# SECTION 00 9111 ADDENDUM NUMBER 2

#### **PARTICULARS**

- 1.01 DATE: AUGUST 7, 2010
- 1.02 PROJECT: UNIVERSITY OF SOUTH CAROLINA SOM ANIMAL CARE RENOVATIONS
- 1.03 PROJECT NUMBER: STATE PROJECT #H27-Z152, A/E #14015.01
- 1.04 OWNER: UNIVERSITY OF SOUTH CAROLINA
- 1.05 ARCHITECT: GMK ASSOCIATES, INC.
- **TO: PROSPECTIVE BIDDERS**
- 2.01 THIS ADDENDUM FORMS A PART OF THE CONTRACT DOCUMENTS AND MODIFIES THE BIDDING DOCUMENTS DATED JUNE 30, 2014, AND ADDENDUM NUMBER 1 ISSUED AUGUST 4, 2014, WITH AMENDMENTS AND ADDITIONS NOTED BELOW.
- 2.02 ACKNOWLEDGE RECEIPT OF THIS ADDENDUM IN THE SPACE PROVIDED IN THE BID FORM. FAILURE TO DO SO MAY DISQUALIFY THE BIDDER.
- 2.03 THIS ADDENDUM CONSISTS OF 2 PAGES AND THE FOLLOWING ATTACHMENTS:
  - A. Specification Section 02 2223 MINOR DEMOLITION FOR REMODELING
  - B. HAZMAT Survey
  - C. Drawing E1.0A
  - D. Drawing E3.0A
  - E. Drawing E4.0A

#### **CHANGES TO THE PROJECT MANUAL**

#### 3.01 SECTION 02 2223 - MINOR DEMOLITIN FOR REMODELING

A. Add section in its entirety.

#### 3.02 SECTION 23 0900 - VARIABLE-FREQUENCY MOTOR CONTROLLERS

- A. Delete Paragraph 2.04.J
- B. Delete Paragraph 2.05.D
- C. Delete Paragraph 2.05.E
- D. Delete Paragraph 2.05.F
- E. Revise Paragraph 2.08.A to read:
  - 1. The Variable Frequency Controller shall include a backlit Liquid Crystal Display (LCD). This human interface provides Hand, Off, Auto and Speed Increase and Decrease keys for "Hand "operation. Drive Faults, Warnings, Alarms and Operating Data are provided in "Plain English" format (No Codes) This interface also provides a Real time Clock with Day Date, 10 year battery backup operation, Elapsed Time Meter, Fault Logger, and a "?" Help Key for use in troubleshooting the drive. This human interface is removable from the drive and is connected via a standard Cat-5 cable."

#### **CHANGES TO THE DRAWINGS**

#### 4.01 DRAWING A-3.0

- A. Revise General Note 5 to read:
  - 1. "5. IN AREA OF CONSTRUCTION, PATCH AND PAINT ALL CORRIDOR WALLS. IN INDIVIDUAL ANIMAL HOLDING AND PROCEDURE/RESEARCH ROOMS, PATCH AND PAINT WALLS TO MATCH EXISTING WHERE DAMAGED OR MARRED DURING

DEMOLITION AND CONSTRUCTION. PAINT SHALL BE ROSETALBERT 400 PREMIUM ACRYLIC SEMI-GLOSS ENAMEL, COLOR: ARIZONA WHITE 5830W."

#### **4.02 DRAWING E1.0A**

A. Replace sheet E1.0A in its entirety.

#### **4.03 DRAWING E3.0A**

A. Replace sheet E3.0A in its entirety.

#### **4.04 DRAWING E4.0A**

A. Add sheet E4.0A in its entirety.

**END OF SECTION** 

# SECTION 02 2223 MINOR DEMOLITION FOR REMODELING

#### **PART 1 GENERAL**

#### 1.01 SECTION INCLUDES

- A. Removal of designated building equipment and fixtures.
- B. Removal of designated construction.
- C. Disposal of materials.
- D. Identification of utilities.

#### 1.02 RELATED SECTIONS

- A. Section 01100 Summary: Work sequence and continued occupancy of the building.
- B. Section 01 7800 Closeout Submittals: Project record documents.

#### 1.03 SUBMITTALS

- A. See Section 01 3000 Administrative Requirements, for submittal procedures.
- B. Project Record Documents: Accurately record actual locations of capped utilities.
  - 1. Indicate unanticipated structural, electrical, or mechanical conditions.

#### 1.04 REGULATORY REQUIREMENTS

- A. Conform to applicable code for demolition work, dust control, products requiring electrical disconnection and re-connection.
- B. Obtain required permits from authorities.
- C. Do not close or obstruct egress from any building exit or site exit.
- Do not disable or disrupt building fire or life safety systems without 5 days prior written notice to Owner.
- Conform to applicable regulatory procedures when hazardous or contaminated materials are discovered.

#### 1.05 SEQUENCING

A. Sequence work under the provisions of Section 01 1000.

#### 1.06 SCHEDULING

- A. Schedule work under the provisions of Section 01 3216.
- B. Arrange schedule so as not to interfere with the Owner's operations.
- C. Schedule work to coincide with new construction.
- D. Describe demolition removal procedures and schedule.

#### 1.07 PROJECT CONDITIONS

- Conduct demolition to minimize interference with adjacent and occupied building areas.
- B. Cease operations immediately if structure appears to be in danger and notify Architect. Do not resume operations until directed.
- C. Occupancy:
  - 1. The Owner will continue to occupy portions of the existing building.
  - 2. Adjacent spaces will not be vacated during demolition activities.
- D. Existing Conditions:

- After the project is begun, the Contractor is responsible for the condition of structures to be demolished. The Owner does not warrant that the condition of structures to be demolished will not have changed since the time of inspection for bidding purposes.
- E. Unforeseen Conditions: Should unforeseen conditions be encountered that affect design or function of project, investigate fully and submit an accurate, detailed, written report to the architect. While awaiting the architect's response, reschedule operations if necessary to avoid delay of overall project.

#### 1.08 FIELD CONDITIONS

- A. Conditions existing at time of inspection for bidding purpose will be maintained by Owner asfar as practical.
- B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- C. Hazardous Materials: It is expected that hazardous materials will be encountered in the Work.
  - 1. Hazardous materials will be removed by Owner during the Contractors Demolition Work.
  - If other suspected hazardous materials are encountered, do not disturb; immediately notify Architect and Owner.
  - 3. Hazardous materials will be removed by Owner, as indicated above, under a separate contract.
  - 4. Coordinate the schedule of Work to allow for Owner's abatement contractor scope of work.
  - 5. Attached is the HAZMAT survey for the area of the project.
- D. On-site storage or sale of removed items or materials is not permitted.

#### **PART 2 PRODUCTS - NOT USED**

#### **PART 3 EXECUTION**

#### 3.01 EXAMINATION

- A. Survey existing conditions and correlate with drawings and specifications to determine extent of demolition required.
- B. Insofar as is practical, arrange operations to reveal unknown or concealed structural conditions for examination and verification before removal or demolition.
- C. Perform continuing surveys as the work progresses to detect hazards resulting from demolition or construction activities.
- D. Verify actual conditions to determine in advance whether removal or demolition of any element will result in structural deficiency, overloading, failure, or unplanned collapse.

#### 3.02 PREPARATION

- A. Provide for the protection of persons passing around or through the area of demolition.
- B. Erect and maintain weatherproof closures for exterior openings.
- C. Erect and maintain temporary partitions to prevent spread of dust, odors, and noise to permit continued building occupancy. Insulate to provide noise protection to occupied areas.
- D. Construct temporary partitions in a manner at least equal to the following (or superior, if necessary to provide effective protection specified):
  - 1. Gypsum-board surfaces adjacent to occupied areas, with joints taped.
- E. Protect existing materials that are not to be demolished.
- F. Notify affected utility companies before starting work and comply with their requirements.
- G. Mark location and termination of utilities.
- H. Provide appropriate temporary signage including signage for exit or building egress.

 Damages: Without cost to the Owner and without delay, repair any damages caused to facilities to remain.

#### 3.03 POLLUTION CONTROLS

- A. Control as much as practical the spread of dust and dirt.
- B. Observe environmental protection regulations.
- C. Do not allow water usage that results in freezing or flooding.
- D. Do not allow adjacent improvements to remain to become soiled by demolition operations.

#### 3.04 DEMOLITION

- A. Disconnect, remove, and identify designated utilities within demolition areas.
- B. Demolish in an orderly and careful manner. Protect existing supporting structural members .
- C. Remove demolished materials from site except where specifically noted otherwise. Do not burn or bury materials on site.
- D. Remove materials as demolition progresses. Upon completion of demolition, leave areas in clean condition.
- E. Remove: Unless items are otherwise indicated to be reinstalled or salvaged, remove and scrap.
- F. Remove and Reinstall: Remove items indicated; clean, service, and otherwise prepare for service; reinstall in the same location (or in the location indicated).
- G. Remove and Install New: Remove and dispose of items indicated and install new items in the same location (or in the location indicated).
- H. Remove and Salvage: Items indicated to be salvaged will remain the Owner's property. Carefully remove and clean items indicated to be salvaged; pack or crate to protect against damage; identify contents of containers; deliver to the locations indicated.
- I. Remove and Scrap: Remove and dispose of items indicated.
  - 1. All demolished or removed items and materials shall be considered scrap except for those indicated to remain, those indicated to be reinstalled, and those indicated to be salvaged.
  - 2. Items of value to the contractor:
    - Do not store removed items on site.
- J. Existing to Remain: Construction or items indicated to remain shall be protected against damage during demolition operations. Where practicable, and with the Architect's permission, the Contractor may elect to remove items to a suitable storage location during demolition and then properly clean and reinstall the items.
- K. Perform work in a systematic manner.
- L. Demolish and remove existing construction only to the extent required by new construction and as indicated in the contract documents.
- M. Perform selective demolition using methods which are least likely to damage work to remain and which will provide proper surfaces for patching.
- N. Remove debris daily.
- O. Masonry: Detach masonry to be demolished from adjoining construction to remain with power-driven masonry saws or hand tools.
- P. Use any methods permitted by governing regulations and the requirements of the contract documents.

#### 3.05 CLEANING

A. Remove tools and equipment. Dispose of scrap.

- B. Broom clean interior areas.
- C. Clean soil, smudges, and dust from surfaces to remain.
- D. Leave exterior areas free of debris.
- E. Return structures and surfaces to remain to condition existing prior to commencement of demolition.

#### **END OF SECTION**

# FM00451405

\*FM00451405\*

## **USC Work Order**

Description HAZMAT SURVEY - SOM (BLDG 4 - ANIMAL CARE RENOVATIONS)

Site USC MED

663 MED SCHOOL V.A. #4

Floor Room:

Equipment

Building

Assigned To JPROVENCE

Crew HAZMAT

Start Date

Due date 17-APR-14

Request Date

06-MAR-14 **by** CAMOORE

**Priority** 

Request # FM00451405 Description HAZMAT SURVEY - SOM (BLDG 4 - ANIMAL CARE RENOVATIONS)

Parent WO #

CP Number CP00399734 SOM ANIMAL CARE RENOVATIONS

State/Internal Project Number H27-Z152

Requestor Project Manager FISHER, PETER L.

Telephone Telephone 777-9346

Alternate Estimated Cost \$ 116.00

Telephone Billing FIXED PRICE

Non-Available Time 18000-W230-57120 (SOM ANIMAL CARE RENOVATIONS)

Task List

COORDINATE WITH RICK CAMPBELL AT SOM VA CAMPUS

DATE WORK STARTED	CAUSE
DATE WORK COMPLETED	CONDITION
EQUIPMENT	

#### **CLOSING REMARKS**

BENCHSTOCK MATERIALS

Qty Description Price Per Unit

#### Supervisor's Approval

Note Date Title

06-AUG-14 HAZMAT SURVEY RESULTS

SURVEY DATE: 7/31/14

INSPECTOR #: DARRYL WASHINGTON (BI-00568) AND ERIC MELARO (BI-01296)

STATUS: THE INSPECTORS REVIEWED THE PROJECT SCOPE FOR THE VIVARIUM RENOVATIONS WITH LARRY KNOTT (SCHOOL OF MEDICINE) ON 7/31/14. THE PROJECT CONSISTS OF REMOVING AND REPLACING THE CEILING, LIGHTING, DUCT WORK AND HOT WATER PIPING. IN ADDITION, THE DOOR TO ROOM A35 WILL BE REMOVED AND NEW FLOORING WILL BE INSTALLED IN THE HALLWAY. THE AIR HANDLER UNITS MAY ALSO BE REPLACED. LIMITED SAMPLING WAS REQUIRED AS EXISTING DATA IS AVAILABLE THAT COVERS MOST OF THE PROJECT SCOPE.

THE FOLLOWING MATERIALS HAVE BEEN TESTED FOR ASBESTOS AND THE RESULTS FOLLOW: DUCT INSULATION (ON AIR HANDLER UNITS) – POSITIVE FOR ASBESTOS

GRAY VINYL BASE / GLUE - NEGATIVE FOR ASBESTOS

DRYWALL TAPE - NEGATIVE FOR ASBESTOS (THESE SAMPLES SUPPLEMENT THOSE COLLECTED BY F&ME)

THE FOLLOWING MATERIAL HAS BEEN TESTED FOR LEAD AND THE RESULTS FOLLOW: BROWN DOOR FRAME PAINT – NEGATIVE FOR LEAD

PREVIOUS ASBESTOS DATA SUMMARY:

12 X 12 GRAY TILE / MASTIC - POSITIVE FOR ASBESTOS

12 X 12 OFF WHITE / BROWN / GRAY TILE / MASTIC - POSITIVE FOR ASBESTOS

12 X 12 BLUE / WHITE TILE / MASTIC - POSITIVE FOR ASBESTOS

PIPE INSULATION - POSITIVE FOR ASBESTOS

12X 12 LIGHT BLUE / BLACK TILE / MASTIC – NEGATIVE FOR ASBESTOS (DO NOT CUT, SAW OR GRIND THIS MATERIAL! WHILE IT DID NOT MEET THE SCDHEC OR OSHA DEFINITION OF ASBESTOS CONTAINING MATERIAL. ASBESTOS WAS IDENTIFIED AT LESS THAN 1 PERCENT IN THIS MATERIAL. AS A RESULT, WE DO NOT WANT TO RENDER THE MATERIAL FRIABLE AND INCREASE THE CHANCE OF ASBESTOS FIBERS BEING RELEASED.)

BLUE VINYL FLOORING / MASTIC – NEGATIVE FOR ASBESTOS
CREAM PIPE MASTIC – NEGATIVE FOR ASBESTOS
CREAM HVAC MASTIC – NEGATIVE FOR ASBESTOS
GRAY MASTIC ON METAL DUCTS – NEGATIVE FOR ASBESTOS
BROWN MASTIC ON METAL DUCTS – NEGATIVE FOR ASBESTOS
TAN CAULK AT WALL PENETRATIONS – NEGATIVE FOR ASBESTOS
INTERIOR WINDOW GLAZING – NEGATIVE FOR ASBESTOS
PLASTER – NEGATIVE FOR ASBESTOS
JOINT COMPOUND – NEGATIVE FOR ASBESTOS
SHEETROCK – NEGATIVE FOR ASBESTOS
2 X 2 TEXTURED CEILING TILE – NEGATIVE FOR ASBESTOS

PREVIOUS LEAD DATA SUMMARY:
WHITE WALL PAINT (ROOM A37) – POSITIVE FOR LEAD
WHITE WALL PAINT (OTHER AREAS IN BASEMENT) – NEGATIVE FOR LEAD
BLUE WALL PAINT – NEGATIVE FOR LEAD

#### **INSPECTOR'S NOTES:**

THE FLEXIBLE BLACK CONNECTORS ON THE AIR HANDLER UNITS ARE PRESUMED TO BE POSITIVE FOR ASBESTOS.

NO FIREPROOFING WAS OBSERVED ABOVE THE CEILING.

THE HOT WATER LINES ARE COVERED WITH FIBERGLASS INSULATION WITH NO MASTIC. THE FIBERGALSS INSULATION IS NOT SUSPECT FOR ASBESTOS.

THE DOOR TO ROOM A35 IS UNPAINTED, SOLID WOOD WITH A WINDOW AND IS NOT SUSPECT FOR ASBESTOS.

FOR A REPORT OF PREVIOUS DATA, SEE THE "ASBESTOS CONTAINING MATERIALS INVESTIGATION REPORT" THAT WAS COMMPLETED BY F&ME ON JANUARY 16, 2013. ADDITIONAL PLASTER, JOINT COMPOUND AND SHEETROCK DATA IS AVAILABLE AS PART OF FM00395651 (MAY 2012).

IF YOU ENCOUNTER ANY OTHER MATERIALS IN PLACE AND DEEM THEM SUSPECT FOR ASBESTOS AND/OR LEAD, PLEASE STOP WORK AND CONTACT THE ASBESTOS PROGRAM MANAGER FOR FURTHER TESTING OR ABATEMENT.

PLEASE NOTE THAT THE MATERIAL QUANTITY PROVIDED ON THE FIELD SHEET IS ONLY AN ESTIMATE FOR SAMPLING PURPOSES. THE QUANTITY SHOULD BE FIELD VERIFIED FOR ALL OTHER PURPOSES INCLUDING ABATEMENT.

REFER TO THE SURVEY RESULTS ATTACHED TO THE WORK ORDER FOR DETAILED INFORMATION.

#### 16-FEB-09 ASBESTOS MAY BE PRESENT IN THIS BUILDING

WARNING - ASBESTOS EXPOSURE ALERT - EXPOSURE TO ASBESTOS MAY BE HARMFUL TO YOUR HEALTH.

AS OF 4/1/2004 THE FOLLOWING AREAS WITHIN THE BUILDING HAVE BEEN IDENTIFIED BY SURVEY TO CONTAIN ASBESTOS:

BLDG 663 VA BUILDING #4

STEAM LINE IN CEILING OF BASEMENT --> [220 LIN. FT.]

PLEASE NOTE - IDENTIFICATION OF ASBESTOS CONTAINING COMPONENTS WITHIN THIS STRUCTURE DOES NOT SPECIFICALLY EXCLUDE THE PRESENCE OF ASBESTOS WITHIN OTHER AREAS.

THE FOLLOWING COMMON TYPES OF BUILDING COMPONENTS COULD CONTAIN MATERIALS THAT, WHEN DISTURBED, MIGHT EXPOSE YOU TO ASBESTOS:

- 1. FLOOR TILE
- 2. PIPE INSULATION
- 3. BLACK MASTIC
- 4. HVAC DUCT MASTIC
- 5. SPRAYED-ON FIREPROOFING
- 6. SPRAYED-ON CEILINGS
- 7. SHEETROCK JOINT COMPOUND

BEFORE DISTURBING THESE TYPES OF COMPONENTS, CONFIRM THAT THEY DO NOT CONTAIN ASBESTOS AND TAKE PROPER PRECAUTIONS AT ALL TIMES.



# Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only).

EMSE ANALYTICAL INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077

PHONE: (800) 200-3675 FAX: (856) 786-5974

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Report To	Name):	USC Hazma	ţ	Te	lephone #:	803-509 <mark>-3</mark> 3	76					
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Controlled Document - Asbestos COC - R6 - 11/29/2012

2

OrderID: 021404255

Sample Analysis
Type of Analysis: Lead (Asbestos) Date:

863 MEDICAL PARK 4

Turn Around Time 24 HRS

	Area	Sample ID	Material Sampled	Material	Location	F/NF	Cond	Quantity	Pot to Disturb
	٧	_	DUCT INSULATION MASTIC		4AAC2 LINE	R	9	<275 LIN FT	МОЛ
Page	A	2	DUCT INSULATION MASTIC		4AC1 LINE	ΗN	9	<275 LIN FT	МОП
2 Of	<b>∀</b>	က	DUCT INSULATION MASTIC	(Tem 78)	4AC2 LINE	Ą	9	<275 LIN FT	ПОМ
	<b>6</b> 0	4	GREY VINYL BASE / GLUE	)	OUTSIDE ROOM A32	NF	ຶ່ນ	600 LIN FT	ПОМ
2	В	5	GREY VINYL BASE / GLUE	•	OUTSIDE ROOM A28	Ą	9	600 LIN FT	LOW
	8	9	GREY VINYL BASE / GLUE	(rem 30	OUTSIDE ROOM A26	NF	ပ	600 LIN FT	МОЛ
	ပ	7	DRYWALL TAPE		HALL OUTSIDE ROOM A35	L	် ဗ	>5000 SQ FT	row
	ပ	ω	DRYWALL TAPE		HALL OUTSIDE ROOM A28	ΙL	ອ	>5000 SQ FT	ТОМ
	ပ	თ	DRYWALL TAPE		HALL NEAR A20	щ	9	>5000 SQ FT	LOW
				3 SAI	3 SAMPLES ARE TO COMPLETE F&ME REPORT				

Send lab results in PDF and CSV format as soon as possible to: asbestos@mailbox.sc.edu

PETE FISHER Requestor

Signature\_

FM# FM00451405

BI-00568 License #



### **EMSL** Analytical, Inc.

706 Gralin Street, Kernersville, NC 27284 Phone/Fax: (336) 992-1025 / (336) 992-4175

http://www.EMSL.com greensborolab@emsl.com EMSL Order: CustomerID:

021404255

UNSC62

CustomerPO: ProjectID:

**USC Hazmat University of South Carolina** 743 Greene Street Columbia, SC 29208

Phone: (803) 777-7000 (803) 777-3990 Fax: Received: 08/01/14 10:00 AM Analysis Date: 8/2/2014

Collected:

Project: 663 Medical Park 4

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using **Polarized Light Microscopy**

			Non-A	sbestos	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
1	Duct Insulation	Gray/Beige	5% Glass	93% Non-fibrous (other)	2% Chrysotile
021404255-0001	Mastic	Fibrous Homogeneous			
2	Duct Insulation				Stop Positive (Not Analyzed)
021404255-0002	Mastic				
3	Duct Insulation				Stop Positive (Not Analyzed)
021404255-0003	Mastic				
4-Cove Base	Vinyl Base/ Mastic	Gray		100% Non-fibrous (other)	None Detected
021404255-0004		Non-Fibrous Homogeneous			
4-Mastic	Vinyl Base/ Mastic	Tan	<1% Cellulose	100% Non-fibrous (other)	None Detected
021404255-0004A		Non-Fibrous Homogeneous			
5-Cove Base	Vinyl Base/ Mastic	Gray		100% Non-fibrous (other)	None Detected
021404255-0005		Non-Fibrous Homogeneous			
5-Mastic	Vinyl Base/ Mastic	Brown/Tan	<1% Cellulose	100% Non-fibrous (other)	None Detected
021404255-0005A		Non-Fibrous Homogeneous			
6-Cove Base	Vinyl Base/ Mastic	Gray		100% Non-fibrous (other)	None Detected
021404255-0006		Non-Fibrous Homogeneous			
6-Mastic	Vinyl Base/ Mastic	Beige	<1% Cellulose	100% Non-fibrous (other)	None Detected
021404255-0006A		Non-Fibrous Homogeneous			

Analyst(s)

Kristie Elliott (9) Nicole Shutts (4) Stephen Bennett, Laboratory Manager or other approved signatory

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Initial report from 08/02/2014 16:03:56



### **EMSL** Analytical, Inc.

706 Gralin Street, Kernersville, NC 27284

Phone/Fax: (336) 992-1025 / (336) 992-4175

http://www.EMSL.com greensborolab@emsl.com EMSL Order: 021404255 CustomerID:

CustomerPO:

UNSC62

ProjectID:

Attn: USC Hazmat **University of South Carolina** 743 Greene Street Columbia, SC 29208

(803) 777-7000 Phone: (803) 777-3990 Fax: Received: 08/01/14 10:00 AM Analysis Date: 8/2/2014

Collected:

Project: 663 Medical Park 4

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using **Polarized Light Microscopy**

				Non-Asbestos		<u>Asbestos</u>
Sample	Description	Appearance	% Fibro	ous %	Non-Fibrous	% Type
7-Joint Compound 021404255-0007	Drywall Tape	White Non-Fibrous Homogeneous			20% Ca Carbonate 80% Non-fibrous (other)	None Detected
7-Tape 021404255-0007A	Drywall Tape	Beige Fibrous Homogeneous	100% Cel	llulose	0% Non-fibrous (other)	None Detected
8-Joint Compound 021404255-0008	Drywall Tape	White Non-Fibrous Homogeneous			20% Ca Carbonate 80% Non-fibrous (other)	None Detected
8-Tape 021404255-0008A	Drywall Tape	Beige Fibrous Homogeneous	100% Cel	llulose	0% Non-fibrous (other)	None Detected
9-Joint Compound 021404255-0009	Drywall Tape	White Non-Fibrous Homogeneous	<1% Cel		20% Ca Carbonate 80% Non-fibrous (other)	None Detected
9-Tape 021404255-0009A	Drywall Tape	Beige Fibrous Homogeneous	100% Cel	llulose	0% Non-fibrous (other)	None Detected

Analyst(s)

Kristie Elliott (9) Nicole Shutts (4) Stephen Bennett, Laboratory Manager or other approved signatory

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Initial report from 08/02/2014 16:03:56



### **EMSL Analytical, Inc.**

706 Gralin Street, Kernersville, NC 27284

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021404255

UNSC62

CustomerPO: ProjectID:

**USC Hazmat University of South Carolina** 743 Greene Street Columbia, SC 29208

Phone: (803) 777-7000 Fax: (803) 777-3990 Received: 08/01/14 10:00 AM 8/5/2014

Analysis Date:

Collected:

Project: 663 Medical Park 4

### **Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM** via EPA/600/R-93/116 Section 2.5.5.1

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
6-Cove Base	Vinyl Base/ Mastic	Gray	100	None	No Asbestos Detected
021404255-0006		Non-Fibrous			
		Homogeneous			
6-Mastic	Vinyl Base/ Mastic	Yellow	100	None	No Asbestos Detected
021404255-0006A		Non-Fibrous			
		Homogeneous			

Analyst(s)	
Stephen Bennett (2)	

Stephen Bennett, Laboratory Manager or other approved signatory

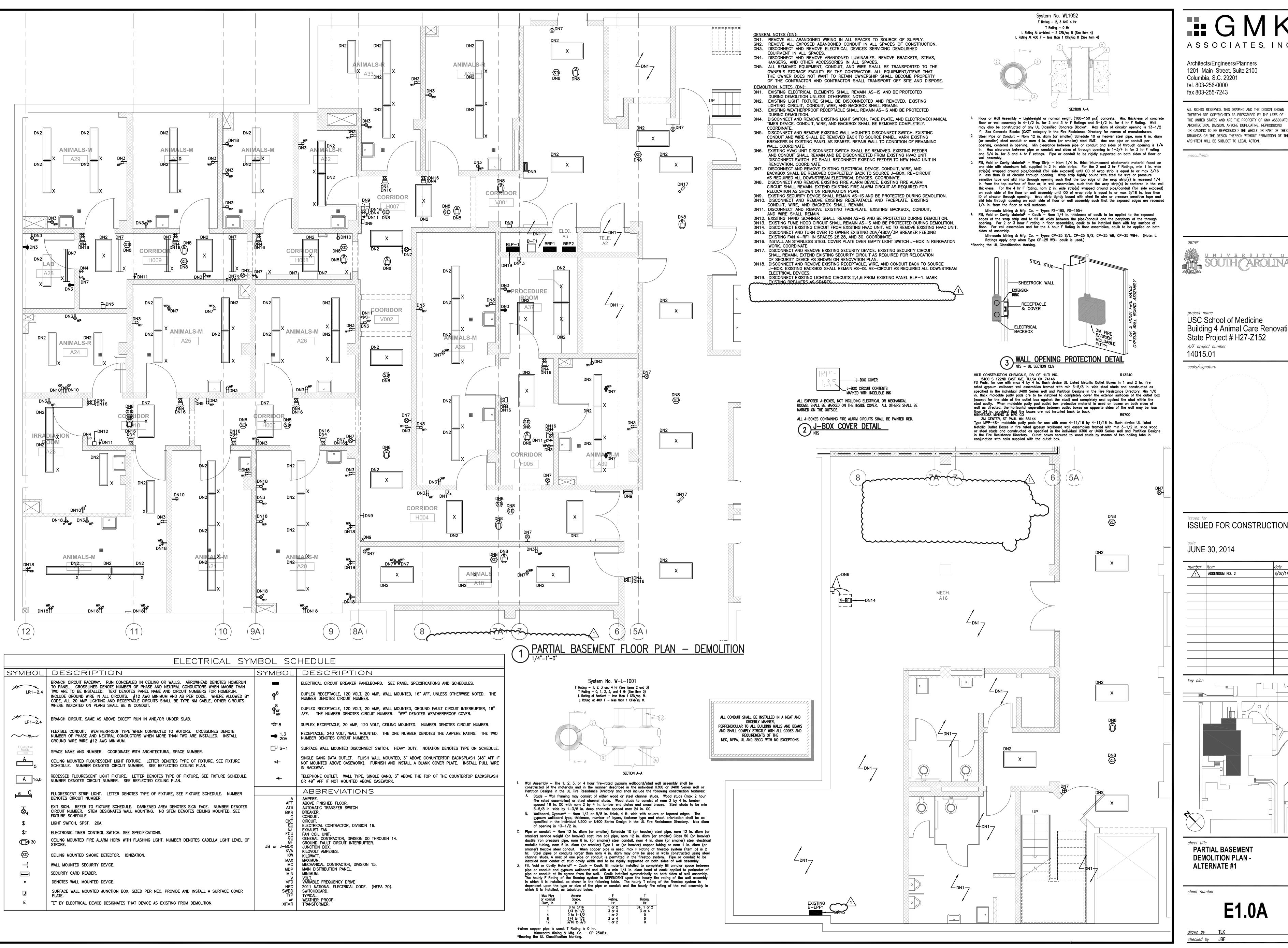
This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition 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. Kernersville, NC

Initial report from 08/05/2014 09:46:50

Reading No Time Ty	pe	<b>Duration Units</b>	Sequence	Component	Substrate	Side	Condition	Color	Site	Inspector	Floor	Room	Misc 1	Misc 2 Results	Depth Index	Action Level PbC	PbC Error PbL	PbL Error PbK	PbK Error
2068 5/22/2012 10:52 PA	INT	3.9 mg / cm ^2	Final	WALL	DRYWALL		INTACT	WHITE	MED SCHOOL	WASHINGTON	BASEMENT	HALL	BLD 4	Negative	1	0.7 < LOD	0.03 < LOD	0.03 < LOD	0.75
2069 5/22/2012 10:52 PA	INT	3.5 mg / cm ^2	Final	WALL	DRYWALL		INTACT	WHITE	MED SCHOOL	WASHINGTON	BASEMENT	HALL	BLD 4	Negative	1.7	0.7 < LOD	0.03 < LOD	0.03 < LOD	0.75
2070 5/22/2012 10:53 PA	INT	3.51 mg/cm ^2	Final	WALL	DRYWALL		INTACT	WHITE	MED SCHOOL	WASHINGTON	BASEMENT	HALL	BLD 4	Negative	1.3	0.7 < LOD	0.03 < LOD	0.03 < LOD	0.75
2071 5/22/2012 10:53 PA	INT	2.35 mg/cm^2	Final	WALL	DRYWALL		INTACT	WHITE	MED SCHOOL	WASHINGTON	BASEMENT	HALL	BLD 4	Negative	1	0.7 < LOD	0.03 < LOD	0.03 < LOD	1.51
2072 5/22/2012 10:53 PA	INT	3.49 mg / cm ^2	Final	WALL	DRYWALL		INTACT	WHITE	MED SCHOOL	WASHINGTON	BASEMENT	HALL	BLD 4	Negative	1	0.7 < LOD	0.03 < LOD	0.03 < LOD	0.75
2073 5/22/2012 10:53 PA	INT	3.12 mg / cm ^2	Final	WALL	DRYWALL		INTACT	WHITE	MED SCHOOL	WASHINGTON	BASEMENT	HALL	BLD 4	Negative	1	0.7 < LOD	0.03 < LOD	0.03 < LOD	1.25
2074 5/22/2012 10:54 PA	INT	3.89 mg / cm ^2	Final	WALL	DRYWALL		INTACT	WHITE	MED SCHOOL	WASHINGTON	BASEMENT	HALL	BLD 4	Negative	1	0.7 < LOD	0.03 < LOD	0.03 < LOD	0.74
2075 5/22/2012 10:54 PA	INT	3.88 mg / cm ^2	Final	WALL	DRYWALL		INTACT	WHITE	MED SCHOOL	WASHINGTON	BASEMENT	HALL	BLD 4	Negative	1.56	0.7 < LOD	0.03 < LOD	0.03 < LOD	
2076 5/22/2012 10:54 PA	INT	3.92 mg / cm ^2	Final	WALL	DRYWALL		PEELING	BLUE	MED SCHOOL	WASHINGTON	BASEMENT	HALL	BLD 4	Negative	1.99	0.7 < LOD	0.03 < LOD	0.03 < LOD	
2077 5/22/2012 10:55 PA	INT	3.91 mg/cm ^2	Final	WALL	DRYWALL		PEELING	BLUE	MED SCHOOL	WASHINGTON	BASEMENT	HALL	BLD 4	Negative	1.69	0.7 < LOD	0.03 < LOD	0.03 < LOD	0.75
2078 5/22/2012 10:55 PA	INT	0.39 mg / cm ^2	Final	WALL	DRYWALL		PEELING	BLUE	MED SCHOOL	WASHINGTON	BASEMENT	HALL	BLD 4	Null	1	0.7 < LOD	0.05 < LOD	0.05 < LOD	
2079 5/22/2012 10:55 PA	INT	3.49 mg / cm ^2	Final	WALL	DRYWALL		PEELING	BLUE	MED SCHOOL	WASHINGTON	BASEMENT	HALL	BLD 4	Negative	1	0.7 < LOD	0.03 < LOD	0.03 < LOD	
2080 5/22/2012 10:55 PA	INT	3.12 mg / cm ^2	Final	WALL	DRYWALL		POOR	WHITE	MED SCHOOL	WASHINGTON	BASEMENT	a20	BLD 4	Negative	1.57	0.7 < LOD	0.03 < LOD	0.03 < LOD	
2081 5/22/2012 10:56 PA	INT	2.35 mg/cm ^2	Final	WALL	DRYWALL		POOR	WHITE	MED SCHOOL	WASHINGTON	BASEMENT	a20	BLD 4	Negative	1	0.7 < LOD	0.03 < LOD	0.03 < LOD	
2082 5/22/2012 10:56 PA	INT	3.12 mg / cm ^2	Final	WALL	DRYWALL		POOR	WHITE	MED SCHOOL	WASHINGTON	BASEMENT	a20	BLD 4	Negative	1	0.7 < LOD	0.03 < LOD	0.03 < LOD	1.07
2083 5/22/2012 10:56 PA		1.57 mg / cm ^2	Final	WALL	DRYWALL		POOR			WASHINGTON	BASEMENT	a20	BLD 4	Negative	1	0.7 < LOD	0.03 < LOD	0.03 < LOD	
2084 5/22/2012 11:01 PA	INT	1.57 mg / cm ^2	Final	WALL	PLASTER		POOR	BLUE	MED SCHOOL	WASHINGTON	BASEMENT	cage wash side	BLD 4	Null	1	0.7 < LOD	0.03 < LOD	0.03 < LOD	
2085 5/22/2012 11:01 PA	INT	5.08 mg / cm ^2	Final	WALL	PLASTER		POOR	BLUE	MED SCHOOL	WASHINGTON	BASEMENT	cage wash side	BLD 4	Null	1	0.7 < LOD	0.03 < LOD	0.03 0.8	
2086 5/22/2012 11:01 PA	INT	8.97 mg / cm ^2	Final	WALL	PLASTER		POOR	BLUE	MED SCHOOL	WASHINGTON	BASEMENT	cage wash side	BLD 4	Negative	1	0.7 < LOD	0.03 < LOD	0.03 0.8	
2087 5/22/2012 11:02 PA		3.11 mg / cm ^2	Final	WALL	PLASTER		POOR	BLUE	MED SCHOOL	WASHINGTON	BASEMENT	cage wash side	BLD 4	Negative	1	0.7 < LOD	0.03 < LOD	0.03 < LOD	
2088 5/22/2012 11:03 PA	INT	4.66 mg/cm ^2	Final	FLOOR	CONCRETE		POOR	BLUE	MED SCHOOL	WASHINGTON	BASEMENT	a37	BLD 4	Negative	1.22	0.7 < LOD	0.03 < LOD	0.03 < LOD	
2089 5/22/2012 11:03 PA	INT	6.27 mg / cm ^2	Final	FLOOR	CONCRETE		POOR	BLUE	MED SCHOOL	WASHINGTON	BASEMENT	a37	BLD 4	Negative	1.01	0.7 < LOD	0.03 < LOD	0.03 < LOD	0.75
2090 5/22/2012 11:03 PA	INT	5.07 mg / cm ^2	Final	FLOOR	CONCRETE		POOR	BLUE	MED SCHOOL	WASHINGTON	BASEMENT	a37	BLD 4	Negative	2.03	0.7 < LOD	0.03 < LOD	0.03 < LOD	
2091 5/22/2012 11:04 PA	INT	10.94 mg / cm ^2	Final	FLOOR	CONCRETE		POOR	BLUE	MED SCHOOL	WASHINGTON	BASEMENT	a37	BLD 4	Null	1.46	0.7 < LOD	0.03 < LOD	0.03 0.9	
2092 5/22/2012 11:04 PA	INT	6.63 mg/cm ^2	Final	FLOOR	CONCRETE		POOR	BLUE	MED SCHOOL	WASHINGTON	BASEMENT	a37	BLD 4	Negative	1.85	0.7 < LOD	0.03 < LOD	0.03 < LOD	0.75
2093 5/22/2012 11:06 PA	INT	1.17 mg / cm ^2	Final	WALL	PLASTER		INTACT	WHITE	MED SCHOOL	WASHINGTON	BASEMENT	a37	BLD 4	Positive	6.36	0.7 4.3	3 2.6 5	3 4.3	3 2.6
2094 5/22/2012 11:06 PA	INT	1.97 mg / cm ^2	Final	WALL	PLASTER		INTACT			WASHINGTON	BASEMENT	a37	BLD 4	Positive	5.6				
2095 5/22/2012 11:07 PA		1.57 mg / cm ^2	Final	WALL	PLASTER		INTACT	WHITE	MED SCHOOL	WASHINGTON	BASEMENT	a37	BLD 4	Positive	4.26	0.7 3.7	1.6 3.7	1.6 4.4	4 2.2
2096 5/22/2012 11:07 PA	INT	8.97 mg / cm ^2	Final	WALL	PLASTER		INTACT	WHITE	MED SCHOOL	WASHINGTON	BASEMENT	a37	BLD 4	Null	3.52	0.7 0.29	0.09 0.29	0.09	1 0.4

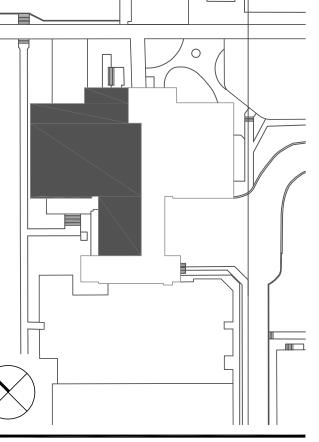
Reading No Time	Type	<b>Duration Units</b>	Sequence	Component	Substrate	Side Condition	Color	Site	Inspector	Floor	Room Mi	isc 1 Misc 2 Results	Depth Index	Action Level PbC	PbC Error PbL	PbL Error PbK	PbK Error
162 7/31/2014 9:09	9 PAINT	1.22 mg/cm ^2	? Final	door frame	METAL	INTACT	BROWN	med park 4	wash	BASEMENT	a35	Negative	2.26	0.7 < LOD	0.13 < LOD	0.13 < LOD	2.66
163 7/31/2014 9:09	9 PAINT	1.82 mg/cm ^2	2 Final	door frame	METAL	INTACT	BROWN	med park 4	wash	BASEMENT	a35	Negative	3.16	0.7 < LOD	0.17 < LOD	0.17 < LOD	1.92
164 7/31/2014 9:09	9 PAINT	1.21 mg/cm ^2	2 Final	door frame	METAL	INTACT	BROWN	med park 4	wash	BASEMENT	HALL	Negative	1.3	0.7 < LOD	0.08 < LOD	0.08 < LOD	2.62
165 7/31/2014 9:10	0 PAINT	1.22 mg / cm ^2	2 Final	door frame	METAL	INTACT	BROWN	med park 4	wash	BASEMENT	HALL	Negative	4.21	0.7 < LOD	0.34 < LOD	0.34 < LOD	2.7

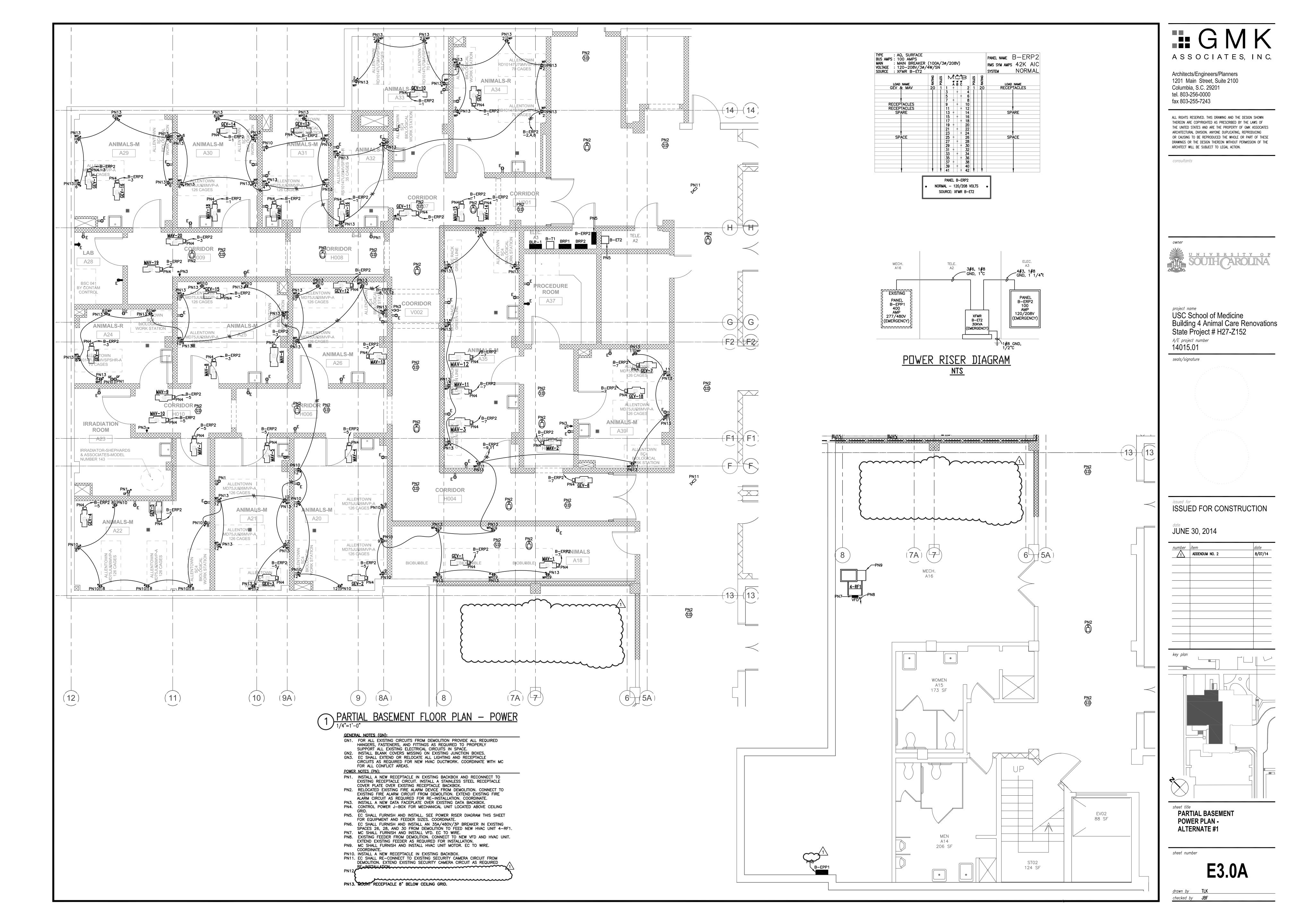


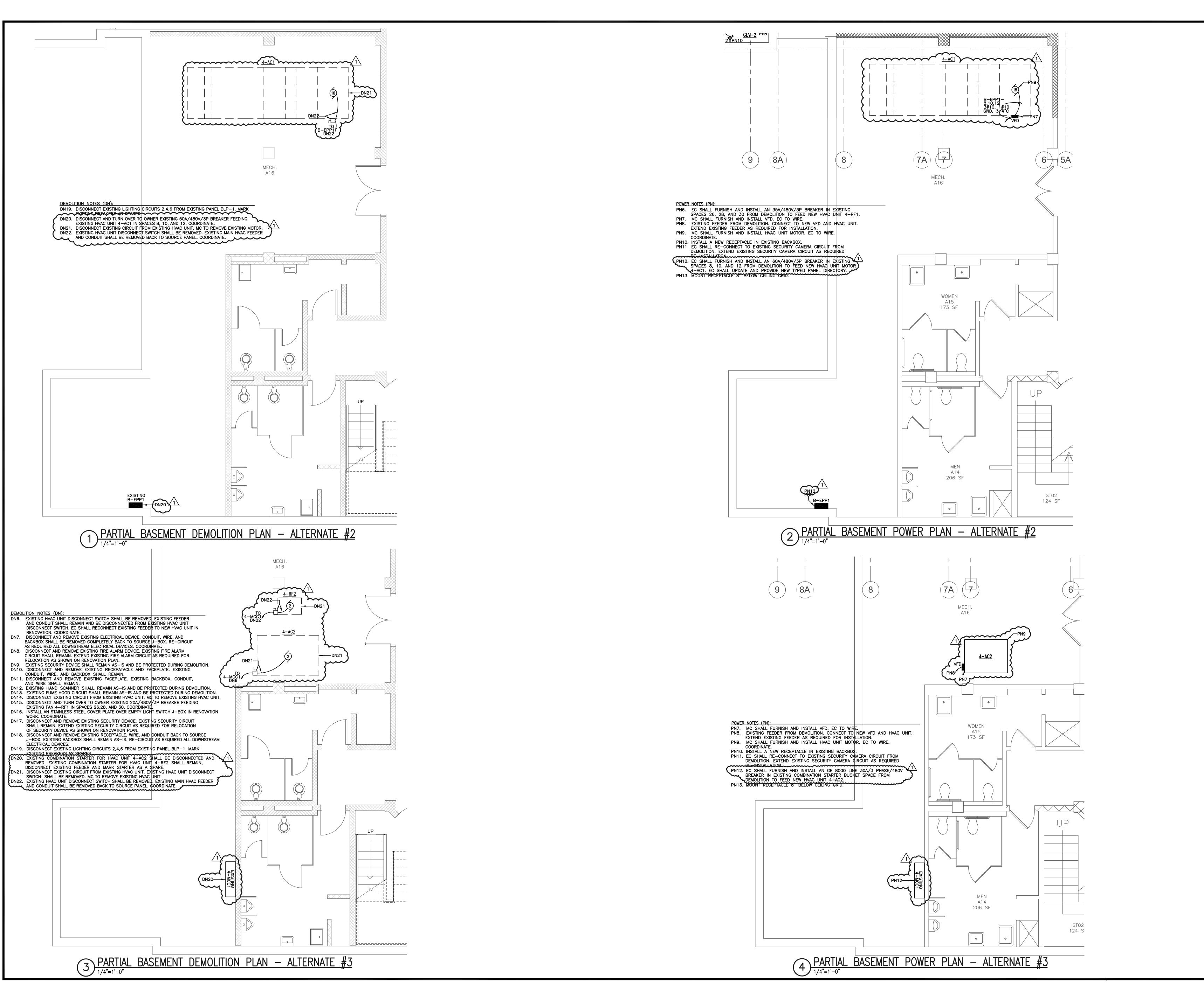
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**Building 4 Animal Care Renovations** 







ASSOCIATES INC.

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Architects/Engineers/Planners 1201 Main Street, Suite 2100 Columbia, S.C. 29201 tel. 803-256-0000 fax 803-255-7243

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consultants



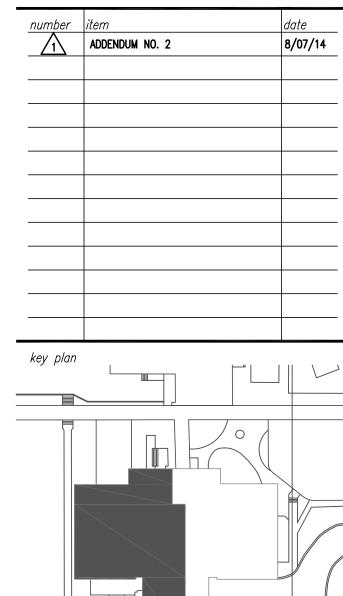
USC School of Medicine
Building 4 Animal Care Renovations
State Project # H27-Z152

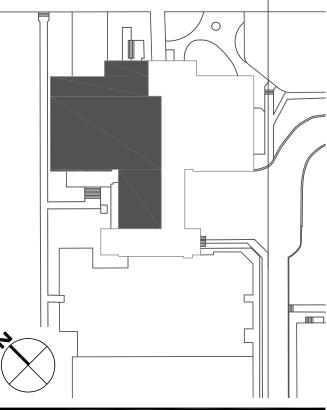
A/E project number
14015.01

seals/signature

# issued for ISSUED FOR CONSTRUCTION

# JUNE 30, 2014





PARTIAL BASEMENT
DEMOLITION AND
POWER PLAN ALTERNATE #2 & #3

**E4.0A** 

drawn by TLK checked by JBF