



ASBESTOS ABATEMENT WORK PLAN

**Colorado Mountain College – Student Center
Spring Valley Campus
Glenwood Springs, Colorado**

Prepared for:

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Apex Project No. 5708

March 6, 2019

Prepared by:

A handwritten signature in black ink, appearing to read 'Chris Thompson', written over a horizontal line.

Chris Thompson
CDPHE Project Designer 5923

Reviewed by: by:

A handwritten signature in black ink, appearing to read 'Lyle Ardourel', written over a horizontal line.

Lyle Ardourel
CDPHE Building Inspector 5095

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Acronyms

ACBM - asbestos-containing building material
ACGIH - American Conference of Governmental Industrial Hygienists
ACM - asbestos-containing material
ACWM - asbestos-containing waste material
ASHERA - Asbestos Hazard Emergency Response Act
AIHA - American Industrial Hygiene Association
AMS - Air Monitoring Specialist
APM - Asbestos Project Monitor
ASHARA - Asbestos School Hazard Abatement Reauthorization Act
ASTM - American Society for Testing and Materials
CDPHE - Colorado Department of Public Health and Environment
CFM - cubic feet per minute
CFR - Code of Federal Regulations
EPA - Environmental Protection Agency
f/cc - fibers per cubic centimeter
GAC - General Abatement Contractor
HEPA - high efficiency particulate air
HVAC - heating, ventilation and air conditioning
LEA - local education agency
LPM - liters per minute
MAAL - Maximum Allowable Asbestos Level in air
NAM - negative air machine
NESHAP - National Emissions Standards for Hazardous Air Pollutants
NVLAP - National Voluntary Laboratory Accreditation Program National Institute of Standards and Technology
O&M - Operations and Maintenance
OSHA - Occupational Safety and Health Administration
PCM - Phase Contrast Microscopy
PLM - Polarized Light Microscopy
PPE - personal protective equipment
RACM - regulated asbestos-containing material
s/mm² - structures per square millimeter
TEM - Transmission Electron Microscopy
TSI - thermal system insulation
TWA - time weighted average
VAT - vinyl asbestos [floor] tile
VSF – vinyl sheet flooring

1.0 Scope of Work

1.1 General Information

The General Abatement Contractor (GAC) will be performing the removal of all asbestos containing material(s) as indicated in the following table. The total amount of actual asbestos containing material to be removed is greater than the trigger levels and an asbestos abatement permit will be required for this project.

Table 1: ACM to be removed from CMC Student Center, Glenwood Springs, Colorado

Material Description	Material Location	Approx. Quantity	Friability	Material Type	Asbestos Content
Wood and Metal Fire Doors	Exit Doors and Staircase Doors	5 Doors	Friable	Misc.	Presumed ACM
12-inch Tan Floor Tile with Black Mastic	Various Areas Throughout the 1 st and Second Floors – See Drawings	2,864 SF	Nonfriable	Misc.	Tile – 4-6% chrysotile Mastic – 3-5% Chrysotile
Black Mastic under 6-inch Wood Pattern Sheet Flooring	Various Areas Throughout the 1 st and Second Floors – See Drawings	830 SF	Nonfriable	Misc.	4-5% Chrysotile
Black Mastic under Existing Flooring	Various Areas Throughout the 1 st and Second Floors – See Drawings	2,150 SF	Nonfriable	Misc.	3-4% Chrysotile

- Quantities are approximate, it is the abatement contractor's responsibility to confirm quantities listed for abatement. By submitting a bid, the abatement contractor agrees with the quantities listed. Deviations from the quantities listed will not constitute a change order.
- Regulatory asbestos abatement permit notification with the CDPHE will be required for this project.
- A written Project Design shall be developed by a CDPHE Project Designer for this project.

Table 2: Add Alternate 1 - ACM to be removed from CMC Student Center, Glenwood Springs, Colorado

Material Description	Material Location	Approx. Quantity	Friability	Material Type	Asbestos Content
12-inch Tan Floor Tile with Black Mastic	Various Areas Throughout the 1 st Floor – See Drawings	2,560 SF	Nonfriable	Misc.	Tile – 4-6% chrysotile Mastic – 3-5% Chrysotile
Black Mastic under 6-inch Wood Pattern Sheet Flooring and Carpet	Various Areas Throughout the 1 st Floor – See Drawings	2,200 SF	Nonfriable	Misc.	4-5% Chrysotile

1.2 Sequence of Work

All asbestos-containing material and asbestos contaminated material is considered non-friable and will be removed from their installed locations inside secondary containments, utilizing wet removal methods and a combination of handheld tools. The GAC shall conduct

abatement activities in accordance with CDPHE Regulation No. 8 in the following mandatory sequence:

- 1) Install critical barriers (pursuant to subsection III.I, Critical Barrier Installation)
- 2) Establish negative pressure (pursuant to Regulation No. 8 subsection III.J, Air Cleaning and Negative Pressure Requirements)

Note: *The removal of non-ACM building materials and components may only take place after negative air pressure is established in the containment work area(s).*

- 3) Construct the decontamination area (pursuant to subsection III.K, Decontamination Area)
- 4) Pre-clean surfaces (pursuant to subsection III.L, Pre-cleaning of Surfaces)
- 5) Cover fixed objects (pursuant to subsection III.M, Covering Fixed Objects)
- 6) Construct the containment (pursuant to subsection III.N, Containment Components)
- 7) Conduct abatement (pursuant to subsection III.O, Abatement Methods)
- 8) Conduct final visual inspection (pursuant to paragraph III.P.1., Final Visual Inspection)
- 9) Conduct final clearance air monitoring (pursuant to paragraph III.P.3., Final Clearance Air Monitoring)
- 10) Conduct the tear-down (pursuant to subsection III.Q., Tear-down)

All waste from the containment will be packaged in approved containers and transferred to an approved landfill for disposal. After successful air clearance of the containment the containment can be removed and all non-reusable containment materials will be packaged for disposal.

1.3 Discussion of Abatement Procedures

Floor tile

Asbestos abatement of floor tile and associated mastic shall be performed within a negative pressure containment. The ceiling shall consist of a minimum single layer of 4mil polyethylene sheeting.

It is EPA's position that the use of a mechanical buffer with an abrasive pad on floor mastic would cause the floor mastic to become friable. Specifically, the application of an abrasive spinning pad creates friction which causes the floor mastic to become crumbled, pulverized or reduced to powder during the renovation or demolition operation. Without the application of solvents or any other liquid to the floor mastic, the floor mastic would create visible emissions. The EPA will not attempt to identify which products are abrasive or non-abrasive from a regulatory perspective. It is the responsibility of the GAC to make sure the work practices do not violate the asbestos NESHAP.

All surfaces to be abated will be wetted before and during removal to control dust and fiber emissions. Waste generated during removal will be gathered and wrapped in 2 layers of 6mil polyethylene sheeting or placed into 2 6ml thick properly labeled disposal bags while wet. Work must be accomplished using CDPHE certified supervisors and workers.

Work completion includes preparation of the work area, pre-clean activities, pre-abatement visual by AMS, removal and disposal of all specified ACM from the premises, final cleaning of the work area, final visual inspection and PCM clearance air monitoring by AMS.

2.0 Special Conditions

Asbestos abatement removal work will not begin until the APM has conducted a pre-abatement visual inspection of the work area containments.

2.1 Regulatory Notification and Variances

The General Abatement Contractor, (GAC) will make any required notifications to Federal and State entities regulating their work as required by applicable rules, regulations, and standards. This includes, but is not limited, to the National Emission Standards for Hazardous Air Pollutants (NESHAP) notification [notice provided to the Colorado Department of Public Health and Environment with permit application. ***The abatement contractor is responsible for quantifying amounts of ACM necessary to properly complete the project.***

2.2 Facility Occupancy Status

During abatement activities the facility may be occupied.

2.3 Site Security

Entry to the regulated asbestos work area is by permission only to authorized personnel. The perimeter of the work area may be monitored during abatement by a certified Air Monitoring Specialist (AMS). Only asbestos certified/licensed personnel employed by the GAC or federal or state regulatory agency personnel and the AMS will be allowed access to the work area. A logbook will be maintained at the entrance to the work area. Everyone who enters the work area must record name, affiliation, time in and time out for each entry.

2.4 Field Changes

Minor modifications to the project design are allowed. Minor changes include but are not limited to, relocation of negative air machines, decontamination facility and waste load-out. Any modifications to the project design must be approved by the Project Designer before the changes are made.

3.0 Project Design

Prior to the start of any asbestos abatement in a area of public access in which the amount of friable asbestos-containing material to be abated exceeds 1,000 linear feet on pipes, or 3,000 square feet on other surfaces, a written project design shall be developed by a Project Designer certified under Regulation No. 8, in accordance with paragraph IV.G.7.

3.1 Standards and Primacy of Rules

The following standards will be adopted as they pertain to asbestos abatement. In any instance where adopted standards conflict with each other, the most stringent shall apply.

- 1) Colorado Department of Public Health and Environment Regulation No. 8
- 2) 5CCR 1000-10 Part B asbestos handling, transportation, and storage
- 3) 29 CFR 1926.1101, the OSHA Construction Industry Asbestos Standard
- 4) 40 CFR 61 Subpart M, EPA's NESHAP Asbestos Standard
- 5) NIOSH/OSHA/EPA –“Occupational; Safety & Health Guidance Manual for Hazardous Waste Site Activities”, Section 8-20; Heat Stress and Other Physiological Factors.
- 6) All other applicable laws, rules, and regulations, including but not limited to those relating to:
- 7) Workers' Compensation Insurance;
- 8) Liability Insurance

9 All contract specifications and documentation

3.2 Site Access

The GAC has access to the facility for the purpose of abatement from 7:00AM to 5:00PM until project completion which is projected to be 7/22/19.

3.3 Utilities Service

Access to electrical power water and sanitary sewer is available inside the facility. Any temporary utility lines running to the regulated asbestos work area shall be adequately protected from damage and abrasion from vehicle and foot traffic. All waste water shall be filtered to five (5) microns prior to discharge into a sanitary sewer.

3.4 Decontamination Facilities & Load-Out Facilities

Personnel decontamination facilities shall consist of an Equipment (Dirty) Room, Shower, and a clean room constructed in accordance with Regulation #8 III.K Decontamination Unit. The Waste Load Out shall consist of two separate chambers constructed in accordance with Regulation #8 - III.N.3.

All load-out and disposal procedures shall be in accordance with applicable federal, state, and local regulations and project specifications.

3.5 Critical Barriers

All critical barriers will consist of 1 layer of 6mil poly critical barrier on all, openings, and vents.

3.6 Negative Pressure Ventilation

The GAC shall maintain a negative pressure differential of -0.02 inches of water in the work areas in accordance with Regulation #8 III.J Air cleaning and Negative Pressure Requirements, until final visual and clearance air monitoring complete.

3.7 Air Exchange Calculations

AIR CHANGE CALCULATIONS for a 2000 cfm negative air machine (NAM)

$$AIR\ CHANGES = \frac{A}{B \times C}$$

A = Room volume in cubic feet (l x w x h)
B = 15 minutes
C = Estimated 75% rated capacity of NAM (1500 cfm)

Example work area containment calculations:

$$A = 70 \times 12 \times 10 = 8400 \text{ cubic feet}$$

$$B \times C = 5,625$$

$$8400 / 5,625 = 1.49$$

So 2 NAM's required

3.8 Containment Construction

Containments for the asbestos removal shall be constructed in accordance with CDPHE Regulation 8 and these project specifications. Danger signs will be posted at ingress locations, and approaches to locations, where airborne concentrations of asbestos exceed or can reasonably be expected to exceed the PEL. Signs will be posted at a distance sufficiently far from the work area to permit an employee to read the sign and take the necessary protective measures to avoid exposure. Additional signs may need to be posted following construction of workplace containment barriers.

Danger signs will include the following wording:

**DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY**

3.9 Set up of work areas

Regulated work area containment construction will consist of 1 layer of 6mil polyethylene sheeting (critical barriers on openings, and vents) and an additional 1 layer of 4mil polyethylene sheeting on the walls and ceiling. The floors of the regulated work area shall consist of 2 layers of 6mil polyethylene sheeting. A covering of ¾" plywood, minimum, will be required over any door or window openings over 4" in diameter to allow for the venting of negative air machines. The negative air machines shall be directly vented to the outside. A minimum of one (1) negative air machines are required for each containment. A static negative air pressure of 0.02 inches of water column shall be maintained at all times in the work area during abatement activities. Air flow testing utilizing smoke tubes will be performed to validate air flow direction and air exchanges.

Pre-Cleaning Activities

Pre-cleaning activities will be performed in accordance with CDPHE Regulation 8. All workers performing pre-cleaning must utilize HEPA equipped vacuums and wet methods. Any prepping activities that will contact non-friable ACM, or be within arms' reach of friable ACM must be accomplished by workers utilizing PPE.

3.10 Asbestos Removal

Removal of materials containing asbestos and contaminated with asbestos shall be performed in accordance with the Colorado Department of Public Health and Environment Regulation 8 III, Abatement, Renovation and Demolition Projects and this project work plan.

3.11 Asbestos Spill Response

In the event of a spill or a breach of the regulated work area containment, the area outside the regulated work area with visible debris shall be cleaned utilizing HEPA vacuuming and wet wiping plus an additional 10 horizontal feet beyond the visible debris. All filters, mop heads, and cloths utilized during clean-up activities shall be disposed of as asbestos contaminated waste in leak tight containers.

The GAC shall have available, equipment and supplies (HEPA filtered vacuum, airless sprayer with amended water, mops, rags, polyethylene sheeting, duct tape, caution tape...) for spill response in the event of accidental spill of materials containing asbestos.

In the event of an asbestos spill outside the work area containment the GAC shall:

Immediately wet the spilled material and surrounding area with the airless sprayer.

Restrict access to the spill area and post warning signs to prevent entry to the area by persons other than those necessary to respond to the incident.

Seal all openings between the contaminated and uncontaminated areas as directed by the asbestos consultant. This is to be accomplished by using polyethylene sheeting and tape.

HEPA vacuum and wet clean all surfaces in the contaminated area.

Following completion of the above, the on-sight Air Monitoring Specialist shall conduct a visual assessment of the spill area to confirm adequate cleaning has been accomplished by the GAC.

3.12 Asbestos Waste Transportation, Storage, and Disposal

All ACM waste must be wrapped in two layers of 6 mil polyethylene sheeting or double-bagged in 6 mil polyethylene bags labeled with the appropriate OSHA label for asbestos and must also bear the generator label as required by EPA's 40 CFR 61 Subpart M NESHAP Standard. Containerizing and transport of asbestos wastes shall be in accordance with applicable federal and state regulations.

The existing installed building finishes, hardscaping and landscaping shall be protected from damage by the GAC, until completion of all works.

Safety scaffolding, rubbish skips, access ladders etc. shall be approved by the client and in accordance with the current Health and Safety regulations.

GAC workers will not drag or drop packaged waste. All waste equipment and materials will be hand carried, or transported in wheeled carts to waste transport vehicles.

At the end of each work shift all packaged asbestos waste shall be directly loaded from the work area onto an enclosed, locked truck or container for disposal. No waste material may be temporarily stored in the building or the work area containment.

Waste Disposal:

All waste containers shall be transported from the permitted work areas to an approved disposal landfill by the GAC.

Waste Transporter:

By GAC.

3.13 Final Clean/ Final Visual Inspection Criteria

All interior surfaces of the work area will be free of visible dust and debris. The work area must pass a final visual inspection by a CDPHE Certified Air Monitoring Specialist (AMS) leaving only critical barriers in place.

3.14 Final Air Clearance Monitoring

Clearance criteria for this containment shall be in accordance with CDPHE Regulation #8, Section III.P and shall use Phase Contrast Microscopy (PCM). A minimum of five (5) air samples will be collected from the work area(s) with only critical barriers in place. Upon notification that clearance monitoring levels are acceptable, the GAC may remove critical barriers and demobilize from the work area.

If any samples collected for the final air test exceeds 0.01 f/cc the entire work area shall be re-cleaned immediately upon receipt of air test results. The abatement work area shall be re-tested and the costs associated for additional Final Clearance Air Monitoring shall be borne by the GAC at no additional cost to the Owner.

3.15 Personal Exposure Air Monitoring

The GAC shall be responsible for conducting personal exposure air-monitoring as applicable in accordance with OSHA 29 CFR 1926.1101 Asbestos Construction Standard. Contractor to supply results to APM and will post results.

3.16 Electrical Hazards Control

All electrical power utilized during the project will be on ground fault circuit interrupters (GFCI) whose power source is located outside the work area.

3.17 Emergency Egress and Fire Protection

The abatement contractor shall abide by the emergency egress rules for the facility. All contractor personnel shall receive emergency procedure orientation specific to the facility prior to initiation of abatement activities.

3.18 Fire Protection Plan:

1. No items capable of initiating or sustaining combustion (lighters, matches, torches, etc.) will be allowed in containment.
2. The use of flammable liquids is not permitted.
3. Any electricity utilized must be on Ground Fault Circuit Interrupters (GFCI).
4. A minimum of one, 2A: 20B: C rated fire extinguishers will be maintained on-site. There must be available at least one 2A: 20B: C rated fire extinguisher within a maximum travel distance of 50 feet from any point in the work area.
5. Workers will be trained in the use of fire extinguishers, emergency egress plans, basic fire safety, and emergency reporting procedures prior to work beginning.
6. All emergency exits will be labeled as such with tools available for breaching poly and keys in door locks where necessary.
7. The Contractor must implement an emergency action and fire prevention plan in accordance with 29 CFR 1910.38 Employee emergency plans and fire prevention plans.

3.19 Fall Protection

The GAC shall provide proper fall protection and training for their employees when working above 6 feet of height in accordance with Occupational Safety and Health Administration 29 CFR Part 1926 Subpart M Fall Protection.

3.20 Respiratory Protection / PPE

The GAC shall provide proper respiratory protection for their employees with NIOSH approved HEPA filters during all pre-clean, abatement removal, waste load out procedures and during waste lift operations for effected employees. The GAC shall provide proof of medical fitness to wear respiratory protection and current fit testing documentation for all employees.

3.21 Site and Work Area Protection

The GAC shall repair or replace, to the Owners satisfaction, any damage caused by the GAC or GAC subcontractors, to existing finishes, landscaping, or other building components.

The GAC is responsible for distributing water from the designated supply to the work area (s). This will likely be done with hoses which shall be disconnected at the end of each shift. The GAC will be solely responsible for any associated damages and/or costs that might occur as a result of a water leak outside the work areas.

3.22 Additional PPE:

- Hooded Tyvek suits
- Safety Glasses with side shields (exception – not required when wearing a full-face respirator).
- Leather Gloves
- Safety toe boots
- Fall Protection as required.
- Hearing protection as required
- PPE per MSDS / SDS requirements.

3.23 Pre-Abatement Document Submittal


The GAC shall provide the following submittals to the Owner's APM for approval prior to site mobilization.

- ✓ Copies of all worker AHERA / STATE certifications.
- ✓ Copies of all worker asbestos medical evaluations.
- ✓ Copies of all worker respirator fit tests.
- ✓ Copies of MSDS for all chemicals (spray-glue, encapsulant, surfactant etc.) that will be used

3.24 Post-Abatement Document Submittal

- ✓ Asbestos waste receipts / total.
- ✓ OSHA Personal Exposure Air Monitoring
- ✓ Copies of daily logs

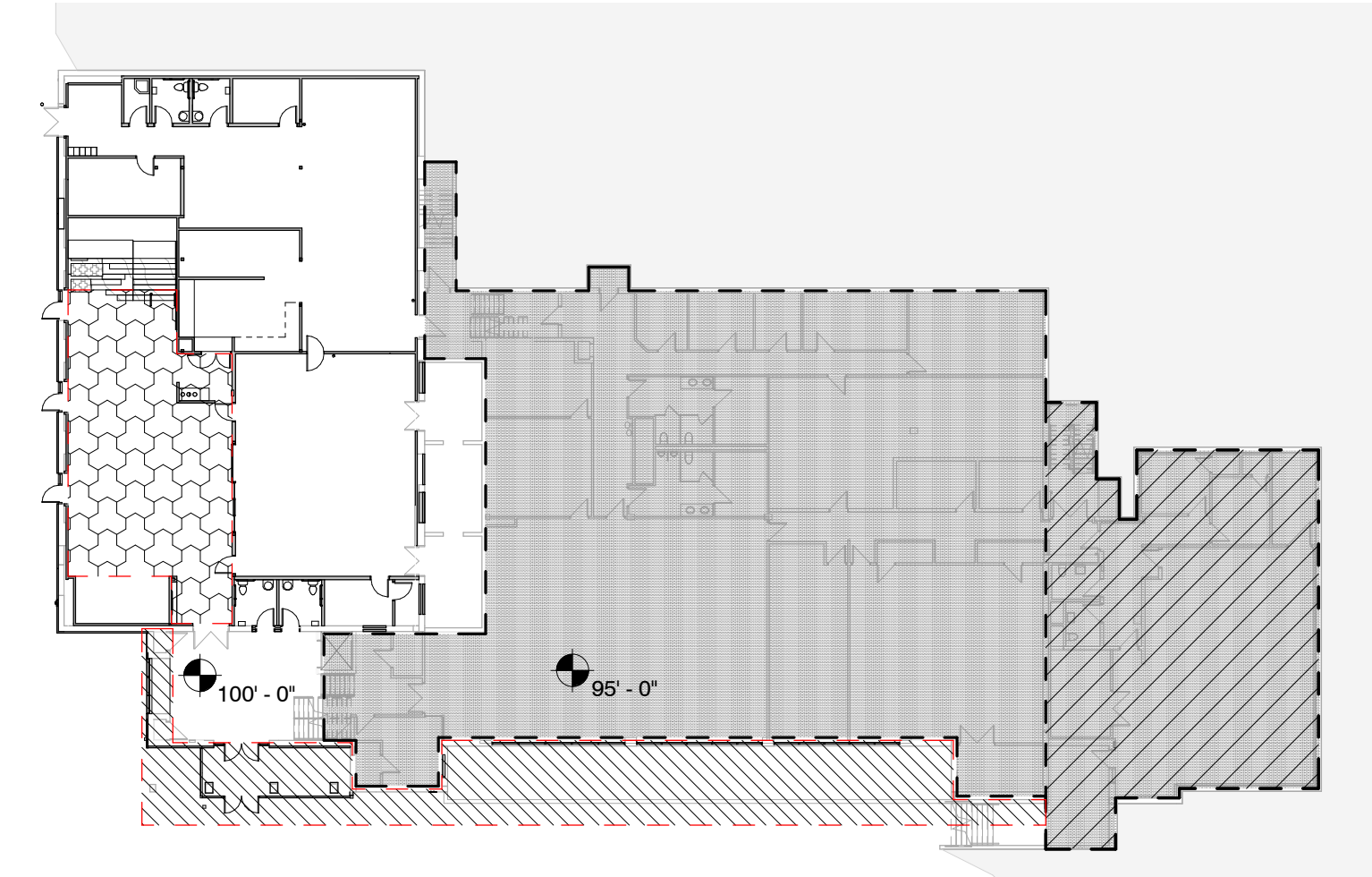
Revised by:



Chris Thomson CDPHE Asbestos Project Designer Certificate # 5923

Apex Companies Asbestos Consulting Firm CDPHE Registration # 17163

Appendix A Exhibits



SCOPE LEGEND

REFER TO SPECIFICATIONS FOR FULL LIST OF ALTERNATES

- BASE BID: NEW FIRE SPRINKLERS ONLY
- BASE BID: NEW HVAC, ROOF DRAINS AND FIRE SPRINKLERS ONLY
- ALTERNATE #1
- ALTERNATE #2
- ALTERNATE #5
- ALTERNATE #9
- ALTERNATE #10
- ALTERNATE #11

LEGEND

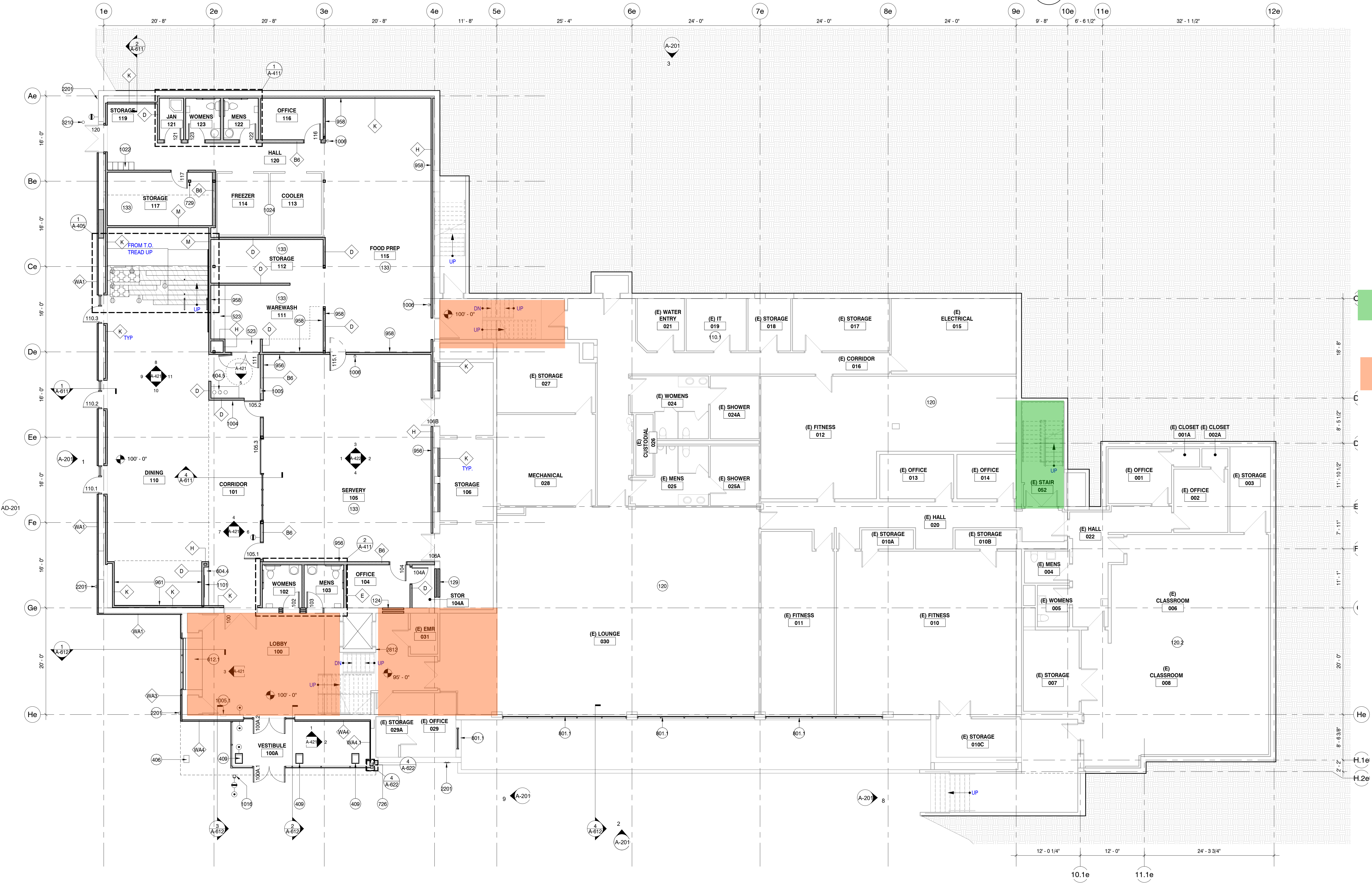
- EXISTING WALL TO REMAIN
- EXISTING DOOR TO REMAIN
- NEW WALL
- NEW DOOR
- CARD READER
- ADA DOOR OPENER
- ELECTRICAL FLOOR BOX
- ELECTRICAL & DATA FLOOR BOX
- MANUAL FIRE ALARM PULL STATION
- FDC
- FIRE DEPARTMENT CONNECTION
- WALL HYDRANT 2" ABOVE FINISH GRADE, RE: PLUMBING & RE: LANDSCAPE FOR FINISH GRADE
- FLOOR SINK
- FLOOR DRAIN, RE: PLUMBING

- GENERAL NOTES**
- REFER TO SCOPE PLAN / LEGEND, G-100 AND SPECIFICATIONS FOR BASE BID AND ALTERNATE INFORMATION.
 - ALL GRIDLINES SHOWN ARE EXISTING TO REMAIN. DIMENSIONS BASED OFF OF OWNER PROVIDED DRAWINGS.
 - PRIOR TO INSTALLATION OF NEW FRAMING AND INSULATION AT EXTERIOR WALLS, APPLY BLOCK FILLER AND PAINT TO CMU FOR CONTINUOUS AIR BARRIER WHERE IT IS CURRENTLY UNPAINTED. INCLUDES AREAS AT DEMOLISHED WALLS AND ABOVE ANY EXISTING CEILING.
 - FIELD VERIFY ALL EXISTING CONDITIONS. NOTIFY ARCHITECT PRIOR TO START OF WORK IF ANY EXISTING CONDITIONS AFFECT ANY NEW WORK AS SHOWN. THIS ALSO APPLIES TO WORK SHOWN ON MECHANICAL, PLUMBING, ELECTRICAL, TECHNOLOGY DRAWINGS.
 - REPAIR ALL EXISTING SURFACES WHERE EXISTING MOUNTED ITEMS HAVE BEEN REMOVED. MATCH EXISTING SURFACE MATERIAL, COLOR, AND TEXTURE.
 - PROVIDE FLOOR FILL / LEVELING MATERIAL (COMPATIBLE WITH NEW FINISH MATERIAL) TO PROVIDE SMOOTH, FLUSH SOLID SURFACE.
 - AT LOCATIONS WHERE EXISTING PARTITIONS / FURRING ARE OPENED FOR NEW WORK, REPAIR SURFACE TO MATCH ADJACENT MATERIALS. FINISH FLUSH.
 - PATCH ALL PIPE / CONDUIT HOLES IN FLOOR AND ROOF SLABS WITH CONCRETE (FORM BOTTOM). PROVIDE SMOOTH FLUSH MATCHING FINISH SIMILAR TO ADJACENT CONCRETE.
 - EXTENSIONS AND INFILLS AT EXISTING PARTITION SURFACES. FINISHED SURFACES FLUSH WITH EXISTING PARTITION SURFACES. REFER TO CODE PLANS FOR RATED PARTITIONS.
 - REFER TO SHEET A-401 FOR EXTERIOR WALL & ROOF ASSEMBLIES, AND A-402 FOR INTERIOR PARTITIONS.
 - PROVIDE MOISTURE RESISTANT SHEET ROCK BEHIND ALL SINKS.
 - PROVIDE CEMENTITIOUS BACK BOARD BEHIND ALL CERAMIC TILE INSTALLATIONS.
 - PROVIDE FIRE TREATED BLOCKING AT ALL WALL MOUNTED EQUIPMENT, ACCESSORIES (GRAB BARS, ETC.), CABINETS, ETC.
 - ALL PARTITIONS ARE TYPE 'B', U.O.N. ON PLANS OR ENLARGED PLANS.
 - PROVIDE PLYWOOD OR FIRE TREATED WOOD BLOCKING AT ALL UPPER CABINETS, DOOR STOPS, FLAT PANELS AND SMART BOARDS.
 - ALL EQUIPMENT SHOWN AS DASHED IS OWNER FURNISHED.
 - ALL FURNITURE SHOWN IS O.F.O. FOR REFERENCE ONLY.
 - ARCHITECTURAL DRAWINGS INDICATE LOCATIONS OF SELECT EXPOSED MECH, ELEC, FA, TECHNOLOGY, AND AV DEVICES. REFER TO DRAWINGS FOR THOSE DISCIPLINES FOR ADDITIONAL DEVICE INFORMATION.
 - ALL POWER AND SIGNAL FIXTURES ARE DIMENSIONED TO CENTER OF FIXTURE UNLESS OTHERWISE NOTED.
 - SEE MEP, AV, AND IT DRAWINGS FOR ALL POWER, SIGNAL, AND LIFE SAFETY DEVICES IN STARWELLS, MECHANICAL EQUIPMENT ROOMS, ELECTRICAL / IT CLOSETS, AND JANITOR CLOSETS, EXCEPT AS INDICATED ON ARCHITECTURAL DRAWINGS.
 - ANY JUNCTION BOXES TO BE LOCATED AS NECESSARY TO ACHIEVE FUNCTION DESCRIBED IN ELECTRICAL POWER, LIGHTING, AND SYSTEMS DOCUMENTS.
 - REFER TO ELECTRICAL, IT DRAWINGS FOR ADDITIONAL MOUNTING LOCATION AND HEIGHT INFORMATION.
 - REFER TO ARCHITECTURAL A-200 AND A-400 SERIES ELEVATIONS FOR ADDITIONAL DEVICE LOCATION INFORMATION.
 - ALL PARTITIONS THAT APPEAR TO BE CENTERED ON GRIDLINE OR COLUMN ARE IN FACT CENTERED.
 - ALL PARTITION DIMENSIONS ARE TO FINISHED FACE OF PARTITION, U.O.N.
 - ALL DOORS ARE 6" FROM PERPENDICULAR WALL TO HINGE SIDE OF DOOR, U.O.N.
 - AT ALL LOCATIONS OF SPRAY FOAM INSULATION, GYPSUM BOARD TO BE CONTINUOUS ON THE INSIDE FACE OF THE ENTIRE WALL CAVITY.

SCOPE PLAN - A-101

FOR REFERENCE ONLY - NOT FOR CONSTRUCTION

2
A-101



ACM 12-inch Tan Floor Tile with Black Mastic

ACM Mastic under Existing Flooring

Project #2
17-061
Colorado Mountain College
Spring Valley at Glenwood Springs Campus
3000 County Road 114
Glenwood Springs, CO 81601

Architect
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3196 Speer Boulevard
Denver, CO 80211
Telephone: 303-294-9448

Civil Engineer
Sopris Engineering
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Carbondale, CO 81623
Telephone: 970-704-0311

Landscape Architect
Lime Green Design
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Denver, CO 80210
Telephone: 303-733-7558

Structural Engineer
K&A Engineers
215 N. 12th Street, Unit E
Carbondale, CO 81623
Telephone: 970-927-5174

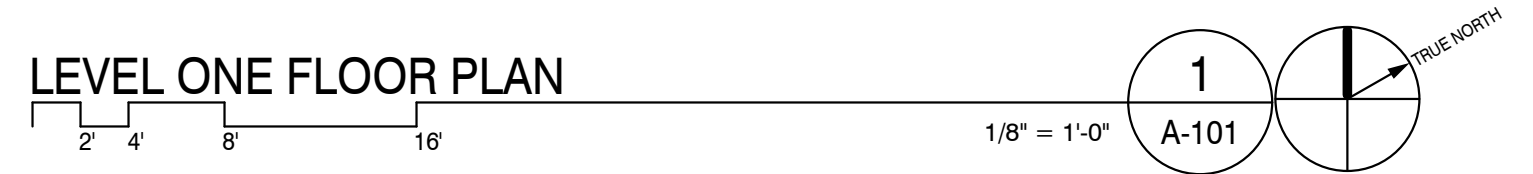
MEP Engineer
Cator Ruma and Associates, Co
896 Tabor Street
Lafayette, CO 80401
Telephone: 303-232-6200

AV / IT / Security / Acoustics
K2 Audio, LLC
5777 Central Ave, Suite 225
Boulder, CO 80501
Telephone: 303-955-5500

Food Service
Jedziewski Design
1507 East Yale Avenue
Salt Lake City, UT 84105
Telephone: 801-582-9747



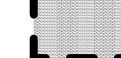


Issue: 100% Design Development
Date: 12/14/2018

Project Number: 17-061
Drawn By: HK
Reviewed By: JM
Approved By: JG



SCOPE LEGEND (DEMO PLANS)






REFER TO SPECIFICATIONS FOR FULL LIST OF ALTERNATES

-  **BASE BID:** REMOVE EXISTING CEILINGS / EQUIPMENT AS REQUIRED FOR NEW FIRE SPRINKLER INSTALLATION
-  **BASE BID:** DEMO EXISTING HVAC AND ROOF DRAIN PIPE. REMOVE EXISTING CEILINGS / EQUIPMENT AS REQUIRED FOR NEW HVAC, ROOF DRAIN PIPE AND FIRE SPRINKLER INSTALLATION
-  **ALTERNATE #1**
-  **ALTERNATE #2**
-  **ALTERNATE #10**

GENERAL NOTES

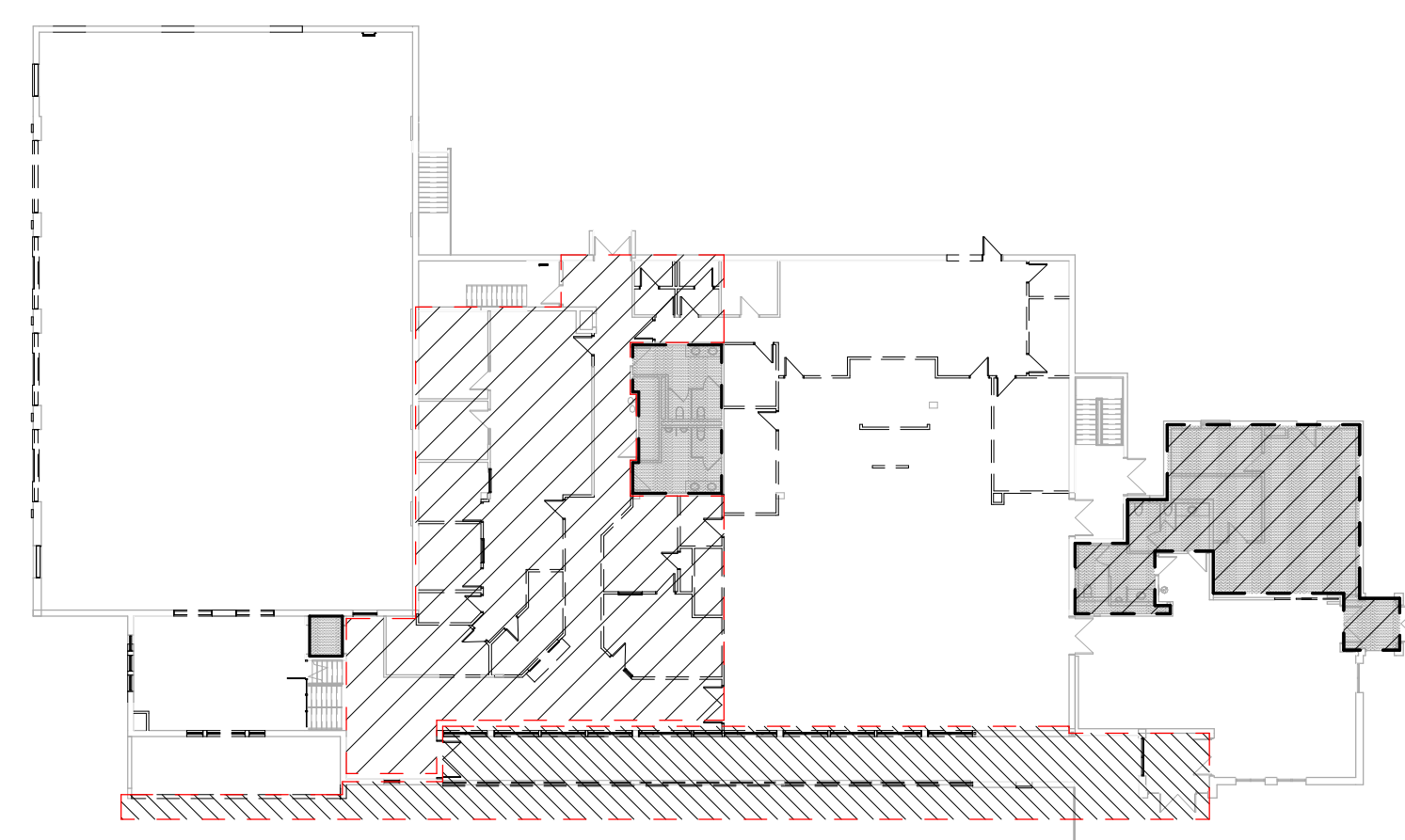
1. DEFINITIONS:
 - A. **DEMOLISH** - TEAR DOWN COMPLETELY AND REMOVE FROM SITE. INCLUDE ALL ANCHORS, BLOCKING, TRIM, ETC.
 - B. **SALVAGE** - DISMANTLE, PROTECT AND STORE FOR FUTURE REUSE ON THIS PROJECT OR DELIVER TO COLLEGE, AS INDICATED.
 - C. **PROTECT** - KEEP FROM BEING DAMAGED IN PLACE WITHOUT REMOVING.
2. DEMOLITION DRAWINGS ARE COMPLEMENTARY TO SEPARATE ASBESTOS REMOVAL DOCUMENTS. REFER TO THOSE DOCUMENTS FOR ABATEMENT REQUIREMENTS.
3. COORDINATE DEMOLITION WITH ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL AND TECHNOLOGY/AV DRAWINGS. PROVIDE DEMOLITION ONLY AS REQUIRED FOR NEW WORK. DO NOT OVER CUT OR OVER-EXTEND REQUIRED DEMOLITION WITHOUT PRIOR APPROVAL. REFER TO MEP DRAWINGS FOR NEW PIPE, CONDUIT, ETC. PENETRATIONS.
5. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND INFORMATION SHOWN IN THESE DOCUMENTS PRIOR TO START OF ANY WORK.
6. WALL DEMOLITION INCLUDES REMOVAL OF ALL COMPONENTS WITHIN WALLS AND ATTACHED TO WALLS (ELECTRICAL, DATA, MEP, CHALK/TACK/MARKER BOARDS, CLOCKS, ETC.) UNLESS OTHERWISE NOTED IN THE DOCUMENTS.
7. DOOR DEMOLITION INCLUDES ENTIRE ASSEMBLY (DOOR, FRAME, HARDWARE, ETC.).
8. PROTECT ALL SURFACES, DEVICES, HANDRAILS, GUARDRAILS, DOORS, FRAMES, HARDWARE, ETC. NOT SHOWN TO BE REMOVED. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL DAMAGE THAT TAKES PLACE DURING DEMOLITION ACTIVITIES.
9. CONTRACTOR SHALL KEEP ALL AREAS OF BUILDING WEATHER TIGHT AT ALL TIMES.
10. DEMOLITION PLANS ARE BASED ON UNVERIFIED DATED DRAWINGS AND MAY NOT REFLECT ACTUAL ROOM CONFIGURATIONS.
11. REFER TO DEMOLITION DRAWINGS FOR EACH DISCIPLINE IN THE DOCUMENTS FOR FURTHER REQUIREMENTS RELATED TO THOSE DISCIPLINES.
12. FILL LEVEL DEMOLISHED FLOORS AS NECESSARY TO CREATE UNIFORM FLOOR SURFACE.

LEGEND

-  EXISTING WALL TO BE DEMOLISHED
-  EXISTING DOOR TO BE DEMOLISHED
-  EXISTING WINDOW ASSEMBLY TO BE DEMOLISHED
-  EXISTING WALL TO REMAIN
-  EXISTING DOOR TO REMAIN

WORK NOTES

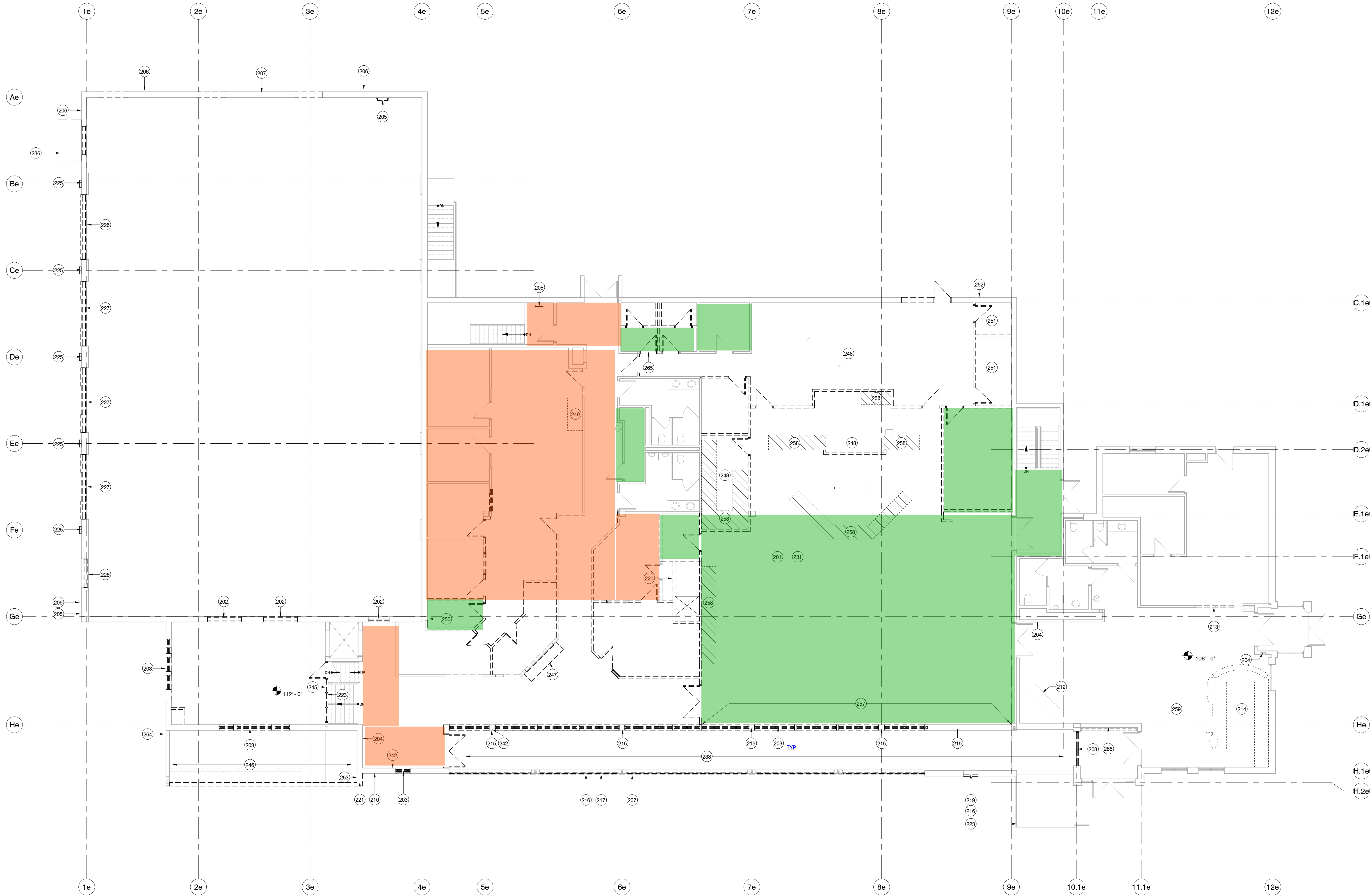
- 201 BASE BID: REPLACE (E) HVAC WITH NEW SYSTEMS PER MECHANICAL DRAWINGS. PROVIDE NEW ROOF DRAIN SYSTEM PER PLUMBING DRAWINGS. PROVIDE NEW FIRE SPRINKLERS PER FIRE PROTECTION DRAWINGS. PROTECT ALL EXISTING TO REMAIN ITEMS DURING DEMOLITION AND CONSTRUCTION. REPLACE OR REPAIR / PATCH ANY DAMAGED ITEMS OR SURFACES TO MATCH EXISTING CONDITIONS.
- 202 DEMOLISH (E) WINDOW ASSEMBLY
- 203 ALTERNATE #2: DEMOLISH (E) WINDOW ASSEMBLY
- 204 PROTECT (E) FEC
- 205 DEMOLISH (E) ROOF LADDER
- 206 SALVAGE (E) LIGHT FIXTURE; REINSTALL EXTERIOR ELEVATIONS
- 207 SALVAGE (E) SIGNAGE; REINSTALL PER EXTERIOR ELEVATIONS
- 208 SALVAGE (E) CAMERA; REINSTALL
- 210 ALTERNATE #2: SALVAGE AND RELOATE (E) WAP
- 212 PROTECT (E) FIREPLACE
- 213 DEMOLISH (E) SECURITY GRILLE
- 214 DEMOLISH (E) COFFEE BAR. SALVAGE (E) EQUIPMENT FOR USE BY OWNER ELSEWHERE
- 215 ALTERNATE #2: DEMOLISH (E) WALL LIGHT FIXTURES
- 216 ALTERNATE #2: DEMOLISH (E) RAILING
- 217 ALTERNATE #2: DEMOLISH (E) STUCCO CLADDING BELOW RAILING
- 219 ALTERNATE #2: (E) OPENING; DEMOLISH (E) SILL
- 220 ALTERNATE #1: RELOCATE (E) ELECTRICAL PANEL. RE. ELEC
- 221 ALTERNATE #2: DEMOLISH (E) CHAMFERED CMU WING WALL DOWN TO T.O. EXISTING DOUBLE T
- 223 PROTECT (E) RAILING TO REMAIN
- 225 DEMOLISH (E) DECORATIVE PLASTER BACK TO WALL FACE
- 226 DEMOLISH (E) METAL PANEL CLADDING. RETAIN (E) CMU INFILL
- 227 DEMOLISH (E) METAL PANEL CLADDING AND CMU INFILL; RETAIN (E) CMU BOND BEAM AND R.O. SIZE OF LOWER WINDOW
- 231 BASE BID: DEMOLISH (E) ROOF DRAIN PIPE WITHIN THIS SPACE
- 236 DEMOLISH (E) CMU WALL AND ASSOCIATED ROOF
- 238 ALTERNATE #2: DEMOLISH (E) SOFFIT CLADDING AND ANY ASSOCIATED SHEATHING AND STUD FRAMING
- 242 ALTERNATE #2: DEMOLISH (E) ADA DOOR BUTTON
- 245 ALTERNATE #1: DEMOLISH (E) STOREFRONT AND DOOR(S)
- 246 BASE BID: DEMOLISH (E) ROOF MEMBRANE AND INSULATION. (E) STRUCTURE TO REMAIN
- 247 ALTERNATE #1: DEMOLISH (E) OVERHEAD GRILLE
- 248 ALTERNATE #1: DEMOLISH (E) FOOD SERVICE EQUIPMENT AND ASSOCIATED MEP.
- 249 SALVAGE (E) CASEWORK FOR USE BY OWNER ELSEWHERE
- 250 ALTERNATE #1: SALVAGE AND RELOCATE (E) TECH EQUIPMENT. RE. TECH
- 251 ALTERNATE #1: DEMOLISH (E) WALK-IN FREEZER AND COOLER
- 252 ALTERNATE #1: DEMOLISH (E) EXHAUST FAN. PATCH AND PAINT WALL TO MATCH ADJACENT.
- 253 ALTERNATE #2: DEMO (E) ROOF DRAIN AND ASSOCIATED PIPING
- 257 ALTERNATE #1: DEMO (E) WALLCOVERING. PATCH AND/OR SKIM WALL SURFACE AS NEEDED TO CREATE SMOOTH SURFACE
- 258 ALTERNATE #1: DEMOLISH (E) COUNTER/TOPWORK
- 259 ALTERNATE #5: REMOVE (E) FLOORING
- 264 ALTERNATE #2: SALVAGE (E) SECURITY CAMERA. RETURN TO OWNER
- 265 ALTERNATE #1: SALVAGE (E) DOOR FOR USE IN ADJACENT (E) OPENING
- 266 ALTERNATE #2: DEMO (E) PRECAST LEDGE


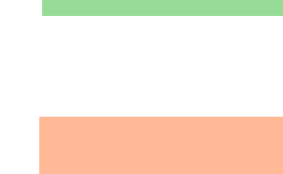


SCOPE PLAN - LEVEL TWO - DEMO

FOR REFERENCE ONLY - NOT FOR CONSTRUCTION

2
AD-102



-  ACM 12-inch Tan Floor Tile with Black Mastic
-  ACM Mastic under Existing Flooring

DEMOLITION PLAN - LEVEL TWO

1
AD-102
1/8" = 1'-0"

12/14/2018 10:27:11 AM

AndersonMasonDale Architects

CMC Student Commons

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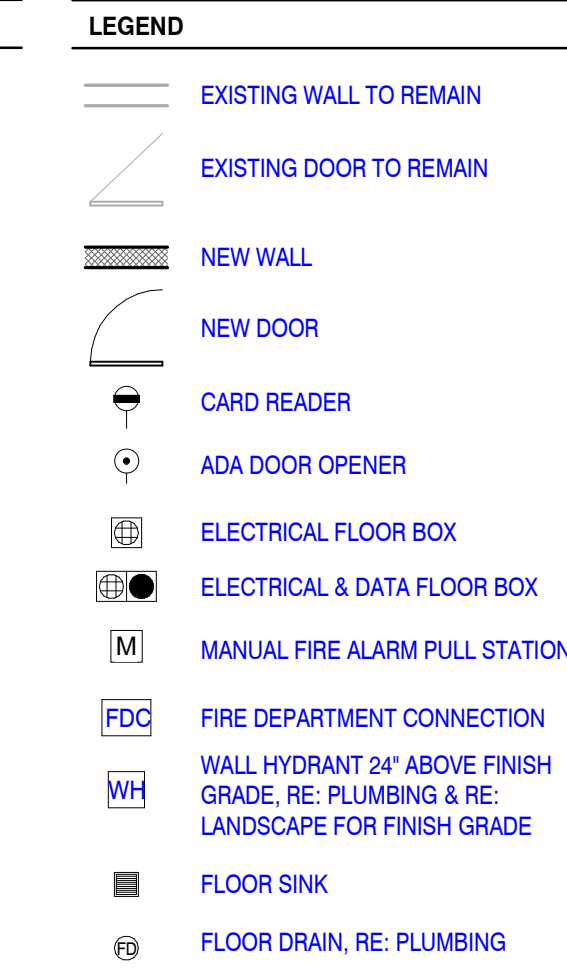
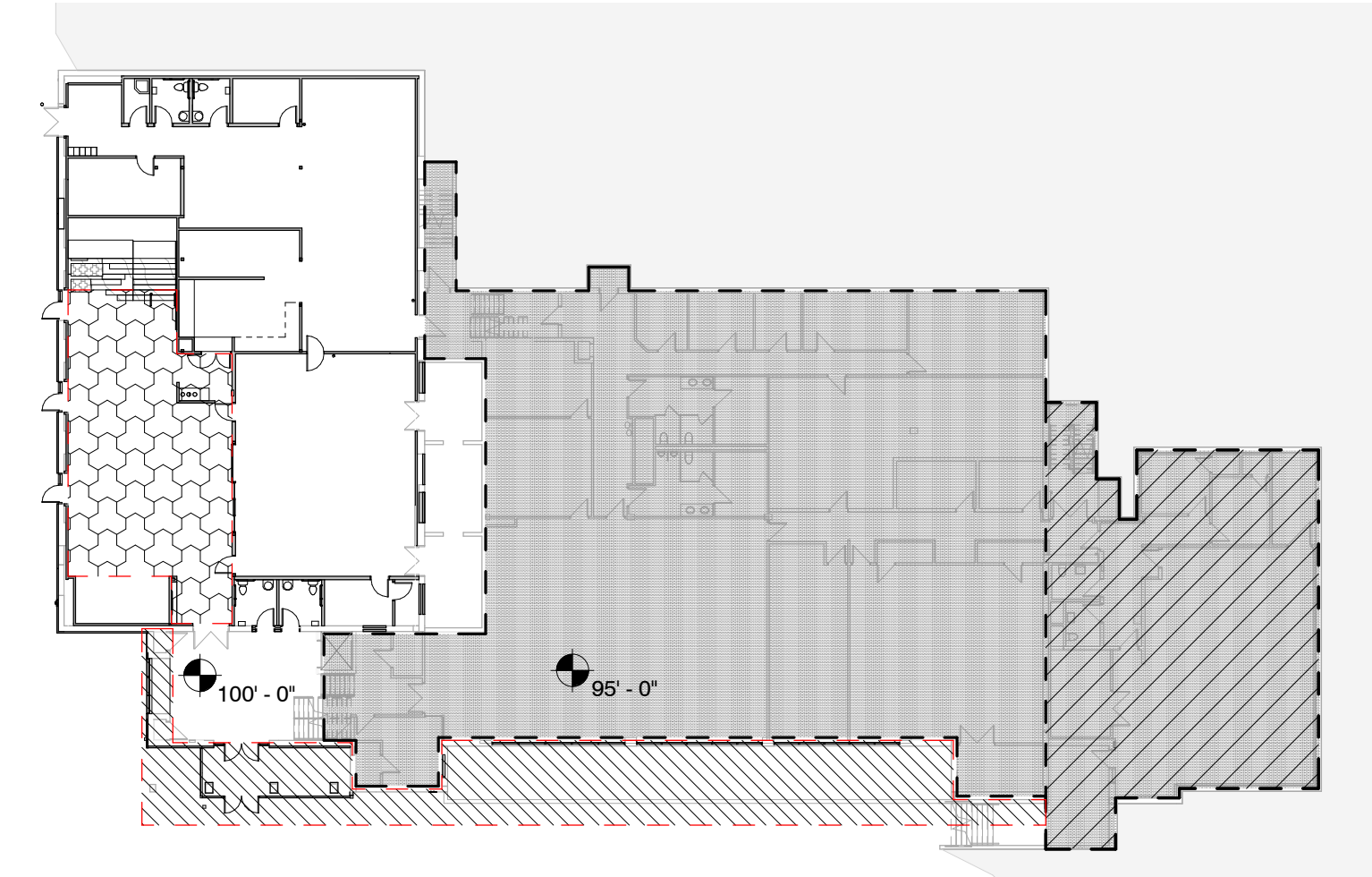
Issue: 100% Design Development
 Date: 12/14/2018

Project Number: 17-061
 Drawn By: KR
 Reviewed By: JM
 Approved By: JG

SECOND LEVEL DEMOLITION PLAN

AD-102

Add Alternate 1 Work Area



- GENERAL NOTES**
- REFER TO SCOPE PLAN / LEGEND, G-100 AND SPECIFICATIONS FOR BASE BID AND ALTERNATE INFORMATION.
 - ALL GRIDLINES SHOWN ARE EXISTING TO REMAIN. DIMENSIONS BASED OFF OF OWNER PROVIDED DRAWINGS.
 - PRIOR TO INSTALLATION OF NEW FRAMING AND INSULATION AT EXTERIOR WALLS, APPLY BLOCK FILLER AND PAINT TO CMU FOR CONTINUOUS AIR BARRIER WHERE IT IS CURRENTLY UNPAINTED. INCLUDES AREAS AT DEMOLISHED WALLS AND ABOVE ANY EXISTING CEILING.
 - FIELD VERIFY ALL EXISTING CONDITIONS. NOTIFY ARCHITECT PRIOR TO START OF WORK IF ANY EXISTING CONDITIONS AFFECT ANY NEW WORK AS SHOWN. THIS ALSO APPLIES TO WORK SHOWN ON MECHANICAL, PLUMBING, ELECTRICAL, TECHNOLOGY DRAWINGS.
 - REPAIR ALL EXISTING SURFACES WHERE EXISTING MOUNTED ITEMS HAVE BEEN REMOVED. MATCH EXISTING SURFACE MATERIAL, COLOR, AND TEXTURE.
 - PROVIDE FLOOR FILL / LEVELING MATERIAL (COMPATIBLE WITH NEW FINISH MATERIAL) TO PROVIDE SMOOTH, FLUSH SOLID SURFACE.
 - AT LOCATIONS WHERE EXISTING PARTITIONS / FURRING ARE OPENED FOR NEW WORK, REPAIR SURFACE TO MATCH ADJACENT MATERIALS. FINISH FLUSH.
 - PATCH ALL PIPE / CONDUIT HOLES IN FLOOR AND ROOF SLABS WITH CONCRETE (FORM BOTTOM). PROVIDE SMOOTH FLUSH MATCHING FINISH SIMILAR TO ADJACENT CONCRETE.
 - EXTENSIONS AND INFILLS AT EXISTING PARTITION SURFACES. FINISHED SURFACES FLUSH WITH EXISTING PARTITION SURFACES. REFER TO CODE PLANS FOR RATED PARTITIONS.
 - REFER TO SHEET A-801 FOR EXTERIOR WALL & ROOF ASSEMBLIES, AND A-802 FOR INTERIOR PARTITIONS.
 - PROVIDE MOISTURE RESISTANT SHEET ROCK BEHIND ALL SINKS.
 - PROVIDE CEMENTITIOUS BACK BOARD BEHIND ALL CERAMIC TILE INSTALLATIONS.
 - PROVIDE FIRE TREATED BLOCKING AT ALL WALL MOUNTED EQUIPMENT, ACCESSORIES (GRAB BARS, ETC.), CABINETS, ETC.
 - ALL PARTITIONS ARE TYPE 'B', U.O.N. ON PLANS OR ENLARGED PLANS.
 - PROVIDE PLYWOOD OR FIRE TREATED WOOD BLOCKING AT ALL UPPER CABINETS, DOOR STOPS, FLAT PANELS AND SMART BOARDS.
 - ALL EQUIPMENT SHOWN AS DASHED IS OWNER FURNISHED.
 - ALL FURNITURE SHOWN IS O.P.O. FOR REFERENCE ONLY.
 - ARCHITECTURAL DRAWINGS INDICATE LOCATIONS OF SELECT EXPOSED MECH, ELEC, FA, TECHNOLOGY, AND AV DEVICES. REFER TO DRAWINGS FOR THOSE DISCIPLINES FOR ADDITIONAL DEVICE INFORMATION.
 - ALL POWER AND SIGNAL FIXTURES ARE DIMENSIONED TO CENTER OF FIXTURE UNLESS OTHERWISE NOTED.
 - SEE MEP, AV, AND IT DRAWINGS FOR ALL POWER, SIGNAL, AND LIFE SAFETY DEVICES IN STARWELLS, MECHANICAL EQUIPMENT ROOMS, ELECTRICAL / IT CLOSETS, AND JANITOR CLOSETS, EXCEPT AS INDICATED ON ARCHITECTURAL DRAWINGS.
 - ANY JUNCTION BOXES TO BE LOCATED AS NECESSARY TO ACHIEVE FUNCTION DESCRIBED IN ELECTRICAL POWER, LIGHTING, AND SYSTEMS DOCUMENTS.
 - REFER TO ELECTRICAL, IT DRAWINGS FOR ADDITIONAL MOUNTING LOCATION AND HEIGHT INFORMATION.
 - REFER TO ARCHITECTURAL A-200 AND A-400 SERIES ELEVATIONS FOR ADDITIONAL DEVICE LOCATION INFORMATION.
 - ALL PARTITIONS THAT APPEAR TO BE CENTERED ON GRIDLINE OR COLUMN ARE IN FACT CENTERED.
 - ALL PARTITION DIMENSIONS ARE TO FINISHED FACE OF PARTITION, U.O.N.
 - ALL DOORS ARE 6" FROM PERPENDICULAR WALL TO HINGE SIDE OF DOOR, U.O.N.
 - AT ALL LOCATIONS OF SPRAY FOAM INSULATION, GYPSUM BOARD TO BE CONTINUOUS ON THE INSIDE FACE OF THE ENTIRE WALL CAVITY.

SCOPE PLAN - A-101
FOR REFERENCE ONLY - NOT FOR CONSTRUCTION



ACM 12-inch Tan Floor Tile with Black Mastic

ACM Mastic under Existing Flooring

AndersonMasonDale Architects

CMC Student Commons

Project #2
17-061

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AV / IT / Security / Acoustics
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Telephone: 801-582-9747

Issue Date
100% Design Development 12/14/2018

Project Number: 17-061
Drawn By: HK
Reviewed By: JM
Approved By: JG

LEVEL ONE FLOOR PLAN

A-101

Appendix B Certifications



Colorado Department
of Public Health
and Environment

ASBESTOS CERTIFICATION*

This certifies that

Chris J. Thompson

Certification No.: 5923

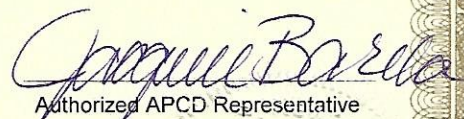
has met the requirements of 25-7-507, C.R.S. and Air Quality Control
Commission Regulation No. 8, Part B, and is hereby certified by the
state of Colorado in the following discipline:

Project Designer*

Issued: August 01, 2018

Expires: August 01, 2019

** 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