

**DM12 Upstate Hodge Center
Arena Humidity Correction
University of South Carolina - Upstate**

Project # H34-9543-JM

Addendum No. 1

DATE: November 7, 2013
FROM: PERITUS ENGINEERS & ASSOCIATES, INC.
TO: ALL BIDDERS

The following items add to, modify, clarify, or otherwise alter the Drawings and/or specifications and will become a part of the Contract Documents. Where a portion of the Drawings and/or specifications is added to, modified, clarified, or otherwise altered, the portion not so affected shall remain. Bidder shall include all effects that these items may have on his proposal.

Acknowledge receipt of this addendum in the space provided on the Bid Form. Failure to do so may subject Bidder to disqualification.

Pre-Bid Meeting

1. The attendance sign in sheet from the prebid conference meeting held Thursday, 10/31/2013, at 10 AM is included as an attachment with this addendum.

Clarifications

1. Reminder that bid opening location is 743 Greene St., Conference Room 53 ,
Columbia, SC 29208 on 11/14/2013 at 2:00pm

Written Questions / Inquiries from bidders:

Question #1: Are contractors responsible for purchasing the control valves and pump or is owner supplying them?

Response to Question #1: Owner is NOT supplying control valves, controls, or pump. Contractor shall include the equipment specified and scheduled in the drawings and specifications.

Question #2: Who is providing the boiler owner or contractor ?

Response to Question #2: Contractor shall include boiler.

Question #3: Is there a detail for coil #1 where the 2 1/2" pipe comes in drawing M-1 there is no labeling of the coils ?

Response to Question #3: No, coil #1 piping is connected to existing coil piping. Existing mixing control valve and tertiary pump shall remain.

Question #4: Is it strait feed piping off the HW 3 way mixing valve?

Response to Question #4: HW 3 way mixing valve is existing and shall remain.

Question #5: The spec. indicates in 2.02.D.1 that "Units shall have overall dimensions as indicated and fit into the space available with adequate clearance for service". There is no where on any of the documentation that I received that gives the unit dimensions, unit max. dimensions, or the max. section sizes for the unit sections to get into the building (since this is an indoor unit). On drawing M-1 there is a room plan view and a separate elevation view but the elevation view states "No Scale" and it is not known if the plan view is to scale. We need Unit Dimensions and need to know if the sections are going through a fixed opening and what size that opening is.

Response to Question #5: Included with Addendum # 1 are clouded revisions to drawing M-1 to indicate dimensional requirements of AC-1.

Question #6: The spec. states Arrg. 3 type fans with external isolation and a structural fully welded frame. The schedule seems to state that the Fans are cube type with internal isolation. Does this mean cube type fans are required and does this mean that fans from formed galvanized steel are not allowed? Please clarify.

Response to Question #6: Supply Fans shall be direct drive, un-housed plug/plenum type fans with 1" spring type isolators.

Question #7: Fans are called out to have Piezo Rings installed. Transducers are indicated but it is not clear on who is to provide. We can provide as an ADDER if necessary.

Response to Question #7: Airflow measurement "Piezo Rings" shall be provided with transducer signal.

Question #8: VFDs are indicated in the spec. but is not clear on who is to provide. The schedule indicates Factory Mounted VFDs but again does not indicate who is to provide. We can include as an ADDER if necessary.

Response to Question #8: VFDs are not required. Existing 30 HP VFD is to be re-used for new AC-1 installation and its two (2) supply fans.

Question #9: The spec. also states “separate” VFDs for the unit. Does this mean that there is to be one VFD per Fan? 1.2.02.F in the spec. is titled Electrical Power & Controls but it does not really give any information on the unit electrical or controls requirements for us to provide. What are the requirements for the AHU manufacturer?

Response to Question #9: VFDs are not required. Existing 30 HP VFD is to be re-used for new AC-1 installation and its two (2) supply fans.

Question #10: Our std. is to provide a 120V convenience circuit for lighting with a light switch and receptacle outside the Fan Section. This is single point 120V with power provided by others. Is this sufficient?

Response to Question #10: Lighting is not included in the specifications.

Question #11: For the fans we can provide individual VFDs per fan w/ integral disconnects on each VFD. Or we can provide one VFD for both fans w/individual non-fused disconnects and overloads for each fan motor with an integral VFD disconnect switch. Or we could have a VFD panel with redundant VFDs, Main disconnect switch, individual non-fused disconnects & overloads, HOA switch. Bypass can be included in most of these. Or we can mount VFDs, or panels that are provided to us by others. Please let me know what to provide or what ADDER to provide.

Response to Question #11: VFDs are not required. Existing 30 HP VFD is to be re-used for new AC-1 installation.

Question #12: Please let me know if we are to provide controls or mount controls provided by others.

Response to Question #12: Refer to specification section 15900, which includes contact information for “Johnson Controls”

Question #13: The only Factory testing mentioned was out standard Electrical validation testing. We will also do a Fan Balance verification as a Std.. No other factory tests such as Air Flow, Leakage, Deflection, or Sound are mentioned to definitely be performed. 2.02.D.4 mentions a deflection and leakage requirement but no definite testing is mentioned. Our std. advertised deflection and leakage of our casing would meet the requirements in 2.02.D.4. We would not do a factory test unless specified. No Installation or Start-Up Supervision is mentioned. No Owner Training is mentioned. These could be provided as an ADDER unless specified. The installation and start-up would be supervision only by us if added. All related duties would be performed by others. Please let me know what to include and how.

Response to Question #13: Provide factory tests as outlined in the specifications. The contractor is responsible for new equipment start-up and warranty.

Drawings

1. Dwg E-1, Detail C: Add note as follows: Connect auxiliary contacts from each circuit protector and OL relay as shown to the VFD such that the VFD is de-energized when the Circuit Protector is opened. Provide a permanent nameplate on the Overload Enclosure to read " Caution: Turn VFD off prior to opening disconnects." Nameplate to be red, with ¼" white letters, minimum 3"x4".
2. Dwg DM-1. Sketch SKM-1 Bulletin drawing with clouded revisions
3. Dwg M-1. Sketch SKM-2, SKM-3, and SKM-4 Bulletin drawing with clouded revisions
4. Dwg M-2. Sketch SKM-5 Bulletin drawing with clouded revisions.

Approvals

1. Specification section 15800: "Climate Craft" is APPROVED for Indoor Air Handling Unit.
2. Specification section 15513 and Drawing M-2: "RBI" is APPROVED for High-Efficiency Condensing Boiler and Buffer Tank, "Patterson Pump" is APPROVED for pumps, and "Nexus" is included for Circuit Breaker.

Specifications

1. Section 15800, page 3, Paragraph 2.02.D.4 Insert the following sentence after the first sentence: "22 gauge steel may be used for exterior casing panels where foam insulation is used."
2. Section 15800, page 4, Paragraph 2.02.D.5 Delete the sentence "20 gauge perforated galvanized liner in the fan section."
3. Section 15800, page 4, Paragraph 2.02.D.6 Insert the following sentence after the first sentence: "2" thick, R-12, polyurethane foam insulation is also acceptable."
4. Section 15800, page 5, Paragraph, 2.02.E.1.b Replace the first sentence with "Provide Piezo type airflow monitoring devices on supply air fan inlets with transducers signal".
5. Section 15800, page 5, Paragraph 2.02.E.1.d Delete this paragraph and replace with the following: "Air Handling Unit shall utilized existing 30 HP variable frequency drive."

END OF ADDENDUM NO. 1

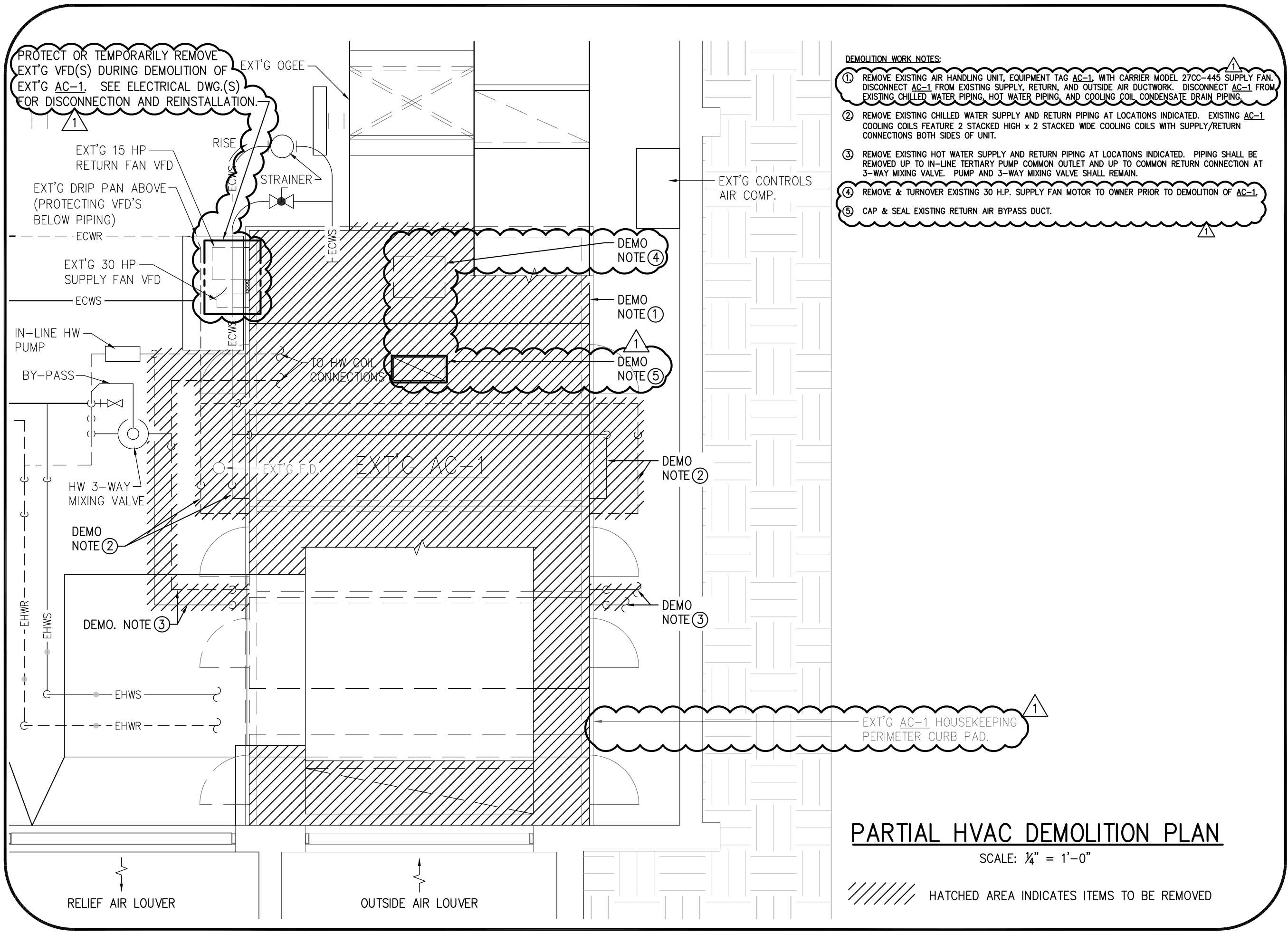
University of South Carolina-Upstate Campus Pre Bid Sign In Sheet

Spartanburg, South Carolina

Project Name: DM12 Upstate Hodge Center Arena Humidity
Project Number: H34-9543-JM-D
Pre Bid Date & Time: October 31, 2013 @ 10am

Name	Company Name	Address	Phone #	Email
ROBERT KNIGHT	Cullum Services Inc	121 Webb St. Simpsonville SC	864-283-2167	uzarrague@culluminc.com
ESTERAN UZARRAGA	Superior Maintenance and Piping	1605 Augusta Rd. Kershawville 605 Sam Dadd	803-508-3031	davidforsten@gmail.com
David Forsten	Melader Mechanical	Spartanburg, SC 29003	864-599-2003	willt@meladermechanical.com
Will Thompson	Periths Engineers	PO Box 16598 Greenville, SC 29606	864-271-8287	jparler@perithsengineers.com
Jody Parker	USC UPSTATE	800 UNIVERSITY BLVD SPARTANBURG, SC 29003	864-508-5338	perotto@uscupstate.edu
KEO SCOTT				

* Please make sure you list your company name as registered with ULR.
 * By signing and providing your email address, you are authorizing the University of South Carolina to send you information electronically.



- DEMOLITION WORK NOTES:**
- ① REMOVE EXISTING AIR HANDLING UNIT, EQUIPMENT TAG AC-1, WITH CARRIER MODEL 27CC-445 SUPPLY FAN. DISCONNECT AC-1 FROM EXISTING SUPPLY, RETURN, AND OUTSIDE AIR DUCTWORK. DISCONNECT AC-1 FROM EXISTING CHILLED WATER PIPING, HOT WATER PIPING, AND COOLING COIL CONDENSATE DRAIN PIPING.
 - ② REMOVE EXISTING CHILLED WATER SUPPLY AND RETURN PIPING AT LOCATIONS INDICATED. EXISTING AC-1 COOLING COILS FEATURE 2 STACKED HIGH x 2 STACKED WIDE COOLING COILS WITH SUPPLY/RETURN CONNECTIONS BOTH SIDES OF UNIT.
 - ③ REMOVE EXISTING HOT WATER SUPPLY AND RETURN PIPING AT LOCATIONS INDICATED. PIPING SHALL BE REMOVED UP TO IN-LINE TERTIARY PUMP COMMON OUTLET AND UP TO COMMON RETURN CONNECTION AT 3-WAY MIXING VALVE. PUMP AND 3-WAY MIXING VALVE SHALL REMAIN.
 - ④ REMOVE & TURNOVER EXISTING 30 H.P. SUPPLY FAN MOTOR TO OWNER PRIOR TO DEMOLITION OF AC-1.
 - ⑤ CAP & SEAL EXISTING RETURN AIR BYPASS DUCT.

PARTIAL HVAC DEMOLITION PLAN

SCALE: 1/4" = 1'-0"

////// HATCHED AREA INDICATES ITEMS TO BE REMOVED

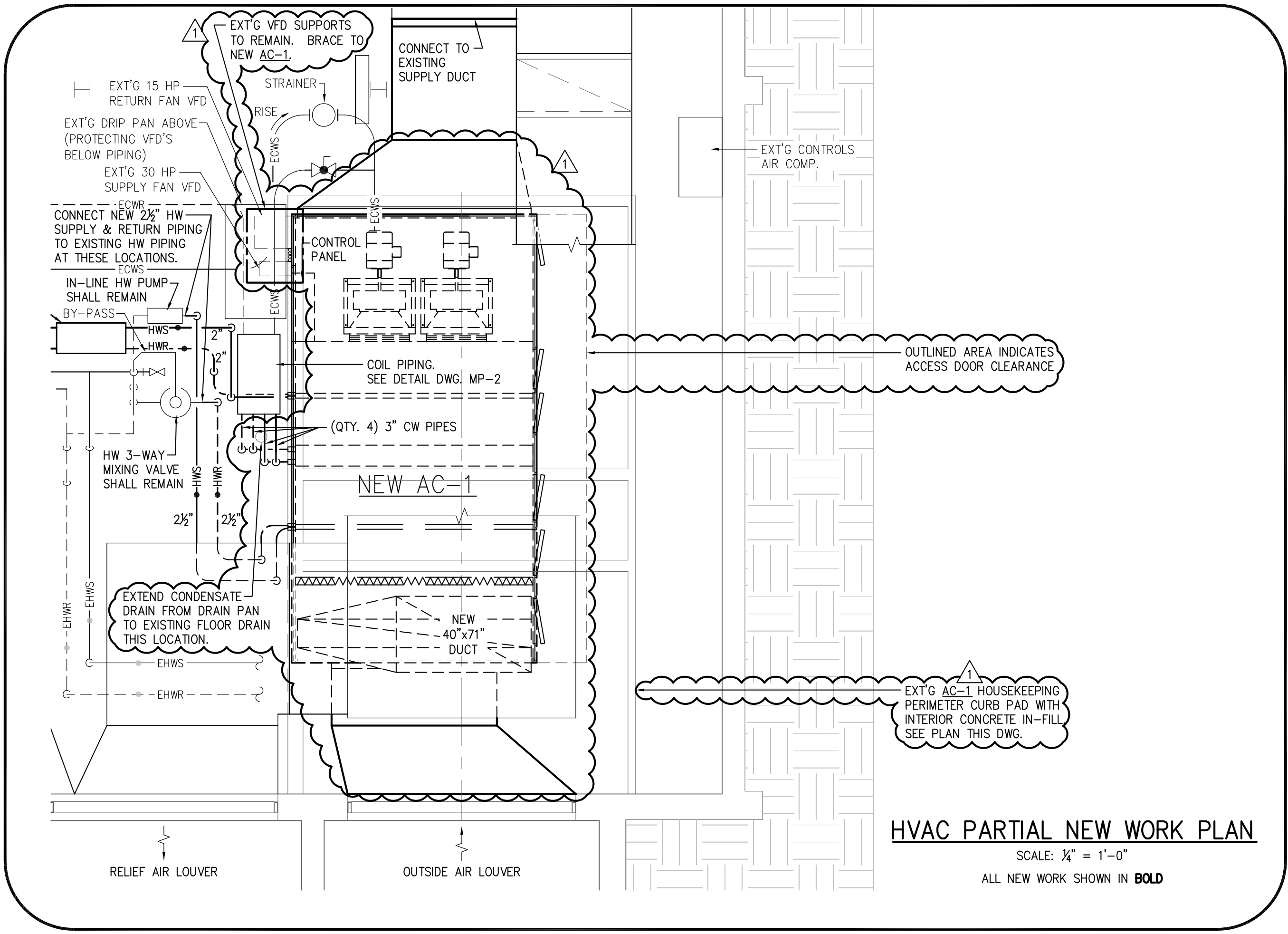
DM-12 UPSTATE HODGE CENTER ARENA HUMIDITY CORRECTION
 SPARTANBURG, SOUTH CAROLINA
 SC STATE PROJECT #H34-9543-JM
 ADDENDUM #1 (REF. DWG. DM-1)

By: TMI
 Date: 11-4-13
 Chkd: JCP
 Job: P.E.#130103

SHEET NO. SKM-1
 OF 5

P.O. BOX 16598 GREENVILLE, SOUTH CAROLINA 29606

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HVAC PARTIAL NEW WORK PLAN

SCALE: 1/4" = 1'-0"
 ALL NEW WORK SHOWN IN **BOLD**

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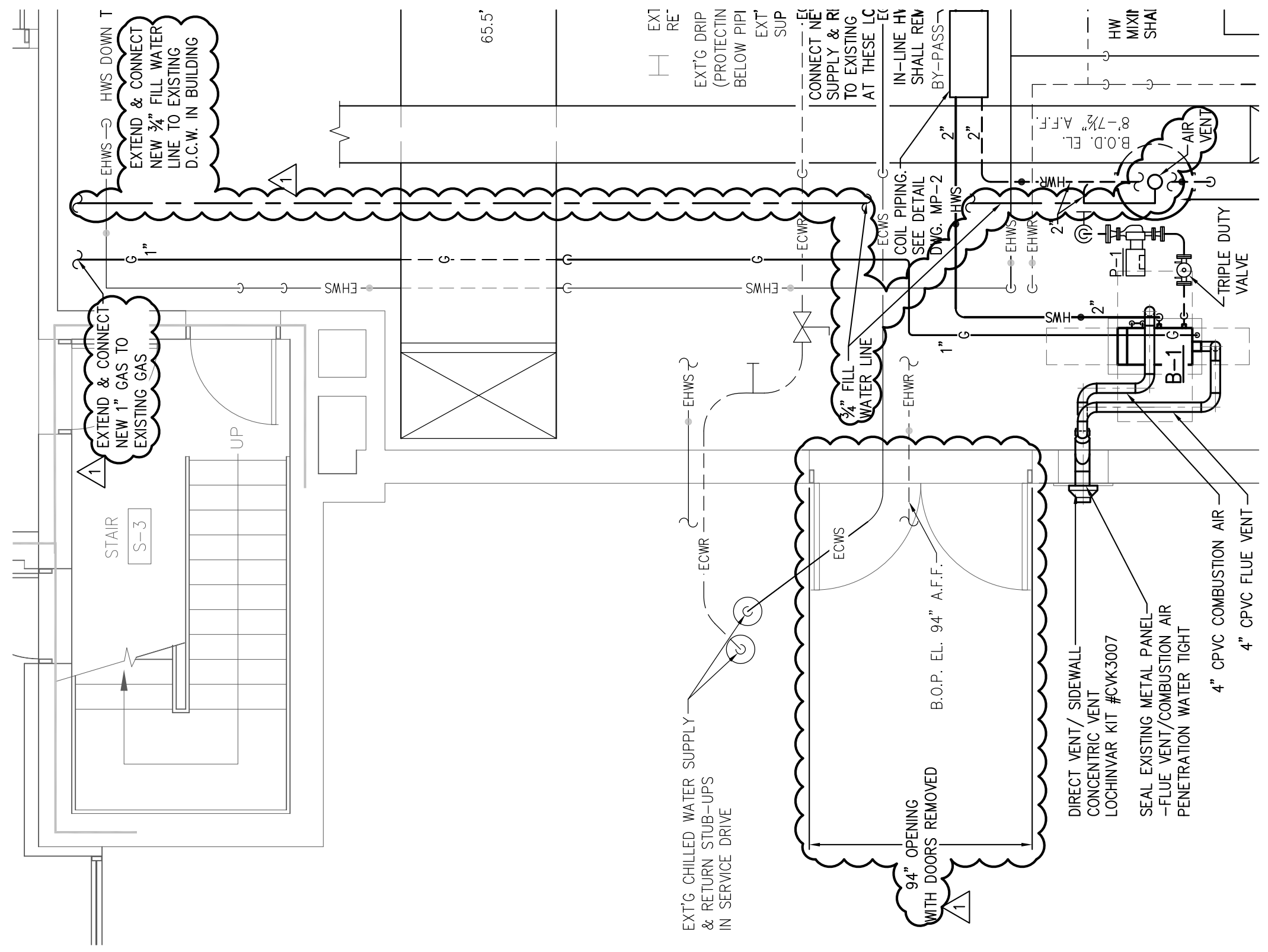
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DM-12 UPSTATE HODGE CENTER ARENA HUMIDITY CORRECTION
 SPARTANBURG, SOUTH CAROLINA

SHEET No. SKM-2
 Of 5
 By: TMI
 Date: 11-4-13
 Chkd: JCP
 Job: P.E.#130103

SC STATE PROJECT #H34-9543-JM
 ADDENDUM #1 (REF. DWG. M-1)

P.O. BOX 16598 GREENVILLE, SOUTH CAROLINA 29606

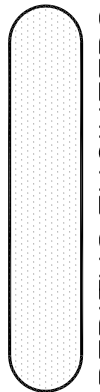


HVAC PARTIAL NEW WORK PLAN

SCALE: 1/4" = 1'-0"

ALL NEW WORK SHOWN IN **BOLD**

Peritus



PERITUS ENGINEERS

DM-12 UPSTATE HODGE CENTER ARENA HUMIDITY CORRECTION

SPARTANBURG, SOUTH CAROLINA

SC STATE PROJECT #H34-9543-JM

ADDENDUM #1 (REF. DWG. M-1)

By: TMI

Date: 11-4-13

Chkd: JCP

Job: P.E.#130103

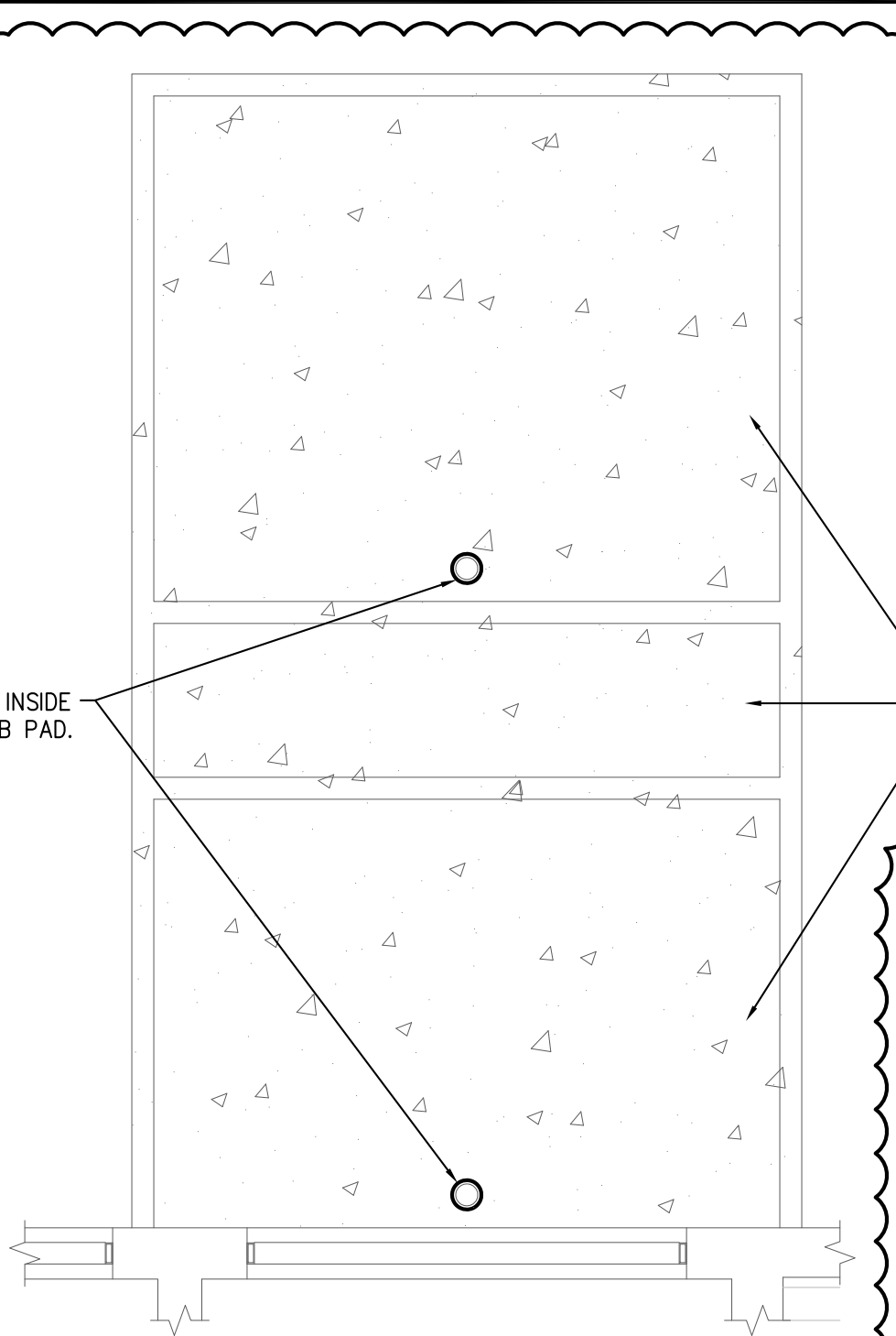
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SKM-3

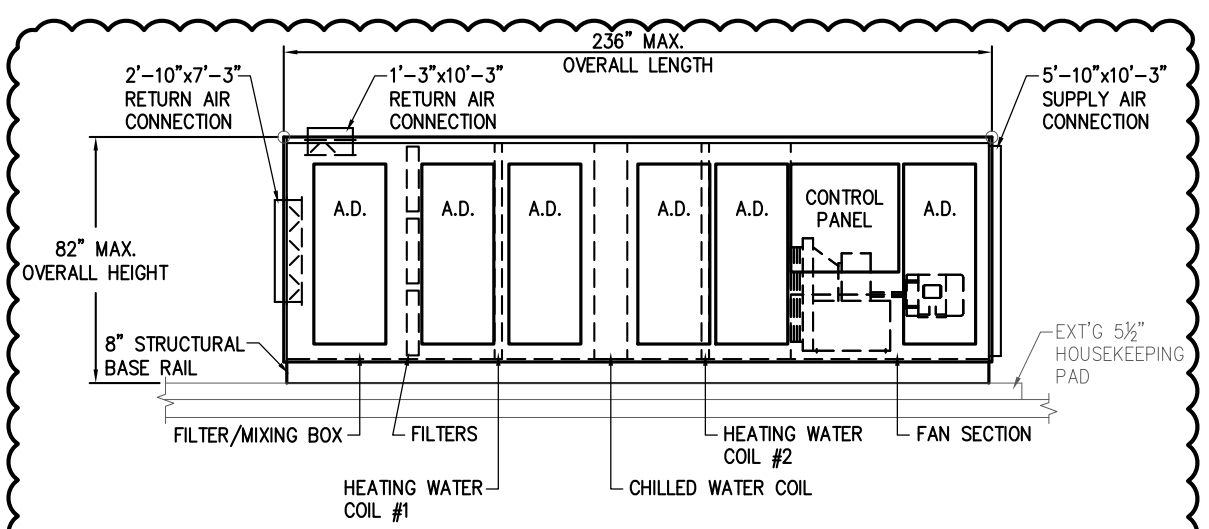
OF

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P.O. BOX 16598 GREENVILLE, SOUTH CAROLINA 29606



**EXISTING AC-1
HOUSEKEEPING PERIMETER CURB PAD
MODIFICATION PLAN**
SCALE: 1/4" = 1'-0"



NEW AC-1 DETAIL
NO SCALE
INDIVIDUAL SHIPPING SPLITS ALONG LENGTH OF NEW AC-1 AS REQUIRED TO ENTER MECHANICAL ROOM 94" WIDE DOOR OPENING (WITH DOORS REMOVED). OVERALL WIDTH OF NEW AC-1 NOT TO EXCEED 129"

DM-12 UPSTATE HODGE CENTER ARENA HUMIDITY CORRECTION
SPARTANBURG, SOUTH CAROLINA
SC STATE PROJECT #H34-9543-JM
ADDENDUM #1 (REF. DWG. M-1)

By: TMI
Date: 11-4-13
Chkd: JCP
Job: P.E.#130103

SHEET NO. SKM-4
OF 5

