ADDENDUM NUMBER TWO

for

DARLA MOORE SCHOOL OF BUSINESS CONSTRUCTION – BP-3
ENCLOSURE/SITE/MEFP/INTERIOR
UNIVERSITY OF SOUTH CAROLINA
STATE PROJECT NUMBER H27-6069-AC-3

DATE OF ISSUE: June 13, 2012

TO: ALL BIDDERS OF RECORD

This Addendum is issued pursuant to the Conditions of the Contract and is hereby made part of the Contract Documents. The addendum serves to clarify, revise, and supersede information in the Project Manual, the Drawings, and previously issued Addenda. The Bidder shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form. Failure to do so may subject the Bidder to disqualification. A list of attachments, if any, is part of this document.

BIDDER SHALL ACKNOWLEDGE RECEIPT OF ADDENDUM IN THE SPACE PROVIDED ON THE BID FORM. FAILURE TO DO SO MAY CONSTITUTE AN INFORMALITY IN THE BID.

This addendum consists of 11 pages and the following attachments:

1. A-SK-015: SUPPLEMENTAL CODE INFORMATION: Wood Finish Classification - Code Clarification
2. A-SK-016: FINISH LEGEND: Finish Legend Clarifications
3. A-SK-017: CONCRETE WALK WORK SCOPE CLARIFICATION: Concrete Walk scope clarification
4. A-SK-018: FLOOR PLAN - LEVEL 0 - CRANE LOCATION AND WORK SCOPE CLARIFICATION: Crane Diagram scope clarification
5. A-SK-019: REFLECTED CEILING AND SOFFIT PLAN - LEVEL 2: Reflected ceiling plan cross reference clarification
6. A-SK-020: FINISH PLAN - LEVEL3: Level 3 floor finish revision
7. A-SK-021: AV FURNITURE - NIC, TYP.: AV furniture not in contract - clarification
8. A-SK-022: ENLARGED FLOOR PLAN - LEVEL1 - AUDITORIUM PERFORMANCE HALL: Performance hall seating dimension clarification
9. A-SK-023: TYPICAL TOILETS INTERIOR ELEVATION - LEVEL 1: Accessible reference clarification
10. A-SK-024: ENLARGED PLAN - CORE 1 - LEVEL 1: Remove wall rating inside stair enclosure
11. A-SK-025: ENLARGED PLAN - CORE 2 - LEVEL 1: Remove wall rating inside stair enclosure
12. A-SK-026: ENLARGED PLAN - CORE 3 - LEVEL 0: Remove wall rating inside stair enclosure
13. A-SK-027: ENLARGED SECTIONS - CORE 1 & 2: Remove wall rating inside stair enclosure
14. A-SK-028: ENLARGED SECTION - CORE 3: Remove wall rating inside stair enclosure
15. A-SK-029: ENLARGED SECTIONS - CORE 1 & 3: Remove wall rating inside stair enclosure
16. A-SK-030: ENLARGED SECTION – LEVEL 0 - EGRESS PASSAGEWAY: Light fixture mounting clarification
17. A-SK-031: WALL SECTION AT LOBBY H100 - LEVEL 1: Floor rating clarification
18. A-SK-032: WALL SECTION AT CORRIDOR H106 AND DISCUSSION RECITATION ROOM

124 - LEVEL 1: Floor rating clarification

19. A-SK-033: CORE DETAIL SECTIONS - AIR SHAFT DIAGRAM: Shaft damper clarification
20. A-SK-034: DUCT ENCLOSURE SECTION LEVEL 1 AT CEILING PLENUMS: Horizontal shaft – reference added
21. A-SK-035: OVERVIEW – ENCLOSURE WALL SYSTEMS – LEVEL 3: Exterior wall system specification revision
22. A-SK-036: ROOM FINISH SCHEDULE - LEVEL 2: Ceiling finish clarification
23. A-SK-037: ENLARGED PLAN ELEVATION AND DETAILS - LEVEL 0 - CAFE KITCHEN: Level 0 Kitchen revisions, clarifications
24. A-SK-038: WALL DETAILS - PERFORMANCE HALL: Performance Hall Wood Slat structural attachment information
25. A-SK-039: ENLARGED PLAN, RCP, & ELEVATIONS – LEVEL 2 – CAFÉ SERVERY
26. A-SK-040: ENLARGED WALL SECTIONS – LEVEL 2 – CAFÉ SERVERY
27. A-SK-041: ENLARGED PLANS – LEVEL 2 – CAFÉ SERVERY
28. A-SK-042: MILLWORK SECTIONS – LEVEL 2 – CAFÉ SERVERY
29. A-SK-043: MILLWORK DETAIL SECTIONS – LEVEL 2 CAFÉ SERVERY
30. A-SK-044: MILLWORK DETAILS – LEVEL 2 CAFÉ SERVERY
31. A-SK-045: BIRD CONTROL DEVICE @ LEVEL 4 PERIMETER STRIP WINDOW
32. A-SK-046: EXTERIOR WALL ASSEMBLY MOCKUP REQUIREMENTS

33. C-SK-002: Flowable fill added to Trench detail
34. E-SK-006: Revise Service conductor connections
35. M-SK-001: Underfloor Air Distribution Device Schedule
36. P-SK-001: Addition of pump lift station for Level 0
37. P-SK-002: Updated pump schedule

38. 08 33 51: LATERAL FOLDING CURTAIN (New Specification Section)
39. 08 41 00: ENTRANCES, WINDOW WALL AND STRIP WINDOW ASSEMBLIES (Revised Specification Section)

A. CHANGES TO BIDDING REQUIREMENTS:

Item No.	Description
1.	None.

B. GENERAL:

Item No.	Description
1.	There is no condenser water associated with the chilled water pump package.
2.	Devices labeled BC-XX on the M1100 and M1200 series sheets are branch controllers for the VRF system. Branch controllers shall be provided as necessary by the VRF manufacturer to achieve a heat recovery system. As this varies from manufacturer to manufacturer these are not scheduled. See the VRF Heat Pump Schedule on Sheet M6103 on which Note #3 calls for the manufacturer to provide the design for all control devices and appurtenances of the system and the contractor to include this in the bid price.
3.	Hydronic piping and drain piping is not shown to each device. Refer to the HVAC PIPING NOTES

located on the plans for information on sizing, routing, etc.

4. Due to the variation in VRF systems, refrigerant line sizes are not included on the plans. See the VRF Heat Pump Schedule on Sheet M6103 on which Note #3 calls for the manufacturer to size the refrigerant lines and the contractor to include this in the bid price.
5. IU/OU-07&-08 are shown on M9150C&D.
6. Runouts to chilled beams shall be provided in accordance with Detail #1 on Sheet M4105.
7. Duct silencers noted on the plans are the basis of design. Silencers by any other manufacturer must be equal in construction and performance.

C. CHANGES TO TECHNICAL SPECIFICATIONS AND DRAWINGS:

SPECIFICATIONS

Item No. Description

1. Specification Section 26 01 00- General Electrical Requirements-Add Paragraph 1.14.C.15, which reads as follows:
   "15. Service conductor connectors for installation by utility company inside the vault. Connectors shall be 2-hole compression-lug type, sized to suit the service conductors provided."

2. Specification Section 26 32 13 – Emergency Power Generating System: Delete the second sentence of paragraph 2.7.A, and replace with the following:
   "The fuel day-tank shall be constructed of welded steel, meeting ASTM A569, and pressure tested to 5 psi."

3. Specification Section 28 31 11-Fire Alarm System: Add Edwards/EST to the list of approved manufacturers in paragraph 2.1.A

4. Include the following acceptable product manufacturers under the following sections:

Spec. Section:	Description:	Manufacturer:
05 58 13	Metal Column Covers	Custom Architectural Designs, inc
07 27 00	Fluid Applied Membrane Air Barriers	Sto Guard Systems Air Seal
09 84 36	Sound-Absorbing Wall Units	Accutrack Systems
09 21 50	Glass Fiber Reinforce Gypsum	Casting Designs Inc
12 61 00	Entrance Floor Grilles and Frames	Balco
10 27 00	Wall and Door Protection	Pawling Corporation
10 26 00	Operable Panel Partitions	Advanced Equipment Corporation
22 11 23.13	Domestic Water Packaged Booster Pumps	James M. Pleasants Co.

5. Specification Section 08 33 51 (Lateral Folding Curtain) – Add new section. Product to be used in Level 2 Café as security gate.

6. Specification Section 08 33 50 (Lateral Coiling Curtain) – Delete section in its entirety. Product to be replaced with 08 22 51.

7. Specification Section 07 81 00 (Applied Fireproofing) –
Art. 3.7.A., add the following: "2. Mastic and Intumescent fire-resistant coatings."

Art. 3.7, add the following: "F. Intumescent coatings applied to structural elements and decks shall be in accordance with AWCI12-B."

8. Specification Section 07 41 20 (Metal Wall Panels) –
Revise Article: 1.8 Quality Assurance, Paragraph J.
~~4. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.~~

9. Specification Section 07 41 20 (Metal Wall Panels) – Revise Sections as follows:
Art. 2.4.D Revise wall panel type/designation:
Product: (MP 01) (MP 04) **(MP 10)** Provide metal faced 6 MM thick Rout & Return Panel composite wall panels "FormaBond" as manufactured by CENTRIA Architectural systems or an equal acceptable to the Architect.

Art. 2.5.B.3.a Revise panel colors:
a. Color: As indicated.
i. MP-01 - Provide single custom color to match Architect's sample.
ii. MP-04 - Provide single custom color to match Architect's sample.
iii. MP-10 - Provide 3 custom colors to match Architects sample in the following distribution:
a. Color 1 - 65%
b. Color 2 - 25%
c. Color 3 - 10%

Art. 2.6 Foamed Insulation Core Metal Wall Panels (MP-10) **- Delete this article in it's entirety (Foamed Insulation Core Metal Wall Panels are no longer used on this project).**

10. Specification Section 10 28 13 (Access Flooring) – Revise as follows:
Art. 2.3.B. Change the word, "Factory" to "Field" in two locations (Carpet to be **Field-Adhered**).

11. Specification Section 09 64 00 (Acoustic Panel Ceilings) – Revise as follows:
Art. 2.2.B. Products: As scheduled **on sheet A8400 series drawings**, ACT1 thru ACT4.

DRAWINGS

Item No.	Description
1.	Sheet C1602: Refer to attached sketch C-SK-002. Flowable fill added to Trench detail.
2.	Sheet E0102 Electrical Power Riser Diagram: Refer to attached sketch E-SK-006. Delete the reference note for the "Tap-Box" inside the service transformer vault, and replace with a reference note to: "Furnish Compression Lugs for all conductors for installation by SCE&G."
3.	Sheet E1100 Lighting Plan, Level 0: Add one wall mounted type LT-E2 exit in corridor H008 (auditorium lower level) near door to storage room 019 with one directional arrow pointing toward elevator EV04. Extend nearby emergency exit light fixture circuit to new exit sign. Conduit and wiring shall match existing. See reflected ceiling plans for exact location.
4.	Sheet E1100 Lighting Plan, Level 0: Add one wall mounted type LT-E2 exit in corridor H007 (auditorium lower level) near door to storage room 013 with one directional arrow pointing toward elevator EV03. . Extend nearby emergency exit light fixture circuit to new exit sign. Conduit and wiring shall match existing. See reflected ceiling plans for exact location.
5.	Sheet E1100 Lighting Plan, Level 0: For stairwells ST01 & ST02, change the one wall mounted exit sign mounted on each of core stairwell concrete walls at the stairwell door to ceiling mounted exit signs. Chevron arrows shall remain as shown on plans.
6.	Sheet E1100 Lighting Plan, Level 0: For stairwell ST03, change the two wall mounted exit signs mounted on the core stairwell concrete walls at the stairwell doors to ceiling mounted exit signs. Chevron arrows shall remain as shown on plans.
7.	Sheet E1105 Lighting Plan, Level 0-Tunnel: For stairwell ST03, change the two wall mounted exit signs mounted on the core stairwell concrete walls at the stairwell doors to ceiling mounted exit signs. Chevron arrows shall remain as shown on plans.
8.	Sheet E1100 Lighting Plan, Level 0-Tunnel: For stairwell ST04, change the one wall mounted exit sign mounted on the core stairwell concrete walls at the stairwell door to a ceiling mounted exit sign. Chevron arrows shall remain as shown on plans.
9.	Sheet E1110 Lighting Plan, Level 1: Change the light fixture shown in the site elevator hoistway from type LT-57 to type LT-58.
10.	Sheet E1110 Lighting Plan, Level 1: For each of two stairwells, change the one wall mounted exit sign mounted on each of core stairwell concrete walls at the

stairwell door to ceiling mounted exit signs. Chevron arrows shall remain as shown on plans.

11. Sheet E1120 Lighting Plan, Level 2: Add one type LT-02 light fixture in Distributed Informal Learning/Study above gang toilet and extend normal lighting circuit from surrounding LT-02 light fixtures. See architectural reflected ceiling plans for exact location.

12. Sheet E1120 Lighting Plan, Level 2: For each of the four stairwells, change the one wall mounted exit sign mounted on each of core stairwell concrete walls at the stairwell door to a ceiling mounted exit sign. Chevron arrows shall remain as shown on plans.

13. Sheet E1130 Lighting Plan, Level 3: For each of the four stairwells, change the one wall mounted exit sign mounted on each of core stairwell concrete walls at the stairwell door to ceiling mounted exit signs. Chevron arrows shall remain as shown on plans.

14. Sheet E1140 Lighting Plan, Level 4: Delete one type LT-E2 wall mounted exit sign in Testing Station and Control Area 417.

15. Sheet E1140 Lighting Plan, Level 4: For each of the four stairwells, change the two wall mounted exit signs mounted on each of core stairwell concrete walls to a ceiling mounted exit sign. Chevron arrows shall remain as shown on plans.

16. Sheet E1150 Lighting Plan, Level 5: Delete one type LT-E3 exterior wall mounted exit sign in the center of the north terrace.

17. Sheet E1151 Lighting Plan, Level 5-Alternate: Delete one type LT-E3 exterior wall mounted exit sign in the center of the north terrace.

18. Sheet M6101, on the Unit Heater Schedule, units CH-1-XX shall be revised to CH-0-XX.

19. Sheet M6103, delete IU/OU-09 & IU/OI-10 from the schedule.

20. Sheets M1210A to M1210D, condensate drain risers from L1 shall be routed to the nearest floor sink in the mechanical rooms.

21. Sheets M1221A to M1221D, piping in the plenum of the raise floor system shall be supported from the concrete floor.

22. Sheet M2108, the air handling unit by column A4 is AHU-103. The supply and return duct are stacked. Both ducts are 54"x16".

23. Sheet M1140A, the VAV terminal above the Women's Toilet (Rm. 402) is VAV-4-15. The VAV terminal to the south of Men's Toilet Room (Rm. 403) near FCU-4-07 & FCU-4-08 is VAV-4-16.

24. Sheet M6104, issuing sketch M-SK-001 which adds the schedule for the under

floor air distribution devices.

25. Sheet P1200F, issuing sketch P-SK-001 adding sump pump SP-13 & associated piping revisions.

26. Sheet P5101, issuing sketch P-SK-002 revising the sump pump schedule.

27. Sheet A40120.1_bp3: Refer to attached Sketch A-SK-015. Wood Finish Classification - Code Clarification

28. Sheet A8400: Refer to attached Sketch A-SK-016. Finish Legend Clarifications

29. Sheet A0113: Refer to attached Sketch A-SK-017. Concrete Walk scope clarification

30. Sheet A1100: Refer to attached Sketch A-SK-018. Crane Diagram scope clarification

31. Sheet A1200, A1200A, A1200B, A1200C, A1200D: Refer to attached Sketch A-SK-019. Reflected ceiling plan cross reference clarification

32. Sheet A1330, A1330A, A1330B, A1330C, A1330D: Refer to attached Sketch A-SK-020. Level 3 floor finish revision

33. Sheet A0112, A1510A, A1530B: Refer to attached Sketch A-SK-021. AV furniture not in contract – clarification

34. Sheet A5112, A5121: Refer to attached Sketch A-SK-022. Performance hall seating dimension clarification

35. Sheet A5101: Refer to attached Sketch A-SK-023. Accessible reference clarification

36. Sheet A4211: Refer to attached Sketch A-SK-024. Wall inside stair enclosure not required to be fire rated

37. Sheet A4221: Refer to attached Sketch A-SK-025. Wall inside stair enclosure not required to be fire rated

38. Sheet A4231: Refer to attached Sketch A-SK-026. Wall inside stair enclosure not required to be fire rated

39. Sheet A4243: Refer to attached Sketch A-SK-027. Wall inside stair enclosure not required to be fire rated

40. Sheet A4243: Refer to attached Sketch A-SK-028. Wall inside stair enclosure not required to be fire rated

41. Sheet A4244: Refer to attached Sketch A-SK-029. Wall inside stair enclosure not required to be fire rated

42. Sheet A4251: Refer to attached Sketch A-SK-030. Light fixture mounting clarification

43. Sheet A5140: Refer to attached Sketch A-SK-031. Floor rating clarification

44. Sheet A5140: Refer to attached Sketch A-SK-032. Floor rating clarification

45. Sheet A4293: Refer to attached Sketch A-SK-033. Shaft damper clarification

46. Sheet A4294.2, A4294.3: Refer to attached Sketch A-SK-034. Horizontal shaft – reference added

47. Sheet A4601: Refer to attached Sketch A-SK-035. Exterior wall system specification revision

48. Sheet A8401: Refer to attached Sketch A-SK-036. Ceiling finish clarification

49. Sheet A5010: Refer to attached Sketch A-SK-037. Level 0 Kitchen revisions, clarifications

50. Sheet A7013: Refer to attached Sketch A-SK-038. Performance Hall Wood Slat structural attachment information

51. Sheet A5210: Refer to attached Sketch A-SK-039. Revisions to Level 2 Café Millwork, Ceiling and Folding Gate

52. Sheet A5211: Refer to attached Sketch A-SK-040. Revisions to Level 2 Café Millwork, Ceiling and Folding Gate

53. Sheet A5212: Refer to attached Sketch A-SK-041. Revisions to Level 2 Café Millwork, Ceiling and Folding Gate

54. Sheet A7703, A7704, A7705, A7706: Refer to attached Sketch A-SK-042. Revisions to Level 2 Café Millwork, Ceiling and Folding Gate

55. Sheet A7707: Refer to attached Sketch A-SK-043. Revisions to Level 2 Café Millwork, Ceiling and Folding Gate

56. Sheet A7707: Refer to attached Sketch A-SK-044. New Details. Revisions to Level 2 Café Millwork, Ceiling and Folding Gate

57. Sheet A4641.1, A4641.5, A4641.5A: Refer to attached Sketch A-SK-045. Level 4 Bird control device

58. Sheet TBD: Refer to attached Sketch A-SK-046. New detail: Exterior Wall assembly mockup requirements.

59. Sheet A0750: Delete wall-mounted Illuminated Exit Signs located at North Terrace and South Terrace (2 signs total), along Grid J.

60. Sheet A0331, Transformer Vault: Add provisions for (4) 1.25" PVC conduit sleeves with 'bell-ends' in the northeast corner of the vault's concrete walls for future connection to field conduits. Precise locations of sleeves to be denoted later on shop drawing submittals.

D. BIDDERS RFI'S:

1. Spec 10 28 13.2.3 B.2 states cpt tile to be factory bonded to 24x24" panel face. Access Flooring RF-2A requires cpt tile 4 which is 50cm (19.75") square.

Response: Change the word, "Factory" to "Field" in specification (Carpet to be Field-Adhered).

2. Please confirm that the theatrical light fixtures and equipment will be furnished and installed by others.

Response: In accordance with 110660, the electrical contractor's responsibility for the theatrical lighting system as defined in 110660 1.1, C. is as follows:

C. Division 26: 1. Supply and installation of all conduit, wiring and standard electrical boxes for electrical power and control of this lighting system and the electrical termination of all lighting equipment (including receptacles, dimmer racks, plugging strips, etc.) shall be as specified in Division 26 of this specification. Termination of control wiring shall be completed by the Subcontractor supplying the Performance Lighting System.

2. Coordination with the House Lighting system designed by others is required. Dimmers and relays specified herein will support the house lighting system. Control system for the performance lighting system will also be integrated with the control of the house lighting system.

3. BP-3 structural drawings make note that the BP-2 drawings are available via electronically. Can these be provided for scope comparison and coordination?

Response: BP-2 documents are available at USC procurement FTP site.

4. Can the requirement for AISC certified erector be removed in this package?

Response: No. This requirement cannot be removed. The project involves massive and significant steel erection such as the grand stairs. Maintaining certification of the steel erector should be maintained due to the complexity of the lifts. Further, the certification is not pertinent to the level of inspection that is related to certification of the Fabricator. Field inspection as specified is still required.

5. What is the extent of the bird control measures? Only detail we can find is shown behind exterior duct openings per A4621.7.

Response: There is a bird control device @ level 4 exterior window shade device. Please refer to attached sketch A-SK-045.

6. Drawing A4621.2 indicates metal panel MP12, which is not listed on Enclosure Wall Type Schedule or Specification. Please provide details and specs.

Response: MP12 (factory formed metal panel) is removed from schedule. See spec 07 41 20,

section 2.5

7. Drawing A4633.1 indicates metal panel MP11 for metal beam covers, which is not listed on Enclosure Wall Type Schedule or Specification. Please provide details and specs.

Response: MP11 (factory formed metal panel) is removed from schedule. See spec 07 41 20, section 2.5

8. Please specify the panel type for the metal wall panels indicated in Generator Pits per drawing A4154.

Response: MP-7

9. Plan page A5118/02 refers to a detail on A7301. I don't see a plan page A7301

Response: See GT11/A8301 (not A7301).

10. Is there a finish schedule for Alt 1?

Response: Refer to drawings in A9000 series and the following information, which applies to the Northwest and Southwest pavilion:

Main Floor: Raised Floor RF1A

Floor Inside Restroom / Kitchen: Tile FT-1

Ceilings & Walls: As depicted in A9000 drawings

11. Plan page A0113 states the sidewalks are in the BP3 scope. Plan pages A0314, A0321, A0322, A0323 and A0324 indicates sidewalks in the BP1C scope. Which sidewalks and which site stairs are in each scope?

Response: Refer to notes on A303, A303A, A303B, A303C, A303D for clarification of scope. Concrete walks and driveway paving at street level adjacent to Greene Street and Park Streets are in Bid Package 1C. All concrete walks at Level 1 (Coliseum Plaza South of building and the walkway at the East, North and West building perimeter) are in Bid Package 3. All stairs and site stairs are in BP3.

12. Please confirm the new retaining wall and associated footing for site stair #2 shown on A0323 is under BP3 Package. If so, please provide details.

Response: Retaining wall for site stair #2 is in the BP3 scope. Typical concrete wall details at steps are provided on L202. Further Structural information with reference to cast-in-place wall, footing and slab will be provided in upcoming addendum 3.

13. L101 references A4161 for bike rack details. I can't find A4161.

Response: Revise reference to A4161 on drawing L101 to A0361 for bike rack details.

14. What bid package is the transformer vault in and what is the required design.

Response: Transformer Vault is in BP3 scope. Further Structural information with reference to cast-

in-place wall, footing and slab will be provided in upcoming addendum 3.

15. Drawing A1100D references A4133 for bollard details. I can't find A4133.

Response: Revise reference to detail A4133 on drawing A1100D to A4914.

16. General Note 10 on A1300 notes that elevator hoist ways are to be painted per spec, but the requirement is not found on Elevator spec.

Response: Note 10 on A1300 to be revised to state: "Inside of Elevator Hoistways to receive 1 coat of Latex Primer".

END OF ADDENDUM

SUPPLEMENTAL CODE INFORMATION

- THE DMSB IS CLASSIFIED AS A HIGH-RISE BUILDING AND COMPLIES WITH APPLICABLE REQUIREMENTS AS SPECIFIED BY IBC 403. A DEDICATED FIRE COMMAND CENTER IS LOCATED ON LEVEL 0 ADJACENT TO STAIR 3.

- A FIRE PUMP IS PROVIDED TO BOOST WATER PRESSURE TO THE AUTOMATIC SPRINKLER AND STANDPIPE SYSTEMS. THE FIRE PUMP ROOM IS LOCATED ON LEVEL 0 AND IS ACCESSIBLE DIRECTLY FROM THE OUTSIDE.

- EXIT ACCESS CORRIDORS DO NOT REQUIRE A FIRE RESISTANCE RATING SINCE THE BUILDING IS FULLY SPRINKLERED [IBC TABLE 1017.1].

- ALL ELEVATOR HOISTWAYS CONNECTING MORE THAN THREE STORIES ARE PRESSURIZED IN LIEU OF ENCLOSED ELEVATOR LOBBIES [IBC 708.14.1].

- TWO CONVENIENCE STAIRS CONNECTING LEVELS 2 THROUGH 4 ARE LOCATED IN AND OPEN TO THE COURTYARD. PROTECTION AND/OR FIRE SEPARATION OF THESE STAIRS IS NOT REQUIRED SINCE THESE STAIRS ARE NOT USED FOR EGRESS AND ARE NOT CONTAINED WITHIN THE BUILDING.

- TWO CONVENIENCE STAIRS CONNECT LEVELS 1 AND 2 ON THE EAST AND WEST SIDES OF THE COURTYARD. THESE STAIRS OPEN INTO CORRIDORS ON LEVEL 1 AND INTO VESTIBULES ON LEVEL 2. THE STAIRS ARE NOT PART OF THE MEANS OF EGRESS AND ARE PERMITTED IN ACCORDANCE WITH IBC 708.2, EX.7.

- EXCEPT AS NOTED, THE EXTERIOR WALLS OF THE DMSB ARE NOT FIRE-RESISTANCE RATED.
  a). THE DMSB HAS A MINIMUM FIRE SEPARATION DISTANCE OF 30 FT ON ALL SIDES, WITH EXCEPTION OF THE SOUTH FAÇADE, ALLOWING NON-FIRE-RATED EXTERIOR WALLS AND UNLIMITED OPENINGS.
  b). THE EXTERIOR WALL ON LEVEL 1 HAS A 1-HOUR FIRE RESISTANCE RATING ON THE EAST,WEST AND NORTH SIDES OF THE BUILDING TO SEPARATE THE EXIT DISCHARGE COURT FROM THE INTERIOR OF THE BUILDING.
  c). ON THE SOUTH FAÇADE, THE EXISTING COLISEUM IS LOCATED APPROXIMATELY 61 FT AWAY (MEASURED FROM FAÇADE TO FAÇADE). THE COLISEUM ALSO HAS EXTERIOR STRUCTURAL COLUMNS LOCATED APPROXIMATELY 45 FT FROM THE SOUTH FAÇADE OF THE DMSB. THIS DISTANCE EXCEEDS THE MINIMUM REQUIRED SEPARATION DISTANCE OF 40 FT IN ORDER TO ALLOW NON-RATED EXTERIOR WALLS AND UNLIMITED OPENINGS (30 FT FOR DMSB TYPE IB CONSTRUCTION + 10 FT FOR COLISEUM TYPE IIB CONSTRUCTION) [IBC TABLE 602].

- IINTERIOR FINISHES FLAME SPREAD RATING SHALL MEET THE REQUIREMENTS OF IBC 2009 TABLE 803.9:
  CLASS A - FLAME SPREAD RATING OF 0-25.
  CLASS B - FLAME SPREAD RATING OF 26-75
  CLASS C - FLAME SPREAD RATING OF 76- 200.
  CLASS A, B OR C SHALL HAVE A SMOKE DEVELOPMENT INDEX OF 0-450

Occupancy	Exits	Corridors	Other Areas
Group B	B	C	C
Group A-1	B	B	C
Group A-2	B	B	C
Group A-3	B	B	C

WOOD FINISHES: REQUIRED INTERIOR FINISH CLASSIFICATION, SPECIFIC TO DMSB

FLOOR LEVEL	PRODUCT	RATING
1	WP-1 (WALLCOVERING OUTSIDE PERF. HALL)	B
1 / 0	WP-3 (WALL & CLG SLAT PANELS IN PERF. HALL)	A
1 / 0	WP-4 (WOOD PANEL INSIDE PERF. HALL)	A
1 / 0	WDF-1 (STAGE WOOD FLOOR)	C
1	MILLWORK IN CORRIDOR	B
1	MILLWORK INSIDE CLASSROOMS	C
0, 1, 2	WOOD LOCKERS	C
2, 3, 4	MILLWORK INSIDE ROOMS WITH DOORS	C
2, 3, 4	MILLWORK OPEN TO CORRIDORS	B

3

- MEANS FOR POST-FIRE SMOKE REMOVAL ARE PROVIDED IN ACCORDANCE WITH IBC 403.4.6. FIXED WINDOWS WITH GLAZING THAT CAN BE CLEARED BY THE FIRE DEPARTMENT WILL BE PROVIDED. [IBC 403.4.6 (1) {EX.2}]

- ACCESSIBLE MEANS OF EGRESS ARE PROVIDED BY AT-GRADE EXITS, ENCLOSED EXIT STAIRS AND ACCESSIBLE EGRESS ELEVATORS PER IBC 1007. ALL ACCESSIBLE EGRESS ELEVATORS ARE PROVIDED WITH STANDBY POWER. TWO-WAY COMMUNICATION IS PROVIDE AT ELEVATOR LANDINGS.

MOORE SCHOOL OF BUSINESS
UNIVERSITY OF SOUTH CAROLINA
BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

3 2012.06.13

SHEET TITLE :
SUPPLEMENTAL CORE INFORMATION - OSE CODE TABLES
REF. DWG # A0120.1_bp3

SCALE :
NTS

SHEET NUMBER :
A-SK-015

WOOD PANELING

WP-1 WOOD VENEER WALLCOVERING (09 72 10)
MANUFACTURER : ARBOR SERIES
COLOR: MAPLE WHITE QUARTER CUT
FINISH/SHEEN: STANDARD SATIN,
NOTES: 1/4 SAWN, SWING MATCH
(MAPLE STRIPED)
INSTALLED VERTICAL DIR.

IBC 803.9 INTERIOR FINISH RATING: CLASS B
(USED OUTSIDE OF PERFORMANCE HALL)

WP-2 NOT USED

WP-3 WOOD SLAT PANELS (09 53 50)
MFR : ARCHITECTURAL COMPONENTS GROUP
COLOR: PANEL GRILLE/MAPLE WOOD, CLEAR
PRODUCT: PER DRAWINGS

IBC 803.9 INTERIOR FINISH RATING: CLASS A
(USED INSIDE PERFORMANCE HALL)

WP-4 WOOD VENEER PANEL (06 40 23)
MFR: FETZER ARCHITECTURAL WOODWORK
COLOR/SPECIES: MAPLE 1/4 SAWN
PRODUCT: CLOSED PORE CLEAR SATIN
FINISH
NOTES: 1/4 SAWN, SWING MATCH
(MAPLE STRIPED)
INSTALLED HORIZONTAL DIR.

3 IBC 803.9 INTERIOR FINISH RATING: CLASS A
(USED INSIDE PERFORMANCE HALL)

WALL FINISH LEGEND
NTS
02

CEILING FINISH LEGEND

ACT-1 ACOUSTICAL CEILING TILE (09 64 00)
MANUFACTURER : ARMSTRONG
STYLE: ULTIMA - OPEN PLAN TEGULAR #1942
SUPRAFINE GRID #7500 & WALL MOLDING #7875
COLOR: WHITE
SIZE: 24" x 24" x 3/4"

ACT-2 ACOUSTICAL CEILING TILE
MANUFACTURER : ARMSTRONG
STYLE: CLEAN ROOM ULTIMA #1937
PRELUDE XL GRID #7300 AND WALL MOLDING #7875
COLOR: WHITE
SIZE: 24" x 24" - BEVELED TEGULAR 9/16

ACT-3 ACOUSTICAL CEILING TILE
MANUFACTURER : ARMSTRONG
STYLE: OPTIMA OPEN PLAN TEGULAR #3262
SUPRAFINE GRID #7500 & WALL MOLDING #7875
COLOR: WHITE
SIZE: 2'x 8' x 1"

ACT-4 ACOUSTICAL CEILING TILE
MANUFACTURER : ARMSTRONG
STYLE: FINE FISSURED #1728
PRELUDE XL GRID #7300 AND
7/8" HEMMED ANGLE WALL MOLDING
COLOR: WHITE
SIZE: 2'x 2' x 5/8"

3 **MCT** METAL ACCESS CEILING IN LEVEL 2 CAFE (09 51 40)
MANUFACTURER : PER SPECIFICATIONS
STYLE: PER SPECIFICATIONS AND DRAWINGS
COLOR: FINISH PER DRAWINGS

GB GYPSUM WALLBOARD (09 51 13)
5/8" GYPSUM WALLBOARD

GB-2 GYPSUM WALLBOARD:
5/8" GYPSUM WALLBOARD
MOISTURE RESISTANT

CEILING FINISH LEGEND
NTS
01

MOORE SCHOOL OF BUSINESS
UNIVERSITY OF SOUTH CAROLINA
BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

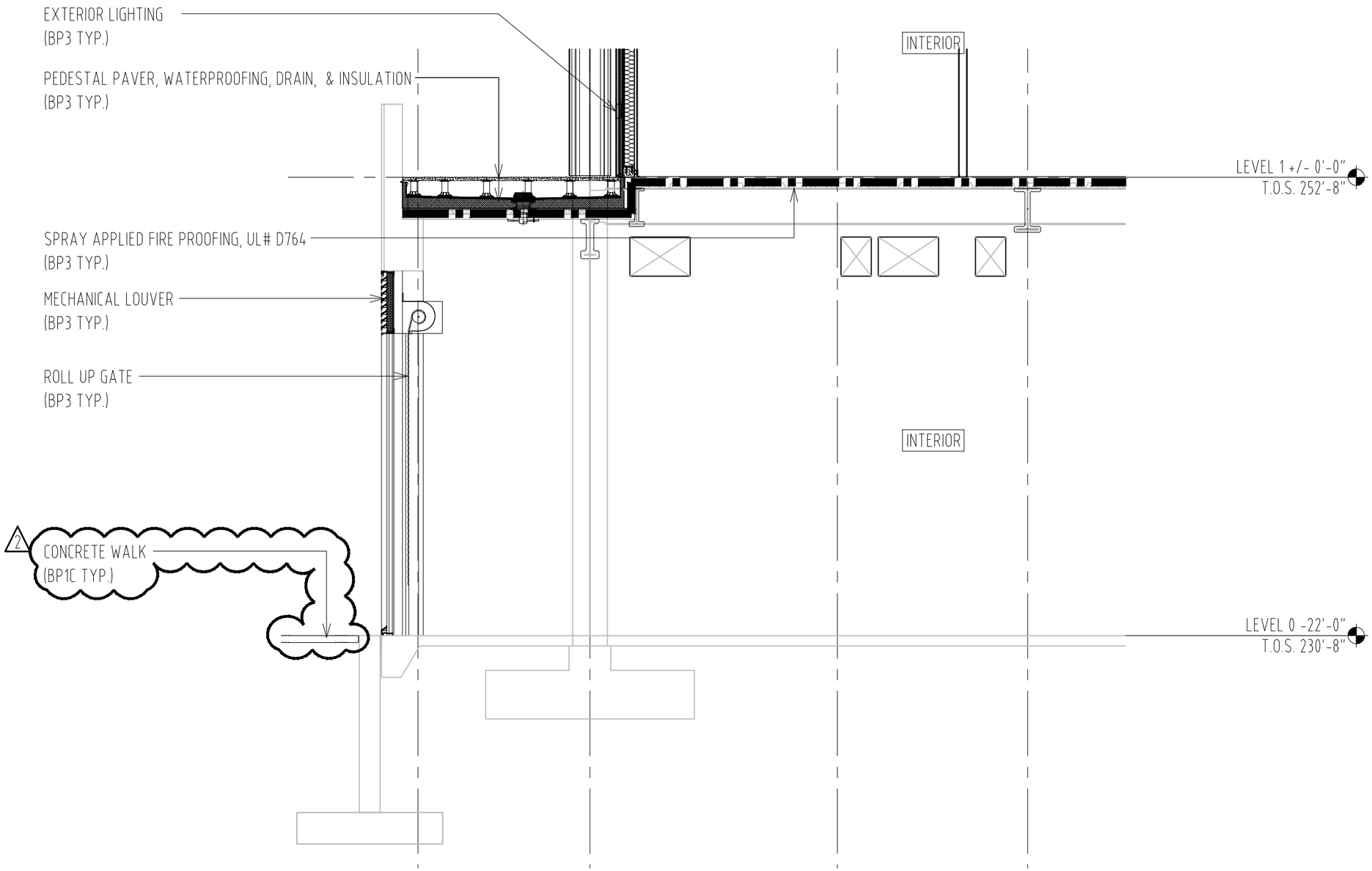
3 2012.06.13

FINISH LEGEND
REF. DWG # A8400

SHEET TITLE :

SCALE :
NTS

SHEET NUMBER :
A-SK-016



MOORE SCHOOL OF BUSINESS
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BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

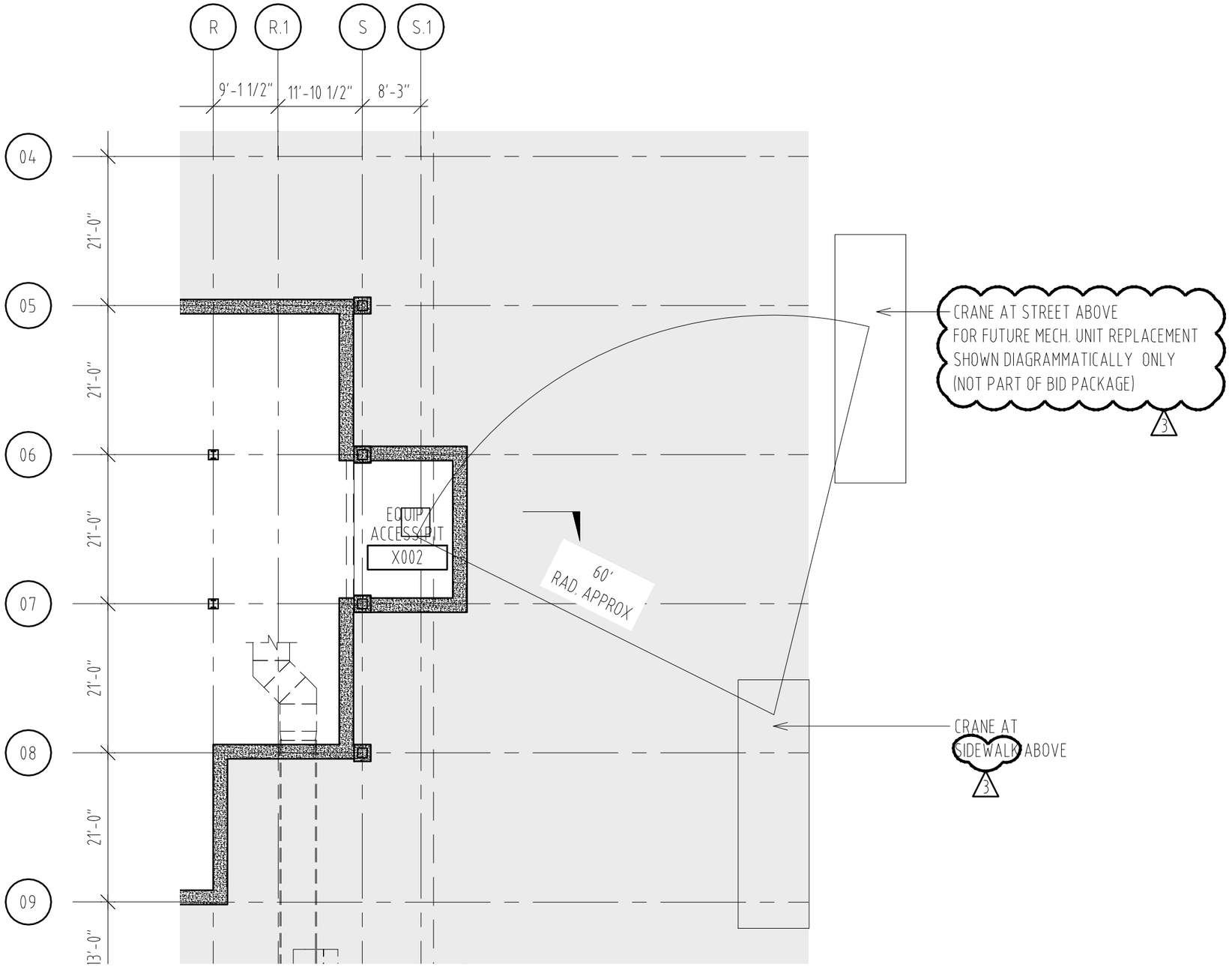
2 2012.06.13

BID PACKAGE 3 SCOPE OF WORK - KEY WALL SECTION (WEST FACADE)
REF. DWG # A0113

SHEET TITLE :

SCALE :
3/16" = 1'-0"

SHEET NUMBER :
A-SK-017



MOORE SCHOOL OF BUSINESS
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BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

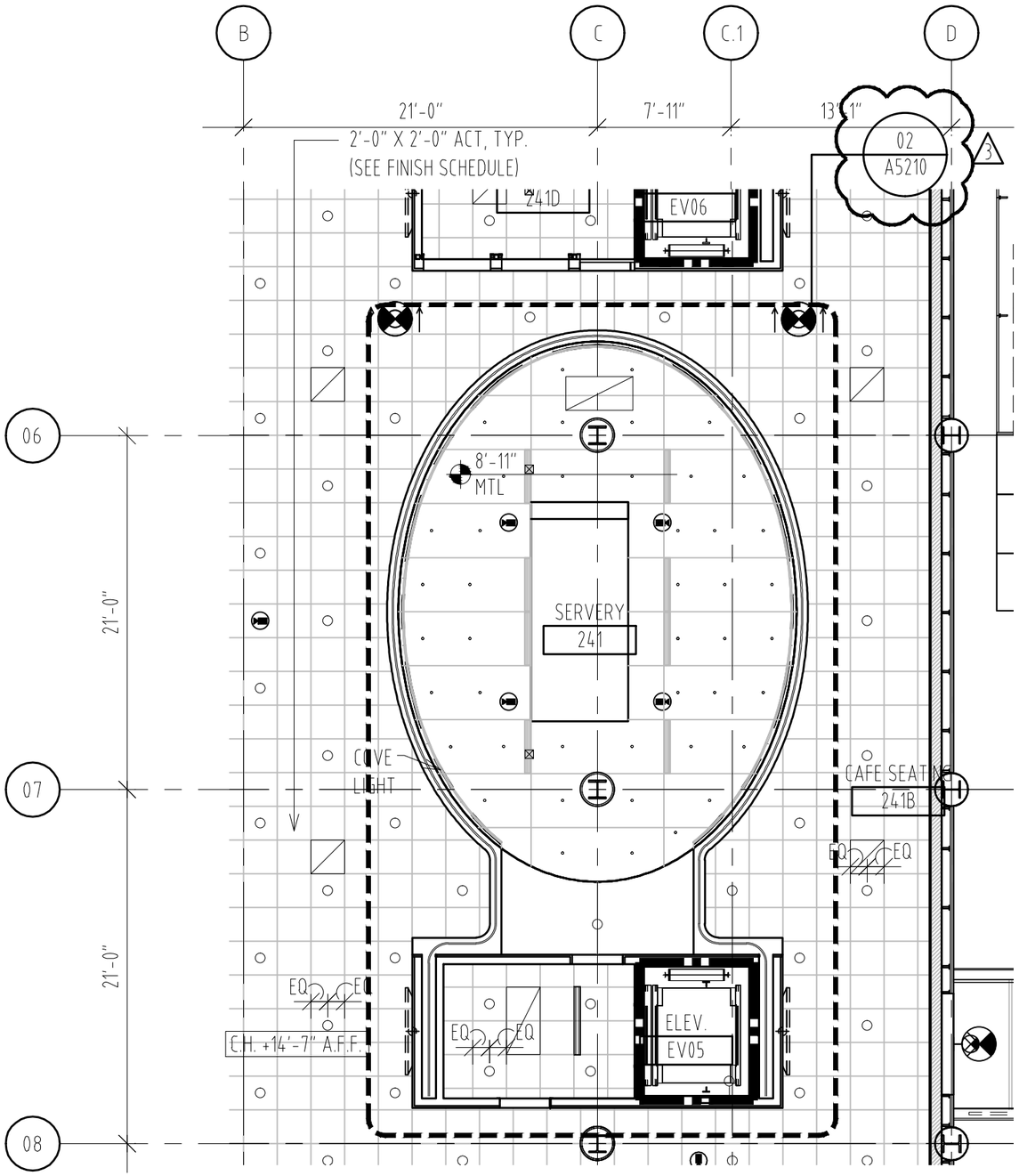
3 2012.06.13

FLOOR PLAN - LEVEL 0 - CRANE LOCATION AND WORK SCOPE CLARIFICATION
REF. DWG # A1100

SHEET TITLE :

SCALE :
1/16" = 1'-0"

SHEET NUMBER :
A-SK-018



LEGEND:

- SMOKE RESISTANT CONSTRUCTION
- 1 -HOUR FIRE RESISTANCE RATING
- 2-HOUR FIRE RESISTANCE RATING
- 2-HOUR HORIZONTAL DUCT ENCLOSURE

SHEET NOTES:

1. SHADED PORTIONS OF EXIT SIGN SYMBOL INDICATE DISPLAY DIRECTION OF EXIT SIGN
2. FOR MORE INFORMATION ON EXIT SIGNS, SEE A0700 DWGS
3. FOR MORE INFORMATION ON CCTV CAMERAS, SEE ELECTRICAL DWGS
4. REFER TO A7000 SERIES DRAWINGS FOR CEILING DETAILS.
5. REFER TO A0112 FOR REFLECTED CEILING PLAN SYMBOLS.
6. SEE A7000 SERIES FOR INTERIOR DETAILS

NOTES FOR THIS LEVEL:

3

1. REFER TO A5210 FOR AN ENLARGED REFLECTED CEILING PLAN.

ENLARGED REFLECTED CEILING AND SOFFIT PLAN - LEVEL 2 - ZONE C
SCALE 1/8" = 1'-0"

02

TYPICAL GENERAL NOTE A1220 SERIES
NTS

01

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BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
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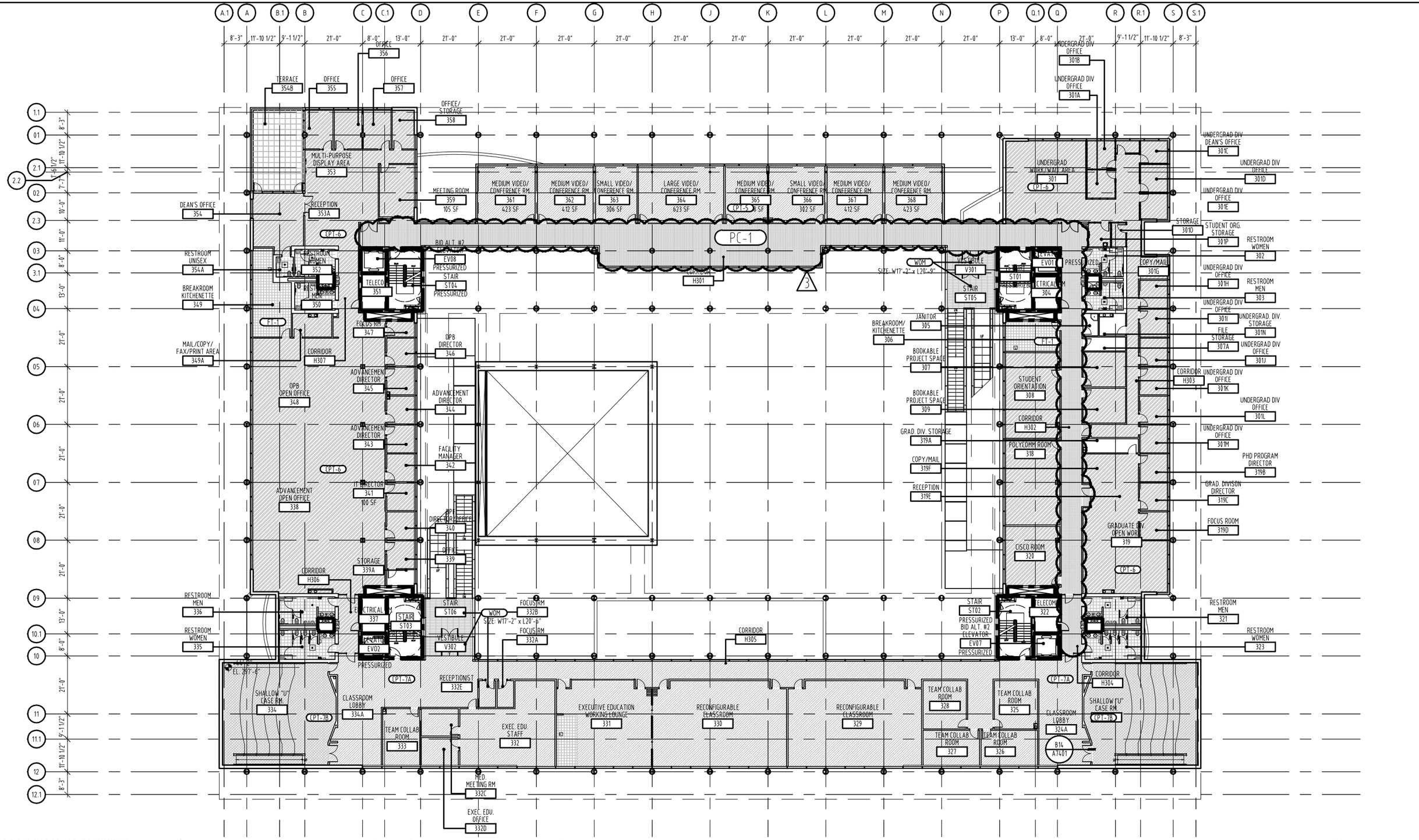
ENLARGED REFLECTED CEILING AND SOFFIT PLAN - LEVEL 2
REF. DWG # A1220, A1220A, A1220B, A1220C, & A1220D

SHEET TITLE :

SCALE :
VARIES

SHEET NUMBER :
A-SK-019



MOORE SCHOOL OF BUSINESS
UNIVERSITY OF SOUTH CAROLINA
BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

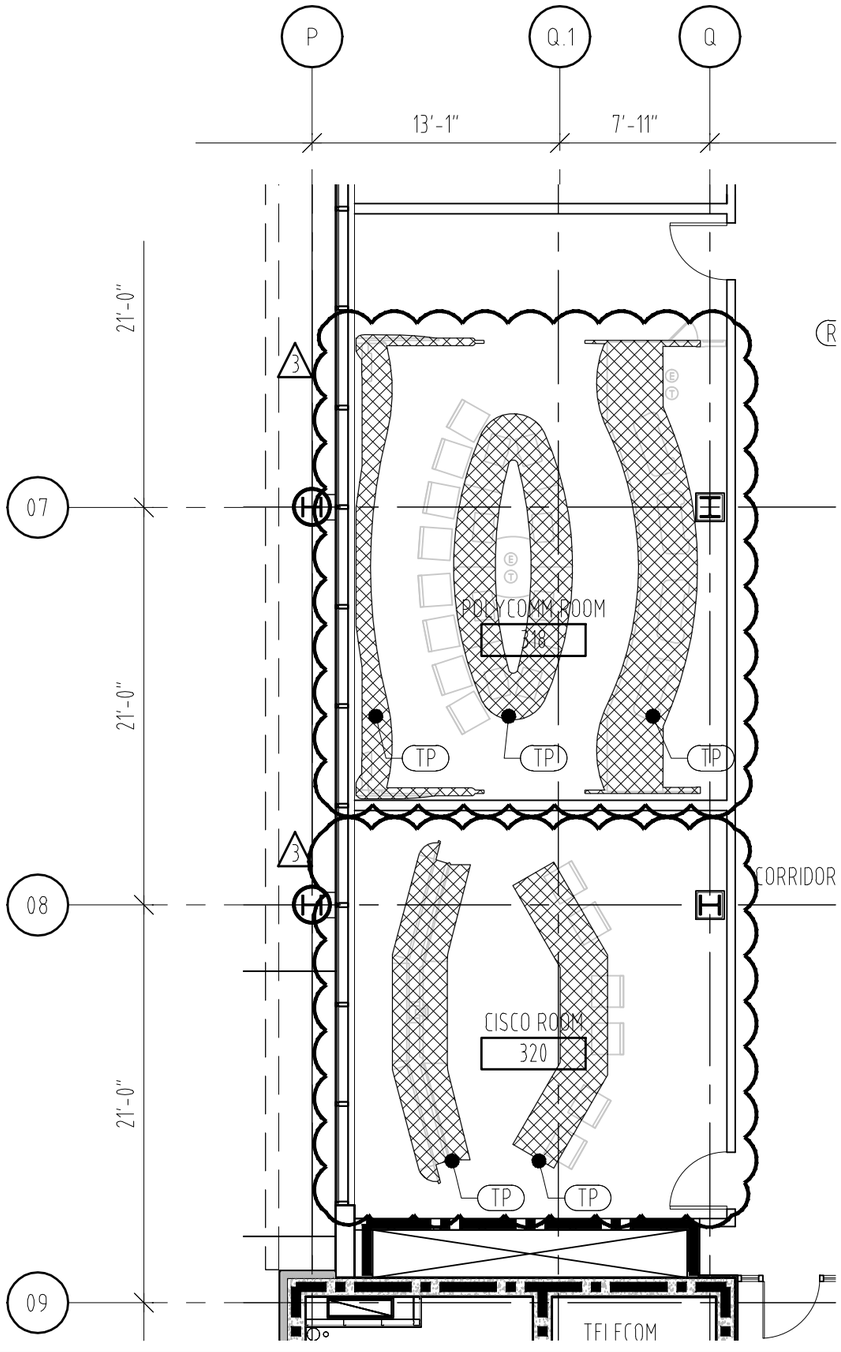
3 2012.06.13

FINISH PLAN - LEVEL 3
REF. DWG # A1330, A1330A, A1330B, A1330C,& A1330D

SHEET TITLE :

SCALE :
1/32" = 1'-0"

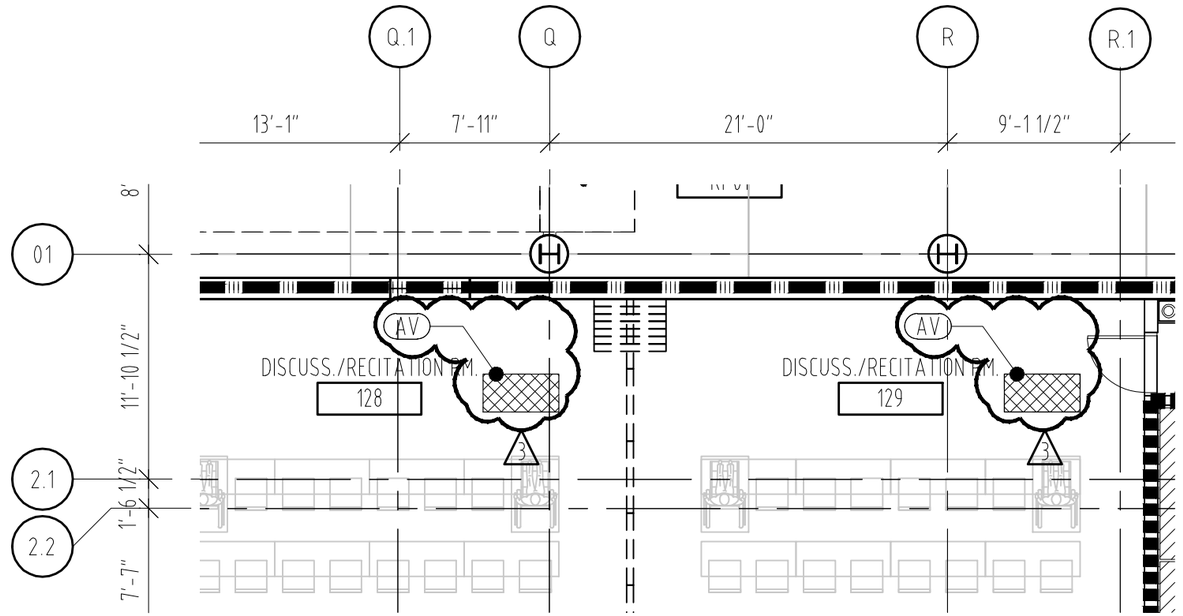
SHEET NUMBER :
A-SK-020



MILLWORK & EQUIPMENT PLAN - LEVEL 3 - ZONE B

SCALE 1/8" = 1'-0"

03



TYPICAL MILLWORK & EQUIPMENT PLAN - LEVEL 1 - ZONE A

SCALE 1/8" = 1'-0"

02

OFOI/NIC EQUIPMENT GRAPHIC KEY

EQUIPMENT (OFOI/NIC) GRAPHICS KEY

EQUIPMENT TYPE

CP

TYPE MODIFIER:

3

AV - AV FURNITURE & EQUIPMENT
REFER TO AV DWGS (NIC)

BC - BABY CHANGING STATION (NIC)
REFER TO A8400 FOR DETAILS

CP - COPIER TYP (NIC)

RF - REFRIGERATOR TYP (NIC)

TK - ELECTRONIC TICKER DISPLAY (NIC)

TP - TELEPRESENCE EQUIPMENT
(NIC AV EQUIPMENT)

VM - VENDING MACHINE TYP (NIC)

VP - VALUE PORT III TYP (NIC)

OFOI/NIC EQUIPMENT GRAPHIC KEY - SYMBOLS LEGEND & ABBREVIATIONS

NTS

01

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BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

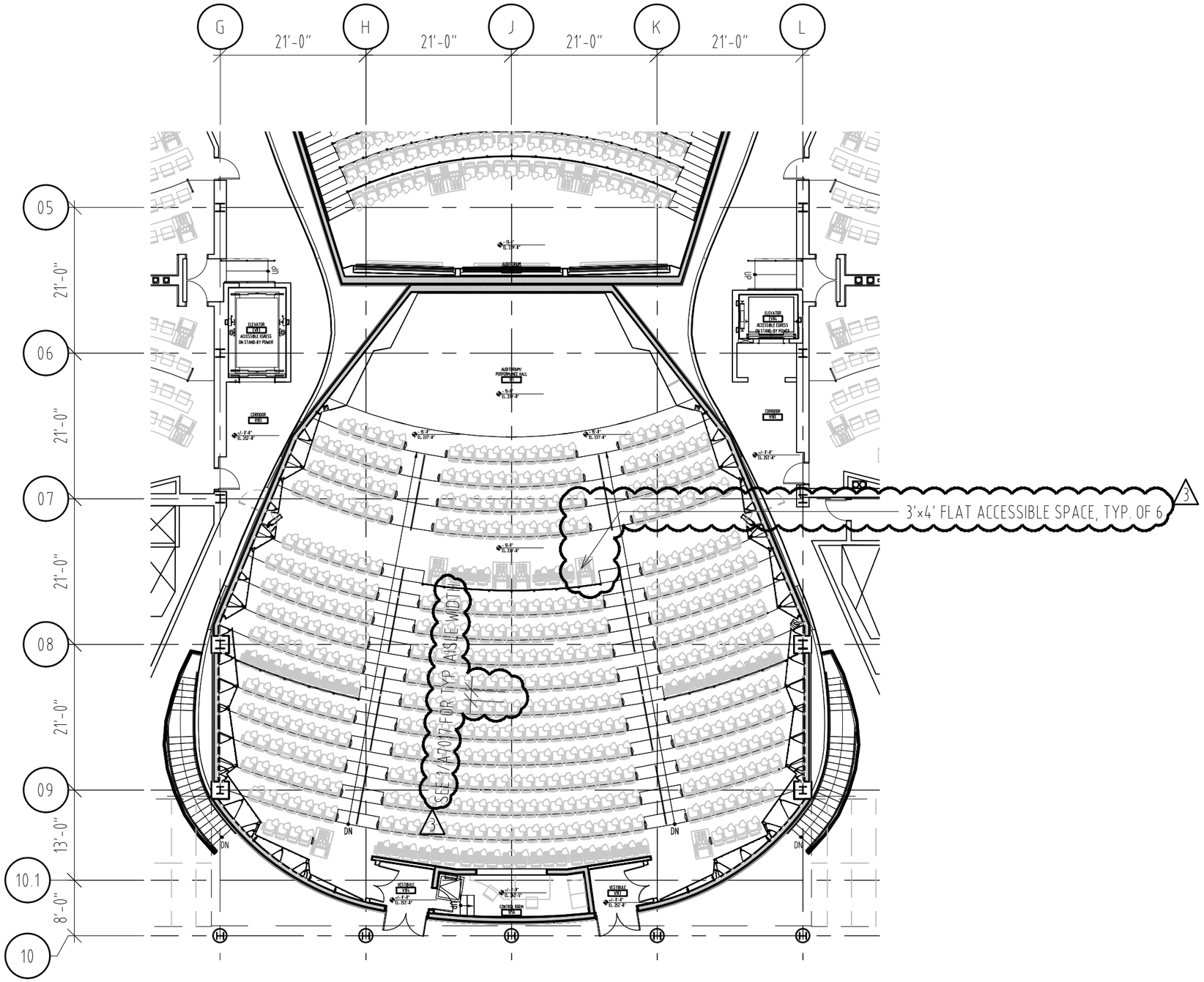
3 2012.06.13

SHEET TITLE :

AV FURNITURE - NIC, TYP.
REF. DWG # A0112, A1510, A1510A, A1510B, A1510C, A1510D, A1510E, A1510F, A1530, & 1530B

SCALE :
VARIES

SHEET NUMBER :
A-SK-021



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BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #001

PROJECT NO. 655.000

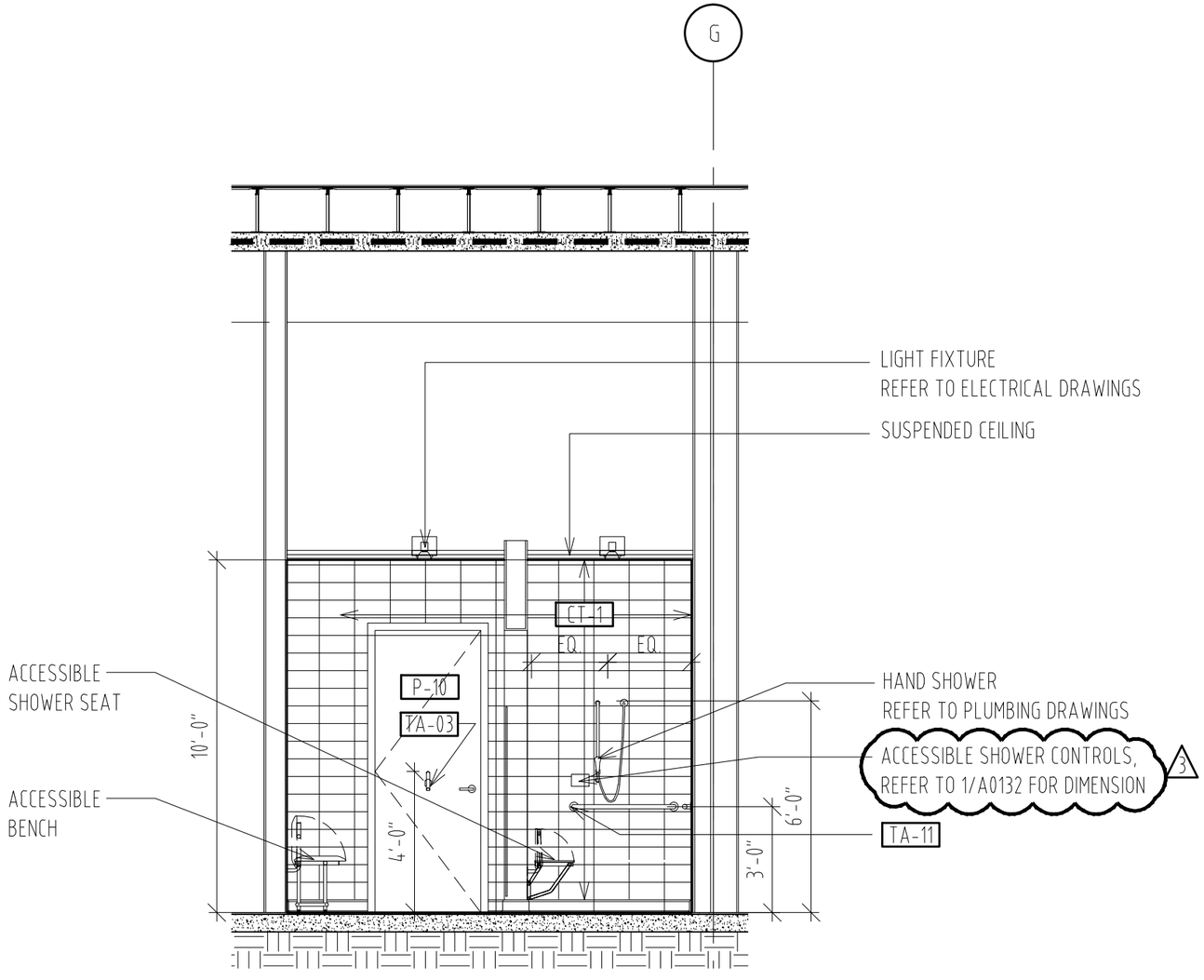
3 2012.06.04

ENLARGED FLOOR PLAN - LEVEL1 - AUDITORIUM PERFORMANCE HALL
REF. DWG # A5112 & A5121

SHEET TITLE :

SCALE :
1/16"=1'-0"

SHEET NUMBER :
A-SK-022



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BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

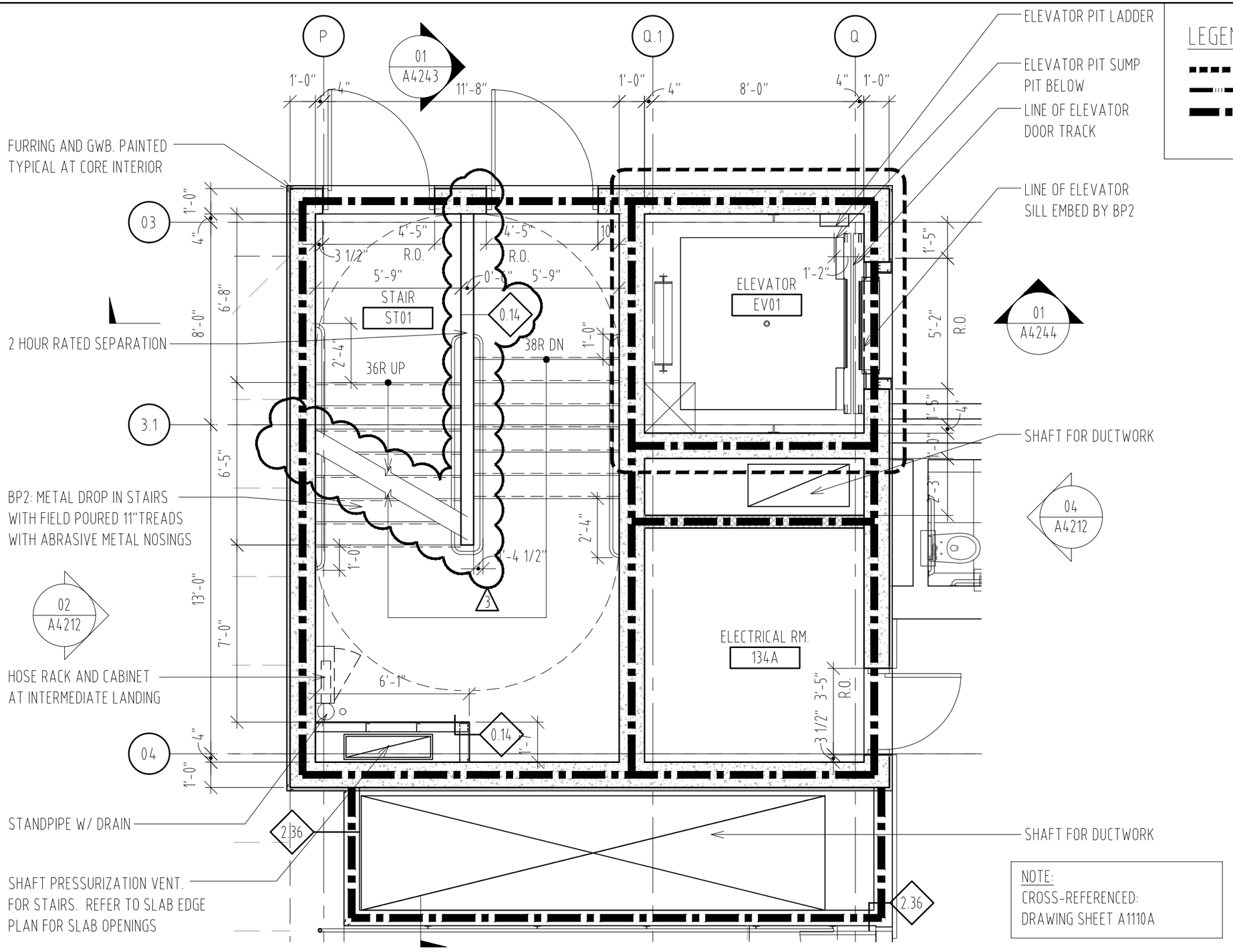
3 2012.06.13

TYPICAL TOILETS INTERIOR ELEVATION - LEVEL 1
REF. DWG # 05/A5101

SHEET TITLE :

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

SHEET NUMBER :
A-SK-023



LEGEND:

- SMOKE RESISTANT CONSTRUCTION
- 1 -HOUR FIRE RESISTANCE RATING
- 2-HOUR FIRE RESISTANCE RATING

NOTE:
CROSS-REFERENCED:
DRAWING SHEET A1110A

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UNIVERSITY OF SOUTH CAROLINA
BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

3 2012.06.13

ENLARGED PLAN - CORE 1 - LEVEL 1
REF. DWG # 02/A4211_bp3

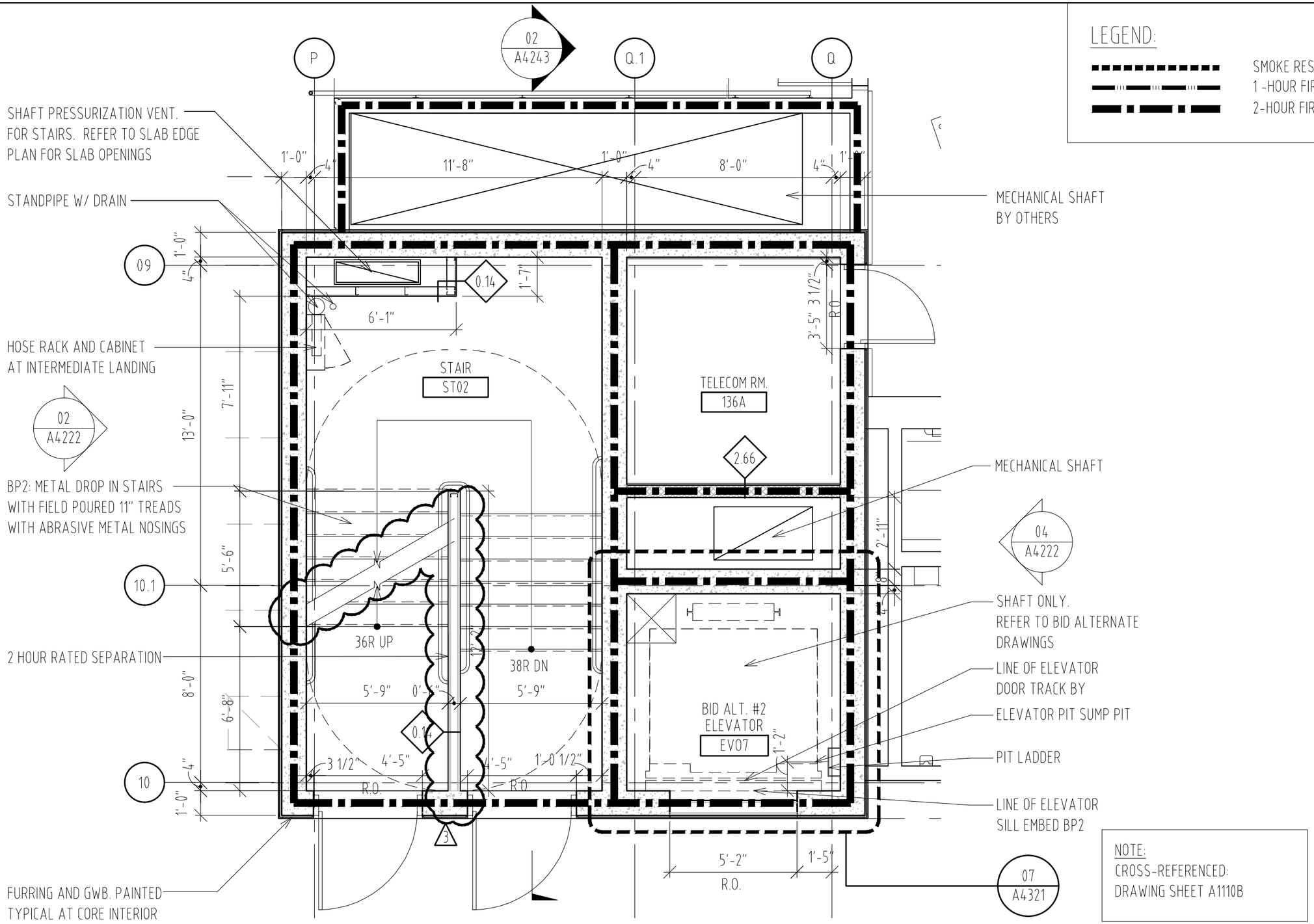
SHEET TITLE :

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

SHEET NUMBER :
A-SK-024

LEGEND:

SMOKE RESISTANT CONSTRUCTION
1 -HOUR FIRE RESISTANCE RATING
2-HOUR FIRE RESISTANCE RATING



NOTE:
CROSS-REFERENCED:
DRAWING SHEET A1110B

MOORE SCHOOL OF BUSINESS
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BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

3 2012.06.13

ENLARGED PLAN - CORE 2 - LEVEL 1
REF. DWG # 02/A4221_bp3

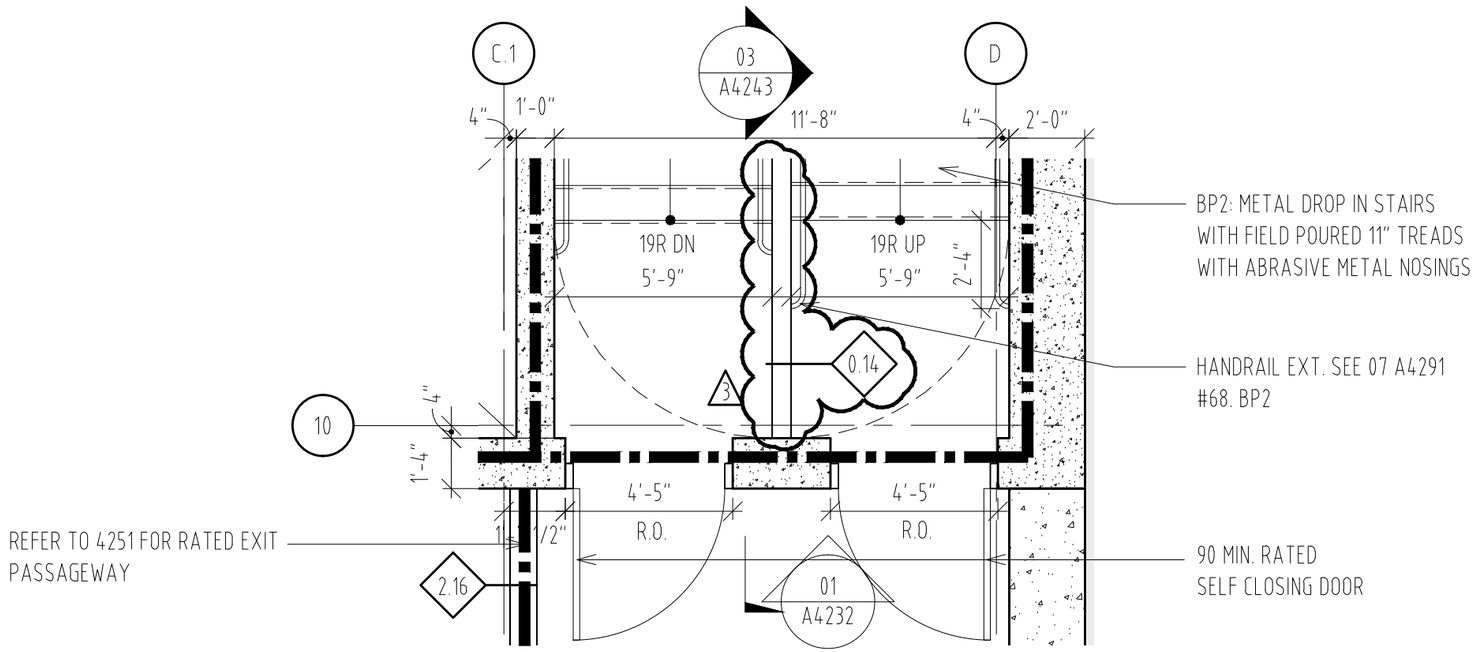
SHEET TITLE :

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

SHEET NUMBER :
A-SK-025

LEGEND:

SMOKE RESISTANT CONSTRUCTION
1 -HOUR FIRE RESISTANCE RATING
2-HOUR FIRE RESISTANCE RATING



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BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

3 2012.06.13

ENLARGED PLAN - CORE 3 - LEVEL 0 EL -11'-0" / T.O.S. 241'-8"
REF. DWG # 02/A4231_bp3

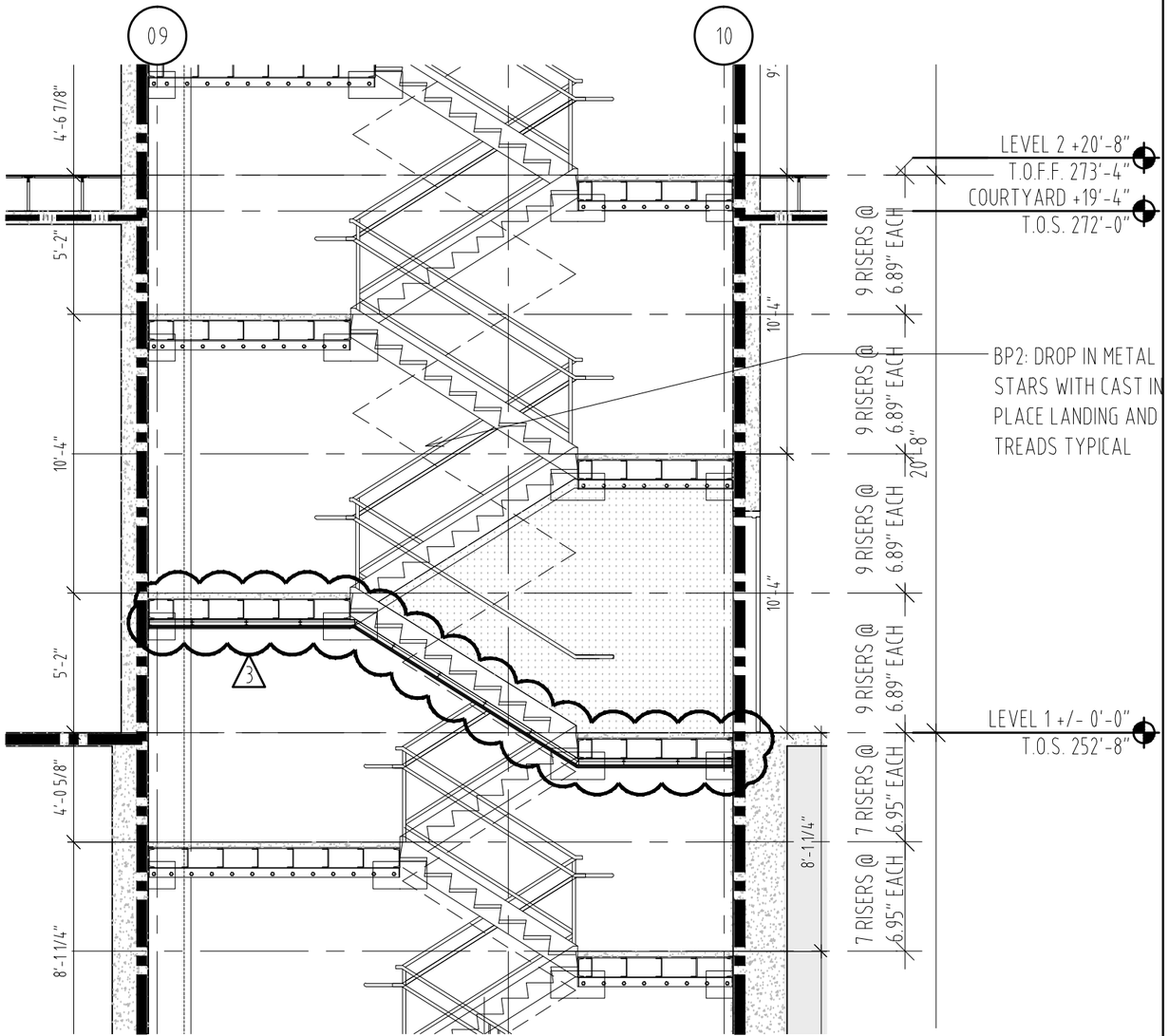
SHEET TITLE :

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

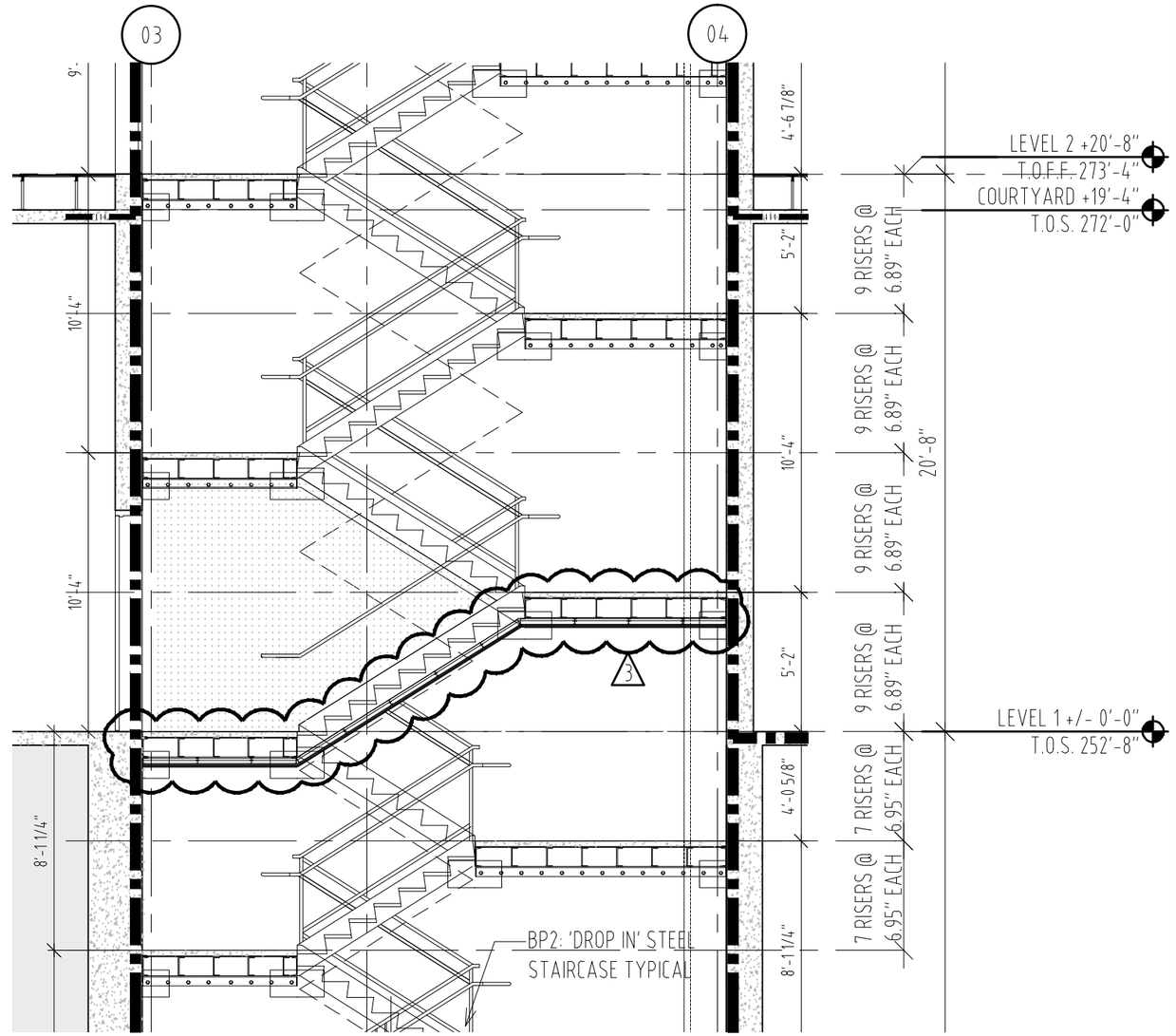
SHEET NUMBER :
A-SK-026

LEGEND:

SMOKE RESISTANT CONSTRUCTION
1 -HOUR FIRE RESISTANCE RATING
2-HOUR FIRE RESISTANCE RATING



ENLARGED SECTION - CORE 2
3/16" = 1'-0"
02



ENLARGED SECTION - CORE 1
3/16" = 1'-0"
01

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BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

3 2012.06.13

ENLARGED SECTIONS - CORE 1 & 2
REF. DWG # 01,02/A4243_bp3

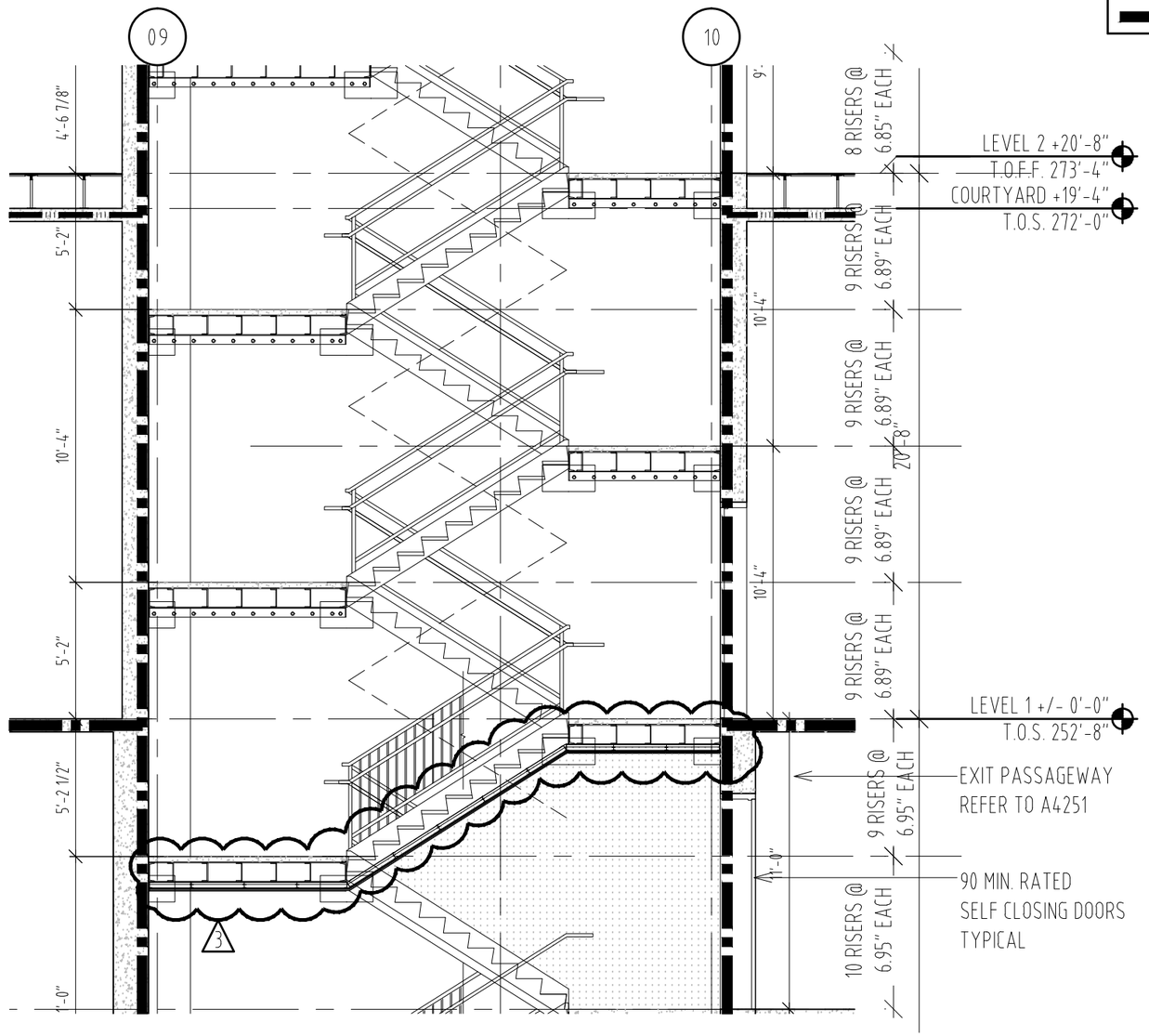
SHEET TITLE :

SCALE :
3/16" = 1'-0"

SHEET NUMBER :
A-SK-027

LEGEND:

- SMOKE RESISTANT CONSTRUCTION
- 1 -HOUR FIRE RESISTANCE RATING
- 2-HOUR FIRE RESISTANCE RATING



ENLARGED SECTION - CORE 3
3/16" = 1'-0"

01

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BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

3 2012.06.13

ENLARGED SECTION - CORE 3
REF. DWG # 03/A4243_bp3

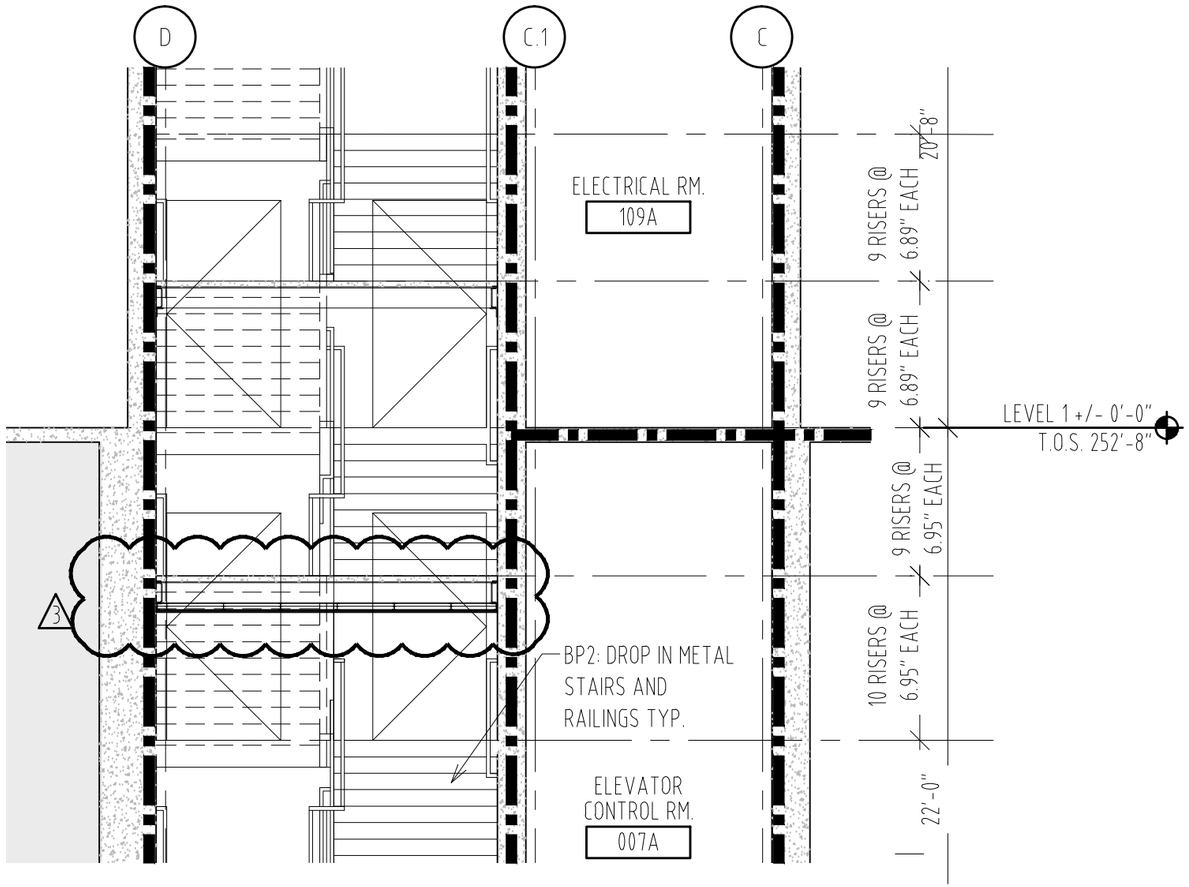
SHEET TITLE :

SCALE :
3/16" = 1'-0"

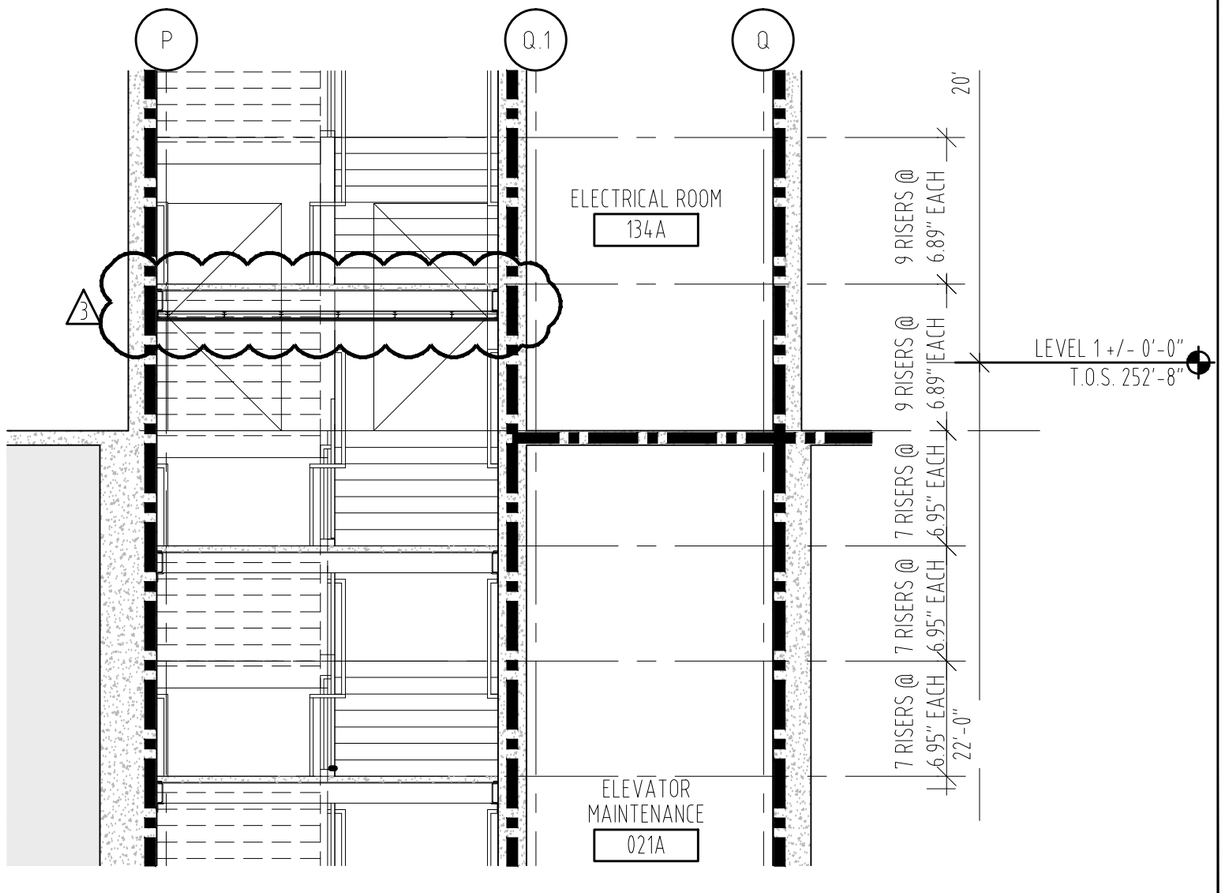
SHEET NUMBER :
A-SK-028

LEGEND:

SMOKE RESISTANT CONSTRUCTION
1-HOUR FIRE RESISTANCE RATING
2-HOUR FIRE RESISTANCE RATING



ENLARGED SECTION - CORE 3
SCALE : 1/4" = 1'-0"
02



ENLARGED SECTION - CORE 1
SCALE : 1/4" = 1'-0"
01

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BID PACKAGE 3
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ADDENDUM #002

PROJECT NO. 655.000

3 2012.06.13

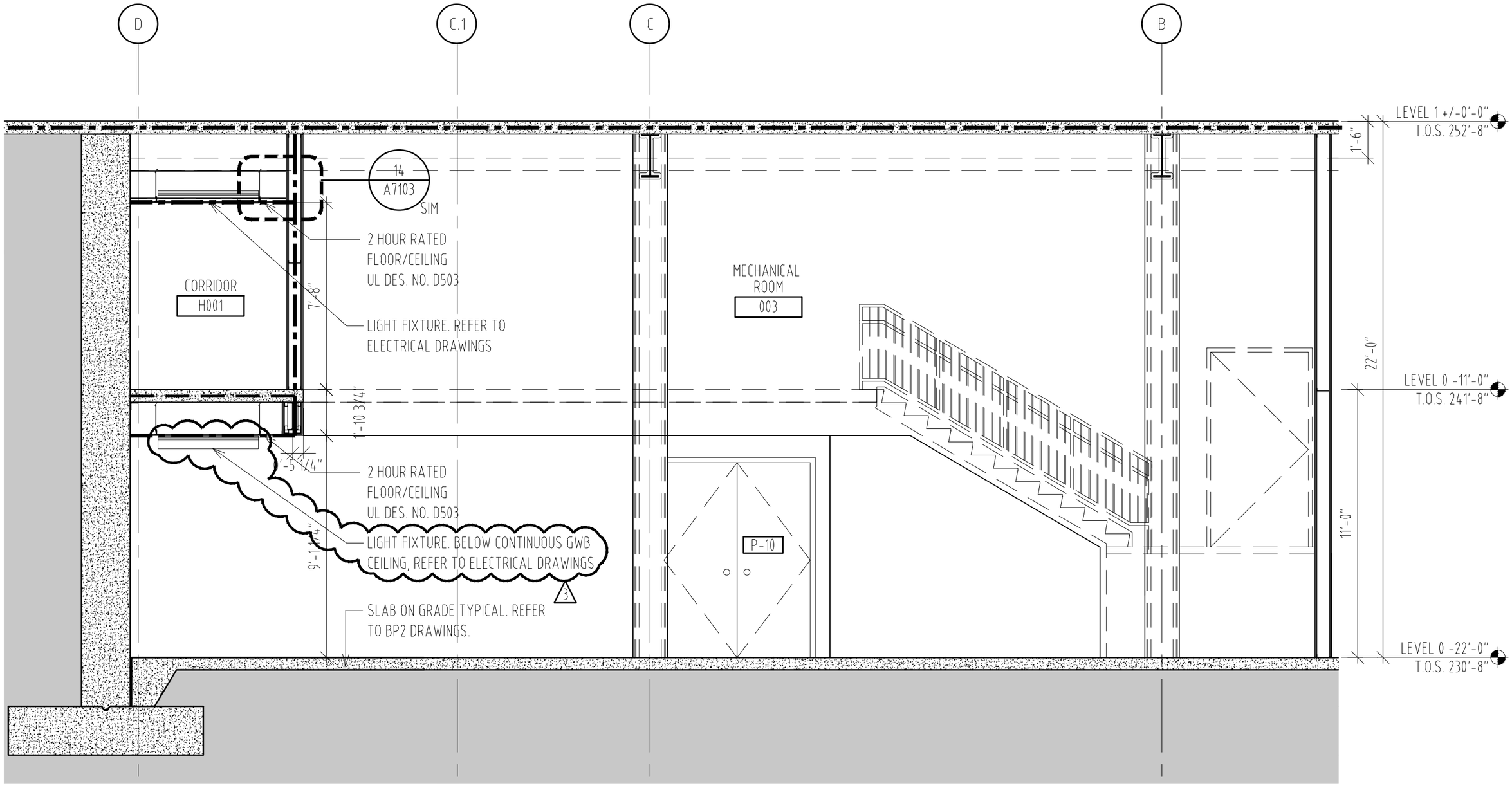
© RAFAEL VIÑOLY ARCHITECTS PC

ENLARGED SECTIONS - CORE 1 & 3
REF. DWG # 01, 02/A4244_bp3

SHEET TITLE :

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

SHEET NUMBER :
A-SK-029



MOORE SCHOOL OF BUSINESS
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BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

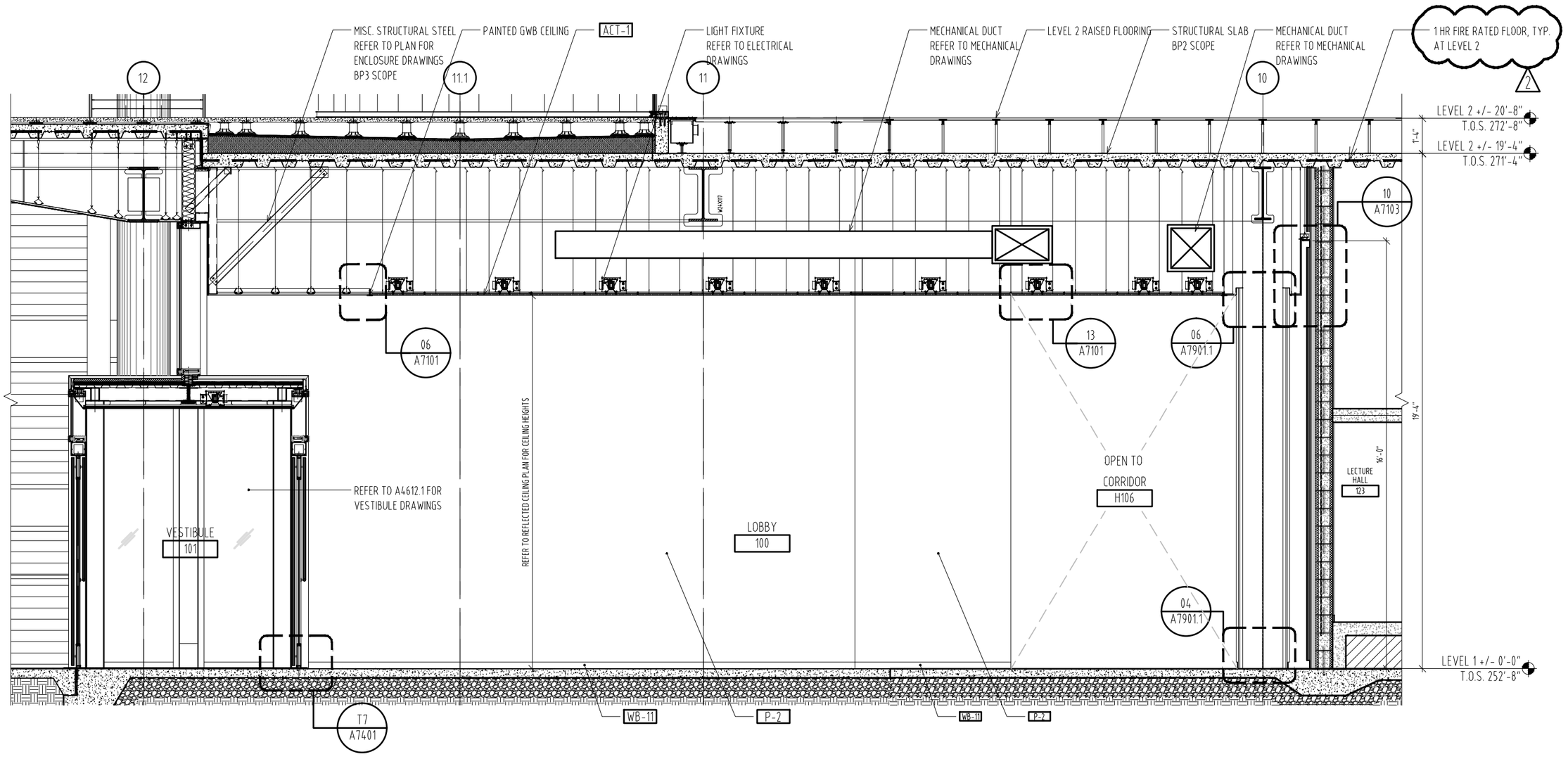
3	2012.06.13		

ENLARGED SECTION - LEVEL 0 - EGRESS PASSAGEWAY
REF. DWG # 02/A4251

SHEET TITLE :

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

SHEET NUMBER :
A-SK-030



MOORE SCHOOL OF BUSINESS
UNIVERSITY OF SOUTH CAROLINA
BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

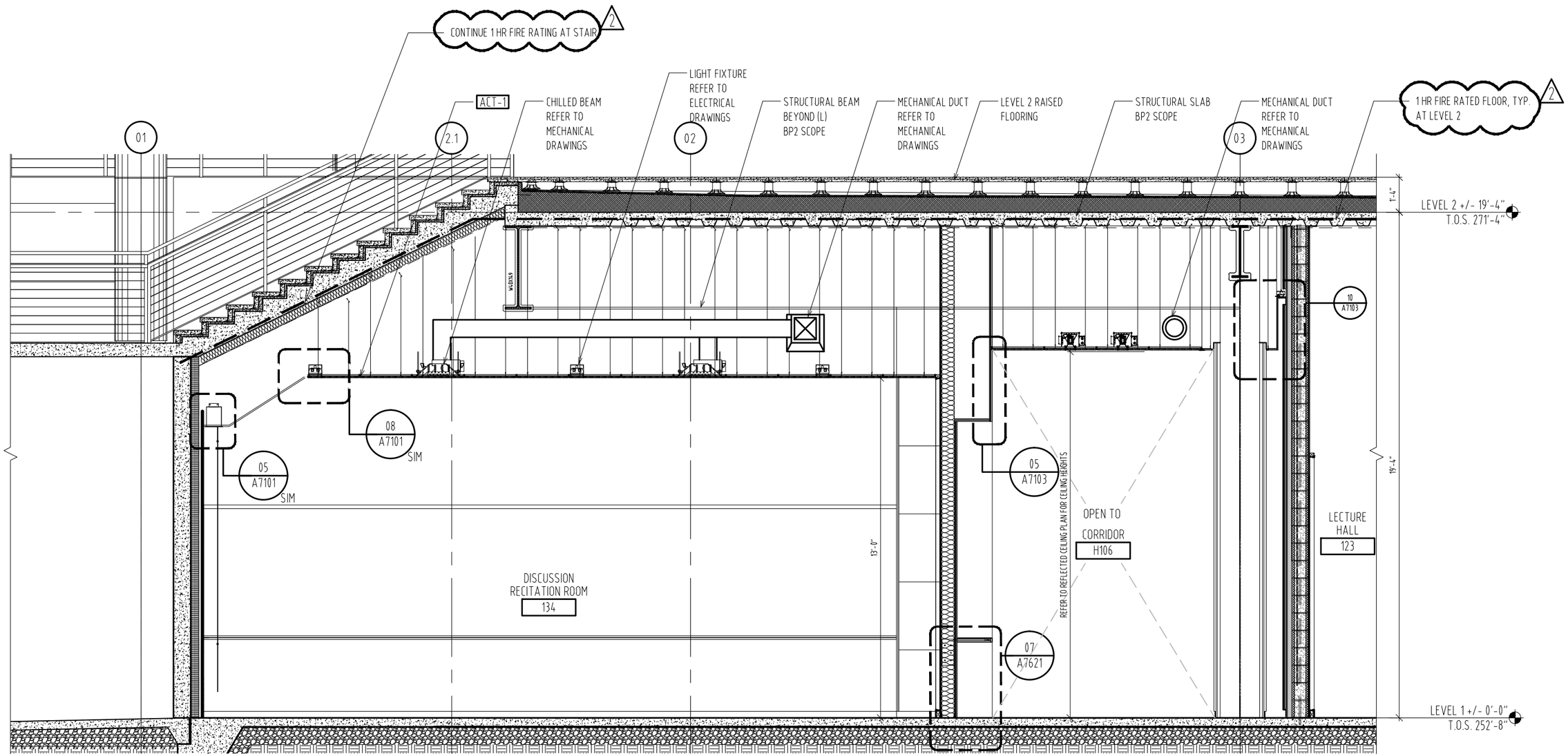
2	2012.06.13

WALL SECTION AT LOBBY H100 - LEVEL 1
REF. DWG # 01/A5140

SHEET TITLE :

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

SHEET NUMBER :
A-SK-031



MOORE SCHOOL OF BUSINESS
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BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

2 2012.06.13

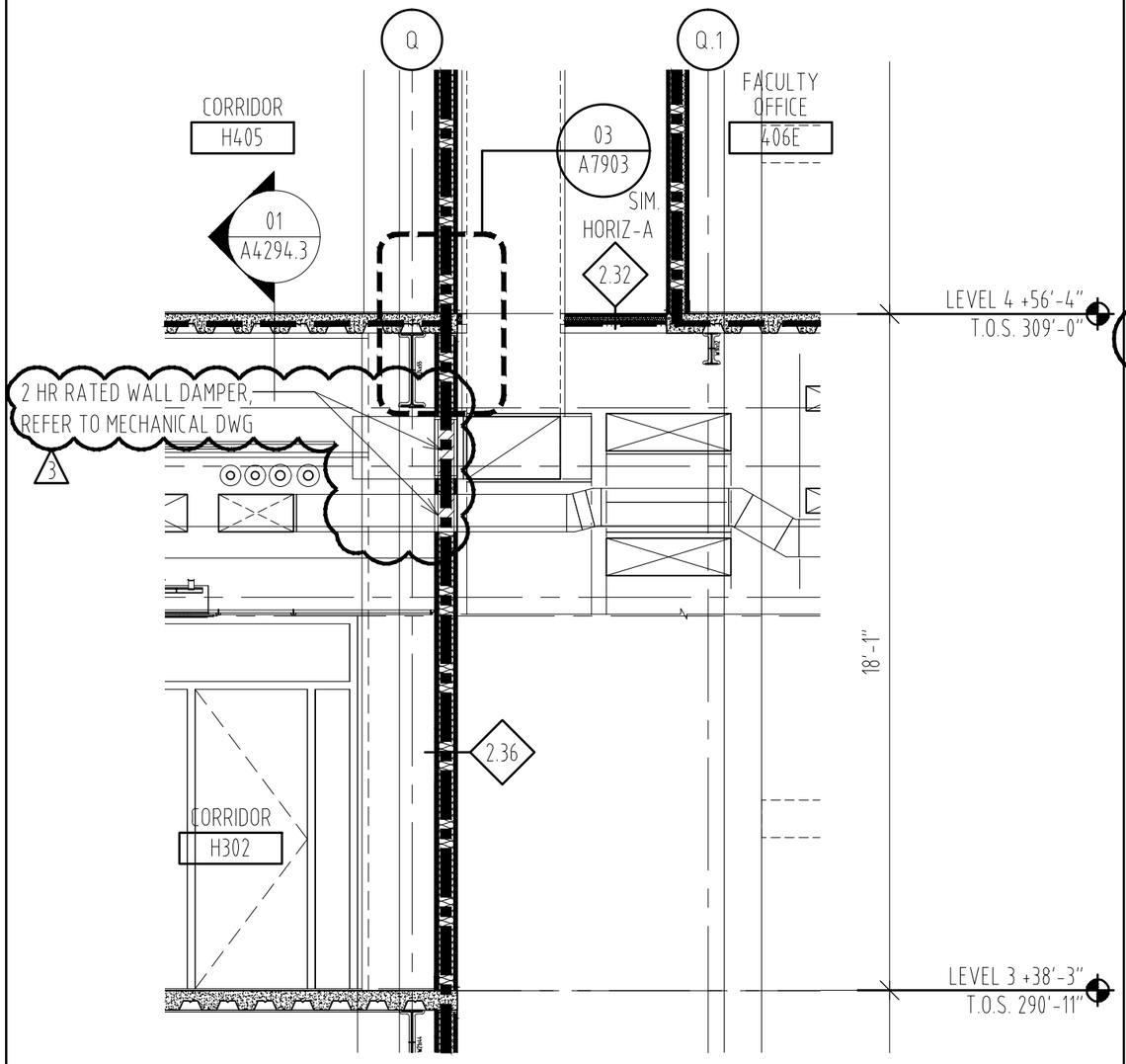
DETAIL WALL SECTION AT CORRIDOR H106 AND DISCUSSION RECITATION ROOM 124 - LEVEL 1
REF. DWG # 02/A5140

SHEET TITLE :

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

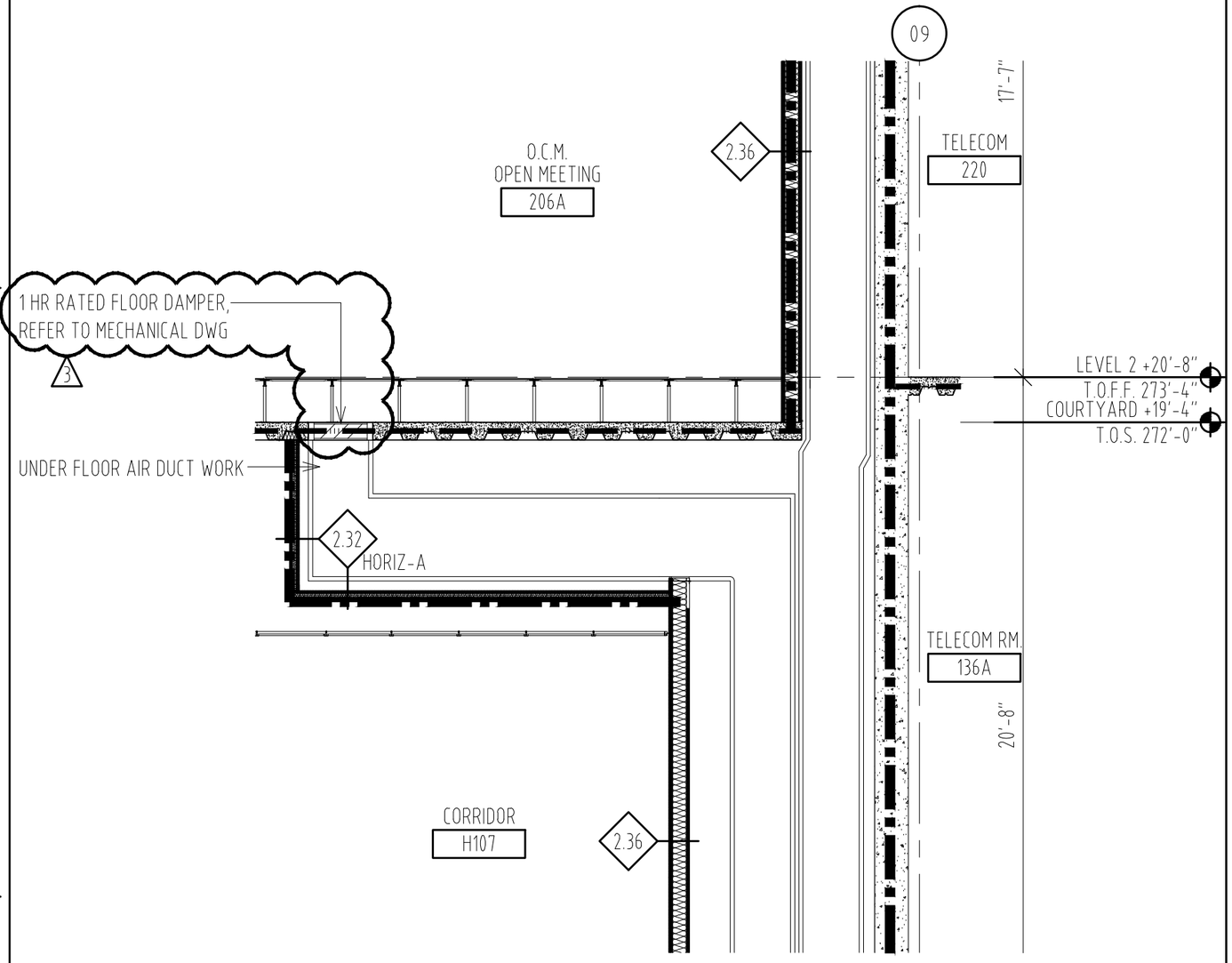
SHEET NUMBER :
A-SK-032

NOTE:
CROSS-REFERENCED:
DRAWING SHEET A4222



ENLARGED SECTION - CORE AIR SHAFT
SCALE 1/4" = 1'-0"
02

NOTE:
CROSS-REFERENCED:
DRAWING SHEET A4300



ENLARGED SECTION - CORE AIR SHAFT
SCALE 1/4" = 1'-0"
01

MOORE SCHOOL OF BUSINESS
UNIVERSITY OF SOUTH CAROLINA
BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

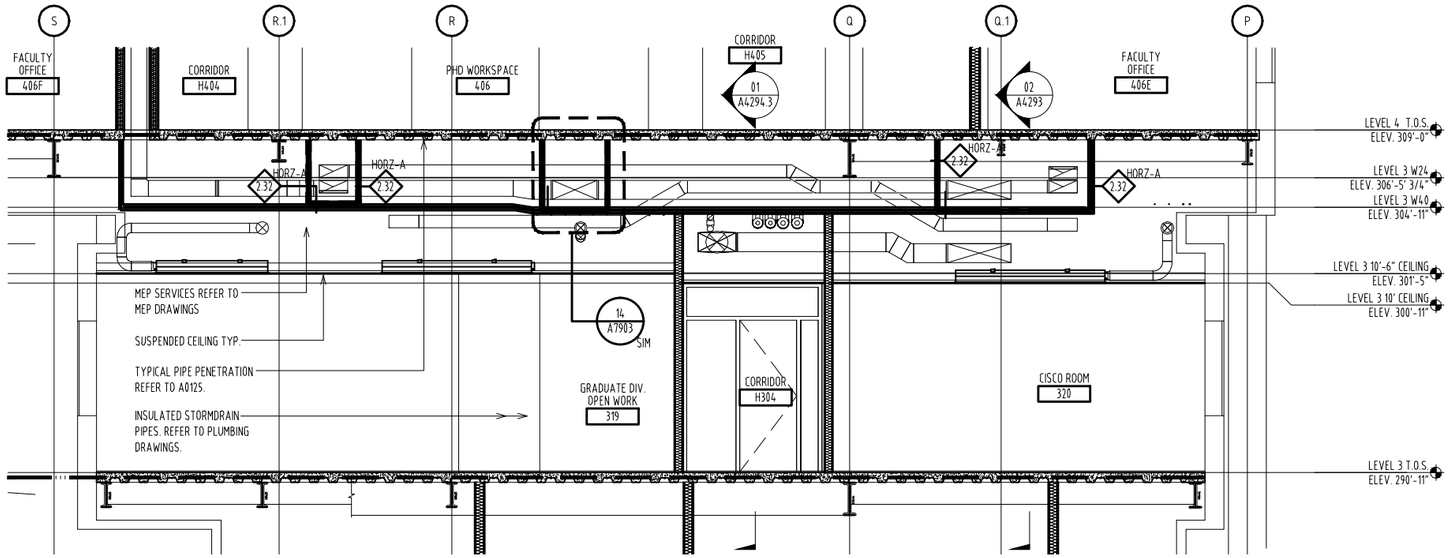
3 2012.06.13

CORE DETAIL SECTIONS - AIR SHAFT DIAGRAM
REF. DWG # 01,02/A4293

SHEET TITLE :

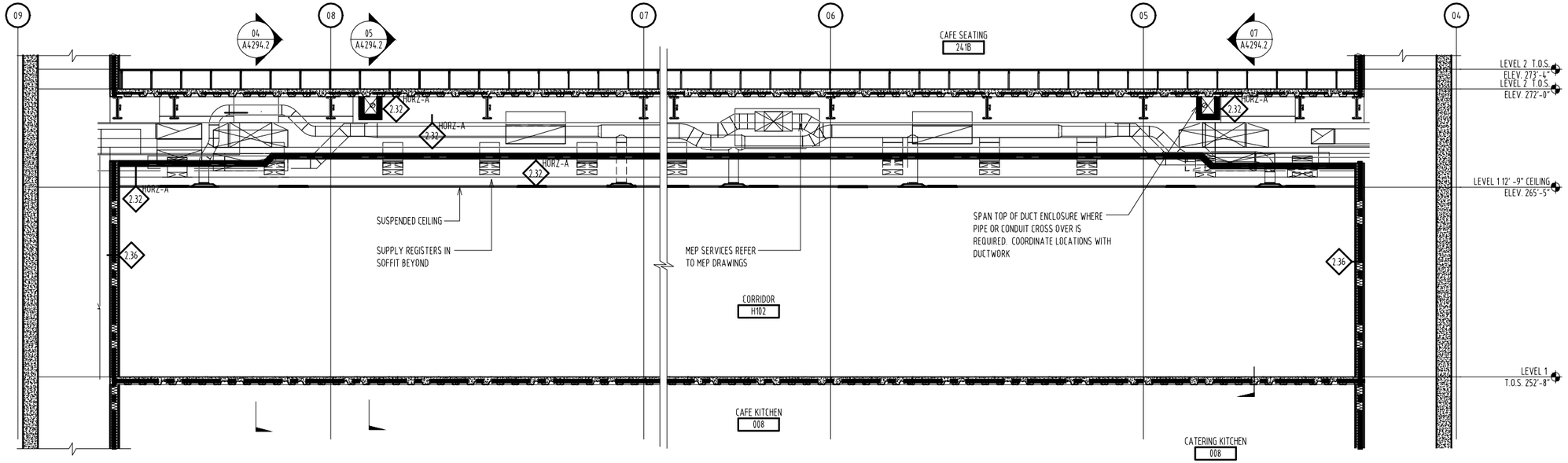
SCALE :
1/4" = 1'-0"

SHEET NUMBER :
A-SK-033



NOTE:
CROSS-REFERENCED EXAMPLE:
REF. CEILING PLAN A1230
3

HVAC SECTION
SCALE 1/8" = 1'-0" 02



NOTE:
CROSS-REFERENCED EXAMPLE:
REF. CEILING PLAN A1210
3

HVAC SECTION
SCALE 1/8" = 1'-0" 01

MOORE SCHOOL OF BUSINESS
UNIVERSITY OF SOUTH CAROLINA
BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

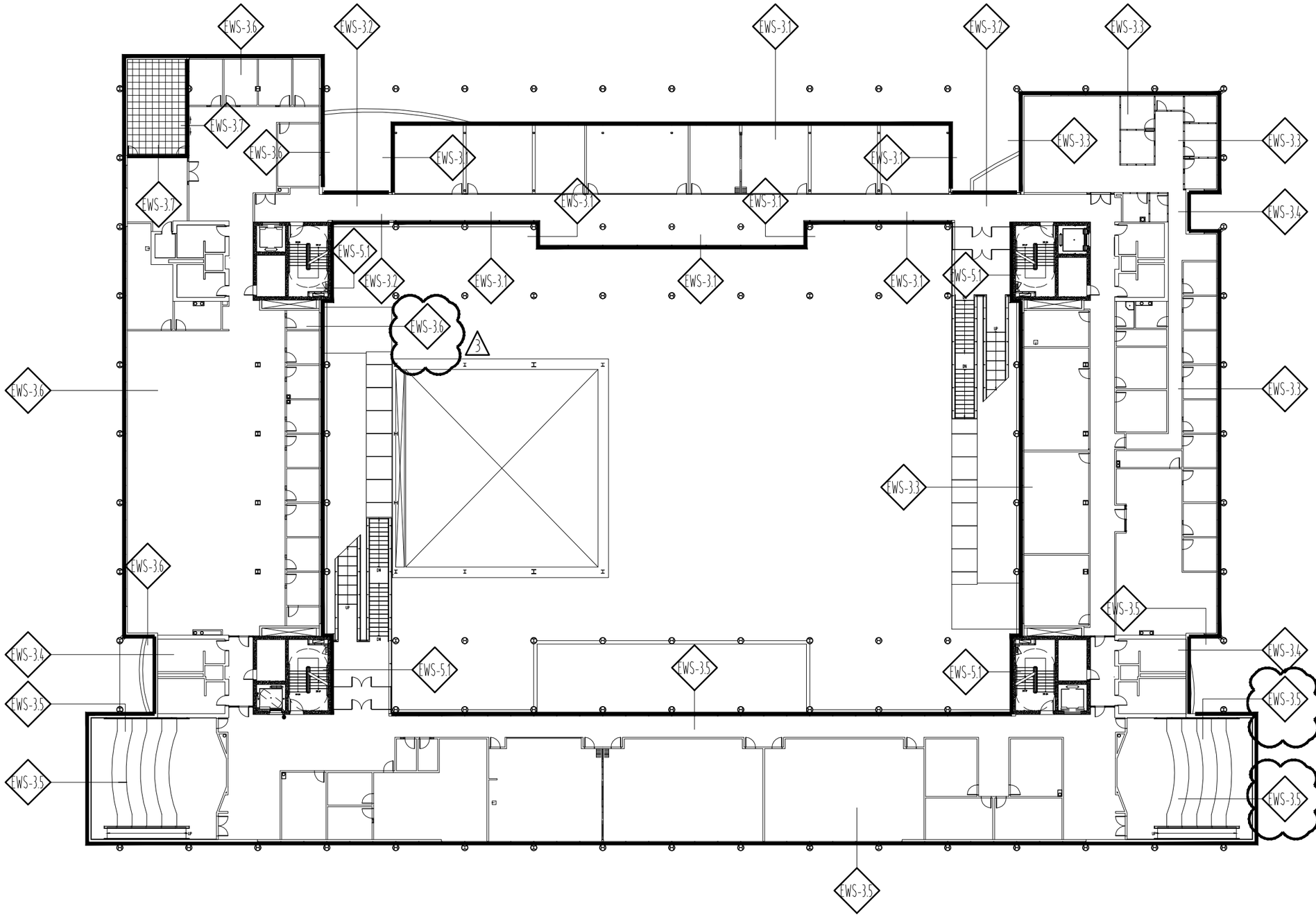
3 2012.06.13

DUCT ENCLOSURE SECTION LEVEL 1 AT CEILING PLENUMS
REF. DWG # 06/A4294.2 & 02/A4294.3

SHEET TITLE :

SCALE :
1/8" = 1'-0"

SHEET NUMBER :
A-SK-034



MOORE SCHOOL OF BUSINESS
UNIVERSITY OF SOUTH CAROLINA
BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #001

PROJECT NO. 655.000

3 2012.06.13

OVERVIEW - ENCLOSURE WALL SYSTEMS - LEVEL 3
REF. DWG # 04/A4601

SHEET TITLE :

SCALE :
NTS

SHEET NUMBER :
A-SK-035

ROOM NO.	AREA TYPE	FLOOR		WALLS				CEILING
241	SERVERY	RF-1A	WB-3	REFER TO DWGS	REFER TO DWGS	REFER TO DWGS	REFER TO DWGS	LA3+MCT
241A	CAFÉ SEATING	FT-2	WB-9	REFER TO DWGS	REFER TO DWGS	REFER TO DWGS	REFER TO DWGS	ACT-1
241B	CAFÉ SEATING	RF-1A	WB-3	REFER TO DWGS	REFER TO DWGS	REFER TO DWGS	REFER TO DWGS	ACT-1
241C	CAFÉ SEATING	RF-1A	WB-3	REFER TO DWGS	REFER TO DWGS	REFER TO DWGS	REFER TO DWGS	ACT-1

3

MOORE SCHOOL OF BUSINESS
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BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

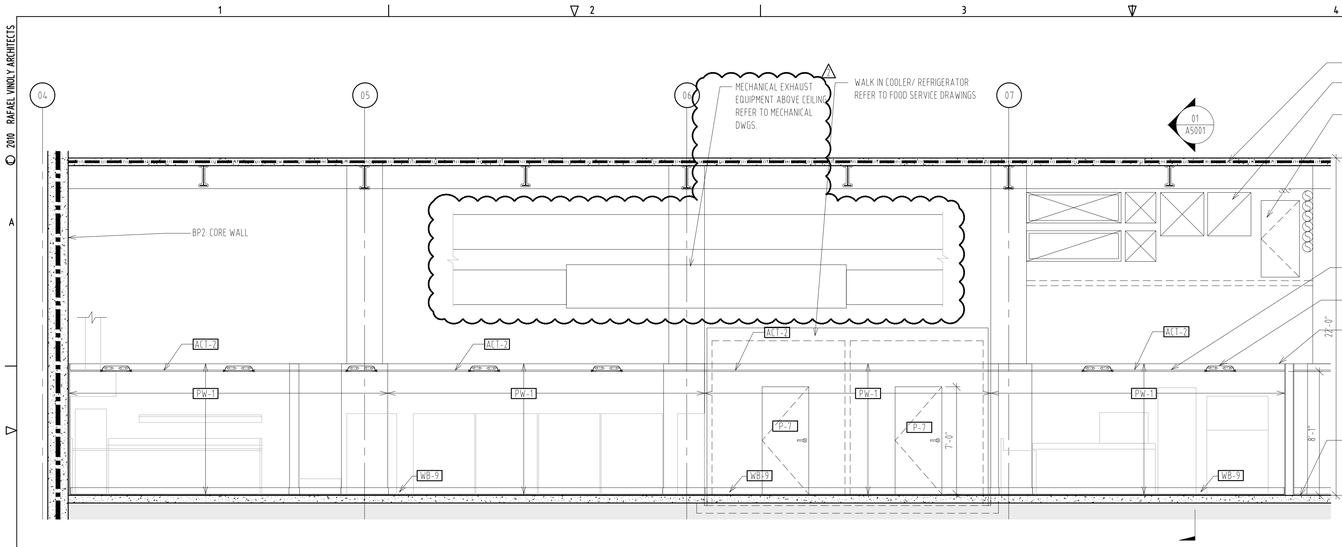
3 2012.06.13

LEVEL 2 - ROOM FINISH SCHEDULE REVISION
REF. DWG # A8401

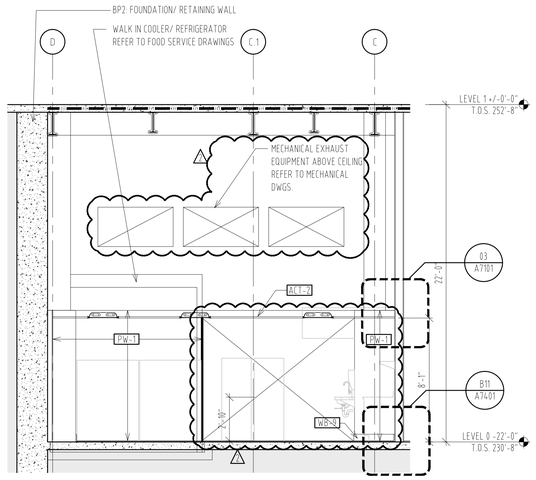
SHEET TITLE :

SCALE :
1" = 1'-0"

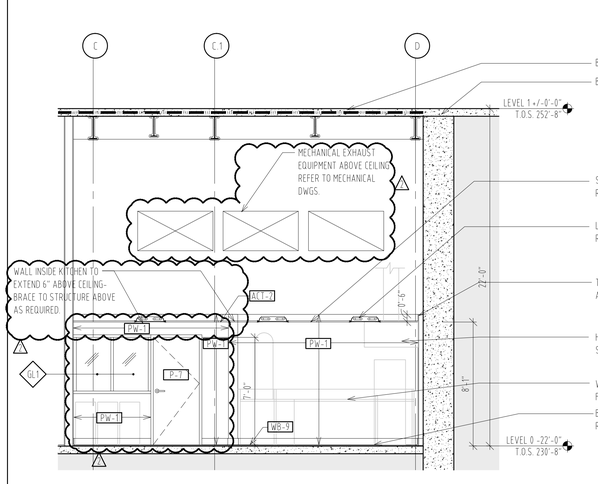
SHEET NUMBER :
A-SK-036



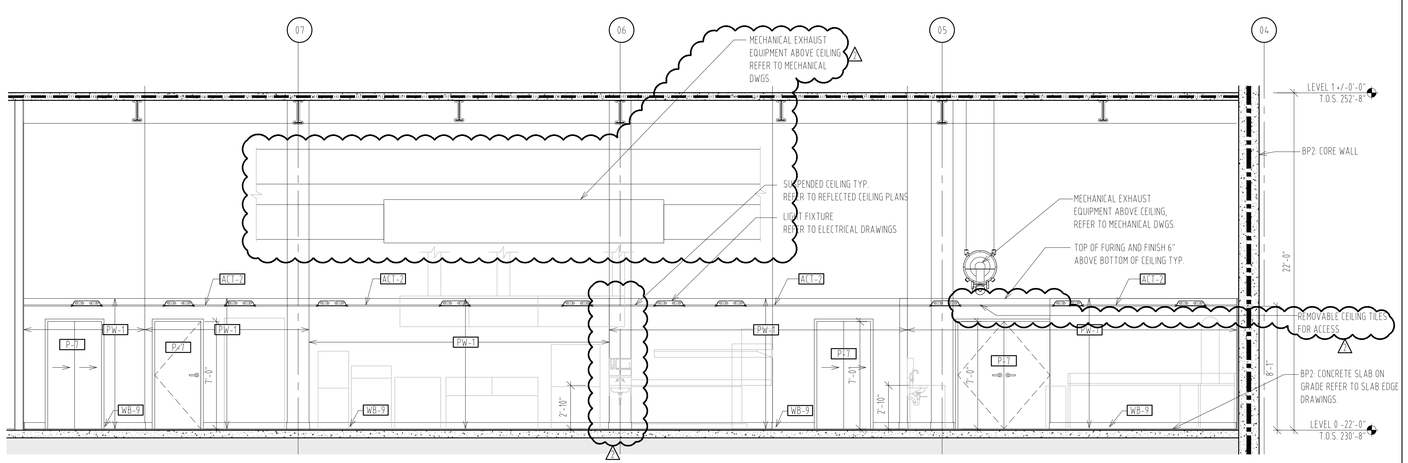
ENLARGED ELEVATION 05
SCALE : 1/4" = 1'-0"



ENLARGED ELEVATION 04
SCALE : 1/4" = 1'-0"



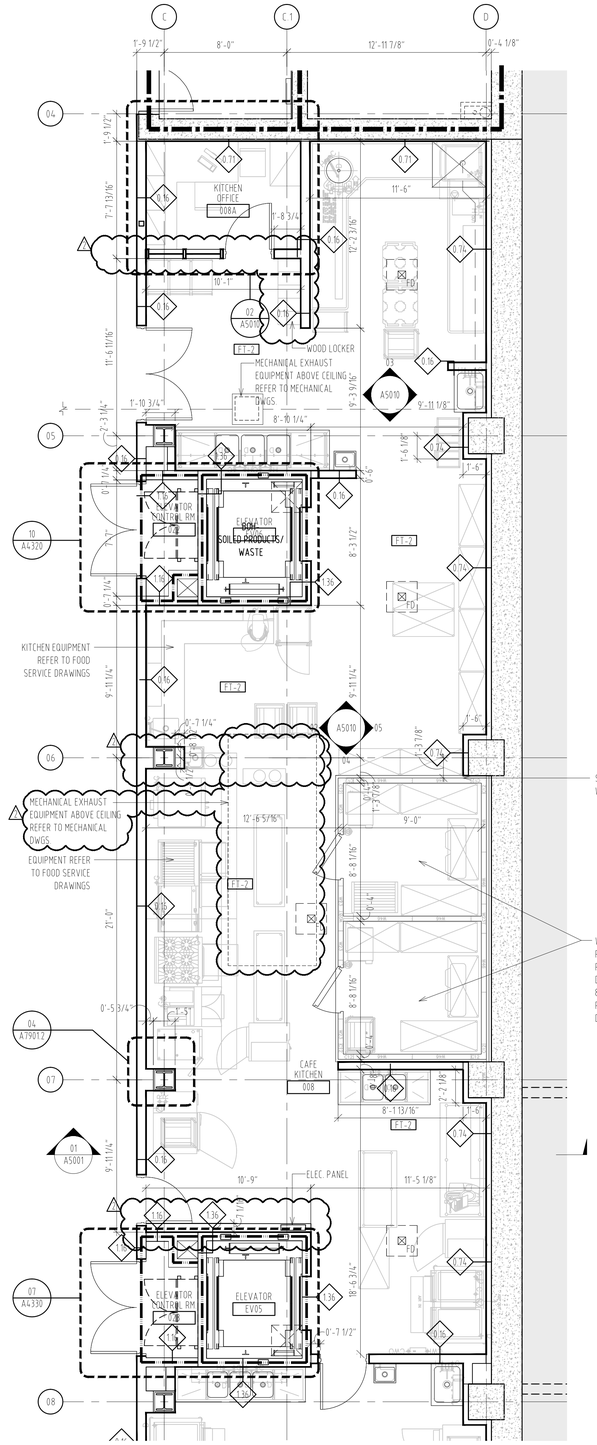
ENLARGED ELEVATION 03
SCALE : 1/4" = 1'-0"



ENLARGED ELEVATION 02
SCALE : 1/4" = 1'-0"

FOOD SERVICE EQUIPMENT NOTE:
REFER TO FOOD SERVICE DRAWINGS FOR FOOD SERVICE EQUIPMENT DETAILS.

NOTE ON FINISHES:
REFER TO A8400 FOR FINISH LEGEND, TYPICAL



FINISH NOTES:
1. WALL BASE WB-9 CONTINUOUS ON WALL INCLUDING BEHIND FOOD SERVICE EQUIPMENT.

2. WALL PROTECTION SHEET PW-1 TO BE CONTINUOUS ON GWB WALL FROM FLOOR TO 6" ABOVE CEILING - CONTINUOUS ON WALL, INCLUDING BEHIND FOOD SERVICE EQUIPMENT.

NOTE:
CROSS-REFERENCED EXAMPLE:
DRAWING SHEET A1100, A1100D

ENLARGED PLAN 01
SCALE : 1/4" = 1'-0"

USC BUSINESS PARTNERSHIP FOUNDATION
ON BEHALF OF
USC CAMPUS PLANNING & CONSTRUCTION

PROJECT NAME:
UNIVERSITY OF SOUTH CAROLINA
DARLA MOORE SCHOOL OF BUSINESS CONSTRUCTION

OSE PROJECT NUMBER:
H27-6069-AC-3

743 GREENE STREET
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BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
MAY 14, 2012

PHASE :

ADDENDUM #002
JUNE 13, 2012
REF. DWG # A5010

SEAL & SIGNATURE

ISSUE NO.	ISSUE DATE	ISSUE NO.	ISSUE DATE	ISSUE NO.	ISSUE DATE
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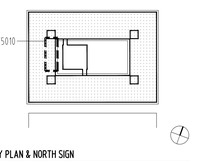
2	2012.05.14				
3	2012.04.18				
4	2011.05.23				



KEY PLAN & NORTH SIGN

IF THIS DRAWING IS NOT 30" X 42" IT IS A REDUCED PRINT; REFER TO GRAPHIC SCALE

0

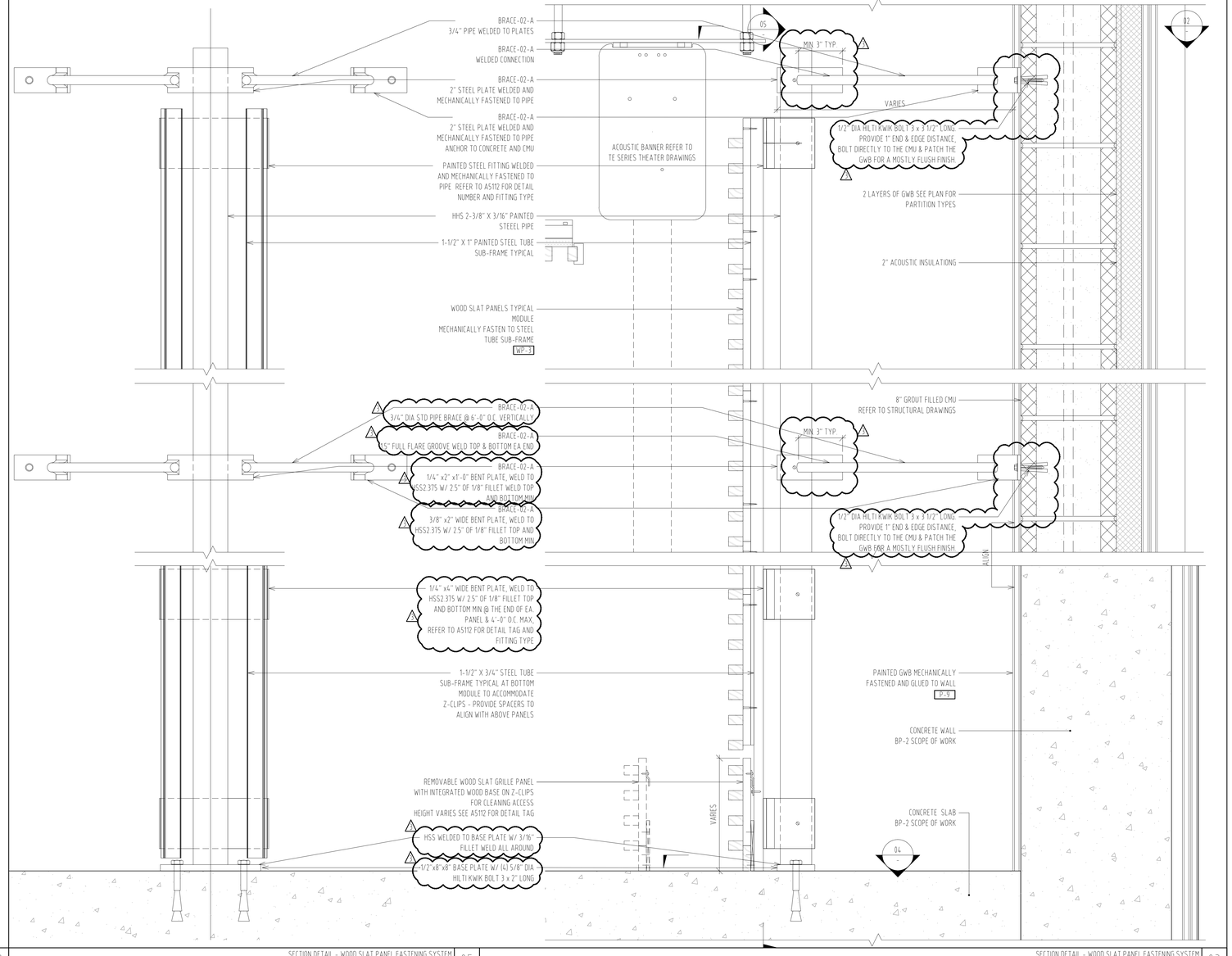
AS NOTED

ENLARGED PLAN,
ELEVATIONS & DETAILS
LEVEL 0
CAFE KITCHEN

SHEET TITLE :

A-SK-037

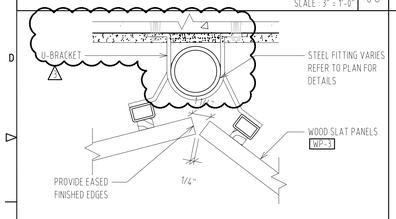
SHEET NUMBER :



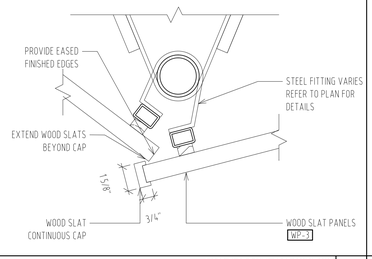
3D DIAGRAM - WOOD SLAT GRILLE FASTENING SYSTEM 08
SCALE : 3" = 1'-0"

SECTION DETAIL - WOOD SLAT PANEL FASTENING SYSTEM 05
SCALE : 3" = 1'-0"

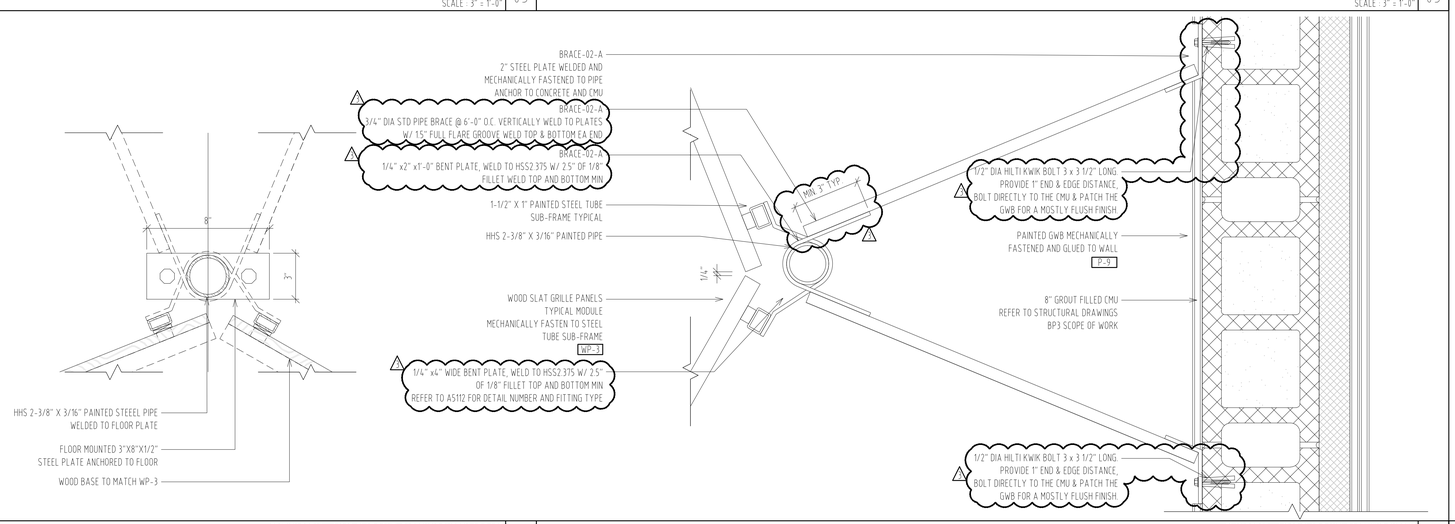
SECTION DETAIL - WOOD SLAT PANEL FASTENING SYSTEM 03
SCALE : 3" = 1'-0"



WOOD SLAT PANEL EDGE CONDITIONS 07
SCALE : 3" = 1'-0"

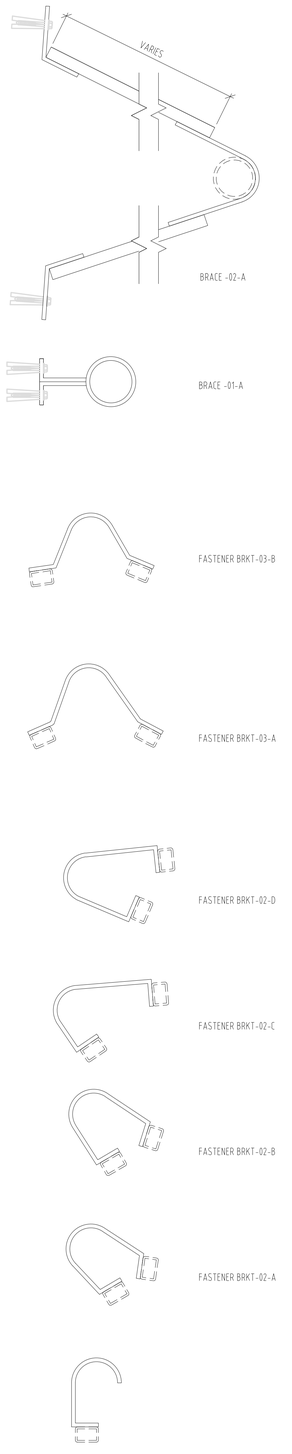


WOOD SLAT PANEL EDGE CONDITIONS 06
SCALE : 3" = 1'-0"



SECTION DETAIL - WOOD SLAT PANEL FASTENING SYSTEM AT BASE 04
SCALE : 3" = 1'-0"

PLAN DETAIL - WOOD SLAT PANEL FASTENING SYSTEM 02
SCALE : 3" = 1'-0"



GENERAL NOTES:

1. ALL STRUCTURAL COMPONENTS - BEAMS, COLUMNS, SLAB ON GRADE, ELEVATED SLABS, METAL DECKS, FOUNDATION WALL, CONCRETE WORK, AND CORE METAL STAIRS ARE PART OF A SEPARATE STRUCTURE PACKAGE (BP-2) UNLESS OTHERWISE NOTED.

2. ALL MISCELLANEOUS METALS ARE PART OF THIS BID PACKAGE (BP-3)

3. ALL WOOD SHALL BE FIRE RETARDANT. CLASS A AND MEET ASTM E-84 REQUIREMENTS.

WOOD SLAT PANEL FITTINGS 01
SCALE : 3" = 1'-0"

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BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
MAY 14, 2012

PHASE :

ADDENDUM #002
JUNE 13, 2012
REF. DWG # A7013

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1	2012.05.14				
	2012.04.18				
	2012.01.04				

KEY PLAN & NORTH SIGN

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3" = 1'-0"

WALL DETAILS
PERFORMANCE HALL

SHEET TITLE :

A-SK-038

SHEET NUMBER :

GENERAL NOTES:

1. ALL STRUCTURAL COMPONENTS - BEAMS, COLUMNS, SLAB ON GRADE, ELEVATED SLABS, METAL DECKS, FOUNDATION WALL, CONCRETE WORK, AND CORE METAL STAIRS ARE PART OF A SEPARATE STRUCTURE PACKAGE (BP-2) UNLESS OTHERWISE NOTED.

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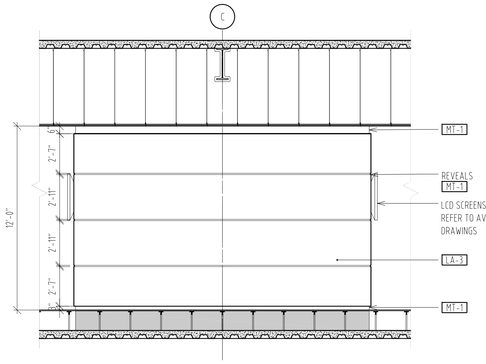
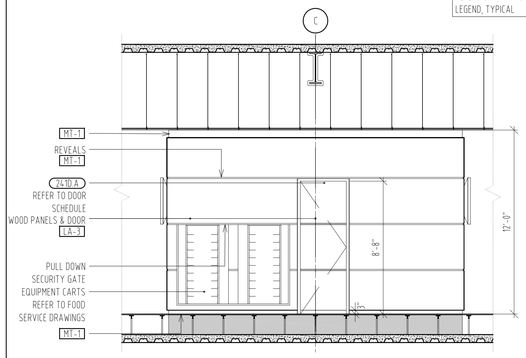
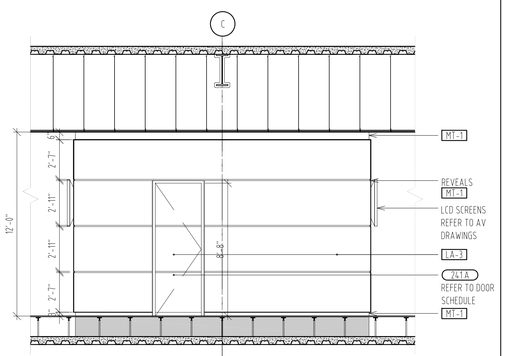
3. ALL WOOD SHALL BE FIRE RETARDANT, CLASS A AND MEET ASTM E-84 REQUIREMENTS.



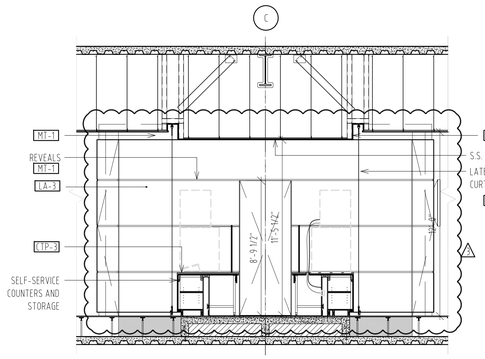
LEVEL 2 CAFE - ELEVATION 04
SCALE : 1/4" = 1'-0"



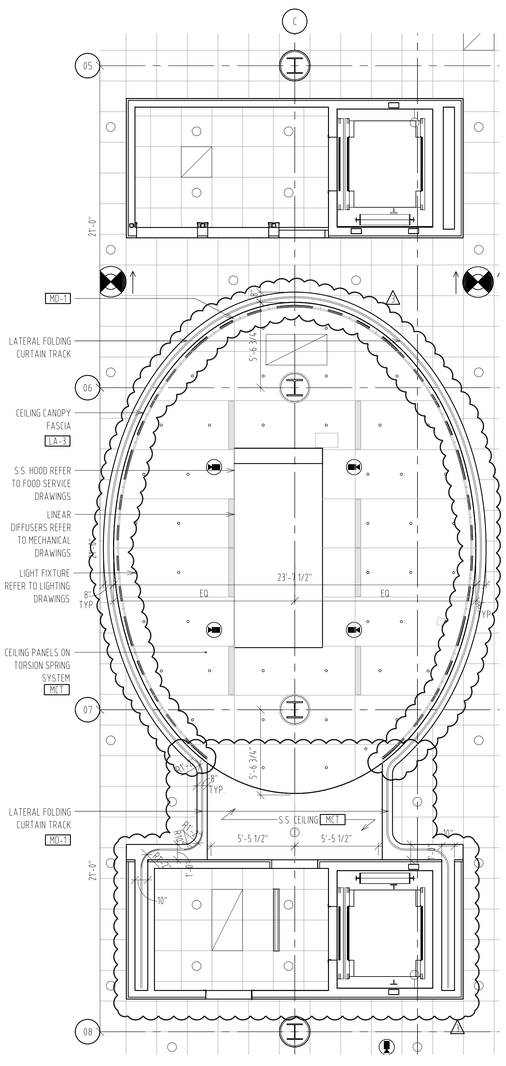
LEVEL 2 CAFE - ELEVATION 03
SCALE : 1/4" = 1'-0"



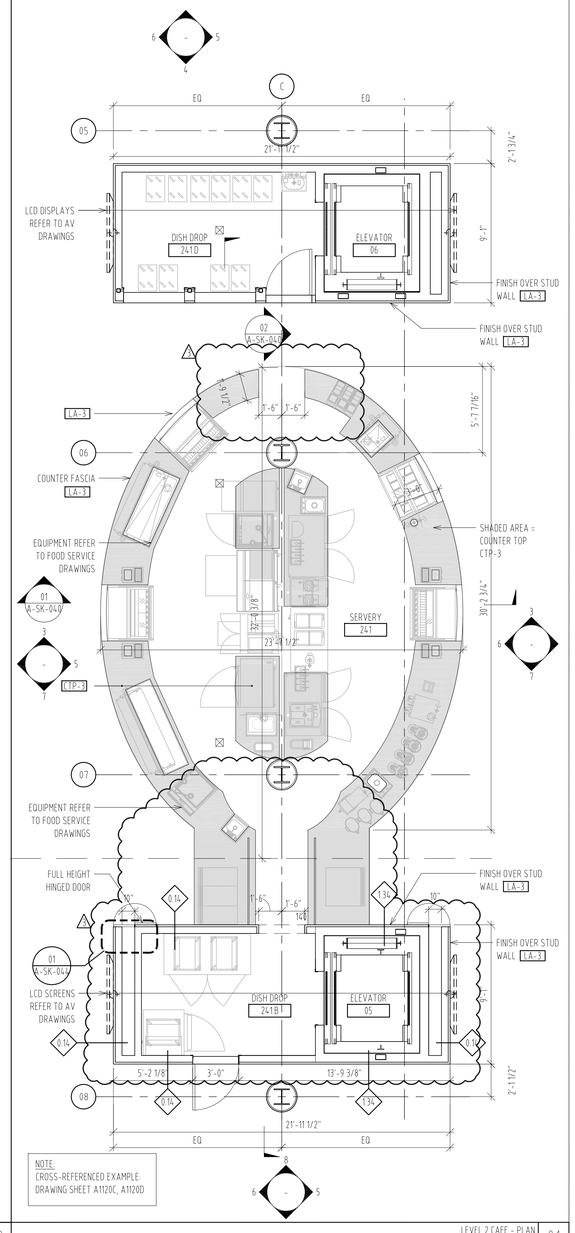
LEVEL 2 CAFE - ELEVATION 08
SCALE : 1/4" = 1'-0"



LEVEL 2 CAFE - ELEVATION 07
SCALE : 1/4" = 1'-0"

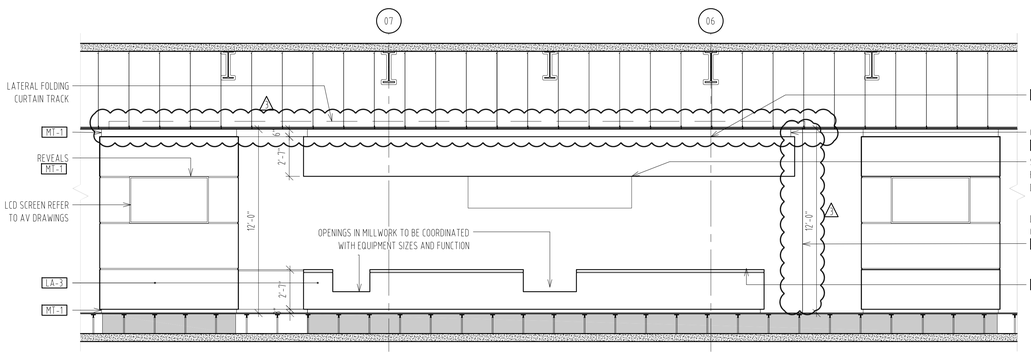


LEVEL 2 CAFE - REFLECTED CEILING PLAN 02
SCALE : 1/4" = 1'-0"

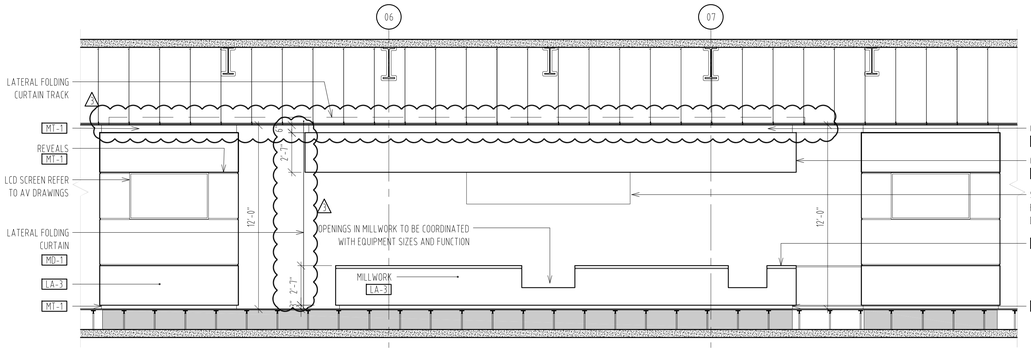


NOTE:
CROSS-REFERENCED EXAMPLE:
DRAWING SHEET A1120C, A1120D

LEVEL 2 CAFE - PLAN 01
SCALE : 1/4" = 1'-0"



LEVEL 2 CAFE - ELEVATION 06
SCALE : 1/4" = 1'-0"



LEVEL 2 CAFE - ELEVATION 05
SCALE : 1/4" = 1'-0"

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BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
MAY 14, 2012

PHASE :

ADDENDUM #002
JUNE 13, 2012
REF. DWG # A5210

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5	2012.04.18				
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2	2011.04.29				

KEY PLAN & NORTH SIGN

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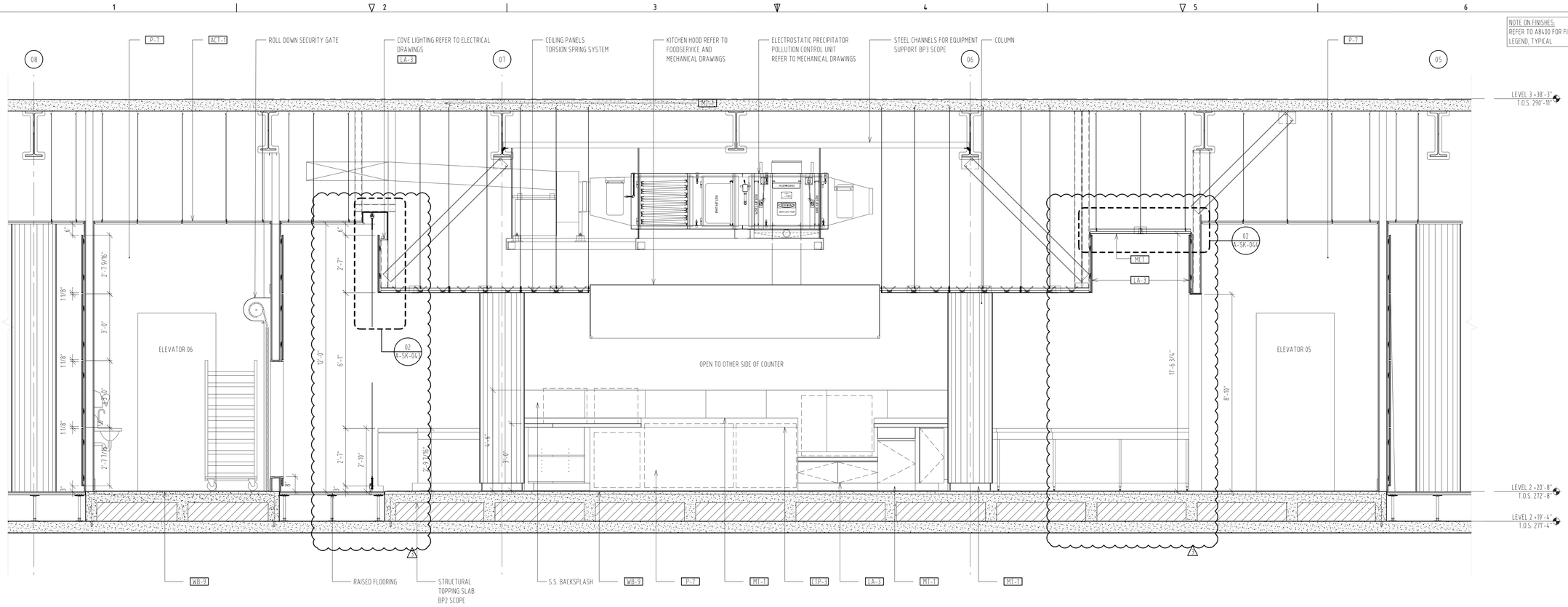
0 4 8
1/4" = 1' - 0"

ENLARGED PLAN, RCP & ELEVATIONS
LEVEL 2
CAFE - SERVERY

SHEET TITLE :

A-SK-039

SHEET NUMBER :



LEVEL 2 CAFE - SECTION 01
SCALE : 1/2" = 1'-0"

GENERAL NOTES:

1. ALL STRUCTURAL COMPONENTS - BEAMS, COLUMNS, SLAB ON GRADE, ELEVATED SLABS, METAL DECKS, FOUNDATION WALL, CONCRETE WORK, AND CORE METAL STAIRS ARE PART OF A SEPARATE STRUCTURE PACKAGE (BP-2) UNLESS OTHERWISE NOTED.

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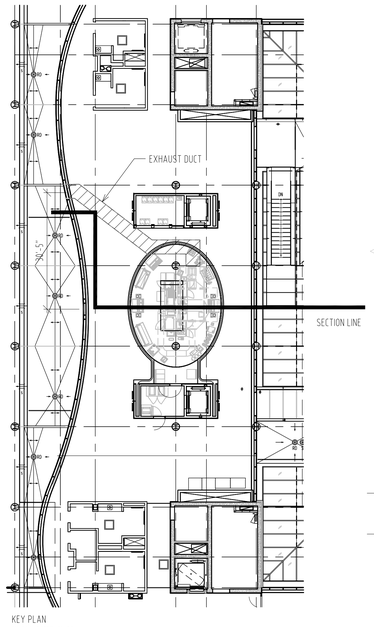
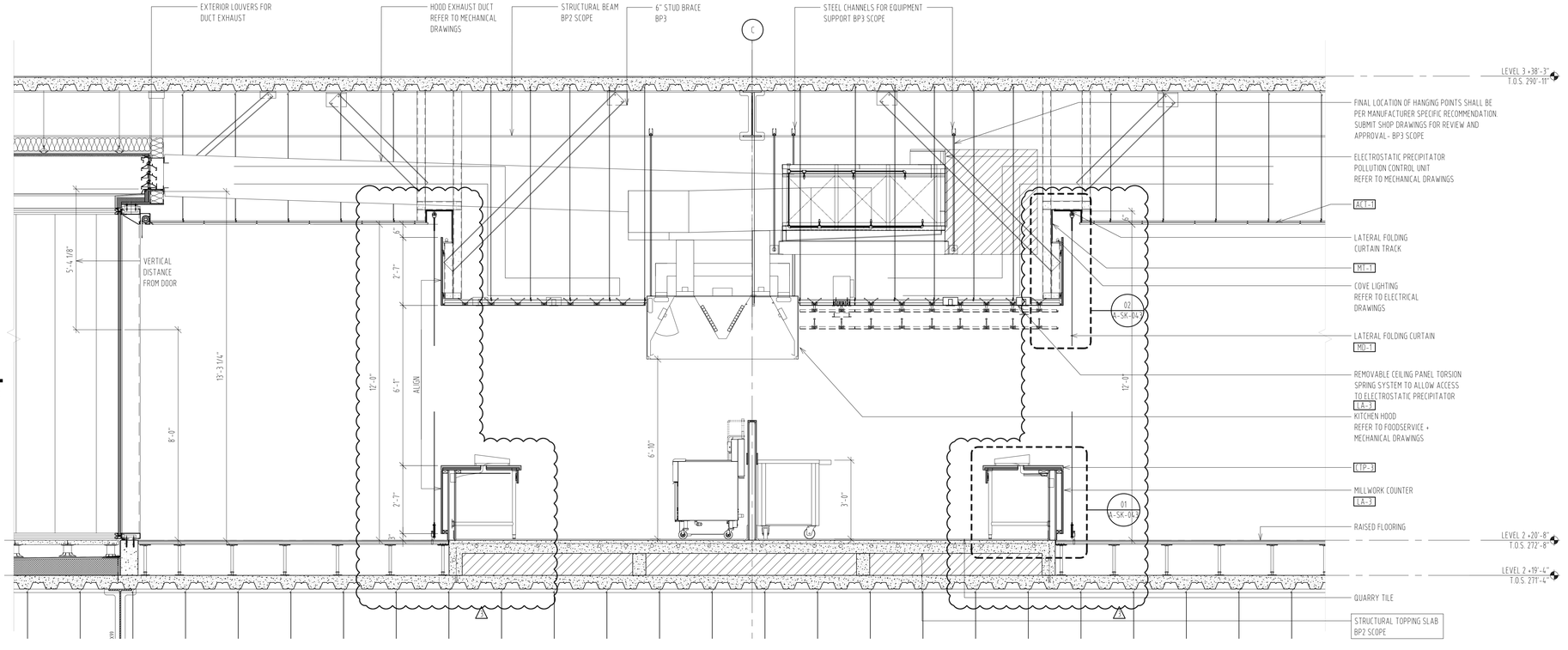


KEY PLAN
SCALE 1/16"=1'-0"



LEVEL 2 CAFE - SECTION 01
SCALE : 1/2" = 1'-0"

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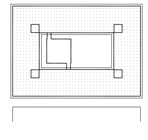
4	2012.01.04				
5	2011.11.14				



KEY PLAN & NORTH SIGN

IF THIS DRAWING IS NOT 30" X 42" IT IS A REDUCED PRINT; REFER TO GRAPHIC SCALE

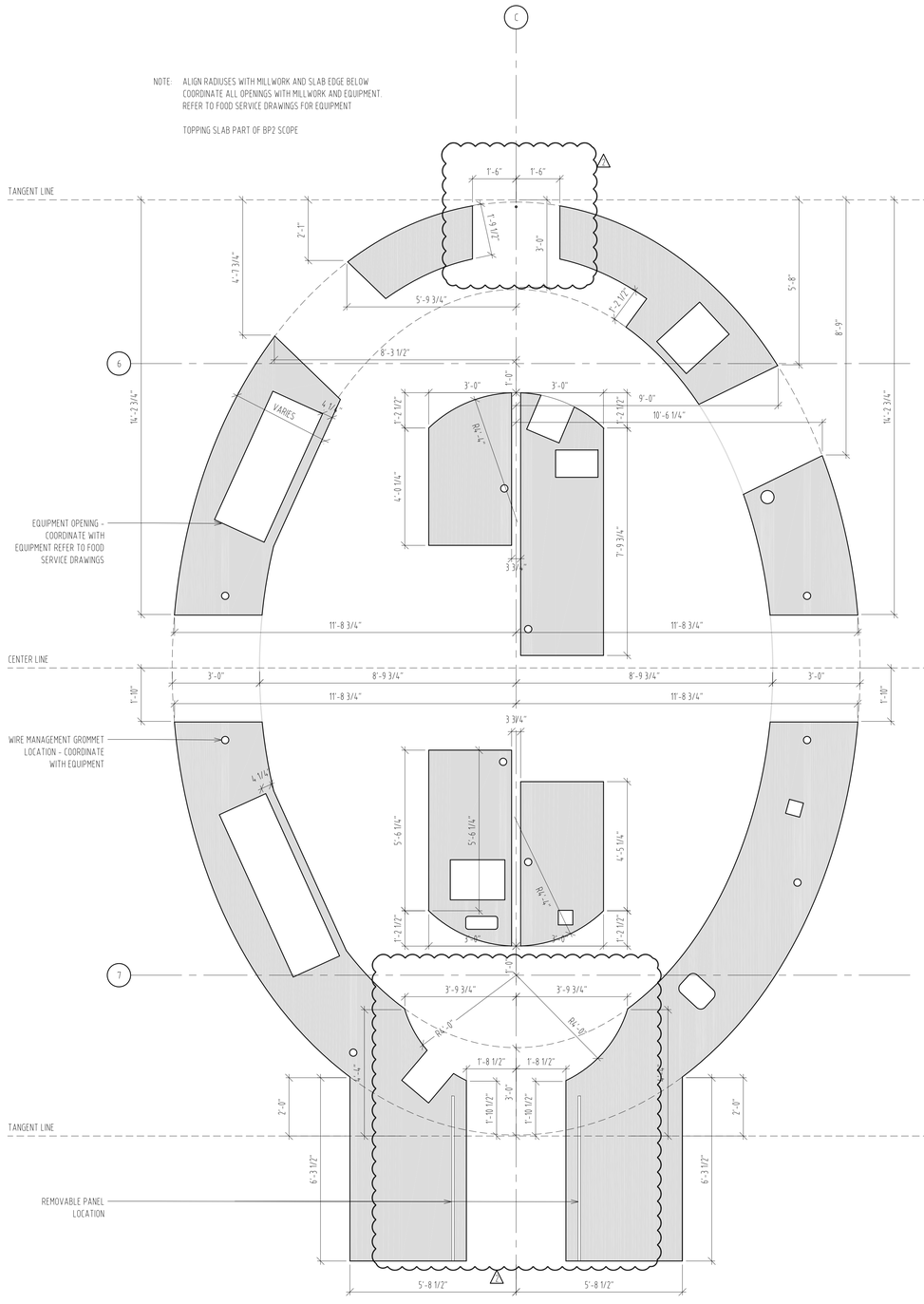
0 1/2" = 1' - 0"

ENLARGED WALL SECTIONS
LEVEL 2
CAFE - SERVERY

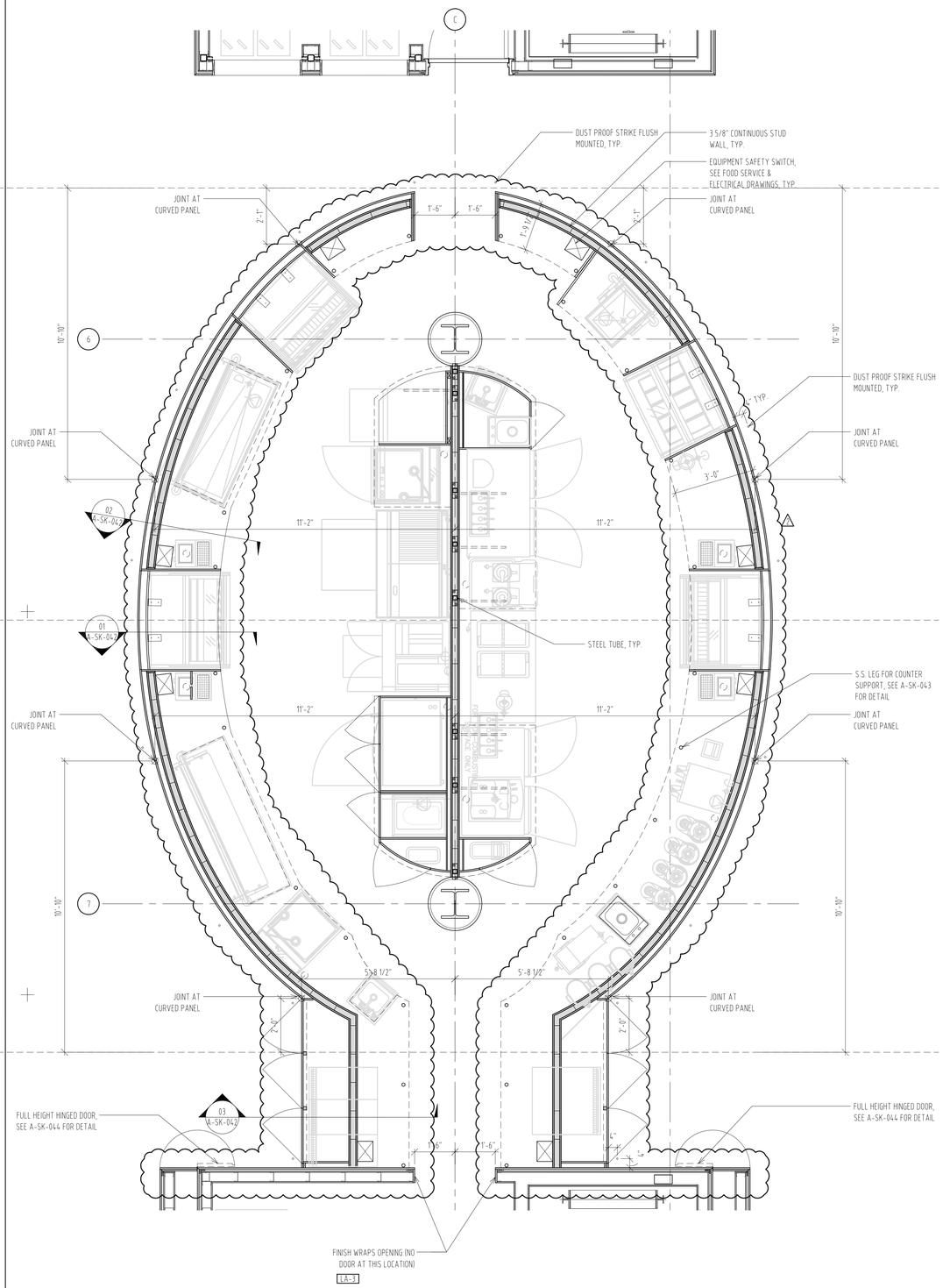
SHEET TITLE :

A-SK-040

SHEET NUMBER :



LEVEL 2 CAFE - COUNTER TOP PLAN | 02
SCALE : 1/2" = 1'-0"



LEVEL 2 CAFE - PLAN SECTION AT 2' A.F.F. | 01
SCALE : 1/2" = 1'-0"

USC BUSINESS PARTNERSHIP FOUNDATION
ON BEHALF OF
USC CAMPUS PLANNING & CONSTRUCTION

PROJECT NAME:
UNIVERSITY OF SOUTH CAROLINA
DARLA MOORE SCHOOL OF BUSINESS CONSTRUCTION

OSE PROJECT NUMBER:
H27-6069-AC-3

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TEL: 803 777 4022 FAX: 803 777 0484

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COLUMBIA, SC 29201-5801
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NORWALK, CT 06854-3007
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COLUMBIA, SC 29202-1116
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BUILDING CODE:
HUGHES ASSOCIATES
3610 COMMERCE DRIVE, SUITE 817
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FOOD & WASTE MANAGEMENT:
WILLIAM CARUSO & ASSOCIATES, INC.
8055 EAST TUFTS AVE, SUITE 1320
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SPECIFICATIONS:
ROBERT SCHWARTZ & ASSOCIATES
589 8TH AVE., 17TH FLOOR
NEW YORK, NY 10018
TEL: 212 691 3248 FAX: 212 633 1613

BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
MAY 14, 2012

PHASE :

ADDENDUM #002
JUNE 13, 2012
REF. DWG # A5212

SEAL & SIGNATURE

ISSUE NO.	ISSUE DATE	ISSUE NO.	ISSUE DATE	ISSUE NO.	ISSUE DATE
2	2012.06.13				

KEY PLAN & NORTH SIGN

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0 2 4
1/2" = 1'-0"

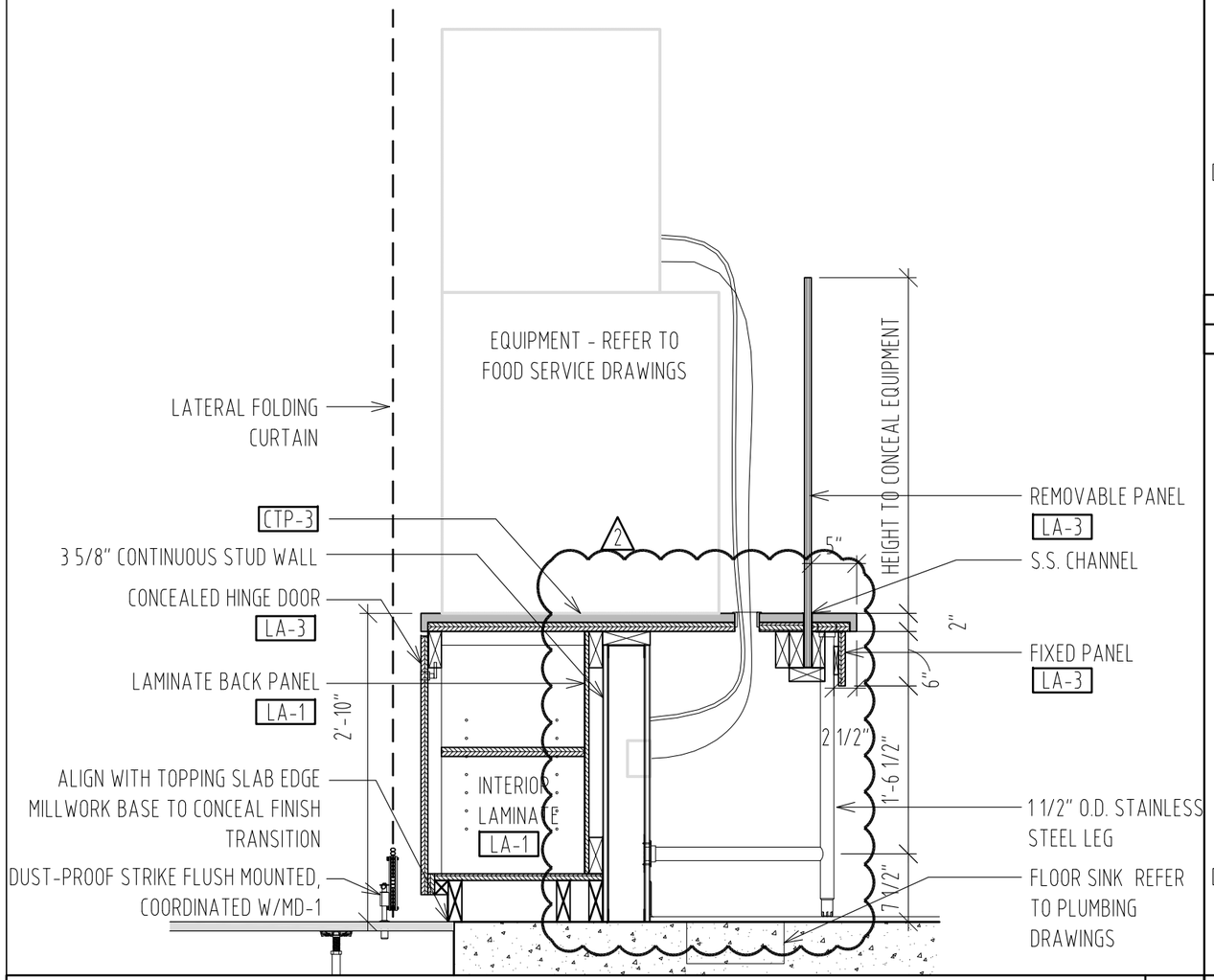
ENLARGED PLAN
LEVEL 2
CAFE - SERVERY

SHEET TITLE :

A-SK-041

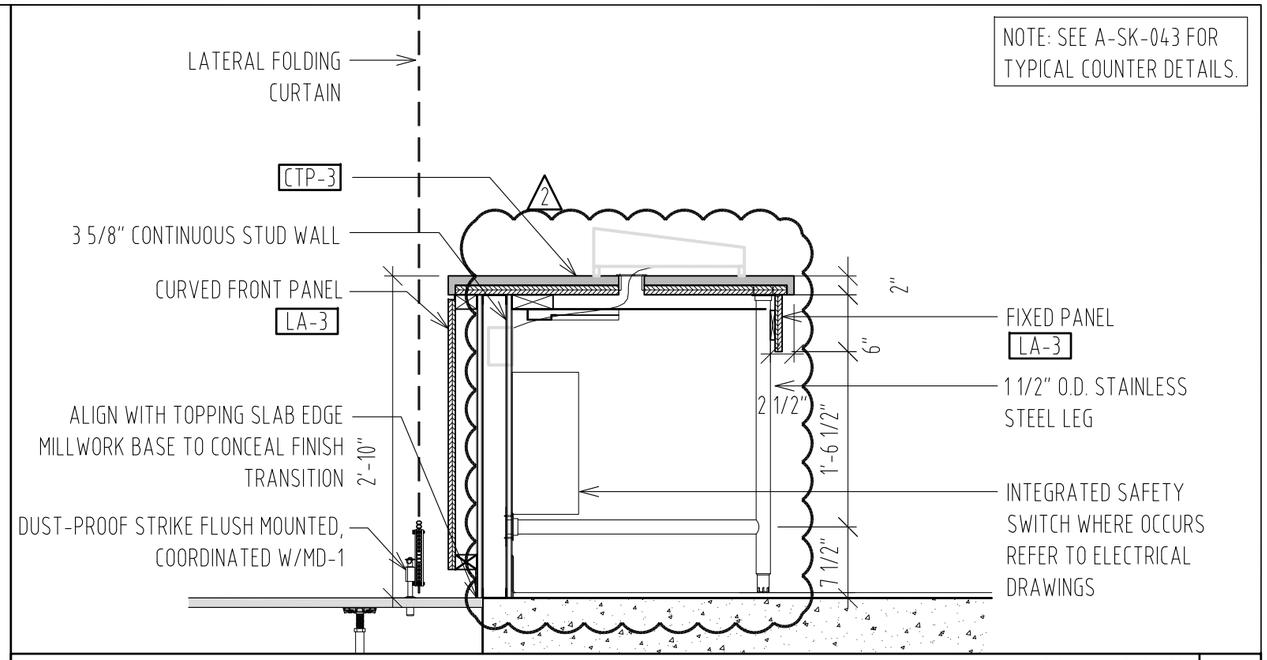
SHEET NUMBER :

NOTE: SEE A-SK-043 FOR TYPICAL COUNTER DETAILS.



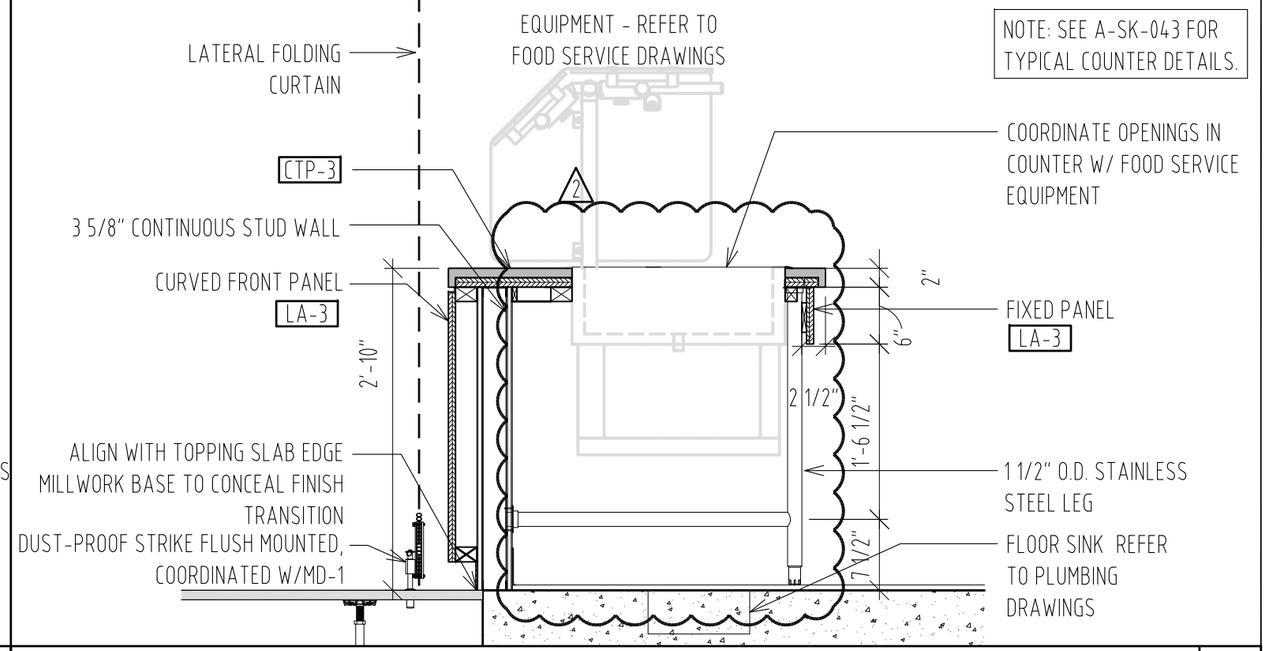
LEVEL 2 CAFE - SECTION 03
SCALE 3/4" = 1'-0"

NOTE: SEE A-SK-043 FOR TYPICAL COUNTER DETAILS.



LEVEL 2 CAFE - SECTION 02
SCALE 3/4" = 1'-0"

NOTE: SEE A-SK-043 FOR TYPICAL COUNTER DETAILS.



LEVEL 2 CAFE - SECTION 01
SCALE 3/4" = 1'-0"

MOORE SCHOOL OF BUSINESS
UNIVERSITY OF SOUTH CAROLINA
BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

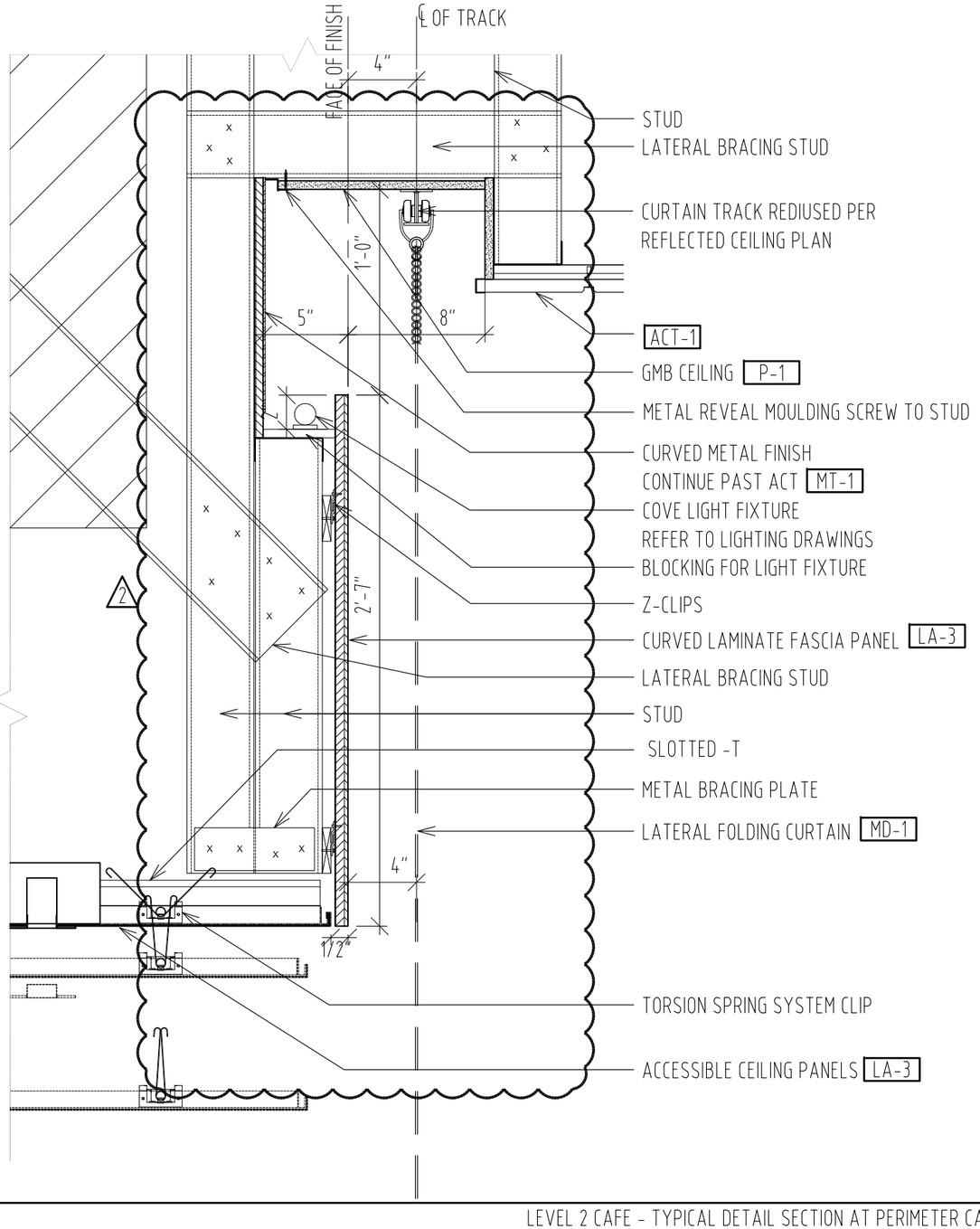
2 2012.06.13

MILLWORK SECTIONS - LEVEL 2 CAFE SERVERY
REF DWG #A7703, A7704, A7705, A7706

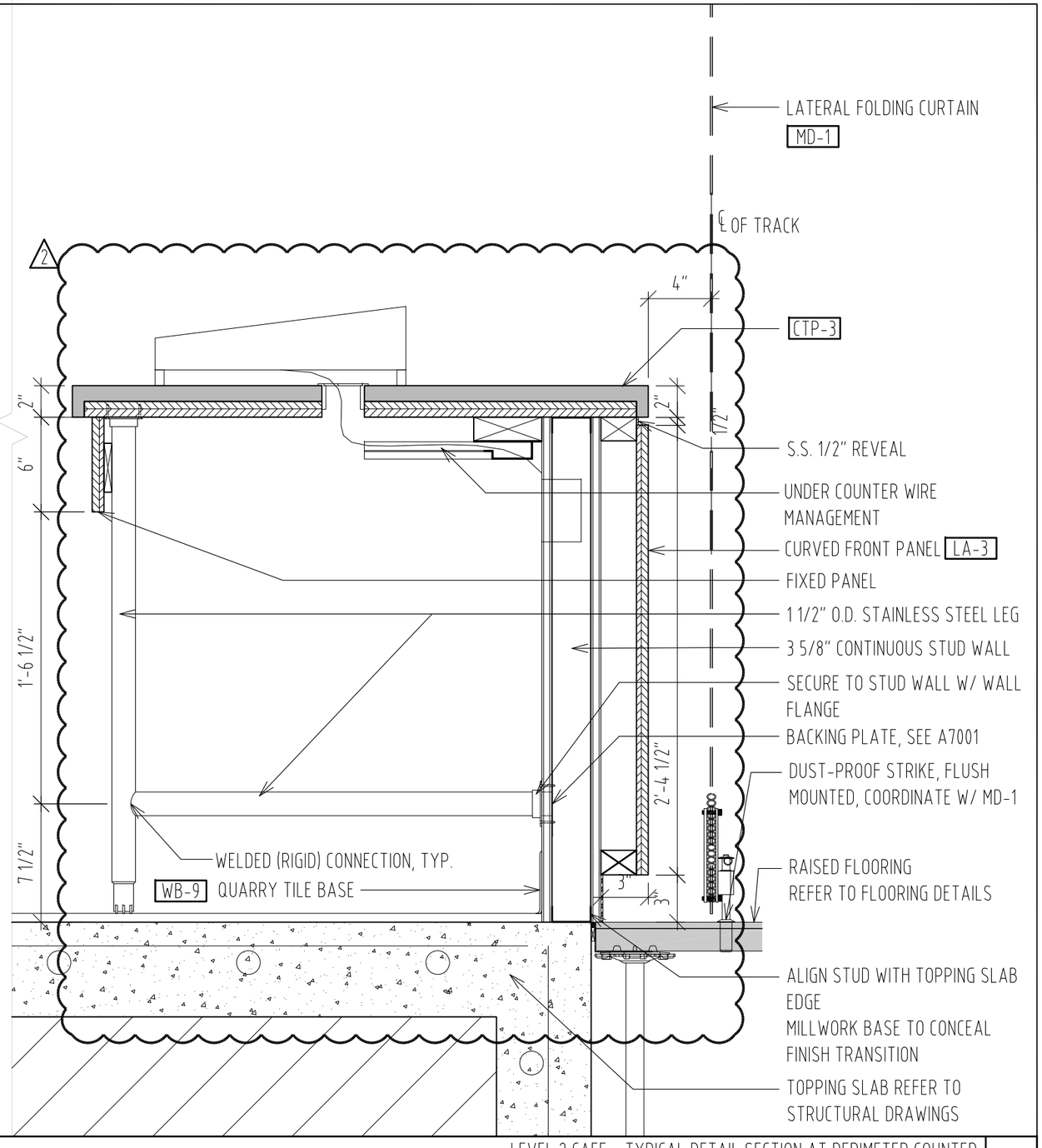
SHEET TITLE :

SCALE :
3/4" = 1'-0"

SHEET NUMBER :
A-SK-042



LEVEL 2 CAFE - TYPICAL DETAIL SECTION AT PERIMETER CANOPY
SCALE 1 1/2" = 1'-0" 02



LEVEL 2 CAFE - TYPICAL DETAIL SECTION AT PERIMETER COUNTER
SCALE 1 1/2" = 1'-0" 01

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UNIVERSITY OF SOUTH CAROLINA
BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

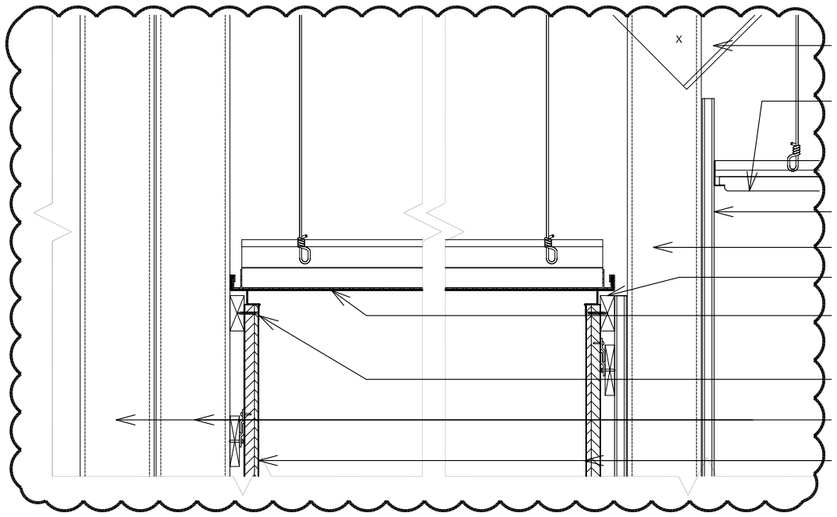
2 2012.06.13

MILLWORK DETAIL SECTIONS - LEVEL 2 CAFE SERVERY
REF DWG # 01/A7707

SHEET TITLE :

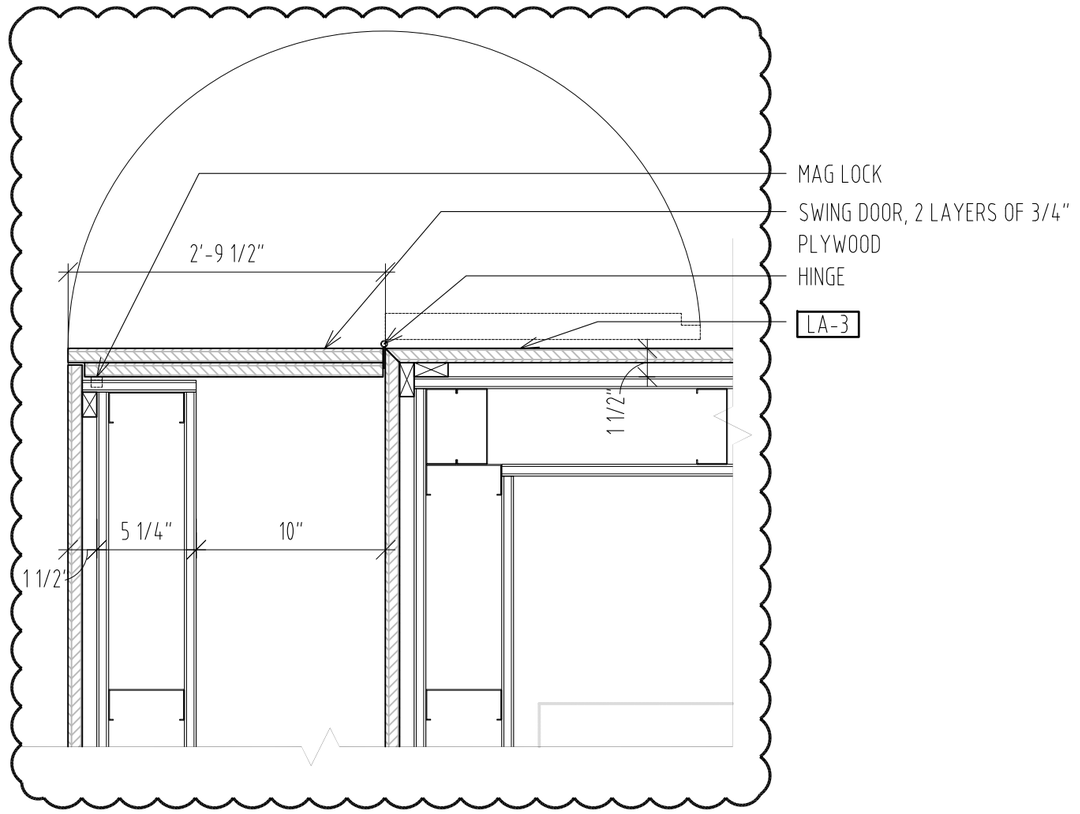
SCALE :
1 1/2" = 1'-0"

SHEET NUMBER :
A-SK-043



LEVEL 2 CAFE - DETAIL SECTION AT S.S. CEILING
SCALE 1 1/2" = 1'-0"

02



NOTE: SEE A-SK-039 FOR WALL TYPES.

LEVEL 2 CAFE - DETAIL PLAN AT HINGED DOOR
SCALE 1 1/2" = 1'-0"

01

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UNIVERSITY OF SOUTH CAROLINA
BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

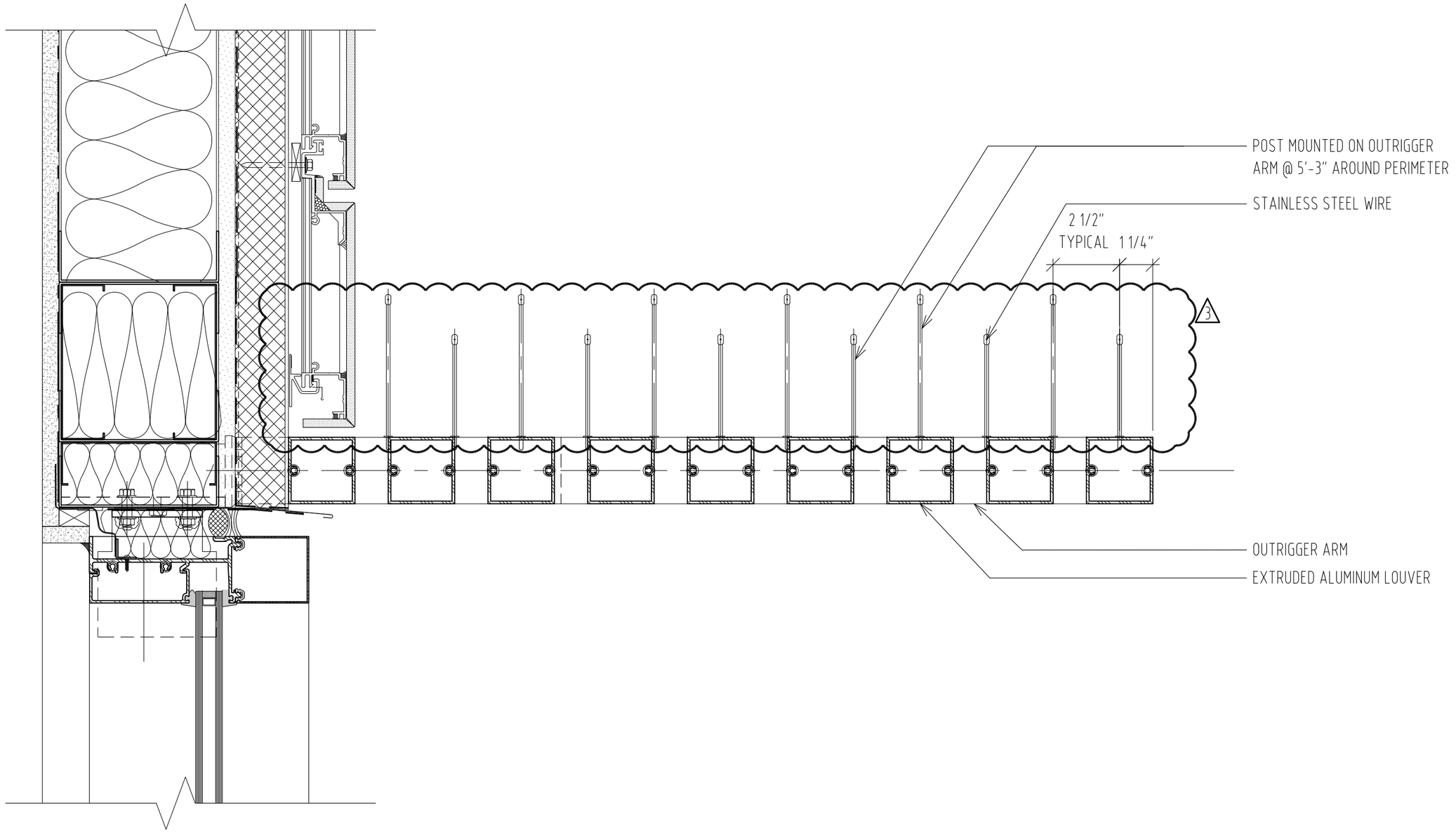
1 2012.06.13

SHEET TITLE :

MILLWORK DETAILS - LEVEL 2 CAFÉ SERVERY

SCALE :
1 1/2" = 1'-0"

SHEET NUMBER :
A-SK-044



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BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #001

PROJECT NO. 655.000

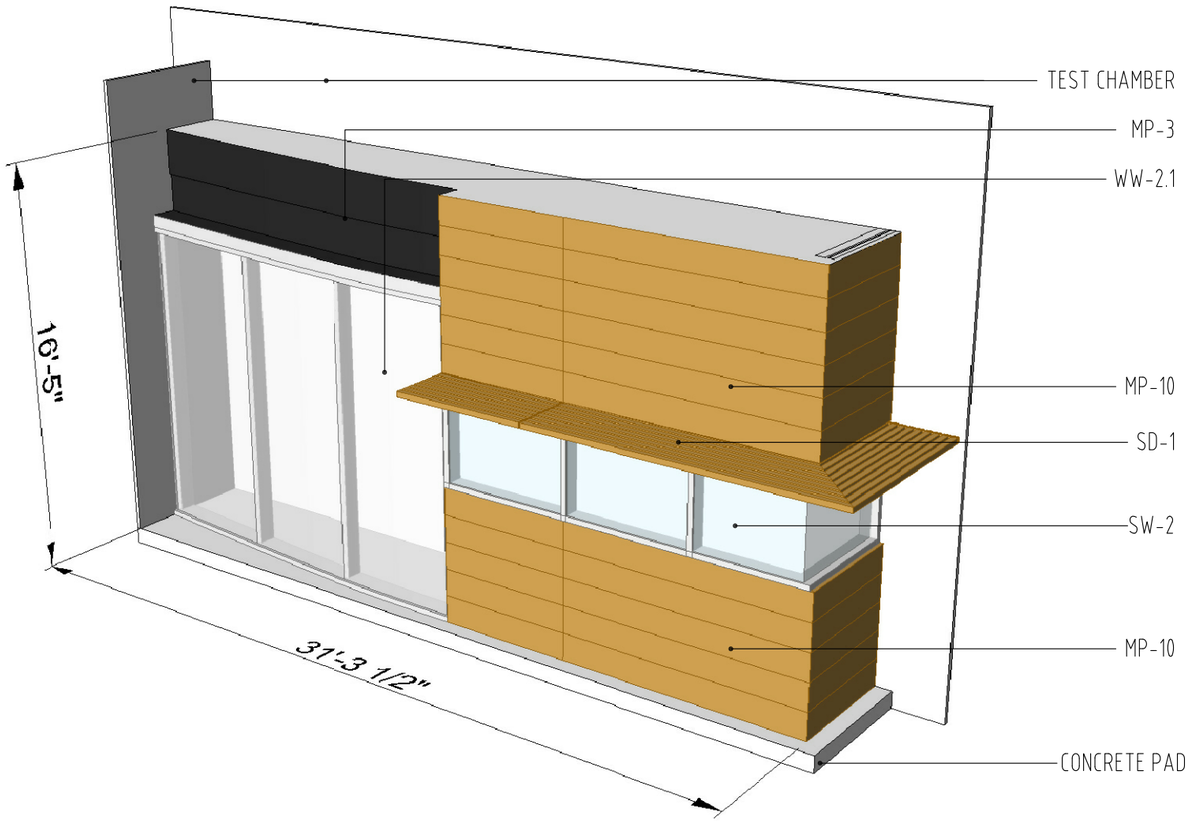
3 2012.06.13

LEVEL 4 PERIMETER-BIRD CONTROL DEVICE
REF. DWG # A4641.1, A4641.5, A4641.5A

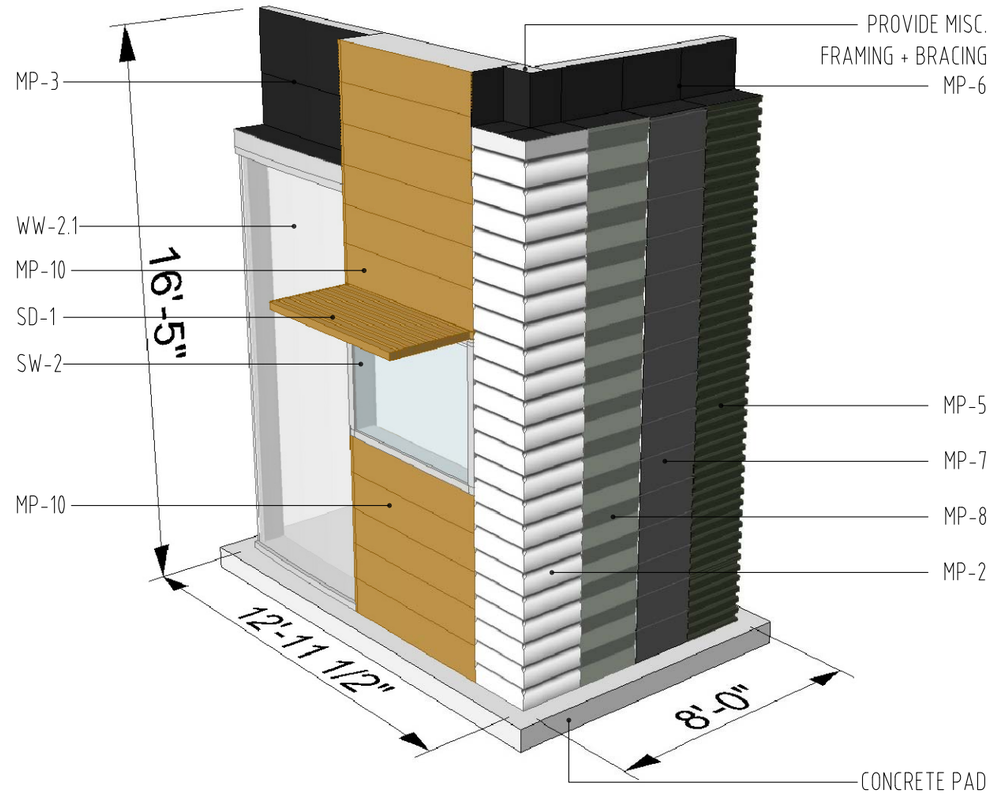
SHEET TITLE :

SCALE :
3" = 1'-0"

SHEET NUMBER :
A-SK-045



EXTERIOR WALL PERFORMANCE MOCKUP
SCALE : N.T.S.
02



EXTERIOR WALL VISUAL MOCKUP
SCALE : N.T.S.
01

MOORE SCHOOL OF BUSINESS
UNIVERSITY OF SOUTH CAROLINA
BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #001

PROJECT NO. 655.000

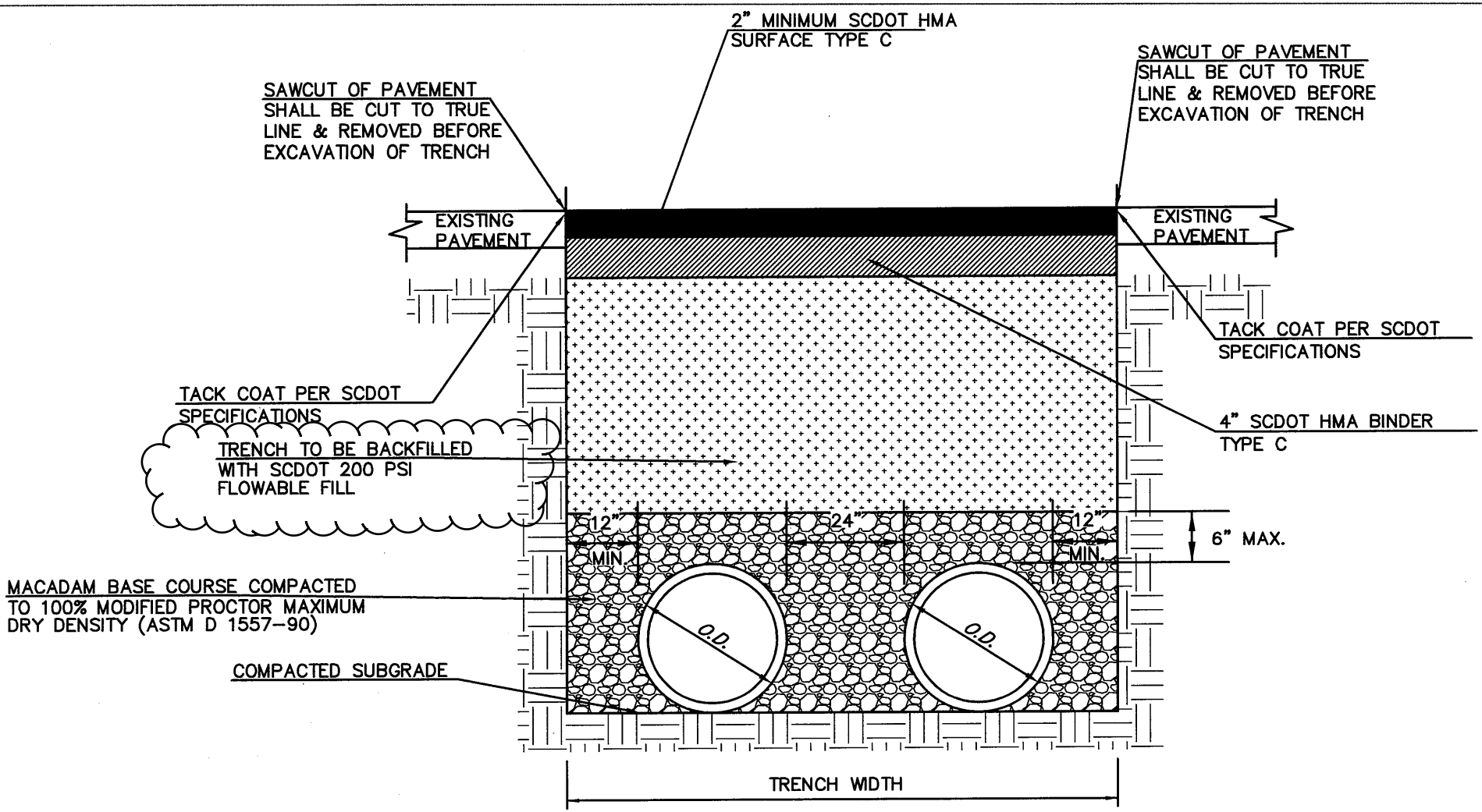
1 2012.06.13

EXTERIOR WALL ASSEMBLY MOCKUP REQUIREMENT

SHEET TITLE :

SCALE :
N.T.S

SHEET NUMBER :
A-SK-046



CHILLED WATER LINE TRENCH & PAVEMENT REPAIR

NTS

CHILLED WATER LINE TRENCH & PAVEMENT REPAIR DETAIL REVISION NTS	01

MOORE SCHOOL OF BUSINESS
UNIVERSITY OF SOUTH CAROLINA
BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

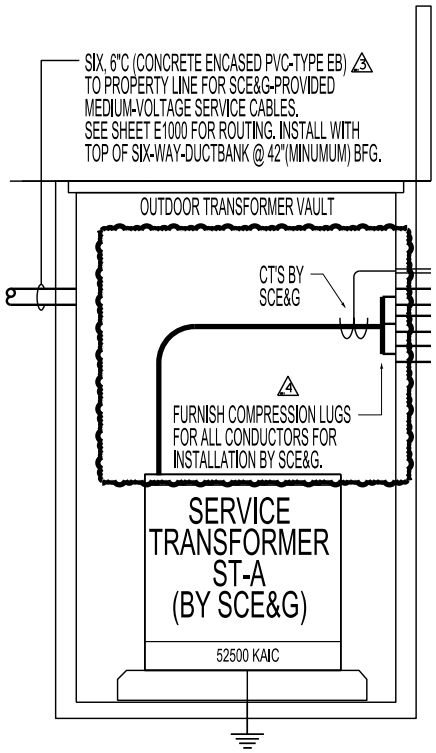
PROJECT NO. 655.000

2 2012.06.13

CHILLED WATER LINE TRENCH & PAVEMENT REPAIR DETAIL REVISION
REF. DWG # C1602
SHEET TITLE :

SCALE :
NTS

SHEET NUMBER :
C-SK-002



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UNIVERSITY OF SOUTH CAROLINA
BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

4 2012.06.11
3 2012.06.04

REVISE SERVICE CONDUCTOR CONNECTIONS
REF. DWG # E0102

SHEET TITLE :

SCALE :
NOT TO SCALE

SHEET NUMBER :
E-SK-006

UNDERFLOOR AIR DISTRIBUTION DEVICE SCHEDULE

SYMBOL	MFGR.	MODEL	TYPE	AIRFLOW	HEATING CAPACITY				NOTES
				CFM	MBH	EWT	LWT	GPM	
UFD-1	JCI	MIT2-CR	VAV DIFFUSER	130	N/A	N/A	N/A	N/A	2,3,4,5,7
AT-4	JCI	CLWMIT-1-A2-08-L4F	VAV MODULAR TROUGH	150	1.46	140	134.1	0.50	1,2,4,5,6,7,9
AT-4H	JCI	CLWMIT-1-A2-08-L4F	VAV MODULAR TROUGH	150	4.40	140	122.1	0.50	1,2,4,5,6,7,8,9
AT-6	JCI	CLWMIT-1-A2-08-L6F	VAV MODULAR TROUGH	300	2.53	140	131.4	0.60	1,2,4,5,6,7,9
AT-8	JCI	CLWMIT-1-A2-08-L8F	VAV MODULAR TROUGH	300	3.68	140	131.7	0.90	1,2,4,5,6,7,9
AT-10	JCI	CLWMIT-1-A2-08-L10F	VAV MODULAR TROUGH	300	4.81	140	131.8	1.20	1,2,4,5,6,7,9

NOTES:
1. PROVIDE WITH 2-WAY HEATING HOT WATER VALVE, STRAINER, FLEXIBLE CONNECTOR, UNIONS & AUTOFLOW CONTROL DEVICE.
2. INTEGRATE INTO RAISED FLOOR SYSTEM.
3. COORDINATE DIFFUSER HOLE SIZE WITH FLOOR MFGR & HAVE TILES FACTORY CUT.
4. AIRFLOWS ARE BASED UPON A PLENUM PRESSURE OF 0.05"WC.
5. PROVIDE WITH 1" BORDER.
6. COORDINATE FLOOR TILE CUTTING WITH THE RAISE FLOOR SYSTEM CONTRACTOR TO ALLOW TROUGHS TO BE INSTALLED AS CLOSE TO PARALLEL TO EXTERIOR WALLS WHERE SHOWN AS SUCH ON PLANS.
7. COORDINATE AIR VALVE LOCATION WITH FLOORING CONTRACTOR TO INSURE DAMPERS ARE NOT OBSTRUCTED BY FLOORING STRUCTURE.
8. AIR VALVE SHALL OPEN UPON CALL FOR HEATING.
9. PROVIDE WITH BORDERLESS LINEAR BAR GRILL & BLANK-OFF SECTIONS BETWEEN TROUGHS TO CREATE THE APPEARANCE OF A SINGLE CONTINUOUS SYSTEM. JOINTS SHALL BE MITERED WITHOUT TRIM PIECES.

3

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BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

3 2012.06.13

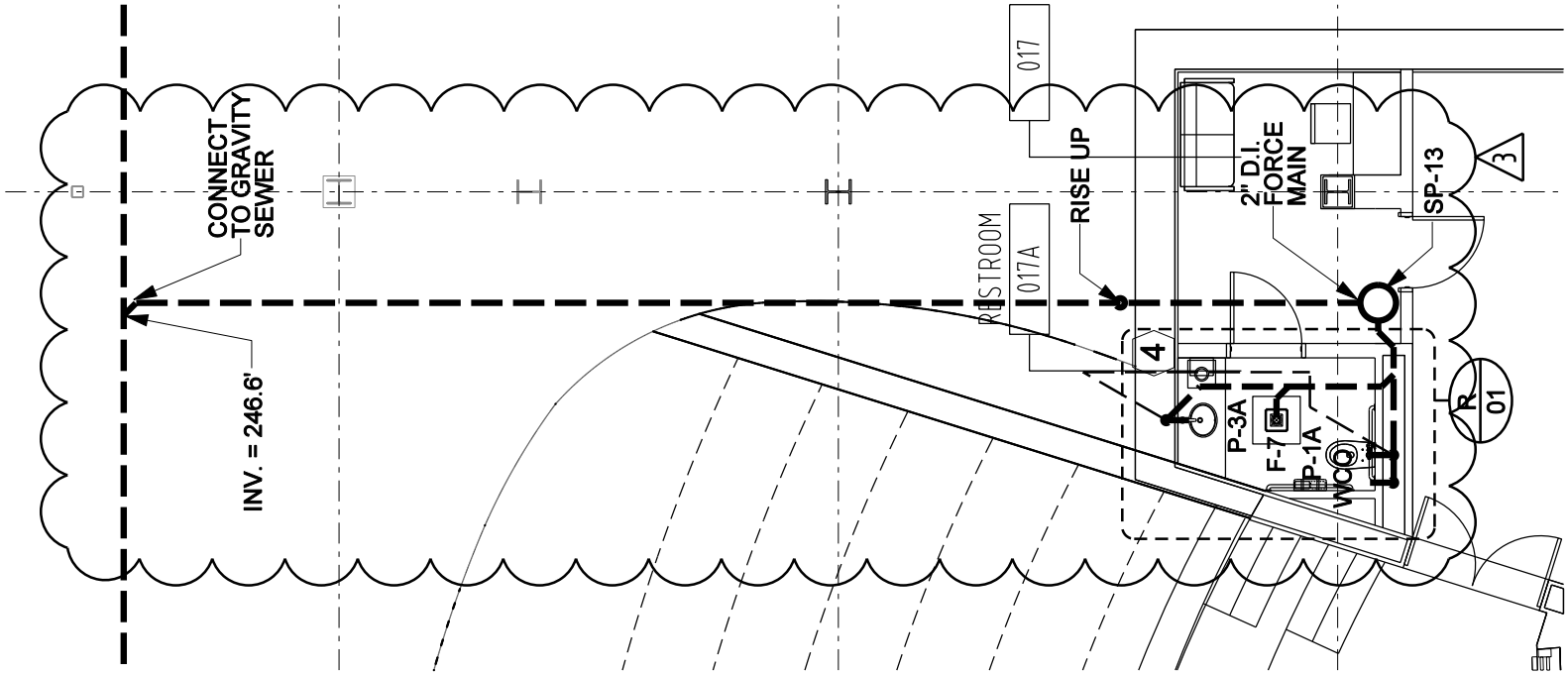
UNDERFLOOR AIR DISTRIBUTION DEVICE SCHEDULE

REF. DWG M6104

SHEET TITLE : HVAC SCHEDULES

SCALE :
1" = 1'-0"

SHEET NUMBER :
M-SK-001



MOORE SCHOOL OF BUSINESS
UNIVERSITY OF SOUTH CAROLINA

BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

3 2012.06.13

ADDITION OF PUMP LIFT STATION FOR LEVEL 0 - RESTROOM 017A

REF..DWG. #P1200F

SHEET TITLE :

SCALE :
1/8" = 1'-0"

SHEET NUMBER :
P-SK-001

SUMP PUMP SCHEDULE

TAG	MFGR	MODEL	TYPE	HP	GPM	HEAD FT.	NOTES
SP-01	STANCOR	SE-50	SUBMERSIBLE SUMP PUMP	1/2	74	37	1,2,4
SP-02	STANCOR	SE-50	SUBMERSIBLE SUMP PUMP	1/2	74	37	1,2,4
SP-03	STANCOR	SE-50	SUBMERSIBLE SUMP PUMP	1/2	74	37	1,2,4
SP-04	STANCOR	SE-50	SUBMERSIBLE SUMP PUMP	1/2	74	37	1,2,4
SP-05	STANCOR	SE-50	SUBMERSIBLE SUMP PUMP	1/2	74	37	1,2,4
SP-06	STANCOR	SE-50	SUBMERSIBLE SUMP PUMP	1/2	74	37	1,2,4
SP-07	STANCOR	SE-50	SUBMERSIBLE SUMP PUMP	1/2	74	37	1,2,4
SP-08	STANCOR	SE-50	SUBMERSIBLE SUMP PUMP	1/2	74	37	1,2,4
SP-09	STANCOR	SE-50	SUBMERSIBLE SUMP PUMP	1/2	74	37	1,2,4
SP-10	EBARA	EPD-10	SUBMERSIBLE SUMP PUMP	1	25	45	2,3,5
SP-11	EBARA	EPD-5	SUBMERSIBLE SUMP PUMP	1/2	35	25	2,3,5
SP-12A	BARNES	2SEV-DS	SUBMERSIBLE SUMP PUMP	1	50	37	1,2,6
SP-12B	BARNES	2SEV-DS	SUBMERSIBLE SUMP PUMP	1	50	37	1,2,6
SP-12C	BARNES	SE SERIES	SUBMERSIBLE SUMP PUMP	1	5	5	1,2,6
SP-13	ITT	MWP18x30	SUBMERSIBLE SUMP PUMP	1/2	22	20	1,2,3

NOTES:
1. PROVIDE WITH BACKNET INTERFACE.
2. FURNISH WITH COMBINATION DISCONNECT/STARTER.
3. FUNISH AS PART OF A DUPLEX SUMP PUMP PACKAGE WITH MANUFACTURER'S CONTROLLER.
4. FURNISH WITH STANCOR DUPLEX OIL-MINDER LIQUIDATOR SYSTEM OR EQUAL.
5. FUNISH AS PART OF A DUPLEX SUMP PUMP PACKAGE WITH CONTROLLER AND RAIL SYSTEM.
6. FUNISH AS PART OF A TRIPLEX SUMP PUMP PACKAGE WITH CONTROLLER, RAIL SYSTEM AND SINGLE POINT CONNECTION.

3

MOORE SCHOOL OF BUSINESS
UNIVERSITY OF SOUTH CAROLINA
BID PACKAGE 3
ENCLOSURE/SITE/MEPFP/INTERIOR
ADDENDUM #002

PROJECT NO. 655.000

3 2012.06.13

UPDATED SUMP PUMP SCHEDULE

REF. DWG. P5101 PLUMBING FIXTURE SCHEDULE

SHEET TITLE :

SCALE :
NTS

SHEET NUMBER :
P-SK-002

SECTION 083351 - LATERAL FOLDING CURTAIN

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Work Included: The Work of this Section shall include but not be limited to the following:

1. Lateral folding Metal Mesh Curtain assembly including cylinder locks and installation accessories.
2. Suspension and bracing assemblies.

1.3 LEED BUILDING GENERAL REQUIREMENTS

A. The Agency requires the Contractor to implement practices and procedures to meet the project's environmental performance goals, which include achieving LEED Certification. Specific project goals that may impact this area of work include: use of recycled-content materials; use of locally-manufactured materials; use of low-emitting materials; construction waste recycling; and the implementation of a construction indoor air quality management plan. The Contractor shall ensure that the requirements related to these goals, as defined in the sections below, are implemented to the fullest extent. Substitutions, or other changes to the work proposed by the Contractor or their Subcontractors, shall not be allowed if such changes compromise the stated LEED BUILDING Performance Criteria.

1.4 SUBMITTALS

A. A completed LEED MATERIALS CERTIFICATION as per Section 013515 and 018113 under the LEED BUILDING Submittal Requirements article of these specifications. Information to be supplied includes:

1. The percentage by weight of recycled content in the product(s). Identify post-consumer and/or pre-consumer recycled content.
2. The manufacturing location for the product(s); and the location (source) of the raw materials used to manufacture the product(s).
3. Provide material costs for the materials included in the contractor's or subcontractor's work. Material cost does not include costs associated with labor and equipment.
4. Letters of Certification, provided from the product manufacturer on the manufacturer's letterhead, to verify the amount of recycled content.

B. Product Cut Sheets for all materials that meet the LEED BUILDING Performance Requirements this Section.

C. Product Data: Submit manufacturer's product data, roughing-in diagrams, and installation instructions for each type and size of curtain closure. Include operating instructions and maintenance data

D. Product Data: Submit manufacturer's product data, roughing-in diagrams, and installation instructions for each type and size of curtain closure. Include operating instructions and maintenance data

E. Shop Drawings: Submit shop drawings for special components and installations which are not fully dimensioned or detailed in manufacturers product data.

F. Product Cut Sheets for all materials that meet the LEED BUILDING Performance Requirements this Section.

G. Material Safety Data Sheets (MSDS), for all applicable products. Applicable products include, but are not limited to adhesives, sealants, carpets, paints and coatings applied on the interior of the building. MSDS shall indicate the Volatile Organic Compound (VOC) limits of products submitted (If an MSDS does not include a product's VOC content, then product data sheets, manufacturer literature, or a letter of certification from the manufacturer can be submitted in addition to the MSDS to indicate the VOC content).

H. Product Data: For each type and size of o coiling grille and accessory. Include the following:

1. Summary of forces and loads on walls and jambs.

I. Shop Drawings: Indicated location, size, elevation of each kind of construction details accurately showing relationships and interfaces with connections to adjacent work. Including product data, electrical requirements, location and extent of blocking and other pertinent data.

J. Delegated-Design Submittal: For coiling doors indicated to comply with performance requirements and design criteria, include structural analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

K. Detail fabrication and assembly of seismic restraints.

L. Summary of forces and loads on walls and jambs.

M. Samples for Initial Selection: Manufacturer's color charts showing full range of colors available for units with factory-applied finishes.

N. Samples for Verification: Of each type of exposed finish required, prepared on Samples of size indicated below.

1. Curtain mesh: 12 inches long.
2. Bottom Bar: 6 inches long.
3. Guides: 6 inches long.
4. Brackets: 6 inches square.

O. Qualification Data: For Installer.

1.5 QUALITY ASSURANCE

A. LEED Building Performance Requirements

1. Adhesives or sealants used for work in this section for interior applications shall meet the requirements of Division 1, Section 018133: "Volatile Organic Compound (VOC) Limits for Adhesives and Sealants", where applicable.
2. Materials manufactured within a radius of 500 miles from the project site where all or a portion of the raw resources also originate within a radius of 500 miles shall be documented in accordance with the LEED Building Submittal Requirements of this Section.
3. The Volatile Organic Compound (VOC) content of any field applied interior sealant used as a filler (as opposed to a coating) shall not exceed 250 grams per liter (g/l)
4. Materials that contain recycled content shall be documented in accordance with the LEED Building Submittal Requirements of this Section

B. Manufacturer's Qualifications: Furnish each accordion curtain assembly as a complete unit produced by one manufacturer, including hardware, accessories, mounting and installation components.

1. Furnish coiling curtain units by one manufacturer for entire Project.

C. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for both installation and maintenance of units required for this Project

D. Inserts and Anchorages: Furnish inserts and anchoring devices which must be set in concrete, built into masonry, or attached to steel for the installation of the curtain closure units. Provide setting drawings, templates, instructions, and directions for installation of anchorage devices.

1. See concrete, masonry, and steel sections of these specifications regarding installation of inserts and anchorage devices.

1.6 WARRANTY

A. Provide manufacturer=s standard one year warranty against defects in workmanship and materials.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Cookson Company.
2. Cornell Iron Works Inc.
3. Vrinda Inc (basis of design)
4. Or equal

B. Product: SYSTEM S-525 / S-939 by Vrinda Inc.

2.2 CURTAIN MATERIALS AND CONSTRUCTION

A. Curtain: The top and bottom of each section will be fitted with an aluminum panel 4" high. This panel will consist of an aluminum extrusion 1/16" thick and composed of modules with a 15° angle between them to facilitate the operation of the closure. The curtain is constructed of vertical rods of 5/16" diameter spaced out at every 3" . These rods are linked together by 2" modules spaced vertically every 14", by aluminum sleeves of 1/2" in diameter.

B. Carrier Guides: Manufacturer's standard heavy-duty extruded aluminum carriers, complete with swiveling ball bearing rollers; for attachment to overhead structure as indicated.

2.3 LOCKING.

A Lead post shall be equipped with a hook bolt lock with supplied cylinders each side.

B Lead post shall engage a full height wall jamb.

C. Trailing post shall be self-locking at the top and bottom inside the storage pocket.

D. Free floating intermediate posts shall be located at all curves and at intervals not exceeding 10 feet (3M), 6 feet (2M) for counter top units. Intermediate posts shall be equipped with self-adjusting spring loaded drop bolts activated from the inside only. Drop bolts shall engage dust proof stainless steel receptacles.

2.4 TRACK

A Curtain shall be hung from an overhead track 1-5/16" wide by 1-9/16" (40mm) high.

B Track shall be aluminum 6351 alloy tempered to T6.

C. Curves where required shall be 14" (355mm) radius standard.

1. Equip units with the manufacturer=s heavy-duty trolley assemblies, complete with nylon tired ball bearing rollers.
2. Factory prefit mortise type lock to vertical channels.
3. Provide manufacturer's standard 5-pin mortise locks (masterkeyed), 2 inch steel drop bolts, female block at jamb, and spring loaded/dustproof floor sockets and plates.

2.5 STACKING

A Stacking shall not exceed a depth of 1.15" per foot of closure width plus 3" for each post (lead, end or intermediate). Full egress doors add 7" (176mm).

2.6 FINISHES, GENERAL

A. Comply with NAAMM "Metal Finishes Manual" for recommendations relative to application and designations of finishes.

B Provide manufacturer=s standard finish to match control samples

1. Protect all finishes on exposed surfaces from damage with temporary protective covering prior to shipment.

2.7 ALUMINUM FINISH

A. Class I Color Anodized Finish: AA-M12C22A42/A44 (Mechanical Finish: as fabricated, nonspecular; Chemical Finish: etched, medium matte; Anodic Coating: Class I Architectural, film thicker than 0.7 mil with integral color or electrolytically deposited color) complying with AAMA 606.1 or AAMA 608.1.

1. Color: As selected by Architect.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install accordion curtain units and operating equipment complete with necessary hardware, in accordance with final shop drawings, manufacturer's instructions, and as specified herein.

B. Upon completion of installation including work by other trades, lubricate, test and adjust curtain closures to operate easily, free from warp, twist or distortion.

C. Train Agency maintenance personnel on procedures and schedules related to curtain operation, servicing, preventive maintenance, and procedures for resetting closing devices after activation.

END OF SECTION 08 33 51

SECTION 08 41 00 - ENTRANCES, WINDOW WALL AND STRIP WINDOW ASSEMBLIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Work Included:

1. Custom curved structurally glazed aluminum window wall systems.

    a. Aluminum and glass entrance doors and accessories.
    b. Fixed strip window assemblies
    c. Sliding door assemblies
    d. Custom sills closure panels and surrounds

2. Aluminum exterior and interior entrance framing systems and doors.
3. Minimum two side captured aluminum strip window with fixed and projected windows.
4. Extruded aluminum snap on trim covers.
5. Formed aluminum panels and trim
6. Trim at four sides of windows .
7. Installation of the joint filler and sealers.
8. Perimeter air/ water infiltration closures and seals both interior and exterior.
9. Thermal insulation in perimeter joints and trim.
10. Reinforcements, anchors, stiffeners and attachments at supporting and framing members and adjoining assemblies and components and corners.
11. Sills and metal trims.
12. Anchorages, shims, fasteners, accessories, and support brackets for components of the entrance assemblies

1.3 LEED BUILDING GENERAL REQUIREMENTS

A. The Agency requires the Contractor to implement practices and procedures to meet the project's environmental performance goals, which include achieving LEED Certification. Specific project goals that may impact this area of work include: use of recycled-content materials; use of locally-manufactured materials; use of low-emitting materials; construction waste recycling; and the implementation of a construction indoor air quality management plan. The Contractor shall ensure that the requirements related to these goals, as defined in the sections below, are implemented to the fullest extent. Substitutions, or other changes to the work proposed by the Contractor or their Subcontractors, shall not be allowed if such changes compromise the stated LEED BUILDING Performance Criteria

1.4 SYSTEM DESCRIPTION

A. General: Provide glazed aluminum curtain-wall systems, including anchorage, capable of withstanding, without failure, the effects of the following:

1. Structural loads.
2. Thermal movements.
3. Seismic Loads:
4. Movements of supporting structure indicated on Drawings including, but not limited to, story drift, twist, column shortening, long-term creep, and deflection from uniformly distributed and concentrated live loads.
5. Dimensional tolerances of building frame and other adjacent construction.
6. Failure includes the following:

    a. Deflection exceeding specified limits.
    b. Thermal stresses transferred to building structure.
    c. Framing members transferring stresses, including those caused by thermal and structural movements, to glazing.
    d. Noise or vibration created by wind and thermal and structural movements.
    e. Loosening or weakening of fasteners, attachments, and other components.
    f. Sealant failure.

B. Performance Requirements: Provide aluminum entrance and window wall framing assemblies that comply with performance requirements. Each system shall be tested by a recognized testing laboratory or agency in accordance with specified test methods. Provide certified test results.

1. Condensation Resistance: Where framing systems are "thermal-break" construction, provide units tested for thermal performance in accordance with AAMA 1503 showing condensation resistance factor (CRF) of not less than 60.
2. U-Factor Rating: Provide the following designations as indicated on Drawings for window wall and strip windows assembly to comply with The National Fenestration Rating Council (NFRC) and achieve the following U-factors ratings, unless otherwise indicated.
3. Thermal Movement: Provide systems capable of withstanding thermal movements resulting from an ambient temperature range of 120 deg.F, that could cause a metal surface temperature range of 180 deg.F.

C. Sliding Terrace Doors:

1. Air Infiltration Rate: Not more than 0.20 CFM/sq. ft. of frame area, and 0.06 cfm/ft. for fixed units at an inward test pressure of 6.24 lbf/sq. ft.
2. Water Penetration: No uncontrolled water penetration for an inward test pressure of 12 psf with water application rate of 5 gal./hr./sq. ft.
3. Uniform Load Deflection: As required by AAMA/NWWDA 101/I.S.2 for performance Class and Grade indicated.
4. Structural Performance: No failure or permanent deflection in excess of 0.2 percent of any member's span after removing the imposed test loads.

D. Wind Loading: Systems shall consist of materials, accessories and installation that complies with Local and State Building Codes and ASCE 7-02 for wind loading at Project location for indicated building type or classification and exposed surfaces shall be designed for whichever wind loading is greatest to serve as a minimum MPH but not less than specified code and shall be reviewed by the Manufacturer, the Architect and Project Structural Engineer.

1. Structural Criteria: Provide assemblies capable of withstanding a uniform test pressure of inward (positive) 30 lbf/sq. ft. and outward (negative) 30 lbf/sq. ft. when tested in accordance with ASTM E 330, with a maximum deflection of 1/240 or 3/4 inch maximum, whichever is less.

2. Window anchorage to structure shall be designed based on the structural test pressure for the performance grade indicated. Anchor requirements shall be coordinated exterior wall panel fabrications.
3. Stile and Rail Sliding Doors shall have a maximum deflection of 1/80 of the span; and an allowable stress factor not less than 1.65.

E. Fixed Framing Transmission Characteristics: Provide aluminum frame assemblies that complies with requirements indicated for transmission characteristics.

1. Air Infiltration: Provide framing system with an air infiltration rate of not more than 0.06 CFM per sq. ft. of fixed area (excluding operable door edges) when tested in accordance with ASTM E 283 at an inward test pressure differential of 6.24 psf.
2. Water Penetration: Provide framing systems with no water penetration (excluding operable door edges) as defined in the test method when tested in accordance with ASTM E 331 at a minimum differential pressure of 20 percent of inward design wind load but not less than 8 lbf per sq. ft. or more than 12 lbf per sq. ft.

F. Deflection Values: Comply with the following deflection criteria for horizontal and vertical movement at midpoint of exterior slab edge between columns, unless otherwise noted on Drawings.

1. The amount of displacement shall not exceed the following values:

    a. Column shortening (under gravity load) - 1/8 inch per floor.
    b. Deflection of slab edge at mid-span between steel columns.

        1) Due to superimposed dead load (not including steel, plank and topping): 1/8 inch.
        2) Due to cladding dead load: 1/8 inch.
        3) Due to service load: L/360 or 3/8 inch whichever smaller.

    c. Inter-story drift (per floor) wind.

        1) Normal to wall plane: 3/8 inch.
        2) In plane: 3/8 inch.

    d. Elastic lateral seismic displacement (floor to floor differential, deflection is measured in direction perpendicular to facade plane)

        1) 3/4 inch at 2nd floor and above
        2) 3/4 inch at 1st floor.

G. Structural Silicone-Sealant Joints: Provide systems with structural silicone-sealant joints complying with the following requirements:

1. Structural Sealant: Provide manufacturer's structural sealant glazed curtain wall system that has been tested to demonstrate that tensile or shear stress in structural silicone joints is not in excess of 20 psi with modulus of elasticity to allow no more than 25 percent movement of joint width, or less if required by sealant manufacturer.

a. Provide supports and setting blocks at each light or panel to support weight of glass; structural silicone sealant shall not carry dead load of glass panels.

2. Structural sealant withstands tensile and shear stresses imposed by window wall and strip window systems without failing adhesively or cohesively. When tested for adhesive compatibility with each substrate and condition required, provide sealant that fails cohesively before it fails adhesively. Adhesive and cohesive failure are defined as follows:

a. Adhesive failure occurs when sealant pulls away from a substrate cleanly, leaving no sealant material behind.
b. Cohesive failure occurs when sealant breaks or tears within a joint but does not separate from each substrate because sealant-to-substrate bond strength exceeds sealant's internal strength.

H. Provide supports and setting blocks at each light or panel to support weight of glass; structural silicone sealant shall not carry dead load of glass or spandrel panels.

I. Glass Design: Glass thickness and heat treatment indicated on Drawings and specified herein are for detailing purposes only. Confirm glass thickness by analyzing Project loads and in-service conditions. Provide glass lites for the various size openings in the thickness and strengths (i.e. annealed, heat-treated, laminated, tempered, etc.) to meet or exceed the following criteria:

1. Minimum glass thickness, nominally, of lites in exterior walls is 1/4 inch.
2. Aesthetic effects for each glass type indicated are the same throughout Project.
3. Maximum deflection of glass ¾"
4. Minimum glass thickness of lites, whether composed of annealed or heat-treated glass, are selected so the worst-case probability of failure does not exceed the following:

a. 8 lites per 1000 for lites set vertically or not over 15 degrees off vertical and under wind action. Determine minimum thickness of monolithic annealed glass according to ASTM E 1300. For other than monolithic annealed glass, determine thickness per glass manufacturer's standard method of analysis including applying adjustment factors to ASTM E 1300 based on type of glass.

J. Miscellaneous Additional Framing:

1. Provide all miscellaneous framing, reinforcing, brackets, clips, etc. necessary to install the glazed curtain wall and overhead glazing systems. Unless steel framing, reinforcing, brackets, and clips, etc. are shown on the Structural Drawings or are explicitly called out as being furnished by other trade Contractors, such items shall be presumed to be the responsibility of the Contractor furnishing the glazed aluminum curtain wall and windows.

K. Miscellaneous Additional Framing: Provide all miscellaneous framing, reinforcing, brackets, clips, etc. necessary to install the curtain wall systems. Unless steel framing, reinforcing, brackets, and clips, etc. are shown on the Structural Drawings or are explicitly called out as being furnished by other trade Contractors, such items shall be presumed to be the responsibility of the Contractor furnishing the wall system

1.5 SUBMITTALS

A. Product Data: Submit manufacturer's technical product data, standard details, and installation recommendations for each type of aluminum framing assemblies required. Include the following information:

1. Fabrication methods.
2. Finishing.
3. Accessories and other components.

B. Shop Drawings: Submit shop drawings for fabrication and installation of aluminum entrance frames with doors, window wall system, strip windows with inward projected windows and custom terra cotta screen support brackets, trim, custom extruded aluminum snap on caps, and windows with glazed in louvers. Shop drawing elevations shall reference column lines, metal plate panels, concrete openings, rain screen wall construction and it's openings.

1. Elevations.
2. Detail sections of typical composite members.
3. Hardware mounting heights.
4. Anchorages and reinforcements.
5. Expansion provisions.
6. Glazing details.
7. Interface with adjacent construction including anchoring and sealing to building envelope systems, provide details for each condition.
8. Calculations: Submit calculations signed and sealed by a professional engineer licensed in the jurisdiction of the Project Location for structural adequacy of all window wall framing, connections to structure, and glass. Coordinate calculation submittal with shop drawing submittals. All stresses and deformations shall be presented to demonstrate compliance with the performance requirements.
9. All custom extruded aluminum framing and snap-on cover profiles.
10. Operable window and door details with all locking and hardware locations.
11. All seals primary (silicone seal) and secondary (flexible sheet seal), submit in details and product literature.
12. Provide shop drawings in the following minimum drawing scales:
    a. Elevations: 1/4" = 1'-0.
    b. Section and Plan Details: 3" = 1'-0"
    c. Section and Plan Details of custom extrusions and terra cotta screen details: 6" = 1'-0"

C. Templates and Diagrams: Furnish installation templates, diagrams and other data to fabricators and installers of related work as necessary for coordination of the installation.

D. Samples: Submit samples of each type and color of each metal finish, on 12" long sections of extrusions or formed shapes and on 6" square sheets. Where color or texture variations are anticipated, include 2 or more units in each set of samples indicating extreme limits of variations.

1. The Agency reserves the right to require samples of fabricated sections, indicating joints, exposed fastenings and quality of workmanship, before fabrication.

E. Certification: Provide certified test results showing that entrance **Strip window** and window wall assemblies have been tested by a recognized testing laboratory or agency and comply with specified performance characteristics.

1. Submit structural calculations from a Professional Engineer licensed in the state of South Carolina, to verify compliance with specified loading criteria and deflection limits.
2. Provide U-factor and CRF value certification by The National Fenestration Rating Council (NFRC).

F. Laboratory Test Criteria: **Project- Specific** Laboratory **and in place field** Testing shall be performed by a qualified independent testing agency based on the following

1. Test Procedures: Test assemblies according to ASTM E 283 for air infiltration, ASTM E 547 for water penetration, and ASTM E 330 for structural performance.
2. **Scope of required Laboratory testing is indicated on the Contract drawings**
3. **Reference Part 3 of the specifications for in place field test requirements**

G. Test Reports: Provide test reports from the approved independent testing laboratory showing compliance of the metal and glass curtain wall systems with performance requirements indicated based on comprehensive laboratory testing of each system.

1. Provide test reports from the approved independent testing laboratory showing compliance of the curtain wall system with performance requirements indicated based on comprehensive laboratory testing of the system. The laboratory report shall include a description of all assembly component materials with related details confirming final as tested design, installation and modifications.
2. Provide compatibility test report from manufacturer of insulating glass edge sealant and coated glass manufacturer indicating that glass edge sealants and coated glass were tested for compatibility with other glazing materials including sealants, glazing tape, gaskets, setting blocks, and edge blocks.
3. Test reports are subject to approval by the Architect.

H. Glass Analysis: Submit for record purposes only the glass manufacturer's wind pressure and thermal analysis of each different type of glass assembly proposed. Analysis shall clearly indicate the maximum probabilities for breakage do not exceed the requirement specified

1.6 QUALITY ASSURANCE

A. Manufacturer's Qualifications: Provide entrance and window wall assemblies produced by a single manufacturer with not less than 5 years successful experience in the fabrication of entrance and window wall assemblies of the type and quality required.

B. Installer's Qualifications: Entrance and window wall assemblies shall be installed by a firm that has not less than 5 years successful experience in the installation and maintenance of systems similar to those required.

C. Design Criteria: Drawings indicate sizes, spacings of members, profiles and dimensional requirements of entrance and window wall assemblies. Minor deviations will be accepted to use standard products when, in the Architect's sole judgement, such deviations do not materially detract from the design concept or intended performances.

D. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in the State of South Carolina, and who is experienced in providing engineering services of the

kind indicated. Engineering services are defined as those performed for installations of entrances and windows wall assemblies that are similar to those indicated for this Project in material, design, and extent.

1. Engineering Responsibility: Engage a qualified professional engineer to prepare or supervise the preparation of data for the entrances and windows wall assemblies , including drawings, testing program development, test-result interpretation, and comprehensive engineering analysis that shows systems' compliance with specified requirements.

E. Safety Glazing Standard: Provide safety glass that comply with ANSI 297.1 and testing requirements of 16 CFR Part 1201 for category II materials.

F. Pre-installation Conference: Prior to installing products and accessories specified within this Section, conduct a conference meeting at Project site with Architect, product manufacture(s), installer of each specified components and other related entities whose work interfaces with specified product and is associated with assembly of cladding system and other indicated exterior wall assembly for coordination of installation and adjacent work requirements. Review material selections and procedures to be followed in performing the work. Notify the Architect and Agency at least 48 hours before conducting meeting.

G. Mockups: Build **visual and testing** mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for fabrication and installation.

1. Build mockup of typical wall area as shown on Drawings.
~~2. Field testing shall be performed on mockups according to requirements in "Field Quality Control" Article.~~
3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
~~4. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.~~

H. Project Testing Laboratory Mockups : Provide all labor and materials to build at an independent testing laboratory provide combined mock up units as described in the contract documents. the laboratory mock up, shall comply with AAMA 101/I.S.2 but not less than the largest size of unit at the project. Configuration of mock up shall be as directed and as indicated in the contract mock up drawings. The mock ups when tested shall adequately demonstrate that they satisfy all performance requirements described herein. The Architect and / or his/her representative shall witness all testing.

1. Construction of performance test mock up representative of typical metal wall /window module including representative perimeter seals to adjacent flashing and metal panels as approved by Architect, prior to fabrication of final components.
2. Testing of performance mock up to include: corner conditions, integral windows and metal wall assemblies. Coordinate modifications as a result of testing in to main works.

3. Testing criteria: Test required mock up units through a recognized independent testing laboratory or agency, in accordance with ASTM E 330 for structural performance, with ASTM E 283 for air infiltration, and with both ASTM E 331 and ASTM E 547 for water penetration. Provide certified test results.

    a. Air Infiltration (ASTM E283): At 6.24psf air infiltration allowance for fixed windows to be 0.1 CFM and operable windows 0.30 CFM.
    b. Water Resistance Test: Window wall unit shall be subjected to water resistance test in accordance with ASTM E331. When static pressure of 12psf has been stabilized, five gallons of water per s.f. shall be applied for a period of 15 minutes. No water of the interior face of the window is allowed.
    c. Dynamic Resistance Test: Window wall unit shall be subjected to Dynamic test under 12psf pressure for a period of 15 minutes with five gallons of water.
    d. Uniform Load Deflection: No deflection in excess of 1/175 of any member's span during the imposed load, for a positive (inward) and negative (outward) test pressure of 60 lbf/sq. ft.

        1) Uniform Load deflection Test (ASTM E 330):

            At 50% of Design Load (+19 lbf/sq.ft)
            At 100% of Design Load (+38 lbf/sq.ft)
            At 50% of Negative Load (31 lbf/sq.ft.)
            At 100% of Negative Load (62 lbf/sq.ft.)

        2) Repeat Static Air pressure (ASTM 283)

            Repeat Water Resistance Test (ASTM E331)
            Repeat Dynamic Water Resistance

        3) Repeat Uniform Load Deflection Test As Follows:
            At 75% of Design Load (+28.5 lbf/sq.ft.)
            At 150% of Design Load (+57 lbf/sq.ft.)
            At 75% of Negative Load (46.5 lbf/sq.ft.)
            At 150% of Negative Load (93 lbf/sq.ft.)

    e. Visual Site Anchor testing: Anchorage shall be tested for tension and shear. Test loads shall be determined by Contractor's Professional Engineer based upon specification and code requirements. Tests shall be performed for head, jamb, and sill conditions (minimum of three tests for each condition). Testing shall be performed by the fastener/anchor manufacturer in accordance with their recommended test procedure.

I. Visual Mockup: Prior to installing assemblies, provide (1) completed mockups for each type, form and construction of the assemblies; mock ups shall be fabricated with the finish system as selected by the Architect. Mock ups shall also include each hardware and accessories item expected in the final unit of work. Include in the mock up submittal, each different jamb, sill, head, corner, factory mulled, custom closures and similar conditions. Build mock ups to comply with the following requirements, using materials indicated for final unit of Work.

1. **When directed or indicated, make a combined mock up submittal incorporating the all adjacent assemblies.**
2. **Construction of mock up representative of typical wall modules as directed and after approval of final components including representative perimeter seals to adjacent assemblies**

    a. **Retain and maintain visual mockups during construction in an undisturbed condition as a standard for judging the completed Work.**

1.7 PROJECT CONDITIONS

A. Field Measurements: Measure openings before fabrication to ensure proper fitting of work; show measurements on final shop drawings. Where necessary, proceed with fabrication without field measurements, and coordinate fabrication to ensure proper fit.

1.8 DELIVERY, STORAGE AND HANDLING

A. Deliver entrance and window wall assemblies and related components in manufacturer's original, unopened protective packaging. Use protective wrapping for glass, decorative metal work and other exposed elements.

1. Inspect components for damage upon delivery. Unless minor defects can be repaired to the Architect's and Agency 's satisfaction, remove and replace damaged components at no additional cost to the Agency.

B. Storage: Store aluminum framing and related components in a dry and protected area apart from construction traffic, in their original shipping containers with protective wrapping or packaging securely in place.

C. Protect finish surface from damage during handling and installation.

1.9 WARRANTY

A. The Contractor hereby warranties that assembled curtain wall system specified in this Section will be free from defects of materials and workmanship for a period of 10 years and that individual component guarantees are as herein required.

B. The following types of failure will be adjudged as defective work:

1. Glass breakage resulting from defects in material and workmanship.
2. Cracking, crazing and failure of the sealants.
3. Failure of operational parts to function normally.
4. Abnormal deterioration, aging or discoloration of finishes.
5. Leakage of water or air in excess of the performance requirements specified.
6. Structural failure of components of the curtain wall systems resulting from exposure to pressures and forces within the specified limits.
7. Failure of the curtain wall system to meet any other specified performance requirements.

C. Finish Warranty: Furnish paint system Manufacturer's written warranty (in triplicate) covering failures of the factory-applied finish on the metal components and accessories within the guarantee period agreeing to repair finish or replace components that show evidence of

deterioration. This warranty shall be in addition to and not a limitation of other rights the Agency may have against the Contractor under the Contract Documents.

1. Warranty period for factory-applied finishes on the metal components of the curtain wall systems are 20 years after the date of Substantial Completion.
2. Finish failures shall include, but not be limited to, the following:

    a. Color fade.
    b. Chalking.
    c. Cracking.
    d. Peeling.
    e. Loss of film integrity and other finish deterioration.

D. Manufacturer's Warranty, Glass: Refer to Division 8- Glazing for glass warranty requirements.

E. Warranty, Weather Seal: Submit written warranty signed by the sealant manufacturer, agreeing to furnish full replacements for the weather seals that deteriorate, including full labor and materials, within specified guarantee period indicated below.

Weather seal: 20 years after date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURER

A. Basis-of-Design Product: The design for entrances and window wall System is based on the product named. Subject to compliance with requirements, provide either the named product or a comparable product by one of the other manufacturers specified or equal.

1. Entrance System: Provide extruded aluminum, entrance frames with doors and transom for locations indicated.

    a. Basis of Design: Provide wall system as manufactured by Kawneer Company, Inc, or equal.

        1) "L1 Window Wall & Vestibules: Kawneer 1600, system 1
        2) Exterior Glazing Doors: Kawneer 1600, system 1 wide stile

    b. As manufactured by Kawneer Company Inc. or equal.

        1) Provide doors shall have square glazing stops and 10" high ADA approved bottom rail, unless otherwise indicated.

    c. Additional Available Manufacturers:

        1) EFCO Corporation.
        2) Wausau.
        3) Or equal.

2. Window Wall System: Provide extruded aluminum, thermally broken, minimum two side captured window wall systems and strip window with fixed windows and custom wall systems structurally glazed assemblies for locations indicated

a. Basis of Design: Provide wall system as manufactured by Kawneer Company, Inc, or equal.

1) L4 Strip Window: Kawneer 1600, system 5
2) L3 Window Walls & Strip Windows: Kawneer 1600, system 1
3) L2 Window Wall: Custom

3. Operable vent windows : Kawneer or equal as selected
4. Sliding Doors: Arcadia Series 5000Monumental series or equal

2.2 METALS

A. Aluminum: Provide alloy and temper recommended by the manufacturer for strength, corrosion resistance, and application of required finish; comply with ASTM B 221 for extrusions and ASTM B 209 for sheet or plate. Provide custom extrusions where indicated.

B. Steel Plates, Shapes and Bars: ASTM A 36.

C. Welding Electrodes and Filler Metal: Type and alloy of filler metal and electrodes as recommended by producer of metal to be welded, complying with applicable AWS specifications, and as required for color match, strength and compatibility.

D. Fasteners: Of same basic metal and alloy as fastened metal, unless otherwise indicated. Do not use metal which are corrosive or otherwise incompatible with metals joined.

1. Provide concealed fasteners for interconnection of components and for their attachment to other work, except where otherwise indicated.
2. Reinforcement: Where fasteners screw-anchor into aluminum less than 0.125" thick, reinforce the interior with aluminum or nonmagnetic stainless steel to receive screw threads, or provide standard noncorrosive pressed-in splined grommet nuts.
3. Exposed Fasteners: Except where unavoidable, do not use exposed fasteners. Use Phillips flat-head machine screws that match the finish of member being fastened.

E. Concealed Flashing: Provide 26 gage minimum dead-soft stainless steel, or 0.026" minimum extruded aluminum of alloy and type selected by manufacturer for compatibility with other components.

F. Brackets and Reinforcements: Where feasible, provide high-strength aluminum brackets and reinforcements; otherwise provide nonmagnetic stainless steel or hot-dip galvanized steel complying with ASTM A 123.

G. Compression Weather stripping: Replaceable compressible weatherstripping gaskets of molded neoprene or molded PVC complying with ASTM D 2287.

H. Sliding Weather stripping: Replaceable weather stripping of wool, polypropylene, or nylon woven pile, with aluminum strip backing, complying with AAMA 701.2.

2.3 RELATED MATERIALS

A. Concrete/Masonry Inserts: Provide concrete and masonry inserts fabricated from cast-iron, malleable iron, or hot-dip galvanized steel complying with ASTM A 123.

B. Compression Weather stripping: Provide the manufacturer's standard replaceable compressible weather stripping gaskets of molded neoprene complying with ASTM D 2000 or molded PVC complying with ASTM D 2287.

C. Weather stripping: Provide heavy-duty, single piece rubber and rubber- felt combination.

D. Glass and Glazing Materials: Refer to Division 8 Section "Glazing" for additional glazing requirements.

E. Primer Paint for Steel: Epoxy-polyamide paint: Steel Structures Painting Council SSPC-Paint 13.

F. Galvanized Repair Paint: High zinc dust content paint complying with SSPC-Paint 20.

G. Sealants for Structural Glazing: Provide sealant types recommended by the structural silicone sealant manufacturers and compatible with glazing accessories.

1. Structural Silicone Sealant: Silicone sealants shall be specifically formulated and tested for use as a structural sealant. Primary seal shall be at back of glazing pocket and to stainless steel angle trim at four sides of window opening.

    a. Color: Match sealant at edges of insulated glass, unless otherwise indicated.

2. Secondary Seal (Weatherseal): Silicone sealant secondary seals shall be compatible with the structural silicone sealant used. The weatherseal shall accommodate a low-modulus silicone sealant capable of 50 percent increase or decrease of joint width as measured in accordance with ASTM C 719 at the time of application. Provide backer rod as recommended by the manufacturer. Secondary sealant shall be compatible with substrates and develops full adhesion and cohesive strength when subjected to design loads.

    a. Secondary structural silicone sealant stress shall be designed so that each light in an insulating glass unit carries 50 percent of the total applied wind load when both lights are of equal thickness. Secondary seals at window wall and strip window perimeter shall be a neoprene sheet glazed into window pocket and sealed to air-vapor barrier.

        1) Color: As selected by the Architect, match approved samples.

3. Refer to Section Division 7 - Joint Sealants for additional requirements.
4. Structural Silicone Accessories:

    a. Cleaner: Provide a solvent wipe cleaning of all structural silicone joint sealant substrates; solvent shall be iso-propyl alcohol (IPA), or other cleaner as recommended by the sealant manufacturer.
    b. Primer: Provide primer of type recommended by joint sealant manufacturer to suit structural silicone sealant and substrate conditions indicated

2.4 FABRICATION

A. General: Form components to required shapes and sizes, with true curves, lines and angles. Provide components in sizes and profiles indicated, but not less than required to comply with performance requirements.

1. Comply with deflection criteria as specified in Part 1 of this Section.

2. Thermal-Break Construction: Fabricate framing system with a concealed, low-conductance thermal barrier, located between exterior materials and interior members. Use manufacturer's standard construction that has been in use for not less than 3 years.

B. Allow for movement resulting from an air temperature change of 120 deg. F in the design of storefront assemblies, to prevent buckling, opening up of joints and overstressing of welds and fasteners.

C. Comply with AWS for recommended practices in shop welding. Provide welds behind finished surfaces without distortion or discoloration of exposed side. Clean exposed welded joints of all welding flux, grind smooth and flush, restore mechanical finish.

D. Mill joints to a tight, hairline fit, unless otherwise shown. Cope or miter corner joints. Form joints exposed to weather to exclude water.

E. Preassemble items in shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping, handling and installation.

F. Reinforcing: Install reinforcing as required for hardware and necessary for performance requirements, sag resistance and rigidity.

G. Dissimilar Metals: Separate dissimilar metals with zinc chromate primer, or other separator to prevent corrosion.

H. Continuity: Maintain accurate relation of planes and angles, with hairline fit of contacting members.

2.5 COMPONENTS

A. Entrance Framing System: Provide glazed framing system of channel and tubular aluminum extrusions as shown, with provisions for glass replacement. Shop fabricate and preassemble frame components where possible. Provide fully welded or mechanical jointed assemblies, unless otherwise indicated. Reinforce as necessary to support required loads. Entrance door frames shall be set within window wall framing system.

1. Provide hardware as specified in section Division 8 -Door Hardware and as selected by the Architect, match reviewed samples.

B. Window Wall Framing System: Provide framing systems fabricated from extruded aluminum members of size and profile indicated. Include subframes and other reinforcing members of the type indicated. Shop-fabricate and preassemble frame components where possible. Coordinate with Division 8 Section wall panel System" for members with aluminum tube reinforcing to be installed by window wall manufacturer by method as indicated on Drawings.

1. Provide custom engineered support tab brackets, plates, joints and trims for complete assembly of window wall system with custom trim components of size and profile as indicated on Drawings.

2. Provide custom curved structurally glazed system as indicated

C. Window Fabrication:

1. Fabricate aluminum windows, in sizes indicated, that comply with requirements and that meet or exceed AAMA/NWWDA 101/I.S.2 performance requirements for the following window type and performance class. Include a complete system for assembling components and anchoring windows.
2. Fabricate aluminum windows that are reglazable without dismantling sash or ventilator framing.
3. Thermally Improved Construction: Fabricate aluminum windows with an integral, concealed, low-conductance thermal barrier; located between exterior materials and window members exposed on interior side; in a manner that eliminates direct metal-to-metal contact.

    a. Provide thermal-break construction that has been in use for not less than three years and has been tested to demonstrate resistance to thermal conductance and condensation and to show adequate strength and security of glass retention.
    b. Provide thermal barriers tested according to AAMA 505; determine the allowable design shear flow per the appendix in AAMA 505.

4. Weather Stripping: Provide full-perimeter weather stripping for each operable sash and ventilator.
5. Provide water-shed members above side-hinged ventilators and similar lines of natural water penetration.
6. Sub-frames: Provide subframes with anchors for window units as shown, of profile and dimensions indicated but not less than 0.062-inch-thick extruded aluminum. Miter or cope corners, and weld and dress smooth with concealed mechanical joint fasteners. Finish to match window units. Provide subframes capable of withstanding design loads of window units.
7. Factory-Glazed Fabrication: Glaze aluminum windows in the factory where practical and possible for applications indicated. Comply with requirements in Section 08800 - Glass and Glazing and with AAMA/NWWDA 101/I.S.2.

D. Glass and Glazing Materials: Glass and glazing materials shall comply with requirements of Division 8 Section "Glazing" of these Specifications. Provide fully tempered safety glass

2.6 DUAL ACTION ASSEMBLIES SLIDING DOORS

A. General: Fabricate aluminum framed glass doors in sizes indicated that comply with AAMA/NWWDA 101/I.S.2 for performance class and performance grade required or indicated. Include a complete system for assembling components and anchoring doors.

B. Hardware: Provide manufacturer's standard hardware fabricated from aluminum, stainless steel, or other corrosion resistant material compatible with aluminum; designed to smoothly operate, tightly close, and securely locking aluminum framed glass doors. Do not use aluminum in frictional contact with other metals. Where exposed, provide; extruded, nonmagnetic stainless steel.

1. Provide the manufacturer's low-profile ADA compliant threshold/saddle of the material and finish selected by the Architect.
    2. Provide the manufacturer's standard three-point latching hardware, and other door hardware indicated on the Drawings and Schedules; refer to ASection 08710 - Finish Hardware@ for additional materials and requirements.

C. Operating Assembly: Concealed, internal, guide and track operating assembly; complete with a key cylinder designed to lock out the tilt mode.

D. Operating Devices: Provide each ventilator with a 2 position, combination lever handle designed to operate each function of the window. Provide windows with compression locks and a secondary locking device to prevent accidental "swing" operation.

E. Aluminum Framed Glass Door Standard: Comply with provisions of AAMA/NWWDA 101/I.S.2 for standards of performance, materials, components, and fabrication, unless more stringent requirements are indicated.

1. Provide AAMA certified aluminum framed glass doors with an attached label.
2. Safety Glass: Category II materials complying with testing requirements in 16 CFR 1201 and ANSI Z97.1.

2.7 HARDWARE

A. General: All door hardware, including push/pull handles and lock cylinders, shall be furnished by the supplier of doors and entrances as per Drawings. and hardware schedule

B. Doors: Provide manufacturer's standard heavy-duty stainless steel or aluminum hardware units matching door material, as required for operation of doors, including the following items of sizes, number, and type recommended by manufacturer for service required, finished to match door.

C. Hardware Sets: Provide the indicated hardware for door openings shown, refer to Division 8 Finish Hardware for specified units and accessories.

2.8 CUSTOM FACADE FABRICATION

A. Provide sheet metal panels and accessories of design, material, sizes, depth, arrangement, and thickness as required for optimal performance with respect to strength; durability; and uniform appearance.

1. Provide slab edge covers and flashing assemblies as indicated.
2. Panels at exterior columns and as indicated

B. Include supports, anchorage, and accessories required for complete assembly.

C. Components: All fascia, components shall be 6063-T5 aluminum alloy. Provide support brackets shall be high strength aluminum. Finish 2 coat Kynar to match Architects samples.

1. Custom fabricated aluminum plate and designed to have mount to wall and window assemblies as indicated. Provide custom fabricated panels to the profiles detailed.

2.9 INTERIOR TRIM AND CLOSURES

A. Interior trim, closures, angles, etc., shall be material sizing, shapes as shown, with fastening as required and specified. All snap-on trim shall be of extruded 6063-T6 prime aluminum alloy and temper, and minimum 0.050" thickness. Standard snap-on type trim up to 3/4" x 1-3/8" shall be of single flange construction with the snap grip on one flange.

B. Where drive-on trim closures or panning type closure is shown, it shall be of extruded 6063-T6 prime aluminum alloy end temper, and shall not be less than 0.062" thick. Bent trim will not be permitted in lieu of extruded shapes, closures, etc.

C. Provide interior trim size as indicated. Concealed mounting clips for snap-on or drive-on trim will be located within 6" of end and spacing not to exceed 18" intervals. Interior trim clips will not be permitted to be used as window anchors.

2.10 EXTERIOR PANNING TRIM AND CUSTOM FABRICATIONS

A. Panning: Provide extruded aluminum panning of the type and configuration required by the architect with a minimum nominal wall thickness of 0.062 inch. Provide stainless steel clips for the head and jamb panning members. Clips shall be attached with stainless steel fasteners. Space stainless steel clips appropriately to allow the window units to secure themselves tightly to the panning. Window units shall lip over the panning sill member allowing water to weep to the exterior. Finish panning to match window units.

B. Trims: Provide extruded aluminum trim of the type and configuration required by the architect with a minimum nominal wall thickness of .050 inch. Provide extruded aluminum trim clips, with a minimum nominal wall thickness of .050 inch, to allow attachment of the trim to the window units and/or openings. Finish trim to match window units and adjacent assemblies

C. The extruded aluminum sections shall be one piece designed to interlock into the continuous extruded ports of the window frame and panel frame with or without the use of screws, bolts, etc. The interlock shall be such as to provide a completely weathertight connection, thus allowing unrestricted expansion or contraction of interlocked members. The sill panning shall be supported by the tubular sill section of the window frame or sill starter and shall require no shimming for support, except specific given sizes which could become ineffective through movement via vibration, etc.

D. The panning members shall be secured at corners with concealed #8 non-magnetic, stainless steel screws into integral screw ports and continuously backsealed for the total perimeter of window and panel frame units with approved sealant. Joints occurring where the head and sill panning flanges butt to the jamb panning flanges shall be secured with stainless steel clips to align the flanges and are to be fully back-sealed. Exposed screws or rivets will not he accepted on exterior panning members.

E. The anchored panning or panning clips will not be accepted as a substitute for window anchoring thru the inner and outer frame members as detailed and specified

2.11 ALUMINUM FINISHES

A. General: Comply with NAAMM "Metal Finishes Manual" for recommendations relative to applying and designating finishes.

B. Finish designations prefixed by AA conform to the system established by the Aluminum Association for designating aluminum finishes.

C. High-Performance Organic Coating Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Finish: acid chromate-fluoride-phosphate conversion coating; Organic Coating: as specified below). Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturer's written instructions.

1. Fluoropolymer 3-Coat Coating System: Manufacturer's 3-coat, thermocured system composed of specially formulated inhibitive primer and fluoropolymer color coat and clear top coat containing not less than 70 percent polyvinylidene fluoride resin by weight; complying with AAMA 2605.98
2. Color and Gloss: Provide Custom color as selected or approved by Architect.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Comply with manufacturer's printed instructions for installation. Provide appropriate anchors and fasteners. Coordinate installation with other adjacent work.

B. Set units accurately in place, plumb, level, and true to line, without distortions. Provide proper support and anchor securely in place.

1. Separate aluminum and other corrodible metal from dissimilar materials. Comply with requirements specified under paragraph "Dissimilar Materials" in the Appendix to AAMA 101.
2. Install units with adjacent members closely fitted, aligned and flush, within the following maximum tolerances:

    a. Variation from Plumb and Level: 1/8" in 20 feet.
    b. Variation from Location: 1/8" in 20 feet.

C. When damaged finishes cannot be properly restored in the field, return items with such finishes to the shop for complete refinishing or provide new units as required.

D. Coordinate the installation of adjacent gaskets, joint sealers, insulation and flashings, to make work weathertight.

1. Entrances, window wall and strip windows shall be coordinated to allow perimeter frame edge to receive glazed in flexible preformed silicone sheet sealant (flexible membrane flashing). Coordinate gasket type to accept sheet seal.

E. Restore protective coverings which have been damaged. Remove protective coverings only when there is no possibility of damage from other work yet to be performed at the same location.

F. Drill and tap frames and doors and apply surface-mounted hardware items. Comply with hardware manufacturer's instructions and template requirements. Use concealed fasteners wherever possible.

3.2 USE OF SEALING MATERIALS

A. Sealing materials specified shall be used in strict accordance with the manufacturer's printed instructions, and shall be applied only by mechanics specially trained or experienced in their use. Before applying sealant, all mortar, dirt, dust, moisture and other foreign matter shall be completely removed from surfaces it will contact. Adjoining surfaces shall be masked when required to maintain a clean and neat appearance. Sealing compounds shall be tooled to fill the joint and provide a smooth finished surface.

B. Structural Silicone Glazing in the Field: Clean frames and glass surfaces with an approved solvent. Prime surfaces and apply setting blocks, silicone spacer gaskets and structural sealant in accordance with glass and sealant manufacturer's recommendations. Mechanically retain glass firmly in place until sealant has cured sufficiently to hold the glass. Clean excess sealant before curing. Install compressible backer rods in joints prior to applying weatherseal sealant.

C. Perimeter sealants and joint fillers: Install weathering sealant at connections of entrances and window wall systems to other materials as specified in Section 07920 - Joint Sealers.

1. Tool joints concave as indicated and as shown on approved shop drawings

3.3 FIELD QUALITY CONTROL

A. Field Testing Services: Testing and inspecting of representative areas of each type of assembly shall take place as installation proceeds to determine compliance of installed assemblies with specified requirements.

1. Air Infiltration: Areas shall be tested for air leakage of 1.5 times the rate specified for laboratory testing in "Performance Requirements" Article, but not more than 0.50 cfm/sq. ft. of fixed wall area when tested according to ASTM E 783 at a minimum static-air-pressure differential of 6.24 lbf/sq. ft.

    a. Test Area: One bay wide, but not less than 10 feet, by one story of aluminum and glass walls and door assemblies.
    b. Perform a minimum of two tests in areas as directed by Architect.

B. Periodically test sealants in place for adhesion, using methods recommended by sealant manufacturer. Promptly replace any sealant which does not adhere or fails to cure. Sealant manufacturer shall perform sealant adhesion tests (three locations minimum) and provide written report of result

C. Assemblies shall be considered defective if they do not pass tests and inspections.

1. Prepare test and inspection reports.

3.4 WATER FIELD TEST

A. Exterior Units, In-Place Testing: Contractor shall provided a qualified independent testing agency at no cost to the Agency to perform tests and issue reports of in-place testing of minimum installed and completed exterior assembly in accordance with AAMA 501.2. Water testing shall be conducted early in the construction schedule. Construction sequence shall include provisions for timely completion of test areas. Repair any leaks revealed by examination of substructure, and repeat test until no leakage is observed. The Architect shall select areas to be tested including all conditions representative of the Project. Test shall include flexible seals between window frames and air/vapor barrier and perimeter seals at window walls and strip windows to adjacent construction including but not limited to jambs, heads and sills. Test internal gutters by temporarily plugging weep holes and filling with water, then inspect for water leakage after a minimum of 15 minutes. Correct deficiency and retest until successful tests are achieved. Remove weep hole plugs.

1. Water Penetration: Areas shall be tested according to ASTM E 1105 at a minimum uniform static-air-pressure differential of 0.67 times the static-air-pressure differential specified for laboratory testing in "Performance Requirements" Article, but not less than 6.24 lbf/sq. ft., and shall not evidence water penetration.

    a. Test Area: One bay wide, but not less than 10 feet, by one story of aluminum and glass wall.
    b. Perform a minimum of two tests in areas as directed by Architect.

2. Water Spray Test: Before installation of interior finishes has begun, areas designated by Architect shall be tested according to AAMA 501.2 and shall not evidence water penetration.

    a. Test Area: A minimum area of 20 feet by one story of aluminum and glass wall.

3. Method of testing shall be reviewed and reviewed by the Architect.

    a. Testing of window walls and strip windows shall be performed prior to installation to exterior rain screen wall cladding system.

4. Submit results, in the form of a report, to the Architect.
5. Successful completion of the in-place tests shall not absolve the Contractor of his responsibilities as stated elsewhere in this Section and the Contract requirements.
6. All on site corrections to windows shall be incorporated on submitted shop drawings and with in constructed wall.

3.5 CLEANING

A. Clean the completed system, inside and out, promptly after installation, exercising care to avoid damage to coatings.

B. Clean glass after installation, complying with requirements contained in the "Glass and Glazing" section for cleaning and maintenance. Remove excess glazing and sealant compounds and dirt.

3.6 PROTECTION

A. Provide protection for the remainder of the construction period to ensure that storefront assemblies will be without damage or deterioration, other than normal weathering, at time of acceptance.

END OF SECTION 08 41 00