

ASBESTOS ABATEMENT SPECIFICATIONS**CSU-Pueblo Project # P-13070**

**CSU-PUEBLO OCCHIATO
CENTER
2200 BONFORTE
PUEBLO, COLORADO**

All-Phase Environmental Consultants, Inc.

Project No. 16-2545

July 11, 2016

Prepared for:

**Colorado State
University – Pueblo
2200 Bonforte Blvd.
Pueblo, Colorado 81001**

Prepared by:



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ACRONYMS AND ABBREVIATIONS

ACM	asbestos-containing materials
AHERA	Asbestos Hazard Emergency Response Act
AMS	air-monitoring specialist
APEC	All-Phase Environmental Consultants, Inc.
CABI	Colorado Asbestos Building Inspector
CDPHE	Colorado Department of Public Health and Environment
Contractor	Contractor awarded the bid
EPA	Environmental Protection Agency
HEPA	high-efficiency particulate air
OSHA	Occupational Safety and Health Administration
Owner	State of Colorado
PCM	Phase Contrast Microscopy
TEM	Transmission Electron Microscopy

Asbestos Abatement/Environmental Control
Colorado State University – Pueblo
Occhiato Center Renovation

INTRODUCTION/PROJECT DESCRIPTION

Project Description:

Asbestos Abatement/Environmental Control at Occhiato University Center
Colorado State University – Pueblo 2200 Bonforte Blvd.
Pueblo, Colorado, 81001
Bidding Documents prepared by APEC

All-Phase Environmental Consultants, Inc. (APEC) was contracted by the State of Colorado – Colorado State University – Pueblo Campus (Owner) to prepare a Bid Specification document for the complete abatement of asbestos-containing materials (ACMs) and OSHA-classified materials from the Occhiato University Center. The specifications provide details regarding the location and extent of identified ACMs, removal methods, and regulatory requirements for asbestos abatement. Asbestos-containing materials were identified during a building inspection conducted by APEC and a previous inspection conducted by Advantage Environmental. The structure is planned for an extensive renovation; therefore, all friable and selected non-friable ACMs must be removed from the entire interior area of the entire existing structure. Additionally, all OSHA-regulated materials, i.e. those less than 1%, shall be removed under the same protocol as the ACMs. Lastly, all non-ACM, non-OSHA materials as listed in Section 1400 shall be removed and disposed of according to current local, state and federal regulations.

Specifications prepared by: Brandice N. Eslinger, License #5494 (Colorado).

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STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

INFORMATION FOR BIDDERS

Institution or Agency: Colorado State University-Pueblo
Project No./Name: Abatement at Occhiato University Center P-13070

1. **BID FORM:** Bidders are required to use the Bid form attached to the bidding documents. Each bidder is required to bid on all alternates and indicate the time from the date of the Notice to Proceed to Substantial Completion in calendar days, and in addition, the bidder is required to indicate the period of time to finally complete the project from Substantial Completion to Final Acceptance, also in calendar days. Bids indicating times for Substantial Completion and Final Acceptance in excess of the number of days indicated in the Advertisement for Bids for completion of the entire Project may be found non-responsive and may be rejected. The bid shall not be modified or conditioned in any manner. Bids shall be submitted in sealed envelopes bearing the address and information shown below. If a bid is submitted by mail, this aforementioned sealed envelope should be enclosed in an outer envelope and sent to the following addressee:

INSERT NAME OF AGENCY AND ADDRESS WHERE BID SHOULD BE DELIVERED

The outside of the sealed inner envelope should bear the following information:

Project #P-13070
Project Name Abatement at Occhiato University Center
Name and Address of Bidder
Date of Opening
Time of Opening

2. **INCONSISTENCIES AND OMISSIONS:** Bidders may request clarification of any seeming inconsistencies, or matters seeming to require explanation, in the bidding documents at least three (3) business days prior to the time set for the opening of Bids. Decisions of major importance on such matters will be issued in the form of addendum.
3. **APPLICABLE LAWS AND REGULATIONS:** The bidder's attention is called to the fact that all work under this Contract shall comply with the provisions of all state and local laws, approved state building codes, ordinances and regulations which might in any manner affect the work to be done or those to be employed in or about the work. Attention is also called to the fact that the use of labor for work shall be governed by the provisions of Colorado law which are hereinafter set forth in Articles 27 and 52E of the GENERAL CONDITIONS.
4. **UNAUTHORIZED IMMIGRANTS:** Note that the Special Provisions of the General Conditions of the Contract includes the following language: PUBLIC CONTRACTS FOR SERVICES - CRS 8-17.5-101 and PUBLIC CONTRACTS WITH NATURAL PERSONS - 24-76.5-101. The Contractor certifies that the Contractor shall comply with the provisions of CRS 8-17.5-101 et seq. The Contractor shall not knowingly employ or contract with an illegal alien to perform work under this contract or enter into a contract with a subcontractor that fails to certify to the Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this contract. The Contractor represents, warrants, and agrees that it (i) has verified that it does not employ any illegal aliens, through participation in the Basic Pilot Employment Verification Program administered by the Social Security Administration and Department of Homeland Security, and (ii) otherwise will comply with the requirements of CRS 8-17.5-102(2)(b). The Contractor shall comply with all reasonable requests made in the course of an investigation under CRS 8-17.5-102 by the Colorado Department of Labor and Employment. If the Contractor fails to comply with any requirement of this provision or CRS 8-17.5-101 et seq., the State may terminate this contract for breach and the Contractor shall be liable for actual and consequential damages to the State.

A Contractor that operates as a sole proprietor hereby swears or affirms under penalty of perjury that the Contractor (i) is a citizen of the United States or otherwise lawfully present in the United States pursuant to federal law, (ii) shall comply with the provisions of CRS 24-76.5-101 et seq, and (iii) shall produce one of the forms of identification required by CRS 24-76.5-103 prior to the effective date of this Contract. Except where

exempted by federal law and except as provided in CRS 24-76.5-103(3), a Contractor that receives federal or state funds under this contract must confirm that any individual natural person eighteen years of age or older is lawfully present in the United States pursuant to CRS 24-76.5-103(4) if such individual applies for public benefits provided under this contract.

5. **TAXES:** The bidder's attention is called to the fact that the Bid submitted shall exclude all applicable federal excise or manufacturers' taxes and all state sales and use taxes as hereinafter set forth in Article 9C of the GENERAL CONDITIONS.
6. **OR EQUAL:** The words "OR EQUAL" are applicable to all specifications and drawings relating to materials or equipment specified. Any material or equipment that will fully perform the duties specified, will be considered "equal", provided the bid submits proof that such material or equipment is of equivalent substance and function and is approved, in writing. Requests for the approval of "or equal" shall be made in writing at least five (5) business days prior to bid opening. During the bidding period, all approvals shall be issued by the Architect/Engineer in the form of addenda at least two (2) business days prior to the bid opening date.
7. **ADDENDA:** Owner/architect initiated addenda shall not be issued later than two (2) business days prior to bid opening date. All addenda shall become part of the Contract Documents and receipt must be acknowledged on the Bid form.
8. **METHOD OF AWARD - LOWEST RESPONSIBLE BIDDER:** If the bidding documents for this project require alternate prices, additive and/or deductible alternates shall be listed on the alternates bid form provided by the Principal Representative. Bidders should note the Method of Award is applicable to this Bid as stated below.
 - A. **DEDUCTIBLE ALTERNATES:** The lowest responsible Bid, taking into account the Colorado resident bidder preference provision of Colorado law, will be determined by and the contract will be awarded on the base bid combined with deductible alternates, deducted in numerical order in which they are listed in the alternates bid form provided by the Principal Representative. The subtraction of alternates shall result in a sum total within available funds. If this bid exceeds such amount, the right is reserved to reject all bids. An equal number of alternates shall be subtracted from the base bid of each bidder within funds available for purposes of determining the lowest responsible bidder.
 - B. **ADDITIVE ALTERNATES:** The lowest responsible Bid, taking into account the Colorado resident bidder preference provision of Colorado law, will be determined by and the contract will be awarded on the base bid plus all additive alternates added in the numerical order in which they are listed in the alternates bid form provided by the Principal Representative. The addition of alternates shall result in a sum total within available funds. If this bid exceeds such amount, the right is reserved to reject all bids. An equal number of alternates shall be added to the base bid of each bidder within funds available for purposes of determining the lowest responsible bidder.
 - C. **DEDUCTIBLE AND ADDITIVE ALTERNATES:** Additive alternates will not be used if deductible alternates are used and deductible alternates will not be used if additive alternates are used.
9. **NOTICE OF CONTRACTOR'S SETTLEMENT** – Agencies/institutions must indicate in the initial Solicitation (Advertisement for Bids, Documented Quotes, or Requests for Proposals) whether settlement will be advertised in newspapers or electronic media.

The Advertisement for Bids can be located at the web site: www.colorado.gov/pacific/osa/cdnotices
(Click on the appropriate link [ColoradoVSS or ColoradoBIDS] or on the State Purchasing Office website)



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

BID

Institution/Agency: Colorado State University-Pueblo

Project No./Name: Abatement at Occhiato University Center P-13070

Bidder Acknowledges Receipt of Addenda Numbers:

Bidder Anticipates Services outside the United States or Colorado:

Bidder will comply with 80% Colorado Labor on project above \$500,000:

Bidder is a Service-Disabled Veteran Owned Small Business:

No ☐ Yes ☐ If Yes see 3A below

Yes ☐ No ☐ If No see 3B below

No ☐ Yes ☐ If Yes see 3C below

Base Bid

\$

(Refer to Bid Alternate Form SC-6.13.1 Attached, If Applicable)

Bidder's Time of Completion

a. Time Period from Notice to Proceed to Substantial Completion:

62 Calendar Days

b. Time Period from Substantial Completion to Final Acceptance:

45 Calendar Days

c. Total Time of Completion of Entire Project (a + b):

107 Calendar Days

1. **BID:** Pursuant to the advertisement by the State of Colorado dated _____ the undersigned bidder hereby proposes to furnish all the labor and materials and to perform all the work required for the complete and prompt execution of everything described or shown in or reasonably implied from the Bidding Documents, including the Drawings and Specifications, for the work and for the base bid indicated above. Bidders should include all taxes that are applicable.
2. **EXAMINATION OF DOCUMENTS AND SITE:** The bidder has carefully examined the Bidding Documents, including the Drawings and Specifications, and has examined the site of the Work, so as to make certain of the conditions at the site and to gain a clear understanding of the work to be done.
3. **PARTIES INTERESTED IN BID:** The bidder hereby certifies that the only persons or parties interested in this Bid are those named herein, and that no other bidder or prospective bidder has given any information concerning this Bid.
 - A. If the bidder anticipates services under the contract or any subcontracts will be performed outside the United States or Colorado, the bidder shall provide in a written statement which must include, but need not be limited to the type of services that will be performed at a location outside the United States or Colorado and the reason why it is necessary or advantageous to go outside the United States or Colorado to perform such services. (Does not apply to any project that receives federal moneys)
 - B. For State Public Works projects per C.R.S. 8-17-101, Colorado labor shall be employed to perform at least 80% of the work. Colorado Labor means any person who is a resident of the state of Colorado at the time of the Public Works project. Bidders indicating that their bid proposal will not comply with the 80% Colorado Labor requirement are required to submit written justification along with the bid submission. (Does not apply to any project that receives federal moneys—)
 - C. A Service-Disabled Veteran Owned Small Business (SDVOSB) per C.R.S. 24-103-211, means a business that is incorporated or organized in Colorado or maintains a place of business or has an office in Colorado and is officially registered and verified by the Center for Veteran Enterprise within the U.S. Department of Veteran Affairs. Attach proof of certification along with the bid submission.
4. **BID GUARANTEE:** This Bid is accompanied by the required Bid Guarantee. You are authorized to hold said Bid Guarantee for a period of not more than thirty (30) days after the opening of the Bids for the work above indicated, unless the undersigned bidder is awarded the Contract, within said period, in which event the Director, State Buildings Programs, may retain said Bid Guarantee, until the undersigned bidder has executed the required Agreement and furnished the required Performance Bond, Labor and Material Payment Bond, Insurance Policy and Certificates of Insurance and Affidavit Regarding Unauthorized Immigrants.
5. **TIME OF COMPLETION:** The bidder agrees to achieve Substantial Completion of the Project from the date of the Notice to Proceed within the number of calendar days entered above, and in addition, further agrees that the period between Substantial Completion and Final Acceptance of the Project will not exceed the number of

calendar days noted above. If awarded the Work, the bidder agrees to begin performance within ten (10) days from the date of the Notice to Proceed subject to Article 46, Time of Completion and Liquidated Damages of The General Conditions of the Contract, and agrees to prosecute the Work with due diligence to completion. The bidder represents that Article 7D of the Contractor's Agreement (SC-6.21) has been reviewed to determine the type and amount of any liquidated damages that may be specified for this contract.

- 6. **EXECUTION OF DOCUMENTS:** The bidder understands that if this Bid is accepted, bidder must execute the required Agreement and furnish the required Performance Bond, Labor and Material Payment Bond, Insurance Policy and Certificates of Insurance and Affidavit Regarding Unauthorized Immigrants within ten (10) days from the date of the Notice of Award, and that the bidder will be required to sign to acknowledge and accept the Contract Documents, including the Drawings and Specifications.
- 7. **ALTERNATES:** Refer to the Information for Bidders (SC-6.12) for Method of Award for Alternates and use State Form SBP-6.13.1 Bid Alternates form to be submitted with this bid form if alternates are requested by the institution/agency in the solicitation documents.
- 8. **Submit wage rates** (direct labor costs) for prime contractor and subcontractor as requested by the institution/agency in the solicitation documents.
- 9. **The right is reserved to waive informalities and to reject any and all Bids.**

SIGNATURES: If the Bid is being submitted by a Corporation, the Bid shall be signed by an officer, i.e., President or Vice-President. If a sole proprietorship or a partnership is submitting the Bid, the Bid shall so indicate and be properly signed.

Dated this _____ Day of _____, 20_____

THE BIDDER:

Company Name

Address (including city, state and zip)

Phone number: _____

Name (Print) and Title

Signature



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

BID BOND

Institution/Agency: _____
Project No./Name: _____

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, _____ hereinafter called the "PRINCIPAL", is submitting a PROPOSAL for the above described project, to the STATE OF COLORADO, hereinafter called the "OBLIGEE".

WHEREAS, the Advertisement for Bids has required as a condition of receiving the Proposals that the Principal submit with the PROPOSAL GUARANTY in an amount not less than five per cent (5%) of the Proposal, which sum it is specifically agreed is to be forfeited as Liquidated Damages in the event that the Principal defaults in his obligation as hereinafter specified, and, in pursuance of which Requirement, this Bid is made, executed and delivered.

NOW THEREFORE, the Principal and _____ a corporation of the State of _____, duly authorized to transact business in Colorado, as Surety, are held and firmly bound unto the Obligee, in the sum of five per cent (5%) of the Principal's total bid price, lawful money of the United States for the payment of which sum, well and truly to be made to the Obligee, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

FURTHER THAT, a condition of the obligation that the Principal shall maintain his Proposal in full force and effect for thirty (30) days after the opening of the proposals for the project, or, if the Principal's Proposal is accepted, the Principal shall, within the prescribed time, execute the required Agreement, furnish the required Performance Bond, Labor and Material Payment Bond, Insurance Policy, Certificates of Insurance and Certification and Affidavit Regarding Illegal Aliens, then this obligation shall be null and void, otherwise it shall remain in full force and effect, and subject to forfeiture upon demand as Liquidated Damages.

IN WITNESS WHEREOF said Principal and Surety have executed this Bond, this _____ day of _____, A.D., 20_____.

(Corporate Seal)

ATTEST

Secretary

Name (Print)

THE PRINCIPAL

Company Name

Address (including city, state and zip)

Phone number: _____

Signature

Name (Print) and Title

SIGNATURES

If the "Principal" is doing business as a Corporation, the Bid Bond shall be signed by an officer, i.e., President or Vice President. The signature of the officer shall be attested to by the Secretary and properly sealed.

If the "Principal" is an individual or a partnership, the Bid Bond shall so indicate and be properly signed.

(Corporate Seal)

Secretary

THE SURETY

By

Attorney-in-Fact

**THIS BOND MUST BE ACCOMPANIED BY POWER OF ATTORNEY, EFFECTIVELY DATED.
FAILURE TO PROVIDE A PROPERLY EXECUTED BID BOND WITH A PROPERLY EXECUTED POWER OF
ATTORNEY WILL RESULT IN THE BIDDER'S PROPOSAL BEING DEEMED NON-RESPONSIVE.**



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

NOTICE OF AWARD

Date of Notice: _____

_____ Date to be inserted by the Principal Representative

Institution/Agency: _____

Project No./Name: _____

TO:

The State of Colorado, represented by the undersigned, has considered the Proposals submitted for the above described work.

Your Proposal, deemed to be in the best interest of the State of Colorado, in the amount of _____ DOLLARS AND NO/100* (\$_____*) is hereby accepted, pending final execution of the Agreement.

You **are** required to execute the approved Agreement and to furnish the Performance Bond, Labor and Material Payment Bond, Insurance Policy and Certificates of Insurance within ten (10) days from the date of this Notice.

If you fail to execute said Agreement and to furnish said Performance Bond, Labor and Material Payment Bond, Insurance Policy and Certificates of Insurance, and Certification and Affidavit Regarding Unauthorized Immigrants within ten (10) days from the date of this Notice, the State Controller is entitled to retain the amount of the Proposal Guaranty submitted with your Proposal as Liquidated Damages. In this event, the right is reserved to consider all of your rights arising out of the acceptance of your Proposal as abandoned and to award the work covered by your Proposal to another, or to re-advertise the Project, or otherwise dispose thereof.

By _____ By _____
State Buildings Programs Date Principal Representative Date
(of Authorized Delegate) (Institution or Agency)

When completely executed, this form is to be sent by **certified mail** to the Contractor by the Principal Representative or delivered by any other means to which the parties agree.



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

NOTICE OF SUBSTANTIAL COMPLETION

Date of Substantial Completion: _____
Date to be inserted by the Principal Representative

Institution/Agency: _____

Project No./Name: _____

TO:

Principal Representative

and

Contractor

This is to advise you that the Work has been reviewed, inspected and determined, to the best knowledge, information and belief of the Architect/Engineer, to be substantially complete as of the date noted above in accordance with the criteria outlined in Article 41 of The General Conditions of the Contract in SC-6.23 and SC-8.1 or Article 17.3 in SC-6.4 and the Specifications, including without limitation a) suitable for occupancy, b) inspected for code compliance with Building Inspection Records signed by code officials for the State, c) determined to be fully and comfortably usable, and d) fully cleaned and appropriate for presentation to the public.

A punch list of work to be completed, work not in compliance with the Drawings or Specifications, and unsatisfactory work is attached hereto, along with the Contractor's schedule for the completion of each and every item identified on the punch list specifying the Subcontractor or trade responsible for the work, and the dates the completion or correction will be commenced and finished within any period indicated in the Agreement for punch list completion prior to Final Acceptance.

Except as stated on the reverse side of this Notice of Substantial Completion, all manufacturers' warranties, other special warranties and the Contractor's one-year obligation to perform remedial work, shall commence on the Date of Substantial Completion noted above.

This Notice of Substantial Completion shall be effective and establish the Date of Substantial Completion only when fully executed by the Contractor and the Principal Representative. The Principal Representative accepts the Work as substantially complete as of the Date of Substantial Completion herein noted. The Contractor agrees to complete or correct the Work identified on the attached punch list and to do so in accordance with attached punch list completion schedule

Architect/Engineer _____ Date _____ Contractor _____ Date _____

State Buildings Programs _____ Date _____ Principal Representative _____ Date _____

(or Authorized Delegate)

(Institution or Agency)

The responsibilities of the Principal Representative and the Contractor for security, maintenance, heat, utilities, and insurance shall be as specified in the Contract Documents or as otherwise hereafter noted:

Exceptions, if any, to the commencement of warranties shall be:

The attached final punch list consists of _____ pages, and the attached Contractor's schedule showing the dates of commencement and completion of each punch list item consists of _____ pages.

When completely executed, this form shall be sent to the Contractor and the Principal Representative with a copy to State Buildings Programs.

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**



**CONTRACTOR'S DESIGN/BID/BUILD (D/B/B) AGREEMENT
(STATE FORM SC-6.21)**

DEPARTMENT ID: _____

CONTRACT ID #: _____

PROJECT #: _____

PROJECT NAME: _____

STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.21)

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EXHIBITS:

- A. Contractor's Bid (Form SC-6.13)
- B. Performance Bond (Form SC-6.22)
- C. Labor and Material Payment Bond (Form SC-6.221)
- D. Insurance Certificates
- E. Certification and Affidavit Regarding Unauthorized Immigrants (required at contract signing prior to commencing work)
- F. Building Code Compliance Policy: Coordination of Approved Building Codes, Plan Reviews and Building Inspections.

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**CONTRACTOR'S DESIGN/BID/BUILD (D/B/B) AGREEMENT
(STATE FORM SC-6.21)**

Department ID: _____ Contract ID #: _____ Project #: _____

1. PARTIES. THIS AGREEMENT is entered into by and between the STATE OF COLORADO, acting by and through the (agency), hereinafter referred to as the Principal Representative, and (vendor name) having its offices at (vendor address) hereinafter referred to as the Contractor.

2. EFFECTIVE DATE AND NOTICE OF NONLIABILITY. This Agreement shall not be effective or enforceable until it is approved and signed by the State Controller or its designee (hereinafter called the "Effective Date"), but shall be effective and enforceable thereafter in accordance with its provisions. The State shall not be liable to pay or reimburse Contractor for any performance hereunder or be bound by any provision hereof prior to the Effective Date.

RECITALS:

WHEREAS, the Principal Representative intends to (project name) hereinafter called the Project; and

WHEREAS, authority exists in the Law and Funds have been budgeted, appropriated, and otherwise made available, and a sufficient unencumbered balance thereof remains available for payment In Fund Number _____, Account Number _____; and

WHEREAS, this is a phase one waived contract, waiver number 156 Contractors Agreement for Capital Construction Form SC6.21.

WITNESSETH, that the State of Colorado and the Contractor agree as follows:

ARTICLE 1. PERFORMANCE OF THE WORK

The Contractor shall perform all of the Work required for the complete and prompt execution of everything described or shown in, or reasonably implied from the Contract Documents for the above referenced Project.

ARTICLE 2. PROVISIONS OF THE CONTRACT DOCUMENTS

The Contractor agrees to perform the Work to the highest industry standards and to the satisfaction of the State of Colorado and its Architect/Engineer in strict accordance with the provisions of the Contract Documents.

ARTICLE 3. TIME OF COMPLETION

The Contractor agrees to Substantially Complete the Project **within 62** calendar days from the date of the Notice to Proceed, in addition, the Contractor agrees to finally complete the Project from Substantial Completion to Final Acceptance within **45** calendar days for a total time of completion of the entire Project of **107** calendar days. The Contractor shall perform the Work with due diligence to completion.

ARTICLE 4. ESSENTIAL CONDITION

Timely completion of the Project is an essential condition of this Agreement. The Contractor shall be subject to any liquidated damages described in Article 7.4 for failure to satisfactorily complete the Work within the time periods in Article 3 above.

ARTICLE 5. CONTRACT SUM

The Contractor shall be paid for the performance of this Agreement, subject to any additions and deductions as provided for in Articles 32, 34 and 35 of The General Conditions of the Construction Contract SC-6.23, the sum of _____ DOLLARS AND NO/100* (\$_____ *).

ARTICLE 6. CONTRACT DOCUMENTS

The Contract Documents, as enumerated in Article 1 of The General Conditions of the Contractor's Design/Bid/Build (D/B/B) Agreement SC-6.23, are all essential parts of this Agreement and are fully incorporated herein.

ARTICLE 7. OPTIONAL PROVISIONS AND ELECTIONS

The provisions of this Article 7 alter the Articles (The General Conditions of the Contractor's Design/Bid/Build Agreement SC-6.23) or enlarge upon them as indicated:

The Principal Representative and or the State Buildings Program shall mark boxes and initial where applicable.

1. MODIFICATION OF ARTICLE 45. GUARANTEE INSPECTIONS AFTER COMPLETION

If the box below is marked the six month guarantee inspection is not required.

☐ _____ Principal Representative initial

2. MODIFICATION OF ARTICLE 27. LABOR AND WAGES

If the box is marked the Federal Davis-Bacon Act shall be applicable to the Project. The minimum wage rates to be paid on the Project shall be furnished by the Principal Representative and included in the Contract Documents.

☐ _____ Principal Representative initial

3. MODIFICATION OF ARTICLE 39. NON-BINDING DISPUTE RESOLUTION – FACILITATED NEGOTIATIONS

If the box is marked, and initialed by the State as noted, the requirement to participate in facilitated negotiations shall be deleted from this Contract. Article 39, Non-Binding Dispute Resolution – Facilitated Negotiations, shall be deleted in its entirety and all references to the right to the same where ever they appear in the contract shall be similarly deleted.

The box may be marked only for projects with an estimated value of less than \$500,000.

☐ _____ Principal Representative initial

4. MODIFICATION OF ARTICLE 46. TIME OF COMPLETION AND LIQUIDATED DAMAGES

If an amount is indicated immediately below, liquidated damages shall be applicable to this Project as, and to, the extent shown below. Where an amount is indicated below, liquidated damages shall be assessed in accordance with and pursuant to the terms of The General Conditions of the Design/Bid/Build Agreement Article 46, Time of Completion And Liquidated Damages, in the amounts and as here indicated. The election of liquidated damages shall limit and control the parties right to damages only to the extent noted.

1. For the inability to use the Project, for each day after the number of calendar days specified in the Contractor's bid for the Project and the Agreement for achievement of Substantial Completion, until the day that the Project has achieved Substantial Completion and the Notice of Substantial Completion is issued, the Contractor agrees that an amount equal to **Six hundred Dollars** (**\$ 600**) shall be assessed against Contractor from amounts due and payable to the Contractor under the Contract, or the Contractor and the Contractor's Surety shall pay to the Principal Representative such sum for any deficiency, if amounts on account thereof are deducted from remaining amounts due, but amounts remaining are insufficient to cover the entire assessment.

2. For damages related to or arising from additional administrative, technical, supervisory and professional expenses related to and arising from the extended closeout period, for each day in excess of the number of calendar days specified in the Contractor's bid for the Project and the Agreement to finally complete the Project as defined by the issuance of the Notice of Final Acceptance) after the issuance of the final Notice of Substantial Completion, the Contractor agrees that an amount equal to **Six Hundred Dollars** (**\$600**) shall be assessed against Contractor from amounts due and payable to the Contractor under the Contract, or the Contractor and the Contractor's Surety shall pay to the Principal Representative such sum for any deficiency, if amounts on account thereof are deducted from remaining amounts due but amounts remaining are insufficient to cover the entire assessment.

5. NOTICE IDENTIFICATION

All Notices pertaining to General Conditions or otherwise required to be given shall be transmitted in writing, to the individuals at the addresses listed below, and shall be deemed duly given when received by the parties at their addresses below or any subsequent persons or addresses provided to the other party in writing.

Notice to Principal Representative:

With copies to (State Buildings Program (or Delegate) State of Colorado):

Notice to Contractor:

With copies to:

SIGNATURE APPROVALS:

THE PARTIES HERETO HAVE EXECUTED THIS CONTRACT

*Persons signing for Contractor hereby swear and affirm that they are authorized to act on Contractor's behalf and acknowledge that the State is relying on their representations to that effect. **Principal is not a recognized title and will not be accepted**

THE CONTRACTOR

STATE OF COLORADO, acting by and through:
(Insert Name & Title of Agency or IHE)

Legal Name of Contracting Entity

By: _____
(Insert Name & Title of Person Signing for Agency or IHE)

Date: _____

*Signature

APPROVED
DEPARTMENT OF PERSONNEL &
ADMINISTRATION
STATE BUILDINGS PROGRAM
State Architect (or authorized Delegate)

By _____
Name (print) Title

Date: _____

By: _____
(Insert Name of Authorized Individual)

Date: _____

ALL CONTRACTS MUST BE APPROVED BY THE STATE CONTROLLER:

CRS §24-30-202 requires the State Controller to approve all State Contracts. This Contract is not valid until signed and dated below by the State Controller or delegate. Contractor is not authorized to begin performance until such time. If Contractor begins performing prior thereto, the State of Colorado is not obligated to pay Contractor for such performance or for any goods and/or services provided hereunder.

APPROVED:
STATE OF COLORADO
STATE CONTROLLER'S OFFICE
State Controller (or authorized Delegate)

By: _____
(Insert Name & Title of Authorized Individual)

Date: _____

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.21)**

EXHIBIT A

CONTRACTOR'S BID (Form SBP-6.13)

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.21)**

EXHIBIT B

PERFORMANCE BOND (Form SC-6.22)

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.21)**

EXHIBIT C

LABOR AND MATERIAL PAYMENT BOND (Form SC-6.221)

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.21)**

EXHIBIT D

INSURANCE CERTIFICATE(S) (attached)

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.21)**

EXHIBIT E

Certification and Affidavit Regarding Unauthorized Immigrants (required at contract signing prior to commencing work) (UI-1, attached)

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.21)**

EXHIBIT F

Building Code Compliance Policy: Coordination of Approved Building Codes, Plan Reviews and Building Inspections



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

PERFORMANCE BOND

Institution/Agency: _____
Project No./Name: _____

BONDING COMPANY: DO NOT MAKE ANY CHANGES TO THE LANGUAGE IN THIS BOND.

KNOW ALL PERSONS BY THESE PRESENTS:

That the Contractor

as Principal and hereinafter called "Principal,"

and

as Surety and hereinafter called "Surety," a corporation organized and existing under the laws of _____
_____ are held and firmly bound unto **the STATE OF COLORADO**
acting by and through _____
(AGENCY OR INSTITUTION)

hereinafter called the "Principal Representative", in the sum of _____
_____ Dollars (\$ _____)

for the payment whereof the Principal and Surety bind themselves, their heirs, executors,
administrators, successors and assigns, jointly and severally, firmly, by these presents.

WHEREAS, the Principal and the State of Colorado acting by and through the Principal
Representative have entered into a certain Contract, hereinafter called "Contract," dated _____
_____, 20____, for the construction of a PROJECT described as

which Contract is hereby by reference made a part hereof;

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION, is such that, if the Principal shall promptly, fully and faithfully perform all the undertakings, covenants, terms, conditions and agreements of said Contract during the original term of said Contract any extensions thereof that may be granted by the Principal Representative with or without notice to the Surety, and during the life of any guaranty required under the Contract, and shall also well and truly perform and fulfill all undertakings, covenants, terms, conditions and agreements of any and all duly authorized modifications of said Contract that may hereafter be made, notice of which modifications to the Surety being hereby waived, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

AND THE SAID SURETY, for value received hereby stipulates and agrees that whenever the Principal shall be, and declared by the Principal Representative to be in default under said Contract, the State of Colorado having performed its obligations thereunder, the Surety may promptly remedy the default or shall promptly (1) Complete the Contract in accordance with its terms and conditions, or (2) Obtain a bid or bids for submittal to the Principal Representative for completing the Contract in accordance with its terms and conditions, and upon determination by the Principal Representative and Surety of the lowest responsible bidder, arrange for a contract between such bidder and the State of Colorado acting by and through the Principal Representative and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion, less the balance of the contract price but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount hereinbefore set forth. The term "balance of the contract price" as herein used shall mean the total amount payable to the Principal under the Contract and any amendments thereto, less the amount properly paid by the State of Colorado to the Contractor.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the State of Colorado.

IN WITNESS WHEREOF said Principal and Surety have executed this Bond, this _____ day of , A.D., _____ 20____.

(Corporate Seal)

THE PRINCIPAL

ATTEST:

By: _____

Title: _____

Secretary

(Corporate Seal)

SURETY

By: _____
Attorney-in-fact

THIS BOND MUST BE ACCOMPANIED BY POWER OF ATTORNEY, EFFECTIVELY DATED

Note: This bond is issued simultaneously with another bond conditioned for the full and faithful payment for all labor and material of the contract.



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

LABOR AND MATERIAL BOND

Institution/Agency: _____
Project No./Name: _____

BONDING COMPANY: DO NOT MAKE ANY CHANGES TO THE LANGUAGE IN THIS BOND.

KNOW ALL PERSONS BY THESE PRESENTS:

That the Contractor

as Principal and hereinafter called "Principal,"

and

as Surety and hereinafter called "Surety," a corporation organized and existing under the laws of _____ are held and firmly bound unto the STATE OF COLORADO acting by and through _____ (agency or institution)

hereinafter called "Principal Representative," and to all subcontractors and any others who have supplied or furnished or shall supply or furnish materials, rental machinery, tools, or equipment actually used in the performance of the hereinafter identified Contract, or who have performed or shall perform labor in the performance of or in connection with said Contract, hereinafter called "Obligees" in the sum of _____ Dollars (\$ _____)

together with interest at the rate of eight per cent (8%) per annum on all payments becoming due in accordance with said Contract, from the time such payments shall become due until such payment shall be made, for the payment of which, well and truly made to the Obligees, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly, by these presents.

WHEREAS, the Principal and the State of Colorado acting by and through the Principal Representative have entered into a certain Contract, hereinafter called "Contract," dated _____, 20____ for the construction of a PROJECT described as

which Contract is hereby by reference made a part hereof;

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the Principal and the Surety shall fully indemnify and save harmless the State of Colorado and the Principal Representative from and against any and all costs and damages, including patent infringements, which either may suffer by reason of any failure or failures of the Principal promptly and faithfully to perform all terms and conditions of said Contract and shall fully reimburse and repay the State of Colorado and the Principal Representative all outlay and expense which the State of Colorado and the Principal Representative may incur in making good any such failure or failures, and further, if the Principal and his subcontractors shall duly and promptly pay for any and all labor, materials, team hire, sustenance, provisions, provender, rental machinery, tools, or equipment and other supplies which have been or shall be used or consumed by said Principal or his subcontractors in the performance of the work of said Contract , and it said Principal shall duly and promptly pay all his subcontractors the sums due them for any and all materials, rental machinery, tools, or equipment and labor that have been or shall be furnished, supplied, performed or used in connection with performance of said Contract, and shall also fully indemnify and save harmless the State of Colorado and the Principal Representative to the extent of any and all expenditures which either or both of them may be required to make by reason of any failures or defaults by the Principal or any subcontractor in connection with such payments; then this obligation shall be null and void, otherwise it shall remain in full force and effect.

It is expressly understood and agreed that any alterations which may be made in the terms of said Contract or in the work to be done under said Contract, or any extension(s) of time for the performance of the Contract, or any forbearance on the part of either the State of Colorado or the Principal to any of the others, shall not in any way release the Principal and the Surety, or either of them, their heirs, executors, administrators, successors or assigns from their liability hereunder, notice to the Surety of any such alteration, extension or forbearance being hereby waived.

IN WITNESS WHEREOF, the Principal and the Surety have executed this Bond, this _____ day of _____, A.D., 20_____.

(Corporate Seal)

THE PRINCIPAL

ATTEST:

By: _____

Title: _____

Secretary

(Corporate Seal)

SURETY

By: _____
Attorney-in-fact

THIS BOND MUST BE ACCOMPANIED BY POWER OF ATTORNEY, EFFECTIVELY DATED

Note: This bond is issued simultaneously with another bond conditioned for the full and faithful performance of the contract.



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

CERTIFICATION AND AFFIDAVIT REGARDING UNAUTHORIZED IMMIGRANTS

Institution/Agency: _____

Project No./Name: _____

A. CERTIFICATION STATEMENT CRS 8-17.5-101 & 102 (HB 06-1343, SB 08-193)

The Vendor, whose name and signature appear below, certifies and agrees as follows:

1. The Vendor shall comply with the provisions of CRS 8-17.5-101 et seq. The Vendor shall not knowingly employ or contract with an unauthorized immigrant to perform work for the State or enter into a contract with a subcontractor that knowingly employs or contracts with an unauthorized immigrant.
2. The Vendor certifies that it does not now knowing employ or contract with and unauthorized immigrant who will perform work under this contract, and that it will participate in either (i) the "E-Verify Program", jointly administered by the United States Department of Homeland Security and the Social Security Administration, or (ii) the "Department Program" administered by the Colorado Department of Labor and Employment in order to confirm the employment eligibility of all employees who are newly hired to perform work under this contract.
3. The Vendor shall comply with all reasonable requests made in the course of an investigation under CRS 8-17.5-102 by the Colorado Department of Labor and Employment. If the Vendor fails to comply with any requirement of this provision or CRS 8-17.5-101 et seq., the State may terminate work for breach and the Vendor shall be liable for damages to the State.

B. AFFIDAVIT CRS 24-76.5-101 (HB 06S-1023)

1. If the Vendor is a **sole proprietor**, the undersigned hereby swears or affirms under penalty of perjury under the laws of the State of Colorado that (check one):

- ☐ I am a United States citizen, or
- ☐ I am a Permanent Resident of the United States, or
- ☐ I am lawfully present in the United States pursuant to Federal law.

I understand that this sworn statement is required by law because I am a sole proprietor entering into a contract to perform work for the State of Colorado. I understand that state law requires me to provide proof that I am lawfully present in the United States prior to starting work for the State. I further acknowledge that I will comply with the requirements of CRS 24-76.5-101 et seq. and will produce the required form of identification prior to starting work. I acknowledge that making a false, fictitious, or fraudulent statement or representation in this sworn affidavit is punishable under the criminal laws of Colorado as perjury in the second degree under CRS 18-8-503 and it shall constitute a separate criminal offense each time a public benefit is fraudulently received.

CERTIFIED and AGREED to this _____ day of _____, 20____.

VENDOR:

Vendor Full Legal Name

BY: _____

Signature of Authorized Representative

Title



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

NOTICE TO PROCEED (DESIGN/BID/BUILD CONTRACT)

Date of Notice: _____
Date to be inserted by the Principal Representative
Date/Description of Contract Documents: _____
Institution/Agency: _____
Project No./Name: _____

Attach Notice of Code Compliance from Code Review Agent/Building Official for Documents Listed Above

To:

This is to advise you that your Performance Bond, Labor and Material Payment Bond, Insurance Policy and Certificates of Insurance, and Affidavit Regarding Unauthorized Immigrants have been received. Our issuance of this Notice does not relieve you of responsibility to assure that the bond and insurance requirements of the Contract Documents are met for the duration of the Agreement. The Agreement dated _____ covering the above described work has been fully executed.

You are hereby authorized and directed to proceed within ten (10) days from date of this Notice as required in the Agreement. Any liquidated damages for failure to achieve Substantial Completion by the date agreed that may be applicable to this Contract will be calculated using the date of this Notice for the date of the commencement of the Work.

The completion date of the Project is _____ (M/D/YYYY).

By _____
State Buildings Programs
(or Authorized Delegate) Date

By _____
Principal Representative
(Institution or Agency) Date

When completely executed, this form is to be sent by certified mail to the Contractor by the Principal Representative; or delivered by any other means to which the parties agree.

**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**



**THE GENERAL CONDITIONS OF THE CONTRACTOR'S DESIGN/BID/BUILD (D/B/B)
AGREEMENT**
(STATE FORM SC-6.23)

STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM

THE GENERAL CONDITIONS OF THE CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.23)

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**STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAM**

**THE GENERAL CONDITIONS OF THE CONTRACTOR'S DESIGN/BID/BUILD AGREEMENT
(STATE FORM SC-6.23)**

ARTICLE 1. DEFINITIONS

A. CONTRACT DOCUMENTS

The Contract Documents consist of the following some of which are procedural documents used in the administration and performance of the Agreement:

1. Contractor's Design/Bid/Build Agreement; (SC-6.21);
2. Performance Bond (SC-6.22) and Labor and Material Payment Bond (SC-6.221);
3. General Conditions of the Contractor's Design/Bid/Build Agreement (SC- 6.23) and if applicable, Supplementary General Conditions;
4. Detailed Specification Requirements, including all addenda issued prior to the opening of the bids; and,
5. Drawings, including all addenda issued prior to the opening of the bids.
6. Change Orders (SC-6.31) and Amendments (SC-6.0), if any, when properly executed.
7. Authorization to Bid (SBP-6.10)
8. Information for Bidders (SBP-6.12);
9. Bid (SBP-6.13);
10. Bid Bond (SBP-6.14);
11. Notice of Award (SBP-6.15);
12. Builder's risk insurance certificates of insurance (ACORD 25-S);
13. Liability and Workers' compensation certificates of insurance;
14. Notice to Proceed (Design/Bid/Build) (SBP-6.26);
15. Notice of Approval of Occupancy/Use (SBP-01);
16. Notice of Partial Substantial Completion (SBP-071);
17. Notice of Substantial Completion (SBP-07);
18. Notice of Partial Final Acceptance (SC-6.27);
19. Notice of Final Acceptance (SBP-6.271);
20. Notice of Partial Contractor's Settlement (SC-7.3);
21. Notice of Contractor's Settlement (SBP-7.31);
22. Application and Certificate for Contractor's Payment (SBP-7.2);
23. Other procedural and reporting documents or forms referred to in the General Conditions, the Supplementary General Conditions, the Specifications or required by the State Buildings Program or the Principal Representative, including but not necessarily limited to Pre-Acceptance Check List (SBP-05) and the Building Inspection Record (SBP-BIR). A list of the current standard State Buildings Program forms applicable to this Contract may be obtained from the Principal Representative on request.

B. DEFINITIONS OF WORDS AND TERMS USED

1. **AGREEMENT.** The term "Agreement" shall mean the written agreement entered into by the State of Colorado acting by and through the Principal Representative and the Contractor for the performance of the Work and payment therefore, on State Form SC-6.21. The term Agreement when used without reference to State Form SC-6.21 may also refer to the entirety of the parties' agreement to perform the Work described in the Contract Documents or reasonably inferable there from. The term "Contract" shall be interchangeable with this latter meaning of the term Agreement
2. **ARCHITECT/ENGINEER.** The term "Architect/Engineer" shall mean either the architect of record or the engineer of record under contract to the State of Colorado for the Project identified in the Contract Documents.

3. **CHANGE ORDER.** The term “Change Order” means a written order directing the Contractor to make changes in the Work, in accordance with Article 35A, The Value of Changed Work.
4. **COLORADO LABOR.** The term “Colorado labor”, as provided in C.R.S. § 8-17-101(2)(a), as amended, means any person who is a resident of the state of Colorado, at the time of the public Works project, without discrimination as to race, color, creed, sex, sexual orientation, marital status, national origin, ancestry, age, or religion except when sex or age is a bona fide occupational qualification. A resident of the state of Colorado is a person who can provide a valid Colorado driver’s license, a valid Colorado state-issued photo identification, or documentation that he or she has resided in Colorado for the last thirty days.
5. **CONTRACTOR.** The word “Contractor” shall mean the person, company, firm, corporation or other legal entity entering into a contract with the State of Colorado acting by and through the Principal Representative
6. **DAYS.** The term “days” whether singular or plural shall mean calendar days unless expressly stated otherwise. Where the term “business days” is used it shall mean business days of the State of Colorado.
7. **DRAWINGS.** The term “Drawings” shall mean all drawings approved by appropriate State officials which have been prepared by the Architect/Engineer showing the Work to be done, except that where a list of drawings is specifically enumerated in the Supplementary General Conditions or division 1 of the Specifications, the term shall mean the drawings so enumerated, including all addenda drawings.
8. **EMERGENCY FIELD CHANGE ORDER.** The term “Emergency Field Change Order” shall mean a written change order for extra Work or a change in the Work necessitated by an emergency as defined in Article 35C executed on State form SC 6.31 and identified as an Emergency Field Change Order. The use of such orders is limited to emergencies and to the amounts shown in Article 35C.
9. **FINAL ACCEPTANCE.** The terms “final acceptance” or “finally complete” mean the stage in the progress of the Work, after substantial completion, when all remaining items of Work have been completed, all requirements of the Contract Documents are satisfied and the Notice of Acceptance can be issued. Discrete physical portions of the Project may be separately and partially deemed finally complete at the discretion of the Principal Representative when that portion of the Project reaches such stage of completion and a partial Notice of Acceptance can be issued.
10. **FIXED LIMIT OF CONSTRUCTION COST.** The term “Fixed Limit of Construction Cost” shall set forth a dollar amount available for the total Construction Cost of all elements of the Work as specified by the Principal Representative.
11. **NOTICE.** The term “Notice” shall mean any communication in writing from either contracting party to the other by such means of delivery that receipt cannot properly be denied. Notice shall be provided to the person identified to receive it in Article 7.5 (Contractor’s Design/Bid/Build Agreement SC-6.21), Notice Identification, or to such other person as either party identifies in writing to receive Notice. Notice by facsimile transmission where proper transmission is evidence shall be adequate where facsimile numbers are included in Article 7.5 (Contractor’s Design/Bid/Build Agreement SC-6.21). Notwithstanding an email delivery or return receipt, email Notice shall not be adequate. Acknowledgment of receipt of a voice message shall not be deemed to waive the requirement that Notice, where required, shall be in writing.
12. **OCCUPANCY.** The term “Occupancy” means occupancy taken by the State as Owner after the Date of Substantial Completion at a time when a building or other discrete physical portion of the Project is used for the purpose intended. The Date of Occupancy shall be the date of such first use, but shall not be prior to the date of execution of the Notice of Approval of Occupancy/Use. Prior to the date of execution of a Notice of Approval of Occupancy/Use, the state shall have no right to occupy and the project may not be considered safe for occupancy for the intended use.

13. OWNER. The term "Owner" shall mean the Principal Representative.
14. PRINCIPAL REPRESENTATIVE. The term "Principal Representative " shall be defined, as provided in § 24-30-1301(11), C.R.S., as the governing board of a state department, institution, or agency; or if there is no governing board, then the executive head of a state department, institution, or agency, as designated by the governor or the general assembly and as specifically identified in the Contract Documents, or shall have such other meaning as the term may otherwise be given in § 24-30-1301(11), C.R.S., as amended. The Principal Representative may delegate authority. The Contractor shall have the right to inquire regarding the delegated authority of any of the Principal Representative's representatives on the project and shall be provided with a response in writing when requested.
15. PRODUCT DATA. The term "Product Data " shall mean all submittals in the form of printed manufacturer's literature, manufacturer's specifications, and catalog cuts.
16. PROJECT. The "Project" is the total construction of which the Work performed under the Contract Documents is a part, and may include construction by the Principal Representative or by separate contractors.
17. REASONABLY INFERABLE. The phrase "reasonably inferable" means that if an item or system is either shown or specified, all material and equipment normally furnished with such items or systems and needed to make a complete installation shall be provided whether mentioned or not, omitting only such parts as are specifically excepted, and shall include only components which the Contractor could reasonably anticipate based on his or her skill and knowledge using an objective, industry standard, not a subjective standard. This term takes into consideration the normal understanding that not every detail is to be given on the Drawings and Specifications. If there is a difference of opinion, the Principal Representative shall make the determination as to the standards of what reasonably inferable.
18. SAMPLES. The term "Samples" shall mean examples of materials or Work provided to establish the standard by which the Work will be judged.
19. SBP. The term "SBP" means "State Buildings", which is used in connection with labeling applicable State form documents (e.g., "SBP-01" is the form number for Notice of Approval of Occupancy/Use).
20. SC. The term "SC" means "State Contract" which is used in connection with labeling applicable State form documents (e.g. "SC 6.23" is the State form number for these General Conditions of the Contractor's Design/Bid/Build Agreement).
21. SCHEDULE OF VALUES. The term "Schedule of Values" is defined as the itemized listing of description of the Work by Division and Section of the Specifications. The format shall be the same as Form SC-7.2. Included shall be the material costs, and the labor and other costs plus the sum of both.
22. SHOP DRAWINGS. The term "Shop Drawings" shall mean any and all detailed drawings prepared and submitted by Contractor, Subcontractor at any tier, vendors or manufacturers providing the products and equipment specified on the Drawings or called for in the Specifications.
23. SPECIFICATIONS. The term "Specifications" shall mean the requirements of the CSI divisions of the project manual prepared by the Architect/Engineer describing the Work to be accomplished.
24. STATE BUILDINGS PROGRAM. Shall refer to the Office of the State Architect within the Department of Personnel & Administration of Colorado State government responsible for project administration, review, approval and coordination of plans, construction procurement policy, contractual procedures, and code compliance and inspection of all buildings, public Works and improvements erected for state purposes; except public roads and highways and projects under the supervision of the division of wildlife and the division of parks and outdoor recreation as provided in § 24-30-1301, *et seq*, C.R.S. The term State Buildings Program shall also mean that individual within a State Department agency or institution, including institutions of higher education, who has signed an agreement accepting delegation to perform all or part of the responsibilities and functions of State Buildings Program.
25. SUBCONTRACTOR. The term "Subcontractor" shall mean a person, firm or corporation supplying labor, materials, equipment and/or Services for Work at the site of the Project for, and under separate contract or agreement with the Contractor.

26. SUBMITTALS. The term "submittals" means drawings, lists, tables, documents and samples prepared by the Contractor to facilitate the progress of the Work as required by these General Conditions or the Drawings and Specifications. They consist of Shop Drawings, Product Data, Samples, and various administrative support documents including but not limited to lists of subcontractors, construction progress schedules, schedules of values, applications for payment, inspection and test results, requests for information, various document logs, and as-built drawings. Submittals are *required* by the Contract Documents, but except to the extent expressly specified otherwise are not themselves a part of the Contract Documents.
27. SUBSTANTIAL COMPLETION. The terms "substantial completion" or "substantially complete" mean the stage in the progress of the Work when the construction is sufficiently complete, in accordance with the Contract Documents as modified by any Change Orders, so that the Work, or at the discretion of the Principal Representative, any designated portion thereof, is available for its intended use by the Principal Representative and a Notice of Substantial Completion can be issued. Portions of the Project may, at the discretion of the Principal Representative, be designated as substantially complete.
28. SUPPLIER. The term "Supplier" shall mean any manufacturer, fabricator, distributor, material man or vendor.
29. SURETY. The term "Surety" shall mean the company providing the labor and material payment and performance bonds for the Contractor as obligor.
30. VALUE ENGINEERING. "Value Engineering" or "VE" is defined as an analysis and comparison of cost versus value of building materials, equipment, and systems. VE considers the initial cost of construction, coupled with the estimated cost of maintenance, energy use, life expectancy and replacement cost. VE related to this Project shall include the analysis and comparison of building elements in an effort to reduce overall Project costs, while maintaining or enhancing the quality of the design intent, whenever possible.
31. WORK. The term "Work" shall mean all or part of the labor, materials, equipment, and other services required by the Contract Documents or otherwise required to be provided by the Contractor to meet the Contractor's obligations under the Contract.

ARTICLE 2. EXECUTION, CORRELATION, INTENT OF DOCUMENTS, COMMUNICATION AND COOPERATION

A. EXECUTION

The Contractor, within ten (10) days from the date of Notice of Award, will be required to:

1. Execute the Agreement, State Form SC-6.21;
2. Furnish fully executed Performance and Labor and Material Payment Bonds on State Form s SC-6.22 and SC-6.221; and
3. Furnish certificates of insurance evidencing all required insurance on standard Acord forms designed for such purpose.
4. Furnish certified copies of any insurance policies requested by the Principal Representative.

B. CORRELATION

By execution of the Agreement the Contractor represents that the Contractor has visited the site, has become familiar with local conditions and local requirements under which the Work is to be performed, including the building code programs of the State Buildings Program as implemented by the Principal Representative, and has correlated personal observations with the requirements of the Contract Documents.

C. INTENT OF DOCUMENTS

The Contract Documents are complementary, and what is called for by any one document shall be as binding as if called for by all. The intention of the documents is to include all labor, materials, equipment and transportation necessary for the proper execution of the Work. Words describing materials or Work which have a well-known technical or trade meaning shall be held to refer to such recognized standards.

In any event, if any error exists, or appears to exist, in the requirements of the Drawings or Specifications, or if any disagreement exists as to such requirements, the Contractor shall have the

same explained or adjusted by the Architect/Engineer before proceeding with the Work in question. In the event of the Contractor's failure to give prior written Notice of any such errors or disagreements of which the Contractor or the Subcontractors at any tier are aware, the Contractor shall, at no additional cost to the Principal Representative, make good any damage to, or defect in, Work which is caused by such omission.

Where a conflict occurs between or within standards, Specifications or Drawings, which is not resolved by reference to the precedence between the Contract Documents, the more stringent or higher quality requirements shall apply so long as such more stringent or higher quality requirements are reasonably inferable. The Architect/Engineer shall decide which requirements will provide the best installation.

With the exception noted in the following paragraph, the precedence of the Contract Documents is in the following sequence:

1. The Agreement (SC-6.21);
2. The Supplementary General Conditions, if any;
3. The General Conditions (SC-6.23); and
4. Drawings and Specifications, all as modified by any addenda.

Change Orders and Amendments, if any, to the Contract Documents take precedence over the original Contract Documents.

Notwithstanding the foregoing order of precedence, the Special Provisions of Article 52 of the General Conditions, Special Provisions, shall take precedence, rule and control over all other provisions of the Contract Documents.

Unless the context otherwise requires, form numbers in this document are for convenience only. In the event of any conflict between the form required by name or context and the form required by number, the form required by name or context shall control. The Contractor may obtain State forms from the Principal Representative upon request.

D. PARTNERING, COMMUNICATIONS AND COOPERATION

In recognition of the fact that conflicts, disagreements and disputes often arise during the performance of construction contracts, the Contractor and the Principal Representative aspire to encourage a relationship of open communication and cooperation between the employees and personnel of both, in which the objectives of the Contract may be better achieved and issues resolved in a more fully informed atmosphere.

The Contractor and the Principal Representative each agree to assign an individual who shall be fully authorized to negotiate and implement a voluntary partnering plan for the purpose of facilitating open communications between them. Within thirty days (30) of the Notice to Proceed, the assigned individuals shall meet to discuss development of an informal agreement to accomplish these goals.

The assigned individuals shall endeavor to reach an informal agreement, but shall have no such obligation. Any plans these parties voluntarily agree to implement shall result in no change to the contract amount, and no costs associated with such plan or its development shall be recoverable under any contract clause. In addition, no plan developed to facilitate open communication and cooperation shall alter, amend or waive any of the rights or duties of either party under the Contract unless and except by written Amendment to the Contract, nor shall anything in this clause or any subsequently developed partnering plan be deemed to create fiduciary duties between the parties unless expressly agreed in a written Amendment to the Contract. It is also recognized that projects with relatively low contract values may not justify the expense or special efforts required. In the case of small projects with an initial Contract value under \$500,000, the requirements of the preceding paragraph shall not apply.

ARTICLE 3. COPIES FURNISHED

The Contractor will be furnished, free of charge, the number of copies of Drawings and Specifications as specified in the Contract Documents, or if no number is specified, all copies reasonably necessary for the execution of the Work.

ARTICLE 4. OWNERSHIP OF DRAWINGS

Drawings or Specifications, or copies of either, furnished by the Architect/Engineer, are not to be used on any other Work. At the completion of the Work, at the written request of the Architect/Engineer, the Contractor shall endeavor to return all Drawings and Specifications.

The Contractor may retain the Contractor's Contract Document set, copies of Drawings and Specifications used to contract with others for any portion of the Work and a marked up set of as-built drawings.

ARTICLE 5. ARCHITECT/ENGINEER'S STATUS

The Architect/Engineer is the representative of the Principal Representative for purposes of administration of the Contract, as provided in the Contract Documents and the Agreement. In case of termination of employment or the death of the Architect/Engineer, the Principal Representative will appoint a capable Architect/Engineer against whom the Contractor makes no reasonable objection, whose status under the Contract shall be the same as that of the former Architect/Engineer.

ARTICLE 6. ARCHITECT/ENGINEER DECISIONS AND JUDGMENTS, ACCESS TO WORK AND INSPECTION

A. DECISIONS

The Architect/Engineer shall, within a reasonable time, make decisions on all matters relating to the execution and progress of the Work or the interpretation of the Contract Documents, and in the exercise of due diligence shall be reasonably available to the Contractor to timely interpret and make decisions with respect to questions relating to the design or concerning the Contract Documents.

B. JUDGMENTS

The Architect/Engineer is, in the first instance, the judge of the performance required by the Contract Documents as it relates to compliance with the Drawings and Specifications and quality of Workmanship and materials.

The Architect/Engineer shall make judgments regarding whether directed Work is extra or outside the scope of Work required by the Contract Documents at the time such direction is first given. If, in the Contractor's judgment, any performance directed by the Architect/Engineer is not required by the Contract Documents or if the Architect/Engineer does not make the judgment required, it shall be a condition precedent to the filing of any claim for additional cost related to such directed Work that the Contractor, before performing such Work, shall first obtain in writing, the Architect/Engineer's written decision that such directed Work is included in the performance required by the Contract Documents. If the Architect/Engineer's direction to perform the Work does not state that the Work is within the performance required by the Contract Documents, the Contractor shall, in writing, request the Architect/Engineer to advise in writing whether the directed Work will be considered extra Work or Work included in the performance required by the Contract Documents.

The Architect/Engineer shall respond to any such written request for such a decision within three (3) business days and if no response is provided, or if the Architect/Engineer's written decision is to the effect that the Work is included in the performance required by the Contract Documents, the Contractor may file with the Principal Representative and the Architect/Engineer a Notice of claim in accordance with Article 36, Claims. Whether or not a Notice of claim is filed, the Contractor shall proceed with the ordered Work. Disagreement with the decision of the Architect/Engineer shall not be grounds for the Contractor to refuse to perform the Work directed or to suspend or terminate performance.

C. ACCESS TO WORK

The Architect/Engineer, the Principal Representative and representatives of State Buildings Program shall at all times have access to the Work. The Contractor shall provide proper facilities for such access and for their observations or inspection of the Work.

D. INSPECTION

The Architect/Engineer has agreed to make, or that structural, mechanical, electrical engineers or other consultants will make, periodic visits to the site to generally observe the progress and quality of the Work to determine in general if the Work is proceeding in accordance with the Contract Documents. Observation may extend to all or any part of the Work and to the preparation, fabrication or manufacture of materials.

Without in any way meaning to be exclusive or to limit the responsibilities of the Architect/Engineer or the Contractor, the Architect/Engineer has agreed to observe, among other aspects of the Work, the following for compliance with the Contract Documents:

1. Compaction testing reports based upon the findings and recommendations of the Principal Representative's testing consultant;
2. Bearing surfaces of excavations before concrete is placed based upon the findings and recommendations of the Principal Representative's soils engineering consultant;
2. Reinforcing steel after installation and before concrete is poured;
3. Structural concrete;
4. Laboratory reports on all concrete testing based upon the findings and recommendations of the Principal Representative's testing consultant;
5. Structural steel during and after erection and prior to its being covered or enclosed;
6. Steel welding; Principal Representative will furnish steel welding inspection consultant/agency if required or necessary for the project;
7. Mechanical and plumbing Work following its installation and prior to its being covered or enclosed;
8. Electrical Work following its installation and prior to its being covered or enclosed; and
9. Any special or quality control testing required in the Contract Documents provided by the Principal Representative's testing consultant.

If the Specifications, the Architect/Engineer's instructions, laws, ordinances of any public authority require any Work to be specifically tested or approved, the Contractor shall give the Principal Representative, Architect/Engineer and appropriate testing agency (if necessary) timely notice of its readiness for observation by the Architect/Engineer or inspection by another authority, and if the inspection is by another authority, of the date fixed for such inspection, required certificates of inspection being secured by the Contractor. The Contractor shall give all required Notices to the Principal Representative or his or her designee for inspections required for the building inspection program. It shall be the responsibility of the Contractor to determine the Notice required by the State pursuant to Building Inspection Record for the Project, according to State form SBP-B.I.R., or the equivalent form required by the Principal Representative as approved by the State Buildings Program. If any such Work is covered up without approval or consent of the Architect/Engineer or prior to any building code inspection, it must, if required by the Architect/Engineer, the Principal Representative or the State Buildings Program, be uncovered for examination, at the Contractor's expense. If such Work is found to be not in accordance with the Contract Documents, the Contractor shall pay such costs, unless he or she shall show that the defect in the Work was caused by another contractor engaged by the Principal Representative. In addition, examination of questioned Work may be ordered, and if so ordered, the Work must be uncovered by the Contractor. If such Work be found in accordance with the Contract Documents, the Contractor shall be reimbursed the cost of examination and replacement.

ARTICLE 7. CONTRACTOR'S SUPERINTENDENCE AND SUPERVISION

The Contractor shall employ, and keep present (as applicable) on the Project during its progress, a competent project manager as satisfactory to the Principal Representative. The project manager shall not be changed except with the consent of the Principal Representative, unless the project manager proves to

be unsatisfactory to the Contractor and ceases to be in his or her employ. The project manager shall represent the Contractor for the Project, and in the absence of the Contractor, all directions given to the project manager shall be as binding as if given to the Contractor. Directions received by the project manager shall be documented by the project manager and communicated in writing with the Contractor.

The Contractor shall employ, and keep present on the Project during its progress, a competent superintendent and any necessary assistants, all satisfactory to the Architect/Engineer and the Principal Representative. The superintendent shall not be changed except with the consent of the Architect/Engineer and the Principal Representative, unless the superintendent proves to be unsatisfactory to the Project Manager/Contractor and ceases to be in his or her employ. The superintendent shall represent the Project Manager/Contractor in his or her absence and all directions given to the superintendent shall be as binding as if given to the Project Manager/Contractor. Directions received by the superintendent shall be documented by the superintendent and confirmed in writing with the Project Manager/Contractor.

The Contractor shall give efficient supervision to the Work, using his or her best skill and attention. He or she shall carefully study and compare all Drawings, Specifications and other written instructions and shall without delay report any error, inconsistency or omission which he or she may discover in writing to the Architect/Engineer. The Contractor shall not be liable to the Principal Representative for damage to the extent it results from errors or deficiencies in the Contract Documents or other instructions by the Architect/Engineer, unless the Contractor knew or had reason to know, that damage would result by proceeding and the Contractor fails to so advise the Architect/Engineer.

The superintendent shall see that the Work is carried out in accordance with the Contract Documents and in a uniform, thorough and first-class manner in every respect. The Contractor's superintendent shall establish all lines, levels, and marks necessary to facilitate the operations of all concerned in the Contractor's Work. The Contractor shall lay out all Work in a manner satisfactory to the Architect/Engineer, making permanent records of all lines and levels required for excavation, grading, foundations, and for all other parts of the Work.

ARTICLE 8. MATERIALS AND EMPLOYEES

Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation and other facilities necessary for the execution and completion of the Work.

Unless otherwise specified, all materials shall be new and both workmanship and materials shall be first class and of uniform quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The Contractor is fully responsible for all acts and omissions of the Contractor's employees and shall at all times enforce strict discipline and good order among employees on the site. The Contractor shall not employ on the Work any person reasonably deemed unfit by the Principal Representative or anyone not skilled in the Work assigned to him.

ARTICLE 9. SURVEYS, PERMITS, LAWS, TAXES AND REGULATIONS

A. SURVEYS

The Principal Representative shall furnish all surveys, property lines and bench marks deemed necessary by the Architect/Engineer, unless otherwise specified.

B. PERMITS AND LICENSES

Permits and licenses necessary for the prosecution of the Work shall be secured and paid for by the Contractor. Unless otherwise specified in the Specifications, no local municipal or county building permit shall be required. However, State Buildings Program requires each Principal Representative to administer a building code inspection program, the implementation of which may vary at each agency or institution of the State. The Contractors' employees shall become personally familiar with these local conditions and requirements and shall fully comply with such requirements. State electrical and

plumbing permits are required, unless the requirement to obtain such permits is altered by State Building's Programs. The Contractor shall obtain and pay for such permits.

Easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the Principal Representative, unless otherwise specified.

C. TAXES

1. Refund of Sales and Use Taxes

The Contractor shall pay all local taxes required to be paid, including but not necessarily limited to all sales and use taxes. If requested by the Principal Representative prior to issuance of the Notice to Proceed or directed in the Supplementary General Conditions or the Specifications, the Contractor shall maintain records of such payments in respect to the Work, which shall be separate and distinct from all other records maintained by the Contractor, and the Contractor shall furnish such data as may be necessary to enable the State of Colorado, acting by and through the Principal Representative, to obtain any refunds of such taxes which may be available under the laws, ordinances, rules or regulations applicable to such taxes. When so requested or directed, the Contractor shall require Subcontractors at all tiers to pay all local sales and use taxes required to be paid and to maintain records and furnish the Contractor with such data as may be necessary to obtain refunds of the taxes paid by such Subcontractors. No State sales and use taxes are to be paid on material to be used in this Project. On application by the purchaser or seller, the Department of Revenue shall issue to a Contractor or to a Subcontractor at any tier, a certificate or certificates of exemption per § 39-26-114(1)(d), C.R.S., and § 39-26-203, C.R.S.

2. Federal Taxes

The Contractor shall exclude the amount of any applicable federal excise or manufacturers' taxes from the proposal. The Principal Representative will furnish the Contractor, on request exemption certificates.

D. LAWS AND REGULATIONS

The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the Work as drawn or specified. If the Contractor observes that the Drawings or Specifications require Work which is at variance therewith, the Contractor shall without delay notify the Architect/Engineer in writing and any necessary changes shall be adjusted as provided in Article 35, Changes In The Work.

The Contractor shall bear all costs arising from the performance of Work required by the Drawings or Specifications that the Contractor knows to be contrary to such laws, ordinances, rules or regulations, if such Work is performed without giving Notice to the Architect/Engineer.

ARTICLE 10. PROTECTION OF WORK AND PROPERTY

A. GENERAL PROVISIONS

The Contractor shall continuously maintain adequate protection of all Work and materials, protect the property from injury or loss arising in connection with this Contract and adequately protect adjacent property as provided by law and the Contract Documents. The Contractor shall make good any damage, injury or loss, except to the extent:

1. Directly due to errors in the Contract Documents;
2. Caused by agents or employees of the Principal Representative; and,
3. Due to causes beyond the Contractor's control and not to fault or negligence; provided such damage, injury or loss would not be covered by the insurance required to be carried by the Contractor;

B. SAFETY PRECAUTIONS

The Contractor shall take all necessary precautions for the safety of employees on the Project, and shall comply with all applicable provisions of federal, State and municipal safety laws and building

codes to prevent accidents or injury to persons on, about or adjacent to the premises where the Work is being performed. He or she shall erect and properly maintain at all times, as required by the conditions and progress of the Work, all necessary safeguards for the protection of Workers and the public and shall post danger signs warning against the hazards created by such features of construction as protruding nails, hoists, well holes, elevator hatchways, scaffolding, window openings, stairways and falling materials; and he or she shall designate a responsible member of his or her organization on the Project, whose duty shall be the prevention of accidents. The name and position of any person so designated shall be reported to the Architect/Engineer by the Contractor.

The Contractor shall provide all necessary bracing, shoring and tying of all structures, decks and framing to prevent any structural failure of any material which could result in damage to property or the injury or death of persons; take all precautions to insure that no part of any structure of any description is loaded beyond its carrying capacity with anything that will endanger its safety at any time during the execution of this Contract; and provide for the adequacy and safety of all scaffolding and hoisting equipment. The Contractor shall not permit open fires within the building enclosure. The Contractor shall construct and maintain all necessary temporary drainage and do all pumping necessary to keep excavations and floors, pits and trenches free of water. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures, and for coordinating all portions of the Work, except as otherwise noted.

The Contractor shall take due precautions when obstructing sidewalks, streets or other public ways in any manner, and shall provide, erect and maintain barricades, temporary walkways, roadways, trench covers, colored lights or danger signals and any other devices necessary or required to assure the safe passage of pedestrians and automobiles.

C. EMERGENCIES

In an emergency affecting the safety of life or of the Work or of adjoining property, the Contractor without special instruction or authorization from the Architect/Engineer or Principal Representative, is hereby permitted to act, at his or her discretion, to prevent such threatened loss or injury; and he or she shall so act, without appeal, if so authorized or instructed. Provided the Contractor has no responsibilities for the emergency, if the Contractor incurs additional cost not otherwise recoverable from insurance or others on account of any such emergency Work, the Contract sum shall be equitably adjusted in accordance with Article 35, Changes In The Work.

ARTICLE 11. DRAWINGS AND SPECIFICATIONS ON THE WORK

The Contractor shall keep on the job site one copy of the Contract Documents in good order, including current copies of all Drawings and Specifications for the Work, and any approved Shop Drawings, Product Data or Samples, and as-built drawings. As-built drawings shall be updated weekly by the Contractor and Subcontractors to reflect actual constructed conditions including dimensioned locations of underground Work and the Contractor's failure to maintain such updates may be grounds to withhold portions of payments otherwise due in accordance with Article 33, Payments Withheld. All such documents shall be available to the Architect/Engineer and representatives of the State. In addition, the Contractor shall keep on the job site one copy of all approved addenda, Change Orders and requests for information issued for the Work.

The Contractor shall develop procedures to insure the currency and accuracy of as-built drawings and shall maintain on a current basis a log of requests for information and responses thereto, a Shop Drawing and Product Data submittal log, and a Sample submittal log to record the status of all necessary and required submittals.

ARTICLE 12. REQUESTS FOR INFORMATION AND SCHEDULES

A. REQUESTS FOR INFORMATION

The Architect/Engineer shall furnish additional instructions with reasonable promptness, by means of drawings or otherwise, necessary for the proper execution of the Work. All such drawings and instructions shall be consistent with the Contract Documents and reasonably inferable there from. The

Architect/Engineer shall determine what additional instructions or drawings are necessary for the proper execution of the Work.

The Work shall be executed in conformity with such instructions and the Contractor shall do no Work without proper drawings, specifications or instructions. If the Contractor believes additional instructions, specifications or drawings are needed for the performance of any portion of the Work, the Contractor shall give Notice of such need in writing through a request for information furnished to the Architect/Engineer sufficiently in advance of the need for such additional instructions, specifications or drawings to avoid delay and to allow the Architect/Engineer a reasonable time to respond. The Contractor shall maintain a log of the requests for information and the responses provided.

B. SCHEDULES

1. Submittal Schedules

Prior to filing the Contractor's first application for payment, a schedule shall be prepared which may be preliminary to the extent required, fixing the dates for the submission and initial review of required Shop Drawings, Product Data and Samples for the beginning of manufacture and installation of materials, and for the completion of the various parts of the Work. It shall be prepared so as to cause no delay in the Work or in the Work of any other contractor. The schedule shall be subject to change from time to time in accordance with the progress of the Work, and it shall be subject to the review and approval by the Architect/Engineer. It shall fix the dates at which the various Shop Drawings Product Data and Samples will be required from the Architect/Engineer. The Architect/Engineer, after review and agreement as to the time provided for initial review, shall review and comment on the Shop Drawings, Product Data and Samples in accordance with that schedule. The schedule shall be finalized, prepared and submitted with respect to each of the elements of the Work in time to avoid delay, considering reasonable periods for review, manufacture or installation.

At the time the schedule is prepared, the Contractor, the Architect/Engineer and Principal Representative shall jointly identify the Shop Drawing, Product Data and Samples, if any, which the Principal Representative shall receive simultaneously with the Architect/Engineer for the purposes of owner coordination with existing facility standards and systems. The Contractor shall furnish a copy for the Principal Representative when so requested. Transmittal of Shop Drawings and Product Data copies to the Principal Representative shall be solely for the convenience of the Principal Representative and shall neither create nor imply responsibility or duty of review by the Principal Representative.

The Contractor may also, or at the direction of the Principal Representative at any time shall, prepare and maintain a schedule, which may also be preliminary and subject to change to the extent required, fixing the dates for the initial responses to requests for information or for detail drawings which will be required from the Architect/Engineer to allow the beginning of manufacture, installation of materials and for the completion of the various parts of the Work. The schedule shall be subject to review and approval by the Architect/Engineer. The Architect/Engineer shall, after review and agreement, furnish responses and detail drawings in accordance with that schedule. Any such schedule shall be prepared and approved in time to avoid delay, considering reasonable periods for review, manufacture or installation, but so long as the request for information schedule is being maintained, it shall not be deemed to transfer responsibility to the Contractor for errors or omissions in the Contract Documents where circumstances make timely review and performance impossible.

The Architect/Engineer shall not unreasonably withhold approval of the Contractor's schedules and shall inform the Contractor and the Principal Representative of the basis of any refusal to agree to the Contractor's schedules. The Principal Representative shall attempt to resolve any disagreements.

2. Schedule of Values

Within twenty-one (21) calendar days after the date of the Notice to Proceed, the Contractor shall submit to the Architect/Engineer and Principal Representative, for approval, and to the State Buildings Program when specifically requested, a complete itemized schedule of the values of the various parts of the Work, as estimated by the Contractor, aggregating the total price. The schedule of values shall be in such detail as the Architect/Engineer or the Principal Representative shall require, prepared on forms acceptable to the Principal Representative. It shall, at a minimum, identify on a separate line each division of the Specifications including the general conditions costs to be charged to the Project. The Contractor shall revise and resubmit the schedule of values for approval when, in the opinion of the Architect/Engineer or the Principal Representative, such resubmittal is required due to changes or modifications to the Contract Documents or the Contract sum.

The total cost of each line item so separately identified shall, when requested by the Architect/Engineer or the Principal Representative, be broken down into reasonable estimates of the value of:

- a. Material, which shall include the cost of material actually built into the Project plus any local sales or use tax paid thereon; and,
- b. Labor and other costs.

The cost of subcontracts shall be incorporated in the Contractor's schedule of values, and when requested by the Architect/Engineer or the Principal Representative, shall be separately shown as line items.

The Architect/Engineer shall review the proposed schedules and approve it after consultation with the Principal Representative, or advise the Contractor of any required revisions within ten (10) days of its receipt. In the event no action is taken on the submittal within ten days, the Contractor may utilize the schedule of values as its submittal for payment until it is approved or until revisions are requested.

When the Architect/Engineer deems it appropriate to facilitate certification of the amounts due to the Contractor, further breakdown of subcontracts, including breakdown by labor and materials, may be directed.

This schedule of values, when approved, will be used in preparing Contractor's applications for payment on State Form SC-7.2, Application for Payment.

3. Construction Schedules

Within twenty-one (21) calendar days after the date of the Notice to Proceed, the Contractor shall submit to the Architect/Engineer and the Principal Representative, and to the State Buildings Program when specifically requested, on a form acceptable to them, an overall timetable of the construction schedule for the Project. Unless the Supplementary General Conditions or the Specifications allow scheduling with bar charts or other less sophisticated scheduling tools, the Contractor's schedule shall be a critical-path method (CPM) construction schedule. The CPM schedule shall start with the date of the Notice to Proceed and include submittals activities, the various construction activities, change order Work (when applicable), close-out, testing, demonstration of equipment operation when called for in the Specifications, and acceptance. The CPM schedule shall at a minimum correlate to the schedule of values line items and shall be cost loaded if requested by the Architect/Engineer or Principal Representative. The completion time shall be the time specified in the Agreement and all Project scheduling shall allocate float utilizing the full period available for construction as specified in the Agreement on State Form SC 6.13, without indication of early completion, unless such earlier completion is approved in writing by the Principal Representative and State Building Programs.

The time shown between the starting and completion dates of the various elements within the construction schedule shall represent one hundred per cent (100%) completion of each element.

All other elements of the CPM schedule shall be as required by the Specifications. In addition, the Contractor shall submit monthly updates or more frequently, if required by the Principal Representative, updates of the construction schedule. These updates shall reflect the Contractor's "Work in place" progress.

When requested by the Architect/Engineer, the Principal Representative or the State Buildings Program, the Contractor shall revise the construction schedule to reflect changes in the schedule of values.

When the testing of materials is required by the Specifications, the Contractor shall also prepare and submit to the Architect/Engineer and the Principal Representative a schedule for testing in accordance with Article 14, Samples and Testing.

ARTICLE 13. SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

A. SUBMITTAL PROCESS

The Contractor shall check and field verify all dimensions. The Contractor shall check, approve and submit to the Architect/Engineer in accordance with the schedule described in Article 12, Requests for Information and Schedules, all Shop Drawings, Product Data and Samples required by the specifications or required by the Contractor for the Work of the various trades. All Drawings and Product Data shall contain identifying nomenclature and each submittal shall be accompanied by a letter of transmittal identifying in detail all enclosures. The number of copies of Shop Drawings and Product Data to be submitted shall be as specified in the Specifications and if no number is specified then three copies shall be submitted.

The Architect/Engineer shall review and comment on the Shop Drawings and Product Data within the time provided in the agreed upon schedule for conformance with information given and the design concept expressed in, or reasonably inferred from, the Contract Documents. The nature of all corrections to be made to the Shop Drawings and Product Data, if any, shall be clearly noted, and the submittals shall be returned to the Contractor for such corrections. If a change in the scope of the Work is intended by revisions requested to any Shop Drawings and Product Data, the Contractor shall be requested to prepare a change proposal in accordance with Article 35, Changes In The Work. On resubmitted Shop Drawings, Product Data or Samples, the Contractor shall direct specific attention in writing on the transmittal cover to revisions other than those corrections requested by the Architect/Engineer on any previously checked submittal. The Architect/Engineer shall promptly review and comment on, and return, the resubmitted items.

The Contractor shall thereafter furnish such other copies in the form approved by the Architect/Engineer as may be needed for the prosecution of the Work.

B. FABRICATION AND ORDERING

Fabrication shall be started by the Contractor only after receiving approved Shop Drawings from the Architect/Engineer. Materials shall be ordered in accordance with approved Product Data. Work which is improperly fabricated, whether through incorrect Shop Drawings, faulty workmanship or materials, will not be acceptable.

C. **DEVIATIONS FROM DRAWINGS OR SPECIFICATIONS**

The review and comments of the Architect/Engineer of Shop Drawings, Product Data or Samples shall not relieve the Contractor from responsibility for deviations from the Drawings or Specifications, unless he or she has in writing called the attention of the Architect/Engineer to such deviations at the time of submission, nor shall it relieve the Contractor from responsibility for errors of any sort in Shop Drawings or Product Data. Review and comments on Shop Drawings or Product Data containing identified deviations from the Contract Documents shall not be the basis for a Change Order or a claim based on a change in the scope of the Work unless Notice is given to the Architect/Engineer and Principal Representative of all additional costs, time and other impacts of the identified deviation by bring it to their attention in writing at the time the submittals are made, and any subsequent change in the Contract sum or the Contract time shall be limited to cost, time and impacts so identified.

D. **CONTRACTOR REPRESENTATIONS**

By preparing, approving, and/or submitting Shop Drawings, Product Data and Samples, the Contractor represents that the Contractor has determined and verified all materials, field measurements, and field construction criteria related thereto, and has checked and co-ordinated the information contained within each submittal with the requirements of the Work, the Project and the Contract Documents and prior reviews and approvals.

ARTICLE 14. SAMPLES AND TESTING

A. **SAMPLES**

The Contractor shall furnish for approval, with such promptness as to cause no delay in his or her Work or in that of any other Contractor, all Samples as directed by the Architect/Engineer. The Architect/Engineer shall check and approve such Samples, with reasonable promptness, but only for conformance with the design intent of the Contract Documents and the Project, and for compliance with any submission requirements given in the Contract Documents.

B. **TESTING - GENERAL**

The Contractor shall provide such equipment and facilities as the Architect/Engineer may require for conducting field tests and for collecting and forwarding samples to be tested. Samples themselves shall not be incorporated into the Work after approval without the permission of the Architect/Engineer.

All materials or equipment proposed to be used may be tested at any time during their preparation or use. The Contractor shall furnish the required samples without charge and shall give sufficient Notice of the placing of orders to permit the testing thereof. Products may be sampled either prior to shipment or after being received at the site of the Work.

Tests shall be made by an accredited testing laboratory. Except as otherwise provided in the Specifications, sampling and testing of all materials, and the laboratory methods and testing equipment, shall be in accordance with the latest standards and tentative methods of the American Society of Testing Materials (ASTM). The cost of testing which is in addition to the requirements of the Specifications shall be paid by the Contractor if so directed by the Architect/Engineer, and the Contract sum shall be adjusted accordingly by Change Order ; provided however, that whenever testing shows portions of the Work to be deficient, all costs of testing including that required to verify the adequacy of repair or replacement Work shall be the responsibility of the Contractor.

C. **TESTING - CONCRETE AND SOILS**

Unless otherwise specified or provided elsewhere in the Contract Documents, the Principal Representative will contract for and pay for the testing of concrete and for soils compaction testing through an independent laboratory or laboratories selected and approved by the Principal Representative. The Contractor shall assume the responsibility of arranging, scheduling and coordinating the concrete sample collection efforts and soils compaction efforts in an efficient and cost effective manner. Testing shall be performed in accordance with the requirements of the Specifications, and if no requirements are specified, the Contractor shall request instructions and testing shall be as directed by the Architect/Engineer or the soils engineer, as applicable, and in accordance with standard industry practices.

The Principal Representative and the Architect/Engineer shall be given reasonable advance notice of each concrete pour and reserve the right to either increase or decrease the number of cylinders or the frequency of tests.

Soil compaction testing shall be at random locations selected by the soils engineer. In general, soils compaction testing shall be as directed by the soils engineer and shall include all substrate prior to backfill or construction.

D. TESTING - OTHER

Additional testing required by the Specifications will be accomplished and paid for by the Principal Representative in a manner similar to that for concrete and soils unless noted otherwise in the Specifications. In any case, the Contractor will be responsible for arranging, scheduling and coordinating additional tests. Where the additional testing will be contracted and paid for by the Principal Representative the Contractor shall give the Principal Representative not less than one month advance written Notice of the date the first such test will be required.

ARTICLE 15. SUBCONTRACTS

A. CONTRACT PERFORMANCE OUTSIDE OF THE UNITED STATES OR COLORADO

After the contract is awarded, Contractor is required to provide written notice to the Principal Representative no later than twenty (20) days after deciding to perform services under this contract outside the United States or Colorado or to subcontract services under this contract to a subcontractor that will perform such services outside the United States or Colorado. The written notification must include, but need not be limited to, a statement of the type of services that will be performed at a location outside the United States or Colorado and the reason why it is necessary or advantageous to go outside the United States or Colorado to perform the services. All notices received by the State pursuant to outsourced services shall be posted on the Colorado Department of Personnel & Administration's website. If Contractor knowingly fails to notify the Principal Representative of any outsourced services as specified herein, the Principal Representative, at its discretion, may terminate this contract as provided in C.R.S. § 24-102-206 (4). (Does not apply to any project that receives federal moneys)

B. SUBCONTRACTOR LIST

Prior to the Notice to Proceed to commence construction, the Contractor shall submit to the Architect/Engineer, the Principal Representative and State Buildings Program a preliminary list of Subcontractors. It shall be as complete as possible at the time, showing all known Subcontractors planned for the Work. The list shall be supplemented as other Subcontractors are determined by the Contractor and any such supplemental list shall be submitted to the Architect/Engineer, the Principal Representative and State Buildings Program not less than ten (10) days before the Subcontractor commences Work.

C. SUBCONTRACTOR SUBSTITUTIONS

The Contractor's list shall include those Subcontractors, if any, which the Contractor indicated in its bid, would be employed for specific portions of the Work if such indication was requested in the bid documents issued by the State. The substitution of any Subcontractor listed in the Contractor's bid shall be justified in writing not less than ten (10) days after the date of the Notice to Proceed to commence construction, and shall be subject to the approval of the Principal Representative. For reasons such as the Subcontractor's refusal to perform as agreed, subsequent unavailability or later discovered bid errors, or other similar reasons, but not including the availability of a lower Subcontract price, such substitution may be approved. The Contractor shall bear any additional cost incurred by such substitutions.

D. CONTRACTOR RESPONSIBLE FOR SUBCONTRACTORS

The Contractor shall not employ any Subcontractor that the Architect/Engineer, within ten (10) days after the date of receipt of the Contractor's list of Subcontractors or any supplemental list, objects to in writing as being unacceptable to either the Architect/Engineer, the Principal Representative or State Buildings Program. If a Subcontractor is deemed unacceptable, the Contractor shall propose a

substitute Subcontractor and the Contract sum shall be adjusted by any demonstrated difference between the Subcontractor's bids, except where the Subcontractor has been debarred by the State or fails to meet qualifications of the Contract Documents to perform the Work proposed.

The Contractor shall be fully responsible to the Principal Representative for the acts and omissions of Subcontractors and of persons either directly or indirectly employed by them. All instructions or orders in respect to Work to be done by Subcontractors shall be given to the Contractor.

ARTICLE 16. RELATIONS OF CONTRACTOR AND SUBCONTRACTOR

The Contractor agrees to bind each Subcontractor to the terms of these General Conditions and to the requirements of the Drawings and Specifications, and any Addenda thereto, and also all the other Contract Documents, so far as applicable to the Work of such Subcontractor. The Contractor further agrees to bind each Subcontractor to those terms of the General Conditions which expressly require that Subcontractors also be bound, including without limitation, requirements that Subcontractors waive all rights of subrogation, provide adequate general commercial liability and property insurance, automobile insurance and workers' compensation insurance as provided in Article 25, Insurance.

Nothing contained in the Contract Documents shall be deemed to create any contractual relationship whatsoever between any Subcontractor and the State of Colorado acting by and through its Principal Representative.

ARTICLE 17. MUTUAL RESPONSIBILITY OF CONTRACTORS

Should the Contractor cause damage to any separate contractor on the Work, the Contractor agrees, upon due Notice, to settle with such contractor by agreement, if he or she will so settle. If such separate contractor sues the Principal Representative on account of any damage alleged to have been so sustained, the Principal Representative shall notify the Contractor, who shall defend such proceedings if requested to do so by Principal Representative. If any judgment against the Principal Representative arises there from, the Contractor shall pay or satisfy it and pay all costs and reasonable attorney fees incurred by the Principal Representative, in accordance with Article 52C, Indemnification, provided the Contractor was given due Notice of an opportunity to settle.

ARTICLE 18. SEPARATE CONTRACTS

The Principal Representative reserves the right to enter into other contracts in connection with the Project or the Contract. The Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their Work, and shall properly connect and coordinate his or her Work with theirs. If any part of the Contractor's Work depends, for proper execution or results, upon the Work of any other contractor, the Contractor shall inspect and promptly report to the Architect/Engineer any defects in such Work that render it unsuitable for such proper execution and results. Failure of the Contractor to so inspect and report shall constitute an acceptance of the other contractor's Work as fit and proper for the reception of Work, except as to defects which may develop in the other Contractor's Work after the execution of the Contractor's Work.

To insure the proper execution of subsequent Work, the Contractor shall measure Work already in place and shall at once report to the Architect/Engineer any discrepancy between the executed Work and the Drawings.

ARTICLE 19. USE OF PREMISES

The Contractor shall confine apparatus, the storage of materials and the operations of workmen to limits indicated by law, ordinances, permits and any limits lines shown on the Drawings. The Contractor shall not unreasonably encumber the premises with materials.

The Contractor shall enforce all of the Architect/Engineer's instructions and prohibitions regarding, without limitation, such matters as signs, advertisements, fires and smoking.

ARTICLE 20. CUTTING, FITTING OR PATCHING

The Contractor shall do all cutting, fitting or patching of Work that may be required to make its several parts come together properly and fit it to receive or be received by Work of other Contractors shown upon, or reasonably inferred from, the Drawings and Specifications for the complete structure, and shall provide for such finishes to patched or fitted Work as the Architect/Engineer may direct. The Contractor shall not endanger any Work by cutting, excavating or otherwise altering the Work and shall not cut or alter the Work of any other Contractor save with the consent of the Architect/Engineer.

ARTICLE 21. UTILITIES

A. TEMPORARY UTILITIES

Unless otherwise specifically stated in the Specifications or on the Drawings, the Principal Representative shall be responsible for the locations of all utilities as shown on the Drawings or indicated elsewhere in the Specifications, subject to the Contractor's compliance with all statutory or regulatory requirements to call for utility locates. When actual conditions deviate from those shown the Contractor shall comply with the requirements of Article 37, Differing Site Conditions. The Contractor shall provide and pay for the installation of all temporary utilities required to supply all the power, light and water needed by him and other Contractors for their Work and shall install and maintain all such utilities in such manner as to protect the public and Workmen and conform with any applicable laws and regulations. Upon completion of the Work, he or she shall remove all such temporary utilities from the site. The Contractor shall pay for all consumption of power, light and water used by him or her and the other Contractors, without regard to whether such items are metered by temporary or permanent meters. The Superintendent shall have full authority over all trades and Subcontractors at any tier to prevent waste. The cut-off date on permanent meters shall be either the agreed date of the date of the Notice of Substantial Completion or the Notice of Approval of Occupancy/Use of the Project.

B. PROTECTION OF EXISTING UTILITIES

Where existing utilities, such as water mains, sanitary sewers, storm sewers and electrical conduits, are shown on the Drawings, the Contractor shall be responsible for the protection thereof, without regard to whether any such utilities are to be relocated or removed as a part of the Work. If any utilities are to be moved, the moving must be conducted in such manner as not to cause undue interruption or delay in the operation of the same.

C. CROSSING OF UTILITIES

When new construction crosses highways, railroads, streets, or utilities under the jurisdiction of State, city or other public agency, public utility or private entity, the Contractor shall secure proper written permission before executing such new construction. The Contractor will be required to furnish a proper release before final acceptance of the Work.

ARTICLE 22. UNSUITABLE CONDITIONS

The Contractor shall not Work at any time, or permit any Work to be done, under any conditions contrary to those recommended by manufacturers or industry standards which are otherwise proper, unsuited for proper execution, safety and performance. Any cost caused by ill-timed Work shall be borne by the Contractor unless the timing of such Work shall have been directed by the Architect/Engineer or the Principal Representative, after the award of the Contract, and the Contractor provided Notice of any additional cost.

ARTICLE 23. TEMPORARY FACILITIES

A. OFFICE FACILITIES

The Contractor shall provide and maintain without additional expense for the duration of the Project temporary office facilities, as required and as specified, for its own use and the use of the Architect/Engineer, representatives of the Principal Representative and State Buildings Program.

B. TEMPORARY HEAT

The Contractor shall furnish and pay for all the labor, facilities, equipment, fuel and power necessary to supply temporary heating, ventilating and air conditioning, except to the extent otherwise specified,

and shall be responsible for the installation, operation, maintenance and removal of such facilities and equipment. Unless otherwise specified, the permanent HVAC system shall not be used for temporary heat in whole or in part. If the Contractor desires to put the permanent system into use, in whole or in part, the Contractor shall set it into operation and furnish the necessary fuel and manpower to safely operate, protect and maintain that HVAC system. Any operation of all or any part of the permanent HVAC system including operation for testing purposes shall not constitute acceptance of the system, nor shall it relieve the Contractor of his or her one-year guarantee of the system from the date of the Notice of Substantial Completion of the entire Project, and if necessary due to prior operation, the Contractor shall provide manufacturers' extended warranties from the date of the Contractor's use prior to the date of the Notice of Substantial Completion.

C. WEATHER PROTECTION

The Contractor shall, at all times, provide protection against weather, so as to maintain all Work, materials, apparatus and fixtures free from injury or damages.

D. DUST PARTITIONS

If the Work involves Work in an occupied existing building, the Contractor shall erect and maintain during the progress of the Work, suitable dust-proof temporary partitions, or more permanent partitions as specified, to protect such building and the occupants thereof.

E. BENCH MARKS

The Contractor shall maintain any site bench marks provided by the Principal Representative and shall establish any additional benchmarks specified by the Architect/Engineer as necessary for the Contractor to layout the Work and ascertain all grades and levels as needed.

F. SIGN

The Contractor shall erect and permit one 4' x 8' sign only at the site to identify the Project as specified or directed by the Architect/Engineer which shall be maintained in good condition during the life of the Project.

G. SANITARY PROVISION

The Contractor shall provide and maintain suitable, clean, temporary sanitary toilet facilities for any and all workmen engaged on the Work, for the entire construction period, in strict compliance with the requirement of all applicable codes, regulations, laws and ordinances, and no other facilities, new or existing, may be used by any person on the Project. When the Project is complete the Contractor shall promptly remove them from the site, disinfect, and clean or treat the areas as required. If any new construction surfaces in the Project other than the toilet facilities provided for herein are soiled at any time, the entire areas so soiled shall be completely removed from the Project and rebuilt. In no event may present toilet facilities of any existing building at the site of the Work be used by employees of any contractor.

ARTICLE 24. CLEANING UP

The Contractor shall keep the building and premises free from all surplus material, waste material, dirt and rubbish caused by employees or Work, and at the completion of the Work shall remove all such surplus material, waste material, dirt, and rubbish, as well as all tools, equipment and scaffolding, and shall wash and clean all window glass and plumbing fixtures, perform cleanup and cleaning required by the Specifications and leave all of the Work clean unless more exact requirements are specified.

ARTICLE 25. INSURANCE

A. GENERAL

The Contractor shall procure and maintain all insurance requirements and limits as set forth below, at his or her own expense, for the length of time set forth in Contract requirements. The Contractor shall continue to provide evidence of such coverage to State of Colorado on an annual basis during the aforementioned period including all of the terms of the insurance and indemnification requirements of this agreement. All below insurance policies shall include a provision preventing cancellation without thirty (30) days' prior notice by certified mail. A completed Certificate of Insurance shall be filed with

the Principal Representative and State Buildings Program within ten (10) days after the date of the Notice of Award, said Certificate to specifically state the inclusion of the coverages and provisions set forth herein and shall state whether the coverage is "claims made" or "per occurrence".

B. COMMERCIAL GENERAL LIABILITY INSURANCE (CGL)

This insurance must protect the Contractor from all claims for bodily injury, including death and all claims for destruction of or damage to property (other than the Work itself), arising out of or in connection with any operations under this Contract, whether such operations be by the Contractor or by any Subcontractor under him or anyone directly or indirectly employed by the Contractor or by a Subcontractor. All such insurance shall be written with limits and coverages as specified below and shall be written on an occurrence form.

General Aggregate	\$2,000,000
Products – Completed Operations Aggregate	\$2,000,000
Each Occurrence	\$1,000,000
Personal Injury	\$1,000,000

The following coverages shall be included in the CGL:

1. Per project general aggregate (CG 25 03 or similar)
2. Additional Insured status in favor of the State of Colorado and any other parties as outlined in The Contract and must include both ONGOING Operations AND COMPLETED Operations per CG2010 10/01 and CG 2037 10/01 or equivalent as permitted by law.
3. The policy shall be endorsed to be **primary and non-contributory** with any insurance maintained by Additional Insureds.
4. A waiver of Subrogation in favor of all Additional Insured parties.
5. Personal Injury Liability
6. Contractual Liability coverage to support indemnification obligation per Article 53.I
7. Explosion, collapse and underground (xcu)

The following exclusionary endorsements are prohibited in the CGL policy:

1. Damage to Work performed by Subcontract/Vendor (CG 22-94 or similar)
2. Contractual Liability Coverage Exclusion modifying or deleting the definition of an "insured contract" from the unaltered SO CG 0001 1001 policy from (CG 24 26 or similar)
3. If applicable to the Work to be performed: Residential or multi-family
4. If applicable to the Work to be performed :Exterior insulation finish systems
5. If applicable to the Work to be performed: Subsidence or Earth Movement

The Contractor shall maintain general liability coverage including Products and Completed Operations insurance, and the Additional Insured with primary and non-contributory coverage as specified in this Contract for three (3) years after completion of the project.

C. AUTOMOBILE LIABILITY INSURANCE and business auto liability covering liability arising out of any auto (including owned, hired and non-owned autos).

Combined Bodily Injury and Property Damage Liability (Combined Single Limit):	\$1,000,000 each accident
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Coverages:
Specific waiver of subrogation

D. WORKERS' COMPENSATION INSURANCE

The Contractor shall procure and maintain Workers' Compensation Insurance at his or her own expense during the life of this Contract, including occupational disease provisions for all employees per statutory requirements. Policy shall contain a waiver of subrogation in favor of the State of Colorado.

The Contractor shall also require each Subcontractor to furnish Workers' Compensation Insurance, including occupational disease provisions for all of the latter's employees, and to the extent not furnished, the Contractor accepts full liability and responsibility for Subcontractor's employees.

In cases where any class of employees engaged in hazardous Work under this Contract at the site of the Project is not protected under the Workers' Compensation statute, the Contractor shall provide, and shall cause each Subcontractor to provide, adequate and suitable insurance for the protection of employees not otherwise protected.

E. UMBRELLA LIABILITY INSURANCE (for construction projects exceeding \$10,000,000, provide the following coverage):

The Contractor shall maintain umbrella/excess liability insurance on an occurrence basis in excess of the underlying insurance described in Section B-D above. Coverage shall follow the terms of the underlying insurance, included the additional insured and waiver of subrogation provisions. The amounts of insurance required in Sections above may be satisfied by the Contractor purchasing coverage for the limits specified or by any combination of underlying and umbrella limits, so long as the total amount of insurance is not less than the limits specified in each section previously mentioned.

Each occurrence	\$5,000,000
Aggregate	\$5,000,000

F. BUILDER'S RISK INSURANCE

Unless otherwise expressly stated in the Supplementary General Conditions (e.g. where the State elects to provide for projects with a completed value of less than \$1,000,000), the Contractor shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder's risk "all-risk" or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract Modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made or until no person or entity other than the Owner has an insurable interest in the property, or the Date of Notice specified on the Notice of Acceptance, State Form SBP-6.27 or whichever is later.

This insurance shall include interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Project as named insureds.

All associated deductibles shall be the responsibility of the Contractor. Such policy may have a deductible clause but not to exceed ten thousand dollars (\$10,000.00).

Property insurance shall be on an "all risk" or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, false Work, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect's and Contractor's services and expenses required as a result of such insured loss.

Contractor shall maintain Builders Risk coverage including partial use by Owner.

The Contractor shall waive all rights of subrogation as regards the State of Colorado and the Principal Representative, its officials, its officers, its agents and its employees, all while acting within the scope and course of their employment For damages caused by fire or thoeer causes of loss to the extent covered by property insurance obtained pursuant to this Section or other property insurance applicable to the Work. The Contractor shall require all Subcontractors at any tier to similarly waive all such rights of subrogation and shall expressly include such a waiver in all subcontracts.

Upon request, the amount of such insurance shall be increased to include the cost of any additional Work to be done on the Project, or materials or equipment to be incorporated in the Project, under other independent contracts let or to be let. In such event, the Contractor shall be reimbursed for this cost as his or her share of the insurance in the same ratio as the ratio of the insurance represented by such independent contracts let or to be let to the total insurance carried.

The Principal Representative, with approval of the State Controller, shall have the power to adjust and settle any loss. Unless it is agreed otherwise, all monies received shall be applied first on rebuilding or repairing the destroyed or injured Work.

G. POLLUTION LIABILITY INSURANCE

If Contractor is providing directly or indirectly Work with pollution/environmental hazards, the Contractor must provide or cause those conducting the Work to provide Pollution Liability Insurance coverage. Pollution Liability policy must include contractual liability coverage. State of Colorado must be included as additional insureds on the policy. The policy limits shall be in the amount of \$1,000,000 with maximum deductible of \$25,000 to be paid by the Subcontractor/Vendor.

H. ADDITIONAL MISCELLANEOUS INSURANCE PROVISIONS

Certificates of Insurance and/or insurance policies required under this Contract shall be subject to the following stipulations and additional requirements:

1. Any and all deductibles or self-insured retentions contained in any Insurance policy shall be assumed by and at the sole risk of the Contractor;
2. If any of the said policies shall fail at any time to meet the requirements of the Contract Documents as to form or substance, or if a company issuing any such policy shall be or at any time cease to be approved by the Division of Insurance of the State of Colorado, or be or cease to be in compliance with any stricter requirements of the Contract Documents, the Contractor shall promptly obtain a new policy, submit the same to the Principal Representative and State Building Programs for approval if requested, and submit a Certificate of Insurance as hereinbefore provided. Upon failure of the Contractor to furnish, deliver and maintain such insurance as provided herein, this Contract, in the sole discretion of the State of Colorado, may be immediately declared suspended, discontinued, or terminated. Failure of the Contractor in obtaining and/or maintaining any required insurance shall not relieve the Contractor from any liability under the Contract, nor shall the insurance requirements be construed to conflict with the obligations of the Contractor concerning indemnification;
3. All requisite insurance shall be obtained from financially responsible insurance companies, authorized to do business in the State of Colorado and acceptable to the Principal Representative;
4. Receipt, review or acceptance by the Principal Representative of any insurance policies or certificates of insurance required by this Contract shall not be construed as a waiver or relieve the Contractor from its obligation to meet the insurance requirements contained in these General Conditions.

ARTICLE 26. CONTRACTOR'S PERFORMANCE AND PAYMENT BONDS

The Contractor shall furnish a Performance Bond and a Labor and Material Payment Bond on State Forms SC-6.22, Performance Bond, and SC-6.221, Labor and Material Payment Bond, or such other forms as State Buildings Program may approve for the Project, executed by a corporate Surety authorized to do business in the State of Colorado and in the full amount of the Contract sum. The expense of these bonds shall be borne by the Contractor and the bonds shall be filed with State Buildings Program.

If, at any time, a Surety on such a bond is found to be, or ceases to be in strict compliance with any qualification requirements of the Contract Documents or the bid documents, or loses its right to do business in the State of Colorado, another Surety will be required, which the Contractor shall furnish to State Buildings Program within ten (10) days after receipt of Notice from the State or after the Contractor otherwise becomes aware of such conditions.

ARTICLE 27. LABOR AND WAGES

In accordance with laws of Colorado, C.R.S. § 8-17-101(1), as amended, Colorado labor shall be employed to perform at least eighty percent of the Work. If the Federal Davis-Bacon Act shall be applicable to the Project, as indicated in Article 6B (Design/Bid/Build Agreement SC-6.21), Modification of Article 27, the minimum wage rates to be paid on the Project will be specified in the Contract Documents.

ARTICLE 28. ROYALTIES AND PATENTS

The Contractor shall be responsible for assuring that all rights to use of products and systems have been properly arranged and shall take such action as may be necessary to avoid delay, at no additional charge to the Principal Representative, where such right is challenged during the course of the Work. The Contractor shall pay all royalties and license fees required to be paid and shall defend all suits or claims for infringement of any patent rights and shall save the State of Colorado harmless from loss on account thereof, in accordance with Article 52C, Indemnification; provided, however, the Contractor shall not be responsible for such loss or defense for any copyright violations contained in the Contract Documents prepared by the Architect/Engineer or the Principal Representative of which the Contractor is unaware, or for any patent violations based on specified processes that the Contractor is unaware are patented or that the Contractor should not have had reason to believe were patented.

ARTICLE 29. ASSIGNMENT

Except as otherwise provided hereafter the Contractor shall not assign the whole or any part of this Contract without the written consent of the Principal Representative. This provision shall not be construed to prohibit assignments of the right to payment to the extent permitted by C.R.S. § 4-9-406, et. seq., as amended, provided that written Notice of assignment adequate to identify the rights assigned is received by the Principal Representative and the controller for the agency, department, or institution executing this Contract (as distinguished from the State Controller). Such assignment of the right to payment shall not be deemed valid until receipt by the Principal Representative and such controller and the Contractor assumes the risk that such written Notice of assignment is received by the Principal Representative and the controller for the agency, department, or institution involved. In case the Contractor assigns all or part of any moneys due or to become due under this Contract, the instrument of assignment shall contain a clause substantially to the effect that it is agreed that the right of the assignee in and to any moneys due or to become due to the Contractor shall be subject to all claims of all persons, firms, and corporations for services rendered or materials supplied for the performance of the Work called for in this Contract, whether said service or materials were supplied prior to or after the assignment. Nothing in this Article shall be deemed a waiver of any other defenses available to the State against the Contractor or the assignee.

ARTICLE 30. CORRECTION OF WORK BEFORE ACCEPTANCE

The Contractor shall promptly remove from the premises all Work or materials condemned or declared irreparably defective as failing to conform to the Contract Documents on receipt of written Notice from the Architect/Engineer or the Principal Representative, whether incorporated in the Work or not. If such materials shall have been incorporated in the Work, or if any unsatisfactory Work is discovered, the Contractor shall promptly replace and re-execute his or her Work in accordance with the requirements of the Contract Documents without expense to the Principal Representative, and shall also bear the expense of making good all Work of other contractors destroyed or damaged by the removal or replacement of such defective material or Work.

Should any defective Work or material be discovered during the process of construction, or should reasonable doubt arise as to whether certain material or Work is in accordance with the Contract Documents, the value of such defective or questionable material or Work shall not be included in any

application for payment, or if previously included, shall be deducted by the Architect/Engineer from the next application submitted by the Contractor.

If the Contractor does not perform repair, correction and replacement of defective Work, in lieu of proceeding by issuance of a Notice of intent to remove condemned Work as outlined above, the Principal Representative may, not less than seven (7) days after giving the original written Notice of the need to repair, correct, or replace defective Work, deduct all costs and expenses of replacement or correction as instructed by the Architect/Engineer from the Contractor's next application for payment in addition to the value of the defective Work or material. The Principal Representative may also make an equitable deduction from the Contract sum by unilateral Change Order, in accordance with Article 33, Payments Withheld and Article 35, Changes In The Work.

If the Contractor does not remove such condemned or irreparably defective Work or material within a reasonable time, the Principal Representative may, after giving a second seven (7) day advance Notice to the Contractor and the Surety, remove them and may store the material at the Contractor's expense. The Principal Representative may accomplish the removal and replacement with its own forces or with another Contractor. If the Contractor does not pay the expense of such removal and pay all storage charges within ten (10) days thereafter, the Principal Representative may, upon ten (10) days' written Notice, sell such material at auction or at private sale and account for the net proceeds thereof, after deducting all costs and expenses which should have been borne by the Contractor. If the Contractor shall commence and diligently pursue such removal and replacement before the expiration of the seven day period, or if the Contractor shall show good cause in conjunction with submittal of a revised CPM schedule showing when the Work will be performed and why such removal of condemned Work should be scheduled for a later date, the Principal Representative shall not proceed to remove or replace the condemned Work.

If the Contractor disagrees with the Notice to remove Work or materials condemned or declared irreparably defective, the Contractor may request facilitated negotiation of the issue and the Principal Representative's right to proceed with removal and to deduct costs and expenses of repair shall be suspended and tolled until such time as the parties meet and negotiate the issue

During construction, whenever the Architect/Engineer has advised the Contractor in writing, in the Specifications, by reference to Article 6, Architect/Engineer Decisions And Judgments, of these General Conditions or elsewhere in the Contract Documents of a need to observe materials in place prior to their being permanently covered up, it shall be the Contractor's responsibility to notify the Architect/Engineer at least forty-eight (48) hours in advance of such covering operation. If the Contractor fails to provide such notification, Contractor shall, at his or her expense, uncover such portions of the Work as required by the Architect/Engineer for observation, and reinstall such covering after observation. When a covering operation is continued from day to day, notification of the commencement of a single continuing covering operation shall suffice for the activity specified so long as it proceeds regularly and without interruption from day to day, in which event the Contractor shall coordinate with the Architect/Engineer regarding the continuing covering operation.

ARTICLE 31. APPLICATIONS FOR PAYMENTS

A. CONTRACTOR'S SUBMITTALS

On or before the first day of each month and no more than five days prior thereto, the Contractor may submit applications for payment for the Work performed during such month covering the portion of the Work completed as of the date indicated, and payments on account of this Contract shall be due per § 24-30-202(24) (correct notice of amount due), within forty-five (45) days of receipt by the Principal Representative of application for payments that have been certified by the Architect/Engineer. The Contractor shall submit the application for payment to the Architect/Engineer on State forms SBP-7.2, Certificate for Contractor's Payment, or such other format as the State Buildings Program shall approve, in an itemized format in accordance with the schedule of values or a cost loaded CPM schedule when required, supported to the extent reasonably required by the Architect/Engineer or the Principal Representative by receipts or other vouchers, showing payments for materials and labor, prior payments and payments to be made to Subcontractors and such other evidence of the Contractor's right to payments as the Architect/Engineer or Principal Representative may direct.

If payments are made on account of materials not incorporated in the Work but delivered and suitably stored at the site, or at some other location agreed upon in writing, such payments shall be conditioned upon submission by the Contractor of bills of sale or such other procedure as will establish the Principal Representative's title to such material or otherwise adequately protect the Principal Representative's interests, and shall provide proof of insurance whenever requested by the Principal Representative or the Architect/Engineer, and shall be subject to the right to inspect the materials at the request of either the Architect/Engineer or the Principal Representative.

All applications for payment, except the final application, and the payments there under, shall be subject to correction in the next application rendered following the discovery of any error.

B. ARCHITECT/ENGINEER CERTIFICATION

In accordance with the Architect/Engineer's agreement with the Principal Representative, the Architect/Engineer after appropriate observation of the progress of the Work shall certify to the Principal Representative the amount that the Contractor is entitled to, and forward the application to the Principal Representative. If the Architect/Engineer certifies an amount different from the amount requested or otherwise alters the Contractor's application for payment, a copy shall be forwarded to the Contractor.

If the Architect/Engineer is unable to certify all or portions of the amount requested due to the absence or lack of required supporting evidence, the Architect/Engineer shall advise the Contractor of the deficiency. If the deficiency is not corrected at the end of ten (10) days, the Architect/Engineer may either certify the remaining amounts properly supported to which the Contractor is entitled, or return the application for payment to the Contractor for revision with a written explanation as to why it could not be certified.

C. RETAINAGE WITHHELD

Unless otherwise provided in the Supplementary General Conditions, an amount equivalent to five percent (5%) of the amount shown to be due the Contractor on each application for payment shall be withheld until the Work required by the Contract has been performed. The withheld percentage of the contract price of any such Work, improvement, or construction shall be administered according to § 24-91-101, et seq., C.R.S., as amended, and except as provided in § 24-91-103, C.R.S., as amended, and Article 31D, shall be retained until the Work or discrete portions of the Work, have been completed satisfactorily, finally or partially accepted, and advertised for final settlement as further provided in Article 41.

D. RELEASE OF RETAINAGE

The Contractor may, for satisfactory and substantial reasons shown to the Principal Representative's satisfaction, make a written request to the Principal Representative and the Architect/Engineer for release of part or all of the withheld percentage applicable to the Work of a Subcontractor which has completed the subcontracted Work in a manner finally acceptable to the Architect/Engineer, the Contractor, and the Principal Representative. Any such request shall be supported by a written approval from the Surety furnishing the Contractor's bonds and any surety that has provided a bond for the Subcontractor. The release of any such withheld percentage shall be further supported by such other evidence as the Architect/Engineer or the Principal Representative may require, including but not limited to, evidence of prior payments made to the Subcontractor, copies of the Subcontractor's contract with the Contractor, any applicable warranties, as-built information, maintenance manuals and other customary close-out documentation. Neither the Principal Representative nor the Architect Engineer shall be obligated to review such documentation nor shall they be deemed to assume any obligations to third parties by any review undertaken.

The Contractor's obligation under these General Conditions to guarantee Work for one year from the date of the Notice of Substantial Completion or the date of any Notice of Partial Substantial Completion of the applicable portion or phase of the Project, shall be unaffected by such partial

release; unless a Notice of Partial Substantial Completion is issued for the Work subject to the release of retainage.

Any rights of the Principal Representative which might be terminated by or from the date of any final acceptance of the Work, whether at common law or by the terms of this Contract, shall not be affected by such partial release of retainage prior to any final acceptance of the entire Project.

The Contractor remains fully responsible for the Subcontractor's Work and assumes any risk that might arise by virtue of the partial release to the Subcontractor of the withheld percentage, including the risk that the Subcontractor may not have fully paid for all materials, labor and equipment furnished to the Project.

If the Principal Representative considers the Contractor's request for such release satisfactory and supported by substantial reasons, the Architect/Engineer shall make a "final inspection" of the applicable portion of the Project to determine whether the Subcontractor's Work has been completed in accordance with the Contract Documents. A final punch list shall be made for the Subcontractor's Work and the procedures of Article 41, Completion, Final Inspection, Acceptance and Settlement, shall be followed for that portion of the Work, except that advertisement of the intent to make final payment to the Subcontractor shall be required only if the Principal Representative has reason to believe that a supplier or Subcontractor to the Subcontractor for which the request is made, may not have been fully paid for all labor and materials furnished to the Project.

ARTICLE 32. CERTIFICATES FOR PAYMENTS

State Form SBP-7.2, Certificate For Contractor's Payment, and its continuation detail sheets, when submitted, shall constitute the Certificate of Contractor's Application for Payment, and shall be a representation by the Contractor to the Principal Representative that the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and materials for which payment is requested have been incorporated into the Project except as noted in the application. If requested by the Principal Representative the Certificate of Contractor's Application for Payment shall be sworn under oath and notarized.

ARTICLE 33. PAYMENTS WITHHELD

The Architect/Engineer, the Principal Representative or State Buildings Program may withhold, or on account of subsequently discovered evidence nullify, the whole or any part of any application on account of, but not limited to any of the following:

1. Defective Work not remedied;
2. Claims filed or reasonable evidence indicating probable filing of claims;
3. Failure of the Contractor to make payments to Subcontractors for material or labor;
4. A reasonable doubt that the Contract can be completed for the balance of the contract price then unpaid;
5. Damage or injury to another contractor or any other person, persons or property except to the extent of coverage by a policy of insurance;
6. Failure to obtain necessary permits or licenses or to comply with applicable laws, ordinances, codes, rules or regulations or the directions of the Architect/Engineer;
7. Failure to submit a monthly construction schedule;
8. Failure of the Contractor to keep Work progressing in accordance with the time schedule;
9. Failure to keep a superintendent on the Work;
10. Failure to maintain as built drawings of the Work in progress;
11. Unauthorized deviations by the Contractor from the Contract Documents; or
12. On account of liquidated damages.

In addition, the Architect Engineer, Principal Representative or State Buildings Program may withhold or nullify the whole or any part of any application for any reason noted elsewhere in these General Conditions of the Contractor's Design/Bid/Build Agreement. Nullification shall mean reduction of amounts shown as previously paid on the application. The amount withheld or nullified may be in such amount as the

Architect/Engineer or the Principal Representative estimates to be required to allow the State to accomplish the Work, cure the failure and cover any damages or injuries, including an allowance for attorneys fees and costs where appropriate. When the grounds for such withholding or nullifying are removed, payment shall be made for the amounts thus withheld or nullified on such grounds.

ARTICLE 34. DEDUCTIONS FOR UNCORRECTED WORK

If the Architect/Engineer and the Principal Representative deem it inexpedient to correct Work damaged or not performed in accordance with the Contract Documents, the Principal Representative may, after consultation with the Architect/Engineer and ten (10) days' Notice to the Contractor of intent to do so, make reasonable reductions from the amounts otherwise due the Contractor on the next application for payment. Notice shall specify the amount or terms of any contemplated reduction. The Contractor may during this period correct or perform the Work. If the Contractor does not correct or perform the Work, an equitable deduction from the Contract sum shall be made by Change Order, in accordance with Article 35, Changes In The Work, unilaterally if necessary. If either party elects facilitation of this issue after Notice is given, the ten-day (10) notice period shall be extended and tolled until facilitation has occurred.

ARTICLE 35. CHANGES IN THE WORK

The Principal Representative may designate, without invalidating the Agreement, and with the approval of State Buildings Program and the State Controller, may order extra Work or make changes with or without the consent of the Contractor as hereafter provided, by altering, adding to or deducting from the Work, the Contract sum being adjusted accordingly. All such changes in the Work shall be within the general scope of and be executed under the conditions of the Contract, except that any claim for extension of time made necessary due to the change or any claim of other delay or other impacts caused by or resulting from the change in the Work shall be presented by the Contractor and adjusted by Change Order to the extent known at the time such change is ordered and before proceeding with the extra or changed Work. Any claims for extension of time or of delay or other impacts, and any costs associated with extension of time, delay or other impacts, which are not presented before proceeding with the change in the Work, and which are not adjusted by Change Order to the extent known, shall be waived.

The Architect/Engineer shall have authority to make minor changes in the Work, not involving extra cost, and not inconsistent with the intent of the Contract Documents, but otherwise, except in an emergency endangering life or property, no extra Work or change in the Contract Documents shall be made unless by 1) a written Change Order, approved by the Principal Representative, State Buildings Program, and the State Controller prior to proceeding with the changed Work; or 2) by an Emergency Field Change Order approved by the Principal Representative and State Buildings Program as hereafter provided in Article 35C, Emergency Field Ordered Changed Work; or 3) by an allocation in writing of any allowance already provided in the encumbered contract amount, the Contract sum being later adjusted to decrease the Contract sum by any unallocated or unexpended amounts remaining in such allowance. No change to the Contract sum shall be valid unless so ordered.

A. THE VALUE OF CHANGED WORK

1. The value of any extra Work or changes in the Work shall be determined by agreement in one or more of the following ways:
 - a. By estimate and acceptance of a lump-sum amount;
 - b. By unit prices specified in the Agreement, or subsequently agreed upon, that are extended by specific quantities;
 - c. By actual cost plus a fixed fee in a lump sum amount for profit, overhead and all indirect and off-site home office costs, the latter amount agreed upon in writing prior to starting the extra or changed Work.
2. Where the Contractor and the Principal Representative cannot agree on the value of extra Work, the Principal Representative may order the Contractor to perform the changes in the Work and a Change Order may be unilaterally issued based on an estimate of the change in the Work prepared by the Architect/Engineer. The value of the change in the Work shall be the Principal Representative's determination of the amount of equitable adjustment attributable to

the extra Work or change. The Principal Representative's determination shall be subject to appeal by the Contractor pursuant to the claims process in Article 36, Claims.

3. Except as otherwise provided in Article 35B, Detailed Breakdown, below, the Cost Principles of the Colorado Procurement Rules in effect on the date of this Contract, pursuant to § 24-107-101, C.R.S., as amended, shall govern all Contract changes.

B. DETAILED BREAKDOWN

In all cases where the value of the extra or changed Work is not known based on unit prices in the Contractor's bid or the Agreement, a detailed change proposal shall be submitted by the Contractor on a Change Order Proposal (SC-6.312), or in such other format as the State Buildings Program approves, with which the Principal Representative may require an itemized list of materials, equipment and labor, indicating quantities, time and cost for completion of the changed Work.

Such detailed change proposals shall be stated in lump sum amounts and shall be supported by a separate breakdown, which shall include estimates of all or part of the following when requested by the Architect/Engineer or the Principal Representative:

1. Materials, indicating quantities and unit prices including taxes and delivery costs if any (separated where appropriate into general, mechanical and electrical and/or other Subcontractors' Work; and the Principal Representative may require in its discretion any significant subcontract costs to be similarly and separately broken down).
2. Labor costs, indicating hourly rates and time and labor burden to include Social Security and other payroll taxes such as unemployment, benefits and other customary burdens.
3. Costs of project management time and superintendence time of personnel stationed at the site, and other field supervision time, but only where a time extension, other than a weather delay, is approved as part of the Change Order, and only where such project management time and superintendence time is directly attributable to and required by the change; provided however that additional cost of on-site superintendence shall be allowable whenever in the opinion of the Architect/Engineer the impact of multiple change requests to be concurrently performed will result in inadequate levels of supervision to assure a proper result unless additional superintendence is provided.
4. Construction equipment (including small tools). Expenses for equipment and fuel shall be based on customary commercially reasonable rental rates and schedules. Equipment and hand tool costs shall not include the cost of items customarily owned by workers.
5. Workers' compensation costs, if not included in labor burden.
6. The cost of commercial general liability and property damage insurance premiums but only to the extent charged the Contractor as a result of the changed Work.
7. Overhead and profit, as hereafter specified.
8. Builder's risk insurance premium costs.
9. Bond premium costs.
10. Testing costs not otherwise excluded by these General Conditions.
11. Subcontract costs.

Unless modified in the Supplementary General Conditions, overhead and profit shall not exceed the percentages set forth in the table below.

	OVERHEAD	PROFIT	COMMISSION
To the Contractor or to Subcontractors for the portion of Work performed with their own forces:	10%	5%	0%
To the Contractor or to Subcontractors for Work performed by others at a tier immediately below either of them:	5%	0%	5%

Overhead shall include: a) insurance premium for policies not purchased for the Project and itemized above, b) home office costs for office management, administrative and supervisory personnel and assistants, c) estimating and change order preparation costs, d) incidental job burdens, e) legal costs, f) data processing costs, g) interest costs on capital, h) general office expenses except those attributable to increased rental expenses for temporary facilities, and all other indirect costs, but shall not include the Social Security tax and other direct labor burdens. The term "Work" as used in the proceeding table shall include labor, materials and equipment and the "Commission" shall include all costs and profit for carrying the subcontracted Work at the tiers below except direct costs as listed in items 1 through 11 above if any.

On proposals for Work involving both additions and credits in the amount of the Contract sum, the overhead and profit will be allowed on the net increase only. On proposals resulting in a net deduct to the amount of the Contract sum, profit on the deducted amount shall be returned to the Principal Representative at fifty percent (50%) of the rate specified. The inadequacy of the profit specified shall not be a basis for refusal to submit a proposal.

Except in the case of Change Orders or Emergency Field Change Orders agreed to on the basis of a lump sum amount or unit prices as described in paragraphs 35A1 and 35A2 above, The Value of Changed Work, the Contractor shall keep and present a correct and fully auditable account of the several items of cost, together with vouchers, receipts, time cards and other proof of costs incurred, summarized on a Change Order form (SC-6.31) using such format for supporting documentation as the Principal Representative and State Buildings Program approve. This requirement applies equally to Work done by Subcontractors. Only auditable costs shall be reimbursable on Change Orders where the value is determined on the basis of actual cost plus a fixed fee pursuant to paragraph 35A3 above, or where unilaterally determined by the Principal Representative on the basis of an equitable adjustment in accordance with the Procurement Rules, as described above in Article 35A, The Value Of Changed Work.

Except for proposals for Work involving both additions and credits, changed Work shall be adjusted and considered separately for Work either added or omitted. The amount of adjustment for Work omitted shall be estimated at the time it is directed to be omitted, and when reasonable to do so, the agreed adjustment shall be reflected on the schedule of values used for the next Contractor's application for payment.

The Principal Representative reserves the right to contract with any person or firm other than the Contractor for any or all extra Work; however, unless specifically required in the Contract Documents, the Contractor shall have no responsibility without additional compensation to supervise or coordinate the Work of persons or firms separately contracted by the Principal Representative.

C. HAZARDOUS MATERIALS

1. The Principal Representative represents that it has undertaken an examination of the site of the Work and has determined that there are no hazardous substances, as defined below, which the Contractor could reasonably encounter in its performance of the Work. In the event the Principal Representative so discovers hazardous substances, the Principal Representative shall render harmless such hazards before the Contractor commences the Work.
2. In the event the Contractor encounters any materials reasonably believed to be hazardous substances which have not been rendered harmless, the Contractor shall immediately stop Work in the area affected and report the condition to the Principal Representative, in writing. For purposes of this Agreement, "hazardous substances" shall include asbestos, lead, polychlorinated biphenyl (PCB) and any or all of those substances defined as "hazardous substance", "hazardous waste", or "dangerous or extremely hazardous wastes" as those terms are used in the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA), and shall also include materials regulated by the Toxic Substances Control Act (TSCA), the Clean Air Act, the Air

Quality Act, the Clean Water Act, and the Occupational Safety and Health Act. The Work in the affected area shall not therefore be resumed except by written agreement of the Principal Representative and the Contractor, if in fact materials that are hazardous substances have not been rendered harmless. The Work in the affected area shall be resumed only in the absence of the hazardous substances or when it has been rendered harmless or by written agreement of the Principal Representative and the Contractor.

3. **The contractor shall not be required to perform Work without consent in any areas where it reasonably believes hazardous substances that have not been rendered harmless are present.**

D. EMERGENCY FIELD CHANGE ORDERED WORK

The Principal Representative, without invalidating the Agreement, and with the approval of State Buildings Program and without the approval of the State Controller, may order extra Work or make changes in the case of an emergency that is a threat to life or property or where the likelihood of delays in processing a normal Change Order will result in substantial delays and or significant cost increases for the Project. Emergency Field Orders are not to be used solely to expedite normal Change Order processing absent a clear showing of a high potential for significant and substantial cost or delay. Such changes in the Work may be directed through issuance of an Emergency Field Change Order signed by the Contractor, the Principal Representative (or by a designee specifically appointed to do so in writing), and approved by the Director of State Buildings Program or his or her delegate. The change shall be directed using an Emergency Field Change Order form (SC-6.31E).

If the amount of the adjustment of the Contract price and time for completion can be determined at the time of issuance of the Emergency Field Change Order, those adjustments shall be reflected on the face of the Emergency Field Change Order. Otherwise, the Emergency Field Change Order shall reflect a not to exceed (NTE) amount for any schedule adjustment (increasing or decreasing the time for completion) and an NTE amount for any adjustment to Contract sum, which NTE amount shall represent the maximum amount of adjustment to which the Contractor will be entitled, including direct and indirect costs of changed Work, as well as any direct or indirect costs attributable to delays, inefficiencies or other impacts arising out of the change. Emergency Field Change Orders directed in accordance with this provision need not bear the approval signatures of the State Controller.

On Emergency Field Change Orders where the price and schedule have not been finally determined, the Contractor shall submit final costs for adjustment as soon as practicable. No later than seven (7) days after issuance, except as otherwise permitted, and every seven days thereafter, the Contractor shall report all costs to the Principal Representative and the Architect/Engineer. The final adjustment of the Emergency Field Change Order amount and the adjustment to the Project time for completion shall be prepared on a normal Change Order from (SC-6.31) in accordance with the procedures described in Article 35A, The Value of Changed Work, and B, Detailed Breakdown, above. Unless otherwise provided in writing signed by the Director of State Buildings Program to the Principal Representative and the Contractor, describing the extent and limits of any greater authority, individual Emergency Field Change Orders shall not be issued for more than \$25,000, nor shall the cumulative value of Emergency Field Change Orders exceed an amount of \$100,000.

E. APPROPRIATION LIMITATIONS - § 24-91-103.6, C.R.S., as amended

The amount of money appropriated, as shown on the Contractor's Design/Bid/Build Agreement (SC 6.21), is equal to or in excess of the Contract amount. No Change Order, Emergency Field Change Order, or other type of order or directive shall be issued by the Principal Representative, or any agent acting on his or her behalf, which directs additional compensable Work to be performed, which Work causes the aggregate amount payable under the Contract to exceed the amount appropriated for the original Contract, as shown on the Agreement (SC-6.21), unless one of the following occurs: (1) the Contractor is provided written assurance from the Principal Representative that sufficient additional lawful appropriations exist to cover the cost of the additional Work; or (2) the Work is covered by a contractor remedy provision under the Contract, such as a claim for extra cost. By way of example only, no assurance is required for any order, directive or instruction by the Architect/Engineer or the

Principal Representative to perform Work which is determined to be within the performance required by the Contract Documents; the Contractor's remedy shall be as described elsewhere in these General Conditions.

Written assurance shall be in the form of an Amendment to the Contract reciting the source and amount of such appropriation available for the Project. No remedy granting provision of this Contract shall obligate the Principal Representative to seek appropriations to cover costs in excess of the amounts recited as available to pay for the Work to be performed.

ARTICLE 36. CLAIMS

It is the intent of these General Conditions to provide procedures for speedy and timely resolution of disagreements and disputes at the lowest level possible. In the spirit of on the job resolution of job site issues, the parties are encouraged to use the partnering processes of Article 2D, Partnering, Communications and Cooperation, before turning to the more formal claims processes described in this Article 36, Claims. The use of non-binding dispute resolution, whether through the formal processes described in Article 39, Non-Binding Dispute Resolution – Facilitated Negotiations, or through less formal alternative processes developed as part of a partnering plan, are also encouraged. Where such process cannot resolve the issues in dispute, the claims process that follows is intended to cause the issues to be presented, decided and where necessary, documented in close proximity to the events from which the issues arise. To that end, and in summary of the remedy granting process that follows commencing with the next paragraph of this Article 36, Claims, the Contractor shall 1) first, seek a decision by the Architect/Engineer, and 2) shall second, informally present the claim to Principal Representative as described hereafter, and 3) failing resolution in the field, give Notice of intent to exercise statutory rights of review of a formal contract controversy, and 4) seek resolution outside the Contract as provided by the Procurement Code.

If the Contractor claims that any instructions, by detailed drawings, or otherwise, or any other act or omission of the Architect/Engineer or Principal Representative affecting the scope of the Contractor's Work, involve extra cost, extra time or changes in the scope of the Work under this Contract, the Contractor shall have the right to assert a claim for such costs or time, provided that before either proceeding to execute such Work (except in an emergency endangering life or property), or filing a Notice of claim, the Contractor shall have obtained or requested a written decision of the Architect/Engineer following the procedures as provided in Article 6A and B, Architect/Engineer Decisions and Judgments, respectively; provided, however, that in the case of a directed change in the Work pursuant to Article 36A4, no written judgment or decision of the Architect/Engineer is required. If the Contractor is delayed by the lack of a response to a request for a decision by the Architect/Engineer, the Contractor shall give Notice in accordance with Article 38, Delays and Extensions of Time.

Unless it is the Architect/Engineer's judgment and determination that the Work is not included in the performance required by the Contract Documents, the Contractor shall proceed with the Work as originally directed. Where the Contractor's claim involves a dispute concerning the value of Work unilaterally directed pursuant to Article 35A3 the Contractor shall also proceed with the Work as originally directed while his or her claim is being considered.

The Contractor shall give the Principal Representative and the Architect/Engineer Notice of any claim promptly after the receipt of the Architect/Engineer's decision, but in no case later than three (3) business days after receipt of the Architect/Engineer's decision (or no later than ten (10) days from the date of the Contractor's request for a decision when the Architect/Engineer fails to decide as provided in Article 6). The Notice of claim shall state the grounds for the claim and the amount of the claim to the extent known in accordance with the procedures of Article 35, Changes In The Work. The period in which Notice must be given may be extended by the Principal Representative if requested in writing by the Contractor with good cause shown, but any such extension to be effective shall be in writing.

The Principal Representative shall respond in writing, with a copy to the Architect/Engineer, within a reasonable time, and except where a request for facilitation of negotiation has been made as hereafter provided, in no case later than seven (7) business days (or at such other time as the Contractor and

Principal Representative agree) after receipt of the Contractor's Notice of claim regarding such instructions or alleged act or omission. If no response to the Contractor's claim is received within seven (7) business days of Contractor's Notice (or at such other time as the Contractor and Principal Representative agree) and the instructions have not been retracted, it shall be deemed that the Principal Representative has denied the claim.

The Principal Representative may grant or deny the claim in whole or in part, and a Change Order shall be issued if the claim is granted. To the extent any portion of claim is granted where costs are not clearly shown, the Principal Representative may direct that the value of that portion of the Work be determined by any method allowed in Article 35A, The Value of Changed Work. Except in the case of a deemed denial, the Principal Representative shall provide a written explanation regarding any portion of the Contractor's claim that is denied.

If the Contractor disagrees with the Principal Representative's judgment and determination on the claim and seeks an equitable adjustment of the Contract sum or time for performance, he or she shall give Notice of intent to exercise his or her statutory right to seek a decision on the contract controversy within ten (10) days of receipt of the Principal Representative's decision denying the claim. A "contract controversy," as such term is used in the Colorado Procurement Code, § 24-109-106, C.R.S., shall not arise until the initial claim process described above in this Article 36 has been properly exhausted by the Contractor. The Contractor's failure to proceed with Work directed by the Architect/Engineer or to exhaust the claim process provided above in this Article 36, shall constitute an abandonment of the claim by the Contractor and a waiver of the right to contest the decision in any forum.

At the time of filing the Notice of intent to exercise his or her statutory right to seek a decision on the contract controversy, the Contractor may request that the Principal Representative defer a decision on the contract controversy until a later date or until the end of the Project. If the Principal Representative agrees, he or she shall so advise the Contractor in writing. If no such request is made, or if the Principal Representative does not agree to such a request, the Principal Representative shall render a written decision within twenty (20) business days and advise the Contractor of the reasons for any denial. Unless the claim has been decided by the Principal Representative (as opposed to delegates of the Principal Representative), the person who renders the decision on this statutory contract controversy shall not be the same person who decided the claim. To the extent any portion of the contract controversy is granted where costs are not clearly shown, the Principal Representative may direct that the value of that portion of the Work be determined by any method allowed in Article 35A, The Value of Changed Work. In the event of a denial the Principal Representative shall give Notice to the Contractor of his or her right to administrative and judicial reviews as provided in the Colorado Procurement Code, § 24-109-201 *et seq.*, C.R.S., as amended. If no decision regarding the contract controversy is issued within twenty (20) business days of the Contractor's giving Notice (or such other date as the Contractor and Principal Representative have agreed), and the instructions have not been retracted or the alleged act or omission have not been corrected, it shall be deemed that the Principal Representative has ruled by denial on the contract controversy. Except in the case of a deemed denial, the Principal Representative shall provide an explanation regarding any portion of the contract controversy that involves denial of the Contractor's claim.

Either the Contractor or the Principal Representative may request facilitation of negotiations concerning the claim or the contract controversy, and if requested, the parties shall consult and negotiate before the Principal Representative decides the issue. Any request for facilitation by the Contractor shall be made at the time of the giving of Notice of the claim or Notice of the contract controversy. Facilitation shall extend the time for the Principal Representative to respond by commencing the applicable period at the completion of the facilitated negotiation, which shall be the last day of the parties' meeting, unless otherwise agreed in writing.

Disagreement with the decision of the Architect Engineer, or the decision of the Principal Representative to deny any claim or denying the contract controversy, shall not be grounds for the Contractor to refuse to perform the Work directed or to suspend or terminate performance. During the period that any claim or contract controversy decision is pending under this Article 36, Claims, the Contractor shall proceed diligently with the Work directed.

In all cases where the Contractor proceeds with the Work and seeks equitable adjustment by filing a claim and or statutory appeal, the Contractor shall keep a correct account of the extra cost, in accordance with Article 35B, Detailed Breakdown supported by receipts. The Principal Representative shall be entitled to reject any claim or contract controversy whenever the foregoing procedures are not followed and such accounts and receipts are not presented.

The payments to the Contractor in respect of such extra costs shall be limited to reimbursement for the current additional expenditure by the Contractor made necessary by the change in the Work, plus a reasonable amount for overhead and profit, determined in accordance with Article 35B, Detailed Breakdown, determined solely with reference to the additional Work, if any, required by the change.

ARTICLE 37. DIFFERING SITE CONDITIONS

A. NOTICE IN WRITING

The Contractor shall promptly, and where possible before conditions are disturbed, give the Architect/Engineer and the Principal Representative Notice in writing of:

1. subsurface or latent physical conditions at the site differing materially from those indicated in or reasonably assumed from the information provided in the Contract Documents; and,
2. unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract Documents.

The Architect/Engineer shall promptly investigate the conditions, and if it is found that such conditions do materially so differ and cause an increase or decrease in the Contractor's costs of performance of any part of the Work required by the Contract Documents, whether or not such Work is changed as a result of such conditions, an equitable adjustment shall be made and the Contract sum shall be modified in accordance with Article 35, Changes In The Work.

If the time required for completion of the Work affected by such materially differing conditions will extend the Work on the critical path as indicated on the CPM schedule, the time for completion shall also be equitably adjusted.

B. LIMITATIONS

No claim of the Contractor under this clause shall be allowed unless the Contractor has given the Notice required in Article 37A, Notice In Writing, above. The time prescribed for presentation and adjustment in Articles 36, Claims and 38, Delays And Extensions Of Time, shall be reasonably extended by the State to the extent required by the nature of the differing conditions; provided, however, that even when so extended no claim by the Contractor for an equitable adjustment hereunder shall be allowed if not quantified and presented prior to the date the Contractor requests a final inspection pursuant to Article 41A, Notice Of Completion.

ARTICLE 38. DELAYS AND EXTENSIONS OF TIME

If the Contractor is delayed at any time in the progress of the Work by any act or neglect of the State of Colorado or the Architect/Engineer, or of any employee or agent of either, or by any separately employed Contractor or by strikes, lockouts, fire, unusual delay in transportation, unavoidable casualties or any other causes beyond the Contractor's control, including weather delays as defined below, the time of Completion of the Work shall be extended for a period equal to such portion of the period of delays directly affecting the completion of the Work as the Contractor shall be able to show he or she could not have avoided by the exercise of due diligence.

The Contractor shall provide Notice in writing to the Architect/Engineer, the Principal Representative and State Buildings Program within three (3) business days from the beginning of such delay and shall file a written claim for an extension of time within seven (7) business days after the period of such delay has ceased, otherwise, any claim for an extension of time is waived.

Provided that the Contractor has submitted reasonable schedules for approval when required by Article 12, Requests for Information and Schedules, if no schedule is agreed to fixing the dates on which the responses to requests for information or detail drawings will be needed, or Shop Drawings, Product Data or Samples are to be reviewed as required or allowed by Article 12B, Schedules, no extension of time will be allowed for the Architect/ Engineer's failure to furnish such detail drawings as needed, or for the failure to initially review Shop Drawings, Product Data or Samples, except in respect of that part of any delay in furnishing detail drawings or instructions extending beyond a reasonable period after written demand for such detailed drawings or instructions is received by the Architect/Engineer. In any event, any claim for an extension of time for such cause will be recognized only to the extent of delay directly caused by failure to furnish detail drawings or instructions or to review Shop Drawings, Product Data or Samples pursuant to schedule, after such demand.

All claims for extension of time due to a delay claimed to arise or result from ordered changes in the scope of the Work, or due to instructions claimed to increase the scope of the Work, shall be presented to the Architect/Engineer, the Principal Representative and State Buildings Program as part of a claim for extra cost, if any, in accordance with Article 36, Claims, and in accordance with the Change Order procedures required by Article 35, Changes In The Work.

Except as otherwise provided in this paragraph, no extension of time shall be granted when the Contractor has failed to utilize a CPM schedule or otherwise identify the Project's critical path as specified in Article 12, Requests for Information and Schedules, or has elected not to do so when allowed by the Supplementary General Conditions or the Specifications to use less sophisticated scheduling tools, or has failed to maintain such a schedule. Delay directly affecting the completion of the Work shall result in an extension of time only to the extent that completion of the Work was affected by impacts to the critical path shown on Contractor's CPM schedule. Where the circumstances make it indisputable in the opinion of the Architect/Engineer that the delay affected the completion of the Work so directly that the additional notice of the schedule impact by reference to a CPM schedule was unnecessary, a reasonable extension of time may be granted.

Extension of the time for completion of the Work will be granted for delays due to weather conditions only when the Contractor demonstrates that such conditions were more severe and extended than those reflected by the ten-year average for the month, as evidenced by the Climatological Data, U. S. Department of Commerce, for the Project area.

Extensions of the time for completion of the Work due to weather will be granted on the basis of one and three tenths (1.3) calendar days for every day that the Contractor would have Worked but was unable to Work, with each separate extension figured to the nearest whole calendar day.

For weather delays and delays caused by events, acts or omissions not within the control of the Principal Representative or any person acting on the Principal Representative's behalf, the Contractor shall be entitled to an extension of time only and shall not be entitled to recovery of additional cost due to or resulting from such delays. This Article does not, however, preclude the recovery of damages for delay by either party under other provisions in the Contract Documents.

ARTICLE 39. NON-BINDING DISPUTE RESOLUTION – FACILITATED NEGOTIATIONS

The Contractor and Principal Representative agree to designate one or more mutually acceptable persons willing and able to facilitate negotiations and communications for the resolution of conflicts, disagreements or disputes between them at the specific request of either party with regard to any Project decision of either of them or any decision of the Architect/Engineer. The designation of such person(s) shall not carry any obligation to use their services except that each party agrees that if the other party requests the intervention of such person(s) with respect to any such conflict, dispute or disagreement, the non-requesting party shall participate in good faith attempts to negotiate a resolution of the issue in dispute. If the parties cannot agree on a mutually acceptable person to serve in this capacity one shall be so appointed; provided, however, that either party may request the director of State Buildings Program to appoint such a person, who, if appointed, shall be accepted for this purpose by both the Contractor and the Principal Representative.

The cost, if any, of the facilitative services of the person(s) so designated shall be shared if the parties so agree in any partnering plan; or in the absence of agreement the cost shall be borne by the party requesting the facilitation of negotiation.

Any dispute, claim, question or disagreement arising from or relating to the Contract or an alleged breach of the Contract may be subject to a request by either party for facilitated negotiation subject to the limitations hereafter listed, and the parties shall participate by consultation and negotiation with each other, as guided by the facilitator and with recognition of their mutual interests, in an attempt to reach an equitable solution satisfactory to both parties.

The obligation to participate in facilitated negotiations shall be as described above and elsewhere in these General Conditions, as by way of example in Article 36, Claims, or Article 34, Deductions for Uncorrected Work and to the extent not more particularly described or limited elsewhere, each party's obligations shall be as follows:

1. a party shall not initiate communication with the facilitator regarding the issues in dispute; except that any request for facilitation shall be made in writing with copies sent, faxed or delivered to the other party;
2. a party shall prepare a brief written description of its position if so requested by the facilitator (who may elect to first discuss the parties' positions with each party separately in the interest of time and expense);
3. a party shall respond to any reasonable request for copies of documents requested by the facilitator, but such requests, if voluminous, may consist of an offer to allow the facilitator access to the parties' documents;
4. a party shall review any meeting agenda proposed by a facilitator and endeavor to be informed on the subjects to be discussed;
5. a party shall meet with the other party and the facilitator at a mutually acceptable place and time, or, if none can be agreed to, at the time and place designated by the facilitator for a period not to exceed four hours unless the parties agree to a longer period;
6. a party shall endeavor to assure that any facilitation meeting shall be attended by any other persons in their employ that the facilitator requests be present, if reasonably available, including the Architect/Engineer;
7. each party shall participate in such facilitated face-to-face negotiations of the issues in dispute through persons fully authorized to resolve the issue in dispute;
8. each party shall be obligated to participate in negotiations requested by the other party and to perform the specific obligations described in paragraphs (1) through (10) this Article 39, Facilitated Negotiation, no more than three times during the course of the Project;
9. neither party shall be under any obligation to resolve any issue by facilitated negotiation, but each agrees to participate in good faith and the Principal Representative shall direct the Architect/Engineer to appropriately document any resolution or agreement reached and to execute any Amendment or Change Order to the Contract necessary to implement their agreement; and,
10. any discussions and documents prepared exclusively for use in the negotiations shall be deemed to be matters pertaining to settlement negotiations and shall not be subsequently available in further proceedings except to the extent of any documented agreement.

In accordance with State Fiscal Rules and Article 52F, Choice of Law; No Arbitration, nothing in this Article 39 shall be deemed to call for arbitration or otherwise obligate the State to participate in any form of binding alternative dispute resolution.

A partnering plan developed as described in Article 2D, Communications and Cooperation, may modify or expand the requirements of this Article but may not reduce the obligation to participate in facilitated negotiations when applicable. In the case of small projects estimated to be valued under \$500,000, the requirements of this Article may be deleted from this Contract, by modification in Article 7 (Contractor's Agreement SC-6.21), Optional Provisions And Elections. When so modified, the references to the parties' right to elect facilitated negotiation elsewhere in these General Conditions shall be deleted.

ARTICLE 40. RIGHT OF OCCUPANCY

The Principal Representative shall have the right to take possession of and to use any completed or partially completed portions of the Work, even if the time for completing the entire Work or portions of the Work has not expired and even if the Work has not been finally accepted, and the Contractor shall fully cooperate with the Principal Representative to allow such possession and use. Such possession and use shall not constitute an acceptance of such portions of the Work.

Prior to any occupancy of the Project, an inspection shall be made by the Principal Representative, State Buildings Program and the Contractor. Such inspection shall be made for the purpose of ensuring that the building is secure, protected by operation safety systems as designed, operable exits, power, lighting and HVAC systems, and otherwise ready for the occupancy intended and the Notice of Substantial Completion has been issued for the occupancy intended. The inspection shall also document existing finish conditions to allow assessment of any damage by occupants. The Contractor shall assist the Principal Representative in completing and executing State Form SBP-01, Approval of Occupancy/Use, prior to the Principal Representative's possession and use. Any and all areas so occupied will be subject to a final inspection when the Contractor complies with Article 41, Completion, Final Inspection, Acceptance and Settlement.

ARTICLE 41. COMPLETION, FINAL INSPECTION, ACCEPTANCE AND SETTLEMENT

A. NOTICE OF COMPLETION

When the Work, or a discrete physical portion of the Work (as hereafter described) which the Principal Representative has agreed to accept separately, is substantially complete and ready for final inspection, the Contractor shall file a written Notice with the Architect/Engineer that the Work, or such discrete physical portion, in the opinion of the Contractor, is substantially complete under the terms of the Contract. The Contractor shall prepare and submit with such Notice a comprehensive list of items to be completed or corrected prior to final payment, which shall be subject to review and additions as the Architect/Engineer or the Principal Representative shall determine after inspection. If the Architect/Engineer or the Principal Representative believe that any of the items on the list of items submitted, or any other item of Work to be corrected or completed, or the cumulative number of items of Work to be corrected or completed, will prevent a determination that the Work is substantially complete, those items shall be completed by the Contractor and the Notice shall then be resubmitted.

B. FINAL INSPECTION

Within ten (10) days after the Contractor files written Notice that the Work is substantially complete, the Architect/Engineer, the Principal Representative, and the Contractor shall make a "final inspection" of the Project to determine whether the Work is substantially complete and has been completed in accordance with the Contract Documents. State Buildings Program shall be notified of the inspection not less than three (3) business days in advance of the inspection. The Contractor shall provide the Principal Representative and the Architect/Engineer an updated punch list in sufficient detail to fully outline the following:

1. Work to be completed, if any; and
2. Work not in compliance with the Drawings or Specifications, if any.

A final punch list shall be made by the Architect/Engineer in sufficient detail to fully outline to the Contractor:

1. Work to be completed, if any;
2. Work not in compliance with the Drawings or Specifications, if any; and
3. unsatisfactory Work for any reason, if any.

The required number of copies of the final punch list will be countersigned by the authorized representative of the Principal Representative and will then be transmitted by the Architect/Engineer to the Contractor, the Principal Representative, and State Buildings Program. The Architect/Engineer's final punch list shall control over the Contractor's preliminary punch list.

C. NOTICE OF SUBSTANTIAL COMPLETION

Notice of Substantial Completion shall establish the date of substantial completion of the Project. The Contractor acknowledges and agrees that because the departments, agencies and institutions of the State of Colorado are generally involved with the business of the public at large, greater care must be taken in establishing the date of substantial completion than might otherwise be the case to ensure that a project or building or discrete physical portion of the Work is fully usable and safe for public use, and that such care necessarily raises the standard by which the concept of substantial completion is applied for a public building.

The Notice of Substantial Completion shall not be issued until the following have been fully established:

1. All required building code inspections have been called for and the appropriate code officials have affixed their signatures to the Building Inspection Record indicating successful completion of all required code inspections;
2. All required corrections noted on the Building Inspection Record shall have been completed unless the Architect/Engineer, the Principal Representative and State Buildings Program, in their complete and absolute discretion, all concur that the condition requiring the remaining correction is not in any way life threatening, does not otherwise endanger persons or property, and does not result in any undue inconvenience or hardship to the Principal Representative or the public;
3. The building, structure or Project can be fully and comfortably used by the Principal Representative and the public without undue interference by the Contractor's employees and Workers during the completion of the final punch list taking into consideration the nature of the public uses intended and taking into consideration any stage or level of completion of HVAC system commissioning or other system testing required by the Specifications to be completed prior to issuance of the Notice of Substantial Completion;
4. The Project has been fully cleaned as required by these General Conditions, and as required by any stricter requirements of the Specifications, and the overall state of completion is appropriate for presentation to the public; and
5. The Contractor has provided a schedule for the completion of each and every item identified on the punch list which specifies the Subcontractor or trade responsible for the Work, and the dates the completion or correction of the item will be commenced and finished; such schedule will show completion of all remaining final punch list items within the period indicated in the Contract for final punch list completion prior to Final Acceptance, with the exception of only those items which are beyond the control of the Contractor despite due diligence. The schedule shall provide for a reasonable punch list inspection process. Unless liquidated damages have been specified in Article 7.4 of the Contractor's Design/Bid/Build Agreement SC-6.21), the cost to the Principal Representative, if any, for re-inspections due to failure to adhere to the Contractor's proposed punch-list completion schedule shall be the responsibility of the Contractor and may be deducted by the Principal Representative from final amounts due to the Contractor.

Substantial completion of the entire Project shall not be conclusively established by a decision by the Principal Representative to take possession and use of a portion, or all of the Project, where portions of the Project cannot meet all the criteria noted above. Notice of Substantial Completion for the entire Project shall, however, only be withheld for substantial reasons when the Principal Representative has taken possession and uses all of the Project in accordance with the terms of Article 40, Right Of Occupancy. Failure to furnish the required completion schedule shall constitute a substantial reason for withholding the issuance of any Notice of Substantial Completion.

The Contractor shall have the right to request a final inspection of any discrete physical portion of the Project when in the opinion of the Principal Representative, The Architect/Engineer and State Buildings Program a final punch list can be reasonably prepared, without confusion as to which portions of the Project are referred to in any subsequent Notice of Partial Final Settlement which might be issued after such portion is finally accepted. Discrete physical portions of the Project may be, but

shall not necessarily be limited to, such portions of the Project as separate buildings where a Project consists of multiple buildings. Similarly, an addition to an existing building where the Project also calls for renovation or remodeling of the existing building may constitute a discrete physical portion of the Project. In such circumstances, when in the opinion of the Principal Representative, the Architect/Engineer and State Buildings Program, the requirements for issuance of a Notice of Substantial Completion can be satisfied with respect to the discrete portion of the Project, a partial Notice of Substantial Completion may be issued for such discrete physical portion of the Project.

D. NOTICE OF ACCEPTANCE

The Notice of Acceptance shall establish the completion date of the Project. It shall not be authorized until the Contractor shall have performed all of the Work to allow completion and approval of the Pre-Acceptance Checklist (SBP-05).

Where partial Notices of Substantial Completion have been issued, partial Notices of Final Acceptance may be similarly issued when appropriate for that portion of the Work. Partial Notice of Final Acceptance may also be issued to exclude the Work described in Change Orders executed during late stages of the Project where a later completion date for the Change Ordered Work is expressly provided for in the Contract as amended by the Change Order, provided the Work can be adequately described to allow partial advertisement of any Notice of Partial Final Settlement to be issued without confusion as to the Work included for which final payment will be made.

E. SETTLEMENT

Final payment and settlement shall be made on the date fixed and published for such payment except as hereafter provided. The Principal Representative shall not authorize final payment until all items on the Pre-Acceptance check list (SBP-05) have been completed, the Notice of Acceptance issued, and the Notice of Contractors Settlement published. If the Work shall be substantially completed, but Final Acceptance and completion thereof shall be prevented through delay in correction of minor defects, or unavailability of materials or other causes beyond the control of the Contractor, the Principal Representative in his or her discretion may release all amounts due to the Contractor except such amounts as may be in excess of three times the cost of completing the unfinished Work or the cost of correcting the defective Work, as estimated by the Architect/Engineer and approved by State Buildings Program. Before the Principal Representative may issue the Notice of Contractor's Settlement and advertise the Project for final payment, the Contractor shall have corrected all items on the punch list except those items for which delayed performance is expressly permitted, subject to withholding for the cost thereof, and shall have:

1. Delivered to the Principal Representative:
 - a. All guarantees and warranties;
 - b. All statements to support local sales tax refunds, if any;
 - c. Three (3) complete bound sets of required operating maintenance instructions; and,
 - d. One (1) set of hard copy as-built Contract Documents, and one (1) electronic copy showing all job changes.
2. Demonstrated to the operating personnel of the Principal Representative the proper operation and maintenance of all equipment.
3. Delivered to the State of Colorado Department of Personnel & Administration in accordance with C.R.S. § 24-103-210:
 - a. A written disclosure of the five most costly goods incorporated into the project, including iron, steel, or related manufactured goods and the total cost and country of origin of those five goods and whether the project was subject to any existing domestic content preferences.

Upon completion of the foregoing the Project shall be advertised in accordance with the Notice of Contractor's Settlement by two publications of Notice, the last publication appearing at least ten (10) days prior to the time of final settlement. Publication and final settlement should not be postponed or delayed solely by virtue of unresolved claims against the Project or the Contractor from Subcontractors, suppliers or materialmen based on good faith disputes; the resolution of the question of payment in such cases being directed by statute.

Except as hereafter provided, on the date of final settlement thus advertised, provided the Contractor has submitted a written Notice to the Architect/Engineer that no claims have been filed, and further provided the Principal Representative shall have received no claims, final payments and settlement shall be made in full. If any unpaid claim for labor, materials, rental machinery, tools, supplies or equipment is filed before payment in full of all sums due the Contractor, the Principal Representative and the State Controller shall withhold from the Contractor on the date established for final settlement, sufficient funds to insure the payment of such claim, until the same shall have been paid or withdrawn, such payment or withdrawal to be evidenced by filing a receipt in full or an order for withdrawal signed by the claimant or his or her duly authorized agent or assignee. The amount so withheld may be in the amount of 125% of the claims or such other amount as the Principal Representative reasonably deems necessary to cover expected legal expenses. Such withheld amounts shall be in addition to any amount withheld based on the cost to compete unfinished Work or the cost to repair defective Work. However, as provided by statute, such funds shall not be withheld longer than ninety (90) days following the date fixed for final settlement with the Contractor, as set forth in the published Notice of Contractor's Settlement, unless an action at law shall be commenced within that time to enforce such unpaid claim and a Notice of such action at law shall have been filed with the Principal Representative and the State Controller. At the expiration of the ninety (90) day period, the Principal Representative shall authorize the State Controller to release to the Contractor all other money not the subject of such action at law or withheld based on the cost to compete unfinished Work or the cost to repair defective Work.

Notices of Partial Final Settlement may be similarly advertised, provided all conditions precedent have been satisfied as though that portion of the Work affected stood alone, a Notice of Partial Acceptance has been issued, and the consent of surety to the partial final settlement has been obtained in writing. Thereafter, partial final payments may be made to the Contractor subject to the same conditions regarding unpaid claims.

ARTICLE 42. GENERAL WARRANTY AND CORRECTION OF WORK AFTER ACCEPTANCE

The Contractor warrants that the materials used and the equipment furnished shall be new and of good quality unless specified to the contrary. The Contractor further warrants that the Work shall, in all respects, be free from material defects not permitted by the Specifications and shall be in accordance with the requirements of the Contract Documents. Neither the final certificate for payment nor any provision in the Contract Documents shall relieve the Contractor of responsibility for defects or faulty materials or Workmanship. The Contractor shall be responsible to the Principal Representative for such warranties for the longest period permitted by any applicable statute of limitations.

In addition to these general warranties, and without limitation of these general warranties, for a period of one year after the date of any Notice of Substantial Completion, or any Notice of Partial Substantial Completion if applicable, the Contractor shall remedy defects, and faulty Workmanship or materials, and Work not in accordance with the Contract Documents which was not accepted at the time of the Notice of Final Acceptance, all in accordance with the provisions of Article 44, One-Year Guarantee And Special Guarantees And Warranties.

ARTICLE 43. LIENS

Colorado statutes do not provide for any right of lien against public buildings. In lieu thereof, § 38-26-107, C.R.S., provides adequate relief for any claimant having furnished labor, materials, rental machinery, tools, equipment, or services toward construction of the particular public Work in that final payment may not be made to a Contractor until all such creditors have been put on Notice by publication in the public press of

such pending payment and given opportunity for a period of up to ninety (90) days to stop payment to the Contractor in the amount of such claims.

ARTICLE 44. ONE-YEAR GUARANTEE AND SPECIAL GUARANTEES AND WARRANTIES

C. A. ONE-YEAR GUARANTEE OF THE WORK

The Contractor shall guarantee to remedy defects and repair or replace the Work for a period of one year from the date of the Notice of Substantial Completion or from the dates of any partial Notices of Substantial Completion issued for discrete physical portions of the Work. The Contractor shall remedy any defects due to faulty materials or Workmanship and shall pay for, repair and replace any damage to other Work resulting there from, which shall appear within a period of one year from the date of such Notice(s) of Substantial Completion. The Contractor shall also remedy any deviation from the requirements of the Contract Documents which shall later be discovered within a period of one year from the date of the Notice of Substantial Completion; provided, however, that the Contractor shall not be required to remedy deviations from the requirements of the Contract Documents where such deviations were obvious, apparent and accepted by the Architect/Engineer or the Principal Representative at the time of the Notice of Final Acceptance. The Principal Representative shall give Notice of observed defects or other Work requiring correction with reasonable promptness. Such Notice shall be in writing to the Architect/Engineer and the Contractor.

The one year guarantee of the Contractor's Work may run separately for discrete physical portions of the Work for which partial Notices of Substantial Completion have been issued, however, it shall run from the last Notice of Substantial Completion with respect to all or any systems common to the Work to which more than one Notice of Substantial Completion may apply.

This one-year guarantee shall not be construed to limit the Contractor's general warranty described in Article 42, General Warranty and Correction of Work After Acceptance, that all materials and equipment are new and of good quality, unless specified to the contrary, and that the Work shall in all respects be free from material defects not permitted by the Specifications and in accordance with the requirements of the Contract Documents.

B. SPECIAL GUARANTEES AND WARRANTIES

In case of Work performed for which product, manufacturers or other special warranties are required by the Specifications, the Contractor shall secure the required warranties and deliver copies thereof to the Principal Representative through the Architect/Engineer upon completion of the Work.

These product, manufacturers or other special warranties, as such, do not in any way lessen the Contractor's responsibilities under the Contract. Whenever guarantees or warranties are required by the Specifications for a longer period than one year, such longer period shall govern.

ARTICLE 45. GUARANTEE INSPECTIONS AFTER COMPLETION

The Architect/Engineer, the Principal Representative and the Contractor together shall make at least two (2) complete inspections of the Work after the Work has been determined to be substantially complete and accepted. One such inspection, the "Six-Month Guarantee Inspection," shall be made approximately six (6) months after date of the Notice of Substantial Completion, unless in the case of smaller projects valued under \$500,000 this inspection is declined in Article 7A (Contractor's Agreement SC-6.21), Modification of Article 45, in which case the inspection to occur at six months shall not be required. Another such inspection, the "Eleven-Month Guaranty Inspection" shall be made approximately eleven (11) months after the date of the Notice of Substantial Completion. The Contractor shall schedule and so notify all parties concerned, and the Principal Representative shall so notify State Buildings Program, of these inspections. If more than one Notice of Substantial Completion has been issued at the reasonable discretion of the Principal Representative separate eleven month inspections may be required where the one year guarantees do not run reasonably concurrent.

Written punch lists and reports of these inspections shall be made by the Architect/Engineer and forwarded to the Contractor, the Principal Representative, State Buildings Program, and all other participants within ten (10) days after the completion of the inspections. The punch list shall itemize all guarantee items, prior

punch list items still to be corrected or completed and any other requirements of the Contract Documents to be completed which were not waived by final acceptance because they were not obvious or could not reasonably have been previously observed. The Contractor shall immediately initiate such remedial Work as may be necessary to correct any deficiencies or defective Work shown by this report, and shall promptly complete all such remedial Work in a manner satisfactory to the Architect/Engineer, the Principal Representative and State Buildings Program.

If the Contractor fails to promptly correct all deficiencies and defects shown by this report, the Principal Representative may do so, after giving the Contractor ten (10) days written Notice of intention to do so.

The State of Colorado, acting by and through the Principal Representative, shall be entitled to collect from the Contractor all costs and expenses incurred by it in correcting such deficiencies and defects, as well as all damages resulting from such deficiencies and defects.

ARTICLE 46. TIME OF COMPLETION AND LIQUIDATED DAMAGES

It is hereby understood and mutually agreed, by and between the parties hereto, that the date of beginning, rate of progress, and the time for completion of the Work to be done hereunder are ESSENTIAL CONDITIONS of this Agreement, and it is understood and agreed that the Work embraced in this Contract shall be commenced at the time specified in the Notice to Proceed (SC-6.26).

It is further agreed that time is of the essence of each and every portion of this Contract, and of any portion of the Work described on the Drawings or Specifications, wherein a definite and certain length of time is fixed for the performance of any act whatsoever. The parties further agree that where under the Contract additional time is allowed for the completion of the Work or any identified portion of the Work, the new time limit or limits fixed by such extension of the time for completion shall be of the essence of this Agreement.

The Contractor acknowledges that subject to any limitations in the Advertisement for Bids, issued for the Project, the Contractor's bid is consistent with and considers the number of days to substantially complete the Project and the number of days to finally complete the Project to which the parties may have stipulated in the Agreement, which stipulation was based on the Contractor's bid. The Contractor agrees that Work shall be prosecuted regularly, diligently and uninterruptedly at such rate of progress as will ensure the Project will be substantially complete, and fully and finally complete, as recognized by the issuance of all required Notices of Substantial Completion and Notices of Final Acceptance, within any times stipulated and specified in the Agreement, as the same may be amended by Change Order or other written modification, and that the Principal Representative will be damaged if the times of completion are delayed.

It is expressly understood and agreed, by and between the parties hereto, that the times for the Substantial Completion of the Work or for the final acceptance of the Work as may be stipulated in the Agreement, and as applied here and in Article 7.4 of the Contractor's Design/Bid/Build Agreement SC-6.21), Modifications of Article 46, are reasonable times for these stages of completion of the Work, taking into such consideration all factors, including the average climatic range and usual industrial conditions prevailing in the locality of the building operations.

If the Contractor shall neglect, fail or refuse to complete the Work within the times specified in the Agreement, such failure shall constitute a breach of the terms of the Contract and the State of Colorado, acting by and through the Principal Representative, shall be entitled to liquidated damages for such neglect, failure or refusal, as specified in Article 7.4 of the Contractor's Design/Bid/Build Agreement SC-6.21, Modification of Article 46.

The Contractor and the Contractor's Surety shall be jointly liable for and shall pay the Principal Representative, or the Principal Representative may withhold, the sums hereinafter stipulated as liquidated damages for each calendar day of delay until the entire Project is 1) substantially completed, and the Notice (or all Notices) of Substantial Completion are issued, 2) finally complete and accepted and the Notice (or all Notices) of Acceptance are issued, or 3) both. Delay in substantial completion shall be measured from the Date of the Notice to Proceed and delay in final completion and acceptance shall be measured from the Date of the Notice of Substantial Completion.

In the first instance, specified in Article 7.4.1 of the Contractor's Design/Bid/Build Agreement SC-6.21, Modification of Article 46, liquidated damages, if any, shall be the amount specified therein, for each calendar day of delay beginning after the stipulated number of days for Substantial Completion from the date of the Notice to Proceed, until the date of the Notice of Substantial Completion. Unless otherwise specified in any Supplementary General Conditions, in the event of any partial Notice of Substantial Completion, liquidated damages shall accrue until all required Notices of Substantial Completion are issued.

In the second instance, specified in Article 7.4.2 of the Contractor's Design/Bid/Build Agreement SC-6.21, Modification of Article 46, liquidated damages, if any, shall be the amount specified in Article 7.4.2 of the Contractor's Design/Bid/Build Agreement SC-6.21, Modification of Article 46, for each calendar day in excess of the number of calendar days specified in the Contractor's bid for the Project and stipulated in the Agreement to finally complete the Project (as defined by the issuance of the Notice of Acceptance) after the final Notice of Substantial Completion has been issued.

In the third instance, when so specified in both Articles 7.4.1 and 7.4.2 of the Contractor's Agreement SC-6.21, both types of liquidated damages shall be separately assessed where those delays have occurred.

The parties expressly agree that said amounts are a reasonable estimate of the presumed actual damages that would result from any of the breaches listed, and that any liquidated damages that are assessed have been agreed to in light of the difficulty of ascertaining the actual damages that would be caused by any of these breaches at the time this Contract was formed; the liquidated damages in the first instance representing an estimate of damages due to the inability to use the Project; the liquidated damages in the second instance representing an estimate of damages due to the additional administrative, technical, supervisory and professional expenses related to and arising from the extended closeout period including delivery of any or all guarantees and warranties, the submittals of sales and use tax payment forms, the calling for the final inspection and the completion of the final punch list.

The parties also agree and understand that the liquidated damages to be assessed in each instance are separate and distinct, although potentially cumulative, damages for the separate and distinct breaches of delayed substantial completion or final acceptance. Such liquidated damages shall not be avoided by virtue of the fact of concurrent delay caused by the Principal Representative, or anyone acting on behalf of the Principal Representative, but in such event the period of delay for which liquidated damages are assessed shall be equitably adjusted in accordance with Article 38, Delays And Extensions Of Time.

ARTICLE 47. DAMAGES

If either party to this Contract shall suffer damage under this Contract in any manner because of any wrongful act or neglect of the other party or of anyone employed by either of them, then the party suffering damage shall be reimbursed by the other party for such damage. Except to the extent of damages liquidated for the Contractor's failure to achieve timely completion as set forth in Article 46, Time of Completion and Liquidated Damages, the Principal Representative shall be responsible for, and at his or her option may insure against, loss of use of any existing property not included in the Work, due to fire or otherwise, however caused. Notwithstanding the foregoing, or any other provision of this Contract, to the contrary, no term or condition of this contract shall be construed or interpreted as a waiver, express or implied, of any of the immunities, rights, benefits, protection, or other provisions of the Colorado Governmental Immunity Act, Section 24-10-101, *et seq.*, CRS, as now or hereafter amended. The parties understand and agree that liability for claims for injuries to persons arising out of negligence of the State of Colorado, its departments, institutions, agencies, boards, officials and employees is controlled and limited by the provisions of Section 24-10-101, *et seq.*, CRS, as now or hereafter amended and the risk management statutes, Section 24-30-1501, *et seq.*, CRS, as now or hereafter amended.

Notice of intent to file a claim under this clause shall be made in writing to the party liable within a reasonable time of the first observance of such damage and not later than the time of final payment, except that in the case of claims by the Principal Representative involving warranties against faulty Work or materials Notice shall be required only to the extent stipulated elsewhere in these General Conditions. Claims made to the Principal Representative involving extra cost or extra time arising by virtue of instructions to the Contractor to which Article 36, Claims, applies shall be made in accordance with Article

36. Other claims arising under the Contract involving extra cost or extra time which are made to the Principal Representative under this clause shall also be made in accordance with the procedures of Article 36, whether or not arising by virtue of instructions to the Contractor; provided however that it shall not be necessary to first obtain or request a written judgment of the Architect/Engineer.

Provided written Notice of intent to file a claim is provided as required in the preceding paragraph, nothing in this Article shall limit or restrict the rights of either party to bring an action at law or to seek other relief to which either party may be entitled, including consequential damages, if any, and shall not be construed to limit the time during which any action might be brought. Nothing in these General Conditions shall be deemed to limit the period of time during which any action may be brought as a matter of contract, tort, warranty or otherwise, it being the intent of the parties to allow any and all actions at law or in equity for such periods as the law permits. All such rights shall, however be subject to the obligation to assert claims and to appeal denials pursuant to Article 36, Claims, where applicable.

ARTICLE 48. STATE'S RIGHT TO DO THE WORK; TEMPORARY SUSPENSION OF WORK; DELAY DAMAGES

A. STATE'S RIGHT TO DO THE WORK

If after receipt of Notice to do so, the Contractor should neglect to prosecute the Work properly or fail to perform any provision of the Contract, the Principal Representative, after a second seven (7) days' advance written Notice to the Contractor and the Surety may, without prejudice to any other remedy the Principal Representative may have, take control of all or a portion of the Work, as the Principal Representative deems necessary and make good such deficiencies deducting the cost thereof from the payment then or thereafter due the Contractor, as provided in Article 30, Correction Of Work Before Acceptance and Article 33, Payments Withheld, provided, however, that the Architect/Engineer shall approve the amount charged to the Contractor by approval of the Change Order.

B. TEMPORARY SUSPENSION OF WORK

The State, acting for itself or by and through the Architect/Engineer, shall have the authority to suspend the Work, either wholly or in part, for such period or periods as may be deemed necessary due to:

1. Unsuitable weather;
2. Faulty Workmanship;
3. Improper superintendence or project management;
4. Contractor's failure to carry out orders or to perform any provision of the Contract Documents;
5. Loss of, or restrictions to, appropriations;
6. Conditions, which may be considered unfavorable for the prosecution of the Work.

If it should become necessary to stop Work for an indefinite period, the Contractor shall store materials in such manner that they will not become an obstruction or become damaged in any way; and he or she shall take every precaution to prevent damage to or deterioration of the Work, provide suitable drainage and erect temporary structures where necessary.

Notice of suspension of Work shall be provided to the Contractor in writing stating the reasons therefore. The Contractor shall again proceed with the Work when so notified in writing.

The Contractor understands and agrees that the State of Colorado cannot predict with certainty future revenues and could ultimately lack the revenue to fund the appropriations applicable to this Contract. The Contractor further acknowledges and agrees that in such event that State may, upon Notice to the Contractor, suspend the Work in anticipation of a termination of the Contract for the convenience of the State, pursuant to Article 50, Termination For Convenience of State. If the Contract is not so terminated the Contract sum and the Contract time shall be equitably adjusted at the time the Principal Representative directs the Work to be recommenced and gives Notice that the revenue to fund the appropriation is available.

C. **DELAY DAMAGES**

The Principal Representative and the State of Colorado shall be liable to the Contractor for the payment of any claim for extra costs, extra compensation or damages occasioned by hindrances or delays encountered in the Work only when and to the limited extent that such hindrance or delay is caused by an act or omission within the control of the Principal Representative, the Architect/Engineer or other persons or entities acting on behalf of the Principal Representative. Further, the Principal Representative and the State of Colorado shall be liable to the Contractor for the payment of such a claim only if the Contractor has provided required Notice of the delay or impact, or has presented its claim for an extension of time or claim of other delay or other impact due to changes ordered in the Work before proceeding with the changed Work. Except as otherwise provided, claims for extension of time shall be Noticed and filed in accordance with Article 38, Delays and Extensions of Time, within three (3) business days of the beginning of the delay with any claim filed within seven (7) days after the delay has ceased, or such claim is waived. Claims for extension of time or for other delay or other impact resulting from changes ordered in the Work shall be presented and adjusted as provided in Article 35, Changes in the Work.

ARTICLE 49. STATE'S RIGHTS TO TERMINATE CONTRACT

A. **GENERAL**

If the Contractor should be adjudged bankrupt, or if he or she should make a general assignment for the benefit of his or her creditors, or if a receiver should be appointed to take over his affairs, or if he or she should fail to prosecute his or her Work with due diligence and carry the Work forward in accordance with the construction schedule and the time limits set forth in the Contract Documents, or if he or she should fail to subsequently perform one or more of the provisions of the Contract Documents to be performed by him, the Principal Representative may serve written Notice on the Contractor and the Surety on performance and payment bonds, stating his or her intention to exercise one of the remedies hereinafter set forth and the grounds upon which the Principal Representative bases his or her right to exercise such remedy.

In such event, unless the matter complained of is satisfactorily cleared within ten (10) days after delivery of such Notice, the Principal Representative may, without prejudice to any other right or remedy, exercise one of such remedies at once, having first obtained the concurrence of the Architect/Engineer in writing that sufficient cause exists to justify such action.

B. **CONDITIONS AND PROCEDURES**

1. The Principal Representative may terminate the services of the Contractor, which termination shall take effect immediately upon service of Notice thereof on the Contractor and his or her Surety, whereupon the Surety shall have the right to take over and perform the Contract. If the Surety does not provide Notice to the Principal Representative of its intent to commence performance of the Contract within ten (10) days after delivery of the Notice of termination, the Principal Representative may take over the Work, take possession of and use all materials, tools, equipment and appliances on the premises and prosecute the Work to completion by such means as he or she shall deem best. In the event of such termination of his or her service, the Contractor shall not be entitled to any further payment under the Contract until the Work is completed and accepted. If the Principal Representative takes over the Work and if the unpaid balance of the contract price exceeds the cost of completing the Work, including compensation for any damages or expenses incurred by the Principal Representative through the default of the Contractor, such excess shall be paid to the Contractor. If, however, the cost, expenses and damages as certified by the Architect/Engineer exceed such unpaid balance of the contract price, the Contractor and his or her Surety shall pay the difference to the Principal Representative.
2. The Principal Representative may require the Surety on the Contractor's bond to take control of the Work and see to it that all the deficiencies of the Contractor are made good, with due diligence within ten (10) days of delivery of Notice to the Surety to do so. As between the Principal Representative and the Surety, the cost of making good such deficiencies shall all be borne by the Surety. If the Surety takes over the Work, either by election upon termination of the services of the Contractor pursuant to Section B(1) of this Article 49, State's Right To

Terminate Contract, or upon instructions from the Principal Representative to do so, the provisions of the Contract Documents shall govern the Work to be done by the Surety, the Surety being substituted for the Contractor as to such provisions, including provisions as to payment for the Work, the times of completion and provisions of this Article as to the right of the Principal Representative to do the Work or to take control of all or a portion of the Work.

3. The Principal Representative may take control of all or a portion of the Work and make good the deficiencies of the Contractor, or the Surety if the Surety has been substituted for the Contractor, with or without terminating the Contract, employing such additional help as the Principal Representative deems advisable in accordance with the provisions of Article 48A, State's Right To Do The Work; Temporary Suspension Of Work; Delay Damages. In such event, the Principal Representative shall be entitled to collect from the Contractor and his or her Surety, or to deduct from any payment then or thereafter due the Contractor, the costs incurred in having such deficiencies made good and any damages or expenses incurred through the default of Contractor, provided the Architect/Engineer approves the amount thus charged to the Contractor. If the Contract is not terminated, a Change Order to the Contract shall be executed, unilaterally if necessary, in accordance with the procedures of Article 35, Changes In The Work.

C. **ADDITIONAL CONDITIONS**

If any termination by the Principal Representative for cause is later determined to have been improper, the termination shall be automatically converted to and deemed to be a termination by the Principal Representative for convenience and the Contractor shall be limited in recovery to the compensation provided for in Article 50, Termination For Convenience Of State. Termination by the Contractor shall not be subject to such conversion.

ARTICLE 50. TERMINATION FOR CONVENIENCE OF STATE

A. **NOTICE OF TERMINATION**

The performance of Work under this Contract may be terminated, in whole or from time to time in part, by the State whenever for any reason the Principal Representative shall determine that such termination is in the best interest of State. Termination of Work hereunder shall be effected by delivery to the Contractor of a Notice of such termination specifying the extent to which the performance of Work under the Contract is terminated and the date upon which such termination becomes effective.

B. **PROCEDURES**

After receipt of the Notice of termination, the Contractor shall, to the extent appropriate to the termination, cancel outstanding commitments hereunder covering the procurement of materials, supplies, equipment and miscellaneous items. In addition, the Contractor shall exercise all reasonable diligence to accomplish the cancellation or diversion of all applicable outstanding commitments covering personal performance of any Work terminated by the Notice. With respect to such canceled commitments, the Contractor agrees to:

1. settle all outstanding liabilities and all claims arising out of such cancellation of commitments, with approval or ratification of the Principal Representative, to the extent he or she may require, which approval or ratification shall be final for all purposes of this clause; and,
2. assign to the State, in the manner, at the time, and to the extent directed by the Principal Representative, all of the right, title, and interest of the Contractor under the orders and subcontracts so terminated, in which case the State shall have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts.

The Contractor shall submit his or her termination claim to the Principal Representative promptly after receipt of a Notice of termination, but in no event later than three (3) months from the effective date thereof, unless one or more extensions in writing are granted by the Principal Representative upon written request of the Contractor within such three month period or authorized extension thereof. Upon failure of the Contractor to submit his or her termination claim within the time allowed, the Principal Representative may determine, on the basis of information available to him, the amount, if

any, due to the Contractor by reason of the termination and shall thereupon pay to the Contractor the amount so determined.

Costs claimed, agreed to, or determined pursuant to the preceding and following paragraph shall be in accordance with the provisions of § 24-107-101, C.R.S., as amended and associated Cost Principles of the Colorado Procurement Rules as in effect on the date of this Contract.

Subject to the preceding provisions, the Contractor and the Principal Representative may agree upon the whole or any part of the amount or amounts to be paid to the Contractor by reason of the termination under this clause, which amount or amounts may include any reasonable cancellation charges thereby incurred by the Contractor and any reasonable loss upon outstanding commitments for personal services which he or she is unable to cancel; provided, however, that in connection with any outstanding commitments for personal services which the Contractor is unable to cancel, the Contractor shall have exercised reasonable diligence to divert such commitments to other activities and operations. Any such agreement shall be embodied in an Amendment to this Contract and the Contractor shall be paid the agreed amount.

The State may from time to time, under such terms and conditions as it may prescribe, make partial payments against costs incurred by the Contractor in connection with the termination portion of this Contract, whenever, in the opinion of the Principal Representative, the aggregate of such payments is within the amount to which the Contractor will be entitled hereunder.

The Contractor agrees to transfer title and deliver to the State, in the manner, at the time, and to the extent, if any, directed by the Principal Representative, such information and items which, if the Contract had been completed, would have been required to be furnished to the State, including:

- a. completed or partially completed plans, Drawings and information; and,
- b. materials or equipment produced or in process or acquired in connection with the performance of the Work terminated by the Notice.

Other than the above, any termination inventory resulting from the termination of the Contract may, with written approval of the Principal Representative, be sold or acquired by the Contractor under the conditions prescribed by and at a price or prices approved by the Principal Representative. The proceeds of any such disposition shall be applied in reduction of any payments to be made by the State to the Contractor under this Contract or shall otherwise be credited to the price or cost of Work covered by this Contract or paid in such other manners as the Principal Representative may direct. Pending final disposition of property arising from the termination, the Contractor agrees to take such action as may be necessary, or as the Principal Representative may direct, for the protection and preservation of the property related to this Contract which is in the possession of the Contractor and in which the State has or may acquire an interest.

Any disputes as to questions of fact, which may arise hereunder, shall be subject to the Remedies provisions of the Colorado Procurement Code, §§ 24-109-101, et seq., C.R.S., as amended.

ARTICLE 51. CONTRACTOR'S RIGHT TO STOP WORK AND/OR TERMINATE CONTRACT

If the Work shall be stopped under an order of any court or other public authority for a period of three (3) months through no act or fault of the Contractor or of any one employed by him, then the Contractor may on seven (7) days' written Notice to the Principal Representative and the Architect/Engineer stop Work or terminate this Contract and recover from the Principal Representative payment for all Work executed, any losses sustained on any plant or material, and a reasonable profit only for the Work completed. If the Architect/Engineer shall fail to issue or otherwise act in writing upon any certificate for payment within ten (10) days after it is presented and received by the Architect/Engineer, as provided in Article 31, Applications For Payments, or if the Principal Representative shall fail to pay the Contractor any sum certified that is not disputed in whole or in part by the Principal Representative in writing to the Contractor and the Architect/Engineer within thirty (30) days after the Architect/Engineer's certification, then the Contractor may

on ten (10) days' written Notice to the Principal Representative and the Architect/Engineer stop Work and/or give written Notice of intention to terminate this Contract.

If the Principal Representative shall thereafter fail to pay the Contractor any amount certified by the Architect/Engineer and not disputed in writing by the Principal Representative within ten (10) days after receipt of such Notice, then the Contractor may terminate this Contract and recover from the Principal Representative payment for all Work executed, any losses sustained upon any plant or materials, and a reasonable profit only for the Work completed. The Principal Representative's right to dispute an amount certified by the Architect/Engineer shall not relieve the Principal Representative of the obligation to pay amounts not in dispute as certified by the Architect/Engineer.

ARTICLE 52. SPECIAL PROVISIONS

A. CONTROLLER'S APPROVAL CRS 24-30-202(1)

This Contract shall not be deemed valid until it has been approved by the Colorado State Controller or designee.

B. FUND AVAILABILITY CRS 24-30-202(5.5)

Financial obligations of the State payable after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted, and otherwise made available

C. GOVERNMENTAL IMMUNITY

No term or condition of this contract shall be construed or interpreted as a waiver, express or implied, of any of the immunities, rights, benefits, protections, or other provisions, of the Colorado Governmental Immunity Act, CRS §24-10-101 et seq., or the Federal Tort Claims Act, 28 U.S.C. §§1346(b) and 2671 et seq., as applicable now or hereafter amended.

D. INDEPENDENT CONTRACTOR 4 CCR 801-2

Contractor shall perform its duties hereunder as an independent contractor and not as an employee. Neither Contractor nor any agent or employee of Contractor shall be deemed to be an agent or employee of the State. Contractor and its employees and agents are not entitled to unemployment insurance or workers compensation benefits through the State and the State shall not pay for or otherwise provide such coverage for Contractor or any of its agents or employees. Unemployment insurance benefits will be available to Contractor and its employees and agents only if such coverage is made available by Contractor or a third party. Contractor shall pay when due all applicable employment taxes and income taxes and local head taxes incurred pursuant to this contract. Contractor shall not have authorization, express or implied, to bind the State to any agreement, liability or understanding, except as expressly set forth herein. Contractor shall (a) provide and keep in force workers' compensation and unemployment compensation insurance in the amounts required by law, (b) provide proof thereof when requested by the State, and (c) be solely responsible for its acts and those of its employees and agents.

E. COMPLIANCE WITH LAW

Contractor shall strictly comply with all applicable federal and State laws, rules, and regulations in effect or hereafter established, including, without limitation, laws applicable to discrimination and unfair employment practices.

F. CHOICE OF LAW

Colorado law, and rules and regulations issued pursuant thereto, shall be applied in the interpretation, execution, and enforcement of this contract. Any provision included or incorporated herein by reference which conflicts with said laws, rules, and regulations shall be null and void. Any provision incorporated herein by reference which purports to negate this or any other Special Provision in whole or in part shall not be valid or enforceable or available in any action at law, whether by way of complaint, defense, or otherwise. Any provision rendered null and void by the operation of this provision shall not invalidate the remainder of this contract, to the extent capable of execution.

G. BINDING ARBITRATION PROHIBITED

The State of Colorado does not agree to binding arbitration by any extra-judicial body or person. Any provision to the contrary in this contract or incorporated herein by reference shall be null and void.

H. SOFTWARE PIRACY PROHIBITION. Governor's Executive Order D 002 00

State or other public funds payable under this contract shall not be used for the acquisition, operation, or maintenance of computer software in violation of federal copyright laws or applicable licensing restrictions. Contractor hereby certifies and warrants that, during the term of this contract and any extensions, Contractor has and shall maintain in place appropriate systems and controls to prevent such improper use of public funds. If the State determines that Contractor is in violation of this provision, the State may exercise any remedy available at law or in equity or under this contract, including, without limitation, immediate termination of this contract and any remedy consistent with federal copyright laws or applicable licensing restrictions.

I. EMPLOYEE FINANCIAL INTEREST/CONFLICT OF INTEREST CRS 24-18-201 & CRS 24-50-507

The signatories aver that to their knowledge, no employee of the State has any personal or beneficial interest whatsoever in the service or property described in this contract. Contractor has no interest and shall not acquire any interest, direct or indirect, that would conflict in any manner or degree with the performance of Contractor's services and Contractor shall not employ any person having such known interests.

J. VENDOR OFFSET CRS 24-30-202(1) & CRS 24-30-202.4

Subject to CRS §24-30-202.4 (3.5), the State Controller may withhold payment under the State's vendor offset intercept system for debts owed to State agencies for: **(a)** unpaid child support debts or child support arrearages; **(b)** unpaid balances of tax, accrued interest, or other charges specified in CRS §39-21-101, et seq.; **(c)** unpaid loans due to the Student Loan Division of the Department of Higher Education; **(d)** amounts required to be paid to the Unemployment Compensation Fund; and **(e)** other unpaid debts owing to the State as a result of final agency determination or judicial action.

K. PUBLIC CONTRACTS FOR SERVICES. CRS §8-17.5-101.

[Not Applicable to agreements relating to the offer, issuance, or sale of securities, investment advisory services or fund management services, sponsored projects, intergovernmental agreements, or information technology services or products and services] Contractor certifies, warrants, and agrees that it does not knowingly employ or contract with an illegal alien who will perform Work under this contract and will confirm the employment eligibility of all employees who are newly hired for employment in the United States to perform Work under this contract, through participation in the E-Verify Program or the Department program established pursuant to CRS §8-17.5-102(5)(c), Contractor shall not knowingly employ or contract with an illegal alien to perform Work under this contract or enter into a contract with a subcontractor that fails to certify to Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform Work under this contract. Contractor **(a)** shall not use E-Verify Program or Department program procedures to undertake pre-employment screening of job applicants while this contract is being performed, **(b)** shall notify the subcontractor and the contracting State agency within three days if Contractor has actual knowledge that a subcontractor is employing or contracting with an illegal alien for Work under this contract, **(c)** shall terminate the subcontract if a subcontractor does not stop employing or contracting with the illegal alien within three days of receiving the notice, and **(d)** shall comply with reasonable requests made in the course of an investigation, undertaken pursuant to CRS §8-17.5-102(5), by the Colorado Department of Labor and Employment. If Contractor participates in the Department program, Contractor shall deliver to the contracting State agency, Institution of Higher Education or political subdivision a written, notarized affirmation, affirming that Contractor has examined the legal Work status of such employee, and shall comply with all of the other requirements of the Department program. If Contractor fails to comply with any requirement of this provision or CRS §8-17.5-101 et seq., the contracting State agency, institution of higher education or political subdivision may terminate this contract for breach and, if so terminated, Contractor shall be liable for damages.

- L. PUBLIC CONTRACTS WITH NATURAL PERSONS. CRS §24-76.5-101.
Contractor, if a natural person eighteen (18) years of age or older, hereby swears and affirms under penalty of perjury that he or she (a) is a citizen or otherwise lawfully present in the United States pursuant to federal law, (b) shall comply with the provisions of CRS §24-76.5-101 et seq., and (c) has produced one form of identification required by CRS §24-76.5-103 prior to the effective date of this contract.

ARTICLE 53. MISCELLANEOUS PROVISIONS

- A. CONSTRUCTION OF LANGUAGE
The language used in these General Conditions shall be construed as a whole according to its plain meaning, and not strictly for or against any party. Such construction shall, however, construe language to interpret the intent of the parties giving due consideration to the order of precedence noted in Article 2C, Intent of Documents.
- B. SEVERABILITY
Provided this Agreement can be executed and performance of the obligations of the Parties accomplished within its intent, the provisions hereof are severable and any provision that is declared invalid or becomes inoperable for any reason shall not affect the validity of any other provision hereof, provided that the Parties can continue to perform their obligations under this Agreement in accordance with its intent.
- C. SECTION HEADINGS
The captions and headings in this Agreement are for convenience of reference only, and shall not be used to interpret, define, or limit its provisions.
- D. AUTHORITY
Each person executing the Agreement and its Exhibits in a representative capacity expressly represents and warrants that he or she has been duly authorized by one of the parties to execute the Agreement and has authority to bind said party to the terms and conditions hereof.
- E. INTEGRATION OF UNDERSTANDING
This Contract is intended as the complete integration of all understandings between the parties and supersedes all prior negotiations, representations, or agreements, whether written or oral. No prior or contemporaneous addition, deletion, or other amendment hereto shall have any force or effect whatsoever, unless embodied herein in writing. No subsequent novation, renewal, addition, deletion, or other amendment hereto shall have any force or effect unless embodied in a written Change Order or Amendment to this Contract.
- F. VENUE
All suits or actions related to this Agreement shall be filed and proceedings held in the State of Colorado and exclusive venue shall be in the City and County of Denver.
- G. NO THIRD PARTY BENEFICIARIES
Enforcement of this Agreement and all rights and obligations hereunder are reserved solely to the Parties. Any services or benefits which third parties receive as a result of this Contract are incidental to the Contract, and do not create any rights for such third parties.
- H. WAIVER
Waiver of any breach under a term, provision, or requirement of this Agreement, or any right or remedy hereunder, whether explicitly or by lack of enforcement, shall not be construed or deemed as a waiver of any subsequent breach of such term, provision or requirement, or of any other term, provision, or requirement.

I. INDEMNIFICATION

Contractor shall indemnify, save, and hold harmless the State, its employees and agents, against any and all claims, damages, liability and court awards including costs, expenses, and attorney fees , to the extent such claims are caused by any negligent act or omission of the Contractor, its employees, agents, subcontractors or assignees pursuant to the terms of this Contract, but not to the extent such claims are caused by any negligent act or omission of, or breach of contract by, the State, its employees, agents, other contractors or assignees, or other parties not under control of or responsible to the Contractor.

J. STATEWIDE CONTRACT MANAGEMENT SYSTEM

If the maximum amount payable to Contractor under this Contract is \$100,000 or greater, either on the Effective Date or at anytime thereafter, this section shall apply.

Contractor agrees to be governed, and to abide, by the provisions of CRS 24-102-205, 24-102-206, 24-103-601, 24-103.5-101, 24-105-101, and 24-105-102 concerning the monitoring of vendor performance on state contracts and inclusion of contract performance information in a statewide contract management system.

Contractor's performance shall be subject to Evaluation and Review in accordance with the terms and conditions of this Contract, State law, including C.R.S 24-103.5-101, and State Fiscal Rules, Policies and Guidance. Evaluation and Review of Contractor's performance shall be part of the normal contract administration process and Contractor's performance will be systematically recorded in the statewide Contract Management System. Areas of Evaluation and Review shall include, but shall not be limited to quality, cost and timeliness. Collection of information relevant to the performance of Contractor's obligations under this Contract shall be determined by the specific requirements of such obligations and shall include factors tailored to match the requirements of Contractor's obligations. Such performance information shall be entered into the statewide Contract Management System at intervals established herein and a final Evaluation, Review and Rating shall be rendered within 30 days of the end of the Contract term. Contractor shall be notified following each performance Evaluation and Review, and shall address or correct any identified problem in a timely manner and maintain Work progress.

Should the final performance Evaluation and Review determine that Contractor demonstrated a gross failure to meet the performance measures established hereunder, the Executive Director of the Colorado Department of Personnel and Administration (Executive Director), upon request by the Principal Representative, and showing of good cause, may debar Contractor and prohibit Contractor from bidding on future contracts. Contractor may contest the final Evaluation, Review and Rating by: (a) filing rebuttal statements, which may result in either removal or correction of the evaluation (CRS 24-105-102(6)), or (b) under CRS 24-105-102(6), exercising the debarment protest and appeal rights provided in CRS 24-109-106, 107, 201 or 202, which may result in the reversal of the debarment and reinstatement of Contractor, by the Executive Director, upon a showing of good cause.

K. CORA DISCLOSURE

To the extent not prohibited by federal law, this Agreement and the performance measures and standards under CRS §24-103.5-101, if any, are subject to public release through the Colorado Open Records Act, CRS §24-72-101, et seq.



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

NOTICE OF FINAL ACCEPTANCE

Date of Notice of Acceptance: _____
Date to be inserted by A/E after consultation with the Principal Representative

Institution/Agency: _____

Project No./Name: _____

TO:

Notice is hereby given that the State of Colorado, acting by and through the _____,
accepts as complete* the above numbered project.

State Buildings Programs
(or Authorized Delegate)

Date

Principal Representative
(Institution or Agency)

Date

*When completely executed, this form is to be sent by **certified mail** to the Contractor by the Principal Representative or delivered by any other means to which the parties agree.



STATE OF COLORADO
OFFICE OF THE STATE ARCHITECT
STATE BUILDINGS PROGRAMS

NOTICE OF CONTRACTOR'S SETTLEMENT

Institution/Agency: _____

Notice Number: _____

Project No./Title: _____

Notice is hereby given that on _____ *date* at _____ *address* Colorado, final settlement will be made by the STATE OF COLORADO with _____ *vendor name*, hereinafter called the "CONTRACTOR", for and on account of the contract for the construction of a PROJECT as referenced above.

1. Any person, co-partnership, association or corporation who has an unpaid claim against the said project, for or on account of the furnishing of labor, materials, team hire, sustenance, provisions, provender, rental machinery, tools, or equipment and other supplies used or consumed by such Contractor or any of his subcontractors in or about the performance of said work, may at any time up to and including said time of such final settlement, file a verified statement of the amount due and unpaid on account of such claim
2. All such claims shall be filed with the Authority for College, Institution, Department or Agency.
3. Failure on the part of a creditor to file such statement prior to such final settlement will relieve the State of Colorado from any and all liability for such claim

Authorized Facility Manager or Authorized Individual

Name: _____
Approval Date: _____
Agency: _____
Phone: _____
Fax: _____
Email: _____

MEDIA OF PUBLICATION:

PUBLICATION DATES:

First:

Second:

(At least ten (10) days prior to above settlement date)

NOTES TO EDITOR:

Transmit two (2) copies of the Affidavit of Publication, and invoice, to:

SECTION 1 – NOTICE TO BIDDERS

1000 Bidding Requirements

1. Project: Colorado State University – Pueblo Campus, Occhiato Building
2. Location: 2200 Bonforte Blvd., Pueblo, Colorado
3. Owner: State of Colorado – CSU-Pueblo Campus
4. Drawings, Specifications, Contractual Documents, and any other detailed instructions will be on file at the CSU-Pueblo Facilities Office located on campus.
5. All dimensions, quantities or areas provided in the Scope of Work are approximate and are only included to assist Bidder in determining the amount of ACM and other Regulated Building Materials (RBM) designated for abatement/environmental control. Bidder is responsible for accurately determining the amount of ACM and RBM included in the Scope of Work. All OSHA regulated materials will be considered ACM for purposes of this Bid.
6. Prior to conducting work, the General Abatement Contractor will develop and submit to Owner representatives for review and approval, a Project Design in accordance with State of Colorado Regulation No. 8, Control of Hazardous Air Pollutants, Part B - Asbestos, Section III.C.1. The Project Design must be developed by a certified State of Colorado Project Designer. Submit, to the Owners' Representative, shop drawings for layout and construction of decontamination enclosure system and barriers for isolation of the work area(s), as appropriate. Drawings shall indicate location of individual HEPA filtration systems and their respective exhausting locations.
7. Verbal instructions are not valid until followed by written confirmation.
8. During the Work, APEC will provide Request for Information (RFI) forms to the GAC. This form is provided in order to properly document any claim, question or conflict that arises during the abatement project. This form should be used for any concern that will not be sufficiently documented through progress meetings and daily logs. All RFI Forms should be submitted to APEC to be assigned a chronological number and recorded in the RFI project log.
9. Following the Mandatory pre-Bid Meeting and walkthrough, the building will be available for additional inspection only by appointment through CSU-Pueblo Facilities Dept.
10. Contractor will be allowed to perform work on Saturday or Sunday with written approval by Owner representative and will insure there is no smoking, consumption of alcoholic beverages, nor improper language or behavior at the work site. Saturday and Sunday work are permitted. CSU-Pueblo website contains policies required to be followed by GAC personnel regarding smoking, harassment, drugs, and alcohol.
11. Provide shift work overtime and/or crew sizes as needed to meet the construction schedule set by Owner and Owner representative.
12. Contractor shall provide material hoisting, personnel hoisting and scaffolding as required for Contractor's work effort.

13. Parking passes for all contractor personnel must be obtained from CSU-Pueblo Sheriff's Office, for designated areas on campus.
14. Environmental (ambient) testing and final clearance testing will be provided and paid for by the Owner. Any additional testing, documentation and certification, as required, shall be provided and paid for by the Contractor. Any expense for retesting of failed tests is the Contractor's expense.
15. Contractor shall include mobilization move-ins as required.
16. Protection of contractor's work and any adjacent work shall be included in this bid.
17. Contractor agrees that, in the performance of this contract, it becomes necessary, convenient or advisable to remove, replace or interfere with any safety devices, barricades or controls installed by Owner or another Subcontractor, this Contractor will replace or restore such devices or controls at his expense. In the event such safety devices or controls are not so replaced, Contractor agrees to reimburse Owner for doing so.
18. Bidders shall include any costs associated with the interface and coordination of their work with all other work activities.
19. Contractor shall apply for, and pay for, all permits specifically required by this scope of work. Contractor will arrange for all inspections required for this work.
20. Deliveries of material and equipment should be sequenced and scheduled as closely as possible on an as-needed basis and must be coordinated with the Owner, Owners' representative, and/or General Contractor's Project Superintendent. Contractor is responsible for receiving, unloading, handling, hoisting and stage of his own material.
21. Daily clean-up will be the responsibility of this Contractor.
22. Onsite office and storage facilities including telephone and hook-up charges will be the Contractor's responsibility.

1001 Pre-Bid Walkthrough:

A MANDATORY Pre-Bid Meeting and walkthrough date and time will be arranged by CSU-Pueblo Procurement Director.

The bid shall include the total costs to remove and dispose of all asbestos- containing materials (ACM's), removal/control/disposal of other identified hazardous and/or non-hazardous materials described in this document. General building plans, ACM information and previous ACM survey reports are attached to this document as Exhibits 1 - 4.

1002 Site Investigation:

By submitting a bid, the Contractor acknowledges that he has investigated and satisfied himself as to: a) the conditions affecting the work, including, but not limited to, physical conditions of the site which may bear upon site access, handling and storage of tools and materials, access to water, electricity or other utilities, or other conditions affecting performance of required activities; b) the character and quantity of all surfaces and substrate materials or obstacles to be encountered in so far as this information is reasonably ascertainable from an inspection of the site, exploratory work done by the Owner or designated consultants, and information presented in this specification document; c) the environmental condition, including the presence, location, and condition of asbestos-containing materials, lead-based paint, lead-based coatings and hazardous and non-hazardous materials at the site; and d) the schedule of the project. Any failure by the Contractor to acquaint himself with available information will not relieve him from the responsibility for estimating properly the difficulty or cost of successfully performing the work.

The Contractor **shall not rely** on the material quantities indicated in this document as the total basis for the bid price. All quantities indicated herein are approximate and intended to alert the Contractor to the general scope of the project. *No increase in contract cost will be considered due to the Contractor's failure to physically verify all quantities of the ACMs, or hazardous and non-hazardous materials specified by this document for removal.*

The Contractor shall include in their bid price the total fee to abate and dispose of the ACMs listed along with disposal of the hazardous and non-hazardous materials pursuant to the removal and disposal methods described herein.

The Owner is not responsible for any conclusions or interpretations made by the Contractor on the basis of the information made available by the Owner.

No bids will be accepted from any Contractor who has not inspected the job site at the Mandatory Pre-bid meeting, either in person or through a qualified designated representative.

The project will be performed in two (2) phases. Abatement phases will be determined and coordinated with the Consultant and Owner representative on a construction specific basis, as described in Section 1500, Completion Schedule.

1003 Patents:

By submitting a bid on this project, the Contractor acknowledges and accepts full responsibility for compliance with patent or licensing requirements on any equipment, procedures or systems utilized on this project.

1004 Discrepancies:

Should a Bidder find discrepancies in the plans and/or specifications or should he be in doubt as to the meaning or intent of any part thereof, he must, no later than Five (5) days prior to the bid submittal, request clarification from the Owner's Procurement Director. Discrepancies with regard to conflicts between the Contract Documents and applicable Federal, State or local regulations or requirements shall be included herein. Failure to request such clarification is a waiver to any claim by the Bidder for expense made necessary by reason of later interpretation of the Contract Documents by the Owner's Procurement Director.

Explanations desired by a prospective Bidder regarding the environmental specifications or other bid documents shall be requested from the Owner's Procurement Director no later than Five (5) days prior to the bid submittal.

All such requests for clarifications shall be directed in writing, fax, or e-mail to:

Geraldine Trujillo-Martinez
Procurement Director
Colorado State University-Pueblo
ADMIN 309
2200 Bonforte Blvd. 81001
719-549-2056 fax
g.trujillomartinez@csupueblo.edu

1005 Modification and Withdrawal of Bids:

Reference Contract Documents

1006 Bonding Requirements:

Reference Contract Documents.

1007 Licenses and Insurance Requirements:

By initiating work on this project the Contractor acknowledges and accepts full responsibility for advising their current insurance carrier(s) of the fact that he is engaging in asbestos and lead-based paint abatement work. Contractor shall provide one copy of project specifications to their insurance carrier upon award of contract. The verification of this submittal shall be included in project close-out documents.

All bidders shall show proof of and maintain required insurance (Reference Contract Documents).

All Bidders must show proof that its workers are properly trained, certified, and licensed to perform the work. Such proof will be submitted for review at least one business day prior to start of work to:

WEMBER, INC.
Attn: Matt Wilhelm, LEED®AP
1525 South Jasmine Ct.
Centennial, CO 80112
(720) 737-9638

Attn: Brandice Eslinger
All-Phase Environmental Consultants, Inc.
721 W. 9th Street, Pueblo, Colorado 81003

1008 Qualifications:

All Bidders shall show proof of a valid State of Colorado Asbestos Abatement Contractors License with the Bid Proposal.

After Notice of Award and prior to Contract Execution, along with the required bonds and insurances, Bidders shall submit a statement with the Bid Proposal–signed by an officer of the company, containing the following information:

A record of any citations issued by Federal, State or local regulatory agencies relating to asbestos abatement activity. Include projects, dates, and resolutions.

A list of penalties incurred through non-compliance with asbestos abatement project specifications including liquidated damages, overruns in scheduled time limitations and resolutions.

Situations in which an asbestos related contract has been terminated, including projects, dates and reasons for termination.

A listing of any asbestos-related legal proceedings/claims in which the Contractor (or employees scheduled to participate in this project) has participated or is currently involved. Include descriptions of role, issuer and resolution to date.

1100 Definitions

General: Definitions contained in this Article are not necessarily complete, but are general to the extent that they are not defined more explicitly elsewhere in the Contract Documents.

Regulations: The term "regulations" includes laws, statutes, ordinances, rules, regulations, requirements, guidance documents and similar guidelines and lawful orders issued by authorities having jurisdiction, as well as rules, conventions and agreements within the construction industry that control performance of the work, whether they are lawfully imposed by authorities having jurisdiction or not.

Furnish: The term "furnish" is used to mean "supply and deliver to the project site, ready for unloading, unpacking, assembly, installation, and similar operations."

Install: The term "install" is used to describe operations at project site including the actual "unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations."

Provide: The term "provide" means "to furnish and install, complete and ready for the intended use."

Project Site: The space available to the Contractor for performance of the work, either exclusively or in conjunction with others performing other construction as part of the project. The extent of the project site will be identified at the pre-bid walkthrough.

Testing Laboratory: A "testing laboratory" is an entity certified by the appropriate Federal, State and/or local agencies engaged to perform specific analysis of asbestos bulk or air samples, either at the project site, or elsewhere.

Contractor: The Contractor provides permits, notifications, labor, materials and equipment necessary to complete the scope of work described in the Contract documents.

Owners' Representative: The Owners' Representative is Ms. Brandice Eslinger of All Phase Environmental Consulting, Inc. or any employee of All-Phase Environmental who will represent the Owner during abatement and until final completion of the work. All-Phase Environmental will advise and consult with the Owner. The Owners' instructions to the Contractor will be forwarded through the Owners' Representative.

General Superintendent: This is the Contractor's Representative at the work site. This person shall be the Competent Person required by OSHA and EPA regulations and licensed as a supervisor in Colorado.

Competent Person: One who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategies and corrective measures to eliminate asbestos exposure.

1101 Definitions Relative to Asbestos Abatement:

Accredited or Accreditation: (when referring to a person or laboratory): A person or laboratory accredited in accordance with section 206 of Title II of the Toxic Substance Control Act (TSCA) and other Federal, State and local laws applicable to the work.

Abatement: An act which is intended to reduce, eliminate or encapsulate asbestos-containing materials.

Adequately Wet: To sufficiently mix or penetrate with liquid to prevent the release of particulates. If visible emissions are observed coming from asbestos- containing material, then that material has not been adequately wetted. However, the absence of visible emissions is not sufficient evidence of being adequately wet.

Air Monitoring: The process of measuring the fiber content of a specific volume of air.

Amended Water: Water to which a surfactant (wetting agent) has been added to increase the ability of the liquid to penetrate ACM.

Asbestos: The asbestiform minerals are chrysotile, amosite crocidolite, anthophyllite, actinolite and tremolite. For purposes of determining respiratory and worker protection, the asbestiform minerals and any of these materials that have been chemically treated and/or altered shall be considered as asbestos.

Asbestos-Containing Material (ACM): Any material containing more than one percent of asbestos as determined by polarized light microscopy methods.

Asbestos-Containing Building Material (ACBM): Surfacing ACM, thermal system insulation ACM, or miscellaneous ACM that is found in or on structural members or other parts of a building.

ACM Waste: Mill tailings or any waste that contains commercial asbestos and is generated by a source subject to the provisions of 40 CFR 61. This term includes removed asbestos-containing material, containment sheeting, filters from air filtration machines, disposable removal equipment and clothing contaminated with asbestos, and disposal bags or other similar packaging containing asbestos.

ACM Debris: Pieces of ACM that can be identified by color, texture, or composition, and dust, if the dust is determined by an accredited inspector to be ACM.

Authorized Person: A person authorized by Owners' Representative and General Superintendent and is required by work duties to be present in the regulated area.

Breathing Zone: A hemisphere forward of the shoulder with a radius of approximately 6 to 9 inches.

Category I Non-friable ACM: Asbestos-containing packings, gaskets, resilient floor covering, and asphalt roofing products containing more than one percent asbestos that when dry cannot be crumbled, pulverized or reduced to powder by hand pressure.

Category II Non-friable ACM: Any material, excluding Category I non-friable ACM, containing more than one percent asbestos that when dry cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Class I asbestos work: Activities involving the removal of TSI and surfacing ACM.

Class II asbestos work: Activities involving the removal of ACM which is not TSI or surfacing ACM. This includes, but is not limited to, the removal of asbestos- containing wallboard system, floor tile, sheet vinyl, roofing materials, siding shingles, and construction mastics.

Class III asbestos work: Repair and maintenance operations, where ACM, including thermal system insulation and surfacing material, is likely to be disturbed.

Critical Barrier: One or more layers of plastic sealed over all openings into a work area or any other similarly placed physical barrier sufficient to prevent airborne asbestos in a work area from migrating to an adjacent area.

Decontamination Area: An enclosed area adjacent and connected to the regulated area and consisting of an equipment room, shower area, and clean room, which is used for the decontamination of workers, materials, and equipment that are contaminated with asbestos.

Demolition: The wrecking or taking out of any load-supporting structural member and any related razing, removing, or stripping of asbestos products.

Disposal Bag: A properly labeled 6 mil thick leak-tight plastic bag used for transporting ACM waste from the regulated area to the disposal site.

Encapsulant: A material that surrounds or embeds asbestos fibers in an adhesive matrix to prevent release of fibers.

Bridging encapsulant: An encapsulant that forms a discrete layer on the surface of an in-situ asbestos matrix.

Penetrating encapsulant: An encapsulant that is absorbed by the in-situ asbestos matrix without leaving a discrete surface layer.

Removal encapsulant: A penetrating encapsulant specifically designed to minimize fiber release during removal of asbestos-containing materials rather than for in-situ encapsulation.

Filter: A media component used in respirators or ventilation equipment to remove solid fibers and particles from the processed air.

Friable ACM: Material containing more than one percent asbestos that when dry can be crumbled, pulverized, or reduced to powder by hand pressure.

Glovebag: An impervious bag (typically constructed with 6 mil polyethylene plastic) designed to be affixed around an object containing ACM (typically TSI) with inward projecting long sleeve gloves which are used for the handling of tools and performing ACM removal.

HEPA Filter: A High Efficiency Particulate Air (HEPA) filter capable of trapping and retaining 99.97% of asbestos fibers greater than 0.3 microns in diameter.

HEPA Filtration System: An air ventilation system utilizing HEPA filters and may or may not utilize a pressure differential relative to the work zone exterior.

HEPA Filter Vacuum Collection Equipment (or Vacuum Cleaner): High efficiency particulate air filtered vacuum collection equipment with a filter system capable of collecting and retaining asbestos fibers. Filters should be of 99.97% efficiency for retaining fibers of 0.3 microns or larger.

Negative Pressure Respirator: A respirator in which the air pressure inside the respiratory-inlet covering is positive during exhalation in relation to the air pressure of the outside atmosphere and negative during inhalation in relation to the air pressure of the outside atmosphere.

Owner: Colorado State University-Pueblo

Permissible Exposure Limit (PEL): The level at which employees must not be exposed to airborne asbestos fibers. The TWA limit is 0.1 f/cc.

Protection Factor: The ratio of the ambient concentration of an airborne substance to the concentration of the substance inside the respirator at the breathing zone of the wearer. The protection factor is a measure of the degree of protection provided by a respirator to the wearer.

Regulated Area: An area demarcated by the Contractor where Class I, II, and III asbestos work is conducted, and any adjoining area where debris and waste from such asbestos work accumulate; and a work area within which airborne concentrations of asbestos, exceed or there is a reasonable possibility they may exceed the permissible exposure limit.

Regulated Asbestos-Containing Material (RACM): Regulated asbestos-containing material (RACM) means (a) Friable asbestos material. (b) Category I non-friable ACM that has become friable. (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or (d) Category II non-friable 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 regulated by 40 CFR 61.

Removal: All operations where ACM is stripped from building components, substrates, and/or removed from the project site by demolition operations.

Respirator: A device to protect the wearer from the inhalation of harmful atmospheres.

Surfacing material: ACM material that is sprayed, troweled-on or otherwise applied to surfaces (such as acoustical plaster on ceilings and fireproofing materials on structural members, or other materials on surfaces for acoustical, fireproofing and other purposes).

Surfactant: A chemical wetting agent added to water to improve penetration, thus reducing the quantity of water required for a given operation or area.

Thermal System Insulation (TSI) material: ACM applied to pipes, fittings, boilers, breaching, tanks, ducts or other structural components to prevent heat loss or gain.

Time Weighted Average (TWA): The average concentration of a contaminant in air during a specific time period.

Transite: Cement asbestos products, e.g. shingle, pipe, panel.

Visible Emissions: Any emissions containing particulate asbestos material that are visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.

Waste Shipment Record: The shipping document (manifest), required to be originated and signed by the waste generator and used to track and substantiate the disposition of asbestos-containing waste material.

Wet Cleaning: The process of eliminating asbestos contamination from building surfaces and objects by using cloth, mops, or other cleaning utensils which have been dampened with amended water or diluted removal encapsulant and afterwards thoroughly decontaminated or disposed of as asbestos-contaminated waste.

Working Day: Working day means Monday through Friday, excluding holidays.

1200 Scope of Work

This specification covers the abatement of exposure to asbestos hazards from building components at the project work site. It is the intent of the Contract Documents to show the work necessary to complete the project.

The Contractor shall furnish all labor, materials, permits, notifications, insurance and equipment necessary for the total removal of all areas of ACM listed and ACM debris associated with those portions of the project site. The estimated quantities of ACM (summarized in Table 1) are intended as a guide. **The Contractor shall visit the site to assess the exact amounts of ACM present as well as the extent of physical difficulty involved in its complete removal.** The Contractor shall consult the Proposed Sequence of Work for the general intent of this Contract Document. There will be an Owners' Representative (Project Monitor) at the job site throughout all phases of the work.

The Contractor will seal off in the internal work zones of the site with 4 and 6 mil polyethylene critical and full containment barriers, erect a worker decontamination chamber with air locks, install a HEPA filtration system capable of changing all air in the full containment at least once each fifteen (15) minutes, and conduct comprehensive personal air sampling test during all phases of the work. The Contractor shall utilize full containment techniques, wet methods, and HEPA vacuums.

The Contractor shall protect all wood floors during abatement. The Donor Wall located in the ballroom shall be protected/salvaged as per the drawings in Exhibit 7.

1201 Table 1: Interior (ACM Abatement & Less than 1%):

Material Type	Location	Estimated Quantity
Textured, Wall-papered & Non-Textured Drywall	Entire Building – All Floors	33,000 +/- S.F.
12x12 Floor Tile w/ asbestos containing mastic	Basement Floor	5,775 +/- S.F.
12x12 Floor Tile w/ asbestos containing mastic	1 st Floor	20,000 +/- S.F.
12x12 Floor Tile w/ asbestos containing mastic	2 nd Floor	22,750 +/- S.F.
Pipe Fittings	Entire Building	1000 +/- Fittings
Sheet Vinyl Flooring	Serving Area 1 st Floor	675 +/- S.F.
3 Hot Water/Heat Exchanger Tanks	Main Mechanical Room in the Basement	3 Tanks
Fire Rated Doors	Entire Building	75 +/- Doors
Transite Ceiling Board	Loading Dock on 1 st Floor Kitchen	265 +/- S.F.
Cove Base & Mastic	Entire Building	3800 +/- L.F.

*S.F. = Square Feet

*L.F. = Linear Feet

- White thermal system insulation (TSI) putty and all associated debris (Friable) in all mechanical rooms
- Transite ceiling panels on the 1st floor loading dock of the kitchen

Some observed homogeneous suspect materials were not sampled during the survey due to the immediate building occupancy, they would require excessive destructive sampling techniques, or they were not reasonably accessible by restricted access and/or they were areas observed to be potentially unsafe for sampling. These materials are assumed to be ACM. These homogeneous areas and materials are:

- Interior HVAC components
- Fire Doors
- Construction mastics/adhesives used in interstitial spaces
- Cement asphaltic-tar coating

1300 Interior/Exterior Demolition/Asbestos (1% or less) Work - OSHA

Once work has started in the area within the building, any entry and work performed within the building requires appropriate personal protective equipment, appropriate work practices and engineering controls. This portion of the work must be completed prior to abatement of the exterior.

Interior:

- Interior demolition consisting of cleaning and preparing barriers of interior areas, seal all openings of the work area, removal of trash, building debris, all non-structural wall and ceiling systems, building components, and terminated services (service components). All studs can be removed as there are no structural components on the interior of the building.
- During interior demolition, remove intact and segregate any floor tile (ACM) that is damaged or dislodged for proper ACM disposal
- Prior to ACM interior demolition, clean and prepare barriers of interior areas, seal all openings of the work area, berm floor perimeter areas for continuous control of water and debris, and clean interior ceilings, beams, joists and other building components of spray-applied fireproofing (<1% asbestos (Chrysotile). Control and manage all materials and debris in accordance with the OSHA Standards 29 CFR 1910.1001 and 29 CFR 1926.1101, and other applicable federal, state and local regulations. Waste water from the work must be filtered to a minimum of five (5) microns and discharged to the sanitary sewer.

Exterior:

- Entry way Ceiling Plaster (less than 1% ACM)

The landfill receiving the asbestos-containing materials and/or asbestos contaminated materials or components must be notified of the asbestos content and conditions for proper disposal.

*Based on multiple survey data (see Exhibits 1, 2 & 3)

1301 Potential Hazardous Materials:

- PCB-containing ballasts from fluorescent light fixtures. Fluorescent, and mercury-vapor lamps.
- Thermostats with mercury switches. Lead-acid batteries.
- Other un-inventoried Regulated Building Materials.

1400 General Demolition

In addition the abatement demolition outlined in this document, the contractor will also remove all other items in the building leaving only the concrete structure, Roof, Stairs, roof drains, and some floor finishes. The abatement contractor will be responsible for the means and methods of how this get demolished in relation to the Abatement pieces. See attached list for what will be removed prior to Abatement contractor taking over the building, what will be removed after abatement and what is expected of the abatement contractor.

General Contractor (Nunn) Scope (<i>Not-in-Contract, by Others</i>)
Pre Abatement
<ul style="list-style-type: none"> • All Lamping and Ballasts in Light Fixtures • Plumbing Fixtures and piping to wall. • Restroom Partitions • Restroom Accessories • Millwork • Wood Guardrail and wood paneling. • Fire Extinguisher/Hose Cabinets • Operable Partitions • Ballroom Chandeliers • Kitchen Equipment to be reused • Kitchen equipment to be trashed • Food Service casework to be reused • Food Service casework to be trashed • Bookstore Shelving – to be reused • Bookstore Shelving to be trashed • Lockers • Hand and Guard rails and stairs (where noted) • Projector Screens and projectors • Donor Plaque and Bench near south entry doors • Tack board and display cases • Mechanical Hood in Kitchen • Roofing (Demolition and Replacement)
Post Abatement
<ul style="list-style-type: none"> • Air Handling Units and Boilers • CMU Walls • Walk in Coolers • Donor wall (move) • Floor Porcelain Tile (Cantina, Res Dining) • Floor Quarry Tile (Res Dining) • Wall Tile in restrooms – Restrooms • Bookstore Garage Door • Raised floor in ASG Chamber and outside of door. • Crawlspace piping and any MEP equipment in crawl space • Roofing (Demolition and Replacement)

Items to remain / Shall be protected by Abatement Contractor
<ul style="list-style-type: none"> • Ballroom Flooring – this remains in place. It will need to be protected from damage during all demolition. • Donor Walls. See attached detail Exhibit # 7 on what to remove and what shall remain. • Concrete floors. No bead blasting or anything to cause damage to the subfloors of the building. If there is concern or issue with removal get written approval from All Phase Environmental Consultants and CSU-Pueblo prior to proceeding. • Stairs and concrete walls on either side (structural)
Abatement Contractor Scope includes demolition and disposal of following items
<ul style="list-style-type: none"> • Light Fixtures • All Conduit throughout and electrical equipment. See Exhibit 7 layout of most electrical equipment. • All plumbing piping (with the exception of roof drains). See Exhibits 5 & 6 for existing building drawings on what is exist for existing mechanical and plumbing. • All Sprinkler piping. See Exhibits 5 & 6 for existing building drawings on what is exist for existing mechanical and plumbing. • All Mechanical equipment and ducts in the ceiling spaces. See Exhibits 5 & 6 for existing building drawings on what is exist for existing mechanical and plumbing. • All equipment with the exception of what is in the basement mechanical room and the rooftop penthouses. • Drywall and metal studs throughout (none to remain) • Any finishes on stud framed walls (tile, wall paper, etc.) • All Ceilings • Doors, door frames or windows in walls • Wall base • Any corkboards or wall signage • Carpet or VCT

1500 Completion Schedule

The Contractor shall have access to the Work Areas to perform work of this Contract as specified below. Deviations from the specified schedule must be approved by the Owners' Representative.

Phase 1---Roof-top Penthouse Mechanical

Rooms:

Start: January 1, 2017

Substantial Completion: Approximately 2 weeks

Phase 2----CSU-Pueblo Occhiato Center:

Start: No Sooner than January 1, 2017

***Substantial Completion Phases 1 and 2: March 3, 2017**

Final Acceptance: 45 days after Substantial Completion, April 24, 2017.

*Requires all visual and air clearances passed and work is sufficiently complete to allow owner to use the structure for the purpose intended.

1501 Bid Check List:

CSU-PUEBLO - OCCHIATO BUILDING

2200 Bonforte Blvd., Pueblo, Colorado Environmental Abatement/Control Project

(Please Include with Bid Form)

Initial

1. Bid Form with Acknowledgment of Receipt of Addenda _____
2. General Abatement Certificate (License) _____
3. Notarized Statement Concerning Citations Received _____
4. Copy of Contractor's License for State where work will be performed _____
5. List of Proposed Subcontractors _____

Printed Name _____

Authorized Company Representative Signature _____

Title _____

Date _____

1600 Proposed Sequence of Work

The Owner, Contractor, and Owners' Representative shall perform various activities to complete this Project. The general Sequence of Work is stated below, and shall be repeated as necessary for each Work Area. The sequence may be altered with written approval by the Owners' Representative.

1. The Contractor shall prepare and submit all notices, permit applications, and project submittals prior to the start of the Work. If required by regulation, a Project Design (as described in AQCC Regulation No. 8 Part B Asbestos, III.C.) shall be developed by the Contractor and submitted as part of the project submittals.
2. The Contractor shall mobilize on-site, post abatement Permit and Project Design (if applicable), and construct all critical barriers applicable to the Work area. Surfaces on and around critical barrier locations shall be pre-cleaned to accommodate adhesion of barriers and duct tape. If temporary partitions or framing are required, these shall be installed prior to critical barrier installation.
3. The Contractor shall establish negative pressure in the Work area by installing and operating negative pressure differential equipment.
4. Perform non-asbestos demolition after critical barriers and negative air pressure have been established, including OSHA-regulated demolition of 'trace' asbestos (1% or less asbestos). Establish additional critical barriers as required upon completion of non-asbestos demolition.
5. The Contractor shall build in place all temporary enclosures required for personnel decontamination unit and waste loadout unit. A view port (12"x 12" minimum) shall be installed in a location so that activities inside the work area can be viewed from outside the work area.
6. The Contractor shall perform pre-cleaning of surfaces where applicable and inspect those areas with the Owners' Representative.
7. The Contractor shall cover all fixed objects, as specified, where applicable.
8. The Contractor shall construct all containment barriers and engineering controls and inspect those areas with the Owners' Representative. If permanent enclosures are required, install these enclosures at this time.
9. The Contractor shall begin abatement in accordance with Environmental Protection Agency (EPA) National Emission Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61, Subpart M), the requirements of State of Colorado Regulation No. 8, the OSHA Standards 29 CFR 1910.1001 and 29 CFR 1926.1101, and other applicable federal, state and local regulations, by removing and disposing of all ACM items, including flooring and fiberglass insulation on pipes, as asbestos contaminated waste. ***(Roof-top mechanical rooms are a priority and to be finished first)***

10. The Contractor shall complete asbestos abatement and Project Decontamination as specified.
11. The Contractor and Owners' Representative shall visually inspect all Work Area surfaces.
12. The Contractor shall apply lockdown encapsulant to all Work area surfaces. After lockdown encapsulant has sufficiently dried, remove primary poly barrier and clean all surfaces. Critical barriers, Negative Air Pressure Differential Equipment, and Decontamination Units shall all remain in place and remain functional.
13. The Contractor and Owners' Representative shall visually inspect all surfaces in the work area.
14. The Owners' Representative shall collect final clearance air samples.
15. After acceptable clearance samples, the Contractor shall remove all temporary enclosures.
16. The Work includes the completion of a Post Abatement walk thru to identify incomplete and/or corrective action work. The Post Abatement inspection shall include representatives of the Contractor, Owner and Owners' Representative to identify the punch list and schedule for completion.
17. Contractor shall complete punch list work and demobilize. Contractor shall be responsible for completing punch list items one (1) week after completion of each individual phase or after a containment clearance.

1700 Applicable Requirements and Guidelines

1701 General Requirements:

All work under this contract shall be done in strict accordance with all applicable Federal, State and local regulations, standards and codes governing asbestos abatement (including removal, transportation and disposal), and any other trade work done in conjunction with the abatement.

By initiating work on this project the Contractor is aware of and is knowledgeable of all current Federal, State and local regulations (including those listed below) affecting the work on this project. The act of initiating work on this project indicates that the Contractor is willing to solely accept responsibility for the adherence to all regulations and the enforcement of all personal protection and safety requirements. The Contractor further acknowledges willingness to solely accept responsibility for the defense and resolution of any claims, filed by any party, as they may relate to the work performed by the Contractor on this project.

Where compliance with two or more standards is specified, and they establish different or conflicting requirements for minimum quantities or quality levels, the most stringent requirement will be enforced. Refer requirements that are different, but apparently equal, and uncertainties as to which quality level is more stringent to the Owners' Representative for a decision before proceeding.

1702 Specific Regulations:

Occupational Safety and Health Administration (OSHA).

Title 29 Code of Federal Regulations Section 1926.1101 - Construction Industry Standards for Asbestos.

Title 29 Code of Federal Regulations Section 1910.1001 - General Industry Standard for Asbestos.

Title 29 Code of Federal Regulations Section 1910.134 - General Industry Standard for Respiratory Protection.

Title 29 Code of Federal Regulations Section 1910.20 - Employee Exposure and Medical Records.

Title 29 Code of Federal Regulations Section 1910.1200 - Hazard Communication.

Environmental Protection Agency (EPA).

Title 40 Code of Federal Regulations Part 61 Subparts A and M (Revised Subpart M-11/20/90) - National Emission Standards for Hazardous Air Pollutants
- Asbestos.

Hazardous Materials Transportation Act (Department of Transportation).

Title 49 Code of Federal Regulations parts 171-180.

State of Colorado Regulation No. 8, Control of Hazardous Air Pollutants, Colorado Air Quality Control Division.

1703 Copies of Standards:

Each entity engaged in construction of any part of the Project is required to be familiar with industry standards applicable to that entities' construction activity. Copies of applicable standards are not bound with the Contract Documents. Where copies of standards are needed for performance of a required construction activity, the Contractor shall obtain copies directly from the publication source. Although copies of standards needed for enforcement of requirements may be part of required submittals, the Owners' Representative reserves the right to require the Contractor to submit additional copies as necessary for enforcement of requirements.

1704 Abbreviations and Names:

Trade association names and titles of general standards are frequently abbreviated. The following acronyms or abbreviations as referenced in Contract Documents are defined to mean the associated names. Names and addresses are subject to change, and are believed to be, but are not assured to be, accurate and up-to-date as of date of Contract Documents:

AIA American Institute of Architects
1735 New York Ave. NW
Washington, DC 20006
(202) 626-7474

AIHA American Industrial Hygiene Association 475 Wolf Ledges Parkway
Akron, OH 44311
(216) 762-7294

All-Phase Environmental Consultants, Inc.
721 W. 9th Street
Pueblo, Colorado 81003
(719) 545-0375

ANSI American National Standards Institute 1430 Broadway
New York, NY 10018 (212) 354-3300

ASTM American Society for Testing and Materials 1916 Race Street
Philadelphia, PA 19103
(215) 299-5400

CFR Code of Federal Regulations
Available from Government Printing Office:
Washington, DC 20402
(usually first published in Federal Register) (202) 783-3238

DOT Department of Transportation
400 Seventh St., SW Washington, DC 20509
(202) 382-3949

EPA Environmental Protection Agency 401 M. ST., SW
Washington, DC 20460
(202) 382-4000

NIST National Institute of Standards and Technology (U.S. Department of Commerce)
Gaithersburg, MD 20899
(301) 975-4016

Asbestos Abatement/Environmental Control
Colorado State University – Pueblo
Occhiato Center Renovation

CDPHE Colorado Department of Public Health and Environment Air Pollution Control
Division
APCD-IE-B1
4300 Cherry Creek Drive South Denver, CO 80246-1530
(303) 692-3100

OSHA Occupational Safety & Health Administration (U.S. Dept. of Labor)
Government Printing Office Washington, DC 20402
(202) 783-3238

UL Underwriters Laboratory
333 Pfingsten Rd.
Northbrook, IL 60062
(312) 272-8800

1800 Submittals, Notices, Codes and Applicable Regulations & Standards

1801 Related documents:

Drawings and general provisions of Contract, including General Conditions, Supplementary General Conditions, and other Division-1 Specification Sections, apply to this Section.

1802 Summary:

This Section sets forth governmental regulations and industry standards which are included and incorporated herein by reference and made a part of the specification. This Section also sets forth those notices and permits which are known to the Owner and which either must be applied for and received, or which must be given to governmental agencies before start of Work.

Requirements include adherence to Work practices and procedures set forth in applicable codes, regulations and standards.

Requirements include obtaining permits, licenses, inspections, releases and similar documentation, as well as payments, statements and similar requirements associated with codes, regulations, and standards.

1803 Codes and Regulations:

General Applicability of Codes and Regulations, and Standards: Except to the extent that more explicit or more stringent requirements are written directly into the contract documents, all applicable codes, regulations, and standards 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.

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, 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 and Owners' Representative harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulation on the part of himself, his employees, or his subcontractors.

Federal Requirements which govern asbestos abatement Work or hauling and disposal of asbestos waste materials include but are not limited to the following:

OSHA: U.S. Department of Labor, Occupational Safety and Health Administration, (OSHA), including but not limited to:

Occupational Exposure to Asbestos, Tremolite, Anthophyllite, and Actinolite; Final Rules

Title 29, Part 1910, Section 1001 and
Part 1926, Section 1101 of the
Code of Federal Regulations

Respiratory Protection
Title 29, Part 1910, Section 134 of the Code of Federal Regulations

Hazard Communication
Title 29, Part 1910, Section 1200 of the Code of Federal Regulations

Construction Industry
Title 29, Part 1926, of the Code of Federal Regulations

Access to Employee Exposure and Medical Records
Title 29, Part 1910, Section 2 of the Code of Federal Regulations

DOT: U. S. Department of Transportation, including but not limited to:
Hazardous Substances
Title 49, Part 171 and 172 of the
Code of Federal Regulations

EPA: U. S. Environmental Protection Agency (EPA), including but not limited to:

Asbestos Hazard Emergency Response Act (AHERA) Regulation
Asbestos Containing Materials in Schools Final Rule & Notice
Title 40, Part 763, Sub-part E of the Code of Federal Regulations

Asbestos School Hazard Abatement Reauthorization Act (ASHARA)
Title 40, Part 763, Revised Appendix C to Subpart E of the Code of Federal Regulations

National Emission Standard for Hazardous Air Pollutants (NESHAPS)
National Emission Standard for Asbestos
Title 40, Part 61, Sub-part A, and Sub-part M (Revised Sub-part B) of the Code of Federal
Regulations

State Requirements which govern asbestos abatement Work or hauling and disposal of asbestos
waste materials include but are not limited to the following:

Colorado Air Quality Control Commission
Emission Standards for Asbestos
Regulation No. 8 "The Control of Hazardous Air Pollutants"
Part B - Emission Standards for Asbestos

Local Requirements: Abide by all local requirements which govern asbestos abatement Work or
hauling and disposal of asbestos waste materials.

1804 Standards:

General Applicability of Standards: Except to the extent that more explicit or more stringent requirements are written directly into the Contract Documents, all applicable standards 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.

Contractor Responsibility: The Contractor shall assume full responsibility and liability for the compliance with all standards pertaining to Work practices, hauling, disposal, and protection of workers, visitors to the site, and persons occupying areas adjacent to the site. The Contractor shall hold the Owner and Owners' Representative harmless for failure to comply with any applicable standard on the part of himself, his employees, or his subcontractors.

Standards which apply to asbestos abatement Work or hauling and disposal of asbestos waste materials include but are not limited to the following:

American National Standards Institute (ANSI)
1430 Broadway
New York, New York 10018
(212)354-3300

Fundamentals Governing the Design and Operation of Local Exhaust Systems
Publication Z9.2-79

Asbestos Abatement/Environmental Control
Colorado State University – Pueblo
Occhiato Center Renovation

American Society for Testing and Materials (ASTM)
1916 Race Street
Philadelphia, PA 19103
(215)299-5400

Safety and Health Requirements Relating to Occupational Exposure to Asbestos - E 849-82
Standard Practice for Visual Inspection of Asbestos Abatement Projects - E 1368

1805 Notices:

U.S. ENVIRONMENTAL PROTECTION AGENCY

Send Written Notification as required by USEPA National Emission Standards for Hazardous Air Pollutants (NESHAPS) Asbestos Regulations (40 CFR 61, Subpart M) to the regional Asbestos NESHAPS Contact at least 10 working days prior to beginning any Work on asbestos containing materials. Send notification to the following address:

EPA, Region VIII (8ART-TS)
Asbestos Coordinator/NESHAPS Contact
1595 Wynkoop Street
Denver, CO 80202-1129

Notification: Include information in the notification as required by the NESHAPS contact.

STATE AND LOCAL AGENCIES

Send written notification as required by State and local regulations prior to beginning any Work on asbestos-containing materials. Send notification to the following address:

Colorado Department of Public Health and Environment
Colorado Air Pollution Control Division (APCD-SS-B1)
4300 Cherry Creek Drive South
Denver, CO 80222-1530

1806 Permits:

All asbestos containing waste is to be transported by an entity maintaining a current "Industrial waste hauler permit" specifically for asbestos containing materials to a disposal site. Colorado Department of Public Health and Environment Asbestos Abatement Permit shall be secured, signed by the Project Manager, and on-site prior to start of asbestos abatement.

1807 Variances:

Variances: The Contractor may request a variance from the appropriate Federal, State, or local agency whereas the Contractor may demonstrate to the satisfaction of the regulating agency and Owners' Representative that compliance is not practical and feasible or that the proposed alternative procedures provide equivalent control of asbestos. The Contractor shall comply with all terms and

conditions of any variance granted. The Owners' Representative must approve in writing any variance application before submission, or variance before the start of Work, and may require additional terms. Acceptance of a variance by a regulatory agency does not constitute approval by the Owners' Representative.

Effect on Contract Sum: The denial of a variance by the Owners' Representative or Regulatory Agency does not constitute a changed condition. There will be no increases in the contract sum or extension of completion dates based upon the Contractor's ability, or inability, to secure a variance.

1808 Licenses:

Maintain current licenses as required by applicable State or local jurisdictions for the removal, transporting, disposal or other regulated activity relative to the Work of this Contract.

1809 Posting and Filing of Regulations:

Post all notices at the Project site as required by applicable Federal, State, and local regulations. Keep copies of all applicable Federal, State, and local regulations and standards on file in Contractor's office.

1810 Submittals:

Before Start of Work: Submit the following to the Owners' Representative for review. No Work shall begin until these submittals are received by the Owners' Representative.

Permits, Licenses, and Certificates: For the Owners' records, submit copies of notices, permits, licenses, and certifications required by this Section.

Notices: Submit notices required by Federal, State and local regulations together with proof of timely transmittal to agency requiring the notice.

Permits: Submit a copy of application for permit and current valid permit required by State regulations.

Variances: Submit copies of all variances and the corresponding response by regulatory agency.

Licenses: Submit copies of all State and local licenses necessary to carry out the Work of this Contract.

Certifications: Submit copies of all State and local certifications of the contractor and employees of the Contractor necessary to carry out the Work of this Contract.

1811 Stop Work:

If the Owners' Representative presents a written stop work order immediately and automatically stop all work. Do not recommence work until authorized in writing by Owners' Representative.

1812 Site Use:

During the scheduled abatement period, the Contractor shall have the use of the project site for construction operations 24 hours a day per each working day. Contractor must 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 except as necessary to insure the safety of those present at or near the site. Conform to site rules and regulations affecting the work while engaged in project construction.

The regulated area is to be restricted only to authorized, licensed, trained, and protected personnel. This may include the Contractor's employees, Owners' Representative and employees of State and local inspectors and any other designated individuals. A list of authorized personnel shall be established prior to job start and posted in the clean room of the worker's decontamination area or at the entrance to the project site.

Entry into the regulated area by unauthorized individuals shall be reported immediately to the Owners' Representative by the Contractor.

A log book shall be maintained by the Contractor in the clean room of the worker decontamination area. Anyone who enters the regulated area must record name, affiliation, time in, and time out for each entry.

Access to the regulated area shall be through a single worker decontamination system. All other means of access (doors, windows, hallways, etc.) shall be blocked or locked so as to prevent entry to or exit from the work area. The only exceptions for this rule are the waste pass-out airlock which shall be sealed except during removal of containerized asbestos waste from the regulated area, and emergency exits in case of fire or accident. Emergency exits shall not be locked from the inside. However, they shall be sealed with polyethylene sheeting and tape until needed.

Contractor shall control site security during ACM removal operations in order to protect work efforts and equipment.

1900 Emergency Planning

An emergency plan (Health and Safety Plan) shall be developed prior to initiation of the asbestos abatement action. A copy of the plan shall be available at the clean room of the worker decontamination area.

The emergency procedures in the Health and Safety Plan shall include telephone numbers for potential emergency response (police, fire department, and emergency medical needs), the location of the nearest telephone and the location to the nearest hospital. A map showing streets with directions to the hospital shall also be provided in the plan.

Emergency planning shall include considerations of fire, explosion, toxic atmospheres, electrical hazards, slips, trips and falls, confined spaces and heat related injury. Written procedures shall be developed and employee training in the procedures shall be provided.

Employees shall be informed of the Health and Safety Planning and trained in evacuation procedures in the event of workplace emergencies.

For non-life-threatening situations (employees only slightly injured) shall decontaminate following normal procedures with assistance from fellow workers, if necessary, before exiting the work place to obtain proper medical treatment.

SECTION 2 - MATERIALS AND EQUIPMENT

2100 Abatement Materials

2101 General:

Deliver all materials in the original packages, containers or bundles bearing the name of the manufacturer and the brand name (where applicable).

Store all materials subject to damage off the ground, away from wet or damp surfaces and under cover sufficient enough to prevent damage or contamination. Replacement materials shall be stored outside of the work area until abatement is completed.

Damaged, deteriorating or previously used materials shall not be used and shall be removed from the work site and disposed of properly.

If used, Glovebags shall be minimum of six (6) mil thickness and be seamless at the bottom. All glovebags shall be removed from the original packing material and thoroughly inspected for defects around all seams and at the point of glove and accessory attachments. Any defective glovebags will be repaired or discarded.

Polyethylene sheeting for walls shall be a minimum of four (4) mil thick.

For floors and all other uses, sheeting of six (6) mil thickness shall be used in widths selected to minimize the frequency of joints.

Method of attachment may include any combination of duct tape or other waterproof tape, furring strips, spray glue, staples, nails, screws or sheets of polyethylene and capable of sealing polyethylene to dissimilar finished or unfinished surfaces under both wet and dry conditions (including the use of amended water).

Polyethylene sheeting utilized for worker decontamination enclosure shall be opaque white or black in color.

Disposal bags shall be of clear, six (6) mil polyethylene, preprinted with labels per OSHA requirement 29 CFR 1910.1001 (j)(2) and 29 CFR 1926.1101 (k)(7).

Disposal drums shall be metal or fibercoated with interlocking ring tops.

Stick-on labels as per OSHA requirements (see 2101.9) for disposal drums.

Warning signs as required by OSHA 29 CFR 1910.1001 (j)(1) and 29 CFR 1926.1101 (k)(6).

2102 Removal Chemicals:

Surfactant (wetting agent) shall be a 50/50 mixture of polyoxyethylene ether polyoxyethylene ester, or equivalent, mixed in a proportion of one (1) fluid ounce of five (5) gallons of water or as specified by manufacturer. An equivalent surfactant shall be understood to mean a material with a surface tension of 29 dynes/cm as tested in its properly mixed concentration, using ASTM method D1331-56- "Surface and Interfacial Tension of Solutions of Surface Active Agents." Where work area temperature may cause freezing of the amended water solution, the addition of ethylene glycol in amounts sufficient to prevent freezing is permitted.

Chemical Remover shall be suitable to aid in the removal of ACM. The chemical must not be solvent-based and not be flammable.

Removal, Penetrating and Bridging Encapsulants shall be suitable to aid in removal of ACM. The encapsulants shall act as its own solvent and be capable of binding and encapsulating individual asbestos fibers.

2103 Lockdown:

Encapsulation lockdown materials shall be bridging type. Encapsulants should not be solvent-based or utilize a vehicle (the liquid in which the solid parts of the encapsulant are suspended) consisting of hydrocarbons and shall not be flammable. Lockdown encapsulant must be color tinted so that its application can be easily verified.

2200 Abatement Equipment

2201 General:

A sufficient quantity of HEPA filtration units equipped with multi-stage HEPA filtration and operated in accordance with ANSI standards (local exhaust ventilation requirements) and EPA guidance document EPA 560/5-43-002 Guidance for Controlling Friable Asbestos - Containing Materials in Buildings Appendix F. Recommended Specifications and Operating Procedures for the Use of Negative Pressure Systems for Asbestos Abatement shall be utilized so as to provide at least one workplace air change every fifteen (15) minutes. When performing abatement adjacent to occupied areas, initiate operation of HEPA filtration equipment as needed to provide six air changes in the work area every sixty (60) minutes as demonstrated by volumetric measurements and HEPA filtered air exhaust velocity measurements. If air-supplied respirators are utilized, estimate the volume of supplied air, and add to workplace air volume when calculating ventilation requirements.

Each HEPA filtration machine must have a minimum of 1800 to 2000 cfm capacity.

Each HEPA filtration machine which is utilized on the project shall be tested/certified under the "DOP Test" within the six-month period prior to the start of work. This test is intended to ensure that air does not bypass or leak around the HEPA filter assembly within the HEPA filtration machine.

Each HEPA filtration machine shall have a backdraft damper installed on the discharge of the machine or equivalent.

Type "C" air-supplied respirators in positive pressure or pressure demand mode with full face pieces and HEPA filtered disconnect protection have traditionally been recommended by the EPA for all full shift abatement work until the successful completion of final clearance air monitoring. However, powered air purifying respirators equipped with HEPA filters and full face-pieces with highest NIOSH assigned protection factor may be used if the air fiber level in the regulated area does not exceed 0.5 f/cc during removal work. A sufficient supply of charged replacement batteries, HEPA filters and a flow test meter shall be available in the clean room for use with powered air purifying respirators.

Spectacle kits and eyeglasses must be provided by the Contractor for employees who wear glasses and who must wear full face-piece respirators. Respirators shall be provided by the Contractor that have been tested and approved by the National Institute of Occupational Safety and Health for use in asbestos contaminated atmospheres.

Compressed air systems, if used, shall be designed to provide air volumes and pressures to accommodate respirator manufacturer's specifications. The compressed air systems shall have a receiver of adequate capacity to allow escape of all respirator wearers from contaminated areas in the event of compressor failure. Compressors must meet the requirements of 29 CFR1910.134 (d). Compressors must have an observable in-line carbon monoxide monitor. Documentation of adequacy of compressed air systems/respiratory protection system must be retained onsite. This documentation will include a list of compatible components with the maximum number of and type of respirators that may be used as described in Compressed Gas Association Specifications G-7.1. The Contractor is responsible for having a type "C"

System at their disposal in case it is required.

Full body disposable protective clothing, including head, body and foot coverings (unless using reusable/cleanable footwear) consisting of material impenetrable by asbestos fibers (Tyvek or equivalent) authorized visitors in sizes adequate to accommodate movement without tearing.

Additional safety equipment (e.g. hard hats meeting the requirements of ANSI Standard Z87.1-1981, eye protection meeting the requirements of ANSI Standard Z87.1-1979, safety shoes or boots meeting the requirements of ANSI Standard Z41.1-1967, disposable PVC gloves), as necessary, shall be provided to all workers and authorized visitors.

Scaffolding erected for removal shall conform to requirements contained in OSHA 29 CFR 1926, Subpart L. The contractor will ensure that a "competent person", as defined by OSHA 29 CFR 1926.450, is present to inspect scaffolding during each day of project activity.

Non-skid footwear shall be provided to all abatement workers. Disposable clothing shall be adequately sealed to the footwear to prevent body contamination.

A sufficient supply of disposable mops, rags and sponges for regulated area decontamination shall be available.

2202 Removal Equipment:

A sufficient supply of scaffolds, ladders, lifts and hand tools (e.g. scrapers, wire cutters, brushes, utility knives, wire saws, etc.) shall be provided as needed and shall be erected or set-up and maintained in a safe manner.

Sprayers with pumps capable of providing 500 pounds per square inch (psi) at the nozzle tip at a flow rate of two gallons per minute for spraying amended water.

Rubber or plastic dustpans, shovels, and squeegees shall be provided for cleanup.

Brushes utilized for removing loose asbestos containing material shall have nylon or fiber bristles, not metal.

A sufficient supply of HEPA filtered vacuum systems shall be available during ACM removal and cleanup. If an outside vacuum system such as a "Guzzler" is used, a full containment enclosure with negative air pressure differential will be required around the system so as to prevent possible contamination to the outside ambient air. A minimum of -0.02 column inches of water pressure differential, relative to outside pressure, shall be maintained within the NPE as evidenced by manometric measurements.

SECTION 3 - EXECUTION

3100 Preparation of Work Areas

3101 General Requirements:

This section applies to the construction of a Negative Pressure Enclosure(s) (NPE) at CSU-Pueblo Occhiato Center, 2200 Bonforte Blvd., Pueblo, Colorado.

Post warning signs and warning tape meeting the requirements of OSHA 29 CFR 1910.1001 (j)(1) and 29 CFR 1926.1101 (k)(6) to demarcate the regulated area or other approaches where airborne fiber concentrations may be reasonably expected to exceed ambient background levels. Signs and warning tape shall be posted at a distance sufficiently far enough away from the regulated area to permit an employee or others to read the sign and take the necessary protective measures to avoid exposure. Exterior doors accessing the regulated area must be locked and posted on the outside with warning signs.

Shut down and lock out electric power to the regulated area. Make provisions to draw temporary power and lighting from outside the abatement area. Insure safe installation (including ground faulting) of temporary power sources and equipment by compliance with all applicable electrical code requirements and OSHA requirements for temporary electrical systems. All costs for electric shall be paid by the Owner.

The Owner will provide water and power for abatement purposes. The Contractor should connect to existing systems where possible.

3101.1 Pre-Cleaning:

Pre-clean all movable objects within the regulated area using a HEPA filtered vacuum and/or wet cleaning methods as appropriate. After cleaning, these objects shall be removed from the work area and carefully stored or disposed of in compliance with all applicable Federal, State and local laws.

3101.2 Containment – Criticals:

Objects in the regulated area which cannot be moved shall be covered with one layer of 6 mil polyethylene sheeting and secured with duct tape.

Seal off all windows, doorways, corridor entrances, drains, ducts, grates, diffusers, skylights and any other openings leading into, out of, or through the regulated area from areas outside of the regulated area with one layer of 6 mil polyethylene sheeting and duct tape/spray adhesive (critical barrier).

For those openings in the regulated area which are part of the heating, venting and air conditioning (HVAC) system, one additional layer of 6 mil polyethylene sheeting shall be applied to those areas.

Construct a clear view port with a minimum size of 12"x 12" viewable area installed to allow a view of the interior of the work area. Install view ports to give a clear view of all abatement work operations.

Floors:

Floor sheeting in the full containment area shall consist of two independent layers of 6 mil polyethylene plastic and extend at least twelve (12) inches above the floor on walls.

Floor sheeting shall be installed first and extend up the wall. Wall sheeting shall be placed as close to the ceiling as possible and extend down to overlap the floor sheeting and taped into place.

Plastic shall be sized to minimize seams. If the floor area necessitates seams, those on successive layers of sheeting shall be staggered to reduce the potential for water to penetrate to the flooring material. A distance of at least six (6) feet between seams is sufficient. Do not locate any seams at wall/floor joints.

Floor sheeting shall extend at least twelve (12) inches up the sidewalls of the decontamination unit. Floors inside the decontamination chamber shall be covered with two layers of 6 mil polyethylene sheeting.

Sheeting shall be installed in a fashion so as to prevent slippage between successive layers of material. Vinyl sheeting may be used for improved traction on floors.

Walls:

Cover walls in the regulated area with polyethylene sheeting. In addition, openings through these walls to uncontaminated areas of the building must be sealed as described previously.

Wall sheeting shall consist of two independent layers of 4-mil polyethylene sheeting.

Wall sheeting shall be secured adequately to prevent it from falling away from the walls. This will require additional support/attachment when HEPA filtration systems are utilized.

Floor and wall sheeting shall be installed so that the top layer can be removed independently from the bottom layer.

3102 Worker Decontamination Area:

The Worker Decontamination Area shall be provided at locations as close as practically possible to the regulated area. One system at a single location for each contained work area is preferred. The system may consist of existing rooms or areas outside of the work area, if the layout is appropriate, that can be enclosed in plastic sheeting and are accessible from the work area. When this situation does not exist, enclosure systems may be constructed out of metal, wood or plastic support as appropriate.

Worker decontamination enclosure systems constructed at the work site shall be separated from adjacent areas utilizing 6 mil opaque black or white polyethylene sheeting or other acceptable materials for privacy.

The worker decontamination enclosure shall consist of, at least, a clean room, a shower room and an equipment room, each separated from each other and from the work area by airlocks.

Entry to and exit from all airlocks and decontamination enclosure system chambers shall be through curtained doorways consisting of three (3) sheets of overlapping polyethylene sheeting. One (1) sheet shall be secured at the top and left side, the other sheets at the top and opposing sides. All sheets shall be installed to insure that they hang straight and maintain a seal over the doorway when not in use.

Access between any two (2) rooms in the decontamination enclosure system shall be through an airlock with at least three (3) feet separating each curtained doorway. Pathways into (from clean to contaminated) and out from (contaminated to clean) the work area shall be clearly designated.

Clean room shall be sized to adequately accommodate the work crew. Benches shall be provided as well as hooks for hanging up street clothes (lockers may be provided for valuables, however, workers may be required to secure valuables in their cars). Shelves for storing respirators shall also be provided in this area. Clean work clothes (if required under disposable clothing), clean disposable clothing, replacement filters for respirators, towels and other necessary items shall be provided in adequate supply in the clean room. A location for postings shall also be used to permit access into the clean room from outside the work area. Lighting, heat and electricity shall be provided, as necessary, for comfort. This space shall not be used for storage of tools, equipment or materials, (except as specifically designated) or as office space.

Shower room shall contain one shower head per every five (5) workers in containment or more as necessary to adequately accommodate workers. Each shower head shall be supplied with hot and cold water adjustable at the tap. The shower enclosure shall be constructed and available at all times. Shower water shall be drained, collected and filtered through a system with at least 5.0 micron particle size collection capability.

(Notice: A system containing a series of several filters with progressively smaller pore sizes is recommended to avoid rapid clogging of filtration system by large particles).

No asbestos contaminated water may be allowed to evaporate or leak into non- work areas. All filtered water must be disposed of in a sanitary sewer. This water must not be allowed to go to storm drains, or run off onto adjacent soil or paved surfaces.

The equipment room shall be suited for storage of equipment and tools at the end of a shift after they have been decontaminated using HEPA filter vacuum and/or wet cleaning techniques as appropriate. Replacement filters (in sealed containers until used) for HEPA vacuums and HEPA filtration ventilation equipment, extra tools, containers of surfactant and other materials and equipment that may be required during the abatement may also be stored here. A pool or equivalent filled with water shall be located in the work area just outside the equipment room for workers to clean off foot coverings after leaving the work area and prevent excessive contamination of the worker decontamination enclosure system. A drum lined with a labeled six (6) mil polyethylene bag for collection of disposable clothing may be located in this room. Contaminated footwear (e.g. rubber boots, other reusable footwear) shall be stored in this area for reuse the following work day.

3103 Waste Container Pass-Out Airlock:

The waste container pass-out airlock shall be attached to the abatement containment barriers at a location near the waste disposal transport container.

This airlock system shall consist of an airlock, a container staging area, and another airlock with access to the abatement work area.

The waste container pass-out airlock shall be constructed in a similar fashion to the worker decontamination enclosure system using similar materials and airlock and curtain doorway designs.

The waste container pass-out airlock system **SHALL NOT** be used to enter or exit the work site. Waste containers **SHALL NOT** be removed from the containment through the worker decontamination unit(s).

3104 Maintenance of the Negative Pressure Enclosure:

Following completion of the construction of all polyethylene barriers and decontamination system enclosures, allow settling to insure that barriers will remain intact and secured to walls and fixtures before beginning actual abatement activities.

The NPE shall be inspected prior to beginning removal work and then be inspected at least twice daily: prior to the start of each day's abatement activities and following the completion of the day's abatement activities. Document inspections and observations on separate sheet or in the daily project log.

Use smoke tubes to test and inspect the NPE.

Damage and defects in the NPE are to be repaired immediately upon discovery.

At any time during the abatement activities, if visible suspect ACM, ACM, or asbestos-contaminated material is observed outside of the work area or if damage occurs to the NPE, work shall immediately stop, repairs be made to barriers, and debris/residue cleaned up using appropriate HEPA vacuuming and wet mopping procedures.

If air samples collected outside of the regulated area during abatement activities indicate airborne fiber concentrations greater than 0.1 f/cc or pre-measured background levels (whichever is lower), work shall immediately stop for inspection and repair of the NPE. Clean-up of surfaces outside of the work area using HEPA vacuum or wet cleaning techniques may be necessary.

Install and initiate operation of HEPA filtration equipment as needed to provide one air change in the work area every fifteen (15) minutes. Openings made in the enclosure system to accommodate these units shall be made air-tight with tape, spray adhesive, and/or caulking as needed. If more than one (1) unit is installed, they should be turned on one at a time, checking the integrity of wall barriers for secure attachment and need for additional reinforcement. Insure that adequate power supply is available to satisfy the requirements of the ventilating units, air sampling pumps, and other equipment. HEPA filtration units shall be exhausted to the outside of the building whenever feasible. They shall not be exhausted into occupied areas of the building. Appropriate plastic extension ducting shall be used to reach from the work area to the exhaust area. Contractor shall insure that HEPA filters are changed regularly, filters are not obstructed or damaged and that the exhaust ducting does not release fibers into uncontaminated building areas.

A minimum of -0.02 column inches of water pressure differential, relative to outside pressure, shall be maintained within the NPE as evidenced by manometric measurements. When performing abatement adjacent to occupied areas, initiate operation of HEPA filtration equipment as needed to provide six air changes in the work area every sixty (60) minutes as demonstrated by volumetric measurements and HEPA filtered air exhaust velocity measurements. If air-supplied respirators are utilized, estimate the volume of supplied air, and add to workplace air volume when calculating ventilation requirements.

The NPE shall be kept under negative pressure throughout the period of its use.

Monitoring of airborne fiber concentrations may be performed in areas adjoining but outside of the NPE. This air monitoring is intended to demonstrate the integrity of the enclosure, worker decontamination area, and HEPA filtration systems. The area air monitoring will be performed by Owners' Representative.

The area air monitoring will be performed at areas leading into or out of the NPE (clean room, waste pass-out chamber) and within 20 feet from exhaust ports of the HEPA filtration machines.

The air samples will be collected at flow rates between 1 liter per minute to 10 liters per minute with a minimum total air volume of 1200 liters.

Air sample cassettes collected for area monitoring shall be analyzed by PCM methods on a 24-hour turnaround at a laboratory accredited by the AIHA Laboratory Accreditation Program.

3105 Emergency Exits:

Clearly identify and maintain emergency and fire exits from the work area. Emergency exits shall be established and clearly marked with duct tape arrows or other effective designations to permit easy visibility from anywhere within the work area. They shall be secured to prevent access from uncontaminated areas and still permit emergency exiting. These exits shall be properly sealed with polyethylene sheeting which can be cut to permit egress if needed. These exits may be the worker decontamination enclosure, the waste pass-out airlock and/or other alternative exits satisfactory to fire officials.

3106 Commencement of work shall not occur until:

The NPE has been constructed and inspected for breaches and smoke-tested for leaks.

HEPA filtration ventilation systems are functioning adequately.

Electrical circuits in the NPE are deactivated unless equipped with ground-fault circuit interrupts.

All pre-abatement submissions, notifications, postings, permits, and abatement drawings have been provided and are satisfactory to the Owners' Representative.

All equipment for abatement, clean-up and disposal are on hand and proven to be in operating order.

All worker documentation (training, certifications, medical, and respirator fit testing) is completed and evidence thereof has been provided to Owners' Representative.

3200 Workplace Entry and Exit Procedures

3201 General Requirements:

All workers and authorized personnel shall enter the work area through the worker decontamination area.

All personnel who enter the regulated area must sign the entry log, located in the clean room, upon entry and exit.

All personnel, before entering the regulated area, shall read and be familiar with all posted regulations, personal protection requirements (including workplace entry and exit procedures) and emergency procedures.

3202 Worker Protection Procedures during Entry and Exit:

All personnel shall proceed first to the clean room, remove all street clothes and appropriately don respiratory protection (as deemed adequate for the job conditions) and launderable and/or disposable coveralls, head covering and foot covering. Hard hats, eye protection and gloves shall also be utilized, if required. Clean respirators and protective clothing shall be provided and utilized by each person for each separate entry into the work area.

Personnel wearing designated personal protective equipment shall proceed from the clean room through the shower room and equipment room to the regulated area.

Before leaving the regulated area, all personnel shall remove gross contamination from the outside of respirators and protective clothing by brushing and/or wet wiping procedures. (Small HEPA vacuums with brush attachments may be utilized for this purpose). Each person shall clean bottoms of protective footwear in the walk-off pan using brushes or other appropriate equipment just prior to entering the equipment room.

Personnel shall proceed to equipment room where they remove all protective equipment except respirators. Deposit disposable (or launderable) clothing into appropriately labeled impermeable containers for disposal (or laundering).

Reusable footwear (rubber boots) shall be stored in the equipment room when not in use in the work area. Upon completion of the work, each pair shall be decontaminated at the completion of the abatement action.

Still wearing respirators, personnel shall proceed to the shower area, clean the outside of the respirators and the exposed face area under running water prior to removal of respirator and shower and shampoo to remove residue asbestos contamination. Various types of respirators will require slight modification of these procedures. An airline respirator with HEPA filtered disconnect protection may be disconnected in the equipment room and worn into the shower. A powered air-purifying respirator face-piece will have to be disconnected from the filter-power pack assembly which is not waterproof, upon entering the shower. Cartridges must be changed for each new entry into the regulated area.

After showering and drying off, proceed to the clean room and don clean disposable (and/or launderable) clothing if there will be later re-entry into the regulated area or street clothes if it is the end of the work shift.

These procedures shall be posted in the clean room and equipment room.

3300 Waste Container Pass-out Procedures

Asbestos contaminated waste that has been containerized shall be transported out of the work area through the waste container pass-out airlock (or through the worker decontamination enclosure if a separate airlock has not been constructed).

Waste pass-out procedures shall utilize two (2) teams of workers, an "inside" team and an "outside" team.

3301 Inside Team:

The inside team wearing appropriate protective clothing and respirators for inside the regulated area shall clean the outside, including bottom, of properly labeled, impermeable containers (bags, drums, or wrapped components) using HEPA vacuum and wet wiping techniques. The cleaned containers shall then be placed into the waste container pass-out airlock. No worker from the inside team shall further exit the regulated area through this airlock.

3302 Outside Team:

The outside team wearing protective clothing and appropriately assigned respirators, shall enter the airlock from outside the regulated area, enclose the ACM waste containers into another clean, labeled, six (6) mil polyethylene disposal bag and remove the bags from the airlock to the outside. No worker from the outside team shall enter any further into the regulated area through this airlock.

The double-wrapped disposal bags shall then be loaded into the ACM waste transport trailer.

The exit from this airlock shall be secured to prevent unauthorized entry.

3400 Personal Protection Requirements

3401 General:

The Contractor, by initiating work on this project, acknowledges that he alone is responsible for providing for and enforcing the personal protection requirements on this project.

The Contractor shall conduct OSHA-mandated personal air monitoring for workers to determine Time Weighted Average and/or Excursion Level fiber concentrations.

The air samples shall be analyzed by PCM methods on a 24-hour laboratory turnaround. A laboratory performing the analysis must be accredited by the AIHA laboratory accreditation program. A mobile laboratory performing the analysis, if used, must be analyzed by a person registered by the AIHA as an asbestos analyst.

The personnel air sampling shall be performed at rates of 0.5 to 5.0 liters per minute with a total air volume between 25 liters to 2400 liters of air sampled during the work process.

3402 Training:

Prior to commencement of abatement activities, all personnel who will be required to enter the regulated area or handle containerized asbestos containing materials must have received adequate training, in accordance with this document and all applicable regulations.

Special onsite training on equipment and procedures unique to this job site shall be performed as required.

Training in emergency response and evacuation procedures shall be performed as required.

3403 Respiratory Protection:

All respiratory protection shall be provided to workers in accordance with the submitted written respiratory protection program, which includes all items in OSHA 29 CFR 1910.134 (a) (1-11). This program shall be posted in the clean room of the worker decontamination enclosure system.

Workers shall be provided with personally issued, individually identified (marked with waterproof designations) respirators.

Implementation Suggestions: The use of engineering controls such as HEPA filtration ventilation units and HEPA vacuums and good work practices such as the wetting of ACM prior to abatement, removal in small sections, use of glove bags and proper clean-up and containerization all help to reduce airborne fiber levels in the work area. Additionally, air movement should be directed away from workers in the NPE during removal and toward a HEPA filtration device. A properly designed air monitoring program, implemented by a qualified air sampling professional and analytical laboratory, may support the use of respiratory protective devices that provide a lower factor of protection to the workers than air supplied respirators, for some abatement activities. Safety problems associated with the use of airline systems and time and financial constraints may be reduced through the use of alternative types of respiratory protection. It is imperative, however, that adequate air monitoring of fiber levels and a well-designed respiratory protection program (in accordance with 29 CFR 1910.134) be implemented. Basic points of the respirator program include: proper selection of respirator type and size, training of personnel in the proper inspection, donning, cleaning and maintenance procedures for the respirator selected including their use limitations, and a good filtering and fit testing program to provide proper protection. Single-use disposable respirators shall not be used during any asbestos abatement activities.

Negative-pressure dual cartridge respirators shall be equipped with high efficiency filters and exhalation and inhalation valves to permit the performance of positive and HEPA filtration fit checks.

Fit Testing:

Workers must perform positive and negative pressure fit checks each time a respirator is put on, whenever the respirator design so permits. Powered air- purifying respirators shall be tested for adequate flow as specified by the manufacturer.

Workers shall be given a qualitative fit test in accordance with procedures detailed in the OSHA Asbestos Construction Standard (29 CFR 1926.1101, Appendix C) for all respirators to be used on this abatement project. An appropriately administrated quantitative fit test may be substituted for qualitative fit test.

Documentation of adequate respirator fit must be provided to the Owners' Representative.

No one wearing a beard shall be permitted to don a respirator and enter the work area.

Additional respirators (minimum of 2 of each type) and training on their donning and use must be available at the work site for authorized visitors who may be required to enter the regulated area.

3404 Protective Clothing:

Disposable clothing including head foot and full body protection shall be provided by the Contractor in sufficient quantities and adequate sizes for all workers and authorized visitors.

Laundryable clothing, if used, shall be provided by the Contractor in sufficient quantities and adequate sizes for all workers and authorized visitors.

Protective eyewear, gloves, rubber boots and/or other footwear shall be provided by the Contractor as required for workers and authorized visitors. Safety shoes may be required for some activities.

3405 OSHA Personals:

Throughout the removal and subsequent cleaning operations, the Contractor is responsible for all personal air monitoring as required under OSHA regulations for the protection of their employees. Samples shall be taken to establish an 8 hour Time-Weighted Average and exposure for each type of employee operation. Sampling and analysis shall be conducted in strict accordance with applicable OSHA regulations. Air samples to be analyzed by phase contrast microscopy (PCM). Analytical results of personal air samples shall be made available to the Owners' Representative on a 24 hour maximum turnaround basis. A general, a minimum of 25% of the workers in each type of work operation should be monitored continuously. All air samples submitted by the Contractor for analysis shall be submitted with two filter blanks to a laboratory currently accredited in the AIHA Laboratory Accreditation Program.

3500 Removal Procedures

3501 Class I Asbestos Removal:

Pre-clean, isolate and prepare the regulated area.

Wet the ACM with amended water solution using appropriate equipment. Saturate the material to the greatest extent possible. Keep all removed material wet enough to prevent fiber release until it can be containerized for disposal.

Remove the ACM from the substrate. A layer of 6 mil polyethylene sheeting to act as a dropcloth shall be placed on surfaces beneath the removal activity.

Removed material should be containerized (disposal bags) before moving to a new location for continuance of work.

Materials removed from building structures or components shall not be dropped or thrown to the floor and/or ground. Materials should be removed as intact sections or components whenever possible, containerized and carefully lowered to the floor.

Containers (six (6) mil polyethylene disposal bags or drums) shall be sealed when full. (Wet material can be exceedingly heavy. Double bagging of waste material is always necessary.)

Asbestos containing waste with sharp-edge components (e.g. nails, screws, metal lath, tin sheeting, etc.) will tear the polyethylene bags and sheeting, and therefore, this type of materials shall be placed in drums for disposal.

After completion of any stripping work, surfaces from which ACM has been removed shall be wet brushed and sponged or cleaned by some equivalent method to remove all visible residue.

Clean-up shall proceed.

After the regulated area has been rendered free of visible residues, one coat of a satisfactory lockdown encapsulant agent shall be applied to all surfaces in the work area including structural members, building components and plastic sheeting on walls, floors and coverings over non-removable items, to seal in non-visible residue.

3502 Class I Asbestos Removal (Glovebag Procedures for TSI):

Glovebags shall be constructed of 6 mil polyethylene plastic and be seamless at the bottom. The glovebags must have built-in internal sleeve gloves, tool pouch and small openings for the insertion of water sprayers and/or HEPA vacuum nozzles. The glovebags shall be pre-labeled with appropriate EPA, OSHA and DOT warnings.

The glovebags may only be used on straight runs of thermal system insulation ACM of unlimited lengths or on individual mudded pipe fittings.

The glovebags may only be used once and may not be moved.

Glovebags shall not be used on surfaces whose temperatures exceed 150°F.

The glovebag removal work shall be performed by at least two properly trained Contractor employees. The work must also be supervised by the General Superintendent.

Glovebag equipment and supplies shall include:
Pump-up garden sprayer.

If used, Glovebags shall be minimum of six (6) mil thickness and be seamless at the bottom. All glovebags shall be removed from the original packing material and thoroughly inspected for defects around all seams and at the point of glove and accessory attachments. Any defective glovebags will be repaired or discarded.

Polyethylene sheeting for walls shall be a minimum of four (4) mil thick.

For floors and all other uses, sheeting of six (6) mil thickness shall be used in widths selected to minimize the frequency of joints.

Method of attachment may include any combination of duct tape or other waterproof tape, furring strips, spray glue, staples, nails, screws or sheets of polyethylene and capable of sealing polyethylene to dissimilar finished or unfinished surfaces under both wet and dry conditions (including the use of amended water).

Polyethylene sheeting utilized for worker decontamination enclosure shall be opaque white or black in color.

Disposal bags shall be of clear, six (6) mil polyethylene, preprinted with labels per OSHA requirement 29 CFR 1910.1001 (j) (2) and 29 CFR 1926.1101 (k) (7).

- Disposal drums shall be metal or fibercoated with interlocking ring tops.
- Stick-on labels as per OSHA requirements (see 2101.9) for disposal drums.
- Tape to seal glovebag to piping.
- Amended water and lockdown encapsulant.
- HEPA filtered vacuum system and/or HEPA filtration machine.
- Tools such as wire saws, utility knife, wire cutters, tin snips, scrub brush and rags.
- Pre-labeled, 6 mil disposal bags.
- 4-mil polyethylene sheeting.
- Smoke tubes with aspirator bulb.
- HEPA respirators and protective clothing.

Glovebag work practices shall consist of the following:

Isolate the regulated area with critical barriers (one layer of 6 mil polyethylene sheeting) over all openings leading into or out of the area. Place one additional critical barrier layer over all HVAC openings. Demarcate the regulated area with warning signs.

Place critical barriers (6 mil sheeting) over any HVAC system vents adjacent to the work area and dropcloths (6 mil sheeting) over all objects near the work area which cannot be moved.

Ventilate the regulated area using HEPA vacuum system or HEPA filtration machine.

Place one layer of 6 mil polyethylene sheeting on the floor or surface below the entire length of the {{pipe run or pipe fitting}} to be removed so that it extends at least 3 feet to either side of the material.

Wrap and/or seal any pre-existing damaged, friable and/or loose TSI material with tape or a layer of 6 mil polyethylene sheeting prior to glovebag work.

Securely attach glovebag to piping or object. The installation must completely cover the circumference of the pipe or object.

Test glovebag for leaks using smoke tubes. Seal with tape any leaks and retest.

Thoroughly wet the ACM and strip/remove the material to the substrate. Maintain the ACM in the glovebag in a wet condition during the removal process.

After ACM removal, clean the exposed surfaces with brushes and/or wet wiping to remove any remaining residue.

Apply lockdown encapsulant to exposed surfaces and adjacent TSI material, if applicable.

Remove tools from glovebag by pulling them through internal sleeve gloves. Twists the sleeve gloves and tape. The tools may be placed into the next section of glovebag or decontaminated in a bucket of water.

Making sure the removed ACM is in the bottom of the bag, evacuate the air from the glovebag using a HEPA filtered vacuum system, twist the glovebag several times and tape the bag closed.

Place the glovebag into a 6 mil disposal bag and perform clean-up procedures.

Workers performing glovebag removal shall wear, at a minimum, a half-face, dual cartridge HEPA respirator and protective clothing.

Procedures for negative pressure glovebag use shall comply with work practices described above and to include the following:

A HEPA filtered vacuum system is attached to bag and a device shall be placed in bag to prevent collapse during work.

The HEPA vacuum system and device to prevent collapse shall be used continuously during glovebag removal operations.

A separate waste collection bag may be used during ACM removal process. The waste bag may only be used once.

The collection/work bag may be reused if the bag is rinsed clean with water prior to next set-up.

3503 Class II Asbestos Removal:

All Class II ACM work shall be completed in accordance with the requirements stated in the OSHA Asbestos Standard 29 CFR 1926.1101(g) (7).

Demarcate the area around the removal area with asbestos warning tape and signs.

For indoor work, critical barriers shall be placed over all openings leading into or out of the regulated area.

For removal of sheetrock wall system, isolate the work area by constructing a partial containment enclosure (one layer of 6 mil polyethylene sheeting) for temporary walls or along walls which are not ACM and a layer of 6 mil sheeting on the floor. **For removal of floor tile/mastic**, a layer of 6 mil sheeting shall be placed at least 4 feet above the floor along walls in the work area. Contractor may utilize existing sheeting placed for construction of negative pressure enclosure at this area. Both containments shall have HEPA filtration machines placed in the work area. When performing abatement adjacent to occupied areas, initiate operation of HEPA filtration equipment as needed to provide six air changes in the work area every sixty (60) minutes. A minimum of -0.02 column inches of water pressure differential, relative to outside pressure, shall be maintained within the NPE as evidenced by manometric measurements.

Class II removal practices shall consist of the following:

Demarcate the area around the removal area with asbestos warning tape and signs.

For indoor work, critical barriers shall be placed over all openings leading into or out of the regulated area.

One layer of 6 mil polyethylene sheeting shall be placed under the removal activity, where practical. A layer of 6 mil sheeting shall be placed at least 4 feet above the floor along walls in the work area. Contractor may utilize existing sheeting placed for construction of negative pressure enclosure at this area. The work area shall have HEPA filtration machines placed in the work area to provide one air change every 15 minutes. When performing abatement adjacent to occupied areas, initiate operation of HEPA filtration equipment as needed to provide six air changes in the work area every sixty (60) minutes. For removal of sheetrock ceiling system, isolate the work area by constructing a partial containment enclosure (one layer of 6 mil polyethylene sheeting) for temporary walls or along walls which are not ACM and a layer of 6 mil sheeting on the floor.

The ACM shall not be removed by high speed abrasive saws, sanders or drills, compressed air systems, mechanical chipping or other types of powered cutting tools.

The ACM shall be removed in an intact state to the extent possible.

The ACM must be thoroughly wetted with amended water prior to removal.

Removed material shall be immediately placed in impermeable leak-tight containers, pre-labeled disposal bags or wrapped in polyethylene sheeting. The material must remain in a wet condition and transferred into waste transport trailer.

Any ACM debris shall be collected using HEPA vacuum system and/or wet wiped.

3504 Mini-Containment Procedures:

Isolate the area by restricting access of unauthorized personnel.

Shutdown and tag/lockout the air handling equipment and isolate the area by restricting access by unauthorized personnel.

Minimum personal protection during set-up and take-down will consist of a half- face respirator with HEPA filters, disposable full-body suits and safety glasses. When removing the ACM, a full-face Powered Air Purifying Respirator (PAPR) with HEPA filters must be substituted for the half-face respirator, unless air monitoring data shows that a half-face respirator would be appropriate.

Place appropriate warning signs on entrances to the work area to prohibit unauthorized personnel from entering the area.

Place or hang critical barriers over openings to the work area. The critical barriers will consist of two layers of six (6) mil poly and duct tape.

Moveable objects should be removed from the work area to protect them from asbestos contamination and to prevent damage to surfaces or equipment. Objects that cannot be removed will be covered with two layers of six (6) mil poly sheeting. If the objects have already been contaminated, they shall be cleaned with a HEPA vacuum or wet-wiped before being removed or covered with poly.

Place a drop cloth of six (6) mil poly on the ground/sidewalk directly under the work site and assure that it extends a minimum of ten (10) feet in all directions from the work site.

The following describes the two primary components of mini-containment areas:

1. Mini-Containment Work Area
 - a. Ceiling, floor, and walls are comprised of six (6) mil poly.
 - b. Will contain work area and be large enough to accommodate a minimum of five people.
 - c. Ceiling, floor, and wall seams will be sealed with duct tape/spray adhesive.
 - d. Walls will be supported with lumber or PVC or steel piping, as necessary. Attach poly with duct tape or staples. The abatement contractor must submit prior to the construction of the mini-containment work area the type construction, materials used, and methods of attachment (poly and unit to building).

Scaffolding erected for exterior stucco removal/repair shall conform to requirements contained in OSHA 29 CFR 1926, Subpart L. The contractor will ensure that a “competent person”, as defined by OSHA 29 CFR 1926.450, is present to inspect scaffolding during each day of project activity.

- e. Seal penetrations (conduit, pipe, staple holes, etc.) with duct tape.
 - f. Prior to removal of ACMs, a HEPA filtration device consisting of a HEPA vacuum or a negative HEPA filter machine will be attached to the mini-containment area to cause a negative air pressure on the inside of the mini-containment area. Exhaust from such devices will be vented outside the building.
2. Centralized Worker Decontamination Unit

Construct a centralized worker decontamination unit this worker decontamination unit shall be used only by workers who are performing work in the mini-containment work area.

Mini-containment ingress and egress are as follows: Ingress:

- a. Worker dons properly fit-tested PAPR with HEPA filters.
- b. Worker dons two (2) full-body suits over appropriate under garments (e.g. shorts for summer and coveralls for winter).
- c. Worker enters work area through change room. Egress:
 - a. Once work is complete, waste is sealed in appropriately labeled bags. After encapsulant has been applied the worker removes the outer suit and proceeds to the centralized decontamination unit into the dirty/equipment room.
 - b. Follow proper exit procedures.

3600 Clean-up Procedure

Remove and containerize all visible accumulations of ACM and ACM debris utilizing rubber dust pans and rubber squeegees. Do not use metal shovels to pick up or move accumulated waste. Special care shall be taken to minimize damage to floor sheeting.

Clean all surfaces in the regulated area using wet-dry HEPA vacuums, rags, mops and sponges as appropriate.

Remove and/or clean the outer layer of plastic sheeting from walls and floors. Windows, doors, HVAC system vents and all other openings shall remain covered. The NPE shall remain in place and continued to be utilized.

Remove all containerized waste from the regulated area and waste container pass-out airlock and place into waste transport trailer.

Decontaminate all tools and equipment and remove at the appropriate time in the cleaning sequence. Materials and/or equipment which cannot be thoroughly decontaminated must be placed in either locking containers or wrapped in two layers of 6 mil polyethylene sheeting.

Empty HEPA filtered vacuum collection units of ACM waste and remove/change filters from HEPA filtration machines.

Inspect the regulated area for visible residue. If any accumulation of residue is observed, it will be assumed to be ACM debris and the cleaning sequence will be repeated.

The regulated area shall be cleaned until it is free of all ACM waste and debris and in compliance with Federal, State and local requirements. Any additional cleaning cycles shall be provided, as necessary, at no cost to the Owner, until all criteria have been met.

3601 Air Monitoring:

Ambient and final clearance air sampling will be conducted by the Owners' Representative. The results of this air sampling or final visual clearances will be made available to the Contractor within 24 hours of that activity. Should the Contractor desire this information earlier, he shall make a written request to the Owners' Representative. Air monitoring samples will be analyzed by PCM, NIOSH Method 7400.

Where compliance with two or more standards is specified, and they establish different or conflicting requirements for minimum quantities or quality levels, the most stringent requirement will be enforced. Refer requirements that are different, but apparently equal, and uncertainties as to which quality level is more stringent to the Owners' Representative for a decision before proceeding.

Results of ambient air sampling data, if collected during the course of the ACM removal work, will be submitted to the Contractor by the Owner/Owners' Representative. These sample results are for information only and may not be relied upon by Contractor for any purpose. They serve only to monitor Contractor performance during the project and shall not release the Contractor from any responsibility to sample for OSHA compliance or to otherwise perform Contractor's obligations hereunder.

All ambient and final clearance visual inspection and air monitoring will be performed by the Owners' Representative. A copy of which shall be submitted to Contractor for inclusion into their permanent record.

Where in the performance of the work, workers, supervisory personnel, subcontractors, consultants or others may encounter, disturb or otherwise function in the immediate vicinity of any identified asbestos-containing materials take appropriate continuous measures as necessary to protect all building occupants or others from the potential hazard of exposure to airborne asbestos. Such measures shall include the procedures and methods described herein, and compliance with regulations of applicable Federal, State and local agencies.

3602 Work Area Isolation:

The purpose of the Owners' air monitoring is to detect faults in the Work Area isolation such as:

- Contamination of the building outside of the Work Area with airborne asbestos fibers,
- Failure of filtration or rupture in the differential pressure system,
- Contamination of air outside the building envelope with airborne asbestos fibers.

Should any of the above occur immediately cease asbestos abatement activities until the fault is corrected. Do not recommence Work until authorized by the Owners' Representative in writing.

3603 Work Area Airborne Fiber Count:

The Owners' Representative will monitor airborne fiber counts in the Work Area. The purpose of this air monitoring will be to detect airborne asbestos concentrations which may challenge the ability of the Work Area engineering controls to protect the balance of the building or outside of the building from contamination by airborne fibers.

3604 Work Area Clearance:

To determine if the elevated airborne fiber counts encountered during abatement operations have been reduced to an acceptable level, the Owners' Representative will sample and analyze air.

STOP ACTION LEVELS:

3605 Inside Work Area:

Maintain an average airborne count in the Work Area of less than 0.5 fibers per cubic centimeter. If the fiber counts rise above this figure for any sample taken, revise Work procedures to lower fiber counts. If the Time Weighted Average (TWA) fiber count for any Work shift or 8 hour period exceeds 0.5 fibers per cubic centimeter, stop all Work, leave Pressure Differential System in operation and notify Owners' Representative. After correcting cause of high fiber levels, do not recommence Work until authorized in writing, by Owners' Representative.

If airborne fiber counts exceed 2.0 fibers per cubic centimeter for any period of time cease all Work except corrective action until fiber counts fall below 0.5 fibers per cubic centimeter and notify Owners' Representative. After correcting cause of high fiber levels, do not recommence Work until authorized in writing, by Owners' Representative.

3606 Outside Work Area:

If any air sample taken outside of the Work Area exceeds the base line established below, immediately and automatically stop all Work except corrective action. The Owners' Representative will determine the source of the high reading and so notify the Contractor both verbally and in writing.

If the high reading was the result of a failure of Work Area isolation measures initiate the following actions:

- Restrict access to the affected area and post warning signs to prevent entry to the area by persons other than those necessary to respond to the incident.
- Shut off or modify air handling systems to prevent the distribution of airborne fibers. Establish negative air flow using HEPA equipped negative pressure differential

equipment to prevent the spread of airborne contamination to other areas of the project site.

- Immediately erect new critical barriers to isolate the affected area from the balance of the building. Erect Critical Barriers at the next existing structural isolation of the involved space (eg. wall, ceiling, floor).
- Decontaminate the affected area.
- Require that respiratory protection be worn in affected area until area is cleared for re-occupancy.
- Leave Critical Barriers in place until completion of Work and insure that the operation of the pressure differential system in the Work Area results in a flow of air from the balance of the building into the affected area.
- If the exit from the Clean Room of the personnel decontamination unit enters the affected area, establish a new decontamination facility consisting of a Shower Room and Changing Room. The original Clean Room may be considered the new Equipment Room for the duration of the Work.
- After Certification of Visual Inspection in the Work Area remove critical barriers separating the Work Area from the affected area. Final air samples will be taken within the entire area.

If the high reading was the result of other causes initiate corrective action as determined by the Owners' Representative.

3607 Effect on Contract Sum:

Complete corrective Work with no change in the Contract Sum if high airborne fiber counts were caused by Contractor's activities. If the cause of the elevated fiber counts was a result of Contractor error, the Contractor may be held accountable for any additional air sampling and analysis costs. The Contract Sum and schedule will be adjusted for additional Work caused by high airborne fiber counts beyond the Contractor's control.

3608 Analytical Methods:

The following methods will be used by the Owners' Representative in analyzing filters used to collect air samples. Sampling rates may be varied from printed standards to allow for high volume sampling.

Phase Contrast Microscopy (PCM) will be performed using the NIOSH 7400A method. This analysis will be carried out at the job site, or at a laboratory located off the job site.

Transmission Electron Microscopy will be performed using the analysis method set forth in the AHERA regulation 40 CFR Part 763 Appendix A.

SAMPLE VOLUMES:

3609 General:

The number and volume of air samples taken by the Owners' Representative will be in accordance with the following schedule and of sufficient volume to confidently analyze 0.010 f/cc whenever possible. Sample volumes given may vary depending upon the analytical method used.

SCHEDULE OF AIR SAMPLES:

3610 Before Start of Work:

The Owners' Representative will secure the following Air Samples to establish a base line before Start of Work.

3611 Sample cassettes:

Samples will be collected on 25 mm. cassettes as follows:

PCM: 0.8 and/or 0.45 micrometer mixed cellulose ester.

TEM: 0.45 micrometer mixed cellulose ester with 5.0 micron mixed cellulose ester backing filter.

3612 Sampling sensitivity in the table below refers to:

Detection Limit for PCM analysis as set forth in the analytical method used Analytical Sensitivity for TEM analysis as set forth in the analytical method used or the AHERA regulation:

Location Sampled	Number of Samples	Analysis Method	Sampling Sensitivity Fibers/cc.	Minimum Volume (Liters)	Rate LPM
Each Work Area	1	PCM and Hold for TEM	0.01	1,300	1-10
Outside Each Work Area	4	PCM and Hold for TEM	0.01	1,300	1-10
Outside Building Work Area	1	PCM and Hold for TEM	0.005	1,300	1-10

3613 Base Line

An action level expressed in fibers per cubic centimeter which is greater than the largest of the following:

Average of the PCM samples collected inside the Work Areas

Average of the PCM samples collected outside each Work Area

Average of the PCM samples collected outside the building

0.01 fibers per cubic centimeter

Samples collected for TEM analysis will be held without analysis. These samples may be analyzed as needed to verify PCM analysis or for quality assurance on the Work.

3614 Daily:

The Owners' Representative may be taking the following samples on a daily basis.

Samples will be collected on 25 mm. cassettes with the following filter media:

PCM: 0.8 and or 0.45 micrometer mixed cellulose ester.

TEM: 0.45 micrometer mixed cellulose ester with 5.0 micron mixed cellulose ester backing filter.

Location	Number	Analysis	Sampling	Minimum	Rate
Sampled	of	Method	Sensitivity	Volume	LPM
	Samples	Fibers/cc.		(Liters)	
Each Work Area OR AS REQUIRED BY CONDITIONS	1	PCM	0.01	1,200	1-10
Outside Each Work Area at Critical Barrier	1	PCM	0.01	1,200	1-10
Clean Room	1	PCM	0.01	1,200	1-10
Equip Decon	1	PCM	0.01	1,200	1-10
Outside Building	1	PCM	0.01	1,200	1-10
Output Pressure Differential Sys	1	PCM	0.01	1,200	1-10

Additional samples may be taken at Owners' or Owners' Representatives discretion. If airborne fiber counts exceed allowed limits additional samples will be taken as necessary to determine the source of fiber counts and to monitor fiber levels.

3615 Laboratory Testing:

The services of a testing laboratory will be employed by the Owners' Representative to perform laboratory analyses of clearance air samples. A microscope equipped technician will set up at the job site, or samples will be sent overnight on a daily basis, so that verbal reports on air samples can be obtained within 24 hours. The Contractor will have access to all air monitoring tests and results.

A complete record of all air monitoring and results will be furnished to the Owners' Representative, the Owner, and the Contractor upon request.

3616 Written Reports:

All air monitoring tests will be posted at the job site on a daily basis.

3617 Personnel Monitoring:

The Owner and Owners' Representative will not perform air monitoring to meet Contractor's OSHA requirements for personnel sampling or any other purpose.

3618 Additional Testing:

The Contractor may conduct his own air monitoring and laboratory testing. If he elects to conduct his own air monitoring, cost of such air monitoring and laboratory analysis shall be at no additional cost to the Owner.

3700 Visual Clearance Inspections and Final Air Clearance Sampling

3701 Visual:

Following the completion of clean-up operations, the Contractor shall notify the Owners' Representative that the regulated area is ready for a final visual clearance inspection and final air sampling.

The Owners' Representative shall then arrange with the General Superintendent to visually survey areas where ACM has been removed for any remaining asbestos materials or debris. The final visual inspection will be conducted in general accordance with the American Society for Testing and Materials (ASTM) Standard Practice for Visual Inspection of Asbestos Abatement Projects, E 1368 - 11, which is incorporated by reference.

If visible ACM debris or residue is observed, the regulated area shall be re-cleaned. If the regulated area is free of visible ACM debris or residue and passes the final visual clearance inspection, Contractor may apply a lockdown encapsulant (Optional) to all surfaces in the work area.

Lockdown encapsulants shall be spray-applied with a color tinting only after the exposed substrate surfaces are dry.

3702 Air:

Final air sampling shall be conducted in the NPE using sampling pumps calibrated at a flow rate of at least two (2) and not more than ten (10) liters per minute using collection media and procedures in accordance with NIOSH Standard Analytical Method 7400. Air volumes shall be sufficient to provide reliable results down to a concentration of 0.01 fibers per cubic centimeter of air (f/cc) or lower. Minimum air volumes of 1200 liters shall be collected for method 7400.

Air collection filter assemblies (cassettes) shall consist of a pre-assembled 25 mm diameter, 0.8 micron porosity mixed cellulose ester filter with support pad mounted in a carbon filled polypropylene housing.

The cassettes shall be placed on a stand separate from the sampling pumps at a height of approximately four (4) feet above the floor. The cassettes shall be connected to the sampling pumps by flexible tubing and oriented downward at approximately 45 degrees from the horizontal.

Prior to air sampling, sweep all surfaces in the regulated area with the exhaust of a minimum one (1) horsepower leaf blower.

Place stationary fans in the regulated area during air sampling with the flow directed at the ceiling. One fan shall be used for each 10,000 cubic feet of regulated area.

Maintain operation of HEPA filtration machines and negative pressure enclosure during air sampling activities.

At the conclusion of air sampling, turn cassettes upward before stopping air flow. Cap ends, label and store cassettes in polyethylene bags for transport.

3703 Final Air Requirements:

The number of final clearance samples that are required (described in the following table) and the specific locations where they shall be taken will be established by the Owners' Representative. Final Air Sampling Requirements are listed as follows:

FINAL AIR SAMPLING REQUIREMENTS		
For each work area within the project where the amount of ACM is:	Minimum Number of Samples to clear each work area	Minimum Number of Samples to clear each project
Less than 3 square/3 linear feet	1	5
From 3 square feet/3 linear feet up to 32 square feet/50 linear feet/volume equivalent of a 55-gallon drum	2	5
Greater than 32 square feet/50 linear feet/volume equivalent of a 55-gallon drum up to 160 square feet/260 linear feet/volume equivalent of a 55-gallon drum	5	5
Greater than 32 square feet/50 linear feet/volume equivalent of a 55-gallon drum	5	5

Air samples shall be analyzed by Phase Contrast Microscopy unless specifically required or requested otherwise by the Owner or the Contractor. If the Contractor requests an alternate method, they will be invoiced for any additional monitoring time and analysis costs.

All air samples collected for clearance purposes shall indicate concentrations of airborne fibers equal to or less than 0.01 f/cc for release of the regulated area.

A regulated area that does not pass a final visual clearance inspection or exceeds the clearance level of 0.01 f/cc shall be re-cleaned until the asbestos material or debris has been satisfactorily removed. Contractor shall be responsible for all costs associated for re-cleaning and retesting the air within the regulated area for clearance purposes.

3800 Waste Disposal Procedures

For asbestos-containing waste material to be transported off the facility site, label containers or wrapped materials with the name of the waste generator and the location at which the waste was generated.

All asbestos-containing waste material shall be disposed of as soon as is practical by the Contractor. The ACM waste generated from the project site shall be transported directly from the site to the disposal facility. Contractor shall not mingle ACM wastes from other facilities with wastes generated from the project site.

3801 Disposal Bags:

Provide 6 mil thick leak-tight polyethylene bags labeled with four labels with text as follows:

First Label:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID OPENING OR BREAKING CONTAINER
BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH

Second Label:

Provide in accordance with 29 CFR 1910.1200(f) of the OSHA Hazard Communication Standard:

DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD
BREATHING AIRBORNE ASBESTOS, TREMOLITE, ANTHOPHYLLITE, OR ACTINOLITE
FIBERS IS HAZARDOUS TO YOUR HEALTH

Third Label:

Provide in accordance with U. S. Department of Transportation regulation on hazardous waste marking. 49 CFR parts 171 and 172. Hazardous Substances: Final Rule. Published November 21, 1986. Comply with latest revision.

RQ HAZARDOUS
SUBSTANCE,
SOLID, NOS, CLASS 9
(ASBESTOS)

Fourth Label:

Provide the name of the Owner, building location, name of the Contractor and sequential number for each disposal bag. This label must be pre-printed.

Disposal must occur at an approved landfill authorized to accept asbestos waste in accordance with regulatory requirements of NESHAP and other applicable Federal, State and local statutes, laws, ordinances, rules, guidelines and regulations.

Copies of all dump receipts, trip tickets, transportation manifests or other documentation of disposal shall be delivered to the Owners' Representative for inclusion in their records. The record keeping format shall utilize a chain-of- custody form which includes the names and addresses of the Generator (Owner as identified in General Specifications), Contractor, pickup site, and disposal site, the estimated quantity of the asbestos waste and the type of containers used. The form shall be signed by the Generator, the Contractor and the Disposal Site Operator, as the responsibility for the material changes hands. If a separate transporter is employed, their name, address, telephone number and signature shall also appear on the form.

For all asbestos-containing waste material transported off the facility site, maintain waste shipment records (WSR) as stipulated in Section 61.150 of the November 20, 1990 NESHAPs Asbestos Revision (40 CFR, Part 61, Subpart M).

3802 Transportation to the Landfill:

Once drums, bags and wrapped components have been removed from the regulated area, they shall be loaded into an enclosed truck or container for transportation. This truck or container shall be locked to prevent access when not in use.

Mark vehicles used to transport asbestos-containing waste material with asbestos danger signs during the loading and unloading of waste so that the signs are visible. During transportation, the enclosed truck or container shall be marked with a Class 9 placard pursuant to Department of Transportation requirements.

When moving containers, utilize hand trucks, carts and proper lifting techniques to avoid back injuries. Trucks with lift gates are helpful for raising and lowering drums of material to and from the truck.

The encapsulated cargo area of the truck shall be free of debris and lined with six (6) mil polyethylene sheeting to prevent contamination from leaking or spilled containers. Floor sheeting shall be installed first and extended up the sidewalls. Wall sheeting shall be overlapped and taped into place.

Drums shall be placed on level surfaces in the cargo area and packed tightly together to prevent shifting and tipping. Large structural components shall be secured to prevent shifting and bags placed on top. Do not throw containers into truck cargo area.

Personnel loading asbestos containing waste shall be protected by disposable clothing including head, body and foot protection and, at a minimum, half-face- piece, air-purifying, dual cartridge respirators equipped with high efficiency filters.

Any debris, water, or residue observed on containers or surfaces outside of the work area resulting from clean-up or disposal activities shall be immediately cleaned up using HEPA filtered vacuum equipment and/or wet methods as appropriate.

Large metal dumpsters are sometimes used for asbestos waste disposal. These should have doors or tops that can be closed and locked to prevent vandalism or other disturbance of the bagged asbestos debris and wind dispersion of asbestos fibers. Un-bagged material shall not be placed in these containers, nor shall the dumpster be used for non-asbestos waste. Bags shall be placed, not thrown, into these containers to avoid splitting.

3803 Disposal at the Landfill:

If an independent transporter is employed, he shall, for the purposes of compliance with these specifications, be considered a subcontractor to the abatement contractor and shall be supplied with and held to the provisions of this section.

Upon reaching the landfill, trucks are to approach the dump location as closely as possible for unloading of the asbestos containing waste.

Bags, drums and components shall be inspected as they are off-loaded at the disposal site. Material in damaged containers shall be placed in empty drums or bags or repaired using duct tape as necessary.

Waste containers shall be placed on the ground at the disposal site, not pushed or thrown out of trucks (weight of wet material could rupture containers).

Personnel off-loading containers at the disposal site shall wear protective equipment consisting of disposable head, body and foot protection and, at a minimum, half-face, air-purifying, dual cartridge respirators equipped with high efficiency filters.

Following the removal of all containerized waste, the truck cargo area shall be decontaminated using EPA vacuums and/or wet methods to meet the non-visible residue criteria. Polyethylene sheeting shall be removed and discarded along with contaminated cleaning materials and protective clothing, in bags or drums at the disposal site.

3900 Release and/or Re-establishment of the Regulated Area

Re-establishment of the regulated area shall only occur following the completion of clean-up procedures, visual clearance inspection and final air clearance sampling have been performed and documented to the satisfaction of the Owner and the Owners' Representative.

Critical barriers and remaining polyethylene sheeting shall be removed from the regulated area and disposed of as asbestos-contaminated waste.

HEPA filtration machines shall be wrapped in plastic before removal from the regulated area.

The Contractor and the Owners' Representative shall visually inspect the regulated area for any remaining ACM debris. Evidence of contamination will necessitate additional cleaning requirements to be performed at the Contractor's expense.

Additional air monitoring, if necessary, shall be performed at the Contractor's expense if additional clean-up is necessary.

At the discretion of the Contractor, mandatory requirements for personal protective equipment may be waived during removal of remaining barrier sheeting.

SECTION 4 – WASTE MANAGEMENT

4000 Hazardous Waste Management

4001 Description of the Work:

This section describes the segregation, packaging, labeling, transport, and disposal of waste materials generated by demolition activities and the subsequent shipment of properly packaged and labeled waste materials to an approved disposal site.

4002 Codes and Regulations:

Except to the extent that more explicit or more stringent requirements are written directly into the Contract Documents, all applicable codes and regulations 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.

4003 Contractor Responsibility:

The Contractor shall assume full responsibility and liability for the compliance with all applicable Federal, State, and local regulations pertaining to hazardous waste management and disposal. Hold the Owner and Designer harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulation on the part of the Contractor, the Contractor's employees, or Subcontractors.

4004 Federal Requirements:

Which govern the management; hauling and disposal of hazardous waste include but are not limited to the following:

4005 DOT: U. S. Department of Transportation, including but not limited to:

- 1) Hazardous Substances
Title 49, Part 171 and 172 of the Code of Federal Regulations
- 2) Hazardous Material Regulations
General Awareness and Training Requirements for Handlers, Loaders and Drivers Title 49, Parts 171-180 of the Code of Federal Regulations
- 3) Hazardous Material Regulations Editorial and Technical Revisions
Title 49, Parts 171-180 of the Code of Federal Regulations EPA: U.S. Environmental Protection Agency (EPA), including but not limited to:
 - Management of Hazardous Wastes Resource Conservation and Recovery Act RCRA) Title 40, Parts 260-268 of the Code of Federal Regulations, State and Local Requirements: Abide by all state and local requirements which govern the management, hauling and disposal of hazardous waste.

4006 Hazardous Waste:

The following waste products are designated by the Owner as non- salvageable and as Hazardous Waste Types:

- | | |
|---------------|--|
| Waste Type A: | PCB waste.
PCB-containing ballasts from fluorescent light fixtures. |
| Waste Type B: | Mercury-containing waste.
Thermostats with mercury switches.
Fluorescent, and mercury-vapor lamps. |

4007 Hazardous Waste Packaging and Labeling:

Package each segregated Hazardous Waste Type, A and B, in specified containers as follows.
IMPORTANT: Do Not Mix Waste Streams:

- 1) Waste Type A
 - Package in DOT 17-H Open-Top Drums
 - Fill to capacity only with Waste Type A (Do Not Mix Waste Stream types).
 - Install gasket on lid, apply lock ring, and seal.
 - Apply Hazardous Waste Label to drum side.
 - Enter DOT Shipping Data as follows: RQ Waste Polychlorinated Biphenols, 9, UN-2315, PG-II, (MOOI).
 - Adjacent to each label, enter the date indicating when waste was first placed in each drum.
- 2) Waste Type B
 - Package in DOT 17-H Open-Top Drums with Polyethylene disposal Bag liners
 - Fill liner bags only with Waste Type B (Do Not Mix Waste Stream types); then neck liner bags down into DOT 17-H Open-Top Drum and seal with duct tape.
 - Install gasket on lid, apply lock ring, and seal.
 - Apply Hazardous Waste Label to drum side.
 - Enter DOT Shipping Data as follows: RQ Hazardous Waste Solid, NOS, 9, NA3077, PG-III, (D009).

- Adjacent to each label, enter the date indicating when waste was first placed in each drum.
- 3) Sealed and Labeled Containers: maintain all containers in a continuously sealed condition after they have been sealed.
- Do not reopen sealed containers.
- Do not place additional waste in sealed containers.

4008 Temporary Storage:

Partially filled containers of hazardous waste may be stored at the work site for intermittent packaging provided that:

- 1) Each container is properly labeled when it is first placed in service;
- 2) Each container remains closed at all times except when compatible waste types are added; and
- 3) When moved from site to site, each container remains within the geographic boundaries of the facility without moving nor crossing public access highways.

4009 Removal of Hazardous Wastes:

Immediately seal containers of hazardous waste as each the container is filled. Remove containers of hazardous waste from the work site within seventy-two (72) hours of being filled.

- 1) transporting filled containers from the work site to an approved disposal site or recycling center.
- 2) Continuously maintain custody of all hazardous material generated at the work site including security, short-term storage, transportation and disposition until custody is transferred to an approved disposal site or recycling center. Document continuous chain-of custody.
- 3) Do not remove, or cause to be removed, hazardous waste from Owners' property without a legally executed Uniform Hazardous Waste manifest
- 4) At completion of hauling and disposal of each load submit copy of waste manifest, chain of custody form, and landfill receipt to Designer.

4010 Recycling and Recovery:

Turn over waste which contains materials for which recovery and/or recycling is possible to an approved recycling center. Materials subject to recycling include:

- 1) Fluorescent light tubes.
- 2) Thermostats with mercury switches.
- 3) Lead acid batteries
- 4) Lead-based paint chips, small pieces of debris with lead based paint, and lead based paint dust.

4011 Backcharges:

- 1) Where contractor fails to fulfill packaging, handling, transport or disposal requirements as outlined herein, Owner will charge back to the Contractor all costs associated with insuring that hazardous wastes are segregated, packaged, transported and disposed of in accordance with all applicable Federal and State regulations.
- 2) Environmental pollution of Owners' property or other environments resulting from Contractor's hazardous waste management activities will be promptly remediated under Owners' direction, to the Owners' sole satisfaction, and at the Contractor's sole expense.
- 3) Contractor agrees to either reimburse the Owner, or reduce the Contract amount by change order to cover all costs associated with waste re- packaging, waste re-segregation, or pollution remediation efforts.

Transport and legally dispose of non-hazardous waste products, materials, residues and refuse at a location not on Owners' property.

- 1) Emptied hazardous material containers may be disposed of as construction debris waste (i.e. non-hazardous).
 - Personnel protective clothing and safety equipment with de minimis or trace contamination, as determined by visual inspection by Owners' Representative.
- 3) Keep premises in a clean and orderly condition during performance of abatement work.
- 4) Place non-hazardous construction debris wastes on a daily basis in secure containers for local landfill disposal.

Asbestos Abatement/Environmental Control
Colorado State University – Pueblo
Occhiato Center Renovation

EXHIBIT 1

Supporting Asbestos Inspection Report

AES
Dated 1993



architectural/environmental services, p.c.

1800 Grant Street, Suite 480, Denver, Colorado 80203-1130
(303) 894-0705

October 16, 1992

University of Southern Colorado
2200 Bonforte Boulevard
Pueblo, Colorado 81001-4901

Attention: Ms. Donna Elsom
Environmental Health/Safety Officer

Reference: University Center Investigation & Management Plan

Dear Ms. Elsom:

Enclosed is the inspection report, management plan and certification information on personnel for the asbestos assessment in the University Center at the University of Southern Colorado in Pueblo, Colorado.

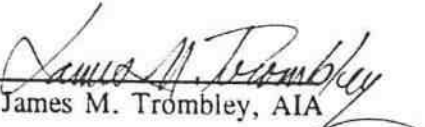
We are submitting five copies of this report as per our Contract.

All work has been accomplished as per EPA (AHERA) protocol and the State of Colorado's regulatory requirements for state buildings using fully accredited building inspectors and management planners for all aspects of the work. The management plan has been prepared by a registered professional architect in the State of Colorado. Training certificates for the accredited inspector/management planner are included as part of this assessment.

All data compiled by this office in the assembling of this Report will be archived and is available for review.

If you have any questions about our interpretations or decisions, please let us know. We will be most happy to discuss all aspects of the investigation, management plan, recommendations and costs at your convenience.

Cordially,
AES, P.C.

By: 
James M. Trombley, AIA

8015.92(11)USC-UC

**UNIVERSITY OF SOUTHERN COLORADO
UNIVERSITY CENTER**

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BUILDING

OVERVIEW

The following pertains to the University Center on the Campus of the University of Southern Colorado in Pueblo, Colorado. The work involved in the asbestos assessment pertains to the total facility and consists of approximately 117,234 gross square feet of area.

The building consists of a basement with a partial pipe tunnel below and with crawl spaces adjacent to the basement Areas, 1st floor, 2nd floor and a mechanical penthouse. The building was constructed in 1974. In 1990 remodeling was done in the basement of the building in the area of the coffee shop. The roof over the 1st floor, with the exception of the roof over the ballroom, was replaced in 1991. The roof over the mechanical penthouse above the bookstore was also replaced at that time.

The exterior of the building consists of pre-cast concrete panels with concrete, masonry and metal stud backup materials with most of the interior made up of metal studs and drywall. Ceilings throughout are either 12 by 12 glued on acoustical tiles over drywall or suspended 2 by 4 lay-in acoustical panels. The flooring materials consist of 12 by 12 vinyl floor tiles with the main corridor areas of the building made up of carpet tiles over concrete.

The piping throughout the building is covered with fiberglass insulation with mudded joints. The mechanical system consists of a ducted distribution system from 4 different fan rooms located throughout the building. The air handling units provide hot and cool air through coils fed by hot water and chilled water originating in the main mechanical room in the basement. The main mechanical room contains a chiller with the cooling tower located on the roof over the second floor. Hot water is supplied from steam generated in the main boiler plant of the Campus located to the east of the University Center. The supply system is ducted with the ceiling spaces acting as a return air plenum.

The information contained in this report should be used as a reference source for the location and type of asbestos-containing building materials within the University Center. This information is current as of June 11, 1992, and should be updated whenever any ACM or ACBM is removed, altered, and/or in any way physically disturbed and if the spaces are added to or subtracted from the present configuration.

REVIEW OF EXISTING BUILDING FLOOR PLANS

OVERVIEW

Prior to the start of our building investigation and sampling, AES reviewed building plans supplied by the Physical Plant on the original building constructed in 1974.

This information was reviewed by the staff in our Denver Office and was used extensively by field personnel in gaining familiarity with the existing facility, various building materials and the building systems.

REVIEW OF EXISTING BUILDING SPECIFICATIONS AND FLOOR PLANS

Prior to the building investigation, AES reviewed floor plans supplied to this office. We started our review with the 1966 original building plans.

Our review of the building plans provided information on building layout, some building materials and the makeup of the mechanical system for the building.

The original building plans did not contain information on the renovation work in the basement for the coffee shop. The information for the coffee shop, contained in our drawings as part of this report, came from field measurements and investigation. The original building floor plans provided limited information pertaining to building materials and possible asbestos-containing building materials (ACBM). There was no review of original building specifications, as built drawings or shop drawings as they were not available for review.

The floor plans transmitted to this office for review were limited in scope providing enough information on the various floors for the development of our own CAD generated drawings and a review of the mechanical systems throughout the building. Our review of the floor plans turned up no mention of asbestos or asbestos-containing materials.

INSPECTION OF THE BUILDING

OVERVIEW

A complete visual and hands-on inspection of the University Center was completed over the period of June 3, 1992 through June 11, 1992 by our accredited inspectors Jim Trombley and Greg Rindone. The task of the inspector was to visually inspect all areas of the building including, but not limited to, areas above ceilings, crawl space areas, pipes, pipe fittings, electrical closets, mechanical rooms, fan rooms, elevator machine rooms, etc. All phases of the inspection and building survey were under the direct supervision of James M. Trombley, A.I.A.

Extensive sampling of suspect ACBM and ACM was performed in conjunction with the investigation of the University Center. The purpose of the investigation and sampling was to identify locations of all ACBM and ACM. The visual as well as the hands-on investigation was utilized to determine the friability of suspect materials and to assess the overall condition of those materials.

Non friable building materials such as floor tile, vinyl tile base, vinyl tile and base mastics, drywall partitions, drywall ceilings, drywall mudds as well as limited wall and ceiling plasters were examined for their potential for friability under conditions that could lead to the disturbance of the materials during demolition or construction activities.

The building consists of a basement with a partial pipe tunnel below and with crawl spaces adjacent to the basement Areas, 1st floor, 2nd floor and a mechanical penthouse. The building was constructed in 1974. In 1990 remodeling was done in the basement of the building in the area of the coffee shop. The roof over the 1st floor, with the exception of the roof over the ballroom, was replaced in 1991. The roof over the mechanical penthouse above the bookstore was also replaced at that time.

The exterior of the building consists of pre-cast concrete panels with concrete, masonry and metal stud backup materials with most of the interior made up of metal studs and drywall. Ceilings throughout are either 12 by 12 glued on acoustical tiles over drywall or suspended 2 by 4 lay-in acoustical panels. The flooring materials consist of 12 by 12 vinyl floor tiles with the main corridor areas of the building made up of carpet tiles over concrete.

The piping throughout the building is covered with fiberglass insulation with mudded joints. The mechanical system consists of a ducted distribution system from 4 different fan rooms located throughout the building. The air handling units provide hot and cool air through coils fed by hot water and chilled water originating in the main mechanical room in the basement. The main mechanical room contains a chiller with the cooling tower located on the roof over the second floor. Hot water is supplied from steam generated in the main boiler plant of the Campus located to the east of the University Center. The supply system is ducted with the ceiling spaces acting as a return air plenum.

SAMPLING

OVERVIEW

Extensive sampling was done throughout the building. EPA sampling protocol as well as State of Colorado protocol established for state buildings in Regulation No. 8 were followed for all sampling conducted.

Sample locations were determined using the guidelines developed by the EPA Document "EPA 560/5-85-030a, October 1985 - Asbestos in Buildings: Simplified Sampling Scheme for Friable Surfacing Materials". The various homogeneous areas and functional spaces were identified and the floors or areas were divided into a grid comprised of 9 spaces. Using the EPA guidance document, a random numbering system was used to determine the grid square from which samples were to be collected. Samples were collected in quantities based upon required protocol for the size of the areas or the amount of thermal system insulation (TSI) as enumerated in Regulation No. 8.

In areas of the building where the size of areas and materials were limited, the sample collector used a practical and common sense approach to the collection of samples. Areas were selected that posed the least amount of disturbance to personnel in occupied spaces and left the least amount of evidence of disturbance in finished areas of the building. Samples were collected on drywall above ceilings where possible, under carpets and behind doors for floor tiles and adhesives, etc.

All samples were placed in sealable, airtight plastic sample bags and labeled with a unique sample number, the date, the initials of the sample collector and a simplified identification of the type of material sampled. All sample locations were marked on floor plans of the building for easy identification and location. Enclosed in this section are floor plans identifying sample numbers and locations.

UNIVERSITY OF SOUTHERN COLORADO

UNIVERSITY CENTER BULK SAMPLE NUMBERS, LOCATIONS AND RESULTS

SAMPLE NUMBER	MATERIAL	LOCATION	RESULT
UC-01	SPRAYED-ON FIREPROOFING MAT.	FIRST FLOOR BALLROOM	0% ASBESTOS
UC-02	SPRAYED-ON FIREPROOFING MAT.	FIRST FLOOR BALLROOM	0% ASBESTOS
UC-03	SPRAYED-ON FIREPROOFING MAT.	FIRST FLOOR BALLROOM	0% ASBESTOS
UC-04	SPRAYED-ON FIREPROOFING MAT.	FIRST FLOOR BALLROOM	0% ASBESTOS
UC-05	SPRAYED-ON FIREPROOFING MAT.	FAN ROOM - 2ND FL. OFF OF BALLROOM	0% ASBESTOS
UC-06	12x12 FLOOR TILE / ADHESIVE	SECOND FLOOR	2% CHRYSOTILE ASBESTOS PART A - FT 2% CH. PART B - MASTIC 0%
UC-07	VINYL BASE / ADHESIVE	SECOND FLOOR	0% ASBESTOS
•UC-08	12x12 CEILING TILE / ADHESIVE	FIRST FLOOR BALLROOM	1% CHRYSOTILE ASBESTOS PART A - CT 0% PART B - ADHESIVE 5% CH. NONE DETECTED
	<i>POINT COUNTING METHOD</i>	<i>ADHESIVE</i>	
UC-09	12x12 CEILING TILE / ADHESIVE AND DRYWALL	FIRST FLOOR BALLROOM	0% ASBESTOS
UC-10	12x12 CEILING TILE / ADHESIVE AND DRYWALL	FIRST FLOOR STORAGE SOUTH OF BALLROOM	0% ASBESTOS
UC-11	MUDDIED PIPE FLANGE MAT.	MECHANICAL FAN	0% ASBESTOS
UC-12	ROOFING MATERIAL	ROOF ABOVE BALLROOM	5% CHRYSOTILE ASBESTOS
UC-13	ROOFING MATERIAL	ROOF ABOVE FAN ROOM	NOT ANALYZED
UC-14	ROOFING MATERIAL	ROOF ABOVE BALLROOM	NOT ANALYZED
UC-15	SHEET VINYL FLOORING	SECOND FLOOR SERVING ROOM	0% ASBESTOS
UC-16	SHEET VINYL FLOORING	SECOND FLOOR SERVING ROOM	0% ASBESTOS
UC-17	SHEET VINYL FLOORING	SECOND FLOOR SERVING ROOM	0% ASBESTOS
•UC-18	VINYL BASE WITH ADHESIVE	SECOND FLOOR SERVING ROOM	TRACE <1% ASBESTOS PART A - VB 0% PART B - ADHESIVE 2% TREMOLITE-ACTINOLITE TRACE <1% CH. ASBESTOS
	<i>POINT COUNTING METHOD</i>	<i>ADHESIVE</i>	
UC-19	FIRE DOOR INSULATION	SECOND FLOOR DOOR TO FACULTY LOUNGE	50% ASBESTOS 30% AMOSITE 20% CHRYSOTILE
•UC-20	12x12 CEILING TILE / DRYWALL	SECOND FLOOR GREAT HALL CORRIDOR	TRACE <1% ASBESTOS PART A - CT TRACE <1% AM PART B - DW 0%
	<i>POINT COUNTING METHOD</i>	<i>CEILING TILE</i>	
•UC-21	DRYWALL / JOINT COMPOUND	SECOND FLOOR ELECTRICAL CLOSET	NONE DETECTED TRACE <1% ASBESTOS PART A - DW 0% PART B - JC 2% CH. NONE DETECTED
	<i>POINT COUNTING METHOD</i>	<i>OVERALL SAMPLE ANALYSIS</i>	
		<i>JOINT COMPOUND</i>	
UC-22	ROOFING MATERIAL	ROOF ABOVE SECOND FLOOR	TRACE <1% CH. ASBESTOS
UC-23	ROOFING MATERIAL	ROOF ABOVE SECOND FLOOR	4% CHRYSOTILE ASBESTOS
UC-24	ROOFING MATERIAL	ROOF ABOVE SECOND FLOOR	NOT ANALYZED 23% CHRYSOTILE ASBESTOS PART A - TAR 45% CH. PART B - FELT 0%
UC-25	ROOFING MATERIAL	ROOF ABOVE SECOND FLOOR	NOT ANALYZED
UC-26	MUDDIED PIPE FLANGE MAT.	MECH. ROOM ABOVE SECOND FLOOR	6% CHRYSOTILE ASBESTOS PART A - INSULATION 0% PART B - WM 12% CH.

•UC-27	DRYWALL / JOINT COMPOUND	MECH. ROOM ABOVE SECOND FLOOR	TRACE <1% ASBESTOS PART A - DW 0% PART B - JC 2% CH. NONE DETECTED TRACE <1% CH. ASBESTOS 0% ASBESTOS
	POINT COUNTING METHOD	OVERALL SAMPLE ANALYSIS JOINT COMPOUND	
UC-28	VINYL BASE / ADHESIVE	BASEMENT CORRIDOR	
UC-29	NOT USED		
UC-30	2x4 CEILING TILE	SECOND FLOOR	0% ASBESTOS
UC-31	2x4 CEILING TILE	SECOND FLOOR	0% ASBESTOS
•UC-32	DRYWALL / JOINT COMPOUND	SECOND FLOOR GREAT HALL CORRIDOR	TRACE <1% ASBESTOS PART A - DW 0% PART B - JC TRACE <1% ch. NOT ANALYZED 0% ASBESTOS 0% ASBESTOS 0% ASBESTOS 6% CHRYSOTILE ASBESTOS PART A - FT 3% CH. PART B - MASTIC 30% CH. 0% ASBESTOS 0% ASBESTOS TRACE <1% ASBESTOS PART A - DW 0% PART B - JC 4% CH. TRACE <1% CH. ASBESTOS 0% ASBESTOS 0% ASBESTOS 15% CHRYSOTILE ASBESTOS 21% ASBESTOS 20% CH. TRACE <1% T/A 8% CHRYSOTILE ASBESTOS 70% CHRYSOTILE ASBESTOS 0% ASBESTOS 0% ASBESTOS TRACE <1% ASBESTOS PART A - DW 0% PART B - JC 1% CH. TRACE <1% CH. ASBESTOS TRACE <1% CH. ASBESTOS 0% ASBESTOS 8% CHRYSOTILE ASBESTOS PART A - FT 44% CH. PART B - MASTIC 35% CH. 0% ASBESTOS 0% ASBESTOS 0% ASBESTOS 0% ASBESTOS 0% ASBESTOS 0% ASBESTOS 0% ASBESTOS 0% ASBESTOS 0% ASBESTOS 0% ASBESTOS 0% ASBESTOS 0% ASBESTOS 0% ASBESTOS 2% CHRYSOTILE ASBESTOS PART A - WC 0% PART B - GC 4% CH. PART C - FOAM 0% TRACE <1% CH. ASBESTOS 40% CHRYSOTILE ASBESTOS 30% CHRYSOTILE ASBESTOS 25% CHRYSOTILE ASBESTOS 25% CHRYSOTILE ASBESTOS
	POINT COUNTING METHOD	INSUFFICIENT SAMPLE FOR ANALYSIS	
UC-33	12x12 CEILING TILE	SECOND FLOOR GREAT HALL CORRIDOR	
UC-34	2x4 CEILING TILE (Different)	BASEMENT GAME ROOM	
UC-35	2x4 CEILING TILE	BASEMENT GAME ROOM	
UC-36	12x12 FLOOR TILE / ADHESIVE	BASEMENT STORAGE ROOM	
UC-37	VINYL BASE / ADHESIVE	BASEMENT GAME ROOM	
UC-38	2x4 CEILING TILE	BASEMENT GAME ROOM	
•UC-39	DRYWALL / JOINT COMPOUND	BASEMENT GAME ROOM	
	POINT COUNTING METHOD	DRYWALL / JOINT COMPOUND	
UC-40	2x4 CEILING TILE (Different)	BASEMENT SNACK BAR AREA	
UC-41	12x12 CEILING TILE	BASEMENT SNACK BAR AREA	
UC-42	PIPE FITTING PASTE - PAINT MAT.	BASEMENT MECHANICAL ROOM	
UC-43	HOT WATER TANK INSULATION	BASEMENT MECHANICAL ROOM	
UC-44	HEAT EXCHANGER INSULATION	BASEMENT MECHANICAL ROOM	
UC-45	HEAT EXCHANGER INSULATION	BASEMENT MECHANICAL ROOM	
UC-46	12x12 WALL ACOUSTICAL TILE	BASEMENT FLOOR	
UC-47	2x4 CEILING TILE	BASEMENT FLOOR	
•UC-48	DRYWALL / JOINT COMPOUND	BASEMENT CORRIDOR	
	POINT COUNTING METHOD	OVERALL SAMPLE ANALYSIS JOINT COMPOUND	
UC-49	2x4 CEILING TILE	FIRST FLOOR BOOK STORE	
UC-50	12x12 FLOOR TILE / ADHESIVE	FIRST FLOOR BOOK STORE	
UC-51	DRYWALL / JOINT COMPOUND	FIRST FLOOR BOOK STORE	
UC-52	VINYL BASE / ADHESIVE	FIRST FLOOR ROOM 111	
UC-53	12x12 CEILING TILE	FIRST FLOOR GREAT HALL CORRIDOR	
UC-54	12x12 CEILING TILE	FIRST FLOOR GREAT HALL CORRIDOR	
UC-55	2x4 CEILING TILE (Different)	FIRST FLOOR CAFETERIA	
UC-56	2x4 CEILING TILE	FIRST FLOOR CAFETERIA	
UC-57	DRYWALL / JOINT COMPOUND	FIRST FLOOR ELECTRICAL CLOSET	
UC-58	12x12 CEILING TILE ADHESIVE	FIRST FLOOR STUDENT LOUNGE	
UC-59	EXTERIOR BUILDING CAULKING	FIRST FLOOR WEST SIDE OF RESTROOMS	
UC-60	EXTERIOR BUILDING CAULKING	FIRST FLOOR SOUTH SIDE - COURT YARD	
•UC-61	EXTERIOR BUILDING CAULKING	FIRST FLOOR S.W. CORNER OF BOOK STORE	
	POINT COUNTING METHOD	OVERALL SAMPLE ANALYSIS	
UC-62	EXTERIOR TRANSITE BOARD	FIRST FLOOR LOADING DOCK	
UC-63	SHEET VINYL FLOORING	FIRST FLOOR KITCHEN AREA	
UC-64	SHEET VINYL FLOORING	FIRST FLOOR KITCHEN AREA	
UC-65	SHEET VINYL FLOORING	FIRST FLOOR KITCHEN AREA	

8105

9x9 Floor Tile

UNIVERSITY CENTER

Page 2 of 3

Cafeteria area

Black mastic 10% chrys
tile 3% chrysotile
Glas on top of tile NO

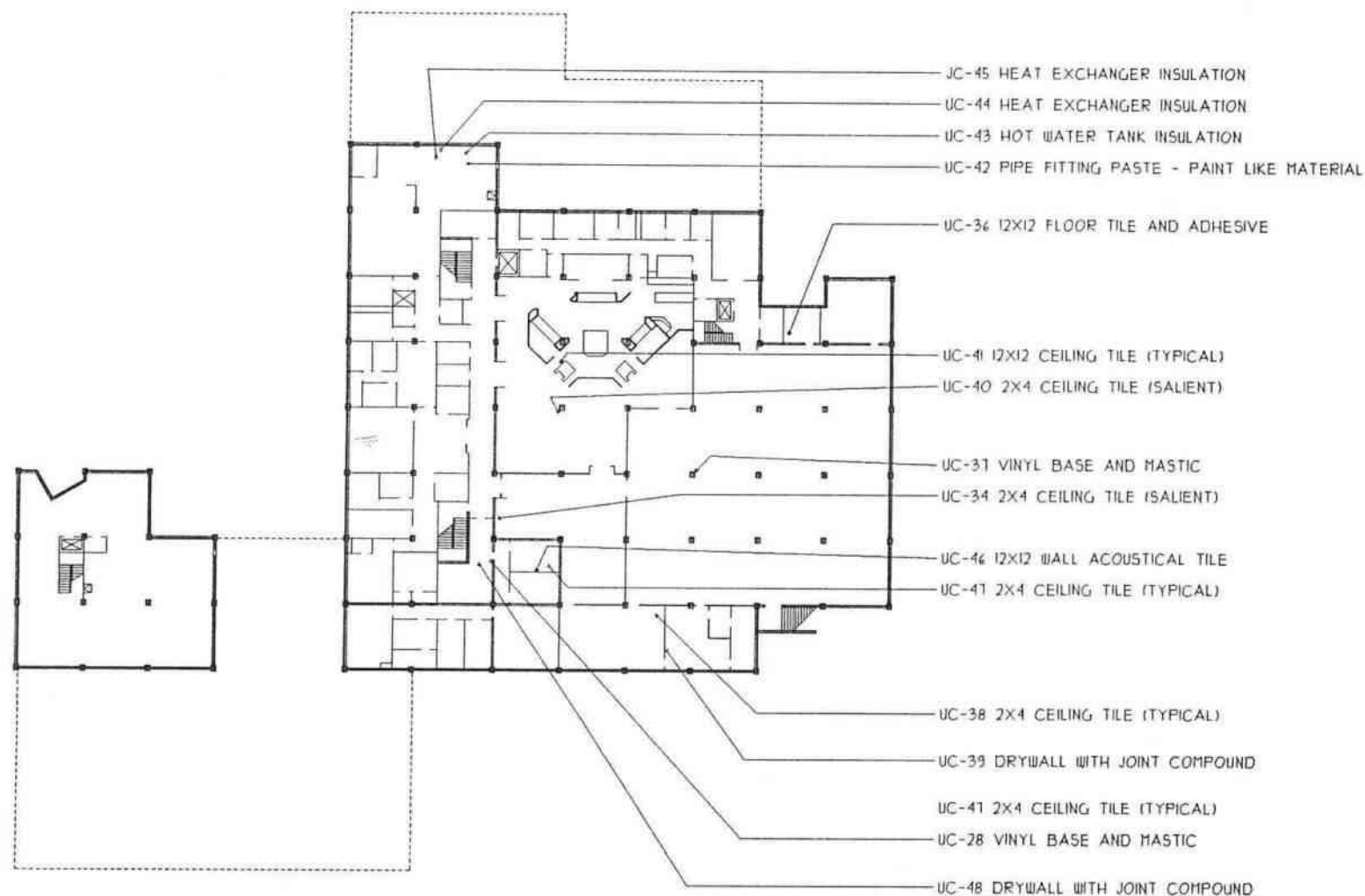
UC-66	EXTERIOR SOFFIT PLASTER	FIRST FLOOR WEST ENTRY DOORWAY	0% ASBESTOS
•UC-67	EXTERIOR SOFFIT PLASTER POINT COUNTING METHOD	FIRST FLOOR SOUTH OF STUDENT LOUNGE	TRACE <1% CH. ASBESTOS
•UC-68	VESTIBULE CEILING PLASTER POINT COUNTING METHOD	FIRST FLOOR SOUTH ENTRY DOORWAY	TRACE <1% CH. ASBESTOS 1% CHRYSOTILE ASBESTOS
UC-QC01	QUALITY CONTROL	SEE SAMPLE NO. UC-05	0% ASBESTOS
UC-QC02	QUALITY CONTROL	SEE SAMPLE NO. UC-20	0% ASBESTOS
UC-QC03	QUALITY CONTROL	SEE SAMPLE NO. UC-30	0% ASBESTOS
UC-QC04	QUALITY CONTROL	SEE SAMPLE NO. UC-38	0% ASBESTOS
UC-QC05	QUALITY CONTROL	SEE SAMPLE NO. UC-50	11% CHRYSOTILE ASBESTOS PART A - FT 10% CH. PART B - MASTIC 30% CH. 30% CHRYSOTILE ASBESTOS
UC-QC06	QUALITY CONTROL	SEE SAMPLE NO. UC-63	

SAMPLE	MATERIAL	LOCATION	RESULT/YR TAKEN
USC 0621-2	Gray material	Ceiling space above ballroom ceiling	0% (1991)
UCB 502-1	Ceiling tile grey/wht/rusty	University Center bookstore	0% (1989)

SUMMARY OF FINDINGS:

The following materials were found to be ACM during the 1992 building investigation (see building report for specific locations):

- Mudded Thermal System Insulation on hot water tanks & heat exchangers
- Thermal system Insulation on pipe fittings
- Sheet vinyl flooring
- Exposed vinyl tile flooring
- Transite board on the loading dock ceiling
- Roofing materials
- Fire rated doors



BASEMENT FLOOR PLAN

0' 10' 20' 40' 60' 80' 100'

GRAPHIC SCALE

University of Southern Colorado at Pueblo, Colorado
UNIVERSITY CENTER

Bulk Sample Locations and Sample Numbers



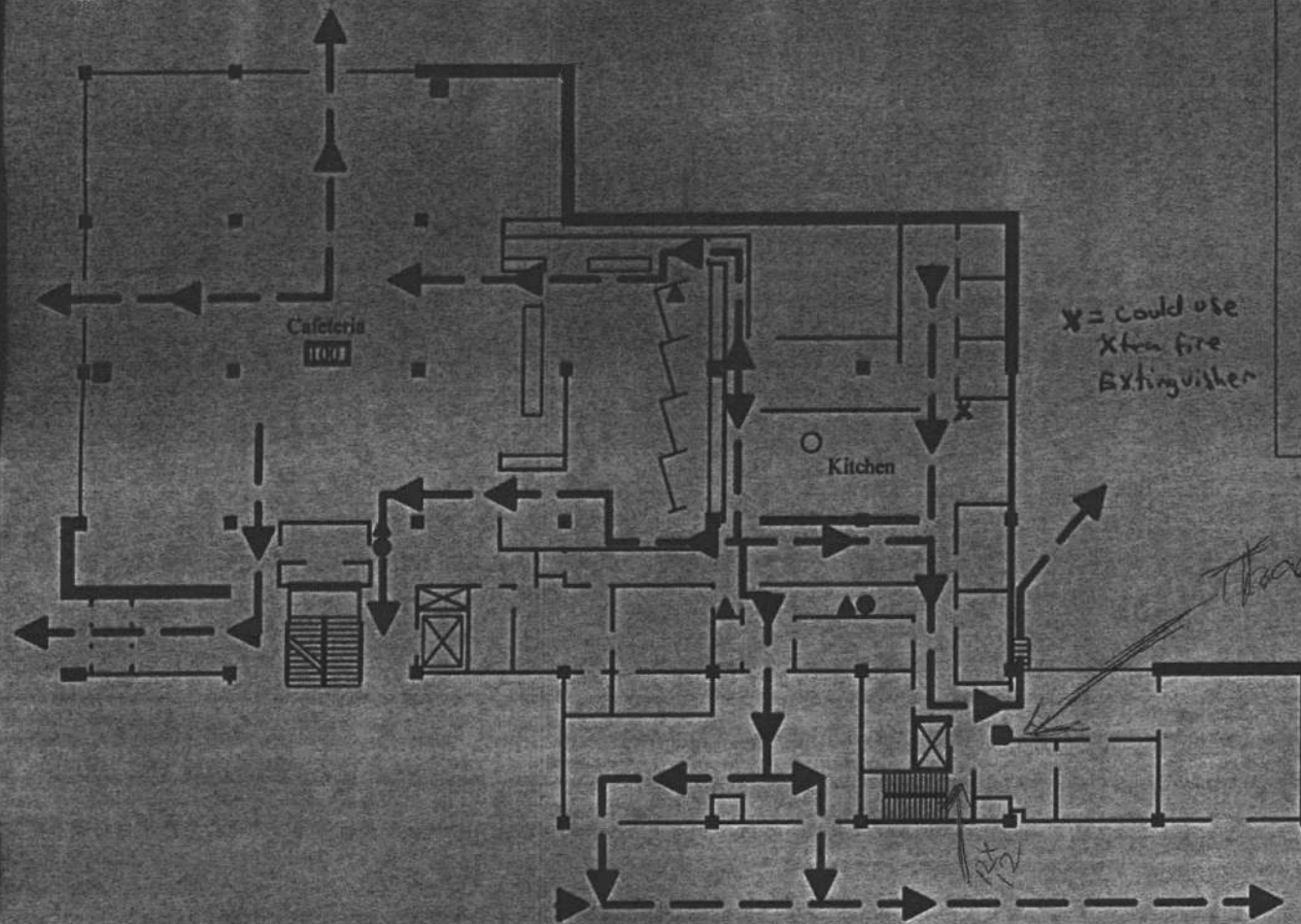
Project No.:
8015.92(11)

Drawn By:
JMT

Date:
October 16, 1982

Sheet No.:
UC-B

Emergency/Fire Evacuation Route



Occhiato University Center - 2nd Floor

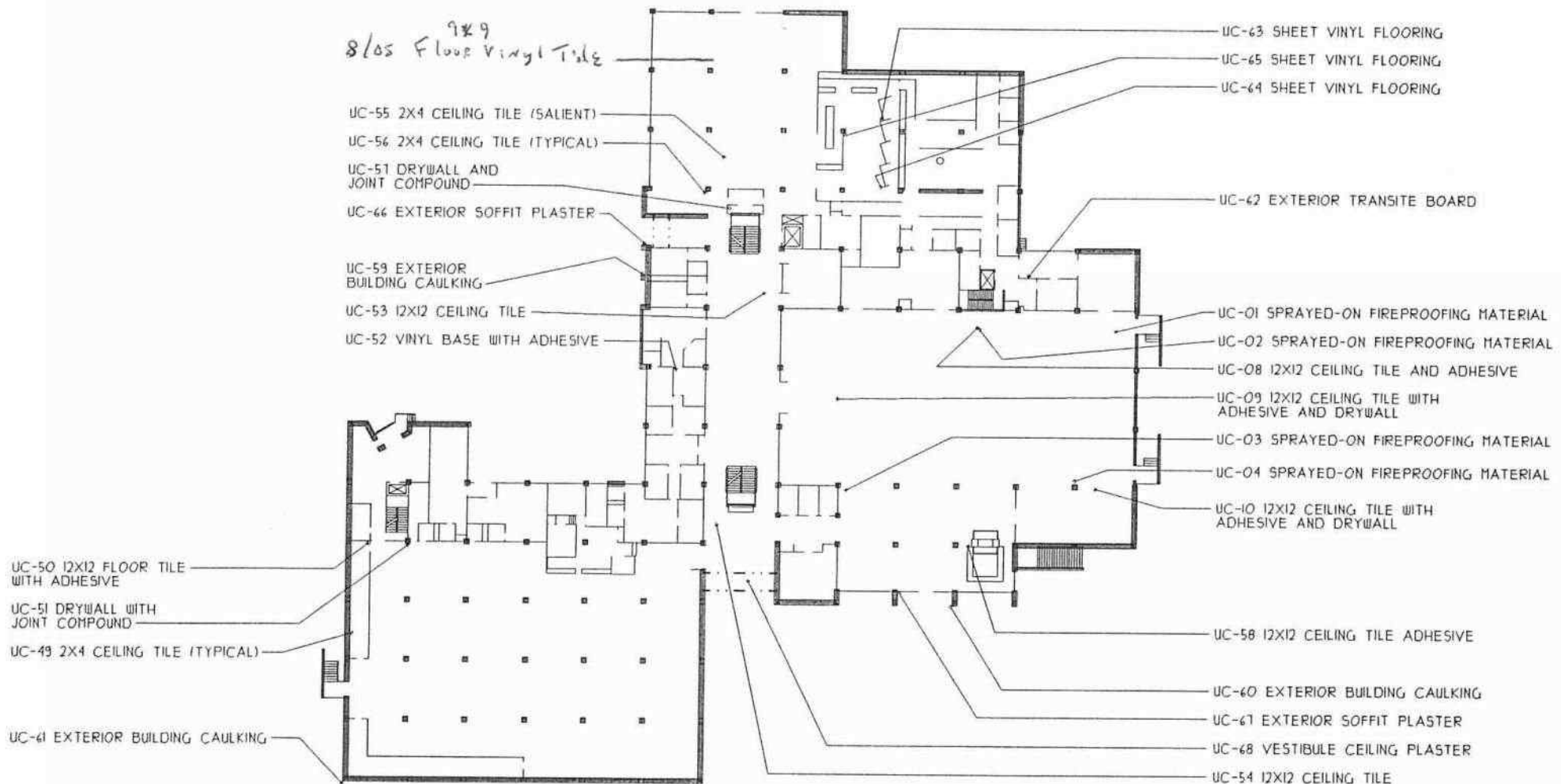
↑ You Are Here

Evacuation Route
■ Pull Station

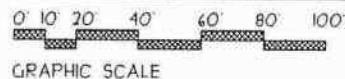
● Fire Hose
▲ Fire Extinguisher

IN CASE OF EMERGENCY USE STAIRS. NOT ELEVATORS

8/05 Floor Vinyl Tile

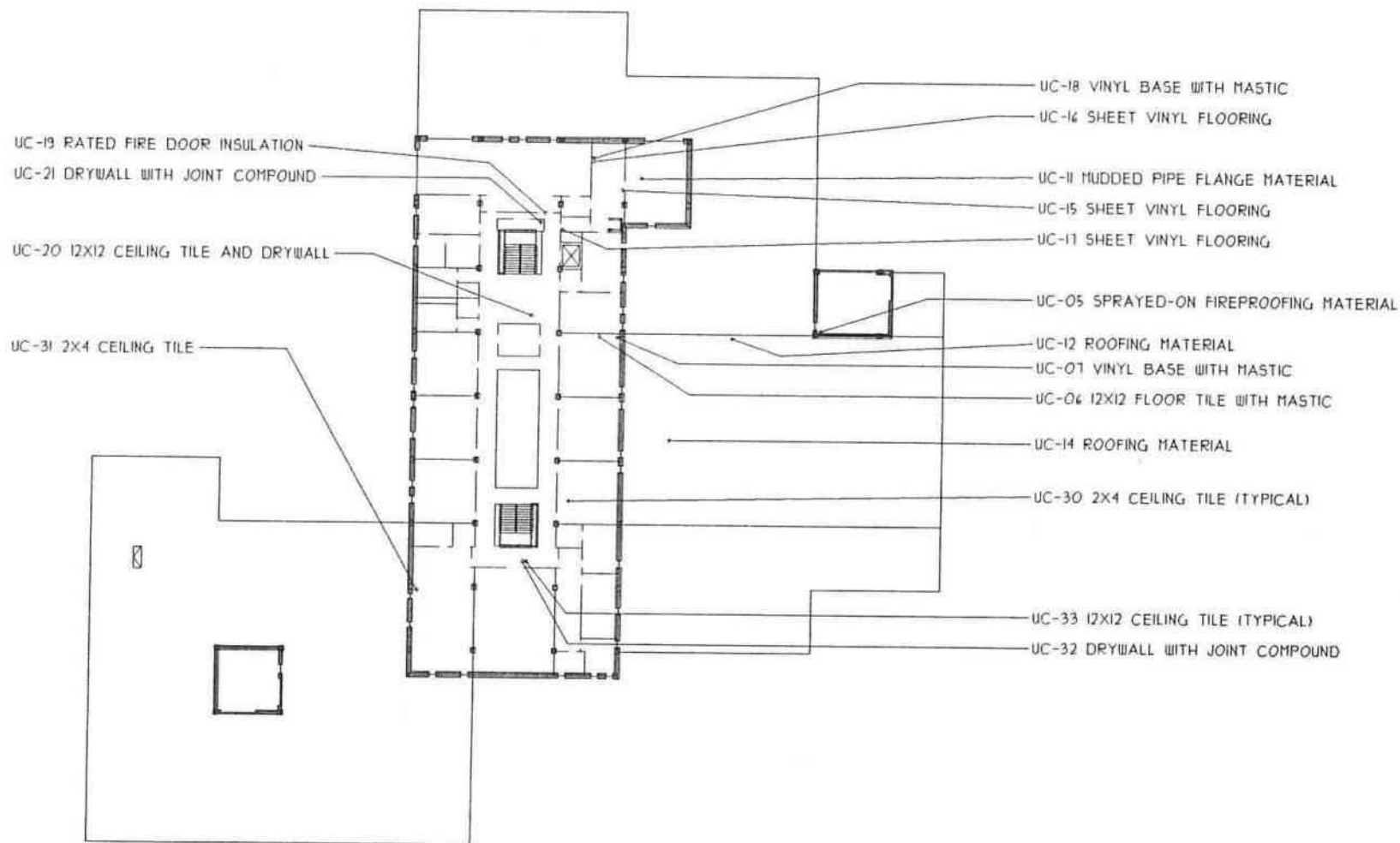


FIRST FLOOR PLAN

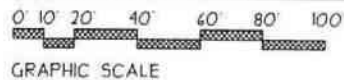


University of Southern Colorado at Pueblo, Colorado
UNIVERSITY CENTER

Bulk Sample Locations and Sample Numbers



SECOND FLOOR PLAN



University of Southern Colorado at Pueblo, Colorado
 UNIVERSITY CENTER
 Bulk Sample Locations and Sample Numbers



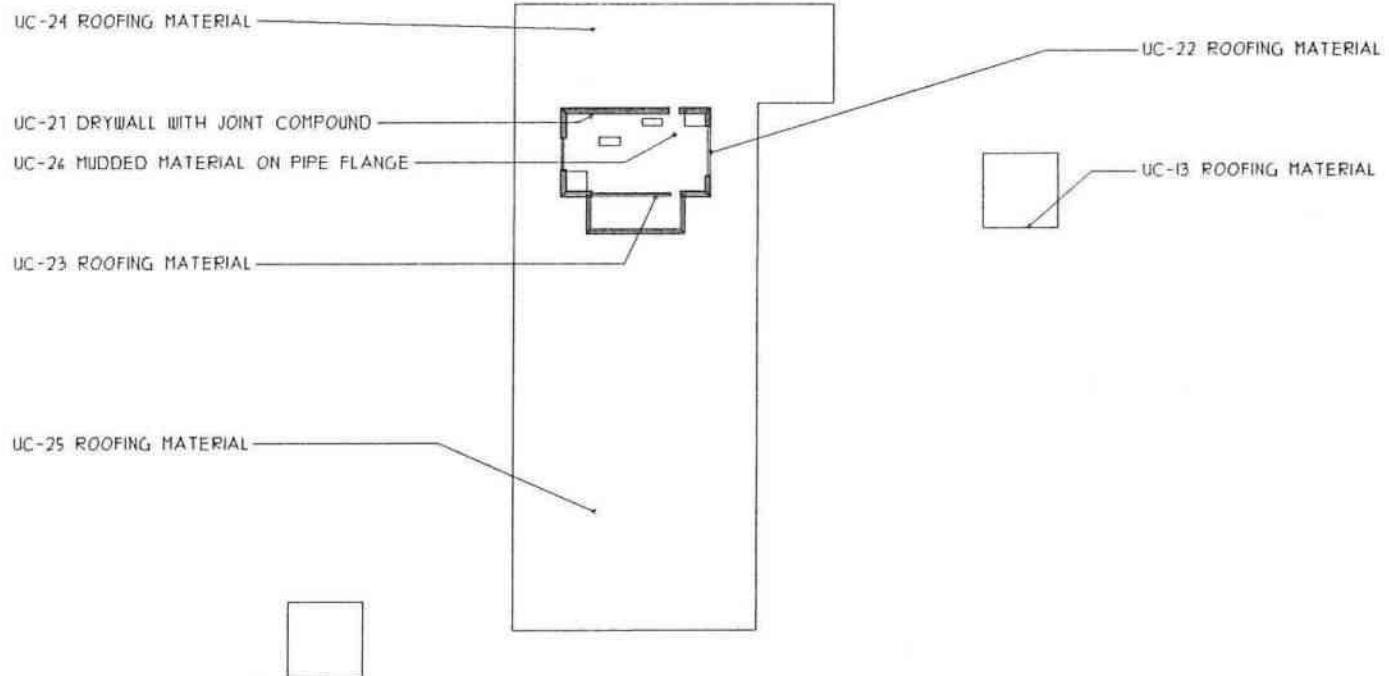
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Drawn By: JMT

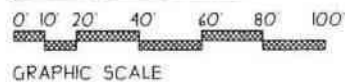
Date: October 16, 1992

Sheet No.: UC-2

UC-2



ROOF PLAN



University of Southern Colorado at Pueblo, Colorado
UNIVERSITY CENTER

Bulk Sample Locations and Sample Numbers



Project No.:

8015.92(11)

Drawn By:

JMT

Date:

October 16, 1992

Sheet No.:

UC-R

CLASSIFICATION AND ASSESSMENT OF ASBESTOS

OVERVIEW

A complete visual and hands-on inspection of the University Center was completed over the period of June 3, 1992 through June 11, 1992 by our accredited inspectors Jim Trombley and Greg Rindone. The task of the inspector was to visually inspect all areas of the building including, but not limited to, areas above ceilings, crawl spaces, pipes, pipe fittings, electrical closets, mechanical and fan rooms, elevator machine rooms, etc. All phases of the inspection and building survey were under the direct supervision of James M. Trombley, A.I.A.

The purpose of the walkthroughs and hands-on investigation was to determine the extent of materials and problems and to determine the friability of known and suspected ACBM and ACM as per the State of Colorado's Regulation No. 8 for state buildings and EPA (AHERA) protocol.

ASSESSMENT GUIDELINES

The following categories, taken from standard AHERA classifications for assessment, have been used in this report as priority rankings for response actions. Additionally, the designations "Good, Damaged and Undamaged" have been used to describe conditions of ACM in the Physical Plant building.

CLASSIFICATION DESCRIPTIONS

<u>Classification No.</u>	<u>Description</u>
1	Damaged or significantly damaged thermal system insulation (ACM)
2	Damaged friable surfacing ACM
3	Significantly damaged friable surfacing ACM
4	Damaged or significantly damaged friable miscellaneous ACM
5	ACM with potential for damage
6	ACM with potential for significant damage
7	Any remaining friable ACM or friable suspected ACM
8	Any remaining non-friable ACM or non-friable suspected ACM

CONDITION DESCRIPTIONS

Description	Definition
G-Good	Undamaged
D-Damaged	Damage less than 10% distributed / 25% localized
SD-Significantly Damaged	Damage greater than 10% distributed / 25% localized

RESPONSE ACTIONS EPA (AHERA) CLASSIFICATIONS

<u>Abatement Priority</u>	<u>AHERA Categories</u>	<u>Response Actions Required by AHERA</u>
1	Significantly Damaged	Evacuate or isolate the area if needed. Remove the ACBM (or enclose or encapsulate if sufficient to contain fibers). Repair of thermal system insulation is allowed if feasible and safe. O&M required for all friable ACBM.
2	Damaged + Potential for Significant Damage	Evacuate or isolate the area if needed. Remove, enclose, encapsulate, or repair to correct damage. Take steps to reduce potential for disturbance. O&M required for all friable ACBM.
3	Damaged + Potential for Damage	Remove, enclose, encapsulate, or repair to correct damage. O&M required for all friable ACBM.
4	Damaged	Same as Priority 3 above
5	Potential for Significant Damage	Evacuate or isolate the area if needed. Take steps to reduce potential for disturbance. O&M required for all friable ACBM.
6	Potential for Damage	O&M required for all friable ACBM.
7	No Existing Damage + No Potential for Damage	O&M required for all friable ACBM, but measures need not be as extensive as above.

NOTE: AHERA does not account for combinations of current and potential damage (i.e., priorities #2 and #3). The response actions shown are combinations of those required for each condition. This Exhibit is taken from approved AHERA Management Planner course materials.

ASSESSMENT OF ASBESTOS-CONTAINING BUILDING MATERIALS

The following recording forms were used for physical assessment and classification of suspect materials found on or within the facility. The data was compiled by Mr. Jim Trombley and Mr. Greg Rindone, our certified asbestos inspectors, over a period of 9 days from June 3, 1992 through June 11, 1992.

INSPECTOR'S CLASSIFICATION OF MATERIALS

ROOFING MATERIALS for the roofs over the 2nd floor and the first floor ballroom, kitchen and cafeteria areas as well as the roof on the fan rooms in the same areas contain asbestos in the roofing materials. It appears that the asbestos is in the tar materials that bind the roofing materials together but the materials cannot be separated so that the entire roofing system is considered asbestos-containing. The roofing materials appeared to be in fair condition with some areas indicating considerable patching and maintenance in the past. The roof areas are accessible to maintenance and outside contractors needing to access the roof or fan room areas. The roofing materials pose little threat to the maintenance personnel or others as long as the materials are not disturbed by drilling, or cutting with saws especially in a dry condition. There is approximately 37,350 square feet of affected roofing.

INSPECTOR'S CLASSIFICATION OF MATERIALS

MUDDIED PIPE FITTINGS which include pipe joints, pipe elbows, pipe tees, pipe valves and hangers are located throughout all areas of the building but accessible to primarily maintenance personnel. Muddled pipe materials are located above ceilings, in pipe chases, in mechanical and fan rooms and other locked spaces in the building. At this point in time, we do not have an accurate count of the number of fitting throughout the building. This office did not have access to the complete mechanical and plumbing drawings of the building at the time of the investigation. We would suggest that a takeoff be done if the drawings can be located and reviewed. For estimating purposes, we estimate that there are approximately 1200 muddled fittings of various sizes throughout the University Center located in approximately 98% of the maintenance areas with the remaining 2% located in the administrative areas of the building.. We have visually determined that the muddled fittings have limited damage due to physical contact and water damage. The damage is located in the main mechanical room, fan rooms and pipe chases with most of the damage inside of mechanical spaces. The material is accessible by maintenance personnel and the potential for disturbance is high. A suspected cause of damage is water leaks and physical contact by maintenance personnel. Preventative measure to stop further disturbance or damage would be to eliminate all work on all muddled fittings. Caution should also be taken not to bump, gouge or otherwise disturb the muddled fittings.

INSPECTOR'S CLASSIFICATION OF MATERIALS

MUDDIED THERMAL SYSTEM INSULATION on the hot water tanks and heat exchangers located in the main mechanical room in the basement. The ACBM is accessible to maintenance personnel. We have visually determined that the muddled materials have limited damage which is due to water leakage and physical contact. The damage is located in the main mechanical room. The material is accessible by maintenance personnel and the potential for disturbance is high. A suspected cause of damage is water leaks and physical contact by maintenance personnel. Preventative measure to stop further disturbance or damage would be to eliminate all work on all muddled materials. Caution should also be taken not to bump, gouge or otherwise disturb the muddled materials.

INSPECTOR'S CLASSIFICATION OF MATERIALS

FLOOR TILE (12" x 12" and mastic) can be found on all floors of the building. There is approximately 48,500 sq. ft. of floor tile with about 75% within public areas and the remainder within administrative areas. The floor tile areas are in good condition with no significant damage noticed. The material is accessible by all people using the building and the potential for disturbance is moderate. Preventative measure to prevent future damage and limit the potential for fiber release would be to not sand, scrape, break, drill or buff the floor tile in a dry condition or scrape the tile mastic. Asbestos was found in both the 12 by 12 floor tile and the tile mastic.

Approximately 23% of the 12 by 12 vinyl asbestos tile flooring is covered with carpet or carpet tiles. This is primarily located in the main cafeteria and the administrative areas of the building.

INSPECTOR'S CLASSIFICATION OF MATERIALS

SHEET VINYL FLOORING which contains approximately 25% chrysotile asbestos can be found in the food serving area between the kitchen and the main cafeteria area on the 1st floor. There is approximately 675 sq. ft. of sheet vinyl flooring all in a public access area of the building. The sheet vinyl area is in moderately good condition but it is located in a very high traffic and maintenance area of the building. The material is accessible by all people using the building and the potential for disturbance is moderate to high. Preventative measure to prevent future damage and limit the potential for fiber release would be to not sand, scrape, break, drill or buff the vinyl floor in a dry condition.

INSPECTOR'S CLASSIFICATION OF MATERIALS

LABELED FIRE DOORS located throughout the building should be considered as asbestos-containing. Only one fire door was sampled and analyzed and it was positive containing 50% asbestos of which 30 % was amosite. The door was manufactured by the Weyerhaeuser Company and our telephone conversation with them indicated that a number of their doors manufactured in the early seventy's contained asbestos. We suggest that maintenance on the doors, such as drilling for hardware be eliminated without first sampling the specific door in question. Again, all fire rated doors should be considered as asbestos-containing until they can be sampled with the sample analysis indicating no asbestos present. If maintenance work or physical damage to the door occurs and suspect material is found inside of the door (namely a white chalk type material), all activities pertaining to the door should be stopped, the material sampled and the damaged area or hole should be sealed to prevent further disturbance until the sample is properly analyzed.

INSPECTOR'S CLASSIFICATION OF MATERIALS

TRANSITE BOARD located on the ceiling of the loading dock off of the kitchen area is asbestos-containing and contains up to 40% chrysotile asbestos. The material is considered non-friable and appears to be in good condition. Under no circumstances should the material be cut or drilled.

INSPECTOR'S CLASSIFICATION OF MATERIALS

SPRAY-ON FIREPROOFING MATERIALS can be found on the framing and deck above the Ballroom area on the 1st floor. There is approximately 10,000 sq. ft. of the surfacing material based upon floor area (not actual surface area). The existing material was considered to be ACM but upon sampling and analysis, **ALL SAMPLES ANALYZED CAME BACK AT 0% ASBESTOS**. Only 5 samples were collected of this material and 2 additional samples will need to be collected to meet the State of Colorado - Regulation No. 8 requirements. Five samples were collected originally thinking the material would be positive and because of the inaccessibility of the material. This Office will attempt to get 2 additional samples for analysis to comply with the state regulations.

RECORDING FORM FOR PHYSICAL ASSESSMENT DATA

UNIVERSITY CENTER - UNIVERSITY OF SOUTHERN COLORADO

BUILDING: University Center

LOCATION: Roof Areas over Ballroom, 2nd Floor & Fan Rooms

TYPE OF SUSPECT MATERIAL: SURFACING, TSI, X OTHER
FRIABLE, X NON-FRIABLE

DESCRIPTION: Roofing Materials

FUNCTIONAL SPACES: Maintenance (Roof)

QUANTITY OF MATERIAL: 37,350 SQ FT, LN FT, #ITEMS

TYPE OF MATERIAL: Built-up Roofing Material

 THERMAL, SURFACING, X MISCELLANEOUS

ACBM ASSUMED, X POSITIVE, NEG., PRIOR POSITIVE

CONDITION OF ACBM: SIGNIFICANTLY DAMAGED
 DAMAGED
X NOT DAMAGED

DAMAGE TYPE: DETERIORATION, WATER, PHYSICAL, OTHER;
DESCRIBE

EXTENT OF DAMAGE: 0%, 0-10%, 10-25%, 25% PLUS OR OTHER
DESCRIBE:

EXTENT OF DAMAGE: EVENLY DISTRIBUTED, LOCALIZED, OTHER
DESCRIBE:

IS MATERIAL ACCESSIBLE? X YES NO--IS THERE AIR FLOW? YES NO

POTENTIAL FOR CONTACT: HIGH MODERATE X LOW/NONE
INFLUENCE OF VIBRATION: HIGH MODERATE X LOW/NONE
POTENTIAL FOR AIR EROSION: HIGH MODERATE X LOW/NONE

MAIN OCCUPANT POPULATION: X MAINTENANCE, ADMINISTRATION
 PUBLIC, OTHER:

AHERA CATEGORY FOR ALL ASBESTOS-CONTAINING BUILDING MATERIALS

- DAMAGED OR SIGNIFICANTLY DAMAGED THERMAL SYSTEM INSULATION
- DAMAGED FRIABLE SURFACING MATERIALS
- SIGNIFICANTLY DAMAGED FRIABLE SURFACING MATERIALS
- DAMAGED OR SIGNIFICANTLY DAMAGED FRIABLE MISC. MATERIALS
- X ACBM WITH POTENTIAL FOR DAMAGE
- ACBM WITH POTENTIAL FOR SIGNIFICANT DAMAGE
- ANY REMAINING FRIABLE ACBM OR FRIABLE SUSPECTED ACBM

COMMENTS: There is a new roof over the remainder of the building

INSPECTOR'S SIGNATURE: James M. [Signature] DATE: 10/16/92
CERTIFICATION NUMBER: D020792-02 A1 St. of CO 505-46-2600

RECORDING FORM FOR PHYSICAL ASSESSMENT DATA

UNIVERSITY CENTER - UNIVERSITY OF SOUTHERN COLORADO

BUILDING: University Center

LOCATION: Entire Building

TYPE OF SUSPECT MATERIAL: SURFACING, X TSI, OTHER
 X FRIABLE, NON-FRIABLE

DESCRIPTION: Mudded Material on Piping

FUNCTIONAL SPACES: Maintenance - Space above Clg's. & Mech.

QUANTITY OF MATERIAL: SQ FT, LN FT, 1,200 #ITEMS

TYPE OF MATERIAL: Mudded TSI on piping throughout Building

 X THERMAL, SURFACING, MISCELLANEOUS

ACBM? ASSUMED, X POSITIVE, NEG., PRIOR POSITIVE

CONDITION OF ACBM: SIGNIFICANTLY DAMAGED
 X DAMAGED
 NOT DAMAGED

DAMAGE TYPE: DETERIORATION, WATER, X PHYSICAL, OTHER;
 DESCRIBE Physical contact

EXTENT OF DAMAGE: 0%, X 0-10%, 10-25%, 25% PLUS OR OTHER
 DESCRIBE:

EXTENT OF DAMAGE: X EVENLY DISTRIBUTED, LOCALIZED, OTHER
 DESCRIBE:

IS MATERIAL ACCESSIBLE? X YES NO--IS THERE AIR FLOW? X YES NO

POTENTIAL FOR CONTACT: X HIGH MODERATE LOW/NONE
 INFLUENCE OF VIBRATION: HIGH X MODERATE LOW/NONE
 POTENTIAL FOR AIR EROSION: HIGH X MODERATE LOW/NONE

MAIN OCCUPANT POPULATION: X MAINTENANCE, ADMINISTRATION
 PUBLIC, OTHER:

AHERA CATEGORY FOR ALL ASBESTOS-CONTAINING BUILDING MATERIALS

 X DAMAGED OR SIGNIFICANTLY DAMAGED THERMAL SYSTEM INSULATION
 DAMAGED FRIABLE SURFACING MATERIALS
 SIGNIFICANTLY DAMAGED FRIABLE SURFACING MATERIALS
 DAMAGED OR SIGNIFICANTLY DAMAGED FRIABLE MISC. MATERIALS
 ACBM WITH POTENTIAL FOR DAMAGE
 ACBM WITH POTENTIAL FOR SIGNIFICANT DAMAGE
 ANY REMAINING FRIABLE ACBM OR FRIABLE SUSPECTED ACBM

COMMENTS:

INSPECTOR'S SIGNATURE: Laura M. Brambley DATE: 10/16/92
 CERTIFICATION NUMBER: D020792-02 A1 St. of CO 505-46-2600

RECORDING FORM FOR PHYSICAL ASSESSMENT DATA

UNIVERSITY CENTER - UNIVERSITY OF SOUTHERN COLORADO

BUILDING: University Center

LOCATION: Basement Mechanical Room

TYPE OF SUSPECT MATERIAL: SURFACING, X TSI, OTHER
 X FRIABLE, NON-FRIABLE

DESCRIPTION: Hot Water Tank and Heat Exchanger Muddled Insulation

FUNCTIONAL SPACES: Mechanical Room

QUANTITY OF MATERIAL: SQ FT, LN FT, 3 #ITEMS

TYPE OF MATERIAL: Muddled Thermal Insulation

 X THERMAL, SURFACING, MISCELLANEOUS

ACBM? ASSUMED, X POSITIVE, NEG., PRIOR POSITIVE

CONDITION OF ACBM: SIGNIFICANTLY DAMAGED
 X DAMAGED
 NOT DAMAGED

DAMAGE TYPE: X DETERIORATION, WATER, X PHYSICAL, OTHER;
DESCRIBE From Physical Disturbance & leaks

EXTENT OF DAMAGE: 0%, X 0-10%, 10-25%, 25% PLUS OR OTHER
DESCRIBE: Minor Damage

EXTENT OF DAMAGE: EVENLY DISTRIBUTED, X LOCALIZED, OTHER
DESCRIBE:

IS MATERIAL ACCESSIBLE? X YES NO--IS THERE AIR FLOW? X YES NO

POTENTIAL FOR CONTACT: X HIGH MODERATE LOW/NONE
INFLUENCE OF VIBRATION: HIGH X MODERATE LOW/NONE
POTENTIAL FOR AIR EROSION: HIGH X MODERATE LOW/NONE

MAIN OCCUPANT POPULATION: X MAINTENANCE, ADMINISTRATION
 PUBLIC, OTHER:

AHERA CATEGORY FOR ALL ASBESTOS-CONTAINING BUILDING MATERIALS

 X DAMAGED OR SIGNIFICANTLY DAMAGED THERMAL SYSTEM INSULATION
 DAMAGED FRIABLE SURFACING MATERIALS
 SIGNIFICANTLY DAMAGED FRIABLE SURFACING MATERIALS
 DAMAGED OR SIGNIFICANTLY DAMAGED FRIABLE MISC. MATERIALS
 ACBM WITH POTENTIAL FOR DAMAGE
 ACBM WITH POTENTIAL FOR SIGNIFICANT DAMAGE
 ANY REMAINING FRIABLE ACBM OR FRIABLE SUSPECTED ACBM

COMMENTS:

INSPECTOR'S SIGNATURE: James M. Brambley DATE: 10/16/92
CERTIFICATION NUMBER: D020792-02 A1 St. of CO 505-46-2600

RECORDING FORM FOR PHYSICAL ASSESSMENT DATA

UNIVERSITY CENTER - UNIVERSITY OF SOUTHERN COLORADO

BUILDING: University Center

LOCATION: All

TYPE OF SUSPECT MATERIAL: SURFACING, TSI, X OTHER
 FRIABLE, X NON-FRIABLE

DESCRIPTION: 12 X 12 Floor Tile & Adhesive

FUNCTIONAL SPACES: Public, Administration & Maintenance

QUANTITY OF MATERIAL: 48,500 SQ FT, LN FT, #ITEMS

TYPE OF MATERIAL: 12 X 12 Floor Tile & Tile Mastic

 THERMAL, SURFACING, X MISCELLANEOUS

ACBM? ASSUMED, X POSITIVE, NEG., PRIOR POSITIVE

CONDITION OF ACBM: SIGNIFICANTLY DAMAGED
 DAMAGED
 X NOT DAMAGED

DAMAGE TYPE: DETERIORATION, WATER, PHYSICAL, OTHER;
 DESCRIBE

EXTENT OF DAMAGE: 0%, 0-10%, 10-25%, 25% PLUS OR OTHER
 DESCRIBE:

EXTENT OF DAMAGE: EVENLY DISTRIBUTED, LOCALIZED, OTHER
 DESCRIBE:

IS MATERIAL ACCESSIBLE? X YES NO--IS THERE AIR FLOW? X YES NO

POTENTIAL FOR CONTACT: X HIGH MODERATE LOW/NONE
 INFLUENCE OF VIBRATION: HIGH MODERATE X LOW/NONE
 POTENTIAL FOR AIR EROSION: HIGH MODERATE X LOW/NONE

MAIN OCCUPANT POPULATION: X MAINTENANCE, X ADMINISTRATION
 X PUBLIC, OTHER:

AHERA CATEGORY FOR ALL ASBESTOS-CONTAINING BUILDING MATERIALS

- DAMAGED OR SIGNIFICANTLY DAMAGED THERMAL SYSTEM INSULATION
- DAMAGED FRIABLE SURFACING MATERIALS
- SIGNIFICANTLY DAMAGED FRIABLE SURFACING MATERIALS
- DAMAGED OR SIGNIFICANTLY DAMAGED FRIABLE MISC. MATERIALS
- X ACBM WITH POTENTIAL FOR DAMAGE
- ACBM WITH POTENTIAL FOR SIGNIFICANT DAMAGE
- ANY REMAINING FRIABLE ACBM OR FRIABLE SUSPECTED ACBM

COMMENTS:

INSPECTOR'S SIGNATURE: James M. Donahy DATE: 10/16/92
 CERTIFICATION NUMBER: D020792-02 A1 St. of CO 505-46-2600

UNIVERSITY CENTER - UNIVERSITY OF SOUTHERN COLORADO

BUILDING: University Center

LOCATION: Serving Area in 1st Floor Cafeteria

TYPE OF SUSPECT MATERIAL: _____ SURFACING, _____ TSI, X OTHER
 _____ FRIABLE, X NON-FRIABLE

DESCRIPTION: Sheet Vinyl Flooring Material

FUNCTIONAL SPACES: Public

QUANTITY OF MATERIAL: 675 SQ FT, LN FT, #ITEMS

TYPE OF MATERIAL: Sheet Vinyl Flooring Material

_____ THERMAL, _____ SURFACING, X MISCELLANEOUS

ACBM? ASSUMED, X POSITIVE, NEG., PRIOR POSITIVE

CONDITION OF ACBM: SIGNIFICANTLY DAMAGED
 DAMAGED
 X NOT DAMAGED

DAMAGE TYPE: _____DETERIORATION, _____WATER, _____PHYSICAL, _____OTHER;
DESCRIBE

EXTENT OF DAMAGE: 0% , 0-10% , 10-25% , 25% PLUS OR OTHER
DESCRIBE:

EXTENT OF DAMAGE: EVENLY DISTRIBUTED, LOCALIZED, OTHER
DESCRIBE:

IS MATERIAL ACCESSIBLE? X YES ___ NO--IS THERE AIR FLOW? X YES ___ NO

POTENTIAL FOR CONTACT:	<u>X</u> HIGH	<u> </u> MODERATE	<u> </u> LOW/NONE
INFLUENCE OF VIBRATION:	<u> </u> HIGH	<u> </u> MODERATE	<u>X</u> LOW/NONE
POTENTIAL FOR AIR EROSION:	<u> </u> HIGH	<u> </u> MODERATE	<u>X</u> LOW/NONE

MAIN OCCUPANT POPULATION: MAINTENANCE, ADMINISTRATION
 X PUBLIC, OTHER:

ASBESTOS-CONTAINING BUILDING MATERIALS

_____ DAMAGED OR SIGNIFICANTLY DAMAGED THERMAL SYSTEM INSULATION
 _____ DAMAGED FRIABLE SURFACING MATERIALS
 _____ SIGNIFICANTLY DAMAGED FRIABLE SURFACING MATERIALS
 _____ DAMAGED OR SIGNIFICANTLY DAMAGED FRIABLE MISC. MATERIALS
 X ACBM WITH POTENTIAL FOR DAMAGE
 _____ ACBM WITH POTENTIAL FOR SIGNIFICANT DAMAGE
 _____ ANY REMAINING FRIABLE ACBM OR FRIABLE SUSPECTED ACBM

COMMENTS:

INSPECTOR'S SIGNATURE: Samuel M. Brantley DATE: 10/16/92
 CERTIFICATION NUMBER: D020792-02 A1 St. of CO 505-46-2600

RECORDING FORM FOR PHYSICAL ASSESSMENT DATA

UNIVERSITY CENTER - UNIVERSITY OF SOUTHERN COLORADO

BUILDING: University Center

LOCATION: Entire Building

TYPE OF SUSPECT MATERIAL: SURFACING, TSI, X OTHER
 X FRIABLE, NON-FRIABLE

DESCRIPTION: Fire Rated Doors

FUNCTIONAL SPACES: All

QUANTITY OF MATERIAL: SQ FT, LN FT, 75 #ITEMS

TYPE OF MATERIAL: Fire Rated insulating materials inside of doors

 THERMAL, SURFACING, X MISCELLANEOUS

ACBM? ASSUMED, X POSITIVE, NEG., PRIOR POSITIVE

CONDITION OF ACBM: SIGNIFICANTLY DAMAGED
 DAMAGED
 X NOT DAMAGED

DAMAGE TYPE: DETERIORATION, WATER, PHYSICAL, OTHER;
 DESCRIBE

EXTENT OF DAMAGE: X 0%, 0-10%, 10-25%, 25% PLUS OR OTHER
 DESCRIBE:

EXTENT OF DAMAGE: EVENLY DISTRIBUTED, LOCALIZED, OTHER
 DESCRIBE:

IS MATERIAL ACCESSIBLE? YES X NO--IS THERE AIR FLOW? YES X NO

POTENTIAL FOR CONTACT: HIGH MODERATE X LOW/NONE
 INFLUENCE OF VIBRATION: HIGH MODERATE X LOW/NONE
 POTENTIAL FOR AIR EROSION: HIGH MODERATE X LOW/NONE

MAIN OCCUPANT POPULATION: X MAINTENANCE, X ADMINISTRATION
 X PUBLIC, OTHER:

AHERA CATEGORY FOR ALL ASBESTOS-CONTAINING BUILDING MATERIALS

- DAMAGED OR SIGNIFICANTLY DAMAGED THERMAL SYSTEM INSULATION
- DAMAGED FRIABLE SURFACING MATERIALS
- SIGNIFICANTLY DAMAGED FRIABLE SURFACING MATERIALS
- DAMAGED OR SIGNIFICANTLY DAMAGED FRIABLE MISC. MATERIALS
- X ACBM WITH POTENTIAL FOR DAMAGE
- ACBM WITH POTENTIAL FOR SIGNIFICANT DAMAGE
- ANY REMAINING FRIABLE ACBM OR FRIABLE SUSPECTED ACBM

COMMENTS:

INSPECTOR'S SIGNATURE: James M. Penabaz DATE: 10/16/92
 CERTIFICATION NUMBER: D020792-02 A1 St. of CO 505-46-2600

RECORDING FORM FOR PHYSICAL ASSESSMENT DATA

UNIVERSITY CENTER - UNIVERSITY OF SOUTHERN COLORADO

BUILDING: University Center

LOCATION: Loading Dock off of Kitchen Area

TYPE OF SUSPECT MATERIAL: SURFACING, TSI, X OTHER
FRIABLE, X NON-FRIABLE

DESCRIPTION: Transite Ceiling Board

FUNCTIONAL SPACES: All

QUANTITY OF MATERIAL: 265 SQ FT, LN FT, #ITEMS

TYPE OF MATERIAL: Transite Board (Cement Asbestos Board)

 THERMAL, SURFACING, X MISCELLANEOUS

ACBM? ASSUMED, X POSITIVE, NEG., PRIOR POSITIVE

CONDITION OF ACBM: SIGNIFICANTLY DAMAGED
 DAMAGED
X NOT DAMAGED

DAMAGE TYPE: DETERIORATION, WATER, PHYSICAL, OTHER;
DESCRIBE

EXTENT OF DAMAGE: X 0%, 0-10%, 10-25%, 25% PLUS OR OTHER
DESCRIBE:

EXTENT OF DAMAGE: EVENLY DISTRIBUTED, LOCALIZED, OTHER
DESCRIBE:

IS MATERIAL ACCESSIBLE? X YES NO--IS THERE AIR FLOW? YES X NO

POTENTIAL FOR CONTACT:	<u> </u> HIGH	<u>X</u> MODERATE	<u> </u> LOW/NONE
INFLUENCE OF VIBRATION:	<u> </u> HIGH	<u> </u> MODERATE	<u>X</u> LOW/NONE
POTENTIAL FOR AIR EROSION:	<u> </u> HIGH	<u> </u> MODERATE	<u>X</u> LOW/NONE

MAIN OCCUPANT POPULATION: X MAINTENANCE, X ADMINISTRATION
X PUBLIC, OTHER:

AHERA CATEGORY FOR ALL ASBESTOS-CONTAINING BUILDING MATERIALS

- DAMAGED OR SIGNIFICANTLY DAMAGED THERMAL SYSTEM INSULATION
- DAMAGED FRIABLE SURFACING MATERIALS
- SIGNIFICANTLY DAMAGED FRIABLE SURFACING MATERIALS
- DAMAGED OR SIGNIFICANTLY DAMAGED FRIABLE MISC. MATERIALS
- X ACBM WITH POTENTIAL FOR DAMAGE
- ACBM WITH POTENTIAL FOR SIGNIFICANT DAMAGE
- ANY REMAINING FRIABLE ACBM OR FRIABLE SUSPECTED ACBM

COMMENTS:

INSPECTOR'S SIGNATURE: Louis M. Pambly DATE: 10/16/92
CERTIFICATION NUMBER: D020792-02 A1 St. of CO 505-46-2600

RECORDING FORM FOR PHYSICAL ASSESSMENT DATA

UNIVERSITY CENTER - UNIVERSITY OF SOUTHERN COLORADO

BUILDING: University Center

LOCATION: Structural Framing Members & Decking above Ballroom

TYPE OF SUSPECT MATERIAL: X SURFACING, TSI, OTHER
X FRIABLE, NON-FRIABLE

DESCRIPTION: Sprayed-on Fireproofing Material

FUNCTIONAL SPACES: Space between clg. & roof deck over Ballroom

QUANTITY OF MATERIAL: 10,065 SQ FT, LN FT, #ITEMS

TYPE OF MATERIAL: Sprayed-on Fireproofing Material

 THERMAL, X SURFACING, MISCELLANEOUS

ACBM? NONE ASSUMED, POSITIVE, X NEG., PRIOR POSITIVE

CONDITION OF ACBM: SIGNIFICANTLY DAMAGED
X DAMAGED
 NOT DAMAGED

DAMAGE TYPE: X DETERIORATION, WATER, X PHYSICAL, OTHER;
 DESCRIBE: Physical contact & vibration

EXTENT OF DAMAGE: 0%, X 0-10%, 10-25%, 25% PLUS OR OTHER
 DESCRIBE: Debris on top of ductwork & ceiling

EXTENT OF DAMAGE: X EVENLY DISTRIBUTED, LOCALIZED, OTHER
 DESCRIBE: Debris on top of ductwork & ceiling

IS MATERIAL ACCESSIBLE? YES X NO--IS THERE AIR FLOW? X YES NO

POTENTIAL FOR CONTACT: HIGH X MODERATE LOW/NONE
 INFLUENCE OF VIBRATION: HIGH X MODERATE LOW/NONE
 POTENTIAL FOR AIR EROSION: X HIGH MODERATE LOW/NONE

MAIN OCCUPANT POPULATION: X MAINTENANCE, ADMINISTRATION
 PUBLIC, OTHER:

AHERA CATEGORY FOR ALL ASBESTOS-CONTAINING BUILDING MATERIALS

 DAMAGED OR SIGNIFICANTLY DAMAGED THERMAL SYSTEM INSULATION
X DAMAGED FRIABLE SURFACING MATERIALS
 SIGNIFICANTLY DAMAGED FRIABLE SURFACING MATERIALS
 DAMAGED OR SIGNIFICANTLY DAMAGED FRIABLE MISC. MATERIALS
 ACBM WITH POTENTIAL FOR DAMAGE
 ACBM WITH POTENTIAL FOR SIGNIFICANT DAMAGE
 ANY REMAINING FRIABLE ACBM OR FRIABLE SUSPECTED ACBM

COMMENTS:

INSPECTOR'S SIGNATURE: James M. Brown DATE: 10/16/92
 CERTIFICATION NUMBER: D020792-02 A1 St. of CO 505-46-2600

MATERIAL QUANTITIES

OVERVIEW

Quantities of all known or suspected ACBM, as listed in the following MANAGEMENT PLANNERS RECOMMENDATIONS, have been estimated by the certified building inspector through visual investigation and review of building plans furnished by the University for the assessment areas. All figures are listed as plus or minus but are fairly representative of the conditions at the site.

TABLE OF QUANTITIES

(Material Estimation Sheet)

AREA	MATERIAL TYPE	ESTIMATED AMOUNT
Basement Floor	12 by 12 Vinyl Asbestos Floor Tile with asbestos-containing mastic	5,775± S.F.
1st Floor	12 by 12 Vinyl Asbestos Floor Tile with asbestos-containing mastic	20,000± S.F.
2nd Floor	12 by 12 Vinyl Asbestos Floor Tile with asbestos-containing mastic	22,750± S.F.
Entire Building	Pipe Fittings	1,300± Fittings
Roofing Material	Built-up Roof over the 2nd Floor, 1st Floor over the Ballroom, Kitchen, Cafeteria and the Fan Rooms over these areas.	37,350± S.F.
Serving Area 1st Floor	Sheet Vinyl Flooring Material in the Serving Area between the Kitchen and the Cafeteria on the 1st Floor	675± S.F.
Basement	Main Mechanical Room 4 hot water or heat exchanger tanks	4 Tanks
Entire Building	Fire Rated Doors	75± S.F.
Loading Dock on 1st Floor by Kitchen	Transite Board Ceiling	265± S.F.

POST ANALYSIS & RECOMMENDATIONS FOR REMOVAL OR CONTAINMENT

OVERVIEW

Both friable and non-friable ACBM was found within the University Center. The ACBM is confined as follows:

1. Roofing materials
2. Thermal system insulation on pipe fittings
3. Mudded thermal insulation on hot water tanks & heat exchangers
4. Exposed vinyl tile flooring and tile mastic
5. Sheet vinyl flooring
6. Fire rated doors
7. Transite board on the loading dock ceiling

In accordance with EPA (AHERA) protocol,, appropriate response actions should be selected and implemented in a timely manner if friable materials are subject to disturbance.

We have included our recommendations for response actions and preventive measures in an effort to keep the ACBM from becoming more friable and to reduce the likelihood of disturbance.

The University of Southern Colorado should review this section and may opt to agree or disagree with the management planners recommendations.

AES, P.C.

MANAGEMENT PLANNERS RECOMMENDATIONS

Owner: University of Southern Colorado at Pueblo, Colorado

Friable ACBM has been identified within the University Center. In accordance with EPA (AHERA) and State of Colorado protocol, appropriate response actions should be selected and implemented if friable materials are in poor condition or actions are contemplated that may result in disturbance of ACBM's. This section contains the accredited management planner's recommendations for such actions. These recommendations are consistent with the accredited inspector's assessments per EPA (AHERA Part 763.88).

The University of Southern Colorado may either agree with or take exception to the recommendations presented in this section. If the University chooses a different response and/or schedule, it should note all changes and reasons for the changes in this Report.

The rationale for the management planner's recommendations is based upon the EPA (AHERA) regulations along with the EPA's decision tree protocol. Each homogeneous area of friable ACBM is assigned a recommended abatement priority and response action according to its present condition, potential for future damage, and AHERA classification. Priorities have been established as per the AHERA requirements. (see the AHERA response action chart enclosed)

The abatement priorities and response actions and schedule recommendations for areas designated as follows:

Building:	University Center
Functional Space:	Maintenance Areas - Roof
Location:	Roof area above the 2nd floor, above the 1st floor ballroom, kitchen and cafeteria areas and the roofs on the fan rooms above the 2nd floor and first floor roofs. Random sampling of the roofing materials in these areas indicated asbestos present.
Quantity:	37,350± square feet of roof area
Homogeneous Area:	Roofing materials
Priority:	6

Response: Assessment indicates the area to have existing damage with the potential for future damage due to the age and the elements as well as maintenance traffic on the roofs. No abatement action is recommended at this time but traffic should be limited on previously damaged areas to minimize potential exposure to asbestos-containing materials.

Abatement Action: Preferred method - Removal

Removal is preferred over other abatement methods because it eliminates the concerns pertaining to potential damage and on-going Operation and Maintenance (O&M) programs. It poses higher initial costs but eliminates future costs associated with material disturbance and the ongoing O&M program.

Encapsulation (covering with new roofing materials) could be considered for the materials but may be unsatisfactory for planned or unplanned future renovation work on the building. Encapsulation in this case could cost more than total removal. An O&M program must be maintained until all ACBM has been removed.

In the interim, maintenance activities on the roofs should be limited. Cutting of the roofing materials with a saw or drilling should be eliminated. If the roofing must be cut for access or the installation of vents, etc. a knife or hatchet should be used along with amended water spraying to eliminate dust. Maintenance personnel and outside contractors should be advised of the potential dangers if the materials are disturbed. Maintenance personnel should also be trained to deal with the roofing materials until a permanent solution to the problems is instituted. In the interim, an O&M Program should be implemented.

Schedule: Initiate an O&M program to deal with the ACBM.

Building: University Center

Functional Space: Maintenance Areas

Location: Entire Building

Quantity: 1200± Fittings

Homogeneous Area: Mudded pipe fittings on joints, elbows, tees, valves and hangers

Priority: 3

Response: Assessment indicates the fittings to have some existing damage with the potential for future damage. It is recommended that abatement action be considered to reduce the risk of potential future damage.

Abatement Action: Repair all damaged fittings throughout. In the interim, the areas should be given an initial cleaning and placed under an Operations and Maintenance program.

Schedule: Initiate a complete cleaning of the areas where damage is evident. Conduct cleaning as addressed in the O&M program. Repeat cleaning at appropriate intervals to prevent the accumulation of visible debris. Establish a removal and replacement program corresponding to related activities such as: renovation, remodeling, replacement and/or other activities that would impact the ACBM. Again, complete removal is the ultimate solution and should be considered if time and funds are available.

Building: University Center

Functional Space: Maintenance Areas

Location: Main Mechanical Room

Quantity: 4± Tanks

Homogeneous Area: Mudded thermal system insulation materials on hot water tanks and heat exchangers

Priority: 3

Response: Assessment indicates the tanks to have some existing damage with the potential for future damage. It is recommended that abatement action be considered to reduce the risk of potential future damage.

Abatement Action: Repair all damaged materials throughout. In the interim, the areas should be given an initial cleaning and placed under an Operations and Maintenance program.

Schedule: Initiate a complete cleaning of the areas where damage is evident. Conduct cleaning as addressed in the O&M program. Repeat cleaning at appropriate intervals to prevent the accumulation of visible debris. Establish a removal and replacement program corresponding to related activities such as: renovation, remodeling, replacement and/or other activities that would impact the ACBM. Again, complete removal is the ultimate solution and should be considered if time and funds are available.

Building: University Center

Functional Space: Administrative, Public and Maintenance Areas

Location: Entire Building

Quantity: 48,500± Square Feet

Homogeneous Area: 12 X 12 vinyl asbestos tile over an asbestos containing mastic

Priority: 6

Response: Assessment indicates the area to have little or no damage with some potential for future damage. It is recommended that abatement action be considered to reduce the risk of potential future damage.

Abatement Action: The floor tile and mastic appears to be in very good shape throughout the building. We would recommend removal of the old floor tile and the mastic only if it would be significantly disturbed during future renovation work. Presently it poses no threat to building occupants and utilizing good O&M practices will limit future exposure risks until such time as removal is considered.

Future renovation activities may not require the removal of the floor tile and the mastic. It may be possible to place new flooring materials over the existing materials thus enclosing the ACM and maintaining a safe environment.

Schedule: Perform cleaning and maintenance operations utilizing wet cleaning methods as addressed in the O&M program. Repeat cleaning at appropriate intervals to prevent the accumulation of dust and debris.

Building: University Center

Functional Space: Administrative, Public and Maintenance Areas

Location: Serving Area between Kitchen and Cafeteria on the 1st floor

Quantity: 675± Square Feet

Homogeneous Area: Sheet vinyl flooring materials in the serving area

Priority: 6

Response: Assessment indicates the area to have little or no damage with some potential for future damage. It is recommended that abatement action be considered to reduce the risk of potential future damage.

Abatement Action: The sheet vinyl flooring appears to be in fair condition throughout the area. We would recommend removal of the old sheet vinyl and the mastic only if it would be significantly disturbed during future renovation work. Presently it poses no threat to building occupants and utilizing good O&M practices will limit future exposure risks until such time as removal is considered.

Future renovation activities may not require the removal of the old sheet vinyl flooring and the mastic. New flooring materials could be placed over the existing sheet vinyl if it remains in good shape.

Schedule: Perform cleaning and maintenance operations utilizing wet cleaning methods as addressed in the O&M program. Repeat cleaning at appropriate intervals to prevent the accumulation of dust and debris.

Building: University Center

Functional Space: Administrative, Public and Maintenance Areas

Location: 1st, 2nd and 3rd Floors

Quantity: 75 ± Fire Rated Doors

Homogeneous Area: Fire Rated Doors with asbestos-containing core materials

Priority: 6

Response: Assessment indicates the fire rated doors have little or no damage with some potential for future damage. It is recommended that abatement action be considered to reduce the risk of potential future damage.

Abatement Action: The fire rated doors are presently in good condition. We would recommend removal and replacement of old doors only if the doors would be significantly disturbed during future renovation work or maintenance activities that would require cutting or drilling of the doors. Presently the doors pose no threat to building occupants and utilizing good O&M practices will limit future exposure risks until such time as removal is considered.

Schedule: Perform cleaning and maintenance operations utilizing conventional and wet cleaning methods as addressed in the O&M program. Repeat cleaning at appropriate intervals to prevent the accumulation of dust and debris.

Building: University Center

Functional Space: Administrative, Maintenance and limited Public Areas

Location: Loading dock off of the Kitchen Area on the 1st Floor

Quantity: 265 ± Square Feet

Homogeneous Area: Transite Board (Cement Asbestos Board)

Priority: 6

Response: Assessment indicates the transite board has little or no damage with minimal potential for future damage. It is recommended that abatement action be considered to reduce the risk of potential future damage.

Abatement Action: The transite board appears to be in fair condition throughout the area. We would recommend removal of the old transite board only if it would be significantly disturbed during future renovation work. Presently it poses no threat to building occupants and utilizing good O&M practices will limit future exposure risks until such time as removal is considered.

Future renovation activities may not require the removal of the old transite board. The material can be easily encapsulated with paint to limit exposure to the elements.

Schedule: Perform cleaning and maintenance operations utilizing wet cleaning methods as addressed in the O&M program. Repeat cleaning at appropriate intervals to prevent the accumulation of dust and debris.

Signature of Accredited
Management Planner

Accreditation
No.

Date



D020792-20 AM 10/16/92

RESPONSE ACTIONS EPA (AHERA) CLASSIFICATIONS

<u>Abatement Priority</u>	<u>AHERA Categories</u>	<u>Response Actions Required by AHERA</u>
1	Significantly Damaged	Evacuate or isolate the area if needed. Remove the ACBM (or enclose or encapsulate if sufficient to contain fibers). Repair of thermal system insulation is allowed if feasible and safe. O&M required for all friable ACBM.
2	Damaged + Potential for Significant Damage	Evacuate or isolate the area if needed. Remove, enclose, encapsulate, or repair to correct damage. Take steps to reduce potential for disturbance. O&M required for all friable ACBM.
3	Damaged + Potential for Damage	Remove, enclose, encapsulate, or repair to correct damage. O&M required for all friable ACBM.
4	Damaged	Same as Priority 3 above
5	Potential for Significant Damage	Evacuate or isolate the area if needed. Take steps to reduce potential for disturbance. O&M required for all friable ACBM.
6	Potential for Damage	O&M required for all friable ACBM.
7	No Existing Damage + No Potential for Damage	O&M required for all friable ACBM, but measures need not be as extensive as above.

NOTE: AHERA does not account for combinations of current and potential damage (i.e., priorities #2 and #3). The response actions shown are combinations of those required for each condition. This Exhibit is taken from approved AHERA Management Planner course materials.

COSTS

The following represent the estimated costs expected to be incurred for the removal or encapsulation of asbestos-containing building materials within the University Center. All costs are based upon present day dollars.

1. FLOOR TILE / MASTIC

(Estimation of \$ 2.70 per square foot for removal - based upon current regulations)

- Basement Floor
20,000 x \$ 2.70/sq. ft. (20,000 square feet of flooring material) \$ 54,000.00
- First Floor
22,750 x \$ 2.70/sq. ft. (22,750 square feet of flooring material) \$ 61,425.00
- Second Floor
5,775 x \$ 2.70/sq.ft. (5,775 square feet of flooring material) \$ 15,600.00

Total costs for removal of all floor tile and mastic material. \$131,025.00

2. THERMAL SYSTEMS INSULATION PIPE FITTINGS

(Estimation of \$50.00 per pipe fitting for removal - glovebag removal procedures)

- Entire Building
1200 x \$50.00 / per fitting. (approximately 1200 pipe fittings) \$ 60,000.00

Total costs for removal of all mudded pipe fittings. \$ 60,000.00

3. ROOFING MATERIALS

(Estimation of \$ 2.50 per square foot for removal - based upon current regulations)

- Entire Roof
37,350 x \$ 2.50 / sq. ft. (approximately 37,350 sq. ft. of material) \$ 93,400.00

Total costs for removal of all ACM roofing. \$ 93,400.00

4. SHEET VINYL FLOORING	(Estimation \$ 3.00 per square foot for removal - based upon current regulations)	
• Serving Area 675 x \$ 3.00 / sq. ft.	(approximately 675 sq. ft. of material)	\$ 2,000.00
Total costs for removal of all sheet vinyl flooring		\$ 2,000.00
5. HOT WATER TANKS, ETC.	(Estimation based upon cleaning up all tanks in Main Mech. Room at the same time)	
• 4 Tanks	(approximately 4 tanks)	\$ 3,000.00
Total costs for removal of all TSI from 4 Tanks		\$ 3,000.00
6. FIRE RATED DOORS	(Estimation of \$ 260.00 per door for removal and replacement)	
• Fire Rated Doors 75 x \$ 260.00 / Door	(approximately 75 doors)	\$ 19,500.00
Total costs for removal and replacement of fire doors		\$ 19,500.00
7. TRANSITE BOARD	(Estimation of \$ 3.00 per square foot for removal - based upon current regulations)	
• Loading Dock 265 x \$ 3.00 / sq. ft.	(approximately 265 sq. ft. of material)	\$ 800.00
Total costs for removal of all transite board		\$ 800.00

Prices for the work will vary depending upon the areas and a combination of projects to be completed. For instance, if more than one item were to be abated at the same time, in the same area, the cost for the work involving more than one material would be reduced due to the elimination of additional permits, bonding, insurance, mobilization charges, materials, equipment, etc.

It would appear that piping and tank insulation could be removed from the Main Mechanical Room at the same time as well as some piping and floor tiles in other areas of the building. This would result in some savings to the overall project.

NOTE: No material replacement costs have been included except for fire doors

COSTS

OVERVIEW

This section is to be used as a guide in planning and meeting response requirements under the suggested response actions.

This information will need to be updated as conditions change. If differing response actions and/or schedules are contemplated, then this section should be modified accordingly.

All costs are based upon today's dollars. The estimates are based upon abatement costs consistent with actual work being done in the Colorado area. We have determined costs based upon our past and present bidding experiences and the dollars quoted herein represent the mean of numbers on various types of materials being abated.

We recommend that these numbers be reviewed periodically and updated as needed to maintain realistic figures relative to all future work.

Asbestos Abatement/Environmental Control
Colorado State University – Pueblo
Occhiato Center Renovation

EXHIBIT 2

Supporting Asbestos Inspection Report

Donna L. Elson
Dated 2005

Asbestos Re-Inspection Report

Facility: Colorado State University - Pueblo

Building: University Center

Address: 2200 Bonforte Boulevard, Pueblo, CO 81001

Date: May 11, 2005

Building Inspector: Donna L. Elsom

Inspector's Signature: Donna L. Elsom

Accreditation No.: 2570

I. Previously Identified Asbestos Containing Material (ACM)

Previously identified asbestos containing materials still remaining in the building include:

- Roofing materials
- Pipe fittings / flanges
- Transite board (on loading dock ceiling outside kitchen)
- Sheet vinyl flooring
- Tank insulation
- Pipe paste
- Fire doors
- Exterior building caulking

II. Newly Identified Asbestos Containing Material

12x12 tile on bench seat as you enter the University Center from the main floor, South doors should be assumed ACM. This tile is not identified in original building inspection.

III. Condition of ACM in Building

Overall, the ACM in this building was found to be in good condition. The following areas of minor damage were noted:

- Minor damage to floor tile in the bookstore, by Rooms 103 & 104 (in the corner)
- Damaged area of floor tile with black mastic visible in bookstore, approx. 3 aisles away from the W exit doors
- 1 small area of damage in the doorway to the bookstore basement

Some damage to mudded pipe flanges in basement mechanical room
Hole in transite board on ceiling of loading dock by kitchen
All other ACM was found to be in good condition in this building.

IV. Assessment Categories for Friable ACM

The following AHERA categories are used to assess friable ACBM identified in the building:

- 1 Damaged or Significantly Damaged TSI
- 2 Damaged Friable Surfacing Material
- 3 Significantly Damaged Friable Surfacing Material
- 4 Damaged or Significantly Damaged Friable Misc. Material
- 5 ACBM with Potential for Damage
- 6 ACBM with Potential for Significant Damage
- 7 Any Remaining Friable ACBM or Friable Suspect ACBM

No friable ACM was observed in this building.

V. Renovations/Abatements

Some areas have been carpeted, but it is unknown where there is asbestos floor tile under these carpeted areas, due to lack of documentation from prior years.

Portions of the building roofing material have also been replaced since the original building inspection, according to university personnel.

Some pipe fittings have been removed from the basement mechanical room.

An area of approx. 1460 square feet of floor tile and mastic has been removed from the "club cubicles" area and the basement game room, to become the new "Multi-Cultural Center."

VI. Comments & Recommendations

1. Areas of minor damage to floor tiles were noted during this inspection (see Section II). Floor tile damage should be repaired promptly by properly trained workers and recorded in the building's Asbestos Management Plan.
2. Damaged pipe flange material in basement mechanical room should be repaired promptly, by trained personnel.
3. Damaged transite board on loading dock should be sealed by trained personnel.

3. A copy of the Asbestos Management Plan should be made available at the building, and a copy of this 2005 reinspection should be added to the Plan.

Note: The original building inspection refers to floor levels in this building as "basement, first floor and second floor." This can be very confusing when trying to locate certain asbestos-containing materials such as the vinyl flooring off the Cafeteria serving line. The Management Plan refers to the location of the vinyl as the 1st floor, but the building Owner refers to this location as the second floor (the building owner identifies the basement as 1st floor, main level as 2nd floor and upper level as 3rd floor). Since there is also vinyl in the upper level food service area (that is non-ACM), it is important to clarify how the floors are identified when using the Management Plan.

Asbestos Abatement/Environmental Control
Colorado State University – Pueblo
Occhiato Center Renovation

EXHIBIT 3

Supporting Asbestos Inspection Report

**All-Phase Environmental Consultants, Inc.
Dated 2015**

LIMITED ASBESTOS INSPECTION REPORT

For
RENOVATION
At

**2200 Bonforte Blvd.
Occhiato Center
Pueblo, CO 81001**



Report By:
All-Phase Environmental Consultants Inc.
721 West 9th Street
Pueblo, Colorado 81003
Ph. (719) 545-0375
Cell (719) 250-0036
E-mail: logan@allphaseenvironmental.com
Visit us at www.allphaseenvironmental.com

Project# 15-2389

Subject Property:

2200 Bonforte Blvd.
Occhiato Center
Pueblo, CO 81001

Date(s) of Inspection: August 13, 2015 & August 19, 2015

***This document is not intended to be used as a bid spec, work plan, scope of work or similar**

I. INTRODUCTION

On August 13, 2015 & August 19, 2015, Logan Greenfield and Rick Ralston of All-Phase Environmental Consultants Inc. (APEC) performed a Limited Asbestos Inspection for Demolition on suspect materials at the Subject Property, Occhiato Center in Pueblo, CO. Such work on the Subject Property could disturb materials that contain asbestos putting unprotected workers at risk, and violating asbestos regulations, which are enforced by OSHA, EPA, the Colorado Department of Public Health and Environment and the Pueblo County Health Department. **Any confirmed *asbestos containing materials* (ACM's) will have to be removed by a licensed Colorado Asbestos Abatement Contractor (prior to being disturbed), subject to trigger levels indicated in *Colorado Regulation 8* (see Appendix 7). Materials containing ANY amount of materials need to be handled in accordance to OSHA requirements (see Appendix 8).**

II. METHODOLOGY

As detailed in Appendix 1, *Field Sheet/Asbestos Results Table*, on August 13th there were **92** samples collected at the Subject Property and on the Chain of Custody. The lab separated the 92 samples submitted into additional layers; there were **185** samples total. On August 19th All-Phase returned and collected **8** additional samples at the Subject Property due to the ballroom being inaccessible on August 13th and on the Chain of Custody. The lab separated the 8 samples submitted into additional layers; there were **12** samples total. The samples were delivered for analysis to EMSL Analytical, Inc. in Denver, Colorado, via FedEx. There were **5** QC (quality control) samples taken at the due to a lab discrepancy during the point counting and sent to EMSL Analytical, Inc. in Denver, Colorado, via FedEx. The QC samples were given different sampling ID's to delineate between the normal samples taken on August 13th and 19th. EMSL Analytical, Inc. is a member of the National Voluntary Laboratory Accreditation Program (NVLAP), and is qualified to perform the required analysis (See Appendix 6). The bulk sampling techniques used for the Asbestos Inspection comply with standards and protocol established by the Asbestos Hazardous Emergency Response Act (AHERA) and the CDPHE's, *Regulation 8*. The analysis conducted was the EPA Interim Method for the Determination of Asbestos in Bulk Samples, using standard Polarized Light Microscopy

(PLM) and dispersion staining as established in 40 CFR Part 763. According to section III.A.1.c of *Regulation Number 8* from the CDPHE, if the asbestos content of a sample of friable asbestos is estimated to be 1% asbestos or less, but greater than 0%, by a method other than point counting, the determination shall be repeated using the point count technique with polarized light microscopy. The EPA and the CDPHE define asbestos containing materials (ACM's) as any materials which tests positive at greater than (>) 1% asbestos. According to AHERA, EPA, and the CDPHE, materials testing at less than (<) or equal to 1% asbestos fibers are not considered to be an ACM. Materials containing ANY amount of asbestos should be handled according to OSHA protocol. Suspect materials are divided into two types, **friable** and **non-friable**, based upon the material's consistency. **Friable** is a material that, when dry, can be reduced to a powder or crumbled by finger (hand) pressure only, thereby rendering the material friable and allowing suspected asbestos fibers to become airborne. Friable materials produce a human health risk if the fibers are asbestos. When airborne the asbestos can be inhaled into the lungs causing future health problems and risks. **Non-friable** materials are miscellaneous building materials that in composition are hard and cannot be easily disturbed, and do not present a human health risk, unless activities such as crushing, sanding, or any activity that damages in a destructive way, such as during a demolition, causes its condition to become friable.

III. ACM SUMMARY

***The original samples obtained on August 13th and 19th did not have sufficient material for point count analysis, thus on September 22, 2015, QC Samples were taken directly next to any sample showing insufficient materials to determine presence/absence of Asbestos.**

QC = Quality Control

IM = Insufficient Material

Second Floor

- The lightly textured drywall (1A-1I) located throughout the second floor of the Subject Property is an OSHA Regulated Material by Point Counting Methods:
 - *OUC-SF-1A-Texture is <1% Chrysotile (Point Count – 0.25%)*
 - *OUC-SF-1B-Texture 1 is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-SF-1B-Texture 2 is <1% Chrysotile (Point Count – 0.25%)*
 - *OUC-SF-1C-Texture is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-SF-1D-Texture is <1% Chrysotile (Point Count – 0.50%)*
 - *OUC-SF-1E-Texture is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-SF-1F-Texture is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-SF-1G-Texture is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-SF-1H-Texture is <1% Chrysotile (Point Count – 0.25%)*
 - *OUC-SF-1I is Homogeneous*

This material was assessed in good condition and friable.

- The Wallpapered drywall (2A-2I) located throughout the second floor of the Subject Property is an OSHA Regulated Material by Point Counting Methods:
 - *OUC-SF-2A-Texture is <1% Chrysotile (Point Count – IM)*
 - *QC = OUC-2A-Q1 – None Detected*
 - *OUC-SF-2B-Texture is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-SF-2C-Texture is <1% Chrysotile (Point Count – 0.25%)*
 - *OUC-SF-2D-Texture is <1% Chrysotile (Point Count – IM)*
 - *QC = OUC-2D-Q2 – None Detected*
 - *OUC-SF-2E is Homogeneous*
 - *OUC-SF-2F-Texture is <1% Chrysotile (Point Count – IM)*
 - *QC = OUC-2F-Q3 – None Detected*
 - *OUC-SF-2G is Homogeneous*
 - *OUC-SF-2H-Texture is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-SF-2I is Homogeneous*

This material was assessed in good condition and friable.

First Floor

- The lightly textured drywall (8A-8I) located throughout the first floor of the Subject Property is an OSHA Regulated Material by Point Counting Methods:
 - *OUC-FF-8A-Texture is <1% Chrysotile (Point Count – None Detected)*
 - *OUC-FF-8B-Texture is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-FF-8C-Texture is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-FF-8D-Texture is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-FF-8E-Texture is <1% Chrysotile (Point Count – 0.75%)*
 - *OUC-FF-8F is Homogeneous*
 - *OUC-FF-8G-Texture is <1% Chrysotile (Point Count – 0.25%)*
 - *OUC-FF-8H is Homogeneous*
 - *OUC-FF-8I-Texture is <1% Chrysotile (Point Count – <0.25%)*

This material was assessed in good condition and friable.

- The Wallpapered drywall (9A-9G) located throughout the first floor of the Subject Property is an OSHA Regulated Material by Point Counting Methods:
 - *OUC-FF-9A is Homogeneous*
 - *OUC-FF-9B is Homogeneous*
 - *OUC-FF-9C-Texture is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-FF-9D is Homogeneous*
 - *OUC-FF-9E-Texture is <1% Chrysotile (Point Count – IM)*
 - *QC = OUC-9E-Q4 – None Detected*
 - *OUC-FF-9F is Homogeneous*
 - *OUC-FF-9G is Homogeneous*

This material was assessed in good condition and friable.

Basement

- The Wallpapered drywall (18A-18C) observed only in the cantina of the basement of the Subject Property is an OSHA Regulated Material by Point Counting Methods:
 - *OUC-BAS-18A is Homogeneous*
 - *OUC-BAS-18B-Texture is <1% Chrysotile (Point Count – IM)*
 - *QC = OUC-18B-Q5 – None Detected*
 - *OUC-BAS-18C is Homogeneous*

This material was assessed in good condition and friable.

- The lightly textured drywall (19A-19I) located throughout the basement of the Subject Property is an OSHA Regulated Material by Point Counting Methods:
 - *OUC-BAS-19A is Homogeneous*
 - *OUC-BAS-19B-Texture is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-BAS-19B-Joint Compound is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-BAS-19C-Texture is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-BAS-19D-Texture is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-BAS-19E-duplicate sample and not submitted*
 - *OUC-BAS-19F-Texture is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-BAS-19F-Joint Compound is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-BAS-19G-Texture is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-BAS-19G-Joint Compound is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-BAS-19H-Texture is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-BAS-19I-Texture is <1% Chrysotile (Point Count – <0.25%)*

This material was assessed in good condition and friable.

Exterior

- The exterior plaster (2A) located in the entry ways of the Subject Property is an OSHA Regulated Material by Point Counting Methods:
 - *OUC-EXT-20A-Skim Coat is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-EXT-20B-Skim Coat is <1% Chrysotile (Point Count – <0.25%)*
 - *OUC-EXT-20C-Skim Coat is <1% Chrysotile (Point Count – <0.25%)*

This material was assessed in good condition and friable.

IV. HOMOGENEOUS SAMPLING AREAS/NOTES

Observations:

1. Each floor was sampled as a different homogeneous area.
2. Each floor has similar materials.
3. **TSI is located in all mechanical areas – Assumed Positive due to previous reports.**
4. **All floor tiles were not tested – Assumed Positive due to previous reports.**
5. **Transite paneling is located on the ceiling of the loading dock for the kitchen – Assumed Positive due to previous reports.**
6. **All materials tested are considered OSHA regulated.**
7. **Roofing material was not tested – Assume Positive-OSHA Removal required.**

Bold – Indicates comment is associated with ACM

V. LAB RESULTS – CONFIRMED ASBESTOS

Thirty-eight (38) samples (see Photographs and Sampling Locations in the Appendix) were confirmed to be an asbestos containing material (ACM) as described below:

Sample ID	Material	Location	Asbestos Content	Quantity
OUC-SF-1A	Texture	Second Floor	<1% Chrysotile	CTD
OUC-SF-1B	Texture		<1% Chrysotile	
OUC-SF-1B	Texture		<1% Chrysotile	
OUC-SF-1C	Texture		<1% Chrysotile	
OUC-SF-1D	Texture		<1% Chrysotile	
OUC-SF-1E	Texture		<1% Chrysotile	
OUC-SF-1F	Texture		<1% Chrysotile	
OUC-SF-1G	Texture		<1% Chrysotile	
OUC-SF-1H	Texture		<1% Chrysotile	
OUC-SF-1I	Homogeneous to Samples 1A-1I			
OUC-SF-2A	Texture	Second Floor	<1% Chrysotile	
OUC-SF-2B	Texture		<1% Chrysotile	
OUC-SF-2C	Texture		<1% Chrysotile	
OUC-SF-2D	Texture		<1% Chrysotile	
OUC-SF-2E	Homogeneous to Samples 2A-2I			
OUC-SF-2F	Texture	Second Floor	<1% Chrysotile	
OUC-SF-2G	Homogeneous to Samples 2A-2I			
OUC-SF-2H	Texture	Second Floor	<1% Chrysotile	
OUC-SF-2I	Homogeneous to Samples 2A-2I			

Sample ID	Material	Location	Asbestos Content	Quantity	
OUC-FF-8A	Texture	First Floor	<1% Chrysotile	CTD	
OUC-FF-8B	Texture		<1% Chrysotile		
OUC-FF-8C	Texture		<1% Chrysotile		
OUC-FF-8D	Texture		<1% Chrysotile		
OUC-FF-8E	Texture		<1% Chrysotile		
OUC-FF-8F	Homogeneous to Samples 8A-8I				
OUC-FF-8G	Texture	First Floor	<1% Chrysotile		
OUC-FF-8H	Homogeneous to Samples 8A-8I				
OUC-FF-8I	Texture	First Floor	<1% Chrysotile		
OUC-FF-9A	Homogeneous to Samples 9A-9G				
OUC-FF-9B					
OUC-FF-9C	Texture	First Floor	<1% Chrysotile		
OUC-FF-9D	Homogeneous to Samples 9A-9G				
OUC-FF-9E	Texture	First Floor	<1% Chrysotile		
OUC-FF-9F	Homogeneous to Samples 9A-9G				
OUC-FF-9G					
OUC-BAS-18A	Homogeneous to Samples 18A-18C				
OUC-BAS-18B	Texture	Basement	<1% Chrysotile		
OUC-BAS-18C	Homogeneous to Samples 18A-18C				
OUC-BAS-19A	Homogeneous to Samples 19A-19I				
OUC-BAS-19B	Texture	Basement	<1% Chrysotile		
OUC-BAS-19B	Joint Compound		<1% Chrysotile		
OUC-BAS-19C	Texture		<1% Chrysotile		
OUC-BAS-19D	Texture		<1% Chrysotile		
OUC-BAS-19E	Duplicate Sample – Not Submitted				
OUC-BAS-19F	Texture	Basement	<1% Chrysotile		
OUC-BAS-19F	Joint Compound		<1% Chrysotile		
OUC-BAS-19G	Texture		<1% Chrysotile		
OUC-BAS-19G	Joint Compound		<1% Chrysotile		
OUC-BAS-19H	Texture		<1% Chrysotile		
OUC-BAS-19I	Texture		<1% Chrysotile		
OUC-EXT-20A	Skim Coat	Exterior	<1% Chrysotile		
OUC-EXT-20B	Skim Coat		<1% Chrysotile		
OUC-EXT-20C	Skim Coat		<1% Chrysotile		

< = Less Than

~ = Approximated

CTD = Abatement Contractor to Determine Quantities

Thirty-eight (38) samples *above were confirmed to be 2% Chrysotile or less by EMSL Analytical, Inc. using Polarized Light Microscopy. The same samples were analyzed using the Point Count Method. This analysis determines if the samples are less than or greater than 1% asbestos.* Five (5) samples had Insufficient Material and the lab was unable to perform Point Counting, so Quality Control (QC) samples were taken next to the original samples to determine asbestos content. The Colorado Department of Public Health and Environment (CDPHE) were consulted on this matter and this was determined to be the best plan of action regarding the Insufficient Material Samples. According to AHERA, EPA, and the State of Colorado Department of Public Health and Environment, materials testing at less than (<) or equal to 1% asbestos fibers are not considered to be an asbestos containing material (ACM). OSHA protocol must be followed when handling materials containing ANY amount of asbestos. (See Table Below)

VI. Point Count Results (EMSL Analytical, Inc.)

There were thirty-eight (38) samples analyzed by the PLM Point Count method as described below:

Sample ID	Material	Location	Point Count Results	Quantity
OUC-SF-1A	Texture	Second Floor	0.25% Chrysotile	OSHA
OUC-SF-1B	Texture		<0.25% Chrysotile	
OUC-SF-1B	Texture		0.25% Chrysotile	
OUC-SF-1C	Texture		<0.25% Chrysotile	
OUC-SF-1D	Texture		0.50% Chrysotile	
OUC-SF-1E	Texture		<0.25% Chrysotile	
OUC-SF-1F	Texture		<0.25% Chrysotile	
OUC-SF-1G	Texture		<0.25% Chrysotile	
OUC-SF-1H	Texture		0.25% Chrysotile	
OUC-SF-2A	Texture	Second Floor	IM = QC-None Detected	
OUC-SF-2B	Texture		<0.25% Chrysotile	
OUC-SF-2C	Texture		0.25% Chrysotile	
OUC-SF-2D	Texture		IM = QC-None Detected	
OUC-SF-2F	Texture		IM = QC-None Detected	
OUC-SF-2H	Texture		<0.25% Chrysotile	
OUC-FF-8A	Texture	First Floor	None Detected	
OUC-FF-8B	Texture		<0.25% Chrysotile	
OUC-FF-8C	Texture		<0.25% Chrysotile	
OUC-FF-8D	Texture		<0.25% Chrysotile	
OUC-FF-8E	Texture		0.75% Chrysotile	
OUC-FF-8G	Texture		0.25% Chrysotile	
OUC-FF-8I	Texture		<0.25% Chrysotile	
OUC-FF-9C	Texture		<0.25% Chrysotile	
OUC-FF-9E	Texture		IM = QC-None Detected	

Sample ID	Material	Location	Point Count Results	Quantity
OUC-BAS-18B	Texture	Basement	IM = QC-None Detected	OSHA
OUC-BAS-19B	Texture		<0.25% Chrysotile	
OUC-BAS-19B	Joint Compound		<0.25% Chrysotile	
OUC-BAS-19C	Texture		<0.25% Chrysotile	
OUC-BAS-19D	Texture		<0.25% Chrysotile	
OUC-BAS-19F	Texture		<0.25% Chrysotile	
OUC-BAS-19F	Joint Compound		<0.25% Chrysotile	
OUC-BAS-19G	Texture		<0.25% Chrysotile	
OUC-BAS-19G	Joint Compound		<0.25% Chrysotile	
OUC-BAS-19H	Texture		<0.25% Chrysotile	
OUC-BAS-19I	Texture		<0.25% Chrysotile	
OUC-EXT-20A	Skim Coat	Exterior	<0.25% Chrysotile	
OUC-EXT-20B	Skim Coat		<0.25% Chrysotile	
OUC-EXT-20C	Skim Coat		<0.25% Chrysotile	

IM = Insufficient Material

QC = Quality Control Samples

VII. LIMITATIONS

Accessibility may have been a limiting condition. A Colorado Certified Building Inspector used reasonable diligence and professional judgment to identify all potential asbestos containing materials in the Subject Property. Materials that are not visible from the surface, i.e. wall cavity insulation, may not have been sampled. Any materials encountered during demolitions that were not sampled during this inspection should be assumed positive until confirmed otherwise by a Certified Asbestos Building Inspector. APEC will not be responsible for additional costs associated with future sampling, including services provided by a third party. ACM's that will be disturbed should be handled according to CDPHE, EPA, and OSHA protocol. Materials containing ANY amount of asbestos should be handled according to OSHA protocol.

All-Phase Environmental Consultants, Inc. (APEC) makes no warranty either expressed or implied as to the completeness of the information contained herein. APEC will not be held liable for property damage or any loss of property value due to the inspection. APEC will not be held responsible for ACMs identified in additional areas of the Subject Property and/or any results of future asbestos inspections. This report is not an abatement plan and is intended to be informational only; APEC will not be held responsible for the mishandling of the information contained herein.

- If additional impacted suspect **ACM** or **ACBM** are discovered during renovations, servicing or maintenance related work for which there are no sample documentation/results, APEC recommends pursuing one of the following alternatives: Sample and analyze the discovered suspect material(s) to determine whether it contains asbestos; or assume the material(s) to be asbestos-containing materials, quantify and remove on a unit cost basis.

VIII. APPENDICES

The attached Appendices include:

- 1. Field Sheet/Asbestos Results**
- 2. Positive Sample Location Diagram**
- 3. Positive Sample Photographs**
- 4. Asbestos Bulk Sample Data Sheet (test results)**
- 5. Chain of Custody Forms**
- 6. Asbestos Inspector Certifications/Laboratory Certifications**
- 7. Trigger Level Information Sheet**
- 8. OSHA Standards**


IX. SIGNATURE OF ASBESTOS INSPECTOR:

All-Phase Environmental Consultants Inc.



Logan Greenfield

**AHERA Certified Asbestos Inspectors
Colorado Certified Asbestos Building Inspectors
Certification No. 20715**



Rick Ralston

**AHERA Certified Asbestos Inspectors
Colorado Certified Asbestos Building Inspectors
Certification No. 4261**

APPENDIX 1

FIELD SHEET/ASBESTOS RESULTS

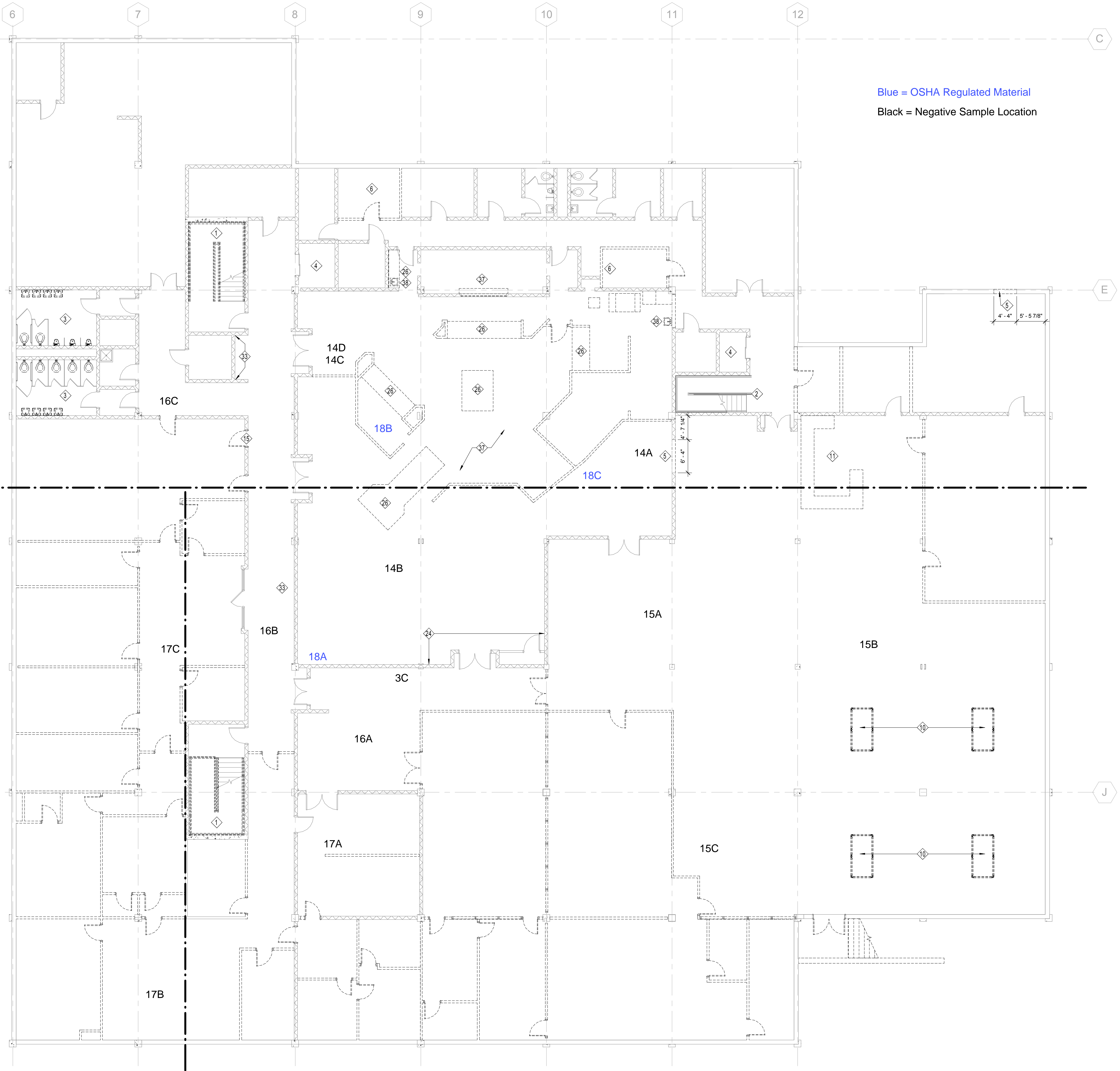
Field Sheet/Asbestos Results															
Site Address: CSUP Occhiato Center - Pueblo, CO															
Project Number: 15-2389															
Sampler: Logan Greenfield & Rick Ralston															
Date Sampled: August 13 & 19, 2015 and September 22, 2015															
Functional Space ID	Homogeneous Sampling Area ID	Sample ID	Material	Layer Material	Condition	Asbestos Results	Asbestos Content	Point Count Results	Quantity	Material Category	Friability	Hazard Ranking			
Second Floor	1A	OUC-SF-1A-Texture	Lightly Textured Drywall	Texture	Good	Positive	<1% Chrysotile	0.25% Chrysotile	CTD	Surfacing	Friable	OSHA			
		OUC-SF-1A-Drywall	Lightly Textured Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable				
	1B	OUC-SF-1B-Texture 1	Lightly Textured Drywall	Texture	Good	Positive	<1% Chrysotile	<0.25% Chrysotile		Surfacing	Friable				
		OUC-SF-1B-Texture 2	Lightly Textured Drywall	Texture	Good	Positive	<1% Chrysotile	0.25% Chrysotile		Surfacing	Friable				
	1C	OUC-SF-1C-Texture	Lightly Textured Drywall	Texture	Good	Positive	<1% Chrysotile	<0.25% Chrysotile		Surfacing	Friable				
		OUC-SF-1C-Drywall	Lightly Textured Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable				
	1D	OUC-SF-1D-Texture	Lightly Textured Drywall	Texture	Good	Positive	<1% Chrysotile	0.50% Chrysotile		Surfacing	Friable				
		OUC-SF-1D-Drywall	Lightly Textured Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable				
	1E	OUC-SF-1E-Texture	Lightly Textured Drywall	Texture	Good	Positive	<1% Chrysotile	<0.25% Chrysotile		Surfacing	Friable				
		OUC-SF-1E-Drywall	Lightly Textured Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable				
	1F	OUC-SF-1F-Texture	Lightly Textured Drywall	Texture	Good	Positive	<1% Chrysotile	<0.25% Chrysotile		Surfacing	Friable				
		OUC-SF-1F-Drywall	Lightly Textured Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable				
	1G	OUC-SF-1G-Texture	Lightly Textured Drywall	Texture	Good	Positive	<1% Chrysotile	<0.25% Chrysotile		Surfacing	Friable				
		OUC-SF-Drywall	Lightly Textured Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable				
	1H	OUC-SF-1H-Texture	Lightly Textured Drywall	Texture	Good	Positive	<1% Chrysotile	0.25% Chrysotile		Surfacing	Friable				
		OUC-SF-1H-Drywall	Lightly Textured Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable				
1I*	OUC-SF-1I-Texture	Lightly Textured Drywall	Texture	Good	Negative	ND	NA	Surfacing	Friable						
	OUC-SF-1I-Drywall	Lightly Textured Drywall	Drywall	Good	Negative	ND	NA	Surfacing	Friable						
Second Floor	2A	OUC-SF-2A-Wallpaper	Wall Paper Drywall	Wallpaper	Good	Negative	ND	NA	CTD	Surfacing	Friable	OSHA			
		OUC-SF-2A-Texture	Wall Paper Drywall	Texture	Good	Positive	<1% Chrysotile	IM=QC-ND		Surfacing	Friable				
	2B	OUC-SF-2A-Drywall	Wall Paper Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable				
		OUC-SF-2B-Wallpaper	Wall Paper Drywall	Wallpaper	Good	Negative	ND	NA		Surfacing	Friable				
	2C	OUC-SF-2B-Texture	Wall Paper Drywall	Texture	Good	Positive	<1% Chrysotile	<0.25% Chrysotile		Surfacing	Friable				
		OUC-SF-2B-Drywall	Wall Paper Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable				
	2D	OUC-SF-2C-Wallpaper	Wall Paper Drywall	Wallpaper	Good	Negative	ND	NA		Surfacing	Friable				
		OUC-SF-2C-Texture	Wall Paper Drywall	Texture	Good	Positive	<1% Chrysotile	0.25% Chrysotile		Surfacing	Friable				
	2E*	OUC-SF-2C-Drywall	Wall Paper Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable				
		OUC-SF-2D-Wallpaper	Wall Paper Drywall	Wallpaper	Good	Negative	ND	NA		Surfacing	Friable				
	2F	OUC-SF-2D-Texture	Wall Paper Drywall	Texture	Good	Positive	<1% Chrysotile	IM=QC-ND		Surfacing	Friable				
		OUC-SF-2D-Drywall	Wall Paper Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable				
	2G*	OUC-SF-2E-Wallpaper	Wall Paper Drywall	Wallpaper	Good	Negative	ND	NA		Surfacing	Friable				
		OUC-SF-2E-Texture	Wall Paper Drywall	Texture	Good	Positive	<1% Chrysotile	<0.25% Chrysotile		Surfacing	Friable				
	2H	OUC-SF-2E-Drywall	Wall Paper Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable				
		OUC-SF-2F-Wallpaper	Wall Paper Drywall	Wallpaper	Good	Negative	ND	NA		Surfacing	Friable				
	2I*	OUC-SF-2F-Texture	Wall Paper Drywall	Texture	Good	Positive	<1% Chrysotile	IM=QC-ND		Surfacing	Friable				
		OUC-SF-2F-Drywall	Wall Paper Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable				
	Second Floor	3A	OUC-SF-2G-Wallpaper	Wall Paper Drywall	Wallpaper	Good	Negative	ND		NA	NA		Miscellaneous	Non-Friable	NA
			OUC-SF-2G-Adhesive	Wall Paper Drywall	Adhesive	Good	Negative	ND		NA			Miscellaneous	Non-Friable	NA
OUC-SF-2G-Drywall			Wall Paper Drywall	Drywall	Good	Negative	ND	NA	Miscellaneous	Non-Friable		NA			
First Floor	3B	OUC-SF-2H-Wallpaper	Wall Paper Drywall	Wallpaper	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA			
		OUC-SF-2H-Texture	Wall Paper Drywall	Texture	Good	Positive	<1% Chrysotile	<0.25% Chrysotile		Surfacing	Friable	NA			
		OUC-SF-2H-Drywall	Wall Paper Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable	NA			
Basement	3C	OUC-SF-2I-Wallpaper	Wall Paper Drywall	Wallpaper	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA			
		OUC-SF-2I-Adhesive	Wall Paper Drywall	Adhesive	Good	Negative	ND	NA		Miscellaneous	Non-Friable	NA			
		OUC-SF-2I-													

Functional Space ID	Homogeneous Sampling Area ID	Sample ID	Material	Layer Material	Condition	Asbestos Results	Asbestos Content	Point Count Results	Quantity	Material Category	Friability	Hazard Ranking
First Floor	12A	OUC-FF-12A	Ceiling Tile - Medium Fissure	Ceiling Tile	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	12B	OUC-FF-12B	Ceiling Tile - Medium Fissure	Ceiling Tile	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	12C	OUC-FF-12C	Ceiling Tile - Medium Fissure	Ceiling Tile	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
First Floor	13A	OUC-FF-13A	2x4 Ceiling Tile - Heavy Fissure	Ceiling Tile	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	13B	OUC-FF-13B	2x4 Ceiling Tile - Heavy Fissure	Ceiling Tile	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	13C	OUC-FF-13C	2x4 Ceiling Tile - Heavy Fissure	Ceiling Tile	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
Basement	14A	OUC-BAS-14A-Ceiling Tile	12x12 Ceiling Tile / Mastic	Ceiling Tile	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
		OUC-BAS-14A-Mastic	12x12 Ceiling Tile / Mastic	Mastic	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
		OUC-BAS-14C-Ceiling Tile	12x12 Ceiling Tile / Mastic	Ceiling Tile	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	14C	OUC-BAS-14C-Mastic	12x12 Ceiling Tile / Mastic	Mastic	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
		OUC-BAS-14D-Ceiling Tile	12x12 Ceiling Tile / Mastic	Ceiling Tile	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
		OUC-BAS-14D-Mastic	12x12 Ceiling Tile / Mastic	Mastic	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
Basement	15A	OUC-BAS-15A	Ceiling Tile - Heavy Fissure	Ceiling Tile	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	15B	OUC-BAS-15B	Ceiling Tile - Heavy Fissure	Ceiling Tile	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	15C	OUC-BAS-15C	Ceiling Tile - Heavy Fissure	Ceiling Tile	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
Basement	16A	OUC-BAS-16A	Ceiling Tile - Horizontal Fissure	Ceiling Tile	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	16B	OUC-BAS-16B	Ceiling Tile - Horizontal Fissure	Ceiling Tile	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	16C	OUC-BAS-16C	Ceiling Tile - Horizontal Fissure	Ceiling Tile	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
Basement	17A	OUC-BAS-17A	Ceiling Tile - Dotted	Ceiling Tile	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	17B	OUC-BAS-17B	Ceiling Tile - Dotted	Ceiling Tile	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	17C	OUC-BAS-17C	Ceiling Tile - Dotted	Ceiling Tile	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
Basement	18A*	OUC-BAS-18A-Wallpaper	Wall Papered Drywall	Wallpaper	Good	Negative	ND	NA	CTD	Surfacing	Friable	OSHA
		OUC-BAS-18A-Texture	Wall Papered Drywall	Texture	Good	Negative	ND	NA		Surfacing	Friable	
		OUC-BAS-18A-Drywall	Wall Papered Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable	
	18B	OUC-BAS-18B-Wallpaper	Wall Papered Drywall	Wallpaper	Good	Negative	ND	NA		Surfacing	Friable	
		OUC-BAS-18B-Adhesive	Wall Papered Drywall	Adhesive	Good	Negative	ND	NA		Surfacing	Friable	
		OUC-BAS-18B-Texture	Wall Papered Drywall	Texture	Good	Positive	<1% Chrysotile	IM=QC-ND		Surfacing	Friable	
	18C*	OUC-BAS-18B-Drywall	Wall Papered Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable	
		OUC-BAS-18C-Texture	Wall Papered Drywall	Texture	Good	Negative	ND	NA		Surfacing	Friable	
		OUC-BAS-18C-Drywall	Wall Papered Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable	
		19A*	OUC-BAS-19A-Texture	Textured Drywall	Texture	Good	Negative	ND		NA	Surfacing	
OUC-BAS-19A-Drywall	Textured Drywall		Drywall	Good	Negative	ND	NA	Surfacing	Friable			
19B	OUC-BAS-19B-Texture		Textured Drywall	Texture	Good	Positive	<1% Chrysotile	<0.25% Chrysotile	Surfacing	Friable		
	OUC-BAS-19B-Tape		Textured Drywall	Tape	Good	Negative	ND	NA	Surfacing	Friable		
	OUC-BAS-19B-Joint Compound		Textured Drywall	Joint Compound	Good	Positive	<1% Chrysotile	<0.25% Chrysotile	Surfacing	Friable		
19C	OUC-BAS-19B-Drywall	Textured Drywall	Drywall	Good	Negative	ND	NA	Surfacing	Friable			
	OUC-BAS-19C-Texture	Textured Drywall	Texture	Good	Positive	<1% Chrysotile	<0.25% Chrysotile	Surfacing	Friable			
	OUC-BAS-19C-Drywall	Textured Drywall	Drywall	Good	Negative	ND	NA	Surfacing	Friable			
	OUC-BAS-19D-Texture	Textured Drywall	Texture	Good	Positive	<1% Chrysotile	<0.25% Chrysotile	Surfacing	Friable			
		OUC-BAS-19D-Drywall	Textured Drywall	Drywall	Good	Negative	ND	NA	Surfacing	Friable		
Functional Space ID	Homogeneous Sampling Area ID	Sample ID	Material	Layer Material	Condition	Asbestos Results	Asbestos Content	Point Count Results	Quantity	Material Category	Friability	Hazard Ranking
Basement	19F	OUC-BAS-19F-Texture	Textured Drywall	Texture	Good	Positive	<1% Chrysotile	<0.25% Chrysotile	CTD	Surfacing	Friable	OSHA
		OUC-BAS-19F-Tape	Textured Drywall	Tape	Good	Negative	ND	NA		Surfacing	Friable	
		OUC-BAS-19F-Joint Compound	Textured Drywall	Joint Compound	Good	Positive	<1% Chrysotile	<0.25% Chrysotile		Surfacing	Friable	
	19G	OUC-BAS-19F-Drywall	Textured Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable	
		OUC-BAS-19G-Texture	Textured Drywall	Texture	Good	Positive	<1% Chrysotile	<0.25% Chrysotile		Surfacing	Friable	
		OUC-BAS-19G-Tape	Textured Drywall	Tape	Good	Negative	ND	NA		Surfacing	Friable	
	19H	OUC-BAS-19G-Joint compound	Textured Drywall	Joint Compound	Good	Positive	<1% Chrysotile	<0.25% Chrysotile		Surfacing	Friable	
		OUC-BAS-19G-Drywall	Textured Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable	
		OUC-BAS-19H-Texture	Textured Drywall	Texture	Good	Positive	<1% Chrysotile	<0.25% Chrysotile		Surfacing	Friable	
		OUC-BAS-19H-Drywall	Textured Drywall	Drywall	Good	Negative	ND	NA		Surfacing	Friable	
Exterior	20A	OUC-BAS-19I-Texture	Textured Drywall	Texture	Good	Positive	<1% Chrysotile	<0.25% Chrysotile	CTD	Surfacing	Friable	OSHA
		OUC-EXT-20A-Skim Coat	Exterior Plaster	Skim Coat	Good	Positive	<1% Chrysotile	<0.25% Chrysotile		Surfacing	Friable	
		OUC-EXT-20A-Base Coat	Exterior Plaster	Base Coat	Good	Negative	ND	NA		Surfacing	Friable	
	20B	OUC-EXT-20B-Skim Coat	Exterior Plaster	Skim Coat	Good	Positive	<1% Chrysotile	<0.25% Chrysotile		Surfacing	Friable	
	20C	OUC-EXT-20C-Skim Coat	Exterior Plaster	Skim Coat	Good	Positive	<1% Chrysotile	<0.25% Chrysotile	Surfacing	Friable		
Exterior	21A	OUC-EXT-21A	Exterior Caulk	Caulk	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	21B	OUC-EXT-21B	Exterior Caulk	Caulk	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	21C	OUC-EXT-21C	Exterior Caulk	Caulk	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	21D	OUC-EXT-21D	Exterior Caulk	Caulk	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	21E	OUC-EXT-21E	Exterior Caulk	Caulk	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	21F	OUC-EXT-21F	Exterior Caulk	Caulk	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	21G	OUC-EXT-21G	Exterior Caulk	Caulk	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA

Functional Space ID	Homogeneous Sampling Area ID	Sample ID	Material	Layer Material	Condition	Asbestos Results	Asbestos Content	Point Count Results	Quantity	Material Category	Friability	Hazard Ranking
Samples Taken: 08/19/2015												
First Floor	22A	OUC-FF-22A	Blown On Insulation	Insulation	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	22B	OUC-FF-22B	Blown On Insulation	Insulation	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	22C	OUC-FF-22C	Blown On Insulation	Insulation	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	22D	OUC-FF-22D-Insulation	Blown On Insulation	Insulation	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
		OUC-FF-22D-Concrete	Blown On Insulation	Concrete	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	22E	OUC-FF-22E	Blown On Insulation	Insulation	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
	22F	OUC-FF-22F	Blown On Insulation	Insulation	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
First Floor	23A	OUC-FF-22G	Blown On Insulation	Insulation	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
		OUC-FF-23A-Wood	Wood with Mastic & Concrete with Mastic	Wood	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
		OUC-FF-23A-Mastic 1	Wood with Mastic & Concrete with Mastic	Mastic	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
		OUC-FF-23A-Concrete	Wood with Mastic & Concrete with Mastic	Concrete	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
		OUC-FF-23A-Matic 2	Wood with Mastic & Concrete with Mastic	Mastic	Good	Negative	ND	NA	NA	Miscellaneous	Non-Friable	NA
Functional Space ID	Homogeneous Sampling Area ID	Sample ID	Material	Layer Material	Condition	Asbestos Results	Asbestos Content	Point Count Results	Quantity	Material Category	Friability	Hazard Ranking
Quality Control Samples Taken 09/22/2015												
Second Floor	2A	OUC-2A-Q1 (OUC-SF-2A)	Wallpapered Drywall	Drywall	Good	Negative	ND	NA	NA	Surfacing	Friable	NA
Second Floor	2D	OUC-2D-Q2 (OUC-SF-2D)	Wallpapered Drywall	Drywall	Good	Negative	ND	NA	NA	Surfacing	Friable	NA
Second Floor	2F	OUC-2F-Q3 (OUC-SF-2F)	Wallpapered Drywall	Drywall	Good	Negative	ND	NA	NA	Surfacing	Friable	NA
First Floor	9E	OUC-9E-Q4-Wallpaper (OUC-FF-9E)	Wallpapered Drywall	Wallpaper	Good	Negative	ND	NA	NA	Surfacing	Friable	NA
		OUC-9E-Q4-Mastic (OUC-FF-9E)	Wallpapered Drywall	Mastic	Good	Negative	ND	NA	NA	Surfacing	Friable	NA
		OUC-9E-Q4-Drywall (OUC-FF-9E)	Wallpapered Drywall	Drywall	Good	Negative	ND	NA	NA	Surfacing	Friable	NA
Basement	18B	OUC-18B-Q5-Wallpaper (OUC-BAS-18B)	Wallpapered Drywall	Wallpaper	Good	Negative	ND	NA	NA	Surfacing	Friable	NA
		OUC-18B-Q5-Drywall (OUC-BAS-18B)	Wallpapered Drywall	Drywall	Good	Negative	ND	NA	NA	Surfacing	Friable	NA
ND = None Detected		IM = Insufficient Materials										
NA = Not Applicable		QC = Quality Control										
ft² = square feet		CTD = To Be Determined by Asbestos Contractor										
* = positive due to homogeneity												
> = Greater Than		RED = Positive ACM		Hazard Ranking Classifications								
< = Less Than		BLUE = OSHA		1. Damaged or significantly damaged thermal system insulation ACM.								
~ = Approximated				2. Damaged friable surfacing ACM.								
				3. Significantly damaged friable surfacing ACM.								
				4. Damaged or significantly damaged friable miscellaneous ACM.								
				5. ACBM with potential for damage.								
				6. ACBM with potential for significant damage.								
				7. Any remaining friable ACBM or friable suspected ACBM.								
Per AHERA and State of Colorado, materials tested at less than or equal to (<1%)asbestos are not considered to be an asbestos containing material.												
Materials containing ANY amount of asbestos should be handled according OSHA protocol.												

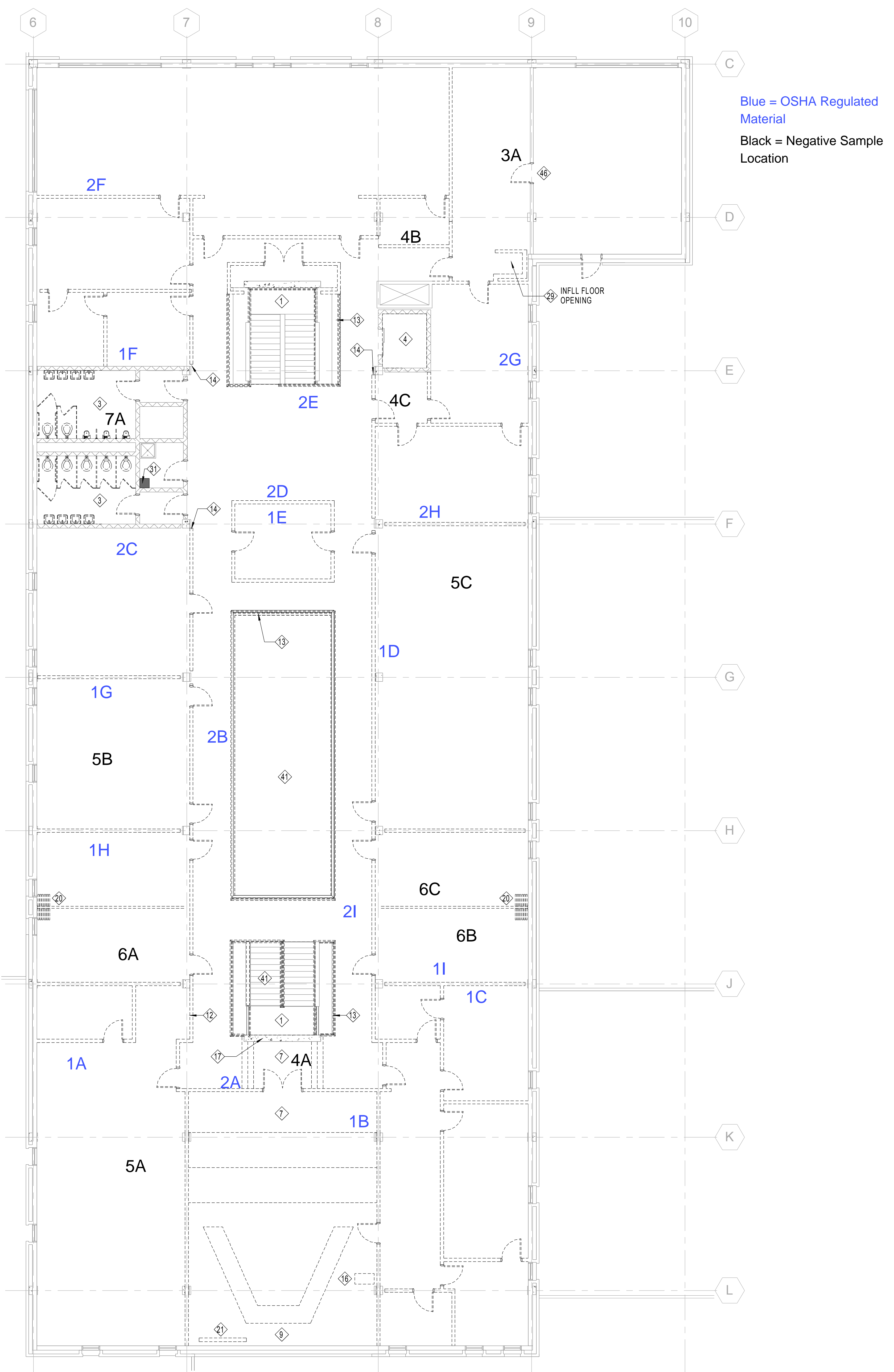
APPENDIX 2

POSITIVE SAMPLE LOCATION DIAGRAM



Blue = OSHA Regulated Material
Black = Negative Sample Location

Black = Negative Sample Location



APPENDIX 3

POSITIVE SAMPLE PHOTOGRAPHS ***(ACM PHOTOS & DESCRIPTIONS)***



Subject Property



Typical Lightly Textured Drywall



Typical Wallpapered Drywall



Exterior Plaster

APPENDIX 4

***ASBESTOS BULK SAMPLE DATA SHEET
(TEST RESULTS)***

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204

Phone/Fax: (303) 740-5700 / (303) 741-1400

<http://www.EMSL.com>denverlab@emsl.com

EMSL Order: 221505100

CustomerID: ALLP62

CustomerPO:

ProjectID:

Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
 Fax: (719) 542-2807
 Received: 08/17/15 9:50 AM
 Analysis Date: 8/21/2015
 Collected: 8/13/2015

Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	% Fibrous	Non-Asbestos		Asbestos
				% Non-Fibrous		% Type
OUC-SF-1A-Texture 221505100-0001	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100% Non-fibrous (other)		<1% Chrysotile
OUC-SF-1A-Drywall 221505100-0001A	Lightly Textured Drywall	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	85% Gypsum 3% Non-fibrous (other)		None Detected
OUC-SF-1B-Texture 1 221505100-0002	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100% Non-fibrous (other)		<1% Chrysotile
OUC-SF-1B-Texture 2 221505100-0002A	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100% Non-fibrous (other)		<1% Chrysotile
OUC-SF-1B-Drywall 221505100-0002B	Lightly Textured Drywall	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	85% Gypsum 3% Non-fibrous (other)		None Detected
OUC-SF-1C-Texture 221505100-0003	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100% Non-fibrous (other)		<1% Chrysotile
OUC-SF-1C-Drywall 221505100-0003A	Lightly Textured Drywall	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	85% Gypsum 3% Non-fibrous (other)		None Detected
OUC-SF-1D-Texture 221505100-0004	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100% Non-fibrous (other)		<1% Chrysotile
OUC-SF-1D-Drywall 221505100-0004A	Lightly Textured Drywall	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	85% Gypsum 3% Non-fibrous (other)		None Detected

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Phoenix, AZ NVLAP Lab Code 200811-0, AZ0937

Initial report from 08/21/2015 18:04:09

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204

Phone/Fax: (303) 740-5700 / (303) 741-1400

<http://www.EMSL.com>denverlab@emsl.com

EMSL Order: 221505100

CustomerID: ALLP62

CustomerPO:

ProjectID:

Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
 Fax: (719) 542-2807
 Received: 08/17/15 9:50 AM
 Analysis Date: 8/21/2015
 Collected: 8/13/2015

Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			%	Fibrous	% Type
OUC-SF-1E-Texture 221505100-0005	Lightly Textured Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other) <1% Chrysotile
OUC-SF-1E-Drywall 221505100-0005A	Lightly Textured Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other) None Detected
OUC-SF-1F-Texture 221505100-0006	Lightly Textured Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other) <1% Chrysotile
OUC-SF-1F-Drywall 221505100-0006A	Lightly Textured Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other) None Detected
OUC-SF-1G-Texture 221505100-0007	Lightly Textured Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other) <1% Chrysotile
OUC-SF-1G-Drywall 221505100-0007A	Lightly Textured Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other) None Detected
OUC-SF-1H-Texture 221505100-0008	Lightly Textured Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other) <1% Chrysotile
OUC-SF-1H-Drywall 221505100-0008A	Lightly Textured Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other) None Detected
OUC-SF-1I-Texture 221505100-0009	Lightly Textured Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other) None Detected

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Samples analyzed by EMSL Analytical, Inc. Phoenix, AZ NVLAP Lab Code 200811-0, AZ0937

Initial report from 08/21/2015 18:04:09

**EMSL Analytical, Inc.**

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ProjectID:

Attn: **Logan Greenfield**
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Phone: (719) 545-0375
 Fax: (719) 542-2807
 Received: 08/17/15 9:50 AM
 Analysis Date: 8/21/2015
 Collected: 8/13/2015

Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	% Fibrous	Non-Asbestos		% Type
				Fibrous	Non-Fibrous	
OUC-SF-11-Drywall 221505100-0009A	Lightly Textured Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-SF-2A-Wallpaper 221505100-0010	Wall Paper Drywall	White Fibrous Heterogeneous	50%	Synthetic	50% Non-fibrous (other)	None Detected
OUC-SF-2A-Texture 221505100-0010A	Wall Paper Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	<1% Chrysotile
OUC-SF-2A-Drywall 221505100-0010B	Wall Paper Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-SF-2B-Wallpaper 221505100-0011	Wall Paper Drywall	White Fibrous Heterogeneous	50%	Synthetic	50% Non-fibrous (other)	None Detected
OUC-SF-2B-Texture 221505100-0011A	Wall Paper Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	<1% Chrysotile
OUC-SF-2B-Drywall 221505100-0011B	Wall Paper Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-SF-2C-Wallpaper 221505100-0012	Wall Paper Drywall	White Fibrous Heterogeneous	50%	Synthetic	50% Non-fibrous (other)	None Detected
OUC-SF-2C-Texture 221505100-0012A	Wall Paper Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	<1% Chrysotile

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Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	% Fibrous	Non-Asbestos		Asbestos
				%	Non-Fibrous	% Type
OUC-SF-2C-Drywall 221505100-0012B	Wall Paper Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-SF-2D-Wallpaper 221505100-0013	Wall Paper Drywall	White Fibrous Heterogeneous	50%	Synthetic	50% Non-fibrous (other)	None Detected
OUC-SF-2D-Texture 221505100-0013A	Wall Paper Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	<1% Chrysotile
OUC-SF-2D-Drywall 221505100-0013B	Wall Paper Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-SF-2E-Wallpaper 221505100-0014	Wall Paper Drywall	White Fibrous Heterogeneous	50%	Synthetic	50% Non-fibrous (other)	None Detected
OUC-SF-2E-Drywall 221505100-0014A	Wall Paper Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-SF-2F-Wallpaper 221505100-0015	Wall Paper Drywall	White Fibrous Heterogeneous	50%	Synthetic	50% Non-fibrous (other)	None Detected
OUC-SF-2F-Texture 221505100-0015A	Wall Paper Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	<1% Chrysotile
OUC-SF-2F-Drywall 221505100-0015B	Wall Paper Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected

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Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	%	Non-Asbestos		Asbestos
				Fibrous	Non-Fibrous	% Type
OUC-SF-2G-Wallpaper 221505100-0016	Wall Paper Drywall	White Fibrous Heterogeneous	20%	Synthetic	80% Non-fibrous (other)	None Detected
OUC-SF-2G-Adhesive 221505100-0016A	Wall Paper Drywall	Beige Non-Fibrous Homogeneous			100% Non-fibrous (other)	None Detected
OUC-SF-2G-Drywall 221505100-0016B	Wall Paper Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-SF-2H-Wallpaper 221505100-0017	Wall Paper Drywall	White Fibrous Heterogeneous	50%	Synthetic	50% Non-fibrous (other)	None Detected
OUC-SF-2H-Texture 221505100-0017A	Wall Paper Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	<1% Chrysotile
OUC-SF-2H-Drywall 221505100-0017B	Wall Paper Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-SF-2I-Wallpaper 221505100-0018	Wall Paper Drywall	White Fibrous Heterogeneous	50%	Synthetic	50% Non-fibrous (other)	None Detected
OUC-SF-2I-Adhesive 221505100-0018A	Wall Paper Drywall	Beige Non-Fibrous Homogeneous			100% Non-fibrous (other)	None Detected
OUC-SF-2I-Texture 221505100-0018B	Wall Paper Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	None Detected

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Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
OUC-SF-2I-Drywall 221505100-0018C	Wall Paper Drywall	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-SF-3A-Cove Base 221505100-0019	Cove Base / Mastic	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-SF-3A-Mastic 1 221505100-0019A	Cove Base / Mastic	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-SF-3A-Mastic 2 221505100-0019B	Cove Base / Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-FF-3B-Cove Base 221505100-0020	Cove Base / Mastic	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-FF-3B-Mastic 1 221505100-0020A	Cove Base / Mastic	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-FF-3B-Mastic 2 221505100-0020B	Cove Base / Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-BAS-3C-Cove Base 221505100-0021	Cove Base / Mastic	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
OUC-BAS-3C-Mastic 1 221505100-0021A	Cove Base / Mastic	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-BAS-3C-Mastic 2 221505100-0021B	Cove Base / Mastic	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-SF-4A-Ceiling Tile 221505100-0022	12"x12" Ceiling Tile / Mastic	Gray/White Fibrous Heterogeneous	95% Min. Wool	5% Non-fibrous (other)	None Detected
OUC-SF-4A-Mastic 221505100-0022A	12"x12" Ceiling Tile / Mastic	Brown Non-Fibrous Homogeneous	<1% Fibrous (other)	100% Non-fibrous (other)	None Detected
OUC-SF-4B-Ceiling Tile 221505100-0023	12"x12" Ceiling Tile / Mastic	Gray/White Fibrous Heterogeneous	95% Min. Wool	5% Non-fibrous (other)	None Detected
OUC-SF-4B-Mastic 221505100-0023A	12"x12" Ceiling Tile / Mastic	Brown Non-Fibrous Homogeneous	<1% Fibrous (other)	100% Non-fibrous (other)	None Detected
OUC-SF-4C-Ceiling Tile 221505100-0024	12"x12" Ceiling Tile / Mastic	White Fibrous Homogeneous	95% Min. Wool	5% Non-fibrous (other)	None Detected
OUC-SF-4C-Mastic 221505100-0024A	12"x12" Ceiling Tile / Mastic	Brown Non-Fibrous Homogeneous	<1% Fibrous (other)	100% Non-fibrous (other)	None Detected
OUC-SF-5A 221505100-0025	Ceiling Tile - Heavy Fissure	Various Fibrous Heterogeneous	50% Min. Wool 30% Cellulose	10% Perlite 10% Non-fibrous (other)	None Detected

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Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
OUC-SF-5B 221505100-0026	Ceiling Tile - Heavy Fissure	Various Fibrous Heterogeneous	50% Min. Wool 30% Cellulose	10% Perlite 10% Non-fibrous (other)	None Detected
OUC-SF-5C 221505100-0027	Ceiling Tile - Heavy Fissure	Various Fibrous Heterogeneous	50% Min. Wool 30% Cellulose	10% Perlite 10% Non-fibrous (other)	None Detected
OUC-SF-6A 221505100-0028	Ceiling Tile - Medium Fissure	Gray/White Fibrous Heterogeneous	60% Cellulose 20% Min. Wool	10% Perlite 10% Non-fibrous (other)	None Detected
OUC-SF-6B 221505100-0029	Ceiling Tile - Medium Fissure	Gray/White Fibrous Heterogeneous	60% Cellulose 20% Min. Wool	10% Perlite 10% Non-fibrous (other)	None Detected
OUC-SF-6C 221505100-0030	Ceiling Tile - Medium Fissure	Gray/White Fibrous Heterogeneous	60% Cellulose 20% Min. Wool	10% Perlite 10% Non-fibrous (other)	None Detected
OUC-SF-7A 221505100-0031	Epoxy Flooring	Clear Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-FF-8A-Texture 221505100-0032	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
OUC-FF-8A-Drywall 221505100-0032A	Lightly Textured Drywall	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-FF-8B-Texture 221505100-0033	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile

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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	% Fibrous	Non-Asbestos		Asbestos
				% Non-Fibrous		% Type
OUC-FF-8B-Drywall 221505100-0033A	Lightly Textured Drywall	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	85% Gypsum 3% Non-fibrous (other)		None Detected
OUC-FF-8C-Texture 221505100-0034	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100% Non-fibrous (other)		<1% Chrysotile
OUC-FF-8C-Drywall 221505100-0034A	Lightly Textured Drywall	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	85% Gypsum 3% Non-fibrous (other)		None Detected
OUC-FF-8D-Texture 221505100-0035	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100% Non-fibrous (other)		<1% Chrysotile
OUC-FF-8D-Drywall 221505100-0035A	Lightly Textured Drywall	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	85% Gypsum 3% Non-fibrous (other)		None Detected
OUC-FF-8E-Texture 221505100-0036	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100% Non-fibrous (other)		<1% Chrysotile
OUC-FF-8E-Drywall 221505100-0036A	Lightly Textured Drywall	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	85% Gypsum 3% Non-fibrous (other)		None Detected
OUC-FF-8F-Texture 1 221505100-0037	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100% Non-fibrous (other)		None Detected
OUC-FF-8F-Texture 2 221505100-0037A	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100% Non-fibrous (other)		None Detected

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Sample	Description	Appearance	%	Non-Asbestos		Asbestos
				Fibrous	% Non-Fibrous	% Type
OUC-FF-8F-Drywall 221505100-0037B	Lightly Textured Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-FF-8G-Texture 221505100-0038	Lightly Textured Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	<1% Chrysotile
OUC-FF-8G-Drywall 221505100-0038A	Lightly Textured Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-FF-8H-Wallpaper 221505100-0039	Lightly Textured Drywall	White Fibrous Heterogeneous	20%	Synthetic	80% Non-fibrous (other)	None Detected
OUC-FF-8H-Drywall 221505100-0039A	Lightly Textured Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-FF-8I-Texture 221505100-0040	Lightly Textured Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	<1% Chrysotile
OUC-FF-8I-Drywall 221505100-0040A	Lightly Textured Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-FF-9A-Wallpaper 221505100-0041	Wallpapered Drywall	White Fibrous Heterogeneous	20% 10%	Synthetic Cellulose	70% Non-fibrous (other)	None Detected
OUC-FF-9A-Adhesive 221505100-0041A	Wallpapered Drywall	Clear Non-Fibrous Homogeneous			100% Non-fibrous (other)	None Detected

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Samples analyzed by EMSL Analytical, Inc. Phoenix, AZ NVLAP Lab Code 200811-0, AZ0937

Initial report from 08/21/2015 18:04:09

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 Received: 08/17/15 9:50 AM
 Analysis Date: 8/21/2015
 Collected: 8/13/2015

Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	%	Non-Asbestos		Asbestos
				Fibrous	% Non-Fibrous	% Type
OUC-FF-9B-Wallpaper 221505100-0042	Wallpapered Drywall	White Fibrous Heterogeneous	20%	Synthetic	80% Non-fibrous (other)	None Detected
OUC-FF-9B-Adhesive 221505100-0042A	Wallpapered Drywall	Clear Non-Fibrous Homogeneous			100% Non-fibrous (other)	None Detected
OUC-FF-9B-Drywall 221505100-0042B	Wallpapered Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-FF-9C-Wallpaper 221505100-0043	Wallpapered Drywall	White Fibrous Heterogeneous	50%	Synthetic	50% Non-fibrous (other)	None Detected
OUC-FF-9C-Texture 221505100-0043A	Wallpapered Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	<1% Chrysotile
OUC-FF-9C-Drywall 221505100-0043B	Wallpapered Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-FF-9D-Wallpaper 1 221505100-0044	Wallpapered Drywall	Gray/White Fibrous Heterogeneous	20%	Synthetic	80% Non-fibrous (other)	None Detected
OUC-FF-9D-Adhesive 1 221505100-0044A	Wallpapered Drywall	Beige Non-Fibrous Homogeneous			100% Non-fibrous (other)	None Detected

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Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
OUC-FF-9D-Wallpaper 2 221505100-0044B	Wallpapered Drywall	White Fibrous Heterogeneous	20% Synthetic	80% Non-fibrous (other)	None Detected
OUC-FF-9D-Adhesive 2 221505100-0044C	Wallpapered Drywall	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-FF-9D-Drywall 221505100-0044D	Wallpapered Drywall	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-FF-9E-Wallpaper 1 221505100-0045	Wallpapered Drywall	Gray/White Fibrous Heterogeneous	20% Synthetic	80% Non-fibrous (other)	None Detected
OUC-FF-9E-Adhesive 221505100-0045A	Wallpapered Drywall	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-FF-9E-Wallpaper 2 221505100-0045B	Wallpapered Drywall	White Fibrous Heterogeneous	20% Synthetic	80% Non-fibrous (other)	None Detected
OUC-FF-9E-Texture 221505100-0045C	Wallpapered Drywall	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
OUC-FF-9E-Drywall 221505100-0045D	Wallpapered Drywall	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	85% Gypsum 3% Non-fibrous (other)	None Detected

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Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
OUC-FF-9F-Wallpaper 1 221505100-0046	Wallpapered Drywall	White Fibrous Heterogeneous	20% Synthetic	80% Non-fibrous (other)	None Detected
OUC-FF-9F-Adhesive 221505100-0046A	Wallpapered Drywall	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-FF-9F-Wallpaper 2 221505100-0046B	Wallpapered Drywall	White Fibrous Heterogeneous	20% Synthetic	80% Non-fibrous (other)	None Detected
OUC-FF-9F-Drywall 221505100-0046C	Wallpapered Drywall	Brown/White Fibrous Heterogeneous	10% Cellulose 2% Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-FF-9G-Wallpaper 1 221505100-0047	Wallpapered Drywall	White Fibrous Heterogeneous	20% Synthetic	80% Non-fibrous (other)	None Detected
OUC-FF-9G-Adhesive 1 221505100-0047A	Wallpapered Drywall	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-FF-9G-Wallpaper 2 221505100-0047B	Wallpapered Drywall	White Fibrous Heterogeneous	20% Synthetic	80% Non-fibrous (other)	None Detected
OUC-FF-9G-Adhesive 2 221505100-0047C	Wallpapered Drywall	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	%	Non-Asbestos		Asbestos
				Fibrous	% Non-Fibrous	% Type
OUC-FF-9G-Drywall 221505100-0047D	Wallpapered Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-FF-10A-Ceiling Tile 221505100-0048	12"x12" Ceiling Tile / Mastic	Gray Fibrous Homogeneous	95%	Min. Wool	5% Non-fibrous (other)	None Detected
OUC-FF-10A-Mastic 221505100-0048A	12"x12" Ceiling Tile / Mastic	Brown Non-Fibrous Homogeneous	<1%	Fibrous (other)	100% Non-fibrous (other)	None Detected
OUC-FF-10B-Ceiling Tile 221505100-0049	12"x12" Ceiling Tile / Mastic	Gray Fibrous Homogeneous	95%	Min. Wool	5% Non-fibrous (other)	None Detected
OUC-FF-10B-Mastic 221505100-0049A	12"x12" Ceiling Tile / Mastic	Brown Non-Fibrous Homogeneous	<1%	Fibrous (other)	100% Non-fibrous (other)	None Detected
OUC-FF-10C-Ceiling Tile 221505100-0050	12"x12" Ceiling Tile / Mastic	Gray Fibrous Homogeneous	95%	Min. Wool	5% Non-fibrous (other)	None Detected
OUC-FF-10C-Mastic 221505100-0050A	12"x12" Ceiling Tile / Mastic	Brown Non-Fibrous Homogeneous	<1%	Fibrous (other)	100% Non-fibrous (other)	None Detected
OUC-FF-11A 221505100-0051	2'x4' Ceiling Tile - Dotted	Gray/White Fibrous Heterogeneous	50% 30%	Cellulose Min. Wool	10% Perlite 10% Non-fibrous (other)	None Detected
OUC-FF-11B 221505100-0052	2'x4' Ceiling Tile - Dotted	Gray/White Fibrous Heterogeneous	50% 30%	Cellulose Min. Wool	10% Perlite 10% Non-fibrous (other)	None Detected

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Received: 08/17/15 9:50 AM
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Collected: 8/13/2015

Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			%	Fibrous	% Type
OUC-FF-11C 221505100-0053	2'x4' Ceiling Tile - Dotted	Gray/White Fibrous Heterogeneous	50% 30%	Cellulose Min. Wool	10% Perlite 10% Non-fibrous (other) None Detected
OUC-FF-12A 221505100-0054	Ceiling Tile - Medium Fissure	Gray/White Fibrous Heterogeneous	70% 10%	Cellulose Min. Wool	10% Perlite 10% Non-fibrous (other) None Detected
OUC-FF-12B 221505100-0055	Ceiling Tile - Medium Fissure	Gray/White Fibrous Heterogeneous	70% 10%	Cellulose Min. Wool	10% Perlite 10% Non-fibrous (other) None Detected
OUC-FF-12C 221505100-0056	Ceiling Tile - Medium Fissure	Gray/White Fibrous Heterogeneous	70% 10%	Min. Wool Cellulose	10% Perlite 10% Non-fibrous (other) None Detected
OUC-FF-13A 221505100-0057	2'x4' Ceiling Tile - Heavy Fissure	Gray/White Fibrous Heterogeneous	95%	Min. Wool	5% Non-fibrous (other) None Detected
OUC-FF-13B 221505100-0058	2'x4' Ceiling Tile - Heavy Fissure	Gray/White Fibrous Heterogeneous	95%	Min. Wool	5% Non-fibrous (other) None Detected
OUC-FF-13C 221505100-0059	2'x4' Ceiling Tile - Heavy Fissure	Gray/White Fibrous Heterogeneous	95%	Min. Wool	5% Non-fibrous (other) None Detected
OUC-BAS-14A-Ceiling Tile 221505100-0060	12"x12" Ceiling Tile / Mastic	Gray/White Fibrous Heterogeneous	95%	Min. Wool	5% Non-fibrous (other) None Detected
OUC-BAS-14A-Mastic 221505100-0060A	12"x12" Ceiling Tile / Mastic	Brown Non-Fibrous Homogeneous	<1%	Fibrous (other)	100% Non-fibrous (other) None Detected

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Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			%	Fibrous	% Type
OUC-BAS-14C- Ceiling Tile 221505100-0061	12"x12" Ceiling Tile / Mastic	Gray/White Fibrous Heterogeneous	95%	Min. Wool	5% Non-fibrous (other) None Detected
OUC-BAS-14C- Mastic 221505100-0061A	12"x12" Ceiling Tile / Mastic	Brown Non-Fibrous Homogeneous	<1%	Fibrous (other)	100% Non-fibrous (other) None Detected
OUC-BAS-14D- Ceiling Tile 221505100-0062	12"x12" Ceiling Tile / Mastic	Gray/White Fibrous Heterogeneous	95%	Min. Wool	5% Non-fibrous (other) None Detected
OUC-BAS-14D- Mastic 221505100-0062A	12"x12" Ceiling Tile / Mastic	Brown Non-Fibrous Homogeneous	<1%	Fibrous (other)	100% Non-fibrous (other) None Detected
OUC-BAS-15A 221505100-0063	Ceiling Tile - Heavy Fissure	Various Fibrous Heterogeneous	40%	Cellulose	10% Perlite 10% Non-fibrous (other) None Detected
OUC-BAS-15B 221505100-0064	Ceiling Tile - Heavy Fissure	Various Fibrous Heterogeneous	40%	Cellulose Min. Wool	10% Perlite 10% Non-fibrous (other) None Detected
OUC-BAS-15C 221505100-0065	Ceiling Tile - Heavy Fissure	Various Fibrous Heterogeneous	40%	Cellulose Min. Wool	10% Perlite 10% Non-fibrous (other) None Detected
OUC-BAS-16A 221505100-0066	Ceiling Tile - Horizontal Fissures	Gray/White Fibrous Heterogeneous	78%	Cellulose Min. Wool	10% Perlite 10% Non-fibrous (other) None Detected
OUC-BAS-16B 221505100-0067	Ceiling Tile - Horizontal Fissures	Gray/White Fibrous Heterogeneous	78%	Cellulose Min. Wool	10% Perlite 10% Non-fibrous (other) None Detected

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Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos			Asbestos
			%	Fibrous	% Non-Fibrous	% Type
OUC-BAS-16C 221505100-0068	Ceiling Tile - Horizontal Fissures	Gray/White Fibrous Heterogeneous	78% 2%	Cellulose Min. Wool	10% Perlite 10% Non-fibrous (other)	None Detected
OUC-BAS-17A 221505100-0069	Ceiling Tile - Dotted	Gray/White Fibrous Heterogeneous	60% 20%	Cellulose Min. Wool	10% Perlite 10% Non-fibrous (other)	None Detected
OUC-BAS-17B 221505100-0070	Ceiling Tile - Dotted	Gray/White Fibrous Heterogeneous	60% 20%	Min. Wool Cellulose	10% Perlite 10% Non-fibrous (other)	None Detected
OUC-BAS-17C 221505100-0071	Ceiling Tile - Dotted	Gray/White Fibrous Heterogeneous	60% 20%	Cellulose Min. Wool	10% Perlite 10% Non-fibrous (other)	None Detected
OUC-BAS-18A- Wallpaper 221505100-0072	Wall Papered Drywall	Beige Fibrous Heterogeneous	20%	Synthetic	80% Non-fibrous (other)	None Detected
OUC-BAS-18A- Texture 221505100-0072A	Wall Papered Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	None Detected
OUC-BAS-18A- Drywall 221505100-0072B	Wall Papered Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-BAS-18B- Wallpaper 221505100-0073	Wall Papered Drywall	White Fibrous Heterogeneous	20%	Synthetic	80% Non-fibrous (other)	None Detected
OUC-BAS-18B- Adhesive 221505100-0073A	Wall Papered Drywall	Tan Non-Fibrous Homogeneous			100% Non-fibrous (other)	None Detected

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Sample	Description	Appearance	Non-Asbestos		Asbestos	
			%	Fibrous	% Non-Fibrous	% Type
OUC-BAS-18B-Texture 221505100-0073B	Wall Papered Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	<1% Chrysotile
OUC-BAS-18B-Drywall 221505100-0073C	Wall Papered Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-BAS-18C-Texture 221505100-0074	Wall Papered Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	None Detected
No Wallpaper present.						
OUC-BAS-18C-Drywall 221505100-0074A	Wall Papered Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-BAS-19A-Texture 221505100-0075	Textured Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	None Detected
OUC-BAS-19A-Drywall 221505100-0075A	Textured Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-BAS-19B-Texture 221505100-0076	Textured Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	<1% Chrysotile
OUC-BAS-19B-Tape 221505100-0076A	Textured Drywall	Beige Fibrous Homogeneous	99%	Cellulose	1% Non-fibrous (other)	None Detected

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Samples analyzed by EMSL Analytical, Inc. Phoenix, AZ NVLAP Lab Code 200811-0, AZ0937

Initial report from 08/21/2015 18:04:09

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204

Phone/Fax: (303) 740-5700 / (303) 741-1400

<http://www.EMSL.com>denverlab@emsl.com

EMSL Order: 221505100

CustomerID: ALLP62

CustomerPO:

ProjectID:

Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
Fax: (719) 542-2807
Received: 08/17/15 9:50 AM
Analysis Date: 8/21/2015
Collected: 8/13/2015

Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos	
			%	Fibrous	% Non-Fibrous	% Type
OUC-BAS-19B-Joint Compound 221505100-0076B	Textured Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	<1% Chrysotile
OUC-BAS-19B-Drywall 221505100-0076C	Textured Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-BAS-19C-Texture 221505100-0077	Textured Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	<1% Chrysotile
OUC-BAS-19C-Drywall 221505100-0077A	Textured Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-BAS-19D-Texture 221505100-0078	Textured Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	<1% Chrysotile
OUC-BAS-19D-Drywall 221505100-0078A	Textured Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other)	None Detected
OUC-BAS-19F-Texture 221505100-0079	Textured Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other)	<1% Chrysotile
OUC-BAS-19F-Tape 221505100-0079A	Textured Drywall	Beige Fibrous Homogeneous	99%	Cellulose	1% Non-fibrous (other)	None Detected

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Samples analyzed by EMSL Analytical, Inc. Phoenix, AZ NVLAP Lab Code 200811-0, AZ0937

Initial report from 08/21/2015 18:04:09

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204

Phone/Fax: (303) 740-5700 / (303) 741-1400

<http://www.EMSL.com>denverlab@emsl.com

EMSL Order: 221505100

CustomerID: ALLP62

CustomerPO:

ProjectID:

Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
Fax: (719) 542-2807
Received: 08/17/15 9:50 AM
Analysis Date: 8/21/2015
Collected: 8/13/2015

Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			%	Fibrous	% Type
OUC-BAS-19F-Joint Compound	Textured Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other) <1% Chrysotile
221505100-0079B					
OUC-BAS-19F-Drywall	Textured Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other) None Detected
221505100-0079C					
OUC-BAS-19G-Texture	Textured Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other) <1% Chrysotile
221505100-0080					
OUC-BAS-19G-Tape	Textured Drywall	Beige Fibrous Homogeneous	99%	Cellulose	1% Non-fibrous (other) None Detected
221505100-0080A					
OUC-BAS-19G-Joint Compound	Textured Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other) <1% Chrysotile
221505100-0080B					
OUC-BAS-19G-Drywall	Textured Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other) None Detected
221505100-0080C					
OUC-BAS-19H-Texture	Textured Drywall	White Non-Fibrous Homogeneous			100% Non-fibrous (other) <1% Chrysotile
221505100-0081					
OUC-BAS-19H-Drywall	Textured Drywall	Brown/White Fibrous Heterogeneous	10% 2%	Cellulose Glass	85% Gypsum 3% Non-fibrous (other) None Detected
221505100-0081A					

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Samples analyzed by EMSL Analytical, Inc. Phoenix, AZ NVLAP Lab Code 200811-0, AZ0937

Initial report from 08/21/2015 18:04:09

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204

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EMSL Order: 221505100

CustomerID: ALLP62

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Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
 Fax: (719) 542-2807
 Received: 08/17/15 9:50 AM
 Analysis Date: 8/21/2015
 Collected: 8/13/2015

Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
OUC-BAS-19I-Texture 221505100-0082	Textured Drywall	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
No Drywall present.					
OUC-EXT-20A-Skim Coat 221505100-0083	Exterior Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
OUC-EXT-20A-Base Coat 221505100-0083A	Exterior Plaster	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-EXT-20B-Skim Coat 221505100-0084	Exterior Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
OUC-EXT-20C-Skim Coat 221505100-0085	Exterior Plaster	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	<1% Chrysotile
OUC-EXT-21A 221505100-0086	Exterior Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-EXT-21B 221505100-0087	Exterior Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-EXT-21C 221505100-0088	Exterior Caulk	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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Samples analyzed by EMSL Analytical, Inc. Phoenix, AZ NVLAP Lab Code 200811-0, AZ0937

Initial report from 08/21/2015 18:04:09

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204

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EMSL Order: 221505100

CustomerID: ALLP62

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ProjectID:

Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
Fax: (719) 542-2807
Received: 08/17/15 9:50 AM
Analysis Date: 8/21/2015
Collected: 8/13/2015

Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
OUC-EXT-21D 221505100-0089	Exterior Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-EXT-21E 221505100-0090	Exterior Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-EXT-21F 221505100-0091	Exterior Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-EXT-21G 221505100-0092	Exterior Caulk	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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Samples analyzed by EMSL Analytical, Inc. Phoenix, AZ NVLAP Lab Code 200811-0, AZ0937

Initial report from 08/21/2015 18:04:09

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EMSL Order: 221505100

CustomerID: ALLP62

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Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
Fax: (719) 542-2807
Received: 08/17/15 9:50 AM
Analysis Date: 8/21/2015
Collected: 8/13/2015

Project: **15-2389 - Occhiato**

The samples in this report were submitted to EMSL for analysis by Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy. The reference number for these samples is the EMSL Order ID above. Please use this reference number when calling about these samples.

Report Comments:

Sample Receipt Date::	8/17/2015	Sample Receipt Time:	9:50 AM
Analysis Completed Date:	8/21/2015	Analysis Completed Time:	4:29 PM

Analyst(s):

Bradley Orlowski PLM (77)

Carlos Rivadeneyra PLM (50)

*Jillian Chesson PLM (58)***Samples reviewed and approved by:**

Barbara Shepherd, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Phoenix, AZ NVLAP Lab Code 200811-0, AZ0937

Initial report from 08/21/2015 18:04:09

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204

Phone/Fax: (303) 740-5700 / (303) 741-1400

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EMSL Order: 221505201

CustomerID: ALLP62

CustomerPO:

ProjectID:

Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
 Fax: (719) 542-2807
 Received: 08/20/15 9:40 AM
 Analysis Date: 8/20/2015
 Collected:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
OUC-FF-22A 221505201-0001	Blown On Insulation	Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (other)	None Detected
OUC-FF-22B 221505201-0002	Blown On Insulation	Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (other)	None Detected
OUC-FF-22C 221505201-0003	Blown On Insulation	Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (other)	None Detected
OUC-FF-22D-Insulation 221505201-0004	Blown On Insulation	Gray Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (other)	None Detected
OUC-FF-22D-Concrete 221505201-0004A	Blown On Insulation	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (other)	None Detected
OUC-FF-22E 221505201-0005	Blown On Insulation	Gray Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (other)	None Detected
OUC-FF-22F 221505201-0006	Blown On Insulation	Gray Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (other)	None Detected
OUC-FF-22G 221505201-0007	Blown On Insulation	Tan Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (other)	None Detected
OUC-FF-23A-Wood 221505201-0008	Wood with Mastic & Concrete with Mastic	Tan Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from 08/20/2015 13:22:56

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204

Phone/Fax: (303) 740-5700 / (303) 741-1400

<http://www.EMSL.com>denverlab@emsl.com

EMSL Order: 221505201

CustomerID: ALLP62

CustomerPO:

ProjectID:

Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
Fax: (719) 542-2807
Received: 08/20/15 9:40 AM
Analysis Date: 8/20/2015
Collected:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
OUC-FF-23A-Mastic 1 221505201-0008A	Wood with Mastic & Concrete with Mastic	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-FF-23A-Concrete 221505201-0008B	Wood with Mastic & Concrete with Mastic	Gray Non-Fibrous Homogeneous		20% Quartz 80% Non-fibrous (other)	None Detected
OUC-FF-23A-Mastic 2 221505201-0008C	Wood with Mastic & Concrete with Mastic	Various Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

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Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from 08/20/2015 13:22:56

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204

Phone/Fax: (303) 740-5700 / (303) 741-1400

<http://www.EMSL.com>denverlab@emsl.com

EMSL Order: 221505201

CustomerID: ALLP62

CustomerPO:

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Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
Fax: (719) 542-2807
Received: 08/20/15 9:40 AM
Analysis Date: 8/20/2015
Collected:

The samples in this report were submitted to EMSL for analysis by Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy. The reference number for these samples is the EMSL Order ID above. Please use this reference number when calling about these samples.

Report Comments:

Sample Receipt Date::	8/20/2015	Sample Receipt Time:	9:40 AM
Analysis Completed Date:	8/20/2015	Analysis Completed Time:	1:18 PM

Analyst(s):

Patricia Wood PLM (12)

Samples reviewed and approved by:

Barbara Shepherd, Laboratory Manager
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from 08/20/2015 13:22:56

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EMSL Order: 221505100

CustomerID: ALLP62

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Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
Fax: (719) 542-2807
Received: 08/17/15 9:50 AM
Analysis Date: 9/4/2015
Collected: 8/13/2015

Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy. Quantitation using 400 Point Count Procedure

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
OUC-SF-1A-Texture 221505100-0001	Lightly Textured Drywall	White Non-Fibrous Homogeneous		99.75% Non-fibrous (other)	0.25% Chrysotile
OUC-SF-1B-Texture 1 221505100-0002	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-SF-1B-Texture 2 221505100-0002A	Lightly Textured Drywall	White Non-Fibrous Homogeneous		99.75% Non-fibrous (other)	0.25% Chrysotile
OUC-SF-1C-Texture 221505100-0003	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-SF-1D-Texture 221505100-0004	Lightly Textured Drywall	White Non-Fibrous Homogeneous		99.50% Non-fibrous (other)	0.50% Chrysotile
OUC-SF-1E-Texture 221505100-0005	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-SF-1F-Texture 221505100-0006	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-SF-1G-Texture 221505100-0007	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-SF-1H-Texture 221505100-0008	Lightly Textured Drywall	White Non-Fibrous Homogeneous		99.75% Non-fibrous (other)	0.25% Chrysotile

Disclaimer: Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. The limit of detection as stated in the method is 0.25%. EMSL Analytical Inc suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval of EMSL Analytical Inc. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the United States Government. EMSL Analytical Inc., bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layered samples. EMSL Analytical Inc., liability is limited to the cost of sample analysis. The test results contained within this report meet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Phoenix, AZ

Initial report from 09/04/2015 12:22:32

**EMSL Analytical, Inc.**

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Pueblo, CO 81003

Phone: (719) 545-0375
Fax: (719) 542-2807
Received: 08/17/15 9:50 AM
Analysis Date: 9/4/2015
Collected: 8/13/2015

Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy. Quantitation using 400 Point Count Procedure

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
OUC-SF-2A-Texture 221505100-0010A	Wall Paper Drywall				Insufficient Material
OUC-SF-2B-Texture 221505100-0011A	Wall Paper Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-SF-2C-Texture 221505100-0012A	Wall Paper Drywall	White Non-Fibrous Homogeneous		99.75% Non-fibrous (other)	0.25% Chrysotile
OUC-SF-2D-Texture 221505100-0013A	Wall Paper Drywall				Insufficient Material
OUC-SF-2F-Texture 221505100-0015A	Wall Paper Drywall				Insufficient Material
OUC-SF-2H-Texture 221505100-0017A	Wall Paper Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-FF-8A-Texture 221505100-0032	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	None Detected
OUC-FF-8B-Texture 221505100-0033	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-FF-8C-Texture 221505100-0034	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile

Disclaimer: Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. The limit of detection as stated in the method is 0.25%. EMSL Analytical Inc suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval of EMSL Analytical Inc. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the United States Government. EMSL Analytical Inc., bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layered samples. EMSL Analytical Inc., liability is limited to the cost of sample analysis. The test results contained within this report meet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Phoenix, AZ

Initial report from 09/04/2015 12:22:32

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204

Phone/Fax: (303) 740-5700 / (303) 741-1400

<http://www.EMSL.com>denverlab@emsl.com

EMSL Order: 221505100

CustomerID: ALLP62

CustomerPO:

ProjectID:

Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
 Fax: (719) 542-2807
 Received: 08/17/15 9:50 AM
 Analysis Date: 9/4/2015
 Collected: 8/13/2015

Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy. Quantitation using 400 Point Count Procedure

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
OUC-FF-8D-Texture 221505100-0035	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-FF-8E-Texture 221505100-0036	Lightly Textured Drywall	White Non-Fibrous Homogeneous		99.25% Non-fibrous (other)	0.75% Chrysotile
OUC-FF-8G-Texture 221505100-0038	Lightly Textured Drywall	White Non-Fibrous Homogeneous		99.75% Non-fibrous (other)	0.25% Chrysotile
OUC-FF-8I-Texture 221505100-0040	Lightly Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-FF-9C-Texture 221505100-0043A	Wallpapered Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-FF-9E-Texture 221505100-0045C	Wallpapered Drywall				Insufficient Material
OUC-BAS-18B-Texture 221505100-0073B	Wall Papered Drywall				Insufficient Material
OUC-BAS-19B-Texture 221505100-0076	Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-BAS-19B-Joint Compound 221505100-0076B	Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile

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Samples analyzed by EMSL Analytical, Inc. Phoenix, AZ

Initial report from 09/04/2015 12:22:32

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204

Phone/Fax: (303) 740-5700 / (303) 741-1400

<http://www.EMSL.com>denverlab@emsl.com

EMSL Order: 221505100

CustomerID: ALLP62

CustomerPO:

ProjectID:

Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
Fax: (719) 542-2807
Received: 08/17/15 9:50 AM
Analysis Date: 9/4/2015
Collected: 8/13/2015

Project: **15-2389 - Occhiato**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy. Quantitation using 400 Point Count Procedure

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
OUC-BAS-19C-Texture 221505100-0077	Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-BAS-19D-Texture 221505100-0078	Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-BAS-19F-Texture 221505100-0079	Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-BAS-19F-Joint Compound 221505100-0079B	Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-BAS-19G-Texture 221505100-0080	Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-BAS-19G-Joint Compound 221505100-0080B	Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-BAS-19H-Texture 221505100-0081	Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-BAS-19I-Texture 221505100-0082	Textured Drywall	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-EXT-20A-Skim Coat 221505100-0083	Exterior Plaster	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile

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Samples analyzed by EMSL Analytical, Inc. Phoenix, AZ

Initial report from 09/04/2015 12:22:32

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204

Phone/Fax: (303) 740-5700 / (303) 741-1400

<http://www.EMSL.com>denverlab@emsl.com

EMSL Order: 221505100

CustomerID: ALLP62

CustomerPO:

ProjectID:

Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
Fax: (719) 542-2807
Received: 08/17/15 9:50 AM
Analysis Date: 9/4/2015
Collected: 8/13/2015

Project: 15-2389 - Occhiato

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy. Quantitation using 400 Point Count Procedure

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
OUC-EXT-20B-Skim Coat 221505100-0084	Exterior Plaster	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile
OUC-EXT-20C-Skim Coat 221505100-0085	Exterior Plaster	White Non-Fibrous Homogeneous		100.00% Non-fibrous (other)	<0.25% Chrysotile

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Samples analyzed by EMSL Analytical, Inc. Phoenix, AZ

Initial report from 09/04/2015 12:22:32

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204

Phone/Fax: (303) 740-5700 / (303) 741-1400

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EMSL Order: 221505100

CustomerID: ALLP62

CustomerPO:

ProjectID:

Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
Fax: (719) 542-2807
Received: 08/17/15 9:50 AM
Analysis Date: 9/4/2015
Collected: 8/13/2015

Project: **15-2389 - Occhiato**

The samples in this report were submitted to EMSL for analysis by Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy. Quantitation using 400 Point Count Procedure. The reference number for these samples is the EMSL Order ID above. Please use this reference number when calling about these samples.

Report Comments:

Sample Receipt Date::	8/17/2015	Sample Receipt Time:	9:50 AM
Analysis Completed Date:	9/4/2015	Analysis Completed Time:	11:13 AM

Analyst(s):

Bradley Orlowski PLM 400 Point Count (12)

Carlos Rivadeneyra PLM 400 Point Count (21)**Samples reviewed and approved by:**

Barbara Shepherd, Laboratory Manager
or other approved signatory

Disclaimer: Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. The limit of detection as stated in the method is 0.25%. EMSL Analytical Inc suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval of EMSL Analytical Inc. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the United States Government. EMSL Analytical Inc., bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layered samples. EMSL Analytical Inc., liability is limited to the cost of sample analysis. The test results contained within this report meet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Phoenix, AZ

Initial report from 09/04/2015 12:22:32

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204

Phone/Fax: (303) 740-5700 / (303) 741-1400

<http://www.EMSL.com>denverlab@emsl.com

EMSL Order: 221506028

CustomerID: ALLP62

CustomerPO:

ProjectID:

Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
 Fax: (719) 542-2807
 Received: 09/23/15 9:50 AM
 Analysis Date: 9/23/2015
 Collected: 9/22/2015

Project: 15-2389-Q

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	% Fibrous	Non-Asbestos		% Type
				% Cellulose	% Non-Fibrous	
OUC-2A-Q1 221506028-0001	Wallpapered Drywall	Brown/White Fibrous Homogeneous	10% 5%	Cellulose Glass	40% Gypsum 45% Non-fibrous (other)	None Detected
Inseparable paint / coating layer included in analysis						
OUC-2D-Q2 221506028-0002	Wallpapered Drywall	Brown/White Fibrous Homogeneous	10% 3%	Cellulose Glass	40% Gypsum 47% Non-fibrous (other)	None Detected
Inseparable paint / coating layer included in analysis						
OUC-2F-Q3 221506028-0003	Wallpapered Drywall	Brown/White Fibrous Homogeneous	45% 2%	Cellulose Glass	40% Gypsum 13% Non-fibrous (other)	None Detected
Inseparable paint / coating layer included in analysis						
OUC-9E-Q4-Wallpaper 221506028-0004	Wallpapered Drywall	White Fibrous Homogeneous	90%	Cellulose	10% Non-fibrous (other)	None Detected
OUC-9E-Q4-Mastic 221506028-0004A	Wallpapered Drywall	Yellow Non-Fibrous Homogeneous			100% Non-fibrous (other)	None Detected
OUC-9E-Q4-Drywall 221506028-0004B	Wallpapered Drywall	Brown/White Fibrous Homogeneous	10% 2%	Cellulose Glass	30% Gypsum 58% Non-fibrous (other)	None Detected
OUC-18B-Q5-Wallpaper 221506028-0005	Wallpapered Drywall	White Fibrous Homogeneous	90%	Cellulose	10% Non-fibrous (other)	None Detected
OUC-18B-Q5-Drywall 221506028-0005A	Wallpapered Drywall	Brown/White Fibrous Homogeneous	15% 2%	Cellulose Glass	40% Gypsum 43% Non-fibrous (other)	None Detected

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from 09/23/2015 13:40:44

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204

Phone/Fax: (303) 740-5700 / (303) 741-1400

<http://www.EMSL.com>denverlab@emsl.com

EMSL Order: 221506028

CustomerID: ALLP62

CustomerPO:

ProjectID:

Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
Fax: (719) 542-2807
Received: 09/23/15 9:50 AM
Analysis Date: 9/23/2015
Collected: 9/22/2015

Project: **15-2389-Q**

The samples in this report were submitted to EMSL for analysis by Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy. The reference number for these samples is the EMSL Order ID above. Please use this reference number when calling about these samples.

Report Comments:

Sample Receipt Date::	9/23/2015	Sample Receipt Time:	9:50 AM
Analysis Completed Date:	9/23/2015	Analysis Completed Time:	1:40 PM

Analyst(s):

William Nguyen PLM (8)**Samples reviewed and approved by:**

Barbara Shepherd, Laboratory Manager
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from 09/23/2015 13:40:44

APPENDIX 5

CHAIN OF CUSTODY FORMS

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

221505100

 Denver, CO 80204
 PHONE: (303) 740-5700
 FAX: (303) 741-1400

Company: All-Phase Environmental Consultants, Inc.		EMSL-Bill to: <input type="checkbox"/> Different <input checked="" type="checkbox"/> Same If Bill to is Different note instructions in Comments**	
Street: 721 W. 9th Street		Third Party Billing requires written authorization from third party	
City: Pueblo	State/Province: CO	Zip/Postal Code: 81003	Country: United States
Report To (Name): Logan Greenfield		Telephone #: 719-250-0036	
Email Address: logan@allphaseenvironmental.com		Fax #:	Purchase Order:
Project Name/Number: 15-2389-0cchiato		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: CO		Connecticut Samples: <input type="checkbox"/> Commercial <input type="checkbox"/> Residential	
Turnaround Time (TAT) Options* - Please Check			
<input type="checkbox"/> 3 Hour <input type="checkbox"/> 6 Hour <input type="checkbox"/> 24 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input checked="" type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week			
*For TEM Air 3 hr through 6 hr, please call ahead to schedule *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.			
PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)		TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312 TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	
TEM - Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167) Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> TEM Qual. via Filtration Technique <input type="checkbox"/> TEM Qual. via Drop-Mount Technique Other: <input type="checkbox"/>			
<input type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group		Filter Pore Size (Air Samples): <input type="checkbox"/> 0.8µm <input type="checkbox"/> 0.45µm	
Samplers Name: Logan Green Field / Bulk Analysis		Samplers Signature: R. Roberts	
Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
0UC-SF-1A	Lightly textured dry wall	NA	08/13/2015
0UC-SF-1B			
0UC-SF-1C			
0UC-SF-1D			
0UC-SF-1E			
0UC-SF-1F			
0UC-SF-1G			
0UC-SF-1H			
Client Sample # (s): 0UC-SF-		Total # of Samples: 92	
Relinquished (Client): R. Roberts		Date: 08/14/2015 Time:	
Received (Lab): RD		Date: 8/17/15 Time: 9:50 am	
Comments/Special Instructions:		FE 8001 6677 4904	



EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only)

221505100

EMSL Analytical, Inc.
1010 Yuma Street

Denver, CO 80204
PHONE: (303) 740-5700
FAX: (303) 741-1400

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
OUC-SF-1I	Lightly Textured DRYWALL	NA	08/13/2015
OUC-SF-2A	wall paper DRY WALL		
OUC-SF-2B			
OUC-SF-2C			
OUC-SF-2D			
OUC-SF-2E			
OUC-SF-2F			
OUC-SF-2G			
OUC-SF-2H			
OUC-SF-2I			
OUC-SF-3A	CAVE BASE/MASTIC		
OUC-FF-3B	CAVE BASE/MASTIC		
OUC-BAS-3C	CAVE BASE/MASTIC		
OUC-SF-4A	12" x 12" CEILING tile / mastic		
OUC-SF-4B			
OUC-SF-4C			
OUC-SF-5A	CEILING TILE - HEAVY FISSURE		
OUC-SF-5B			
OUC-SF-5C			
OUC-SF-6A	CEILING TILE - MEDIUM FISSURE		
OUC-SF-6B			
OUC-SF-6C			
OUC-SF-7A	EPoxy FLOORING		
OUC-FF-8A	Lightly Textured DRY WALL		
*Comments/Special Instructions:			



EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS TRAINING

Asbestos Chain of Custody

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221505100

EMSL Analytical, Inc.
1010 Yuma Street

Denver, CO 80204
PHONE: (303) 740-5700
FAX: (303) 741-1400

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
OUC - FF- 8B	Lightly Textured Dry Wall	NA	8/13/2015
OUC - FF- 8C			
OUC - FF- 8D			
OUC - FF- 8E			
OUC - FF- 8F			
OUC - FF- 8G			
OUC - FF- 8H			
OUC - FF- 8I			
OUC - FF- 9A	Wallpapered Dry Wall		8/14/2015
OUC - FF- 9B			
OUC - FF- 9C			
OUC - FF- 9D			
OUC - FF- 9E			
OUC - FF- 9F			
OUC - FF- 9G			
OUC - FF- 10A	12" x 12" Ceiling Tile/Mastic		
OUC - FF- 10B			
OUC - FF- 10C			
OUC - FF- 11A	2' x 4' Ceiling Tile - Dotted		
OUC - FF- 11B			
OUC - FF- 11C			
OUC - FF- 12A	Ceiling Tile - Medium Fissure		
OUC - FF- 12B			
OUC - FF- 12C			
*Comments/Special Instructions:			



EMSL ANALYTICAL, INC.
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Asbestos Chain of Custody
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Denver, CO 80204
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FAX: (303) 741-1400

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
OUC- FF- 13A	2'x4' CEILING TILE - HEAVY FISSURE	NA	8/14/2015
OUC- FF- 13B	2'x4' CEILING TILE- " "		
OUC- FF- 13C	" " " "		
OUC- BAS-14A	12'x12" CEILING TILE/MASTIC		
OUC- BAS-14C			
OUC- BAS-14D			
OUC- BAS-15A	CEILING TILE - HEAVY FISSURE		
OUC- BAS-15B			
OUC- BAS-15C			
OUC- BAS-16A	CEILING TILE- HORIZONTAL FISSURES		
OUC- BAS-16B			
OUC- BAS-16C			
OUC- BAS-17A	CEILING TILE- DOTTED		
OUC- BAS-17B			
OUC- BAS-17C			
OUC- BAS-18A	WALL PAPERED DRYWALL		
OUC- BAS-18B			
OUC- BAS-18C			
OUC- BAS-19A	TEXTURED DRY WALL		
OUC- BAS-19B			
OUC- BAS-19C			
OUC- BAS-19D			
OUC- BAS-19E			
OUC- BAS-19F			
OUC- BAS-19G			
*Comments/Special Instructions:			

EMSL ANALYTICAL, INC
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only)

22/505/00

EMSL Analytical, Inc.

1010 Yuma Street

Denver, CO 80204

PHONE: (303) 740-5700

FAX. (303) 741-1400

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

[illegible]

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

8071-5048-8389

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only)

221505201

EMSL Analytical, Inc.
1010 Yuma Street

Denver, CO 80204

PHONE: (303) 740-5700

FAX: (303) 741-1400

Company: All-Phase Environmental Consultants, Inc.		EMSL-Bill to: <input type="checkbox"/> Different <input checked="" type="checkbox"/> Same If Bill to is Different note instructions in Comments**	
Street: 721 W. 9th Street		Third Party Billing requires written authorization from third party	
City: Pueblo	State/Province: CO	Zip/Postal Code: 81003	Country: United States
Report To (Name): Logan Greenfield		Telephone #: 719-250-0036	
Email Address: logan@allphaseenvironmental.com		Fax #:	Purchase Order:
Project Name/Number:		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: CO		Connecticut Samples: <input type="checkbox"/> Commercial <input type="checkbox"/> Residential	
Turnaround Time (TAT) Options* - Please Check			
<input type="checkbox"/> 3 Hour <input type="checkbox"/> 6 Hour <input checked="" type="checkbox"/> 24 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week			
*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.			
PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA		TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312	
PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)		TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	
TEM - Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167)		Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> TEM Qual. via Filtration Technique <input type="checkbox"/> TEM Qual. via Drop-Mount Technique	
<input type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group		Filter Pore Size (Air Samples): <input type="checkbox"/> 0.8µm <input type="checkbox"/> 0.45µm	
Samplers Name: LOGAN GREENFIELD		Samplers Signature:	
Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
OUC-FF-22A	BLOWN ON INSULATION		
OUC-FF-22B			
OUC-FF-22C			
OUC-FF-22D			
OUC-FF-22E			
OUC-FF-22F			
OUC-FF-22G			
OUC-FF-23A	WOOD WITH MASTIC + CONCRETE WITH MASTIC		
Client Sample # (s):		Total # of Samples: 8	
Relinquished (Client):		Date: 8-19-15 Time: 12:40	
Received (Lab):		Date: 8/20/15 Time: 9:40 am	
Comments/Special Instructions:		FE 8071 5048 8389	

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

221506028

1010 Yuma Street

Denver, CO 80204

PHONE: (303) 740-5700

FAX: (303) 741-1400

Company: All-Phase Environmental Consultants, Inc.		EMSL-Bill to: <input type="checkbox"/> Different <input checked="" type="checkbox"/> Same <small>If Bill to is Different note instructions in Comments**</small>	
Street: 721 W. 9th Street		Third Party Billing requires written authorization from third party	
City: Pueblo	State/Province: CO	Zip/Postal Code: 81003	Country: United States
Report To (Name): Logan Greenfield		Telephone #: 719-250-0036	
Email Address: logan@allphaseenvironmental.com		Fax #:	Purchase Order:
Project Name/Number: 15-2389 - Q		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: CO		Connecticut Samples: <input type="checkbox"/> Commercial <input type="checkbox"/> Residential	

Turnaround Time (TAT) Options* - Please Check			
<input type="checkbox"/> 3 Hour	<input type="checkbox"/> 6 Hour	<input checked="" type="checkbox"/> 24 Hour	<input type="checkbox"/> 48 Hour
		<input type="checkbox"/> 72 Hour	<input type="checkbox"/> 96 Hour
		<input type="checkbox"/> 1 Week	<input type="checkbox"/> 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)	TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312 TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	TEM- Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167) Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> TEM Qual. via Filtration Technique <input type="checkbox"/> TEM Qual. via Drop-Mount Technique Other: <input type="checkbox"/>
---	--	---

<input type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group	Filter Pore Size (Air Samples): <input type="checkbox"/> 0.8µm <input type="checkbox"/> 0.45µm
--	--

Samplers Name: Logan Greenfield	Samplers Signature: <i>[Signature]</i>
---------------------------------	--

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
OUC-2A-Q1	Wallpapered Drywall	---	9-22-15
OUC-2D-Q2	↓	---	↓
OUC-2F-Q3		---	
OUC-9E-Q4		---	
OUC-18B-Q5		---	

Client Sample # (s):	Total # of Samples: 5
Relinquished (Client): <i>[Signature]</i>	Date: 9-22-15 Time: 4:30
Received (Lab): <i>[Signature]</i>	Date: 9/23/15 Time: 9:50am
Comments/Special Instructions: FE 80715048 8025	

APPENDIX 6

***ASBESTOS INSPECTOR CERTIFICATIONS
&
LABORATORY CERTIFICATIONS***



Colorado Department
of Public Health
and Environment

ASBESTOS CERTIFICATION*

This certifies that

Logan Greenfield

Certification No.: 20715

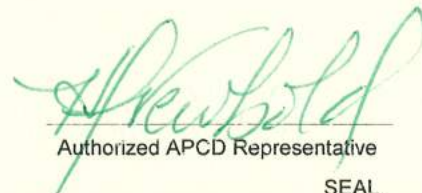
has met the requirements of 25-7-507, C.R.S. and Air Quality Control
Commission Regulation No. 8, Part B, and is hereby certified by the
state of Colorado in the following discipline:

Building Inspector*

Issued: September 30, 2015

Expires: September 30, 2016

** This certificate is valid only with the possession of a
current Division-approved training course certification
in the discipline specified above.*


Authorized APCD Representative
SEAL



Colorado Department
of Public Health
and Environment

ASBESTOS CERTIFICATION*

This certifies that

Richard L. Ralston

Certification No.: 4261


has met the requirements of 25-7-507, C.R.S. and Air Quality Control
Commission Regulation No. 8, Part B, and is hereby certified by the
state of Colorado in the following discipline:

Inspector/Management Planner*

Issued: April 30, 2015

Expires: April 30, 2016

** This certificate is valid only with the possession of a
current Division-approved training course certification
in the discipline specified above.*


Authorized APCD Representative
SEAL



AIHA Laboratory Accreditation Programs, LLC

acknowledges that

EMSL Analytical, Inc.

1010 Yuma Street, Denver, CO 80204

Laboratory ID: 189946

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories* in the following:

LABORATORY ACCREDITATION PROGRAMS

- ☐ **INDUSTRIAL HYGIENE**
- ☒ **ENVIRONMENTAL LEAD**
- ☒ **ENVIRONMENTAL MICROBIOLOGY**
- ☐ **FOOD**
- ☐ **UNIQUE SCOPES**

Accreditation Expires:

Accreditation Expires: 08/01/2016

Accreditation Expires: 08/01/2016

Accreditation Expires:

Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached **Scope of Accreditation**. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached **Scope of Accreditation**. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

Gerald Schultz, CIH
Chairperson, Analytical Accreditation Board

Cheryl O. Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Revision 14: 03/26/2014

Date Issued: 07/31/2014

APPENDIX 7

TRIGGER LEVEL INFORMATION SHEET

STATE OF COLORADO RENOVATION/DEMOLITION FACT SHEET

Prior to ANY renovation or demolition in any public and commercial building, including single family residential dwellings, that may disturb greater than the trigger levels of a suspect asbestos-containing material (ACM), an inspection must be performed to determine if abatement is required.

Trigger Levels of ACM

Single-family residential dwelling - 32 square feet
(SFRD) 50 linear feet
The volume of a 55-gallon drum

All other areas excluding a SFRD - 160 square feet
260 linear feet
The volume of a 55-gallon drum

- Individuals performing these inspections shall be State of Colorado certified Building Inspectors.
- The inspection, sampling and assessments of the suspect materials must be performed as required by Colorado Regulation No. 8, Part B.
- Buildings, or those portions thereof, that were constructed after October, 12, 1988 shall be exempt from inspection requirements IF an architect or project engineer responsible for the construction of the building or a State of Colorado certified Building Inspector, signs a statement that no ACM was specified as a building material in any construction document for the building or that no ACM was used as a building material in the building.
- Building Inspectors must be independent of the General Abatement Contractor (GAC) who will be abating any asbestos found.
- Abatement, in accordance with Regulation No. 8, is required if the amount of ACM that will be disturbed in connection with the RENOVATION exceeds the trigger levels.
- ANY ACM that is friable or will be made friable during DEMOLITION activities MUST be removed prior to demolition. Removal, in accordance with Regulation No. 8, is required if the amount of ACM that is friable or will become friable exceeds the trigger levels.
- A permit for abatement of friable ACM or demolition of a building, or a notice for the removal of non-friable ACM, must be applied for and received from the Division prior to commencing the activity.
 - Abatement and Demolition application forms can be obtained from:
 - www.cdphe.state.co.us/ap/asbeshom.asp
 - Completed applications, along with the requisite fee, can be submitted to:
 - Permit Coordinator, CDPHE, APCD-SS-B1, 4300 Cherry Creek Drive S., Denver, CO 80246-1530, (303) 692-3100 by mail or in person
- There is a 10 working day waiting period from the postmark or hand-delivery date to start work on a project requiring a permit or notice.

APPENDIX 8

OSHA STANDARDS

OSHA STANDARDS

- 29 CFR 1926.1101(g)(1)(ii), which requires: **wet methods, or wetting agents, to control employee exposures during asbestos handling, mixing, removal, cutting, application, and cleanup, except where employers demonstrate that the use of wet methods is infeasible due to, for example, the creation of electrical hazards, equipment malfunction, and, in roofing, except as provided in paragraph (g)(8)(ii)² of this section;**
- 29 CFR 1926.1101(g)(1)(iii), which requires: **prompt clean-up and disposal of wastes and debris contaminated with asbestos in leak-tight containers except in roofing operations, where the procedures specified in paragraph (g)(8)(ii)³ of this section apply;**
- 29 CFR 1926.1101(g)(3)(i), which prohibits: **high-speed abrasive disc saws that are not equipped with point-of-cut ventilator or enclosures with HEPA filtered exhaust air;**
- 29 CFR 1926.1101(g)(3)(ii), which prohibits: **compressed air used to remove asbestos, or materials containing asbestos, unless the compressed air is used in conjunction with an enclosed ventilation system designed to capture the dust cloud created by the compressed air;** and
- 29 CFR 1926.1101(g)(3)(iv), which prohibits: **employee rotation as a means of reducing employee exposure to asbestos.**

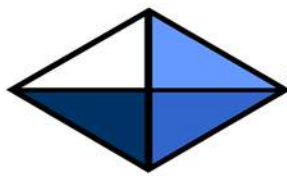
Instead of making all of the engineering controls and work practices applicable to all materials containing asbestos, OSHA made most of them applicable only to installed building materials that contain >1% asbestos and assigned the term "asbestos-containing material" (ACM) to those materials. However, to prevent needless worker exposures to asbestos, OSHA made a few common-sense work practices and prohibitions applicable if any asbestos is present in materials.

Thus, the current standard contains engineering controls and work practices that apply regardless of the exposure levels to certain work activities involving only installed building materials that meet the definition of ACM. It also contains a few work practices and prohibitions for work involving material that contains any amount of asbestos regardless of the exposure levels. And the standard has exposure-based requirements, consisting of a 0.1 fiber/cc 8-hour TWA PEL and a 1 fiber/cc 30-minute excursion limit, and other requirements that apply whenever worker exposures exceed either or both of the limits, regardless of the amount of asbestos contained in the materials involved.

You **must** inform employees about the presence of material containing <1% asbestos when you know it is present. When employees perform work activities involving such material, you are required per 29 CFR 1926.1101(f)(2)(i) to assess their exposures to asbestos. In connection with this requirement you must, per 29 CFR 1926.1101(f)(6)(i), provide affected employees an opportunity to observe any monitoring of asbestos exposure. After the monitoring, you must, per 29 CFR 1926.1101(f)(5)(i) and (ii), inform employees of the monitoring results representing their asbestos exposures. In accordance with 29 CFR 1926.1101(e) and (k)(7), if asbestos exposures exceed or are likely to exceed one or both of the PELs, then you must provide warning by posting the area where these overexposures are occurring as a regulated area.

Although employers do not **have to** label containers of waste and debris containing <1% asbestos, promptly placing the waste and debris in leak-tight containers is a work practice that reduces the exposures of the employees producing the waste and debris. That is especially so because this work practice is to be used in conjunction with wet methods or wetting agents. By promptly cleaning up the waste and debris and placing it in containers, it is kept from drying out and possibly releasing airborne asbestos into the work environment. Leak-tight containers prevent the asbestos from seeping out and reintroducing an asbestos exposure hazard.

Roof Sampling Addendum
February 2016



ALL-PHASE
ENVIRONMENTAL CONSULTANTS, INC.

February 22, 2016

Colorado State University – Pueblo

2200 Bonforte Boulevard
Pueblo, Colorado 81001

Re: Occhiato Center-Roofing and Fireproofing Samples

APEC Project No. 16-2491

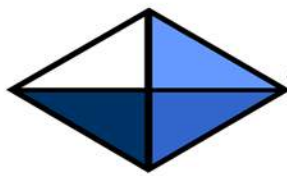
***This document is not intended to be used as a bid spec, work plan, scope of work or similar**

To Whom It May Concern:

On February 9, 2015, Logan Greenfield and Rick Ralston of All-Phase Environmental Consultants (APEC) conducted a limited asbestos inspection for Roof Replacement, located at the aforementioned Subject Property. The entire Subject Property was not inspected, only the Roofing of the Subject Property and the Fireproofing located in the southeast chiller room that is going to be removed for future renovations, per the client. Such work could disturb materials that contain asbestos putting unprotected workers at risk, and violating asbestos regulations, which are enforced by OSHA, EPA, the Colorado Department of Public Health and Environment and the Pueblo County Health Department.

The asbestos inspection was conducted in accordance to the Colorado Department of Health and Environment's (CDPHE) *Regulation 8*. Thirteen (13) bulk samples were collected at the Subject Property and on the Chain of Custody. The lab separated the 13 samples submitted into additional layers; there were 13 samples total. The samples were given unique sample IDs and proper chain of custody procedures were utilized to send the samples to EMSL Analytical in Denver, CO. EMSL is an accredited laboratory through the National Voluntary Laboratory Accreditation Program (NVLAP). The samples were analyzed using Polarized Light Microscopy (PLM). See the laboratory report in Appendix B. The analytical results for the materials sampled at the Subject Property were all None Detected. The Roofing materials were assessed in good condition and in their current condition are non-friable. The Fireproofing was assessed in good condition and in its current condition is friable.

Accessibility may have been a limiting condition. A Colorado Certified Building Inspector used reasonable diligence and professional judgment to identify all potential asbestos containing materials in the Subject Property. APEC will not be responsible for additional costs associated with future sampling, including services provided by a third party. ACM's that will be disturbed



ALL-PHASE

ENVIRONMENTAL CONSULTANTS, INC.

should be handled according to CDPHE and EPA protocol. Materials containing ANY amount of asbestos should be handled according to OSHA protocol.

Limitations & Exceptions

All-Phase Environmental Consultants, Inc. (APEC) makes no warranty either expressed or implied as to the completeness of the information contained herein. APEC will not be held liable for property damage or any loss of property value due to the inspection. APEC will not be held responsible for ACMs identified in additional areas of the Subject Property and/or any results of future asbestos inspections. This report is not an abatement plan and is intended to be informational only; APEC will not be held responsible for the mishandling of the information contained herein.

- If additional impacted suspect **ACM** or **ACBM** are discovered during renovations, servicing or maintenance related work for which there are no sample documentation/results, APEC recommends pursuing one of the following alternatives: Sample and analyze the discovered suspect material(s) to determine whether it contains asbestos; or assume the material(s) to be asbestos-containing materials, quantify and remove on a unit cost basis.

Feel free contact us with any questions. Thank you for the opportunity to provide you with quality environmental services.

Sincerely,

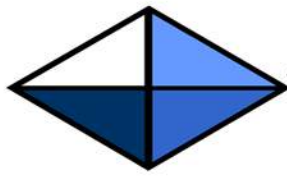
All-Phase Environmental Consultants Inc.

Logan Greenfield

AHERA Certified Asbestos Inspector
Colorado Certified Asbestos Building Inspector
Certification No. 20715

Attachments

- A) Laboratory Report & Chain of Custody
- B) Sample Location Map
- C) Trigger Level Information Sheet & OSHA Standards
- D) Asbestos Inspector Certifications/Laboratory Certifications



ALL-PHASE
ENVIRONMENTAL CONSULTANTS, INC.

A) LABORATORY REPORT & CHAIN OF CUSTODY

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204

Phone/Fax: (303) 740-5700 / (303) 741-1400

<http://www.EMSL.com>denverlab@emsl.com

EMSL Order: 221600845

CustomerID: ALLP62

CustomerPO:

ProjectID:

Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
 Fax: (719) 542-2807
 Received: 02/11/16 9:25 AM
 Analysis Date: 2/17/2016
 Collected:

Project: **16-2491 - OUC Roof**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
OUC-RF-B-1A 221600845-0001	Black Roofing	Black Non-Fibrous Homogeneous	10% Glass	90% Non-fibrous (other)	None Detected
OUC-RF-B-1B 221600845-0002	Black Roofing	Black Non-Fibrous Homogeneous	10% Glass	90% Non-fibrous (other)	None Detected
OUC-RF-B-1C 221600845-0003	Black Roofing	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
OUC-RF-W-2A 221600845-0004	White Roofing	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
Inseparable paint / coating layer included in analysis					
OUC-RF-S-3A 221600845-0005	Stone Covered Roofing	Black Non-Fibrous Homogeneous	15% Glass	85% Non-fibrous (other)	None Detected
OUC-RF-S-3B 221600845-0006	Stone Covered Roofing	Black Fibrous Homogeneous	15% Glass	85% Non-fibrous (other)	None Detected
OUC-RF-S-3C 221600845-0007	Stone Covered Roofing	Black Fibrous Homogeneous	15% Glass	85% Non-fibrous (other)	None Detected
OUC-RF-S-3D 221600845-0008	Stone Covered Roofing	Black Fibrous Homogeneous	15% Glass	85% Non-fibrous (other)	None Detected
OUC-RF-S-3E 221600845-0009	Stone Covered Roofing	Black Non-Fibrous Homogeneous	15% Glass	85% Non-fibrous (other)	None Detected

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from 02/17/2016 15:12:53

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204

Phone/Fax: (303) 740-5700 / (303) 741-1400

<http://www.EMSL.com>denverlab@emsl.com

EMSL Order: 221600845

CustomerID: ALLP62

CustomerPO:

ProjectID:

Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
Fax: (719) 542-2807
Received: 02/11/16 9:25 AM
Analysis Date: 2/17/2016
Collected:

Project: **16-2491 - OUC Roof**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			%	Fibrous	% Type
OUC-RF-S-3F 221600845-0010	Stone Covered Roofing	Black Non-Fibrous Homogeneous	15%	Glass	85% Non-fibrous (other) None Detected
OUC-RF-S-3G 221600845-0011	Stone Covered Roofing	Gray/Black Non-Fibrous Homogeneous	15%	Cellulose	85% Non-fibrous (other) None Detected
OUC-RF-S-3H 221600845-0012	Stone Covered Roofing	Black Fibrous Homogeneous			100% Non-fibrous (other) None Detected
OUC-FP-4A 221600845-0013	Fire Proofing	Gray Fibrous Homogeneous	85%	Cellulose	15% Non-fibrous (other) None Detected

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from 02/17/2016 15:12:53

**EMSL Analytical, Inc.**

1010 Yuma Street, Denver, CO 80204

Phone/Fax: (303) 740-5700 / (303) 741-1400

<http://www.EMSL.com>denverlab@emsl.com

EMSL Order: 221600845

CustomerID: ALLP62

CustomerPO:

ProjectID:

Attn: **Logan Greenfield**
All-Phase Environmental Consultants, Inc
721 West 9th Street
Pueblo, CO 81003

Phone: (719) 545-0375
Fax: (719) 542-2807
Received: 02/11/16 9:25 AM
Analysis Date: 2/17/2016
Collected:

Project: **16-2491 - OUC Roof**

The samples in this report were submitted to EMSL for analysis by Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy. The reference number for these samples is the EMSL Order ID above. Please use this reference number when calling about these samples.

Report Comments:

Sample Receipt Date::	2/11/2016	Sample Receipt Time:	9:25 AM
Analysis Completed Date:	2/17/2016	Analysis Completed Time:	3:07 PM

Analyst(s):

Abigail Crock PLM (11)

Patricia Wood PLM (2)

Samples reviewed and approved by:Brendon Rawlings, Laboratory Manager
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Denver, CO NVLAP Lab Code 200828-0

Initial report from 02/17/2016 15:12:53

EMSL Analytical, Inc.
1010 Yuma StreetEMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

221600845

Denver, CO 80204

PHONE: (303) 740-5700

FAX: (303) 741-1400

Company: All-Phase Environmental Consultants, Inc.		EMSL-Bill to: <input type="checkbox"/> Different <input checked="" type="checkbox"/> Same If Bill to is Different note instructions in Comments**	
Street: 721 W. 9th Street		Third Party Billing requires written authorization from third party	
City: Pueblo	State/Province: CO	Zip/Postal Code: 81003	Country: United States
Report To (Name): Logan Greenfield		Telephone #: 719-250-0036	
Email Address: logan@allphaseenvironmental.com		Fax #:	Purchase Order:
Project Name/Number: 16-2491- OUC Roof		Please Provide Results: <input type="checkbox"/> FAX <input checked="" type="checkbox"/> E-mail <input type="checkbox"/> Mail	
U.S. State Samples Taken: CO		Connecticut Samples: <input type="checkbox"/> Commercial <input type="checkbox"/> Residential	
Turnaround Time (TAT) Options* - Please Check			
<input type="checkbox"/> 3 Hour <input type="checkbox"/> 6 Hour <input type="checkbox"/> 24 Hour <input type="checkbox"/> 48 Hour <input type="checkbox"/> 72 Hour <input type="checkbox"/> 96 Hour <input checked="" type="checkbox"/> 1 Week <input type="checkbox"/> 2 Week			
*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.			
PCM - Air <input type="checkbox"/> Check if samples are from NY <input type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA PLM - Bulk (reporting limit) <input checked="" type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)		TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312 TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5 TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking	
TEM - Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167)		Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> TEM Qual. via Filtration Technique <input type="checkbox"/> TEM Qual. via Drop-Mount Technique Other: <input type="checkbox"/>	
<input type="checkbox"/> Check For Positive Stop - Clearly Identify Homogenous Group		Filter Pore Size (Air Samples): <input type="checkbox"/> 0.8µm <input type="checkbox"/> 0.45µm	
Samplers Name: Logan Greenfield		Samplers Signature: <i>[Signature]</i>	
Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
OUC-RF-B-1A	Black Roofing	—	2-9-16
OUC-RF-B-1B	↓	—	↓
OUC-RF-B-1C	↓	—	↓
OUC-RF-W-2A	White Roofing	—	↓
OUC-RF-S-3A	Stone Covered Roofing	—	↓
OUC-RF-S-3B	↓	—	↓
OUC-RF-S-3C	↓	—	↓
OUC-RF-S-3D	↓	—	↓
Client Sample # (s):		Total # of Samples: 13	
Relinquished (Client): <i>[Signature]</i>		Date: 2-10-16	Time: 3:15
Received (Lab): <i>[Signature]</i>		Date: 2-11-16	Time: 9:25 AM
Comments/Special Instructions:		FedEx BOX 724214310	

EMSL Analytical, Inc.
1010 Yuma Street



EMSL ANALYTICAL, INC.
LABORATORY • CONSULTING • TRAINING

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

221600845

Denver, CO 80204

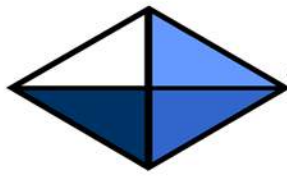
PHONE: (303) 740-5700

FAX: (303) 741-1400

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
OUC-RF-S-3E	Stone Covered Roofing	—	2-9-16
OUC-RF-S-3F	↓	—	↓
OUC-RF-S-3G		—	
OUC-RF-S-3H		—	↓
OUC-FP-4A	Fire Proofing	—	↓

*Comments/Special Instructions:



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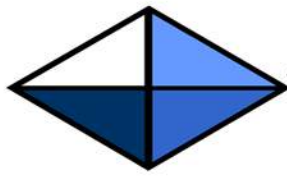
B) SAMPLE LOCATION MAP



Google Earth

© 2016 Google

38°18'34.77" N 104°34'40.08" W elev 4981 ft eye alt 5867 ft



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ENVIRONMENTAL CONSULTANTS, INC.

C) TRIGGER LEVEL INFORMATION SHEET & OSHA STANDARDS

STATE OF COLORADO RENOVATION/DEMOLITION FACT SHEET

Prior to ANY renovation or demolition in any public and commercial building, including single family residential dwellings, that may disturb greater than the trigger levels of a suspect asbestos-containing material (ACM), an inspection must be performed to determine if abatement is required.

Trigger Levels of ACM

Single-family residential dwelling - 32 square feet
(SFRD) 50 linear feet
The volume of a 55-gallon drum

All other areas excluding a SFRD - 160 square feet
260 linear feet
The volume of a 55-gallon drum

- Individuals performing these inspections shall be State of Colorado certified Building Inspectors.
- The inspection, sampling and assessments of the suspect materials must be performed as required by Colorado Regulation No. 8, Part B.
- Buildings, or those portions thereof, that were constructed after October, 12, 1988 shall be exempt from inspection requirements IF an architect or project engineer responsible for the construction of the building or a State of Colorado certified Building Inspector, signs a statement that no ACM was specified as a building material in any construction document for the building or that no ACM was used as a building material in the building.
- Building Inspectors must be independent of the General Abatement Contractor (GAC) who will be abating any asbestos found.
- Abatement, in accordance with Regulation No. 8, is required if the amount of ACM that will be disturbed in connection with the RENOVATION exceeds the trigger levels.
- ANY ACM that is friable or will be made friable during DEMOLITION activities MUST be removed prior to demolition. Removal, in accordance with Regulation No. 8, is required if the amount of ACM that is friable or will become friable exceeds the trigger levels.
- A permit for abatement of friable ACM or demolition of a building, or a notice for the removal of non-friable ACM, must be applied for and received from the Division prior to commencing the activity.
 - Abatement and Demolition application forms can be obtained from:
 - www.cdphe.state.co.us/ap/asbeshom.asp
 - Completed applications, along with the requisite fee, can be submitted to:
 - Permit Coordinator, CDPHE, APCD-SS-B1, 4300 Cherry Creek Drive S., Denver, CO 80246-1530, (303) 692-3100 by mail or in person
- There is a 10 working day waiting period from the postmark or hand-delivery date to start work on a project requiring a permit or notice.

OSHA STANDARDS

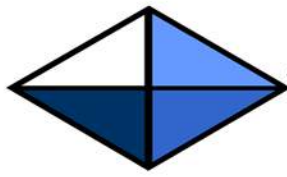
- 29 CFR 1926.1101(g)(1)(ii), which requires: **wet methods, or wetting agents, to control employee exposures during asbestos handling, mixing, removal, cutting, application, and cleanup, except where employers demonstrate that the use of wet methods is infeasible due to, for example, the creation of electrical hazards, equipment malfunction, and, in roofing, except as provided in paragraph (g)(8)(ii)² of this section;**
- 29 CFR 1926.1101(g)(1)(iii), which requires: **prompt clean-up and disposal of wastes and debris contaminated with asbestos in leak-tight containers except in roofing operations, where the procedures specified in paragraph (g)(8)(ii)³ of this section apply;**
- 29 CFR 1926.1101(g)(3)(i), which prohibits: **high-speed abrasive disc saws that are not equipped with point-of-cut ventilator or enclosures with HEPA filtered exhaust air;**
- 29 CFR 1926.1101(g)(3)(ii), which prohibits: **compressed air used to remove asbestos, or materials containing asbestos, unless the compressed air is used in conjunction with an enclosed ventilation system designed to capture the dust cloud created by the compressed air;** and
- 29 CFR 1926.1101(g)(3)(iv), which prohibits: **employee rotation as a means of reducing employee exposure to asbestos.**

Instead of making all of the engineering controls and work practices applicable to all materials containing asbestos, OSHA made most of them applicable only to installed building materials that contain >1% asbestos and assigned the term "asbestos-containing material" (ACM) to those materials. However, to prevent needless worker exposures to asbestos, OSHA made a few common-sense work practices and prohibitions applicable if any asbestos is present in materials.

Thus, the current standard contains engineering controls and work practices that apply regardless of the exposure levels to certain work activities involving only installed building materials that meet the definition of ACM. It also contains a few work practices and prohibitions for work involving material that contains any amount of asbestos regardless of the exposure levels. And the standard has exposure-based requirements, consisting of a 0.1 fiber/cc 8-hour TWA PEL and a 1 fiber/cc 30-minute excursion limit, and other requirements that apply whenever worker exposures exceed either or both of the limits, regardless of the amount of asbestos contained in the materials involved.

You **must** inform employees about the presence of material containing <1% asbestos when you know it is present. When employees perform work activities involving such material, you are required per 29 CFR 1926.1101(f)(2)(i) to assess their exposures to asbestos. In connection with this requirement you must, per 29 CFR 1926.1101(f)(6)(i), provide affected employees an opportunity to observe any monitoring of asbestos exposure. After the monitoring, you must, per 29 CFR 1926.1101(f)(5)(i) and (ii), inform employees of the monitoring results representing their asbestos exposures. In accordance with 29 CFR 1926.1101(e) and (k)(7), if asbestos exposures exceed or are likely to exceed one or both of the PELs, then you must provide warning by posting the area where these overexposures are occurring as a regulated area.

Although employers do not **have to** label containers of waste and debris containing <1% asbestos, promptly placing the waste and debris in leak-tight containers is a work practice that reduces the exposures of the employees producing the waste and debris. That is especially so because this work practice is to be used in conjunction with wet methods or wetting agents. By promptly cleaning up the waste and debris and placing it in containers, it is kept from drying out and possibly releasing airborne asbestos into the work environment. Leak-tight containers prevent the asbestos from seeping out and reintroducing an asbestos exposure hazard.



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D) ASBESTOS INSPECTOR CERTIFICATIONS/LABORATORY CERTIFICATIONS



Colorado Department
of Public Health
and Environment

ASBESTOS CERTIFICATION*

This certifies that

Logan Greenfield

Certification No.: 20715

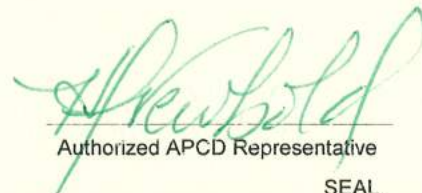
has met the requirements of 25-7-507, C.R.S. and Air Quality Control
Commission Regulation No. 8, Part B, and is hereby certified by the
state of Colorado in the following discipline:

Building Inspector*

Issued: September 30, 2015

Expires: September 30, 2016

** This certificate is valid only with the possession of a
current Division-approved training course certification
in the discipline specified above.*


Authorized APCD Representative
SEAL



Colorado Department
of Public Health
and Environment

ASBESTOS CERTIFICATION*

This certifies that

Richard L. Ralston

Certification No.: 4261

has met the requirements of 25-7-507, C.R.S. and Air Quality Control
Commission Regulation No. 8, Part B, and is hereby certified by the
state of Colorado in the following discipline:

Inspector/Management Planner*

Issued: April 30, 2015

Expires: April 30, 2016

** This certificate is valid only with the possession of a
current Division-approved training course certification
in the discipline specified above.*

Authorized APCD Representative

SEAL



AIHA Laboratory Accreditation Programs, LLC

acknowledges that

EMSL Analytical, Inc.

1010 Yuma Street, Denver, CO 80204

Laboratory ID: 189946

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories* in the following:

LABORATORY ACCREDITATION PROGRAMS

- ☐ **INDUSTRIAL HYGIENE**
- ☒ **ENVIRONMENTAL LEAD**
- ☒ **ENVIRONMENTAL MICROBIOLOGY**
- ☐ **FOOD**
- ☐ **UNIQUE SCOPES**

Accreditation Expires:

Accreditation Expires: 08/01/2016

Accreditation Expires: 08/01/2016

Accreditation Expires:

Accreditation Expires:

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached **Scope of Accreditation**. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached **Scope of Accreditation**. Please review the AIHA-LAP, LLC website (www.aihaaccreditedlabs.org) for the most current Scope.

Gerald Schultz, CIH
Chairperson, Analytical Accreditation Board

Cheryl O. Morton
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Revision 14: 03/26/2014

Date Issued: 07/31/2014

Asbestos Abatement/Environmental Control
Colorado State University – Pueblo
Occhiato Center Renovation

EXHIBIT 4

All-Phase Environmental Consultants, Inc.

Important Material Location Diagram

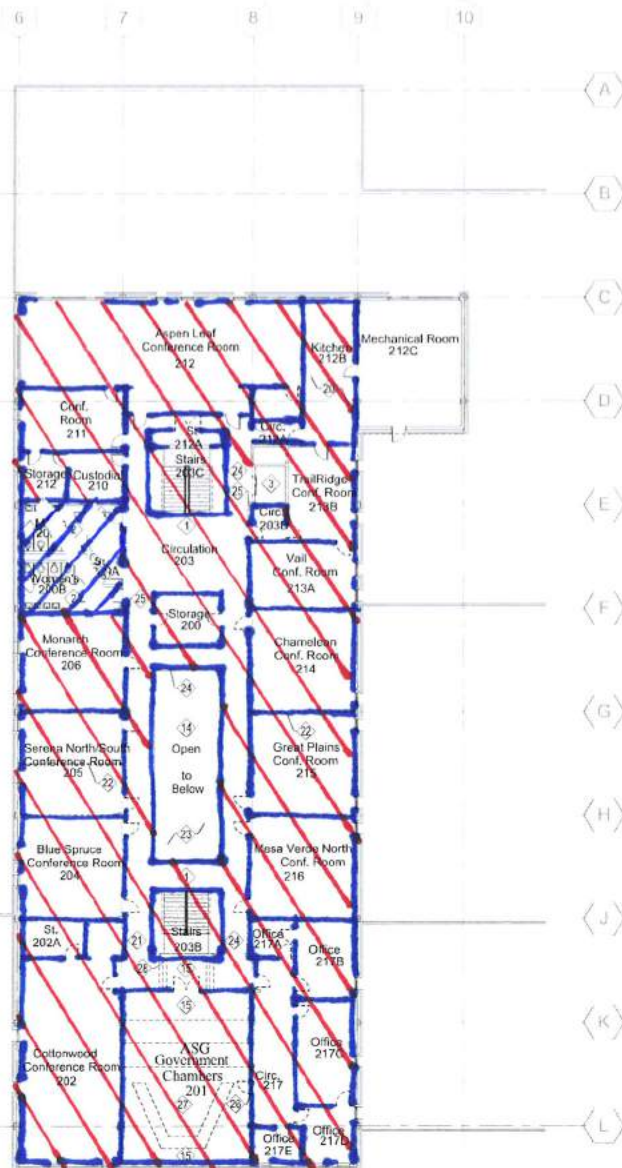
/// = OSHA Surfacing
Drywall

⌘ = OSHA Plaster

≡ = Sheet Flooring

/// = Transite Panels

≡ = Floor Tile



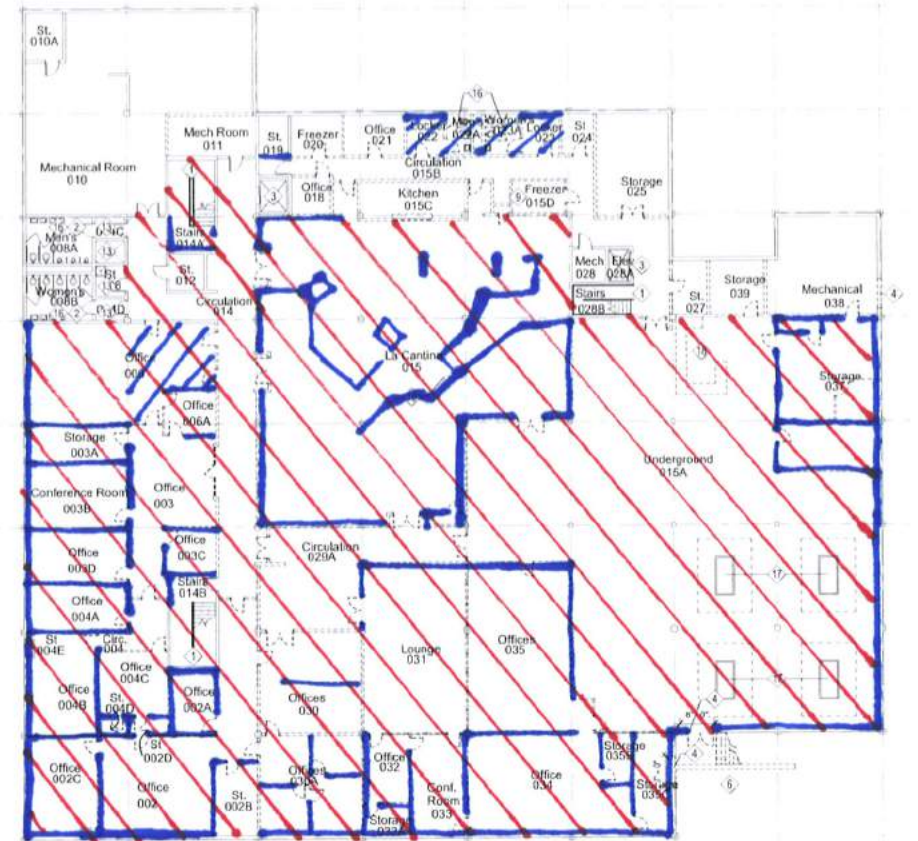
SECOND FLOOR PLAN

1/16" = 1'-0" 0 4 8 16 32



BASEMENT PLAN

1/16" = 1'-0" 0 4 8 16 32



Asbestos Abatement/Environmental Control
Colorado State University – Pueblo
Occhiato Center Renovation

EXHIBIT 5

OUC Mechanical / Plumbing Original Drawings

**Exhibit is separate PDF file*

Asbestos Abatement/Environmental Control
Colorado State University – Pueblo
Occhiato Center Renovation

EXHIBIT 6

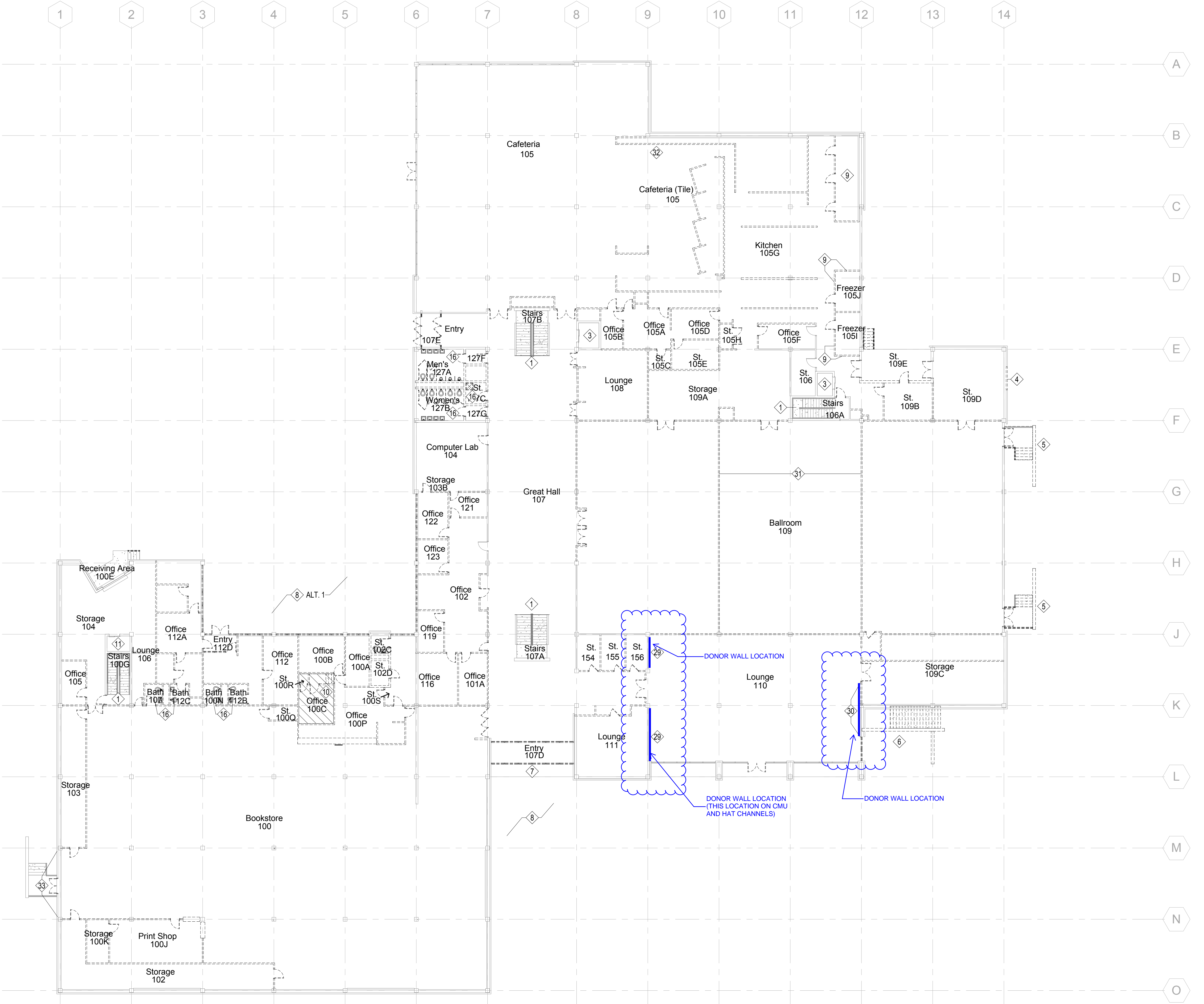
OUC Electrical Original Drawings

**Exhibit is separate PDF file*

Asbestos Abatement/Environmental Control
Colorado State University – Pueblo
Occhiato Center Renovation

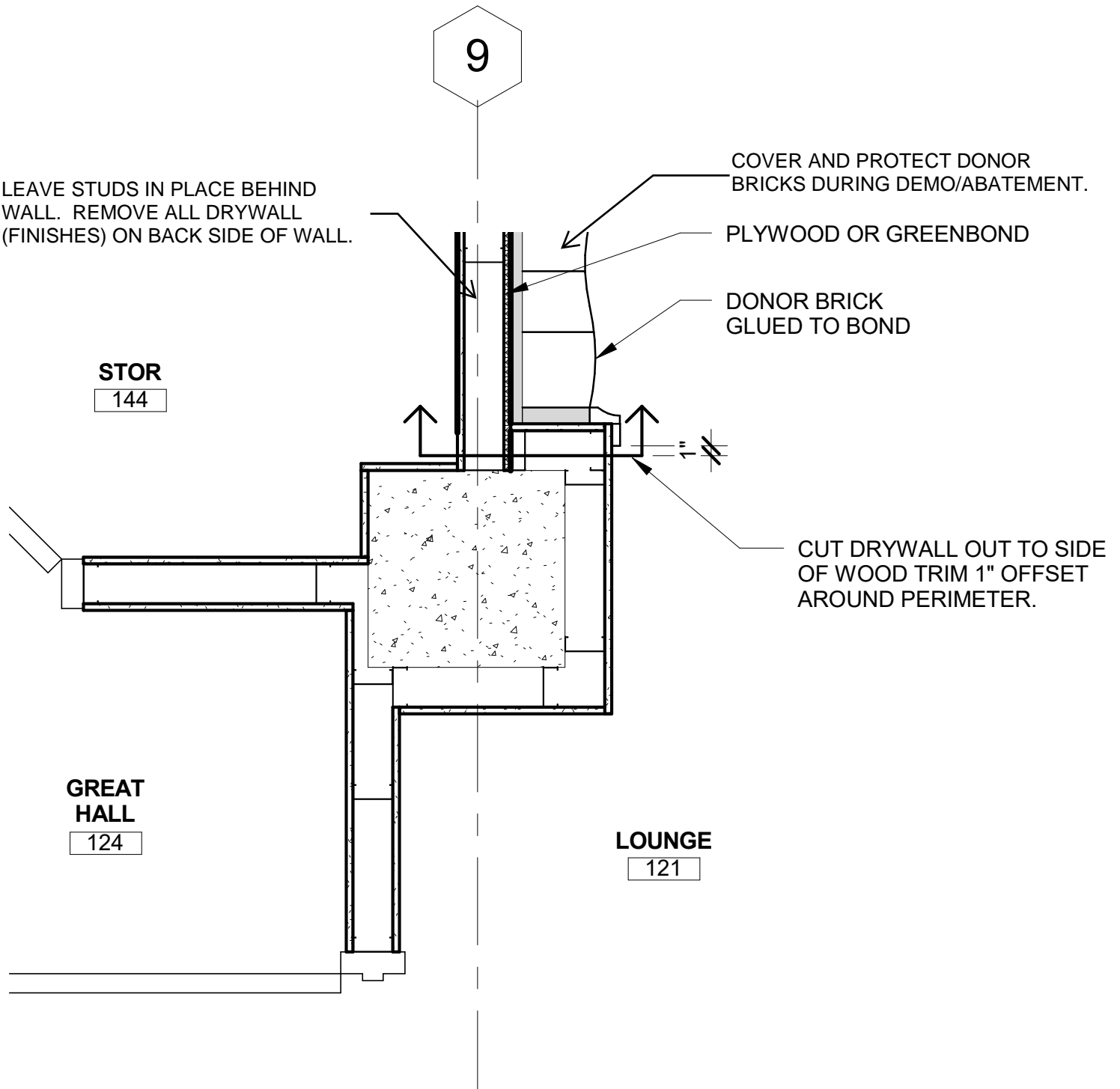
EXHIBIT 7

OUC Donor Wall Plan and Demo Detail



FIRST FLOOR PLAN





DONOR WALL TYP DETAIL - EXHIBIT 7