
- (7) Contractors shall repair tire ruts and other damages to existing lawn areas. Repairs shall match surrounding area.

10. CODES AND STANDARDS

The Contractor shall comply with applicable codes and standards as listed in the General Conditions. The following codes and standards shall also apply:

- a. City of Columbia – Sewer Line Installation Standards – Department of Public Works

“All sanitary sewer construction shall be in accordance with the City of Columbia Specifications and Standards and in conformance with the rules and regulations of the Missouri Clean Water Commission.”

11. PERMITS

- a. The Owner will secure and pay for specific necessary approvals, easements, assessments, and charges required for construction, use or occupancy of permanent structures, or for

permanent changes in existing facilities except as noted in Article 3.2 of the General Conditions.

12. PRE-BID INSPECTION

- a. All pre-bid inspections of work areas shall be scheduled with pre-bid inspection guide, telephone: (573) 882-6800

13. MODIFICATIONS TO INFORMATION TO BIDDERS

- a. Information to Bidders:
 - (1) Referenced Information to Bidders, Page IFB/5.
Add new Article 15.8.5 as follows:

15.8.5 Within 48 hours of the receipt of bids, the apparent low bidder shall submit to the Director of Facilities Planning and Development an “Affidavit of Supplier Diversity Participation” for every diverse subcontractor or supplier the bidder intends to award work to on the contract. The affidavit will be signed by both the bidder and the diverse firm.

14. MODIFICATION TO INFORMATION FOR BIDDERS: BIDDERS STATEMENT OF QUALIFICATIONS

- a. Information For Bidders

- (1) Reference: Information for Bidders, Article 8.4

Add new Article 8.4 to read as follows:

In addition to the Bidder’s Statement of Qualifications, the Bidder must also submit evidence and meet the following qualifications:

The project requires the services of a prime contractor who has demonstrated success in completing process/power plant work in an operating plant environment with little or now interruption of plant operations.

(a) MINIMUM QUALIFICATIONS

- (i) Successful completion of one project of similar type and scope.
 - (ii) Successful and sustained track record of effectively utilizing project/schedule management software for at least the last two years.

(b) QUALIFICATION PROCEDURE

- (i) All qualification information and supporting materials must be submitted with your bid. Following the bid date, the Owner reserves the right to request additional information material to evaluate qualifications. Failure of the Contractor to demonstrate their ability to comply with these qualifications may be grounds for the Owner not recommending award of the Contract.

15. MODIFICATIONS TO GENERAL CONDITIONS

a. General Conditions

- (1) Add to the Insurance Requirements in General Conditions Article 11, Asbestos Liability Coverage, for specified asbestos abatement in the contract documents, in a limit no less than \$1,000,000 combined single limit, per occurrence and aggregate, for both bodily injury and property damage combined. The Owner will accept coverage from the Asbestos Removal Subcontractor in lieu of the General Contractor subject to all requirements set forth in article 11.

16. PROJECT SCHEDULING

- a. Contractor Schedule – Contractor is responsible for the schedule, that may be provided with in-house personnel or hired a third-party scheduling consultant. See Contractor Schedule Requirements included in these documents.

17. SAFETY PRECAUTIONS AND PROGRAMS

- a. The Bidder's Statement of Qualifications includes a requirement that the Bidder provide its Worker's Compensation Experience Modification Rates (EMR) and Incidence Rates for the three recent years. The Bidder shall also include the EMR and Incidence Rates of listed major subcontractors on the Bid for Lump Sum Contract. If the EMR exceeds 1 or the Incidence Rate exceeds 13, the Contractor or major subcontractor shall take additional safety measures including, but not limited to, developing a site-specific safety plan and assigning a Safety Manager to the Project to perform inspections on a schedule as determined acceptable by the Owner with written reports to be submitted to the Owner. The Owner reserves the right to reject a Bidder or major subcontractor whose rates exceed these stated rates.
- b. The contractor shall provide Emergency Contact Information for the Contractor's on-site staff and home office management as well as contact information for all major subcontractor personnel. This information shall contain business and personal phone numbers for each individual for contact during or after hours in case of an emergency. This information shall be submitted within 15 days of the Notice to Proceed.

18. HOT WORK PERMITTING AND GENERAL REQUIREMENTS

- a. Hot work Requirements: The contractor shall comply with the following hot work requirements and the requirements of the International Fire Code and NFPA 51B.
- (1) Hot work shall be defined as any work involving burning, welding, grinding, cutting, or similar operations that are capable of producing sparks, initiating fires or explosions.
 - (2) The Contractor shall utilize the hot work permit decision tree and procedures as outlined in NFPA 51B for all Hot Work operations.
 - (3) The University of Missouri Hot Work Permit (see Appendix 1.I) shall be used on all hot work performed outside a designated hot work area. The University of Missouri hot work permit shall be posted and clearly visible within proximity of the hot work area. The hot work permit authorizing individual (PAI) shall be as designated by the Contractor.
 - (4) Notify the Owner's Representative 24 hours prior to starting hot work in buildings with operational fire alarm or fire suppression systems. The Owner's Representative will coordinate the appropriate system outage with Campus Maintenance personnel.
 - (5) Unless otherwise instructed by the Owner's Representative, the Contractor shall post a copy of each completed hot work permit to the Owner's project management file system the following business day.
 - (6) Hot Work personnel shall consist of the following three roles: the Permit Authorizing Individual (PAI), the Hot Work Operator (person doing the work), and the Fire Watch personnel. Hot Work Operators shall not be utilized to perform Fire Watch duties. Fire watch and monitoring duration shall be as required on the University of Missouri hot work permit.

END OF SECTION

SECTION 1.F

INDEX OF DRAWINGS

Drawings referred to in and accompanying this Project Manual consist of the following sheets dated April 24, 2025.

STRUCTURAL:

COVER SHEET

D100-BASEMENT DEMO PLAN

D101-FIRST FLOOR DEMO PLAN

D102-SECOND FLOOR DEMO PLAN

MECHANICAL/ELECTRICAL/PLUMBING:

ME101-MECHANICAL ELECTRICAL PLAN-BASEMENT

ME102-MECHANICAL ELECTRICAL PLAN-FIRST FLOOR

ME102-MECHANICAL ELECTRICAL PLAN-SECOND FLOOR

FA101-FIRE ALARM PLAN-BASEMENT

FA102-FIRE ALARM PLAN-FIRST FLOOR

FA103-FIRE ALARM PLAN-SECOND FLOOR

END OF SECTION

SECTION 1.G

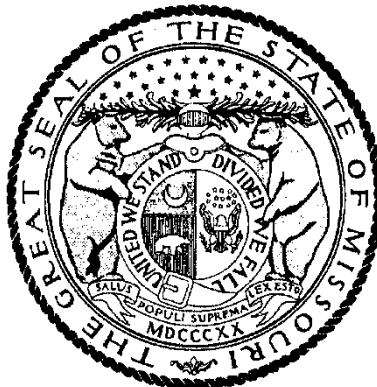
PREVAILING WAGE RATES

1. The prevailing wage rates for Boone County as issued by the Missouri Division of Labor on the following pages.

Missouri

Division of Labor Standards

WAGE AND HOUR SECTION



MICHAEL L. PARSON, Governor

Annual Wage Order No. 31

Section 010
BOONE COUNTY

In accordance with Section 290.262 RSMo 2000, within thirty (30) days after a certified copy of this Annual Wage Order has been filed with the Secretary of State as indicated below, any person who may be affected by this Annual Wage Order may object by filing an objection in triplicate with the Labor and Industrial Relations Commission, P.O. Box 599, Jefferson City, MO 65102-0599. Such objections must set forth in writing the specific grounds of objection. Each objection shall certify that a copy has been furnished to the Division of Labor Standards, P.O. Box 449, Jefferson City, MO 65102-0449 pursuant to 8 CSR 20-5.010(1). A certified copy of the Annual Wage Order has been filed with the Secretary of State of Missouri.

Original Signed by

Todd Smith, Director
Division of Labor Standards

Filed With Secretary of State: March 8, 2024

Last Date Objections May Be Filed: April 8, 2024

Prepared by Missouri Department of Labor and Industrial Relations

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Asbestos Worker	\$61.30
Boilermaker	\$32.35*
Bricklayer-Stone Mason	\$55.22
Carpenter	\$51.42
Lather	
Linoleum Layer	
Millwright	
Pile Driver	
Cement Mason	\$45.65
Plasterer	
Communication Technician	\$57.87
Electrician (Inside Wireman)	\$58.36
Electrician Outside Lineman	\$32.35*
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Elevator Constructor	\$32.35*
Glazier	\$65.64
Ironworker	\$69.98
Laborer	\$43.79
General Laborer	
First Semi-Skilled	
Second Semi-Skilled	
Mason	\$59.96
Marble Mason	
Marble Finisher	
Terrazzo Worker	
Terrazzo Finisher	
Tile Setter	
Tile Finisher	
Operating Engineer	\$65.05
Group I	
Group II	
Group III	
Group III-A	
Group IV	
Group V	
Painter	\$41.79
Plumber	\$72.46
Pipe Fitter	
Roofer	\$55.00
Sheet Metal Worker	\$58.29
Sprinkler Fitter	\$65.10
Truck Driver	\$32.35*
Truck Control Service Driver	
Group I	
Group II	
Group III	
Group IV	

*The Division of Labor Standards received fewer than 1,000 reportable hours for this occupational title. The public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center.

**The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title as defined in RSMo Section 290.210.

Heavy Construction Rates for
BOONE County

Section 010

OCCUPATIONAL TITLE	**Prevailing Hourly Rate
Carpenter	\$63.45
Millwright	
Pile Driver	
Electrician (Outside Lineman)	\$80.19
Lineman Operator	
Lineman - Tree Trimmer	
Groundman	
Groundman - Tree Trimmer	
Laborer	\$50.35
General Laborer	
Skilled Laborer	
Operating Engineer	\$66.32
Group I	
Group II	
Group III	
Group IV	
Truck Driver	\$32.35*
Truck Control Service Driver	
Group I	
Group II	
Group III	
Group IV	

Use Heavy Construction Rates on Highway and Heavy construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(3).

Use Building Construction Rates on Building construction in accordance with the classifications of construction work established in 8 CSR 30-3.040(2).

If a worker is performing work on a heavy construction project within an occupational title that is not listed on the Heavy Construction Rate Sheet, use the rate for that occupational title as shown on the Building Construction Rate Sheet.

*The Division of Labor Standards received fewer than 1,000 reportable hours for this occupational title. Public works contracting minimum wage is established for this occupational title using data provided by Missouri Economic Research and Information Center.

**The Prevailing Hourly Rate includes any applicable fringe benefit amounts for each occupational title.

OVERTIME and HOLIDAYS

OVERTIME

For all work performed on a Sunday or a holiday, not less than twice (2x) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work.

For all overtime work performed, not less than one and one-half (1½) the prevailing hourly rate of wages for work of a similar character in the locality in which the work is performed or the public works contracting minimum wage, whichever is applicable, shall be paid to all workers employed by or on behalf of any public body engaged in the construction of public works, exclusive of maintenance work or contractual obligation. For purposes of this subdivision, **"overtime work"** shall include work that exceeds ten hours in one day and work in excess of forty hours in one calendar week; and

A thirty-minute lunch period on each calendar day shall be allowed for each worker on a public works project, provided that such time shall not be considered as time worked.

HOLIDAYS

January first;
The last Monday in May;
July fourth;
The first Monday in September;
November eleventh;
The fourth Thursday in November; and
December twenty-fifth;

If any holiday falls on a Sunday, the following Monday shall be considered a holiday.

SECTION 1.H

UNIVERSITY OF MISSOURI HOT WORK PERMIT

University of Missouri HOT WORK PERMIT

Seek an alternative/safer method if possible

Before initiating hot work, ensure precautions are in place as required by NFPA 51B and ANSI Z49.1.
Make sure an appropriate fire extinguisher is readily available.

This Hot Work Permit is required for any operation involving open flame or producing heat and/or sparks. This work includes, but is not limited to, welding, brazing, cutting, grinding, soldering, thawing pipe, torch applied roofing, or chemical welding.

Date	Hot Work by: Employee <input type="checkbox"/> Contractor <input type="checkbox"/>
Location / Building / Floor / Room #:	Name (Print) and Signature of person doing Hot Work
Work to be performed:	I verify that the above location has been examined, the precautions marked on the checklist below have been taken, and permission is granted for this work.
Time Started	<input type="text"/>
Time Completed	<input type="text"/>
Time Fire Watch Completed	<input type="text"/>
Name (print) and signature of permit-authorizing individual (PAI)	
Name (print) and signature of person performing Fire Watch	
THIS PERMIT IS GOOD FOR ONE DAY ONLY	

Yes	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	Available sprinklers, hose streams, and extinguishers are in service and operable.
<input type="checkbox"/>	<input type="checkbox"/>	Hot Work equipment is in good working condition in accordance with manufacturer's specifications.
<input type="checkbox"/>	<input type="checkbox"/>	Special permission obtained to conduct hot work on metal vessels or piping lined with rubber or plastic.
Requirements within 35 ft (11 m) of hot work		
<input type="checkbox"/>	<input type="checkbox"/>	Flammable liquid, dust, lint and oily deposits removed.
<input type="checkbox"/>	<input type="checkbox"/>	Explosive atmosphere in area eliminated.
<input type="checkbox"/>	<input type="checkbox"/>	Floors swept clean and trash removed.
<input type="checkbox"/>	<input type="checkbox"/>	Combustible floors wet down or covered with damp sand or fire-resistant / noncombustible materials or equivalent.
<input type="checkbox"/>	<input type="checkbox"/>	Personnel protected from electrical shock when floors are wet.
<input type="checkbox"/>	<input type="checkbox"/>	Other combustible storage material removed or covered with listed or approved materials (welding pads, blankets, curtains, fire-resistant tarpaulins), metal shields, or non-combustible material.
<input type="checkbox"/>	<input type="checkbox"/>	All wall and floor openings are covered.
<input type="checkbox"/>	<input type="checkbox"/>	Ducts and conveyors that might carry sparks to distant combustible material are covered, protected, or shut down.
Requirements for hot work on walls, ceilings or roofs		
<input type="checkbox"/>	<input type="checkbox"/>	Construction is noncombustible and without combustible coverings or insulation.
<input type="checkbox"/>	<input type="checkbox"/>	Combustible material on other side of walls, ceilings, or roofs is moved away.

Yes N/A

Requirements for hot work on enclosed equipment

- ☐ ☐ Enclosed equipment is cleaned of all combustibles.
- ☐ ☐ Containers are purged of flammable liquid / vapor.
- ☐ ☐ Pressurized vessels, piping, and equipment removed from service, isolated, and vented.

Requirements for hot work fire watch and fire monitoring

- ☐ ☐ Fire watch is provided with suitable extinguishers and, where practical, a charged fire hose.
- ☐ ☐ Fire watch is trained in use of equipment, sounding alarm, and notification of emergency contacts.
- ☐ ☐ Fire watch is required in adjoining areas, or above and below the work area.
- ☐ ☐ Per the PAI / fire watch, monitoring of hot work area is required, per the table below.

Construction Factors

	Noncombustible construction		Combustible construction without concealed cavities		Combustible Construction with unprotected concealed cavities	
Occupancy Factors	Fire Watch	Monitor	Fire Watch	Monitor	Fire Watch	Monitor
Noncombustible with any combustibles contained within closed equipment (e.g., ignitable liquid within piping)	30 minutes	0 hours	1 hour	3 hours	1 hour	5 hours
Office, retail or manufacturing with limited combustible loading	1 hour	1 hour	1 hour	3 hours	1 hour	5 hours

POST A COPY OF THIS PERMIT IN/NEAR THE HOT WORK AREA.

Admin: University employees shall file hot work permits in departmental safety file records.

Contract personnel shall file copies of permits in the University of Missouri Project Management File System.

END OF SECTION

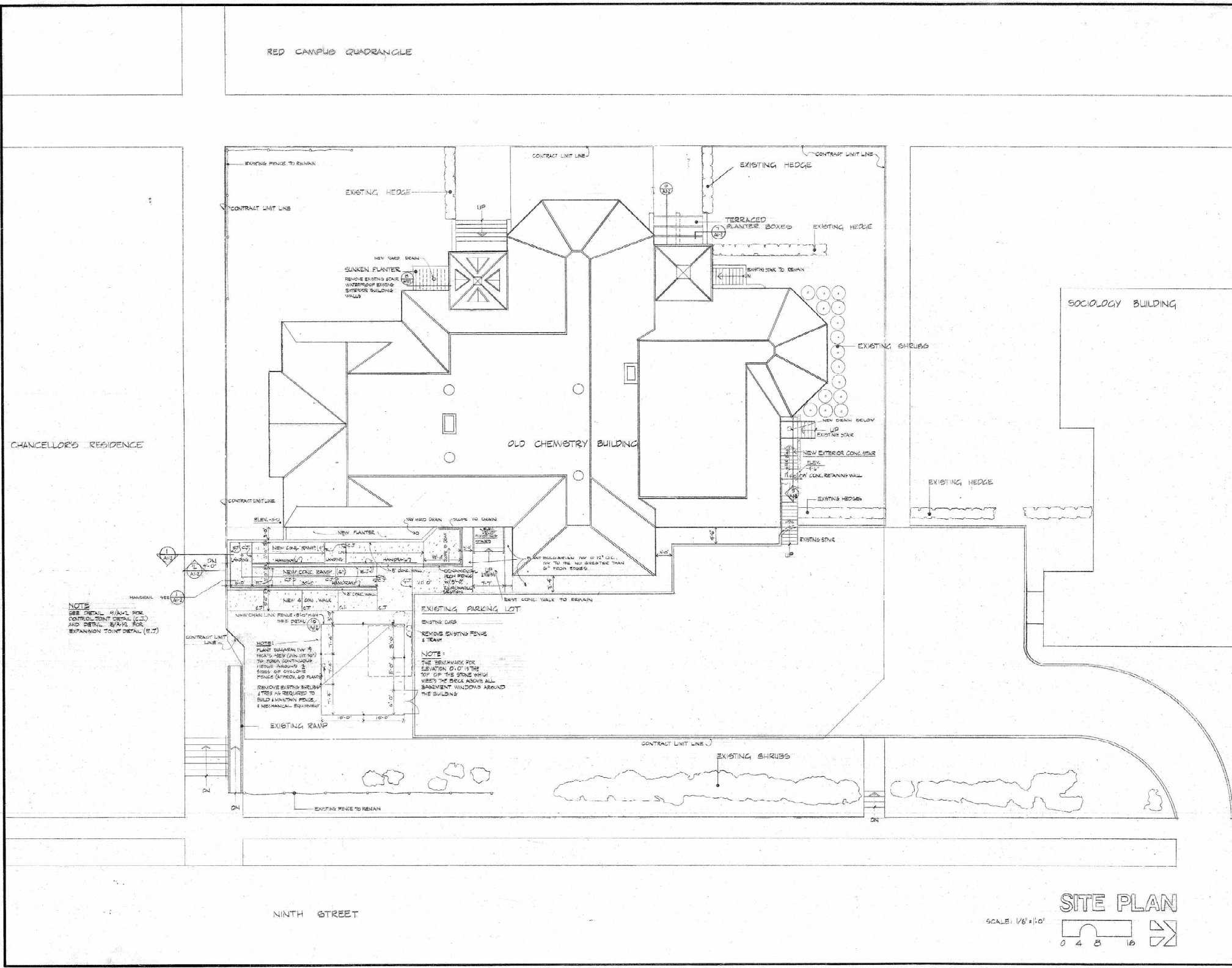
SECTION 1.J

1974 EXISTING BUILDING PLANS

Drawings referred to in and accompanying this Project Manual consist of the following sheets dated July 1, 1974.

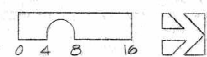
SITE PLAN AND DETAILS, A1-1 THRU A1-2
ARCHITECTURAL FLOOR PLANS AND REFLECTED CEILINGS, A2-1 THRU A2-6
ARCHITECTURAL DETAILS, A3-1 THRU A3-2
ARCHITECTURAL SCHEDULES AND DETAILS, A4-1 THRU A4-2
MEP SITE PLAN, EHP-1
ELECTRICAL DRAWINGS, E-2 THRU E-5
PLUMBING DRAWINGS, P-2 THRU P-3
MECHANICAL DRAWINGS, H-2 THRU H-6

RC 020 A-1-1 74 00



SITE PLAN

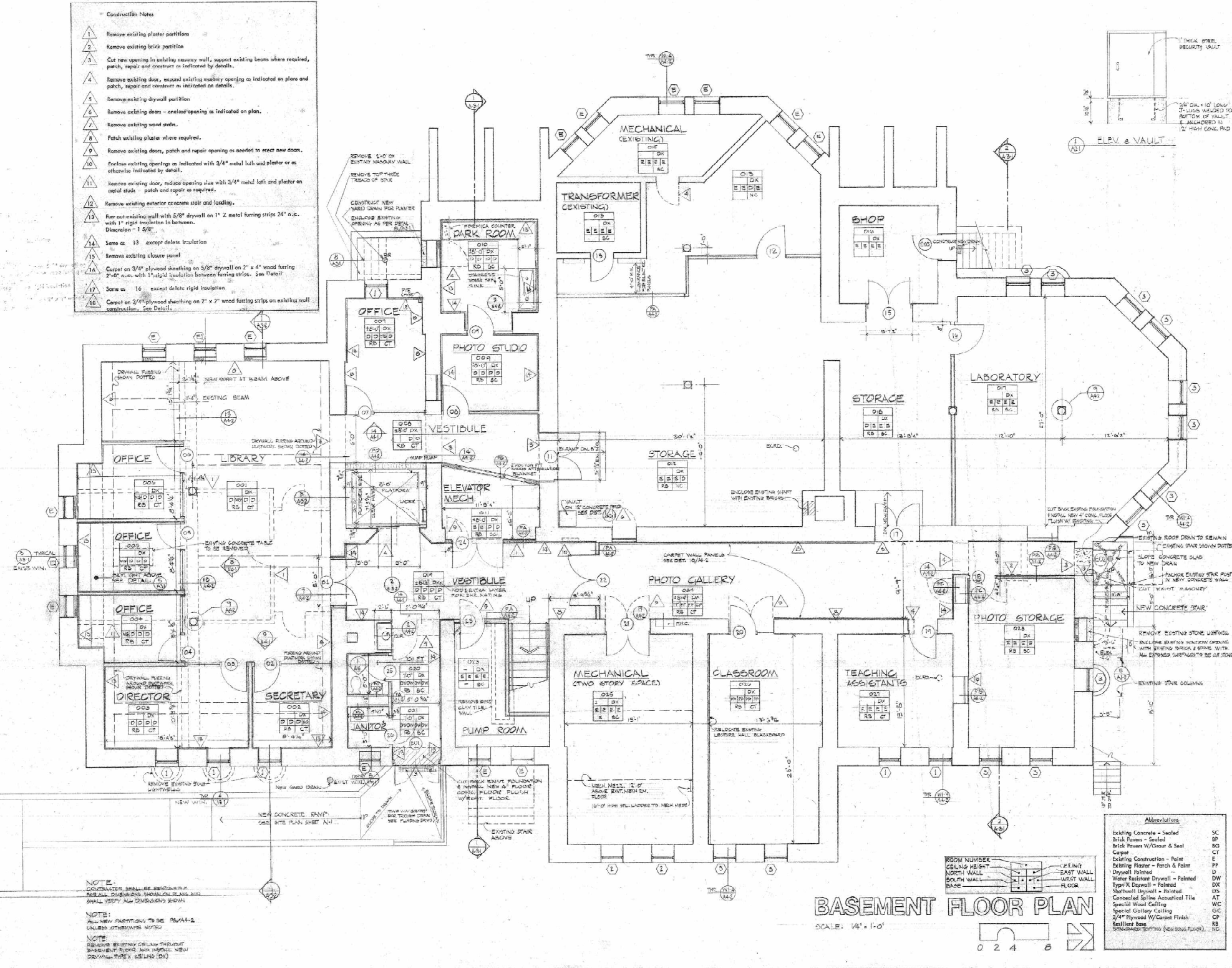
SCALE: 1/8" = 1'-0"



HS/A HOFFMANN/SAUR AND ASSOCIATES, INC. 7777 BONHOMME AVENUE/SUITE 2000 ST. LOUIS, MISSOURI 63105/314-882-6363		ARCHITECTS/ENGINEERS/PLANNERS	
OLD CHEMISTRY BUILDING RENOVATION UNIVERSITY OF MISSOURI - COLUMBIA COLUMBIA, MISSOURI JACK A. SONTAG, CONSULTING ENGINEER, STRUCTURAL ENGINEER - BANASHEK AND ASSOCIATES, ELECTRICAL AND MECHANICAL ENGINEERS		HS/A NO 722	
DETAIL NUMBER			
CATEGORY			
A-1-1			
DATE 7/1/74		JOB NO. 122	

RC 020 A-2-1 74 00

- Construction Notes
- 1 Remove existing plaster partitions
 - 2 Remove existing brick partition
 - 3 Cut new opening in existing masonry wall, support existing beam where required, patch, repair and construct as indicated by details.
 - 4 Remove existing door, expand existing masonry opening as indicated on plans and patch, repair and construct as indicated on details.
 - 5 Remove existing drywall partition
 - 6 Remove existing doors - enclose opening as indicated on plan.
 - 7 Remove existing wood studs.
 - 8 Patch existing plaster where required.
 - 9 Remove existing doors, patch and repair opening as needed to erect new doors.
 - 10 Enclose existing openings as indicated with 3/4" metal lath and plaster or as otherwise indicated by detail.
 - 11 Remove existing door, reduce opening size with 3/4" metal lath and plaster on metal studs - patch and repair as required.
 - 12 Remove existing exterior concrete stair and landing.
 - 13 Fur out existing wall with 5/8" drywall on 1" Z metal furring strips 24" o.c. with 1" rigid insulation in between. Dimension 1 5/8".
 - 14 Same as 13 except delete insulation
 - 15 Remove existing closure panel
 - 16 Carpet on 3/4" plywood sheathing on 3/8" drywall on 2" x 4" wood furring 24" o.c. with 1" rigid insulation between furring strips. See Detail.
 - 17 Same as 16 except delete rigid insulation
 - 18 Carpet on 3/4" plywood sheathing on 2" x 2" wood furring strips on existing wall construction. See Detail.



REVISIONS

NO.	DESCRIPTION
1	AS NOTED

ARCHITECTS/ENGINEERS/PLANNERS
ST. LOUIS, MISSOURI 63105/314.862.9363

HSA HOFFMANN/SAUR AND ASSOCIATES, INC.
7777 BONHOMME AVENUE/SUITE 2000
ST. LOUIS, MISSOURI 63105/314.862.9363

OLD CHEMISTRY BUILDING RENOVATION
UNIVERSITY OF MISSOURI - COLUMBIA
COLUMBIA, MISSOURI
JACK A. SONTAG, CONSULTING ENGINEER, STRUCTURAL
BANKSHEK AND ASSOCIATES, ELECTRICAL AND MECHANICAL ENGINEERS

HS/A NO 722

DETAIL NUMBER

CATEGORY

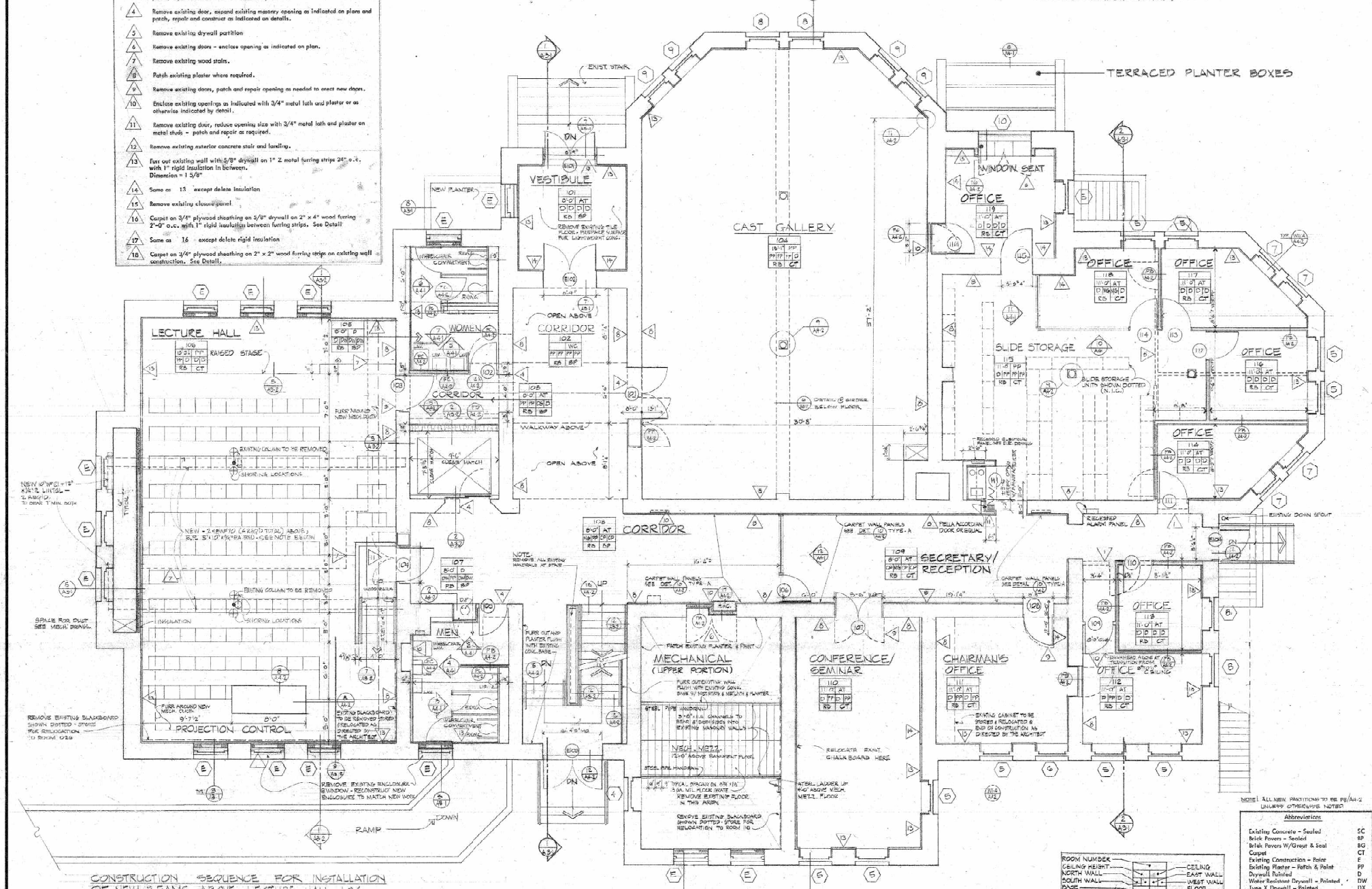
A-2-1

DATE 7/1/74

JOB NO. 722

- Construction Notes**
- Remove existing plaster partitions.
 - Remove existing brick partition.
 - Cut new opening in existing masonry wall, support existing beams where required, patch, repair and construct as indicated by details.
 - Remove existing door, extend existing masonry opening as indicated on plans and patch, repair and construct as indicated on details.
 - Remove existing drywall partition.
 - Remove existing doors - enclose opening as indicated on plan.
 - Remove existing wood stairs.
 - Patch existing plaster where required.
 - Remove existing doors, patch and repair opening as needed to erect new doors.
 - Enclose existing openings as indicated with 3/4" metal lath and plaster or as otherwise indicated by detail.
 - Remove existing door, reduce opening size with 3/4" metal lath and plaster on metal studs - patch and repair as required.
 - Remove existing exterior concrete stair and landing.
 - Pay out existing wall with 5/8" drywall on 1" Z metal furring strips 24" o.c., with 1" rigid insulation in between. Dimension = 1 3/8"
 - Same as 13 - except delete insulation.
 - Remove existing slown/dowel.
 - Carpet on 3/4" plywood sheathing on 2" x 2" wood furring strips. See Detail.
 - Same as 16 - except delete rigid insulation.
 - Carpet on 3/4" plywood sheathing on 2" x 2" wood furring strips on existing wall construction. See Detail.

NOTE:
 ALL WINDOW HEADS SHALL BE 11'-0" HIGH BASED ON FIELD MEASUREMENT OF EXISTING WINDOW HEADS. CONTRACTOR SHALL VERIFY WINDOW DIMENSIONS. NEW WINDOWS SHALL NOT FALL BELOW FINISHED WINDOW OPENINGS.



- CONSTRUCTION SEQUENCE FOR INSTALLATION OF NEW BEAMS ABOVE LECTURE HALL 106**
- INSTALL 2-18" WF BEAMS
 - REMOVE EXIST. BEAM & COLUMN
 - REMOVE EXIST. 6" x 6" COL. FROM FIRST FLOOR TO SECOND FLR.
 - INSTALL SHORT 18" WF COL. BETWEEN 2-18" WF
 - RANGE SHORING 12" x 12"
 - WELD 18" x 18" ANGLES TO SHORT 18" WF
 - REMOVE SHORING

FIRST FLOOR PLAN
 SCALE: 1/4" = 1'-0"
 0 2 4 8

Abbreviations

Existing Concrete - Sealed	SC
Brick Pavers - Sealed	BP
Brick Pavers W/Grout & Seal	BCG
Cupola	C
Existing Construction - Paint	EP
Existing Plaster - Patch & Paint	DW
Drywall Painted	DX
Water Resistant Drywall - Painted	DS
Type X Drywall - Painted	AT
Shofwall Drywall - Painted	WC
Concrete Spline Acoustical Tile	CC
Special Wood Ceiling	CF
3/4" Plywood W/Carpet Finish	KE
Ventilator Case	

REVISIONS

HSA HOFFMANN/SAUR AND ASSOCIATES, INC. ARCHITECTS/ENGINEERS/PLANNERS
 7777 BONHOMME AVENUE/SUITE 2000
 ST. LOUIS, MISSOURI 63105/314.862.9383

OLD CHEMISTRY BUILDING RENOVATION
UNIVERSITY OF MISSOURI - COLUMBIA
 COLUMBIA, MISSOURI
 HSA NO. 722
 JACK A. SONTAG, CONSULTING ENGINEER, STRUCTURAL ENGINEER - BANASHEK AND ASSOCIATES, ELECTRICAL AND MECHANICAL ENGINEERS

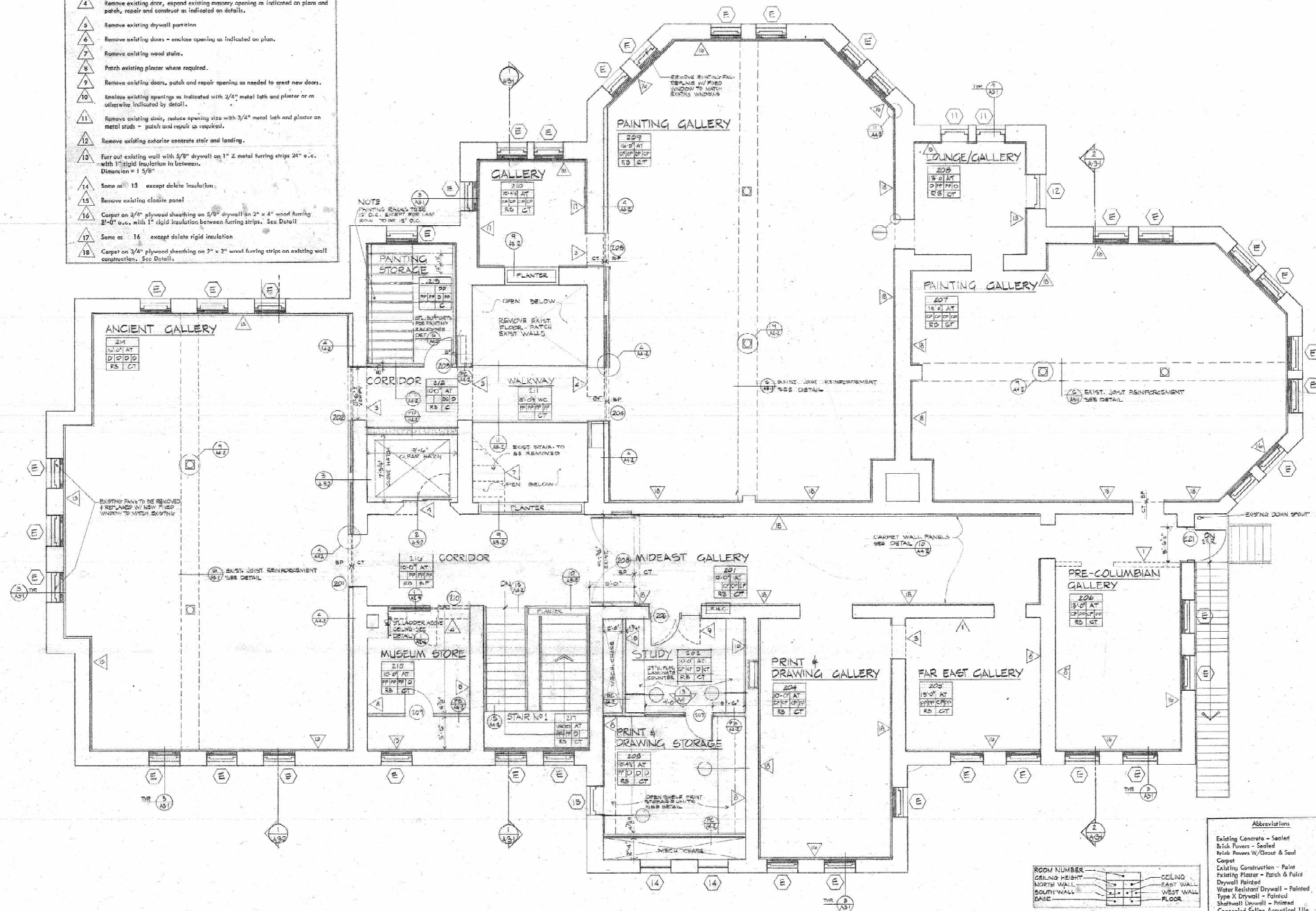
DETAIL NUMBER
A-2-2

CATEGORY
A-2-2

DATE 7/1/74 **JOB NO.** 722

RC 020 A-2-3 74 00

- | Construction Notes | |
|--------------------|---|
| 1 | Remove existing plaster partition |
| 2 | Remove existing false partition |
| 3 | Cut new opening in existing masonry wall, support existing beams where required, patch, repair and construct as indicated by details. |
| 4 | Remove existing door, excavate existing masonry opening as indicated on plans and patch, repair and construct as indicated on details. |
| 5 | Remove existing drywall partition |
| 6 | Remove existing doors - enclose opening as indicated on plans. |
| 7 | Remove existing wood stairs. |
| 8 | Patch existing plaster where required. |
| 9 | Remove existing doors, patch and repair opening as needed to erect new doors. |
| 10 | Enclose existing openings as indicated with 3/4" metal lath and plaster on all exterior. Indicated by detail. |
| 11 | Remove existing door, reduce opening size with 3/4" metal lath and plaster on metal stud - patch and repair as required. |
| 12 | Remove existing exterior concrete stair and landing. |
| 13 | Tear out existing wall with 5/8" drywall on 1" Z metal furring strips 24" o.c. with 1" rigid insulation in between.
Dimension = 1 5/8" |
| 14 | Same as 13 except delete insulation |
| 15 | Remove existing closet panel |
| 16 | Carpet on 2"x4" plywood sheathing on 5/8" drywall on 2" x 4" wood furring 24" o.c. with 1" rigid insulation between furring strips. See Detail. |
| 17 | Same as 16 except delete rigid insulation |
| 18 | Carpet on 3/4" plywood sheathing on 2" x 2" wood furring strips on existing wall construction. See Detail. |



SECOND FLOOR PLAN

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

Abbreviations

Existing Concrete - Sealed
Brick Pavers - Sealed
Brick Pavers W/Grout & Seal
Carpet
Existing Construction - Paint
Existing Plaster - Patch & Paint
Drywall Painted
Water Resistant Drywall - Painted
Type X Drywall - Painted
Shaftwall Drywall - Painted
Concealed Spine Acoustical Tile
Special Wood Ceiling
Special Gallery Ceiling
3/4" Plywood W/Carpet Finish
Kestilite base

SC
BP
BG
CT
E
PP
D
DW
DX
DS
AT
WC
GC
CP
RB

HS/A **HOFFMANN/SAUR AND ASSOCIATES, INC.** **ARCHITECTS/ENGINEERS/PLANNERS**
7777 BONHOMME AVENUE/SUITE 2000 ST. LOUIS, MISSOURI 63106/314-862-6363

OLD CHEMISTRY BUILDING RENOVATION
UNIVERSITY OF MISSOURI - COLUMBIA
COLUMBIA, MISSOURI
JACK A. SONTAG, CONSULTING ENGINEERS, STRUCTURAL ENGINEER
7777 BONHOMME AVENUE/SUITE 2000
ST. LOUIS, MISSOURI 63105-2704, 982-6363
HS/A NO. 722
BANASHEK AND ASSOCIATES, ELECTRICAL AND MECHANICAL ENGINEER

HS/A NO 722
MECHANICAL ENGINEERS

HS/A N^o 722
BANASHEK AND ASSOCIATES, ELECTRICAL AND MECHANICAL ENGINEERS

COLUMBIA, MISSOURI
JACK A. SONTAG, CONSULTING ENGINEERS, STRUCTURAL ENGINEER

DETAIL NUMBER	
---------------	--

13

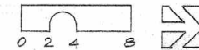
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100	100

A-2-3

DATE 7/1/74

JOB NO.
722

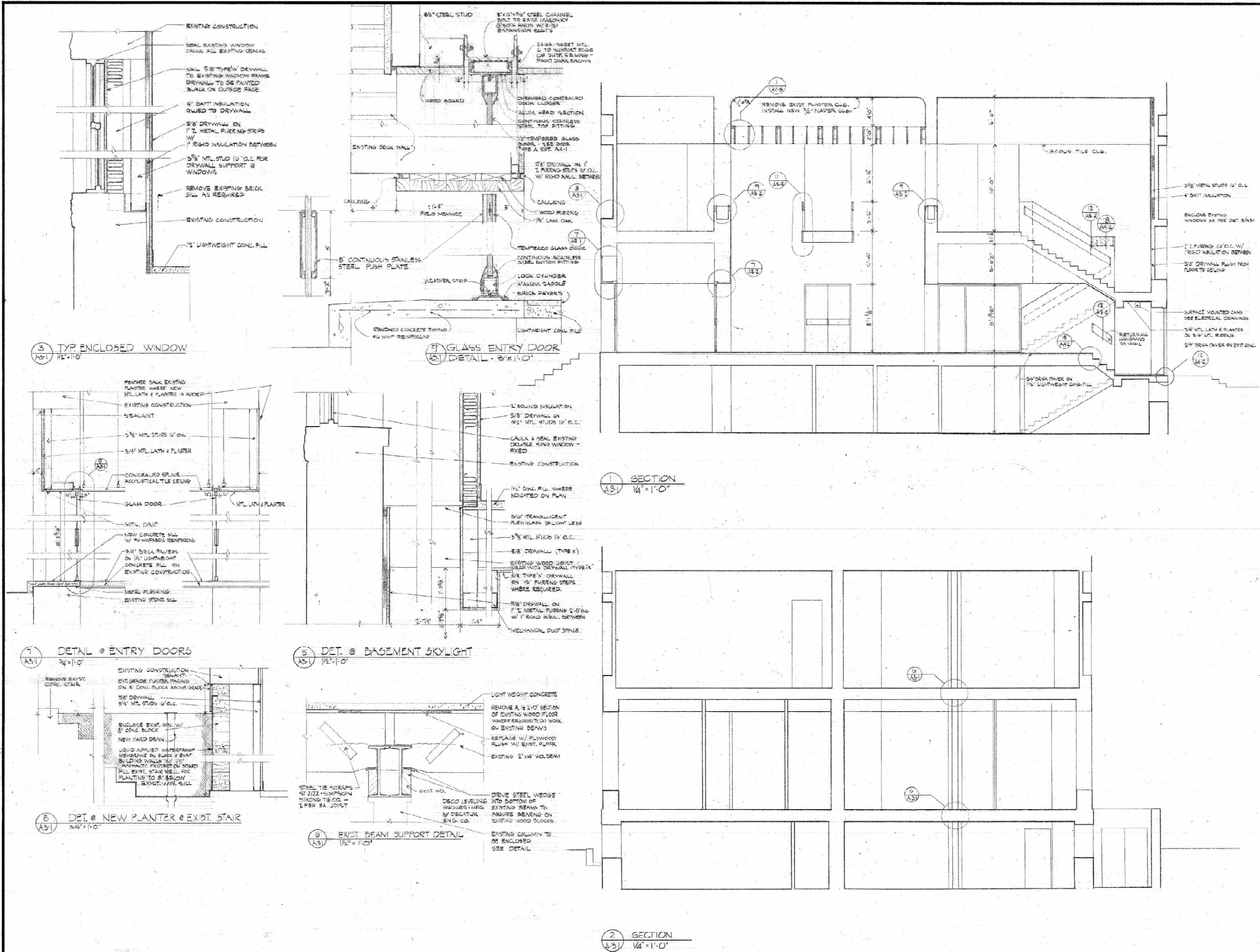
SCALE: 1/4" = 1'-0"



HS/A HOFFMAN/SAUR AND ASSOCIATES, INC. 7777 BONHOMME AVENUE/SUITE 2000 ST LOUIS, MISSOURI 63105/314-662-6393		ARCHITECTS/ENGINEERS/PLANNERS	
OLD CHEMISTRY BUILDING RENOVATION UNIVERSITY OF MISSOURI - COLUMBIA COLUMBIA, MISSOURI JACK A. SONTAG, CONSULTING ENGINEERS, STRUCTURAL ENGINEER		HS/A NO. 722 BANASHEK AND ASSOCIATES, ELECTRICAL AND MECHANICAL ENGINEERS	
DETAIL NUMBER			
CATEGORY A-2-4			
DATE 7/1/74		JOB NO. 722	

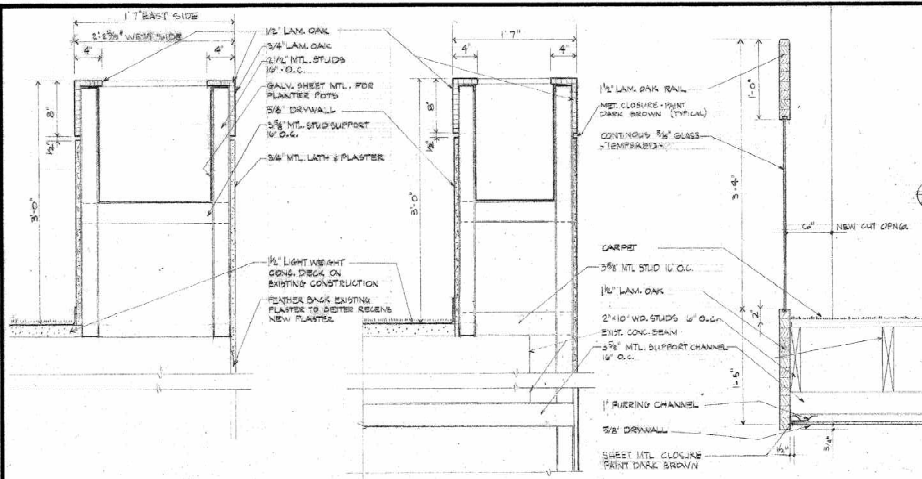
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OLD CHEMISTRY BUILDING RENOVATION UNIVERSITY OF MISSOURI - COLUMBIA				
COLUMBIA, MISSOURI JACK A. SONTAG, CONSULTING ENGINEER		ENGINEER		HS/A NO. 722 BANASHEK AND ASSOCIATES, ELECTRICAL AND MECHANICAL ENGINEERS
DETAIL NUMBER				
CATEGORY A				
DATE 7/1/74		JOB NO. 722		

RC 020 A-3-1 74 00



HS/A HOFFMANN/SAUR AND ASSOCIATES, INC. ARCHITECTS/ENGINEERS/PLANNERS 7777 BONHOMME AVENUE/SUITE 2000 ST. LOUIS, MISSOURI 63105/314-982-6363		REVISIONS
OLD CHEMISTRY BUILDING RENOVATION UNIVERSITY OF MISSOURI - COLUMBIA COLUMBIA, MISSOURI HS/A NO 722 JACK A. SONTAG, CONSULTING ENGINEERS, STRUCTURAL ENGINEER - BANASHEK AND ASSOCIATES, ELECTRICAL AND MECHANICAL ENGINEERS		
DETAIL NUMBER 1, THRU 9		
CATEGORY A-3-1		
DATE 7/17/74		JOB NO 722

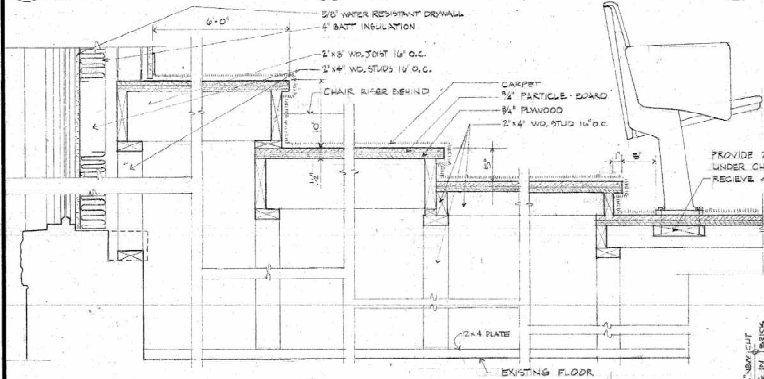
RC 020 A-3-2 74 00



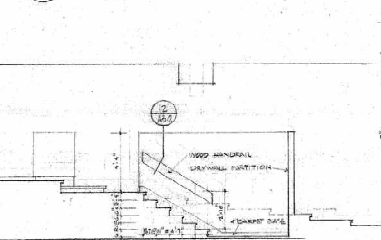
9 TYP. PLANTER DETAIL
1/2" = 1'-0"

10 DET. PLANTER @ STAIR
1/8" = 1'-0"

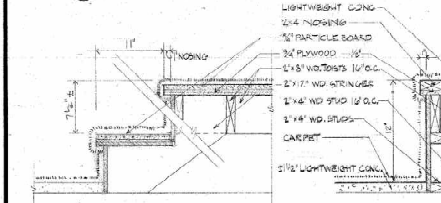
11 DET. @ WALKWAY
1/2" = 1'-0"



8 DET. @ LECTURE HALL PLATFORM
1/4" = 1'-0"



7 SECTION @ LECTURE HALL STAIR
1/4" = 1'-0"

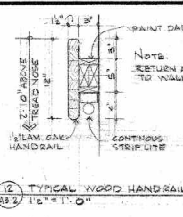
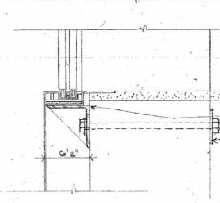
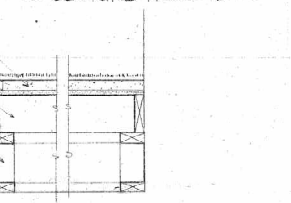


6 TYP. STAIR DETAIL
1/2" = 1'-0"

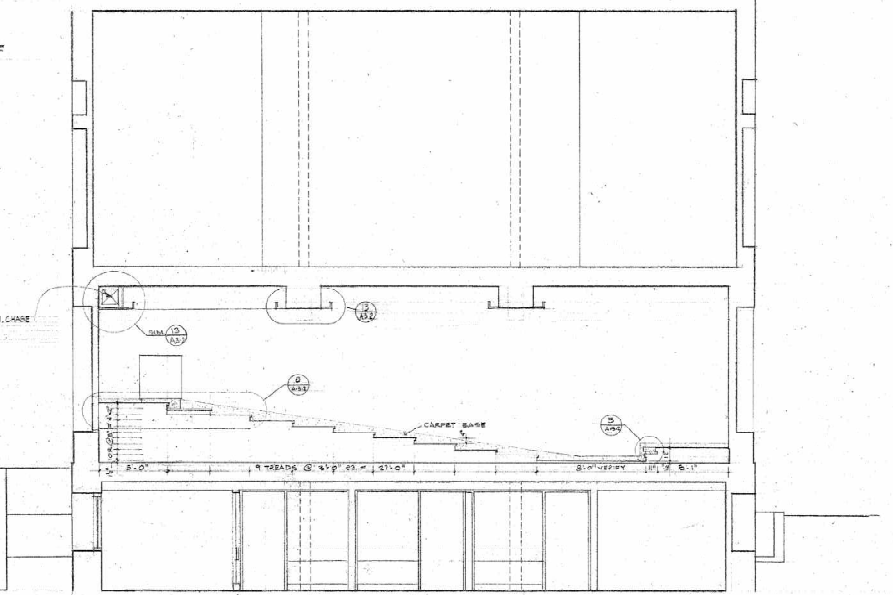
5 DET. @ STAGE
1/2" = 1'-0"

4 DET. @ ELEVATOR
1/2" = 1'-0"

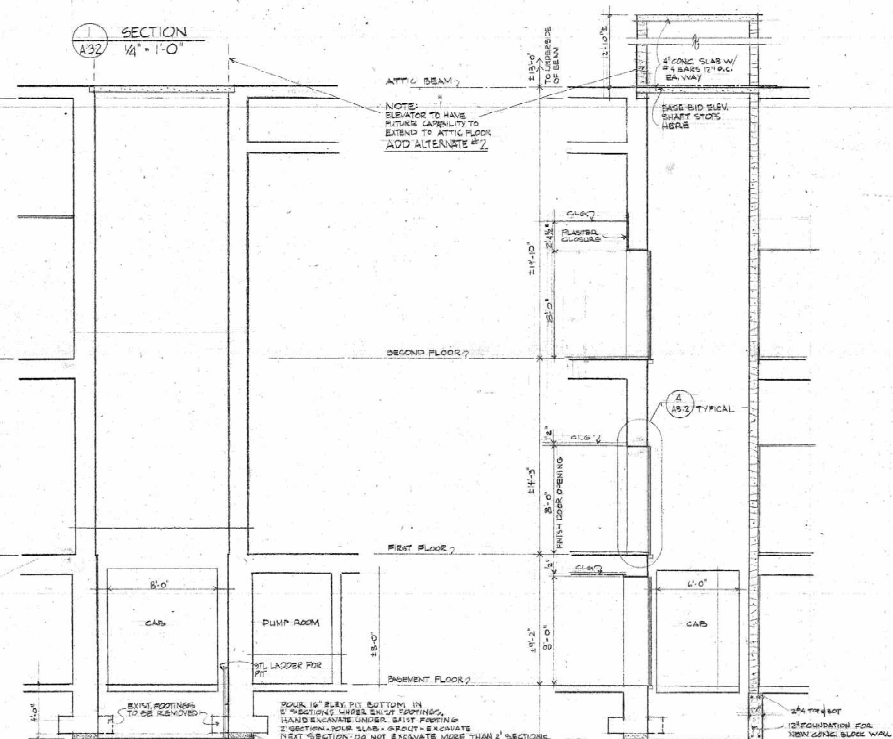
13 DETAIL @ NEW BEAMS ABOVE
LECTURE HALL - 1/2" = 1'-0"



12 TYPICAL WOOD HANDRAIL
1/8" = 1'-0"



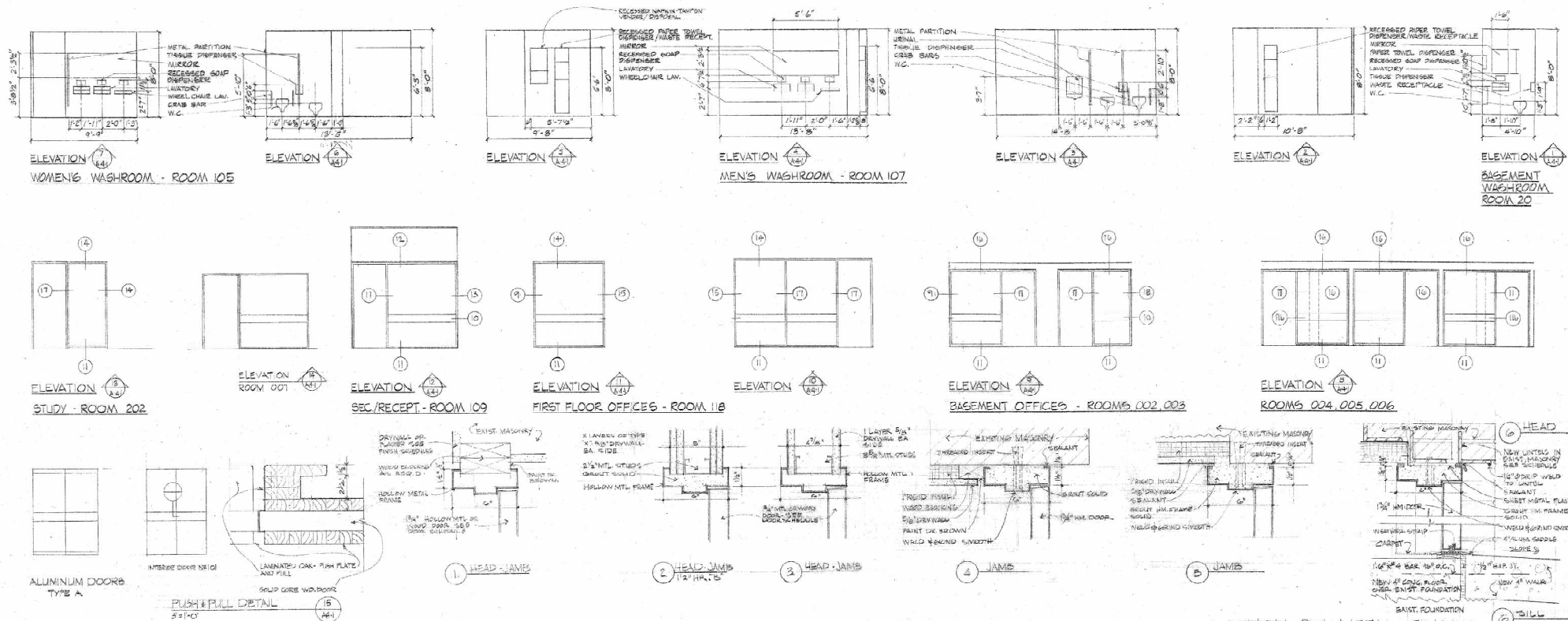
1 SECTION
1/4" = 1'-0"



2 SECTION
1/4" = 1'-0"

2 SECTION
1/4" = 1'-0"

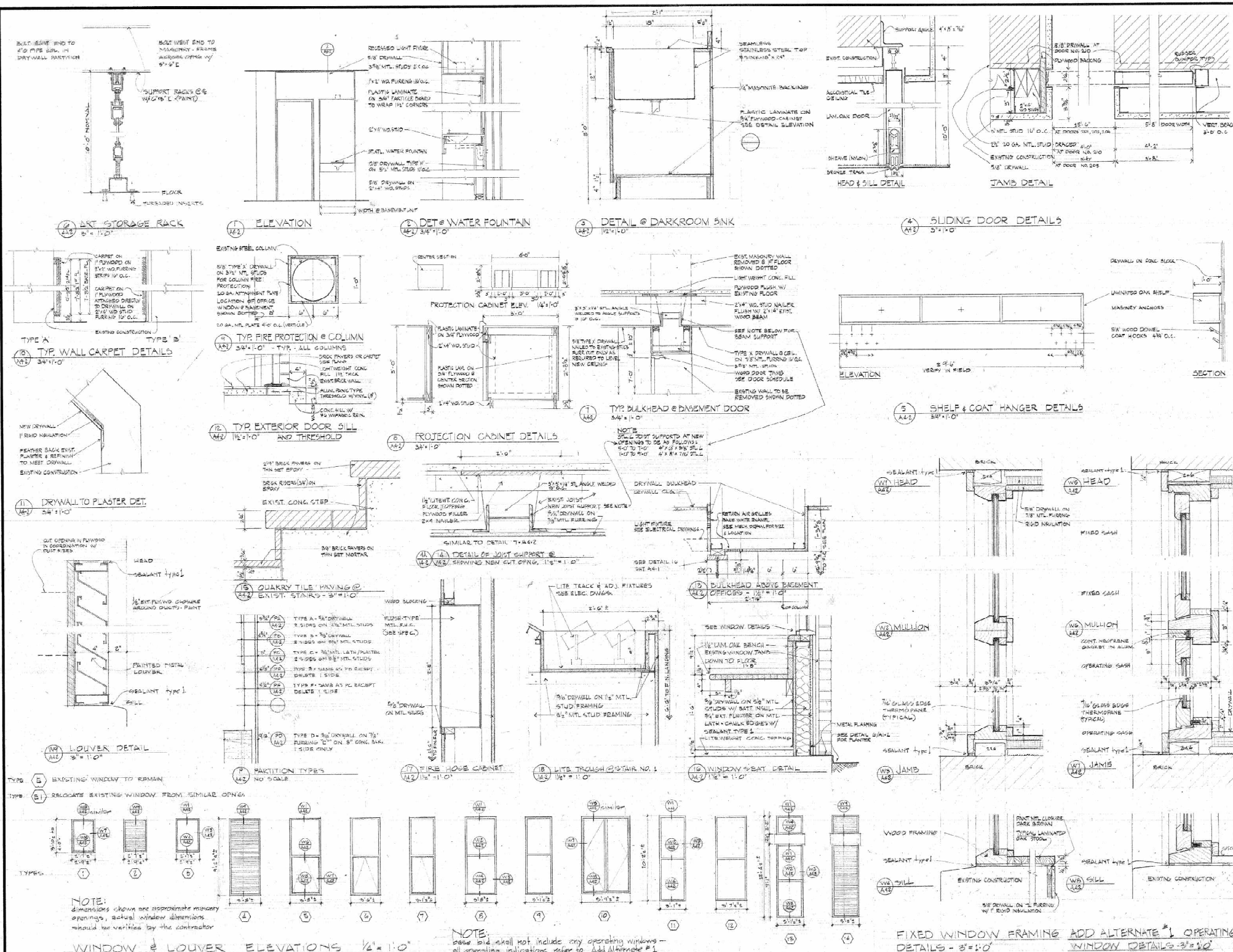
HS/A HOFFMANN/SAUR AND ASSOCIATES, INC. ARCHITECTS/ENGINEERS/PLANNERS 7777 BONHOMME AVENUE/SUITE 2000 ST. LOUIS, MISSOURI 63105/314-862-6363	
OLD CHEMISTRY BUILDING RENOVATION UNIVERSITY OF MISSOURI - COLUMBIA	
COLUMBIA, MISSOURI JACK A. SONTAG, CONSULTING ENGINEERS, STRUCTURAL ENGINEER - BANASHEK AND ASSOCIATES, ELECTRICAL AND MECHANICAL ENGINEERS	
HS/A NO 722	
DETAIL NUMBER 1 THRU 13	
CATEGORY A-3-2	
DATE 7-1-74	JOB NO. 722



NOTE
CONTRACTOR TO FIELD CHECK AND VERIFY ALL
EXISTING OPENING DIMENSIONS, SET IN PLACE STUDS
2. DETAILS AS INDICATED TO EXISTING CONSTRUCTION

DOOR SCHEDULE										
NO.	DOOR SIZE	DOOR TYPE	FRAME LABEL	FRAME TYPE	DETAILS		LINTEL	H/DWR GROUP	REMARKS	
					HEAD	JAMB				
01	2'-0" x 7'-0"	WOOD	141	WOOD	16	16 / 16	16	16	16	
02	2'-0" x 7'-0"	WOOD	142	WOOD	16	16 / 16	16	16	16	
03	2'-0" x 7'-0"	WOOD	143	WOOD	16	16 / 16	16	16	16	
04	2'-0" x 7'-0"	WOOD	144	WOOD	16	16 / 16	16	16	16	
05	2'-0" x 7'-0"	WOOD	145	WOOD	16	16 / 16	16	16	16	
06	2'-0" x 7'-0"	WOOD	146	WOOD	16	16 / 16	16	16	16	
07	2'-0" x 7'-0"	WOOD	147	WOOD	16	16 / 16	16	16	16	
08	2'-0" x 7'-0"	WOOD	148	WOOD	16	16 / 16	16	16	16	
09	2'-0" x 7'-0"	WOOD	149	WOOD	16	16 / 16	16	16	16	
10	VOID									
11	2'-0" x 7'-0"	WOOD	150	WOOD	16	16 / 16	16	16	16	
12	2'-0" x 7'-0"	WOOD	151	WOOD	16	16 / 16	16	16	16	
13	EXISTING DOOR									
14	VOID									
15	2'-0" x 7'-0"	WOOD	152	WOOD	16	16 / 16	16	16	16	
16	2'-0" x 7'-0"	WOOD	153	WOOD	16	16 / 16	16	16	16	
17	2'-0" x 7'-0"	WOOD	154	WOOD	16	16 / 16	16	16	16	
18	2'-0" x 7'-0"	WOOD	155	WOOD	16	16 / 16	16	16	16	
19	2'-0" x 7'-0"	WOOD	156	WOOD	16	16 / 16	16	16	16	
20	2'-0" x 7'-0"	WOOD	157	WOOD	16	16 / 16	16	16	16	
21	2'-0" x 7'-0"	WOOD	158	WOOD	16	16 / 16	16	16	16	
22	2'-0" x 7'-0"	WOOD	159	WOOD	16	16 / 16	16	16	16	
23	2'-0" x 7'-0"	WOOD	160	WOOD	16	16 / 16	16	16	16	
24	2'-0" x 7'-0"	WOOD	161	WOOD	16	16 / 16	16	16	16	
25	2'-0" x 7'-0"	WOOD	162	WOOD	16	16 / 16	16	16	16	
26	2'-0" x 7'-0"	WOOD	163	WOOD	16	16 / 16	16	16	16	
27	2'-0" x 7'-0"	WOOD	164	WOOD	16	16 / 16	16	16	16	
28	2'-0" x 7'-0"	WOOD	165	WOOD	16	16 / 16	16	16	16	
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32	2'-0" x 7'-0"	WOOD	169	WOOD	16	16 / 16	16	16	16	
33	2'-0" x 7'-0"	WOOD	170	WOOD	16	16 / 16	16	16	16	
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35	2'-0" x 7'-0"	WOOD	172	WOOD	16	16 / 16	16	16	16	
36	2'-0" x 7'-0"	WOOD	173	WOOD	16	16 / 16	16	16	16	
37	2'-0" x 7'-0"	WOOD	174	WOOD	16	16 / 16	16	16	16	
38	2'-0" x 7'-0"	WOOD	175	WOOD	16	16 / 16	16	16	16	
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52	2'-0" x 7'-0"	WOOD	189	WOOD	16	16 / 16	16	16	16	
53	2'-0" x 7'-0"	WOOD	190	WOOD	16	16 / 16	16	16	16	
54	2'-0" x 7'-0"	WOOD	191	WOOD	16	16 / 16	16	16	16	
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77	2'-0" x 7'-0"	WOOD	214	WOOD	16	16 / 16	16	16	16	
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79	2'-0" x 7'-0"	WOOD	216	WOOD	16	16 / 16	16	16	16	
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81	2'-0" x 7'-0"	WOOD	218	WOOD	16	16 / 16	16	16	16	
82	2'-0" x 7'-0"	WOOD	219	WOOD	16	16 / 16	16	16	16	
83	2'-0" x 7'-0"	WOOD	220	WOOD	16	16 / 16	16	16	16	
84	2'-0" x 7'-0"	WOOD	221	WOOD	16	16 / 16	16	16	16	
85	2'-0" x 7'-0"	WOOD	222	WOOD	16	16 / 16	16	16	16	
86	2'-0" x 7'-0"	WOOD	223	WOOD	16	16 / 16	16	16	16	
87	2'-0" x 7'-0"	WOOD	224	WOOD	16	16 / 16	16	16	16	
88	2'-0" x 7'-0"	WOOD	225	WOOD	16	16 / 16	16	16	16	
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90	2'-0" x 7'-0"	WOOD	227	WOOD	16	16 / 16	16	16	16	
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93	2'-0" x 7'-0"	WOOD	230	WOOD	16	16 / 16	16	16	16	
94	2'-0" x 7'-0"	WOOD	231	WOOD	16	16 / 16	16	16	16	
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96	2'-0" x 7'-0"	WOOD	233	WOOD	16	16 / 16	16	16	16	
97	2'-0" x 7'-0"	WOOD	234	WOOD	16	16 / 16	16	16	16	
98	2'-0" x 7'-0"	WOOD	235	WOOD	16	16 / 16	16	16	16	
99	2'-0" x 7'-0"	WOOD	236	WOOD	16	16 / 16	16	16	16	
100	2'-0" x 7'-0"	WOOD	237	WOOD	16	16 / 16	16	16	16	

DOOR SCHEDULE										
NO.	DOOR SIZE	DOOR TYPE	LABEL	FRAME TYPE	DETAILS		LINTEL	H/DWR GROUP	REMARKS	
					HEAD	JAMB				
PHYS. FLOOR										
101	2'-0" x 7'-0"	WOOD	141	WOOD	16	16 / 16	16	16	16	DELETE LOCKSET SEE DET 15/A41
102	2'-0" x 7'-0"	WOOD	142	WOOD	16	16 / 16	16	16	16	
103	2'-0" x 7'-0"	WOOD	143	WOOD	16	16 / 16	16	16	16	
104	2'-0" x 7'-0"	WOOD	144	WOOD	16	16 / 16	16	16	16	
105	2'-0" x 7'-0"	WOOD	145	WOOD	16	16 / 16	16	16	16	
106	2'-0" x 7'-0"	WOOD	146	WOOD	16	16 / 16	16	16	16	
107	2'-0" x 7'-0"	WOOD	147	WOOD	16	16 / 16	16	16	16	
108	2'-0" x 7'-0"	WOOD	148	WOOD	16	16 / 16	16	16	16	
109	2'-0" x 7'-0"	WOOD	149	WOOD	16	16 / 16	16	16	16	
110	2'-0" x 7'-0"	WOOD	150	WOOD	16	16 / 16	16	16	16	
111	2'-0" x 7'-0"	WOOD	151	WOOD	16	16 / 16	16	16	16	
112	2'-0" x 7'-0"	WOOD	152	WOOD	16	16 / 16	16	16	16	
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237	2'-0" x 7'-0"	WOOD	277	WOOD	16	16 / 16	16	16	16	
238	2'-0" x 7'-0"</									



REVISIONS

ARCHITECTS/ENGINEERS/PLANNERS
ST. LOUIS, MISSOURI 63105/314-862-6363

HOFFMANN/SAUR AND ASSOCIATES, INC.
7777 BONHOMME AVENUE/SUITE 2000
ST. LOUIS, MISSOURI 63105/314-862-6363

OLD CHEMISTRY BUILDING RENOVATION
UNIVERSITY OF MISSOURI - COLUMBIA
COLUMBIA, MISSOURI
JACK A. SONTAG, CONSULTING ENGINEERS, STRUCTURAL ENGINEER
BANASHEK AND ASSOCIATES, ELECTRICAL AND MECHANICAL ENGINEERS

DETAIL NUMBER

CATEGORY
A-4-2

DATE
7-1-74











































JOB NO.
722

RC 020 EHP1 74 01




















ABBREVIATIONS

C.C.	ELECTRICAL CONTRACTOR
E.C.	GENERAL CONTRACTOR
H.A.C.	HEATING & AIR CONDITIONING CONTRACTOR
P.C.	PLUMBING CONTRACTOR
A.P.	ACCESS PANEL
H.L.	HANGER LENGTH
M.L.	INSULATING HEIGHT
W.K.	WATERPROOF









ELECTRICAL LEGEND

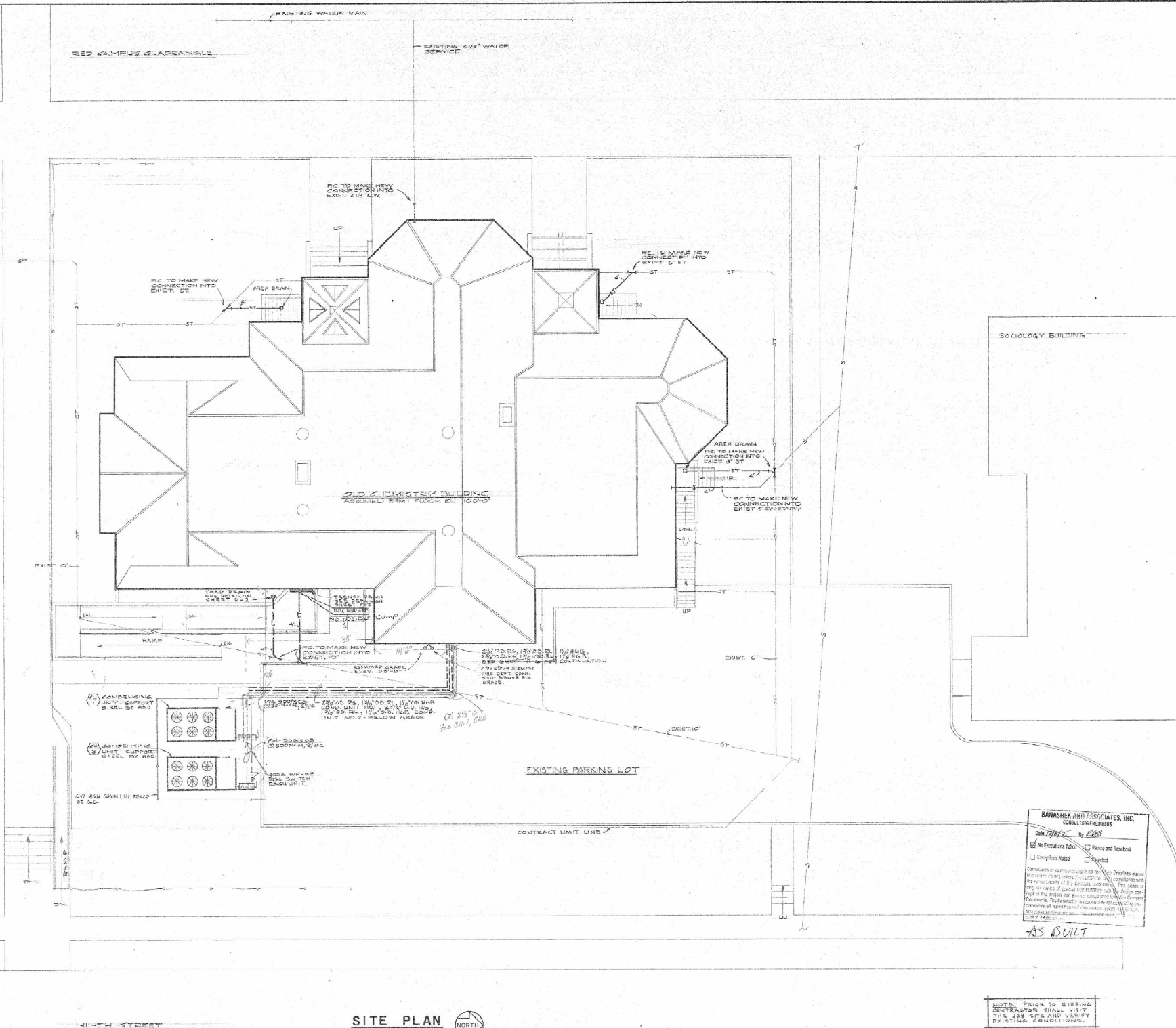
	LIGHTING FIXTURES (SEE FIXTURE SCHEDULE)
	SWITCHES—TOGGLE, 2-POLE
	SWITCHES—TOGGLE, 3-WAY WITH PILOT LIGHT
	DUPLEX RECEPTACLE
	TELEPHONE OUTLET
	FLOOR DRAIN (W/LET/LET AS INDICATED)
	SPECIAL OUTLET: VOLT, PHASE, & USE AS NOTED
	OUTLINE: VOLT, PHASE, & HOREPOWER AS NOTED
	BACCHOMETER: DRIVELY, PULSED, NON-PULSED
	STARTERS: MAGNETIC, MANUAL
	ELECTRIC PANELBOARD (SEE PANEL SCHEDULE)
	UNIFORM: CODED AS IN BOXES, WALL, & IN PLACES
	HONE ROOM: STAIRS INDICATE NUMBER OF STAIRS
	STAIRS: STAIRS INDICATE NUMBER OF STAIRS
	HONE ROOM: STAIRS INDICATE NUMBER OF STAIRS
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	HONE ROOM: STAIRS INDICATE NUMBER OF STAIRS

PLUMBING LEGEND

	COLD WATER (C.W.)
	HOT WATER (H.W.)
	HOT WATER RETURN (H.W.R.)
	SANITARY SEWER DRAIN
	STORM SEWER DRAIN
	PLUMBING VENT
	BURST-OFF VALVE (SEE SPEC. FOR TYPE)
	CLEAN OUT
	INVERT
	CAST IRON
	V.C.R. VENTILATED CLAY PIPE
	S. VENT
	W. VENT
	R. VENT
	V.T.P. VENT THROUGH ROOF AND FLASHING
	P.D. FLOOR DRAIN
	A.P. ACCESS PANEL
	R.D. ROOF DRAIN
	D.S. DOWN SPOUT

HAC LEGEND

	THERMOSTAT
	FLEXIBLE CONNECTION (DUCT)
	SPLITTER VALVE (VALVE)
	VOLUME DAMPER: MANUAL, DAMPED, AUTOMATED (160)
	FIRE DAMPER
	BURST-OFF VALVE (SEE SPEC. FOR TYPE)
	RETURN/EXPANSION OUTSIDE AIR DUCT
	REGULATOR: MANUAL, DAMPED, AUTOMATED (



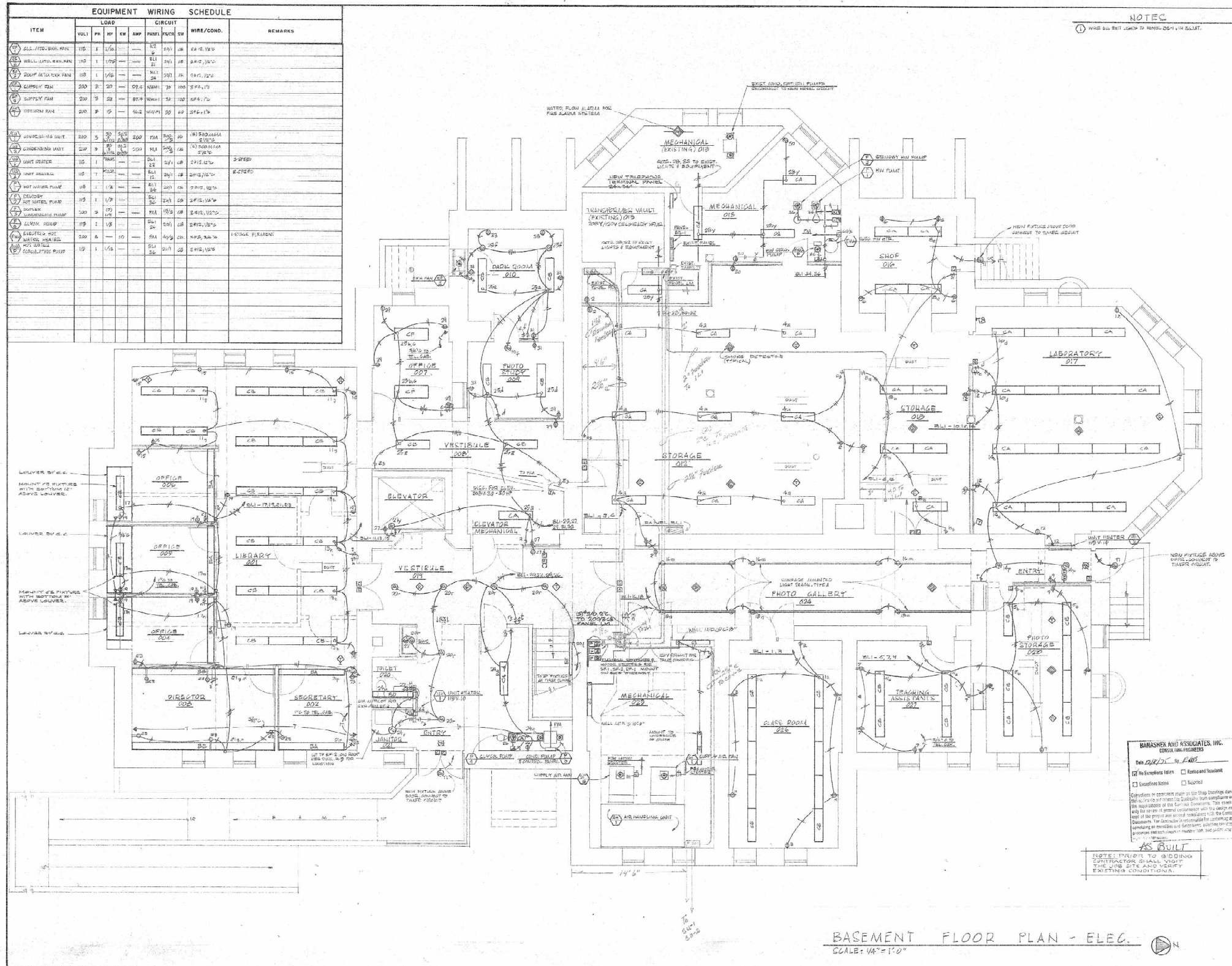
NOTE: PRIOR TO SHIPPING
CONTRACTOR SHALL VISIT
THE JOB SITE AND VERIFY
EXISTING CONDITIONS.

[illegible]

SITE PLAN
SCALE 1/8" = 1'-0" 

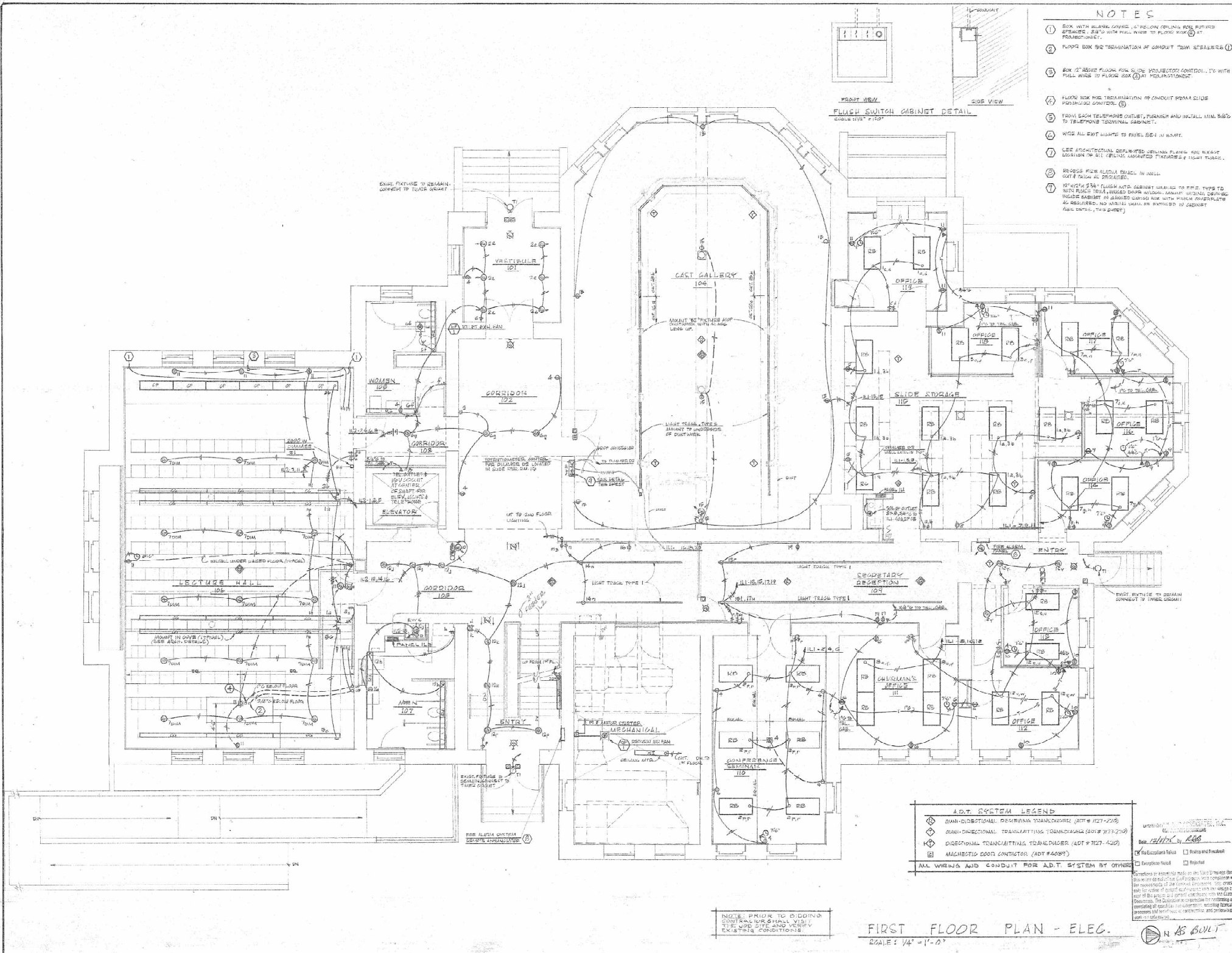
HS/A HOFFMANN/SAUR AND ASSOCIATES, INC. 7777 BORNHORME AVENUE/SUITE 2000		ARCHITECTS/ENGINEERS/PLANNERS ST LOUIS, MISSOURI 63106/314-692-2353	
OLD CHEMISTRY BUILDING RENOVATION UNIVERSITY OF MISSOURI - COLUMBIA			
COLUMBIA, MISSOURI JACK A. SONTAG, CONSULTING ENGINEERS, STRUCTURAL ENGINEER		HS/A NO 722 BANJASHEK AND ASSOCIATES, ELECTRICAL AND MECHANICAL ENGINEERS	
DETAIL NUMBER			
CATEGORY			
EHP-1			
DATE 7-1-74		JOB NO 722	

RC 020 E02 74 01




BASEMENT FLOOR PLAN - ELEC.
SCALE: 1/4" = 1'-0"

RC 020 E03 74 01

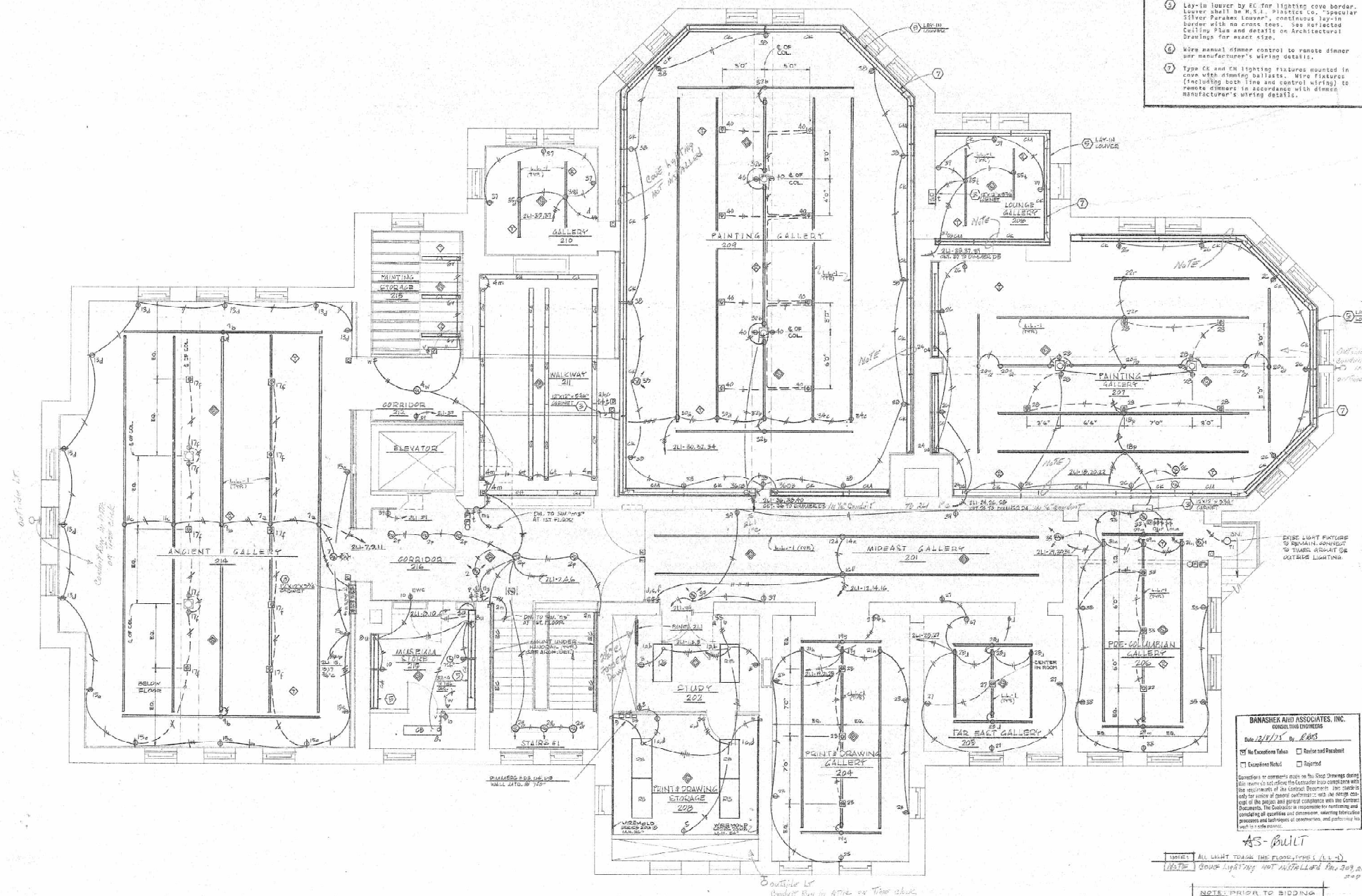


FIRST FLOOR PLAN - ELEC.

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


 N AS BUILT

REVISIONS	
(1) 0-7-74:	A-CORR Floor OUTSIDE
HS/A	ARCHITECTS/ENGINEERS/PLANNERS
HOFFMANN/SALUR AND ASSOCIATES, INC.	ST LOUIS MISSOURI 63105/314-589-9383
7777 BONGHOMME AVENUE/SUITE 2000	
OLD CHEMISTRY BUILDING RENOVATION UNIVERSITY OF MISSOURI - COLUMBIA	
COLUMBIA, MISSOURI	HS/A NO 722
CONSULTING ENGINEERS	RANASHEK AND ASSOCIATES ELECTRICAL AND MECHANICAL ENGINEERS
STRUCTURAL ENGINEER	
DETAIL NUMBER	
E-3	
DATE	JOB NO



- NOTES**
- See Architectural Reflected Ceiling Plan for exact location of all ceiling mounted lighting fixtures and light tracks.
 - Wire all exit lights to Panel DEJ in Basement, 2912, 1/2" C.
 - Mount dimmer remote control and switches in well recessed cabinet. See DWG. E-3 for details.
 - See Reflected Ceiling Plan on Architectural Drawings for exact length of light tracks.
 - Lay-in louver by EC for lighting cove border. Louver shall be M.S.I., Plastics Co., "Specular Silver Parakee Louver", continuous lay-in border with no cross tees. See Reflected Ceiling Plan and details on Architectural Drawings for exact size.
 - Wire manual dimmer control to remote dimmer per manufacturer's wiring details.
 - Type CK and CM lighting fixtures mounted in cove with dimming ballasts. Wire fixtures (including both line and control wiring) to remote dimmers in accordance with dimmer manufacturer's wiring details.

BANASHEK AND ASSOCIATES, INC.
CONSULTING ENGINEERS
Date: 12/17/74 By: EAB
☒ No Exceptions Taken ☐ Revisions and Resubmit
☐ Exceptions Noted ☐ Rejected
Corrections or comments must be on this Shop Drawings during the review process. The Consultant shall coordinate with the requirements of the Contract Documents. The Consultant is responsible for reviewing and coordinating all quantities and dimensions, including technical drawings and specifications of construction, and performing the work in a safe manner.

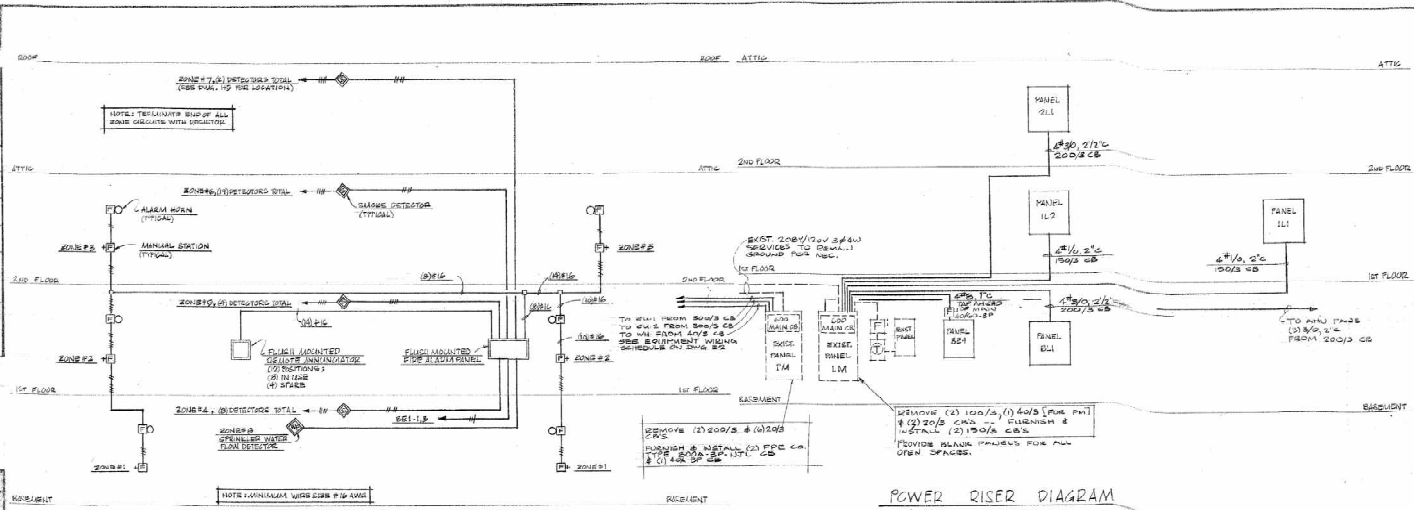
AS-BUILT

NOTE: ALL LIGHT TRACKS (TYPE L, L.L., L.L.)
NOTE: BOUNDARY LIGHTING NOT INSTALLED IN 203 AND 204

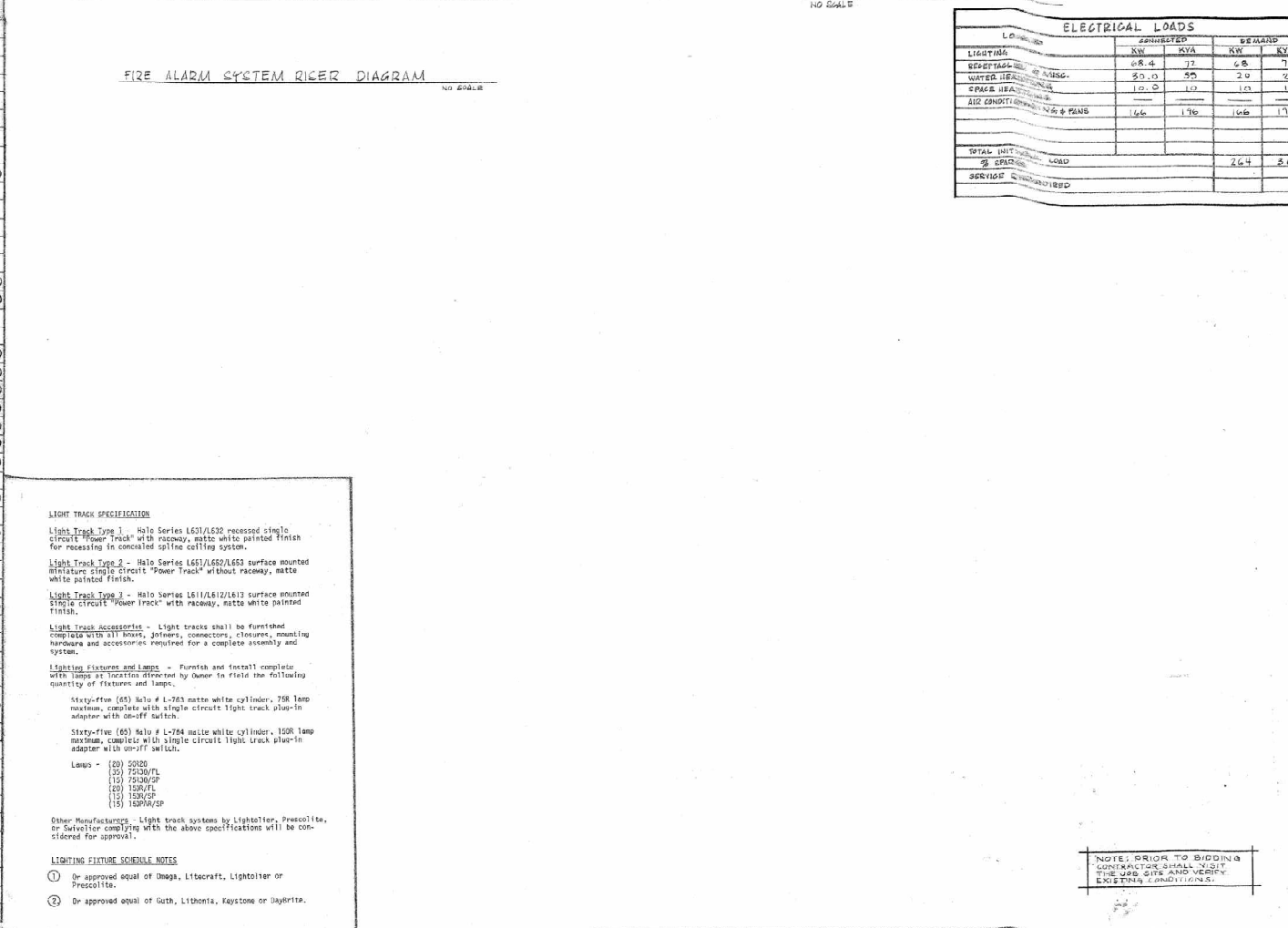
NOTE: PRIOR TO BIDDING
CONTRACTOR SHALL VISIT
THE BUILDING SITE AND VERIFY
EXISTING CONDITIONS.

SECOND FLOOR PLAN - ELEC.
SCALE: 1/4" = 1'-0"

REVISIONS 1. 12-17-74 2. 12-17-74	
ARCHITECTS/ENGINEERS/PLANNERS HOFFMANN/SALUR AND ASSOCIATES, INC. 7777 BONHOMME AVENUE/SUITE 8000 ST. LOUIS, MISSOURI 63105/314-882-6993	
ENGINEER BANASHEK AND ASSOCIATES, ELECTRICAL AND MECHANICAL ENGINEERS JACK A. SONTAG, CONSULTING ENGINEER COLUMBIA, MISSOURI HS/A NO 722	
DETAIL NUMBER E-4	
CATEGORY E-4	JOB NO. 722
DATE 7-1-74	JOB NO. 722

[illegible]

FIRE ALARM SYSTEM RISER DIAGRAM



ELECTRICAL LOADS				
LOADS	CONSTRUCTED		DEMAND	
	KW	KVA	KW	KVA
LIGHTING				
RECEPTACLES & MISG.	68.4	73	68	72
WATER HEATERS	23.0	25	23	25
SPACE HEAT.	10.0	10	10	10
AIR CONDIT. EQUIP.				
ELEVATORS, PUMPS & FANS	1.6	1.76	1.6	1.76
TOTAL INSTALLED LOAD @ 80% DIVERSITY			264	301
SERVICE REQUIREMENT				

HS/A HOFFMANN/SALUR AND ASSOCIATES, INC. 7777 BONHOMME AVENUE/SUITE 2000 ST. LOUIS, MISSOURI 63105/314-888-8323		ARCHITECTS/ENGINEERS/PLANNERS	
OLD CHEMISTRY BUILDING RENOVATION UNIVERSITY OF MISSOURI - COLUMBIA COLUMBIA, MISSOURI JACK A. SORTAG, CONSULTING ENGINEER		HS/A NO 722 BANASHEK AND ASSOCIATES, ELECTRICAL AND MECHANICAL ENGINEERS	
DETAIL NUMBER			
CATEGORY			
E-5			
DATE 7-1-74		JOB NO 732	

The image is a detailed basement floor plan of a building. The plan shows various rooms including a Library (001), several Offices (002-006), a Director's office (003), a Secretary's office (002), a Janitor's room (021), a Toilet (020), a Vestibule (008, 019), a Dark Room (010), a Photo Studio (009), a Photo Gallery (024), a Photo Storage room (028), a Class Room (026), a Teachers Assistant room (027), a Laboratory (017), a Storage room (012), a Mechanical room (013), a Transformer room (014), a Pump Room (023), and a Janitor's room (021). The plan also shows a ramp, a yard drain, and a trench drain detail. Numerous mechanical details are shown, including pipes, valves, and electrical conduits. The plan is labeled with room numbers and names, and includes a legend and general notes.

GENERAL NOTES:

1. SEE SITE PLAN FOR CONTINUATION
2. SEE SITE PLAN FOR CONTINUATION
3. SEE SITE PLAN FOR CONTINUATION
4. SEE SITE PLAN FOR CONTINUATION
5. SEE SITE PLAN FOR CONTINUATION

LEGEND:

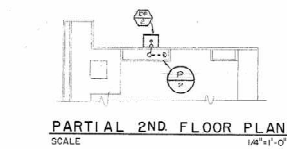
- UPRIGHT HEAD
- PENDANT HEAD

BASEMENT FLOOR PLAN
SCALE: 1/4" = 1'-0"
ASSUMED FLOOR ELEV: 100'-0"

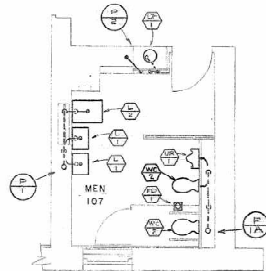
NOTE: PRIOR TO BIDDING CONTRACTOR SHALL VISIT THE WORK SITE AND VERIFY EXISTING CONDITIONS.

HS/A HOFFMANN/SAUR AND ASSOCIATES, INC. 7777 BONHOMME AVENUE/SUITE 2000 ST. LOUIS, MISSOURI 63095/314-887-6363		ARCHITECTS/ENGINEERS/PLANNERS	
OLD CHEMISTRY BUILDING RENOVATION UNIVERSITY OF MISSOURI - COLUMBIA COLUMBIA, MISSOURI JACK A. SONTAG, CONSULTING ENGINEER		HSA NO 722 BANASHEK AND ASSOCIATES, ELECTRICAL AND MECHANICAL ENGINEERS	
DETAIL NUMBER			
CATEGORY			
P-2			
DATE 1-74		JOB NO	

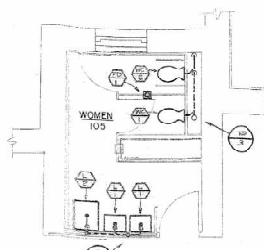
RC 020 P03 74 00



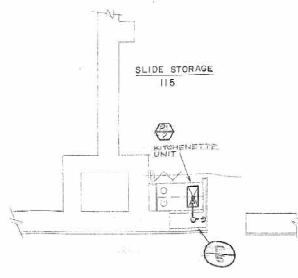
PARTIAL 2ND FLOOR PLAN
SCALE 1/4" = 1'-0"



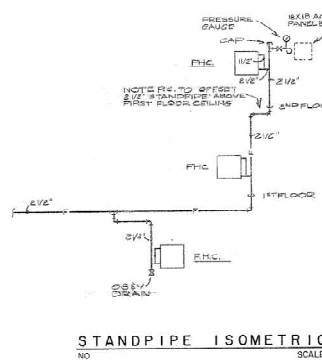
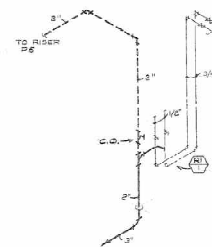
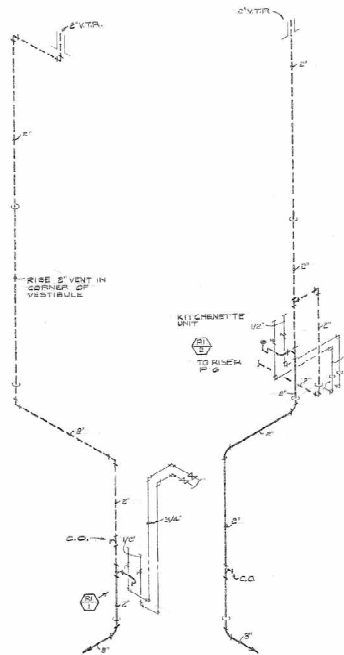
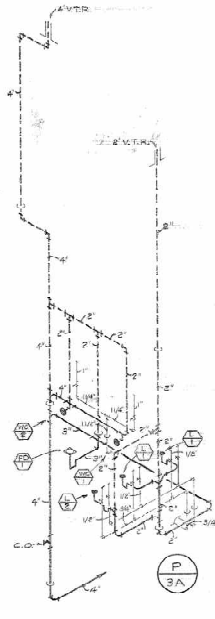
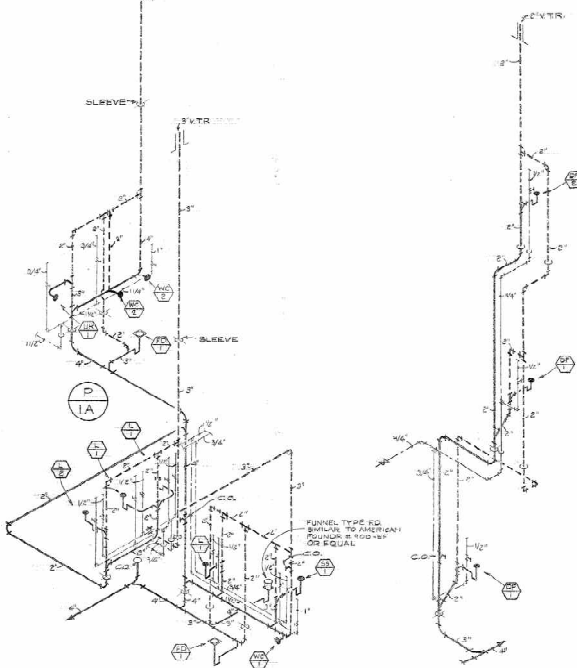
PARTIAL 1ST FLOOR PLAN
MEN 107
SCALE 1/4" = 1'-0"



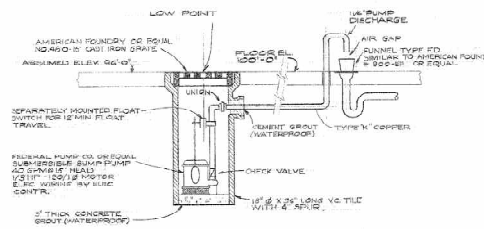
PARTIAL 1ST FLOOR PLAN
WOMEN 105
SCALE 1/4" = 1'-0"



PARTIAL 1ST FLOOR PLAN
SLIDE STORAGE 115
SCALE 1/4" = 1'-0"

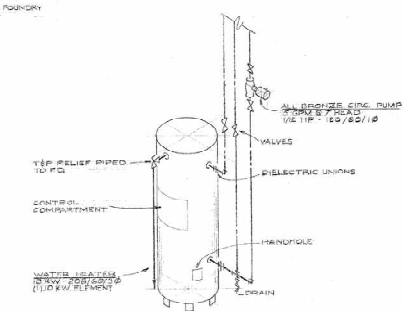


STANDPIPE ISOMETRIC
NO. SCALE



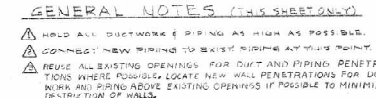
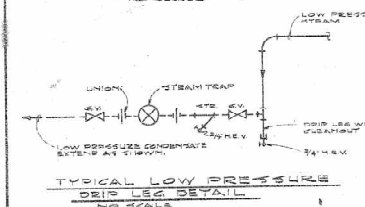
SUMP PUMP & TILE PIT DETAIL
NO. SCALE

NOTE: PRIOR TO BIDDING
CONTRACTOR SHALL VISIT
THE JOB SITE AND VERIFY
EXISTING CONDITIONS.



WATER HEATER DETAIL
NO. SCALE

ARCHITECTS/ENGINEERS/PLANNERS ST LOUIS, MISSOURI 63103/214-888-5383	
HSA HOFFMANN/SALUR AND ASSOCIATES, INC. 7777 BONHOMME AVENUE/SUITE 2000 ST LOUIS, MISSOURI 63103/214-888-5383	
OLD CHEMISTRY BUILDING RENOVATION UNIVERSITY OF MISSOURI - COLUMBIA HS/A NO. 722 COLUMBIA, MISSOURI	
DETAIL NUMBER	
P-3	
DATE 7-1-74	JOB NO. 722



HSA HOFFMANN/SALUR AND ASSOCIATES, INC. ARCHITECTS/ENGINEERS/PLANNERS
7777 BONHOMME AVENUE/SUITE 2000 ST LOUIS, MISSOURI 63105-3550
BOLD CHEMISTRY BUILDING RENOVATION
UNIVERSITY OF MISSOURI - COLUMBIA
COLUMBIA, MISSOURI HSA NO 722

DETAIL NUMBER

CATEGORY

H-2

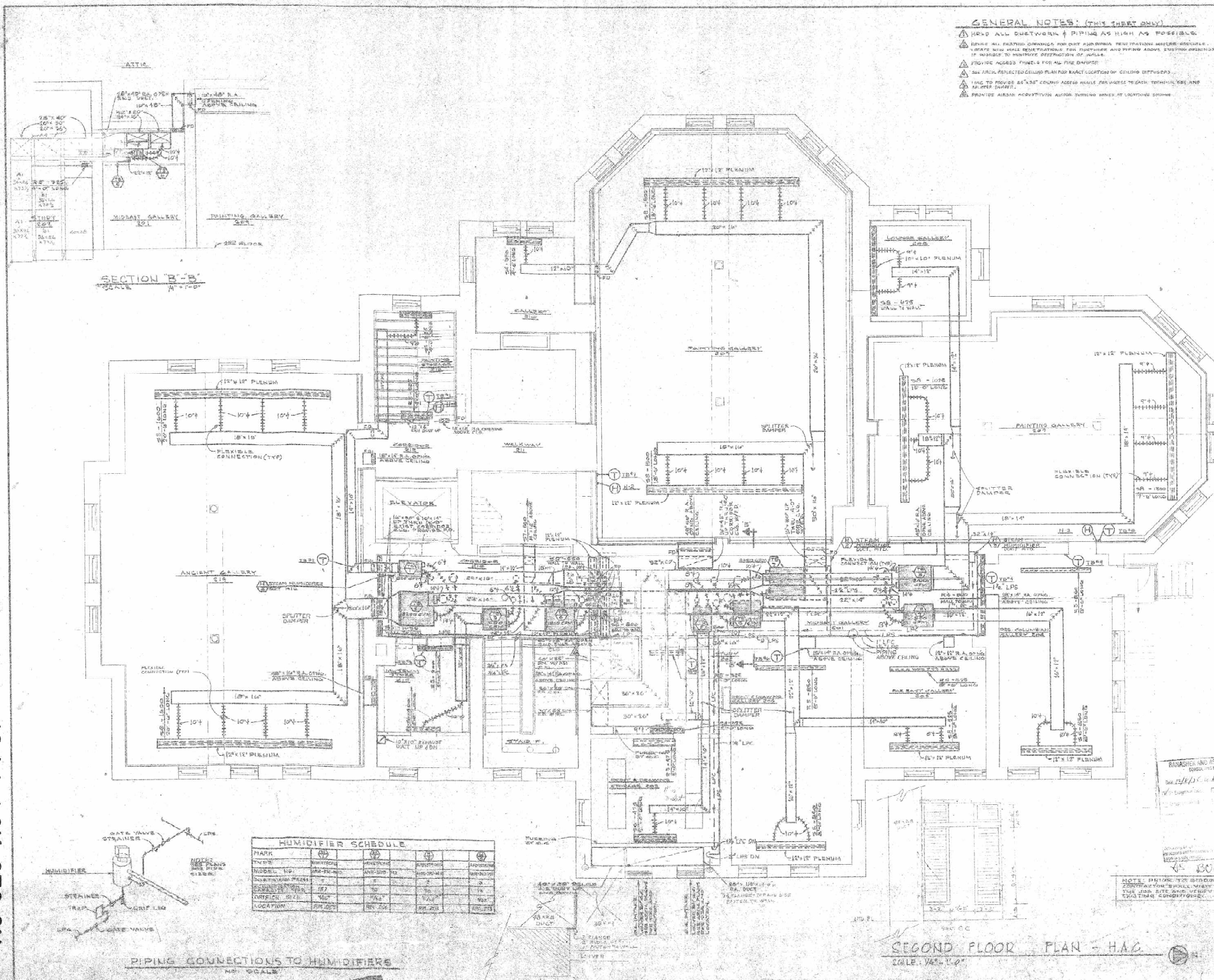
DATE

1974

JAN 22

RC 020 H02 74 01
BASEMENT FLOOR PLAN - H.A.C.
SCALE: 1/8" = 1'-0"

RC 020 H04 74 01



- GENERAL NOTES: (THIS SHEET ONLY)
- ▲ HANG ALL DUCTWORK & PIPING AS HIGH AS POSSIBLE
 - ▲ DRINK ALL EXISTING DRAINAGE FOR DRY CLEANING. RESTORATIONS INCLUDE: WALLS, FLOORS, AND WALL RESTORATIONS FOR FURNITURE AND PIPING ABOVE EXISTING DRAINAGE. IF NECESSARY TO MAINTAIN DRAINAGE OF WALLS.
 - ▲ PROVIDE ACCESS PANELS FOR ALL FIRE DAMPERS
 - ▲ SEE ARCHITECT'S SECTION PLAN FOR EXACT LOCATION OF CEILING DIFFUSERS
 - ▲ HANG TO PROVIDE 6" X 8" CRUSHED ACCESS PANELS FOR ACCESS TO EACH TERMINAL, VEE AND SPLITTER DAMPERS
 - ▲ PROVIDE AIRFLOW INDICATIONS ALONG TURNING POINTS AT LOCATIONS SHOWN

SECTION B-B
SCALE 1/4" = 1'-0"

HUMIDIFIER SCHEDULE				
MARK	TYPE	MANUFACTURER	MODEL NO.	LOCATION
1	WATER	WATER	WATER	WATER
2	WATER	WATER	WATER	WATER
3	WATER	WATER	WATER	WATER
4	WATER	WATER	WATER	WATER
5	WATER	WATER	WATER	WATER
6	WATER	WATER	WATER	WATER
7	WATER	WATER	WATER	WATER
8	WATER	WATER	WATER	WATER
9	WATER	WATER	WATER	WATER
10	WATER	WATER	WATER	WATER
11	WATER	WATER	WATER	WATER
12	WATER	WATER	WATER	WATER
13	WATER	WATER	WATER	WATER
14	WATER	WATER	WATER	WATER
15	WATER	WATER	WATER	WATER
16	WATER	WATER	WATER	WATER
17	WATER	WATER	WATER	WATER
18	WATER	WATER	WATER	WATER
19	WATER	WATER	WATER	WATER
20	WATER	WATER	WATER	WATER
21	WATER	WATER	WATER	WATER
22	WATER	WATER	WATER	WATER
23	WATER	WATER	WATER	WATER
24	WATER	WATER	WATER	WATER
25	WATER	WATER	WATER	WATER
26	WATER	WATER	WATER	WATER
27	WATER	WATER	WATER	WATER
28	WATER	WATER	WATER	WATER
29	WATER	WATER	WATER	WATER
30	WATER	WATER	WATER	WATER
31	WATER	WATER	WATER	WATER
32	WATER	WATER	WATER	WATER
33	WATER	WATER	WATER	WATER
34	WATER	WATER	WATER	WATER
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36	WATER	WATER	WATER	WATER
37	WATER	WATER	WATER	WATER
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39	WATER	WATER	WATER	WATER
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41	WATER	WATER	WATER	WATER
42	WATER	WATER	WATER	WATER
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45	WATER	WATER	WATER	WATER
46	WATER	WATER	WATER	WATER
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82	WATER	WATER	WATER	WATER
83	WATER	WATER	WATER	WATER
84	WATER	WATER	WATER	WATER
85	WATER	WATER	WATER	WATER
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87	WATER	WATER	WATER	WATER
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89	WATER	WATER	WATER	WATER
90	WATER	WATER	WATER	WATER
91	WATER	WATER	WATER	WATER
92	WATER	WATER	WATER	WATER
93	WATER	WATER	WATER	WATER
94	WATER	WATER	WATER	WATER
95	WATER	WATER	WATER	WATER
96	WATER	WATER	WATER	WATER
97	WATER	WATER	WATER	WATER
98	WATER	WATER	WATER	WATER
99	WATER	WATER	WATER	WATER
100	WATER	WATER	WATER	WATER

PIPING CONNECTIONS TO HUMIDIFIERS
SCALE 1/4" = 1'-0"

SECOND FLOOR PLAN - H-4
SCALE 1/4" = 1'-0"

ARCHITECTS/ENGINEERS/PLANNERS
BY LOUIS MISSOURI 8305/374, 830-8303

HS/A HOFFMANN/SALUR AND ASSOCIATES, INC.
7777 BOWLING GREEN AVENUE, SUITE 2000
ST. LOUIS, MISSOURI 63123

OLD CHEMISTRY BUILDING RENOVATION
UNIVERSITY OF MISSOURI - COLUMBIA
COLUMBIA, MISSOURI 65211

HS/A NO. 722
BARASHEK AND ASSOCIATES, ELECTRICAL AND MECHANICAL ENGINEERS
1001 N. SPRING, COLUMBIA, MISSOURI 65201

REVISIONS

DATE 7-7-78

BY 78

78

The image contains three architectural drawings related to a heating system:

- HEATING FLOW DIAGRAM (NO SCALE):** A schematic diagram showing the flow of steam through various components. Key elements include:
 - HEAT EXCHANGER:** Connected to a "TEMPERATURE-SENSITIVE VALVE" and a "THERMOSTAT (TYP.)".
 - STEAM MAINS:** Labeled as "STEAM MAINS (TYP.)".
 - VALVES:** Includes "CHECK VALVE", "THERMOSTATIC VALVE", and "THERMOSTAT (TYP.)".
 - PIPE SIZES:** Various pipe sizes are indicated, such as "1/2\"
- ATTIC:** A plan view of the attic space showing the layout of the heating system. Key features include:
 - STEAM MAINS:** A network of pipes labeled "STEAM MAINS (TYP.)".
 - VALVES:** Numerous valves are marked with 'X' and labeled, including "CHECK VALVE", "THERMOSTATIC VALVE", and "THERMOSTAT (TYP.)".
 - PIPE SIZES:** Pipe sizes are indicated, such as "1/2\"
- STEAM COIL DRIVE DETAILS:** A detailed cross-section of a steam coil drive. It shows the "STEAM COIL" and the "DRIVE" mechanism. Key components include:
 - STEAM MAINS:** Labeled as "STEAM MAINS (TYP.)".
 - VALVES:** Includes "CHECK VALVE", "THERMOSTATIC VALVE", and "THERMOSTAT (TYP.)".
 - PIPE SIZES:** Pipe sizes are indicated, such as "1/2\"

SCALE: $\frac{1}{4}" = 1' - 0$

7-14-78

[illegible][illegible]

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Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains.

JACK A. SONTAG, CONSULTING ENGINEER - STRUCTURAL ENGINEER
 COLUMBIA, MISSOURI
 113/A NE 12
 - RAUASER AND ASSOCIATES, ELECTRICAL AND MECHANICAL ENGINEERS

DATE 7-11-74

Keywords: child sexual abuse; disclosure; self-blame

TECHNICAL SPECIFICATIONS –

ASBESTOS-CONTAINING MATERIALS REMOVAL AND DISPOSAL

UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL

For

**UNIVERSITY OF MISSOURI
PROJECT CP242862
PICKARD HALL – SELECTIVE DEMOLITION AND RAD
CHARACTERIZATION**

Prepared for

**UNIVERSITY OF MISSOURI
Campus Facilities
Columbia, Missouri 65211**

Prepared by
**UNIVERSITY OF MISSOURI
ENVIRONMENTAL HEALTH & SAFETY**

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Table of Contents

PART 1 – GENERAL	1
1.1 SCOPE OF WORK COVERED BY CONTRACT DOCUMENTS.....	2
1.1.1 ASBESTOS-CONTAINING MATERIALS REMOVAL AND DISPOSAL.....	2
1.1.2 UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL	3
1.2 DEFINITIONS.....	6
1.2.1 ASBESTOS ABATEMENT	6
1.2.2 UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL	9
1.3 CODES AND REGULATIONS	11
1.3.1 ASBESTOS ABATEMENT	11
1.3.2 UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL	12
1.4 NOTIFICATIONS (ASBESTOS ABATEMENT ONLY)	13
1.5 SUBMITTALS.....	14
1.5.1 ASBESTOS ABATEMENT	14
1.5.1.1 Friable ACM Abatement Operations.....	14
1.5.1.2 Non-Friable ACM Abatement Operations	15
1.5.1.3 Post-Abatement	15
1.5.2 UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL	16
1.5.2.1 Pre-Removal	16
1.5.2.2 Post-Removal	16
PART 2 – PRODUCTS	16
2.1 MATERIALS.....	16
2.2 TOOLS AND EQUIPMENT	17
PART 3 – EXECUTION	18
3.1 SUPERVISION.....	18
3.1.1 ASBESTOS ABATEMENT	18
3.1.2 UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL	18
3.2 NEGATIVE INITIAL EXPOSURE ASSESSMENT (ASBESTOS ABATEMENT ONLY)	19
3.3 WORKER PROTECTION & TRAINING	19
3.3.1 ASBESTOS ABATEMENT	19
3.3.2 UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL	19
3.4 INDEPENDENT TESTING LABORATORY (ASBESTOS ABATEMENT ONLY)	20
3.4.1 ASBESTOS BULK SAMPLE ANALYTICAL METHODS.....	20
3.4.1.1 Friable Materials:	20

3.4.1.2	Non-Friable (caulking):.....	20
3.4.1.3	Non-Friable (mastics, adhesives):.....	21
3.4.1.4	Non-Friable (vinyl floor tile):	21
3.4.2	ASBESTOS AIR MONITORING ANALYTICAL METHODS.....	21
3.4.2.1	PCM – Air:	21
3.4.2.2	PCM – Air That Fails:.....	21
3.5	OWNER'S REMEDIATION PROFESSIONAL	21
3.5.1	ASBESTOS ABATEMENT	21
3.5.2	UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL	21
3.6	SEPARATION OF WORK AREAS FROM NON-WORK AREAS	22
3.7	EMERGENCY PROTECTION PLAN.....	22
3.8	LOCAL AREA PROTECTION & SITE SECURITY	22
3.9	FINAL CLEARANCE REQUIREMENTS (FRIABLE ASBESTOS ABATEMENT ONLY).....	23
3.10	REESTABLISHMENT OF THE WORK AREA AND SYSTEMS	24
3.10.1	ASBESTOS ABATEMENT	24
3.10.2	UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL	24
3.11	WASTE DISPOSAL.....	24
3.11.1	ASBESTOS.....	24
3.11.2	UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS	24
3.12	DRAWINGS	25
3.13	REPORTS.....	25

PART 1 – GENERAL

Provisions of the General Conditions and Special Conditions are part of this Division.

The Contractor shall inform him/herself of the conditions for the project and is responsible for verifying the quantities and locations of all work to be performed as outlined in this technical specification. Failure to do so shall not relieve the Contractor of his obligation to furnish all materials and labor necessary to carry out the provisions of the Contract.

Contractor shall assume full responsibility and liability for compliance with all codes, ordinances, rules, regulations, orders and other legal requirements of Federal, State, and Local public authorities including, but not limited to, the U.S. Environmental Protection Agency (EPA), Occupational Health and Safety Administration (OSHA), and the Missouri Department of Natural Resources (MDNR), which bear on performance work. Where conflicts occur between these specifications and/or the above-mentioned regulatory agencies, the more stringent shall govern. The Contractor shall hold the Owner and Owner's air monitoring firm harmless for failure to comply with any applicable work, hauling, safety, health, or other regulations on the part of the Contractor, Contractor's employees, or Contractor's subcontractors.

Contractor affirms and shall be solely responsible for ensuring all personnel involved in asbestos abatement and/or universal waste/hazardous building material removal operations are adequately trained, appropriately certified, and qualified for the duties and responsibilities they are conducting. Further, any personnel required to don a respirator shall be medically cleared by a physician to wear such respirator, must be participating in a medical monitoring program, and have a current, acceptable respirator fit test. Contractor further affirms that all certifications, training, qualifications, fit testing results, physician's clearance statement, etc., shall be provided upon demand to the Owner's Abatement Representative.

If the Contractor observes that any of the Contract Documents are at variance therewith in any respect, he shall promptly notify the Owner in writing, and any necessary changes shall be accomplished by appropriate modification. It is not the Contractor's responsibility to make certain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, building codes, rules or regulations. If the Contractor performs any work knowing it to be contrary to such laws, statutes, ordinances, building codes, rules or regulations, and without such notice to the Owner, he shall assume full responsibility therefore and shall bear all costs attributable thereto.

The use of the best available technology, procedures, and methods for preparation, execution, cleanup, disposal, and safety are absolutely required. This compliance is the sole responsibility of the Contractor.

Contractor will confine operations at the site to the areas permitted under the Contract. Portions of the site beyond areas on which work is indicated are not to be disturbed.

Contractor shall assume full responsibility for protection and safekeeping of products stored on premises.

Contractor shall move any stored products which interfere with operations of Owner or other contractors.

SECTION 02 0813 ASBESTOS-CONTAINING MATERIALS REMOVAL AND DISPOSAL &
UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL

Contractor shall utilize only those areas designated by the Owner for the storage of equipment and the placement of dumpsters/transport containers.

Contractor shall take all precautions necessary to ensure there is no asbestos containing materials or universal waste/hazardous building material contamination to those areas not included in work area. Should areas outside the work area become contaminated with hazardous wastes, the Contractor shall immediately clean them utilizing the wet cleaning and HEPA vacuum methods specified herein. The Contractor is responsible for the proper cleanup of all items in the work areas to maintain a clean and safe environment.

Owner reserves the right to unrestricted access of the work area by qualified and trained individuals, as designated by the Owner, for the purposes of monitoring, evaluating, or otherwise inspecting the condition of the work area and/or progress of work being performed by Contractor. No access shall be granted to untrained personnel and the Contractor shall ensure site security to prevent unauthorized access by untrained personnel.

1.1 SCOPE OF WORK COVERED BY CONTRACT DOCUMENTS

1.1.1 ASBESTOS-CONTAINING MATERIALS REMOVAL AND DISPOSAL

The work specified herein shall be the abatement of asbestos containing materials (ACM) by certified and registered persons who are knowledgeable, qualified and trained in the abatement, handling, and disposal of ACM, and subsequent cleaning of the affected environment.

The Contractor shall furnish all labor, material, equipment, testing, services, permits, insurance, notifications, necessary or required to perform the work for the abatement of ACM and for other work as specified in this section or as indicated in associated drawings, sketches, or reports of the work.

All fees required for notification requirements, renotifications, and/or inspections by the regulatory agencies shall be paid by the Contractor. Bulk sample analysis information required by the Missouri Department of Natural Resources (MDNR), U.S. Environmental Protection Agency (EPA), or local authority having jurisdiction in conjunction with the notification shall also be provided by the Contractor unless provided within this section.

Based upon a survey conducted by MU EHS, the work shall include the removal and legal disposal of:

Non-friable asbestos:

The Contractor shall remove and legally dispose of:

One hundred forty (140) square feet of ACM flooring system, consisting of floor tile, adhesive black mastic, and potentially, floor leveler

Seventy five (75) square feet of ACM flooring, consisting of floor tile, adhesive black mastic, and potentially, floor leveler, under existing walls, which could become exposed if walls are demolished

Five (5) square feet of hard, white ACM caulk

Seven (7) fire-rated doors

1.1.2 UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL

The Contractor shall be responsible for the coordination of the universal waste/hazardous building materials removal for this project with the Owner's Abatement Representative. The Contractor shall coordinate with the Owner's Abatement Representative, all other on-site contractors, and all subcontractors working under separate contracts so as to facilitate the general progress of the work. Each trade shall afford all trades every reasonable opportunity for the installation/completion of their work.

For all universal waste/hazardous building materials designated for removal, the default process will be that the Owner shall provide appropriate containers, the Contractor shall remove and place materials in their respective containers, and the Owner shall arrange for proper disposal of all containerized universal waste/hazardous building materials. Any deviations from this process need to be identified and agreed upon between the Owner and Contractor prior to implementation.

Based upon a survey conducted by MU EHS, the work shall include the removal of the following types and quantities of universal waste/hazardous building materials:

Hazardous Building Materials

- **Polychlorinated Biphenyls (PCBs)**

Twenty nine (29) door closers

Two hundred ninety (290) ballasts from fluorescent light fixtures

- **Radioactive Sources**

Thirty two (32) smoke detectors

Fifteen (15) exit signs

PLEASE NOTE

Please see document regarding radioactive concerns from Chase Environmental

Universal Waste

- **Mercury-Containing Equipment**

Not applicable

- **Mercury-Containing Lamps**

Seven hundred sixty (760) four foot fluorescent light bulbs

One hundred thirty (130) CFL bulbs

- **Batteries (non-alkaline)**

Eight (8) emergency fire lights

Thirty five (35) emergency strobe lights

Reclaimable/Recyclable Materials

Three (3) drinking fountains

One (1) built-in refrigerator, from kitchenette

Gutters, downspouts, ridge caps, and fleur-de-lis lightning rod are copper and should be recycled

Building Materials Painted with Regulated Heavy Metals

Twenty three thousand forty (23,040) square feet of lead-based painted gypsum panel walls

These materials shall be disposed with Construction/Demolition debris in an approved waste disposal site authorized by the appropriate designated regulatory agency for the state in which the site is located.

CONTRACTOR OPERATIONS

The Contractor is responsible for contacting EHS at least three (3) business days prior to beginning the project for training procedures related to universal waste/hazardous building materials removal, handling, and collection of these materials. Any light fixtures, housings, etc., containing Universal Wastes/Hazardous Building Materials shall also be included in collection efforts for disposal by EHS. This does not include refrigerant or CFC/HCFC-containing equipment, which are being recovered by the Contractor.

- **Materials With RCRA-Metals Paint (Intact)**

It is anticipated that demolition debris with regulated paint that is intact (not peeling/chipping/flaking) will be removed as part of the demolition process and will be hauled away and disposed by the Contractor at an approved waste disposal site authorized by the appropriate designated regulatory agency for the state in which the site is located to accept construction and demolition waste.

- **Fluorescent Light Tubes**

Fluorescent light tubes may contain small amounts of mercury. This can potentially be harmful to human health and the environment. If fluorescent light tubes are part of the scope of the project, they shall be managed by the default process set out in Section 1.1.2. Care shall be taken by the Contractor to minimize breakage during removal and placement into containers.

- **Polychlorinated Biphenyls (PCBs)**

PCBs are a known carcinogenic material. Their use was discontinued January 1, 1979. It shall be assumed that light ballasts contain PCBs unless they are labeled as "PCB-free" by the

manufacturer. If light ballasts are part of the scope of the project, they shall be managed by the default process set out in Section 1.1.2. The Contractor shall segregate and containerize PCB ballasts separate from non-PCB ballasts. PCB and non-PCB ballasts shall be properly disposed by EHS.

- **Smoke Detectors**

Ionization-type smoke detectors may contain a small amount of radioactive material. If smoke detectors are part of the scope of the project, they shall be managed by the default process set out in Section 1.1.2 and will be properly disposed by EHS.

- **Fire Alarm Strobe Lights**

Fire alarm strobe lights are typically not considered a universal or hazardous waste. If fire alarm strobe lights are part of the scope of the project, they shall be managed by the default process set out in Section 1.1.2. EHS will dispose of the strobe lights as E-waste.

- **Exit Signs and Emergency Lights**

These items typically have backup batteries that may contain small amounts of heavy metals. Certain exit signs are powered by a small amount of radioactive material. If exit signs and/or emergency lights are part of the scope of this project, they shall be managed by the default process set out in Section 1.1.2. The Contractor shall remove and containerize non-alkaline batteries for EHS to properly manage. The Contractor shall assume any non-powered exit signs to contain radioactive material and will containerize for MU EHS to properly dispose.

- **Drinking Fountains**

Some drinking fountains have reservoirs that may contain lead and a CFC/HCFC refrigerant that must be recovered. If drinking fountains are part of the scope of the project, they shall be managed by the default process set out in Section 1.1.2. Any lead reservoirs shall be removed and containerized by the Contractor for recycling by EHS. The CFC/HCFC refrigerant must be recovered by a contractor licensed and trained in this type of work and documented. The final disposition of reclaimed refrigerants will be determined between Owner and Contractor for each project. The remainder of the unit shall be managed as scrap by the Contractor.

- **Door Closers**

Some older door closer units have oil reservoirs for lubrication. These oils may contain small amounts of PCBs. If door closers are part of the scope of the project, they shall be managed by the default process set out in Section 1.1.2.

- **Thermostats**

Thermostats may contain elemental mercury, which can potentially be harmful to human health and the environment. If elemental mercury-containing thermostats are part of the scope of the project, they shall be managed by the default process set out in Section 1.1.2.

- **Window Air-Conditioning Units**

Where possible, these window units should be removed and offered to the Owner for use elsewhere. If directed by the Owner, they shall be discarded. These units may contain CFC/HCFC refrigerants that must be recovered. CFC/HCFC refrigerants are suspected to damage the atmosphere. The CFC/HCFC refrigerant must be recovered by a contractor licensed and trained in this type of work and documented. The final disposition of reclaimed refrigerants will be determined between Owner and Contractor for each project. The remainder of the unit shall be discarded by the Contractor.

1.2 DEFINITIONS

1.2.1 ASBESTOS ABATEMENT

1. **Abatement** – Procedures to decrease or eliminate the source of fiber release from asbestos containing building materials. Includes encapsulation, enclosure, and removal.
2. **Adequately Wet** – To sufficiently mix or penetrate with liquid to prevent the release of particulate.
Aggressive Air Sampling – Sweeping of floors, ceilings and walls and other surfaces with the exhaust of a minimum of one (1) horsepower leaf blower or equivalent immediately prior to air monitoring.
3. **Approved Waste Disposal Site** – A solid waste disposal area that is authorized to receive asbestos containing solid wastes by the appropriate designated regulatory agency for the state in which the site is located. (For Missouri, the agency is the Missouri Department of Natural Resources.)
4. **Asbestos** – Includes chrysotile, amosite, crocidolite, tremolite asbestos, anthophyllite asbestos, actinolite asbestos, and any of these minerals that have been chemically treated and/or altered. (Additionally, it has been shown that vermiculite insulation is often contaminated with tremolite and may be managed as asbestos out of an abundance of caution.)
5. **Asbestos Abatement Supervisor** – An individual who directs, controls, or supervises others in asbestos abatement projects.
6. **Asbestos Containing Building Material (ACBM)** – Surfacing ACM, thermal system insulation ACM, or miscellaneous ACM that is found in or on interior structural members or other parts of a building.
7. **Asbestos Containing Material (ACM)** – Any material containing more than one percent (1%) asbestos by weight.
8. **Barrier** – Any surface that seals off the work area to inhibit the movement of asbestos fibers during abatement. Barrier may also refer to an engineering control to restrict unauthorized access to the work area.
9. **Category I Nonfriable ACM** – Asbestos-containing packings, gaskets, resilient floor covering and asphalt roofing products containing more than one percent (1%) asbestos as determined using the method specified in 40 CFR part 763, subpart F, Appendix A, section 1, Polarized Light Microscopy.
10. **Category II Nonfriable ACM** – Any material, excluding Category I Nonfriable ACM, containing more than one percent (1%) asbestos as determined using the methods specified in 40 CFR part 763, subpart F, Appendix A, section 1, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure.
11. **Competent Person** – one who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, who has

the authority to take prompt corrective measures to eliminate them, as specified in 29 CFR 1926.32(f). In addition, for Class I, II, III, and IV work, one who is specially trained in training courses, which meet the criteria of EPA's Model Accreditation Plan (40 CFR Part 763) for project designer or supervisor, or its equivalent.

12. **Containment** – Area where asbestos abatement project is conducted. Area must be enclosed either by a glove bag or plastic sheeting barrier. The process of sealing off and containing asbestos-contaminated areas to prevent the spread of asbestos fibers. This can include using enclosures, plastic sheeting, and decontamination systems.
13. **Contractor's Competent Person (Qualified Person)** – One who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measures to eliminate them, as specified in 29 CFR 1926.32 (f). In addition, for Class I, II, III, and IV work, one who is specially trained in training courses which meet the criteria of EPA's Model Accreditation Plan (40 CFR Part 763) for project designer or supervisor, or its equivalent.
14. **Decontamination Area** – Enclosed area adjacent and connected to the regulated area which is used for decontamination of workers, materials, and equipment that are contaminated with asbestos. (See also Remote Decontamination Area)
15. **Demolition** – The wrecking or taking out of all material not being reused including any load bearing structural member of a facility together with any related handling operations.
16. **Disposal Bag** – A properly labeled six (6) mil thick leak-tight plastic bag used for transporting asbestos waste from work area to disposal site.
17. **Environmental Health & Safety (EHS)** – The University's contact for container(s) to collect universal wastes, hazardous building materials, and reclaimed/recycled materials. Select EHS staff who are properly trained and certified are also authorized to serve as Owner's Abatement Representatives to oversee abatement operations and enforcement of the specifications.
18. **Encapsulant (Sealant)** – A liquid material which can be applied to asbestos-containing material and which prevents the release of asbestos fibers from the material either by creating a membrane over the surface or by penetrating the material and binding its components together.
19. **Encapsulation** – Treatment of asbestos containing materials with an encapsulant.
20. **Enclosure** – The construction of an airtight, impermeable, permanent barrier around asbestos containing material to control the release of asbestos fibers into the air.
21. **Friable Asbestos Material** – Any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix A, Subpart F, 40 CFR Part 763 Section 1, Polarized Light Microscopy, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.
22. **Glove Bag** – A manufactured or fabricated device, typically constructed of six (6) mil transparent polyethylene or polyvinyl chloride plastic. This device consists of two (2) inward projecting long sleeves, an internal tool pouch and an attached, labeled receptacle for asbestos waste.

23. **HEPA Vacuum Equipment** – High efficiency particulate air filtered vacuuming equipment with a filter system capable of collecting and retaining hazardous particulates. Filters should be of 99.97% efficiency for retaining particulates greater than 0.3 microns.

24. **Homogeneous Work Site** – Continuous areas with the same type of ACM and in which one type of abatement process is performed.

Negative Initial Exposure Assessment – An assessment by a "Competent Person" in which it is concluded that employee exposures during the job are likely to be consistently below the Permissible Exposure Levels; that non-friable asbestos will be removed and maintained in a non-friable condition.

25. **Outside Air** – Air outside of the containment.

26. **Owner's Air Monitoring Firm** – An entity who is not under the direct control of the asbestos abatement contractor and who has been selected by the Owner to conduct air monitoring. This may be a representative of MU EHS or a contracted service provider working directly on behalf of the Owner (MU).

27. **Owner's Air Sampling Professional** – An individual who holds a valid Air Sampling Professional certification from the State of Missouri (643.225 RSMo) and who is not under the direct control of the asbestos abatement contractor. The individual shall conduct, oversee, or be responsible for air monitoring of asbestos abatement projects before, during, and after the project has been completed. This may be a representative of MU EHS or a representative of a contracted service provider working directly on behalf of the Owner (MU).

28. **Owner's Air Sampling Technician** – An individual who has been trained by, and is under the direct supervision of, the certified Owner's Air Sampling Professional and who has met requirements of training found in OSHA's 29 CFR 1926.1101 (643.225 RSMo) to do air monitoring before, during, and after the asbestos abatement project on behalf of the Owner's Air Monitoring Firm.

29. **Owner's Abatement Representative** – the University's representative responsible for air monitoring and enforcement of the technical specifications. The Owner's Abatement Representative may be either the University's Project Manager or a member of EHS who are adequately trained and hold a Missouri Asbestos Occupation Competent Person certification or are a Certified Industrial Hygienist.

30. **Personal Monitoring** – Sampling of the asbestos fiber concentrations within the breathing zone in a manner consistent with abatement operation regulations, i.e., sample 25% of each job description of the work force plus one peak (excursion) sample per shift.

31. **Regulated Asbestos Containing Material (RACM)** – Friable asbestos material; Category I nonfriable ACM that has become friable; Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading; Category II nonfriable ACM that has a high probability of becoming, or has become, crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

- 32. **Remote Decontamination Area** – Enclosed or controlled area which is used for decontamination of workers performing Class I, II, or IV asbestos abatement activities. A designated space, often a mobile unit, located away from the immediate work area where workers can decontaminate themselves and their equipment after exposure to asbestos, typically when it's not feasible to have a decontamination area directly adjacent to the regulated abatement zone due to location or accessibility constraints; essentially a shower and change area situated at a distance from the asbestos removal site.
- 33. **Remove** – To take out RACM or facility components that contain or are covered with RACM from any facility.
- 34. **Renovation** – Altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component.
- 35. **Repair** – The restoration of asbestos material that has been damaged. Repair consists of the application of rewettable glass cloth, canvas, cement or other suitable material. It may also involve filling damaged areas with non-asbestos substitutes and re-encapsulating or painting previously encapsulated materials.
- 36. **Strip** – To take off RACM from any part of a facility or facility components.
- 37. **Waste Shipment Record** – The shipping document, required to be originated and signed by the waste generator, used to track and substantiate the disposition of asbestos containing waste material.
- 38. **Wet Cleaning/Wiping** – The process of eliminating contamination from building surfaces and objects by using cloths, mops, or other cleaning tools which have been dampened with water, and by, afterwards, properly disposing of these cleaning tools as necessary.
- 39. **Work Area** – A specific isolated area, other than the space enclosed within a glove bag, in which asbestos-containing materials is required to be handled. The area is designated as a work area from the time that the area is secured and access restrictions are in place. The area remains designated as a work area until the time that it has been cleaned in accordance with any requirements applicable to the operations conducted.

1.2.2 UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL

- 1. **Approved Waste Disposal Site** – A solid waste disposal area that is authorized to receive construction and demolition (C/D) wastes by the appropriate designated regulatory agency for the state in which the site is located. (For Missouri, the agency is the Missouri Department of Natural Resources.)
- 2. **Authorized Visitor** – The Owner, the Owner's Representative, or a representative of any regulatory or other agency having jurisdiction over the project and properly trained.
- 3. **Building Owner** – A designated representative of the University of Missouri.
- 4. **Disposal Container** – A properly labeled container for universal waste, hazardous building materials, reclaimed/recycled materials, or, potentially, any regulated paint debris. Disposal containers will be provided by EHS as part of the hazard remediation contractor's pre-work.

5. **Environmental Health & Safety (EHS)** – The University's contact for container(s) to collect universal wastes, hazardous building materials, and reclaimed/recycled materials. Select EHS staff who are appropriately trained and certified are also authorized to serve as Owner's Abatement Representatives to oversee abatement operations and enforcement of the specifications.

6. **Hazardous Building Material** – Materials such as PCB-containing waste or radioactive sources (smoke detectors, etc.), that are not considered Universal Waste, but that the Owner will rely upon a Hazardous Waste Shipment Record for documentation to support proper disposal.
7. **Hazardous Waste Shipment Record/Disposal Receipt** – The shipping document, required to be originated and signed by the waste generator, used to track and substantiate the disposition of universal waste, hazardous wastes, and specific hazardous building materials.
8. **HEPA Vacuum Equipment** – High efficiency particulate air filtered vacuuming equipment with a filter system capable of collecting and retaining hazardous particulates. Filters should be of 99.97% efficiency for retaining particulates greater than 0.3 microns.
9. **Owner's Abatement Representative** – The University's representative responsible for monitoring and enforcement of the technical specifications. The Owner's Abatement Representative may be either the University's Project Manager or a member of EHS who are adequately trained and certified to serve as a technical expert regarding management of Universal Waste/Hazardous Building Materials.
10. **Universal Waste** – EPA's universal waste regulations streamline the hazardous waste management standards for certain categories of hazardous waste that are commonly generated by a wide variety of establishments. The streamlined regulations:
 - promote the collection and recycling of universal waste,
 - ease the regulatory burden on retail stores and other generators that wish to collect these wastes and transporters of these wastes, and
 - encourage the development of municipal and commercial programs to reduce the quantity of these wastes going to municipal solid waste landfills or combustors.
11. **Work Area** – A specific isolated area in which universal waste/hazardous building materials are required to be handled. The area is designated as a work area from the time that the area is secured and access restrictions are in place. The area remains designated as a work area until the time that it has been cleaned in accordance with any requirements applicable to the operations conducted.

1.3 CODES AND REGULATIONS

1.3.1 ASBESTOS ABATEMENT

General Applicability of Codes, Regulations and Standards - All applicable codes, regulations, standards, statutes, laws, and rules have the same force and effect (and are made a part of the contract documents by reference) as if copied directly into the contract documents, or as if published copies are bound herewith. Where conflicts arise, the most stringent specification shall apply.

Contractor Responsibility - The Contractor shall assume full responsibility and liability for the compliance with all applicable federal, state, and local regulations pertaining to work practices, hauling/disposal of regulated materials, and protection of workers, visitors to the site, and persons occupying areas adjacent to the site. The Contractor is responsible for providing medical examinations and maintaining medical records of personnel as required by the applicable federal, state, and local regulations. The Contractor shall hold the Owner harmless for failure to comply with any applicable work, hauling, disposal, safety, health, or other regulations on the part of the Contractor, Contractor's employees, or Contractor's

subcontractors.

Federal and State requirements which govern asbestos abatement work or hauling and disposal of asbestos waste materials include, but are not limited to, the following:

1. U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) including but not limited to:
 - 29 CFR 1910.1001 and 29 CFR 1926.1101.
 - Respiratory Protection, 29 CFR 1910.134.
 - Construction Industry, 29 CFR 1926.1101
 - Access to Employee Exposure and Medical Records, 29 CFR 1910.2.
 - Hazard Communication, 29 CFR 1910.1200.
 - Specifications for Accident Prevention Signs and Tags, 29 CFR 1910.145.
2. U.S. Environmental Protection Agency (EPA) including but not limited to:
 - National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR, Part 61, Subpart M.
3. U.S. Department of Transportation (DOT) including but not limited to:
 - 49 CFR, Part 172, Section 101.
4. State of Missouri including but not limited to:
 - Missouri Air Conservation Law Chapter 643. (643.225-643.250 RSMo)
 - Missouri Department of Natural Resources, Division 10, Chapter 6 of the Code of State Regulations as follows:
 - (1) 10 CSR 10-6.020, Definitions
 - (2) 10 CSR 10-6.080, Emission Standards for Hazardous Air Pollutants
 - (3) 10 CSR 10-6.230, Administrative Penalties
 - (4) 10 CSR 10-6.250, Asbestos Abatement Projects - Certification, Accreditation, and Business Exemption Requirements

1.3.2 UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL

All applicable codes, regulations, standards, statutes, laws, and rules have the same force and effect (and are made a part of the contract documents by reference) as if copied directly into the contract documents, or as if published copies are bound herewith. Where conflicts arise, the most stringent specification shall apply.

Project CP242862

Pickard Hall/Selective Demo and Rad Characterization

Federal and State requirements which govern universal waste and hazardous waste removal work or hauling and disposal of such waste materials include, but are not limited to, the following:

1. U.S. Department of Labor, Occupational Health and Safety Administration (OSHA), 29 CFR 1910 and 29 CFR 1926.
 - Construction Industry - 29 CFR 1926.1101
 - Respiratory Protection – 29 CFR 1910.134
 - Hazard Communication – 29 CFR 1910.1200
 - Accident Prevention Signs – 29 CFR 1910.145
2. U.S. Environmental Protection Agency (EPA)
 - Resource Conservation and Recovery Act (RCRA), 40 CFR Parts 239-282 [Hazardous Waste includes Universal Waste]
 - Toxic Substances Control Act (TSCA), 40 CFR Parts 700-761
3. Missouri Department of Natural Resources
 - Hazardous Waste Management Law, Chapter 260, Sections 350-433, RSMo
 - 10 CSR 25, includes MO Universal Waste Rule (Pub 2058), Ch 16

1.4 NOTIFICATIONS (ASBESTOS ABATEMENT ONLY)

Notifications meeting the requirements of Missouri's Air Conservation Law shall be completed and sent by the Contractor not less than ten (10) days before the intended starting date of the project. Contractors with annual abatement notifications must provide at least twenty-four (24) hours notification before the intended starting date of the project. Send notification to:

MDNR/Air Pollution Control Program (Asbestos Unit)
P.O. Box 176
Jefferson City, Missouri 65102
573-751-4817 / 800-361-4827

Completed and signed notifications may be sent electronically to
asbestosnotifications@dnr.mo.gov

Provide a copy to the Owner's Abatement Representative. Five (5) day notification to the Owner's Abatement Representative is required on jobs less than the reportable quantity ("Courtesy Notifications").

If the project is also within the jurisdiction of the Kansas City Health Department's Air Quality Program, St. Louis County Health Department's Asbestos Program, St. Louis City's Division of Air Pollution Control, or the City of Springfield, send additional required notification directly to

*Project CP242862
Pickard Hall/Selective Demo and Rad Characterization*

the appropriate local agency.

Kansas City Health Department, Air Quality Program
2400 Troost Ave., Suite 3000
Kansas City, MO 64108
816-513-6314

St. Louis County Health Department, Asbestos Program
6121 N Hanley Road
Berkeley, MO 63114
314-615-8924

St. Louis City, Division of Air Pollution Control
1520 Market St., Room 4051
St. Louis, MO 63103
314-657-1479

City of Springfield
290 E. Central Street
Springfield, MO 65802
417-864-2031

1.5 SUBMITTALS

1.5.1 ASBESTOS ABATEMENT

General Requirements The following will be submitted by Contractor, in electronic format or paper copy, a minimum of 10 days prior to commencement of work for approval by the Owner's Abatement Representative (EHS or Project Manager). Owner's Abatement Representative may provide comments that must be addressed before concurrence and, otherwise, will provide concurrence that documents received are acceptable:

- 1 One copy of Safety Data Sheets (SDS) for products to be used by the Contractor in the performance of his work. Contractor will also maintain copies of SDS's on site per OSHA.
- 2 One copy of the notifications to, or any correspondence with, the regulatory agencies.
- 3 Documentation that the regulatory authority has approved of the planned abatement.
- 4 Submit a listing of all prior regulatory violations.

1.5.1.1 Friable ACM Abatement Operations

In addition to the **General Requirements**, submit the following:

- 1 A summary of project personnel, job titles, and contact phone numbers.

- 2 Name, address, and contact person's name of testing laboratory or laboratories to be utilized analyzing samples for bulk analysis or air samples. The laboratory(ies) must be certified through the National Voluntary Laboratory Accreditation Program (NVLAP).
- 3 A detailed plan of the procedures proposed for use in complying with requirements of this specification, the Missouri Air Conservation Law, and 29 CFR 1926.1101. Include in the plan the layout and location of barriers, decontamination units, routes of ingress and egress for work area, methods used to assure safety of building occupants and visitors, methods used to isolate or closing out of HVAC system, personal air monitoring strategy, method of removal of material, and engineering controls utilized to prevent emissions from the work area.
- 4 A disposal plan to detail type of disposal container, method of transportation to disposal site, waste hauler, and disposal site.
- 5 Copy of the Emergency Protection Plan that includes notifications.

1.5.1.2 Non-Friable ACM Abatement Operations

In addition to the **General Requirements**, submit the following:

- 1 A summary of project personnel, job titles, and contact phone numbers.
- 2 A detailed plan of the procedures proposed to minimize emissions and to prevent the material from becoming friable during removal.
- 3 Copy of the Emergency Protection Plan that includes notifications (to be used if the nonfriable material should become friable during removal).
- 4 One copy of the Negative Initial Exposure Assessment.

1.5.1.3 Post-Abatement

Upon completion of the abatement work, the Contractor shall provide the following information to the Owner's Abatement Representative within 10 working days.

- Waste disposal receipts and waste shipment records on all asbestos waste removed from the project.

Upon completion of the abatement work, the Owner shall provide the following information to the Contractor.

- Air sampling test results of final clearance air samples taken under the supervision of Owner's Air Sampling Professional will be provided to both the Contractor and the Project Manager by EHS. Results must be in written report form. Electronic transmittal is acceptable.
- Written certification from the Project Manager that abatement is complete. Electronic transmittal is acceptable.

1.5.2 UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL

1.5.2.1 Pre-Removal

General Requirements The following will be submitted by Contractor 10 days prior to commencement of work for approval by the Owner's Abatement Representative (EHS or Project Manager). Owner's Abatement Representative may provide comments that must be addressed before concurrence or, otherwise, will provide concurrence that documents received are acceptable:

1. One copy of any Safety Data Sheets (SDS) for products to be used by the Contractor in the performance of his work. Contractor will also maintain copies of SDS's on site per OSHA.
2. A list of project personnel and contact phone numbers.
3. A detailed plan of the procedures proposed for use in complying with requirements of this specification. Include in the plan the layout and location of work areas, routes of ingress and egress for the work areas, methods to be used to assure safety of building occupants and visitors, method(s) of removal of material, and disposal container requirements for the wastes anticipated to be removed for disposal lead based paint waste to be disposed.
4. Proposed disposal site for any materials that EHS will not be directly managing disposal for, including a disposal plan to detail type of disposal container, method of transportation to disposal site, and waste hauler.
5. Any other submittals as required by Owner.

1.5.2.2 Post-Removal

Upon completion of universal waste/hazardous building materials removal operations, the Contractor shall submit to the Owner's Abatement Representative, copies of all shipping records, disposal receipts, recycling documentation, etc., for all materials removed from the project site by Contractor for disposal.

Upon completion of the universal waste/hazardous building materials removal operations, the Owner's Representative will provide written certification to the Contractor that all applicable universal waste/hazardous building materials wastes have been removed from the facility. Electronic transmittal is acceptable.

PART 2 – PRODUCTS

2.1 MATERIALS

All materials shall be delivered in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name.

Contractor shall store all materials subject to damage off the ground, away from wet or damp surfaces, and under cover sufficient to prevent damage or contamination.

Damaged or deteriorating materials shall not be used and shall be removed from the premises.

Contractor shall provide suitable materials for asbestos abatement and universal waste/hazardous building materials removal operations including, but not limited to:

Plastic Sheeting: A minimum 6-mil (or as specified).

Tape: Capable of sealing joints of adjacent sheets of polyethylene and for attachment of polyethylene sheets to finished or unfinished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions, including use of amended water, duct tape, poly prep tapes or approved equal.

Adhesives: Capable of sealing joints of adjacent sheets of polyethylene and for attachment of polyethylene sheet to finished or unfinished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions, including use of amended water. Adhesives will not be used on any property without prior written approval from the Owner's Abatement Representative (EHS or Project Manager)

Impermeable Containers: Suitable to receive and retain any universal waste/hazardous building materials until disposal by the Owner's Abatement Representative (EHS). The containers shall be labeled as required by Owner. Containers must be resistant to damage and rupture.

Warning Labels and Signage: As required by law and/or Owner.

Other Materials: Provide all other materials, such as, but not limited to, lumber, plywood, nails, and hardware, which may be required to properly prepare and complete this project.

2.2 TOOLS AND EQUIPMENT

Provide suitable tools for asbestos abatement and universal waste/hazardous building material removal operations including, but not limited to:

Water Sprayer: Airless or a low pressure sprayer for amended water application as applicable.

Air-Purifying Equipment: High Efficiency Particulate Air Filtration Systems (HEPA) shall comply with ANSI Z9.2-91. No air movement system or air equipment should discharge particulates outside the work area. Thus, the negative air unit shall be equipped with a three filter bank with the last being the HEPA filter capable of removing 99.97% of fibers/particulates >0.3 microns.

Scaffolding: As required to accomplish the specified work and meet all applicable safety regulations.

Vacuums: Use HEPA type from a known manufacturer.

Other tools and equipment as necessary.

PART 3 – EXECUTION

3.1 SUPERVISION

3.1.1 ASBESTOS ABATEMENT

The Contractor shall designate a competent Supervisor subject to the approval of the Owner's Abatement Representative. The Supervisor shall be the Contractor's representative on the project, shall meet the requirements of all applicable laws and regulations, and meet/perform the following tasks, at a minimum:

1. Be certified by the State of Missouri as an Asbestos Abatement Supervisor, have a minimum of one year prior full time experience in asbestos abatement work, a minimum of two years' experience as a supervisor, and be qualified as a Competent Person in accordance with OSHA regulation 1926.1101.
2. Be on-site and supervise all abatement work in accordance with all applicable laws and regulations.
3. Conduct all OSHA-required personal exposure air monitoring during abatement operations.
4. Maintain a daily log on the project documenting events, visitations, problems, equipment failures, accidents, and inspections.
5. Be responsible for implementation of first aid, safety training, respiratory protection, and ensuring all workers are trained in emergency procedures.
6. Be responsible for conducting a visual inspection of the work area prior to a visual inspection by the Owner's Abatement Representative. Inspection shall be documented.

3.1.2 UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL

The Contractor shall designate a competent Supervisor subject to the approval of the Owner's Abatement Representative. The Supervisor shall be the Contractor's representative on the project, shall meet the requirements of all applicable laws and regulations, and meet/perform the following tasks, at a minimum:

1. Be knowledgeable in all aspects of removal, cleanup, and proper handling of universal waste/hazardous building materials as listed in the Scope of Work.
2. Be on-site and supervise all removal, cleanup and handling of universal waste/hazardous building materials as listed in the Scope of Work.
3. Maintain a daily log on the project documenting events, violations, problems, equipment failures, accidents, and inspections.
4. Be responsible for implementation of first aid, safety training, respiratory protection, and ensuring all workers are trained in emergency procedures.
5. Be responsible for conducting a visual inspection of the work area prior to a visual inspection by the Owner's Abatement Representative. Inspection shall be documented.

3.2 NEGATIVE INITIAL EXPOSURE ASSESSMENT (ASBESTOS ABATEMENT ONLY)

When not starting removal with Type C protection, the Contractor must conduct a Negative Initial Exposure Assessment (non-friable asbestos) prior to removal of the asbestos material. The Negative Initial Exposure Assessment shall be performed by a "Competent Person" to determine whether the material may be removed and maintained in a non-friable condition. If the material cannot be removed without becoming friable then the Contractor shall comply with all legal and regulatory requirements for managing friable asbestos at no additional cost to the Owner.

The method of removal is the Contractor's option. However, in the event of any of the following:

1. Visible emissions are observed
2. Sanding, grinding, cutting, or abrading of the material
3. Air samples exceed 0.1 f/cc (fibers per cubic centimeter)

The Contractor shall immediately stop work, implement corrective work practices, make any necessary notifications to all regulatory agencies of the changes in work practices and material conditions, and comply with the requirements as set forth in this specification.

3.3 WORKER PROTECTION & TRAINING

3.3.1 ASBESTOS ABATEMENT

1. The Contractor shall be responsible for providing their employees with proper respiratory protection, respiratory training, a written respiratory program, medical monitoring program (medical examinations, maintaining medical records), and protective clothing and equipment to comply with OSHA requirements.
2. The Contractor shall be responsible for all testing and costs incurred for complying with requirements of OSHA regulations for Personal Air Sampling.
3. All workers shall be trained in the dangers inherent in handling asbestos and breathing asbestos dust and in proper work procedures and personal and protective measures.
4. All workers shall be certified as accredited Asbestos Abatement Workers as required by 10 CSR 10-6.250.

3.3.2 UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL

1. The Contractor shall be responsible for providing their employees with proper respiratory protection, respiratory training, a written respiratory program, medical examinations, maintaining medical records, protective clothing and equipment to comply with OSHA requirements, if applicable and necessary.
2. All workers shall be trained in the dangers inherent in handling universal waste/hazardous building materials, in proper work procedures, and personal protective measures.

3. Prior to commencement of work, the workers shall be instructed and shall be knowledgeable on the hazards of the universal waste/hazardous building materials involved and other environmental exposures, use and fitting of respirators, protective clothing, decontamination procedures, and all aspects of removal work procedures.
4. The Contractor acknowledges that he alone is responsible for enforcing personnel protection requirements and that these specifications provide only a minimum acceptable standard for each phase of operation.
5. If required or requested of the workers, provide workers with personally issued and marked respiratory equipment approved by NIOSH and accepted by OSHA.
6. Where required or if requested by the workers, provide workers with sufficient sets of disposable protective full-body clothing. Such clothing shall consist of full-body coveralls, footwear, and head gear, one-piece coveralls or equal. Provide eye protection and hard hats as required by applicable safety regulations. Disposable clothing shall not be allowed to accumulate and shall be disposed of as contaminated waste.
7. No visitors shall be allowed in work areas, except as authorized.
8. Provide authorized visitors with suitable protective clothing, headgear, footwear, and gloves as described above whenever they are required to enter the work area.

3.4 INDEPENDENT TESTING LABORATORY (ASBESTOS ABATEMENT ONLY)

Testing laboratories utilized by the Contractor for sample analysis during the project shall meet the following minimum requirements and be approved by the Owner's Abatement Representative. This information shall be submitted to the Owner's Abatement Representative for review.

1. All air monitoring samples shall be analyzed by a testing laboratory accredited by the American Industrial Hygiene Association (AIHA) or by an individual who is currently on the Asbestos Analyst Registry.
2. All bulk samples shall be analyzed by a testing laboratory accredited by the National Voluntary Laboratory Accreditation Program (NVLAP).

3.4.1 ASBESTOS BULK SAMPLE ANALYTICAL METHODS

3.4.1.1 Friable Materials:

Asbestos Analysis of Bulk Materials via AHERA Method 40 CFR 763, Subpart E, Appendix E supplemented with EPA 600/R-93/116 (Calibrated Visual Estimate, reporting limit to <1%) using Polarized Light Microscopy

3.4.1.2 Non-Friable (caulking):

Asbestos Analysis of Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 (Calibrated Visual Estimate, reporting limit to <1%) using Polarized Light Microscopy

3.4.1.3 Non-Friable (mastics, adhesives):

Asbestos Analysis of Non-Friable Organic Bulk Materials via AHERA Method 40CFR 763 Subpart E Appendix E supplemented with EPA 600/R-93/116 (Calibrated Visual Estimate, reporting limit to <1%) using Polarized Light Microscopy

3.4.1.4 Non-Friable (vinyl floor tile):

Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1 (target reporting limit 0.5%) with Gravimetric Reduction)

3.4.2 ASBESTOS AIR MONITORING ANALYTICAL METHODS

3.4.2.1 PCM – Air:

Use NIOSH 7400

3.4.2.2 PCM – Air That Fails:

Using NIOSH 7400. Reclean area and retest. If area fails a third time, contact EHS for further instructions. Possible retesting using AHERA (40 CFR Part 763 Appx. A subpart E) or NIOSH 7402

3.5 OWNER'S REMEDIATION PROFESSIONAL

3.5.1 ASBESTOS ABATEMENT

It will be the Owner's responsibility to provide and/or hire an Air Sampling Professional. The Owner's Air Sampling Professional for this project shall be MU EHS. The Owner's Air Sampling Professional will be required to perform the following duties at a minimum:

1. Approval of the Contractor's work plan and methods of ACM abatement to meet regulatory requirements and ensure the health and safety of University faculty, staff, and students.
2. Visual inspection of the work area and final clearance air monitoring.
3. Issue final air clearance to the Contractor and the MU Project Manager.

3.5.2 UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL

It will be the Owner's responsibility to provide and/or hire a Specialist certified, trained, and knowledgeable in handling and managing universal waste/hazardous building materials. The Specialist for this project shall be MU EHS. The Specialist will be required to perform the following duties as a minimum:

1. Approval of the Contractor's work plan and methods of remediation to meet regulatory requirements and ensure the health and safety of University faculty, staff, and students.
2. Verify that the Contractor is satisfactorily performing the work in accordance with OSHA regulations.

3. Visual inspection of the work areas.

3.6 SEPARATION OF WORK AREAS FROM NON-WORK AREAS

In addition to other physical barriers/controls required to isolate work areas and prevent unauthorized access/entry, universal waste/hazardous building materials removal operations work areas shall integrate visual separation. Visual separation shall be accomplished at all "see-through" locations using opaque polyethylene. This separation shall not be incorporated within the other seals involved on this project.

3.7 EMERGENCY PROTECTION PLAN

1. The Contractor shall be responsible for developing a written Emergency Protection Plan and shall maintain this plan on site. The plan shall include considerations of asbestos and/or universal waste/hazardous building material releases, fire, explosion, toxic atmospheres, electrical hazards, slips, falls, and heat related injuries. All employees shall be instructed and trained in the procedures.
2. The Emergency Protection Plan shall include written notification procedures for police, fire and medical personnel of the planned abatement activities, work schedule, and layout of work area, particularly barriers that may affect response capabilities.
3. The Contractor shall designate and maintain emergency and fire exits from the work area(s) in accordance with local codes and regulations. All exits shall be clearly marked with fluorescent tape or red paint and shall be clearly visible from any part of the work area.

3.8 LOCAL AREA PROTECTION & SITE SECURITY

1. The Contractor shall be responsible for all areas of the building used by them and/or subcontractors in the performance of the work. Contractor shall exert full control over the actions of all its employees and other persons with respect to the use and preservation of the existing building, except such controls as may be specifically reserved to the Owner.
2. Contractor shall secure the work areas to make sure of no inadvertent entry. Any breach to the exterior of the building shall be secured by the Contractor. The Contractor shall be responsible for maintaining security of the remediation area throughout the contract period.
3. Contractor has the right to exclude from the work area all persons who have no purpose related to the work or its inspection and shall require all persons in the work area to observe the same regulations required of Contractor's employees.
4. The Contractor shall have control of site security during abatement operations in order to protect work environment and equipment. Contractor shall have the Owner's assistance in notifying building occupants of impending activity and enforcement of restricted access by Owner's employees.

SECTION 02 0813 ASBESTOS-CONTAINING MATERIALS REMOVAL AND DISPOSAL &
UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL

5. The Contractor shall keep a minimum of two 10 lb., Type-ABC fire extinguishers on-site. One shall be maintained outside the work area and one inside the work area. Contractor's employees shall be trained in the operation of extinguishers.
6. Where remediation areas cannot be isolated by existing walls and doors from University employees, students, or the public, barriers must be constructed of 1/2" plywood sheeting over 2"x4", 16" on-center framing to isolate the area. The barriers must be installed in a manner to prevent damage to existing walls, floors, or ceilings. Barrier(s) may have a lockable door.
7. The Contractor shall maintain the work area free from rubbish, debris, and dirt and keep a clean, safe working area.
8. The Contractor shall provide warning signage around the regulated remediation area as required by OSHA. Owner reserves the authority to require additional signage, if it is deemed appropriate.
9. If applicable, the Contractor shall isolate any and all air supply and returns to the abatement space as required by OSHA. Contractor shall coordinate these efforts with the Owner's Abatement Representative.
10. If applicable, the Contractor shall keep all areas where adhesive stripper is in use (such as mastic removal) under negative pressure and exhausted to the outside ambient air.

3.9 FINAL CLEARANCE REQUIREMENTS (FRIABLE ASBESTOS ABATEMENT ONLY)

1. Upon completion of the abatement work, the Contractor's Asbestos Abatement Supervisor shall perform a visual inspection of the work area. If satisfactory, the Supervisor shall then request the Owner's Abatement Representative and/or Air Sampling Professional to perform a visual inspection. When the Owner's Abatement Representative and/or Air Sampling Professional deems the area is ready based on the results of their visual inspection, the Contractor shall apply a lockdown encapsulant. Following application of lockdown encapsulant, the Owner's Air Sampling Professional shall perform the final clearance sampling for airborne fiber concentrations.
2. The Owner's Air Sampling Professional will perform final clearance testing per the following requirements:
 - Aggressive sampling shall be required for all areas where removal has taken place with the exception of glove bag projects where nonaggressive sampling is permitted.
 - Phase contrast microscopy (PCM) samples analyzed on-site shall be counted by an accredited registered microscopist.
 - For areas specifically designated for clearance by Transmission Electron Microscopy, the method shall be NIOSH 7402.
3. Any work areas failing to meet the clearance requirements of this section shall be recleaned and retested at the Contractor's expense until satisfactory levels are obtained.

4. The Owner's Abatement Representative and/or Air Sampling Professional shall provide a written report of the air monitoring activities to the Contractor within seven (7) days after the final clearance testing. Electronic transmittal is acceptable.

3.10 REESTABLISHMENT OF THE WORK AREA AND SYSTEMS

3.10.1 ASBESTOS ABATEMENT

1. Reestablishment of the work area shall only occur after the Contractor has received final clearance in writing from the Owner's Abatement Representative. Electronic transmission is acceptable.
2. Any damages to finishes, equipment, and/or the area affected by the abatement shall be repaired by the Contractor to equal or better condition as it was prior to the work, at no cost to the Owner.

3.10.2 UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS REMOVAL

1. Reestablishment of the work area shall only occur after the Contractor has received a final visual inspection from the Owner's Abatement Representative documenting that the universal waste/hazardous building materials have been removed from the project site.

3.11 WASTE DISPOSAL

3.11.1 ASBESTOS

1. All asbestos-containing waste and/or asbestos-contaminated debris shall, at a minimum, be adequately wet, double bagged in approved 6-mil polyethylene leakproof disposal bags or containers. Each bag or container shall be tagged to meet requirements of NESHAP with an asbestos caution label and a source identification label.
2. Transportation shall meet the requirements of all regulatory agencies for asbestos containing materials and shall be transported in an enclosed truck.
3. The waste disposal site shall be approved by the designated regulatory agency for the state in which the site is located (Missouri Department of Natural Resources in Missouri) for asbestos disposal. A chain-of-custody letter/waste shipment record and disposal receipts shall be provided to the Owner for all ACM and contaminated debris disposed.

3.11.2 UNIVERSAL WASTE/HAZARDOUS BUILDING MATERIALS

1. University EHS shall assume responsibility for the proper disposal of all universal waste/hazardous building materials being removed on behalf of the Owner as a part of this Scope of Work. As the Generator of the waste, EHS will document and maintain records on the transportation and fate of universal waste/hazardous building materials disposed on behalf of the University.
2. The fate of recyclable materials and recovered refrigerants will be identified prior to work beginning.

3.12 DRAWINGS

1. Drawings, when provided, are not intended to be used for anything but a "reference" to the work area. Information is not specific to quantities or to exact location of ACM and/or universal waste/hazardous building materials unless explicitly noted. Contractor will be required to field verify the conditions and quantities.

3.13 REPORTS

1. Reports, when provided, are intended to be used as a basis for the type and composition of the asbestos and/or universal waste/hazardous building materials present for both bidding purposes and for the information required for the notifications to the governing agencies.

UNIVERSITY *of* MISSOURI

ENVIRONMENTAL HEALTH AND SAFETY

LEAD BASED PAINT SURVEY

CP242862

PICKARD HALL

3/31/2025

TO: John Moon

Planning, Design, & Construction

FROM: Pete Kohler

Environmental Health & Safety

MU EHS has completed a lead survey of Pickard Hall. The survey request states that the scope of the project involves :

Selective demolition of existing finishes throughout the entire building to allow for further characterization of RAD contamination to determine feasibility of remediation efforts.

The purpose of this survey is to identify lead paint that might represent a potential worker safety hazard and/or might require special handling and waste disposal prior to the demolition or renovation.

The EPA and the U.S. Department of Housing and Urban Development (HUD) consider lead-based paint as containing a lead concentration equal to or greater than 1.0 milligram per square centimeter (mg/cm²) or 0.5% lead by weight, as defined by Title X of the 1992 Housing and Community Development Act. The US Consumer Product Safety Commission considers paint with up to 600 ppm of lead to be "Lead Free".

Finished surfaces were tested for lead, using a Niton XRF analyzer. The XRF was checked before the survey and found to be in calibration. The survey was made by Pete Kohler (Missouri Lead Inspector #00783, expires 5/17/19.) The lead survey was conducted on March 24, 2025, and the report was completed March 31, 2025.

As a result of the survey, some finished surfaces were identified having lead in concentrations which reach the HUD standard.



Brown walls in Gallery 209 are painted with lead-based paint.

Other painted surfaces were found to contain lead in concentrations which do not reach the HUD standard but which are significant.

OSHA has found that certain work, including aggressive disturbance of the painted surface, may result in lead levels exceeding the Action Level or the Permissible Exposure Limit (PEL)- even when the concentration is below 1 mg/cm².

FIELD OBSERVATIONS

Walls in Pickard Hall are plaster or gypsum panels, finished at the seams with sheet rock joint compound.

Sheet rock walls are often built over plaster walls, or over other sheet rock walls. When possible, I took readings on the top and the bottom surfaces of walls built on top of one another.

In the basement, the wall that separates offices from the main open space of Room 1/1A is a window wall, with glass from floor to ceiling in varnished wood frames. The varnished wood was checked for lead.

Windows in Pickard are generally inserts made of anodized aluminum. The finishes are white or black. I took lead readings at several locations on the first floor. The windows on the second floor are covered from the inside, but from the outside these are the same insulated units as the first floor.

LOCATION/DESCRIPTION	LEAD READING (mg/cm ²)
Pickard Hall Basement – Stairwell S000 – white plaster wall (right side going downstairs)	0.25, 0.23, 0.39
Stairwell S000 – white sheet rock wall (left side going downstairs)	0.01, 0.01, 0.01
Corridor C000A/C000B – white sheet rock walls	0.01, 0.01, 0.01, 0.01, 0.01, 0.01

C000B north end – white metal duct on ceiling	0.06, 0.01
C000B north end (outside 28A) – white plaster walls	0.01, 0.01
Storage Room 26 – white plaster walls	0.06, 0.07, 0.18, 0.16
Room 26 – white duct on ceiling	0.02, 0.03
Office 27 – white plaster wall (top wall)	0.01, 0.01
Office 27 – white plaster (bottom wall)	0.44, 0.51, 0.41
Office 28, varnished door	0.01, 0.01
Office 28, white sheet rock walls	0.01, 0.01, 0.01
Office 28, white plaster walls	0.01, 0.01
Dark Room 28A, black sheet rock walls	0.01, 0.01, 0.01, 0.01
Exhibition Service 17A, varnished door	0.01, 0.01
17A, white sheet rock walls	0.01, 0.01, 0.01
17A, white plaster walls	0.01, 0.01
Prep Work Room 17, white sheet rock walls	0.01, 0.01
17, white plaster walls	0.01, 0.01, 0.01
17, brown wood door	0.01, 0.01
18A, brown wood door	0.01, 0.01, 0.01
18A, varnished door	0.01, 0.01, 0.01
Work Room 16, white sheet rock walls	0.01, 0.01, 0.01, 0.01
Storage Room 12 – Most of the walls in Room 12 have been removed. The remaining material is white plaster.....	0.01, 0.01, 0.01, 0.01, 0.01, 0.01
And white sheet rock	0.01, 0.01, 0.01, 0.01
Work Room 16, white sheet rock walls	0.01, 0.01, 0.01, 0.01
Storage Room 12A, brown fire door	0.01, 0.01
Media Production Service 10, black sheet rock walls	0.36, 0.31, 0.07, 0.01
10, varnished door	0.01, 0.01
Office 9, white sheet rock walls	0.01, 0.01, 0.01, 0.01
9, white plaster walls	0.01, 0.06
Office 7, white sheet rock walls	0.01, 0.01
Office 1B, gray plywood panels	0.01, 0.01, 0.01

Office 1 – window wall around perimeter of room for Offices 6, 5, 4, 3, 2 – (varnished wood frame for large glass windows)	0.01, 0.01, 0.02, 0.01, 0.01, 0.02
Office 1, varnished doors	0.01, 0.01, 0.01
Office 4, white sheet rock walls	0.01, 0.01, 0.01
Office 4, white sheet rock soffit on ceiling	0.01, 0.01, 0.01
Office 4, varnished door	0.01, 0.01
Office 5, white sheet rock walls	0.01, 0.01
Office 5, white sheet rock soffit on ceiling	0.01, 0.01
Office 3, white sheet rock walls	0.01, 0.01, 0.01, 0.01
Office 3, varnished door	0.01, 0.01
Office 3, white sheet rock soffit on ceiling	0.01, 0.01
Office 2, white sheet rock walls	0.01, 0.01, 0.01
Office 2, white soffit on ceiling	0.01, 0.01
Rest Room 21, white sheet rock walls	0.01, 0.01, 0.01, 0.01
21, varnished door	0.01, 0.01
21, brown metal door frame	0.01, 0.01
Rest Room 20, white sheet rock walls	0.01, 0.01
20, varnished door	0.01, 0.01
20, brown metal door frame	0.01, 0.01
Pickard Hall First Floor- Stairwell S100, center wall separating stairs from 1 st to 2 nd floor, white sheet rock wall	0.01, 0.02, 0.02, 0.03
Seminar Room 110, white plaster walls	0.02, 0.01, 0.02
110, white sheet rock walls	0.01, 0.01, 0.01, 0.01
110, varnished door	0.01, 0.01, 0.01
Office 111, white plaster walls	0.04, 0.03, 0.04, 0.03
111, varnished door	0.01, 0.01, 0.01
111, white sheet rock walls	0.01, 0.01, 0.01
Office 112, white sheet rock walls	0.01, 0.01, 0.01, 0.01
112, white metal windows	0.01, 0.01, 0.01
112, white mini-blinds	0.01, 0.01, 0.01

Office 113, white sheet rock walls	0.01, 0.01, 0.01, 0.01
Corridor C101, north end, black fire door	0.01, 0.01, 0.01
Office 114, white sheet rock walls	0.01, 0.01, 0.01, 0.01
114, white metal windows	0.01, 0.01, 0.01, 0.01
Office 116, white sheet rock walls	0.01, 0.01, 0.01, 0.01
116, white sheet rock walls	0.01, 0.01, 0.01
116, varnished door	0.01, 0.01, 0.01
Office 115, white sheet rock walls	0.01, 0.01, 0.01, 0.01, 0.01, 0.01
115, white iron drain pipe inside sheet rock column	0.35, 0.31, 0.33
Office 115B, white sheet rock wall (top wall)	0.01, 0.01, 0.01
115B, white sheet rock wall (bottom wall)	0.06, 0.04
Office 117, lavender sheet rock wall	0.01, 0.01, 0.01, 0.01
117, green sheet rock wall	0.01, 0.01, 0.01
117, white metal windows	0.01, 0.01, 0.01
117, white mini-blinds	0.01, 0.01, 0.01
Slide Library 118, white sheet rock walls	0.01, 0.01
118, white metal windows	0.01, 0.01
Office 119, white sheet rock walls	0.01, 0.01, 0.01, 0.01
119, white metal windows	0.01, 0.01
119, brown mini-blinds	0.01, 0.01, 0.01
Cast Gallery 104 - Back and side walls are plaster. By windows the walls are sheet rock over plaster - blue sheet rock walls (top layer)	0.01, 0.02, 0.04
104, plaster walls (bottom layer)	0.14, 0.17
104, blue plaster walls (by windows)	0.15, 0.14, 0.17, 0.15, 0.23
Entry Vestibule V100 – white sheet rock walls	0.01, 0.02, 0.01, 0.02
V100, varnished door	0.02, 0.02, 0.02
V100, black anodized metal door	0.01, 0.01, 0.01
Rest Room 105, white sheet rock walls	0.01, 0.01, 0.01, 0.01, 0.01, 0.01
105, varnished door	0.01, 0.01, 0.01

Lecture Room 106 – white sheet rock walls	0.01, 0.01, 0.01, 0.01, 0.01, 0.01, 0.01, 0.02
106, white plaster walls	0.01, 0.01, 0.01
106, blue sheet rock walls	0.02, 0.01, 0.02
106, white sheet rock soffit	0.01, 0.01
Rest Room 107, white sheet rock walls	0.01, 0.01, 0.01, 0.01
107, blue metal stalls	0.04, 0.03, 0.04
Pickard Hall Second Floor –Stairwell S200, white sheet rock walls	0.16, 0.16, 0.13
Stairwell S200, white plaster walls	0.05, 0.03, 0.03, 0.02, 0.13
Archive Storage 203, white sheet rock walls	0.01, 0.01, 0.01
S203, varnished door	0.01, 0.01, 0.01, 0.01
S203, varnished wood shelves	0.01, 0.01, 0.01
Archive Storage S202, white sheet rock walls	0.01, 0.01, 0.01, 0.01
Corridor C200A, varnished doors (floor to ceiling)	0.01, 0.01, 0.01, 0.01
Gallery 204, white sheet rock walls	0.01, 0.01, 0.01, 0.01, 0.01, 0.01, 0.01
Gallery 201, white sheet rock walls	0.01, 0.01, 0.01, 0.01, 0.01, 0.01, 0.01
Gallery 205, white sheet rock walls	0.01, 0.01, 0.01, 0.01, 0.01, 0.01, 0.01
Gallery 206, blue sheet rock walls	0.01, 0.01, 0.01, 0.01, 0.01
Gallery 206, tan sheet rock walls	0.01, 0.01, 0.01, 0.01, 0.01
Gallery 206, gray plywood exhibit case	0.01, 0.01, 0.01
Corridor C200A north end, fire door	0.01, 0.01, 0.01
Gallery 207, white sheet rock walls	0.01, 0.01, 0.01, 0.01, 0.01, 0.01, 0.01
Gallery 208, white sheet rock walls	0.01, 0.01, 0.01
Gallery 208, white plaster walls	0.01, 0.01, 0.01
Gallery 209, brown sheet rock walls	0.28, 0.23, 0.77, 1.3, 2.73 , 0.18, 0.12
Gallery 210, gray sheet rock walls	0.37, 0.32, 0.28
Gallery 210, gray plaster walls	0.35, 0.38
Storage Room 213, gray wood floor	0.09, 0.05
Storage Room 213, white plaster walls	0.02, 0.01, 0.02, 0.16, 0.32, 0.35
Storage Room 213, varnished door	0.13, 0.12

Storage Room 213, painted pipe, SE corner	0.01, 0.01
Corridor C200B, white sheet rock walls	0.01, 0.02, 0.01
Gallery 214, white sheet rock walls	0.01, 0.01, 0.01, 0.01, 0.01, 0.04
Gallery 214, white plywood display cases	0.02, 0.02, 0.01, 0.02, 0.01
Corridor C200A, red elevator doors	0.01, 0.01, 0.01
Museum Store 215, maroon plaster	0.02, 0.02, 0.02
Museum Store 215, maroon wood walls	0.01, 0.01, 0.01
Corridor C200A, varnished wood pocket doors	0.01, 0.02, 0.08, 0.01

LEAD SUMMARY

Brown sheet rock walls in Gallery 209 are painted with lead-based paint; an area of twenty three thousand, forty (23, 040) square feet.

UNIVERSITY *of* MISSOURI

ENVIRONMENTAL HEALTH AND SAFETY

ASBESTOS SURVEY ADDENDUM

CP242862

PICKARD HALL

SELECTIVE DEMOLITION AND RAD CHARACTERIZATION

4/7/2025

TO: John Moon

Planning, Design, & Construction

FROM: Pete Kohler

Environmental Health & Safety

This report serves as an addendum to the original asbestos survey of Pickard Hall, made 10/09/2019.

Since the original survey was written, flooring has been removed from Pickard Hall, as an asbestos project. The ACM floor tile and mastic are abated from rooms in the basement and 2nd floor.

The floors in Corridors C000A, C000B, and Rooms 10, 12, 12A, 16, 18, 18A, 17, 17A, 28, 28A, 27, 26, 20, 21, 213, and 215A are now concrete.

However, it is now evident that the roll carpeting in Room 215 is glued down on top of ACM floor tile. This tile was not identified in the original survey. The positive tile covers one hundred forty (140) square feet.

Additionally, in some locations, the ACM floor tile and adhesive black mastic are still present under sheet rock walls, which were built on top of floor tile. If walls are removed in the project, it will expose ACM flooring. The tile will need to be handled by asbestos workers and disposed of properly.

A small section of wall in Storage Room 12A has been removed and about three feet of tile is now exposed on the concrete floor. It needs to be cleaned up and disposed of as ACM. Some of this tile is loose. There is no black mastic associated with this small patch of tile.



ASBESTOS SUMMARY

ACM flooring is present under roll carpet in 215 Pickard Hall; one hundred forty (140) square feet.

ACM flooring is present under sheet rock walls in basement rooms 21, 23, 27, 28, 28A, 17, 17A, 10, and 213 Pickard Hall; seventy five (75) square feet. Some of this flooring is ACM tile with blond mastic. Some of this flooring is ACM on ACM black mastic. The floor tile is all positive. The black mastic is positive. The blond mastic is negative.

SECTION 02 4119 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Demolition and removal of selected portions of building or structure.
2. Salvage of existing items to be reused or recycled.

1.2 MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.
- B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.
1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.3 PREINSTALLATION MEETINGS

- A. Predemolition Conference: Conduct conference at **Project site**

1.4 FIELD CONDITIONS

- A. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- B. Notify Engineer of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- C. Hazardous Materials: A specialized testing agency will be on-site the duration of project testing for hazardous materials.
1. If suspected hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.
- D. Storage or sale of removed items or materials on-site is not permitted.
- E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
1. Maintain fire-protection facilities in service during selective demolition operations.

1.5 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials and using approved contractors so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ASSE A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped before starting selective demolition operations.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.
- B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off utility services and mechanical/electrical systems serving areas to be selectively demolished.
 - 1. Owner will arrange to shut off indicated services/systems when requested by Contractor.
 - 2. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
 - 3. Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment, and components indicated on Drawings to be removed.
 - a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
 - b. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material and leave in place.

3.3 PROTECTION

- A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
- B. Remove temporary barricades and protections where hazards no longer exist.

3.4 SELECTIVE DEMOLITION

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
 - 1. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
 - 2. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
 - 3. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
 - 4. Maintain fire watch during and for at least two hours after flame-cutting operations.
 - 5. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
 - 6. Dispose of demolished items and materials promptly.
- B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- C. Removed and Salvaged Items:
 - 1. Store items in a secure area until delivery to Owner.
- D. Removed and Reinstalled Items:
 - 1. Clean and repair items to functional condition adequate for intended reuse.
 - 2. Pack or crate items after cleaning and repairing. Identify contents of containers.
 - 3. Protect items from damage during transport and storage.
 - 4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.
- E. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Engineer, items may be removed to a suitable, protected storage location during selective demolition **and cleaned** and reinstalled in their original locations after selective demolition operations are complete.

3.5 CLEANING

- A. Remove demolition waste materials from Project site **and dispose of them in an EPA-approved construction and demolition waste landfill acceptable to authorities having jurisdiction.**
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- B. Burning: Do not burn demolished materials.
- C. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

END OF SECTION 02 4119