



**PHRC- Renovation Project 2nd Floor Suite
Columbia, South Carolina
University Project Number FP00000192**

January 11, 2019

ADDENDUM No. 1

This addendum forms a part of the Contract documents and modifies the original Bidding Documents and any previous Addenda as noted below. Acknowledge receipt of this Addendum in the space provided in the Bid Form. Failure to do so may subject Bidder to disqualification. Addendum, excluding full-size drawings, shall be printed in color.

MODIFICATIONS TO PREVIOUS ADDENDA:

1. None.

MODIFICATIONS TO DRAWINGS:

1. Reference Sheet A101, dated 12.20.18: DELETE Sheet and ADD in its place Sheet A101, dated 12.20.18, revised 01.11.19, attached.
 - a. Clarifications to roller shades.
 - b. Clarifications to demolished element.
2. Reference Sheet A201, dated 12.20.18: DELETE Sheet and ADD in its place Sheet A201, dated 12.20.18, revised 01.11.19, attached.
 - a. Clarifications to ceiling heights.
 - b. Clarifications to existing ceilings.
 - c. Clarification to existing APC vs anticipated APC.
 - d. Clarification to REFLECTED CEILING PLAN LEGEND.
3. Reference Sheet E102, dated 12.20.18.
 - a. Reference "GENERAL NOTES 1": DELETE "DRAWING E-100" and ADD in its place "DRAWING E001".
 - b. Reference detail 1/E102 "LIGHTING RENOVATION PLAN": At CORRIDOR H209, ADD lighting control ID#2 and shall be included in Alternate No. 1.
 - c. Reference detail 2/E102 "POWER & SYSTEMS RENOVATION PLAN,": Office 216A, PROVIDE one (1) multi-service (power/data/AV) flush-with-floor, fire rated poke through assembly floor box (Legrand 6AT Evolution Series or approved equal). Coordinate exact location and cover plate finish/color with Architect.
 - i. In floor box, provide two 20-amp duplex receptacles and AV/data section/plate per USC-UTS's direction. Receptacles shall be fed with 20-amp circuit (PLNC2-26) and 2#12, 1#12G. in ¾"C. Coordinate installation with owner's representative to access first floor ceiling space. Provide one (1) 1-1/4"C. with pull string from floor box to flat screen rough-in box. Provide one (1) 1"C. with pull string from floor box to first floor corridor ceiling plenum for data cables. Provide x-ray scan of existing floor to core drill for fire-rated poke-through floor box assembly.

MODIFICATIONS TO PROJECT MANUAL:

1. Reference Section 015000. DELETE Section 015000 and ADD in its place Section 015000, pages 1-4, inclusive, attached.
2. Reference Section 017900. DELETE Section 017900 and ADD in its place Section 017900, pages 1-4, inclusive, attached.

QUESTIONS:

1. Who/which entity is responsible for submission of documents to permit?
 - a. USC/Owner will be responsible for coordination of Permitting.
2. Access to HAZMAT report available?
 - a. HAZMAT report will be available for reference to awarded Contractor, if requested. USC will be responsible for all abatement.
3. Who is responsible if the HAZMAT test comes back positive?
 - a. USC will be responsible for all abatement.
4. Is parking available for contractor and subs? If so, where?
 - a. Reference Project Manual, USC SUPPLEMENTAL GENERAL CONDITIONS FOR CONSTRUCTION PROJECTS for additional information. Parking will be provided by USC, coordination of location will be determined during the Pre-Construction Meeting with Awarded Contractor.
5. How will entry into the building be handled?
 - a. Access to the building will be coordinated by USC.
6. Will an X-Ray of the floor be needed to check electrical?
 - a. See MODIFICATIONS TO DRAWINGS, this Addendum.
7. On sheet E102, a reference was made to a sheet E-100 in General Note 1. I do not see this sheet in the bid documents, was it deleted?
 - a. See MODIFICATIONS TO DRAWINGS, this Addendum
8. Sheet E102 indicates lighting control via occupancy sensor for corridor switchlegs d and b. I do not see any indication of occupancy sensor control for the corridor switchleg f which is part of Alternate No. 1. Is lighting control via occupancy sensor not required to be included in the Alternate No. 1 price?
 - a. Lighting control for switch leg "f" shall be included in Alternate No. 1.
9. I see that there are no panel schedules given for existing panels PLNC2 and PLND2. Will new circuit breakers be required to be provided for the added devices shown on sheet E102? If so, I will need to know the panel types in order to price breakers to match. I could determine the panel types with a site visit if necessary.

- a. Existing panels "PLNC2" and "PLND2" have enough spare 20-amp breakers for this renovation (9 and 12 spare breakers, respectively). The existing panels are GE A-Series, Catalog number AF55FD.
10. Does there need to be a separate control leg for each switch?
 - a. Each new space shall require independent lighting control (dimmer control in offices and switches in corridors). Reference Lighting Scheme Legend on Drawing E001 for specific performance specified lighting control system devices – i.e. occupancy and vacancy sensors, etc. These are represented by diamond symbols with numbers on plan.
11. What is the existing Fire Alarm System?
 - a. The existing fire alarm system is Edwards EST.
12. Which company is responsible for Fire Suppression System for the building?
 - a. There is no company responsible for the fire suppression for the building. This can be bid to any licensed fire suppression company.
13. Is contractor responsible for protecting blinds?
 - a. Reference Sheet A101 under GENERAL DEMOLITION NOTES and DEMOLITION KEY NOTE LEGEND.
14. Who is responsible for removing blinds?
 - a. Reference Sheet A101 under GENERAL DEMOLITION NOTES and DEMOLITION KEY NOTE LEGEND.
15. Is the height of the decking within the drawings?
 - a. No.
16. Why are their two different ceiling heights? If not required, may Contractor provide one ceiling height?
 - a. See MODIFICATIONS TO DRAWINGS, this Addendum
17. Will the partition walls going up need to match the profile of the ceiling?
 - a. Yes, unless noted otherwise.
18. Are alternatives being considered for carpet basis of design?
 - a. Reference Project Manual Section 012500 (SUBSTITUTION PROCEDURES) and Section 096813 (CARPET TILE) for performance specification.
19. How can GC access drawings?
 - a. Reference USC Purchasing link, accurate as to date of this addendum.
https://sc.edu/about/offices_and_divisions/purchasing/solicitations_awards/facilities_procurement/details.php?sid=2943

20. Are there any special trees that need to be avoided?
 - a. If required by construction activities outside the project area, reference Project Manual, USC SUPPLEMENTAL GENERAL CONDITIONS FOR CONSTRUCTION PROJECTS for additional information.
21. Will there be occupants in the building while construction is ongoing?
 - a. Yes, reference Project Manual Section 011000.
22. What furniture is to remain during construction?
 - a. Reference Sheet A101, dated 12.20.18, revised 01.11.19.
23. When furniture is moved is there a space to store it available for the Contractors use?
 - a. Any furniture to be moved should be kept within the suite.
24. What furniture is being demolished in the lobby?
 - a. See MODIFICATIONS TO DRAWINGS, this Addendum
25. Specification section 01 50 00 – Temporary Facilities, paragraph 2.2 B1 states that the general contractor must provide his own HVAC equipment unless the Owner authorizes use of the permanent HVAC system. May we have prior commitment from the Owner to use the permanent system?
 - a. Reference MODIFICATIONS TO PROJECT MANUAL, this ADDENDUM.
26. Specification section 01 79 00 – Demonstration and Training, paragraph 1.2 B mentions an allowance to furnish demonstration and training. Specification section 01 21 00 paragraph 3.3 does not include this allowance. Please clarify.
 - a. Reference MODIFICATIONS TO PROJECT MANUAL, this ADDENDUM.
27. The Open Office Area 224 on A101 shows D4 – Remove Roller Shades in two locations. There are two similar locations in Open Office 220. Should these two shades be designated with D6 or are there roller shades to be removed from Open Office 220?
 - a. Reference MODIFICATIONS TO DRAWINGS, this ADDENDUM.
28. Does the dotted line in Reception H206 on 1/A101 indicate casework to be removed?
 - a. Reference MODIFICATIONS TO DRAWINGS, this ADDENDUM.
29. Specification section 08 12 13, paragraph 2.1 A3 names Custom Metal Products as a supplier. Should this be Palmetto Metal Products?
 - a. No, the section references manufacturers, not suppliers.
30. The Finish Schedule on A801 indicates that the existing ceiling is to remain. The wall to be removed in Room 241 extends through the existing ceiling grid. The wall to be removed in H206 is part of a drywall soffit system that extends into the existing Room 245. How do you want these ceiling areas repaired?
 - a. See MODIFICATIONS TO DRAWINGS, this Addendum.

31. Please provide a ceiling tile specification.
a. See MODIFICATIONS TO DRAWINGS, this Addendum.

OTHER:

1. Sign-In Sheets, attached.
2. Prior Approvals
Providing compliance with contract documents, the following product is acceptable for bidding purposes:

Lighting Fixtures –

<u>Type</u>	<u>Manufacturer</u>	<u>Catalog Number</u>
A	LITHONIA H.E. WILLIAMS	2BLT4 48L ADSM EZ1 LP835 LT-24-L52/835-AF-(4) EQ CLIPS-DIM UNV
B	LITHONIA H.E. WILLIAMS	2BLT2 33L ADSM EZ1 LP835 LT-22-L39/835-AF-(4) EQ CLIPS-DIM UNV
BE	LITHONIA H.E. WILLIAMS	2BLT2 33L ADSM EZ1 LP835 BGTD LT-22-L39/835-AF-(4) EQ CLIPS-DIM UNV GTD
X	LITHONIA EMERGI-LITE	LQC 1/2 R BA-TXN-1/2-R

Lighting Controls WATTSTOPPER

END OF ADDEDNDUM NO. 1

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GENERAL DEMOLITION NOTES

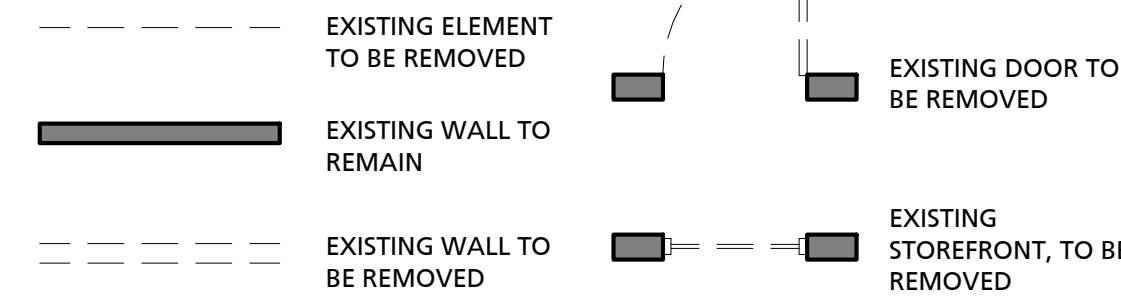
- EXISTING CONDITIONS BASED ON INFORMATION PROVIDED BY EXISTING PLANS AND INFORMATION GATHERED DURING GENERAL FIELD OBSERVATION. IF GC DISCOVERS EXISTING CONDITIONS DIFFER FROM THOSE SHOWN, CONTACT OWNER OR ARCHITECT IMMEDIATELY.
- GENERAL CONTRACTOR TO PROTECT ALL ADJACENT SURFACES TO REMAIN FROM DAMAGE DURING CONSTRUCTION. GENERAL CONTRACTOR TO REPAIR/REPLACE ANY ADJACENT SURFACES DAMAGED DURING CONSTRUCTION TO MATCH ORIGINAL CONDITIONS.
- GENERAL CONTRACTOR TO FIELD VERIFY CONDITIONS PRIOR TO START OF CONSTRUCTION.
- ALL EXISTING EXTERIOR ALUMINUM STOREFRONT TO REMAIN.
- SECURE ALL INTERIOR BLINDS DURING CONSTRUCTION FOR REUSE. INVENTORY ANY DAMAGED ROLLERSHADES, AND REPORT TO ARCHITECT.

DEMOLITION KEY NOTE LEGEND

- D1 REMOVE EXISTING DOOR, STORE FOR OWNER REUSE IN FUTURE PROJECT. OWNER TO PACKAGE AND RELOCATE FROM PROJECT SITE.
- D2 REMOVE WALL ENTIRELY. CEILING TO REMAIN.
- D3 REMOVE EXISTING FLOORING AND RUBBER BASE.
- D4 REMOVE EXISTING ROLLERSHADE AND SALVAGE FOR OWNER'S REUSE IN FUTURE PROJECT. OWNER TO PACKAGE AND RELOCATE FROM PROJECT SITE.
- D5 REMOVE EXISTING LIGHTING THIS AREA, SEE ELECTRICAL FOR EXACT LOCATIONS.
- D6 GC TO PROTECT EXISTING ROLLER SHADES, OPTION TO REMOVE, PROTECT AND REINSTALL AT COMPLETION OF PROJECT.
- D7 REMOVE EXISTING FLOORING AND RUBBER BASE. SCORE RUBBER BASE SO IT'S REMOVAL FROM THE EXISTING WALL CREATES MINIMAL DAMAGE/REQUIRED TOUCH-UP. EXISTING FURNITURE TO REMAIN.
- D8 REMOVE EXISTING ELEMENT.

DEMOLITION LEGEND

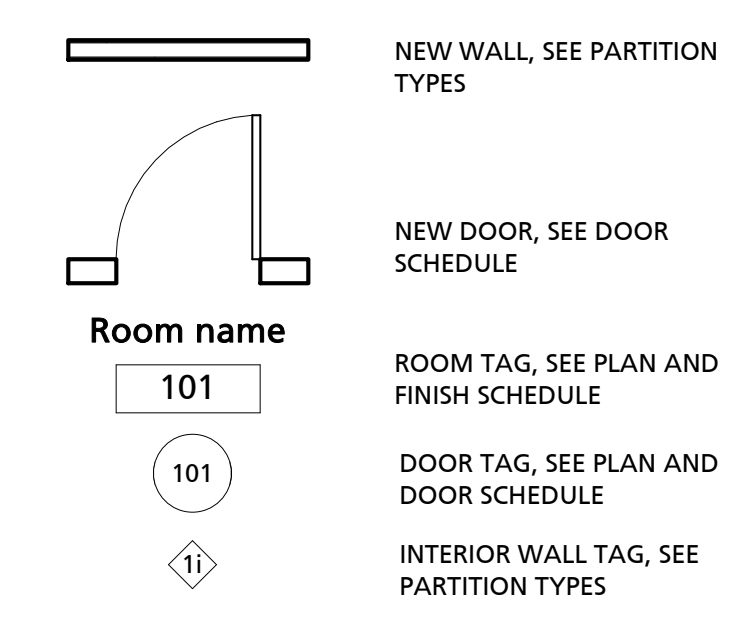
NOTE: SEE DEMOLITION TAGS AND NOTES FOR MORE DETAILS.



GENERAL FLOOR PLAN NOTES

- EXISTING CONDITIONS BASED ON INFORMATION PROVIDED BY EXISTING PLANS, OWNER, AND INFORMATION GATHERED DURING GENERAL FIELD OBSERVATION. IF GC DISCOVERS EXISTING CONDITIONS DIFFER FROM THOSE SHOWN, CONTACT OWNER OR ARCHITECT IMMEDIATELY. ALL DIMENSIONS ARE TO FACE OF EXISTING ELEMENT OR FACE OF NEW STUD UNLESS NOTED OTHERWISE. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION IMMEDIATELY.
- SEE ABOVE FOR FINISH SELECTION AND DETAILS.
- GENERAL CONTRACTOR TO COORDINATE ALL A/V REQUIREMENTS WITH TENANT. SEE G101 FOR PARTITION TYPES AND NOTES.

FLOOR PLAN LEGEND

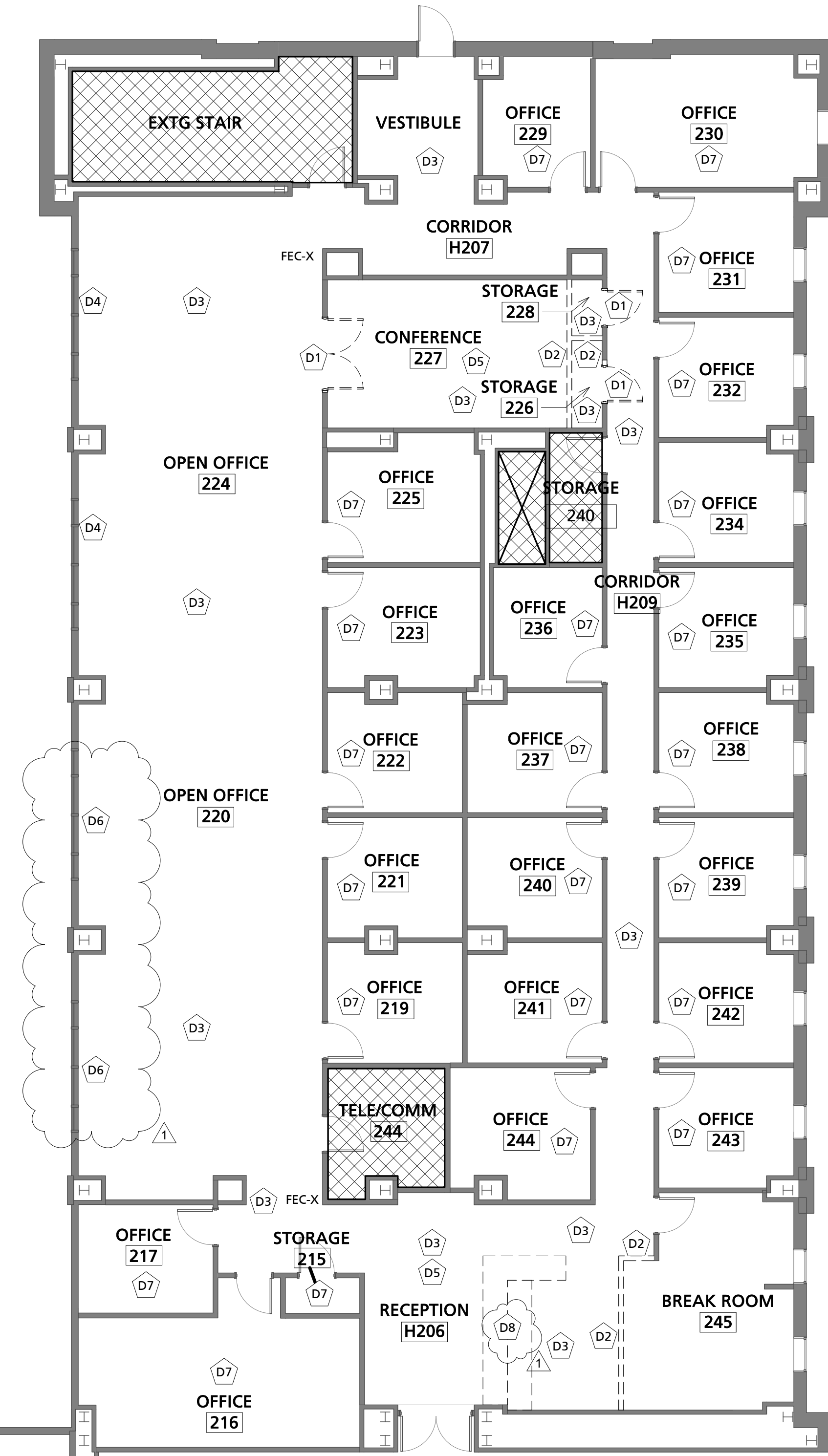


FIRE EXTINGUISHER CABINETS

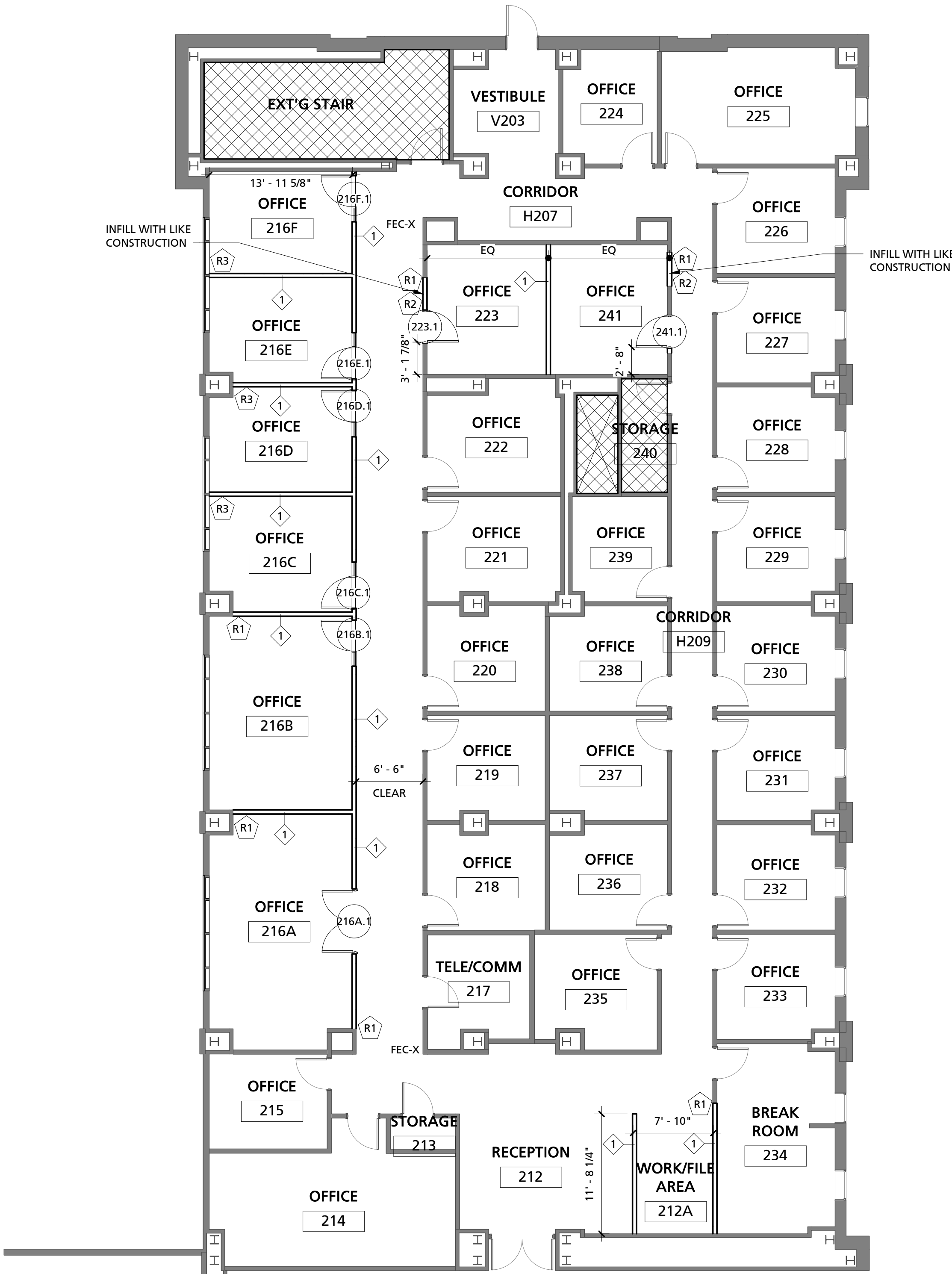
FIRE EXTINGUISHER CABINET (FEC-X): EXISTING TO REMAIN

RENOVATION KEY NOTE LEGEND

- R1 ALIGN FINISHED FACE OF WALLS
- R2 INFILL WALL TO MATCH EXISTING
- R3 ALIGN WALL TO CENTER OF EXISTING ELEMENT
- R4 NEW PARTITION TO FOLLOW JOG IN EXISTING CEILING.



1 SECOND FLOOR - DEMOLITION PLAN
1/8" = 1'-0"



2 SECOND FLOOR RENOVATION PLAN
1/8" = 1'-0"

NO WORK ANTICIPATED

RELEASED FOR BIDDING - DECEMBER 20, 2018

UNIVERSITY OF SOUTH CAROLINA

PHRC - RENOVATION PROJECT 2ND FLOOR SUITE
921 ASSEMBLY STREET, COLUMBIA, SC 29208

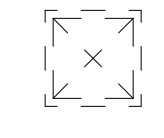
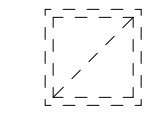
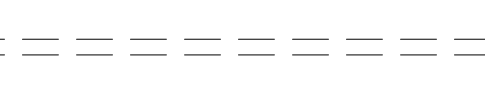
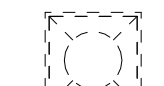
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UNIVERSITY OF SOUTH CAROLINA		PHRC - RENOVATION PROJECT 2ND FLOOR SUITE		FP00000192	
PROJECT NUMBER		SHEET NUMBER		DATE	
U-17-039-1		A101		11/12/2019 1:59:07 PM	
REVISIONS		FLOOR PLANS		DATE	
No.	Description	DATE			
1	ADDENDUM 1	01.11.19			

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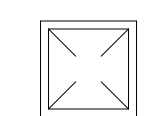
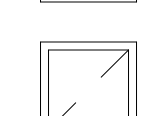
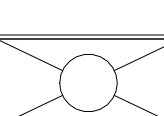
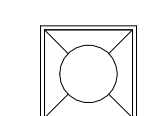
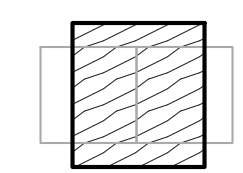
GENERAL REFLECTED CEILING PLAN NOTES

1. EXISTING CONDITIONS BASED ON INFORMATION PROVIDED BY EXISTING PLANS AND INFORMATION GATHERED DURING GENERAL FIELD OBSERVATION. IF GC DISCOVERS EXISTING CONDITIONS DIFFER FROM THOSE SHOWN, CONTACT OWNER OR ARCHITECT IMMEDIATELY.
2. ALL CEILING TILE TO BE CENTERED IN SPACE EXACTLY AS SHOWN UNLESS NOTED OTHERWISE. ALL APC TO BE INSTALLED PER SEISMIC REQUIREMENTS. SEE SPECS.
3. SEE ELECTRICAL FOR ALL LIGHT FIXTURES AND ELECTRICAL REQUIREMENTS.
4. SEE ELECTRICAL FOR ALL EMERGENCY AND EGRESS FIXTURE LOCATIONS.
5. SEE MECHANICAL FOR ALL MECHANICAL ELEMENTS.
6. COORDINATE WITH ELECTRICAL AND MECHANICAL FOR ALL FIXTURES AND EQUIPMENT SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION. WHERE ENGINEERING DRAWINGS CALL FOR ROOF PENETRATIONS WITH EXISTING ROOFING SYSTEM OR ROOF SYSTEM TO BE REPLACED, FLASH AND SEAL AS REQUIRED.









DEMOLITION REFLECTED CEILING PLAN LEGEND

-  SUPPLY DIFFUSER, SEE MECHANICAL.
-  RETURN REGISTER, SEE MECHANICAL.
-  EXISTING LIGHTING FIXTURE
-  EXISTING LIGHTING FIXTURE





REFLECTED CEILING PLAN LEGEND

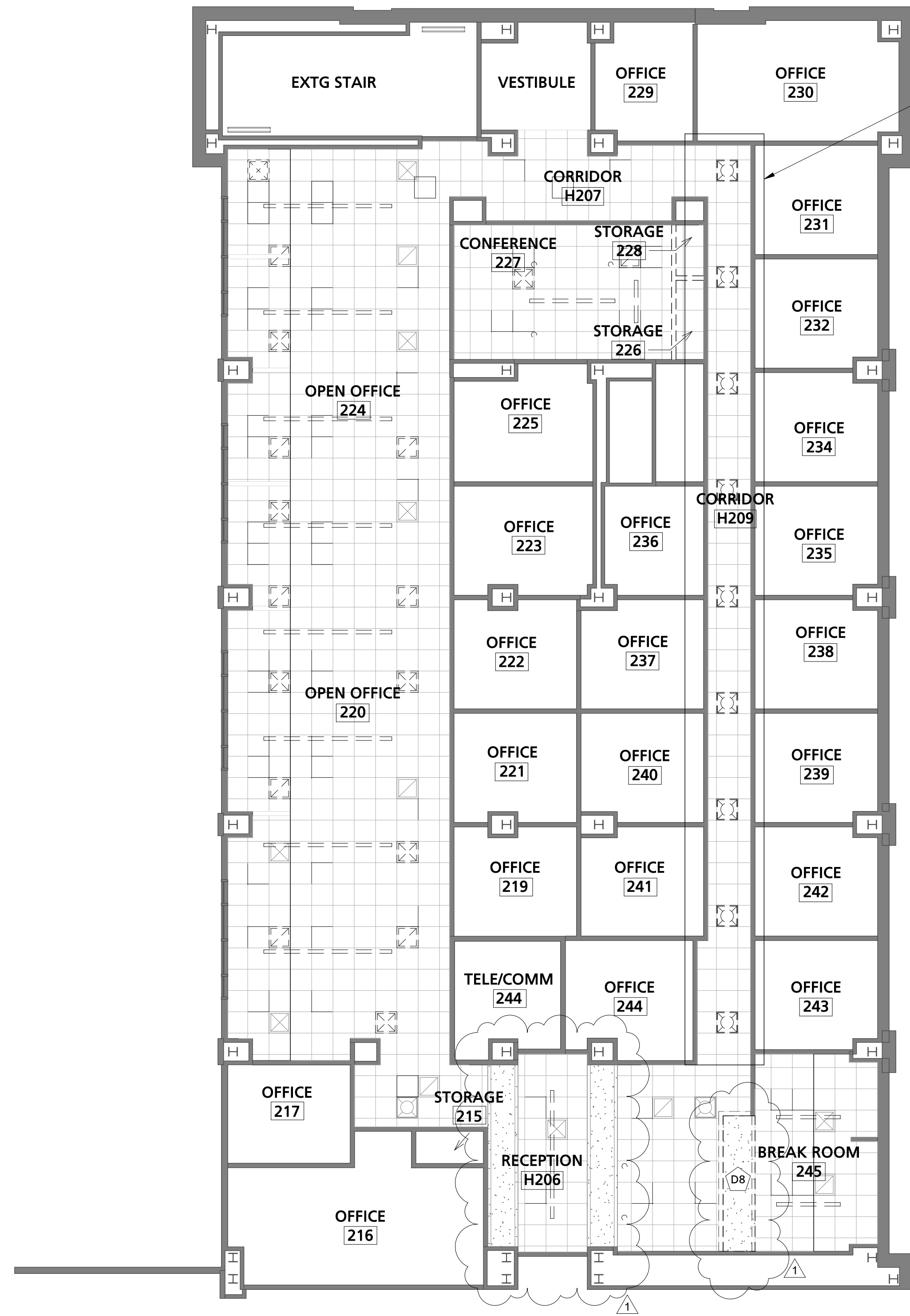
-  2x2' ACOUSTICAL PANEL CEILING (APC) (EXISTING). APPROXIMATE HEIGHTS EXISTING CEILING ARE INDICATED FOR REFERENCE ONLY. GC TO VERIFY EXISTING CONDITIONS.
-  SUPPLY DIFFUSER, SEE MECHANICAL.
-  RETURN REGISTER, SEE MECHANICAL.
-  2'x4' LIGHTING FIXTURE
-  2'x2' LIGHTING FIXTURE
-  AREA ANTICIPATED FOR CEILING REWORK. APC SYSTEM TO MATCH EXISTING.

DEMOLITION KEY NOTE LEGEND

-  D1 REMOVE EXISTING DOOR, STORE FOR OWNER REUSE IN FUTURE PROJECT. OWNER TO PACKAGE AND RELOCATE FROM PROJECT SITE.
-  D2 REMOVE WALL ENTIRELY. CEILING TO REMAIN.
-  D3 REMOVE EXISTING FLOORING AND RUBBER BASE.
-  D4 REMOVE EXISTING ROLLER SHADE AND SALVAGE FOR OWNER'S REUSE IN FUTURE PROJECT. OWNER TO PACKAGE AND RELOCATE FROM PROJECT SITE.
-  D5 REMOVE EXISTING LIGHTING THIS AREA, SEE ELECTRICAL FOR EXACT LOCATIONS.
-  D6 GC TO PROTECT EXISTING ROLLER SHADES, OPTION TO REMOVE, PROTECT AND REINSTALL AT COMPLETION OF PROJECT.
-  D7 REMOVE EXISTING FLOORING AND RUBBER BASE. SCORE RUBBER BASE SO IT'S REMOVAL FROM THE EXISTING WALL CREATES MINIMAL DAMAGE/REQUIRED TOUCH-UP. EXISTING FURNITURE TO REMAIN.
-  D8 REMOVE EXISTING ELEMENT.

RENOVATION KEY NOTE LEGEND

-  R1 ALIGN FINISHED FACE OF WALLS
-  R2 INFILL WALL TO MATCH EXISTING
-  R3 ALIGN WALL TO CENTER OF EXISTING ELEMENT
-  R4 NEW PARTITION TO FOLLOW JOG IN EXISTING CEILING.



1 SECOND FLOOR- DEMOLITION RCP
1/8" = 1'-0"



3 SECOND FLOOR- RENOVATION RCP
1/8" = 1'-0"

 NO CEILING WORK ANTICIPATED

REVISIONS	No.	Description	Date
1	ADDENDUM 1		01.11.19

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes requirements for temporary utilities, support facilities, and security and protection facilities.
- B. Related Requirements:
 - 1. Section 011000 "Summary" for work restrictions and limitations on utility interruptions.

1.3 QUALITY ASSURANCE

- A. Accessible Temporary Egress: Comply with applicable provisions in the United States Access Board's ADA-ABA Accessibility Guidelines and ICC/ANSI A117.1.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Dust-Control Adhesive-Surface Walk-Off Mats: Provide mats, minimum 36 by 60 inches .

2.2 EQUIPMENT

- A. Fire Extinguishers: Portable, UL rated; with class and extinguishing agent as required by locations and classes of fire exposures.
- B. HVAC Equipment: Owner authorizes use of permanent HVAC system. Provide vented, self-contained, liquid-propane-gas or fuel-oil heaters with individual space thermostatic control, if required to maintain conditioned space.
 - 1. Permanent HVAC System: Owner authorizes use of permanent HVAC system for temporary use during construction. Provide filter with MERV of 8 at each return-air grille in system and remove at end of construction.

PART 3 - EXECUTION

3.1 TEMPORARY FACILITIES, GENERAL

- A. Conservation: Coordinate construction and use of temporary facilities with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.
 - 1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. See other Sections for disposition of salvaged materials that are designated as Owner's property.

3.2 INSTALLATION, GENERAL

- A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
 - 1. Locate facilities to limit site disturbance as specified in Section 011000 "Summary."
- B. Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.3 TEMPORARY UTILITY INSTALLATION

- A. General: Install temporary service or connect to existing service.
 - 1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
- B. Water Service: Connect to Owner's existing water service facilities. Clean and maintain water service facilities in a condition acceptable to Owner. At Substantial Completion, restore these facilities to condition existing before initial use.
- C. Sanitary Facilities: Provide temporary toilets, wash facilities, safety shower and eyewash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.
 - 1. Use of Permanent Toilets: Use of Owner's existing or new toilet facilities is not permitted .
- D. Isolation of Work Areas in Occupied Facilities: Prevent dust, fumes, and odors from entering occupied areas.
 - 1. Prior to commencing work, isolate the HVAC system in area where work is to be performed.

- a. Disconnect supply and return ductwork in work area from HVAC systems servicing occupied areas.
 - b. Maintain negative air pressure within work area, using HEPA-equipped air-filtration units, starting with commencement of temporary partition construction, and continuing until removal of temporary partitions is complete.
2. Maintain dust partitions during the Work. Use vacuum collection attachments on dust-producing equipment. Isolate limited work within occupied areas using portable dust-containment devices.
 3. Perform daily construction cleanup and final cleanup using approved, HEPA-filter-equipped vacuum equipment.
- E. Electric Power Service: Connect to Owner's existing electric power service. Maintain equipment in a condition acceptable to Owner.
- F. Lighting: Provide temporary lighting with local switching that provides adequate illumination for construction operations, observations, inspections, and traffic conditions.
1. Install and operate temporary lighting that fulfills security and protection requirements without operating entire system.

3.4 SUPPORT FACILITIES INSTALLATION

- A. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with progress cleaning requirements in Section 017300 "Execution."
- B. Temporary Elevator Use: Use of elevators is not permitted.

3.5 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.
1. Where access to adjacent properties is required in order to affect protection of existing facilities, obtain written permission from adjacent property owner to access property for that purpose.
- B. Temporary Partitions: Provide floor-to-ceiling dustproof partitions to limit dust and dirt migration and to separate areas occupied by Owner from fumes and noise.
1. Construct dustproof partitions with two layers of 6-mil polyethylene sheet on each side. Cover floor with two layers of 6-mil polyethylene sheet, extending sheets 18 inches up the sidewalls. Overlap and tape full length of joints. Cover floor with fire-retardant-treated plywood.
 2. Protect air-handling equipment.
 3. Provide walk-off mats at each entrance through temporary partition.

3.6 OPERATION, TERMINATION, AND REMOVAL

- A. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.
- B. Maintenance: Maintain facilities in good operating condition until removal.
 - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
 - 1. Materials and facilities that constitute temporary facilities are property of Contractor. Owner reserves right to take possession of Project identification signs.
 - 2. At Substantial Completion, repair, renovate, and clean permanent facilities used during construction period. Comply with final cleaning requirements specified in Section 017700 "Closeout Procedures."

END OF SECTION 015000

SECTION 017900 - DEMONSTRATION AND TRAINING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for instructing Owner's personnel, including the following:
 - 1. Instruction in operation and maintenance of systems, subsystems, and equipment.

1.3 QUALITY ASSURANCE

- A. Facilitator Qualifications: A firm or individual experienced in training or educating maintenance personnel in a training program similar in content and extent to that indicated for this Project, and whose work has resulted in training or education with a record of successful learning performance.
- B. Instructor Qualifications: A factory-authorized service representative, complying with requirements in Section 014000 "Quality Requirements," experienced in operation and maintenance procedures and training.
- C. Videographer Qualifications: A professional videographer who is experienced photographing demonstration and training events similar to those required.

1.4 COORDINATION

- A. Coordinate instruction schedule with Owner's operations. Adjust schedule as required to minimize disrupting Owner's operations and to ensure availability of Owner's personnel.
- B. Coordinate instructors, including providing notification of dates, times, length of instruction time, and course content.
- C. Coordinate content of training modules with content of approved emergency, operation, and maintenance manuals. Do not submit instruction program until operation and maintenance data have been reviewed and approved by Architect.

1.5 INSTRUCTION PROGRAM

- A. Program Structure: Develop an instruction program that includes individual training modules for each system and for equipment not part of a system, as required by individual Specification Sections.
- B. Training Modules: Develop a learning objective and teaching outline for each module. Include a description of specific skills and knowledge that participant is expected to master. For each module, include instruction for the following as applicable to the system, equipment, or component:
 - 1. Basis of System Design, Operational Requirements, and Criteria: Include the following:
 - a. System, subsystem, and equipment descriptions.
 - b. Performance and design criteria if Contractor is delegated design responsibility.
 - c. Operating standards.
 - d. Regulatory requirements.
 - e. Equipment function.
 - f. Operating characteristics.
 - g. Limiting conditions.
 - h. Performance curves.
 - 2. Documentation: Review the following items in detail:
 - a. Emergency manuals.
 - b. Systems and equipment operation manuals.
 - c. Systems and equipment maintenance manuals.
 - d. Product maintenance manuals.
 - e. Project Record Documents.
 - f. Identification systems.
 - g. Warranties and bonds.
 - h. Maintenance service agreements and similar continuing commitments.
 - 3. Emergencies: Include the following, as applicable:
 - a. Instructions on meaning of warnings, trouble indications, and error messages.
 - b. Instructions on stopping.
 - c. Shutdown instructions for each type of emergency.
 - d. Operating instructions for conditions outside of normal operating limits.
 - e. Sequences for electric or electronic systems.
 - f. Special operating instructions and procedures.
 - 4. Operations: Include the following, as applicable:
 - a. Startup procedures.
 - b. Equipment or system break-in procedures.
 - c. Routine and normal operating instructions.
 - d. Regulation and control procedures.
 - e. Control sequences.
 - f. Safety procedures.
 - g. Instructions on stopping.
 - h. Normal shutdown instructions.
 - i. Operating procedures for emergencies.
 - j. Operating procedures for system, subsystem, or equipment failure.
 - k. Seasonal and weekend operating instructions.
 - l. Required sequences for electric or electronic systems.
 - m. Special operating instructions and procedures.
 - 5. Adjustments: Include the following:

- a. Alignments.
- b. Checking adjustments.
- c. Noise and vibration adjustments.
- d. Economy and efficiency adjustments.
6. Troubleshooting: Include the following:
 - a. Diagnostic instructions.
 - b. Test and inspection procedures.
7. Maintenance: Include the following:
 - a. Inspection procedures.
 - b. Types of cleaning agents to be used and methods of cleaning.
 - c. List of cleaning agents and methods of cleaning detrimental to product.
 - d. Procedures for routine cleaning.
 - e. Procedures for preventive maintenance.
 - f. Procedures for routine maintenance.
 - g. Instruction on use of special tools.
8. Repairs: Include the following:
 - a. Diagnosis instructions.
 - b. Repair instructions.
 - c. Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - d. Instructions for identifying parts and components.
 - e. Review of spare parts needed for operation and maintenance.

1.6 PREPARATION

- A. Assemble educational materials necessary for instruction, including documentation and training module. Assemble training modules into a training manual organized in coordination with requirements in Section 017823 "Operation and Maintenance Data."
- B. Set up instructional equipment at instruction location.

1.7 INSTRUCTION

- A. Facilitator: Engage a qualified facilitator to prepare instruction program and training modules, to coordinate instructors, and to coordinate between Contractor and Owner for number of participants, instruction times, and location.
- B. Engage qualified instructors to instruct Owner's personnel to adjust, operate, and maintain systems, subsystems, and equipment not part of a system.
 1. Architect will furnish an instructor to describe basis of system design, operational requirements, criteria, and regulatory requirements.
 2. Owner will furnish an instructor to describe Owner's operational philosophy.
 3. Owner will furnish Contractor with names and positions of participants.
- C. Scheduling: Provide instruction at mutually agreed-on times. For equipment that requires seasonal operation, provide similar instruction at start of each season.
 1. Schedule training with Owner with at least seven days advance notice.

- D. Training Location and Reference Material: Conduct training on-site in the completed and fully operational facility using the actual equipment in-place. Conduct training using final operation and maintenance data submittals.
- E. Cleanup: Collect used and leftover educational materials and give to Owner. Remove instructional equipment. Restore systems and equipment to condition existing before initial training use.

PART 2 - PRODUCTS

PART 3 - EXECUTION

END OF SECTION 017900

**University of South Carolina
Pre Bid Sign In Sheet
Columbia, South Carolina**

Project Name: PHRC Renovation 2nd Floor Suite
 Project Number: FP00000192
 Pre Bid Date & Time: January 8, 2019 10:00am

SWMBE Contractor?	Name	Company Name	Address	Phone #	Email
S W M B E	JOE BRUNSON	JSC SYSTEMS	444 DENNIS ST COLUMBIA	803 940 5216	J.BRUNSON@JSCSYSTEMS.NET
S W M B E	ERIC WICKER	BRAD'S ELECTRIC, INC	604 GREENWOOD RD WEST COLUMBIA	803 791 7344	ewicker@bradselectricinc.com
S W M B E	Tyler Meyer	FIRST CLASS CONST.	126 B SUBER Rd. Columbia, SC 29201	803 926-1922	tmeyer@fcccon.com
S W M B E	Harold Detweiler	Sumter Carolina	31 S. Church St Summerton SC 29148	803 840 2444	haldetweiler@gmail.com
S W M B E	Dennis Childs	AOS Specialty Contractors	1224 Two Notch Rd Lexington, SC 29073	803.798. 6831	dennis@aossc.org
S W M B E	Jordan Fuller	Satchel Con.	174 E. Bay St. 300C Charleston SC 29401	843 654 9250	Jordan@satchel construction.com
S W M B E	Angel Mayo	Fazmee Ele.	901 Colleton St. Columbia, SC 29203	(803) 463- 0093	Angel@FAZMEE.BIZ
S W M B E	Joseph M. Temple	M.A.R Construction	NEWberry 2407 Willson Blvd.	843-798 1070	Estimating@ MARconstruction.COM
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****By signing this sheet you agree to receive information electronically.

Max Hazen KCC 1625 Bluff Rd 803-683 0820 Max @ Kirkcommercialconstruction.com

University of South Carolina
Pre Bid Sign In Sheet
 Columbia, South Carolina

Project Name: PHRC Renovation 2nd Floor Suite
 Project Number: FP00000192
 Pre Bid Date & Time: January 8, 2019 10:00am

SWMBE Contractor?	Name	Company Name	Address	Phone #	Email
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S W M B E	JEREMMY JENKINS	FARMER Construction S.I.	2727 School House Rd	803-600-7689	fconstruction@ecollc.biz
S W M B E					

****By signing this sheet you agree to receive information electronically.

Site Visit @ USC PHRC

01.08.19

(Secondary Sign-In)

Max Hazen KLL

Jose Blasius SSC

Angel Mayo Farmer Electric

ERIC WICKER BRAD'S ELECTRIC

Tyler Meyer FIRST CLASS CONST.

Dennis Childs AOS Specialty Contractors

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