

ADDENDUM NO. 1

ISSUE DATE: **May 3, 2018**

RE: **Sterling Hall Renovation for TREX Physics**
University of Wisconsin-Madison
Madison, Wisconsin
UW-Madison Project No. **0057-1701**
UWSA Project No. **A-17-003**

BID OPENING: MEP Bidders: **May 10, 2018 - 2:00 PM**
GPC Bidders: **May 24, 2018 - 2:00 PM**

FROM: KEE Architecture, Inc.
621 Williamson Street
Madison, Wisconsin 53703

TO: Prospective Bidders

This addendum forms a part of the Contract Documents and modifies the original Contract Documents dated April 6, 2018 as noted below. Acknowledge receipt of this Addendum by inserting the number and issue date of this addendum in the blank space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of 4 pages and the following attached documents (dated 5/3/2018):

SPECIFICATIONS

Table of Contents (GPC Volume 1, MEP Volume 1 and Volume 2) – Revised Drawing List (1 page)
Section 08 34 94 – Automatic Horizontal Fire Shutter (5 pages)

DRAWINGS

S101.1 – Second Floor Framing Plan (FS Option 1)
S101.2 – Second Floor Framing Plan (FS Option 2)
S102.1 – Enlarged Plan & Details (FS Option 1)
S102.2 – Enlarged Plan & Details (FS Option 2)
S201.1 – Third Floor Framing Plan (FS Option 1)
S201.2 – Third Floor Framing Plan (FS Option 2)
S301.1 – Elevations (FS Option 1)
S301.2 – Elevations (FS Option 2)
S800.1 – Details (FS Option 1)
S800.2 – Details (FS Option 2)
A202 – Partial First Floor Plan (Demolition)
A203 – Partial Second Floor Plan (Demolition)
A302 – Partial Second Floor Plan
A401 – Schedules & Details
P000 – Symbols, Abbreviations, Details, and Schedules – Plumbing
M100 – Partial Floor Plans – HVAC (Demolition)
M200 – Partial Floor Plans - HVAC
E000 – Symbols, Abbreviations, Details, and Schedules – Electrical
E202 – Symbols, Abbreviations, Details, and Schedules – Electrical

CHANGES TO BIDDING REQUIREMENTS:

1. Table of Contents (GPC Volume 1, MEP Volume 1 and Volume 2):
 - a. Section 08 34 94 – Automatic Horizontal Fire Shutter: Change number of pages to 08 34 94-5.
 - b. Modify Drawing List per Revised Drawing List.
2. Invitation to Bid (GPC Volume 1), page A-1: Delete lines 51-52. Class 1 Notice not required for Work by Owner.
3. Invitation to Bid (MEP Volume 1), page A-2: Delete lines 1-2. Class 1 Notice not required for Work by Owner.
4. Instructions to Bidders (GPC Volume 1), page B-10, line 12: Add the following Work by the Owner:
 - a. 23 09 14 PNEUMATIC AND ELECTRIC INSTRUMENTATION AND CONTROL DEVICES FOR HVAC
 - b. 23 09 24 DIRECT DIGITAL CONTROL SYSTEM FOR HVAC
5. Instructions to Bidders (MEP Volume 1), page B-9, line 30: Add the following Work by the Owner:
 - a. 23 09 14 PNEUMATIC AND ELECTRIC INSTRUMENTATION AND CONTROL DEVICES FOR HVAC
 - b. 23 09 24 DIRECT DIGITAL CONTROL SYSTEM FOR HVAC

CHANGES TO SPECIFICATIONS (DIVISIONS 2 THRU 27):

6. Section 08 34 94 – Automatic Horizontal Fire Shutter: Delete Section and replace with the attached Section 08 34 94, consisting of 5 pages.
7. Section 21 05 00 – Common Work Results for Fire Suppression: Added the following to 21 05 00-3, 38-44:
 - a. FPC shall acquire new flow test

Existing building sprinkler system served by a 100 hp fire pump running approximately 150 psig from fire pump room.

Water test data is preliminary for bidding purposes. Verify and obtain any additional test data required for design. Tests to be representative of high water use periods.
8. Section 23 09 14 – Pneumatic and Electric Instrumentation and Control Devices for HVAC:

Edit the specification as indicated

 - a. 23 09 14 – 01 (Lines 2-3): Added “(For information purposes only)”
 - b. 23 09 14 – 01 (Lines 9-10): Added “UW shall be providing demolition services, and providing and installing all devices as specified. Mechanical contractor shall coordinate with UW for all demolition and new work activities.”
 - c. 20 09 14 – 01 (Line 18): Deleted “Quality Assurance”
 - d. 23 09 14 – 02 (Lines 5-14): Deleted

“Quality Assurance

Installing contractor must be a manufacturer's branch office or an authorized representative of a Direct Digital Control (DDC) equipment manufacturer that provides engineering and commissioning of the DDC equipment. Submit written confirmation of such authorization from the manufacturer. Indicate in letter of authorization that installing contractor has successfully completed all necessary training required for engineering, installation, and commissioning of equipment and systems and that such authorization has been in effect for a period of not less than three years. DDC equipment may or may not be required to be installed by this contractor as part of the project, but the intent of this quality assurance specification is to ensure that the installing contractor has the capabilities to engineer, install, and commission the field devices supplied under this section for temperature control.”

CHANGES TO DRAWINGS:

9. S101.1 – Second Floor Framing Plan (FS Option 1): Replaced Sheet S101 with Sheet S101.1.
(Sheet name and number change only.)
10. S101.2 – Second Floor Framing Plan (FS Option 2): Added Sheet.
 - a. Indicating configuration & details for FS Option 2.
11. S102.1 – Enlarged Plan & Details (FS Option 1): Replaced Sheet S102 with Sheet S102.1.
(Sheet name and number change only.)
12. S102.2 – Enlarged Plan & Details (FS Option 2): Added Sheet.
 - a. Indicating configuration & details for FS Option 2.
13. S201.1 – Third Floor Framing Plan (FS Option 1): Replaced Sheet S201 with Sheet S201.1.
(Sheet name and number change only.)
14. S201.2 – Third Floor Framing Plan (FS Option 2): Added Sheet.
 - a. Indicating configuration & details for FS Option 2.
15. S301.1 – Elevations (FS Option 1): Replaced Sheet S301 with Sheet S301.1.
(Sheet name and number change only.)
16. S301.2 – Elevations (FS Option 2): Added Sheet
 - a. Indicating configuration & details for FS Option 2.
17. S800.1 – Details (FS Option 1): Replaced Sheet S800 with Sheet S800.1.
(Sheet name and number change only.)
18. S800.2 – Details (FS Option 2): Added Sheet.
 - a. Details 1, 2, 3, and 4 this sheet are all substantially different for the FS Option 2.
19. A202 – Partial First Floor Plan (Demolition): Replaced sheet
 - a. Revised keynotes 3 and 4.
20. A203 – Partial Second Floor Plan (Demolition): Replaced sheet
 - a. Revised as indicated.
 - b. Revised keynotes 3, 6, and 10.
21. A302 – Partial Second Floor Plan: Replaced sheet
 - a. Revised partition location as indicated.
 - b. Added 2 callouts for wall details.
 - c. Revised keynotes 2, 4, and 12.
 - d. Added Partition Type tags for clarity.
 - e. Added dimensions of floor opening as indicated.
22. A401 – Schedules & Details: Replaced sheet
 - a. Revised Partition Type P-1 detail.
 - i. Changed insulation from 1" to 3".
 - ii. Changed GWB from 5/8" to 1/2".
 - b. Added Partition Type P-2 detail.
 - c. Added wall detail.

- 1 23. P000 – Symbols, Abbreviations, Details, and Schedules – Plumbing: Replaced sheet:
2 a. Added valves and check valves after each of the backflow preventers RBPB-1 and RBPB-2 as shown
3 on detail 3/P000.
4 b. Added location of conductivity meter on detail 4/P000.
5 c. Added solenoid valve and differential pressure sensors on DI inlet to chilled water system.
6 d. Revised RBPB and DI Unit schedules.
7
8 24. M100 – Partial Floor Plans - HVAC (Demolition): Replaced Sheet
9 a. Edited Keyed Note 8 To Read:
10 “HC Shall Coordinate All Demolition Activities With 23 09 14 Contractor. 23 09 14 Contractor (UW
11 Steam Fitter Shop) Shall Remove Existing Pneumatic Control Devices And Associated Control Lines
12 Back To Hall Way 2400J. Save Thermostat And Humidistat For Reuse Per M200.”
13
14 25. M200 - Partial Floor Plans – HVAC: Replaced Sheet
15 a. Edited Keyed note 7 to read:
16 “23 09 24 contractor (UW DDC shop) to provide new ddc controls within the existing control panel for
17 HX-3 city water back-up change-over valves. HC shall coordinate all new work with 23 09 24
18 contractor.”
19 b. Edited Keyed note 8 to read:
20 “23 09 14 contractor (UW DDC and steam fitter shops) to provide new pneumatic thermostat and
21 controls. HC shall coordinate all new work with 23 09 14 contractor.”
22 c. Edited Keyed not 10 to read:
23 “23 09 14 contractor (UW DDC and steam fitter shops) shall reinstall existing pneumatic control devices
24 saved from sheet M100. Connect reinstalled control device to existing pneumatic control lines saved in
25 room 2400J per sheet M100. HC shall coordinate all new work with 23 09 24 contractor.”
26
27 26. E000 - Symbols, Abbreviations, Details, and Schedules – Electrical: Replaced sheet:
28 a. Added fire shutter electrical detail 1/E000.
29 b. Revised Panel Schedule for 2417 PNL C.
30
31 27. E202 - Symbols, Abbreviations, Details, and Schedules – Electrical: Replaced sheet:
32 a. Added fire shutter connection.
33 b. Added Note 15.
34

35
36
37
38
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40
END OF ADDENDUM

KEE Architecture, Inc.
621 Williamson Street
Madison, Wisconsin 53073

Board of Regents of the University of Wisconsin
University of Wisconsin - Madison
Madison, Wisconsin 53703

1	DRAWINGS - Bound Separately - (REVISED)	
2	Title	Sheets Thru
3		
4	GENERAL	
5	Title Sheet	T101
6	Orientation Plan & Code Information	T102
7		
8	STRUCTURAL	
9	Second Floor Framing Plan (FS Option 1)	S101.1
10	Second Floor Framing Plan (FS Option 2)	S101.2
11	Enlarged Plan & Details (FS Option 1)	S102.1
12	Enlarged Plan & Details (FS Option 2)	S102.2
13	Third Floor Framing Plan	S201
14	Elevations (FS Option 1)	S301.1
15	Elevations (FS Option 2)	S301.2
16	Details (FS Option 1)	S800.1
17	Details (FS Option 2)	S800.2
18		
19	ARCHITECTURAL	
20	Key Plans	A101
21	Partial Basement Floor Plan (Demolition)	A201
22	Partial First Floor Plan (Demolition)	A202
23	Partial Second Floor Plan (Demolition)	A203
24	Partial Basement Floor Plan	A301
25	Partial Second Floor Plan	A302
26	Schedules & Details	A401
27		
28	FIRE PROTECTION	
29	Symbols, Abbreviations, and Notes - Fire Protection	F000
30	Partial Basement Plan - Fire Protection	F200
31	Partial First Floor Plan - Fire Protection	F201
32	Partial Second Floor Plan - Fire Protection	F202
33		
34	PLUMBING	
35	Symbols, Abbreviations, and Schedules – Plumbing	P000
36	Partial Basement Plan – Plumbing (Demolition)	P100
37	Partial Basement Plan – Plumbing	P200
38		
39	MECHANICAL	
40	Symbols and Abbreviations - HVAC	M000
41	Partial Floor Plans – HVAC (Demolition)	M100
42	Partial Floor Plans – HVAC	M200
43	Details, Schedules and Schematics - HVAC	M800
44		
45	ELECTRICAL	
46	Symbols, Abbreviations, and Schedules - Electrical	E000
47	Partial Basement Floor Plan – Electrical (Demolition)	E100
48	Partial First & Second Floor Plans – Electrical (Demolition)	E101
49	Partial Basement Floor Plans – Electrical	E200
50	Partial First Floor Plans – Electrical	E201
51	Partial Second and Third Floor Plans – Electrical	E202
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SECTION 08 34 94
AUTOMATIC HORIZONTAL FIRE SHUTTER

PART 1 - GENERAL

SCOPE

The work under this section consists of: smoke detector-activated, ceiling- or floor-mounted, horizontal coiling fire shutter assembly for application at horizontal protected openings. (Note that this Section includes two fire shutter options as outlined below.) Included are the following topics:

PART 1 - GENERAL

- Scope
- Related Work
- References
- Submittals
- Closeout Submittals
- Quality Assurance
- Delivery, Storage, and Handling
- Warranty

PART 2 - PRODUCTS

- Fire Shutter (Option 1)
- Fire Shutter (Option 2)
- Performance / Design Criteria
- Components
- Fabrication

PART 3 - EXECUTION

- Examination
- Installation
- Field Quality Control
- Demonstration

RELATED WORK

Applicable provisions of Division 1 govern work under this section.

Division 05 Sections for metal fabrications, including steel supports for fire shutter. (Note that Division 05 work may vary with each fire shutter option).

Division 26 Sections for 120V and control circuit power including conduit, boxes, conductors, wiring devices, and emergency power.

REFERENCES

NFPA Codes and Standards:

- 70 - National Electrical Code.
- 72 – National Fire Alarm Code

UL Standards:

- 10B – Fire Tests of Door Assemblies
- 268 - Smoke Detectors for Fire Protective Signaling Systems.
- 864 - Control Units for Fire Protective Signaling Systems.

SUBMITTALS

Product Data

Shop Drawings:

1 Include opening and fire shutter dimensions.

2 Show and identify related work performed under other sections of the specifications, including
3 electrical requirements and fire alarm connections.

4
5 Quality Assurance/Control Submittals:

6 Certifications.

7 Manufacturer's installation instructions and testing procedures.

8
9 **CLOSEOUT SUBMITTALS**

10 Operation and Maintenance Manual.

11 Manufacturer's Warranty

12
13 **QUALITY ASSURANCE**

14 Fire & Smoke Rated Assemblies: Provide all doors with fire and smoke resistance rating required to comply
15 with governing regulations which are inspected, tested, listed and labeled by UL, WH or FM and complying
16 with NFPA 80 for class of opening. Provide units tested in accordance with the requirements of UL 10B, UL
17 1784, NFPA 252, ASTM E-152. Provide testing laboratory label permanently fastened to each fire and smoke
18 door assembly.

19
20 Regulatory Requirements:

21 Comply with applicable requirements of the laws, codes, ordinances and regulations of federal,
22 state and municipal authorities having jurisdiction.

23
24 Listed under a certified Code Compliance Research Report in accordance with the applicable
25 sections of the International Building Code.

26
27 Testing: Provide documentation from a certified testing agency that the fire shutter's self-closing governor
28 mechanism and fire shutter operator have been tested for a minimum of 50,000 cycles and 500 self-closing
29 trip tests.

30
31 Certifications:

32 Submit manufacturer's Underwriters Laboratories (UL) or Warnock Hersey (WH) laboratory test
33 report verifying product compliance in accordance with the required fire and smoke
34 ratings.

35 Submit manufacturer's Code Compliance Research Report published by an independent third-
36 party testing agency that is certified by the International Accreditation Service
37 confirming compliance of the assembly in accordance with the International Building
38 Code (IBC).

39
40 Pre-Installation Meeting:

41 Schedule and convene a pre-installation meeting prior to commencement of field operations with
42 representatives the Owner, A/E and all applicable contractors.

43 Review substrate conditions, requirements of related work, installation instructions, storage and
44 handling procedures, and protection measures.

45 Document responsibilities of various parties and deviations from specifications and installation
46 instructions.

47
48 **DELIVERY, STORAGE, AND HANDLING**

49 Comply with manufacturer's instructions.

50
51 **WARRANTY**

52 Provide manufacturer's standard one-year warranty.

53
54 Maintenance and Testing:

1 Within twelve months after Substantial Completion, perform minimum annual maintenance and
2 testing on each as required by the manufacturer's warranty, code agency evaluation
3 reports, and as required by local authority having jurisdiction.
4 Backup Battery: Tested per the Operation and Maintenance Manual.
5 Provide test documentation.
6

7 **PART 2 - PRODUCTS**

8 9 **FIRE SHUTTER (FS OPTION 1)**

10 Basis of Design Manufacturer: Model 3000 Horizontal Fire Curtain by Smoke Guard, 287 Maple Grove,
11 Boise, Idaho 83704 www.smokeguard.com
12

13 Subject to compliance with the requirements of this Section, including quality assurance, code
14 requirements, dimensional properties, and functional operation, products by other manufacturers may be
15 considered.
16

17 Provide complete fire shutter assembly to meet 2-hour rated horizontal opening protection per UL 10B and
18 as indicated herein.
19

20 Shutter Fabric: Glass filament fabrics of glass fiber material coated on one side. Rating: 2 hours.
21

22 Side Guide Assembly: Manufacturer's standard.
23

24 Leading Edge: Manufacturer's standard.
25

26 Electrical Requirements: Include end of line diode at initiating device.
27

28 Control System:

29 ETL listed to UL 864.

30 With battery backup.
31

32 Finishes:

33 Galvanized, field finished as noted.
34

35 **FIRE SHUTTER (FS OPTION 2)**

36 Basis of Design Manufacturer: Model H200-G as manufactured by McKeon Door Company.
37

38 Subject to compliance with the requirements of this Section, including quality assurance, code
39 requirements, dimensional properties, and functional operation, products by other manufacturers may be
40 considered.
41

42 Provide complete fire shutter assembly to meet 2-hour rated horizontal opening protection per UL 10B and
43 as indicated herein.
44

45 General: Each unit shall consist of an interlocking slat curtain designed to travel in a horizontal
46 plane, smoothly and without binding. Curtain shall be driven to the open and close position by a
47 positive action sprocket drive, without the use of cables or counterbalance weights.
48

49 Curtain: Shall be fabricated of galvanized, interlocking, steel slats with an approximate cross
50 section not less than 3" wide by 7/8" deep.
51

52 Leading and Receiving Edges: Steel members, designed to provide tight fitting closure.
53

1 Tracks: Not less than 1/8" thick steel, provided with an integral locking bar to lock and retain
2 coiling curtain in place.

3
4 Perimeter Smoke Seals: Internal, fully concealed UL Classified smoke seals located within the
5 head track and coil box assembly. Externally mounted smoke seals shall not be acceptable.
6

7 Counterbalance Assemblies: Fire shutter shall be counterbalanced by means of adjustable steel
8 helical torsion springs attached to shaft enclosed in pipe with required mounting blocks for
9 attachment of curtain. Torsion springs shall be anchored to the same shaft and held in position by
10 the same adjusting wheel accessible from outside the barrel assemblies.
11

12 Coil Box: Shall be provided to entirely enclose coiled curtain and counterbalance assemblies. Coil
13 box cover shall be of a rectangular design fabricated of 22-gauge galvanized sheet steel.
14

15 Electric Motor Operator: Fire shutter shall be provided with a compact power unit designed and
16 built by the shutter manufacturer. Operator shall be equipped with an adjustable screw-type limit
17 switch to break the circuit at termination of travel. High efficiency planetary gearing running in an
18 oil bath, shall be furnished together with a centrifugal governor, magnetic operated brake and a
19 fail-safe magnetic release device, completely housed to protect against damage, dust and moisture.
20 An efficient overload protection device, which will break the power circuit and protect against
21 damage to the motor windings shall be integral with the unit. Operator is to be housed in a NEMA
22 type 1 enclosure.

23 Motor: Shall be intermediate duty, thermally protected, ball bearing type with a class A
24 or better insulation. Size: 3/4 Horsepower, minimum.

25 Starter: Shall be size "0" magnetic reversing starter, across the line type with mechanical
26 and electrical interlocks, with 10-amp continuous rating and 24-volt control
27 circuit.

28 Reducer: Planetary gear type, 80% efficiency minimum.

29 Brake: Magnetically activated, integral within the operator's housing.

30 Control Station: Provide flush mount key switch control station marked open, close and
31 stop.
32

33 Self-Closing Mechanism: Fire shutter shall be designed with a centrifugal governor as an integral
34 part of the operator's construction. The automatic release mechanism shall be activated by smoke
35 detector or fire alarm. When activated the shutter is released and begins to close due to the
36 captured torsion spring force. The speed of the shutter shall be governed by a centrifugal governor,
37 designed to match the normal operating speed of the shutter, at a rate of not greater than 7" per
38 second or less than 4" per second. The fire shutter shall self-close under its own power. Battery
39 back-up systems to achieve self-closing are not acceptable.
40

41 Magnetic Release with 10 Second Time Delay: A fail-safe magnetic release device shall be built
42 into the operator as an integral part of the release mechanism. When power is interrupted to the
43 release mechanism by the smoke detector or fire alarm, the shutter shall begin to self-close. In the
44 event of power failure, the time delay shall prevent the fire shutter from closing for a period of 10
45 seconds. Once the 10 seconds have lapsed, the fire shutter shall self-close without the aid of
46 electricity or battery back-up systems. Once power has been restored the automatic reset time
47 delay as well as the fire shutter shall reset themselves.
48

49 Obstruction Sensing Device: The fire shutter shall be designed with a radio activated obstruction
50 sensing safety edge. In the event that the safety edge meets an obstruction during the normal
51 closing operation, the shutter shall stop, reverse and return to the open position. In the event the
52 safety edge meets an obstruction during the self-closing operation, the shutter shall reverse and
53 attempt to close three times. In the event that the obstruction has not been removed during the
54 third attempt, the shutter shall come to rest on the obstruction and once the obstruction has been
55 removed the fire shutter shall continue to the fully closed position.
56

Easy Trip Test Feature: The fire shutter shall be designed so that it may be trip tested simply by cutting power to the operator. By turning the power switch off, the shutter shall self-close. Once the shutter has satisfactorily closed, it shall be reset simply by turning the power back on. No ladders or tools shall be needed to reset the shutter or the time delay unit

Finish: After completion of fabrication, clean all metal surfaces to remove dirt and chemically treat to provide for paint adhesion. Curtain assembly is to receive a prime coat finish of .2 mils of epoxy primer and .8 mils of polyester paint in manufacturer's standard color finish.

PERFORMANCE / DESIGN CRITERIA

Test Operation and Fire Operation: controlled by building fire alarm system signal and test switch.

Shutter after Test and After Fire Alarm: Power operated motor in roller.

After Test and After Fire Alarm: Automatic. No service call needed. No replacement parts needed.

Label each fire shutter system with following information:

Manufacturer's name.

Label of quality control agency.

FABRICATION

Installation Configuration: Housing attached directly to structure at perimeter of opening and as indicated.

Fabricate and install mounting brackets, hardware, and fasteners needed to attach shutter assembly to building structure.

PART 3 - EXECUTION

EXAMINATION

Examine substrates to which work will be installed.

Verify related work performed under other sections is complete and in accordance with Shop Drawings.

Coordinate with responsible entity to perform corrective work on unsatisfactory substrates.

Commencement of work by installer is acceptance of substrate.

Coordinate work with other Division contractors, including for concrete removal and metal fabrications.

Coordinate electrical interface and connection with Division 26.

INSTALLATION

Install fire shutter system components in accordance with manufacturer's installation instructions and as required to meet applicable codes.

FIELD QUALITY CONTROL

Field Test: Follow manufacturer's cycle test procedures.

Notify Owner's Representative, local Fire Marshal and alarm sub-contractor minimum one week in advance of scheduled testing.

Complete maintenance service record.

DEMONSTRATION

Demonstrate required testing and maintenance procedures to Owner's Representative.

END OF SECTION

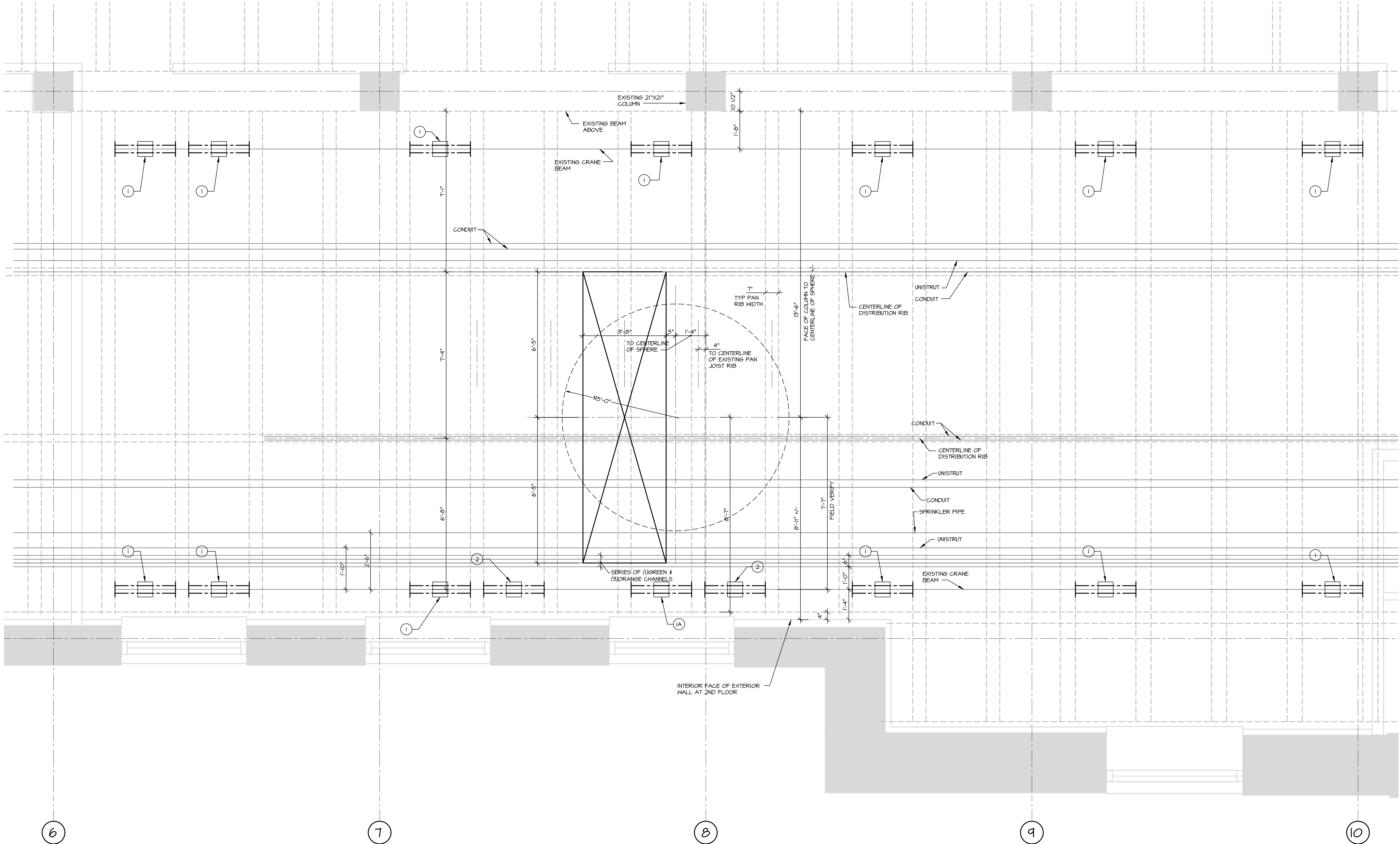
UWSA PROJECT NO: A-17-003

MSN: 0057-1701

08 34 94 - 5

(Addendum No. 1)

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SECOND FLOOR FRAMING PLAN

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

KEYED NOTES

- 1 EXISTING CRANE RUNWAY ATTACHMENT POINT TO REMAIN
- 1A EXISTING CRANE RUNWAY ATTACHMENT POINT TO BE REMOVED. ANCHORS AT EAST END TO BE REUSED FOR ATTACHMENT OF NEW HEADER AT OPENING
- 2 NEW CRANE RUNWAY ATTACHMENT POINTS

NOTE REGARDING EXISTING CONDITIONS:

INFORMATION PERTAINING TO EXISTING CONDITIONS GIVEN ON THESE STRUCTURAL DRAWINGS REPRESENTS TO THE BEST OF OUR KNOWLEDGE THE ACTUAL EXISTING FIELD CONDITIONS. R.A. SMITH, INC. MAKES NO WARRANTY AS TO THEIR ACCURACY. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS IMPERATIVE TO THE NEW WORK. REPORT DISCREPANCIES BETWEEN THE DRAWINGS AND FIELD CONDITIONS TO THE A/E FOR REVIEW. ANY WORK PERFORMED PRIOR TO RESOLUTION OF DISCREPANCIES BY THE A/E IS SUBJECT TO REMOVAL AND REPLACEMENT AT NO ADDITIONAL COST TO THE CONTRACT.

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CREATIVITY BEYOND ENGINEERING

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job number: 1170314

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Project Address:
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Sterling Hall Renovation for TREX Physics
University of Wisconsin-Madison
Madison, Wisconsin

Sheet Title:
SECOND FLOOR FRAMING PLAN (FS OPTION 1)

Revisions:

No.	Date:	Description:
1	05/03/18	Addendum 1

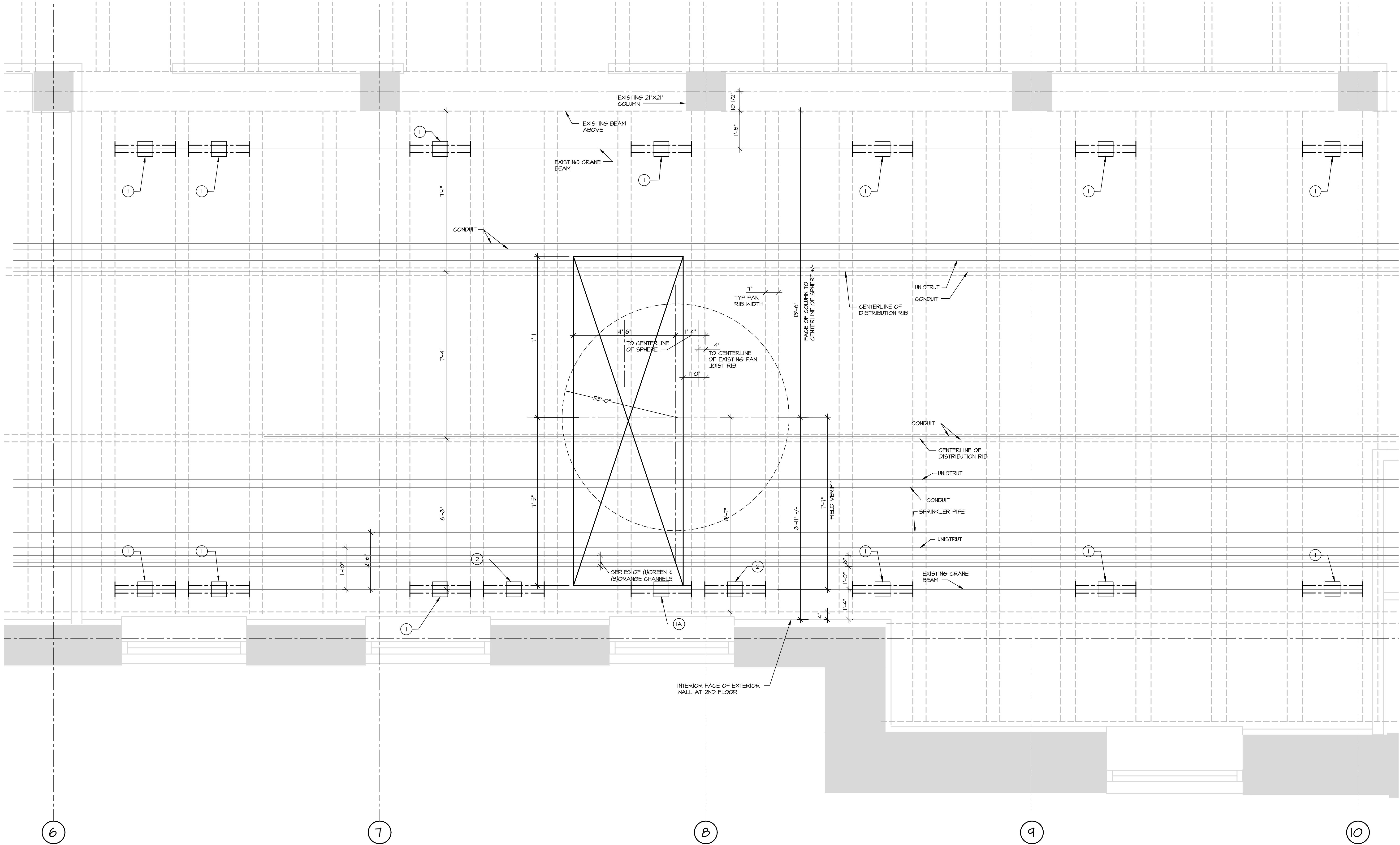
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Project Numbers: UWWSA: A-17-003
MSN: 0057-1701

Set Type: BD

Date Issued: 04/06/2018

Sheet Number: S101.1



1 SECOND FLOOR FRAMING PLAN

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

KEYED NOTES

- 1 EXISTING CRANE RUNWAY ATTACHMENT POINT TO REMAIN
- 1A EXISTING CRANE RUNWAY ATTACHMENT POINT TO BE REMOVED. ANCHORS AT EAST END TO BE REUSED FOR ATTACHMENT OF NEW HEADER AT OPENING
- 2 NEW CRANE RUNWAY ATTACHMENT POINTS



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INFORMATION PERTAINING TO EXISTING CONDITIONS GIVEN ON THESE STRUCTURAL DRAWINGS REPRESENTS TO THE BEST OF OUR KNOWLEDGE THE ACTUAL EXISTING FIELD CONDITIONS. R.A. SMITH, INC. MAKES NO WARRANTY AS TO THEIR ACCURACY. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS IMPERATIVE TO THE NEW WORK. REPORT DISCREPANCIES BETWEEN THE DRAWINGS AND FIELD CONDITIONS TO THE A/E FOR REVIEW. ANY WORK PERFORMED PRIOR TO RESOLUTION OF DISCREPANCIES BY THE A/E IS SUBJECT TO REMOVAL AND REPLACEMENT AT NO ADDITIONAL COST TO THE CONTRACT.

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job number: 1170314

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1220 Linden Dr, Madison, WI 53706



Project Address:
475 North Charter Street
Madison, WI 53703

Sterling Hall Renovation for TREX Physics
University of Wisconsin-Madison
Madison, Wisconsin

Sheet Title:
SECOND FLOOR FRAMING PLAN (FS OPTION 2)

Revisions:

No.	Date:	Description:
1	05/03/18	Addendum 1

Graphic Scale: 0' 2' 4' 8' 12'

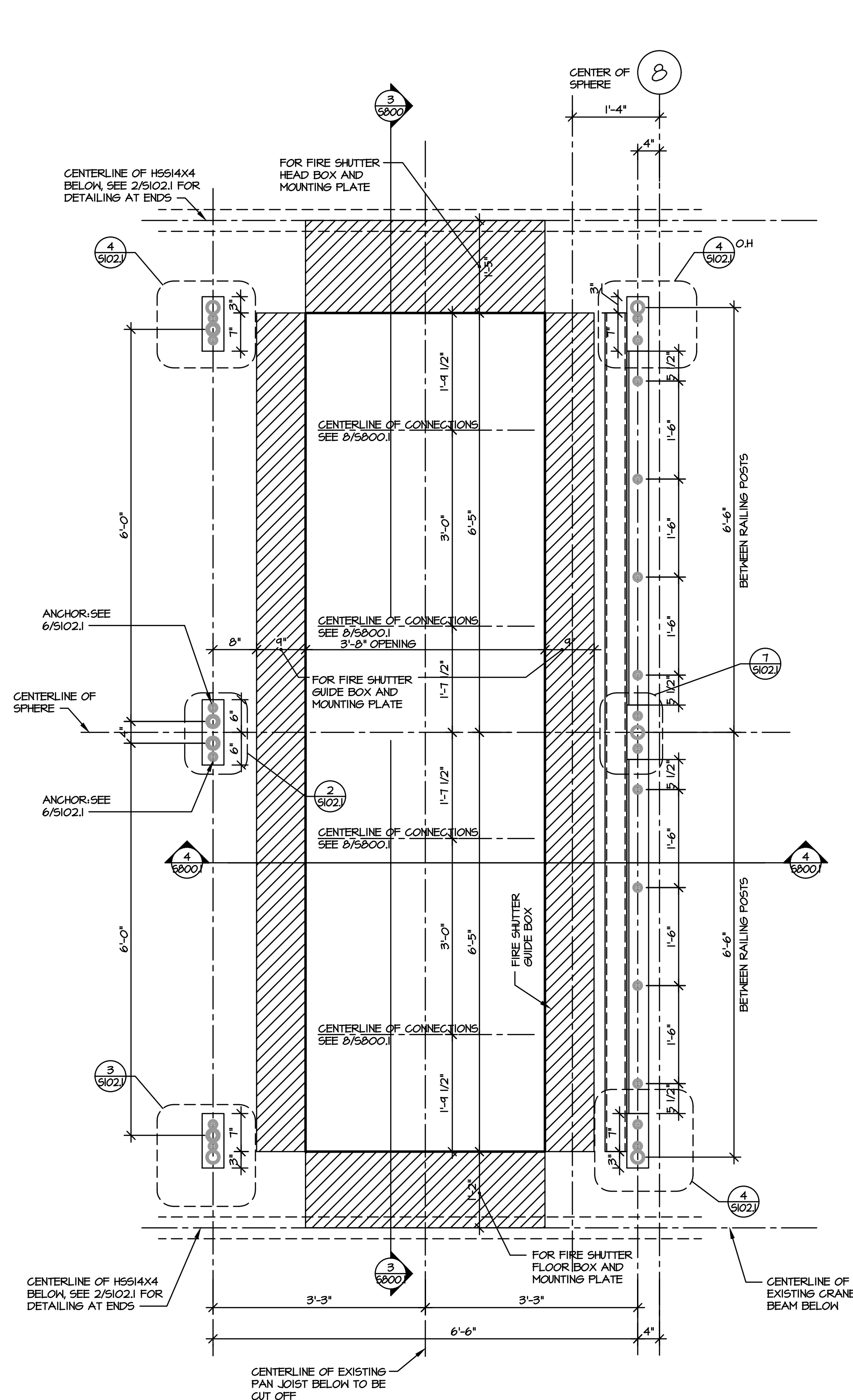
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MSN: 0057-1701

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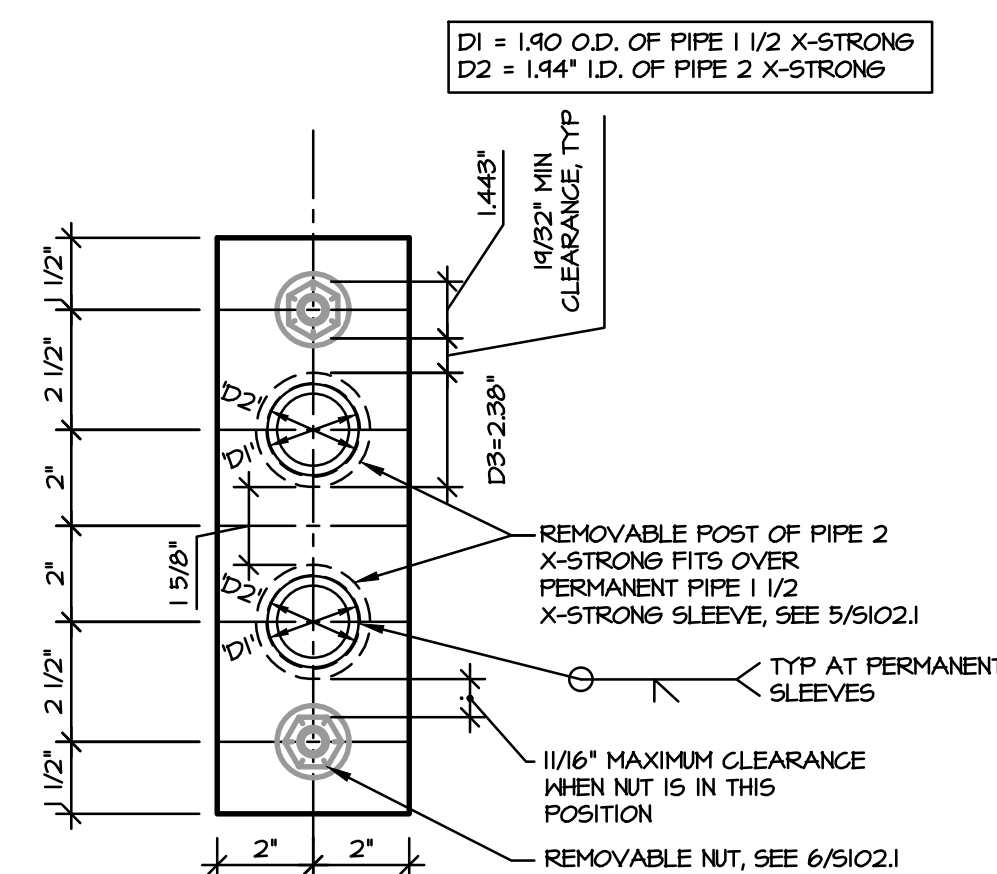
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Sheet Number: **S101.2**

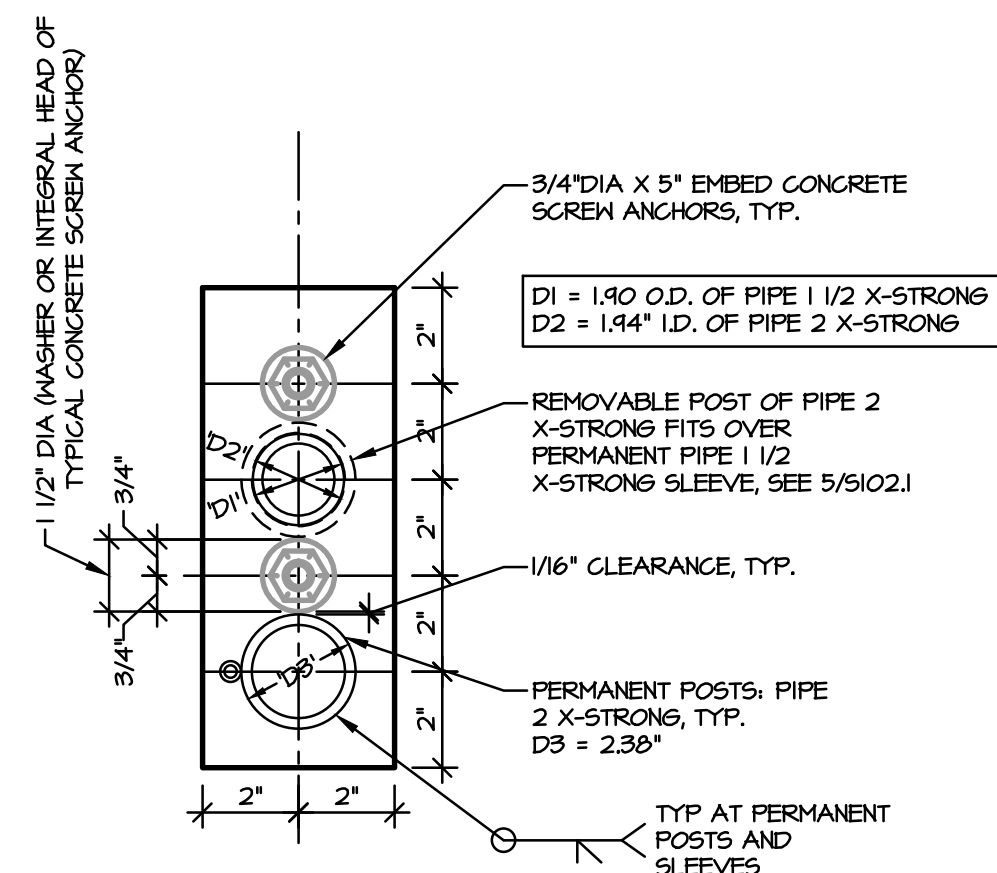
Revisions:		
No.	Date:	Description:
	05/03/18	Addendum 1
Graphic Scale		
Project Numbers:	UWSA: A-17-003 MSN: 0057-1701	
Set Type:	BD	
Date Issued:	04/06/2018	
Sheet Number	 S102.1	



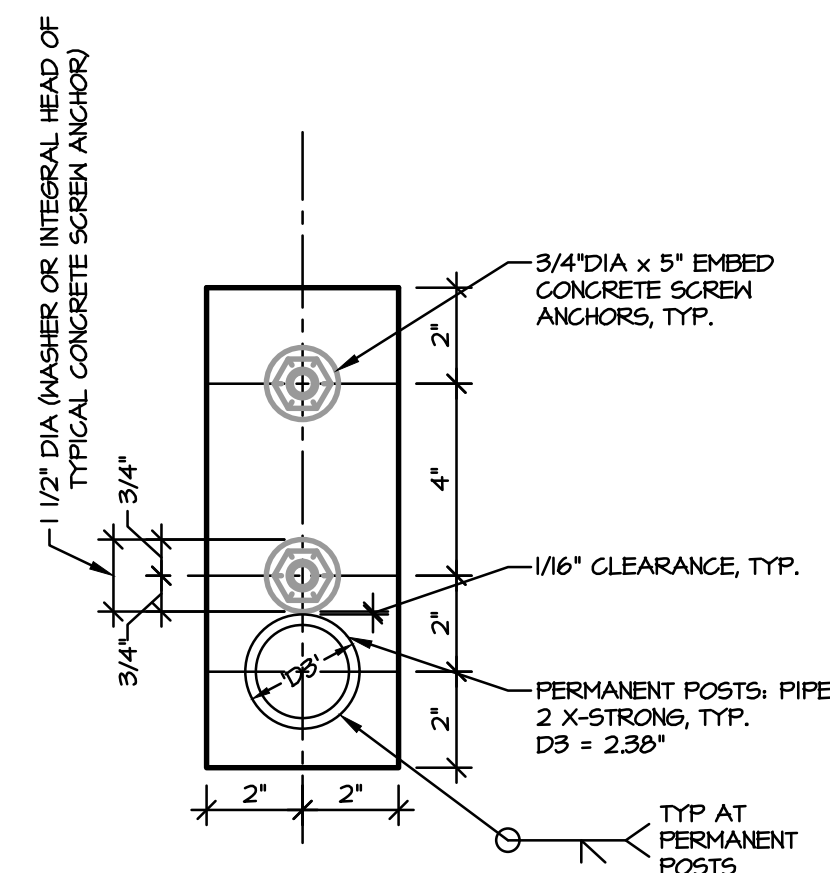
ENLARGED PLAN
SCALE: 3/4"=1'-0"



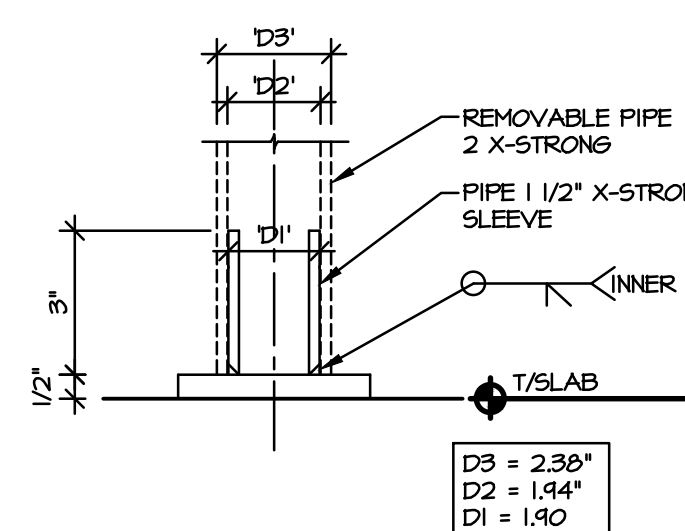
2 SECTION
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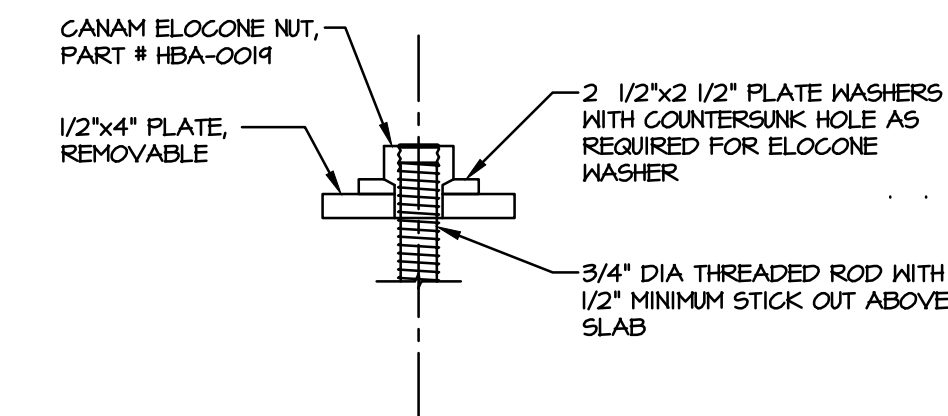
3 SECTION
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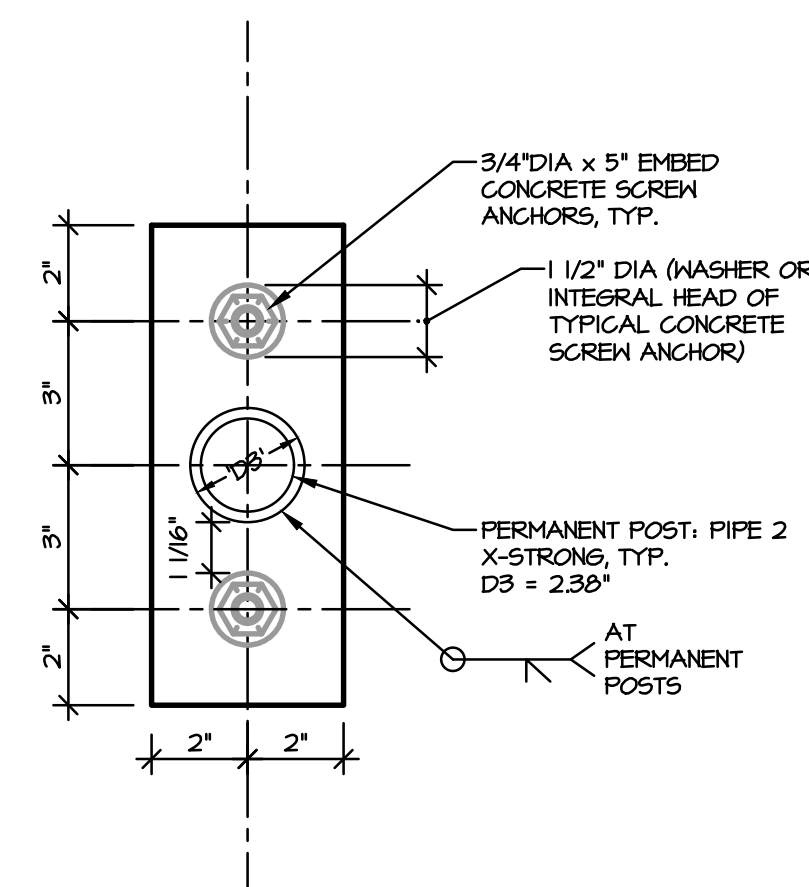
4 SECTION
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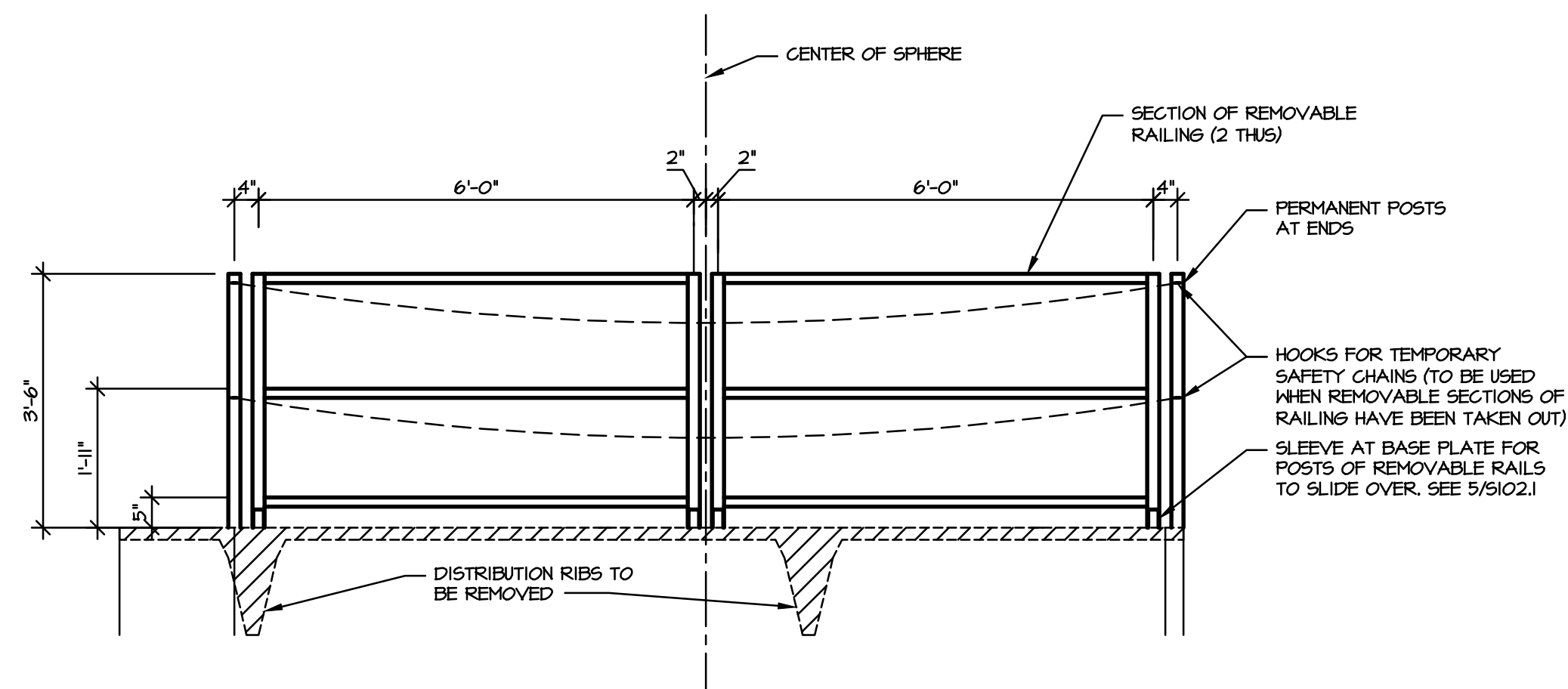
5 SECTION
S102.1 SCALE: NONE



6 SECTION
S102.1 SCALE:

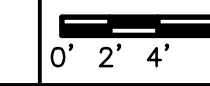


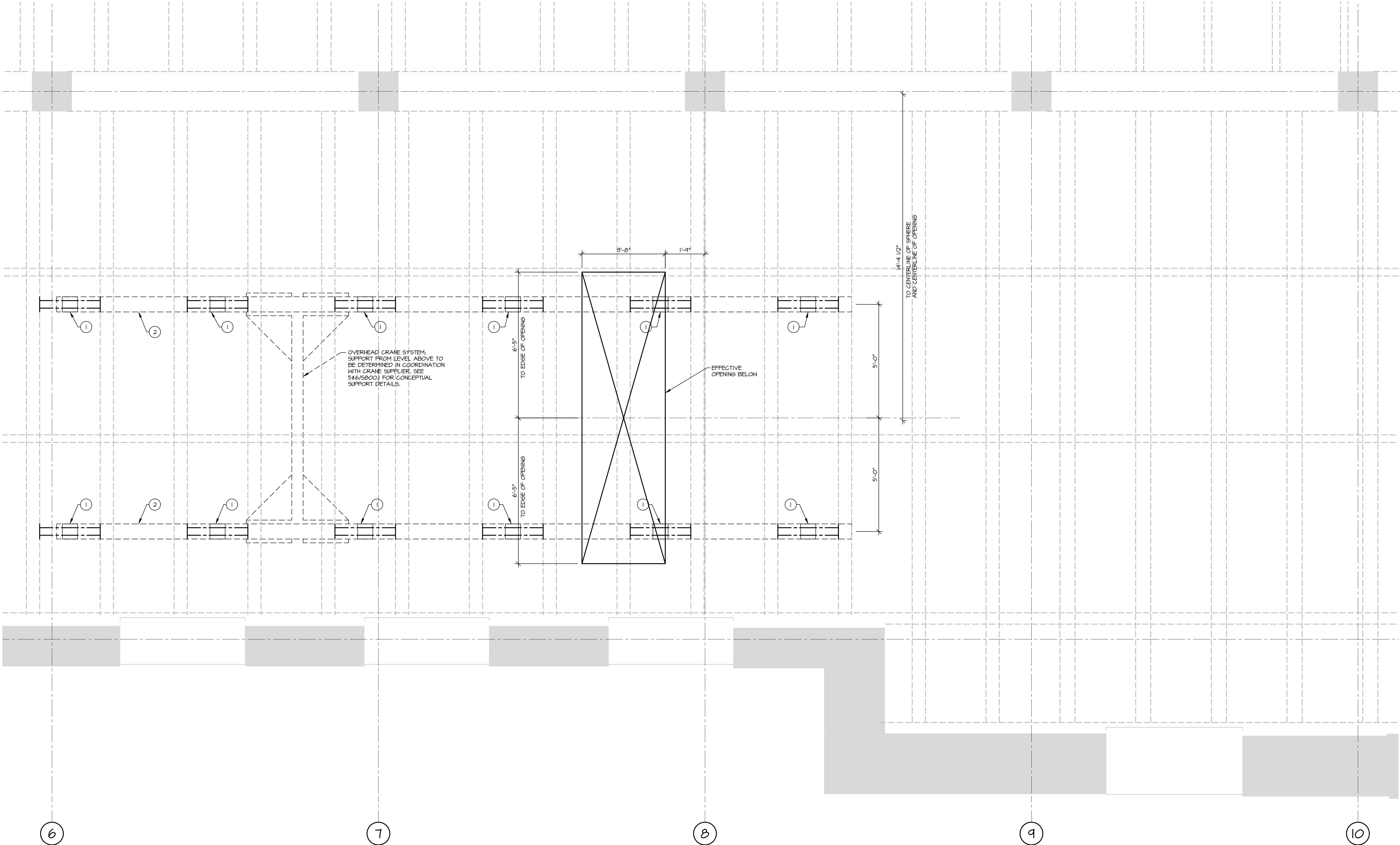
7 SECTION
S102.1 SCALE: NONE



8 RAILING ELEVATION
5102.1 SCALE: NONE



KEE architecture		
621 Williamson Street Madison, WI 53703		
Consultant: raSmith CONCEPT ARCHITECTURE 10345 W. Bluemound Road Brookfield, WI 53005-9938 (262) 761-1000 rsmith@raa.com job number: 1170314		
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UNIVERSITY OF WISCONSIN SYSTEM 		
Project Address: 475 North Charter Street Madison, WI 53703		
Sterling Hall Renovation for TREX Physics University of Wisconsin-Madison Madison, Wisconsin		
Sheet Title: ENLARGED PLAN & DETAILS (FS OPTION 2)		
Revisions:		
No.	Date:	Description:
	05/03/18	Addendum 1
Graphic Scale		
Project Numbers:	UWSA: A-17-003 MSN: 0057-1701	
Set Type:	BD	
Date Issued:	04/06/2018	
Sheet Number	S102.2	



1 THIRD FLOOR FRAMING PLAN
SCALE: 1/2"=1'-0"
KEYED NOTES
1 NEW CRANE RUNWAY ATTACHMENT POINTS, SEE 516/5800.1
2 NEW CRANE BEAMS, EACH APPROX 35FT LONG



NOTE REGARDING EXISTING CONDITIONS:
INFORMATION PERTAINING TO EXISTING CONDITIONS GIVEN ON THESE STRUCTURAL DRAWINGS REPRESENTS TO THE BEST OF OUR KNOWLEDGE THE ACTUAL EXISTING FIELD CONDITIONS. R.A SMITH, INC. MAKES NO WARRANTY AS TO THEIR ACCURACY. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS IMPERATIVE TO THE NEW WORK. REPORT DISCREPANCIES BETWEEN THE DRAWINGS AND FIELD CONDITIONS TO THE A/E FOR REVIEW. ANY WORK PERFORMED PRIOR TO RESOLUTION OF DISCREPANCIES BY THE A/E IS SUBJECT TO REMOVAL AND REPLACEMENT AT NO ADDITIONAL COST TO THE CONTRACT.

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Sterling Hall Renovation for TRES Physics
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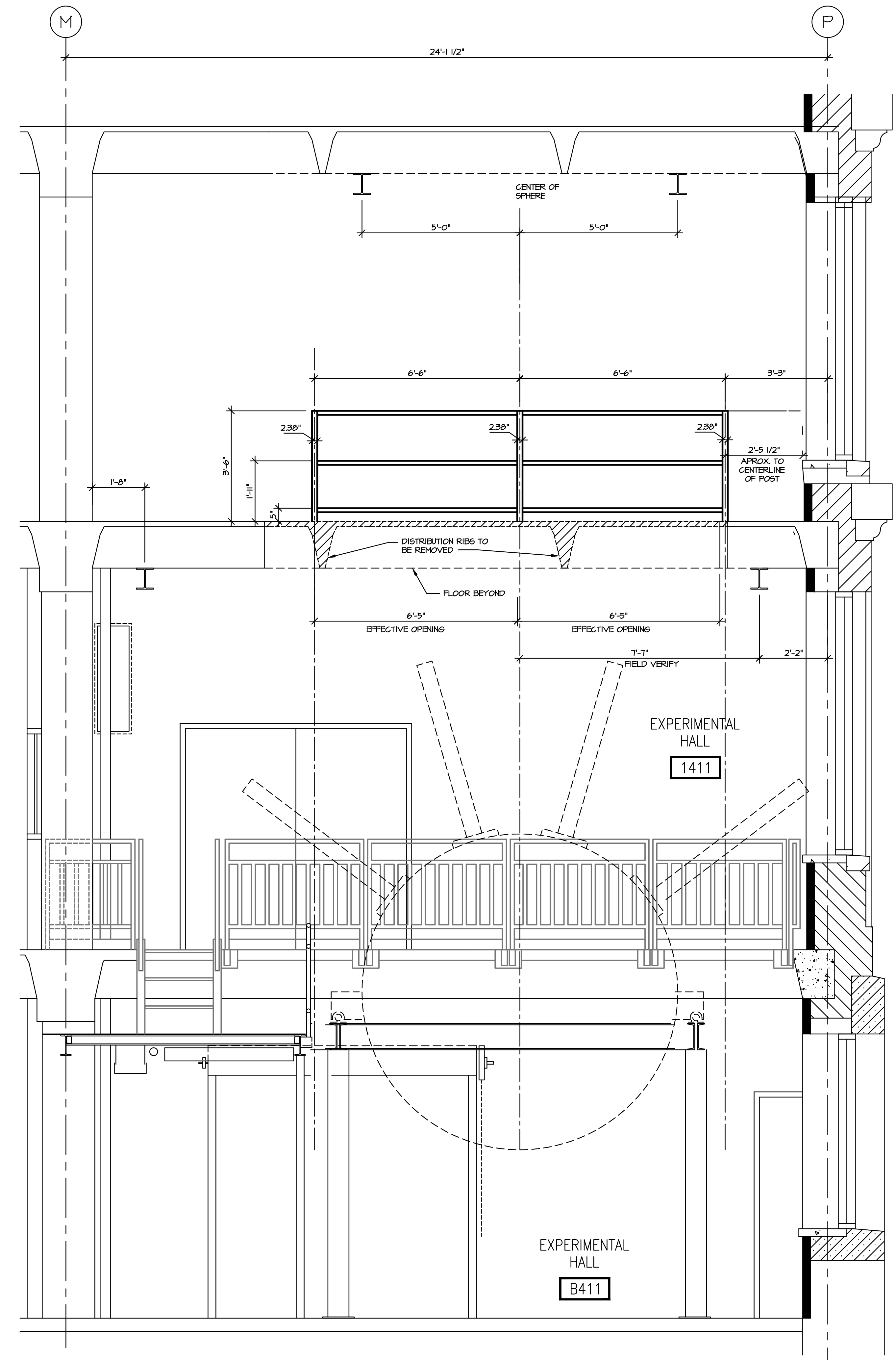
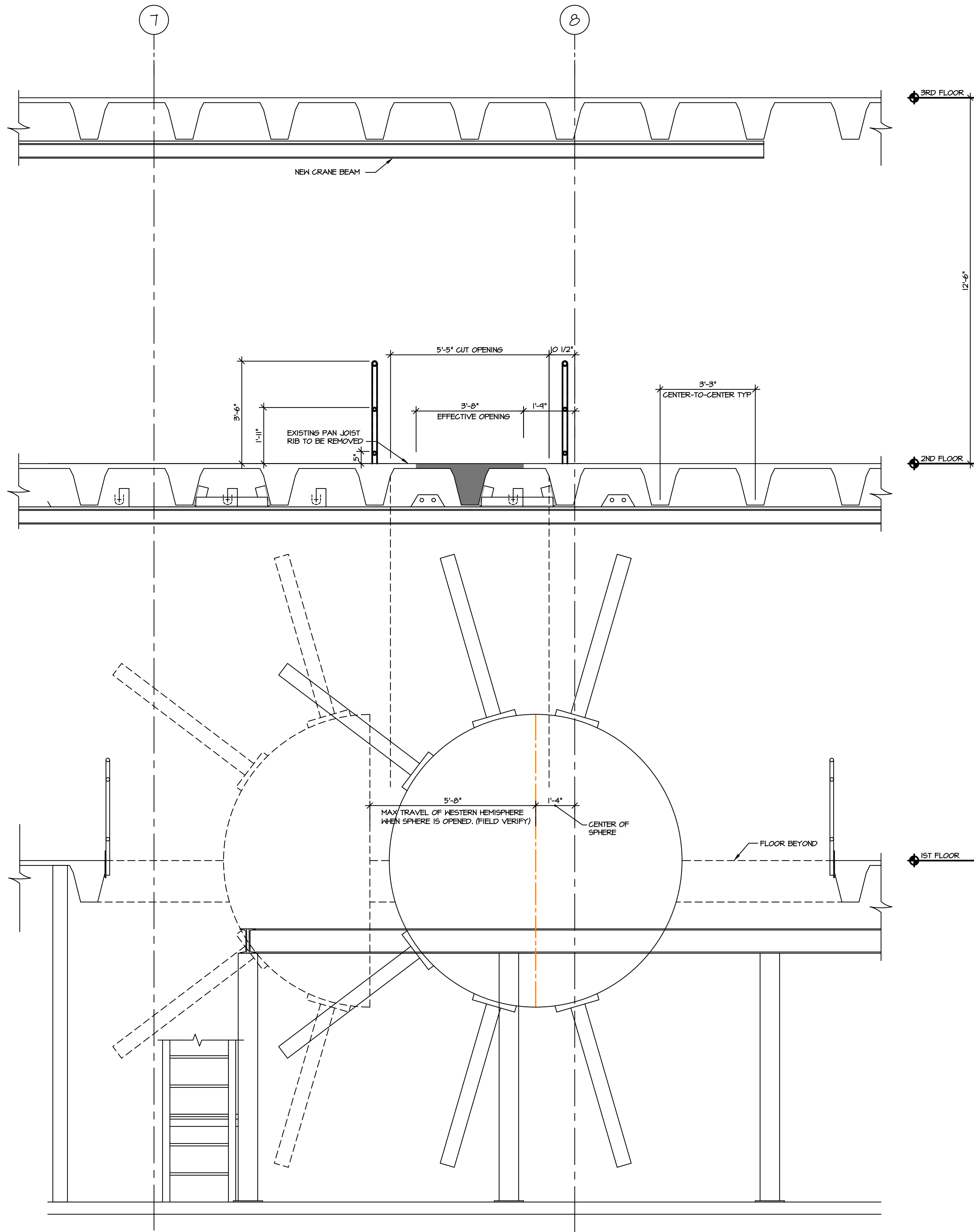
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THIRD FLOOR FRAMING PLAN (FS OPTION 1)

Revisions:

No.	Date:	Description:
1	05/03/18	Addendum 1

Graphic Scale	
Project Numbers:	UWSA: A-17-003 MSN: 0057-1701
Set Type:	BD
Date Issued:	04/06/2018
Sheet Number	S201.1





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Sterling Hall Renovation for TREX Physics
University of Wisconsin-Madison
Madison, Wisconsin

Sheet Title:
ELEVATIONS (FS OPTION 1)

Revisions:

No.	Date:	Description:
1	05/03/18	Addendum 1

Graphic Scale:

0' 2' 4' 8' 12'

Project Numbers:

UWSA: A-17-003
MSN: 0057-1701

Set Type:

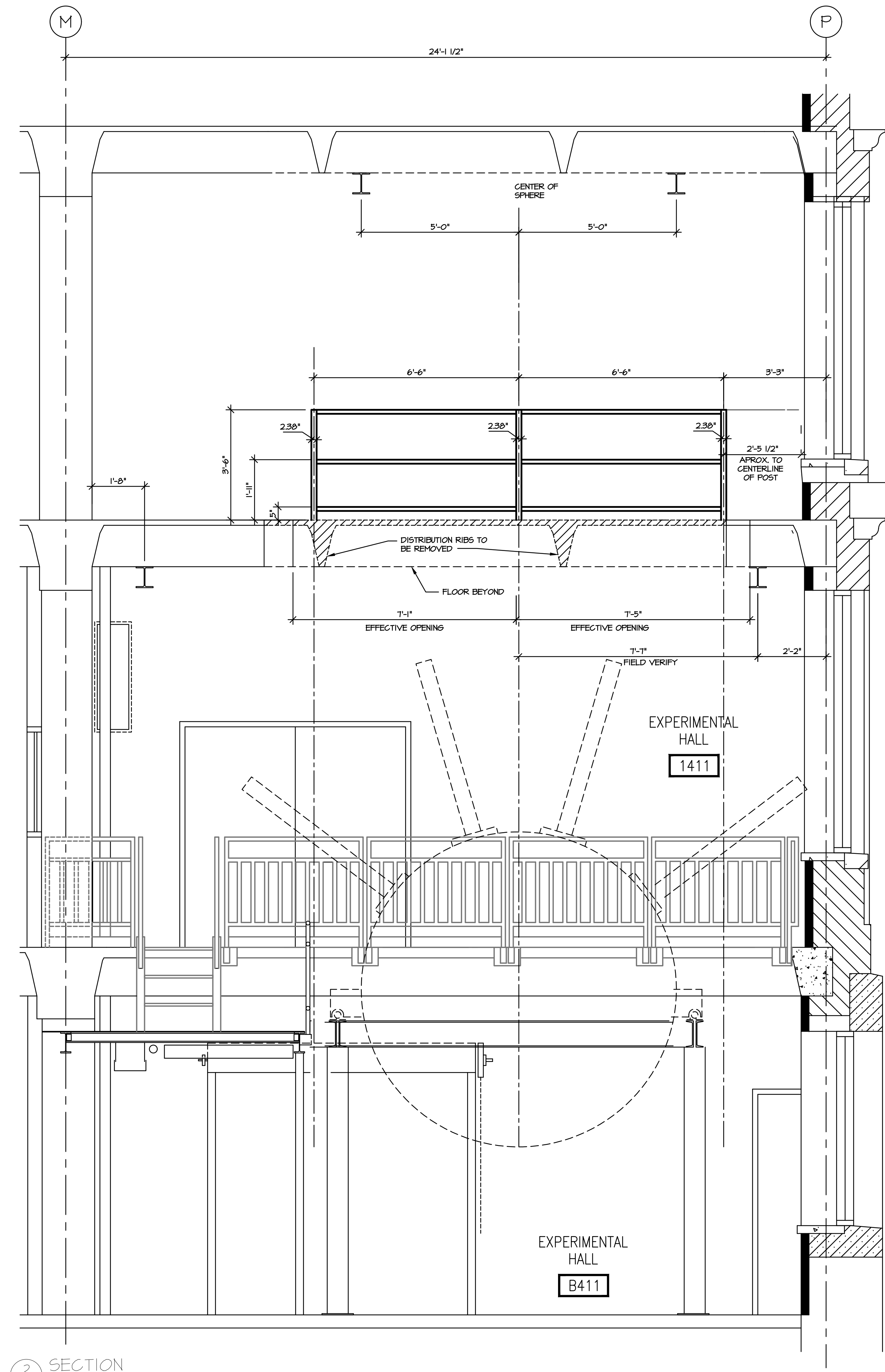
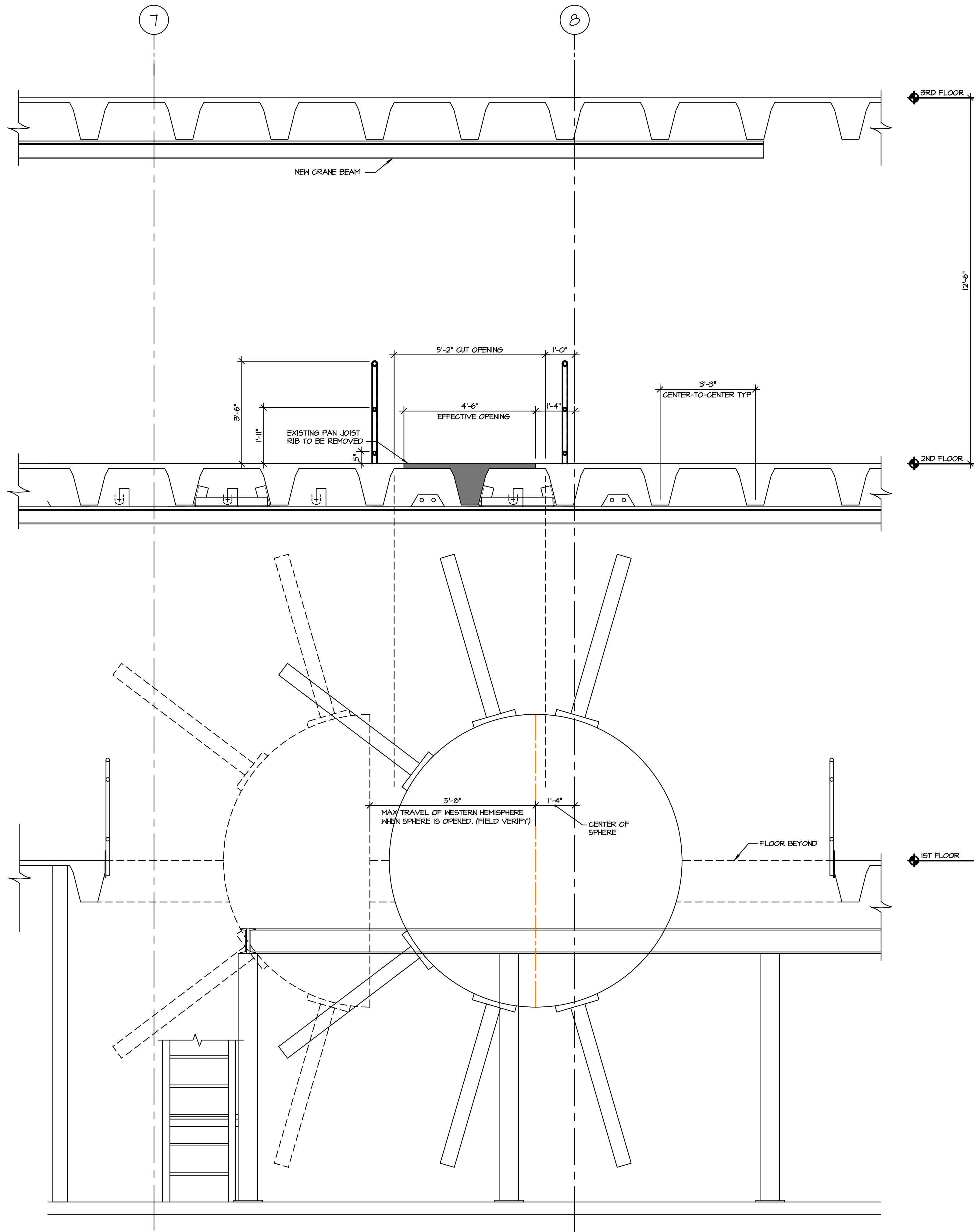
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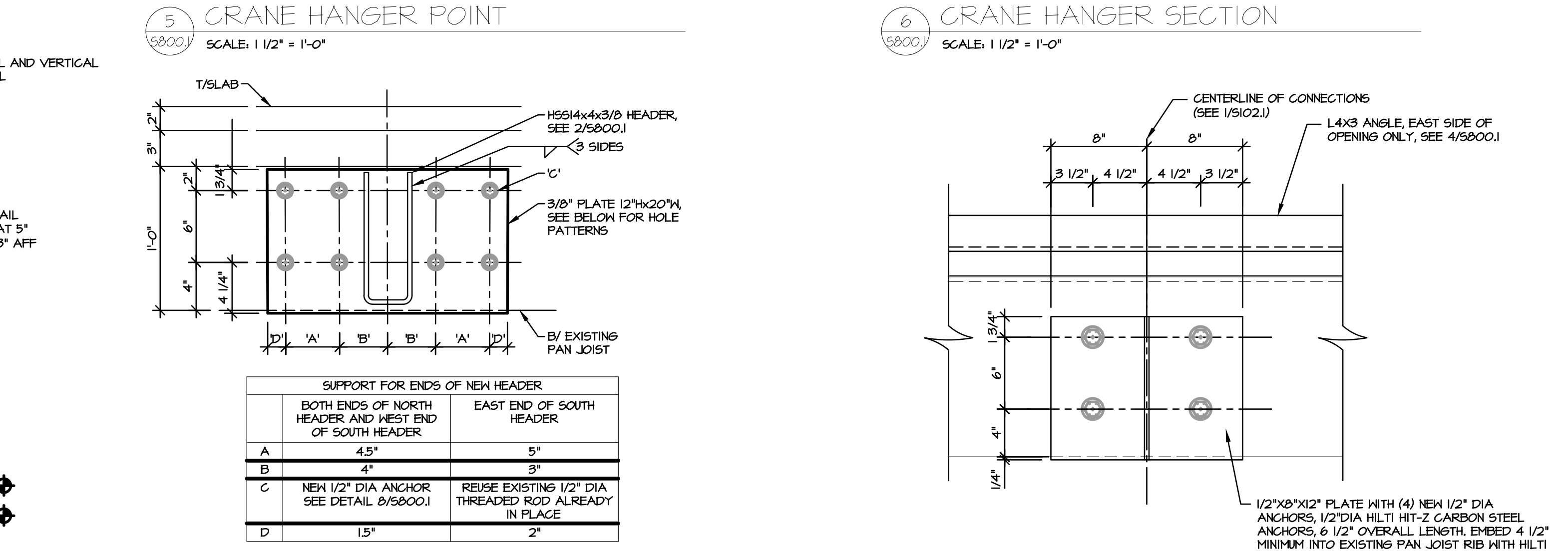
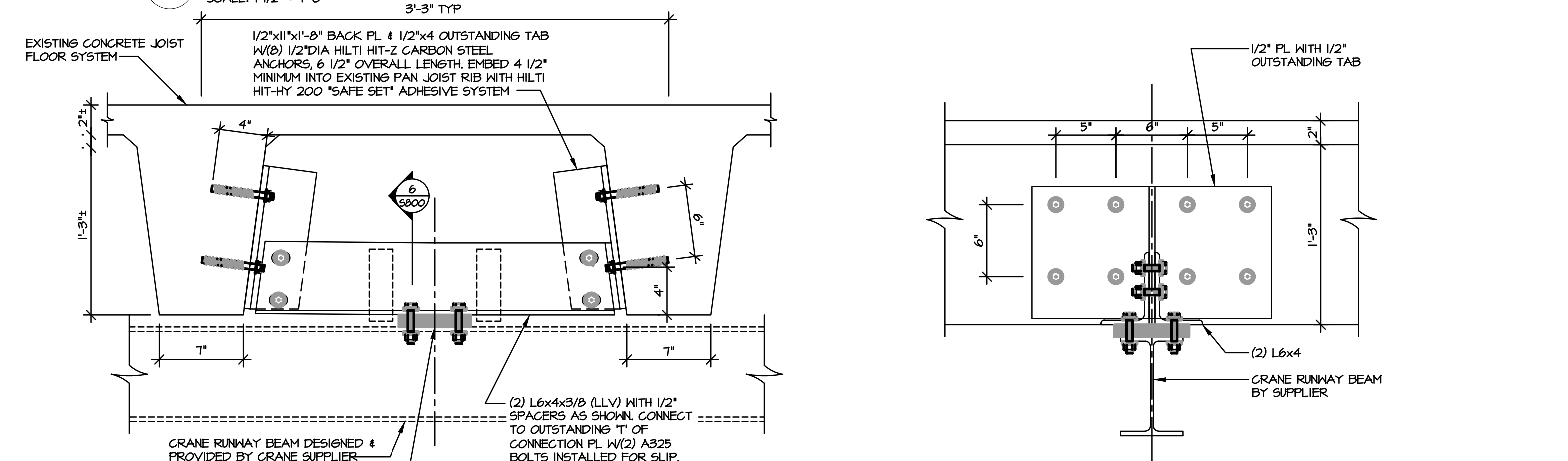
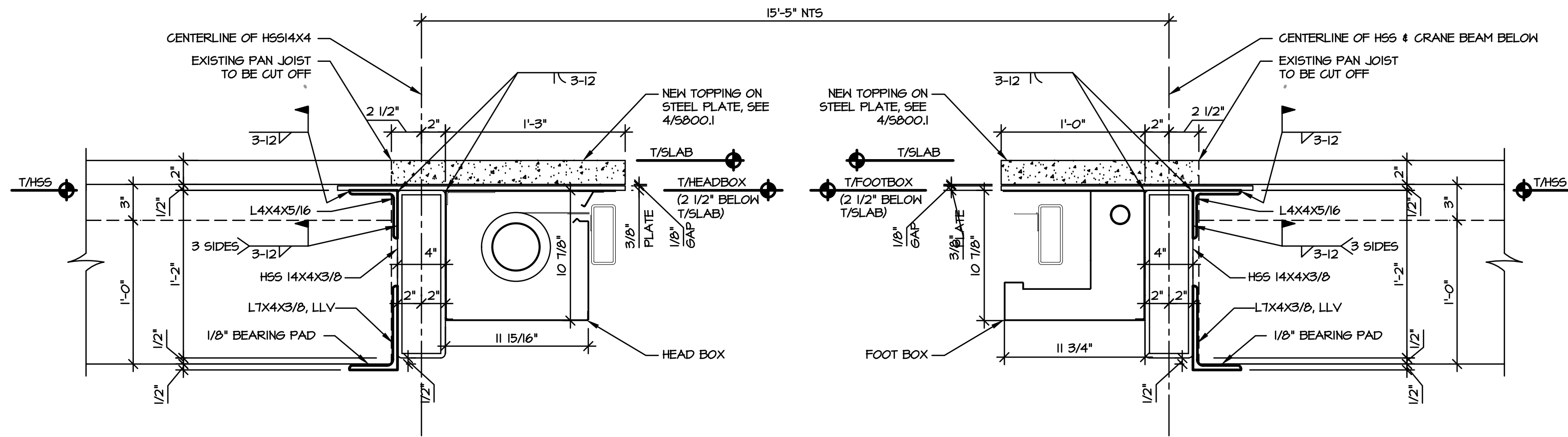
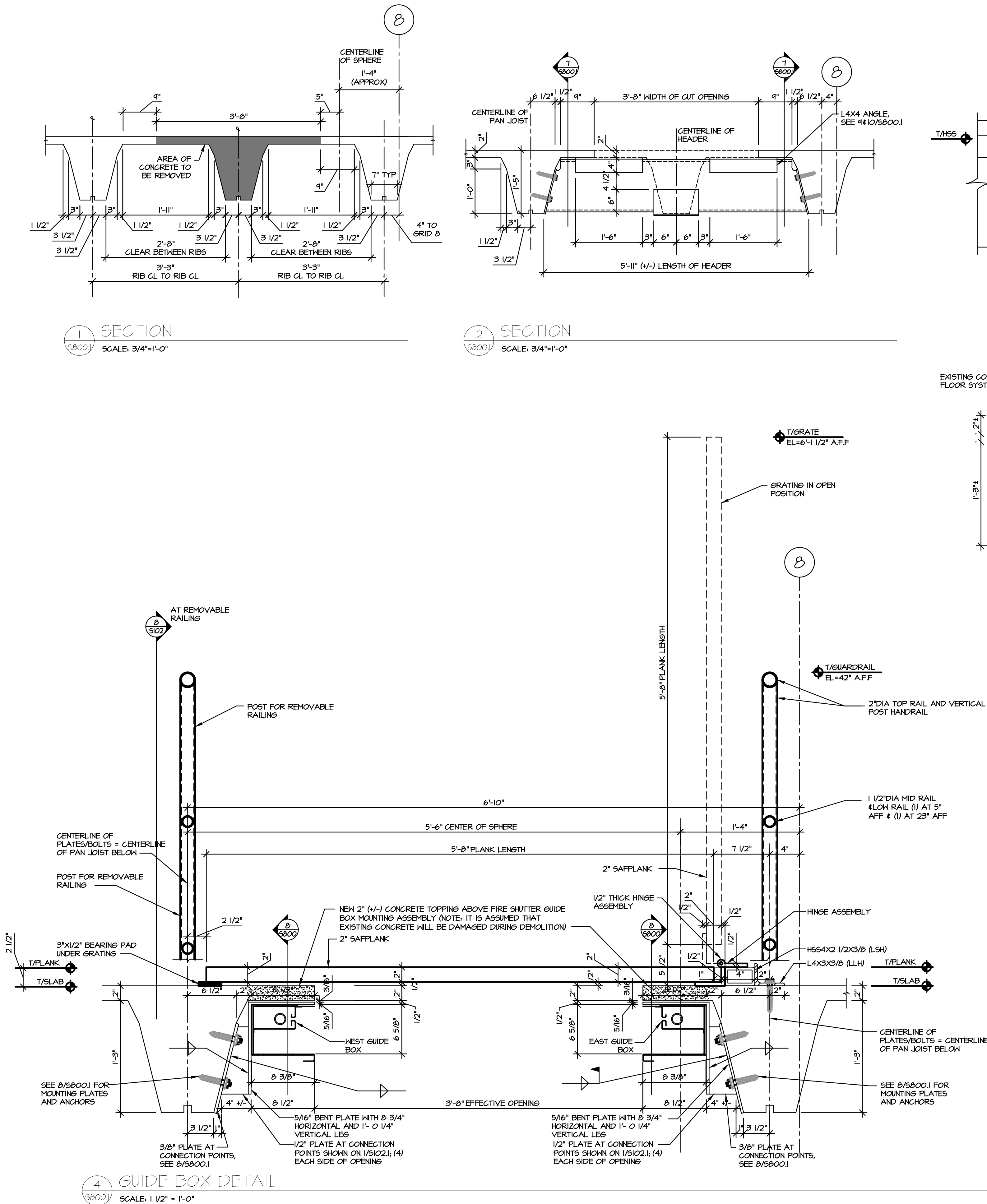
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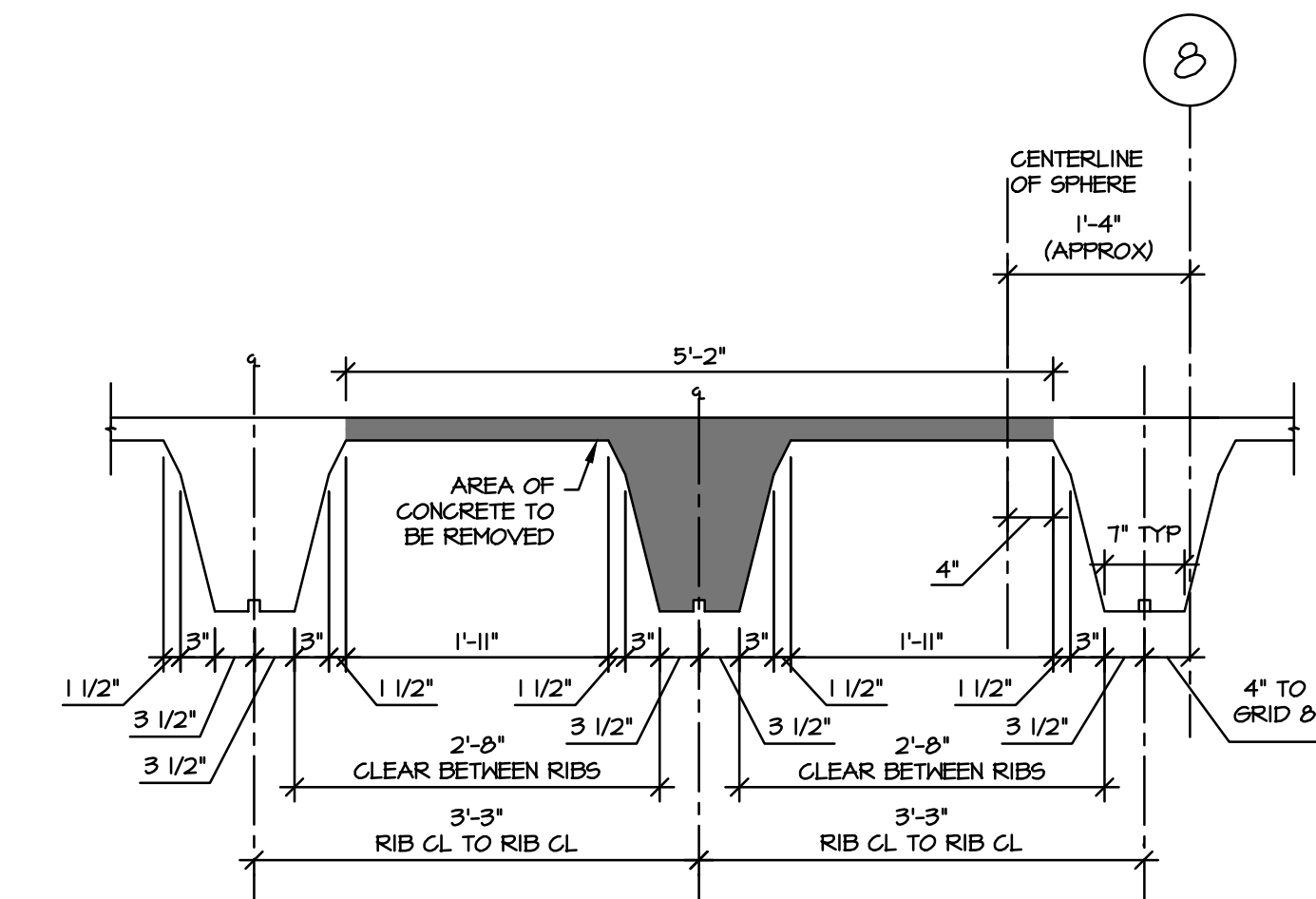
04/06/2018

Sheet Number:

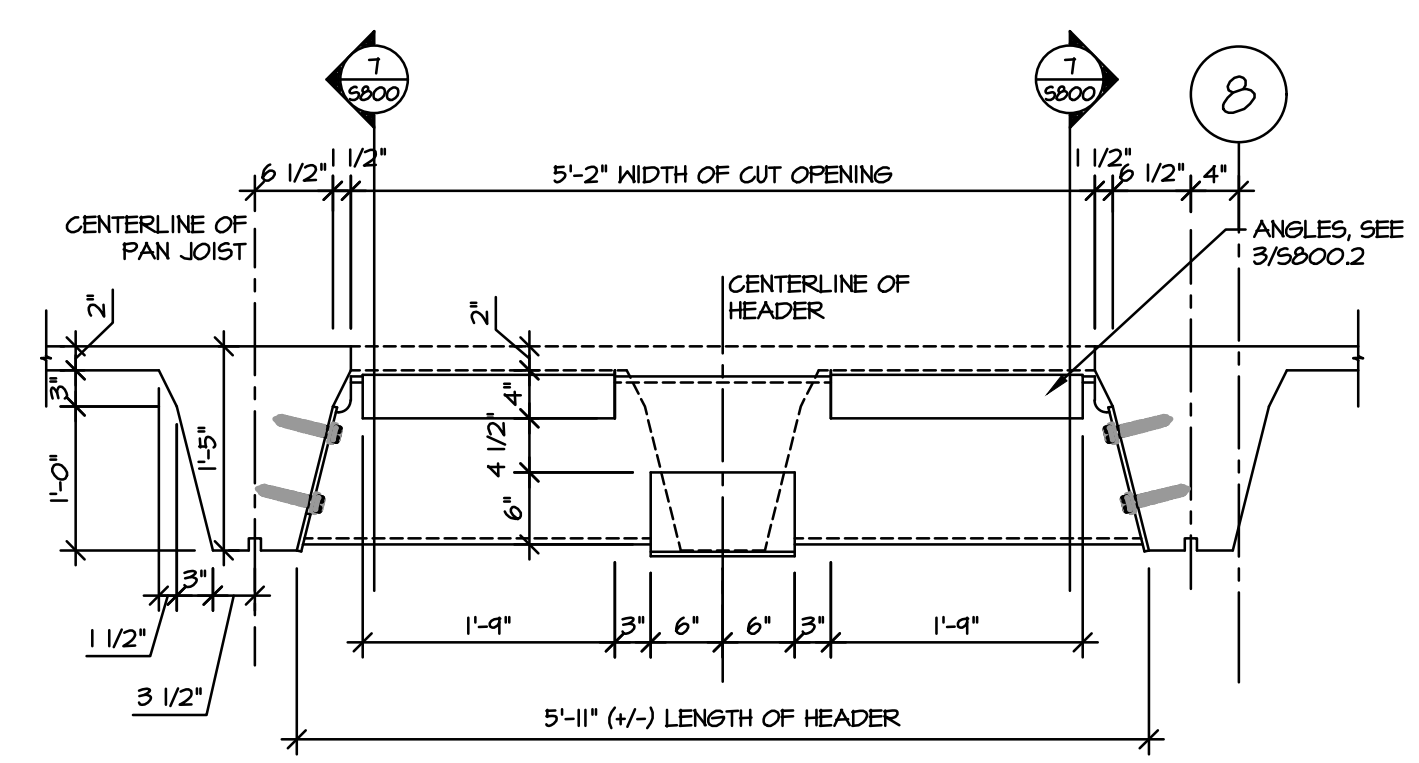
S301.1



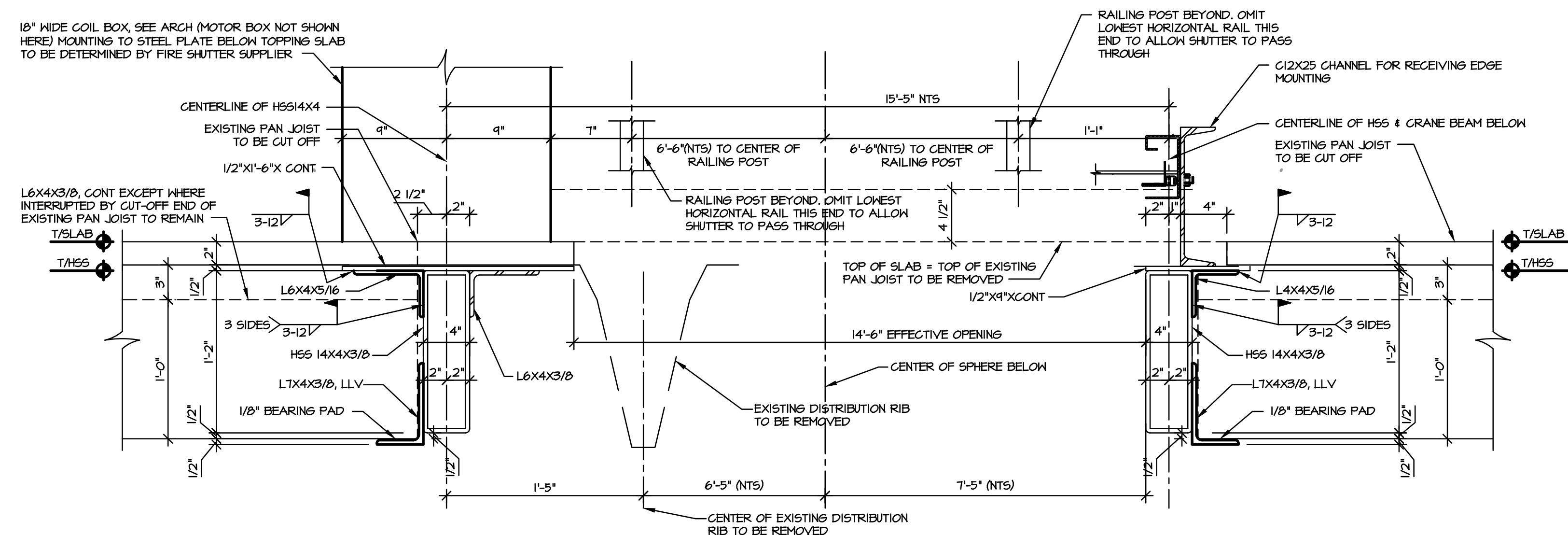




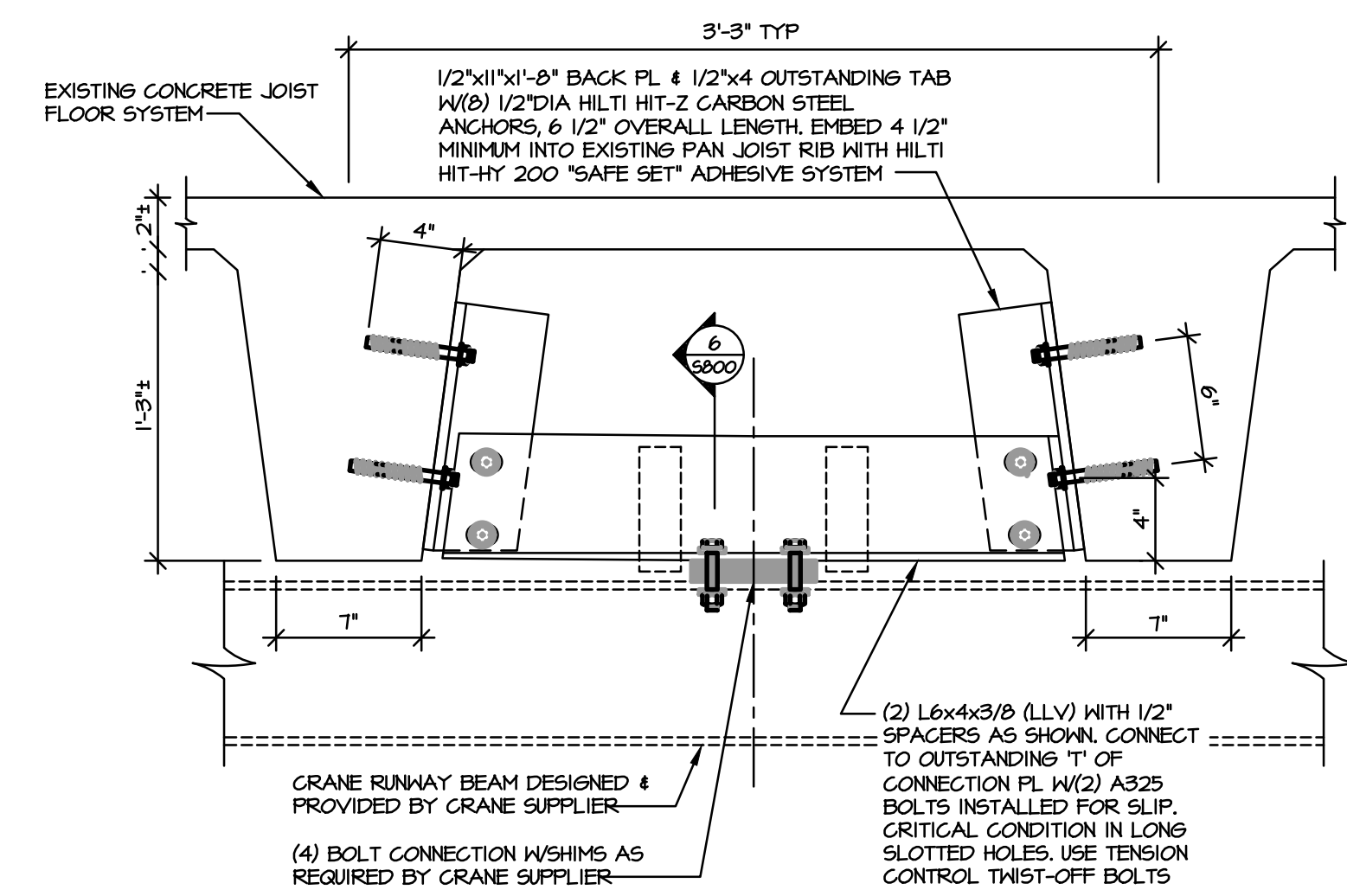
1 SECTION
S800.2 SCALE: 3/4"=1'-0"



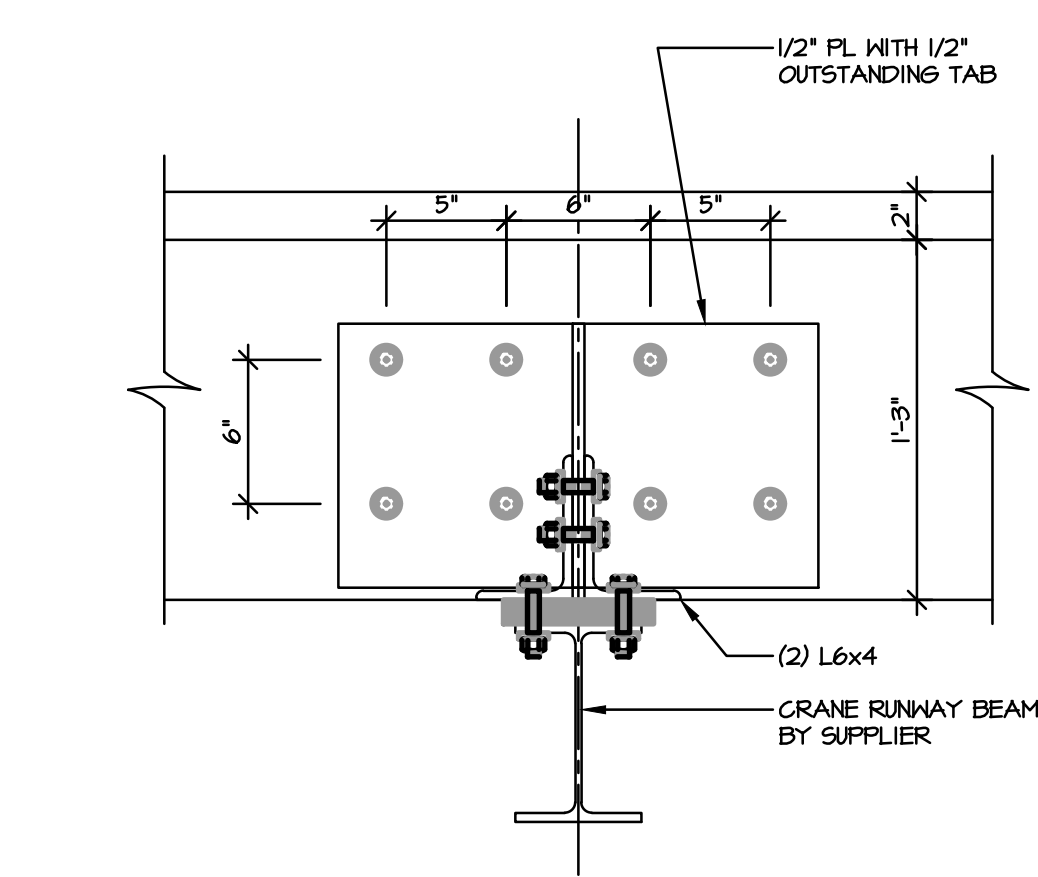
2 SECTION
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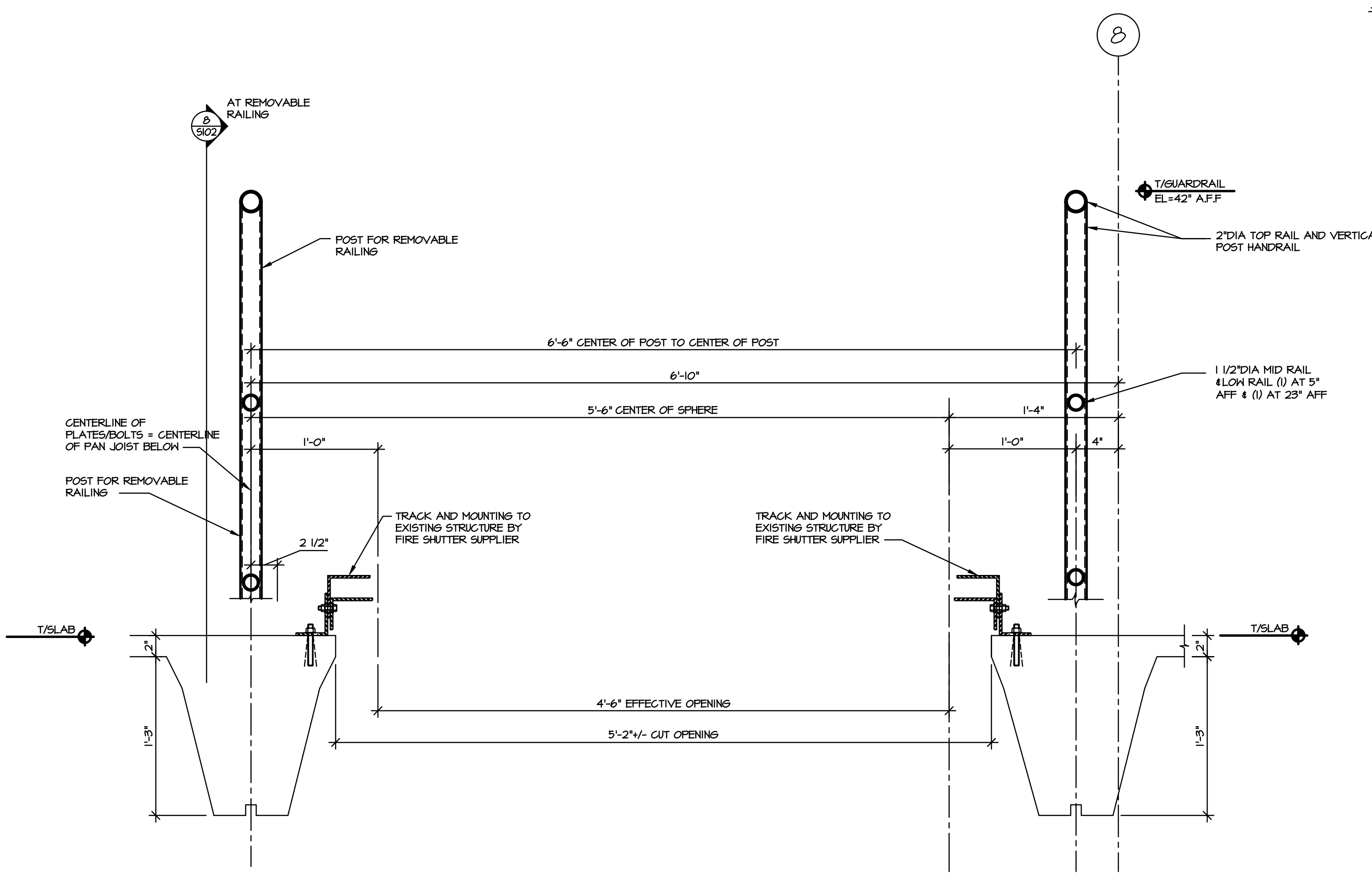
3 FIRE SHUTTER HEAD/FOOT BOX SECTION
S800.2 SCALE: 1 1/2" = 1'-0"



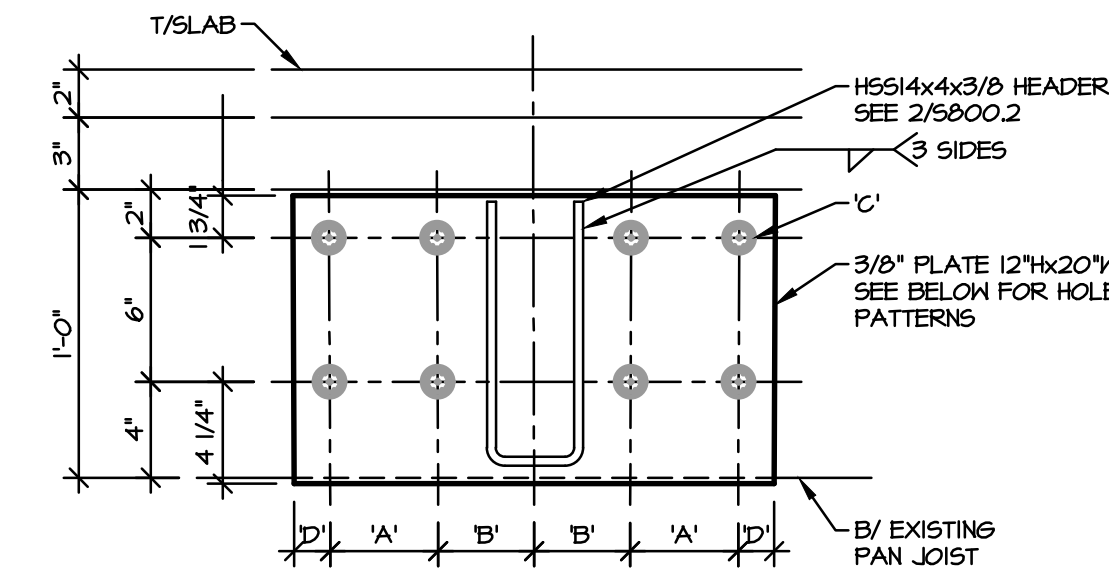
5 CRANE HANGER POINT
S800.2 SCALE: 1 1/2" = 1'-0"



6 CRANE HANGER SECTION
S800.2 SCALE: 1 1/2" = 1'-0"



4 GUIDE BOX DETAIL
S800.2 SCALE: 1 1/2" = 1'-0"



7 SECTION
S800.2 SCALE: NONE

SUPPORT FOR ENDS OF NEW HEADER		
BOTH ENDS OF NORTH HEADER AND WEST END OF SOUTH HEADER		EAST END OF SOUTH HEADER
A	4.5"	5"
B	4"	3"
C	NEW 1/2" DIA ANCHOR SEE DETAIL S800.2	REUSE EXISTING 1/2" DIA THREADED ROD ALREADY IN PLACE
D	15"	2"

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rsmith.com
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Sterling Hall Renovation for TREX Physics
University of Wisconsin-Madison
Madison, Wisconsin

Sheet Title:
DETAILS (FS OPTION 2)

Revisions:

No.	Date:	Description:
1	05/03/18	Addendum 1

Graphic Scale: 0' 2' 4' 8' 12'

Project Numbers: UWWSA: A-17-003
MSN: 0057-1701

Set Type: BD

Date Issued: 04/06/2018

Sheet Number: **S800.2**

Consultant

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Project Address:
475 North Charter Street

Sterling Hall Renovation for TREC Physics
University of Wisconsin-Madison
Madison, Wisconsin

Sheet Title:
Partial First Floor Plan (Demolition)

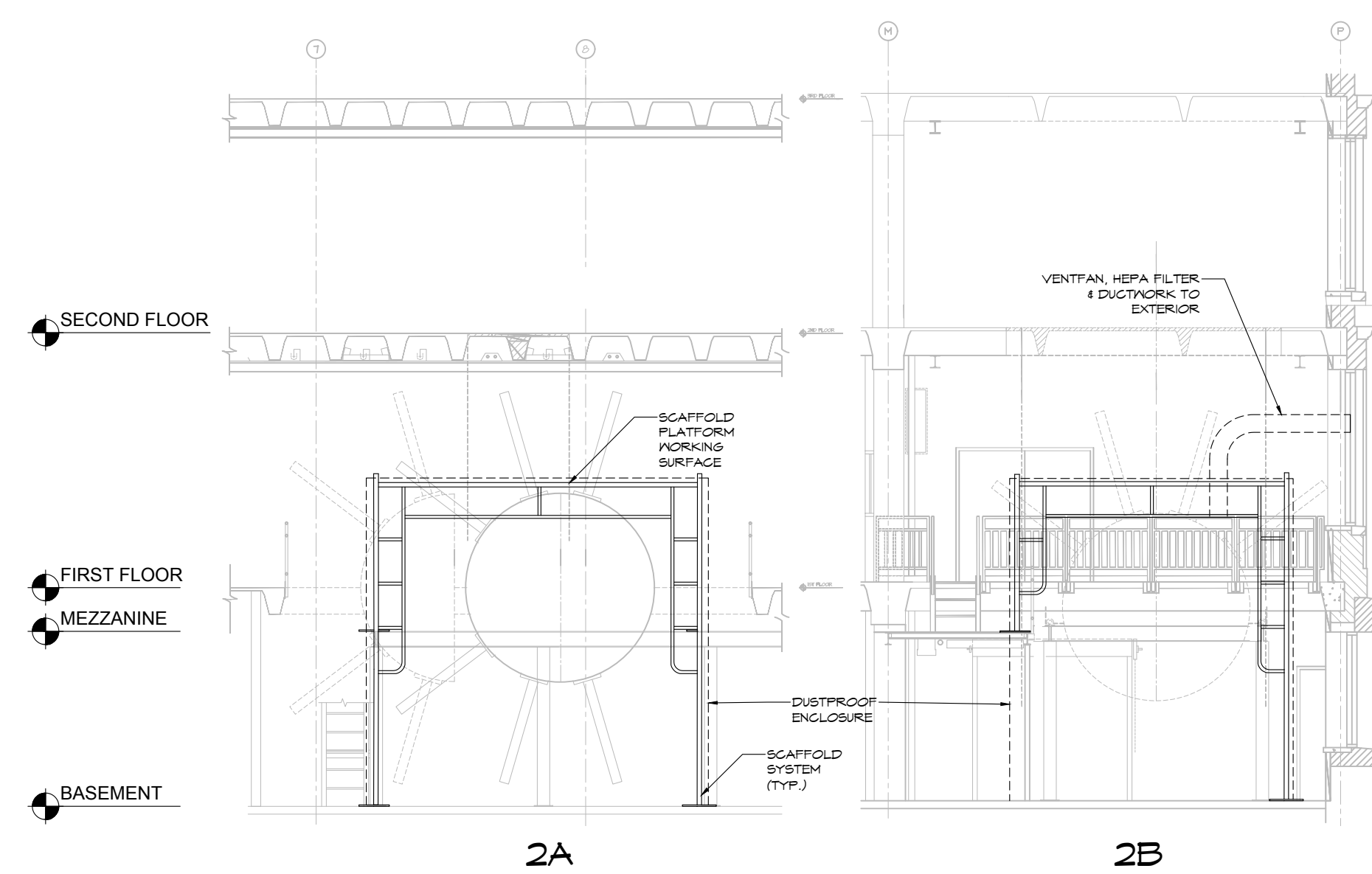
Revisions:		
No.	Date:	Description:
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Graphic Scale		
Project Numbers:	UWSA: A-17-003 MSN: 0057-1701	
Set Type:	BD	
Date Issued:	04/06/2018	
Sheet Number	A202	

GENERAL NOTES:

1. EXTENT OF PROJECT LIMITS ARE INDICATED FOR REFERENCE ONLY. DEMOLITION BY TRADES MAY EXTEND BEYOND LIMITS INDICATED TO COMPLETE SCOPE OF WORK REQUIRED. REFER TO ALL DOCUMENTS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
2. PROTECTION OF EXISTING CONSTRUCTION AND OWNER'S EQUIPMENT IS CRITICAL IN ROOM 1411. PROVIDE DUSTPROOF PROTECTION ENCLOSURE AROUND TREX SPHERE PRIOR TO COMMENCING DEMOLITION. MAINTAIN PROTECTION IN PLACE UNTIL ALL WORK IN ROOM 1411 IS COMPLETE AND ADJACENT AREAS ARE SEALED OFF TO PREVENT MIGRATION OF DUST & DEBRIS. COORDINATE INSTALLATION AND REMOVAL OF PROTECTION WITH OWNER, INCLUDING SCHEDULE AND WORK BY OWNER.
3. PRIOR TO COMMENCING DEMOLITION INSPECT ALL SPACES WITHIN PROJECT LIMITS. NOTIFY A/E AND OWNER IN WRITING OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THOSE INDICATED ON DOCUMENTS.
4. OBTAIN ACCESS FROM OWNER TO ROOM 1411 AS REQUIRED FOR DEMOLITION AND CONSTRUCTION. MAINTAIN SECURITY THROUGHOUT THE DURATION OF THE PROJECT.
5. COORDINATE EXTENTS OF DEMOLITION WITH NEW CONSTRUCTION.

KEYNOTES: #

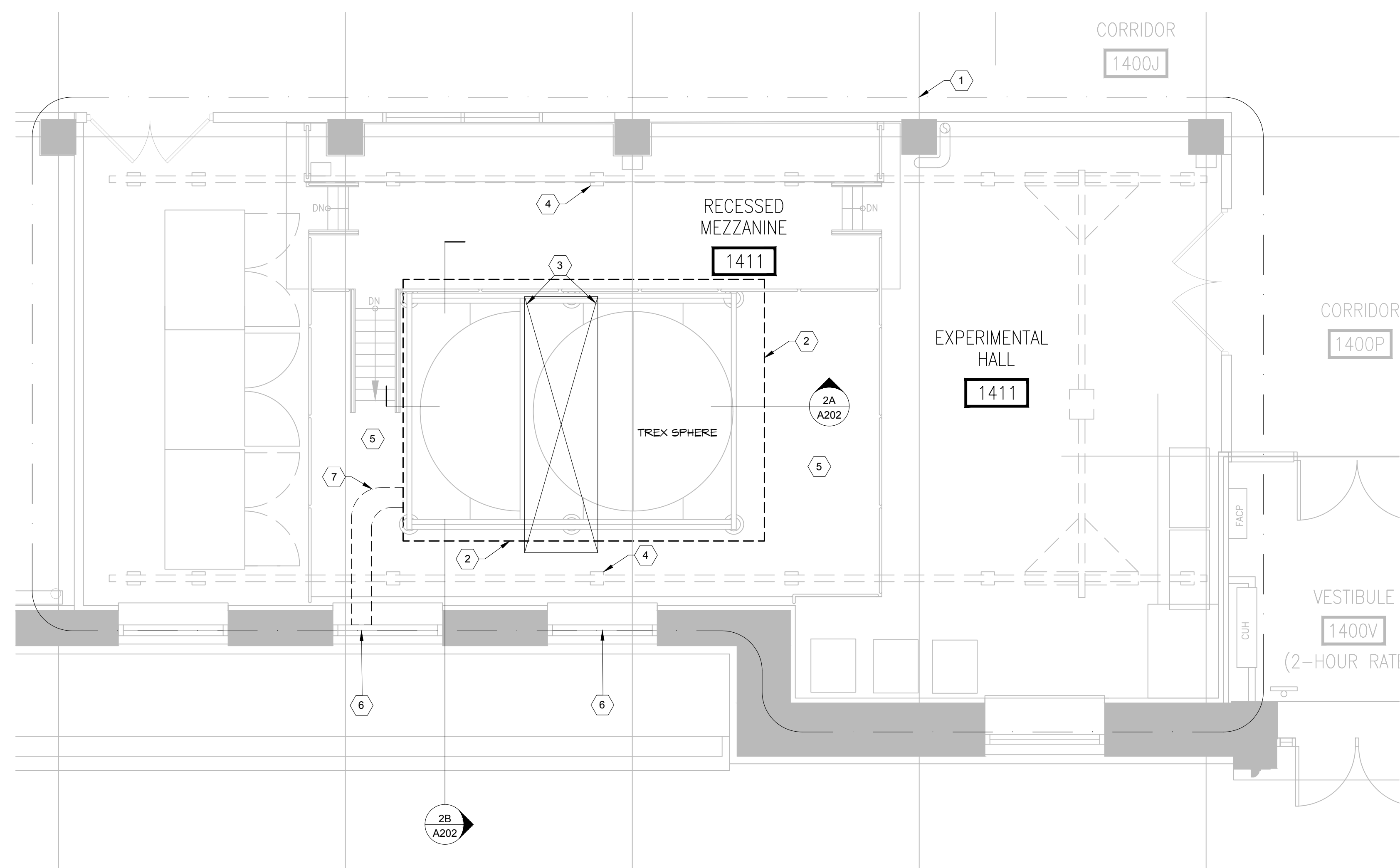
- ② EXTENT OF PROJECT LIMITS ARE INDICATED FOR REFERENCE ONLY.
- ② PROVIDE DUSTPROOF PROTECTION ENCLOSURE WITH DUCTED FILTERING SYSTEM AROUND TREX SPHERE PRIOR TO COMMENCING DEMOLITION. (SEE 2/A202)
- ① ③ SEE STRUCTURAL DRAWINGS FOR DEMOLITION OF CONCRETE STRUCTURE ABOVE.
- ① ④ SEE STRUCTURAL DRAWINGS FOR DEMOLITION AND RECONFIGURATION OF SUPPORTS FOR OVERHEAD CRANE BEAM AT FIRST FLOOR CEILING.
- ⑤ SEE FIRE PROTECTION, PLUMBING, HVAC AND ELECTRICAL DOCUMENTS FOR DEMOLITION AND RECONFIGURATION OF M/E/P SYSTEMS. GFC SHALL COORDINATE WORK OF ALL TRADES, INCLUDING PROTECTION, DEMOLITION AND NEW CONSTRUCTION TO MINIMIZE DURATION OF WORK WITHIN ROOM 1411.
- ⑥ PRIOR TO DEMOLITION, UTILIZE ONE OR BOTH OPERABLE WINDOWS TO ALLOW FOR ROUTING OF TEMPORARY VENTILATION DUCT FROM PROTECTIVE ENCLOSURE IN ROOM 1411. PROVIDE WEATHER-PROOF AND SECURE TEMPORARY INFILL PANEL. PRIOR TO SUBSTANTIAL COMPLETION, REMOVE TEMPORARY INFILL PANEL.
- ⑦ TEMPORARY VENTILATION DUCT.



2

A202

ENCLOSURE DETAILS

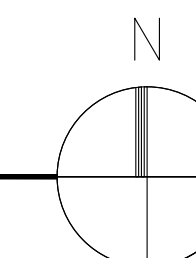
$$1/8'' = 1'-0''$$


1

A202

PARTIAL FIRST FLOOR PLAN (DEMOLITION)

1/4" = 1'-0"



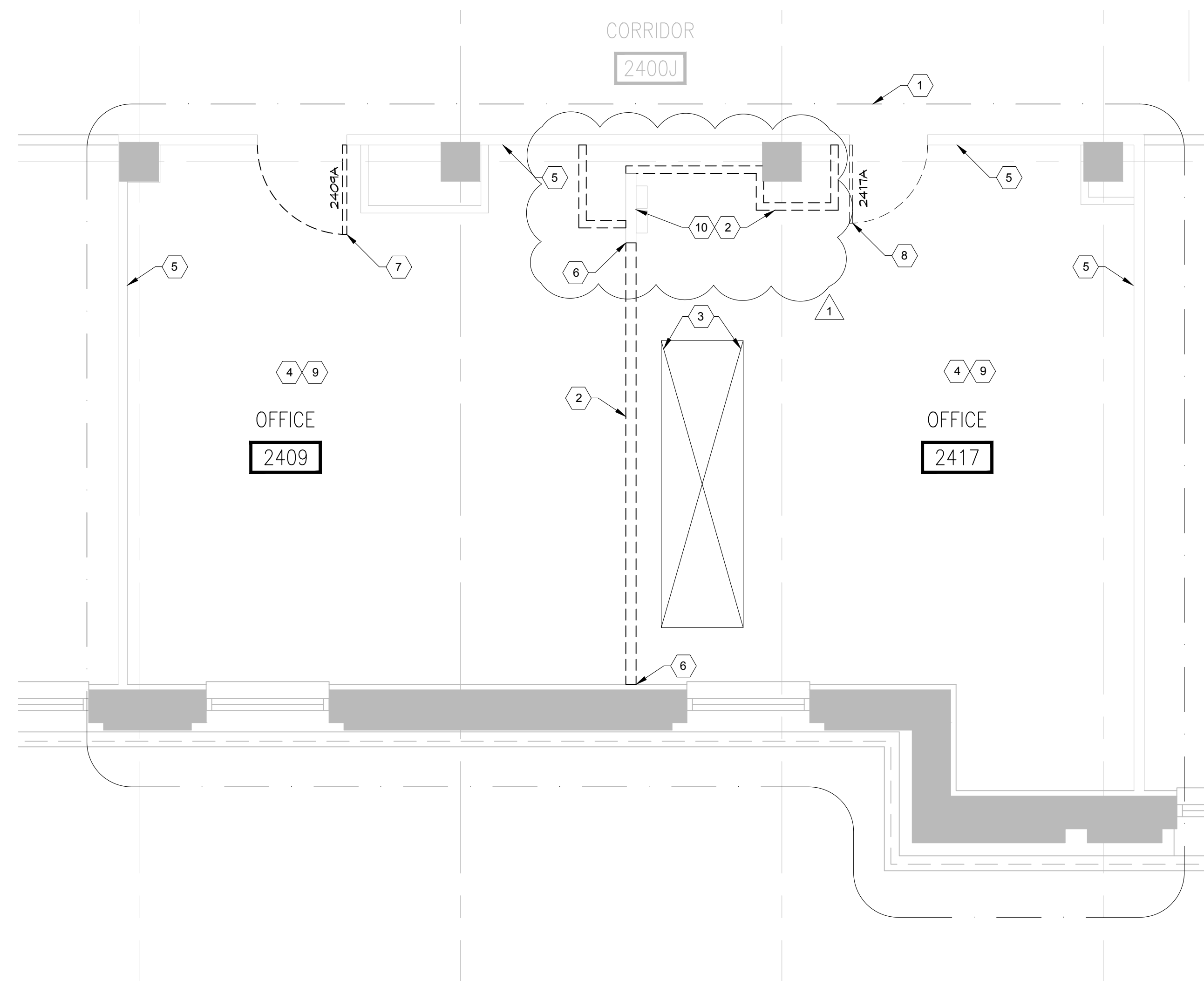
Revisions:		
No.	Date:	Description:
△	05/03/2018	Addendum 1
Graphic Scale		
Project Numbers:	UWSA: A-17-003 MSN: 0057-1701	
Set Type:	BD	
Date Issued:	04/06/2018	
Sheet Number	A203	

GENERAL NOTES:

1. EXTENT OF PROJECT LIMITS ARE INDICATED FOR REFERENCE ONLY. DEMOLITION BY TRADES MAY EXTEND BEYOND LIMITS INDICATED TO COMPLETE SCOPE OF WORK REQUIRED. REFER TO ALL DOCUMENTS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
2. PRIOR TO COMMENCING DEMOLITION INSPECT ALL SPACES WITHIN PROJECT LIMITS. NOTIFY A/E AND OWNER IN WRITING OF ANY EXISTING CONDITIONS THAT DEVIATE FROM THOSE INDICATED ON DOCUMENTS.
3. OBTAIN KEYS FROM OWNER FOR ALL DOORS WITHIN PROJECT LIMITS AND MAINTAIN SECURITY THROUGHOUT THE DURATION OF THE PROJECT.
4. PROTECT EXISTING CONSTRUCTION TO REMAIN.
5. COORDINATE EXTENTS OF DEMOLITION WITH NEW CONSTRUCTION.
6. REMOVE & SALVAGE ALL WALL-MOUNTED EQUIPMENT, INCLUDING WHITEBOARDS, CHALKBOARDS, AND PROJECTION SCREENS.

KEYNOTES: #

1. EXTENT OF PROJECT LIMITS ARE INDICATED FOR REFERENCE ONLY.
2. DEMOLISH EXISTING WALL COMPLETE, FROM FLOOR TO STRUCTURE. COORDINATE REMOVAL WITH ALL TRADES, INCLUDING FP, FC, HC AND EC.
3. SAWCUT AND REMOVE EXISTING CONCRETE FLOOR STRUCTURE TO CREATE OPENING AS INDICATED IN STRUCTURAL DRAWINGS. SEE NOTES ON A202 FOR PROTECTION REQUIRED PRIOR TO COMMENCING DEMOLITION.
4. THROUGHOUT ROOM, DEMOLISH EXISTING CEILING SYSTEM (TILE, GRID, HANGERS, ETC.).
5. REMOVE & SALVAGE WOOD BASE ON WEST, NORTH, AND EAST WALLS.
6. PATCH WALL AND BASE AT DEMOLISHED WALL.
7. REMOVE AND SALVAGE DOOR W/ GLASS.
8. REMOVE AND TURN OVER DOOR HARDWARE TO OWNER, DEMOLISH DOOR.
9. EXISTING VCT FLOOR TO REMAIN, PATCH AT DEMOLISHED WALL AND AT NEW FLOOR OPENING.
10. WALL EXISTING TO REMAIN TO MAINTAIN ELECTRICAL PANELS.

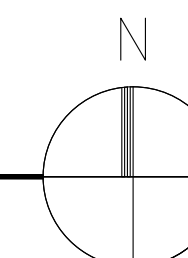


1

A203

PARTIAL SECOND FLOOR PLAN (DEMOLITION)

1/4" = 1'-0"

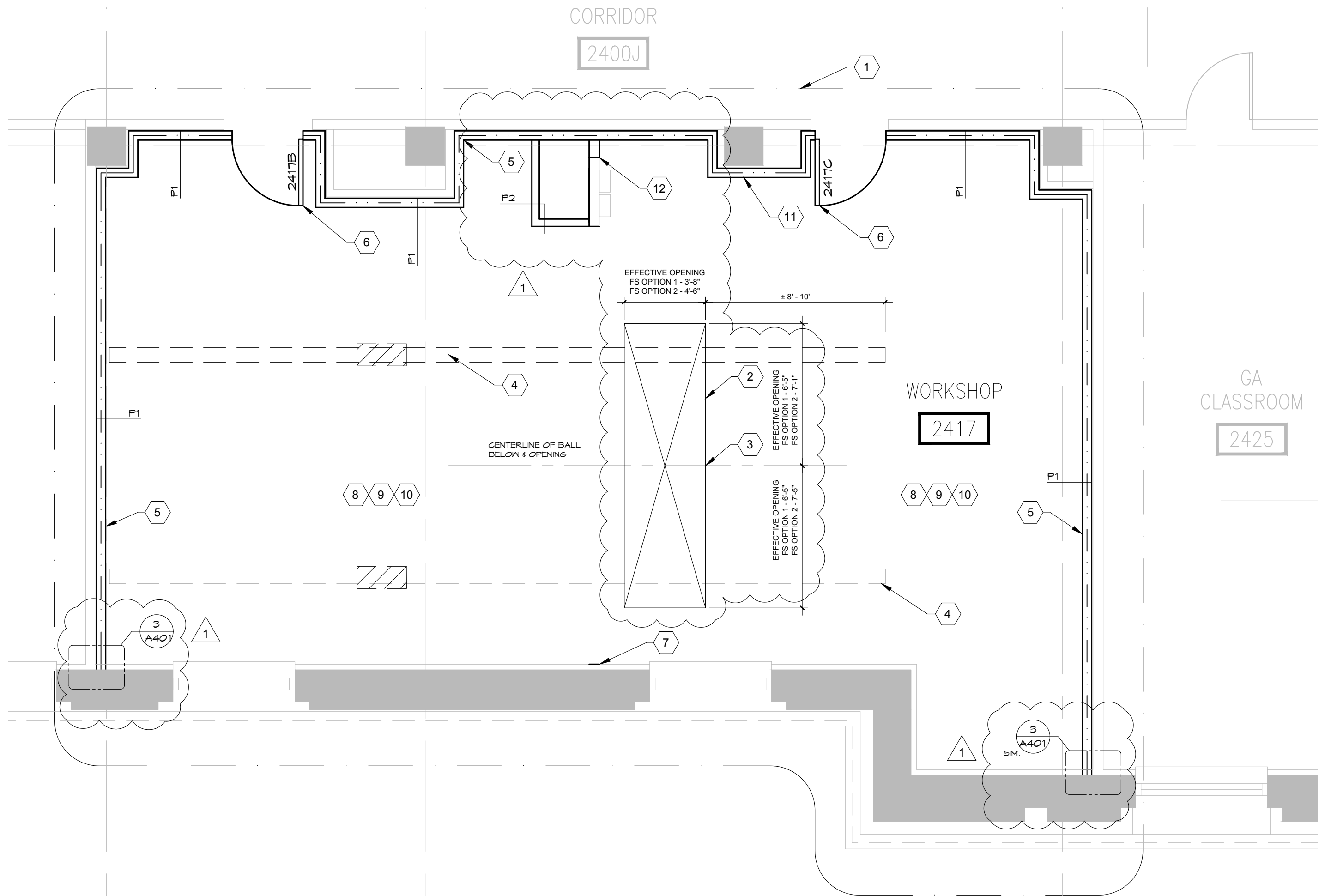


GENERAL NOTES:

1. EXTENT OF PROJECT LIMITS ARE INDICATED FOR REFERENCE ONLY. CONSTRUCTION ACTIVITIES BY TRADES MAY EXTEND BEYOND LIMITS INDICATED TO COMPLETE SCOPE OF WORK REQUIRED. REFER TO ALL DOCUMENTS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
2. MAINTAIN SECURITY THROUGHOUT THE DURATION OF THE PROJECT.
3. PROTECT EXISTING CONSTRUCTION TO REMAIN.
4. SEE FIRE PROTECTION, PLUMBING, HVAC AND ELECTRICAL DOCUMENTS FOR WORK ON M/E/P SYSTEMS. GPC SHALL COORDINATE WORK OF ALL TRADES.

KEYNOTES: #

1. EXTENT OF PROJECT LIMITS ARE INDICATED FOR REFERENCE ONLY.
2. FLOOR OPENING WITH RATED FIRE SHUTTER, RAILINGS AND GRATING. (SEE STRUCTURAL DRAWINGS FOR OPENING LOCATION AND DETAILS.)
3. PAINT ALL SAWCUT SURFACES OF FLOOR OPENING, INCLUDING ON 1ST FLOOR CEILING AND AT 2ND FLOOR, TO MATCH COLOR OF ADJACENT SURFACES.
4. OVERHEAD CRANE BEAM. (SEE STRUCTURAL DRAWINGS FOR CRANE LOCATION.)
5. INSTALL FULL-HEIGHT 2-HOUR RATED PARTITIONS TO FULLY ENCLOSE ROOM 2417, FROM FLOOR SURFACE TO CONCRETE STRUCTURE ABOVE. COORDINATE PARTITION INSTALLATION WITH ALL TRADES, INCLUDING FIRE PROTECTION, PLUMBING, HVAC AND ELECTRICAL, TO MAINTAIN FIRE RATING, INCLUDING SEALING AT ALL PENETRATIONS. COORDINATE PARTITION INSTALLATION WITH ALL TRADES TO EXTEND POWER AND DATA THROUGH NEW PARTITION.
6. NEW FIRE-RATED DOOR AND FRAME AS SCHEDULED AND DETAILED.
7. PATCH STRUCTURE, WALLS, AND BASE TO MATCH ADJACENT SURFACES WHERE WALL IS REMOVED.
8. PATCH VCT FLOOR (WITH ATTIC STOCK PROVIDED BY OWNER) AT DEMOLISHED WALL AND AT FLOOR OPENING.
9. NEW FINISHES THROUGHOUT ROOM AS SCHEDULED, INCLUDING BASE, WALLS AND CEILING. (EXCLUDING BASE ON SOUTH WALL - SEE ROOM FINISH SCHEDULE, A401.)
10. COORDINATE LAYOUT AND INSTALLATION OF ALL TRADES, INCLUDING FIRE PROTECTION, PLUMBING, HVAC AND ELECTRICAL.
11. FIELD VERIFY LOCATION OF NEW WALL. COORDINATE WITH ALL TRADES.
12. EXTEND & FINISH EXPOSED SIDES OF EXISTING WALL.



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Sterling Hall Renovation for TREX Physics
University of Wisconsin-Madison
Madison, Wisconsin

Sheet Title:
Partial Second Floor Plan

Revisions:

No.	Date:	Description:
1	05/03/2018	Addendum 1

Graphic Scale



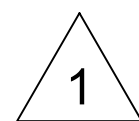
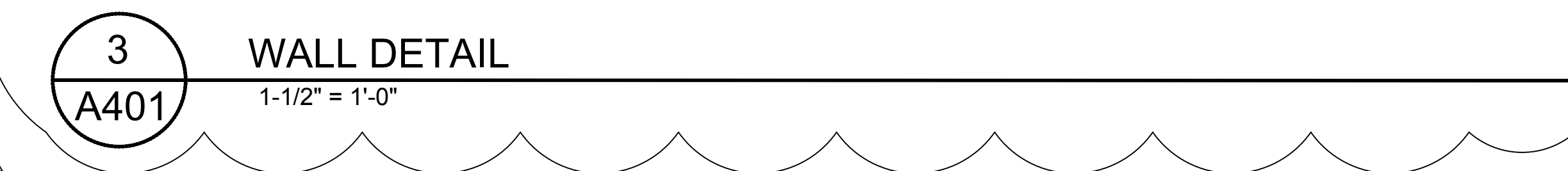
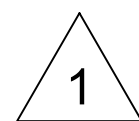
Project Numbers: UWSA: A-17-003
MSN: 0057-1701

Set Type: BD

Date Issued: 04/06/2018

Sheet Number

A302



DOOR SCHEDULE KEYNOTES:

1. MAINTAIN SECURITY AT ALL DOORS THROUGHOUT THE DURATION OF THE PROJECT.
2. PROTECT EXISTING CONSTRUCTION, INCLUDING DOORS, FRAMES AND HARDWARE, TO REMAIN.
3. EXISTING DOOR, FRAME AND HARDWARE TO REMAIN. CLEAN ALL COMPONENTS THOROUGHLY AT TIME OF SUBSTANTIAL COMPLETION.
4. NEW RATED HOLLOW METAL DOOR, FRAME AND HARDWARE IN RATED PARTITION. (SEE DETAIL 4/A401). PREP AND PAINT DOOR AND FRAME.

ROOM FINISH SCHEDULE KEYNOTES:

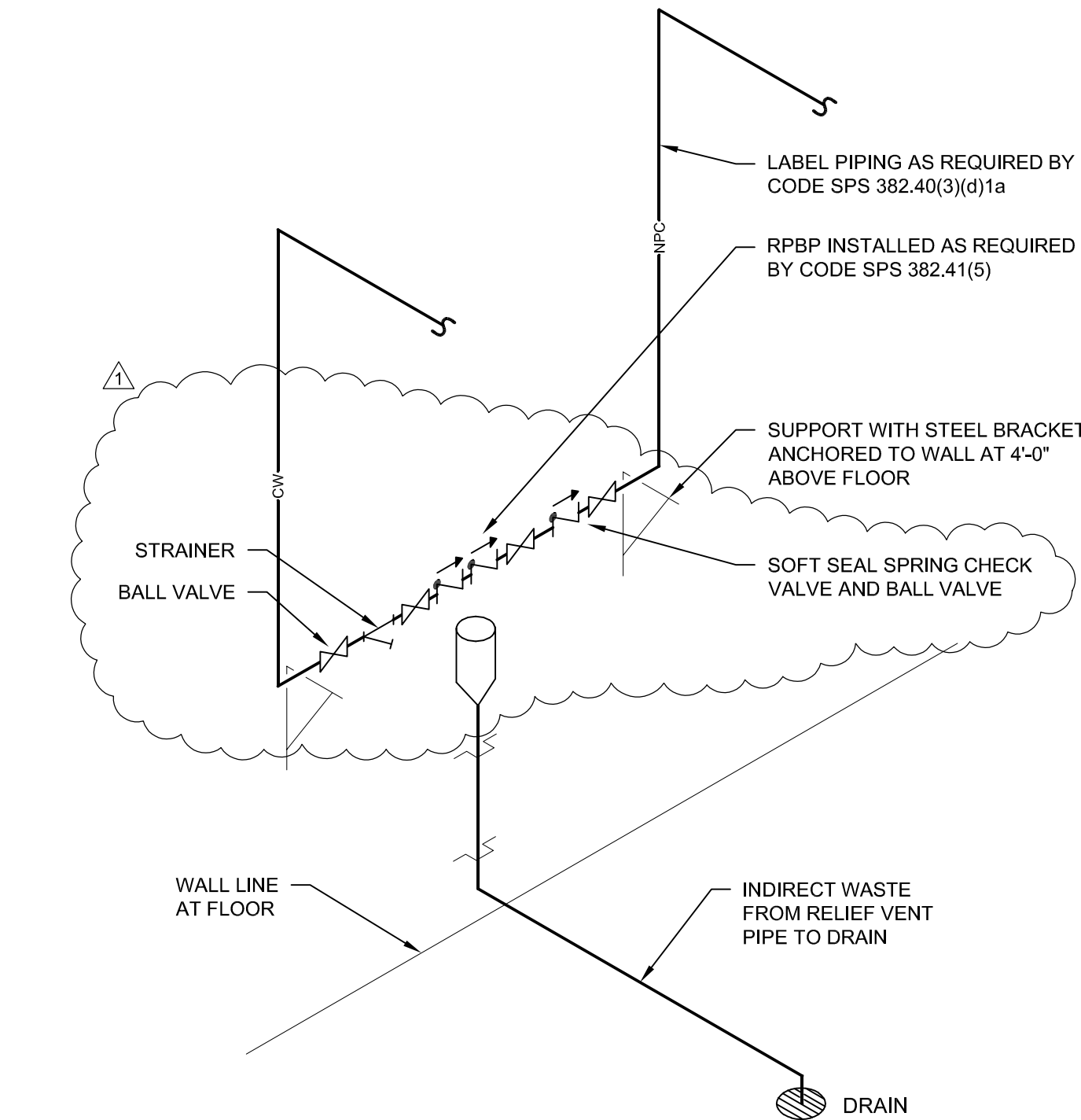
1. PROTECT EXISTING CONSTRUCTION, INCLUDING FLOOR, WALL AND CEILING FINISHES TO REMAIN.
2. PREP FLOORS TO RECEIVE NEW FINISHES, INCLUDING PATCHING.
3. BASE SALVAGE AND PATCHING.
4. PREP AND PAINT ALL WALLS, INCLUDING ETR.
5. USE MATCHING ATTIC STOCK (PROVIDED BY OWNER) TO PATCH FLOOR.
6. EXISTING BASE TO REMAIN ON SOUTH WALL.

ROOM FINISH SCHEDULE KEYNOTES:

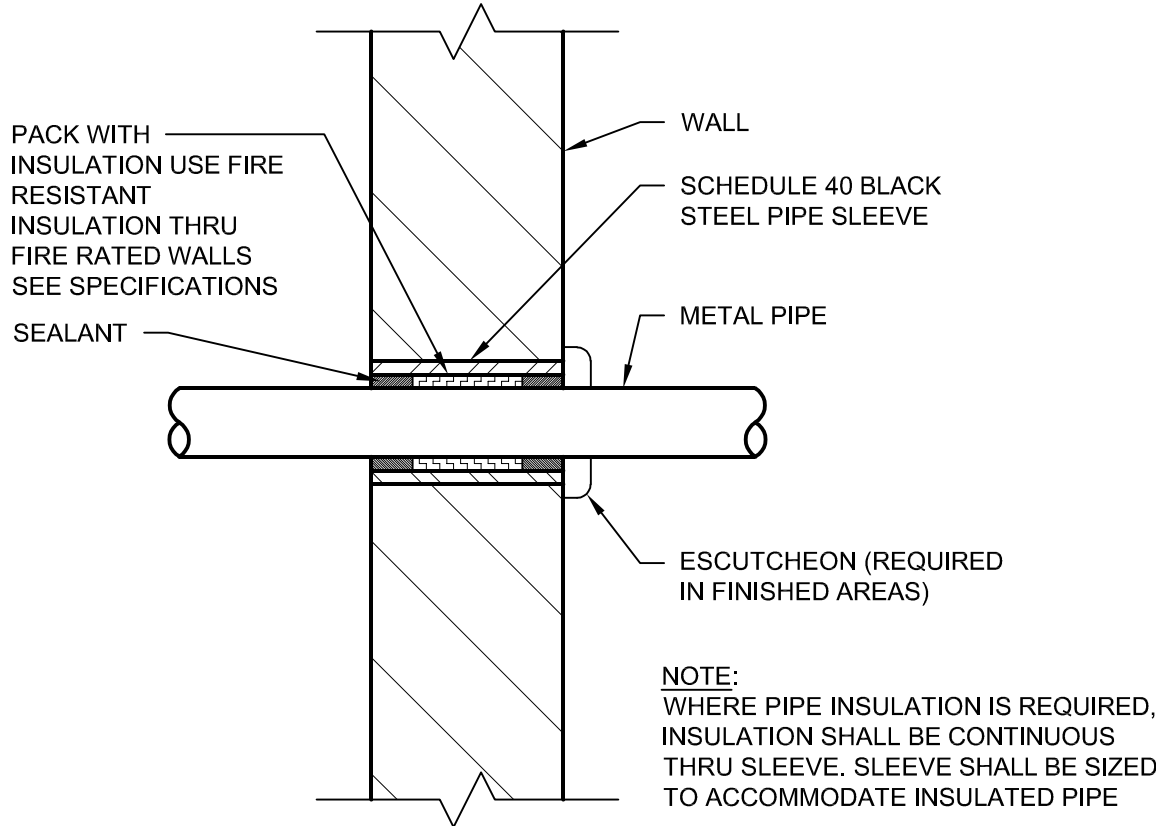
1. PROTECT EXISTING CONSTRUCTION, INCLUDING FLOOR, WALL AND CEILING FINISHES TO REMAIN.
2. PREP FLOORS TO RECEIVE NEW FINISHES, INCLUDING PATCHING.
3. BASE SALVAGE AND PATCHING.
4. PREP AND PAINT ALL WALLS, INCLUDING ETR.
5. USE MATCHING ATTIC STOCK (PROVIDED BY OWNER) TO PATCH FLOOR.
6. EXISTING BASE TO REMAIN ON SOUTH WALL.

REDUCED PRESSURE BACKFLOW PREVENTER SCHEDULE							
ID	MANUFACTURER MODEL #	SIZE	GPM	PRESS DROP	SYSTEM	DETAIL/SHEET	DESCRIPTION/REMARKS
RPBP-1	WATTS LF919QT-S	2"	125	10	CHILLED WATER BACKUP	3/P000	BRONZE BODY, SILICONE RUBBER DISC IN BOTH CHECK SEATS, STAINLESS STEEL RELIEF VALVE SEATS, INCLUDE AIR GAP FITTING. PROVIDE ADDITIONAL BALL VALVE BEFORE RPBP, SOFT SEAL SPRING CHECK VALVE AND BALL VALVE AFTER RPBP AS SHOWN ON DETAIL.
RPBP-2	WATTS LF919QT-S	3/4"	10	10	DI WATER FILL	3/P000	BRONZE BODY, SILICONE RUBBER DISC IN BOTH CHECK SEATS, STAINLESS STEEL RELIEF VALVE SEATS, INCLUDE AIR GAP FITTING. PROVIDE ADDITIONAL BALL VALVE BEFORE RPBP, SOFT SEAL SPRING CHECK VALVE AND BALL VALVE AFTER RPBP AS SHOWN ON DETAIL.

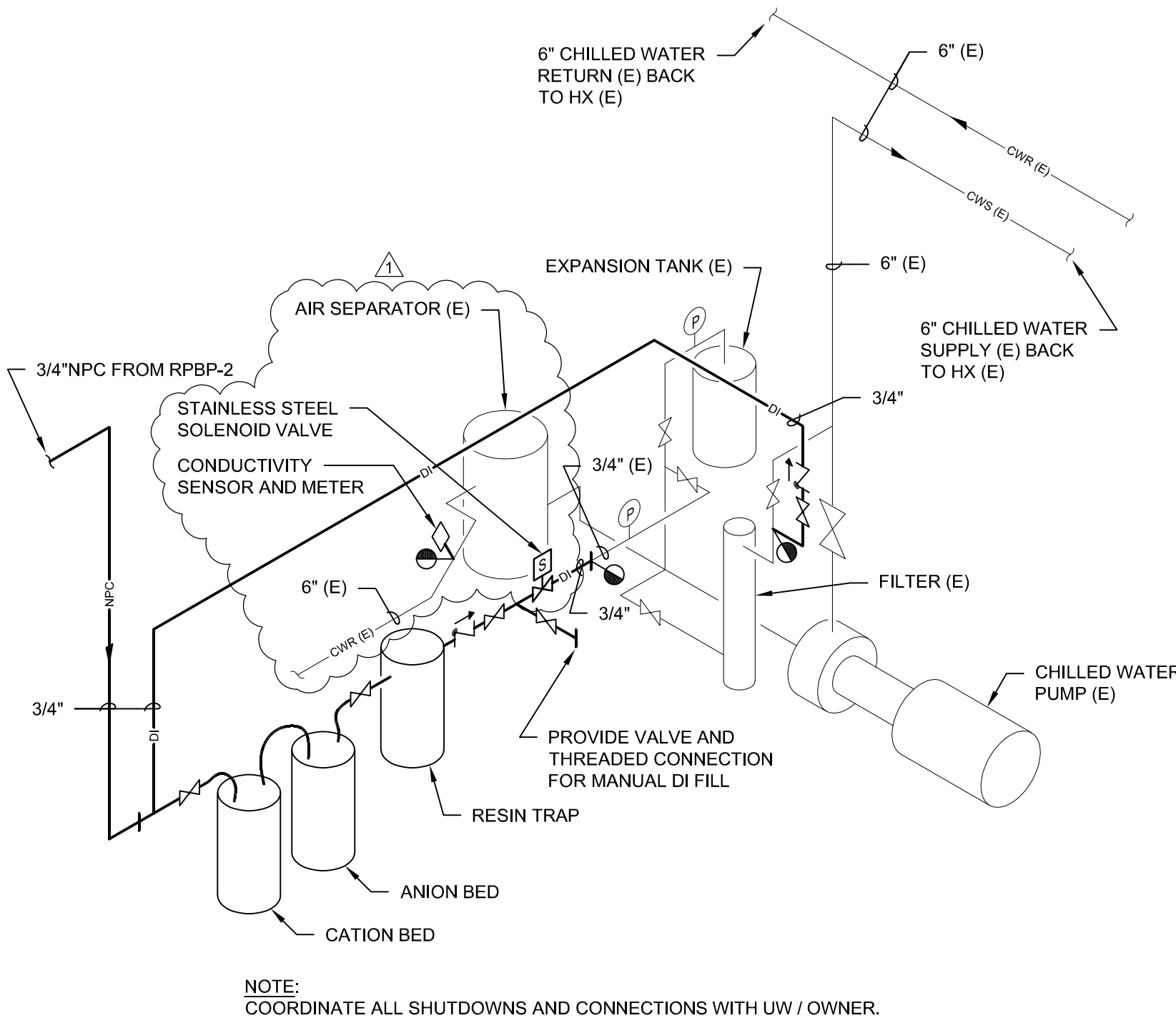
DEIONIZED UNIT SCHEDULE							
ID	MANUFACTURER MODEL #	SIZE OF MEDIA TANK		RESIN TRAP		SYSTEM	DETAIL/SHEET
		CATION BED	ANION BED	SIZE	MICRON		
DI-1	TOTAL WATER SEPARATE BED DI SYSTEM	9'0"	9'0"	10'0"	5	CHILLED WATER MAKE-UP	4/P000



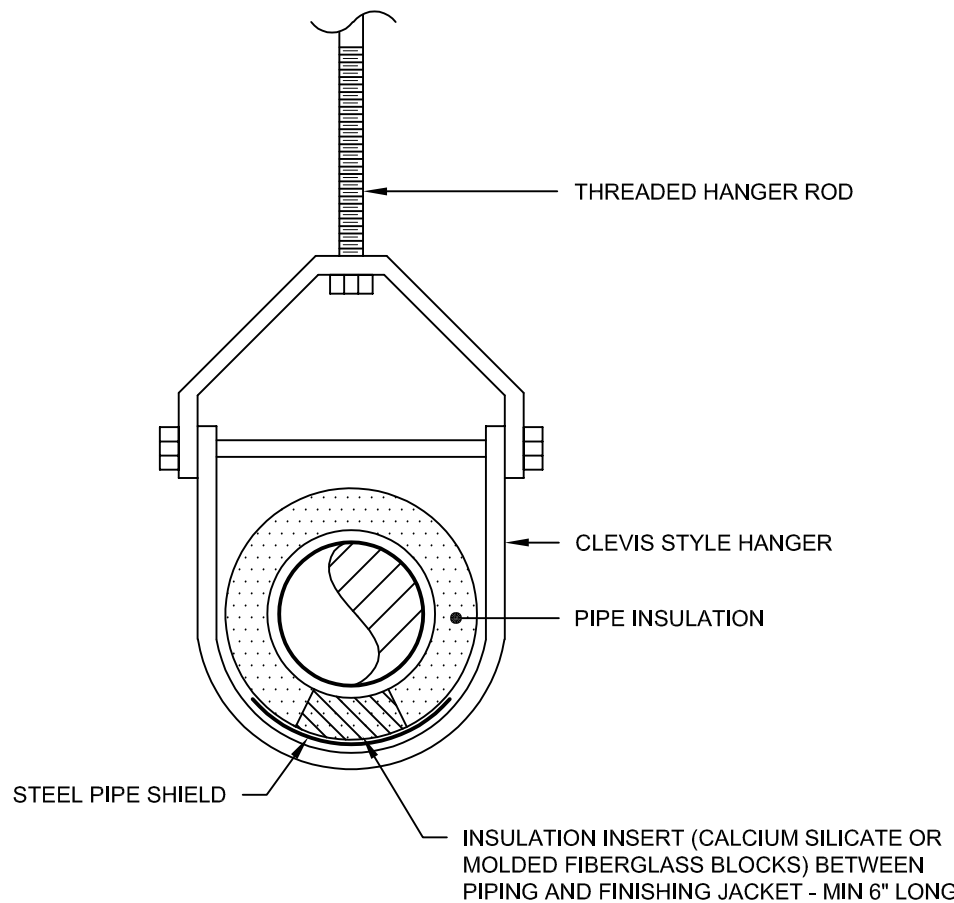
3 REDUCED PRESS BACKFLOW PREVENTER DETAIL
P000 SCALE: NONE



1 SLEEVE THRU WALL DETAIL
P000 SCALE: NONE



4 DEIONIZED PIPING SYSTEM SCHEMATIC
P000 SCALE: NONE



2 PIPE HANGER DETAIL
P000 SCALE: NONE

PLUMBING LEGEND

CW	COLD WATER
HW	HOT WATER
HWR	HOT WATER RECIRCULATION
CS	COLD SOFT WATER
SD	SANITARY DRAIN, WASTE OR SEWER (SAN)
V	VENT (V)
ST	STORM DRAIN CONDUCTOR OR SEWER
XX (E)	EXISTING PIPE (SERVICE DESIGNATED)
XX (E) - - -	EXISTING VENT (SERVICE DESIGNATED)
XX (E) - - -	EXISTING PIPE TO BE REMOVED/DEMOLISHED
XX (E) - - -	EXISTING VENT TO BE REMOVED/DEMOLISHED
G	NATURAL GAS
A	COMPRESSED AIR
W	DOMESTIC WATER SERVICE
NPC	NON-POTABLE COLD WATER
DI	DEIONIZED WATER
AV	ACID VENT
AW	ACID WASTE
CWV	CLEAR WATER VENT
CWW	CLEAR WATER WASTE
T	TEE (BRANCH TO SIDE)
C	TEE (BRANCH DOWN)
R	RISER UP
D	RISER DOWN
CO	CLEANOUT (CO)
WCO	WALL CLEANOUT (WCO)
FCO	FLOOR CLEANOUT (FCO)
YCO	YARD CLEANOUT (YCO)
DSN	DOWNSPOUT NOZZLE (DSN)
U	UNION
F	FLANGE
F	FLOW
C	CHECK VALVE
PRV	PRESSURE REGULATING VALVE
S	SOLENOID VALVE
H	HOSE BIBB (HB) OR WALL HYDRANT (WH)
POC	POINT OF CONNECTION (POC)
CAP	CAP
B	BALANCING VALVE
S	SHUTOFF VALVE
S	PIPE STRAINER
X	FIXTURE STOP
R	VALVE IN RISER
T	THERMOMETER
P	PRESSURE GAUGE
W	WATER HAMMER ARRESTOR
R	RELIEF VALVE
RPBP	RPBP - REDUCED PRESSURE ZONE BACKFLOW PREVENTER
FD	FLOOR DRAIN (FD)
HD	HUB DRAIN (HD)
AD	AREA DRAIN (AD)
FS	FLOOR SINK (FS)
FFE	FINISHED FLOOR ELEVATION
DFU	FIXTURE UNITS - DRAINAGE OR SUPPLY (DFU OF WSFU)
#	DEMOLITION KEYED NOTE
#	NEW WORK KEYED NOTE
#	REVISION KEYED NOTE
X PX	TAG FOR CONTINUATION MATCH POINTS

ABBREVIATIONS

A	COMPRESSED AIR
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AV	ACID VENT
AW	ACID WASTE
CB	CATCH BASIN
CO	CLEANOUT
CS	COLD SOFT WATER
CW	COLD WATER
CWV	CLEAR WATER VENT
CWW	CLEAR WATER WASTE
DF	DRINKING FOUNTAIN
DI	DEIONIZED WATER
DSN	DOWNSPOUT NOZZLE
DW	DISHWASHER
E	EXISTING
EC	ELECTRICAL CONTRACTOR
ESEW	EMERGENCY SHOWER/EYEWASH
F	FIRE PROTECTION WATER SERVICE
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FFC	FIRE PROTECTION CONTRACTOR
G	NATURAL GAS
GC	GENERAL CONTRACTOR
HB	HOSE BIBB
HC	HVAC CONTRACTOR
HD	HUB DRAIN
HW	HOT WATER
HWR	HOT WATER RECIRCULATION
IE	INVERT ELEVATION
L	LAVATORY
MB	MOP BASIN
MH	MANHOLE
NPC	NON-POTABLE COLD WATER
NPCS	NON-POTABLE COLD SOFT WATER
PC	PLUMBING CONTRACTOR
PRV	PRESSURE REGULATING VALVE
RO	REVERSE OSMOSIS
RPBP	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
S	SINK
SAN	SANITARY
SH	SHOWER
ST	STORM
TMV	THERMOSTATIC MIXING VALVE
UR	URINAL
V	VENT
VTR	VENT THRU ROOF
W	DOMESTIC WATER SERVICE
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WM	WASHING MACHINE WALL BOX
WH	WALL HYDRANT
WHA	WATER HAMMER ARRESTOR
WHR	WATER HEATER
WS	WATER SOFTENER
YCO	YARD CLEANOUT

PLUMBING SHEET INDEX

P000	SYMBOLS, ABBREVIATIONS, DETAILS, AND SCHEDULES - PLUMBING
P100	PARTIAL BASEMENT PLAN - PLUMBING (DEMOLITION)
P200	PARTIAL BASEMENT FLOOR PLAN - PLUMBING

KEE
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Madison, Wisconsin

Sheet Title:
SYMBOLS, ABBREVIATIONS, DETAILS,
AND SCHEDULES - PLUMBING

Revisions:

No.	Date:	Description:
1	05/03/2018	Addendum 1

Graphic Scale

0' 2' 4' 8' 12'

Project Numbers:

UWSA: A-17-003
MSN: 0057-1701

Set Type:

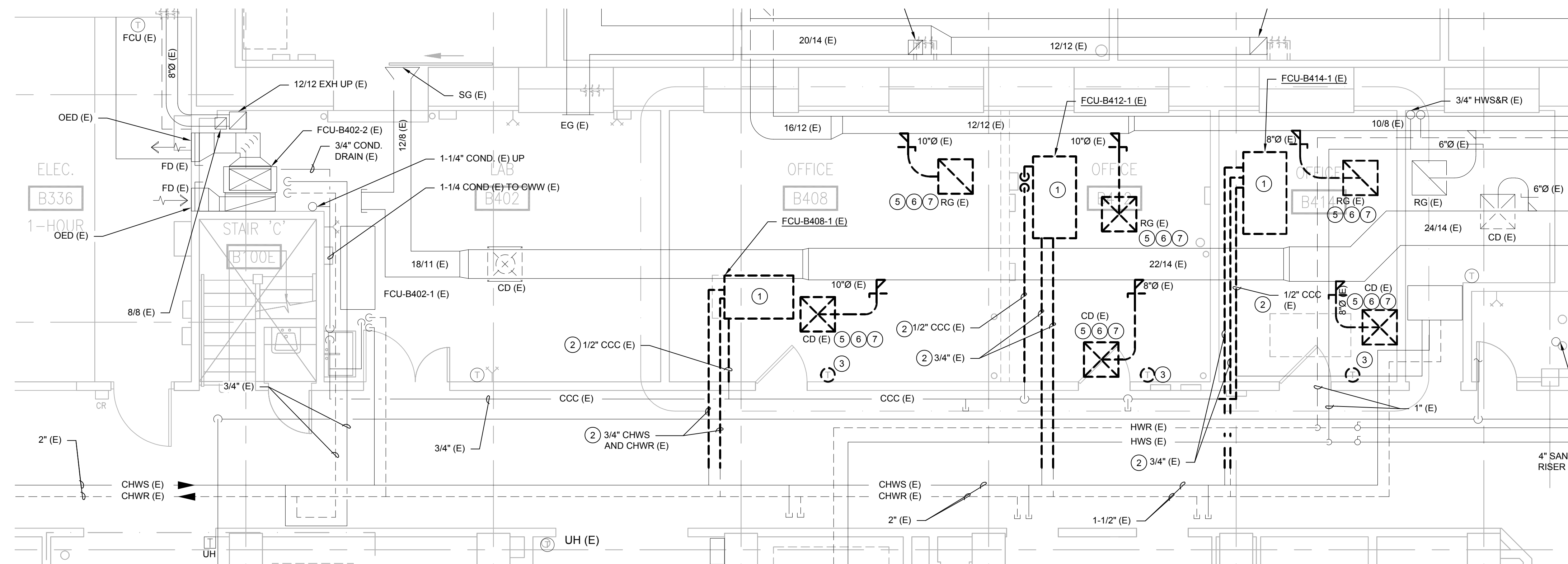
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Date Issued:

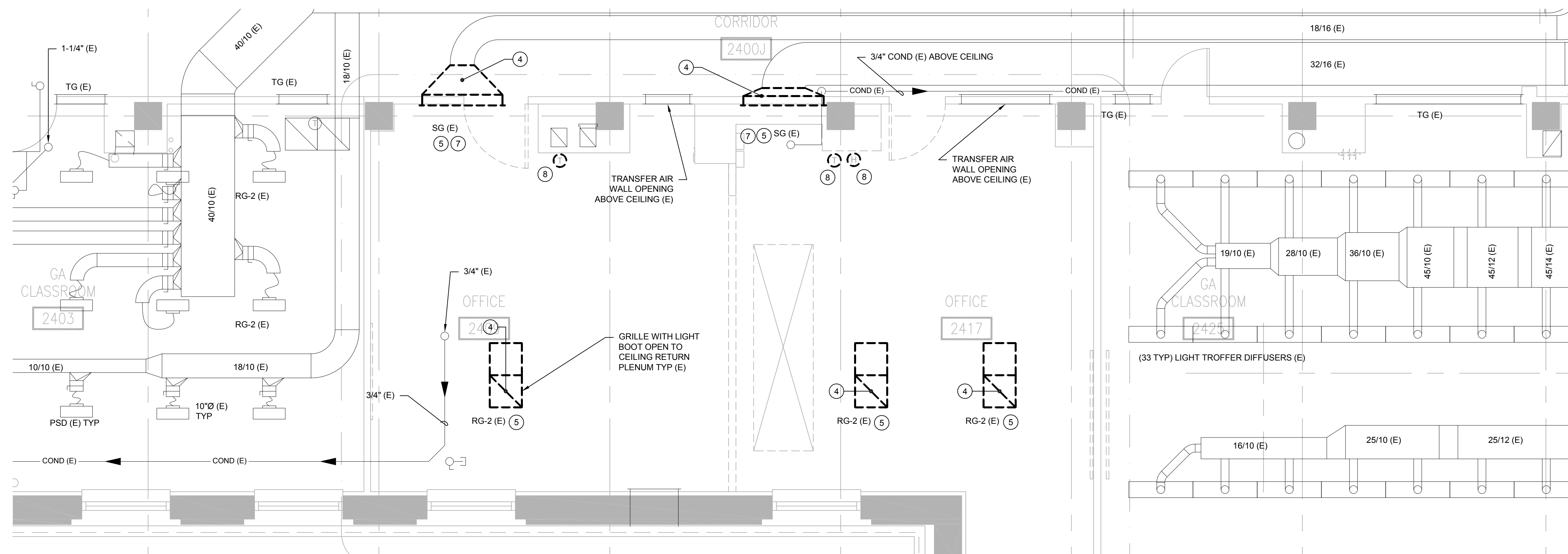
04/06/2018

Sheet Number

P000



1 PARTIAL BASEMENT PLAN - HVAC (DEMOLITION)
M100 SCALE: 1/4"=1'-0"



2 PARTIAL SECOND FLOOR PLAN - HVAC (DEMOLITION)
M100 SCALE: 1/4"=1'-0"



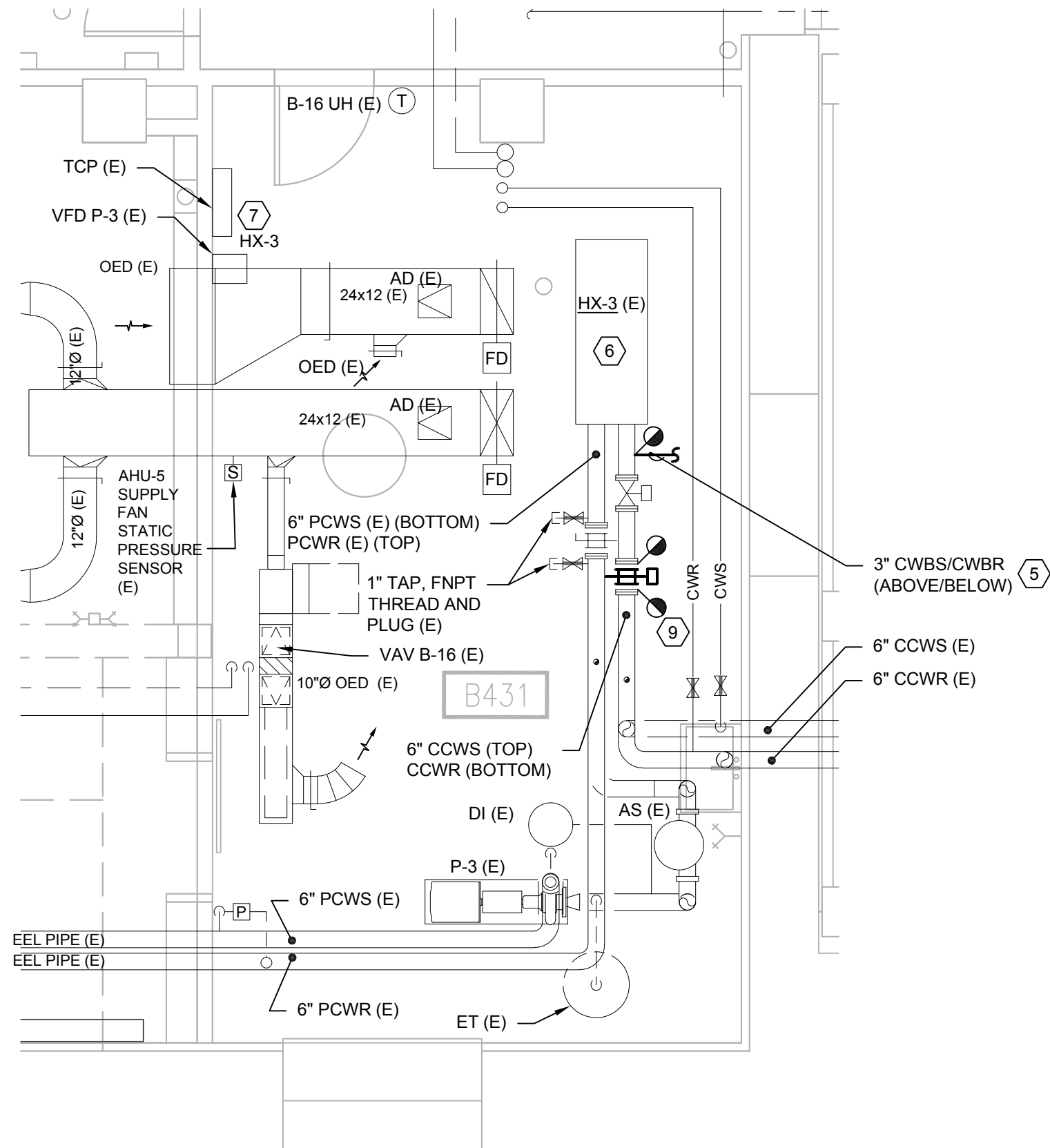
KEYED NOTES:

- 1 REMOVE EXISTING FAN COIL UNIT AS SHOWN. COORDINATE REMOVAL OF SUSPENDED CEILING WITH G.C.
- 2 REMOVE EXISTING PIPING AS SHOWN.
- 3 23 09 14 CONTRACTOR SHALL REMOVE EXISTING PNEUMATIC THERMOSTAT AS SHOWN.
- 4 REMOVE EXISTING DUCT AS SHOWN.
- 5 REMOVE EXISTING AIR DEVICE AS SHOWN.
- 6 SAVE EXISTING AIR DEVICE FOR REUSE PER M200.
- 7 PRIOR TO REMOVAL, 23 05 00 CONTRACTOR SHALL TAKE AIRFLOW MEASUREMENTS AT EXISTING AIR DEVICE REPORT MEASUREMENT TO A/E.

- 8 HC SHALL COORDINATE ALL DEMOLITION ACTIVITIES WITH 23 09 14 CONTRACTOR. 23 09 14 CONTRACTOR (UW STEAM FITTER SHOP) SHALL REMOVE EXISTING PNEUMATIC CONTROL DEVICES AND ASSOCIATED CONTROL LINES BACK TO HALL WAY 2400J. SAVE THERMOSTAT AND HUMIDISTAT FOR REUSE PER M200.

Revisions:		
No.	Date:	Description:
	05/03/2018	Addendum 1

Graphic Scale	
Project Numbers:	UWSA: A-17-00 MSN: 0057-170
Set Type:	BD
Date Issued:	04/06/2018
Sheet Number	M200



3 PARTIAL BASEMENT FLOOR - HVAC
M200 SCALE: 1/4"=1'-0"

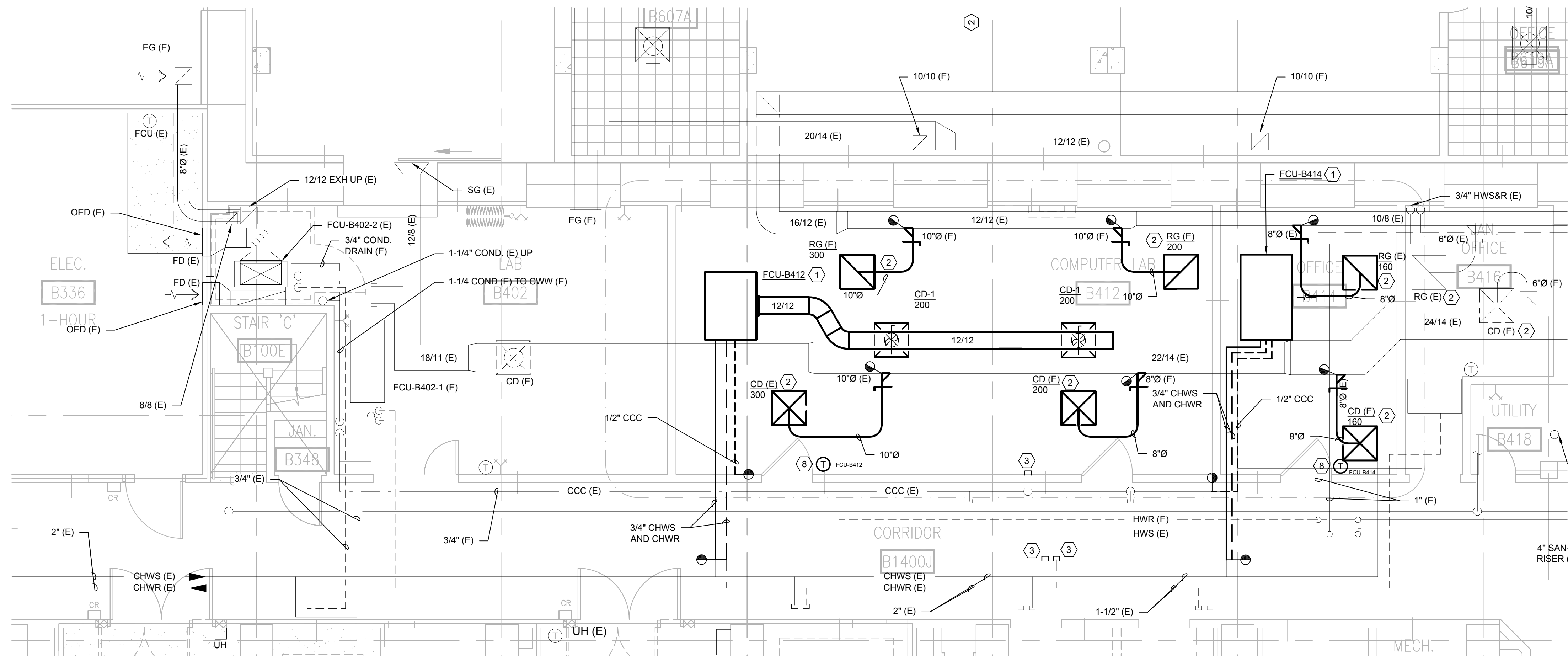


GENERAL NOTES:

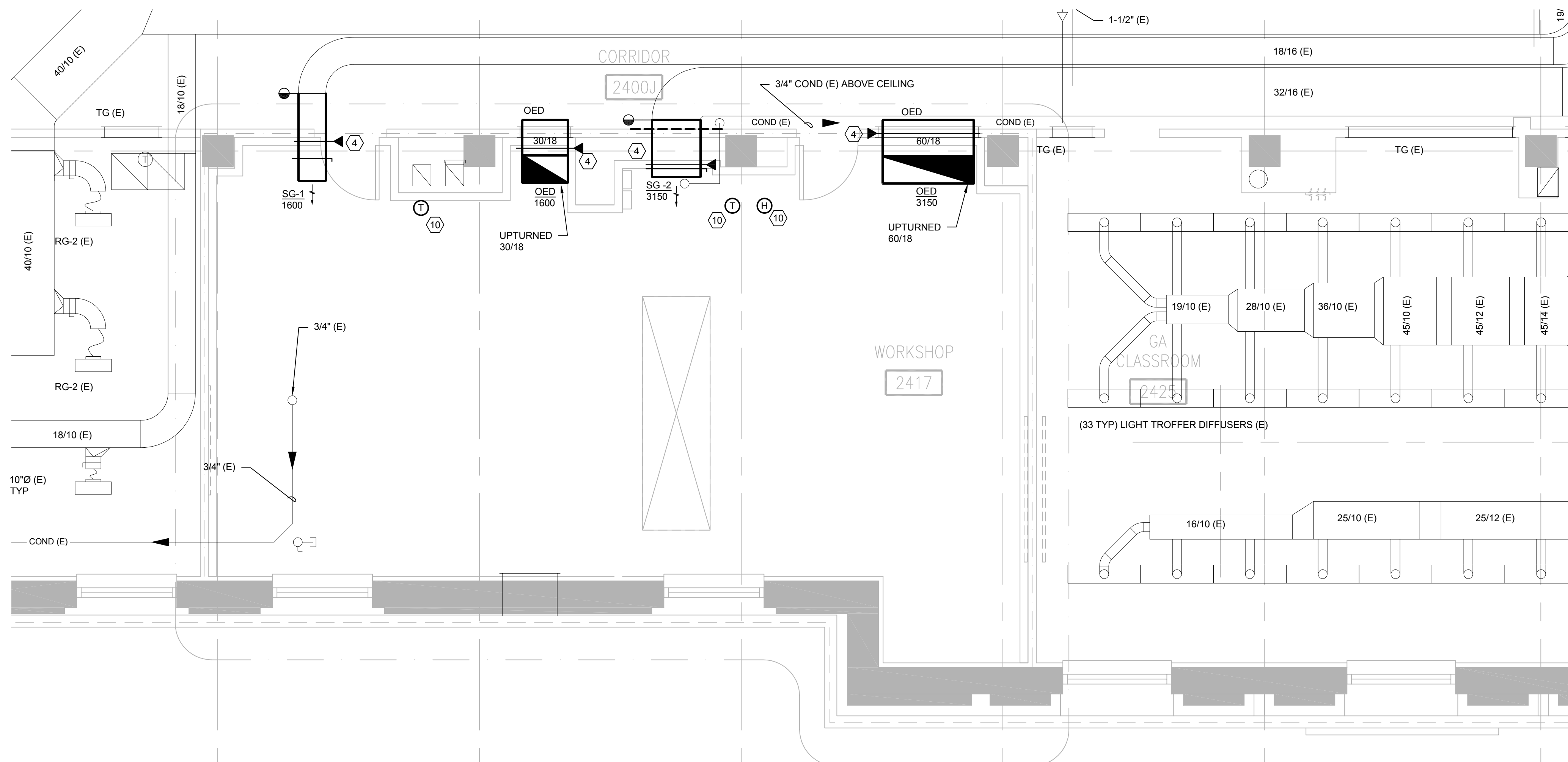
1. SEE ARCHITECTURAL SHEETS FOR DETAILS AND LOCATIONS OF FIRE RATED CONSTRUCTION

KEYED NOTES:

- 1 PROVIDE NEW FAN COIL UNIT HUNG IN SPACE. INSTALL FCU WITH UNIT FACE FLUSH WITH NEW SUSPENDED CEILING. COORDINATE INSTALLATION WITH SUSPENDED CEILING AND WITH GPC.
- 2 CLEAN AND REINSTALL AIR DEVICE SAVED PER M100. COORDINATE LOCATION WITH NEW CEILING GRID.
- 3 CAP EXISTING PIPE AND SEAL WATER TIGHT.
- 4 INSTALL NEW FIRE DAMPER IN NEW FIRE RATED WALL CONSTRUCTION. PATCH, REPAIR, AND SEAL EXISTING WALL AT DUCT PENETRATION UPSTREAM OF NEW FIRE DAMPER. COORDINATE FIRE DAMPER INSTALLATION WITH GPC.
- 5 CONNECT NEW CWBS TO NEW RRPB BY P.C. CONNECT NEW CWBR TO NEW 3" DRAIN TO BUILDING EXTERIOR BY P.C.
- 6 CONNECT NEW CITY WATER BACK-UP TO EXISTING HX-3 (E). SEE SHEET 1/M800.
- 7 23 09 24 CONTRACTOR (UW DDC SHOP) TO PROVIDE NEW DDC CONTROLS WITHIN THE EXISTING CONTROL PANEL FOR HX-3 CITY WATER BACK-UP CHANGE-OVER VALVES. HC SHALL COORDINATE ALL NEW WORK WITH 23 09 24 CONTRACTOR.
- 8 23 09 14 CONTRACTOR (UW DDC AND STEAM FITTER SHOPS) TO PROVIDE NEW PNEUMATIC THERMOSTAT AND CONTROLS. HC SHALL COORDINATE ALL NEW WORK WITH 23 09 14 CONTRACTOR.
- 9 REPLACE EXISTING CAMPUS CHILLED WATER SUPPLY AND RETURN HEAT EXCHANGER SHUT-OFF VALVES. SEE SHEET 1/M800
- 10 23 09 14 CONTRACTOR (UW DDC AND STEAM FITTER SHOPS) SHALL REINSTALL EXISTING PNEUMATIC CONTROL DEVICES SAVED FROM SHEET M100. CONTRACT REINSTALLED CONTROL DEVICE TO EXISTING PNEUMATIC CONTROL LINES SAVED IN ROOM 2400. PER SHEET M100. HC SHALL COORDINATE ALL NEW WORK WITH 23 09 24 CONTRACTOR.

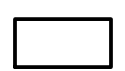
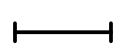


1 PARTIAL BASEMENT - HVAC
M200 SCALE: 1/4"=1'-0"



2 PARTIAL SECOND FLOOR - HVAC
M200 SCALE: 1/4"=1'-0"



LUMINAIRE SCHEDULE								
SYMBOL	CALLOUT	DESCRIPTION	INPUT WATTS	LAMP	LAMP COLOR	BALLAST	MOUNTING	MODEL
	A	2X4 RECESSED TROFFER	30	LED	5000K	ELECTRONIC	RECESSED	METALUX 24GR-LD5-42-F1-UNV-L850-CD1-PAF EQUAL BY LITHONIA AND PHILLIPS
	B	2X4 SURFACE LED PANEL	40.3	LED	5000K	ELECTRONIC	SURFACE	METALUX 24FP4750C WITH FPSURF24 SURFACE MOUNT KIT EQUAL BY LITHONIA AND PHILLIPS
	C	2X2 SURFACE LED PANEL	40	LED	5000K	ELECTRONIC	SURFACE	METALUX 22FP4250C WITH FPSURF22 SURFACE MOUNT KIT EQUAL BY LITHONIA AND PHILLIPS

2417 PNL C

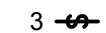
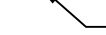
ROOM ROOM 2417			VOLTS 208Y/120V 3P 4W			AIC 22,000		
MOUNTING SURFACE			BUS AMPS 200			MAIN BKR MLO		
FED FROM 1/DPLA			NEUTRAL 100%			LUGS STANDARD		
NOTE								

CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA			CKT #	CKT BKR	CIRCUIT DESCRIPTION	LOAD KVA		
			A	B	C				A	B	C
1	30/3	OVERHEAD CRANE	2.11			2	30/3	RECEPTACLE	2.73		
3				2.11		4				2.73	
5					2.11	6					2.73
7	30/3	OVERHEAD CRANE	2.11			8	30/3	RECEPTACLE	2.7		
9				2.11		10				2.7	
11					2.11	12					2.7
13	30/3	RECEPTACLE	2.7			14	20/1	FIRE SHUTTER	1.2		
15				2.7		16	20/1	SPARE		0	
17					2.7	18	20/1	SPARE			0
19	20/1	SPARE	0			20	20/1	SPARE	0		
21	20/1	SPARE		0		22	20/1	SPARE		0	
23	20/1	SPARE			0	24	20/1	SPARE			0
25	20/1	SPACE	0			26	20/1	SPACE	0		
27	20/1	SPACE		0		28	20/1	SPACE		0	
29	20/1	SPACE			0	30	20/1	SPACE			0
31	20/1	SPACE	0			32	20/1	SPACE	0		
33	20/1	SPACE		0		34	20/1	SPACE		0	
35	20/1	SPACE			0	36	20/1	SPACE			0
37	20/1	SPACE	0			38	20/1	SPACE	0		
39	20/1	SPACE		0		40	20/1	SPACE		0	
41	20/1	SPACE			0	42	20/1	SPACE			0
TOTAL CONNECTED KVA BY PHASE									13.5	12.3	12.3

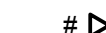
	CONN KVA	CALC KVA		CONN KVA	CALC KVA		
LIGHTING	0	0	(125%)	CONTINUOUS	0	0	(125%)
LARGEST MOTOR	6.32	7.9	(125%)	HEATING	0	0	(N/A)
OTHER MOTORS	7.52	7.52	(100%)	COOLING	0	0	(N/A)
RECEPTACLES	24.1	17.1	(50%>10)	NONCONTINUOUS	0	0	(100%)
KITCHEN EQUIP	0	0	(N/A)	DIVERSE	0.3	0	(0%)
				METERED DEMAND	0	0	(125%)
			TOTAL KVA 38.2 32.5				
			BALANCED 3-PHASE AMPS 90.1				

SYMBOLS LIST:

MOUNTING HEIGHTS FOR DEVICES AND EQUIPMENT
TO BE MEASURED FROM FINISHED FLOOR TO
CENTERLINE OF DEVICE.

-  SURFACE MOUNT LIGHT FIXTURE
-  SINGLE POLE SWITCH
-  THREE WAY
-  OCCUPANCY SENSOR, CEILING MOUNTED
-  MOTOR CONNECTION
-  DISCONNECT
-  AUDIO/VISUAL FIRE ALARM NOTIFICATION DEVICE
-  (C) CEILING MOUNTED CANDELA

-  FA HEAT DETECTOR
-  FA FLOW SWITCH
-  FA TAMPER SWITCH
-  FA MONITOR MODULE

-  # COMMUNICATIONS OUTLET WITH CAT6 CABLE/JACKS (QUANTITY INDICATED ON DEVICE) - 4" SQUARE BOX WITH EXTENSION RING FOR A SINGLE GANG DEVICE AND A 1" CONDUIT TO ACCESSIBLE CEILING. PROVIDE A THREADED BUSHING ON THE CONDUIT END. MOUNTED AT 18" AFF UNLESS NOTED OTHERWISE.

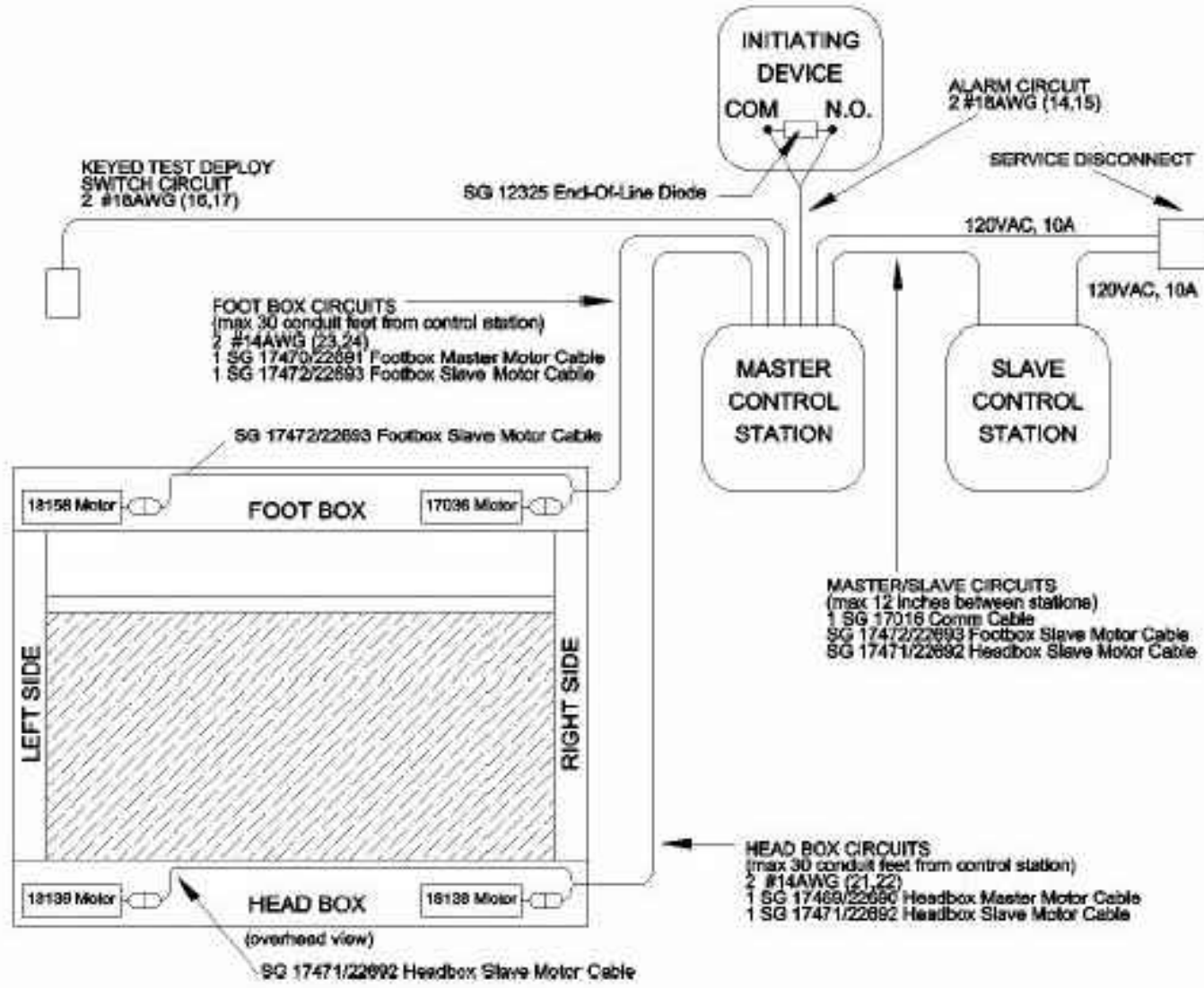
-  ELECTRICAL CONNECTION

GENERAL:

-  OR  ELECTRICAL PANEL
-  OR  SEE NOTE SYMBOL
-  EXISTING
-  ETR EXISTING TO REMAIN
-  R RECESSED
-  S SURFACE

Model 3000 Electrician's Guide
Quad Motor Configuration

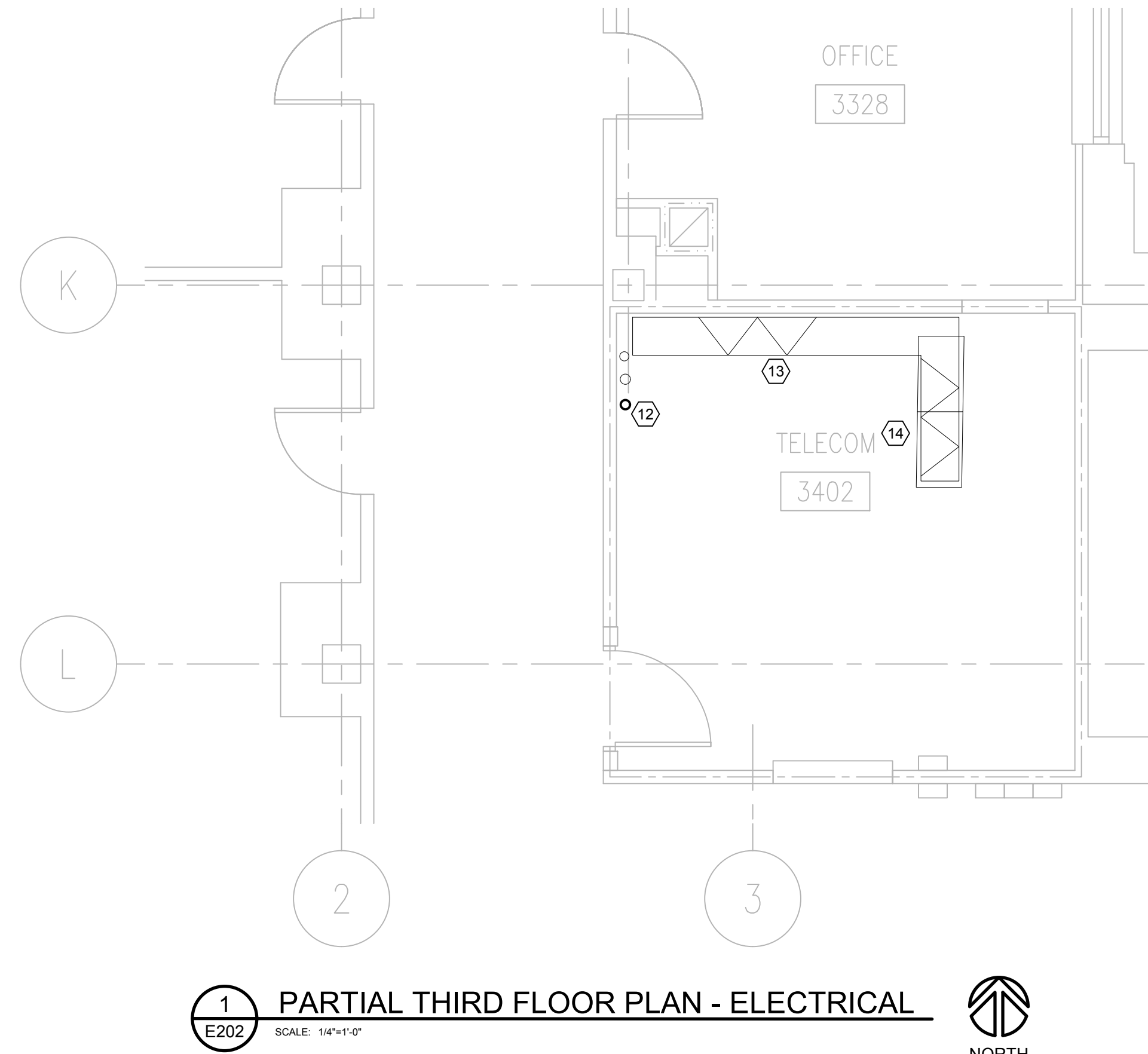
1. Install END-OF-LINE DIODE (furnished by Smoke Guard) at the INITIATING DEVICE.
2. Provide ALARM CIRCUIT from INITIATING DEVICE to MASTER CONTROL STATION.
3. Provide SERVICE DISCONNECT SWITCH and 120VAC to MASTER and SLAVE CONTROL STATIONS. (10A max)
4. Provide HEAD BOX AND FOOT BOX CIRCUITS from MASTER CONTROL STATION to HEAD BOX and FOOT BOX.
5. Provide conduit from MASTER CONTROL to SLAVE CONTROL.
6. Provide optional KEYED TEST DEPLOY SWITCH circuit as required.



This product is intended to be installed in accordance with the National Electric Code NFPA 70, National Alarm Code NFPA 72 and within the limits of the authority having jurisdiction.

THIS ELECTRICAL INFORMATION IS BASED ON A SMOKE GUARD MODEL 3000 FIRE SHUTTER. EC SHALL USE THIS FOR BIDDING PURPOSES. INSTALLATION SHALL BE COORDINATED WITH THE SHUTTER SUPPLIER'S APPROVED SHOP DRAWINGS.

1 FIRE SHUTTER - ELECTRICAL
E000 SCALE: NONE



NORTH

- 1 PROVIDE NEW LIGHTING, DEVICES, FIRE ALARM, ETC. AS SHOWN AND AS REQUIRED TO ACCOMMODATE NEW WALLS AND NEW EXPOSED STRUCTURE. EXTEND EXISTING LIGHTING CIRCUIT(S) TO NEW LIGHT FIXTURE/CONTROLS SHOWN. COORDINATE ALL LIGHT FIXTURE LOCATIONS WITH MECHANICAL EQUIPMENT/DUCTWORK AND NEW CRANES.
- 2 PROVIDE A 208V, 30A/3P CONNECTION TO NEW CRANE. PROVIDE DISCONNECT AT UNIT. COORDINATE ALL REQUIREMENTS WITH CRANE PROVIDER. CIRCUIT FROM NEW 2417 PANEL C.
- 3 PROVIDE NEW 150A, 120/208V, 3 PHASE PANEL 2417 PANEL C. FEED PANEL FROM EXISTING PANEL 1/DPLA IN FIRST FLOOR MECHANICAL ROOM #1505. FEED PANEL WITH (4)#2/0 AND (1)#6 GROUND IN A 1-1/2" CONDUIT. FIELD VERIFY ALL REQUIREMENTS AND CONDUIT ROUTE FROM FIRST FLOOR. SEE SHEET E201.
- 4 EXISTING 2417 PANEL B TO REMAIN. REPLACE EXISTING ADJACENT PULL BOX WITH CONDULET AS DESCRIBED ON SHEET E101.
- 5 PROVIDE A 30A/3P RECEPTACLE FOR OWNER PROVIDED SHOP EQUIPMENT. CIRCUIT AS INDICATED. FIELD VERIFY ALL REQUIREMENTS AND EXACT PLUG CONFIGURATION.
- 6 EXISTING RECESSED BOX TO BE EXTENDED AND CIRCUIT REUSED FOR NEW RECEPTACLE(S).
- 7 PROVIDE CAT6 CAT5E JACKS, QUANTITY AS INDICATED BY EACH DEVICE. CONTRACTOR MAY REUSE EXISTING CABLE. SEE GENERAL NOTE ON E101. EXTEND NEW CABLEING TO TELECOM ROOM 3402 ON THIRD FLOOR. FIELD VERIFY ALL REQUIREMENTS.
- 8 REUSE EXISTING OCCUPANCY SENSOR. COORDINATE LOCATION WITH MECHANICAL EQUIPMENT/DUCTWORK AND NEW CRANES.
- 9 PROVIDE FIRE ALARM ANY DEVICE IN ROOM. EXTEND TO EXISTING FIRE ALARM SYSTEM IN THE BUILDING. FIELD VERIFY ALL FIRE ALARM REQUIREMENTS.
- 10 FEED NEW RECEPTACLES FROM AVAILABLE UNUSED BREAKERS IN EXISTING 2417 PANEL B. CIRCUITS INDICATED ON FLOOR PLAN INDICATE GROUPING ONLY.
- 11 EXISTING J-HOOK LOW VOLTAGE PATHWAY. UTILIZE EXISTING PATHWAYS WHERE CAPACITY IS AVAILABLE. PROVIDE NEW J-HOOKS IF NECESSARY TO ROUTE NEW CABLEING UP TO THIRD FLOOR TELECOM ROOM 3402.
- 12 PROVIDE 2" NEW VERTICAL SLEEVE THROUGH FLOOR ADJACENT TO EXISTING SLEEVES. EXTEND 12" ABOVE FLOOR.
- 13 UTILIZE EXISTING CABLE TRAY FOR ROUTING CABLE WITHIN THE TELECOM ROOM.
- 14 PROVIDE NEW 48 PORT PATCH PANEL IN EXISTING IT RACK. PROVIDE ADDITIONAL WIRE MANAGEMENT FOR NEW CABLES.
- 15 EC TO PROVIDE WIRING FOR FIRE SHUTTER AS INDICATED ON DETAIL 1/E000. CONNECT TO 20 AMP, 120 VOLT CIRCUIT IN 2417 PNL C.

